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**Appendix C:  
Analytical Documentation,  
Fourth Quarter 2018  
(on CD-ROM at end of document)**

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

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

## Data Validatable Report

November 9, 2018

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, Hawaii 96813

Attn: Margie Pascua

Title: Report of Data: Case 87198

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

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

Dear Ms. Pascua:

Five water samples were received October 23, 2018. Written results for the requested analyses are being provided on this November 9, 2018.

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

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

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

A handwritten signature in cursive script that reads "Paula McCartney".

Paula McCartney, Laboratory Director  
APPL, Inc.

PM/rp  
Enclosure  
cc: File

Number of pages in this report: 836

Data Validation Package  
for  
60481245 CIV 0053 Red Hill Fuel Storage  
APPL SDG 87198

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# **CASE NARRATIVE**

# Case Narrative

ARF: 87198

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

## Sample Receipt Information:

Five water samples were received October 23, 2018, at 5.0°C and 5.0°C. The sample group was assigned Analytical Request Form (ARF) number 87198.

## Sample Preparation and Analysis Information:

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

For the EPA 8270D SIM analysis, the samples were extracted according to EPA method 3520C.

For the EPA 8270D Phenol analysis, the samples were extracted according to EPA method 3520C. The samples were screened for Tentatively Identified Compounds (TICs).

For the APPL SOP ANA2MEE analysis, the samples were extracted according to EPA method 3535.

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

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

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

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

## Analytical Exceptions, Deviations and Abnormalities.

**EPA 8015B:** In the 181023A method blank, Diesel (C10-C24) and Oil (C24-C40) were detected at concentration greater than the LOQ. Corrective action: All of the samples were re-extracted and re-analyzed. Both sets of data are reported.

The surrogate Octacosane recovered above the upper control limit in the samples. Corrective action: All of the samples were re-extracted and re-analyzed. Both sets of data are reported.

In the 181023A LCS, Oil (C24-C40) recovered above the 113% upper control limit. Corrective action: All of the samples were re-extracted and re-analyzed. Both sets of data are reported.

**8270D SIM:** Manual integrations were performed in accordance with APPL's SOP. The following compounds were manually integrated in the calibration standards: Indeno (1,2,3-cd) pyrene and Benzo (k) fluoranthene. Chromatograms of before and after manual integration are enclosed.

**8270D Phenol:** In the lab control spike, Phenol and three surrogates recovered above the upper control limit. Corrective action: None, Phenol was not detected in the associated samples.

**APPL SOP ANA2MEE:** In the 181029A LCS/LCSD, the RPD exceeded the 20% limit. All spike recoveries were acceptable.

**Inorganic Analyses:** The samples were received more than 24 hours after collection. They were analyzed for ferrous iron as soon as possible on the day received.

In the method blank, total alkalinity and bicarbonate were detected above the LOQ. Corrective action: None, the concentration of total alkalinity and bicarbonate in the samples exceeds the blank concentration by ten-fold or more.

SDG	Received	Client ID	APPL ID	Collected DateTime	Matrix	Method	Method Description
87198	10/23/18	ERH677	AZ81583	10/22/18 9:05:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87198	10/23/18	ERH677	AZ81583	10/22/18 9:05:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87198	10/23/18	ERH677	AZ81583	10/22/18 9:05:00 AM	WATER	RSK 175	METHANE BY RSK 175
87198	10/23/18	ERH678	AZ81584	10/22/18 9:45:00 AM	WATER	SM 2320B	Wetlab 2320B - Water
87198	10/23/18	ERH678	AZ81584	10/22/18 9:45:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water
87198	10/23/18	ERH678	AZ81584	10/22/18 9:45:00 AM	WATER	SM3500FeB	Ferrous Iron
87198	10/23/18	ERH678	AZ81584	10/22/18 9:45:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER
87198	10/23/18	ERH678	AZ81584	10/22/18 9:45:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87198	10/23/18	ERH678	AZ81584	10/22/18 9:45:00 AM	WATER	EPA 8270D	EPA 8270D WATER
87198	10/23/18	ERH678	AZ81584	10/22/18 9:45:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
87198	10/23/18	ERH678	AZ81584	10/22/18 9:45:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
87198	10/23/18	ERH678	AZ81584	10/22/18 9:45:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH RE-EXTRACT
87198	10/23/18	ERH678	AZ81584	10/22/18 9:45:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87198	10/23/18	ERH678	AZ81584	10/22/18 9:45:00 AM	WATER	RSK 175	METHANE BY RSK 175
87198	10/23/18	ERH678	AZ81584	10/22/18 9:45:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ
87198	10/23/18	ERH679	AZ81585	10/22/18 9:45:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87198	10/23/18	ERH679	AZ81585	10/22/18 9:45:00 AM	WATER	EPA 8270D	EPA 8270D WATER
87198	10/23/18	ERH679	AZ81585	10/22/18 9:45:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
87198	10/23/18	ERH679	AZ81585	10/22/18 9:45:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
87198	10/23/18	ERH679	AZ81585	10/22/18 9:45:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH RE-EXTRACT
87198	10/23/18	ERH679	AZ81585	10/22/18 9:45:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87198	10/23/18	ERH679	AZ81585	10/22/18 9:45:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ
87198	10/23/18	ERH703	AZ81586	10/22/18 8:45:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87198	10/23/18	ERH703	AZ81586	10/22/18 8:45:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87198	10/23/18	ERH703	AZ81586	10/22/18 8:45:00 AM	WATER	RSK 175	METHANE BY RSK 175
87198	10/23/18	ERH704	AZ81587	10/22/18 9:50:00 AM	WATER	SM 2320B	Wetlab 2320B - Water
87198	10/23/18	ERH704	AZ81587	10/22/18 9:50:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water
87198	10/23/18	ERH704	AZ81587	10/22/18 9:50:00 AM	WATER	SM3500FeB	Ferrous Iron
87198	10/23/18	ERH704	AZ81587	10/22/18 9:50:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER
87198	10/23/18	ERH704	AZ81587	10/22/18 9:50:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87198	10/23/18	ERH704	AZ81587	10/22/18 9:50:00 AM	WATER	EPA 8270D	EPA 8270D WATER
87198	10/23/18	ERH704	AZ81587	10/22/18 9:50:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
87198	10/23/18	ERH704	AZ81587	10/22/18 9:50:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
87198	10/23/18	ERH704	AZ81587	10/22/18 9:50:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH RE-EXTRACT
87198	10/23/18	ERH704	AZ81587	10/22/18 9:50:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87198	10/23/18	ERH704	AZ81587	10/22/18 9:50:00 AM	WATER	RSK 175	METHANE BY RSK 175
87198	10/23/18	ERH704	AZ81587	10/22/18 9:50:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ

**APPL Inc.**  
**Abbreviations and Flags**

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


**SAMPLE RECORDS MANAGEMENT  
CHAIN OF CUSTODY,  
ARF, CRF, AND  
CLIENT COMMUNICATION**



# APPL - Analysis Request Form

87198

Client: AECOM  
 Address: 1001 Bishop Street, Suite 1600  
Honolulu, HI 96813  
 Attn: Margie Pascua  
 Phone: 808-356-5373 Fax: 808-523-8950  
 Job: 60571032 CV18F0126 Red Hill Fuel Storage  
 PO #: 18S-S22209-HI27 PO# 102604  
 Chain of Custody (Y/N): Y # RH102218-5  
 RAD Screen (Y/N): Y pH (Y/N): Y  
 Turn Around Type: 1 WEEK

Received by: AAR   
 Date Received: 10/23/18 Time: 10:00  
 Delivered by: FEDEX  
 Shuttle Custody Seals (Y/N): Y Time Zone: -10  
 Chest Temp(s): 2.0X5°C  
 Color: VOA/M-PurpPink  
 Samples Chilled until Placed in Refrig/Freezer: Y  
 Project Manager: Libby Cheesebor  
 QC Report Type: DVP4DOD/EQUIS/HI  
 Due Date: 10/30/18

**Comments:**

*PM: login and F1s to Margie.Pascua@aecom.com*  
*AN: 7 day TAT for Form 1s; 21 day TAT for PKG STYLE 1; DOD v5.1; DOD Forms (LOQ/LOD database/DL) 8260: BTEX & TPH-G only; 8270 SIM: 1-methylnaphthalene, 2-methylnaphthalene & naphthalene only. TPH D & O both with and w/o SGC, reverse surrogate for the SGC; analyze SGC if detections RSK: Methane only; \$87DC53W5: report phenol + TICs; \$87DMEEW5: 2-MEE (LCS Spk 80ppb).*  
*FR: HC to LDC, 2 labeled CDs to Margie Pascua.*  
*EDD: AECOM EQUiS EDD 2.5.3 Red Hill 87DMEE->3535A to Margie.Pascua@aecom.com & jecklund@lab-data.com*

<p><u>Sample Distribution:</u>                  GC: 3-\$87DC53W5, 3-\$87DMEEW5, 3-\$DOC53W5LIQ, 3-\$SIM53LIQ51                  Extractions: 3- LIQ003, 3- LIQ005, 3- LIQ005SGC, 3-MWE2MEE                  VOA: 5-\$86BTOTXDOD5W, 5-\$GASBL, 5-\$GRO86BW, 4-\$RSKMETH                  Wetlab: 2-\$232W(HCO3,CO3,ALK), 2-\$300W(NO3,CL,SO4), 2-\$35FE, 2-\$35OF</p>	<p><u>Charges:</u></p>	<p><u>Invoice To:</u>                  ACCOUNTS PAYABLE                  1001 Bishop Street, Ste 1600                  USAPImaging@aecom.com                  mary.basano@aecom.com</p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Client ID	APPL ID	Sampled	Analyses Requested
1. ERH677	AZ81583W <small>LCSD</small>	10/22/18 09:05	\$86BTOTXDOD5W, \$GASBL, \$GRO86BW, \$RSKMETH
2. ERH678	AZ81584W <small>MS/MSD(not for WL or RSK)</small>	10/22/18 09:45	\$232W(HCO3,CO3,ALK), \$300W(NO3,CL,SO4), \$35FE, \$35OF, \$86BTOTXDOD5W, \$87DC53W5, \$87DMEEW5, \$DOC53W5LIQ, \$GASBL, \$GRO86BW, \$RSKMETH, \$SIM53LIQ51 -- D&O-SGC analysis if detections

APPL - Analysis Request Form

87198

- 3. ERH679      AZ81585W      10/22/18 09:45      \$86BTOTXDOD5W, \$87DC53W5,  
LCSD       \$87DMEEW5, \$DOC53W5LIQ, \$GASBL,  
\$GRO86BW, \$SIM53LIQ51 -- D&O-SGC  
analysis if detections

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- 4. ERH703      AZ81586W      10/22/18 08:45      \$86BTOTXDOD5W, \$GASBL, \$GRO86BW,  
LCSD       \$RSKMETH

---

- 5. ERH704      AZ81587W      10/22/18 09:50      \$232W(HCO3,CO3,ALK),  
LCSD       \$300W(NO3,CL,SO4), \$35FE, \$35OF,  
\$86BTOTXDOD5W, \$87DC53W5,  
\$87DMEEW5, \$DOC53W5LIQ, \$GASBL,  
\$GRO86BW, \$RSKMETH, \$SIM53LIQ51 --  
D&O-SGC analysis if detections

# APPL Sample Receipt Form

ARF# 87198

Sample	Container Type	Count	pH
<b>AZ81583</b>	<sup>13</sup> VOAs - HCL	4	na
<b>AZ81584</b>	<sup>3</sup> PL 250mL	1	na
	<sup>10</sup> PL 250mL - H2SO4	1	1.7
	<sup>13</sup> VOAs - HCL	8	na
	<sup>17</sup> Amber Liter	15	na
	<sup>38</sup> 250mL brn poly, HCl prsvd	1	1.7
	<sup>40</sup> 500mL Amber, unprsvd	6	na
<b>AZ81585</b>	<sup>13</sup> VOAs - HCL	4	na
	<sup>17</sup> Amber Liter	5	na
	<sup>40</sup> 500mL Amber, unprsvd	2	na
<b>AZ81586</b>	<sup>13</sup> VOAs - HCL	4	na
<b>AZ81587</b>	<sup>3</sup> PL 250mL	1	na
	<sup>10</sup> PL 250mL - H2SO4	1	1.7
	<sup>13</sup> VOAs - HCL	4	na
	<sup>17</sup> Amber Liter	5	na
	<sup>38</sup> 250mL brn poly, HCl prsvd	1	1.7
	<sup>40</sup> 500mL Amber, unprsvd	2	na

Sample    Container Type    Count    pH



APPL, Inc.  
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Clovis, CA 93611  
www.applinc.com

**CHAIN OF CUSTODY RECORD**

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

C.O.C. PH102218-3

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

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

Project Name/Number		Sampler (Print)				No. of Containers	Matrix			Analysis Requested/Method Number													Date Shipped:				
Purchase Order Number		Sampler (Signature)					Aq	Sed.	Soil	8260C BTEX,TPH-g	8260C DCA	8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/SGT	8270DSIM PAHs short list	8270D Phenol, TICs	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrrous Iron	353.2 Nitrate-Nitrite N	SM2320S Alkalinity	300.0 Nitrate, Sulfate, Chloride	800.0 Bromide/Fluoride	8010 Total Ca, Mg, Mn, K, Na	SM4500 Total & Dissolved Silica	Carrier:	
<u>CIV 53 / 60481245</u> <u>CU 18F0126 / 60571032</u>		<u>KL, BM, MM</u>				<u>4</u>	X			X							X										<u>10/22/18</u>
<u>77265 102604</u>		<u>MCS for KL, BM, MM</u>					X			X	X*			X	X	X	X	X	X	X							<u>MS/MSD: 805, 9260, 9270, 9270, 9270, 511</u>
							X			X																<u>SEE OTHER COOLERS</u>	
																										<u>SEE OTHER COOLERS</u>	

Shuttle Temperature: \_\_\_\_\_ Turnaround Requested: Check one  
 Standard 2-3 wk  One week  3 days  24/48 Hrs.  Other: \_\_\_\_\_  
 Sample Disposal:  Return to client  Disposal by Lab (30-day retention)

Relinquished by sampler: AECOM Date: 10/22/18 Time: 131405 Received by: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: 10/23/18 Time: 1000 Received at lab by: Ron Guth

F



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

### CHAIN OF CUSTODY RECORD

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

C.O.C. PHW2218-2

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

Project Name/Number <u>CIV 53 / 60481245</u> <u>CV 18FD126 / 60571032</u>		Sampler (Print) <u>KL, DM, MM</u>			Analysis Requested/Method Number											Date Shipped: <u>10/22/18</u>												
Purchase Order Number <u>77265</u> <u>102604</u>		Sampler (Signature) 			No. of Containers	Matrix			8260C BTEX, TPH-g	8260C DCA	8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/SGT	8270DSIM PAHS short list	8270D Phenol, TICs	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity	300.0 Nitrate, Sulfate, Chloride	800.0 Bromide/Fluoride	8010 Total Ca, Mg, Mn, K, Na	SM4500 Total & Dissolved Silica	Carrier: <u>FedEx</u>			
Sample Identification		Location				Aq	Sed.	Soil																	Comments:			
ERH678		PHMW2254-01									X	X	X	X	X									see other containers. MS/MSD: 8015, 8260, 8270 present + 22, 8270 SM				
																								*Analyze TPH w/SGT only if TPH-d/o detected.				
																								TPH-d/o & PAHS need liquid-liquid extraction.				

*Handwritten note:* Turn around 10/22/18  
*Signature:* [Handwritten]

Shuttle Temperature:	Turnaround Requested: Check one <input type="checkbox"/> Standard 2-3 wk <input checked="" type="checkbox"/> One week <input type="checkbox"/> 3 days <input type="checkbox"/> 24/48 Hrs. <input type="checkbox"/> Other: _____	Sample Disposal: <input type="checkbox"/> Return to client <input checked="" type="checkbox"/> Disposal by Lab (30-day retention)
Relinquished by sampler: AECOM 	Date: <u>10/22/18</u> Time: <u>1350</u>	Received by: _____
Relinquished by:	Date: _____ Time: _____	Received by: _____
	Date: <u>10/23/18</u> Time: <u>1000</u>	Received at lab by:

See page 2 for Container Preservative and Sampling Information

3  
12



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CHAIN OF CUSTODY RECORD

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

C.O.C. PH 102218-1

Report to: PLEASE PRINT Company Name: <u>AECOM</u> Phone: <u>808-356-5373</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u> Attn: <u>Margie Pascua</u> Email: <u>margie.pascua@aecom.com</u>	Invoice to: PLEASE PRINT Company Name: <u>AECOM</u> Phone: <u>808-529-7249</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u> Attn: <u>Mary Basano</u> Email: <u>mary.basano@aecom.com; usapimaging@aecom.com</u>
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Project Name/Number <u>CIV-53 / 60481245</u> <u>CV 18 Fo: 26 / 60571032</u>		Sampler (Print) <u>KL, BM, MM</u>			Analysis Requested/Method Number												Date Shipped: <u>10/22/18</u>							
Purchase Order Number <u>77265 102604</u>		Sampler (Signature) <u>Margie for KL, BM, MM</u>			No. of Containers	Matrix			8260C BTEX, TPH-g	8260C DCA	8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/SGT	8270DSIM PAHs short list	8270D Phenol, TICS	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity	300.0 Nitrate Sulfate Chloride	8010 Bromide/Fluoride	SM4500 Total & Dissolved Silica	Carrier: <u>FedEx</u>
Sample Identification		Location		Date Collected		Time Collected	Time Zone	Aq																Sed.
<u>ERH678</u>		<u>RHMW2254-01</u>		<u>10/22/18</u>	<u>0945</u>	<u>HST</u>	<u>8</u>	<u>X</u>															<u>See other coolers, MS/MSD: 8015, 8260, 8270 phenol + 2, LMEE, + 8270 SIM</u>	

Shuttle Temperature:		Turnaround Requested: Check one <input type="checkbox"/> Standard 2-3 wk <input checked="" type="checkbox"/> One week <input type="checkbox"/> 3 days <input type="checkbox"/> 24/48 Hrs. <input type="checkbox"/> Other: _____										Sample Disposal: <input type="checkbox"/> Return to client <input checked="" type="checkbox"/> Disposal by Lab (30-day retention)	
Relinquished by sampler: <u>AECOM</u> <u>Margie</u>		Date <u>10/22/18</u>	Time <u>1340</u>	Received by:			Relinquished by:			Date	Time	Received by:	
Relinquished by:		Date	Time	Received by:			Relinquished by:			Date <u>10/23/18</u>	Time <u>1000</u>	Received at lab by: <u>Ron Burtch</u>	

(2)



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

CHAIN OF CUSTODY RECORD

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

87198  
2<sup>nd</sup> 10/23/18

C.O.C. PH102218-5

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

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

Project Name/Number  
CIV 53 / 60481245  
CV 18F0126 / 60571032  
Purchase Order Number  
77265 102604

Sampler (Print)  
KL, BM, MM  
Sampler (Signature)  
[Signature] for KL, BM, MM

No. of Containers	Matrix			Analysis Requested/Method Number																
	Aq	Sed.	Soil	8260C BTEX, TPH-g	8260C DCA	8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/SGT	8270DSIM PAHs short list	8270D Phenol, TICs	8270D 2-(2-methoxyethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity	300.0 Nitrate, Sulfate, Chloride	300.0 Bromide/Fluoride	8010 Total Ca, Mg, Mn, K, Na	SM4500 Total & Dissolved Silica	
7	X						X	X*	X	X	X									

Date Shipped: 10/22/18  
Carrier: FedEx  
Waybill No.:  
Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone
<u>ERH679</u>	<u>RHMW2254-01</u>	<u>10/22/18</u>	<u>0945</u>	<u>HST</u>

see other cooler for VOA's

\*Analyze TPH w/SGT only if TPH-d/o detected.  
TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature: 2.0°C x 5  
Turnaround Requested: Check one  
 Standard 2-3 wk  One week  3 days  24/48 Hrs.  Other: \_\_\_\_\_  
Sample Disposal:  
 Return to client  Disposal by Lab (30-day retention)

Relinquished by sampler: <u>AECOM</u> <u>[Signature]</u>	Date <u>10/22/18</u>	Time <u>1330</u>	Received by:	Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date <u>10/23/18</u>	Time <u>1000</u>	Received at Lab by: <u>[Signature]</u>



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

CHAIN OF CUSTODY RECORD

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

C.O.C. PH102218-4

Report to: PLEASE PRINT

Company Name: AECOM Phone: 808-356-5373

Address: 1001 Bishop St, Suite 1600  
Honolulu, HI 96813 Fax: 808-523-8950

Attn: Margie Pascua

Email: margie.pascua@aecom.com

Invoice to: PLEASE PRINT

Company Name: AECOM Phone: 808-529-7249

Address: 1001 Bishop St, Suite 1600  
Honolulu, HI 96813 Fax: 808-523-8950

Attn: Mary Basano

Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number		Sampler (Print)				Analysis Requested/Method Number										Date Shipped:											
CIV-53 / 60481245 CV RF0126 / 60571032		GM, CE, MH				No. of Containers	Matrix			8260C BTEX, TPH-g	8260C DCA	8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/SGT	8270DSIM PAHs short list	8270D Phenol, TICs	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity	300.0 Nitrate, Sulfate, Chloride	300.0 Bromide/Fluoride	3010 Total Ca, Mg, Mn, K, Na	SM4500 Total & Dissolved Silica		
Purchase Order Number		Sampler (Signature)					Aq	Sed.	Soil																		Carrier:
77265 102604		[Signature] for GM, CE, MH																									Waybill No.:
Sample Identification		Location		Date Collected	Time Collected	Time Zone																			Comments:		
ERH703		Trip Blank		10/22/18	0845	HST	4	X				X				X											
ERH704		HDMW2253-03		10/22/18	0950	HST	14	X				X	X*	X	X	X	X	X	X	X							

Shuttle Temperature: \_\_\_\_\_ Turnaround Requested: Check one  
 Standard 2-3 wk  One week  3 days  24/48 Hrs.  Other: \_\_\_\_\_

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

Relinquished by sampler: AECOM [Signature]	Date 10/22/18	Time 1315	Received by:	Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date 10/23/18	Time 1000	Received at lab by: [Signature]



COOLER RECEIPT FORM

ARF: 87198

- 1) Project: 60571032 CV18F0126 Red Hill Fuel Storage Date Received: 10/23/18
- 2) Coolers: Number of Coolers: 5
- 3) YES Were custody seals present and intact?  
How many? 10 Name/Date on seal? see below
- 4) YES Was there a shipping slip? Carrier name: FEDEX
- 5) Type of packing in cooler:  bubble wrap  popcorn  foam  plastic bags  other  
 wet ice  dry ice  no ice  gel ice
- 6) YES Were cooler temperatures acceptable?
- 7) Serial number of certified NIST thermometer use R1
- 8) Cooler temp(s): In °C  
1: 5x 2.0°C 2: \_\_\_\_\_ 3: \_\_\_\_\_ 4: \_\_\_\_\_ 5: \_\_\_\_\_ 6: \_\_\_\_\_  
7: \_\_\_\_\_ 8: \_\_\_\_\_ 9: \_\_\_\_\_ 10: \_\_\_\_\_ 11: \_\_\_\_\_

Chain of custody:

- 9) YES Was a chain of custody received?
- 10) YES Were the custody papers complete/signed in the appropriate places?

Sample Labels:

- 11) YES Were all sample labels complete (sample ID, date/time of sampling, etc.)?
- 12) YES Did all container labels agree with custody papers?

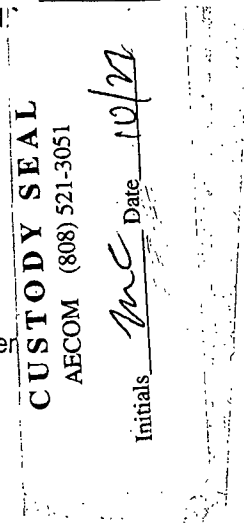
Sample Containers:

- 13) YES Were all containers sealed in separate bags?
- 14) YES Did all containers arrive in good condition:(unbroken, no leakage, no cracked/broken)
- 15) YES Were correct containers and preservatives used for the tests indicated?
- 16) YES Was a sufficient amount of sample sent for tests indicated?
- 17) Yes Were bubbles present in volatile samples?

If yes, the following were received with air bubbles:

Larger than a pea: \_\_\_\_\_

Smaller than a pea: AZ81583W02-3, AZ81585W01-3



Preservation Hold time:

- 18) Yes Was a sufficient amount of holding time remaining to analyze the samples?
- 19) NA Was the pH taken of all non-VOA preserved samples and written on the sample container?
- 20) NA Was the pH of acid preserved non-VOA samples < 2?
- 21) NA Was the pH of sodium hydroxide preserved samples for Cyanide > 12 and Sulfide >9?
- 22) NO Were unpreserved VOA Vials received?
- 23) NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?

pH strip lot number: \_\_\_\_\_

Lab notified if pH was not adequate: \_\_\_\_\_

Notes/Deficiencies:

Personnel receiving samples: ZG Second reviewer: AA  
 Personnel labeling samples: ZG  
 Project manager notified: RB Date/Time of notification 10/23/18  
 Name of client notified: \_\_\_\_\_ Date/Time of notification \_\_\_\_\_

## **SAMPLE RESULTS**

# EPA 8015B TPH LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH678**

Sample Collection Date: 10/22/18

ARF: 87198

**APPL ID: AZ81584**

QCG: #DOC53-181023A-234600

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	150 B ++	40.0	25.00	13.07	ug/L	10/23/18	10/25/18
EPA 8015B-eL	OIL (C24-C40)	280 B	40.0	40.00	5.54	ug/L	10/23/18	10/25/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	150 #	60-142			%	10/23/18	10/25/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	93.2	56-125			%	10/23/18	10/25/18

B = The analyte was found in a method blank, as well as in the sample.

# = Recovery (or RPD) is outside QC limits.

++(T3M) The analyst has noted that the chromatogram of this sample is mainly higher boiling hydrocarbons.

Quant Method: DOC0905.M
Run #: 1025009
Instrument: Apollo
Sequence: 181025
Dilution Factor: 1
Initials: DPO

*Printed: 10/26/18 9:48:19 AM*  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87198

**Sample ID: ERH678**

**APPL ID: AZ81584**

Sample Collection Date: 10/22/18

QCG: #DOC53-181105A-234971

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	114	60-142			%	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	105	56-125			%	11/05/18	11/07/18

Quant Method: DOC0905.M  
Run #: 1107009  
Instrument: Apollo  
Sequence: 181107  
Dilution Factor: 1  
Initials: DPO

Printed: 11/08/18 9:29:18 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH679**

Sample Collection Date: 10/22/18

ARF: 87198

**APPL ID: AZ81585**

QCG: #DOC53-181023A-234600

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	160 B ++	40.0	25.00	13.07	ug/L	10/23/18	10/25/18
EPA 8015B-eL	OIL (C24-C40)	170 B	40.0	40.00	5.54	ug/L	10/23/18	10/25/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	143 #	60-142			%	10/23/18	10/25/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	94.3	56-125			%	10/23/18	10/25/18

B = The analyte was found in a method blank, as well as in the sample.

# = Recovery (or RPD) is outside QC limits.

++(T3M) The analyst has noted that the chromatogram of this sample is mainly higher boiling hydrocarbons.

Quant Method: DOC0905.M
Run #: 1025014
Instrument: Apollo
Sequence: 181025
Dilution Factor: 1
Initials: DPO

Printed: 10/26/18 9:48:19 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87198

**Sample ID: ERH679**

**APPL ID: AZ81585**

Sample Collection Date: 10/22/18

QCG: #DOC53-181105A-234971

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	105	60-142			%	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	100	56-125			%	11/05/18	11/07/18

Quant Method: DOC0905.M
Run #: 1107010
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

*Printed: 11/08/18 9:29:18 AM*  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH704**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198

**APPL ID: AZ81587**

QCG: #DOC53-181023A-234600

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	180 B ++	40.0	25.00	13.07	ug/L	10/23/18	10/25/18
EPA 8015B-eL	OIL (C24-C40)	190 B	40.0	40.00	5.54	ug/L	10/23/18	10/25/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	148 #	60-142			%	10/23/18	10/25/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	95.5	56-125			%	10/23/18	10/25/18

B = The analyte was found in a method blank, as well as in the sample.  
# = Recovery (or RPD) is outside QC limits.  
++(T3M) The analyst has noted that the chromatogram of this sample is mainly higher boiling hydrocarbons.

Quant Method: DOC0905.M
Run #: 1025015
Instrument: Apollo
Sequence: 181025
Dilution Factor: 1
Initials: DPO

Printed: 10/26/18 9:48:19 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87198

**Sample ID: ERH704**

**APPL ID: AZ81587**

Sample Collection Date: 10/22/18

QCG: #DOC53-181105A-234971

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	118	60-142			%	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	105	56-125			%	11/05/18	11/07/18

Quant Method: DOC0905.M
Run #: 1107011
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

Printed: 11/08/18 9:29:18 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD



**EPA 8270D SIM LIQ-LIQ**

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH678**  
Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198  
**APPL ID: AZ81584**  
QCG: #SIM53-181024A-234723

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALE	92.9	39-114			%	10/24/18	10/30/18
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (	110	58-120			%	10/24/18	10/30/18

Quant Method: L1026.M  
Run #: 1026L056  
Instrument: Linus  
Sequence: L181026  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 2:21:44 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D SIM LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH679**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198

**APPL ID: AZ81585**

QCG: #SIM53-181024A-234723

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALE	90.8	39-114			%	10/24/18	10/30/18
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (	109	58-120			%	10/24/18	10/30/18

Quant Method: L1026.M
Run #: 1026L057
Instrument: Linus
Sequence: L181026
Dilution Factor: 1
Initials: MA

Printed: 11/01/18 2:21:44 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D SIM LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH704**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198

**APPL ID: AZ81587**

QCG: #SIM53-181024A-234723

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALE	96.0	39-114			%	10/24/18	10/30/18
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (	109	58-120			%	10/24/18	10/30/18

Quant Method: L1026.M
Run #: 1026L058
Instrument: Linus
Sequence: L181026
Dilution Factor: 1
Initials: MA

Printed: 11/01/18 2:21:44 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH678**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198

**APPL ID: AZ81584**

QCG: #87DC5-181024A-234711

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-PENTANONE, 4-HYDROXY-4-METHY	65 T	TIC			TIC ug/L	10/24/18	10/30/18
EPA 8270D	BENZENE, 1,2,3-TRIMETHYL-	7.3 T	TIC			TIC ug/L	10/24/18	10/30/18
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	75.4	43-140			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2-FLUOROBIPHENYL (S)	76.4	44-119			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	78.3	19-119			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	90.4	44-120			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: PHENOL-D6 (S)	82.9	10-115			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	65.8	50-134			%	10/24/18	10/30/18

T = Tentatively identified compound.

Quant Method: Y1025NC.M  
Run #: 1025Y088  
Instrument: Yoda  
Sequence: Y181025  
Dilution Factor: 1  
Initials: AAB

Printed: 11/05/18 2:16:20 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH679**

Sample Collection Date: 10/22/18

ARF: 87198

**APPL ID: AZ81585**

QCG: #87DC5-181024A-234711

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	1,2-BENZENEDICARBOXYLIC ACID, DI	14 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	1,2-BENZENEDICARBOXYLIC ACID,DII	10.0 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	BENZENE, 1,2,4-TRIMETHYL-	9.1 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	BENZENESULFONOTHIOIC ACID, S-P	8.3 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	79.3	43-140			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	75.7	44-119			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	89.5	19-119			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	116	44-120			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: PHENOL-D6 (S)	95.3	10-115			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	62.4	50-134			%	10/24/18	10/30/18

T = Tentatively identified compound.

Quant Method: Y1025NC.M
Run #: 1025Y089
Instrument: Yoda
Sequence: Y181025
Dilution Factor: 1
Initials: AAB

*Printed: 11/05/18 2:16:20 PM*  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH704**

Sample Collection Date: 10/22/18

ARF: 87198

**APPL ID: AZ81587**

QCG: #87DC5-181024A-234711

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-PENTANONE, 4-HYDROXY-4-METHY	16 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	3-PENTEN-2-ONE, 4-METHYL-	66 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	BENZENE, 1,2,4-TRIMETHYL-	17 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	77.6	43-140			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	75.9	44-119			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	73.2	19-119			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	81.2	44-120			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: PHENOL-D6 (S)	83.0	10-115			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	69.6	50-134			%	10/24/18	10/30/18

T = Tentatively identified compound.

Quant Method: Y1025NC.M
Run #: 1025Y090
Instrument: Yoda
Sequence: Y181025
Dilution Factor: 1
Initials: AAB

*Printed: 11/05/18 2:16:20 PM*  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8270D MODIFIED WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH678**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198

**APPL ID: AZ81584**

QCG: #87DME-181029A-234791

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method: YMEE0801.M  
Run #: 0801Y078  
Instrument: Yoda  
Sequence: Y180801M  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 3:44:34 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D MODIFIED WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH679**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198

**APPL ID: AZ81585**

QCG: #87DME-181029A-234791

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method: YMEE0801.M  
Run #: 0801Y077  
Instrument: Yoda  
Sequence: Y180801M  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 3:44:34 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD



# EPA 8270D MODIFIED WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH704**  
Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198  
**APPL ID: AZ81587**  
QCG: #87DME-181029A-234791

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method: YMEE0801.M  
Run #: 0801Y081  
Instrument: Yoda  
Sequence: Y180801M  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 3:44:35 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH677**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198

**APPL ID: AZ81583**

QCG: #86BTO-181024AL-234572

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/24/18	10/24/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/24/18	10/24/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/24/18	10/24/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/24/18	10/24/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	110	81-118			%	10/24/18	10/24/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	92.8	85-114			%	10/24/18	10/24/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	106	80-119			%	10/24/18	10/24/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	91.5	89-112			%	10/24/18	10/24/18

Quant Method: L1023W.M  
Run #: 1024L13  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/26/18 10:35:13 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH678**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198

**APPL ID: AZ81584**

QCG: #86BTO-181024AL-234572

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/24/18	10/24/18
EPA 8260B	ETHYLBENZENE	1.0	1.0	0.50	0.23	ug/L	10/24/18	10/24/18
EPA 8260B	TOLUENE	0.24 J	1.0	0.30	0.15	ug/L	10/24/18	10/24/18
EPA 8260B	XYLENES (TOTAL)	0.81 J	2.0	0.30	0.15	ug/L	10/24/18	10/24/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	111	81-118			%	10/24/18	10/24/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	91.3	85-114			%	10/24/18	10/24/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	107	80-119			%	10/24/18	10/24/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	91.1	89-112			%	10/24/18	10/24/18

J = Estimated value.

Quant Method: L1023W.M  
Run #: 1024L18  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/26/18 10:35:13 AM

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

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH679**

Sample Collection Date: 10/22/18

ARF: 87198

**APPL ID: AZ81585**

QCG: #86BTO-181024AL-234572

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/24/18	10/24/18
EPA 8260B	ETHYLBENZENE	0.99 J	1.0	0.50	0.23	ug/L	10/24/18	10/24/18
EPA 8260B	TOLUENE	0.21 J	1.0	0.30	0.15	ug/L	10/24/18	10/24/18
EPA 8260B	XYLENES (TOTAL)	0.73 J	2.0	0.30	0.15	ug/L	10/24/18	10/24/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	110	81-118			%	10/24/18	10/24/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	94.5	85-114			%	10/24/18	10/24/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	107	80-119			%	10/24/18	10/24/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	94.5	89-112			%	10/24/18	10/24/18

J = Estimated value.

Quant Method: L1023W.M
Run #: 1024L19
Instrument: Loki
Sequence: 181023
Dilution Factor: 1
Initials: SV

Printed: 10/26/18 10:35:13 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH703**  
Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198  
**APPL ID: AZ81586**  
QCG: #86BTO-181024AL-234572

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/24/18	10/24/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/24/18	10/24/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/24/18	10/24/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/24/18	10/24/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	112	81-118			%	10/24/18	10/24/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	90.1	85-114			%	10/24/18	10/24/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	108	80-119			%	10/24/18	10/24/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	90.1	89-112			%	10/24/18	10/24/18

Quant Method: LGAS915.M  
Run #: 1024L14  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/26/18 10:35:13 AM

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

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87198

**Sample ID: ERH704**

**APPL ID: AZ81587**

Sample Collection Date: 10/22/18

QCG: #86BTO-181025AT-234607

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/25/18	10/25/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	103	81-118			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	100	85-114			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	105	80-119			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	106	89-112			%	10/25/18	10/25/18

Quant Method: T1024W.M  
Run #: 1025T11  
Instrument: Thor  
Sequence: T181024  
Dilution Factor: 1  
Initials: KVA

Printed: 10/26/18 10:35:13 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH677**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198

**APPL ID: AZ81583**

QCG: #GRO86-181024AL-234567

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/24/18	10/24/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	92.8	85-114			%	10/24/18	10/24/18

Quant Method: LGAS915.M  
Run #: 1024L13  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/25/18 11:43:34 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH678**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198

**APPL ID: AZ81584**

QCG: #GRO86-181024AL-234567

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/24/18	10/24/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	91.3	85-114			%	10/24/18	10/24/18

Quant Method: LGAS915.M  
Run #: 1024L18  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/25/18 11:43:35 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD



# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH679**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198

**APPL ID: AZ81585**

QCG: #GRO86-181024AL-234567

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/24/18	10/24/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	94.5	85-114			%	10/24/18	10/24/18

Quant Method: LGAS915.M  
Run #: 1024L19  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/25/18 11:43:35 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH703**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198

**APPL ID: AZ81586**

QCG: #GRO86-181024AL-234567

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/24/18	10/24/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	90.1	85-114			%	10/24/18	10/24/18

Quant Method: LGAS915.M  
Run #: 1024L14  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/25/18 11:43:35 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH704**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198

**APPL ID: AZ81587**

QCG: #GRO86-181024AL-234567

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/24/18	10/24/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	87.6	85-114			%	10/24/18	10/24/18

Quant Method: LGAS915.M  
Run #: 1024L20  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/25/18 11:43:35 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH677**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198

**APPL ID: AZ81583**

QCG: #RSKME-181029A-234668

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102914  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 10:58:00 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH678**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198

**APPL ID: AZ81584**

QCG: #RSKME-181029A-234668

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102915  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 10:58:00 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH703**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198

**APPL ID: AZ81586**

QCG: #RSKME-181029A-234668

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102916  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 10:58:00 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH704**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87198

**APPL ID: AZ81587**

QCG: #RSKME-181029A-234668

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102917  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 10:58:00 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## Wet Lab Analysis

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH678**

Sample Collection Date: 10/22/18

**APPL ID: AZ81584**

ARF: 87198

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	NITRATE	2.5	0.5	0.18	0.04	mg/L	1	10/23/18	10/23/18
EPA 300.0	SULFATE	16.5	1.0	0.20	0.09	mg/L	1	10/23/18	10/23/18
EPA 300.0	CHLORIDE	103	5.0	1.00	0.40	mg/L	5	10/23/18	10/23/18
EPA 353.2	NITRATE-NITRITE-N	0.54	0.10	0.100	0.028	mg/L	1	10/30/18	10/30/18
SM 2320B	BICARBONATE AS CaCO <sub>3</sub>	59.8	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM 2320B	CARBONATE AS CaCO <sub>3</sub>	1.70 U	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM 2320B	TOTAL ALKALINITY AS CaCO <sub>3</sub>	59.8	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM3500FeB	FERROUS IRON	0.17 J	1.0	0.32	0.16	mg/L	1	10/23/18	10/23/18

J = Estimated value.

Printed: 11/09/18 8:52:57 AM

APPL-F1-SC-NoMC-REG MDLs



## Wet Lab Analysis

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH704**

Sample Collection Date: 10/22/18

**APPL ID: AZ81587**

ARF: 87198

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	NITRATE	0.93	0.5	0.18	0.04	mg/L	1	10/23/18	10/23/18
EPA 300.0	SULFATE	29.3	1.0	0.20	0.09	mg/L	1	10/23/18	10/23/18
EPA 300.0	CHLORIDE	86.9	5.0	1.00	0.40	mg/L	5	10/23/18	10/23/18
EPA 353.2	NITRATE-NITRITE-N	0.20	0.10	0.100	0.028	mg/L	1	10/30/18	10/30/18
SM 2320B	BICARBONATE AS CaCO <sub>3</sub>	47.3	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM 2320B	CARBONATE AS CaCO <sub>3</sub>	1.70 U	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM 2320B	TOTAL ALKALINITY AS CaCO <sub>3</sub>	47.3	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM3500FeB	FERROUS IRON	1.8	1.0	0.32	0.16	mg/L	1	10/23/18	10/23/18

Printed: 11/09/18 8:21:23 AM

APPL-F1-SC-NoMC-REG MDLs

# QC FORMS

# EPA 8015B-eLL

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/25/18

Matrix: WATER

Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181023A-BLK	Blank	60-142	139		56-125	94.4	
181023A-LCS	Lab Control Spike	60-142	122		56-125	87.2	
181023A-LCSD	Lab Control SpikeD	60-142	132		56-125	86.0	
AZ81584	ERH678	60-142	150	#	56-125	93.2	
AZ81584-MS	Matrix Spike	60-142	135		56-125	89.2	
AZ81584-MSD	Matrix SpikeD	60-142	123		56-125	82.1	
AZ81585	ERH679	60-142	143	#	56-125	94.3	
AZ81587	ERH704	60-142	148	#	56-125	95.5	

Comments: Batch: #DOC53-181023A

# = Recovery outside of Control Limits on Sample.

Printed: 10/26/18 9:48:29 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8015B-eLL

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 11/07/18

Matrix: WATER

Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181105A-BLK	Blank	60-142	110		56-125	103	
181105A-LCS	Lab Control Spike	60-142	112		56-125	95.7	
181105A-LCSD	Lab Control SpikeD	60-142	115		56-125	98.3	
AZ81584	ERH678	60-142	114		56-125	105	
AZ81585	ERH679	60-142	105		56-125	100	
AZ81587	ERH704	60-142	118		56-125	105	

Comments: Batch: #DOC53-181105A

Printed: 11/08/18 9:29:25 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8015B-eL

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/25/18

Matrix: WATER

Instrument: Apollo

Blank ID: 181023A-BLK

Time Analyzed: 1628

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181023A-BLK	Blank	1025004	10/25/18 1628
181023A-LCS	Lab Control Spike	1025005	10/25/18 1648
181023A-LCSD	Lab Control SpikeD	1025007	10/25/18 1728
AZ81584	ERH678	1025009	10/25/18 1809
181023A-MS	Matrix Spike	1025010	10/25/18 1829
181023A-MSD	Matrix SpikeD	1025011	10/25/18 1849
AZ81585	ERH679	1025014	10/25/18 1949
AZ81587	ERH704	1025015	10/25/18 2009

Comments: Batch: #DOC53-181023A

Printed: 10/26/18 9:48:22 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8015B TPH LIQ-LIQ**

Blank Name/QCG: **181023W-81584 - 234600**  
Batch ID: #DOC53-181023A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	210	40.0	25.00	13.07	ug/L	10/23/18	10/25/18
BLANK	OIL (C24-C40)	140	40.0	40.00	5.54	ug/L	10/23/18	10/25/18
BLANK	SURROGATE: OCTACOSANE (S)	139	60-142			%	10/23/18	10/25/18
BLANK	SURROGATE: ORTHO-TERPHEN	94.4	56-125			%	10/23/18	10/25/18

Quant Method: DOC0905.M  
Run #: 1025004  
Instrument: Apollo  
Sequence: 181025  
Initials: DPO

GC SC-Blank-REG MDLs-DOD  
Printed: 10/26/18 9:48:30 AM

**EPA 8015B-eL**

Form 4

**Blank Summary**

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 11/07/18

Matrix: WATER

Instrument: Apollo

Blank ID: 181105A-BLK

Time Analyzed: 1424

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181105A-BLK	Blank	1107004	11/07/18 1424
181105A-LCS	Lab Control Spike	1107005	11/07/18 1445
181105A-LCSD	Lab Control SpikeD	1107007	11/07/18 1525
AZ81584	ERH678	1107009	11/07/18 1605
AZ81585	ERH679	1107010	11/07/18 1625
AZ81587	ERH704	1107011	11/07/18 1646

Comments: Batch: #DOC53-181105A

**Method Blank**  
**EPA 8015B TPH LIQ-LIQ RE-EXTRACT**

Blank Name/QCG: **181105W-81584 - 234971**  
Batch ID: #DOC53-181105A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
BLANK	SURROGATE: OCTACOSANE (S)	110	60-142			%	11/05/18	11/07/18
BLANK	SURROGATE: ORTHO-TERPHEN	103	56-125			%	11/05/18	11/07/18

Quant Method: DOC0905.M  
Run #: 1107004  
Instrument: Apollo  
Sequence: 181107  
Initials: DPO

GC SC-Blank-REG MDLs-DOD  
Printed: 11/08/18 9:29:29 AM



# EPA 8015B-eL

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/25/18

Matrix: WATER

Instrument: Apollo

LCS ID: 181023A-LCS

Time Analyzed: 1648

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181023A-BLK	Blank	1025004	10/25/18 1628
181023A-LCS	Lab Control Spike	1025005	10/25/18 1648
181023A-LCSD	Lab Control SpikeD	1025007	10/25/18 1728
AZ81584	ERH678	1025009	10/25/18 1809
181023A-MS	Matrix Spike	1025010	10/25/18 1829
181023A-MSD	Matrix SpikeD	1025011	10/25/18 1849
AZ81585	ERH679	1025014	10/25/18 1949
AZ81587	ERH704	1025015	10/25/18 2009

Comments: Batch: #DOC53-181023A

Printed: 10/26/18 9:48:21 AM  
Form 4, LCS Summary

## Laboratory Control Spike Recoveries

### EPA 8015B TPH LIQ-LIQ

APPL ID: 181023W-81584 LCS - 234600  
 Batch ID: #DOC53-181023A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1250	1260	1220	101	97.6	36-132	3.2	30
OIL (C24-C40)	1250	1300	1430	104	114 #	41-113	9.5	30
SURROGATE: OCTACOSANE (S)	75.0	91.8	98.8	122	132	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	65.4	64.5	87.2	86.0	56-125		

# = Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	DOC0905.M	DOC0905.M
Extraction Date :	10/23/18	10/23/18
Analysis Date :	10/25/18	10/25/18
Instrument :	Apollo	Apollo
Run :	1025005	1025007
Initials :	DPO	

# EPA 8015B-eL

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 11/07/18

Matrix: WATER

Instrument: Apollo

LCS ID: 181105A-LCS

Time Analyzed: 1445

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181105A-BLK	Blank	1107004	11/07/18 1424
181105A-LCS	Lab Control Spike	1107005	11/07/18 1445
181105A-LCSD	Lab Control SpikeD	1107007	11/07/18 1525
AZ81584	ERH678	1107009	11/07/18 1605
AZ81585	ERH679	1107010	11/07/18 1625
AZ81587	ERH704	1107011	11/07/18 1646

Comments: Batch: #DOC53-181105A

Printed: 11/08/18 9:29:21 AM  
Form 4, LCS Summary

## Laboratory Control Spike Recoveries

### EPA 8015B TPH LIQ-LIQ RE-EXTRACT

APPL ID: 181105W-81584 LCS - 234971  
 Batch ID: #DOC53-181105A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1250	1270	1240	102	99.2	36-132	2.4	30
OIL (C24-C40)	1250	1170	1220	93.6	97.6	41-113	4.2	30
SURROGATE: OCTACOSANE (S)	75.0	84.2	85.9	112	115	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	71.8	73.7	95.7	98.3	56-125		

Comments:

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	DOC0905.M	DOC0905.M
Extraction Date :	11/05/18	11/05/18
Analysis Date :	11/07/18	11/07/18
Instrument :	Apollo	Apollo
Run :	1107005	1107007
Initials :	DPO	

# Matrix Spike Recoveries

## EPA 8015B TPH LIQ-LIQ

APPL ID: 181023W-81584 MS - 234600  
 Batch ID: #DOC53-181023A  
 Sample ID: AZ81584  
 Client ID: ERH678

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1250	150	989	1080	67.1	74.4	36-132	8.8	30
OIL (C24-C40)	1250	280	1600	1330	106	84.0	41-113	18.4	30
SURROGATE: OCTACOSANE (S)	75.0	NA	101	92.1	135	123	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	NA	66.9	61.6	89.2	82.1	56-125		

Comments: \_\_\_\_\_  
 \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	DOC0905.M	DOC0905.M
Extraction Date :	10/23/18	10/23/18
Analysis Date :	10/25/18	10/25/18
Instrument :	Apollo	Apollo
Run :	1025010	1025011
Initials :	DPO	

Printed: 10/26/18 9:48:24 AM  
 APPL MSD SCII

# 8270D-SIM

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-METHYLNAPHTHALENE-D10 (S)			SURROGATE: FLUORANTHENE-D10 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181024A-BLK	Blank	39-114	92.8		58-120	111	
181024A-LCS	Lab Control Spike	39-114	77.3		58-120	93.0	
181024A-LCSD	Lab Control SpikeD	39-114	75.5		58-120	91.4	
AZ81584-MS	Matrix Spike	39-114	81.9		58-120	100	
AZ81584-MSD	Matrix SpikeD	39-114	84.6		58-120	101	
AZ81584	ERH678	39-114	92.9		58-120	110	
AZ81585	ERH679	39-114	90.8		58-120	109	
AZ81587	ERH704	39-114	96.0		58-120	109	

Comments: Batch: #SIM53-181024A

Printed: 10/31/18 10:03:48 AM  
Form 2 & 8, Surrogate Recovery Summary

# 8270D-SIM

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Linus

Blank ID: 181024A-BLK

Time Analyzed: 1432

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181024A-BLK	Blank	1026L051	10/30/18 1432
181024A-LCS	Lab Control Spike	1026L052	10/30/18 1606
181024A-LCSD	Lab Control SpikeD	1026L053	10/30/18 1636
181024A-MS	Matrix Spike	1026L054	10/30/18 1705
181024A-MSD	Matrix SpikeD	1026L055	10/30/18 1734
AZ81584	ERH678	1026L056	10/30/18 1803
AZ81585	ERH679	1026L057	10/30/18 1832
AZ81587	ERH704	1026L058	10/30/18 1901

Comments: Batch: #SIM53-181024A

Printed: 10/31/18 10:03:50 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8270D SIM LIQ-LIQ**

Blank Name/QCG: **181024W-81584 - 234723**

Batch ID: #SIM53-181024A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
BLANK	SURROGATE: 2-METHYLNAPHT	92.8	39-114			%	10/24/18	10/30/18
BLANK	SURROGATE: FLUORANTHENE-	111	58-120			%	10/24/18	10/30/18

Quant Method:L1026.M  
Run #:1026L051  
Instrument:Linus  
Sequence:L181026  
Initials:MA

GC SC-Blank-REG MDLs-DOD  
Printed: 10/31/18 10:03:17 AM



# 8270D-SIM

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Linus

LCS ID: 181024A-LCS

Time Analyzed: 1606

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181024A-BLK	Blank	1026L051	10/30/18 1432
181024A-LCS	Lab Control Spike	1026L052	10/30/18 1606
181024A-LCSD	Lab Control SpikeD	1026L053	10/30/18 1636
181024A-MS	Matrix Spike	1026L054	10/30/18 1705
181024A-MSD	Matrix SpikeD	1026L055	10/30/18 1734
AZ81584	ERH678	1026L056	10/30/18 1803
AZ81585	ERH679	1026L057	10/30/18 1832
AZ81587	ERH704	1026L058	10/30/18 1901

Comments: Batch: #SIM53-181024A

Printed: 10/31/18 10:03:51 AM  
Form 4, LCS Summary

## Laboratory Control Spike Recoveries

### EPA 8270D SIM LIQ-LIQ

APPL ID: 181024W-81584 LCS - 234723  
 Batch ID: #SIM53-181024A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1-METHYLNAPHTHALENE	6.25	5.55	5.35	88.8	85.6	41-115	3.7	20
2-METHYLNAPHTHALENE	6.25	5.89	5.60	94.2	89.6	39-114	5.0	20
NAPHTHALENE	6.25	5.62	5.45	89.9	87.2	43-114	3.1	20
-----								
SURROGATE: 2-METHYLNAPHTHALEN	6.25	4.83	4.72	77.3	75.5	39-114		
SURROGATE: FLUORANTHENE-D10 (S)	6.25	5.81	5.71	93.0	91.4	58-120		
-----								

Comments: \_\_\_\_\_

	<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :		L1026.M	L1026.M
Extraction Date :		10/24/18	10/24/18
Analysis Date :		10/30/18	10/30/18
Instrument :		Linus	Linus
Run :		1026L052	1026L053
Initials :		MA	

# Matrix Spike Recoveries

## EPA 8270D SIM LIQ-LIQ

APPL ID: 181024W-81584 MS - 234723  
 Batch ID: #SIM53-181024A  
 Sample ID: AZ81584  
 Client ID: ERH678

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1-METHYLNAPHTHALENE	6.25	ND	5.63	5.96	90.1	95.4	41-115	5.7	20
2-METHYLNAPHTHALENE	6.25	ND	5.93	6.25	94.9	100	39-114	5.3	20
NAPHTHALENE	6.25	ND	5.91	6.02	94.6	96.3	43-114	1.8	20
SURROGATE: 2-METHYLNAPHTHALEN	6.25	NA	5.12	5.29	81.9	84.6	39-114		
SURROGATE: FLUORANTHENE-D10 (S)	6.25	NA	6.27	6.30	100	101	58-120		

Comments: \_\_\_\_\_  
 \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	L1026.M	L1026.M
Extraction Date :	10/24/18	10/24/18
Analysis Date :	10/30/18	10/30/18
Instrument :	Linus	Linus
Run :	1026L054	1026L055
Initials :	MA	

Printed: 11/06/18 10:41:14 AM  
 APPL MSD SCII

Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 87227  
 Matrix: Soil  
 ID: 1026L002.D

SDG No: 87227  
 Date Analyzed: 10/26/18  
 Instrument: Linus  
 Time Analyzed: 12:05

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	5 SIM 10/26/18	1026L003.D	10/26/18 12:21
2	0.1 SIM 10/26/18	1026L004.D	10/26/18 12:50
3	0.2 SIM 10/26/18	1026L005.D	10/26/18 13:20
4	0.5 SIM 10/26/18	1026L006.D	10/26/18 13:49
5	1 SIM 10/26/18	1026L007.D	10/26/18 14:18
6	10 SIM 10/26/18	1026L008.D	10/26/18 14:47
7	50 SIM 10/26/18	1026L009.D	10/26/18 15:16
8	100 SIM 10/26/18	1026L010.D	10/26/18 15:46
9	SS SIM 10/26/18	1026L011.D	10/26/18 16:46
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

51 9.95 - 80% of mass 198	44.4
68 0 - 2.05% of mass 69	0.0
70 0 - 2% of mass 69	0.3
127 10 - 80% of mass 198	55.0
197 0 - 2% of mass 198	0.0
198 100 - 100% of mass 198	100.0
199 5 - 9% of mass 198	6.5
275 10 - 60% of mass 198	21.8
365 1 - 100% of mass 198	2.6
441 0.01 - 24% of mass 442	18.1
442 50 - 150% of mass 198	59.1
443 15 - 24% of mass 442	20.7

Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: 87198  
Matrix: Water  
ID: 1026L048.D

SDG No: 87198  
Date Analyzed: 10/30/18  
Instrument: Linus  
Time Analyzed: 13:18

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	5 SIM 10/26/18	1026L049.D	10/30/18 13:34
2	Blank	181024A BLK 1/800	1026L051.D
3	Lab Control Spike	181024A LCS-2 1/800	1026L052.D
4	Lab Control SpikeD	181024A LCSD-2 1/800	1026L053.D
5		AZ81584W22 MS-2 1/80	1026L054.D
6		AZ81584W26 MSD-2 1/8	1026L055.D
7	ERH678	AZ81584W18 1/800	1026L056.D
8	ERH679	AZ81585W08 1/800	1026L057.D
9	ERH704	AZ81587W10 1/800	1026L058.D
10		5 SIM 10/26/18	1026L064.D
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

51 9.95 - 80% of mass 198	47.6
68 0 - 2.05% of mass 69	0.0
70 0 - 2% of mass 69	0.7
127 10 - 80% of mass 198	56.5
197 0 - 2% of mass 198	0.0
198 100 - 100% of mass 198	100.0
199 5 - 9% of mass 198	6.3
275 10 - 60% of mass 198	21.5
365 1 - 100% of mass 198	2.5
441 0.01 - 24% of mass 442	17.6
442 50 - 150% of mass 198	64.7
443 15 - 24% of mass 442	19.7

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87198  
 Lab File ID (Standard): 1026L049.D Date Analyzed: 10/30/18  
 Instrument ID: Linus Time Analyzed: 13:34  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)			
		AREA	#	RT	#	AREA	#	RT	#
12 HOUR STD		40959		4.18		18522		6.21	
UPPER LIMIT		81918		4.35		37044		6.38	
LOWER LIMIT		20480		4.01		9261		6.04	
SAMPLE									
NO.									
01	5 SIM 10/26/18	40959		4.18		18522		6.21	
02	181024A BLK 1/800	29869		4.18		13534		6.21	
03	181024A LCS-2 1/800	35876		4.18		16388		6.21	
04	181024A LCSD-2 1/800	35177		4.18		15896		6.20	
05	AZ81584W22 MS-2 1/800	34026		4.18		15182		6.21	
06	AZ81584W26 MSD-2 1/800	32483		4.18		14802		6.20	
07	AZ81584W18 1/800	31739		4.18		14266		6.21	
08	AZ81585W08 1/800	31320		4.18		14311		6.21	
09	AZ81587W10 1/800	31367		4.18		14467		6.21	
10	5 SIM 10/26/18	41160		4.18		18890		6.21	
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87198  
 Lab File ID (Standard): 1026L049.D Date Analyzed: 10/30/18  
 Instrument ID: Linus Time Analyzed: 13:34  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA	#	RT	#	AREA	#
	12 HOUR STD	50362		14.38		48183	18.17
	UPPER LIMIT	100724		14.55		96366	18.34
	LOWER LIMIT	25181		14.21		24092	18.00
	SAMPLE NO.						
01	5 SIM 10/26/18	50362		14.38		48183	18.17
02	181024A BLK 1/800	34458		14.39		33072	18.20
03	181024A LCS-2 1/800	42403		14.39		40476	18.18
04	181024A LCSD-2 1/800	41298		14.38		40486	18.18
05	AZ81584W22 MS-2 1/800	39653		14.38		38518	18.18
06	AZ81584W26 MSD-2 1/800	38841		14.38		37271	18.18
07	AZ81584W18 1/800	38054		14.39		37255	18.18
08	AZ81585W08 1/800	37697		14.39		37050	18.18
09	AZ81587W10 1/800	38097		14.39		34873	18.18
10	5 SIM 10/26/18	50955		14.37		48456	18.16
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181024A-BLK	Blank	43-140	78.4		44-119	77.6	
181024A-LCS	Lab Control Spike	43-140	88.0		44-119	84.8	
181024A-LCSD	Lab Control SpikeD	43-140	85.2		44-119	81.6	
AZ81584-MS	Matrix Spike	43-140	86.0		44-119	83.2	
AZ81584-MSD	Matrix SpikeD	43-140	74.4		44-119	70.0	
AZ81584	ERH678	43-140	75.4		44-119	76.4	
AZ81585	ERH679	43-140	79.3		44-119	75.7	
AZ81587	ERH704	43-140	77.6		44-119	75.9	

Comments: Batch: #87DC5-181024A

Printed: 10/31/18 6:41:30 AM  
Form 2 & 8, Surrogate Recovery Summary



# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181024A-BLK	Blank	19-119	82.2		44-120	91.1	
181024A-LCS	Lab Control Spike	19-119	121	*	44-120	136	*
181024A-LCSD	Lab Control SpikeD	19-119	101		44-120	104	
AZ81584-MS	Matrix Spike	19-119	88.0		44-120	94.4	
AZ81584-MSD	Matrix SpikeD	19-119	88.8		44-120	82.4	
AZ81584	ERH678	19-119	78.3		44-120	90.4	
AZ81585	ERH679	19-119	89.5		44-120	116	
AZ81587	ERH704	19-119	73.2		44-120	81.2	

Comments: Batch: #87DC5-181024A

\* = Recovery outside of Control Limits on QC Sample.

Printed: 10/31/18 6:41:30 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL-D6 (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181024A-BLK	Blank	10-115	90.1		50-134	60.8	
181024A-LCS	Lab Control Spike	10-115	125	*	50-134	75.8	
181024A-LCSD	Lab Control SpikeD	10-115	102		50-134	73.0	
AZ81584-MS	Matrix Spike	10-115	82.8		50-134	68.9	
AZ81584-MSD	Matrix SpikeD	10-115	79.2		50-134	69.3	
AZ81584	ERH678	10-115	82.9		50-134	65.8	
AZ81585	ERH679	10-115	95.3		50-134	62.4	
AZ81587	ERH704	10-115	83.0		50-134	69.6	

Comments: Batch: #87DC5-181024A

\* = Recovery outside of Control Limits on QC Sample.

Printed: 10/31/18 6:41:30 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8270D

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Yoda

Blank ID: 181024A-BLK

Time Analyzed: 1320

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
AZ81636	ERH690	1025Y091	10/30/18 1703
AZ81638	ERH684	1025Y092	10/30/18 1731
AZ81640	ERH683	1025Y093	10/30/18 1759
AZ81642	ERH694	1025Y094	10/30/18 1827
AZ81644	ERH692	1025Y095	10/30/18 1854

Comments: Batch: #87DC5-181024A

Printed: 10/31/18 6:41:31 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8270D WATER**

Blank Name/QCG: 181024W-81584 - 234711  
Batch ID: #87DC5-181024A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/24/18	10/30/18
BLANK	SURROGATE: 2,4,6-TRIBROMOP	78.4	43-140			%	10/24/18	10/30/18
BLANK	SURROGATE: 2-FLUORBIPHENY	77.6	44-119			%	10/24/18	10/30/18
BLANK	SURROGATE: 2-FLUOROPHENO	82.2	19-119			%	10/24/18	10/30/18
BLANK	SURROGATE: NITROBENZENE-	91.1	44-120			%	10/24/18	10/30/18
BLANK	SURROGATE: PHENOL-D6 (S)	90.1	10-115			%	10/24/18	10/30/18
BLANK	SURROGATE: TERPHENYL-D14 (	60.8	50-134			%	10/24/18	10/30/18

Quant Method: Y1025NC.M  
Run #: 1025Y083  
Instrument: Yoda  
Sequence: Y181025  
Initials: AAB

GC SC-Blank-REG MDLs-DOD  
Printed: 10/31/18 6:39:12 AM

# EPA 8270D

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Yoda

LCS ID: 181024A-LCS

Time Analyzed: 1348

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181024A-BLK	Blank	1025Y083	10/30/18 1320
181024A-LCS	Lab Control Spike	1025Y084	10/30/18 1348
181024A-LCSD	Lab Control SpikeD	1025Y085	10/30/18 1416
181024A-MS	Matrix Spike	1025Y086	10/30/18 1443
181024A-MSD	Matrix Spiked	1025Y087	10/30/18 1511
AZ81584	ERH678	1025Y088	10/30/18 1539
AZ81585	ERH679	1025Y089	10/30/18 1607
AZ81587	ERH704	1025Y090	10/30/18 1635

Comments: Batch: #87DC5-181024A

Printed: 10/31/18 6:41:31 AM  
Form 4, LCS Summary

## Laboratory Control Spike Recoveries

### EPA 8270D WATER

APPL ID: 181024W-81584 LCS - 234711  
 Batch ID: #87DC5-181024A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
PHENOL	62.5	73.1	62.3	117 #	99.7	10-115	16.0	20
SURROGATE: 2,4,6-TRIBROMOPHENOL	250	220	213	88.0	85.2	43-140		
SURROGATE: 2-FLUORBIPHENYL (S)	125	106	102	84.8	81.6	44-119		
SURROGATE: 2-FLUOROPHENOL (S)	250	303	253	121 #	101	19-119		
SURROGATE: NITROBENZENE-D5 (S)	125	170	130	136 #	104	44-120		
SURROGATE: PHENOL-D6 (S)	250	312	255	125 #	102	10-115		
SURROGATE: TERPHENYL-D14 (S)	125	94.7	91.3	75.8	73.0	50-134		

# = Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	Y1025NC.M	Y1025NC.M
Extraction Date :	10/24/18	10/24/18
Analysis Date :	10/30/18	10/30/18
Instrument :	Yoda	Yoda
Run :	1025Y084	1025Y085
Initials :	AAB	

# Matrix Spike Recoveries

## EPA 8270D WATER

APPL ID: 181024W-81584 MS - 234711  
 Batch ID: #87DC5-181024A  
 Sample ID: AZ81584  
 Client ID: ERH678

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
PHENOL	52.5	ND	50.3	48.7	95.8	92.8	10-115	3.2	20
SURROGATE: 2,4,6-TRIBROMOPHENOL	250	NA	215	186	86.0	74.4	43-140		
SURROGATE: 2-FLUOROBIPHENYL (S)	125	NA	104	87.5	83.2	70.0	44-119		
SURROGATE: 2-FLUOROPHENOL (S)	250	NA	220	222	88.0	88.8	19-119		
SURROGATE: NITROBENZENE-D5 (S)	125	NA	118	103	94.4	82.4	44-120		
SURROGATE: PHENOL-D6 (S)	250	NA	207	198	82.8	79.2	10-115		
SURROGATE: TERPHENYL-D14 (S)	125	NA	86.1	86.6	68.9	69.3	50-134		

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	Y1025NC.M	Y1025NC.M
Extraction Date :	10/24/18	10/24/18
Analysis Date :	10/30/18	10/30/18
Instrument :	Yoda	Yoda
Run :	1025Y086	1025Y087
Initials :	AAB	

Printed: 10/31/18 6:38:59 AM  
 APPL MSD SCII

Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: \_\_\_\_\_  
Matrix: Soil  
ID: 1025Y002.D

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Yoda  
Time Analyzed: 11:17

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	4ug/mL 8270 10/18/18	1025Y003.D	10/25/18 11:33
2	5ug/mL 8270 10/18/18	1025Y004.D	10/25/18 12:01
3	10ug/mL 8270 10/18/1	1025Y005.D	10/25/18 12:28
4	20ug/mL 8270 10/18/1	1025Y006.D	10/25/18 12:56
5	40ug/mL 8270 10/18/1	1025Y007.D	10/25/18 13:24
6	50ug/mL 8270 10/18/1	1025Y008.D	10/25/18 13:52
7	60ug/mL 8270 10/18/1	1025Y009.D	10/25/18 14:20
8	80ug/mL 8270 10/18/1	1025Y010.D	10/25/18 14:48
9	100ug/mL 8270 10/18/1	1025Y011.D	10/25/18 15:16
10	SS- 8270 10/18/18	1025Y012.D	10/25/18 15:44
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

51 9.95 - 80.04% of mass 198	52.8
68 0 - 2% of mass 69	0.0
70 0 - 2% of mass 69	0.4
127 10 - 80% of mass 198	59.4
197 0 - 2% of mass 198	0.0
198 100 - 100% of mass 198	100.0
199 5 - 9% of mass 198	7.1
275 10 - 60% of mass 198	26.1
365 1 - 100% of mass 198	3.7
441 0.01 - 24% of mass 442	17.3
442 50 - 150% of mass 198	100.0
443 15 - 24% of mass 442	17.8



Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: 87198  
Matrix: Water  
ID: 1025Y077.D

SDG No: 87198  
Date Analyzed: 10/30/18  
Instrument: Yoda  
Time Analyzed: 9:19

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50ug/mL 8270 10/18/1	1025Y078.D	10/30/18 9:34
2	Blank	181024A BLK 1/800	1025Y083.D	10/30/18 13:20
3	Lab Control Spike	181024A LCS-1 1/800	1025Y084.D	10/30/18 13:48
4	Lab Control SpikeD	181024A LCSD-1 1/800	1025Y085.D	10/30/18 14:16
5		AZ81584W24 MS-1 1/80	1025Y086.D	10/30/18 14:43
6		AZ81584W20 MSD-1 1/8	1025Y087.D	10/30/18 15:11
7	ERH678	AZ81584W18 1/800	1025Y088.D	10/30/18 15:39
8	ERH679	AZ81585W08 1/800	1025Y089.D	10/30/18 16:07
9	ERH704	AZ81587W10 1/800	1025Y090.D	10/30/18 16:35
10		50ug/mL 8270 10/18/1	1025Y096.D	10/30/18 19:22
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e

51 10 - 80% of mass 198	51.1
68 0 - 2% of mass 69	0.0
70 0 - 2% of mass 69	0.3
127 10 - 80% of mass 198	56.1
197 0 - 2% of mass 198	0.0
198 100 - 100% of mass 198	100.0
199 5 - 9% of mass 198	6.9
275 10 - 60% of mass 198	28.0
365 1 - 100% of mass 198	4.3
441 0.01 - 24% of mass 442	16.6
442 50 - 150% of mass 198	111.6
443 17 - 23% of mass 442	18.8

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87198  
 Lab File ID (Standard): 1025Y078.D Date Analyzed: 10/30/18  
 Instrument ID: Yoda Time Analyzed: 9:34  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		1,4-dichlorobenzene-D4(IS)		Naphthalene-D8(IS)		Acenaphthene-D10(IS)			
		AREA	#	RT	#	AREA	#	RT	#
12 HOUR STD		340030		5.53		1373940		6.99	
UPPER LIMIT		680060		5.70		2747880		7.16	
LOWER LIMIT		170015		5.36		686970		6.82	
SAMPLE NO.									
01	181024A BLK 1/800	255115		5.53		1052100		6.98	
02	181024A LCS-1 1/800	187593		5.54		733115		6.98	
03	181024A LCSD-1 1/800	243855		5.54		1052350		6.99	
04	AZ81584W24 MS-1 1/800	274422		5.54		1143410		6.99	
05	AZ81584W20 MSD-1 1/800	274577		5.54		1150950		6.99	
06	AZ81584W18 1/800	287375		5.54		1143450		6.98	
07	AZ81585W08 1/800	263745		5.54		940628		6.98	
08	AZ81587W10 1/800	295649		5.53		1281720		6.98	
09	50ug/mL 8270 10/18/18	366683		5.54		1410700		6.99	
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87198  
 Lab File ID (Standard): 1025Y078.D Date Analyzed: 10/30/18  
 Instrument ID: Yoda Time Analyzed: 9:34  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

	Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)						
	AREA	#	RT	#	AREA	#		RT	#		
12 HOUR STD	1363200		10.76		1272640		13.87		1426770		15.82
UPPER LIMIT	2726400		10.93		2545280		14.04		2853540		15.99
LOWER LIMIT	681600		10.59		636320		13.70		713385		15.65
SAMPLE NO.											
01	181024A BLK 1/800	1164200		10.76	1223920		13.86		1093570		15.81
02	181024A LCS-1 1/800	981125		10.76	916139		13.87		987819		15.82
03	181024A LCSD-1 1/800	1131360		10.76	1010600		13.87		1100500		15.82
04	AZ81584W24 MS-1 1/800	1266710		10.76	1158130		13.87		1209740		15.82
05	AZ81584W20 MSD-1 1/800	1150890		10.76	1030620		13.87		1091530		15.82
06	AZ81584W18 1/800	1152000		10.76	1082780		13.86		1066560		15.81
07	AZ81585W08 1/800	1289710		10.76	1164240		13.86		1196900		15.81
08	AZ81587W10 1/800	1080860		10.76	1043560		13.86		941268		15.81
09	50ug/mL 8270 10/18/18	1544430		10.77	1304930		13.88		1432590		15.82
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

# EPA 8270D

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/31/18

Matrix: WATER

Instrument: Yoda

Blank ID: 181029A-BLK

Time Analyzed: 1043

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181029A-MS	Matrix Spike	0801Y074	10/31/18 0847
181029A-MSD	Matrix Spiked	0801Y075	10/31/18 0910
AZ81585	ERH679	0801Y077	10/31/18 0957
AZ81584	ERH678	0801Y078	10/31/18 1020
181029A-BLK	Blank	0801Y079	10/31/18 1043
181029A-LCS	Lab Control Spike	0801Y080	10/31/18 1107
AZ81587	ERH704	0801Y081	10/31/18 1131
181029A-LCSD	Lab Control Spiked	0801Y097	10/31/18 1749

Comments: Batch: #87DME-181029A

Printed: 11/01/18 3:44:57 PM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8270D MODIFIED WATER**

Blank Name/QCG: **181029W-81584 - 234791**  
Batch ID: #87DME-181029A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-(2-METHOXYETHOXY)-ETHAN	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method:YMEE0801.M  
Run #:0801Y079  
Instrument:Yoda  
Sequence:Y180801M  
Initials:MA

GC SC-Blank-REG MDLs-DOD  
Printed: 11/01/18 3:44:33 PM

# EPA 8270D

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/31/18

Matrix: WATER

Instrument: Yoda

LCS ID: 181029A-LCS

Time Analyzed: 1107

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181029A-MS	Matrix Spike	0801Y074	10/31/18 0847
181029A-MSD	Matrix Spiked	0801Y075	10/31/18 0910
AZ81585	ERH679	0801Y077	10/31/18 0957
AZ81584	ERH678	0801Y078	10/31/18 1020
181029A-BLK	Blank	0801Y079	10/31/18 1043
181029A-LCS	Lab Control Spike	0801Y080	10/31/18 1107
AZ81587	ERH704	0801Y081	10/31/18 1131
181029A-LCSD	Lab Control Spiked	0801Y097	10/31/18 1749

Comments: Batch: #87DME-181029A

Printed: 11/01/18 3:44:58 PM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## EPA 8270D MODIFIED WATER

APPL ID: 181029W-81584 LCS - 234791  
 Batch ID: #87DME-181029A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2-(2-METHOXYETHOXY)-ETHANOL	80.0	73.0	89.9	91.3	112	30-130	20.7 #	20

# = Recovery is outside QC limits.

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	YMEE0801.M	YMEE0801.M
Extraction Date :	10/29/18	10/29/18
Analysis Date :	10/31/18	10/31/18
Instrument :	Yoda	Yoda
Run :	0801Y080	0801Y097
Initials :	MA	

# Matrix Spike Recoveries

## EPA 8270D MODIFIED WATER

APPL ID: 181029W-81584 MS - 234791  
 Batch ID: #87DME-181029A  
 Sample ID: AZ81584  
 Client ID: ERH678

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2-(2-METHOXYETHOXY)-ETHANOL	80.0	ND	98.0	85.9	123	107	30-130	13.2	20

Comments: \_\_\_\_\_  
 \_\_\_\_\_

	<u>SPK</u>	<u>DUP</u>
Quant Method :	YMEE0801.M	YMEE0801.M
Extraction Date :	10/29/18	10/29/18
Analysis Date :	10/31/18	10/31/18
Instrument :	Yoda	Yoda
Run :	0801Y074	0801Y075
Initials :	MA	

Printed: 11/01/18 3:44:51 PM  
 APPL MSD SCII



Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: \_\_\_\_\_  
 Matrix: Water  
 ID: 0801Y002.D

SDG No: \_\_\_\_\_  
 Date Analyzed: 08/01/18  
 Instrument: Yoda  
 Time Analyzed: 14:52

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	50ug/ml MEE 08/01/18	0801Y003.D	08/01/18 15:09
2	500ug/ml MEE 08/01/1	0801Y004.D	08/01/18 15:34
3	100ug/ml MEE 08/01/1	0801Y005.D	08/01/18 16:26
4	200ug/ml MEE 08/01/1	0801Y006.D	08/01/18 16:51
5	400ug/ml MEE 08/01/1	0801Y007.D	08/01/18 17:16
6	600ug/ml MEE 08/01/1	0801Y008.D	08/01/18 17:41
7	800ug/ml MEE 08/01/1	0801Y009.D	08/01/18 18:06
8	1000ug/ml MEE 08/01/	0801Y010.D	08/01/18 18:31
9	SS ug/ml MEE 08/01/1	0801Y011.D	08/01/18 18:55
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

51 9.95 - 80.04% of mass 198	<u>47.8</u>
68 0 - 2.04% of mass 69	<u>0.0</u>
70 0 - 2.04% of mass 69	<u>0.5</u>
127 10 - 80% of mass 198	<u>53.9</u>
197 0 - 2% of mass 198	<u>0.0</u>
198 100 - 100% of mass 198	<u>100.0</u>
199 5 - 9% of mass 198	<u>6.3</u>
275 10 - 60% of mass 198	<u>26.6</u>
365 1 - 100% of mass 198	<u>3.8</u>
441 0.01 - 24% of mass 442	<u>16.8</u>
442 50 - 150% of mass 198	<u>121.2</u>
443 15 - 24% of mass 442	<u>20.7</u>

Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: 87198  
Matrix: Water  
ID: 0801Y069.D

SDG No: 87198  
Date Analyzed: 10/31/18  
Instrument: Yoda  
Time Analyzed: 6:36

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	500ug/ml MEE 08/01/1	0801Y070.D	10/31/18 6:51
2	AZ81584W17 MS-1 2/46	0801Y074.D	10/31/18 8:47
3	AZ81584W14 MSD-1 2/4	0801Y075.D	10/31/18 9:10
4	ERH679 AZ81585W05 2/500	0801Y077.D	10/31/18 9:57
5	ERH678 AZ81584W12 2/500	0801Y078.D	10/31/18 10:20
6	Blank 181029A Blk 2/500	0801Y079.D	10/31/18 10:43
7	Lab Control Spike 181029A LCS-1 2/500	0801Y080.D	10/31/18 11:07
8	ERH704 AZ81587W09 2/500	0801Y081.D	10/31/18 11:31
9	Lab Control SpikeD 181029A LCSD-1 2/500	0801Y097.D	10/31/18 17:49
10	500ug/ml MEE 08/01/1	0801Y098.D	10/31/18 18:12
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

51	9.95 - 80.04% of mass 198	<u>49.6</u>
68	0 - 2.04% of mass 69	<u>0.0</u>
70	0 - 2.04% of mass 69	<u>0.7</u>
127	10 - 80% of mass 198	<u>55.5</u>
197	0 - 2% of mass 198	<u>0.0</u>
198	100 - 100% of mass 197.95	<u>100.0</u>
199	5 - 9% of mass 198	<u>6.5</u>
275	10 - 60% of mass 198	<u>26.6</u>
365	1 - 100% of mass 198	<u>3.9</u>
441	0.01 - 24% of mass 442	<u>17.1</u>
442	50 - 150% of mass 197.95	<u>92.6</u>
443	15 - 24% of mass 442	<u>20.3</u>

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87198  
 Lab File ID (Standard): 0801Y070.D Date Analyzed: 10/31/18  
 Instrument ID: Yoda Time Analyzed: 6:51  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)			
		AREA	#	RT	#	AREA	#	RT	#
12 HOUR STD		357281		5.30		1484910		6.73	
UPPER LIMIT		714562		5.47		2969820		6.90	
LOWER LIMIT		178641		5.13		742455		6.56	
SAMPLE NO.									
01	500ug/ml MEE 08/01/18	357281		5.30		1484910		6.73	
02	AZ81584W17 MS-1 2/46	321562		5.30		1209360		6.73	
03	AZ81584W14 MSD-1 2/	318166		5.30		1242530		6.73	
04	AZ81585W05 2/500	204462		5.30		796173		6.73	
05	AZ81584W12 2/500	277768		5.30		1105910		6.73	
06	181029A Blk 2/500	233584		5.31		1284270		6.73	
07	181029A LCS-1 2/500	392175		5.30		1594600		6.73	
08	AZ81587W09 2/500	314487		5.30		1238420		6.73	
09	181029A LCSD-1 2/500	353234		5.31		1396890		6.73	
10	500ug/ml MEE 08/01/18	387693		5.31		1637390		6.73	
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits. Not associated with target compound.

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87198  
 Lab File ID (Standard): 0801Y070.D Date Analyzed: 10/31/18  
 Instrument ID: Yoda Time Analyzed: 6:51  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

	Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)							
	AREA	#	RT	#	AREA	#		RT	#			
12 HOUR STD	1392260		10.50		1474560		13.60		2044920		15.43	
UPPER LIMIT	2784520		10.67		2949120		13.77		4089840		15.60	
LOWER LIMIT	696130		10.33		737280		13.43		1022460		15.26	
SAMPLE NO.												
01	500ug/ml MEE 08/01/18	1392260		10.50	1474560		13.60		2044920		15.43	
02	AZ81584W17 MS-1 2/46	1301630		10.50	1176130		13.60		1216390		15.42	
03	AZ81584W14 MSD-1 2/	1168690		10.50	1144050		13.60		1140200		15.42	
04	AZ81585W05 2/500	750432		10.50	693402 *		13.60		654836 *		15.42	
05	AZ81584W12 2/500	1284780		10.50	1174300		13.60		1129900		15.42	
06	181029A Blk 2/500	1204750		10.50	1112330		13.60		1097800		15.42	
07	181029A LCS-1 2/500	1395150		10.50	1241790		13.60		1311330		15.42	
08	AZ81587W09 2/500	1339590		10.50	1245100		13.60		1153590		15.42	
09	181029A LCSD-1 2/500	1287860		10.50	1186080		13.60		1218320		15.42	
10	500ug/ml MEE 08/01/18	1555870		10.50	1391750		13.60		1264020		15.42	
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits. Not associated with target compound.

**EPA 8260B**

Form 2 & 8

**Surrogate Recovery**

Lab Name: APPL, Inc.  
Case No: 87198  
Matrix: WATER

SDG No: 87198  
Date Analyzed: 10/24/18  
Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181024AL-LCS	Lab Control Spike	81-118	109		85-114	114	
181024AL-LCSD	Lab Control SpikeD	81-118	105		85-114	107	
181024AL-BLK	Blank	81-118	112		85-114	92.5	
AZ81583	ERH677	81-118	110		85-114	92.8	
AZ81586	ERH703	81-118	112		85-114	90.1	
AZ81584	ERH678	81-118	111		85-114	91.3	
AZ81585	ERH679	81-118	110		85-114	94.5	
AZ81584-MS	Matrix Spike	81-118	107		85-114	104	
AZ81584-MSD	Matrix SpikeD	81-118	107		85-114	106	

Comments: Batch: #86BTO-181024AL

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/24/18

Matrix: WATER

Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181024AL-LCS	Lab Control Spike	80-119	105		89-112	105	
181024AL-LCSD	Lab Control SpikeD	80-119	98.8		89-112	97.2	
181024AL-BLK	Blank	80-119	107		89-112	92.9	
AZ81583	ERH677	80-119	106		89-112	91.5	
AZ81586	ERH703	80-119	108		89-112	90.1	
AZ81584	ERH678	80-119	107		89-112	91.1	
AZ81585	ERH679	80-119	107		89-112	94.5	
AZ81584-MS	Matrix Spike	80-119	99.2		89-112	94.4	
AZ81584-MSD	Matrix SpikeD	80-119	100		89-112	95.2	

Comments: Batch: #86BTO-181024AL

Printed: 10/26/18 10:35:02 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/25/18

Matrix: WATER

Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181025AT-LCS	Lab Control Spike	81-118	98.4		85-114	94.0	
181025AT-LCSD	Lab Control Spiked	81-118	99.2		85-114	99.2	
181025AT-BLK	Blank	81-118	102		85-114	99.6	
AZ81587	ERH704	81-118	103		85-114	100	

Comments: Batch: #86BTO-181025AT

Printed: 10/26/18 10:35:02 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/25/18

Matrix: WATER

Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181025AT-LCS	Lab Control Spike	80-119	100		89-112	96.0	
181025AT-LCSD	Lab Control SpikeD	80-119	102		89-112	99.2	
181025AT-BLK	Blank	80-119	105		89-112	104	
AZ81587	ERH704	80-119	105		89-112	106	

Comments: Batch: #86BTO-181025AT

Printed: 10/26/18 10:35:02 AM  
Form 2 & 8, Surrogate Recovery Summary



# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/24/18

Matrix: WATER

Instrument: Loki

Blank ID: 181024AL-BLK

Time Analyzed: 1211

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181024AL-LCS	Lab Control Spike	1024L04	10/24/18 0855
181024AL-LCSD	Lab Control SpikeD	1024L05	10/24/18 0923
181024AL-BLK	Blank	1024L11	10/24/18 1211
AZ81583	ERH677	1024L13	10/24/18 1307
AZ81586	ERH703	1024L14	10/24/18 1335
AZ81584	ERH678	1024L18	10/24/18 1527
AZ81585	ERH679	1024L19	10/24/18 1555
181024AL-MS	Matrix Spike	1024L22	10/24/18 1719
181024AL-MSD	Matrix SpikeD	1024L23	10/24/18 1747

Comments: Batch: #86BTO-181024AL

Printed: 10/26/18 10:34:59 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8260B BTEX WATER**

Blank Name/QCG: **181024W-81584 - 234572**  
Batch ID: #86BTO-181024AL

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/24/18	10/24/18
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/24/18	10/24/18
BLANK	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/24/18	10/24/18
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/24/18	10/24/18
BLANK	SURROGATE: 1,2-DICHLOROET	112	81-118			%	10/24/18	10/24/18
BLANK	SURROGATE: 4-BROMOFLUORO	92.5	85-114			%	10/24/18	10/24/18
BLANK	SURROGATE: DIBROMOFLUOR	107	80-119			%	10/24/18	10/24/18
BLANK	SURROGATE: TOLUENE-D8 (S)	92.9	89-112			%	10/24/18	10/24/18

Quant Method: L1023W.M  
Run #: 1024L11  
Instrument: Loki  
Sequence: 181023  
Initials: SV

GC SC-Blank-REG MDLs-DOD  
Printed: 10/26/18 10:35:16 AM

**EPA 8260B**

Form 4

**Blank Summary**

Lab Name: APPL, Inc.  
Case No: 87198  
Matrix: WATER  
Blank ID: 181025AT-BLK

SDG No: 87198  
Date Analyzed: 10/25/18  
Instrument: Thor  
Time Analyzed: 1511

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181025AT-LCS	Lab Control Spike	1025T05	10/25/18 1332
181025AT-LCSD	Lab Control SpikeD	1025T06	10/25/18 1416
181025AT-BLK	Blank	1025T08	10/25/18 1511
AZ81587	ERH704	1025T11	10/25/18 1639

Comments: Batch: #86BTO-181025AT

**Method Blank**  
**EPA 8260B BTEX WATER**

Blank Name/QCG: **181025W-81587 - 234607**  
Batch ID: #86BTO-181025AT

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/25/18	10/25/18
BLANK	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/25/18	10/25/18
BLANK	SURROGATE: 1,2-DICHLOROET	102	81-118			%	10/25/18	10/25/18
BLANK	SURROGATE: 4-BROMOFLUORO	99.6	85-114			%	10/25/18	10/25/18
BLANK	SURROGATE: DIBROMOFLUOR	105	80-119			%	10/25/18	10/25/18
BLANK	SURROGATE: TOLUENE-D8 (S)	104	89-112			%	10/25/18	10/25/18

Quant Method: T1024W.M  
Run #: 1025T08  
Instrument: Thor  
Sequence: T181024  
Initials: KVA

GC SC-Blank-REG MDLs-DOD  
Printed: 10/26/18 10:35:16 AM

# EPA 8260B

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/24/18

Matrix: WATER

Instrument: Loki

LCS ID: 181024AL-LCS

Time Analyzed: 0855

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181024AL-LCS	Lab Control Spike	1024L04	10/24/18 0855
181024AL-LCSD	Lab Control SpikeD	1024L05	10/24/18 0923
181024AL-BLK	Blank	1024L11	10/24/18 1211
AZ81583	ERH677	1024L13	10/24/18 1307
AZ81586	ERH703	1024L14	10/24/18 1335
AZ81584	ERH678	1024L18	10/24/18 1527
AZ81585	ERH679	1024L19	10/24/18 1555
181024AL-MS	Matrix Spike	1024L22	10/24/18 1719
181024AL-MSD	Matrix SpikeD	1024L23	10/24/18 1747

Comments: Batch: #86BTO-181024AL

Printed: 10/26/18 10:34:55 AM  
Form 4, LCS Summary

## Laboratory Control Spike Recoveries

### EPA 8260B BTEX WATER

APPL ID: **181024W-81584 LCS - 234572**  
 Batch ID: #86BTO-181024AL

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
BENZENE	10.00	10.2	10.2	102	102	79-120	0.0	20
ETHYLBENZENE	10.00	10.7	10.6	107	106	79-121	0.94	20
TOLUENE	10.00	10.5	10.7	105	107	80-121	1.9	20
XYLENES (TOTAL)	30.0	32.1	32.5	107	108	79-121	1.2	20
-----								
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	27.2	26.3	109	105	81-118		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	28.4	26.8	114	107	85-114		
SURROGATE: DIBROMOFLUOROMETH	25.0	26.2	24.7	105	98.8	80-119		
SURROGATE: TOLUENE-D8 (S)	25.0	26.3	24.3	105	97.2	89-112		
-----								

Comments: \_\_\_\_\_

Primary	SPK	DUP
Quant Method :	L1023W.M	L1023W.M
Extraction Date :	10/24/18	10/24/18
Analysis Date :	10/24/18	10/24/18
Instrument :	Loki	Loki
Run :	1024L04	1024L05
Initials :	SV	

**EPA 8260B**

Form 4

**LCS Summary**

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/25/18

Matrix: WATER

Instrument: Thor

LCS ID: 181025AT-LCS

Time Analyzed: 1332

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181025AT-LCS	Lab Control Spike	1025T05	10/25/18 1332
181025AT-LCSD	Lab Control SpikeD	1025T06	10/25/18 1416
181025AT-BLK	Blank	1025T08	10/25/18 1511
AZ81587	ERH704	1025T11	10/25/18 1639

Comments: Batch: #86BTO-181025AT

**Laboratory Control Spike Recoveries**  
**EPA 8260B BTEX WATER**

APPL ID: 181025W-81587 LCS - 234607

Batch ID: #86BTO-181025AT

APPL Inc.

908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
BENZENE	10.00	9.62	9.99	96.2	99.9	79-120	3.8	20
ETHYLBENZENE	10.00	9.37	9.93	93.7	99.3	79-121	5.8	20
TOLUENE	10.00	9.92	9.85	99.2	98.5	80-121	0.71	20
XYLENES (TOTAL)	30.0	29.5	30.3	98.3	101	79-121	2.7	20
-----								
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	24.6	24.8	98.4	99.2	81-118		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	23.5	24.8	94.0	99.2	85-114		
SURROGATE: DIBROMOFLUOROMETH	25.0	25.0	25.5	100	102	80-119		
SURROGATE: TOLUENE-D8 (S)	25.0	24.0	24.8	96.0	99.2	89-112		
-----								

Comments: \_\_\_\_\_

Primary	SPK	DUP
Quant Method :	T1024W.M	T1024W.M
Extraction Date:	10/25/18	10/25/18
Analysis Date :	10/25/18	10/25/18
Instrument :	Thor	Thor
Run :	1025T05	1025T06
Initials :	KVA	



## Matrix Spike Recoveries EPA 8260B BTEX WATER

APPL ID: 181024W-81584 MS - 234572

Batch ID: #86BTO-181024AL

Sample ID: AZ81584

Client ID: ERH678

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
BENZENE	10.00	ND	9.90	10.0	99.0	100	79-120	1.0	20
ETHYLBENZENE	10.00	1.0	11.0	11.0	100	100	79-121	0.0	20
TOLUENE	10.00	0.24	10.3	10.5	101	103	80-121	1.9	20
XYLENES (TOTAL)	30.0	0.81	31.9	31.7	104	103	79-121	0.63	20
-----									
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	NA	26.7	26.8	107	107	81-118		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	NA	25.9	26.4	104	106	85-114		
SURROGATE: DIBROMOFLUOROMETH	25.0	NA	24.8	25.0	99.2	100	80-119		
SURROGATE: TOLUENE-D8 (S)	25.0	NA	23.6	23.8	94.4	95.2	89-112		

Comments: \_\_\_\_\_

Primary	SPK	DUP
Quant Method :	L1023W.M	L1023W.M
Extraction Date :	10/24/18	10/24/18
Analysis Date :	10/24/18	10/24/18
Instrument :	Loki	Loki
Run :	1024L22	1024L23
Initials :	SV	

Printed: 10/26/18 10:35:06 AM

APPL MSD SCII

Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: 87198  
Matrix: Water  
ID: 1023L01.D

SDG No: 87198  
Date Analyzed: 10/23/18  
Instrument: Loki  
Time Analyzed: 12:54

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	0.3ug/L VOC STD 10/2	1023L03.D	10/23/18 13:39
2	0.5ug/L VOC STD 10/2	1023L04.D	10/23/18 14:07
3	1.0ug/L VOC STD 10/2	1023L05.D	10/23/18 14:35
4	5.0ug/L VOC STD 10/2	1023L06.D	10/23/18 15:03
5	10ug/L VOC STD 10/23	1023L07.D	10/23/18 15:31
6	20ug/L VOC STD 10/23	1023L08.D	10/23/18 15:59
7	50ug/L VOC STD 10/23	1023L09.D	10/23/18 16:27
8	100ug/L VOC STD 10/2	1023L10.D	10/23/18 16:55
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

50 15 - 40% of mass 95	18.0
75 30 - 60% of mass 95	51.6
95 100 - 100% of mass 95	100.0
96 5 - 9% of mass 95	6.7
173 0 - 2% of mass 174	0.0
174 50 - 100% of mass 95	97.3
175 5 - 9% of mass 174	7.9
176 94.95 - 101% of mass 174	95.7
177 5 - 9% of mass 176	6.9

Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 87198  
 Matrix: Water  
 ID: 1023L13.D

SDG No: 87198  
 Date Analyzed: 10/23/18  
 Instrument: Loki  
 Time Analyzed: 18:19

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	(SS) 10ug/L VOC STD	1023L14.D	10/23/18 18:47
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

50 15 - 40% of mass 95	<u>17.5</u>
75 30 - 60% of mass 95	<u>50.3</u>
95 100 - 100% of mass 95	<u>100.0</u>
96 5 - 9% of mass 95	<u>7.1</u>
173 0 - 2% of mass 174	<u>1.0</u>
174 50 - 100% of mass 95	<u>99.9</u>
175 5 - 9% of mass 174	<u>7.8</u>
176 94.95 - 101% of mass 174	<u>95.3</u>
177 5 - 9% of mass 176	<u>7.4</u>

Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 87198  
 Matrix: Water  
 ID: 1024L02.D

SDG No: 87198  
 Date Analyzed: 10/24/18  
 Instrument: Loki  
 Time Analyzed: 7:59

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Lab Control Spike	181024A CCV/LCS 10ug	1024L04.D
2	Lab Control SpikeD	181024A LCSD 10ug/L	1024L05.D
3	Blank	181024A Blk	1024L11.D
4	ERH677	AZ81583W01	1024L13.D
5	ERH703	AZ81586W01	1024L14.D
6	ERH678	AZ81584W01	1024L18.D
7	ERH679	AZ81585W01	1024L19.D
8		AZ81584W02 MS 10ug/L	1024L22.D
9		AZ81584W03 MSD 10ug/	1024L23.D
10		Ending CCV 10ug/L 10	1024L28.D
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

50 15 - 40% of mass 95	<u>17.3</u>
75 30 - 60% of mass 95	<u>50.5</u>
95 100 - 100% of mass 95	<u>100.0</u>
96 5 - 9% of mass 95	<u>8.1</u>
173 0 - 2% of mass 174	<u>1.3</u>
174 50 - 100% of mass 95	<u>95.6</u>
175 5 - 9% of mass 174	<u>7.3</u>
176 94.95 - 101% of mass 174	<u>95.4</u>
177 5 - 9% of mass 176	<u>7.6</u>

Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: 87198  
Matrix: Water  
ID: 1024T01.D

SDG No: 87198  
Date Analyzed: 10/24/18  
Instrument: Thor  
Time Analyzed: 9:30

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	0.3ug/L VOC STD 18/1	1024T03.D	10/24/18 10:18
2	0.5ug/L VOC STD 18/1	1024T04.D	10/24/18 10:46
3	2.0ug/L VOC STD 18/1	1024T06.D	10/24/18 11:43
4	5.0ug/L VOC STD 18/1	1024T07.D	10/24/18 12:12
5	10ug/L VOC STD 18/10	1024T08.D	10/24/18 12:40
6	20ug/L VOC STD 18/10	1024T09.D	10/24/18 13:09
7	40ug/L VOC STD 18/10	1024T10.D	10/24/18 13:37
8	100ug/L VOC STD 18/1	1024T11.D	10/24/18 14:06
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

50 15 - 40% of mass 95	15.0
75 30 - 60% of mass 95	47.3
95 100 - 100% of mass 95	100.0
96 5 - 9% of mass 95	7.1
173 0 - 2% of mass 174	0.8
174 50 - 100.05% of mass 95	93.6
175 5 - 9% of mass 174	7.3
176 95 - 101% of mass 174	100.6
177 5 - 9% of mass 176	8.0

Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 87198  
 Matrix: Water  
 ID: 1025T02.D

SDG No: 87198  
 Date Analyzed: 10/25/18  
 Instrument: Thor  
 Time Analyzed: 12:09

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	(SS)10ug/L VOC STD 1	1025T03.D	10/25/18 12:37
2	181025A CCV 10ug/L	1025T04.D	10/25/18 13:06
3	Lab Control Spike 181025A LCS 10ug/L	1025T05.D	10/25/18 13:34
4	Lab Control SpikeD 181025A LCSD 10ug/L	1025T06.D	10/25/18 14:16
5	Blank 181025A blk	1025T08.D	10/25/18 15:13
6	ERH704 AZ81587W02	1025T11.D	10/25/18 16:39
7	Ending CCV 10ug/L 18	1025T30.D	10/26/18 6:46
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

50 15 - 40% of mass 95	<u>16.4</u>
75 30 - 60% of mass 95	<u>46.4</u>
95 100 - 100% of mass 95	<u>100.0</u>
96 5 - 9% of mass 95	<u>6.8</u>
173 0 - 2% of mass 174	<u>0.4</u>
174 50 - 100.05% of mass 95	<u>87.5</u>
175 5 - 9% of mass 174	<u>7.2</u>
176 95 - 101% of mass 174	<u>97.3</u>
177 5 - 9% of mass 176	<u>6.5</u>

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87198  
 Lab File ID (Standard): 1023L07.D Date Analyzed: 10/23/18  
 Instrument ID: Loki Time Analyzed: 15:31  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

	Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	242688	4.88	261312	8.54	157376	11.08
UPPER LIMIT	485376	5.05	522624	8.71	314752	11.25
LOWER LIMIT	121344	4.71	130656	8.37	78688	10.91
SAMPLE NO.						
01 (SS) 10ug/L VOC STD 1	241856	4.88	260480	8.54	161920	11.08
02 181024A CCV/LCS 10ug	243840	4.88	266112	8.54	166848	11.08
03 181024A LCSD 10ug/L	246208	4.88	270848	8.53	169536	11.08
04 181024A Blk	226112	4.88	260352	8.54	143808	11.08
05 AZ81583W01	223808	4.88	255872	8.54	143296	11.08
06 AZ81586W01	214464	4.88	249216	8.54	136000	11.08
07 AZ81584W01	215040	4.88	246464	8.54	139072	11.08
08 AZ81585W01	207104	4.88	232704	8.54	136128	11.08
09 AZ81584W02 MS 10ug/	234432	4.88	260352	8.53	167680	11.08
10 AZ81584W03 MSD 10ug	232960	4.88	262016	8.54	165568	11.08
11 Ending CCV 10ug/L 10/2	241792	4.88	262464	8.54	173632	11.08
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87198  
 Lab File ID (Standard): 1024T08.D Date Analyzed: 10/24/18  
 Instrument ID: Thor Time Analyzed: 12:40  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

	Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	904448	6.41	748736	9.58	383872	11.90
UPPER LIMIT	1808896	6.58	1497472	9.75	767744	12.07
LOWER LIMIT	452224	6.24	374368	9.41	191936	11.73
SAMPLE NO.						
01 (SS)10ug/L VOC STD 1	898688	6.41	745280	9.58	368064	11.90
02 181025A CCV 10ug/L	862848	6.41	729920	9.58	349376	11.90
03 181025A LCS 10ug/L	879616	6.41	757952	9.58	381824	11.90
04 181025A LCSD 10ug/L	837888	6.41	710976	9.58	362432	11.90
05 181025A blk	838336	6.41	696960	9.58	331648	11.90
06 AZ81587W02	823680	6.41	664384	9.58	321152	11.90
07 Ending CCV 10ug/L 18/1	879808	6.40	741824	9.57	375616	11.90
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.



# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/24/18

Matrix: WATER

Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: 4-BROMOFLUOROBENZENE (S)			Limits	Result	Qualifier
		Limits	Result	Qualifier			
181024AL-LCS	Lab Control Spike	85-114	97.6				
181024AL-LCSD	Lab Control SpikeD	85-114	99.2				
181024AL-BLK	Blank	85-114	92.5				
AZ81583	ERH677	85-114	92.8				
AZ81586	ERH703	85-114	90.1				
AZ81584	ERH678	85-114	91.3				
AZ81585	ERH679	85-114	94.5				
AZ81587	ERH704	85-114	87.6				
AZ81584-MS	Matrix Spike	85-114	103				
AZ81584-MSD	Matrix SpikeD	85-114	96.8				

Comments: Batch: #GRO86-181024AL

Printed: 10/25/18 11:43:40 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/24/18

Matrix: WATER

Instrument: Loki

Blank ID: 181024AL-BLK

Time Analyzed: 1211

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181024AL-LCS	Lab Control Spike	1024L08	10/24/18 1047
181024AL-LCSD	Lab Control SpikeD	1024L09	10/24/18 1115
181024AL-BLK	Blank	1024L11	10/24/18 1211
AZ81583	ERH677	1024L13	10/24/18 1307
AZ81586	ERH703	1024L14	10/24/18 1335
AZ81584	ERH678	1024L18	10/24/18 1527
AZ81585	ERH679	1024L19	10/24/18 1555
AZ81587	ERH704	1024L20	10/24/18 1623
181024AL-MS	Matrix Spike	1024L26	10/24/18 1911
181024AL-MSD	Matrix SpikeD	1024L27	10/24/18 1939

Comments: Batch: #GRO86-181024AL

Printed: 10/25/18 11:45:14 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8260B GRO WATER**

Blank Name/QCG: **181024W-81584 - 234567**  
Batch ID: #GRO86-181024AL

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/24/18	10/24/18
BLANK	SURROGATE: 4-BROMOFLUORO	92.5	85-114			%	10/24/18	10/24/18

Quant Method: LGAS915.M  
Run #: 1024L11  
Instrument: Loki  
Sequence: 181023  
Initials: SV

GC SC-Blank-REG MDLs-DOD  
Printed: 10/25/18 11:43:46 AM

# EPA 8260B

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/24/18

Matrix: WATER

Instrument: Loki

LCS ID: 181024AL-LCS

Time Analyzed: 1047

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181024AL-LCS	Lab Control Spike	1024L08	10/24/18 1047
181024AL-LCSD	Lab Control SpikeD	1024L09	10/24/18 1115
181024AL-BLK	Blank	1024L11	10/24/18 1211
AZ81583	ERH677	1024L13	10/24/18 1307
AZ81586	ERH703	1024L14	10/24/18 1335
AZ81584	ERH678	1024L18	10/24/18 1527
AZ81585	ERH679	1024L19	10/24/18 1555
AZ81587	ERH704	1024L20	10/24/18 1623
181024AL-MS	Matrix Spike	1024L26	10/24/18 1911
181024AL-MSD	Matrix SpikeD	1024L27	10/24/18 1939

Comments: Batch: #GRO86-181024AL

Printed: 10/25/18 11:43:50 AM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## EPA 8260B GRO WATER

APPL ID: 181024W-81584 LCS - 234567  
 Batch ID: #GRO86-181024AL

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
GASOLINE RANGE ORGANICS	300	300	310	100	103	78-122	3.3	20
SURROGATE: 4-BROMOFLUOROBENZE	25.0	24.4	24.8	97.6	99.2	85-114		

Comments: \_\_\_\_\_

Primary	SPK	DUP
Quant Method :	LGAS915.M	LGAS915.M
Extraction Date :	10/24/18	10/24/18
Analysis Date :	10/24/18	10/24/18
Instrument :	Loki	Loki
Run :	1024L08	1024L09
Initials :	SV	

# Matrix Spike Recoveries

## EPA 8260B GRO WATER

APPL ID: 181024W-81584 MS - 234567  
 Batch ID: #GRO86-181024AL  
 Sample ID: AZ81584  
 Client ID: ERH678

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
GASOLINE RANGE ORGANICS	300	ND	280	277	93.3	92.3	78-122	1.1	20
SURROGATE: 4-BROMOFLUOROBENZE	25.0	NA	25.7	24.2	103	96.8	85-114		

Comments: \_\_\_\_\_  
 \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	LGAS915.M	LGAS915.M
Extraction Date :	10/24/18	10/24/18
Analysis Date :	10/24/18	10/24/18
Instrument :	Loki	Loki
Run :	1024L26	1024L27
Initials :	SV	

Printed: 10/25/18 11:44:00 AM  
 APPL MSD SCII

# RSK 175

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Rocky

Blank ID: 181029A-BLK

Time Analyzed: 1134

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181029A-LCS	Lab Control Spike	18102910	10/29/18 1129
181029A-LCSD	Lab Control SpikeD	18102911	10/29/18 1132
181029A-BLK	Blank	18102912	10/29/18 1134
AZ81583	ERH677	18102914	10/29/18 1211
AZ81584	ERH678	18102915	10/29/18 1213
AZ81586	ERH703	18102916	10/29/18 1215
AZ81587	ERH704	18102917	10/29/18 1218

Comments: Batch: #RSKME-181029A

Printed: 10/30/18 10:57:53 AM  
Form 4, Blank Summary

Method Blank  
METHANE

Blank Name/QCG: 181029W-81583 - 234668  
Batch ID: #RSKME-181029A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102912  
Instrument: Rocky  
Sequence: 181029  
Initials: CMO

GC SC-Blank-REG MDLs-DOD  
Printed: 10/30/18 10:58:04 AM



# RSK 175

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Rocky

LCS ID: 181029A-LCS

Time Analyzed: 1129

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181029A-LCS	Lab Control Spike	18102910	10/29/18 1129
181029A-LCSD	Lab Control Spiked	18102911	10/29/18 1132
181029A-BLK	Blank	18102912	10/29/18 1134
AZ81583	ERH677	18102914	10/29/18 1211
AZ81584	ERH678	18102915	10/29/18 1213
AZ81586	ERH703	18102916	10/29/18 1215
AZ81587	ERH704	18102917	10/29/18 1218

Comments: Batch: #RSKME-181029A

Printed: 10/30/18 10:57:50 AM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## METHANE

APPL ID: 181029W-81583 LCS - 234668

Batch ID: #RSKME-181029A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
METHANE	83.4	73.5	97.4	88.1	117	72-125	28.0	30

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	RSK1029.M	RSK1029.M
Extraction Date :	10/29/18	10/29/18
Analysis Date :	10/29/18	10/29/18
Instrument :	Rocky	Rocky
Run :	18102910	18102911
Initials :	CMO	

# EPA 300.0

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/23/18

Matrix: WATER

Instrument: Charlie

Blank ID: 181023A1-BLK

Time Analyzed: 1701

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181023A1-BLK	Blank	13	10/23/18 1701
181023A1-LCS	Lab Control Spike	14	10/23/18 1708
181023A1-LCSD	Lab Control SpikeD	15	10/23/18 1714
AZ81584	ERH678	16	10/23/18 1720
AZ81587	ERH704	17	10/23/18 1727
AZ81584	ERH678	18	10/23/18 1733
AZ81587	ERH704	19	10/23/18 1740

Comments: Batch: #300W-181023A1

Printed: 11/09/18 8:21:30 AM  
Form 4, Blank Summary

# WETLAB BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	10/23/18	10/23/18	#300W-181023A1-AZ81584
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	10/23/18	10/23/18	#300W-181023A1-AZ81584
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	10/23/18	10/23/18	#300W-181023A1-AZ81584

Wetlab SC-Blank-REG MDLs  
Printed: 11/09/18 8:21:34 AM

# EPA 353.2

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: EVE

Blank ID: A181030-BLK

Time Analyzed: 1441

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
A181030-BLK	Blank	12	10/30/18 1441
A181030-LCS	Lab Control Spike	13	10/30/18 1443
A181030-LCSD	Lab Control SpikeD	14	10/30/18 1445
AZ81584	ERH678	15	10/30/18 1448
AZ81587	ERH704	18	10/30/18 1455

Comments: Batch: #35OF-A181030

Printed: 11/09/18 8:21:30 AM  
Form 4, Blank Summary

# WETLAB BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 353.2	NITRATE-NITRITE-N	0.100 U	0.10	0.100	0.028	mg/L	10/30/18	10/30/18	#35OF-A181030-AZ81584

Wetlab SC-Blank-REG MDLs  
Printed: 11/09/18 8:21:34 AM

# SM 2320B

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Tiamo

Blank ID: 181029A1-BLK

Time Analyzed: 1329

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181029A1-LCS	Lab Control Spike	1	10/29/18 1032
181029A1-LCSD	Lab Control SpikeD	2	10/29/18 1042
181029A1-BLK	Blank	22	10/29/18 1329
AZ81584	ERH678	4	10/29/18 1107
AZ81587	ERH704	8	10/29/18 1142

Comments: Batch: #232W-181029A1

Printed: 11/09/18 8:21:30 AM  
Form 4, Blank Summary

# WETLAB BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SM 2320B	BICARBONATE AS CA	2.2	2.0	1.70	0.85	mg/L	10/29/18	10/29/18	#232W-181029A1-AZ81584
SM 2320B	CARBONATE AS CACO	1.70 U	2.0	1.70	0.85	mg/L	10/29/18	10/29/18	#232W-181029A1-AZ81584
SM 2320B	TOTAL ALKALINITY AS	2.2	2.0	1.70	0.85	mg/L	10/29/18	10/29/18	#232W-181029A1-AZ81584

Wetlab SC-Blank-REG MDLs  
Printed: 11/09/18 8:21:34 AM



# SM3500FeB

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/23/18

Matrix: WATER

Instrument: Manual Spec

Blank ID: 180926A1-BLK

Time Analyzed: 1134

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
180926A1-BLK	Blank	10	10/23/18 1134
180926A1-LCS	Lab Control Spike	11	10/23/18 1134
180926A1-LCSD	Lab Control SpikeD	12	10/23/18 1136
AZ81584	ERH678	13	10/23/18 1137
AZ81587	ERH704	14	10/23/18 1137

Comments: Batch: #35FE-180926A1

Printed: 11/09/18 8:21:30 AM  
Form 4, Blank Summary

# WETLAB BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SM3500Fe	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	10/23/18	10/23/18	#35FE-180926A1-AZ81584

# EPA 300.0

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/23/18

Matrix: WATER

Instrument: Charlie

LCS ID: 181023A1-LCS

Time Analyzed: 1708

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181023A1-BLK	Blank	13	10/23/18 1701
181023A1-LCS	Lab Control Spike	14	10/23/18 1708
181023A1-LCSD	Lab Control SpikeD	15	10/23/18 1714
AZ81584	ERH678	16	10/23/18 1720
AZ81587	ERH704	17	10/23/18 1727
AZ81584	ERH678	18	10/23/18 1733
AZ81587	ERH704	19	10/23/18 1740

Comments: Batch: #300W-181023A1

Printed: 11/09/18 8:21:39 AM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 300.0	CHLORIDE	20	18.3	18.3	91.5	91.5	0.0	20	90-110	10/23/18	10/23/18	10/23/18	10/23/18	#300W-181023A1-AZ8158
EPA 300.0	NITRATE	22.1	21.7	21.8	98.2	98.6	0.46	20	90-110	10/23/18	10/23/18	10/23/18	10/23/18	#300W-181023A1-AZ8158
EPA 300.0	SULFATE	20.0	18.6	18.6	93.0	93.0	0.0	20	90-110	10/23/18	10/23/18	10/23/18	10/23/18	#300W-181023A1-AZ8158

Comments:

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# EPA 353.2

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: EVE

LCS ID: A181030-LCS

Time Analyzed: 1443

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
A181030-BLK	Blank	12	10/30/18 1441
A181030-LCS	Lab Control Spike	13	10/30/18 1443
A181030-LCSD	Lab Control SpikeD	14	10/30/18 1445
AZ81584	ERH678	15	10/30/18 1448
AZ81587	ERH704	18	10/30/18 1455

Comments: Batch: #35OF-A181030

Printed: 11/09/18 8:21:39 AM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 353.2	NITRATE-NITRITE-N	3.00	2.98	2.96	99.3	98.7	0.67	20	90-110	10/30/18	10/30/18	10/30/18	10/30/18	#35OF-A181030-AZ81584

Comments: \_\_\_\_\_

# SM 2320B

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Tiamo

LCS ID: 181029A1-LCS

Time Analyzed: 1032

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181029A1-LCS	Lab Control Spike	1	10/29/18 1032
181029A1-LCSD	Lab Control SpikeD	2	10/29/18 1042
181029A1-BLK	Blank	22	10/29/18 1329
AZ81584	ERH678	4	10/29/18 1107
AZ81587	ERH704	8	10/29/18 1142

Comments: Batch: #232W-181029A1

Printed: 11/09/18 8:21:39 AM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
SM 2320B	BICARBONATE AS CaCO3	250	235	232	94.0	92.8	1.3	20	90-110	10/29/18	10/29/18	10/29/18	10/29/18	#232W-181029A1-AZ8158
SM 2320B	TOTAL ALKALINITY AS CA	250	235	232	94.0	92.8	1.3	20	90-110	10/29/18	10/29/18	10/29/18	10/29/18	#232W-181029A1-AZ8158

Comments:

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# SM3500FeB

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/23/18

Matrix: WATER

Instrument: Manual Spec

LCS ID: 180926A1-LCS

Time Analyzed: 1134

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
180926A1-BLK	Blank	10	10/23/18 1134
180926A1-LCS	Lab Control Spike	11	10/23/18 1134
180926A1-LCSD	Lab Control SpikeD	12	10/23/18 1136
AZ81584	ERH678	13	10/23/18 1137
AZ81587	ERH704	14	10/23/18 1137

Comments: Batch: #35FE-180926A1

Printed: 11/09/18 8:21:39 AM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
SM3500Fe	FERROUS IRON	3.00	3.27	3.15	109	105	3.7	20	80-120	10/23/18	10/23/18	10/23/18	10/23/18	#35FE-180926A1-AZ81584

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**ORGANICS  
Calibration Data**

**APPL, INC.**

TPH Extractables  
DOC0905

Form 6  
Initial Calibration

Lab Name: APPL, Inc. \_\_\_\_\_

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Initial Cal. Date: 09/05/18 \_\_\_\_\_

Matrix: \_\_\_\_\_

Instrument: Apollo \_\_\_\_\_

Initials: \_\_\_\_\_

Diesel: 905003.D 905004.D 905005.D 905006.D 905007.D 905008.D  
 Motor Oil: 905010.D 905011.D 905012.D 905013.D 905014.D 905015.D  
 Decanoic Acid: 814017.D 814018.D 814019.D 814020.D 814021.D 814022.D

	Compound	1	2	3	4	5	6					Avg	%RSD	Type	r <sup>2</sup>	Q
1	HATM Diesel (C10-C24)	1977954	1585759	1547772	1602850	1558536	1558715					1638598	10	HATM		
2	HBTM Motor Oil (C24-C40)	1632679	1442329	1281707	1335557	1305155	1329878					1387884	9.5	HBTM		
3	SC Decanoic Acid(S)	648675	1095549	1090928	1053315	1004335	1065935					993123	17	SC		
4	SA Ortho-Terphenyl(S)	2367841	1987512	1916740	1891892	1734307	1719637					1936322	12	SA		
5	SA Octacosane(S)	1652614	1674318	1605080	1646548	1560961	1550101					1614937	3.2	SA		
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1.497611

Data File : G:\APOLLO\DATA\180905\905003.D Vial: 3  
 Acq On : 9-5-18 13:32:12 Operator: DP  
 Sample : Diesel - 1 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

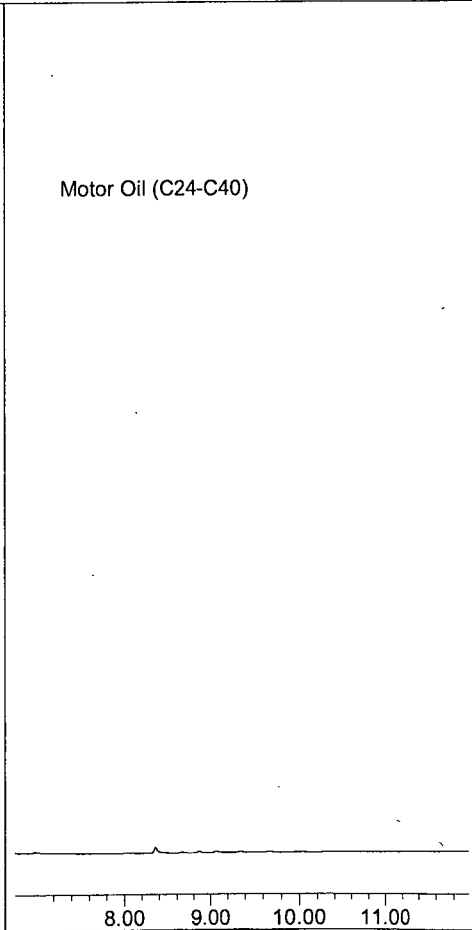
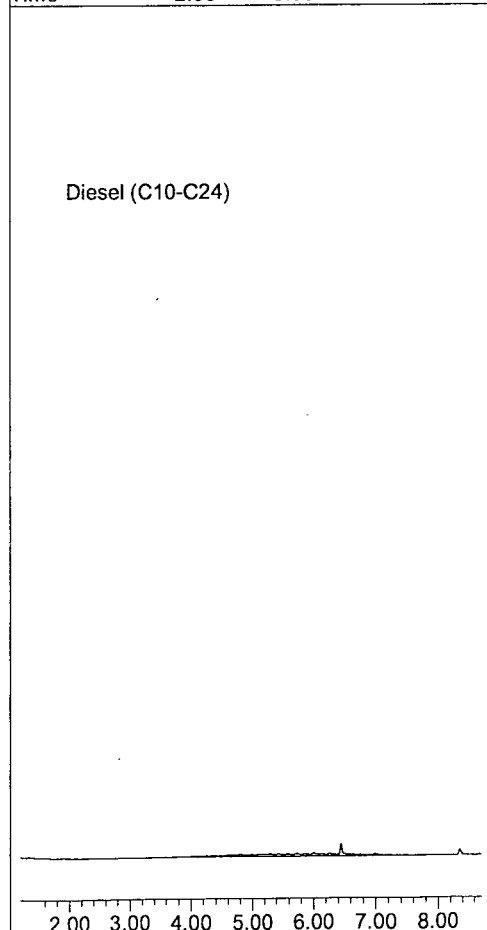
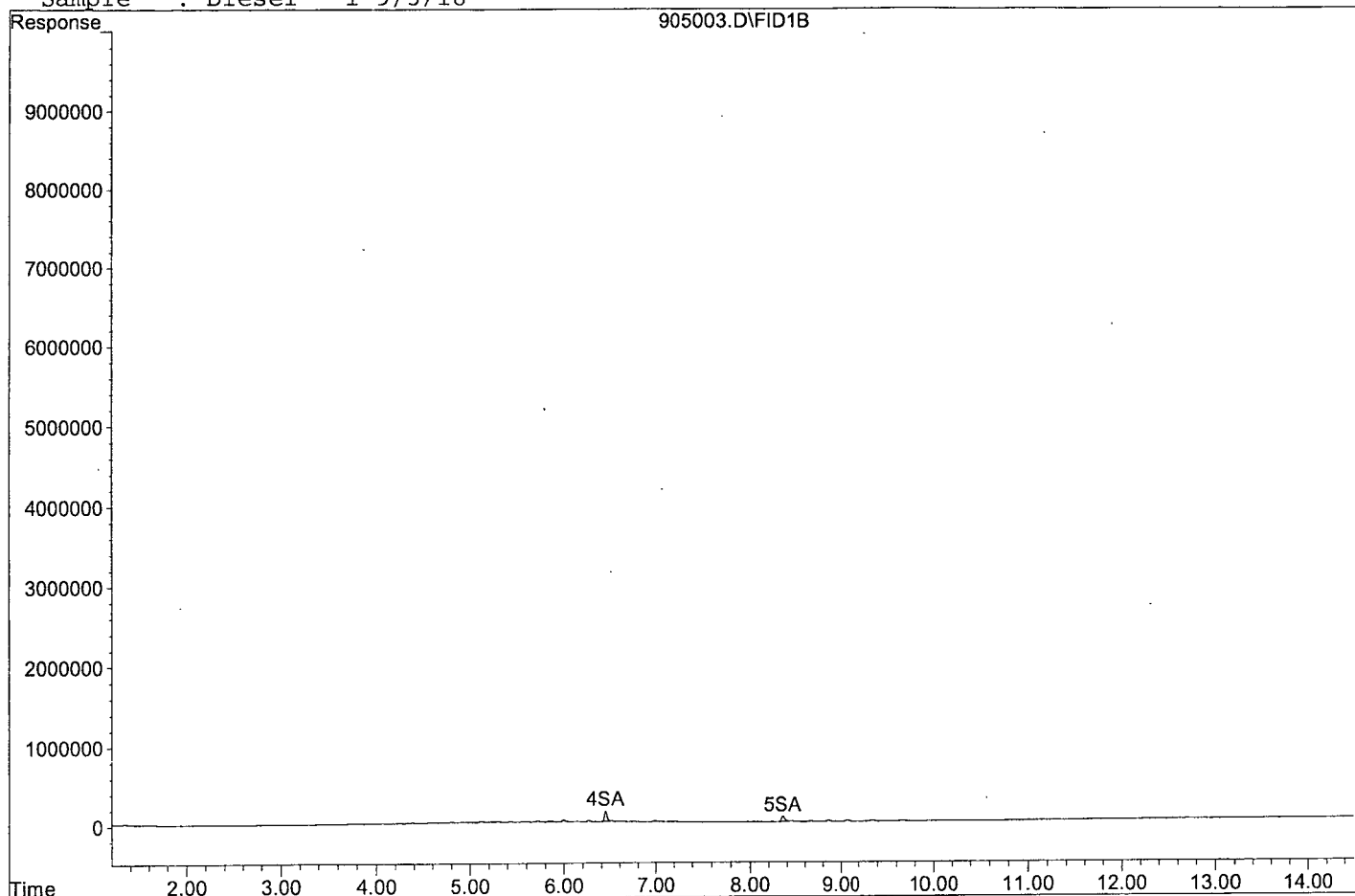
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	2367841	0.611 ppb
Surrogate Spike 30.000		Recovery =	2.04%
5) SA Octacosane(S)	8.35	1652614	0.512 ppb
Surrogate Spike 30.000		Recovery =	1.71%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	39559086	12.071 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905003.D

Sample : Diesel - 1 9/5/18



Data File : G:\APOLLO\DATA\180905\905004.D Vial: 4  
 Acq On : 9-5-18 13:51:56 Operator: DP  
 Sample : Diesel - 2 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

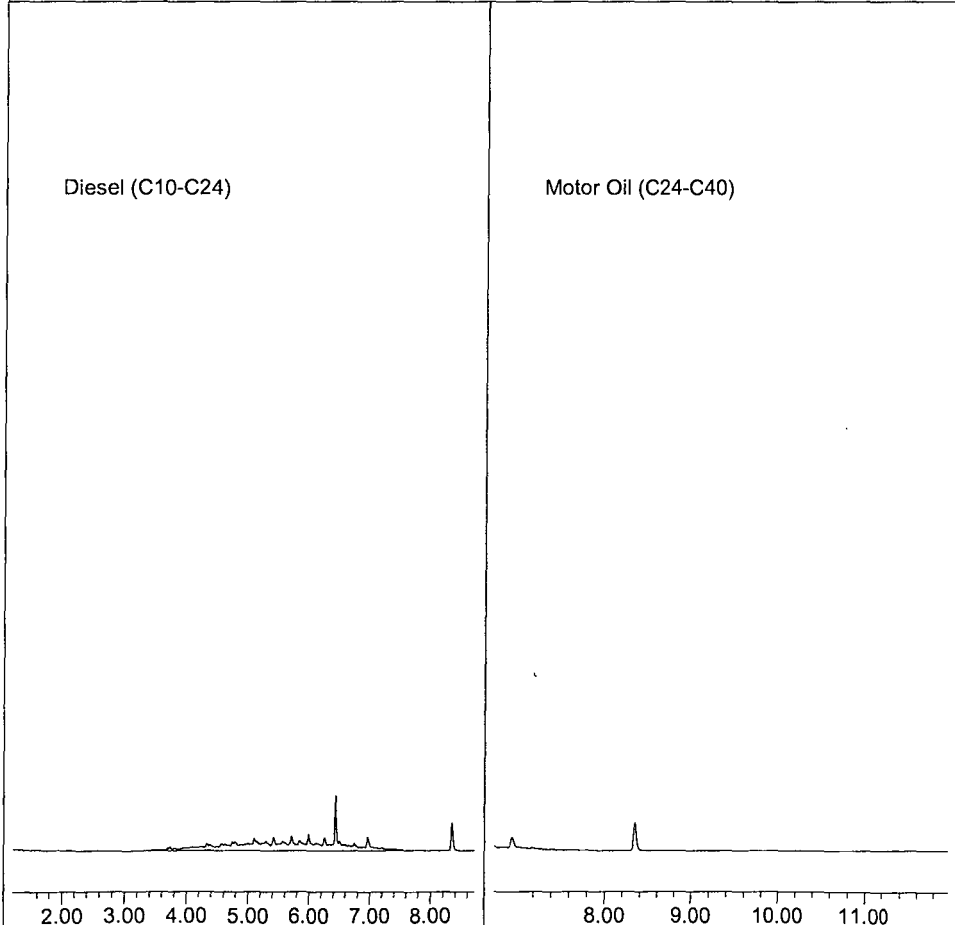
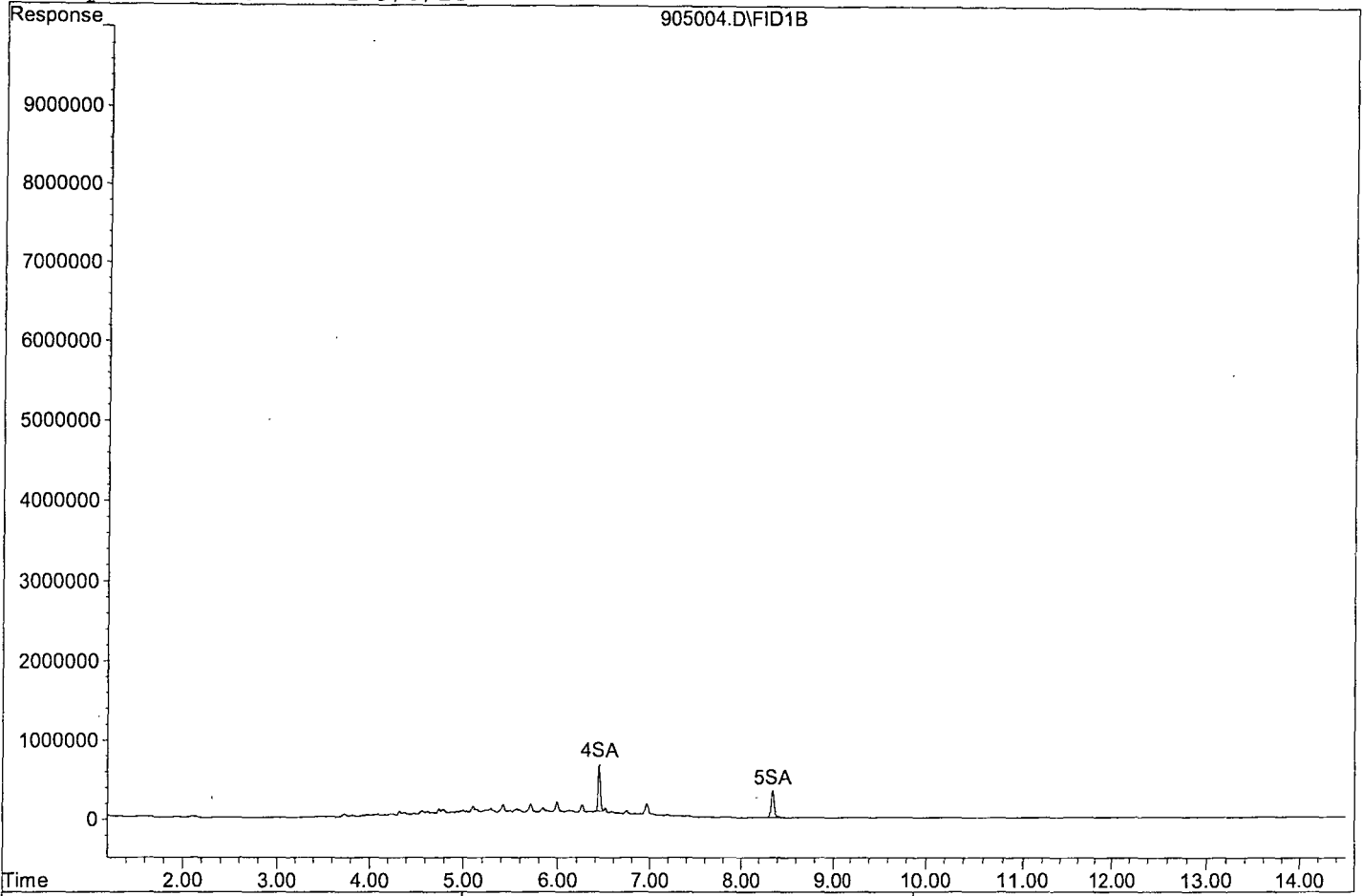
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	9937558	2.566 ppb
Surrogate Spike 30.000		Recovery =	8.55%
5) SA Octacosane(S)	8.35	8371591	2.592 ppb
Surrogate Spike 30.000		Recovery =	8.64%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	158575904	48.388 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905004.D

Sample : Diesel - 2 9/5/18





Data File : G:\APOLLO\DATA\180905\905005.D Vial: 5  
 Acq On : 9-5-18 14:11:55 Operator: DP  
 Sample : Diesel - 3 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

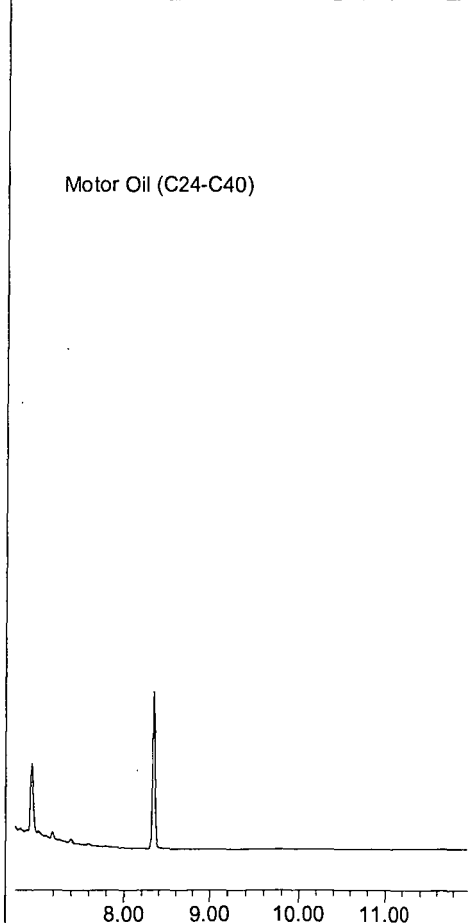
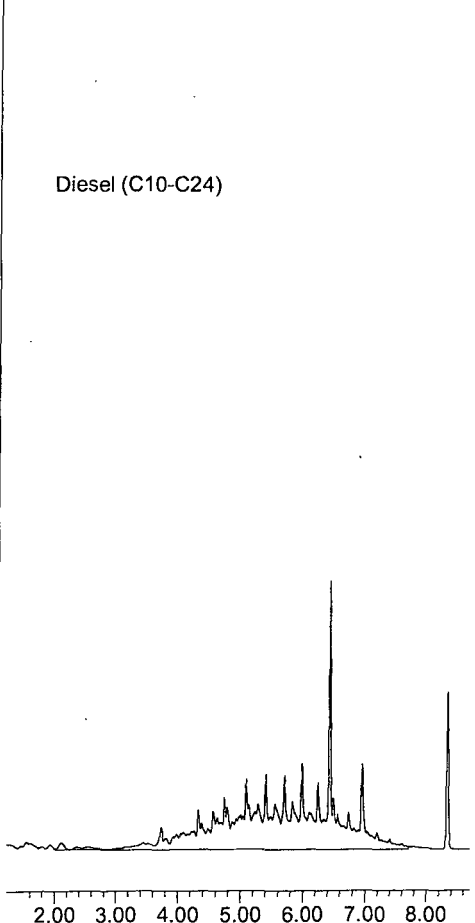
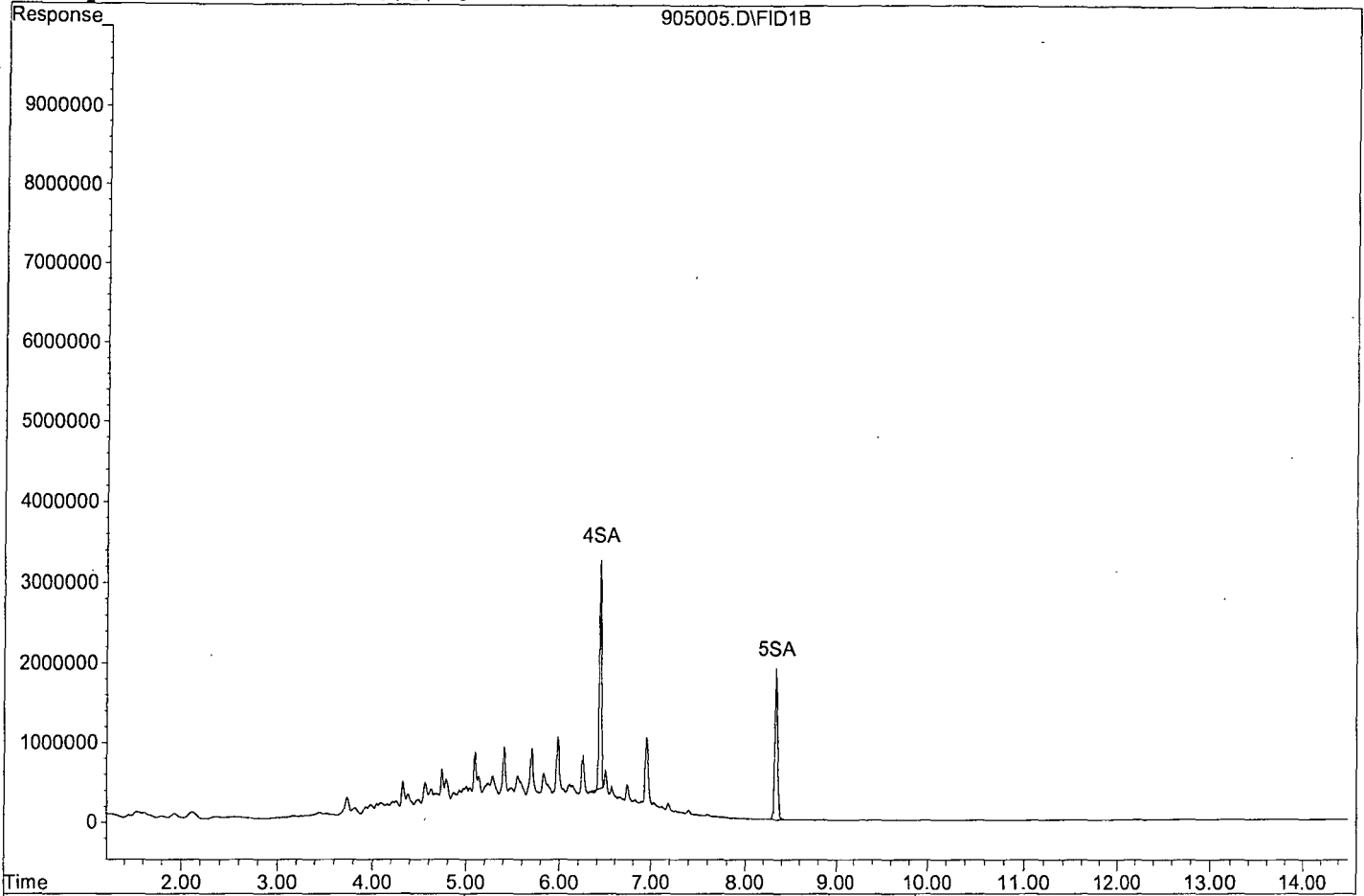
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	47918495	12.374 ppb
Surrogate Spike 30.000		Recovery =	41.25%
5) SA Octacosane(S)	8.34	40127010	12.424 ppb
Surrogate Spike 30.000		Recovery =	41.41%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	773886098	236.143 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905005.D

Sample : Diesel - 3 9/5/18



Data File : G:\APOLLO\DATA\180905\905006.D Vial: 6  
 Acq On : 9-5-18 14:31:55 Operator: DP  
 Sample : Diesel - 4 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

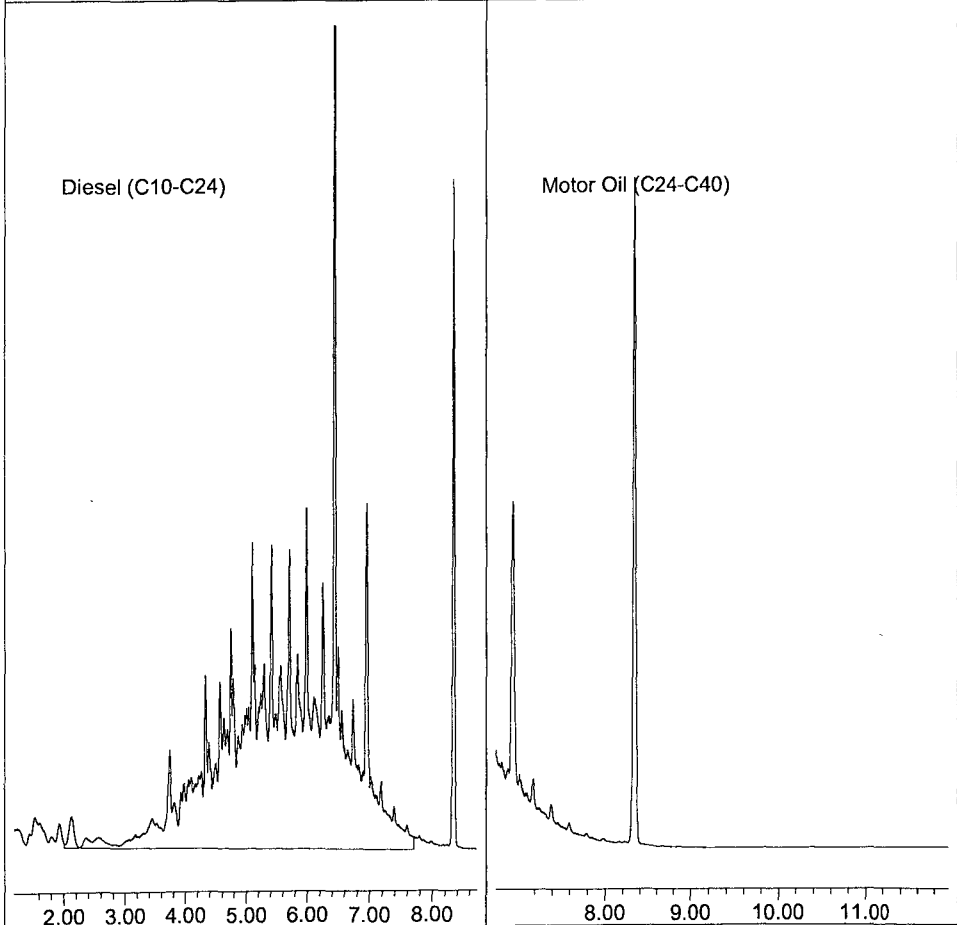
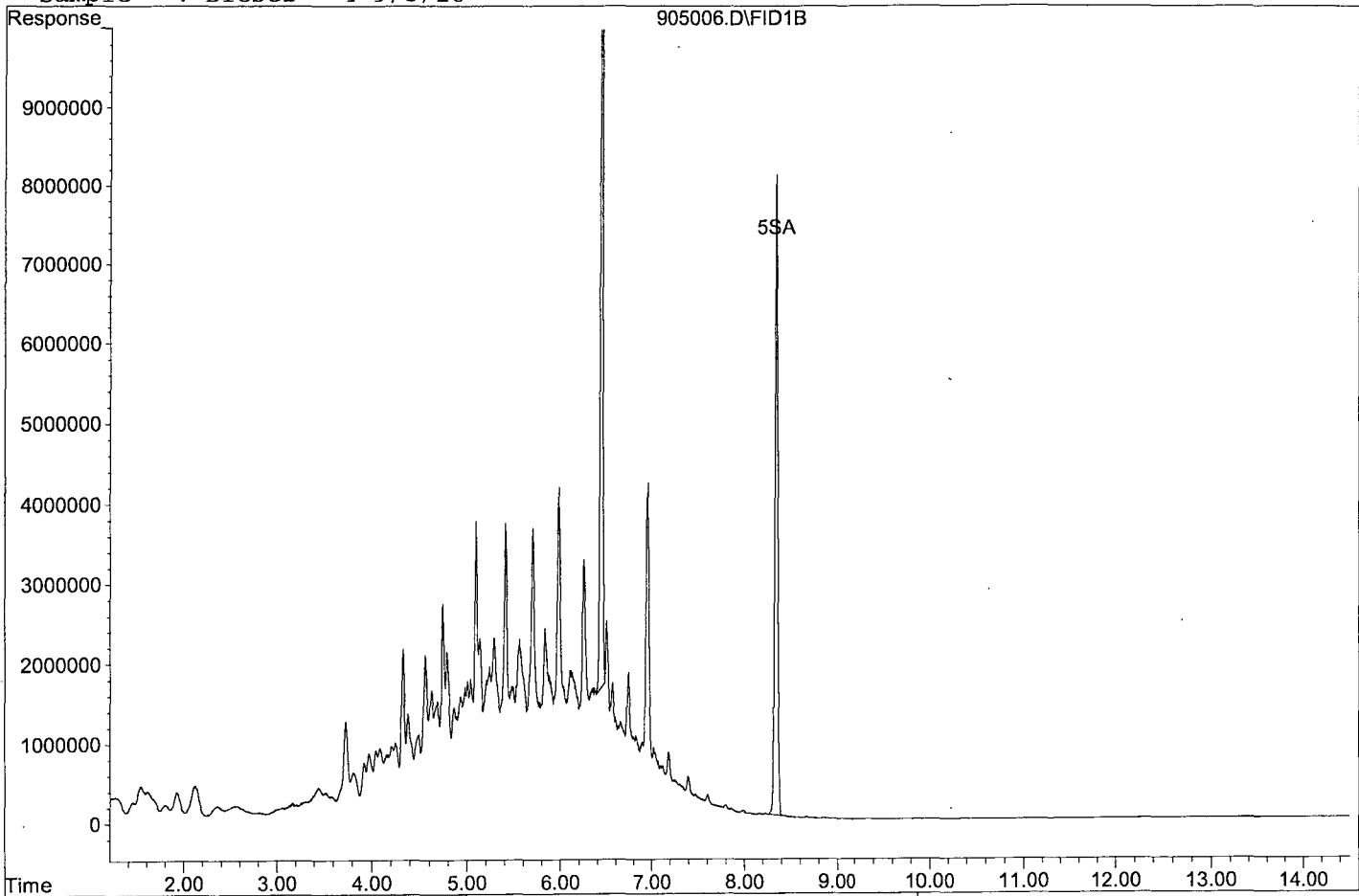
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	189189247	48.853 ppb
Surrogate Spike 30.000		Recovery =	162.84%
5) SA Octacosane(S)	8.34	164654773	50.979 ppb
Surrogate Spike 30.000		Recovery =	169.93%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	3205699857	978.184 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905006.D

Sample : Diesel - 4 9/5/18



Data File : G:\APOLLO\DATA\180905\905007.D Vial: 7  
 Acq On : 9-5-18 14:51:56 Operator: DP  
 Sample : Diesel - 5 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

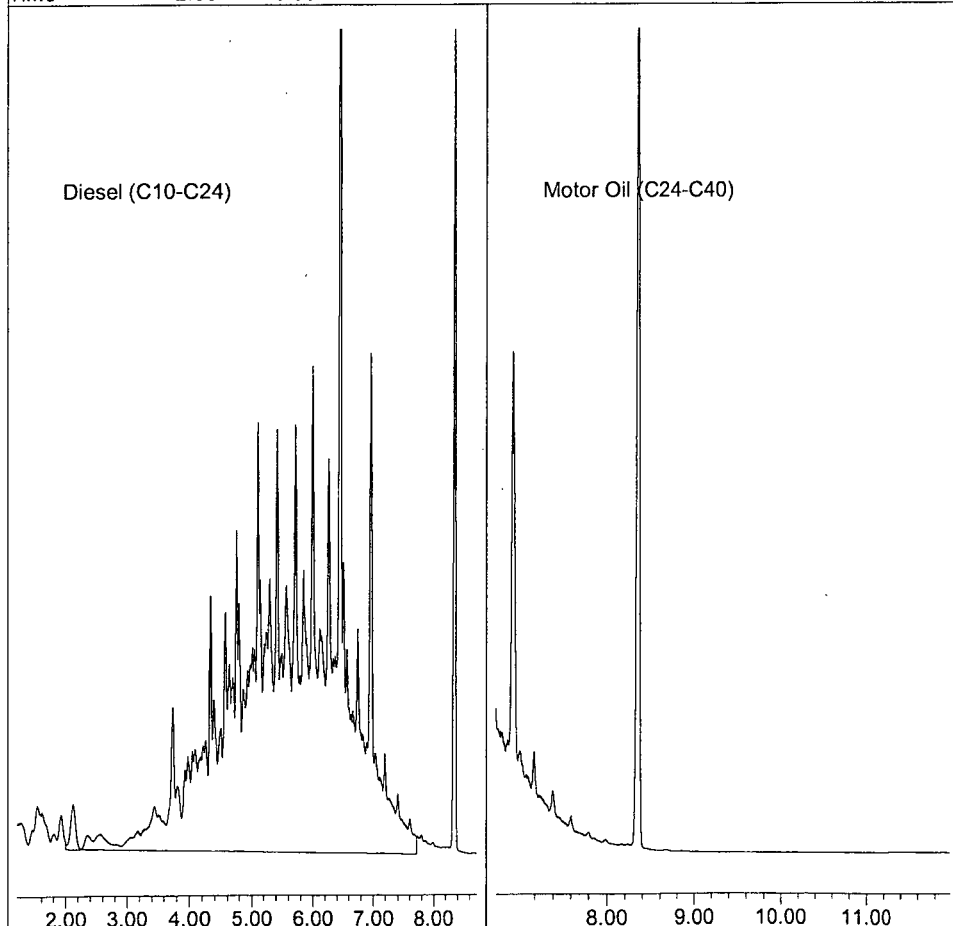
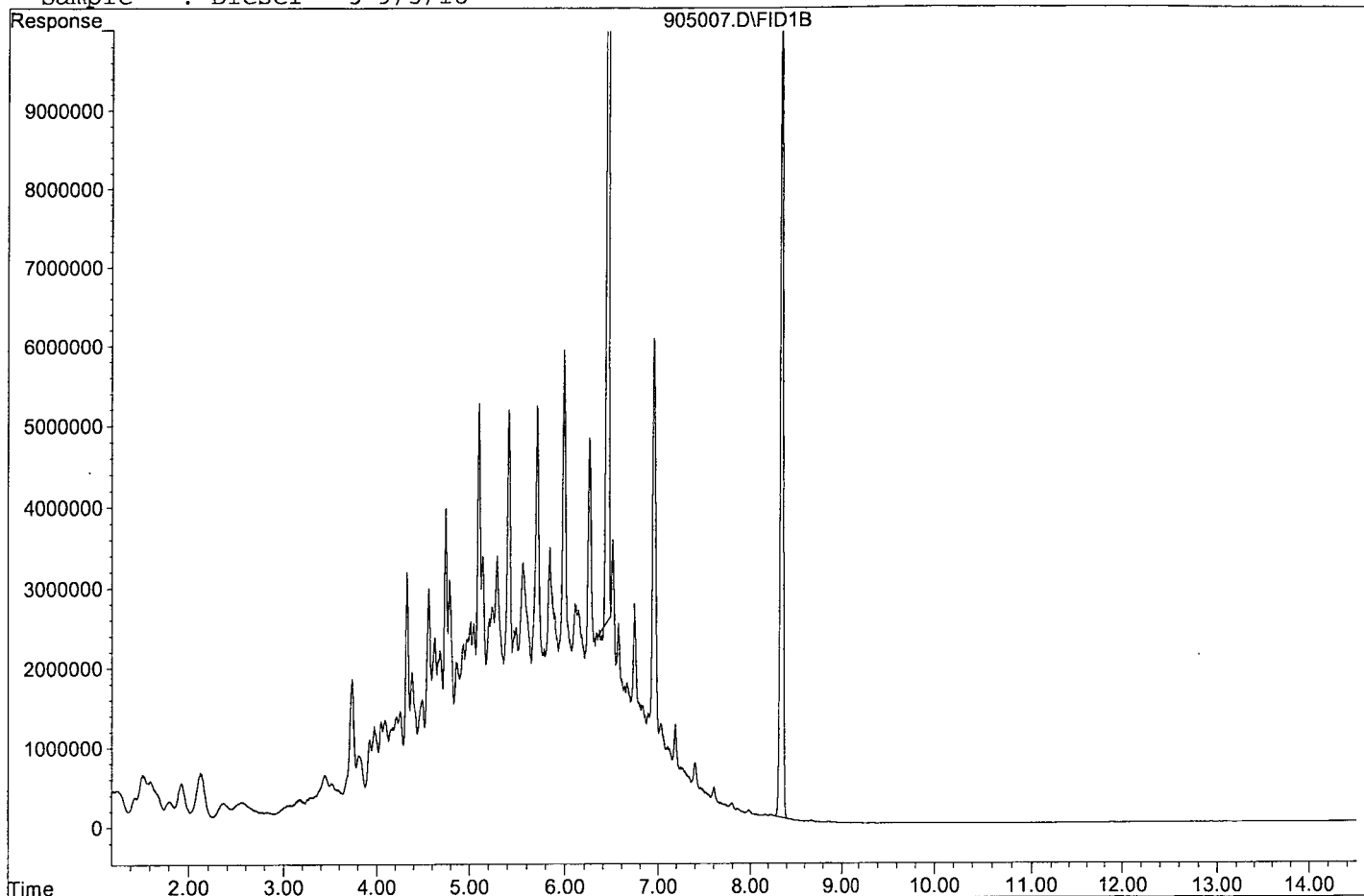
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.45	260146116	67.175 ppb
Surrogate Spike 30.000		Recovery =	223.92%
5) SA Octacosane(S)	8.35	234144102	72.493 ppb
Surrogate Spike 30.000		Recovery =	241.64%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	4675608367	1426.710 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905007.D

Sample : Diesel - 5 9/5/18



Data File : G:\APOLLO\DATA\180905\905008.D Vial: 8  
 Acq On : 9-5-18 15:11:58 Operator: DP  
 Sample : Diesel - 6 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

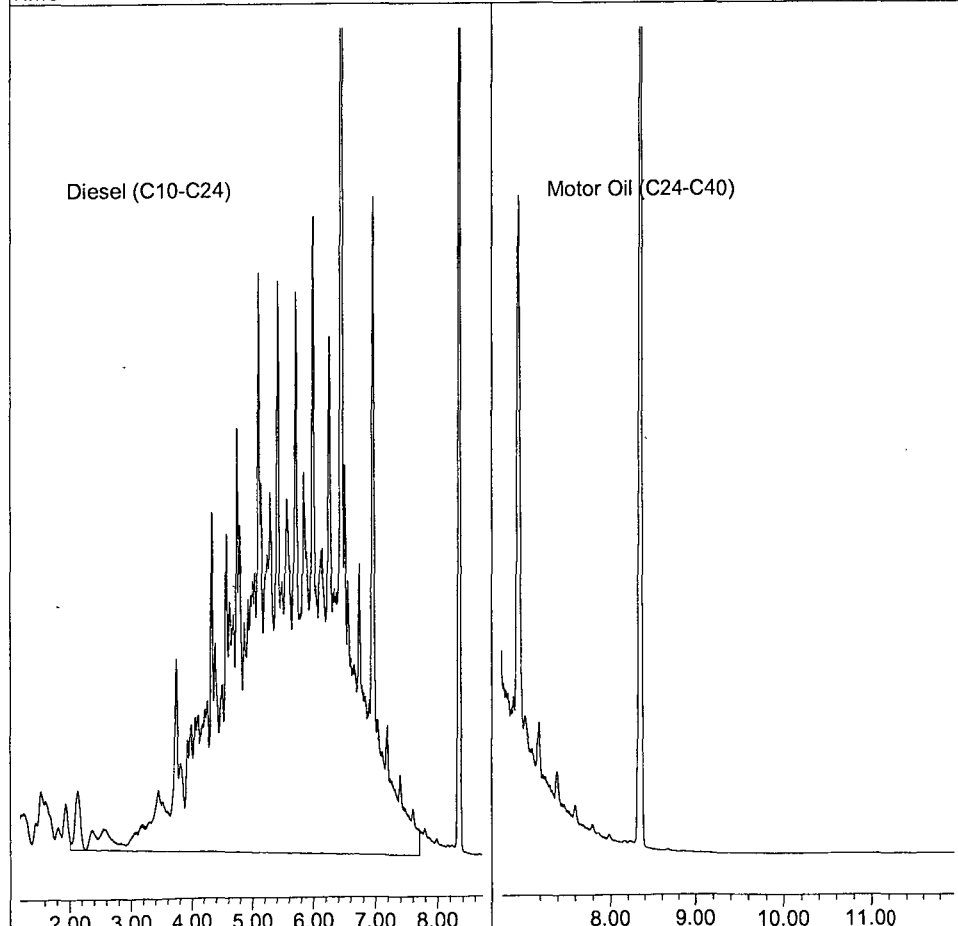
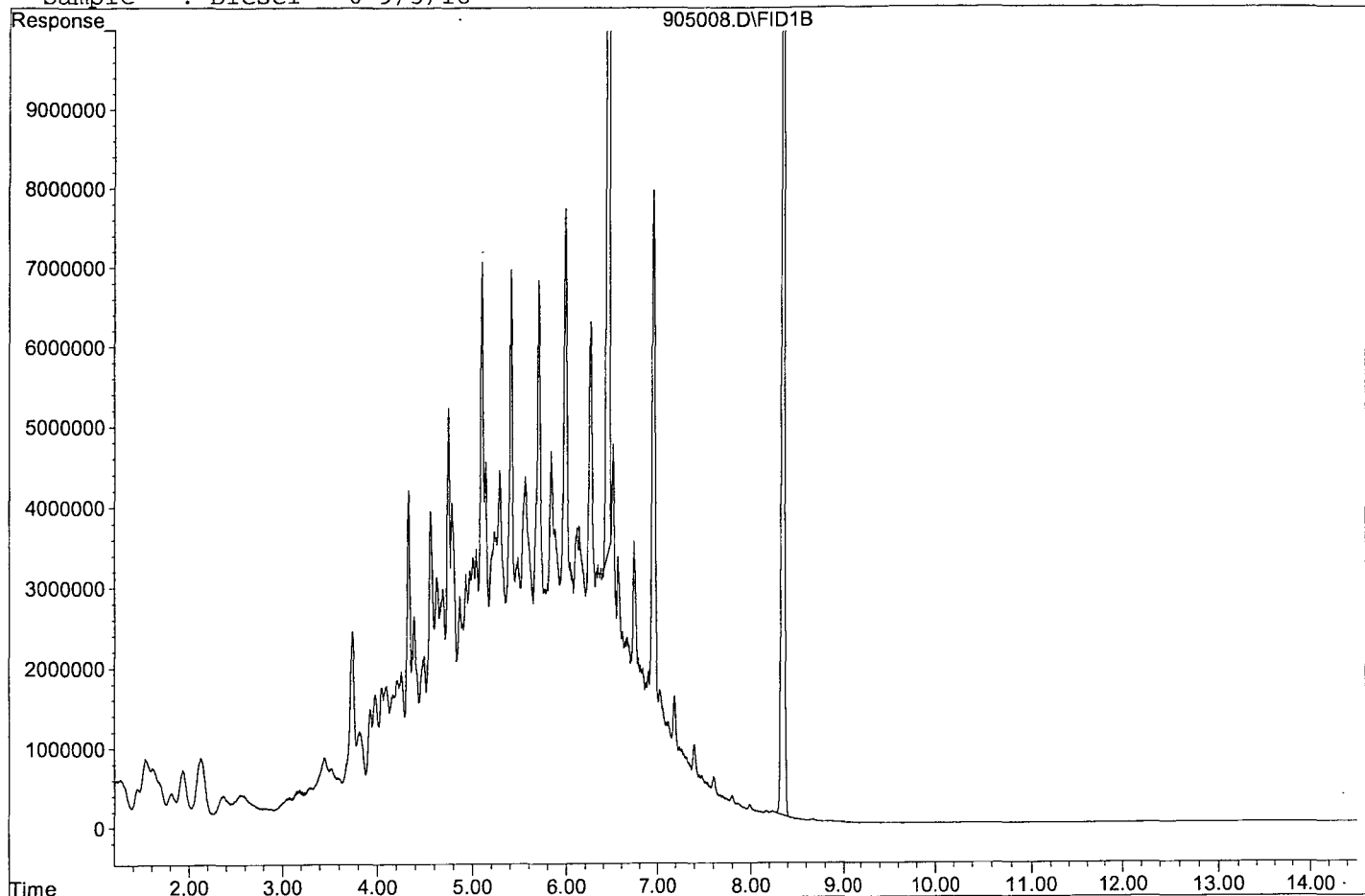
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.45	343927438	88.809 ppb
Surrogate Spike 30.000		Recovery =	296.03%
5) SA Octacosane(S)	8.35	310020200	95.985 ppb
Surrogate Spike 30.000		Recovery =	319.95%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	6234861442	1902.499 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905008.D

Sample : Diesel - 6 9/5/18





Data File : G:\APOLLO\DATA\180905\905010.D Vial: 10  
 Acq On : 9-5-18 15:52:08 Operator: DP  
 Sample : Motor Oil - 1 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

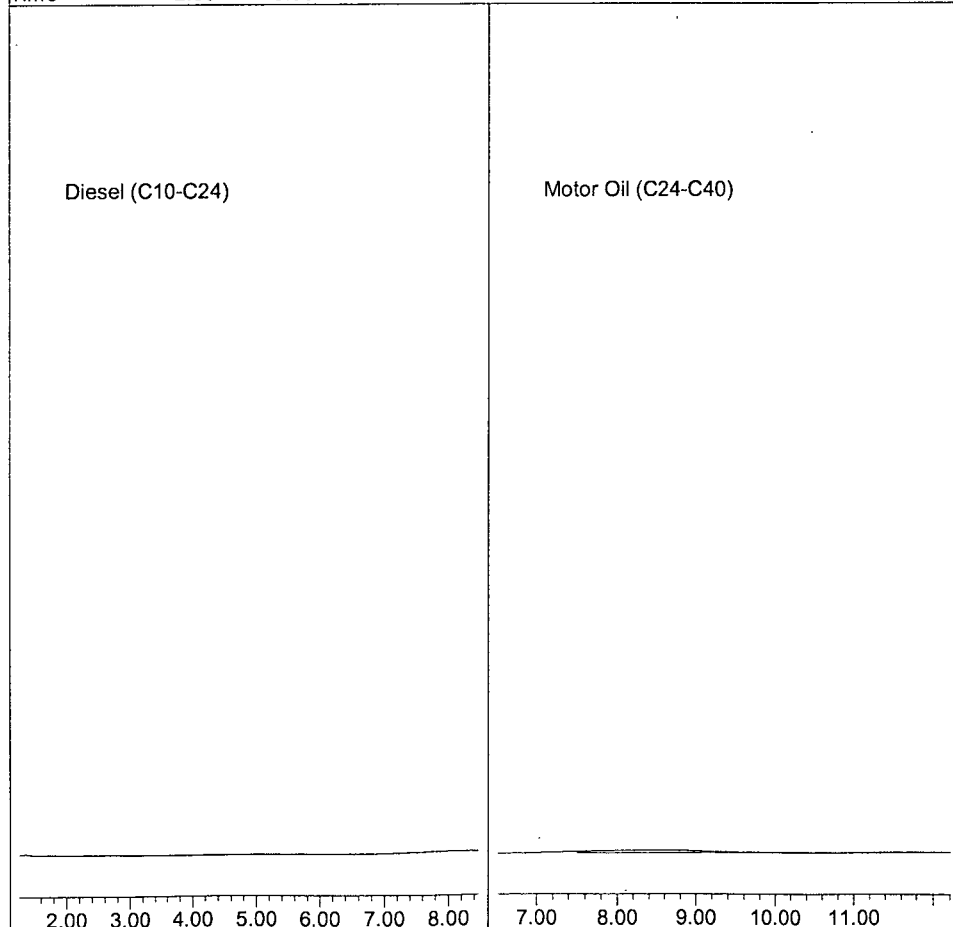
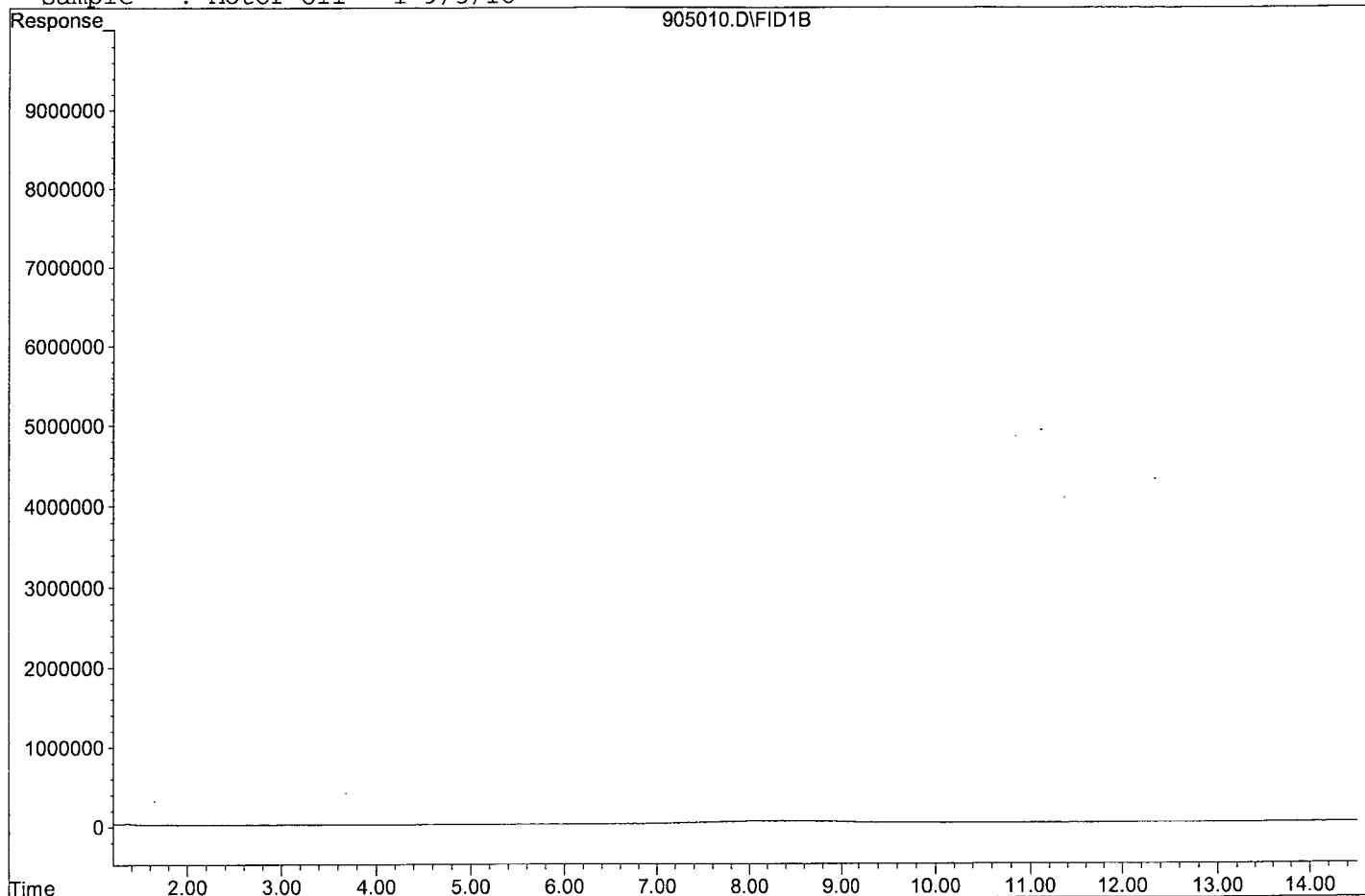
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	32653584	11.764 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905010.D

Sample : Motor Oil - 1 9/5/18



Data File : G:\APOLLO\DATA\180905\905011.D Vial: 11  
 Acq On : 9-5-18 16:12:11 Operator: DP  
 Sample : Motor Oil - 2 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

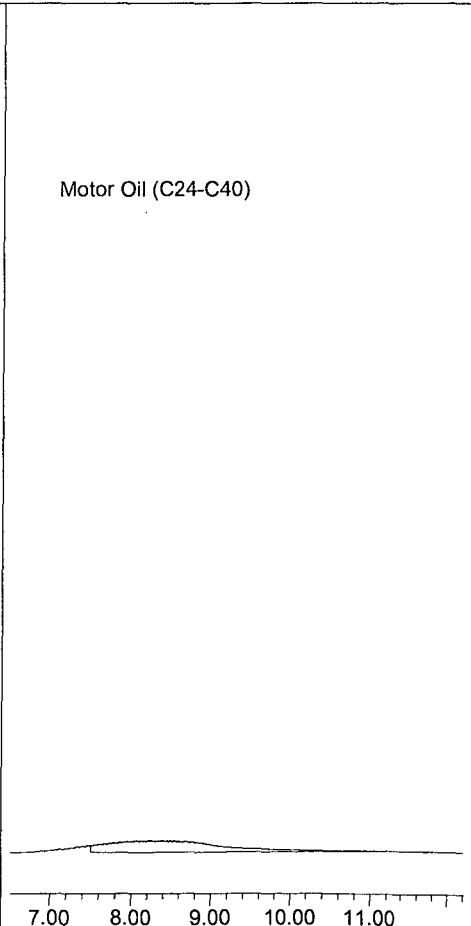
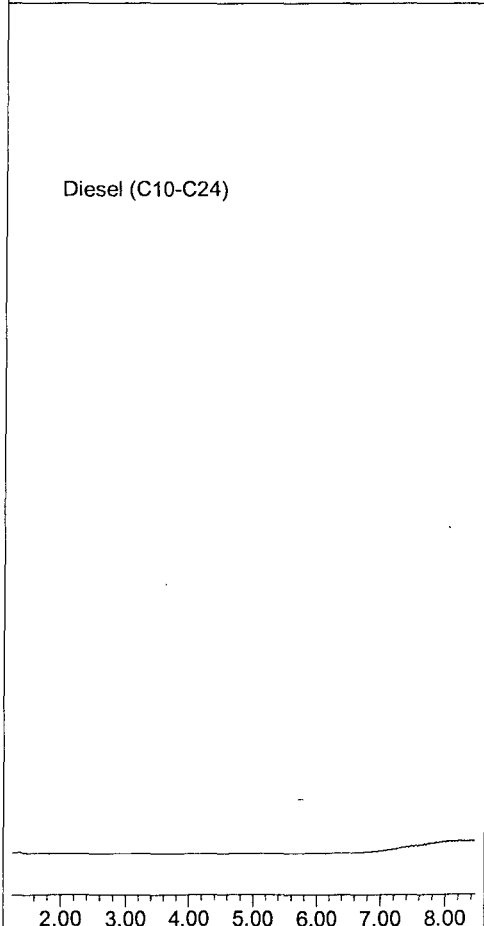
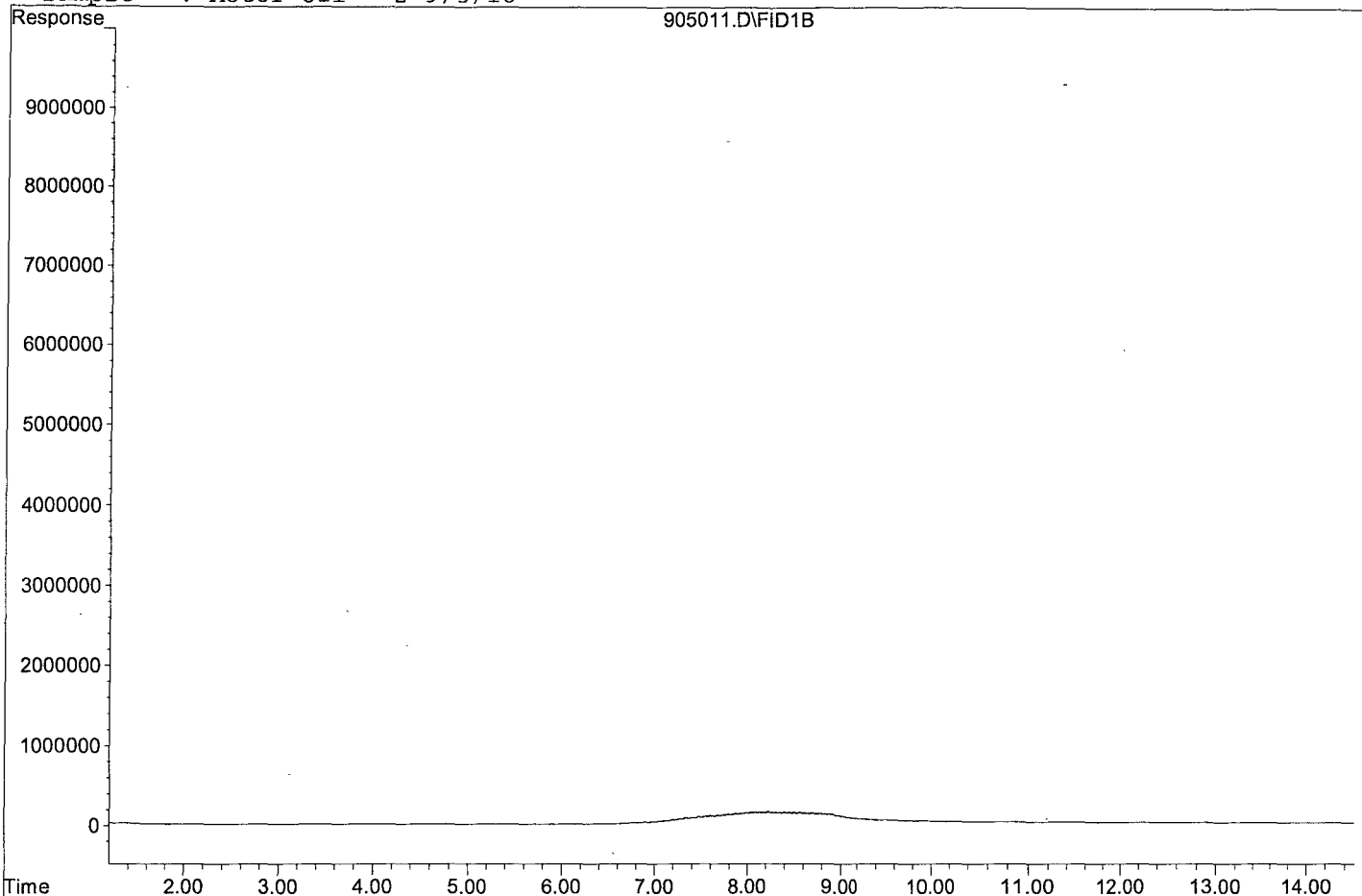
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	144232897	51.961 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905011.D

Sample : Motor Oil - 2 9/5/18



Data File : G:\APOLLO\DATA\180905\905012.D Vial: 12  
 Acq On : 9-5-18 16:32:11 Operator: DP  
 Sample : Motor Oil - 3 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

Target Compounds

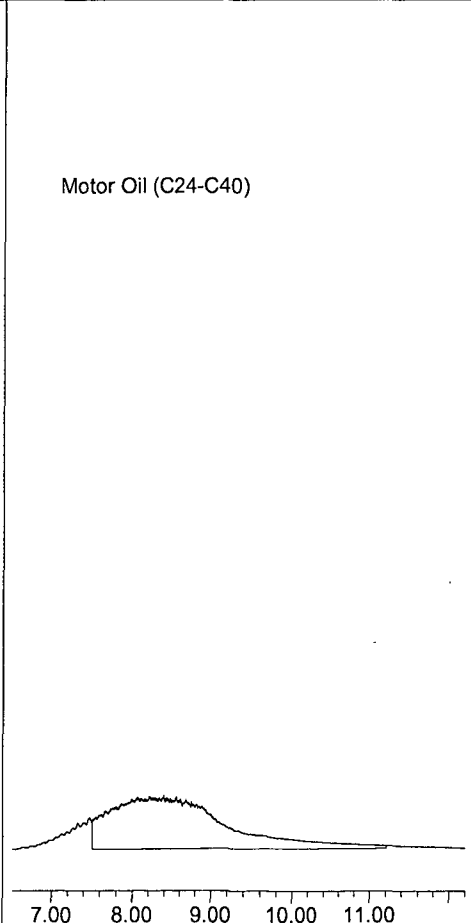
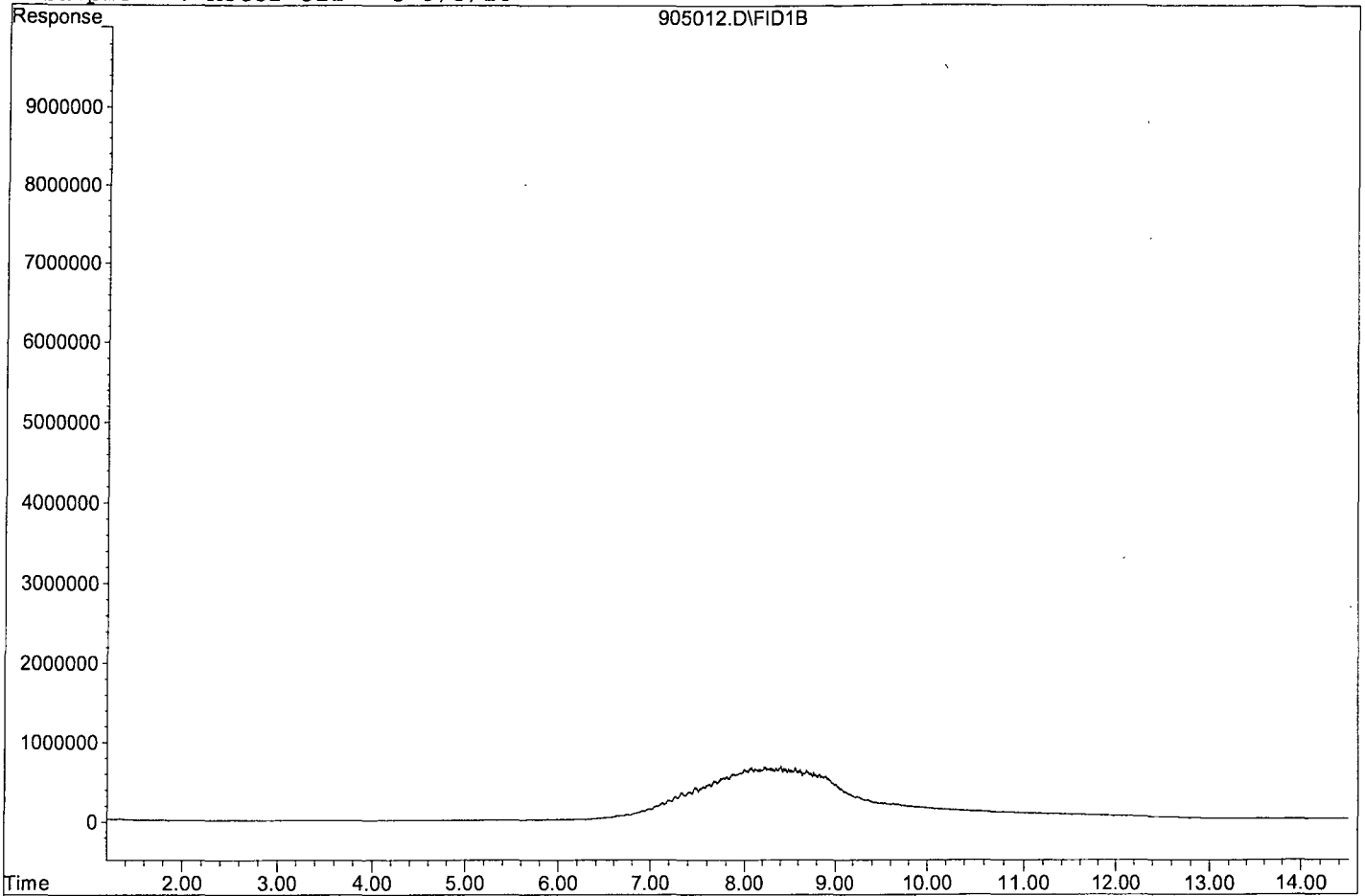
2) HBTM Motor Oil (C24-C40)	9.36	640853647	230.874 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905012.D

Sample : Motor Oil - 3 9/5/18

905012.D\FID1B



Data File : G:\APOLLO\DATA\180905\905013.D Vial: 13  
 Acq On : 9-5-18 16:52:14 Operator: DP  
 Sample : Motor Oil - 4 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

Target Compounds

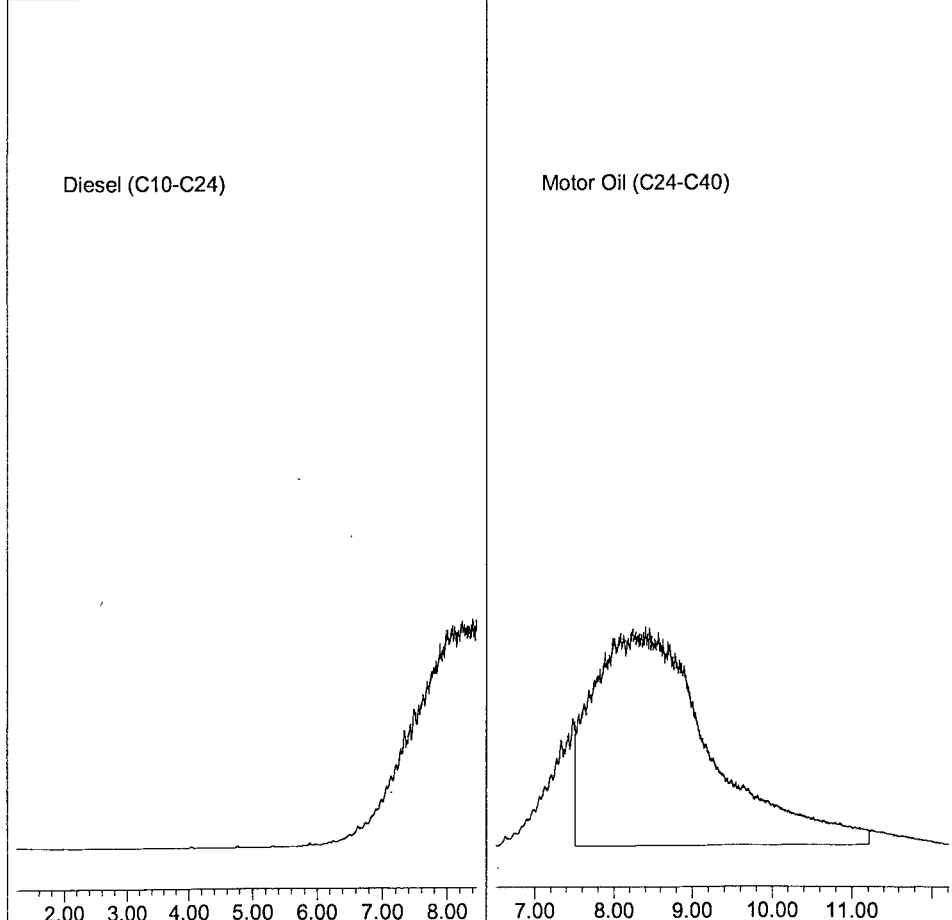
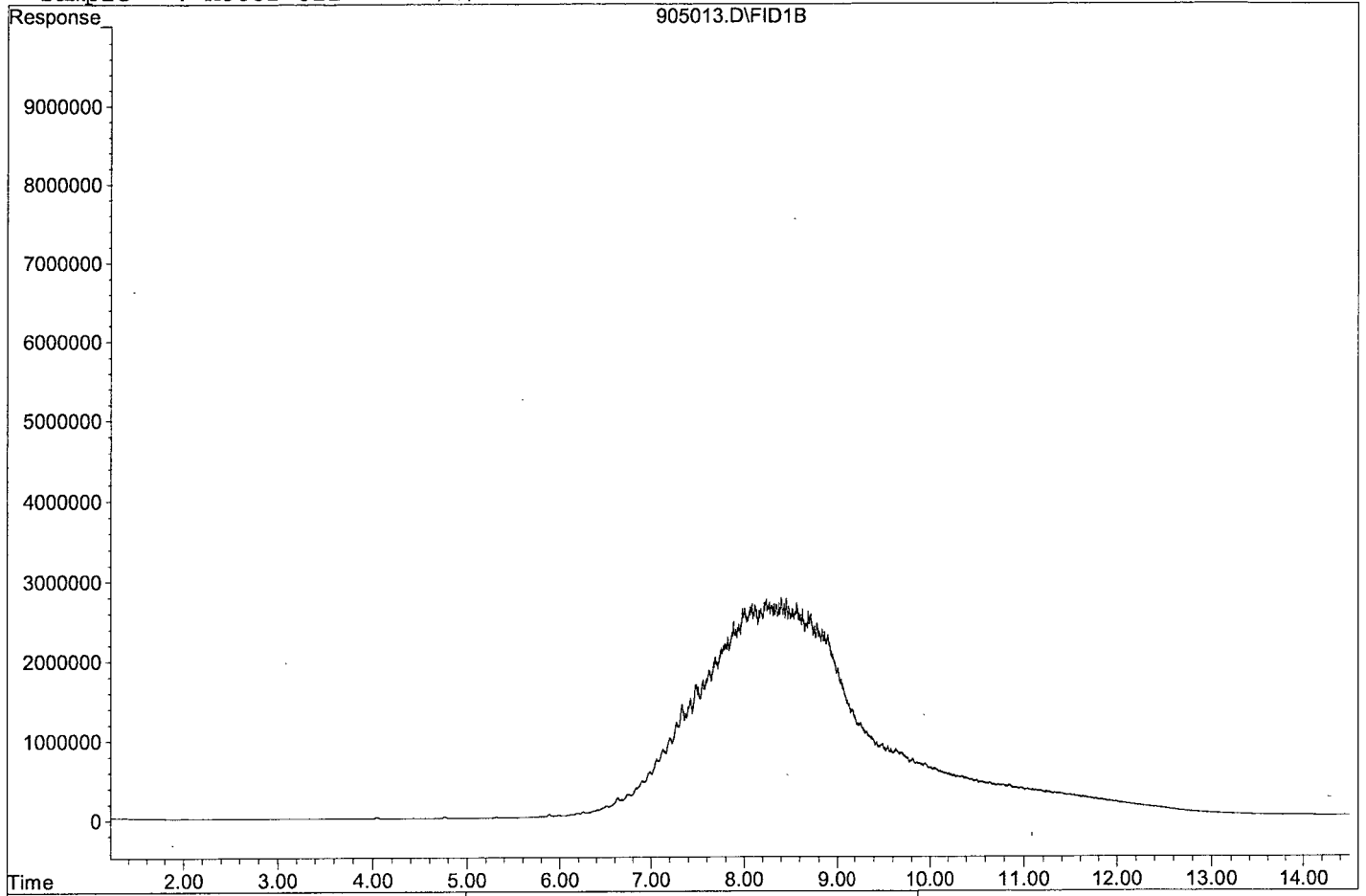
2) HBTM Motor Oil (C24-C40)	9.36	2671114888	962.297 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905013.D

Sample : Motor Oil - 4 9/5/18

905013.D\FID1B





Data File : G:\APOLLO\DATA\180905\905014.D Vial: 14  
 Acq On : 9-5-18 17:12:14 Operator: DP  
 Sample : Motor Oil - 5 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

Target Compounds

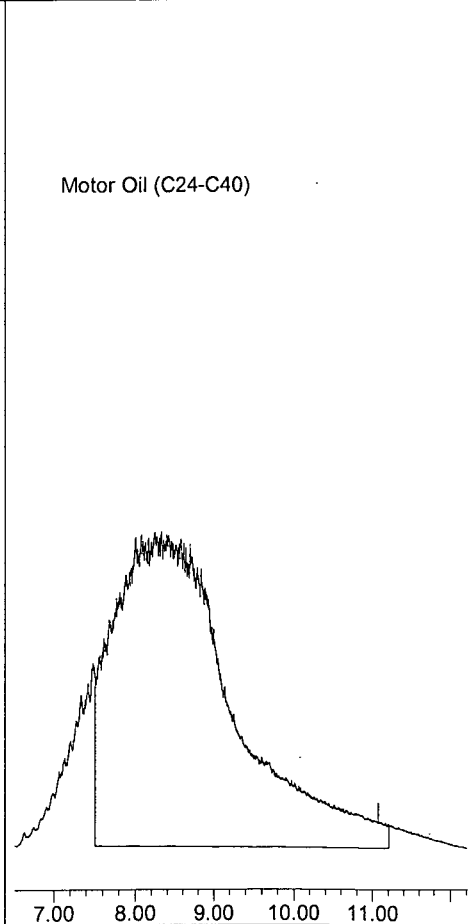
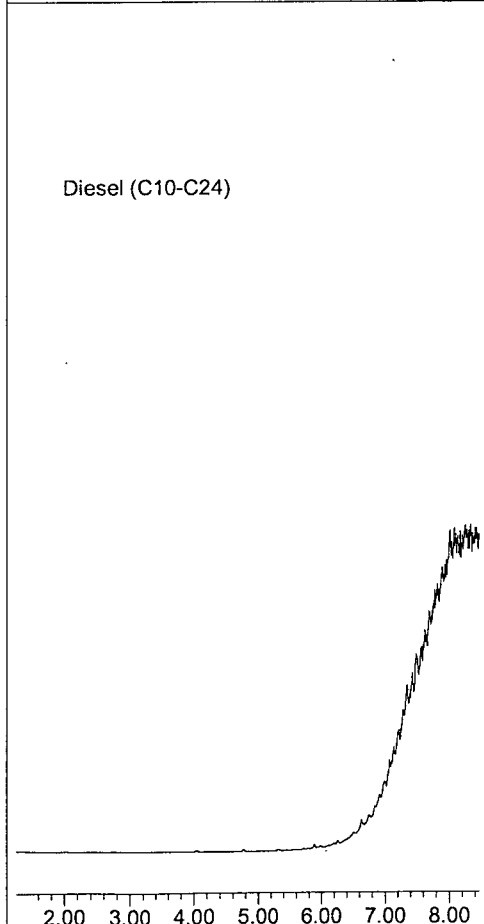
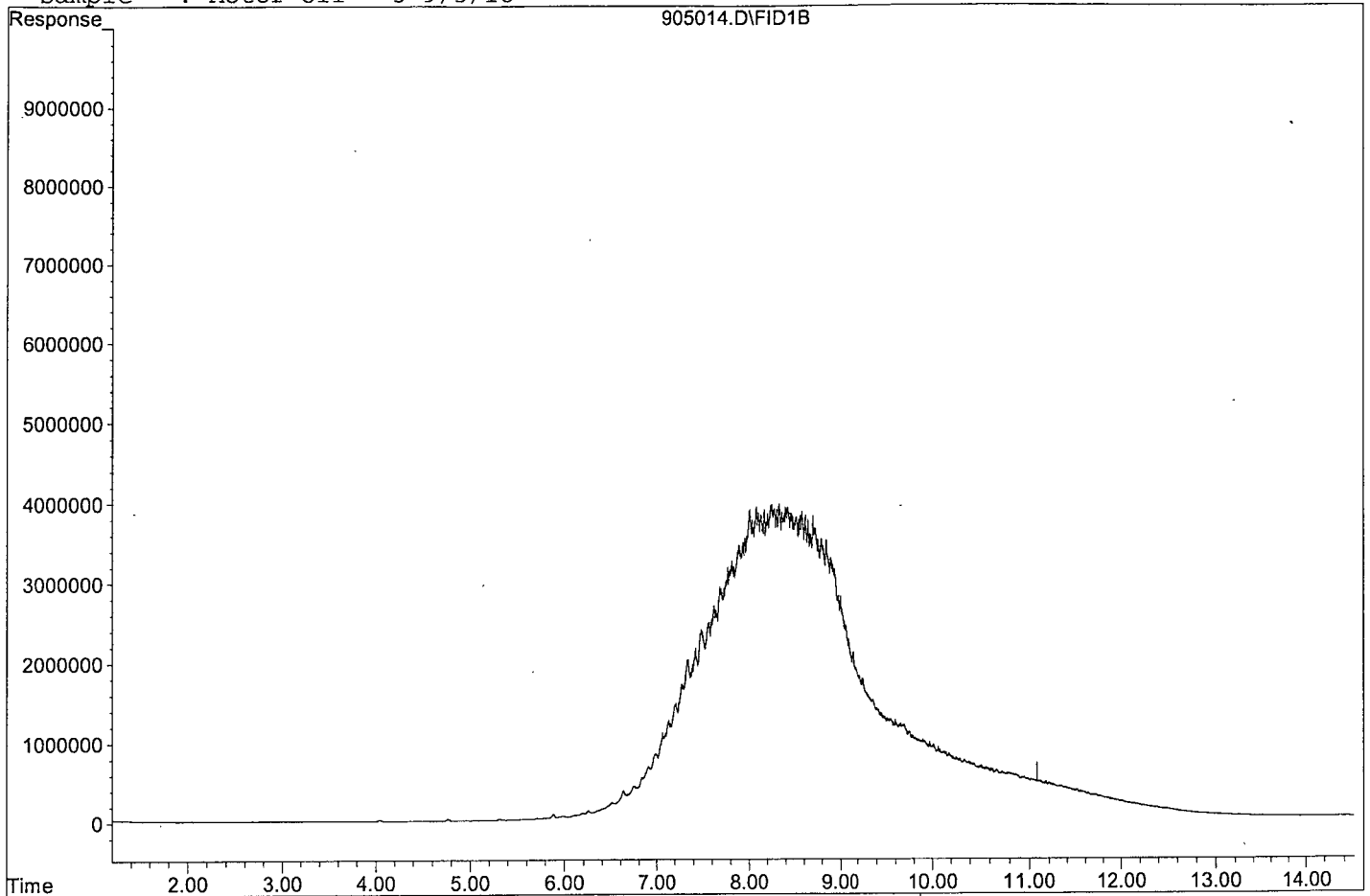
2) HBTM Motor Oil (C24-C40)	9.36	3915465455	1410.588 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905014.D

Sample : Motor Oil - 5 9/5/18

905014.D\FID1B



Data File : G:\APOLLO\DATA\180905\905015.D Vial: 15  
 Acq On : 9-5-18 17:31:25 Operator: DP  
 Sample : Motor Oil - 6 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

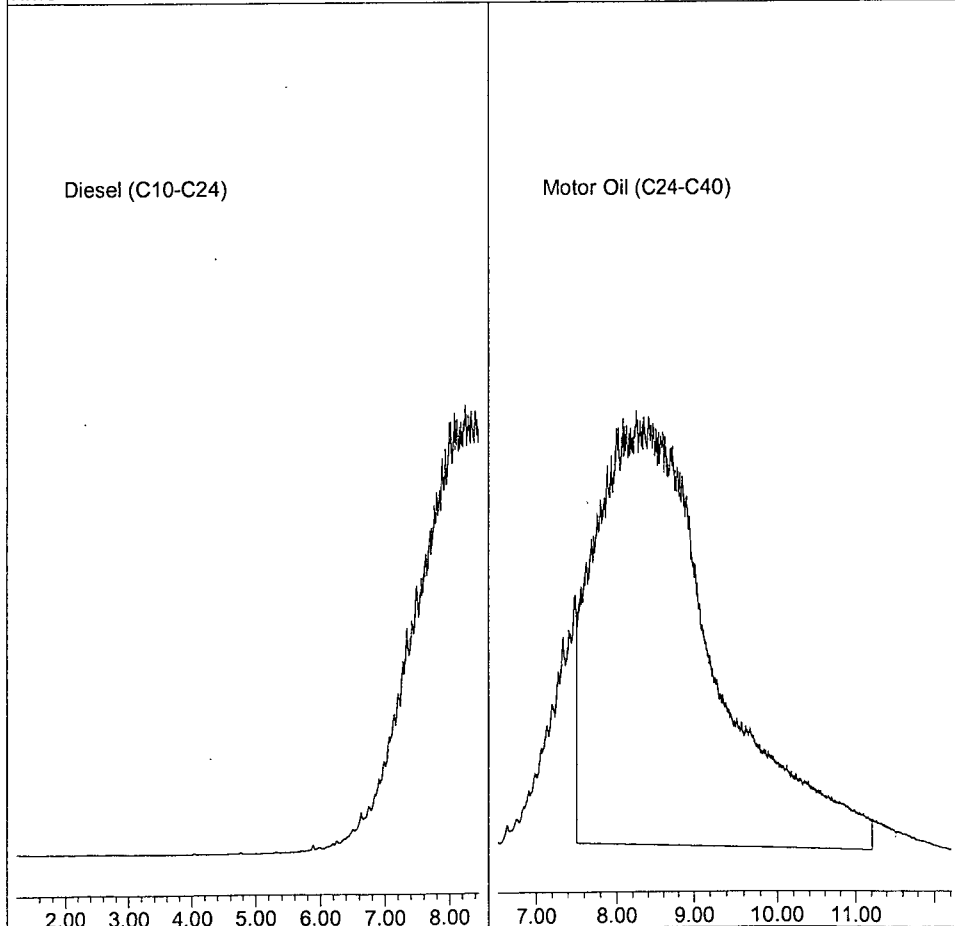
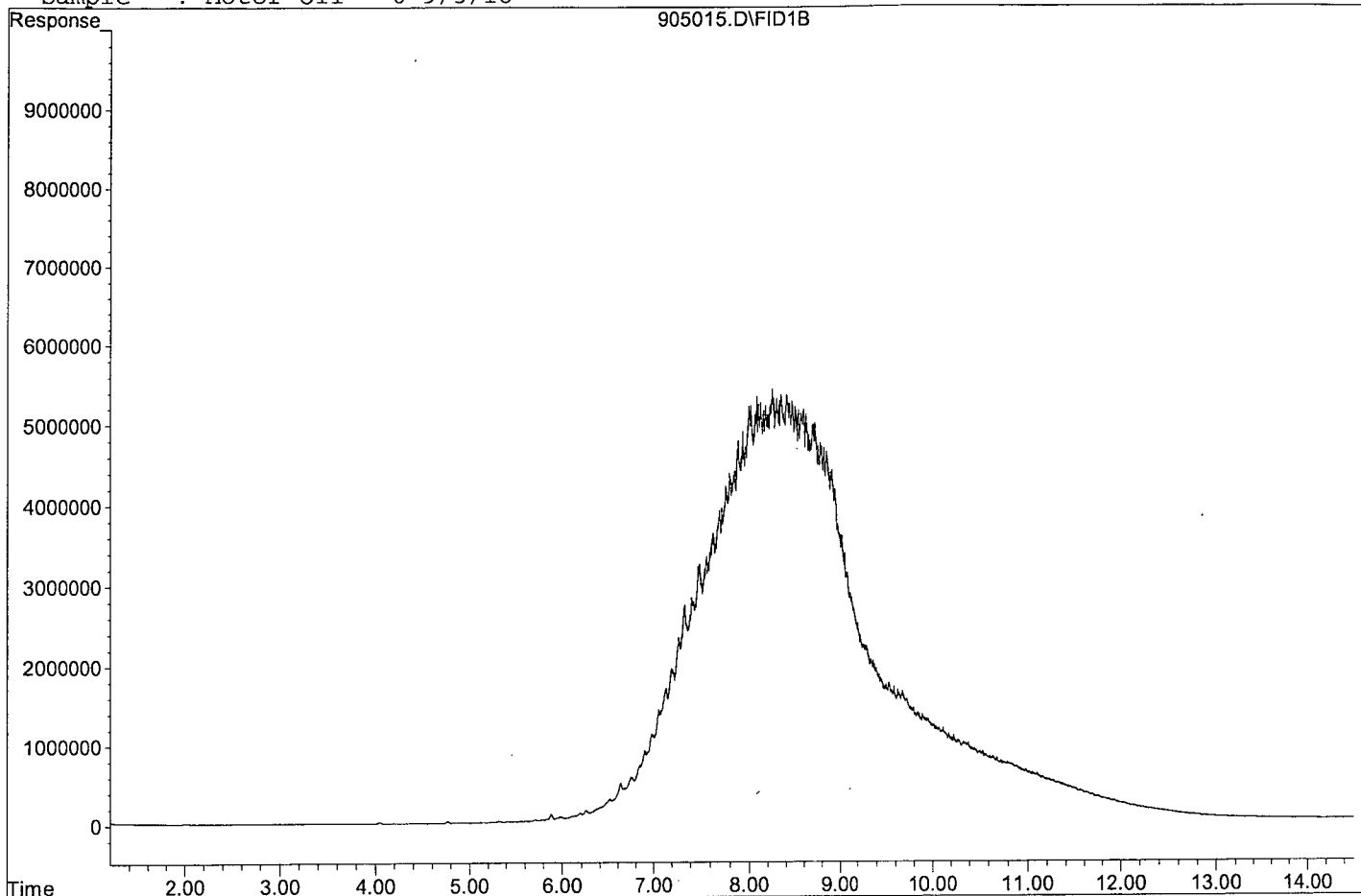
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	5319513396	1916.411 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905015.D

Sample : Motor Oil - 6 9/5/18



TPH Extractables  
DOC0905

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 09/05/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 905009.D 905016.D  
Diesel Motor Oil

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1644000	0.33	HATM
2	HBTM Motor Oil (C24-C40)	1387880	1237490	11	HBTM
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
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35					
36					
37					
38					
39					
40	Average			5.7	

Data File : G:\APOLLO\DATA\180905\905009.D Vial: 9  
 Acq On : 9-5-18 15:32:03 Operator: DP  
 Sample : Diesel - SS 8/2/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

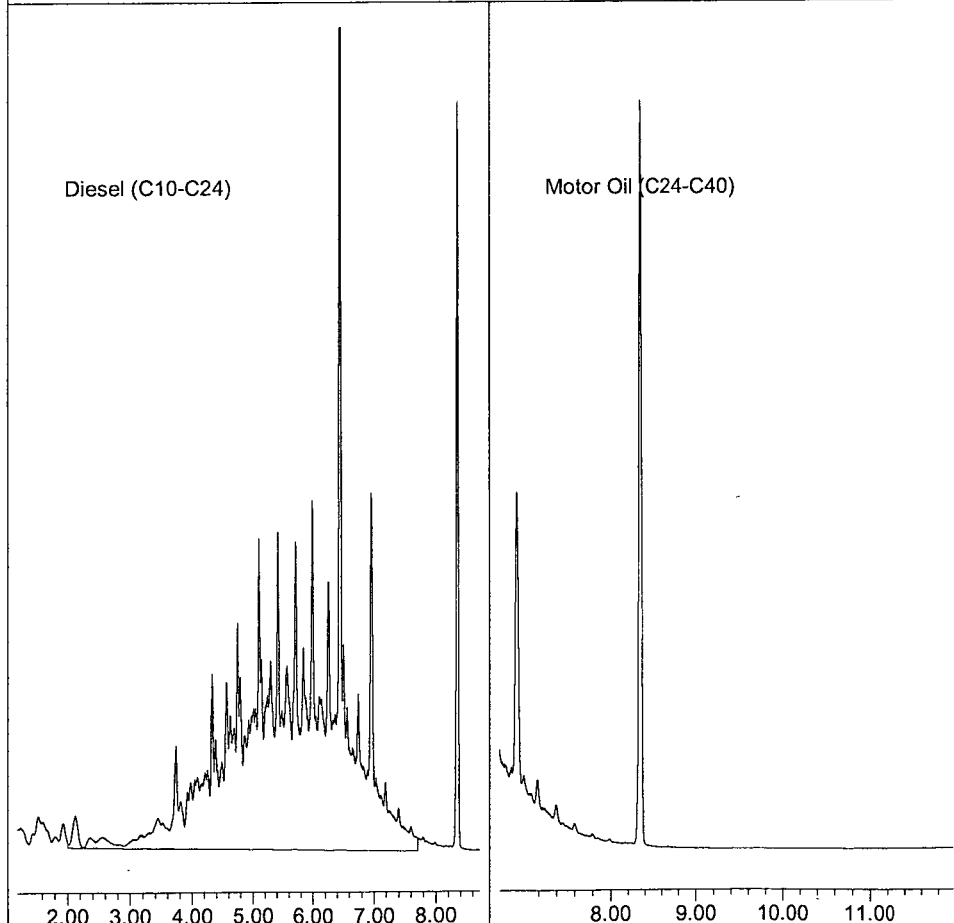
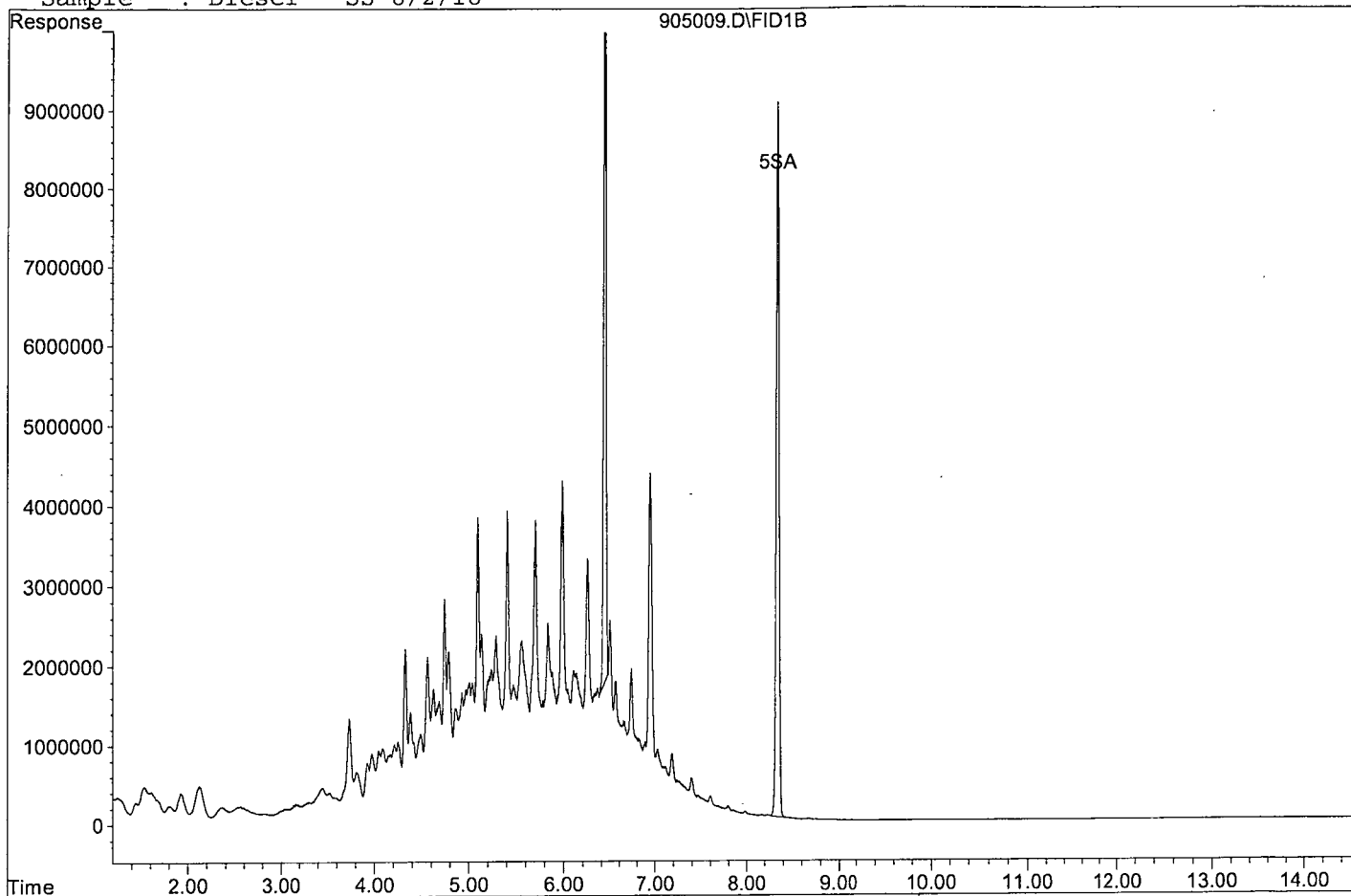
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	189576923	48.953 ppb
Surrogate Spike 30.000		Recovery =	163.18%
5) SA Octacosane(S)	8.35	191937049	59.426 ppb
Surrogate Spike 30.000		Recovery =	198.09%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	3287993103	1003.295 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905009.D

Sample : Diesel - SS 8/2/18



Data File : G:\APOLLO\DATA\180905\905016.D Vial: 16  
 Acq On : 9-5-18 17:51:24 Operator: DP  
 Sample : Motor Oil - SS 7/13/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

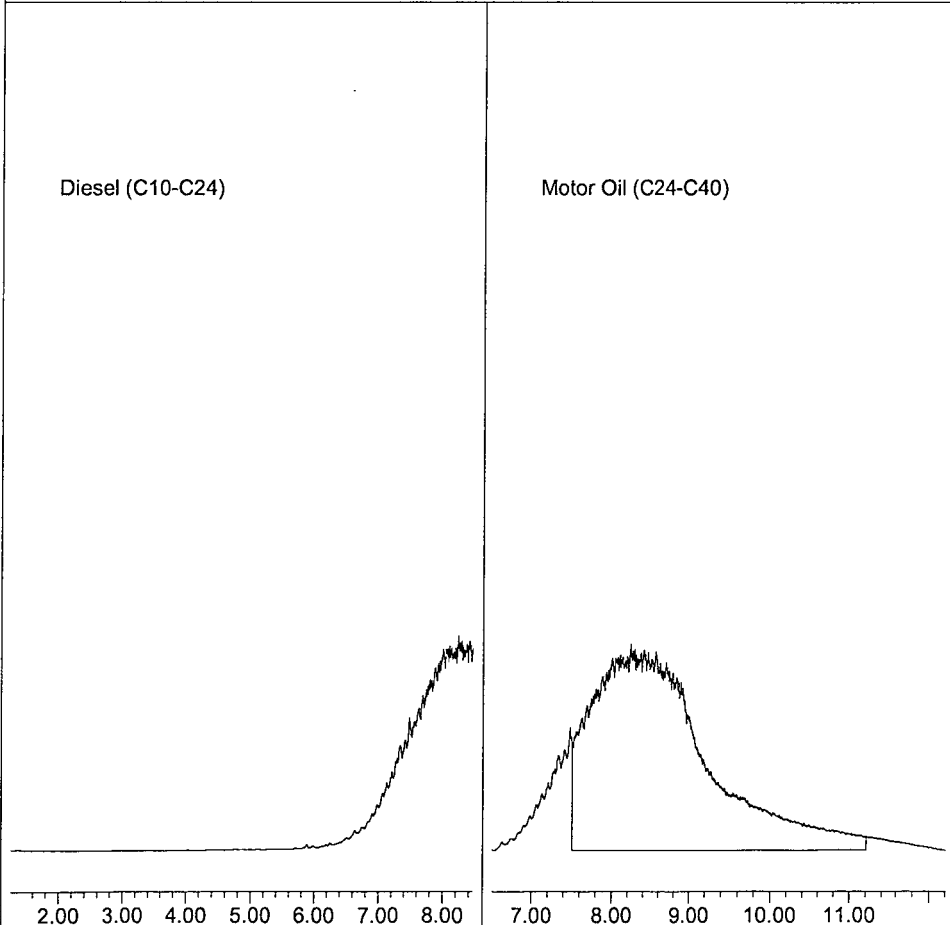
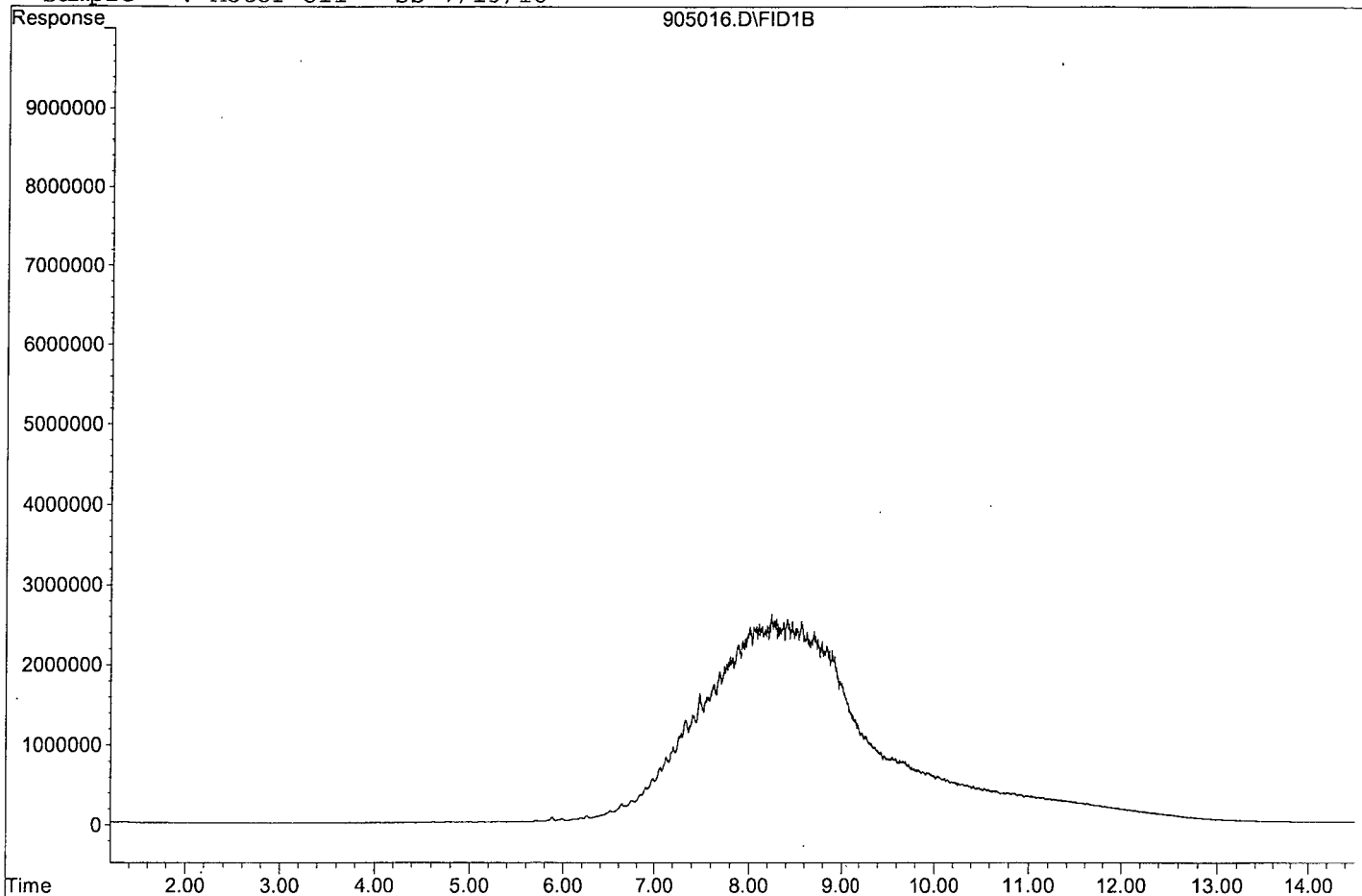
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	2474981428	891.638 ppb
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Data File: G:\APOLLO\DATA\180905\905016.D

Sample : Motor Oil - SS 7/13/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1025002-3.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1660150	1.3	HATM
2	SA Ortho-Terphenyl(S)	1936320	2006290	3.6	SA
3	SA Octacosane(S)	1614940	1706830	5.7	SA
4	HBTM Motor Oil (C24-C40)	1387880	1345420	3.1	HBTM
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
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36					
37					
38					
39					
40	Average			3.4	

Data File : G:\APOLLO\DATA\181025\1025002.D Vial: 2  
 Acq On : 10-25-18 15:49:01 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Oct 26 8:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

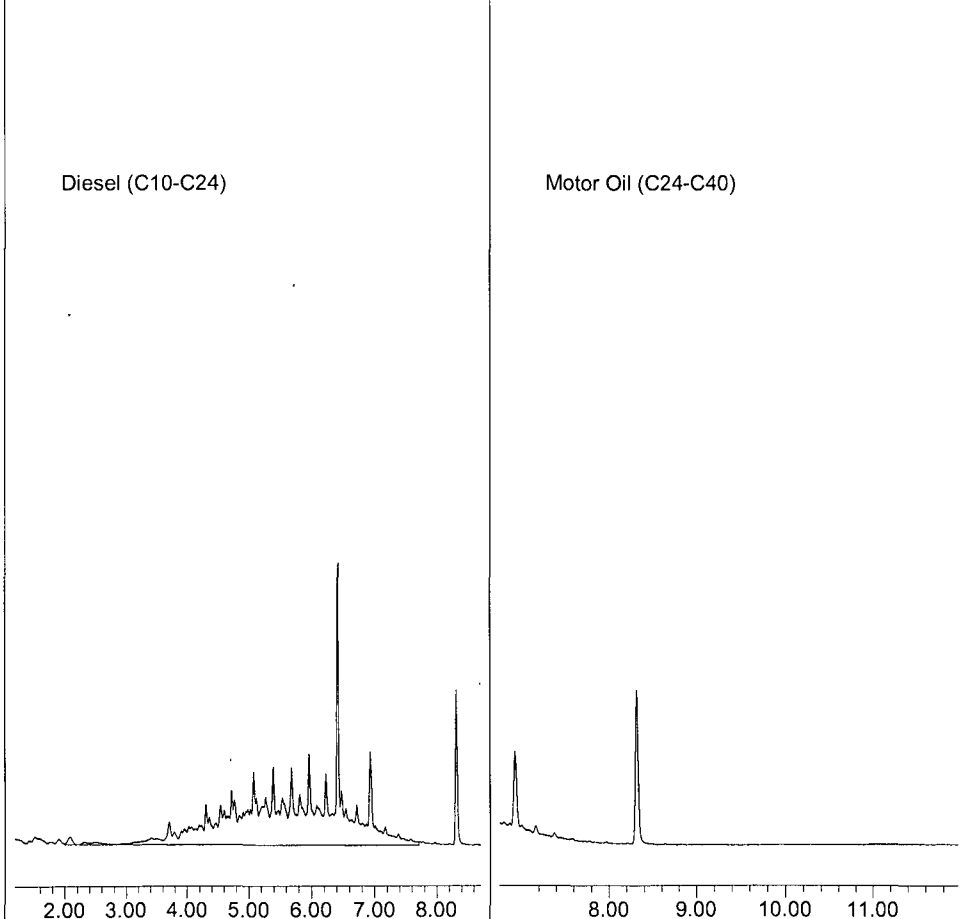
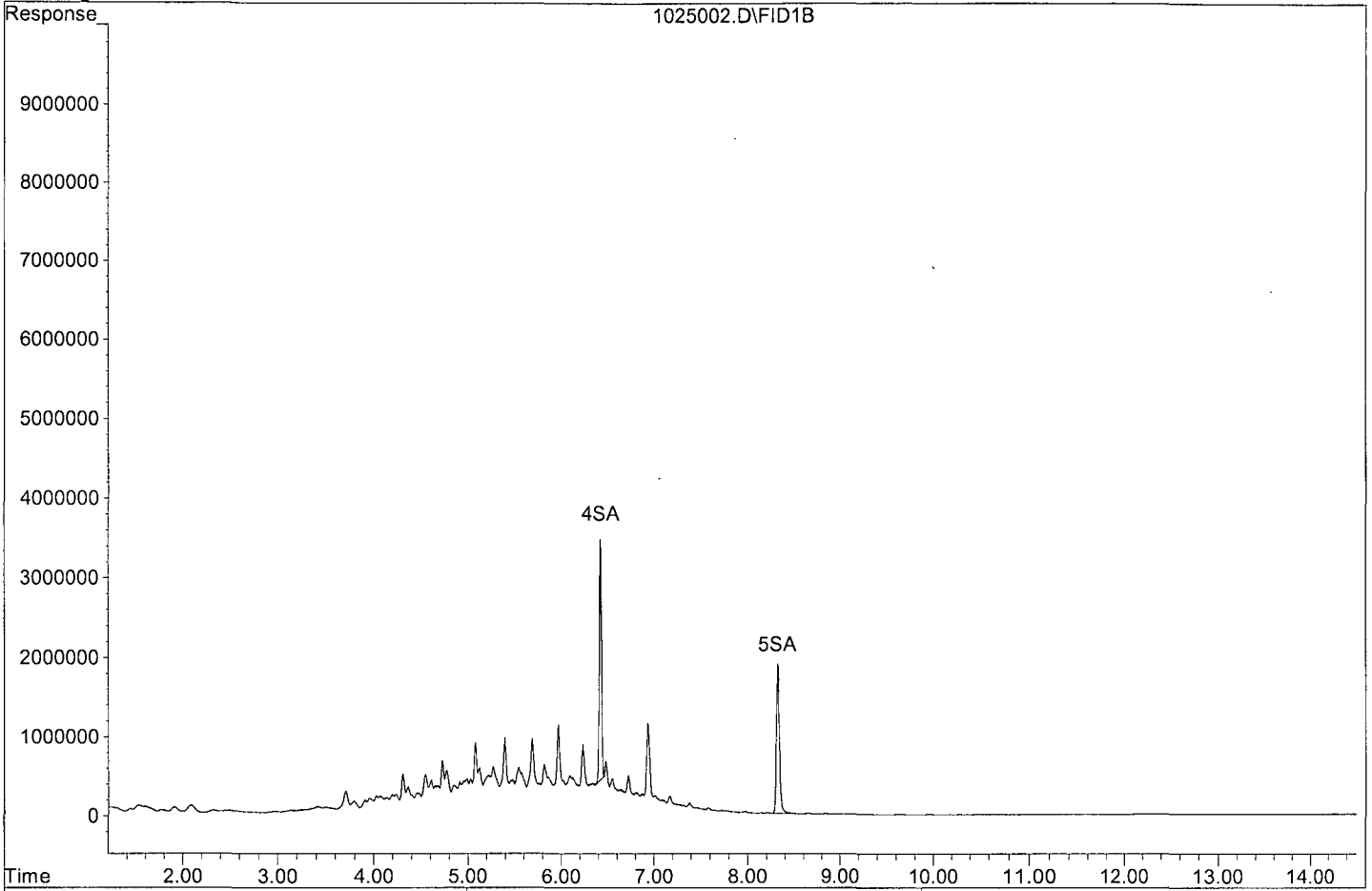
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	50157274	12.952 ppb
Surrogate Spike 30.000		Recovery =	43.17%
5) SA Octacosane(S)	8.32	42670834	13.211 ppb
Surrogate Spike 30.000		Recovery =	44.04%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	830075912	253.288 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181025\1025002.D

Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181025\1025003.D Vial: 3  
 Acq On : 10-25-18 16:08:54 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Oct 26 8:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
----------	------	----------	------------

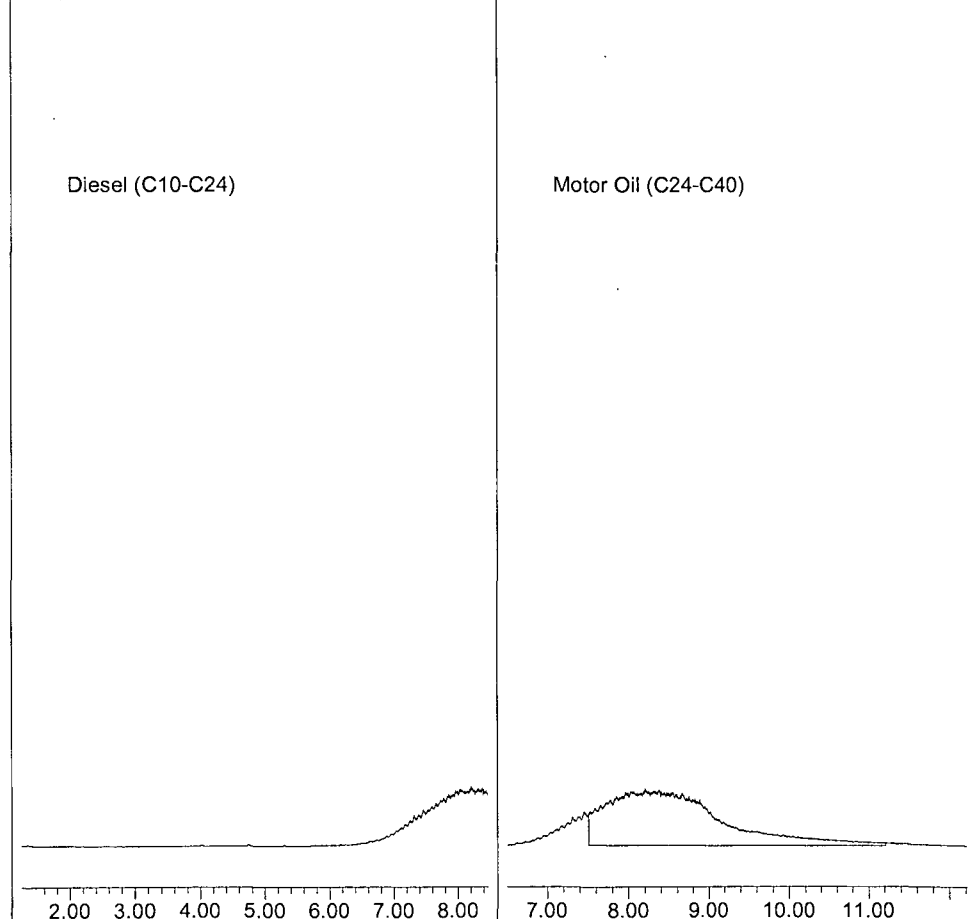
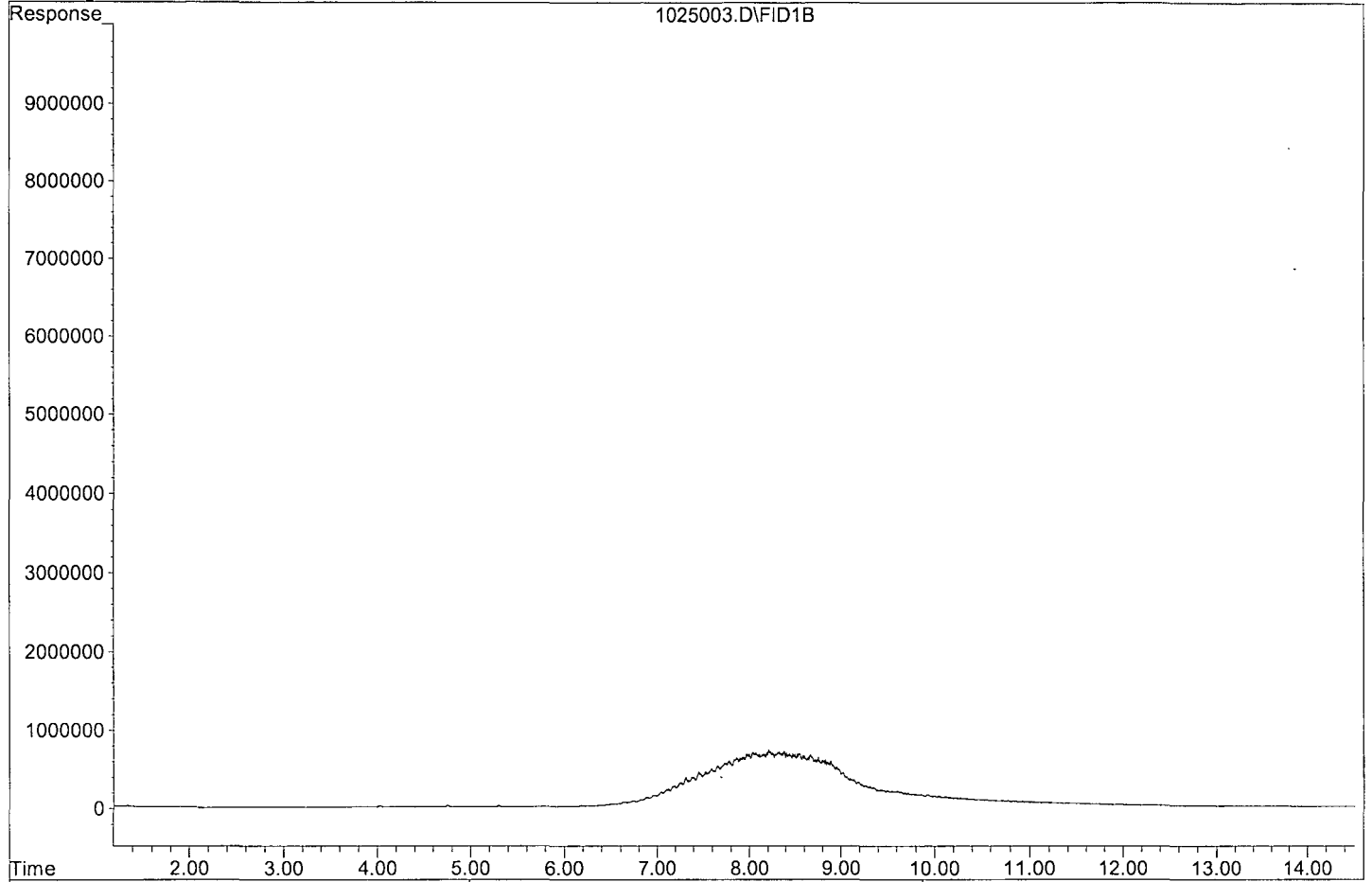
System Monitoring Compounds

Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	672712347	242.352 ppb
-----------------------------	------	-----------	-------------

Quantitation Report

Data File: G:\APOLLO\DATA\181025\1025003.D  
Sample : Motor Oil - 3 10/15/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

Lab Name: APPL, Inc. \_\_\_\_\_

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/25/18

Matrix: \_\_\_\_\_

Instrument: Apollo

Initial Cal. Date: 09/05/18

Data File: 1025016-17.D

		Compound	MEAN	CCRF	%D	%Drift
1	HATM	Diesel (C10-C24)	1638600	1632140	0.39	HATM
2	SA	Ortho-Terphenyl(S)	1936320	2064790	6.6	SA
3	SA	Octacosane(S)	1614940	1728420	7.0	SA
4	HBTM	Motor Oil (C24-C40)	1387880	1344410	3.1	HBTM
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
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31						
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33						
34						
35						
36						
37						
38						
39						
40		Average			4.3	

Data File : G:\APOLLO\DATA\181025\1025016.D Vial: 16  
 Acq On : 10-25-18 20:29:45 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Oct 26 8:35 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

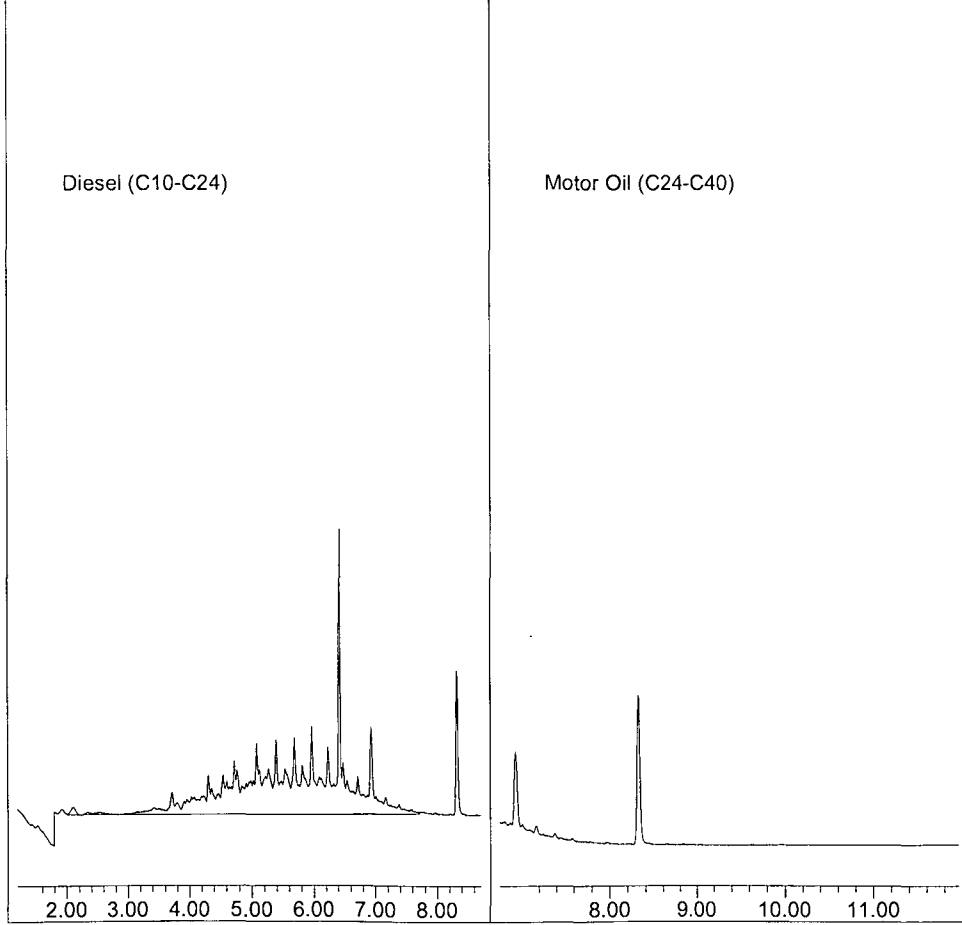
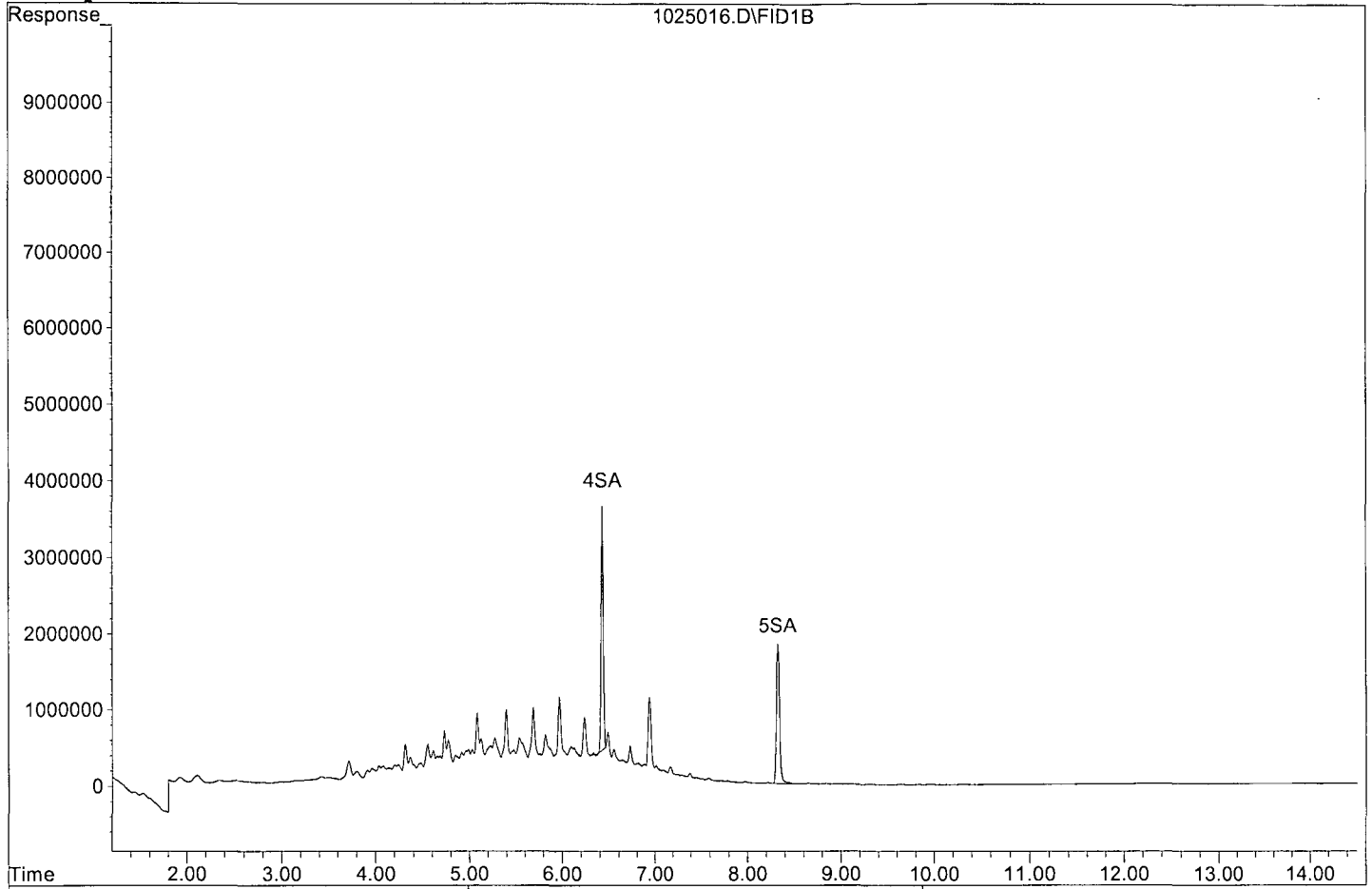
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	51619861	13.329 ppb
Surrogate Spike 30.000		Recovery =	44.43%
5) SA Octacosane(S)	8.32	43210468	13.378 ppb
Surrogate Spike 30.000		Recovery =	44.59%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	816068318	249.014 ppb



Quantitation Report

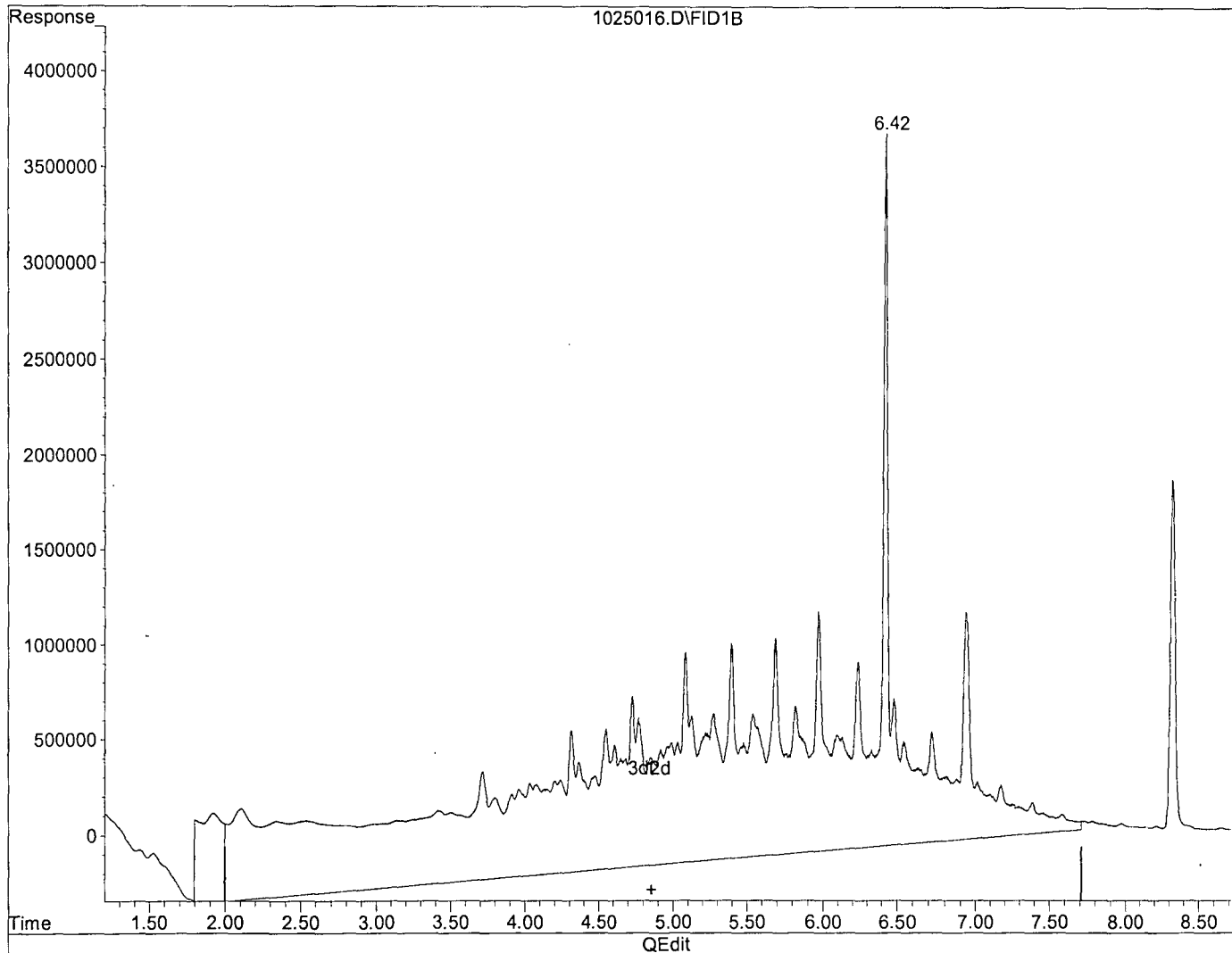
Data File: G:\APOLLO\DATA\181025\1025016.D  
Sample : Diesel - 3 10/15/18



Quantitation Report

Data File : G:\APOLLO\DATA\181025\1025016.D Vial: 16  
Acq On : 10-25-18 20:29:45 Operator: DP  
Sample : Diesel - 3 10/15/18 Inst : Apollo  
Misc : Mix(A) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Oct 26 9:34 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
Title : 8015 B&C  
Last Update : Fri Oct 26 09:32:46 2018  
Response via : Multiple Level Calibration



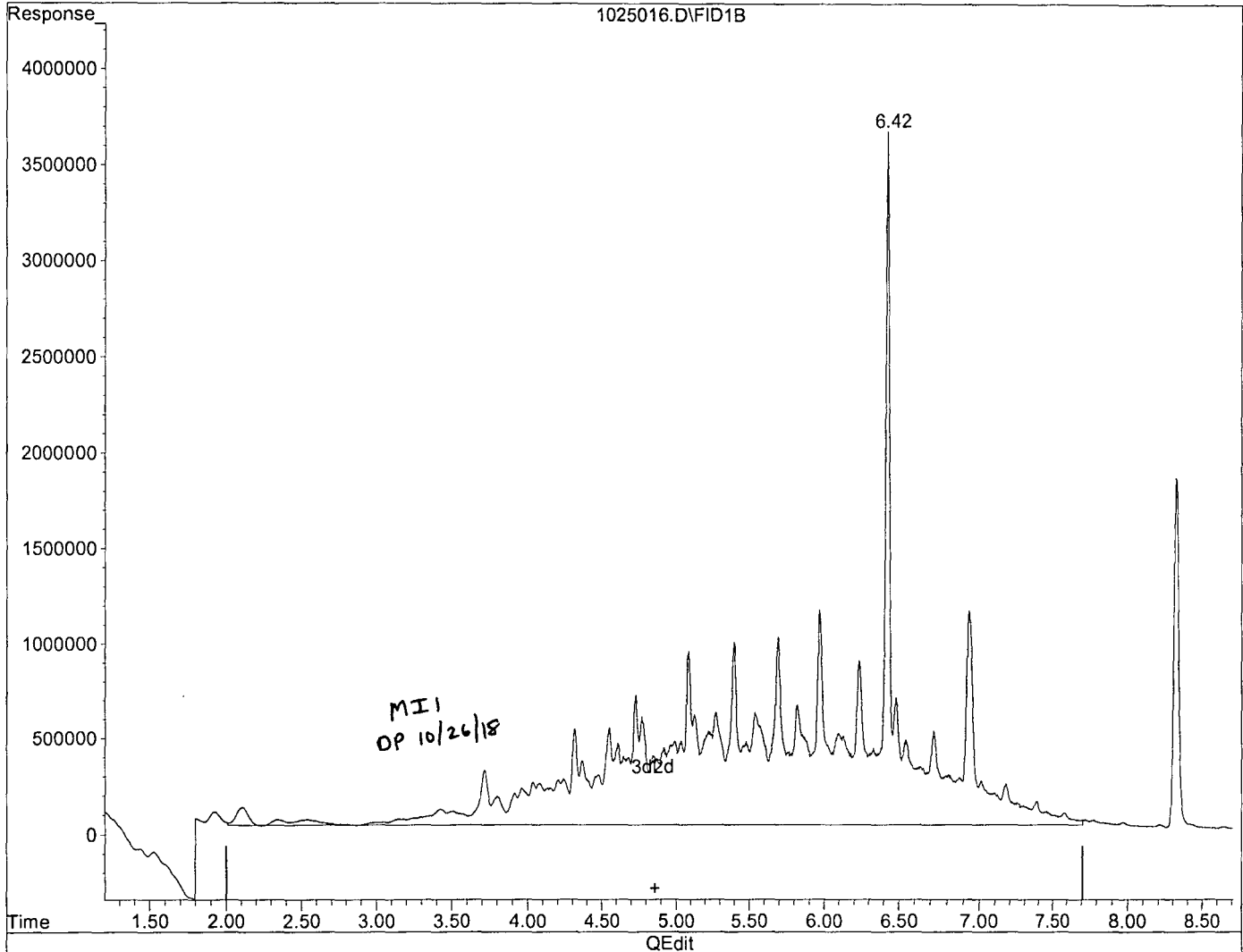
(1) Diesel (C10-C24) (HATM)  
4.86min 460.432ppb m  
response 1508925597

Quantitation Report

Data File : G:\APOLLO\DATA\181025\1025016.D  
Acq On : 10-25-18 20:29:45  
Sample : Diesel - 3 10/15/18  
Misc : Mix(A)  
IntFile : events.e  
Quant Time: Oct 26 9:34 2018

Vial: 16  
Operator: DP  
Inst : Apollo  
Multiplr: 1.00  
Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
Title : 8015 B&C  
Last Update : Fri Oct 26 09:32:46 2018  
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)  
4.86min 249.014ppb m  
response 816068318

Data File : G:\APOLLO\DATA\181025\1025017.D Vial: 17  
 Acq On : 10-25-18 20:50:00 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Oct 26 8:35 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

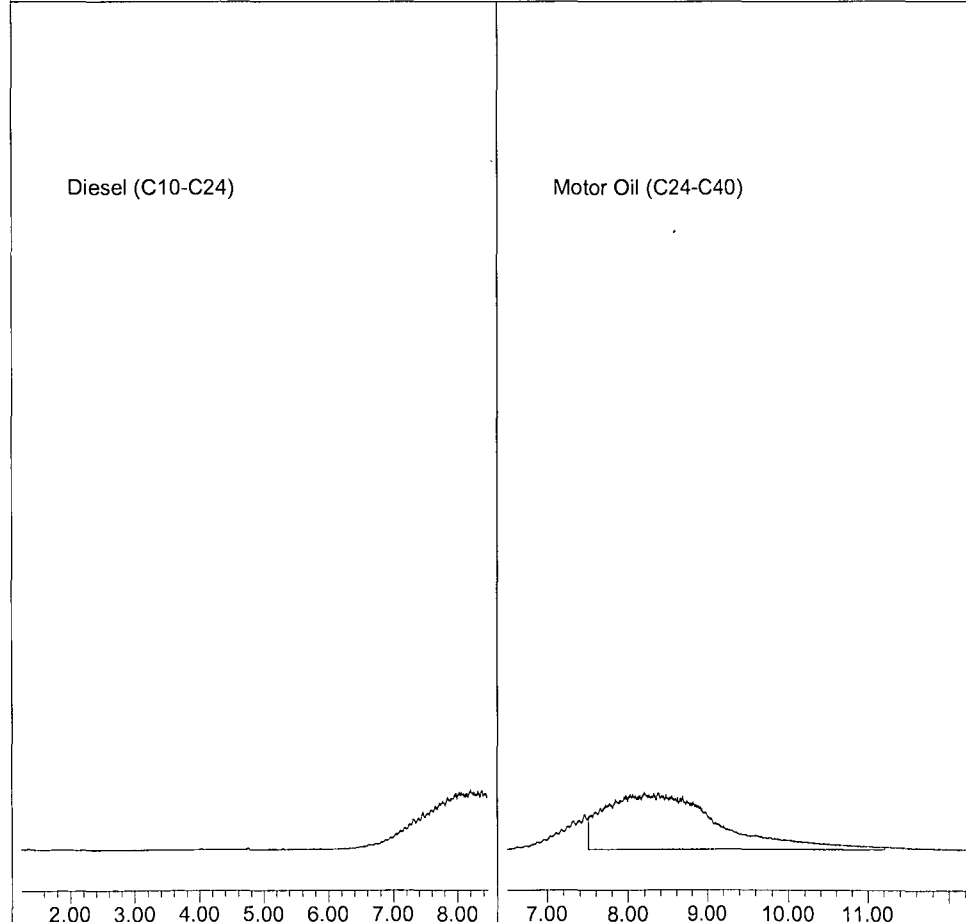
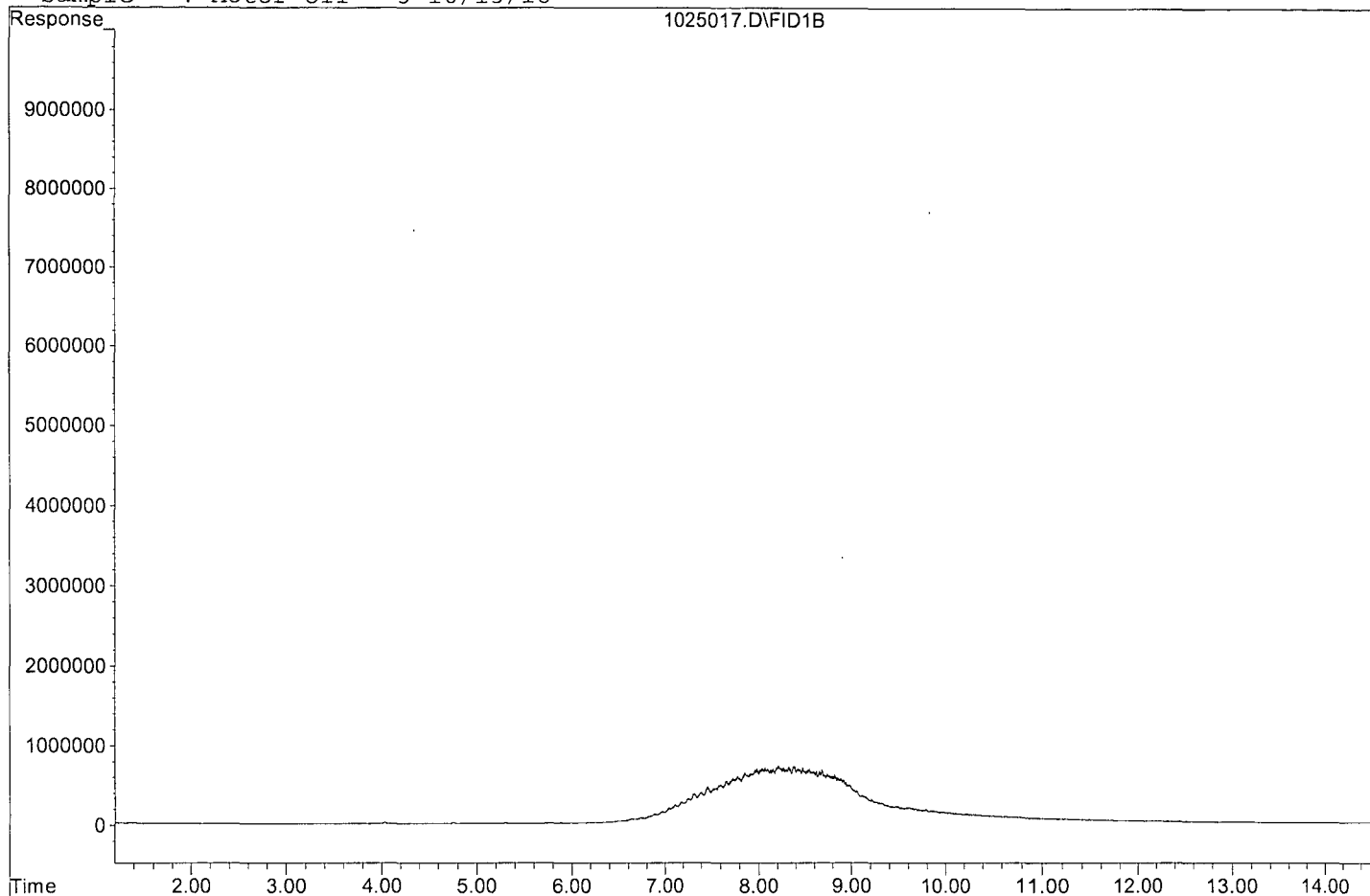
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	672203325	242.168 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181025\1025017.D

Sample : Motor Oil - 3 10/15/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 11/07/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1107002-3.D

		Compound	MEAN	CCRF	%D	%Drift
1	HATM	Diesel (C10-C24)	1638600	1637300	0.08	HATM
2	SA	Ortho-Terphenyl(S)	1936320	1996750	3.1	SA
3	SA	Octacosane(S)	1614940	1603460	0.71	SA
4	HBTM	Motor Oil (C24-C40)	1387880	1272680	8.3	HBTM
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37						
38						
39						
40		Average			3.0	

Data File : G:\APOLLO\DATA\181107\1107002.D Vial: 2  
 Acq On : 11-7-18 13:44:44 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 7 14:00 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

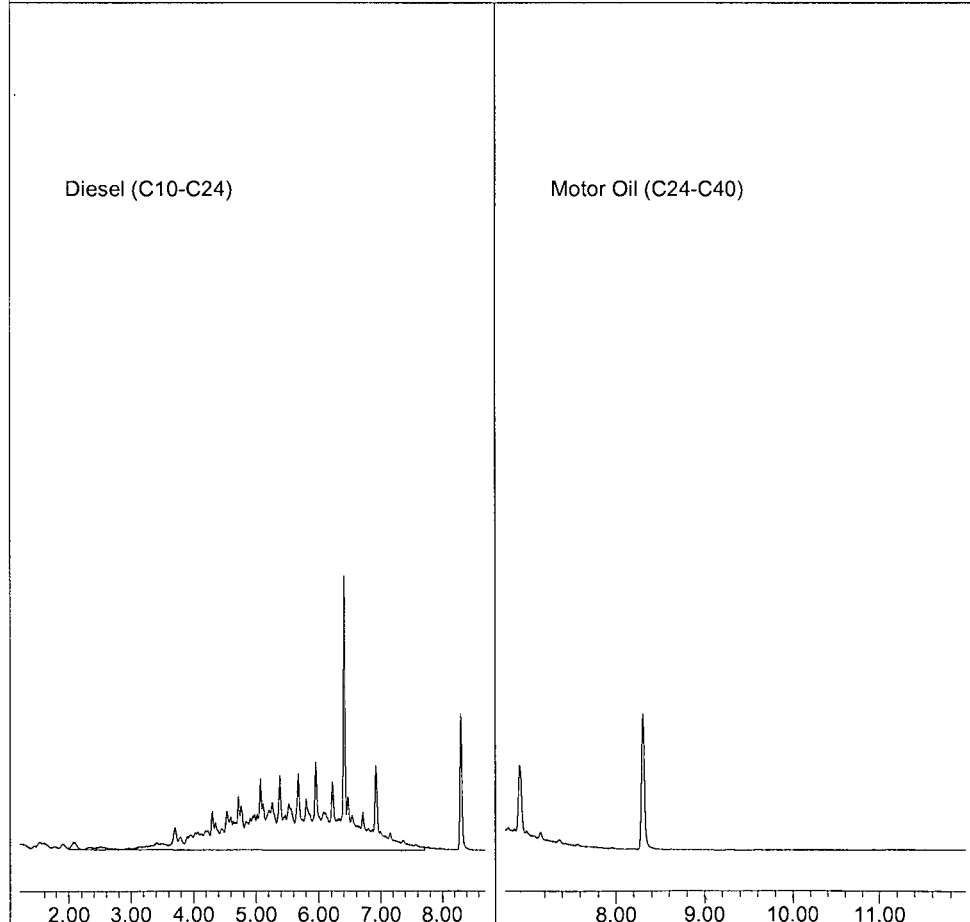
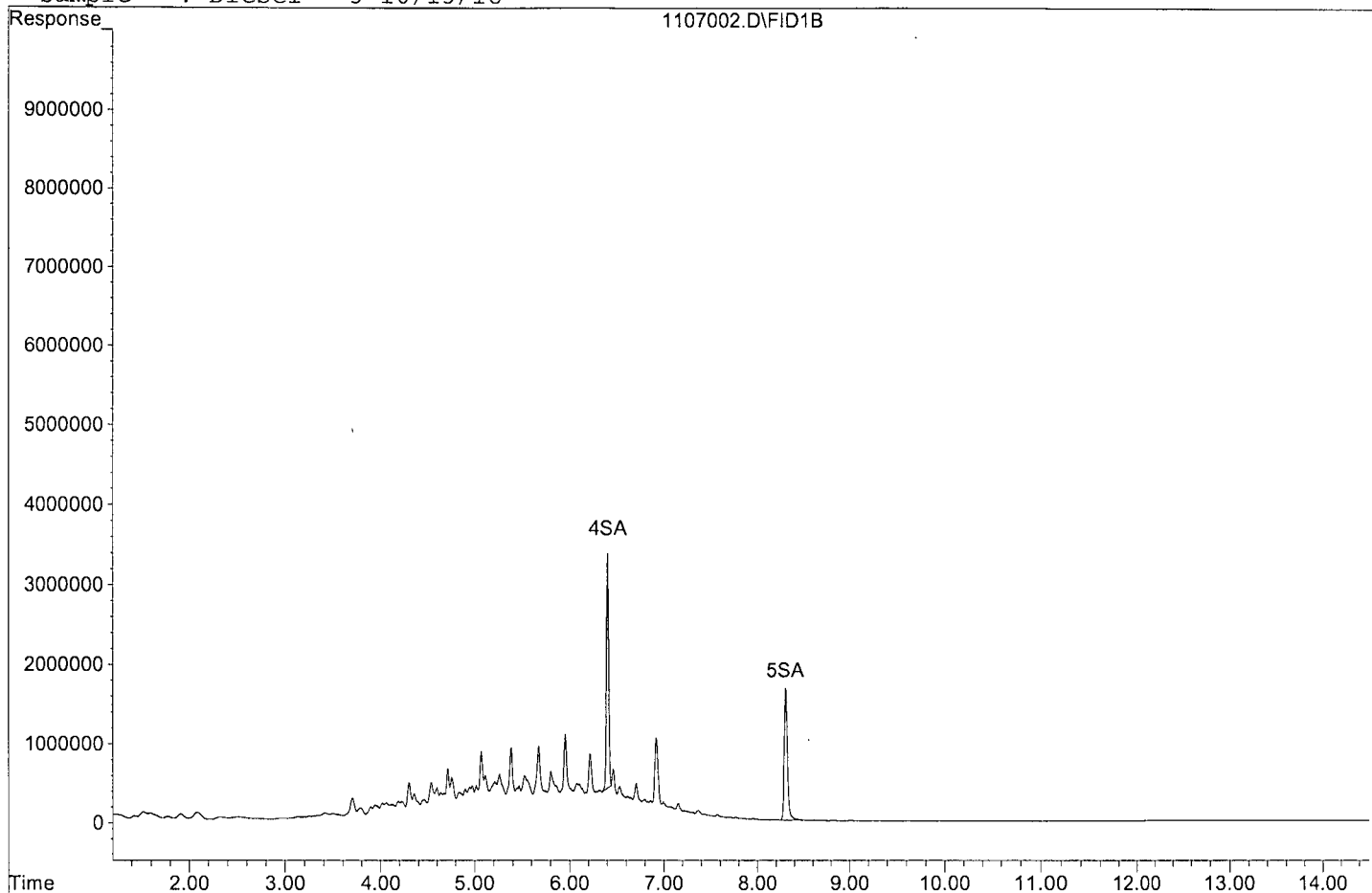
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	49918690	12.890 ppb
Surrogate Spike 30.000		Recovery =	42.97%
5) SA Octacosane(S)	8.31	40086512	12.411 ppb
Surrogate Spike 30.000		Recovery =	41.37%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	818648452	249.802 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107002.D

Sample : Diesel - 3 10/15/18





Data File : G:\APOLLO\DATA\181107\1107003.D Vial: 3  
 Acq On : 11-7-18 14:04:52 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 7 14:24 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

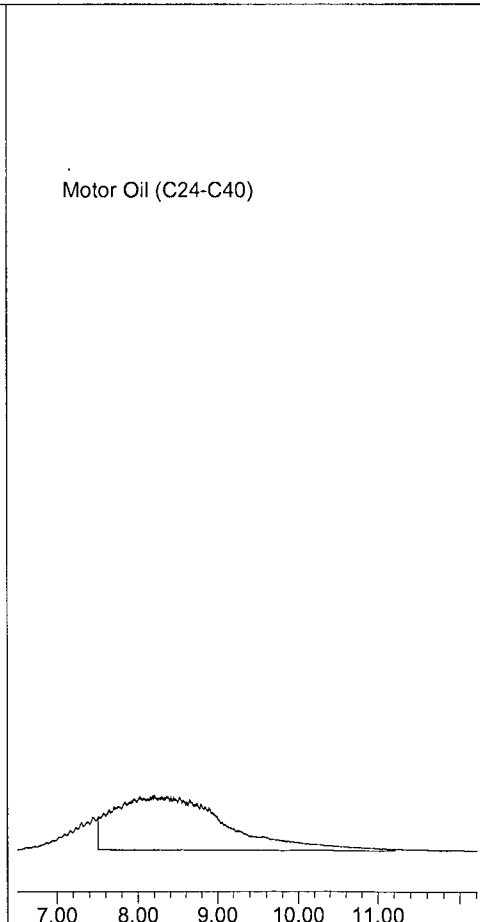
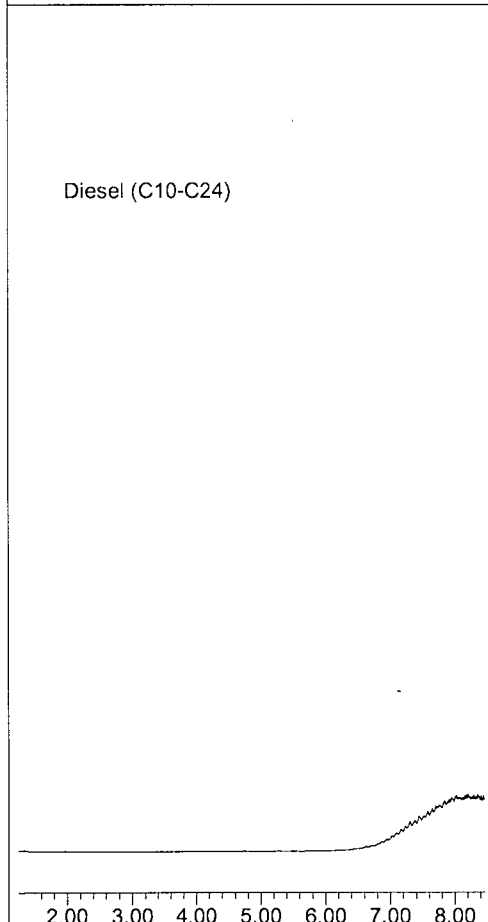
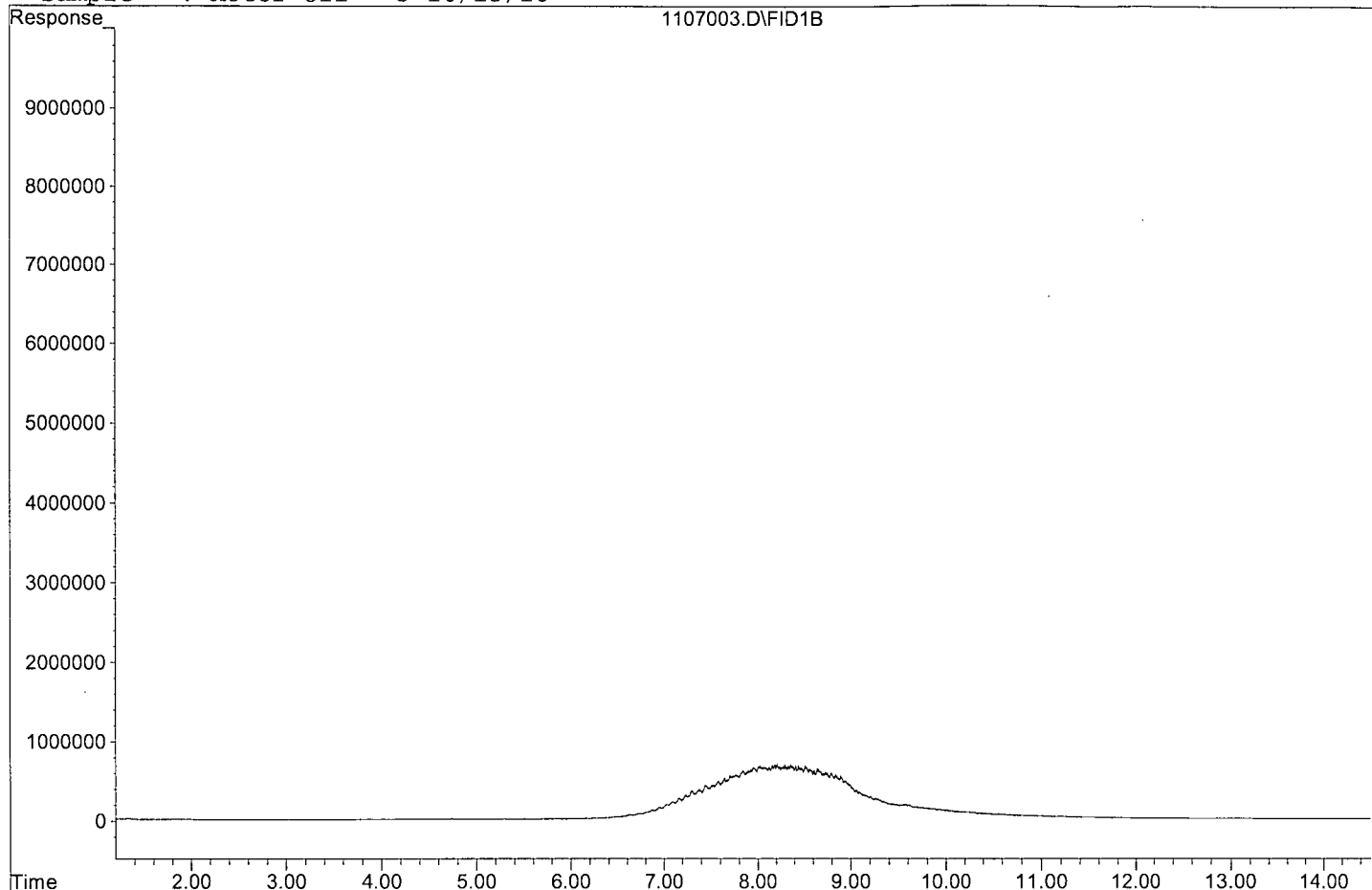
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	636338949	229.248 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107003.D

Sample : Motor Oil - 3 10/15/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 11/07/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1107019-20.D

		Compound	MEAN	CCRF	%D	%Drift
1	HATM	Diesel (C10-C24)	1638600	1666450	1.7	HATM
2	SA	Ortho-Terphenyl(S)	1936320	2039030	5.3	SA
3	SA	Octacosane(S)	1614940	1660830	2.8	SA
4	HBTM	Motor Oil (C24-C40)	1387880	1317870	5.0	HBTM
5						
6						
7						
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36						
37						
38						
39						
40		Average			3.7	

Data File : G:\APOLLO\DATA\181107\1107019.D Vial: 19  
 Acq On : 11-7-18 19:30:00 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 9:16 2018 Quant Results File: DOC0905.RES

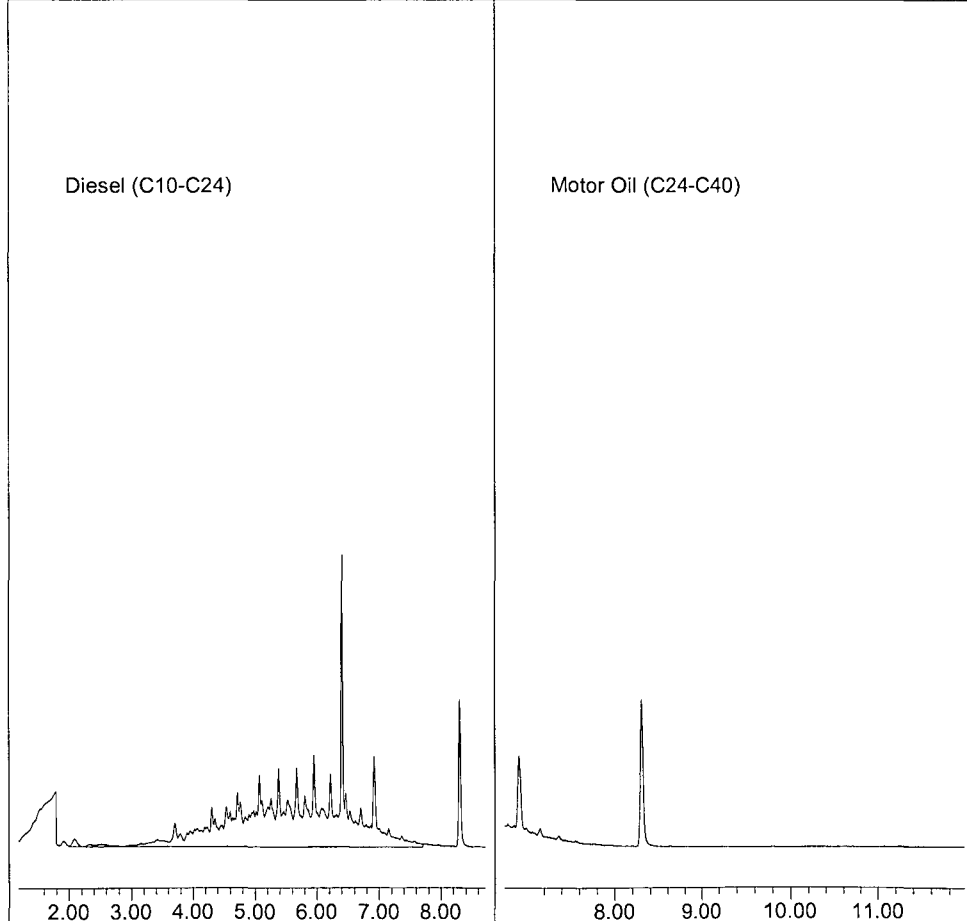
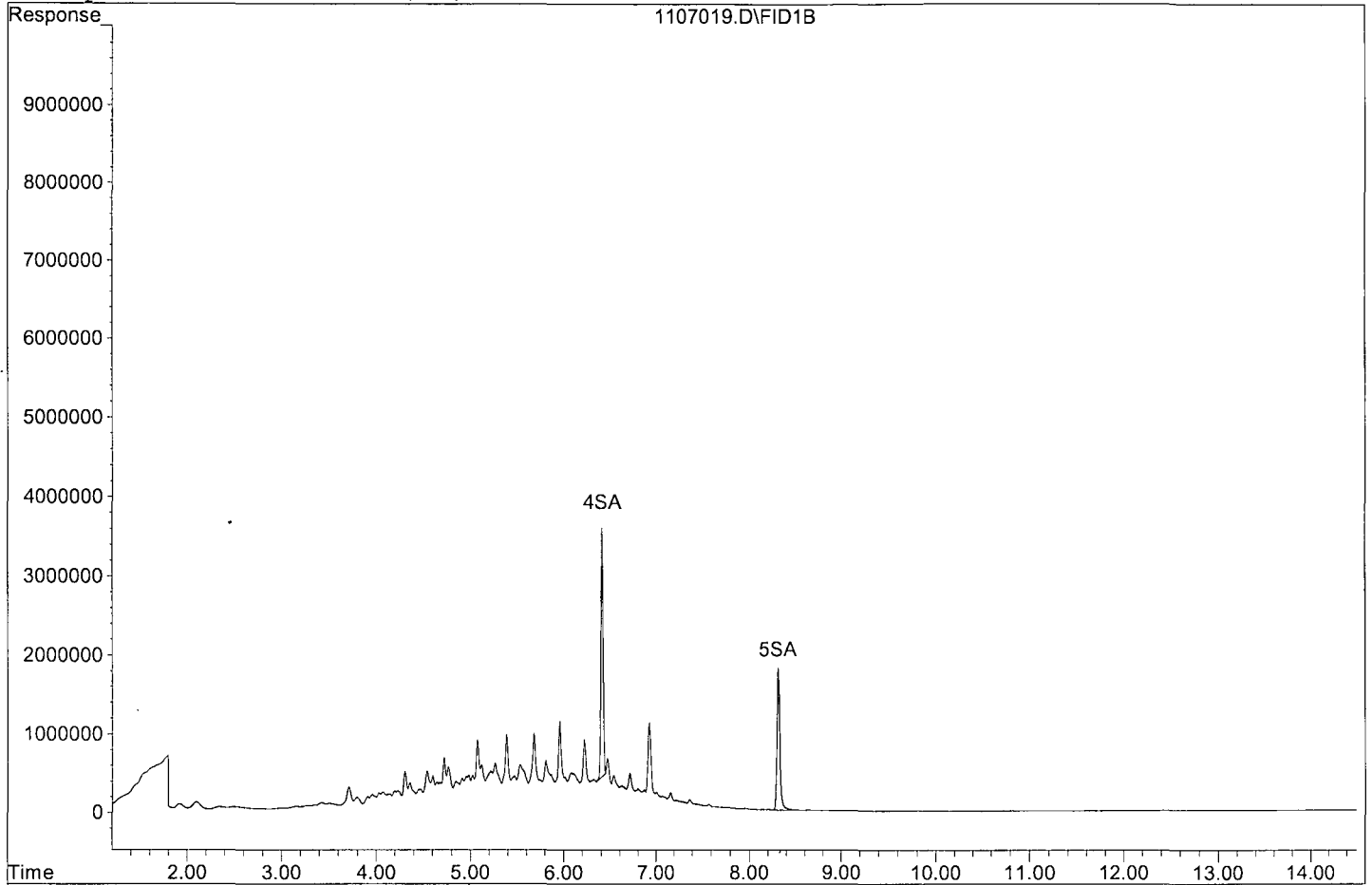
Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	50975648	13.163 ppb
Surrogate Spike 30.000		Recovery =	43.88%
5) SA Octacosane(S)	8.31	41520747	12.855 ppb
Surrogate Spike 30.000		Recovery =	42.85%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	833224325	254.249 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107019.D  
Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107020.D Vial: 20  
 Acq On : 11-7-18 19:50:19 Operator: DP.  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 9:16 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

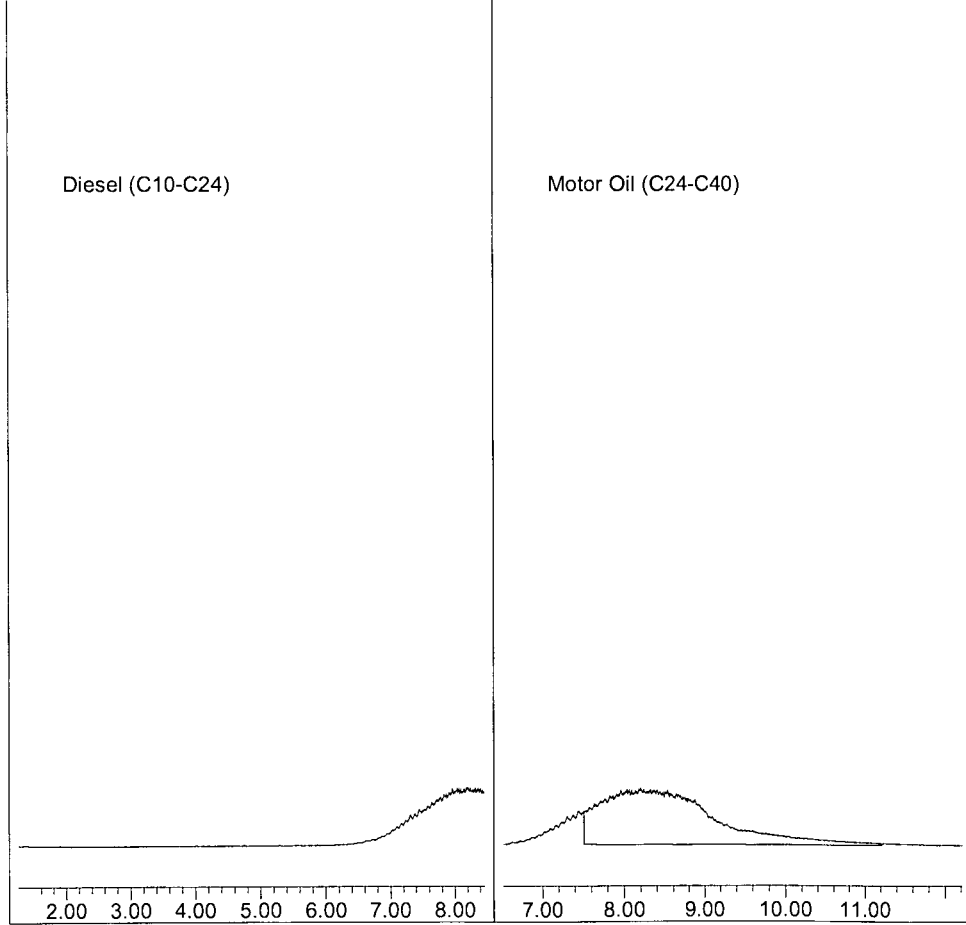
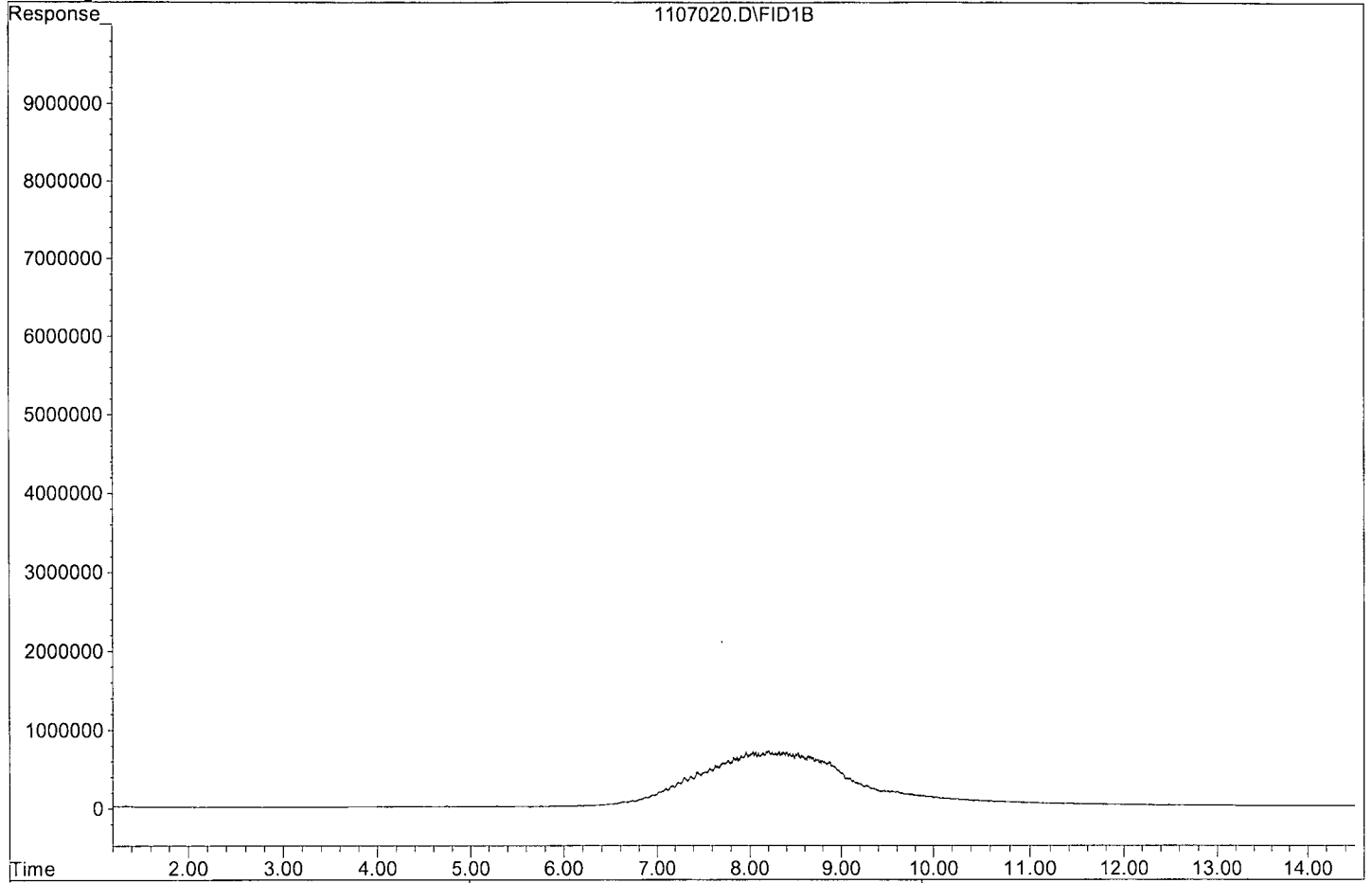
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	658935006	237.388 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107020.D

Sample : Motor Oil - 3 10/15/18



**ORGANICS**  
**Raw Data**

**APPL, INC.**



Data File : G:\APOLLO\DATA\181025\1025009.D Vial: 9  
 Acq On : 10-25-18 18:09:06 Operator: DP  
 Sample : AZ81584W21 2/810 Inst : Apollo  
 Misc : water Multiplr: 2.47  
 IntFile : events.e  
 Quant Time: Oct 26 8:39 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

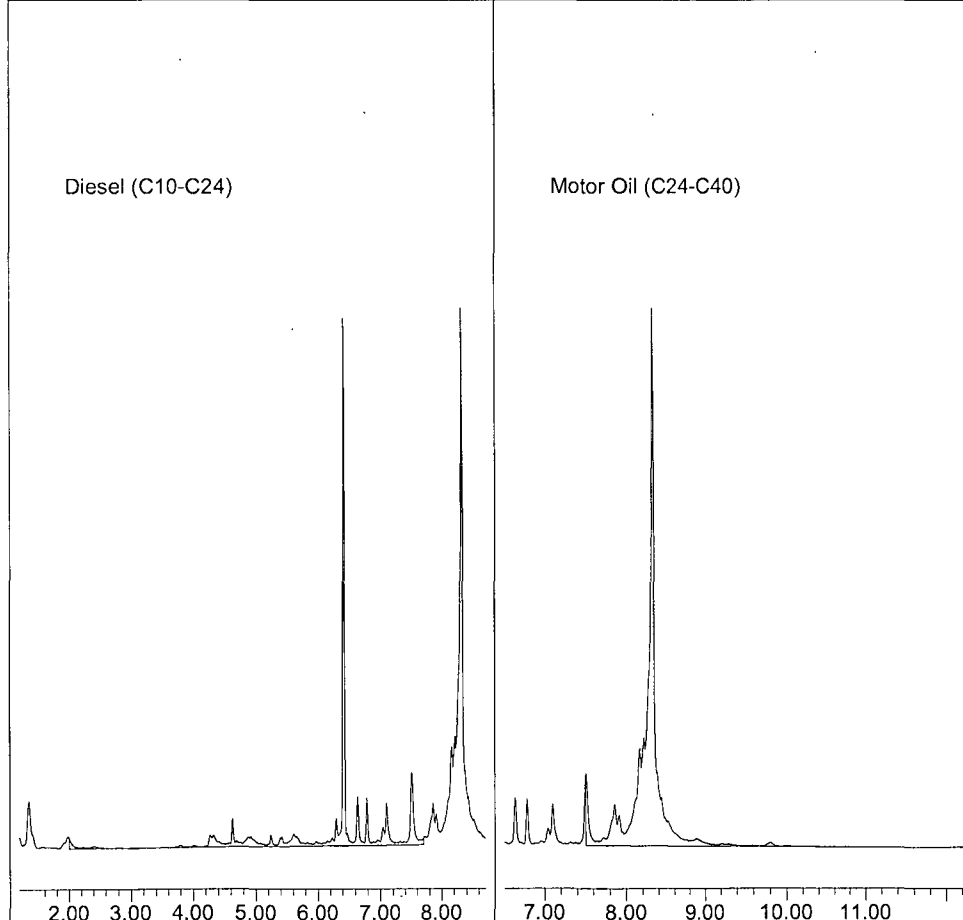
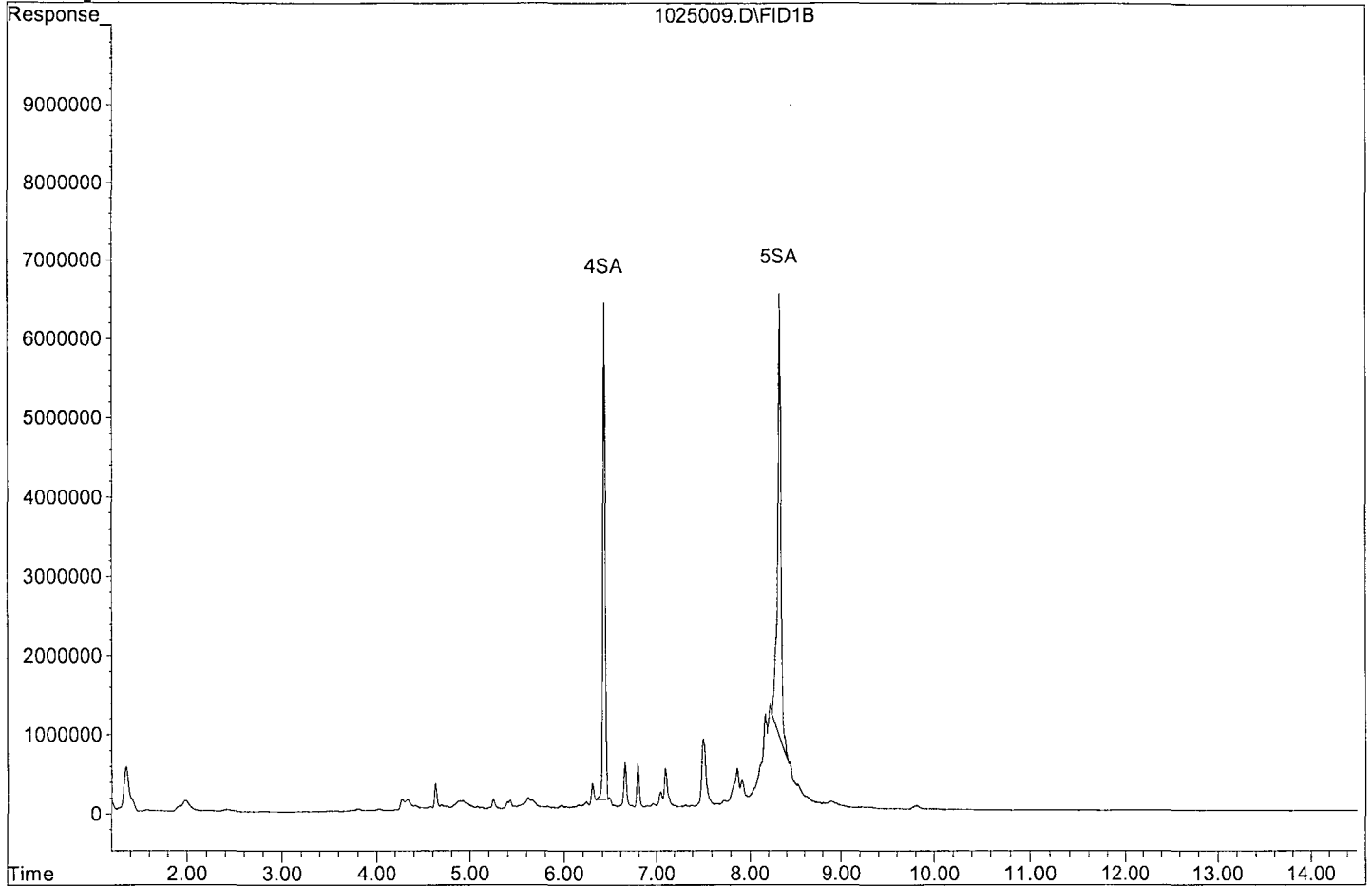
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	108274606	69.034 ppb
Surrogate Spike 74.074		Recovery =	93.20%
5) SA Octacosane(S)	8.32	145417072	111.167 ppb
Surrogate Spike 74.074		Recovery =	150.08%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	204186767	153.841 ppb
2) HBTM Motor Oil (C24-C40)	9.36	316841134	281.841 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181025\1025009.D

Sample : AZ81584W21 2/810



Data File : G:\APOLLO\DATA\181107\1107009.D Vial: 9  
 Acq On : 11-7-18 16:05:14 Operator: DP  
 Sample : AZ81584W13 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 16:23 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

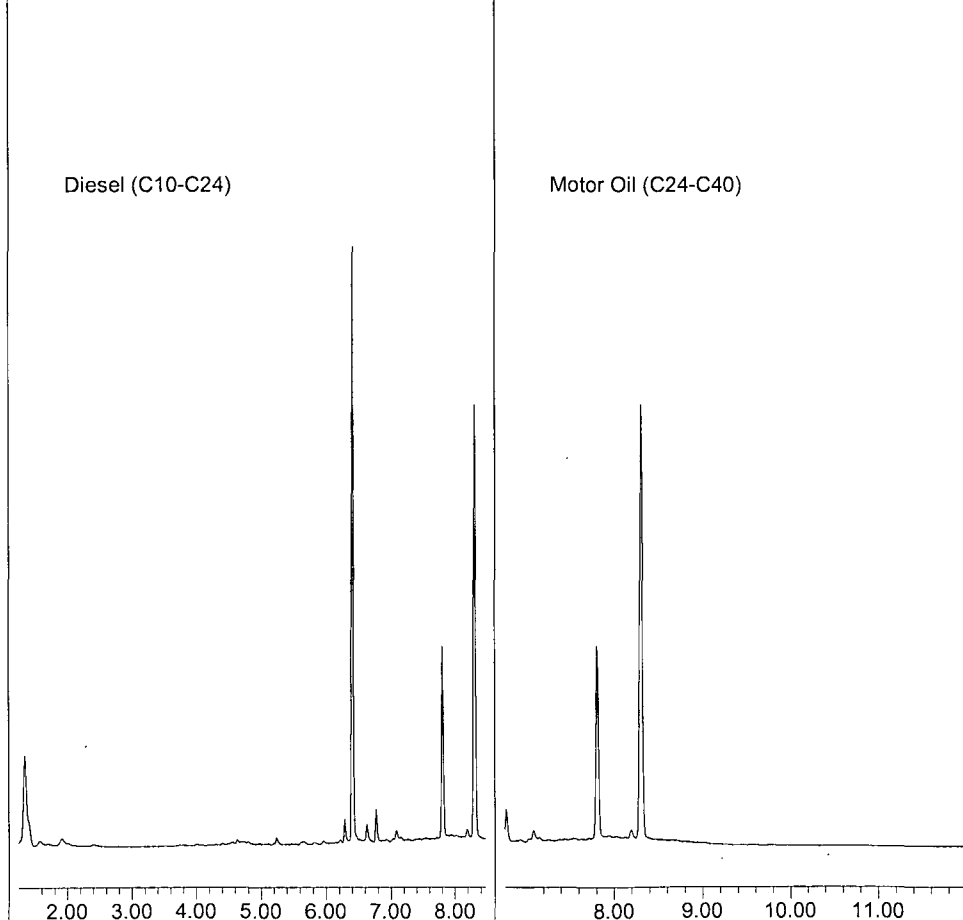
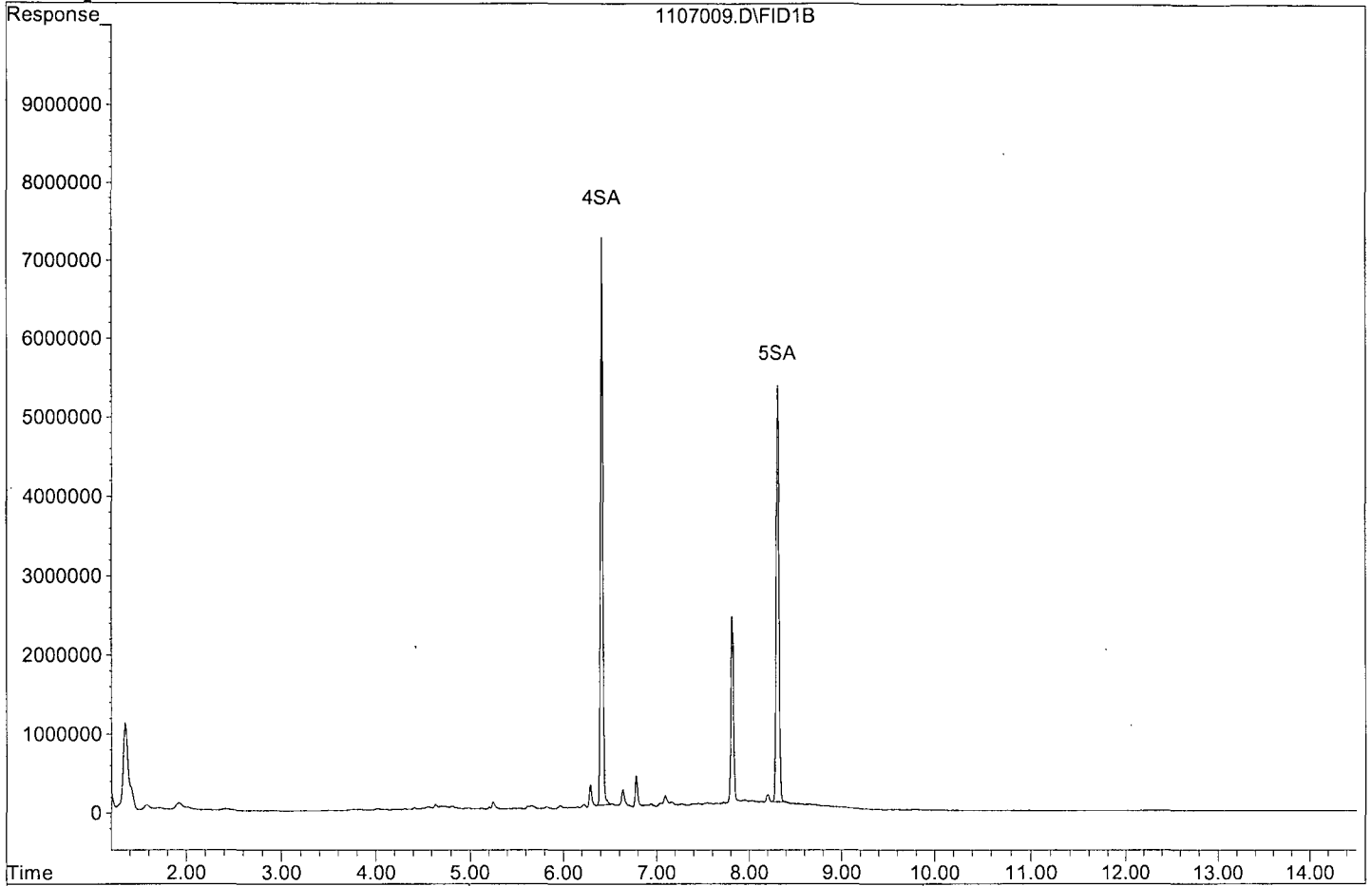
Compound	R.T.	Response	Conc Units
----------	------	----------	------------

System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	121440285	78.396 ppb
Surrogate Spike 75.000		Recovery =	104.53%
5) SA Octacosane(S)	8.31	110240881	85.329 ppb
Surrogate Spike 75.000		Recovery =	113.77%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107009.D  
Sample : AZ81584W13 2/800



Data File : G:\APOLLO\DATA\181025\1025014.D Vial: 14  
 Acq On : 10-25-18 19:49:28 Operator: DP  
 Sample : AZ81585W10 2/810 Inst : Apollo  
 Misc : water Multiplr: 2.47  
 IntFile : events.e  
 Quant Time: Oct 26 8:40 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

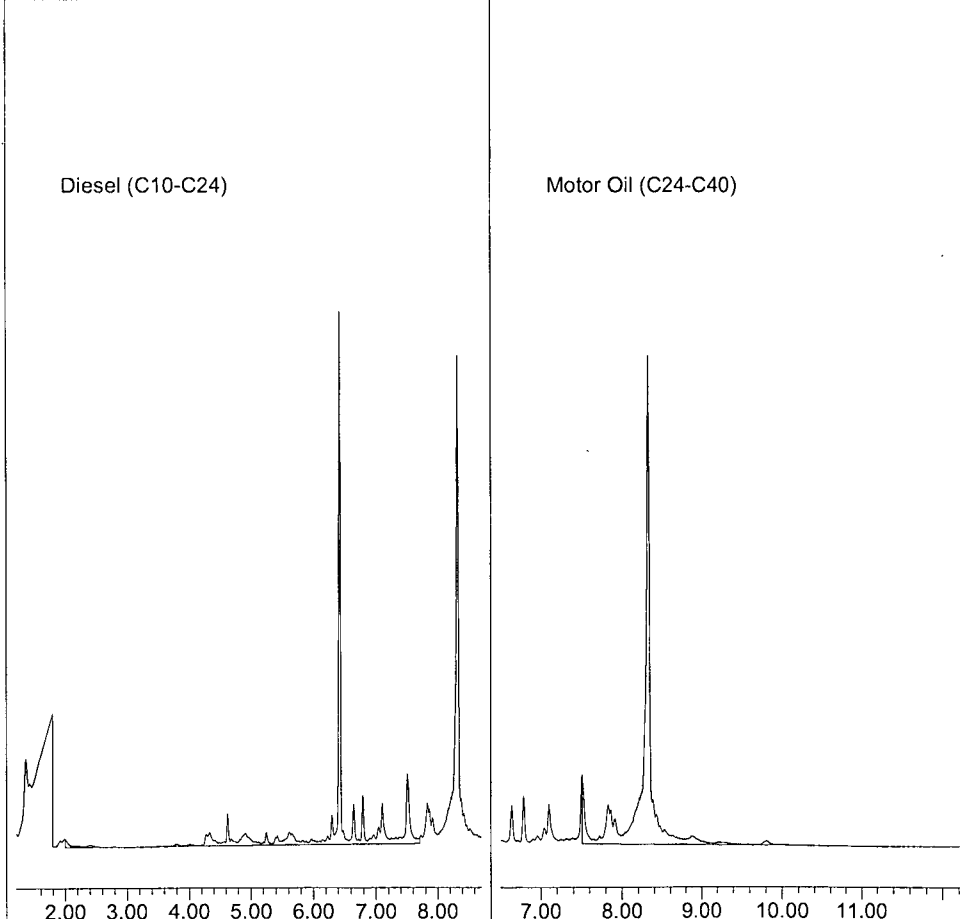
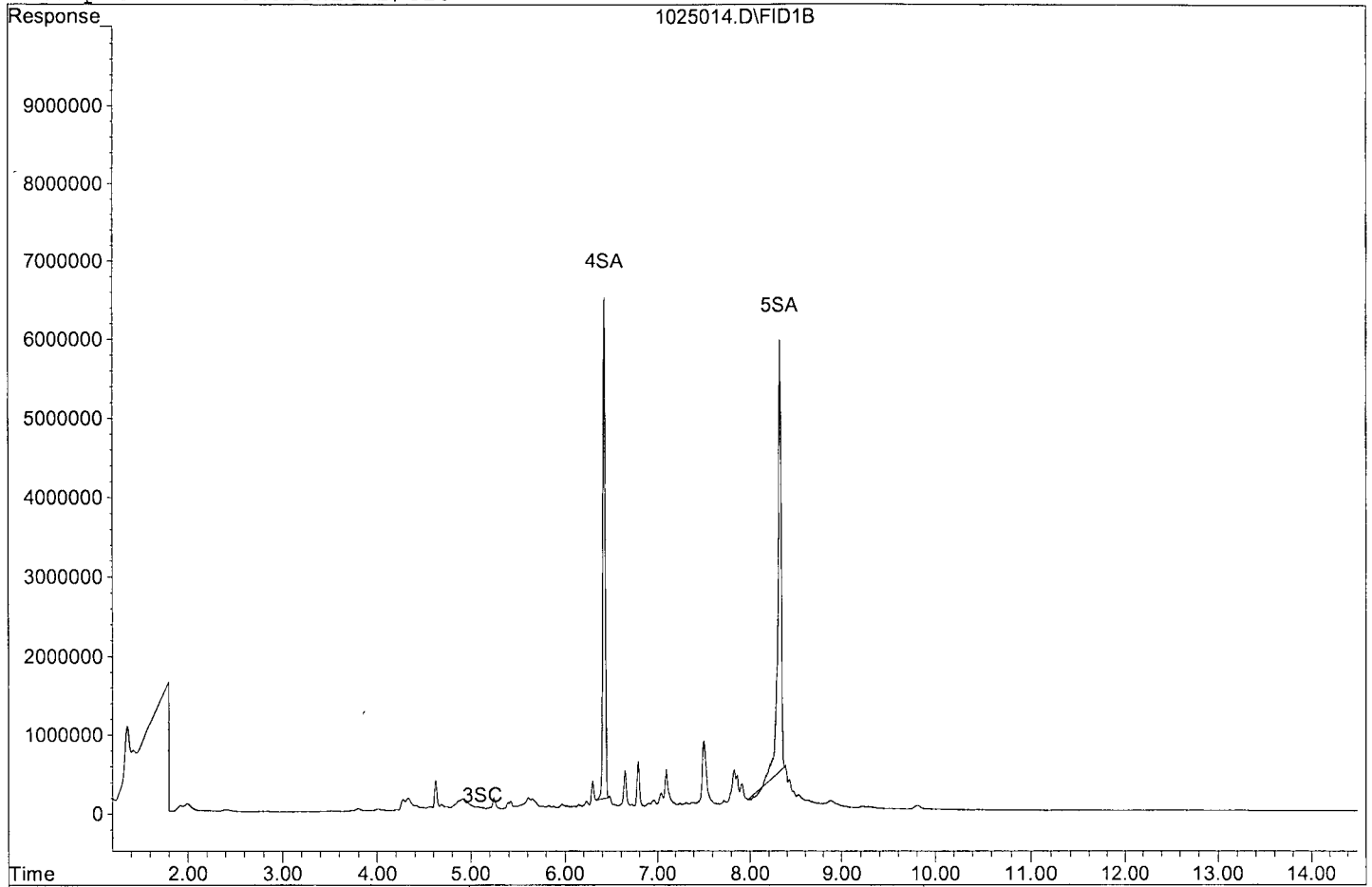
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.12	187491	0.233 ppb
Surrogate Spike 59.259		Recovery =	0.39%
4) SA Ortho-Terphenyl(S)	6.42	109565753	69.858 ppb
Surrogate Spike 74.074		Recovery =	94.31%
5) SA Octacosane(S)	8.32	138143279	105.606 ppb
Surrogate Spike 74.074		Recovery =	142.57%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	216604899	163.197 ppb
2) HBTM Motor Oil (C24-C40)	9.36	193410412	172.045 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181025\1025014.D

Sample : AZ81585W10 2/810



Data File : G:\APOLLO\DATA\181107\1107010.D Vial: 10  
 Acq On : 11-7-18 16:25:42 Operator: DP  
 Sample : AZ81585W07 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 8 9:15 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

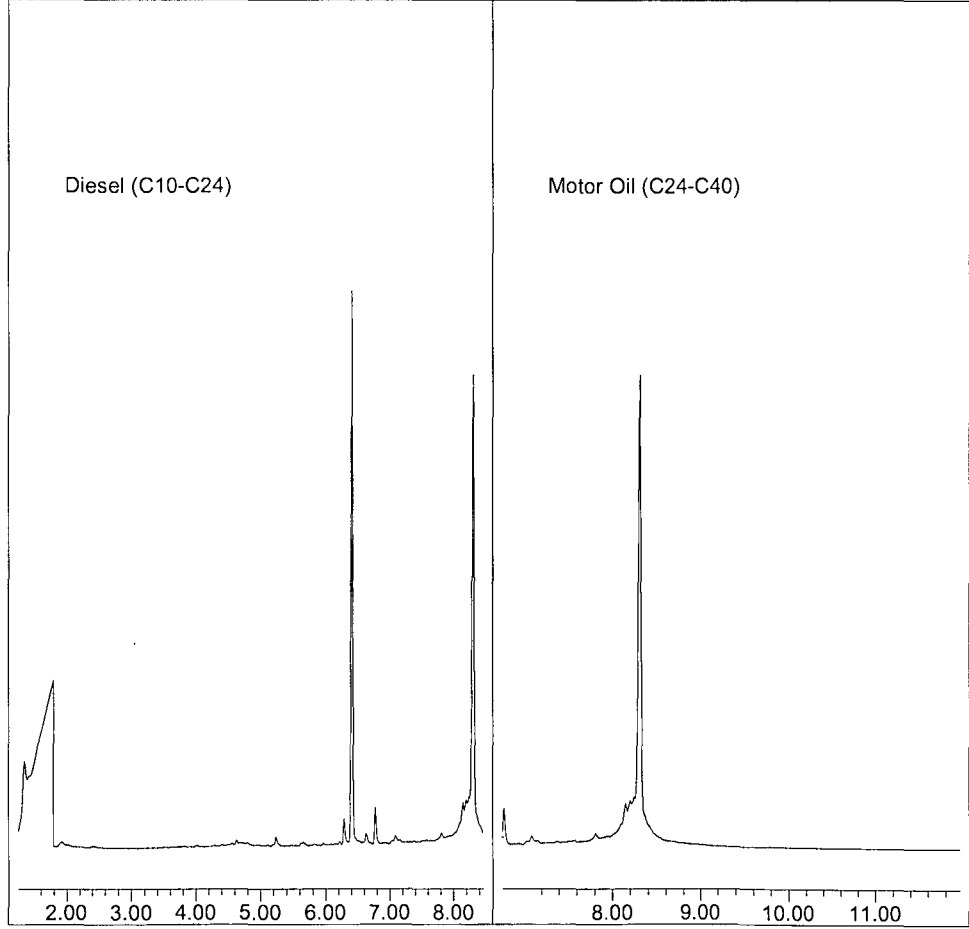
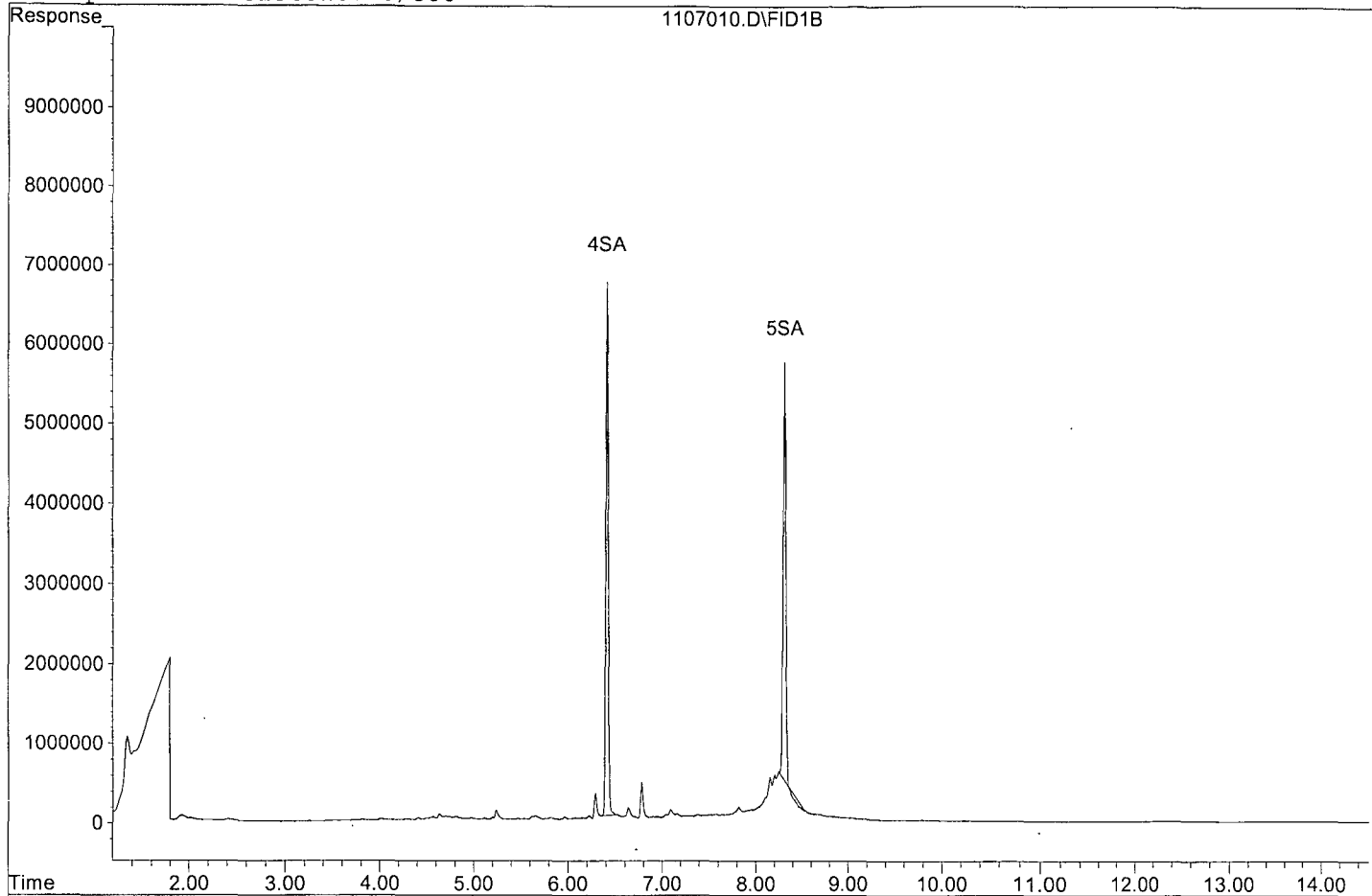
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	116365249	75.120 ppb
Surrogate Spike 75.000		Recovery =	100.16%
5) SA Octacosane(S)	8.31	102050150	78.989 ppb
Surrogate Spike 75.000		Recovery =	105.32%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107010.D  
Sample : AZ81585W07 2/800





Data File : G:\APOLLO\DATA\181025\1025015.D Vial: 15  
 Acq On : 10-25-18 20:09:44 Operator: DP  
 Sample : AZ81587W13 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 26 8:40 2018 Quant Results File: DOC0905.RES

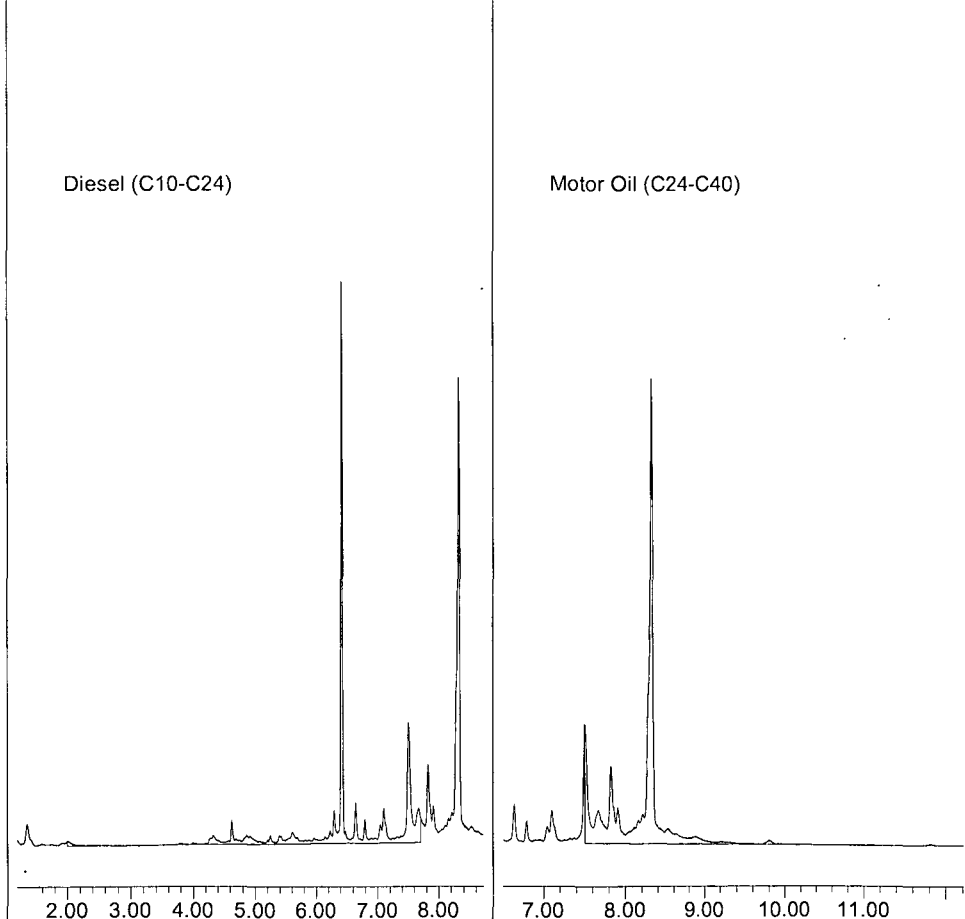
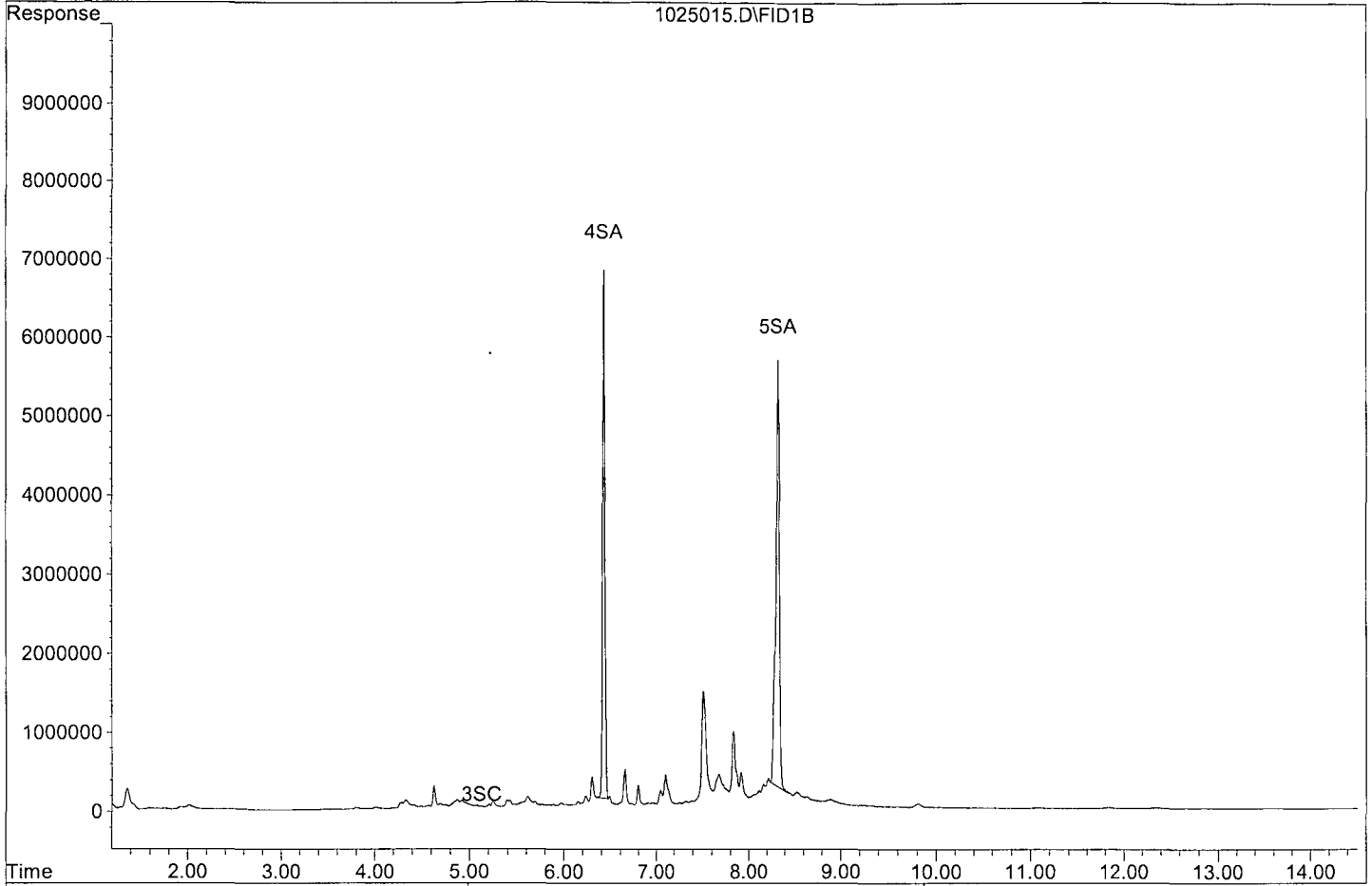
Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.12	71719	0.090 ppb
Surrogate Spike 60.000		Recovery =	0.15%
4) SA Ortho-Terphenyl(S)	6.42	110997680	71.655 ppb
Surrogate Spike 75.000		Recovery =	95.54%
5) SA Octacosane(S)	8.32	143561808	111.120 ppb
Surrogate Spike 75.000		Recovery =	148.16%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	233844599	178.388 ppb
2) HBTM Motor Oil (C24-C40)	9.36	211919766	190.866 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181025\1025015.D  
Sample : AZ81587W13 2/800



Data File : G:\APOLLO\DATA\181107\1107011.D Vial: 11  
 Acq On : 11-7-18 16:46:17 Operator: DP  
 Sample : AZ81587W11 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 8 9:15 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

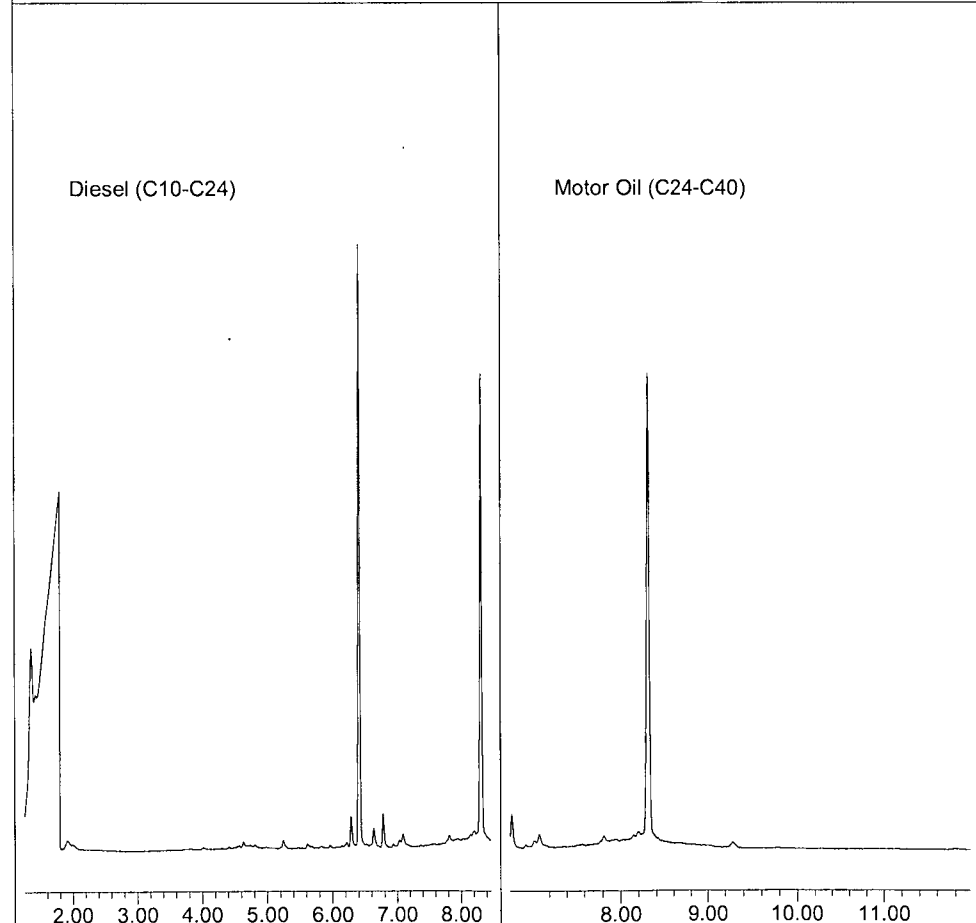
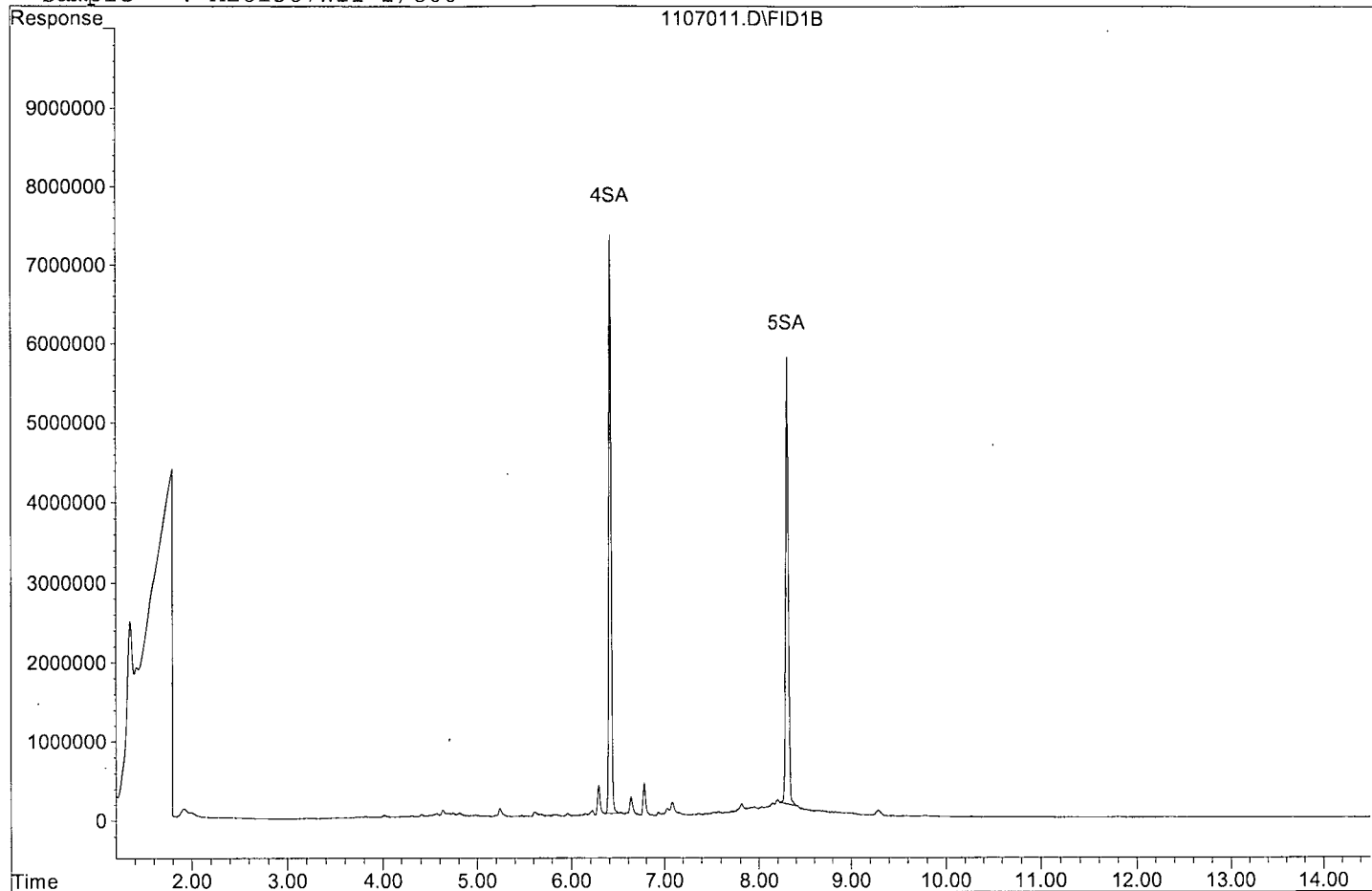
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	122348398	78.982 ppb
Surrogate Spike 75.000		Recovery =	105.31%
5) SA Octacosane(S)	8.31	114497989	88.624 ppb
Surrogate Spike 75.000		Recovery =	118.17%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107011.D

Sample : AZ81587W11 2/800



Data File : G:\APOLLO\DATA\181025\1025004.D Vial: 4  
 Acq On : 10-25-18 16:28:50 Operator: DP  
 Sample : 181023A BLK 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 26 8:38 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

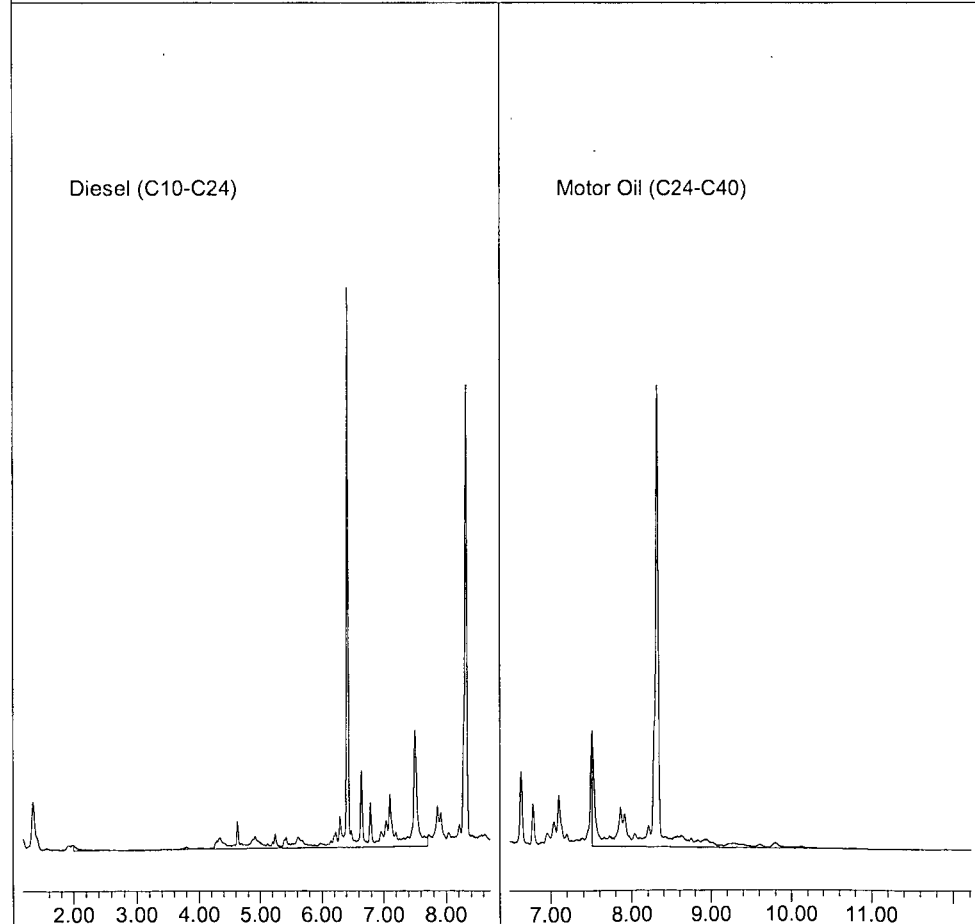
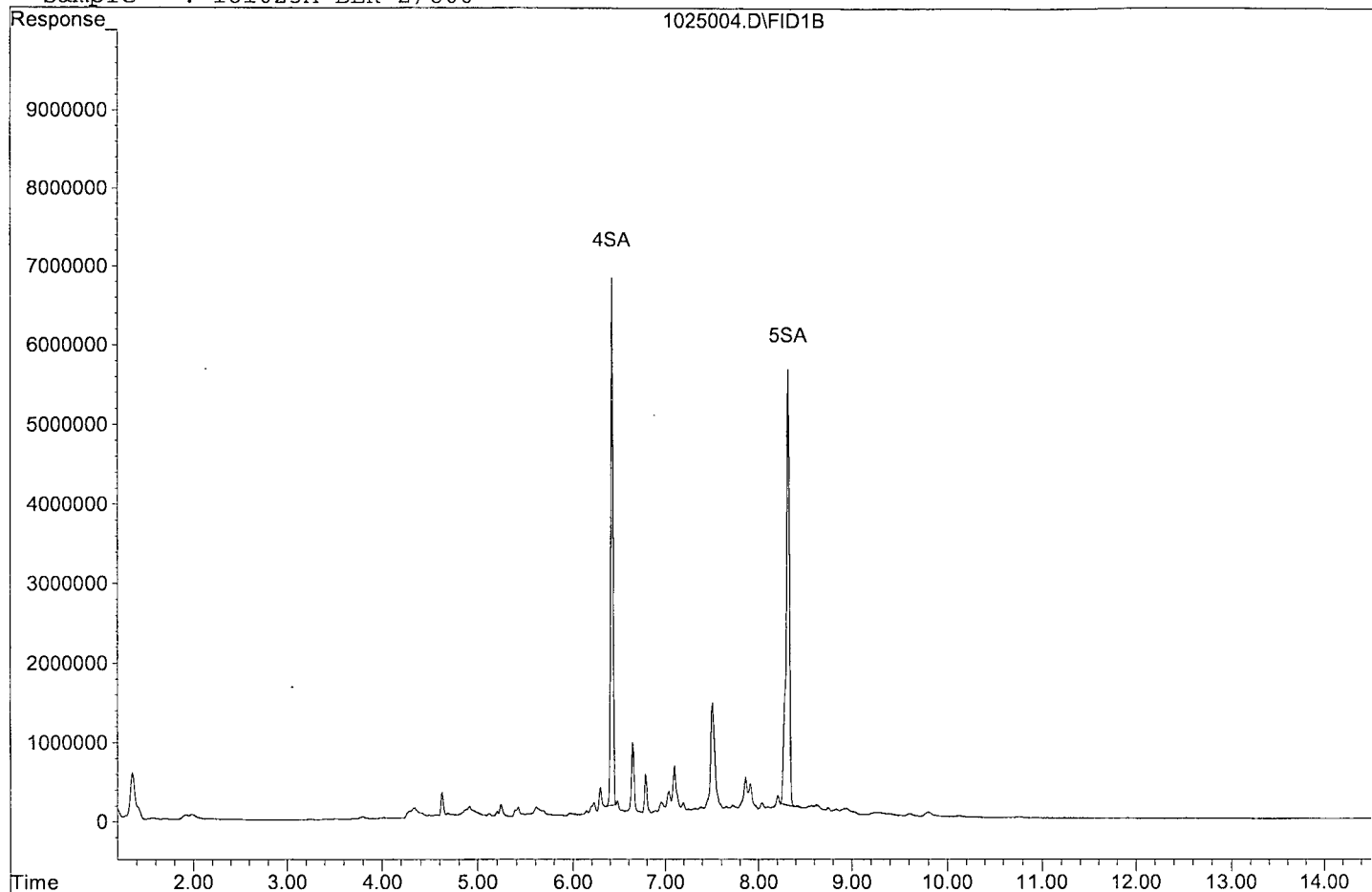
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	109668263	70.797 ppb
Surrogate Spike 75.000		Recovery =	94.40%
5) SA Octacosane(S)	8.32	134603372	104.186 ppb
Surrogate Spike 75.000		Recovery =	138.91%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	269905509	205.897 ppb
2) HBTM Motor Oil (C24-C40)	9.36	153225720	138.003 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181025\1025004.D

Sample : 181023A BLK 2/800



Data File : G:\APOLLO\DATA\181107\1107004.D Vial: 4  
 Acq On : 11-7-18 14:24:57 Operator: DP  
 Sample : 181105A BLK 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 15:05 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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 System Monitoring Compounds

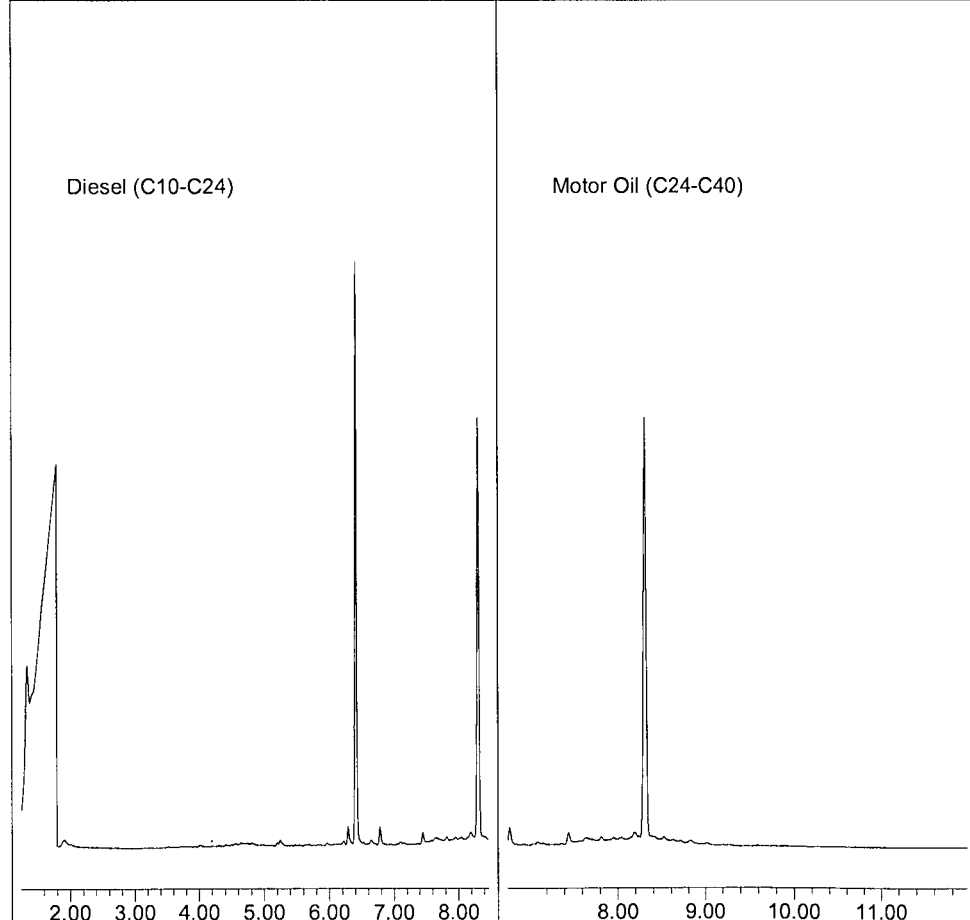
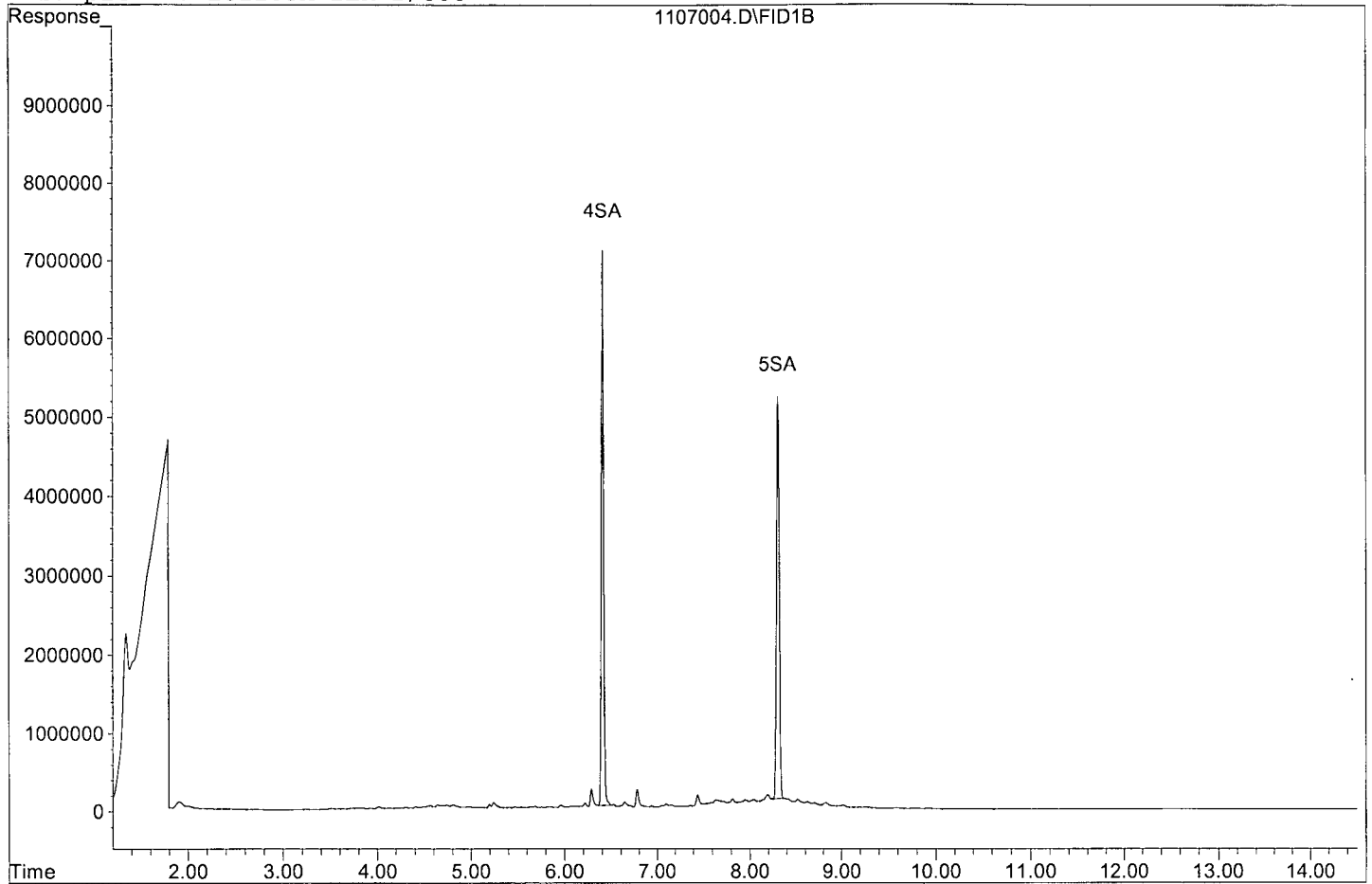
4) SA Ortho-Terphenyl(S)	6.41	120181049	77.583 ppb
Surrogate Spike 75.000		Recovery =	103.44%
5) SA Octacosane(S)	8.31	106752854	82.629 ppb
Surrogate Spike 75.000		Recovery =	110.17%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107004.D

Sample : 181105A BLK 2/800





Data File : G:\APOLLO\DATA\181025\1025005.D Vial: 5  
 Acq On : 10-25-18 16:48:52 Operator: DP  
 Sample : 181023A LCS-1 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 26 8:38 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

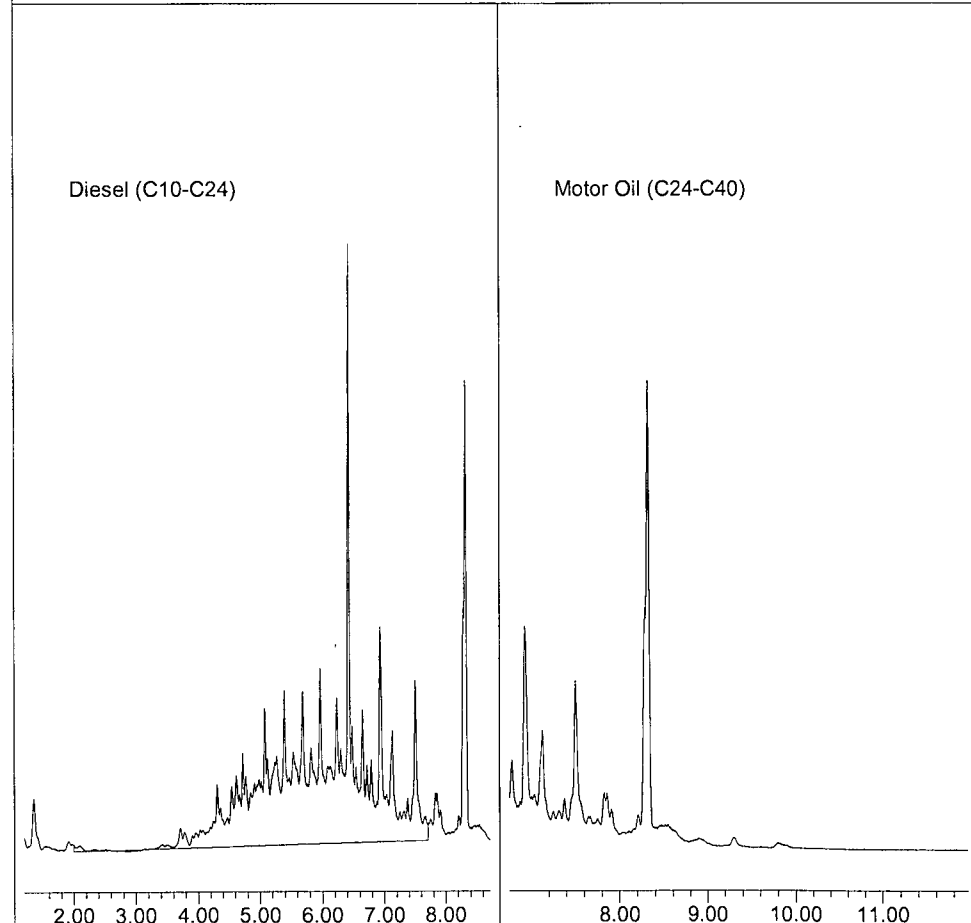
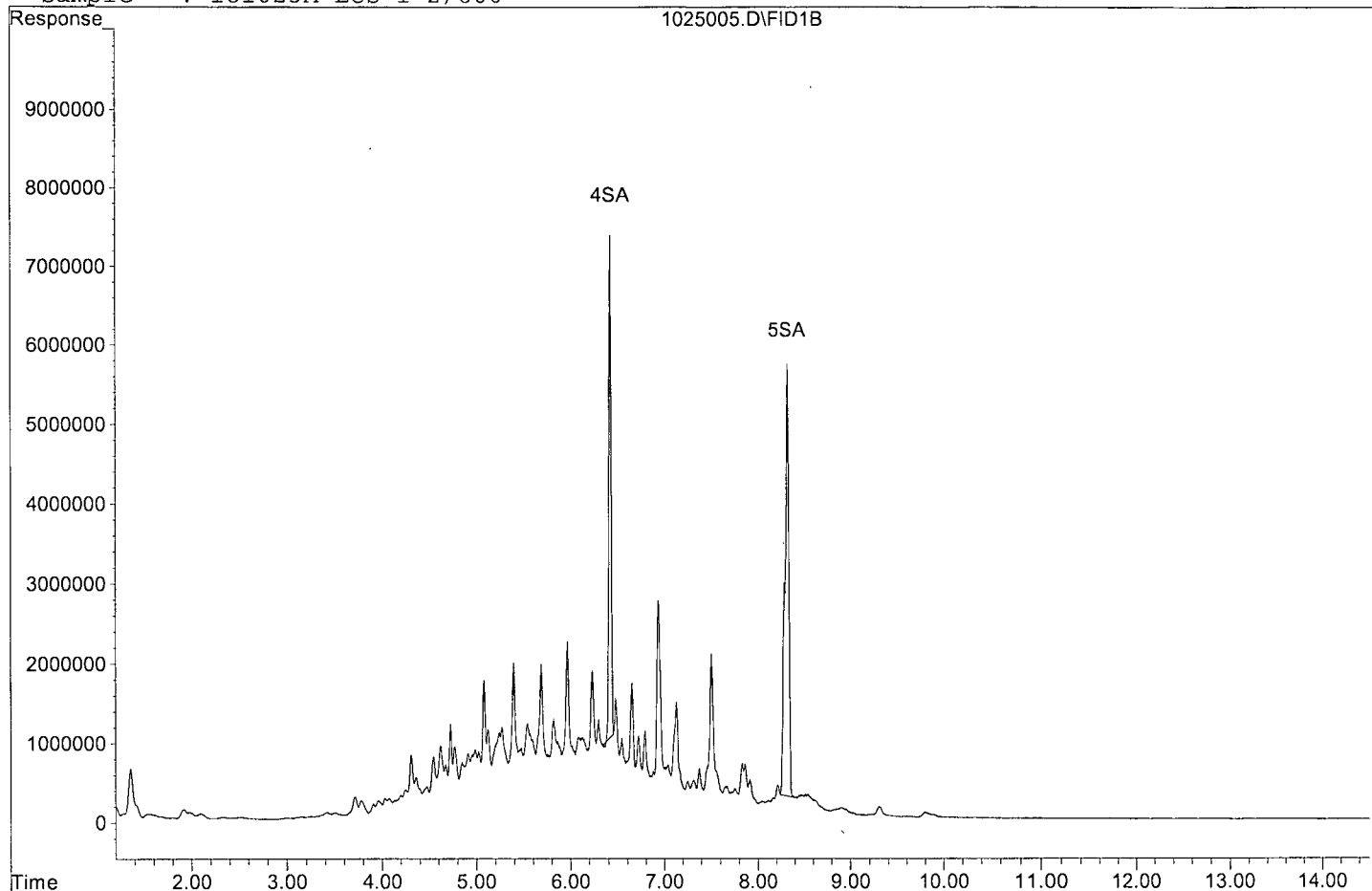
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	101280285	65.382 ppb
Surrogate Spike 75.000		Recovery =	87.18%
5) SA Octacosane(S)	8.32	162484819	125.767 ppb
Surrogate Spike 75.000		Recovery =	167.69%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1657177545	1264.173 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181025\1025005.D

Sample : 181023A LCS-1 2/800



Data File : G:\APOLLO\DATA\181107\1107005.D Vial: 5  
 Acq On : 11-7-18 14:45:01 Operator: DP  
 Sample : 181105A LCS-1 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 15:05 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

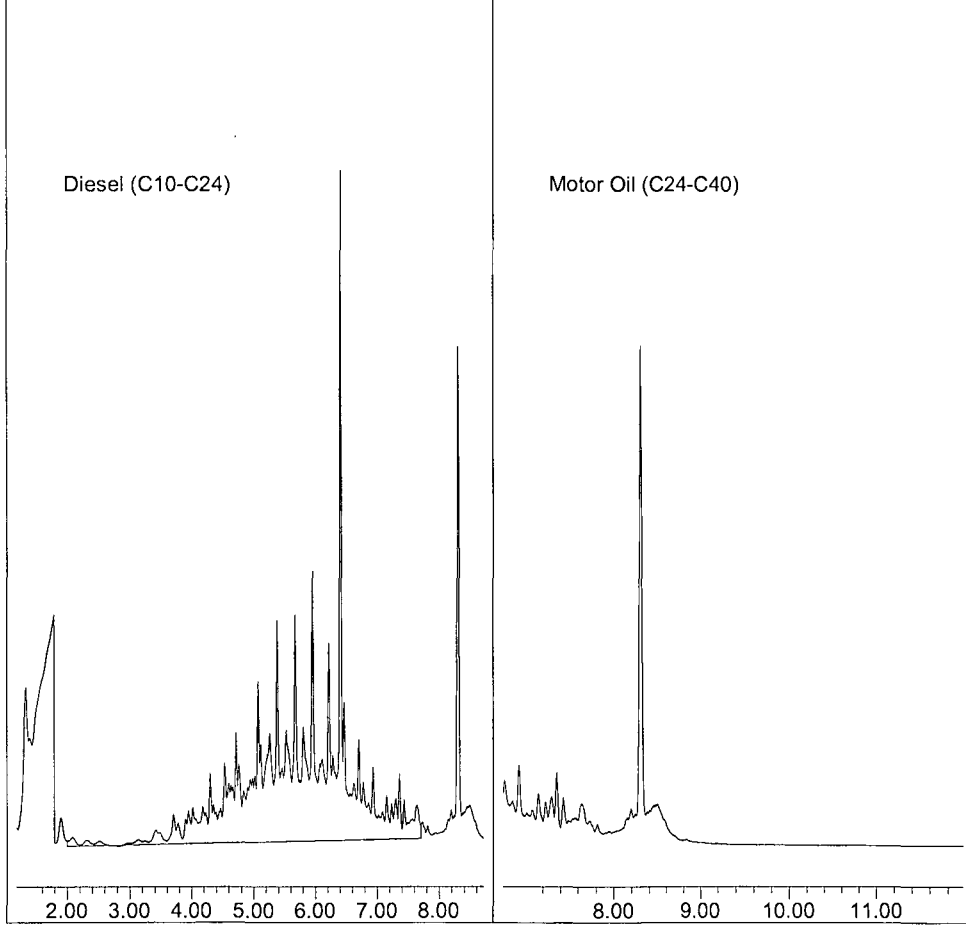
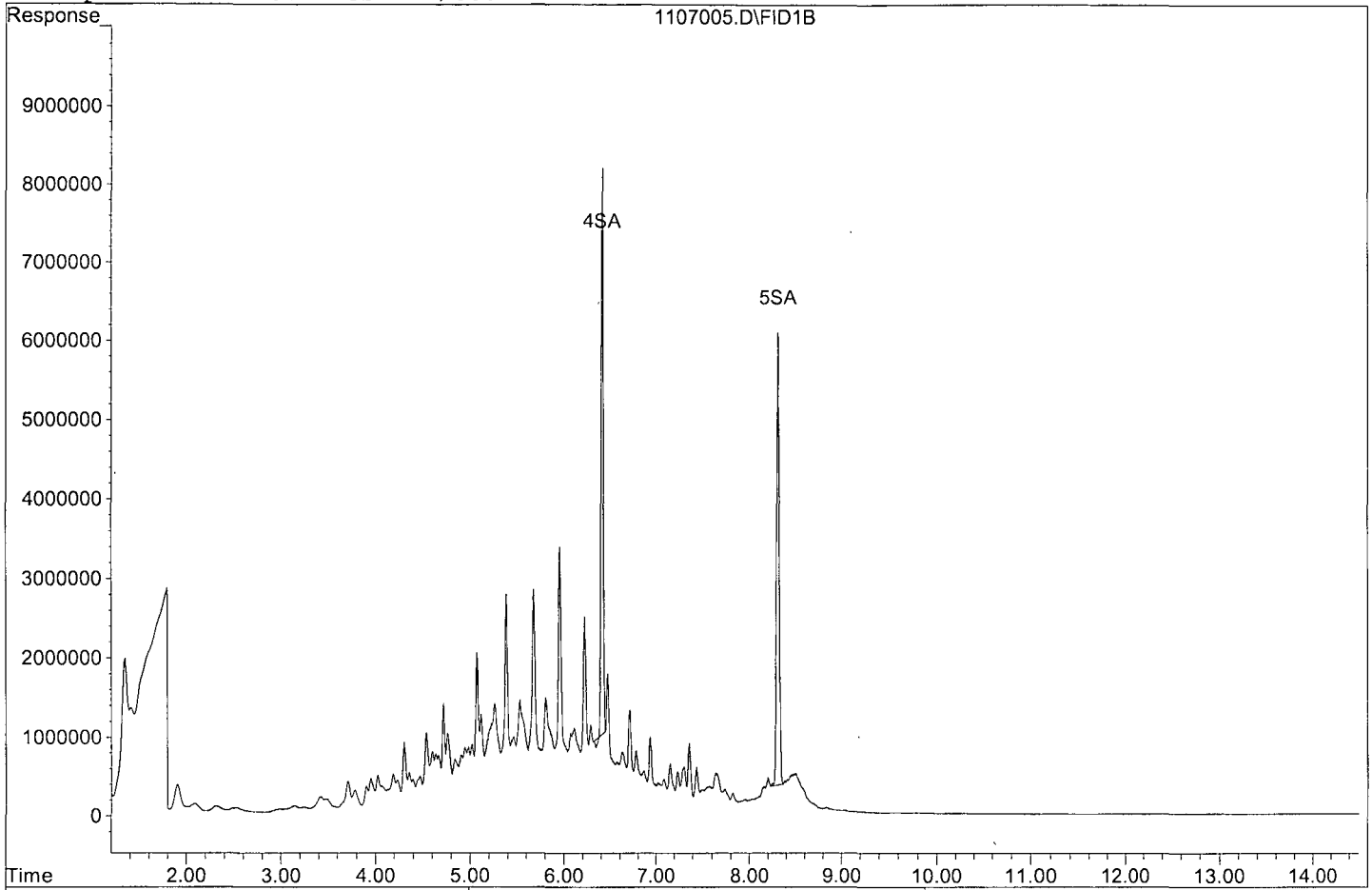
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	111223308	71.801 ppb
Surrogate Spike 75.000		Recovery =	95.73%
5) SA Octacosane(S)	8.31	113189424	87.611 ppb
Surrogate Spike 75.000		Recovery =	116.81%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1661661781	1267.594 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107005.D

Sample : 181105A LCS-1 2/800



Data File : G:\APOLLO\DATA\181025\1025006.D Vial: 6  
 Acq On : 10-25-18 17:08:53 Operator: DP  
 Sample : 181023A LCS-2 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 26 8:38 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

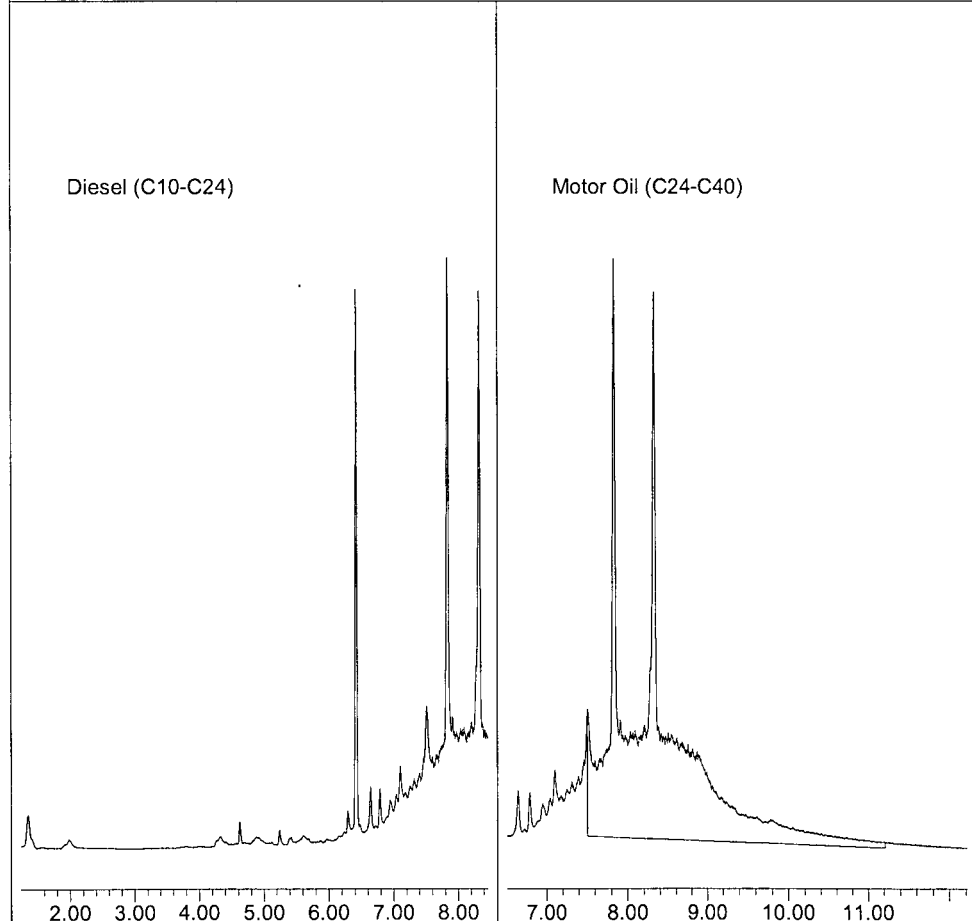
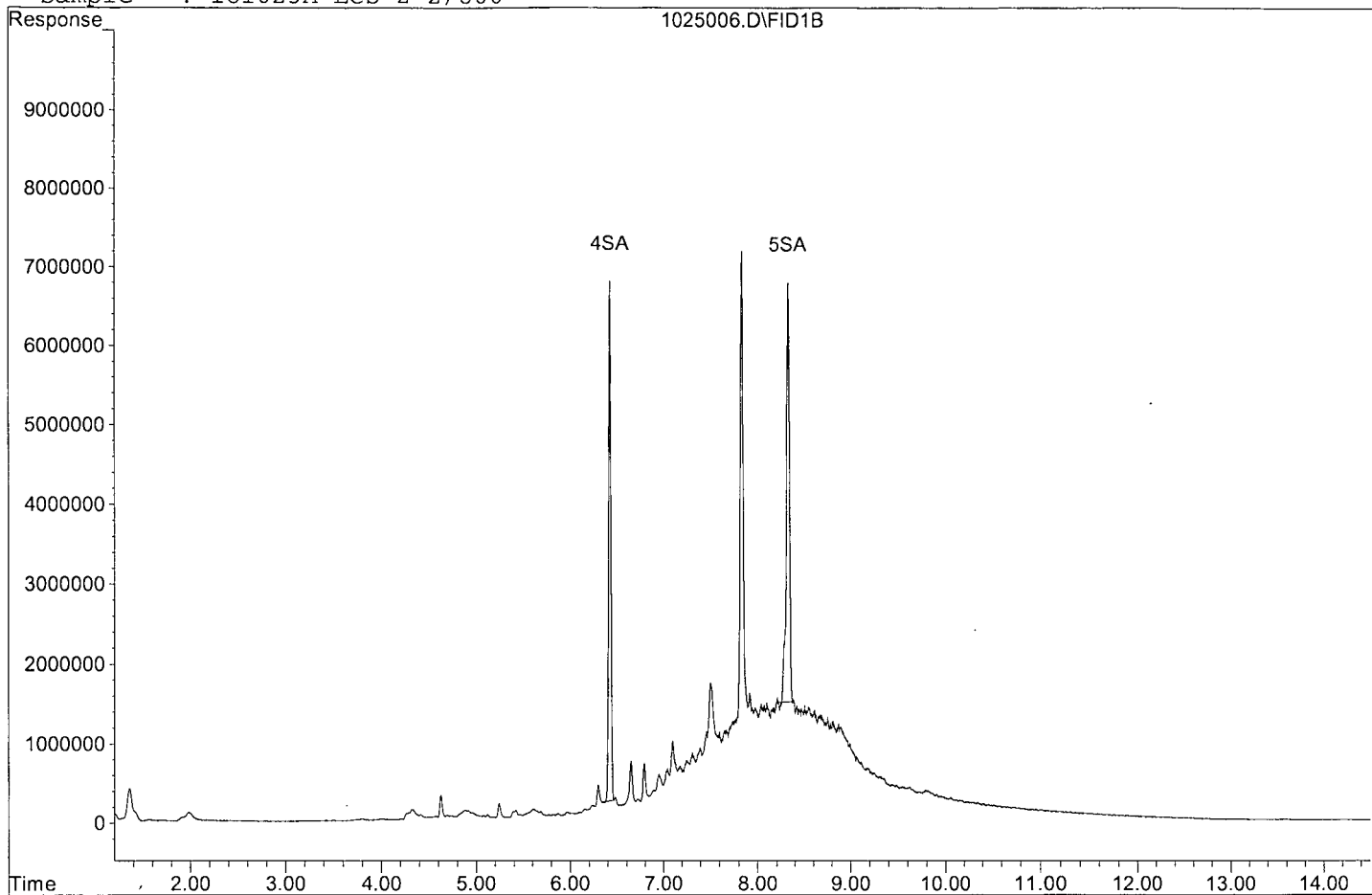
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	107734737	69.549 ppb
Surrogate Spike 75.000		Recovery =	92.73%
5) SA Octacosane(S)	8.33	118544435	91.756 ppb
Surrogate Spike 75.000		Recovery =	122.34%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1448775893	1304.842 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181025\1025006.D

Sample : 181023A LCS-2 2/800



Data File : G:\APOLLO\DATA\181107\1107006.D Vial: 6  
 Acq On : 11-7-18 15:05:06 Operator: DP  
 Sample : 181105A LCS-2 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 15:23 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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-----  
 System Monitoring Compounds

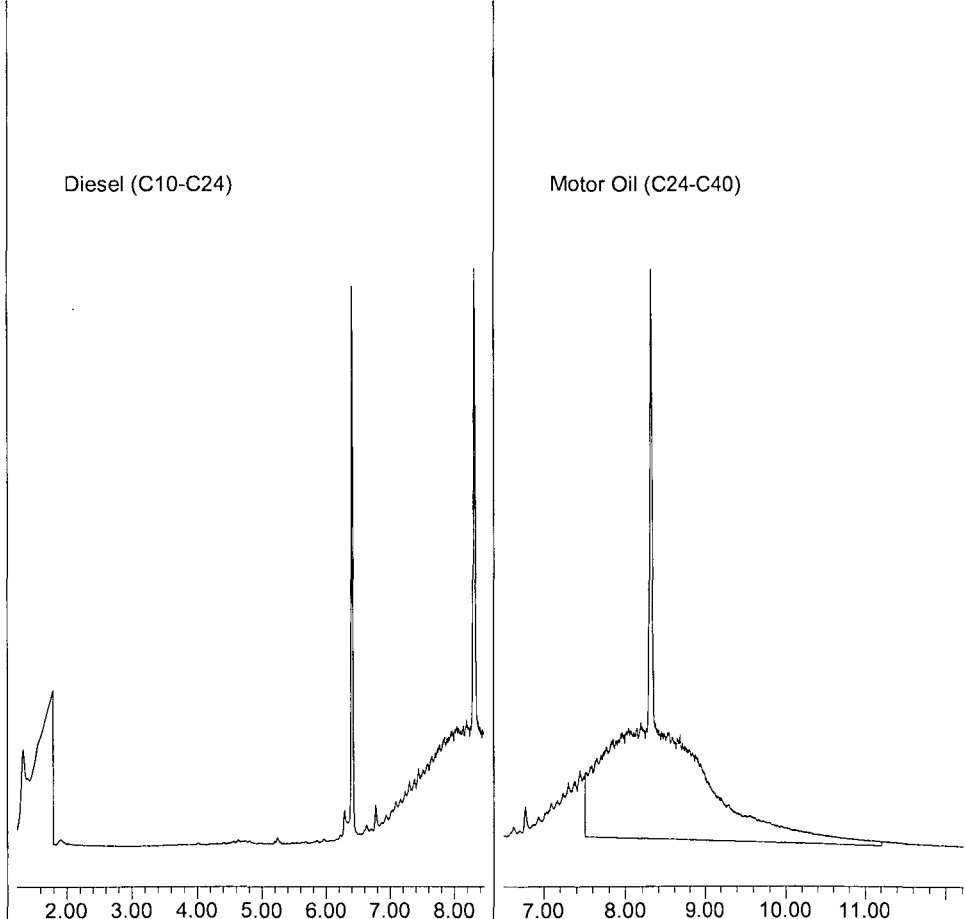
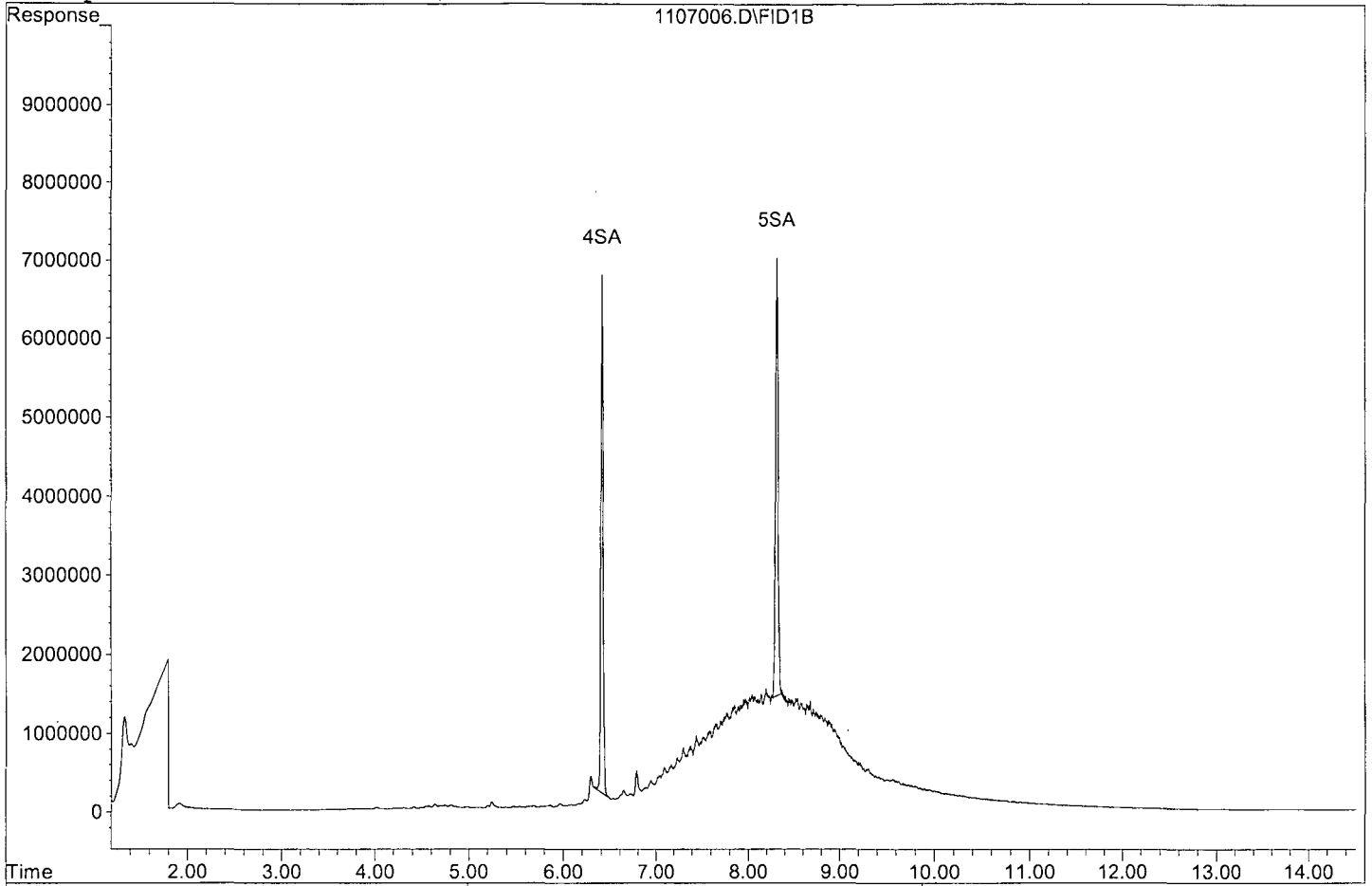
4) SA Ortho-Terphenyl(S)	6.41	109672489	70.800 ppb
Surrogate Spike 75.000		Recovery =	94.40%
5) SA Octacosane(S)	8.31	108757242	84.181 ppb
Surrogate Spike 75.000		Recovery =	112.24%

Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	1301672640	1172.353 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107006.D  
Sample : 181105A LCS-2 2/800





Data File : G:\APOLLO\DATA\181025\1025007.D Vial: 7  
 Acq On : 10-25-18 17:28:55 Operator: DP  
 Sample : 181023A LCSD-1 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 26 8:38 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

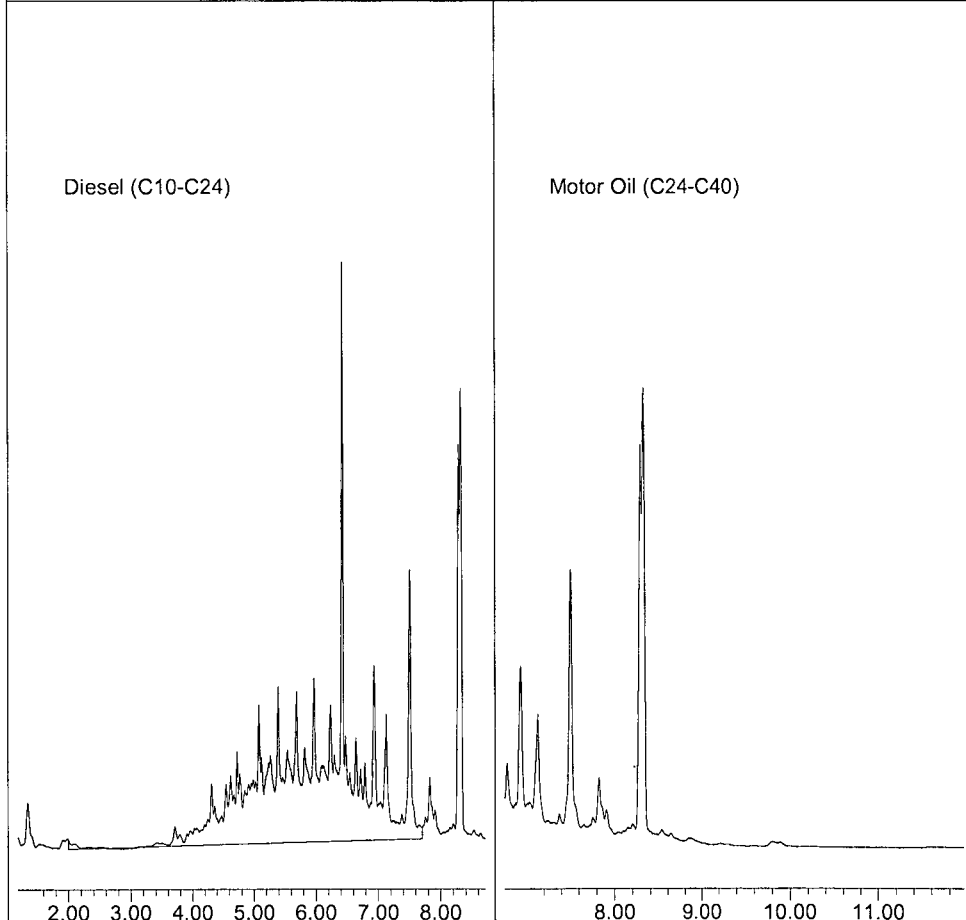
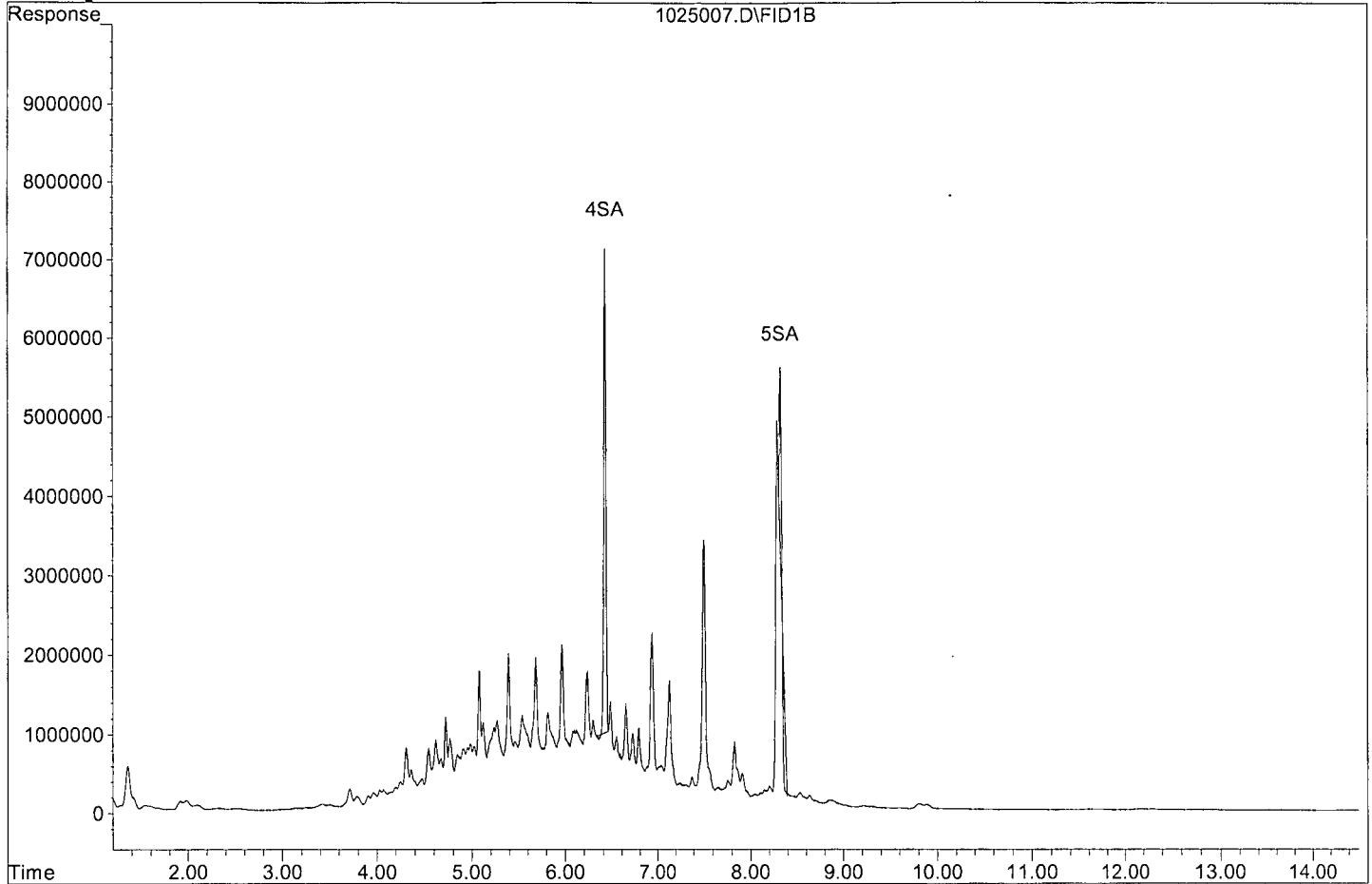
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	99903952	64.493 ppb
Surrogate Spike 75.000		Recovery =	85.99%
5) SA Octacosane(S)	8.32	10461220	8.097 ppb
Surrogate Spike 75.000		Recovery =	10.80%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1604802998	1224.220 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181025\1025007.D

Sample : 181023A LCSD-1 2/800



Data File : G:\APOLLO\DATA\181107\1107007.D Vial: 7  
 Acq On : 11-7-18 15:25:09 Operator: DP  
 Sample : 181105A LCSD-1 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 16:22 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

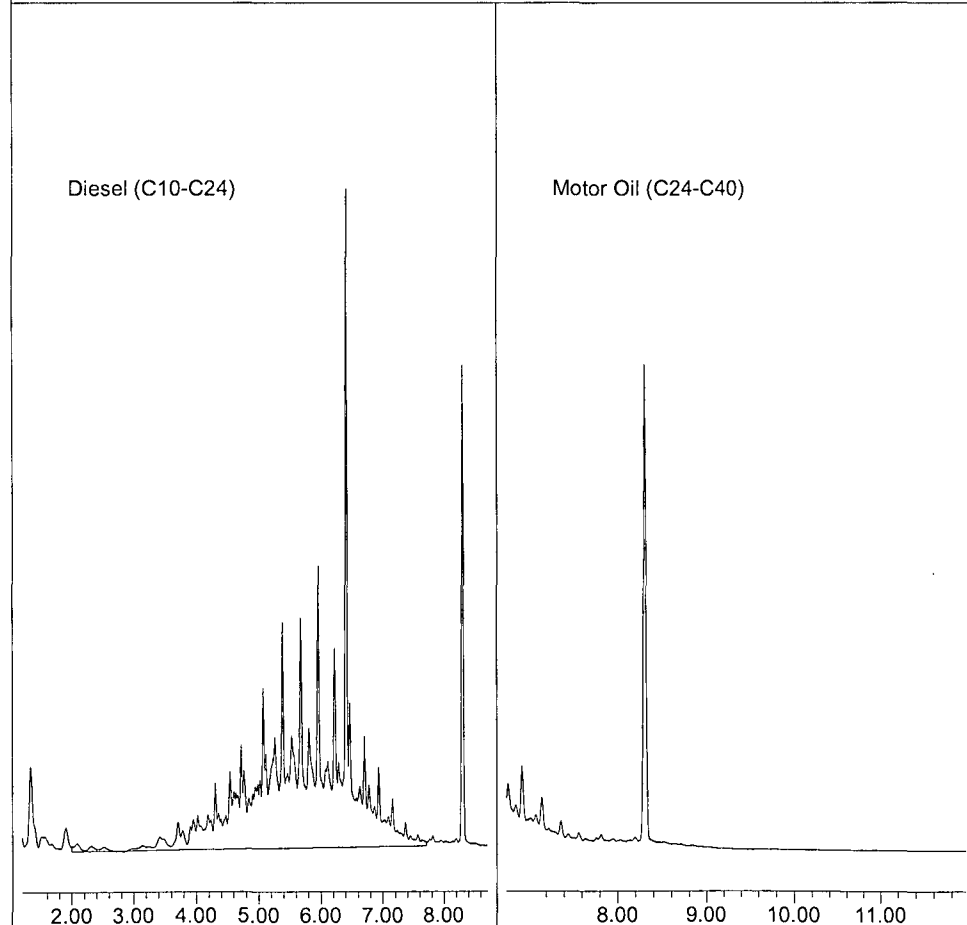
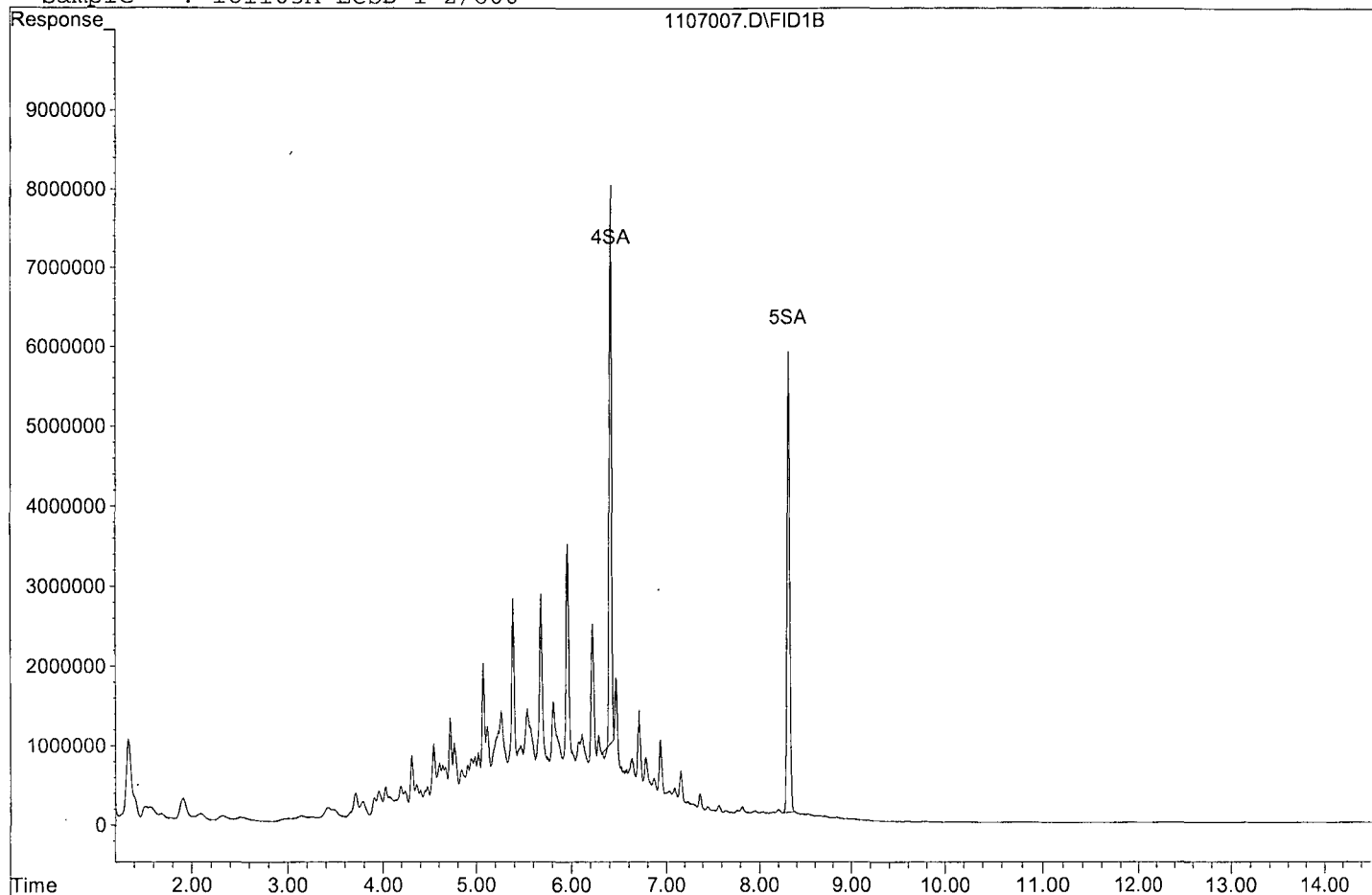
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	114158680	73.696 ppb
Surrogate Spike 75.000		Recovery =	98.26%
5) SA Octacosane(S)	8.31	113691490	88.000 ppb
Surrogate Spike 75.000		Recovery =	117.33%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1620538315	1236.223 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107007.D

Sample : 181105A LCSD-1 2/800



Data File : G:\APOLLO\DATA\181025\1025008.D Vial: 8  
 Acq On : 10-25-18 17:49:02 Operator: DP  
 Sample : 181023A LCSD-2 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 26 8:39 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

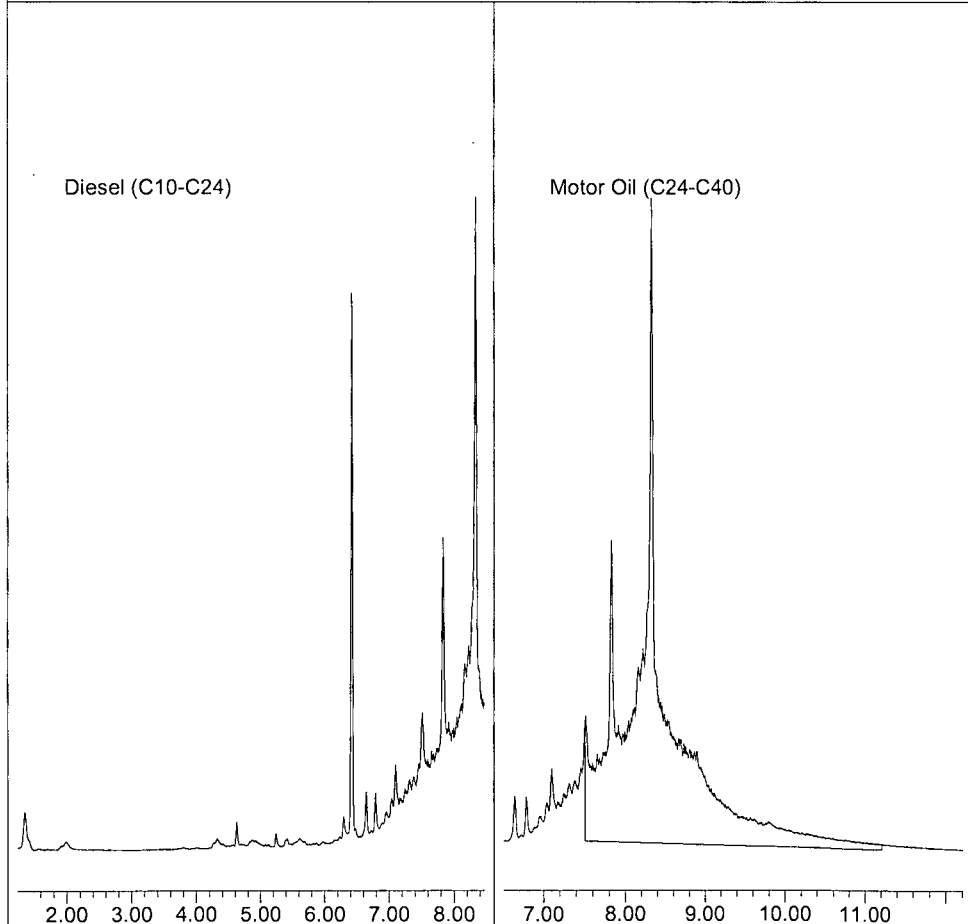
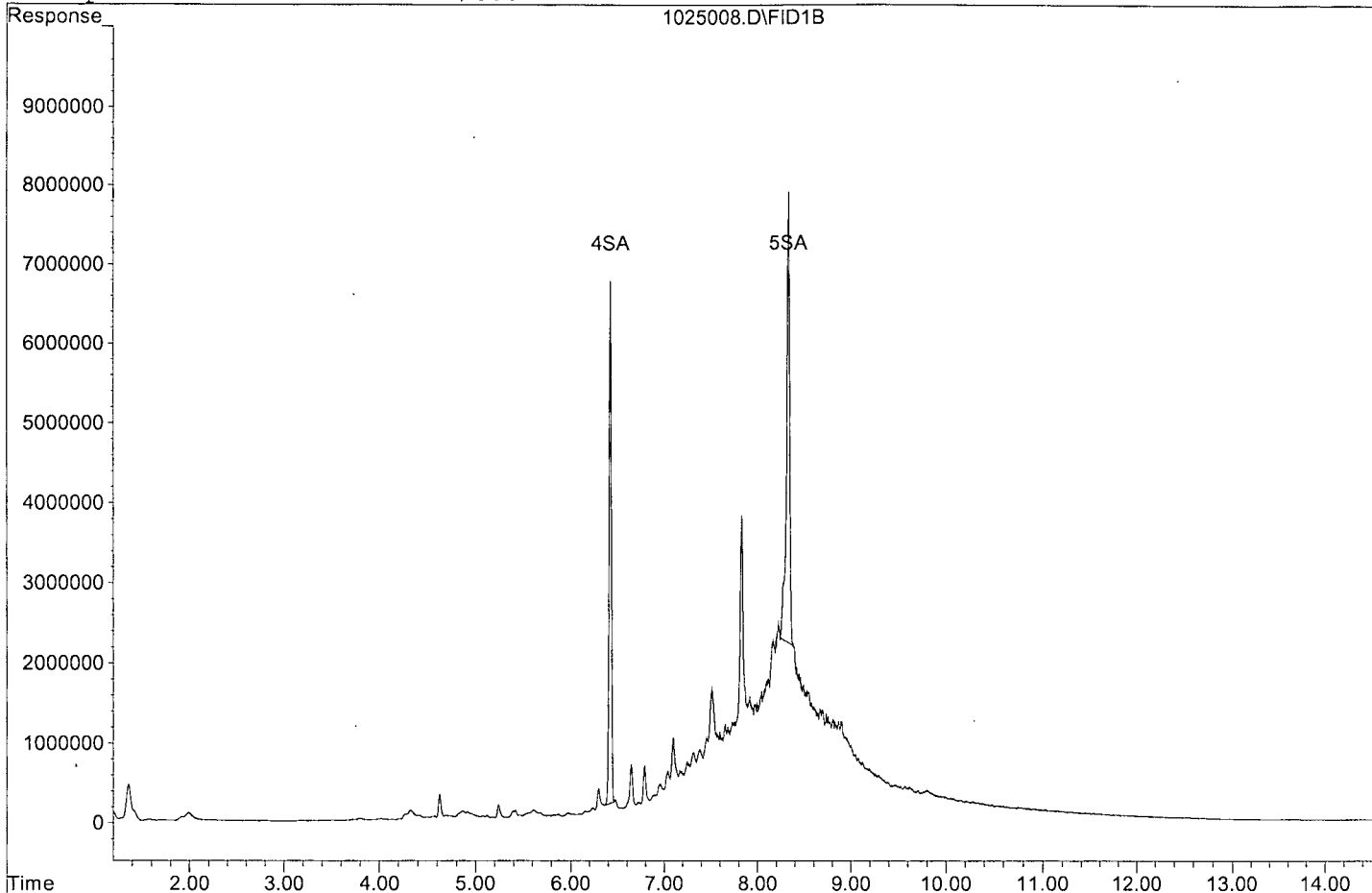
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	109617230	70.764 ppb
Surrogate Spike 75.000		Recovery =	94.35%
5) SA Octacosane(S)	8.33	127703014	98.845 ppb m
Surrogate Spike 75.000		Recovery =	131.79%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1582746198	1425.503 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181025\1025008.D

Sample : 181023A LCSD-2 2/800



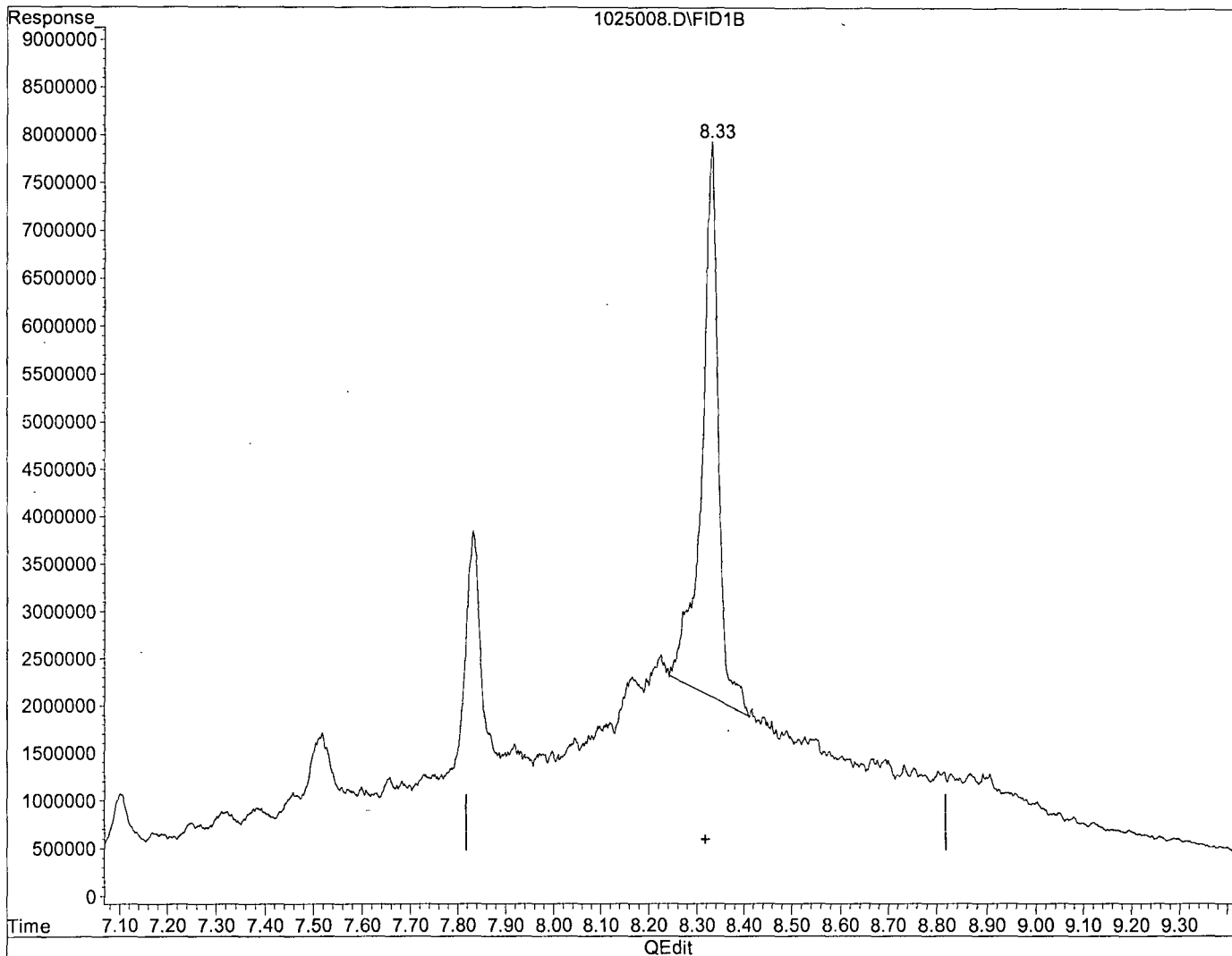
Quantitation Report

Data File : G:\APOLLO\DATA\181025\1025008.D  
Acq On : 10-25-18 17:49:02  
Sample : 181023A LCSD-2 2/800  
Misc : water  
IntFile : events.e  
Quant Time: Oct 26 9:38 2018

Vial: 8  
Operator: DP  
Inst : Apollo  
Multiplr: 2.50

Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
Title : 8015 B&C  
Last Update : Fri Oct 26 09:32:46 2018  
Response via : Multiple Level Calibration



(5) Octacosane(S) (SA)

8.33min 110.167ppb

response 142330304

(+) = Expected Retention Time

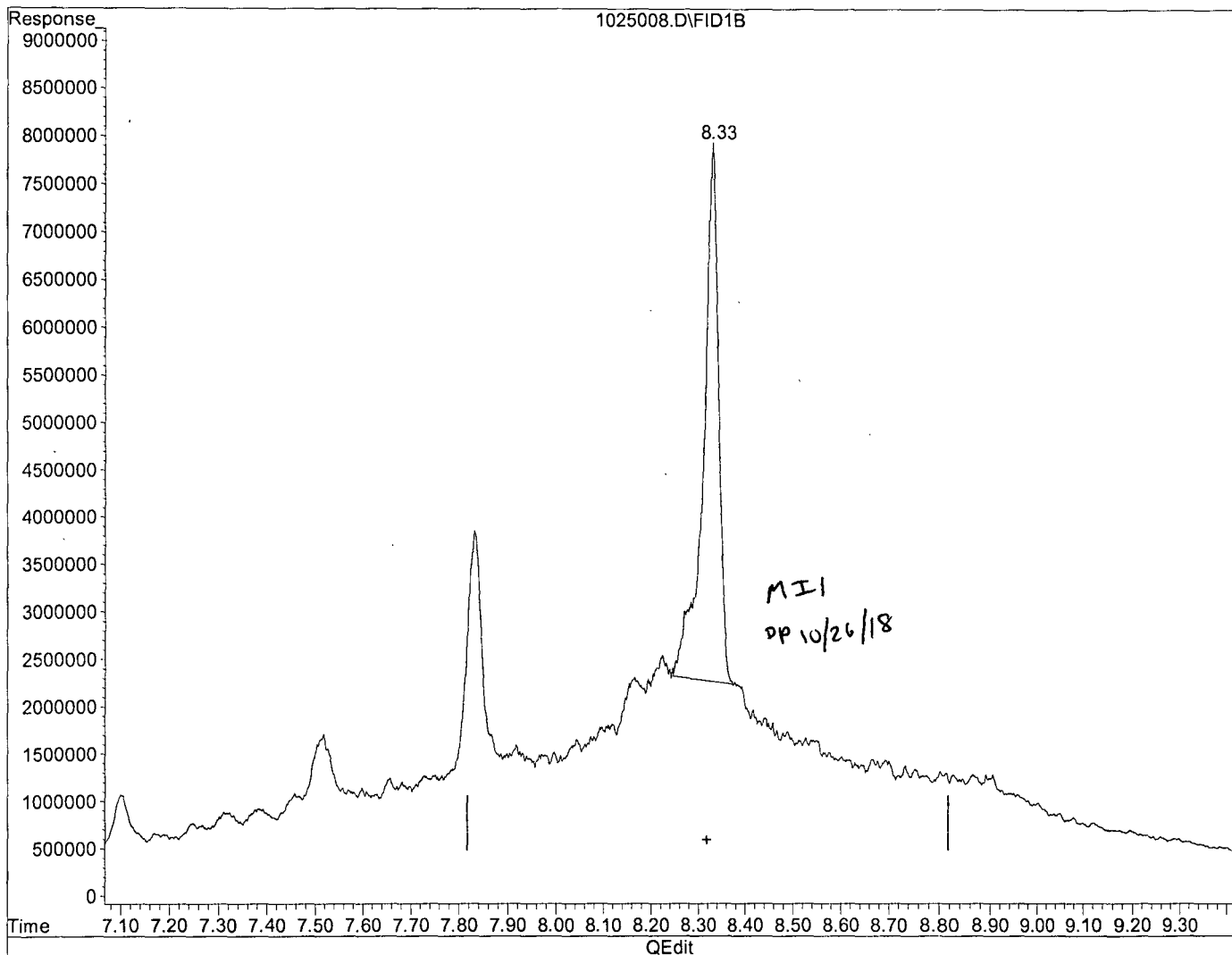
Quantitation Report

Data File : G:\APOLLO\DATA\181025\1025008.D  
Acq On : 10-25-18 17:49:02  
Sample : 181023A LCSD-2 2/800  
Misc : water  
IntFile : events.e  
Quant Time: Oct 26 9:38 2018

Vial: 8  
Operator: DP  
Inst : Apollo  
Multiplr: 2.50

Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
Title : 8015 B&C  
Last Update : Fri Oct 26 09:32:46 2018  
Response via : Multiple Level Calibration



(5) Octacosane(S) (SA)  
8.33min 98.845ppb m  
response 127703014



Data File : G:\APOLLO\DATA\181107\1107008.D Vial: 8  
 Acq On : 11-7-18 15:45:12 Operator: DP  
 Sample : 181105A LCSD-2 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 16:22 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

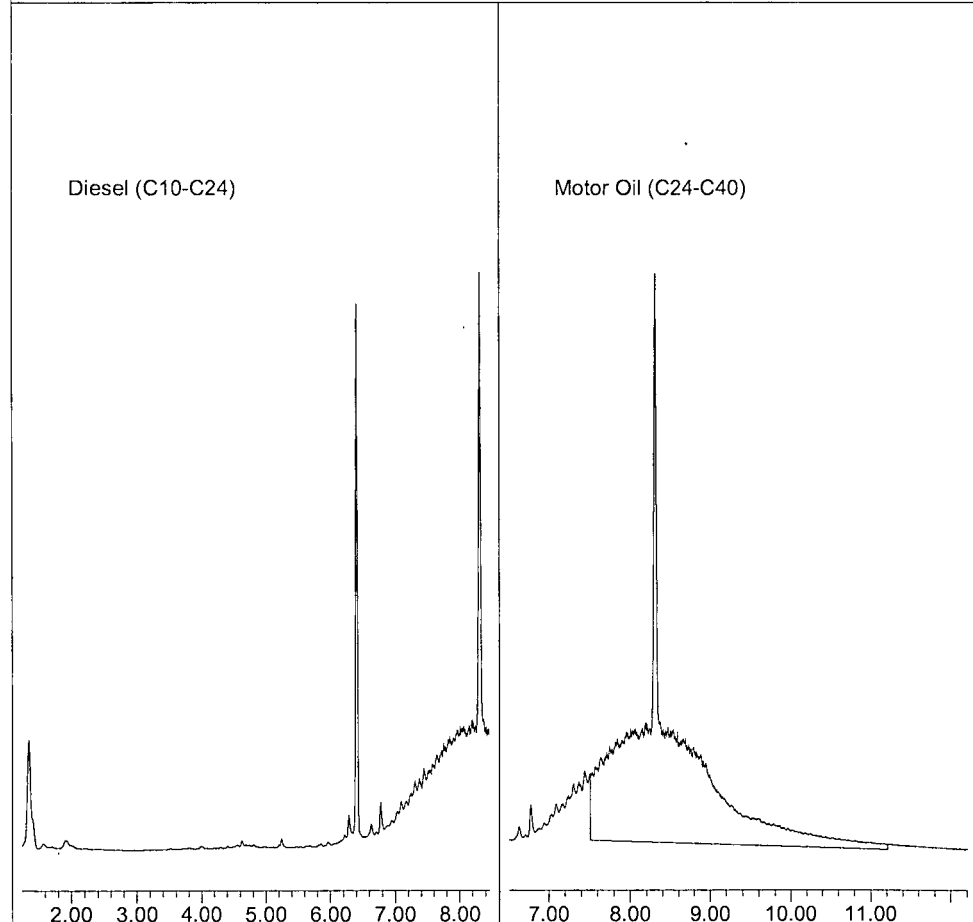
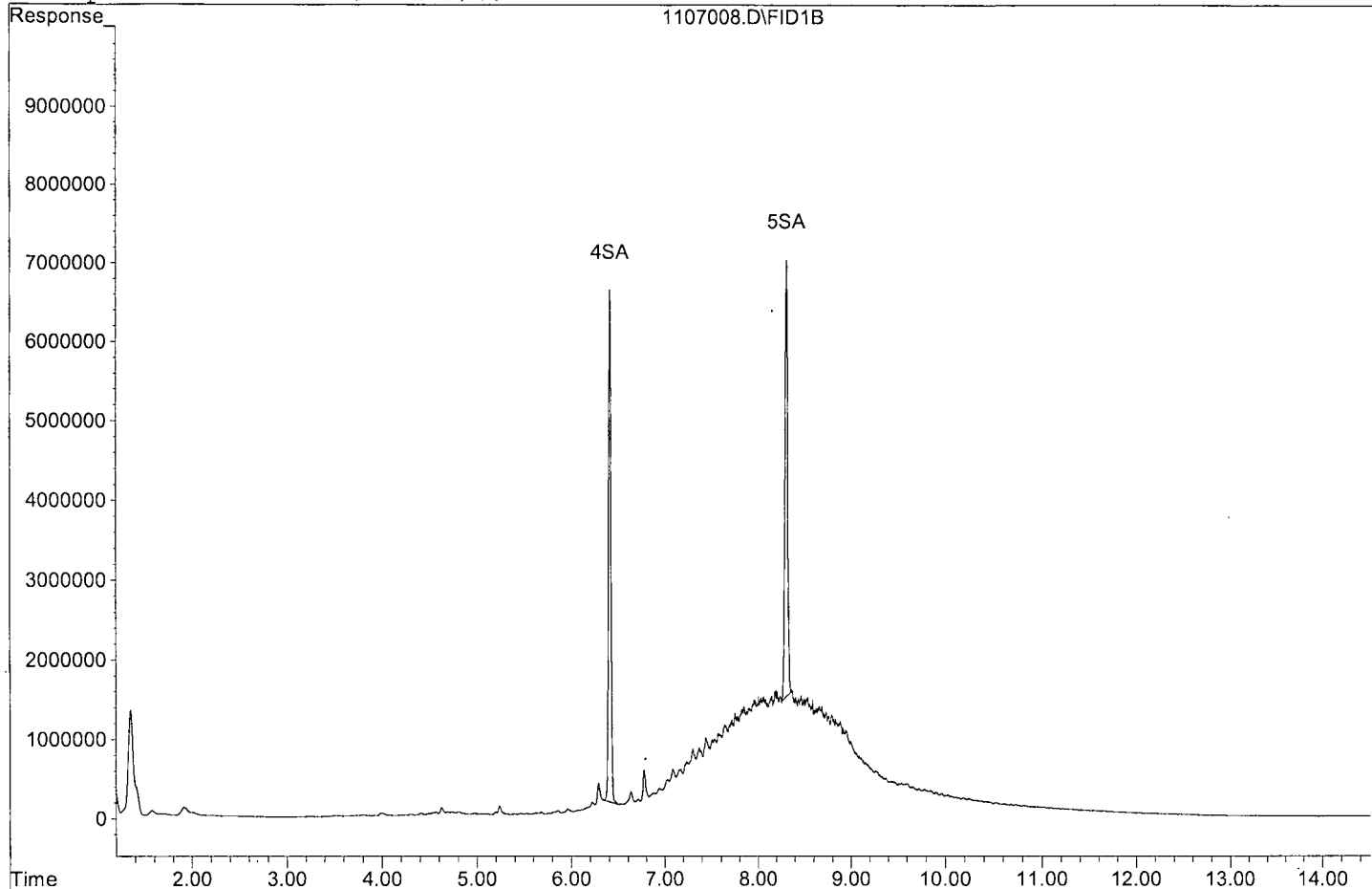
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	114394936	73.848 ppb
Surrogate Spike 75.000		Recovery =	98.46%
5) SA Octacosane(S)	8.31	110962591	85.888 ppb
Surrogate Spike 75.000		Recovery =	114.52%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1358881145	1223.878 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107008.D

Sample : 181105A LCSD-2 2/800



Data File : G:\APOLLO\DATA\181025\1025010.D Vial: 10  
 Acq On : 10-25-18 18:29:11 Operator: DP  
 Sample : AZ81584W23 MS-1 2/810 Inst : Apollo  
 Misc : water Multiplr: 2.47  
 IntFile : events.e  
 Quant Time: Oct 26 8:39 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

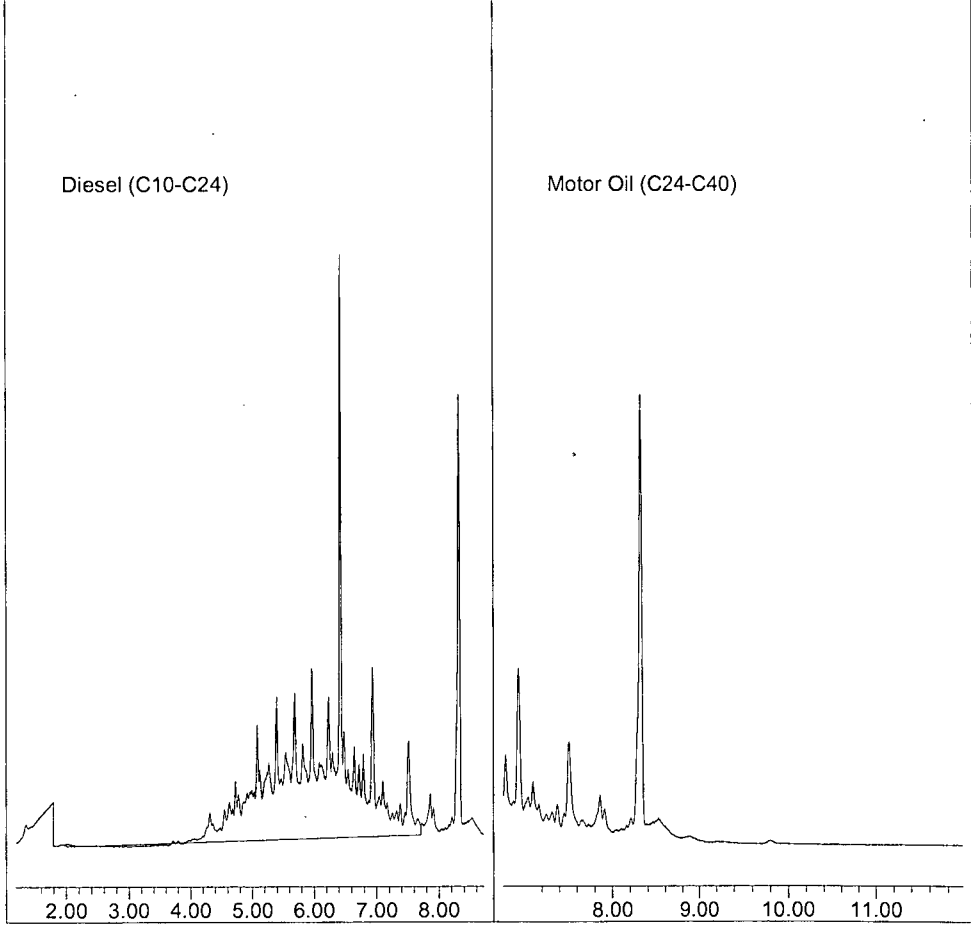
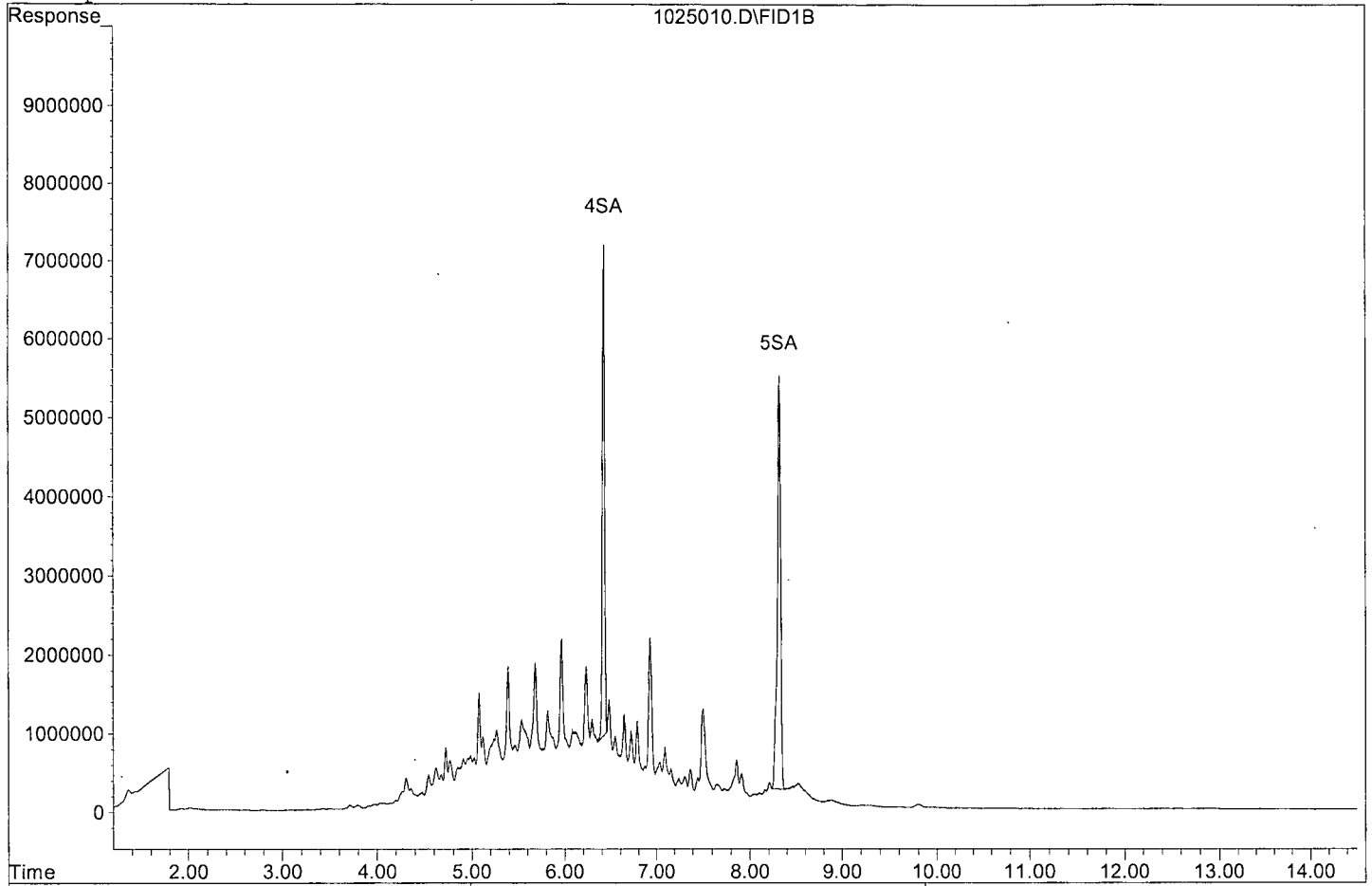
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	104892519	66.878 ppb
Surrogate Spike 74.074		Recovery =	90.29%
5) SA Octacosane(S)	8.32	131867342	100.809 ppb
Surrogate Spike 74.074		Recovery =	136.09%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1312081523	988.563 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181025\1025010.D

Sample : AZ81584W23 MS-1 2/810



Data File : G:\APOLLO\DATA\181025\1025011.D Vial: 11  
 Acq On : 10-25-18 18:49:11 Operator: DP  
 Sample : AZ81584W19 MSD-1 2/850 Inst : Apollo  
 Misc : water Multiplr: 2.35  
 IntFile : events.e  
 Quant Time: Oct 26 8:40 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

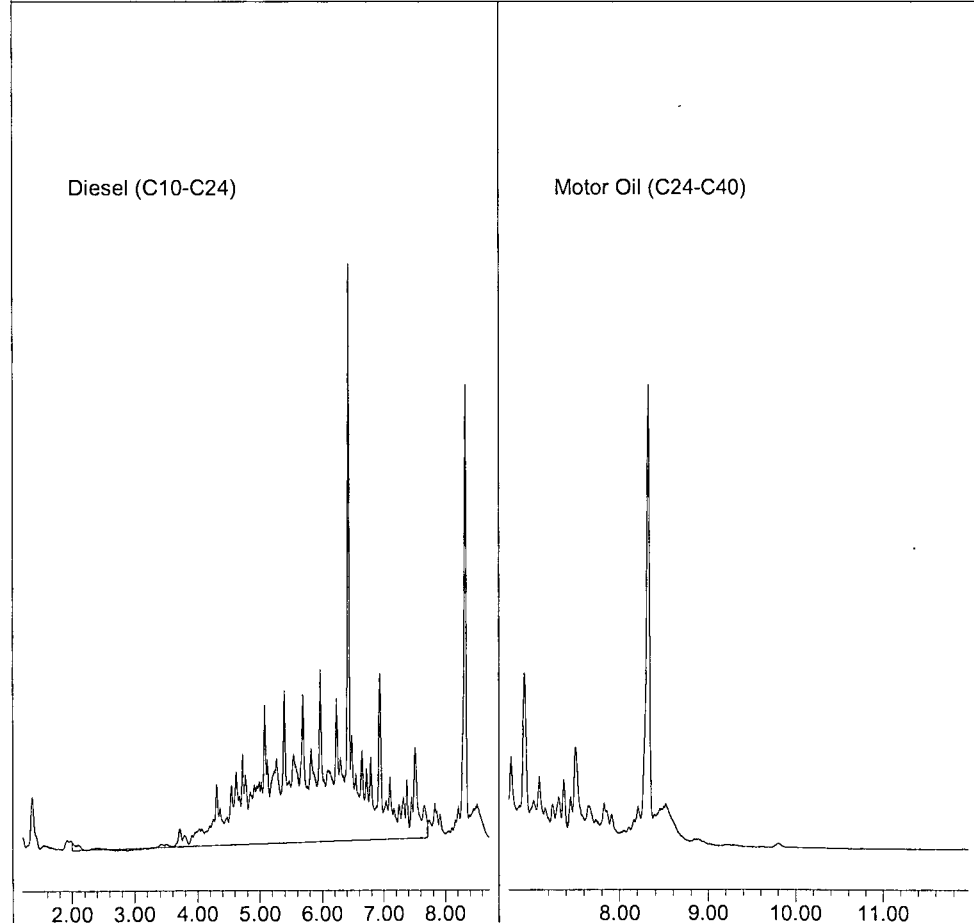
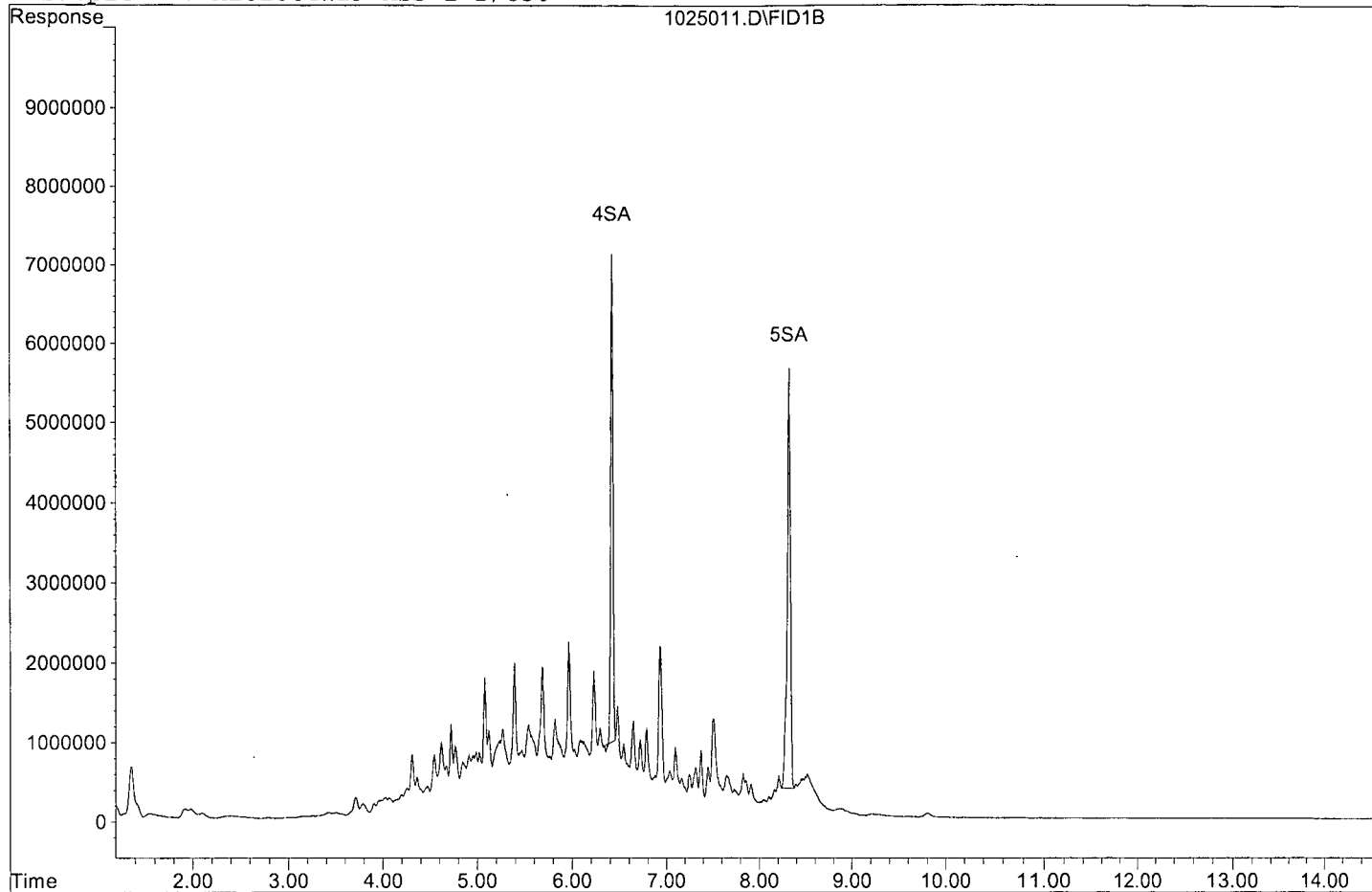
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	101419140	61.620 ppb
Surrogate Spike 70.588		Recovery =	87.29%
5) SA Octacosane(S)	8.33	126466070	92.130 ppb
Surrogate Spike 70.588		Recovery =	130.52%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1502693995	1078.895 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181025\1025011.D

Sample : AZ81584W19 MSD-1 2/850



Data File : G:\APOLLO\DATA\181025\1025012.D Vial: 12  
 Acq On : 10-25-18 19:09:12 Operator: DP  
 Sample : AZ81584W25 MS-2 2/810 Inst : Apollo  
 Misc : water Multiplr: 2.47  
 IntFile : events.e  
 Quant Time: Oct 26 8:40 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

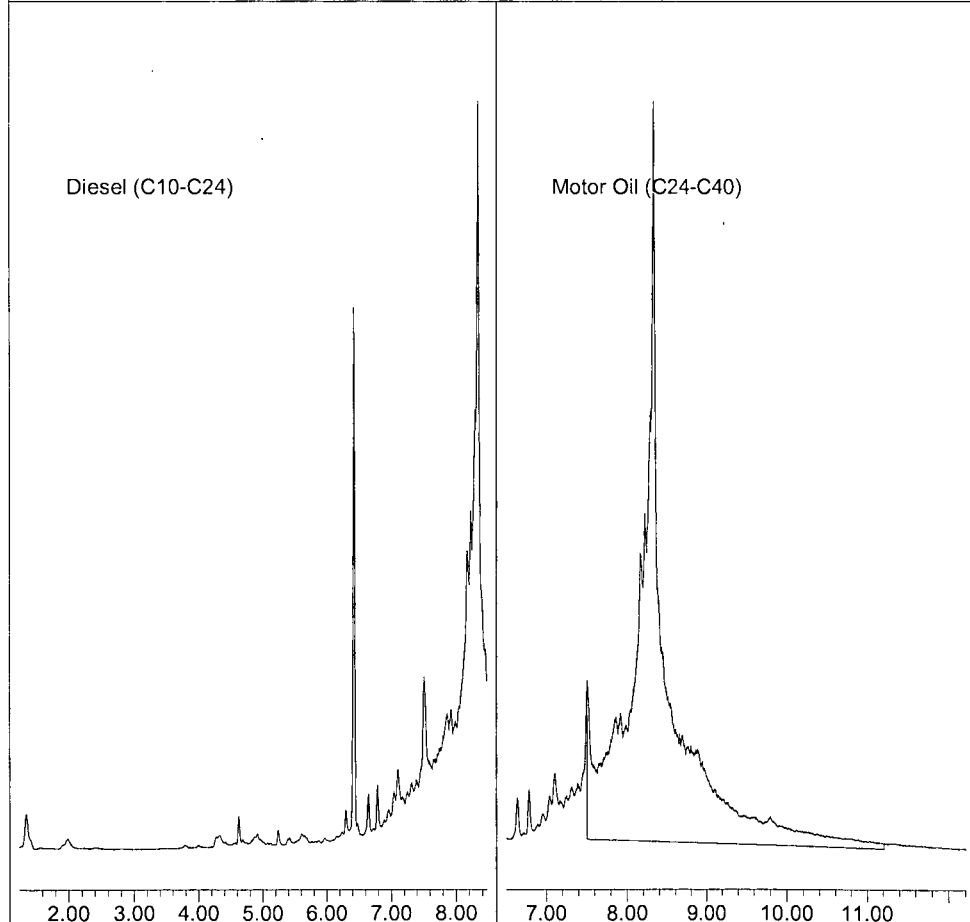
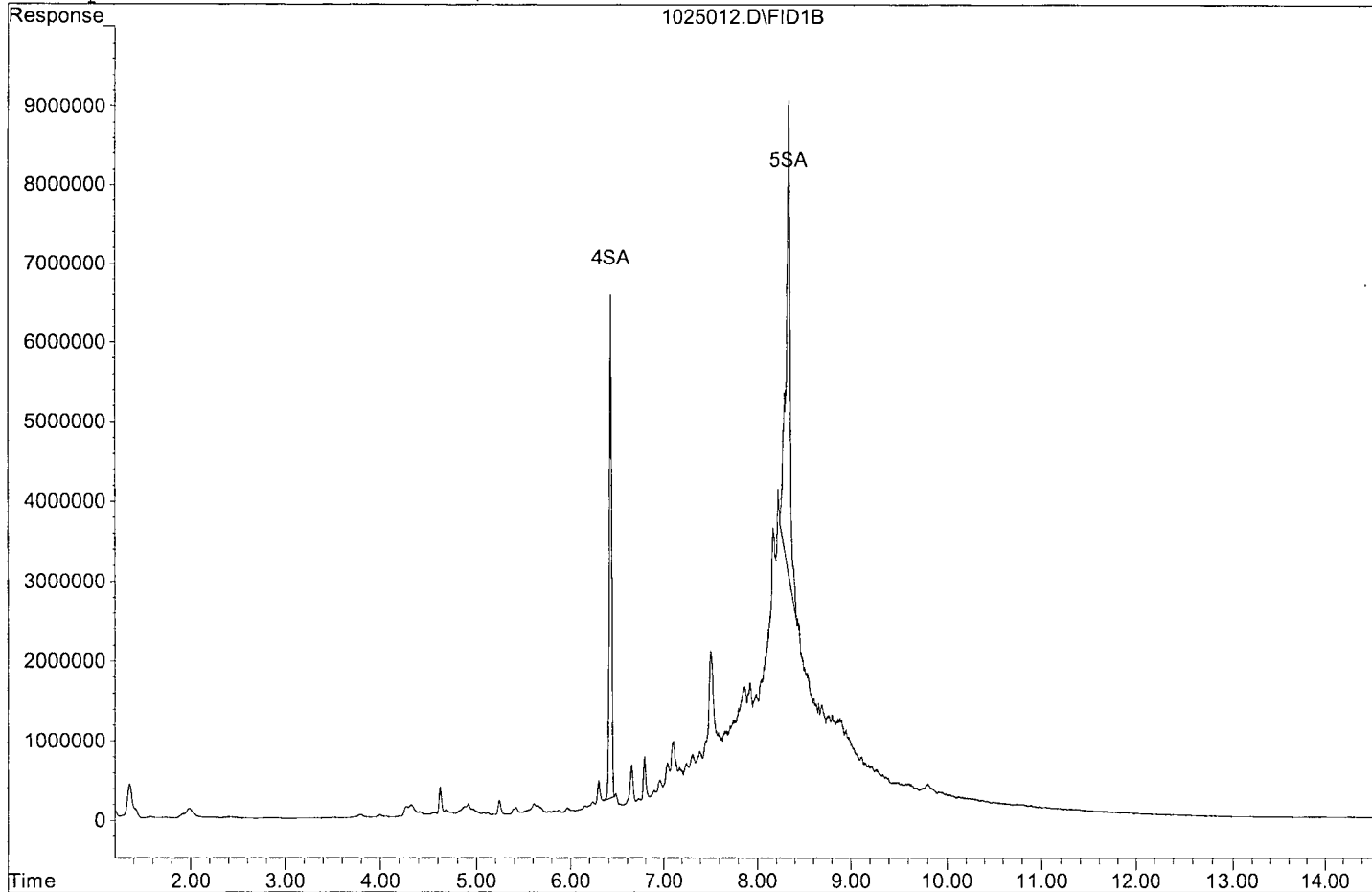
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	105391898	67.196 ppb
Surrogate Spike 74.074		Recovery =	90.71%
5) SA Octacosane(S)	8.33	180568521	138.039 ppb
Surrogate Spike 74.074		Recovery =	186.35%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1799662790	1600.861 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181025\1025012.D

Sample : AZ81584W25 MS-2 2/810





Data File : G:\APOLLO\DATA\181025\1025013.D Vial: 13  
 Acq On : 10-25-18 19:29:23 Operator: DP  
 Sample : AZ81584W30 MSD-2 2/850 Inst : Apollo  
 Misc : water Multiplr: 2.35  
 IntFile : events.e  
 Quant Time: Oct 26 8:40 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181025\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

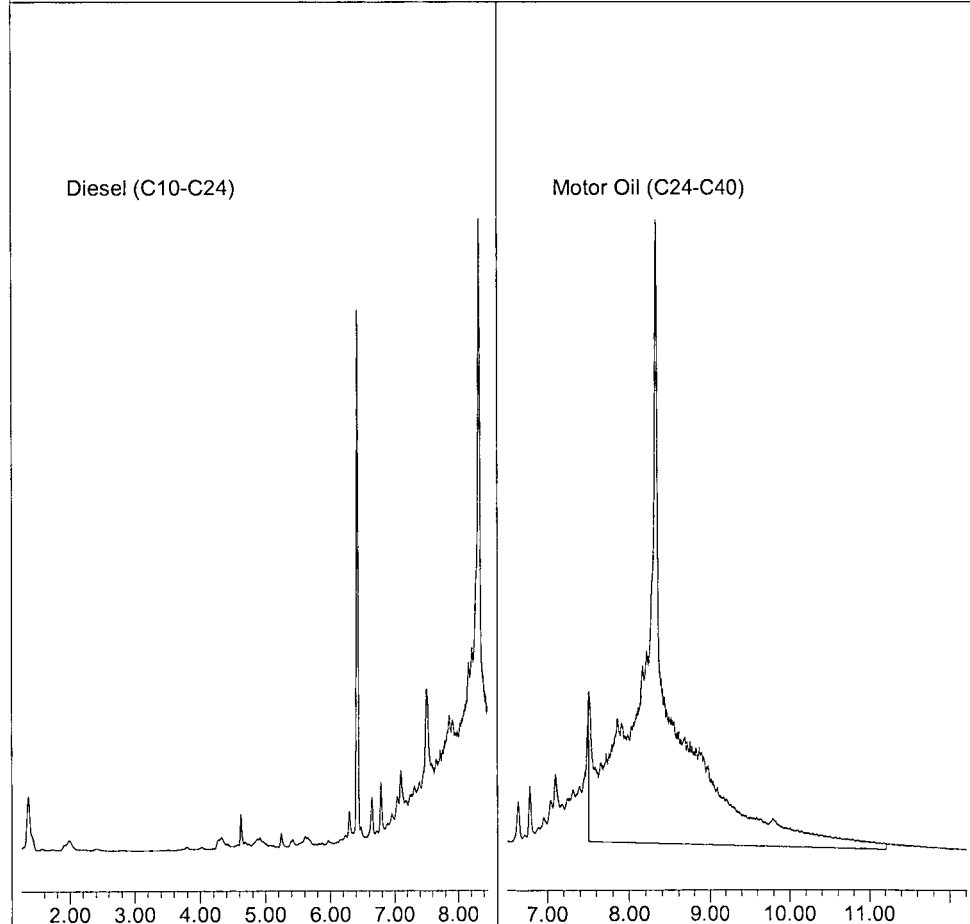
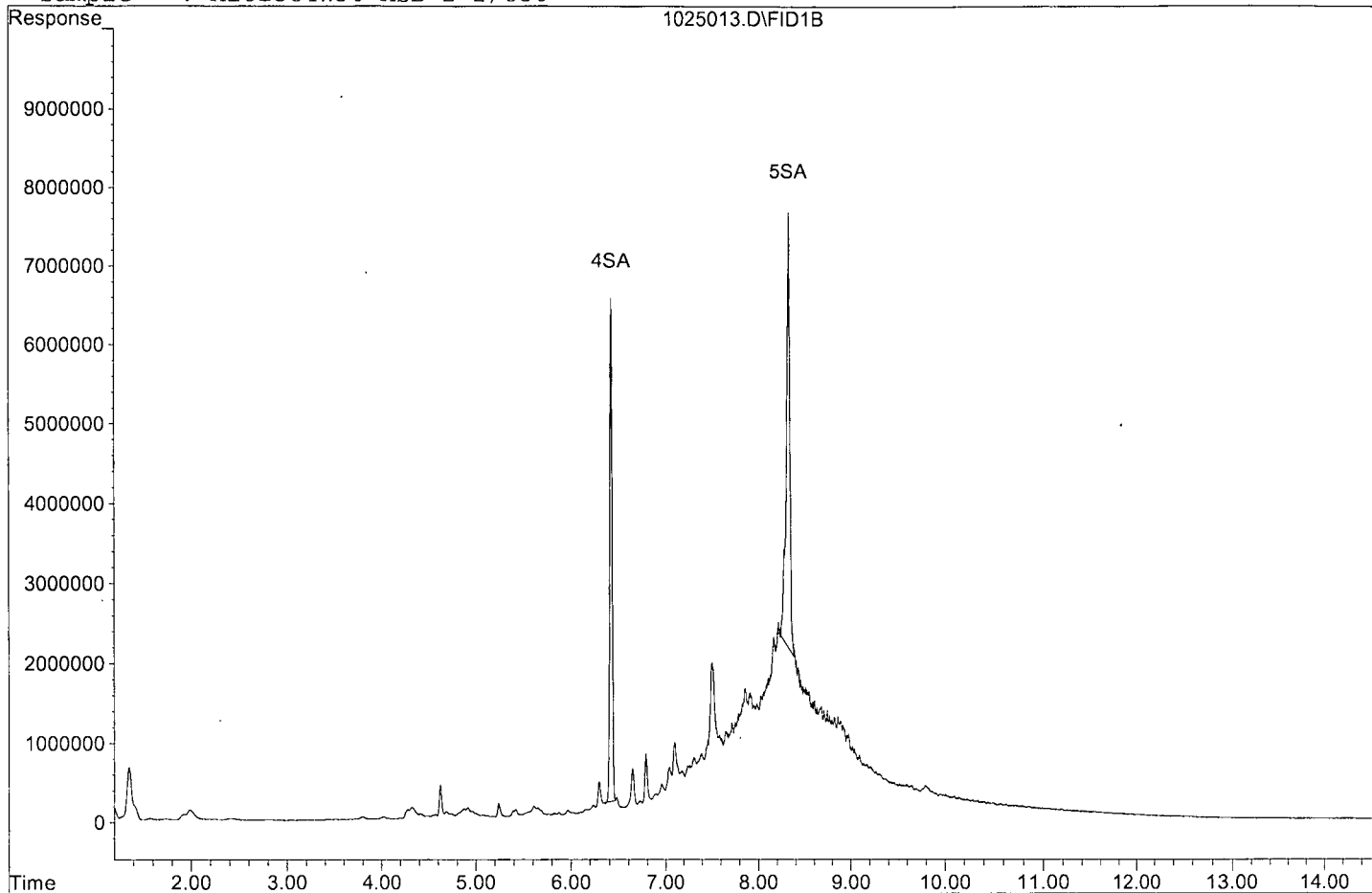
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	106554474	64.740 ppb
Surrogate Spike 70.588		Recovery =	91.71%
5) SA Octacosane(S)	8.33	140089413	102.054 ppb
Surrogate Spike 70.588		Recovery =	144.58%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1564793754	1326.431 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181025\1025013.D

Sample : AZ81584W30 MSD-2 2/850



### 8015 Standard Prep

THC Surrogate										
Prepared: 11/02/18						Prepared By (Initials): <u>DP</u>				
Expires: 10/18/19										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
O-terphenyl / Octacosane Mix	Phenova	ALO-130161	600	CL12572-39692	10/18/19	06/30/23	N/A	N/A	N/A	600
Diesel Calibration Standard										
Prepared: 08/13/18						Prepared By (Initials): <u>DP</u>				
Expires: 08/13/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Fuel #2	Restek	31258	50,000	A0121108	08/13/19		1000uL	25mL	MC	2000
THC Surrogate	Phenova	ALO-130161	600	CL12238-39244	08/13/19		4165			100
Diesel Calibration Curve										
Prepared: 09/05/18						Prepared By (Initials): <u>DP</u>				
Expires: 03/06/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Calibration STD	Restek	Diesel STD (Level 1)	2,000	Prepared 08/13/18	08/13/19	N/A	5uL	1000uL	MC	10
Diesel Calibration STD	Restek	Diesel STD (Level 2)	2,000	Prepared 08/13/18	08/13/19	N/A	25uL	1000uL	MC	50
Diesel Calibration STD	Restek	Diesel STD (Level 3)	2,000	Prepared 08/13/18	08/13/19	N/A	125uL	1000uL	MC	250
Diesel Calibration STD	Restek	Diesel STD (Level 4)	2,000	Prepared 08/13/18	08/13/19	N/A	50uL	100uL	MC	1000
Diesel Calibration STD	Restek	Diesel STD (Level 5)	2,000	Prepared 08/13/18	08/13/19	N/A	75uL	100uL	MC	1500
Diesel Calibration STD	Restek	Diesel STD (Level 6)	2,000	Prepared 08/13/18	08/13/19	N/A	100uL	100uL	N/A	2,000
Diesel Second Source (SS)										
Prepared: 08/02/18						Prepared By (Initials): <u>DP</u>				
Expires: 08/02/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Fuel #2	O2SI	G34-011598-03	50,000	G34-319187-38958	08/02/19		100uL	5mL	MC	1,000
Diesel CCV										
Prepared: 10/15/18						Prepared By (Initials): <u>DP</u>				
Expires: 04/15/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Calibration STD	Restek	Diesel CCV	2,000	Prepared 08/13/18	08/13/19	N/A	1250uL	10mL	MC	250
Diesel Spike										
Prepared: 10/24/18						Prepared By (Initials): <u>DP</u>				
Expires: 10/24/19										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Fuel #2	Absolute	51046	50,000	111715-39358	10/24/19	11/17/20	N/A	N/A	N/A	50,000

Motor Oil Standard										
Prepared: 03/02/18						Prepared By (Initials): DP				
Expires: 03/02/19										
Methylene Chloride Lot No. 56258										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil	O2SI	116390-01	50,000	334223-38795	03/02/19		1mL	25mL	MC	2,000

Motor Oil Calibration Curve										
Prepared: 09/05/18						Prepared By (Initials): DP				
Expires: 03/02/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil STD	O2SI	Motor Oil (Level 1)	2,000	Prepared 03/02/18	03/02/19	N/A	5uL	1000uL	MC	10
Motor Oil STD	O2SI	Motor Oil (Level 2)	2,000	Prepared 03/02/18	03/02/19	N/A	25uL	1000uL	MC	50
Motor Oil STD	O2SI	Motor Oil (Level 3)	2,000	Prepared 03/02/18	03/02/19	N/A	125uL	1000uL	MC	250
Motor Oil STD	O2SI	Motor Oil (Level 4)	2,000	Prepared 03/02/18	03/02/19	N/A	50uL	100uL	MC	1,000
Motor Oil STD	O2SI	Motor Oil (Level 5)	2,000	Prepared 03/02/18	03/02/19	N/A	75uL	100uL	MC	1,500
Motor Oil STD	O2SI	Motor Oil (Level 6)	2,000	Prepared 03/02/18	03/02/19	N/A	100uL	100uL	N/A	2,000

Motor Oil Second Source (SS)										
Prepared: 07/13/18						Prepared By (Initials): DP				
Expires: 03/02/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil Second Source	O2SI	116390-02-SS	50,000	301142-37652	03/02/19		100uL	5mL	MC	1,000

Motor Oil CCV										
Prepared: 10/15/18						Prepared By (Initials): DP				
Expires: 03/02/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil STD	O2SI	Motor Oil CCV	2,000	Prepared 03/02/18	03/02/19	N/A	1250uL	10mL	MC	250

Motor Oil Spike										
Prepared: 10/31/18						Prepared By (Initials): DP				
Expires: 10/31/19										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil Composite	O2SI	116390-02	50,000	343132-39108	10/31/19	03/02/22	N/A	N/A	N/A	50,000

# Organic Extraction Worksheet

Method	Continuous Liq/Liq TPH-Diesel/MO 3520C		Extraction Set	181023A	Extraction Method	LIQ005	Units	mL
Spiked ID 1	Diesel Spike 8-13-18 EXP 8-13-19		Surrogate ID 1	THC Surrogate 10-18-18 EXP 10-18-19				
Spiked ID 2	Motor Oil Spike 7-9-18 EXP 7-9-19		Surrogate ID 2					
Spiked ID 3			Surrogate ID 3					
Spiked ID 4			Surrogate ID 4					
Spiked ID 5			Surrogate ID 5					
Spiked ID 6			Sufficient Vol for Matrix QC:		YES			
Spiked ID 7			Ext. Start Time:		10/23/18 16:00			
Spiked ID 8			Ext. End Time:		10/24/18 10:00, 10/25/18 14:55			
			GC Requires Extract By:		10/30/18 0:00			
			pH1	2	10/23/18 2:30:00 PM	Water Bath Temp Criteria 35,35,35 °		
			pH2					
			pH3					

Spiked By: KY

Date 10/23/18

Witnessed By: DL

Date 10/23/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1 181023A Blk				0.100	1	800	2	2	10/23/18 15:00	
						equip E-HP51 E-WB1				
2 181023A LCS-1		0.020	1	0.100	1	800	2	2	10/23/18 15:00	
						equip E-HP50 E-WB2				
3 181023A LCS-2		0.020	2	0.100	1	800	2	2	10/23/18 15:00	
						equip E-HP30 E-WB3				
4 181023A LCSD-1		0.020	1	0.100	1	800	2	2	10/23/18 15:00	
						equip E-HP49 E-WB1				
5 181023A LCSD-2		0.020	2	0.100	1	800	2	2	10/23/18 15:00	
						equip E-HP29 E-WB2				
6 AZ81584 MS-1	AZ81584W23	0.020	1	0.100	1	810	2	2	10/23/18 15:00	87198
						equip E-HP48 E-WB3				
7 AZ81584 MSD-1	AZ81584W19	0.020	1	0.100	1	850	2	2	10/23/18 15:00	87198
						equip E-HP47 E-WB1				
8 AZ81584 MS-2	AZ81584W25	0.020	2	0.100	1	810	2	2	10/23/18 15:00	87198
						equip E-HP28 E-WB2				
9 AZ81584 MSD-2	AZ81584W30	0.020	2	0.100	1	850	2	2	10/23/18 15:00	87198
						equip E-HP27 E-WB3				
10 AZ81584	AZ81584W21			0.100	1	810	2	2	10/23/18 15:00	87198
						equip E-HP26 E-WB1E-WB1				
11 AZ81585	AZ81585W10			0.100	1	810	2	2	10/23/18 15:00	87198
						equip E-HP25 E-WB2				
12 AZ81587	AZ81587W13			0.100	1	800	2	2	10/23/18 15:00	87198
						equip E-HP13 E-WB3				

*Key 10/26/18*

Solvent and Lot#	
1+1 HCL (5mL)	9-19-18
PH Strips	hc727135
Dichloromethane (DCM)	58059
Filter Paper	400147
B. Sodium Sulfate	18d105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	DP
Date	10/25/18
Time	3:00
Refrigerator	Hobart 1

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	10/26/18 9:31:17 AM

Reviewed By: *Key* Date 10/26/18

# Organic Extraction Worksheet

<b>Method</b>	Continuous Liq/Liq TPH-Diesel/MO 3520C	<b>Extraction Set</b>	181105A	<b>Extraction Method</b>	LIQ005	<b>Units</b>	mL
Spiked ID 1	Diesel Spike 10-24-18 EXP 10-24-19	Surrogate ID 1	THC Surrogate 11-2-18 EXP 11-2-19				
Spiked ID 2	Motor Oil Spike 10-31-18 EXP 10-31-19	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC: NO					
Spiked ID 7		Ext. Start Time:		11/05/18 14:25			
Spiked ID 8		Ext. End Time:		11/06/18 9:25 <i>11/07/18 11:30</i>			
				GC Requires Extract By:		10/30/18 0:00	
pH1	2	1/05/18 12:40:00 PM		Water Bath Temp Criteria		35,35,35 °	
pH2							
pH3							

Spiked By: DL

Date 11/05/18

Witnessed By: CFM

Date 11/05/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1 181105A BIK				0.100	1	800	2	2	11/05/18 12:50	RX
						equip				
						E-HP51 E-WB1				
2 181105A LCS-1		0.020	1	0.100	1	800	2	2	11/05/18 12:50	RX
						equip				
						E-HP50 E-WB2				
3 181105A LCS-2		0.020	2	0.100	1	800	2	2	11/05/18 12:50	RX
						equip				
						E-HP49 E-WB1				
4 181105A LCSD-1		0.020	1	0.100	1	800	2	2	11/05/18 12:50	RX
						equip				
						E-HP48 E-WB3				
5 181105A LCSD-2		0.020	2	0.100	1	800	2	2	11/05/18 12:50	RX
						equip				
						E-HP47 E-WB2				
6 AZ81584	AZ81584W13			0.100	1	800	2	2	11/05/18 12:50	87198 RX
						equip				
						E-HP30 E-WB3				
7 AZ81585	AZ81585W07			0.100	1	800	2	2	11/05/18 12:50	87198 RX
						equip				
						E-HP29 E-WB1				
8 AZ81587	AZ81587W11			0.100	1	800	2	2	11/05/18 12:50	87198 RX
						equip				
						E-HP28 E-WB2				
9 AZ81636	AZ81636W13			0.100	1	800	2	2	11/05/18 12:50	87212 RX
						equip				
						E-HP27 E-WB3				
10 AZ81638	AZ81638W11			0.100	1	800	2	2	11/05/18 12:50	87212 RX
						equip				
						E-HP26 E-WB1				
11 AZ81640	AZ81640W14			0.100	1	800	2	2	11/05/18 12:50	87212 RX
						equip				
						E-HP25 E-WB2				
12 AZ81642	AZ81642W12			0.100	1	800	2	2	11/05/18 12:50	87212 RX
						equip				
						E-HP17 E-WB3				
13 AZ81644	AZ81644W14			0.100	1	800	2	2	11/05/18 12:50	87212 RX
						equip				
						E-HP16 E-WB1				
14 AZ81676	AZ81676W11			0.100	1	800	2	2	11/05/18 12:50	87219 RX
						equip				
						E-HP15 E-WB2				
15 AZ81677	AZ81677W12			0.100	1	800	2	2	11/05/18 12:50	87219 RX
						equip				
						E-HP14 E-WB3				
16 AZ81678	AZ81678W13			0.100	1	800	2	2	11/05/18 12:50	87219 RX
						equip				
						E-HP13 E-WB1				

Solvent and Lot#	
1+1 HCL (5mL)	9-19-18
PH Strips	HC 849161
Dicholormethane (DCM)	58059
Filter Paper	400147
B. Sodium Sulfate	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	OP
Date	11/7/18
Time	11:30
Refrigerator	Hobart1

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	11/07/18 12:10:36 PM

Reviewed By: *Ky* 238 Date *11/07/18*

# Organic Extraction Worksheet

<b>Method</b>	Continuous Liq/Liq TPH-Diesel/MO 3520C	<b>Extraction Set</b>	181105A	<b>Extraction Method</b>	LIQ005	<b>Units</b>	mL
Spiked ID 1	Diesel Spike 10-24-18 EXP 10-24-19	Surrogate ID 1	THC Surrogate 11-2-18 EXP 11-2-19				
Spiked ID 2	Motor Oil Spike 10-31-18 EXP 10-31-19	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		NO			
Spiked ID 7		Ext. Start Time:		11/05/18 14:25			
Spiked ID 8		Ext. End Time:		11/06/18 9:25, 11/07/18 11:30			
		GC Requires Extract By:		10/30/18 0:00			
pH1	2	1/05/18 12:40:00 PM		Water Bath Temp Criteria		35,35,35 °	
pH2							
pH3							

Spiked By: DL

Date 11/05/18

Witnessed By: CFM

Date 11/05/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17 AZ81840	AZ81840W10			0.100	1	800	2	2	11/05/18 12:50	87238 RX
					equip	E-HP12 E-WB2				
18 AZ81841	AZ81841W13			0.100	1	800	2	2	11/05/18 12:50	87238 RX
					equip	E-HP11 E-WB3				
19 AZ81842	AZ81842W11			0.100	1	800	2	2	11/05/18 12:50	87238 RX
					equip	E-HP10 E-WB1				
20 AZ81901	AZ81901W09			0.100	1	800	2	2	11/05/18 12:50	87248 RX
					equip	E-HP9 E-WB2				
21 AZ81903	AZ81903W10			0.100	1	800	2	2	11/05/18 12:50	87248 RX
					equip	E-HP7 E-WB3				

*Key 11/07/18*

Solvent and Lot#	
1+1 HCL (5mL)	9-19-18
PH Strips	HC 849161
Dicholormethane (DCM)	58059
Filter Paper	400147
B. Sodium Sulfate	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	11/07/18 12:10:36 PM

Reviewed By: *Key* 239 Date 11/07/18

## Injection Log

Directory: G:\APOLLO\DATA\180905\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
3	905003.D	1	Diesel - 1 9/5/18	Mix(A)	9-5-18 13:32:12
4	905004.D	1	Diesel - 2 9/5/18	Mix(A)	9-5-18 13:51:56
5	905005.D	1	Diesel - 3 9/5/18	Mix(A)	9-5-18 14:11:55
6	905006.D	1	Diesel - 4 9/5/18	Mix(A)	9-5-18 14:31:55
7	905007.D	1	Diesel - 5 9/5/18	Mix(A)	9-5-18 14:51:56
8	905008.D	1	Diesel - 6 9/5/18	Mix(A)	9-5-18 15:11:58
9	905009.D	1	Diesel - SS 8/2/18	Mix(A)	9-5-18 15:32:03
10	905010.D	1	Motor Oil - 1 9/5/18	Mix(B)	9-5-18 15:52:08
11	905011.D	1	Motor Oil - 2 9/5/18	Mix(B)	9-5-18 16:12:11
12	905012.D	1	Motor Oil - 3 9/5/18	Mix(B)	9-5-18 16:32:11
13	905013.D	1	Motor Oil - 4 9/5/18	Mix(B)	9-5-18 16:52:14
14	905014.D	1	Motor Oil - 5 9/5/18	Mix(B)	9-5-18 17:12:14
15	905015.D	1	Motor Oil - 6 9/5/18	Mix(B)	9-5-18 17:31:25
16	905016.D	1	Motor Oil - SS 7/13/18	Mix(B)	9-5-18 17:51:24
2	1025002.D	1	Diesel - 3 10/15/18	Mix(A)	10-25-18 15:49:01
3	1025003.D	1	Motor Oil - 3 10/15/18	Mix(B)	10-25-18 16:08:54
4	1025004.D	2.5	181023A BLK 2/800	water	10-25-18 16:28:50
5	1025005.D	2.5	181023A LCS-1 2/800	water	10-25-18 16:48:52
6	1025006.D	2.5	181023A LCS-2 2/800	water	10-25-18 17:08:53
7	1025007.D	2.5	181023A LCSD-1 2/800	water	10-25-18 17:28:55
8	1025008.D	2.5	181023A LCSD-2 2/800	water	10-25-18 17:49:02
9	1025009.D	2.46914	AZ81584W21 2/810	water	10-25-18 18:09:06
10	1025010.D	2.46914	AZ81584W23 MS-1 2/810	water	10-25-18 18:29:11
11	1025011.D	2.35294	AZ81584W19 MSD-1 2/850	water	10-25-18 18:49:11
12	1025012.D	2.46914	AZ81584W25 MS-2 2/810	water	10-25-18 19:09:12
13	1025013.D	2.35294	AZ81584W30 MSD-2 2/850	water	10-25-18 19:29:23
14	1025014.D	2.46914	AZ81585W10 2/810	water	10-25-18 19:49:28
15	1025015.D	2.5	AZ81587W13 2/800	water	10-25-18 20:09:44
16	1025016.D	1	Diesel - 3 10/15/18	Mix(A)	10-25-18 20:29:45
17	1025017.D	1	Motor Oil - 3 10/15/18	Mix(B)	10-25-18 20:50:00
2	1107002.D	1	Diesel - 3 10/15/18	Mix(A)	11-7-18 13:44:44
3	1107003.D	1	Motor Oil - 3 10/15/18	Mix(B)	11-7-18 14:04:52
4	1107004.D	2.5	181105A BLK 2/800	water	11-7-18 14:24:57
5	1107005.D	2.5	181105A LCS-1 2/800	water	11-7-18 14:45:01
6	1107006.D	2.5	181105A LCS-2 2/800	water	11-7-18 15:05:06
7	1107007.D	2.5	181105A LCSD-1 2/800	water	11-7-18 15:25:09
8	1107008.D	2.5	181105A LCSD-2 2/800	water	11-7-18 15:45:12
9	1107009.D	2.5	AZ81584W13 2/800	water	11-7-18 16:05:14
10	1107010.D	2.5	AZ81585W07 2/800	water	11-7-18 16:25:42
11	1107011.D	2.5	AZ81587W11 2/800	water	11-7-18 16:46:17
19	1107019.D	1	Diesel - 3 10/15/18	Mix(A)	11-7-18 19:30:00
20	1107020.D	1	Motor Oil - 3 10/15/18	Mix(B)	11-7-18 19:50:19



**ORGANICS  
Calibration Data**

**APPL, INC.**

PAH by GCMS SIM  
EPA 8270 SIM

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/26/18  
Instrument: Linus

Initials: \_\_\_\_\_

1028L004.D 1026L005.D 1026L008.D 1026L007.D 1026L003.D 1026L006.D 1026L009.D 1026L010.D

	Compound	0.1	0.2	0.5	1	5	10	50	100			Avg	%RSD	Type	r <sup>2</sup>	Q	MRF
1	I Naphthalene-D8(IS)																
2	S Surrogate Recovery (NBZ)		0.4490	0.3905	0.3381	0.3544	0.3895	0.3629	0.3647			0.38	9.6	S			
3	TM Naphthalene	1.071	1.109	1.094	1.040	0.9826	1.064	0.9678	0.9409			1.0	6.0	TM			0.700
4	S 2-Methylnaphthalene-D10 (2M)	1.204	1.170	1.283	1.182	1.115	1.207	1.054	1.014			1.2	7.6	S			
5	TM 2-Methylnaphthalene	0.6342	0.6457	0.6760	0.6427	0.6407	0.6856	0.6079	0.5737			0.64	5.6	TM			0.400
6	TM 1-Methylnaphthalene	0.6941	0.6784	0.7038	0.6570	0.6224	0.6581	0.5807	0.5502			0.64	8.5	TM			
7	I Acenaphthene-D10(IS)																
8	S Surrogate Recovery (FBP)	1.668	1.668	1.756	1.634	1.614	1.756	1.472	1.448			1.6	7.1	S			
9	TM Acenaphthylene	4.411	4.374	4.576	4.233	4.273	4.605	4.004	3.832			4.3	6.2	TM			0.900
10	*TM Acenaphthene	1.471	1.421	1.404	1.292	1.236	1.347	1.147	1.130			1.3	9.7	*TM			0.900
11	TM Fluorene	1.527	1.526	1.612	1.554	1.494	1.607	1.380	1.349			1.5	6.4	TM			0.900
12	I Phenanthrene-D10(IS)																
13	TM Phenanthrene	1.224	1.258	1.233	1.198	1.099	1.227	1.071	0.9849			1.2	8.4	TM			0.700
14	TM Anthracene	1.101	1.107	1.146	1.108	1.076	1.204	1.040	0.9417			1.1	7.1	TM			0.700
15	S Fluoranthene-D10 (FRT)	1.512	1.533	1.628	1.543	1.527	1.738	1.504	1.474			1.6	5.5	S			
16	*TM Fluoranthene	1.639	1.693	1.766	1.728	1.661	1.857	1.631	1.559			1.7	5.4	*TM			0.600
17	I Chrysene-D12(IS)																
18	TM Pyrene	1.239	1.278	1.319	1.266	1.226	1.359	1.271	1.238			1.3	3.5	TM			0.600
19	S Surrogate Recovery (TPH)	0.9654	0.8333	0.8383	0.7662	0.7250	0.8033	0.7421	0.7345			0.80	9.9	S			
20	TM Benz (a) anthracene	1.135	1.030	1.075	0.9966	1.038	1.151	1.122	1.044			1.1	5.2	TM			0.800
21	TM Chrysene	1.267	1.224	1.220	1.123	1.071	1.175	1.069	1.061			1.2	7.0	TM			0.700
22	TML Indeno (1,2,3-cd) pyrene	0.5269	0.5639	0.6808	0.6912	0.7735	0.8537	0.9032	0.9238			0.74	20	TML	1.000		0.500
23	I Perylene-D12(IS)																
24	TM Benzo (b) fluoranthene	1.025	1.065	1.071	1.012	1.056	1.169	1.109	1.091			1.1	4.6	TM			0.700
25	TM Benzo (k) fluoranthene	1.385	1.237	1.205	1.145	1.158	1.283	1.115	1.070			1.2	8.4	TM			0.700
26	*TM Benzo (a) pyrene	0.8478	0.8472	0.9054	0.8976	0.9593	1.090	1.004	0.9603			0.94	8.8	*TM			0.700
27	TM Dibenz (a,h) anthracene	0.9632	0.8830	0.9203	0.8970	0.8805	0.9763	0.9194	0.8807			0.92	4.1	TM			0.400
28	TM Benzo (g,h,i) perylene	0.9218	0.9218	0.9490	0.8944	0.9068	1.008	0.9146	0.8895			0.93	4.1	TM			0.500
29																	
30																	
31																	
32																	
33																	
34																	
35																	

Data File : M:\LINUS\DATA\L181026\1026L003.D  
 Acq On : 26 Oct 18 12:21  
 Sample : 5 SIM 10/26/18  
 Misc :

Vial: 3  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 15:34 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	34683	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.20	164	15809	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.94	188	31498	2.50000	ppb	0.00
17) Chrysene-D12 (IS)	14.38	240	43804	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	42589	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.36	82	12292	1.97005	ppb	0.00
Spiked Amount	5.000		Recovery =	39.400%		
4) 2-Methylnaphthalene-D10 (2)	4.96	152	38674	2.07165	ppb	0.00
Spiked Amount	5.000		Recovery =	41.440%		
8) Surrogate Recovery (FBP)	5.43	172	25518	2.08947	ppb	0.00
Spiked Amount	5.000		Recovery =	41.780%		
15) Fluoranthene-D10 (FRT)	10.10	212	48093	2.01683	ppb	0.00
Spiked Amount	5.000		Recovery =	40.340%		
19) Surrogate Recovery (TPH)	11.37	244	31756	1.90290	ppb	0.00
Spiked Amount	5.000		Recovery =	38.060%		
Target Compounds						
3) Naphthalene	4.20	128	68158	4.39564	ppb	100
5) 2-Methylnaphthalene	5.00	142	44443	4.68460	ppb	100
6) 1-Methylnaphthalene	5.11	142	43171	4.63382	ppb	100
9) Acenaphthylene	6.04	152	135113	4.62142	ppb	100
10) Acenaphthene	6.24	154	39083	4.31457	ppb	100
11) Fluorene	6.84	166	47222	4.67548	ppb	100
13) Phenanthrene	7.98	178	69245	4.31309	ppb	100
14) Anthracene	8.05	178	67774	4.69700	ppb	100
16) Fluoranthene	10.14	202	104660	4.52909	ppb	100
18) Pyrene	10.76	202	107443	4.23342	ppb	100
20) Benz (a) anthracene	14.36	228	90932	4.13406	ppb	100
21) Chrysene	14.46	228	93849	4.26898	ppb	100
22) Indeno (1,2,3-cd) pyrene	20.47	276	67761	3.61003	ppb	100
24) Benzo (b) fluoranthene	17.27	252	89977	4.21504	ppb	100
25) Benzo (k) fluoranthene	17.34	252	98605	4.42343	ppb	100
26) Benzo (a) pyrene	18.03	252	81715	4.30156	ppb	100
27) Dibenz (a,h) anthracene	20.54	278	74995	3.92549	ppb	100
28) Benzo (g,h,i) perylene	20.96	276	77243	3.90791	ppb	100

Quantitation Report

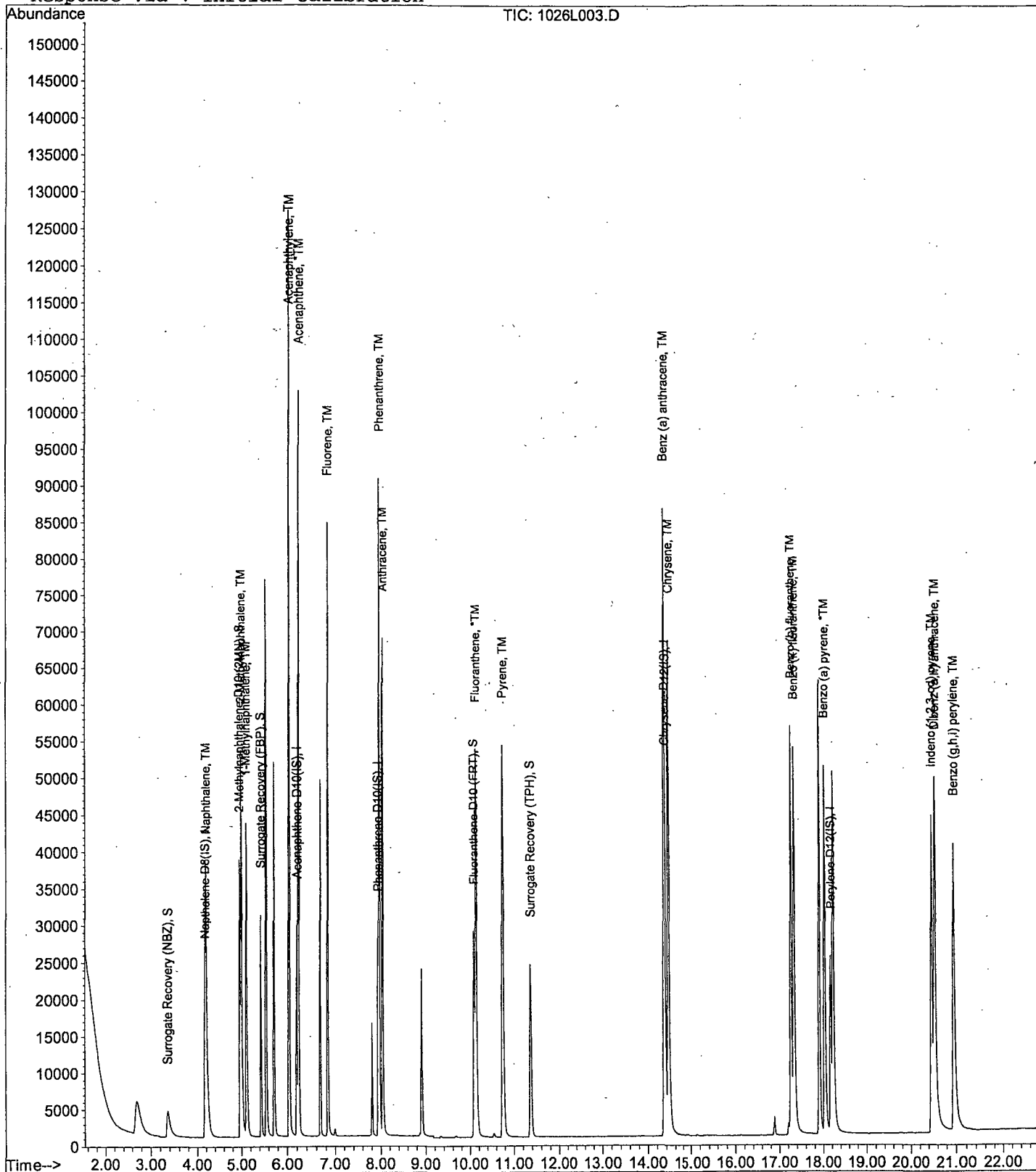
Data File : M:\LINUS\DATA\L181026\1026L003.D  
Acq On : 26 Oct 18 12:21  
Sample : 5 SIM 10/26/18  
Misc :

Vial: 3  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 15:34 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 16:19 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8(IS)	4.18	136	33859	2.50000	ppb	0.00
7) Acenaphthene-D10(IS)	6.20	164	15943	2.50000	ppb	0.00
12) Phenanthrene-D10(IS)	7.95	188	30089	2.50000	ppb	0.01
17) Chrysene-D12(IS)	14.39	240	40761	2.50000	ppb	0.01
23) Perylene-D12(IS)	18.17	264	40517	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.38	82	331	0.05434	ppb	0.02
Spiked Amount	5.000		Recovery =	1.080%		
4) 2-Methylnaphthalene-D10 (2)	4.99	152	815	0.04472	ppb	0.02
Spiked Amount	5.000		Recovery =	0.900%		
8) Surrogate Recovery (FBP)	5.44	172	532	0.04320	ppb	0.01
Spiked Amount	5.000		Recovery =	0.860%		
15) Fluoranthene-D10 (FRT)	10.13	212	910	0.03995	ppb	0.03
Spiked Amount	5.000		Recovery =	0.800%		
19) Surrogate Recovery (TPH)	11.39	244	787	0.05068	ppb	0.02
Spiked Amount	5.000		Recovery =	1.020%		
Target Compounds						
3) Naphthalene	4.20	128	1450	0.09579	ppb	98
5) 2-Methylnaphthalene	5.01	142	859	0.09275	ppb	97
6) 1-Methylnaphthalene	5.12	142	940	0.10335	ppb	94
9) Acenaphthylene	6.05	152	2813	0.09541	ppb	99
10) Acenaphthene	6.24	154	938	0.10268	ppb	96
11) Fluorene	6.86	166	974	0.09563	ppb	95
13) Phenanthrene	7.98	178	1473	0.09605	ppb	99
14) Anthracene	8.06	178	1325	0.09613	ppb	97
16) Fluoranthene	10.18	202	1973	0.08938	ppb	97
18) Pyrene	10.79	202	2020	0.08553	ppb	97
20) Benz (a) anthracene	14.37	228	1851	0.09043	ppb	99
21) Chrysene	14.47	228	2065	0.10094	ppb	98
22) Indeno (1,2,3-cd) pyrene	20.55	276	859m	0.04918	ppb	100
24) Benzo (b) fluoranthene	17.31	252	1661	0.08179	ppb	99
25) Benzo (k) fluoranthene	17.38	252	2245m	0.10586	ppb	97
26) Benzo (a) pyrene	18.06	252	1374	0.07603	ppb	98
27) Dibenz (a,h) anthracene	20.61	278	1561	0.08589	ppb #	93
28) Benzo (g,h,i) perylene	21.03	276	1494	0.07945	ppb	95

Quantitation Report

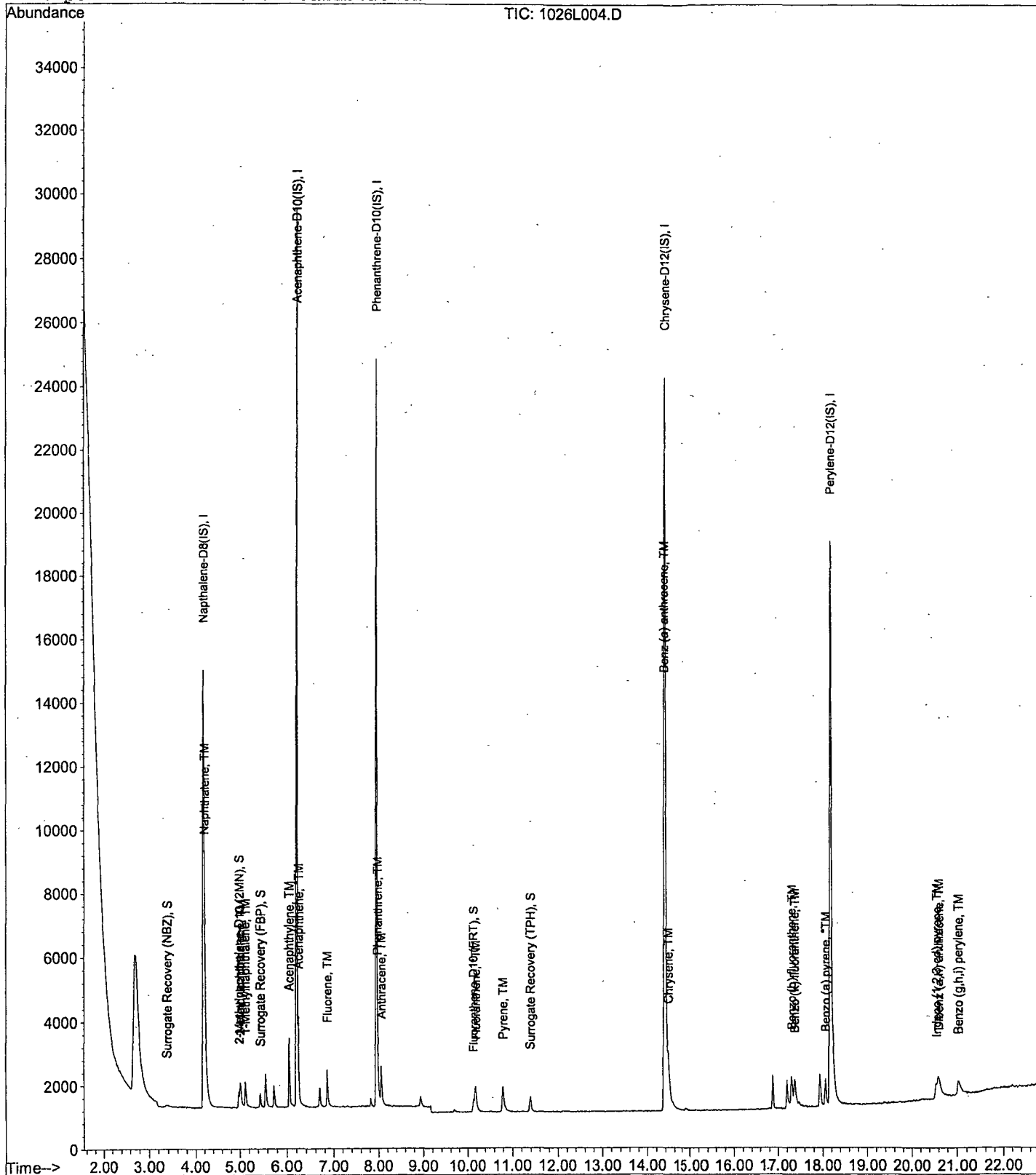
Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 16:19 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration

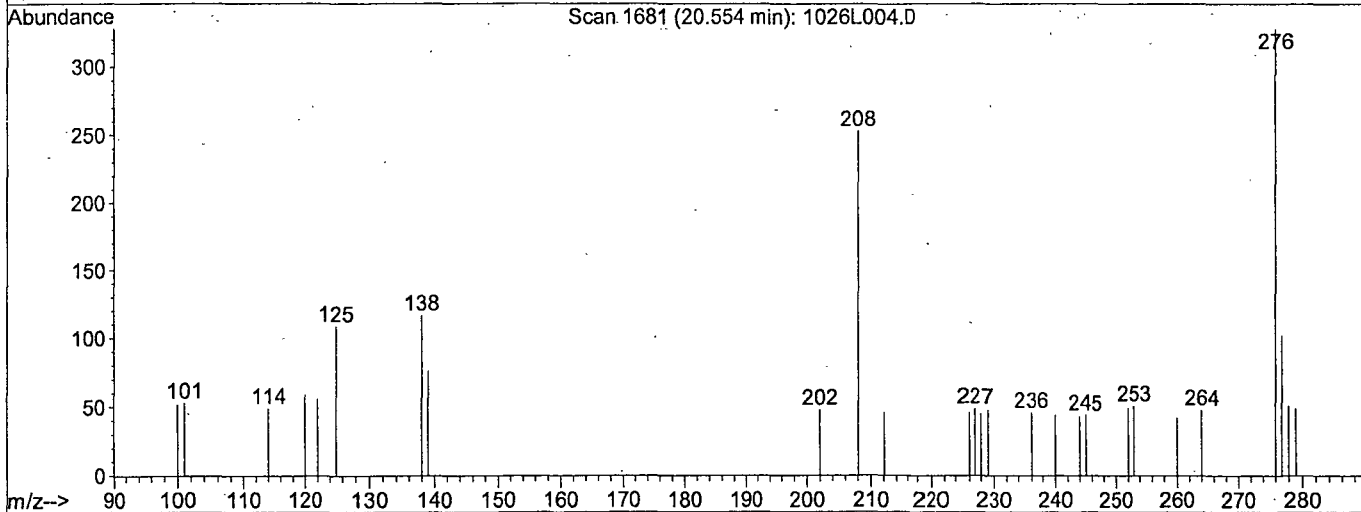
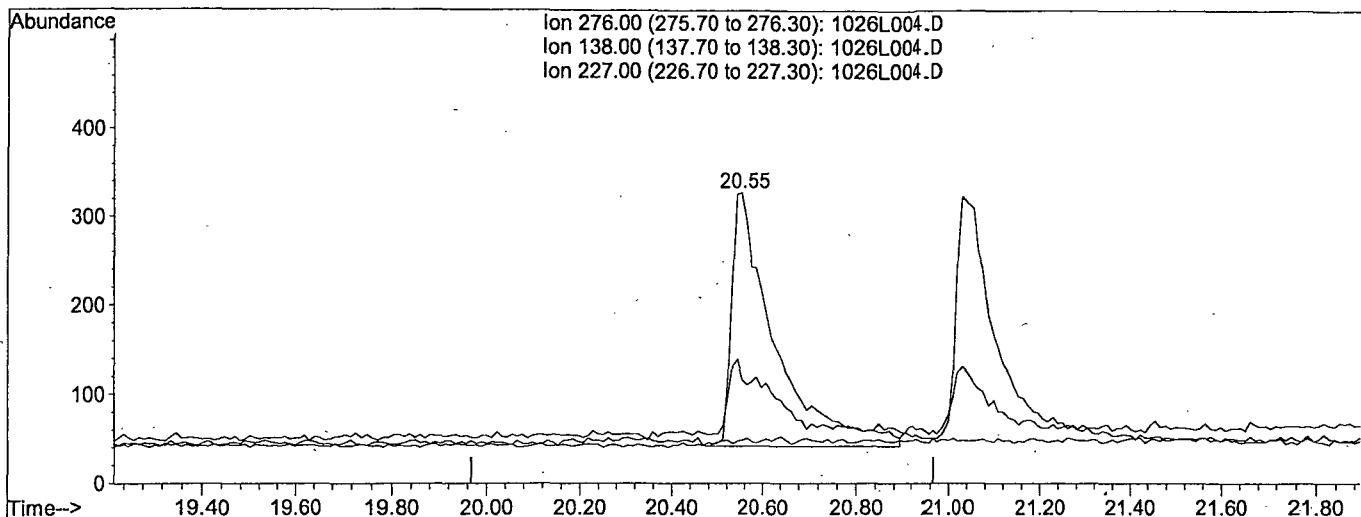


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 15:34 2018

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L004.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.55min 0.1080ppb

response 1887

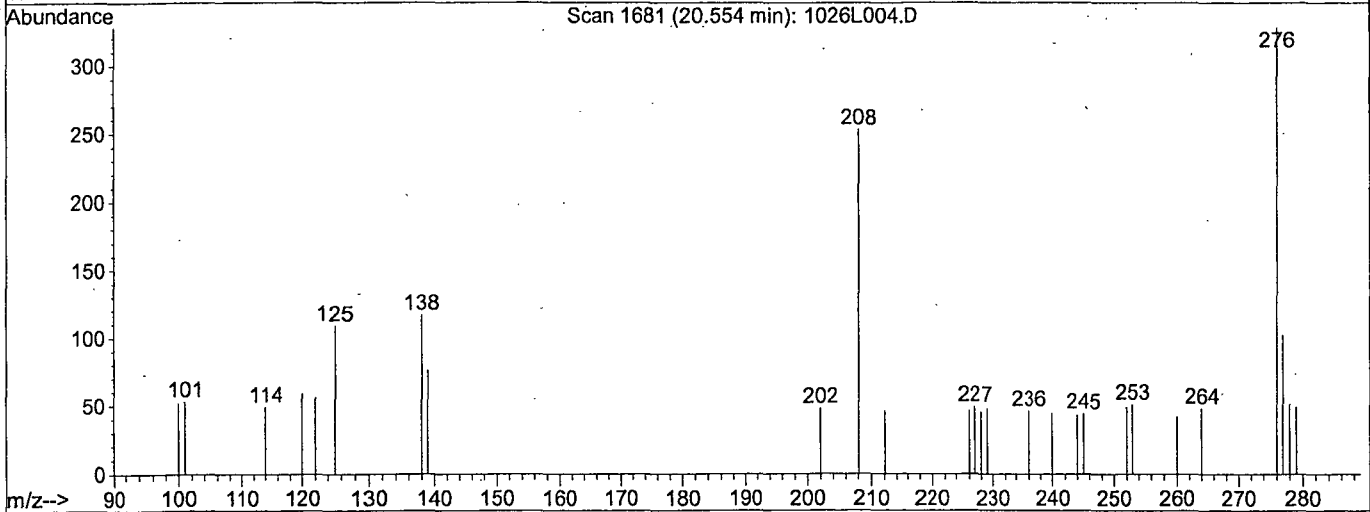
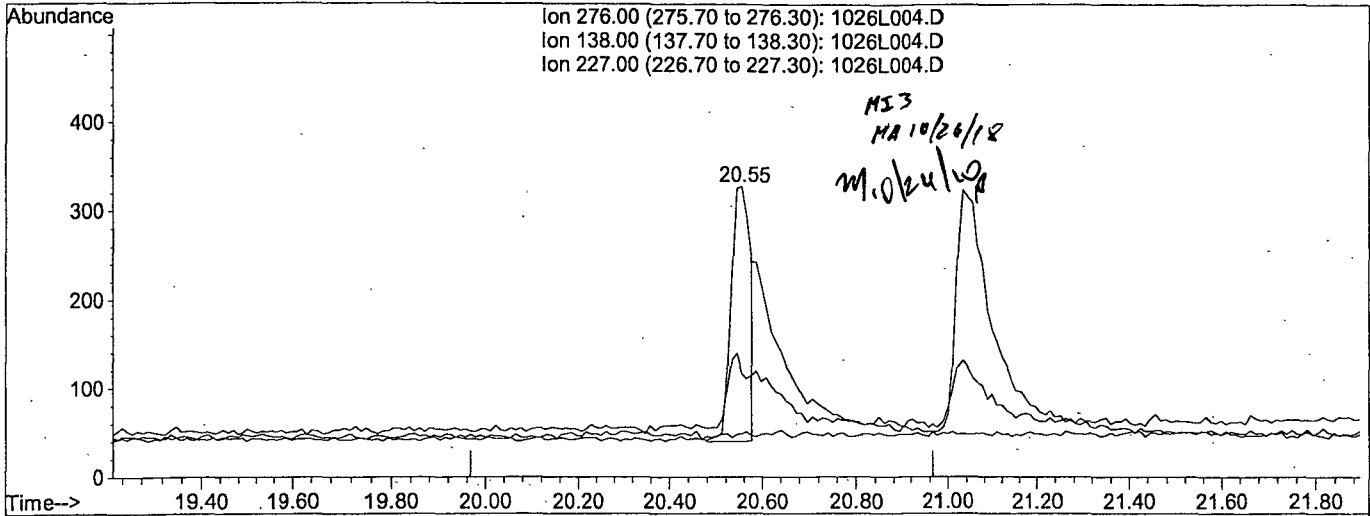
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	21.68
227.00	0.10	1.05#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:14 2018

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L004.D

(22) Indeno (1,2,3-cd) pyrene (TM)		
20.55min	0.0492ppb	m
response	859	
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	35.67#
227.00	0.10	14.94#
0.00	0.00	0.00

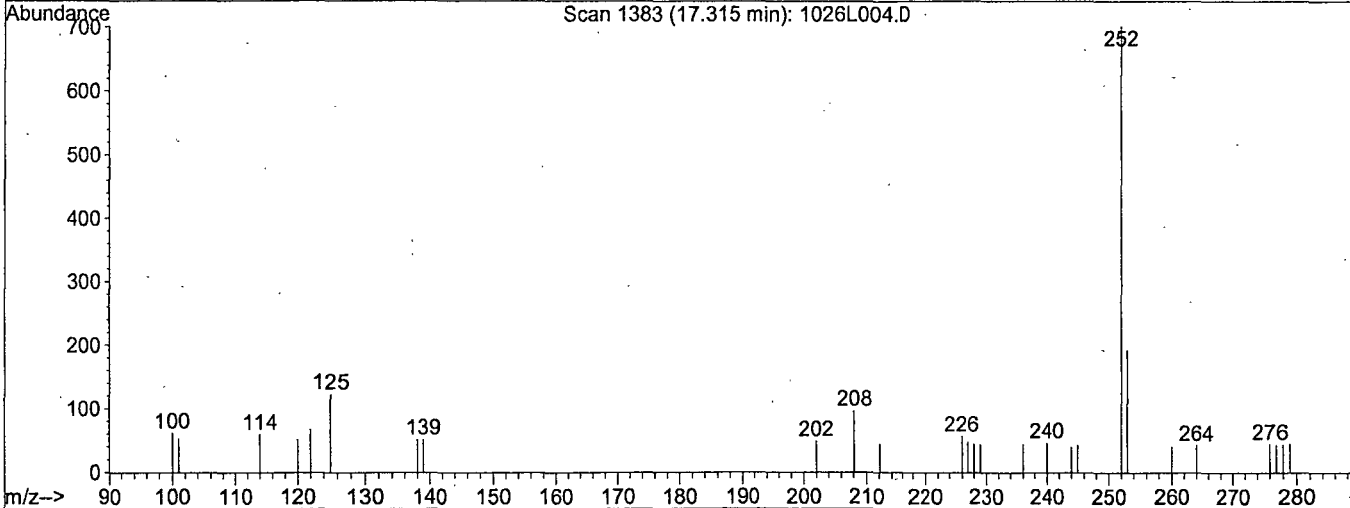
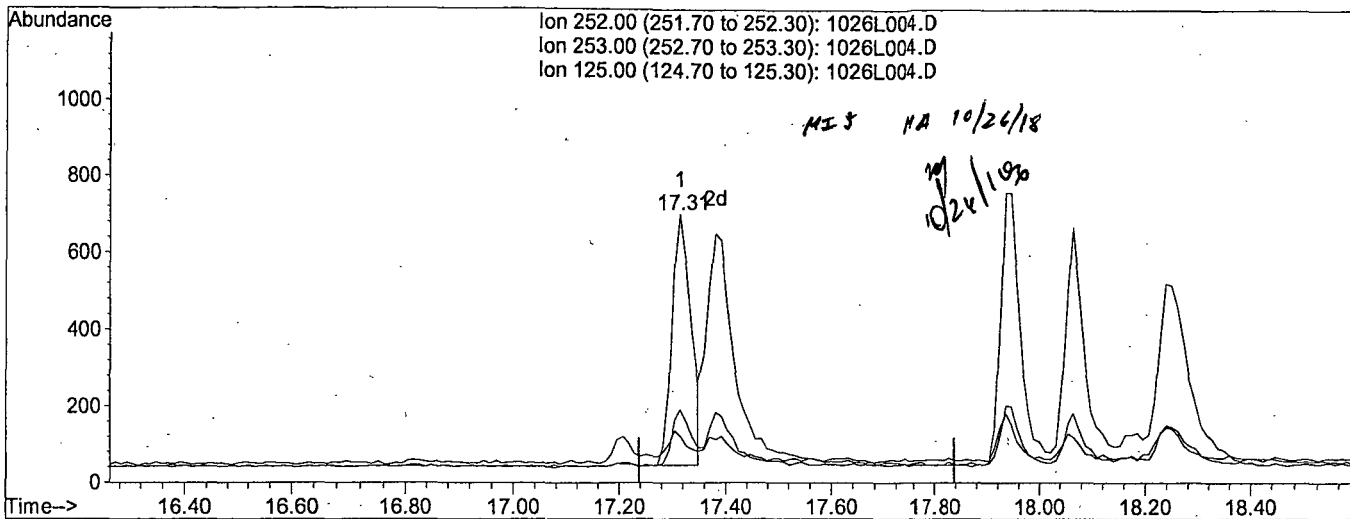


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:14 2018

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:17:28 2018  
 Response via : Multiple Level Calibration



TIC: 1026L004.D

(25) Benzo (k) fluoranthene (TM)

17.31min 0.0773ppb

response 1640

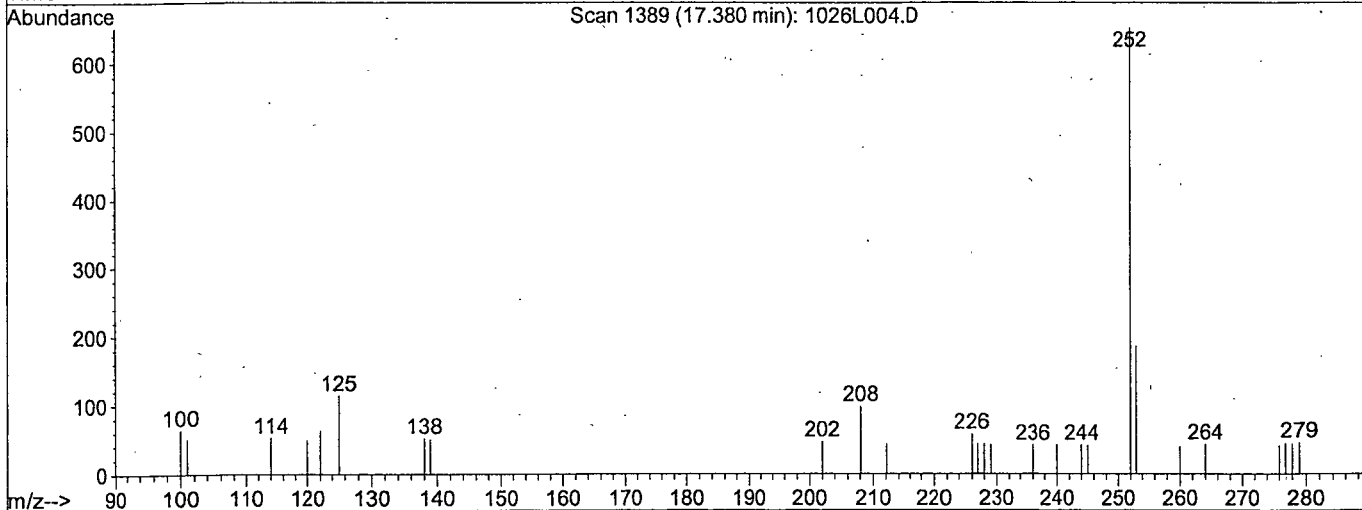
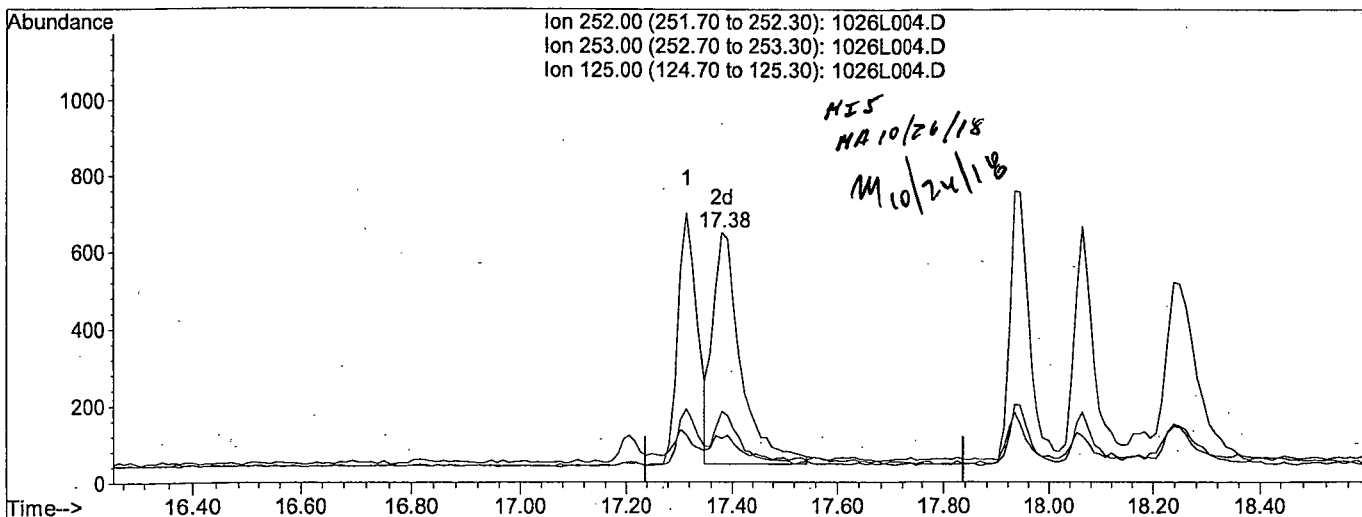
Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.41
125.00	9.90	7.93
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:19 2018

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:17:28 2018  
 Response via : Multiple Level Calibration



TIC: 1026L004.D

(25) Benzo (k) fluoranthene (TM)

17.38min 0.1059ppb m

response 2245

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	28.37#
125.00	9.90	17.48#
0.00	0.00	0.00

Data File : M:\LINUS\DATA\L181026\1026L005.D Vial: 5  
 Acq On : 26 Oct 18 13:20 Operator: MA  
 Sample : 0.2 SIM 10/26/18 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Oct 26 16:15 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8(IS)	4.18	136	32908	2.50000	ppb	0.00
7) Acenaphthene-D10(IS)	6.21	164	15199	2.50000	ppb	0.00
12) Phenanthrene-D10(IS)	7.95	188	28536	2.50000	ppb	0.01
17) Chrysene-D12(IS)	14.38	240	38282	2.50000	ppb	0.00
23) Perylene-D12(IS)	18.17	264	37740	2.50000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	3.38	82	591	0.09983	ppb	0.02
Spiked Amount	5.000		Recovery	=	2.000%	
4) 2-Methylnaphthalene-D10 (2)	4.97	152	1540	0.08694	ppb	0.01
Spiked Amount	5.000		Recovery	=	1.740%	
8) Surrogate Recovery (FBP)	5.44	172	1014	0.08636	ppb	0.01
Spiked Amount	5.000		Recovery	=	1.720%	
15) Fluoranthene-D10 (FRT)	10.13	212	1750	0.08101	ppb	0.03
Spiked Amount	5.000		Recovery	=	1.620%	
19) Surrogate Recovery (TPH)	11.39	244	1276	0.08749	ppb	0.02
Spiked Amount	5.000		Recovery	=	1.740%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	4.20	128	2920	0.19847	ppb	98
5) 2-Methylnaphthalene	5.01	142	1700	0.18886	ppb	93
6) 1-Methylnaphthalene	5.12	142	1786	0.20204	ppb	97
9) Acenaphthylene	6.05	152	5319	0.18923	ppb	100
10) Acenaphthene	6.24	154	1728	0.19842	ppb	93
11) Fluorene	6.86	166	1855	0.19104	ppb	96
13) Phenanthrene	7.98	178	2873	0.19753	ppb	99
14) Anthracene	8.06	178	2528	0.19339	ppb	99
16) Fluoranthene	10.17	202	3865	0.18462	ppb	98
18) Pyrene	10.79	202	3914	0.17646	ppb	97
20) Benz (a) anthracene	14.37	228	3153	0.16402	ppb	98
21) Chrysene	14.47	228	3749	0.19513	ppb	98
22) Indeno (1,2,3-cd) pyrene	20.53	276	1727m	0.10528	ppb	97
24) Benzo (b) fluoranthene	17.30	252	3214	0.16991	ppb	98
25) Benzo (k) fluoranthene	17.38	252	3734m	0.18903	ppb	98
26) Benzo (a) pyrene	18.06	252	2558	0.15196	ppb	100
27) Dibenz (a,h) anthracene	20.60	278	2666	0.15748	ppb	94
28) Benzo (g,h,i) perylene	21.02	276	2783	0.15889	ppb	97

Quantitation Report

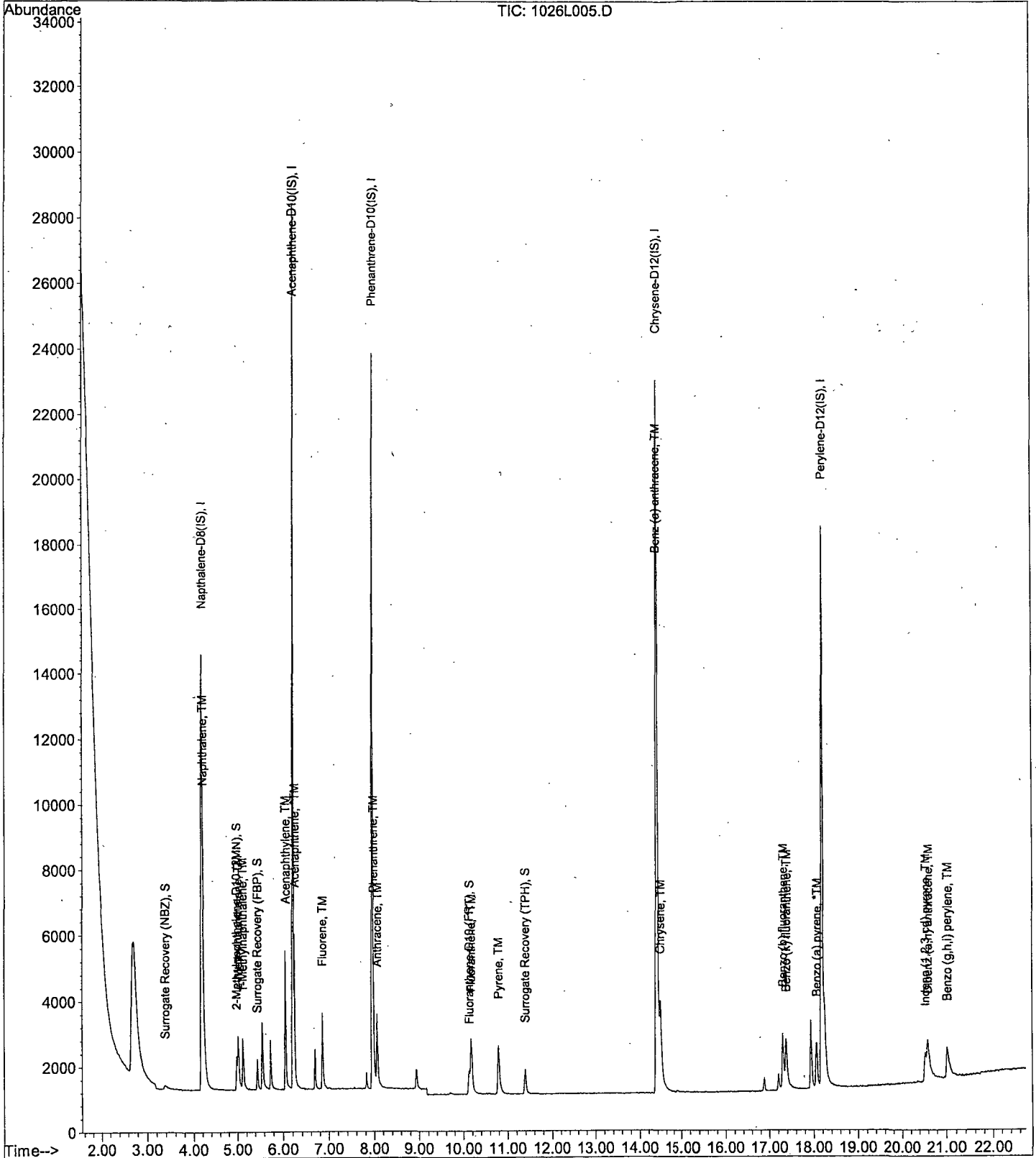
Data File : M:\LINUS\DATA\L181026\1026L005.D  
Acq On : 26 Oct 18 13:20  
Sample : 0.2 SIM 10/26/18  
Misc :

Vial: 5  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 16:15 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration

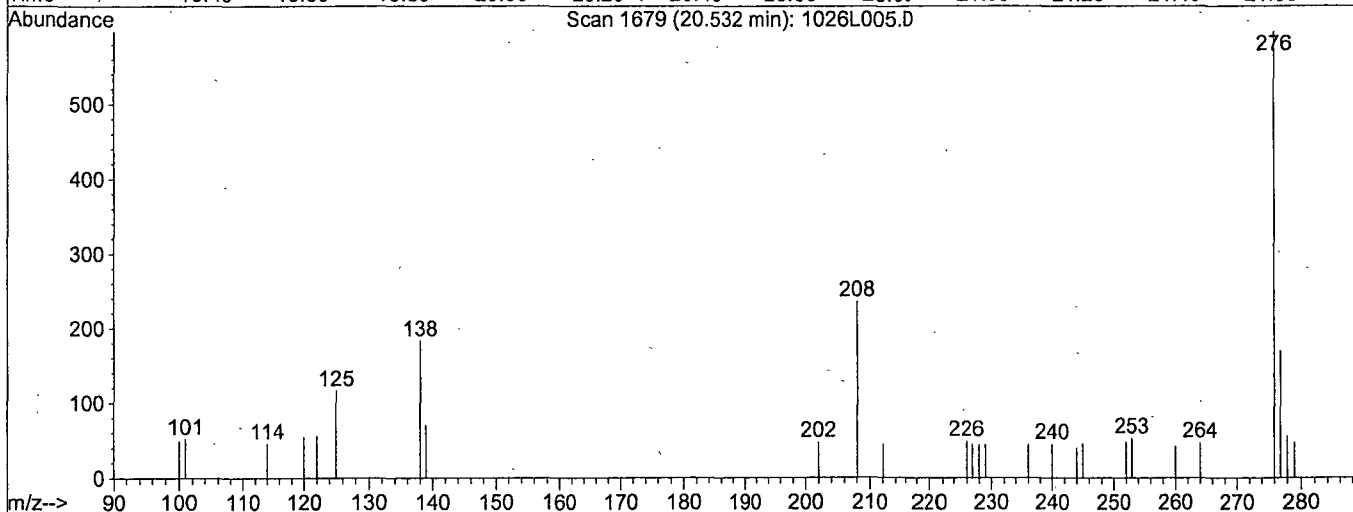
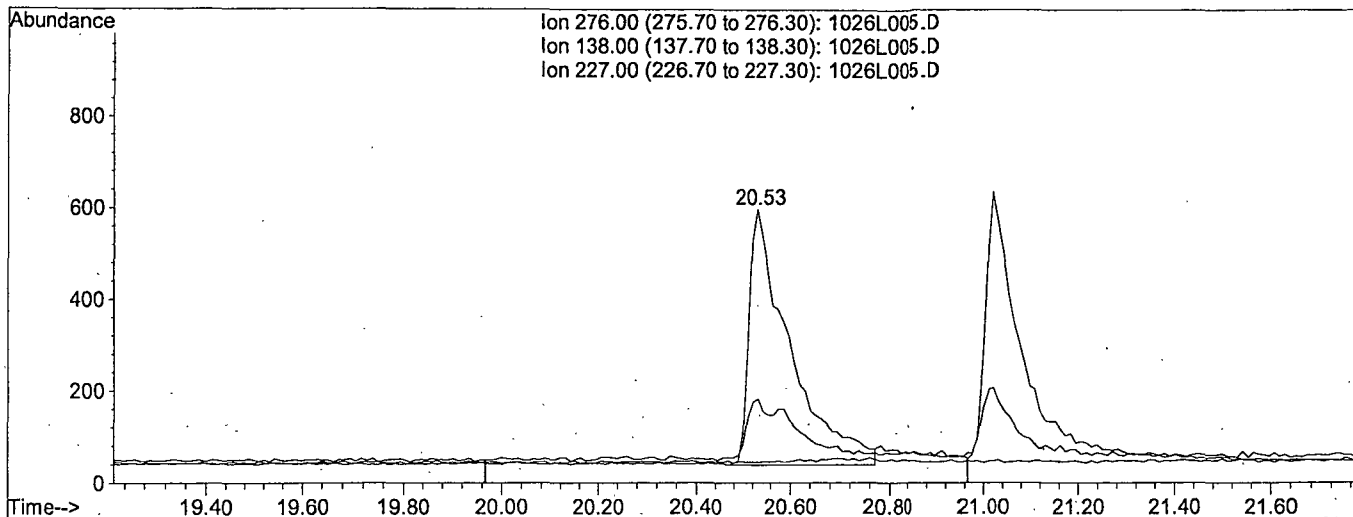


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 15:34 2018

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L005.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.53min 0.2008ppb

response 3294

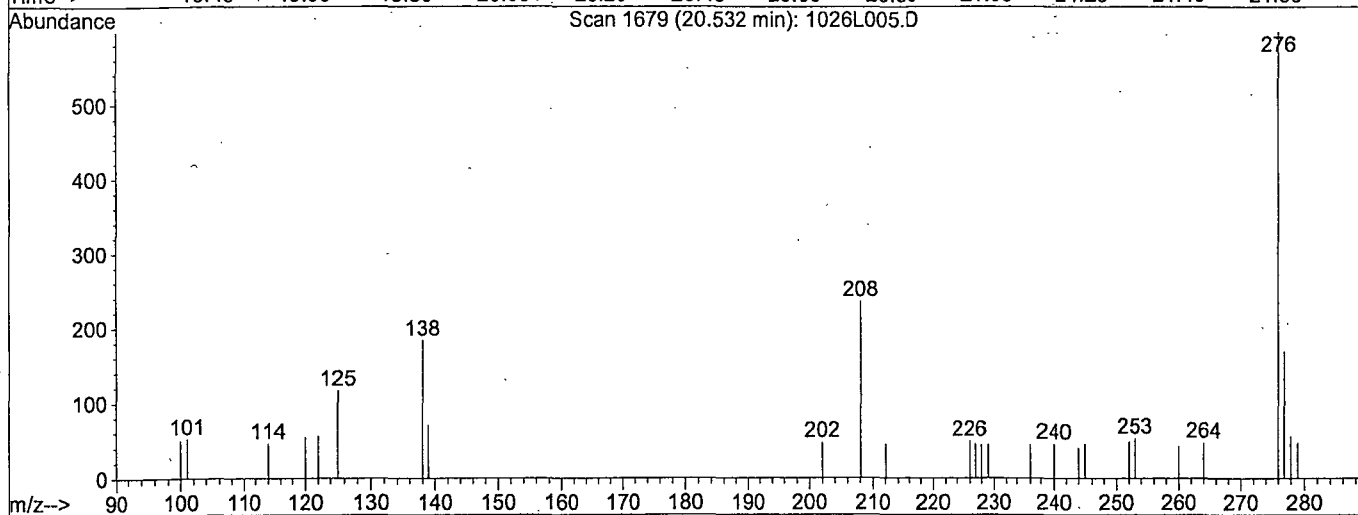
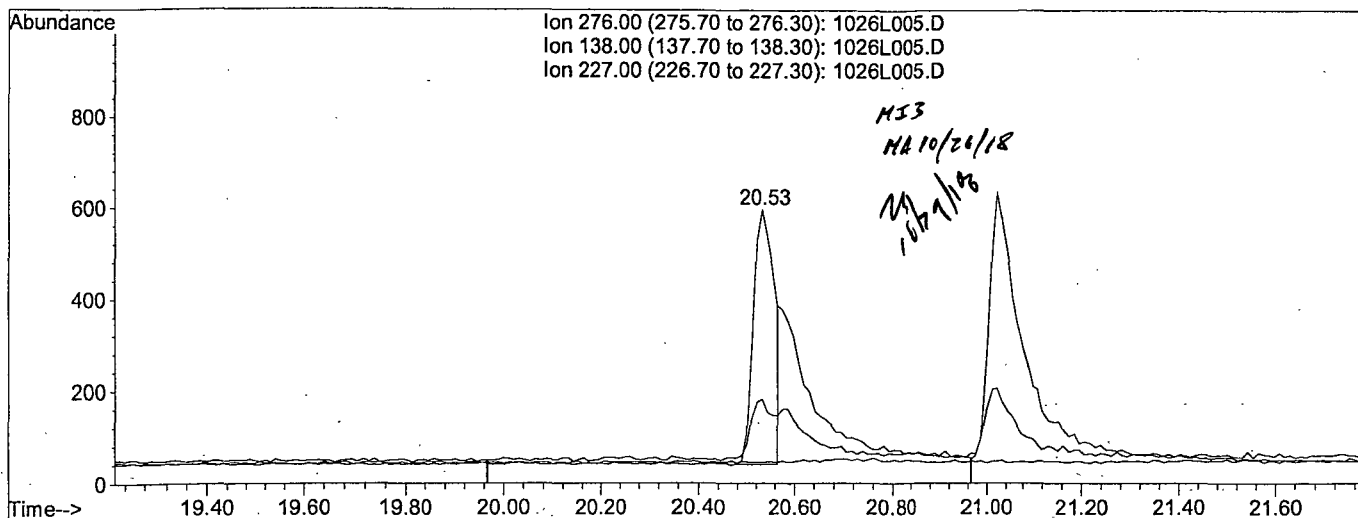
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	22.90
227.00	0.10	0.00#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:14 2018

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L005.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.53min 0.1053ppb m

response 1727

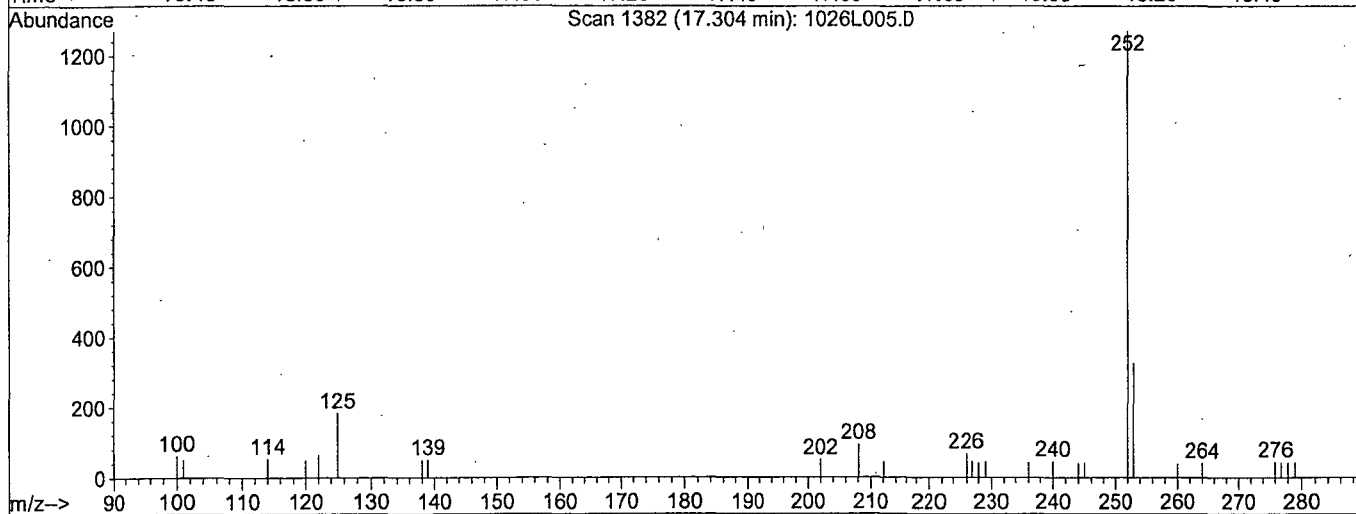
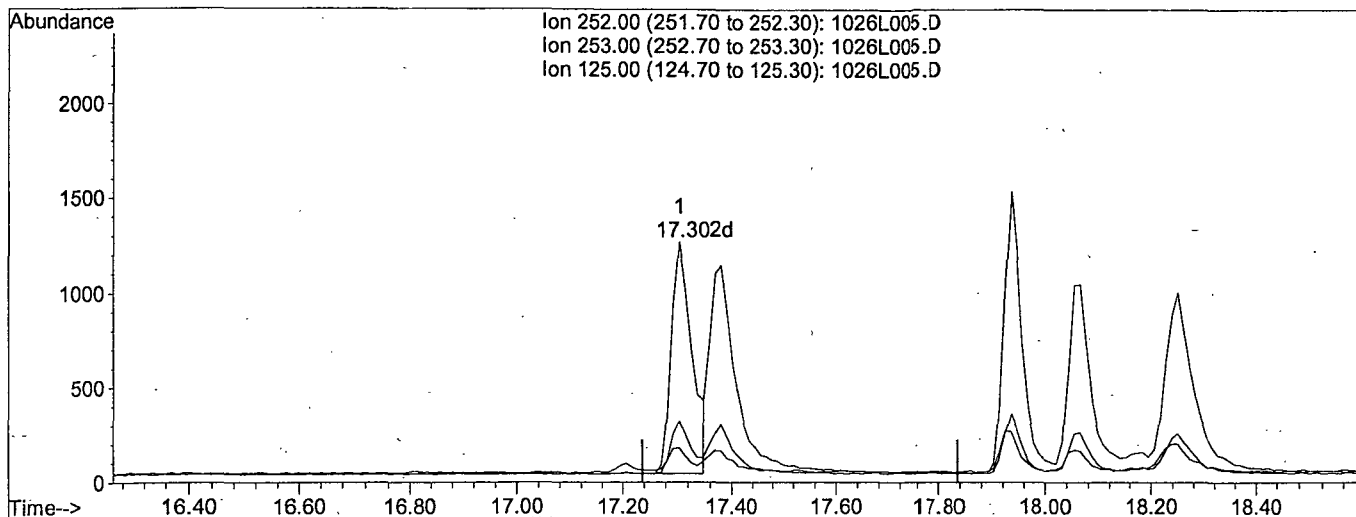
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	30.60#
227.00	0.10	7.53#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:14 2018

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L005.D

(25) Benzo (k) fluoranthene (TM)

17.30min 0.1624ppb

response 3208

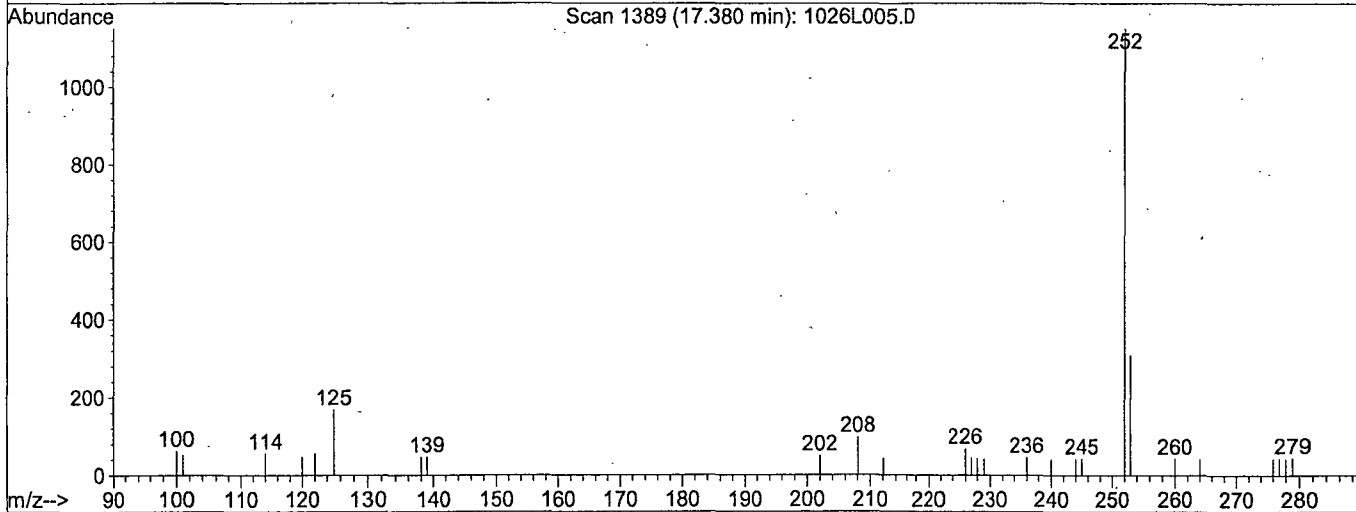
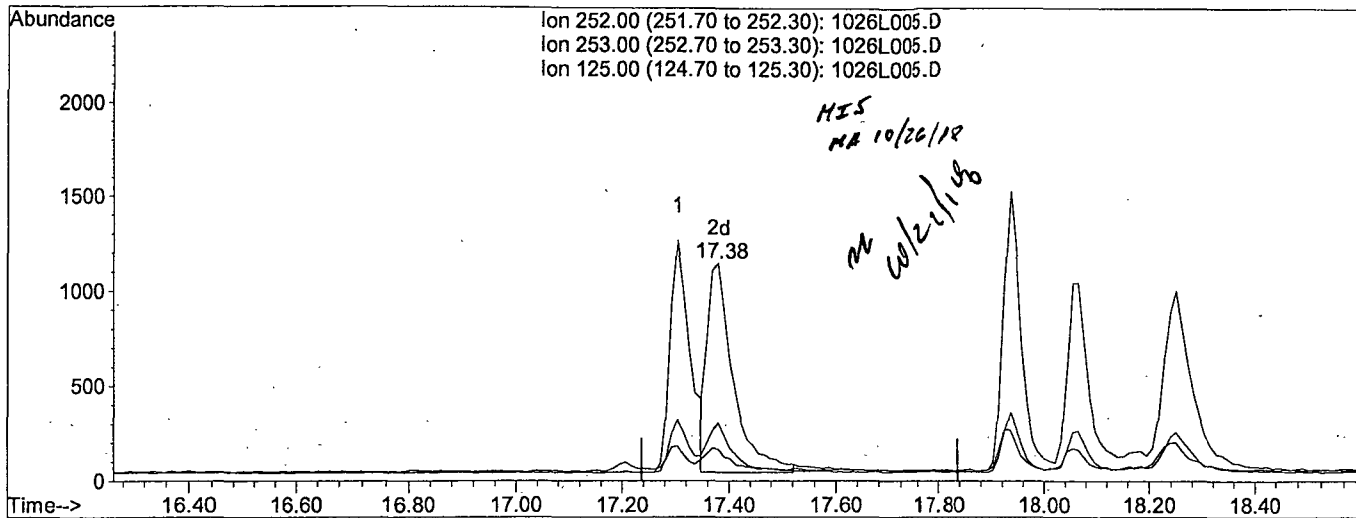
Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.68
125.00	9.90	9.95
0.00	0.00	0:00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:15 2018

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L005.D

(25) Benzo (k) fluoranthene (TM)

17.38min 0.1890ppb m

response 3734

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	26.78
125.00	9.90	14.61#
0.00	0.00	0.00



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L006.D Vial: 6  
 Acq On : 26 Oct 18 13:49 Operator: MA  
 Sample : 0.5 SIM 10/26/18 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Oct 26 16:11 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	32750	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.20	164	14930	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	28628	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.39	240	38484	2.50000	ppb	0.01
23) Perylene-D12 (IS)	18.17	264	37609	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.38	82	1279	0.21709	ppb	0.02
Spiked Amount	5.000		Recovery	=	4.340%	
4) 2-Methylnaphthalene-D10 (2)	4.97	152	4203	0.23843	ppb	0.01
Spiked Amount	5.000		Recovery	=	4.760%	
8) Surrogate Recovery (FBP)	5.44	172	2622	0.22734	ppb	0.01
Spiked Amount	5.000		Recovery	=	4.540%	
15) Fluoranthene-D10 (FRT)	10.12	212	4660	0.21501	ppb	0.02
Spiked Amount	5.000		Recovery	=	4.300%	
19) Surrogate Recovery (TPH)	11.39	244	3226	0.22003	ppb	0.02
Spiked Amount	5.000		Recovery	=	4.400%	
Target Compounds						
3) Naphthalene	4.20	128	7168	0.48956	ppb	98
5) 2-Methylnaphthalene	5.01	142	4428	0.49429	ppb	99
6) 1-Methylnaphthalene	5.12	142	4610	0.52403	ppb	100
9) Acenaphthylene	6.05	152	13663	0.49485	ppb	98
10) Acenaphthene	6.24	154	4192	0.49002	ppb	93
11) Fluorene	6.86	166	4814	0.50470	ppb	99
13) Phenanthrene	7.98	178	7057	0.48363	ppb	98
14) Anthracene	8.06	178	6562	0.50036	ppb	99
16) Fluoranthene	10.16	202	10110	0.48136	ppb	99
18) Pyrene	10.78	202	10151	0.45526	ppb	99
20) Benz (a) anthracene	14.37	228	8271	0.42801	ppb	99
21) Chrysene	14.47	228	9389	0.48612	ppb	97
22) Indeno (1,2,3-cd) pyrene	20.51	276	5240m	0.31776	ppb	99
24) Benzo (b) fluoranthene	17.29	252	8054	0.42726	ppb	97
25) Benzo (k) fluoranthene	17.37	252	9064	0.46045	ppb	100
26) Benzo (a) pyrene	18.05	252	6810	0.40595	ppb	99
27) Dibenz (a,h) anthracene	20.58	278	6922	0.41030	ppb	96
28) Benzo (g,h,i) perylene	21.00	276	7138	0.40895	ppb	96

Quantitation Report

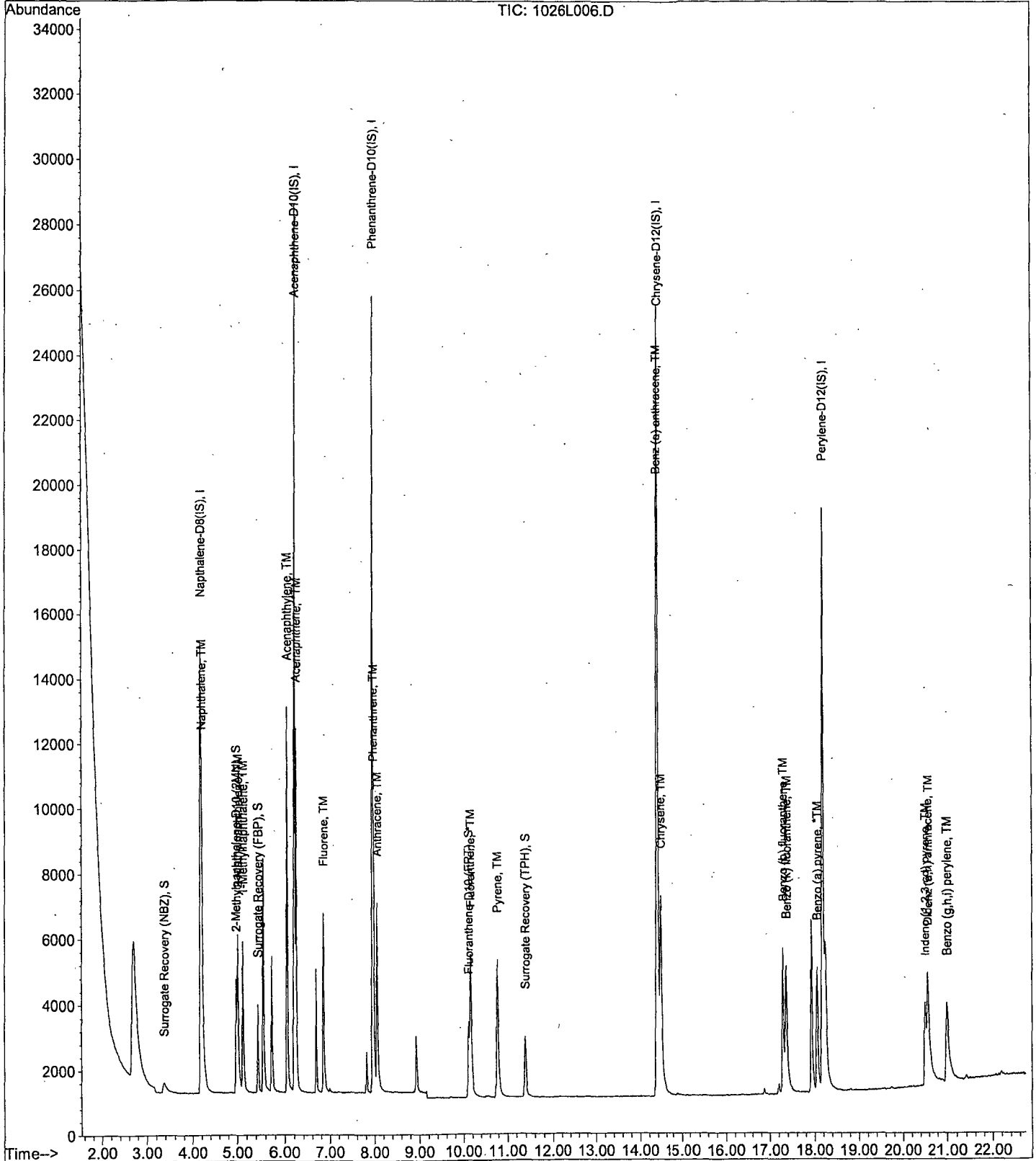
Data File : M:\LINUS\DATA\L181026\1026L006.D  
Acq On : 26 Oct 18 13:49  
Sample : 0.5 SIM 10/26/18  
Misc :

Vial: 6  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 16:11 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration

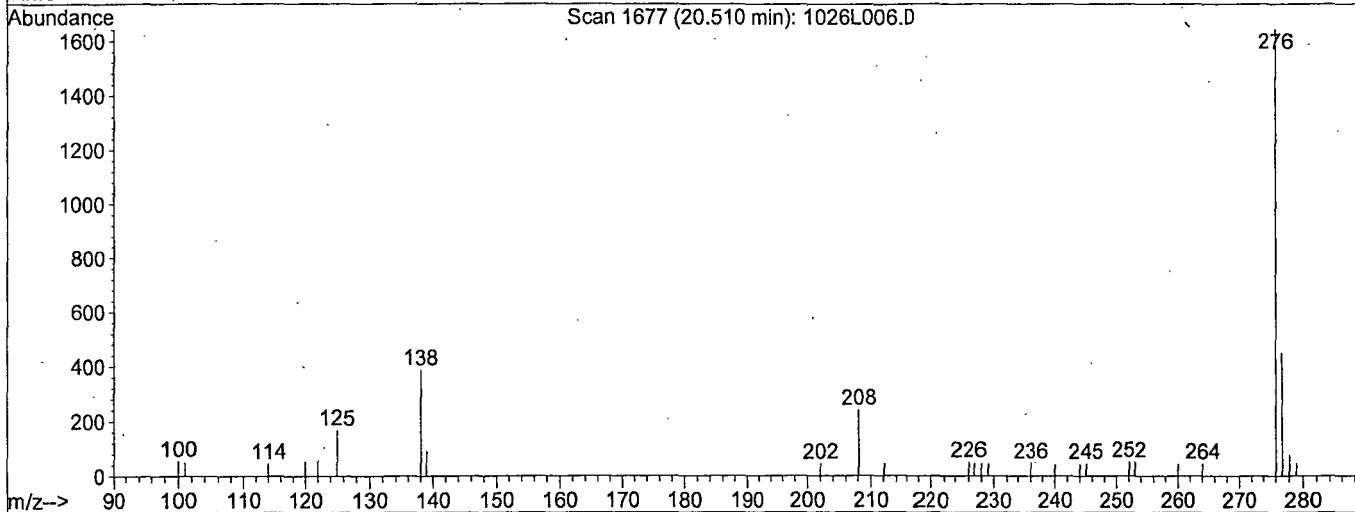
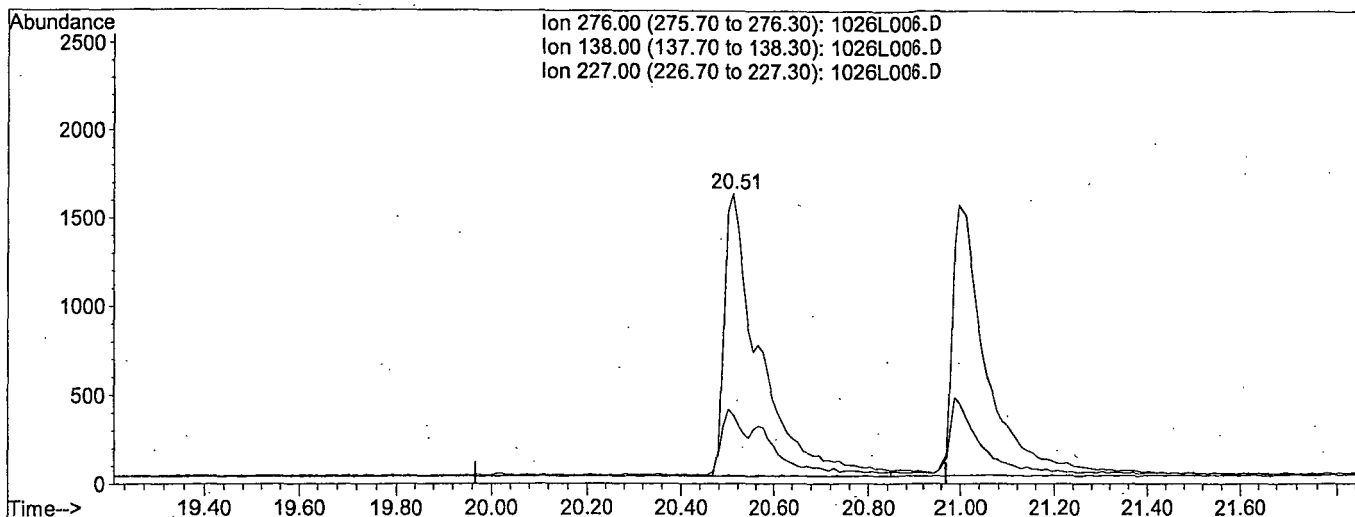


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L006.D  
 Acq On. : 26 Oct 18 13:49  
 Sample : 0.5 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 15:34 2018

Vial: 6  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L006.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.51min 0.5224ppb

response 8614

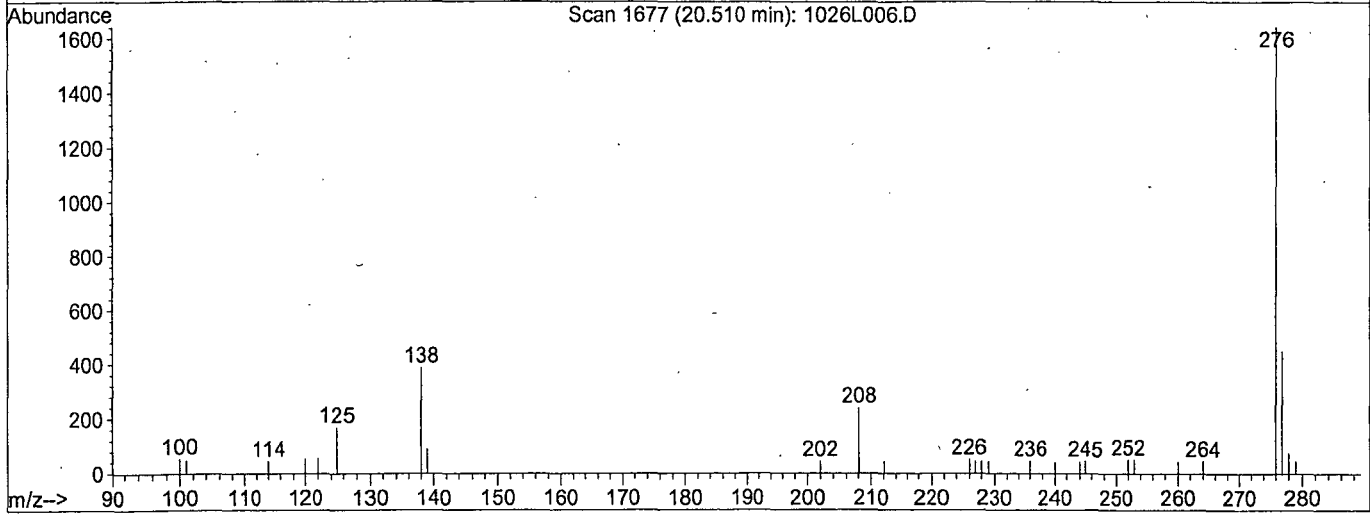
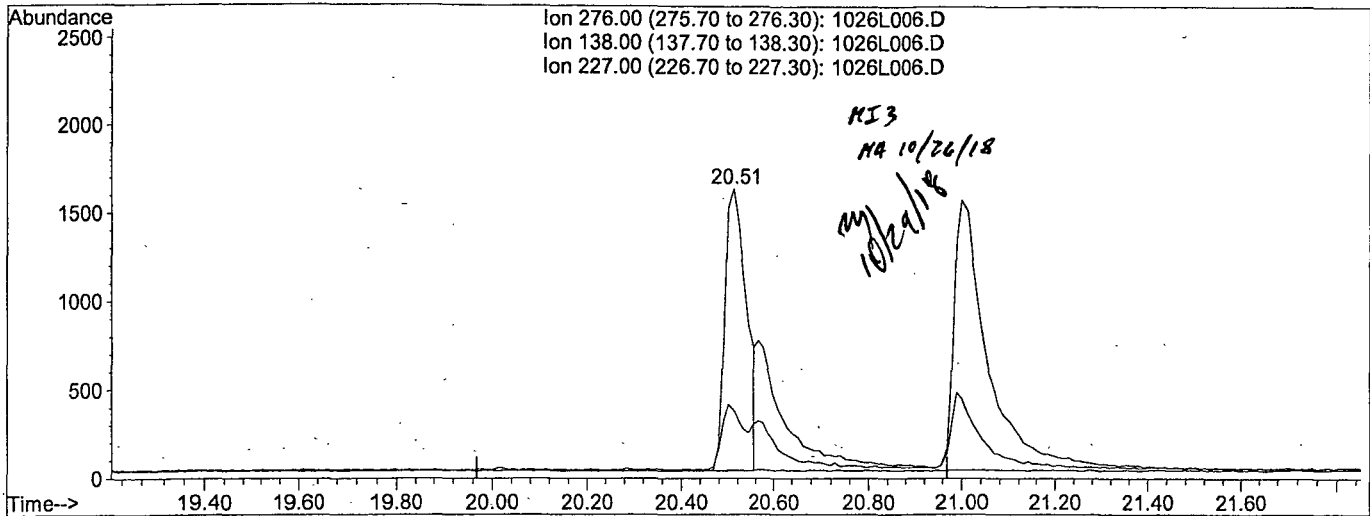
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	20.97
227.00	0.10	0.25#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L006.D  
 Acq On : 26 Oct 18 13:49  
 Sample : 0.5 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:11 2018

Vial: 6  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L006.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.51min 0.3178ppb m

response 5240

Ion	Exp%	Act%
276.00	100	100
138.00	21.50	23.62
227.00	0.10	2.86#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L007.D  
 Acq On : 26 Oct 18 14:18  
 Sample : 1 SIM 10/26/18  
 Misc :

Vial: 7  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 16:11 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	33971	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	15608	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	29272	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.38	240	39857	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	39069	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.37	82	2297	0.37586	ppb	0.01
Spiked Amount	5.000		Recovery	=	7.520%	
4) 2-Methylnaphthalene-D10 (2)	4.97	152	8029	0.43910	ppb	0.01
Spiked Amount	5.000		Recovery	=	8.780%	
8) Surrogate Recovery (FBP)	5.44	172	5100	0.42298	ppb	0.01
Spiked Amount	5.000		Recovery	=	8.460%	
15) Fluoranthene-D10 (FRT)	10.11	212	9033	0.40761	ppb	0.01
Spiked Amount	5.000		Recovery	=	8.160%	
19) Surrogate Recovery (TPH)	11.38	244	6108	0.40225	ppb	0.01
Spiked Amount	5.000		Recovery	=	8.040%	
Target Compounds						
3) Naphthalene	4.20	128	14128	0.93024	ppb	100
5) 2-Methylnaphthalene	5.01	142	8733	0.93981	ppb	98
6) 1-Methylnaphthalene	5.12	142	8928	0.97838	ppb	98
9) Acenaphthylene	6.05	152	26429	0.91562	ppb	99
10) Acenaphthene	6.24	154	8065	0.90180	ppb	92
11) Fluorene	6.84	166	9703	0.97307	ppb	97
13) Phenanthrene	7.98	178	14031	0.94041	ppb	99
14) Anthracene	8.06	178	12971	0.96730	ppb	99
16) Fluoranthene	10.16	202	20236	0.94229	ppb	98
18) Pyrene	10.77	202	20187	0.87417	ppb	97
20) Benz (a) anthracene	14.36	228	15888	0.79385	ppb	99
21) Chrysene	14.47	228	17899	0.89481	ppb	99
22) Indeno (1,2,3-cd) pyrene	20.50	276	11020m	0.64524	ppb	95
24) Benzo (b) fluoranthene	17.28	252	15809	0.80731	ppb	98
25) Benzo (k) fluoranthene	17.36	252	17901	0.87539	ppb	99
26) Benzo (a) pyrene	18.04	252	14027	0.80492	ppb	97
27) Dibenz (a,h) anthracene	20.56	278	14018	0.79986	ppb	95
28) Benzo (g,h,i) perylene	20.99	276	13977	0.77084	ppb	98

Quantitation Report

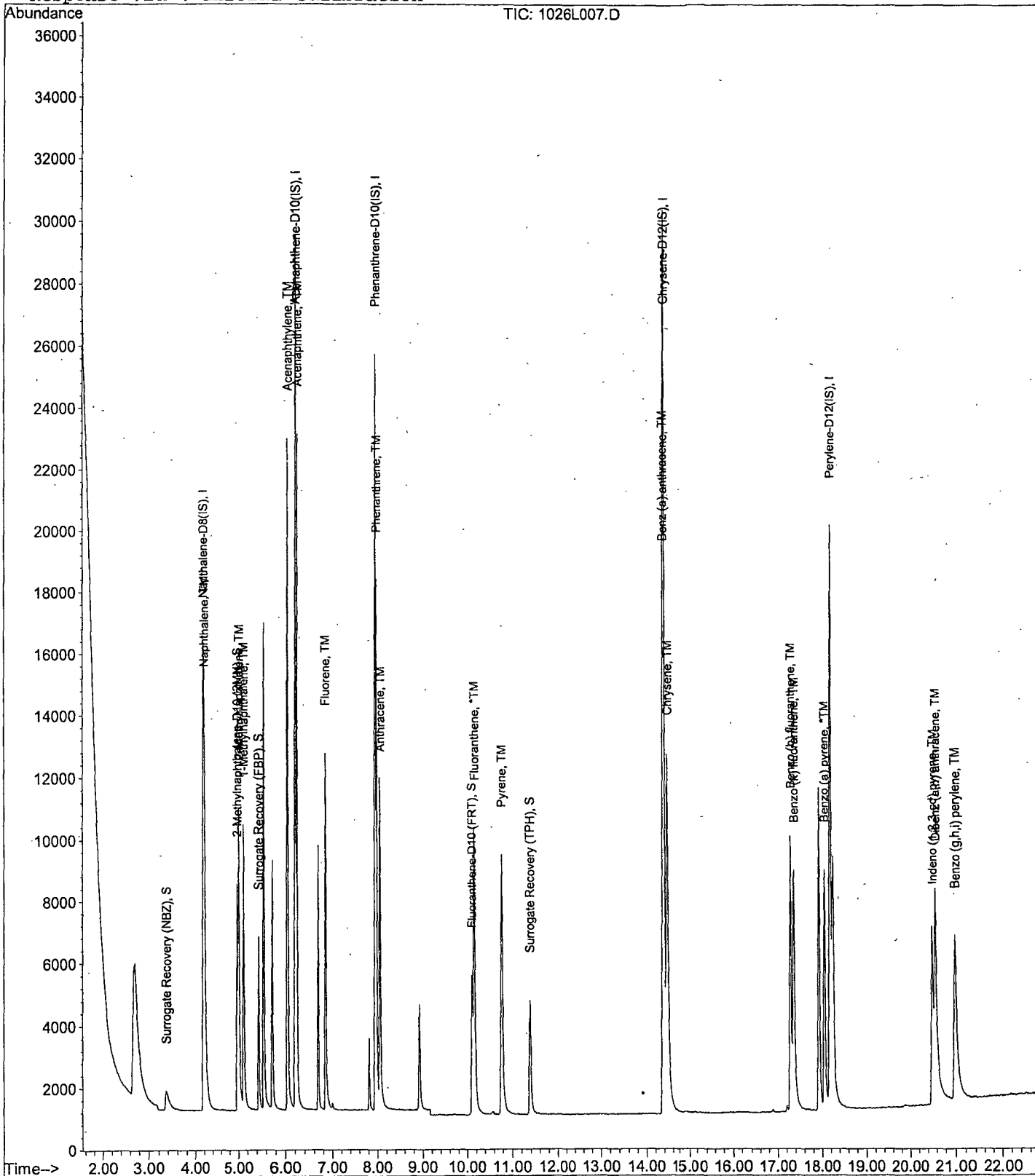
Data File : M:\LINUS\DATA\L181026\1026L007.D  
Acq On : 26 Oct 18 14:18  
Sample : 1 SIM 10/26/18  
Misc :

Vial: 7  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 16:11 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration

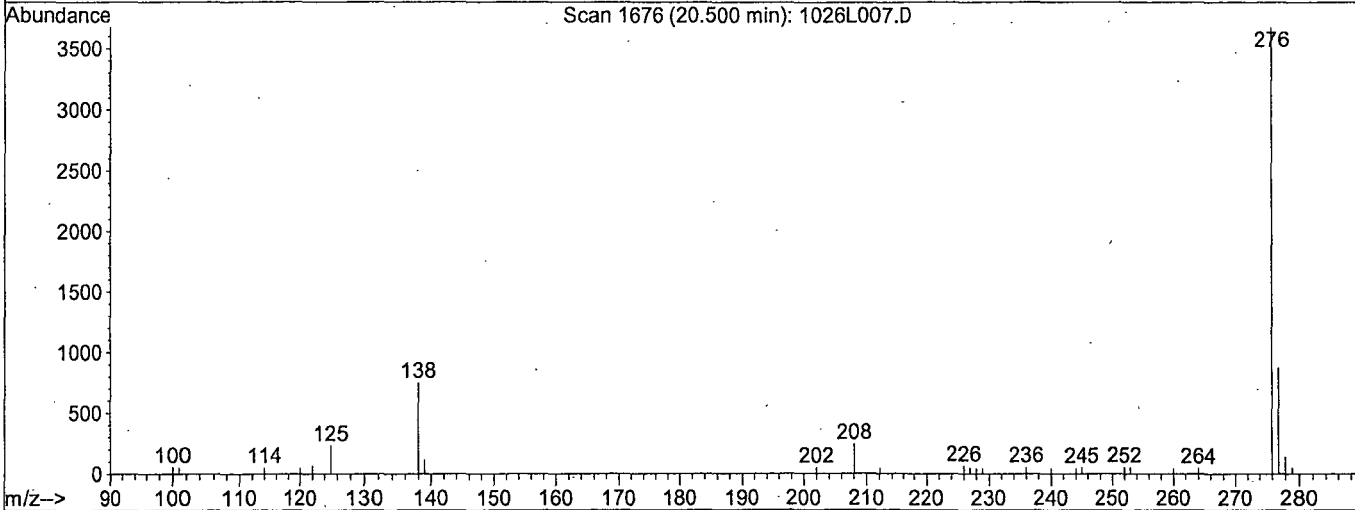
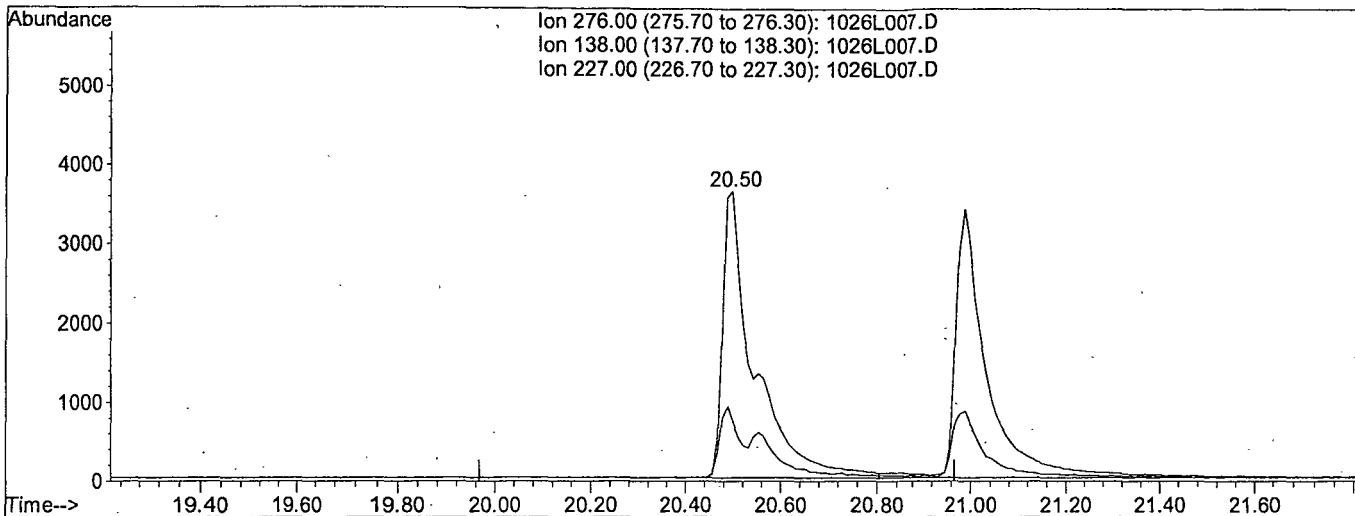


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L007.D  
 Acq On : 26 Oct 18 14:18  
 Sample : 1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 15:34 2018

Vial: 7  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L007.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.50min 0.9777ppb

response 16698

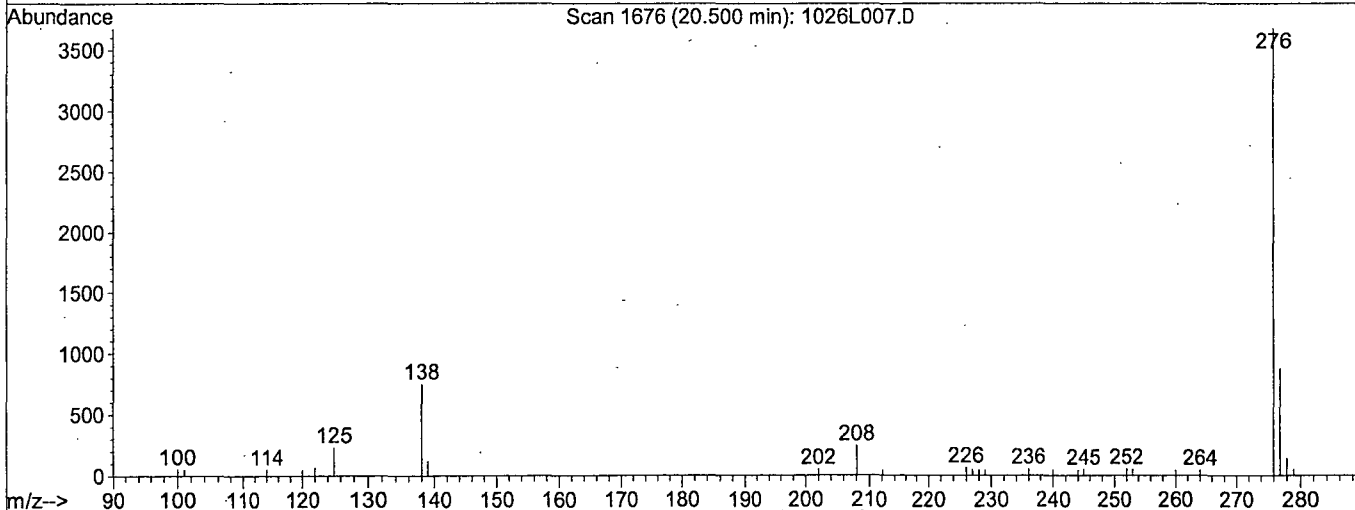
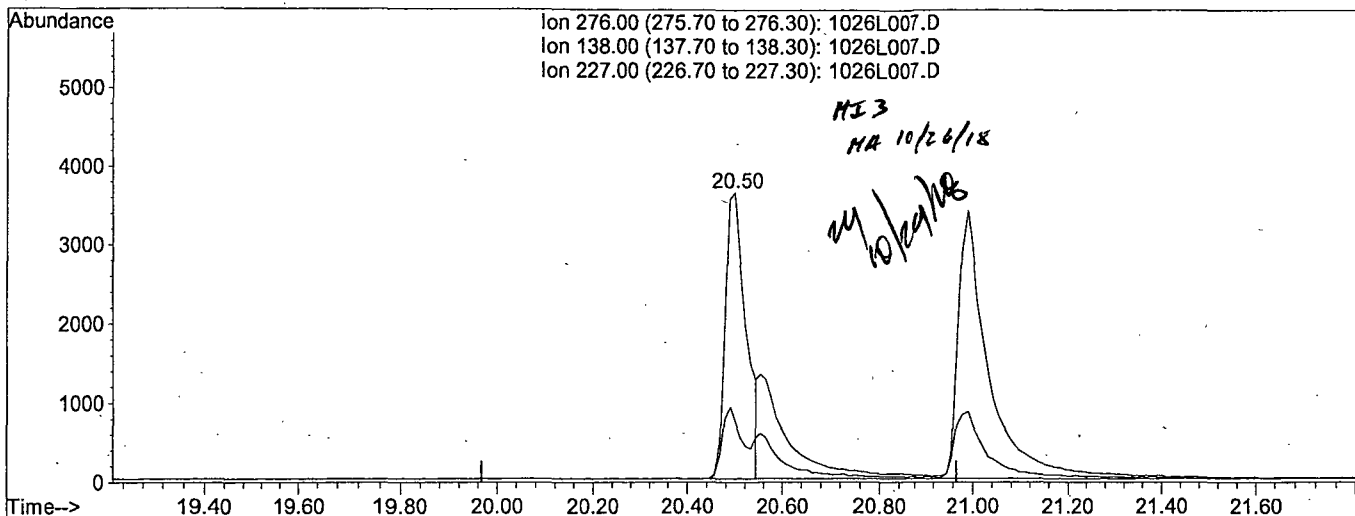
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	19.31
227.00	0.10	0.17#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L007.D  
 Acq On : 26 Oct 18 14:18  
 Sample : 1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:11 2018

Vial: 7  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L007.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.50min 0.6452ppb m

response 11020

Ion	Exp%	Act%
276.00	100	100
138.00	21.50	20.41
227.00	0.10	1.36#
0.00	0.00	0.00



Data File : M:\LINUS\DATA\L181026\1026L008.D Vial: 8  
 Acq On : 26 Oct 18 14:47 Operator: MA  
 Sample : 10 SIM 10/26/18 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Oct 26 15:34 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	32570	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	14513	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	27797	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.38	240	38774	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	36501	2.50000	ppb	0.00

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	3.36	82	25371	4.33004	ppb	0.00
Spiked Amount	5.000		Recovery	=	86.600%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	78619	4.48459	ppb	0.00
Spiked Amount	5.000		Recovery	=	89.700%	
8) Surrogate Recovery (FBP)	5.43	172	50972	4.54640	ppb	0.00
Spiked Amount	5.000		Recovery	=	90.920%	
15) Fluoranthene-D10 (FRT)	10.10	212	96613	4.59101	ppb	0.00
Spiked Amount	5.000		Recovery	=	91.820%	
19) Surrogate Recovery (TPH)	11.37	244	62297	4.21726	ppb	0.00
Spiked Amount	5.000		Recovery	=	84.340%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	4.20	128	138573	9.51662	ppb	100
5) 2-Methylnaphthalene	5.00	142	89316	10.02530	ppb	99
6) 1-Methylnaphthalene	5.12	142	85742	9.80030	ppb	97
9) Acenaphthylene	6.04	152	267328	9.96025	ppb	100
10) Acenaphthene	6.24	154	78196	9.40333	ppb	98
11) Fluorene	6.84	166	93296	10.06218	ppb	100
13) Phenanthrene	7.98	178	136446	9.63044	ppb	99
14) Anthracene	8.05	178	133826	10.50953	ppb	100
16) Fluoranthene	10.15	202	206441	10.12305	ppb	96
18) Pyrene	10.76	202	210764	9.38172	ppb	98
20) Benz (a) anthracene	14.36	228	178514	9.16865	ppb	100
21) Chrysene	14.46	228	182173	9.36164	ppb	100
22) Indeno (1,2,3-cd) pyrene	20.47	276	132404	7.96902	ppb	98
24) Benzo (b) fluoranthene	17.27	252	170669	9.32862	ppb	99
25) Benzo (k) fluoranthene	17.34	252	187357	9.80670	ppb	99
26) Benzo (a) pyrene	18.03	252	159123	9.77348	ppb	99
27) Dibenz (a,h) anthracene	20.54	278	142540	8.70545	ppb	99
28) Benzo (g,h,i) perylene	20.96	276	147120	8.68460	ppb	99

Quantitation Report

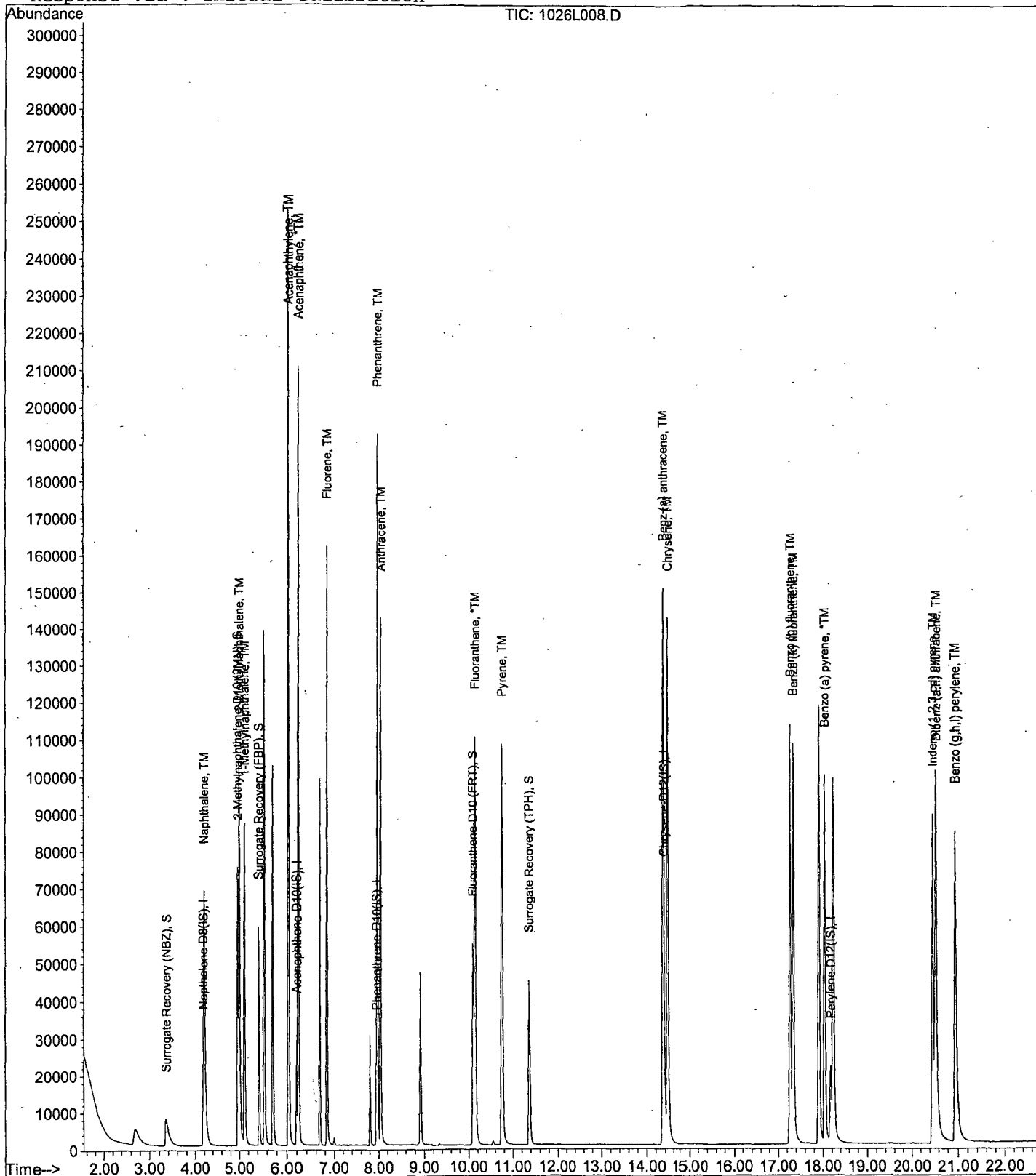
Data File : M:\LINUS\DATA\L181026\1026L008.D  
Acq On : 26 Oct 18 14:47  
Sample : 10 SIM 10/26/18  
Misc :

Vial: 8  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 15:34 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L009.D  
 Acq On : 26 Oct 18 15:16  
 Sample : 50 SIM 10/26/18  
 Misc :

Vial: 9  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 15:56 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	4.17	136	33697	2.50000	ppb	-0.01
7) Acenaphthene-D10(IS)	6.20	164	14973	2.50000	ppb	0.00
12) Phenanthrene-D10(IS)	7.95	188	28689	2.50000	ppb	0.01
17) Chrysene-D12(IS)	14.40	240	38392	2.50000	ppb	0.02
23) Perylene-D12(IS)	18.18	264	37588	2.50000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.35	82	122273	21.73245	ppb	-0.01
Spiked Amount	5.000		Recovery	=	434.640%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	355045	22.10239	ppb	0.00
Spiked Amount	5.000		Recovery	=	442.040%	
8) Surrogate Recovery (FBP)	5.43	172	220430	21.82249	ppb	0.00
Spiked Amount	5.000		Recovery	=	436.440%	
15) Fluoranthene-D10 (FRT)	10.11	212	431396	22.92845	ppb	0.01
Spiked Amount	5.000		Recovery	=	458.560%	
19) Surrogate Recovery (TPH)	11.38	244	284921	21.83788	ppb	0.01
Spiked Amount	5.000		Recovery	=	436.760%	
Target Compounds						
3) Naphthalene	4.20	128	652242	46.00597	ppb	100
5) 2-Methylnaphthalene	5.00	142	409700	47.62530	ppb	99
6) 1-Methylnaphthalene	5.12	142	391332	45.14684	ppb	96
9) Acenaphthylene	6.04	152	1199003	46.39626	ppb	100
10) Acenaphthene	6.24	154	343423	43.41979	ppb	94
11) Fluorene	6.84	166	413269	45.87248	ppb	98
13) Phenanthrene	7.98	178	614637	45.60337	ppb	99
14) Anthracene	8.05	178	596928	47.86908	ppb	99
16) Fluoranthene	10.17	202	935853	47.50242	ppb	97
18) Pyrene	10.78	202	976032	48.05263	ppb	98
20) Benz (a) anthracene	14.38	228	861770	50.73337	ppb	99
21) Chrysene	14.49	228	821012	45.08714	ppb	99
22) Indeno (1,2,3-cd) pyrene	20.50	276	693522	42.54313	ppb	95
24) Benzo (b) fluoranthene	17.29	252	833397	49.82667	ppb	# 98
25) Benzo (k) fluoranthene	17.38	252	837921	48.85260	ppb	97
26) Benzo (a) pyrene	18.08	252	754977	52.03384	ppb	97
27) Dibenz (a,h) anthracene	20.58	278	691170	48.13785	ppb	97
28) Benzo (g,h,i) perylene	21.00	276	687548	47.00469	ppb	96

Quantitation Report

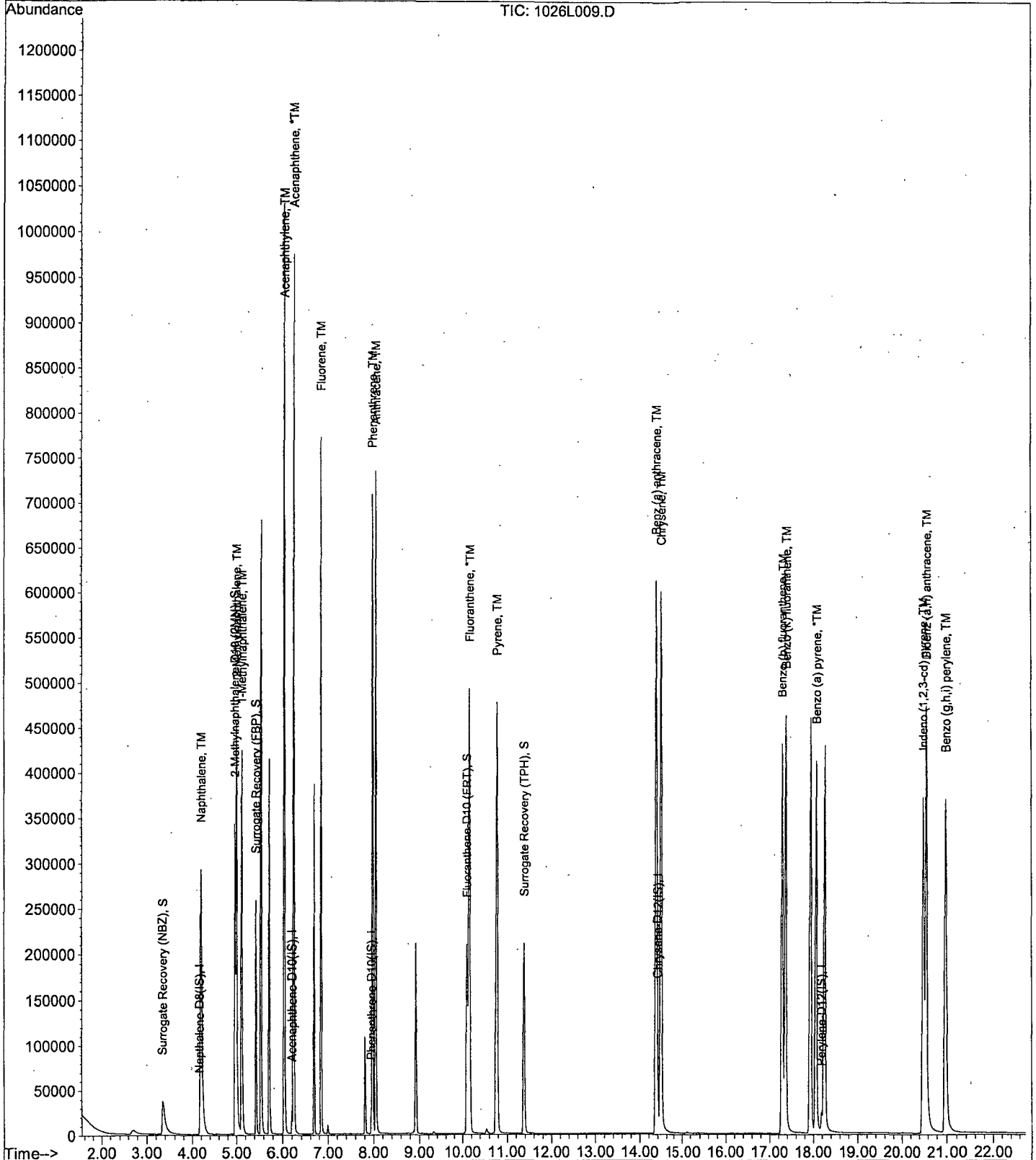
Data File : M:\LINUS\DATA\L181026\1026L009.D  
Acq On : 26 Oct 18 15:16  
Sample : 50 SIM 10/26/18  
Misc :

Vial: 9  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 15:56 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 16:12 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.17	136	31633	2.50000	ppb	-0.01
7) Acenaphthene-D10 (IS)	6.20	164	14067	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	26871	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.42	240	35782	2.50000	ppb	0.04
23) Perylene-D12 (IS)	18.20	264	35404	2.50000	ppb	0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.35	82	230737	45.09256	ppb	-0.01
Spiked Amount	5.000		Recovery	=	901.860%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	641392	43.26523	ppb	0.00
Spiked Amount	5.000		Recovery	=	865.300%	
8) Surrogate Recovery (FBP)	5.43	172	407321	43.93229	ppb	0.00
Spiked Amount	5.000		Recovery	=	878.640%	
15) Fluoranthene-D10 (FRT)	10.12	212	792092	46.17898	ppb	0.02
Spiked Amount	5.000		Recovery	=	923.580%	
19) Surrogate Recovery (TPH)	11.39	244	525605	44.69973	ppb	0.02
Spiked Amount	5.000		Recovery	=	894.000%	
Target Compounds						
3) Naphthalene	4.19	128	1190602	90.34580	ppb	100
5) 2-Methylnaphthalene	5.01	142	725937	89.84741	ppb	96
6) 1-Methylnaphthalene	5.12	142	696199	85.61444	ppb	97
9) Acenaphthylene	6.05	152	2156100	89.29356	ppb	99
10) Acenaphthene	6.25	154	635563	86.08448	ppb	95
11) Fluorene	6.86	166	758985	89.77625	ppb	99
13) Phenanthrene	7.99	178	1058586	83.98357	ppb	98
14) Anthracene	8.06	178	1012170	86.44068	ppb	98
16) Fluoranthene	10.19	202	1675844	91.44665	ppb	98
18) Pyrene	10.80	202	1771989	95.58281	ppb	96
20) Benz (a) anthracene	14.40	228	1494777	96.18039	ppb	99
21) Chrysene	14.51	228	1518028	91.13060	ppb	98
22) Indeno (1,2,3-cd) pyrene	20.53	276	1322256m	89.75981	ppb	95
24) Benzo (b) fluoranthene	17.31	252	1544889	98.73724	ppb	# 97
25) Benzo (k) fluoranthene	17.41	252	1515838m	94.40721	ppb	98
26) Benzo (a) pyrene	18.11	252	1359978	100.87684	ppb	98
27) Dibenz (a,h) anthracene	20.61	278	1247200	94.24990	ppb	98
28) Benzo (g,h,i) perylene	21.03	276	1259732	93.82010	ppb	98

Quantitation Report

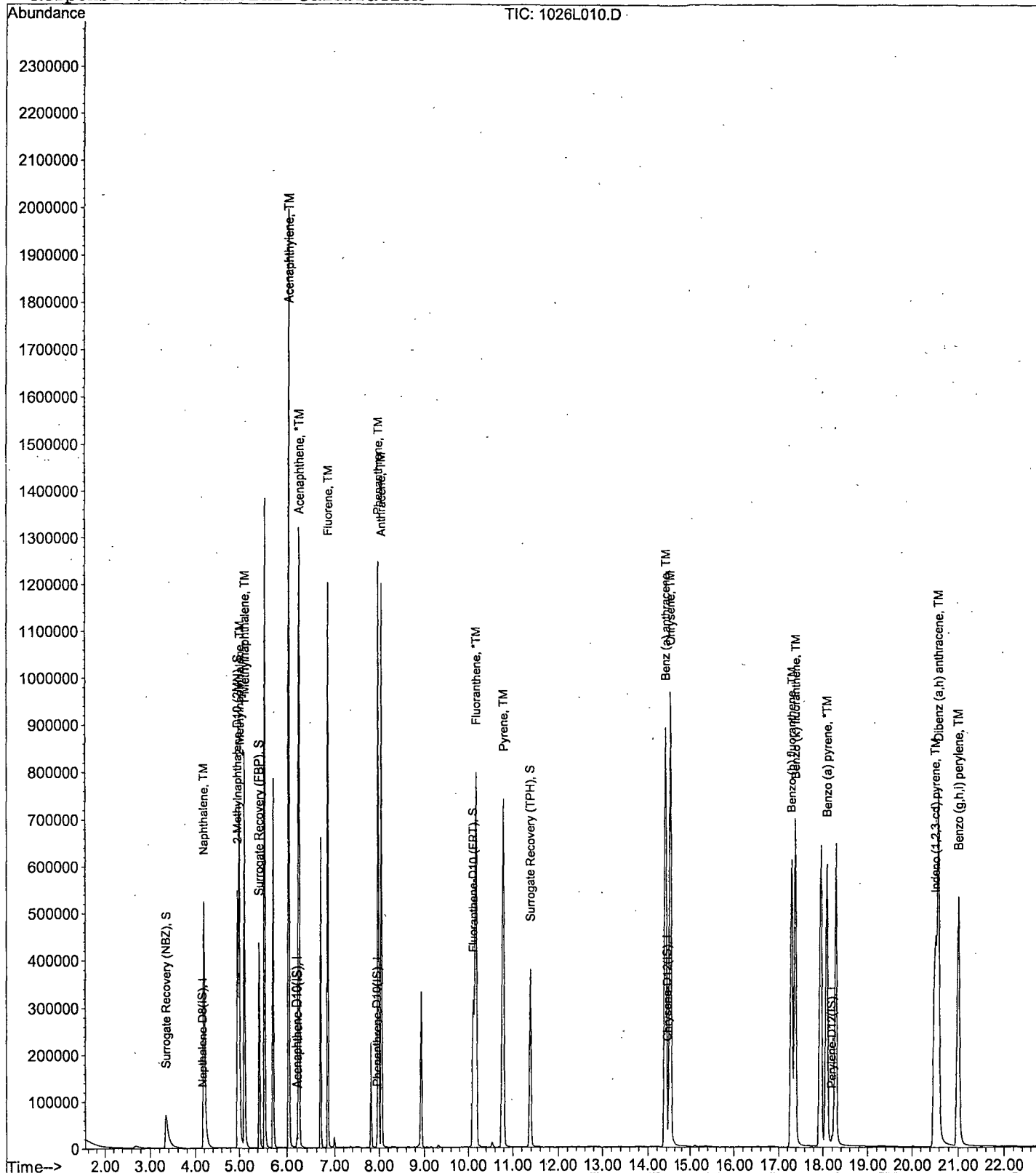
Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 16:12 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration

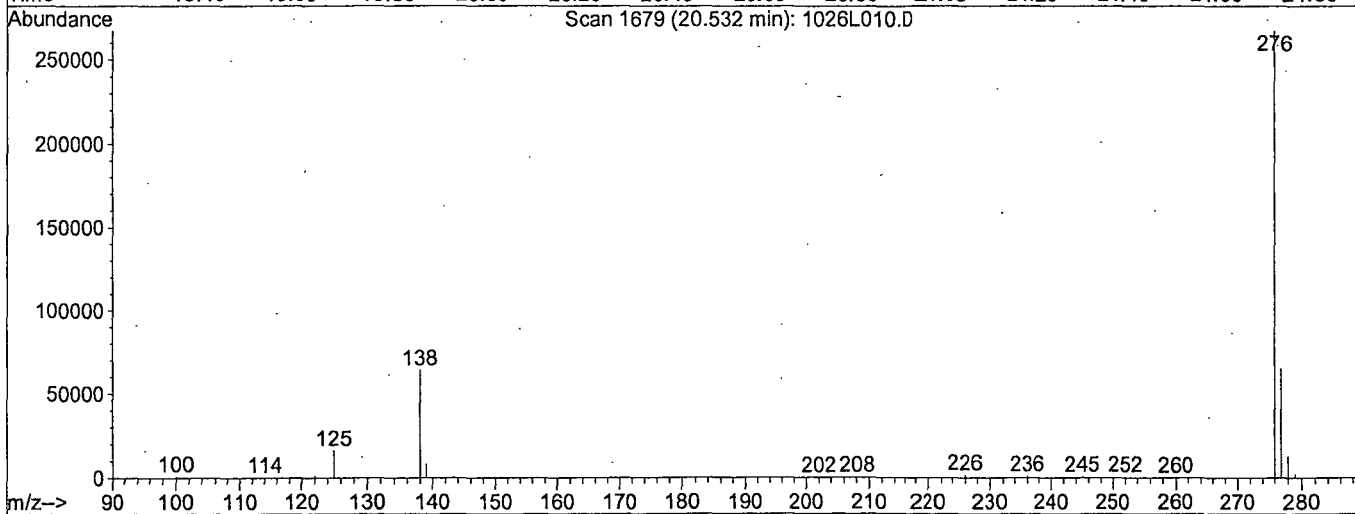
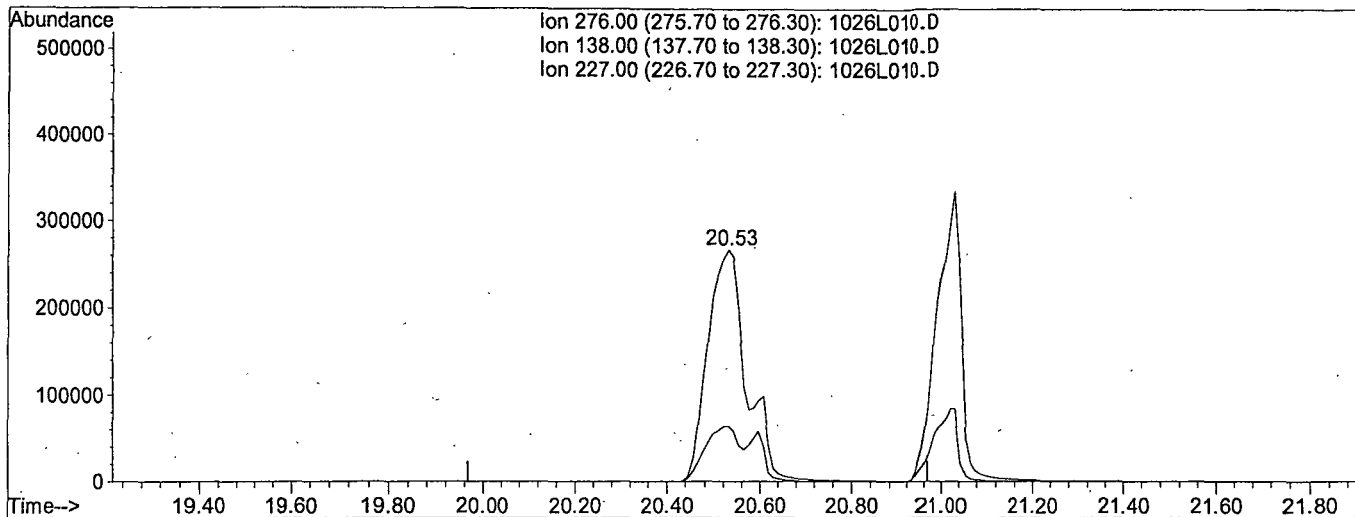


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:09 2018

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L010.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.53min 107.1725ppb

response 1578763

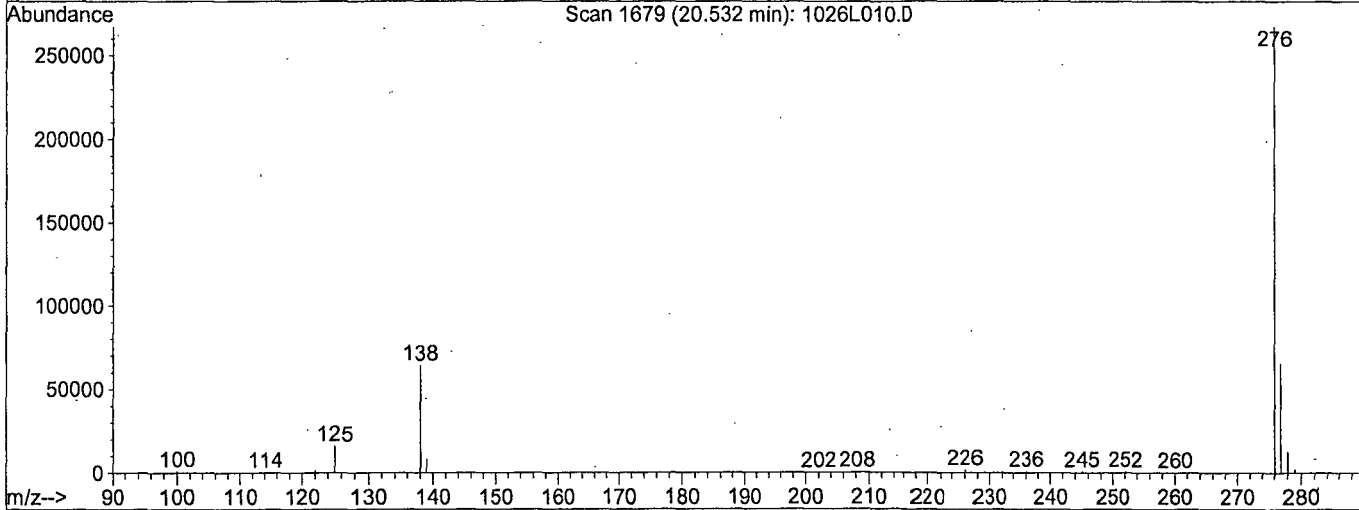
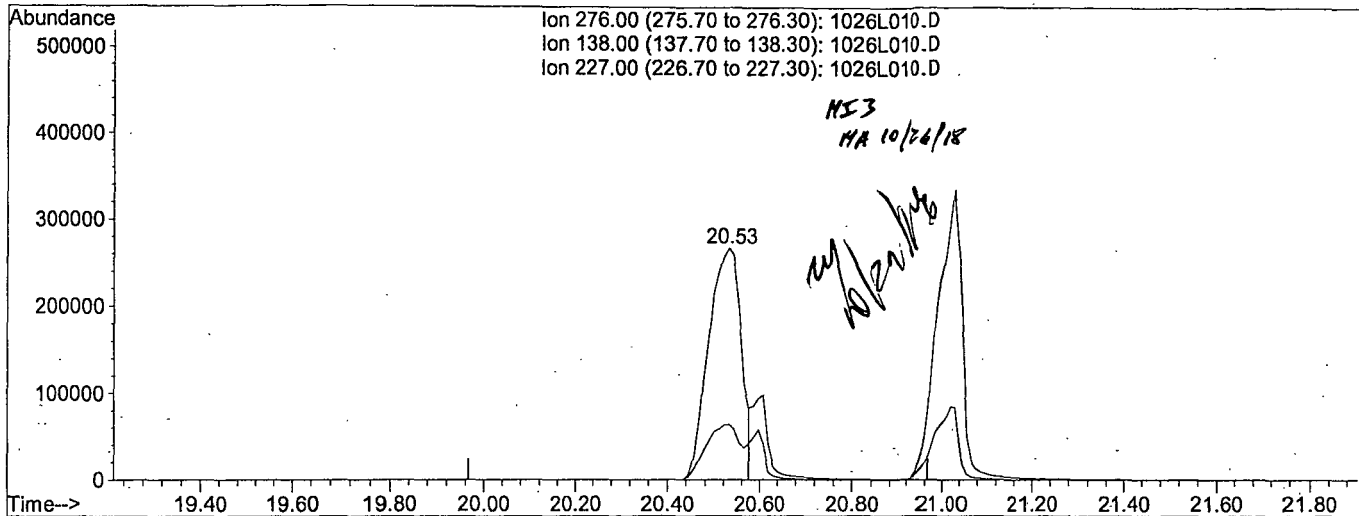
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	24.02
227.00	0.10	0.11
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:12 2018

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L010.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.53min 89.7598ppb m

response 1322256

Ion	Exp%	Act%
276.00	100	100
138.00	21.50	24.04
227.00	0.10	0.13#
0.00	0.00	0.00

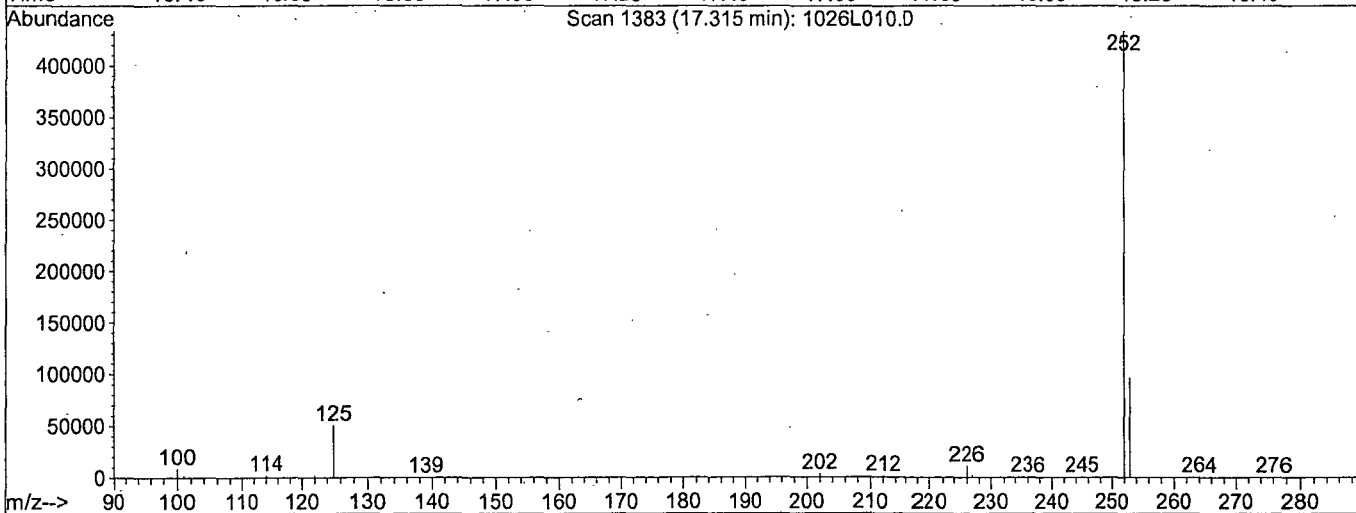
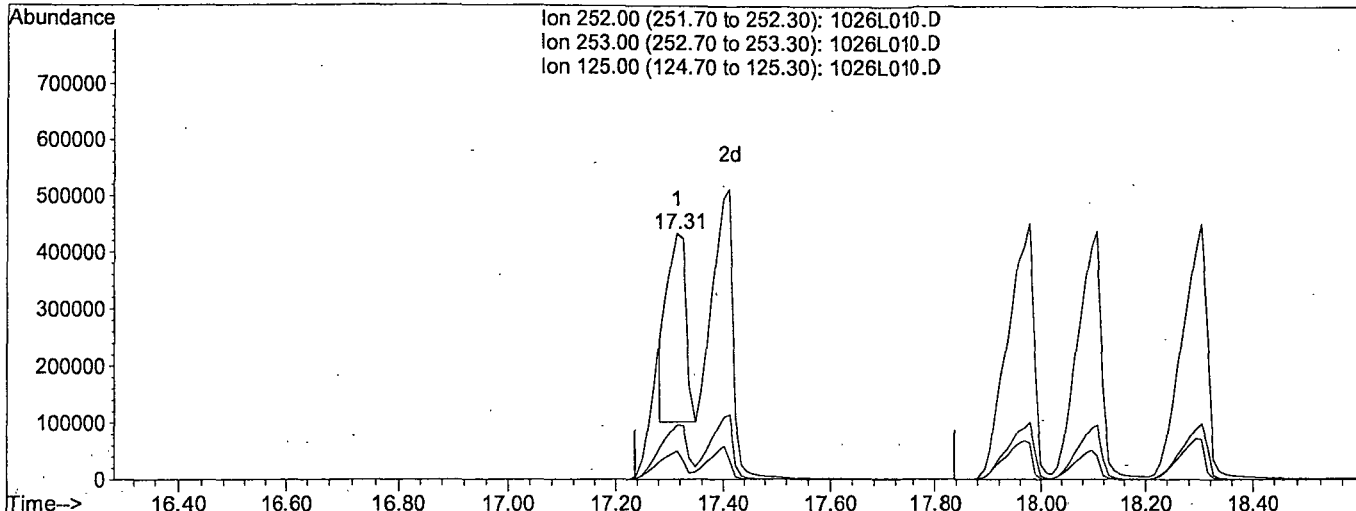


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:12 2018

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L010.D

(25) Benzo (k) fluoranthene (TM)

17.31min 49.4605ppb

response 794156

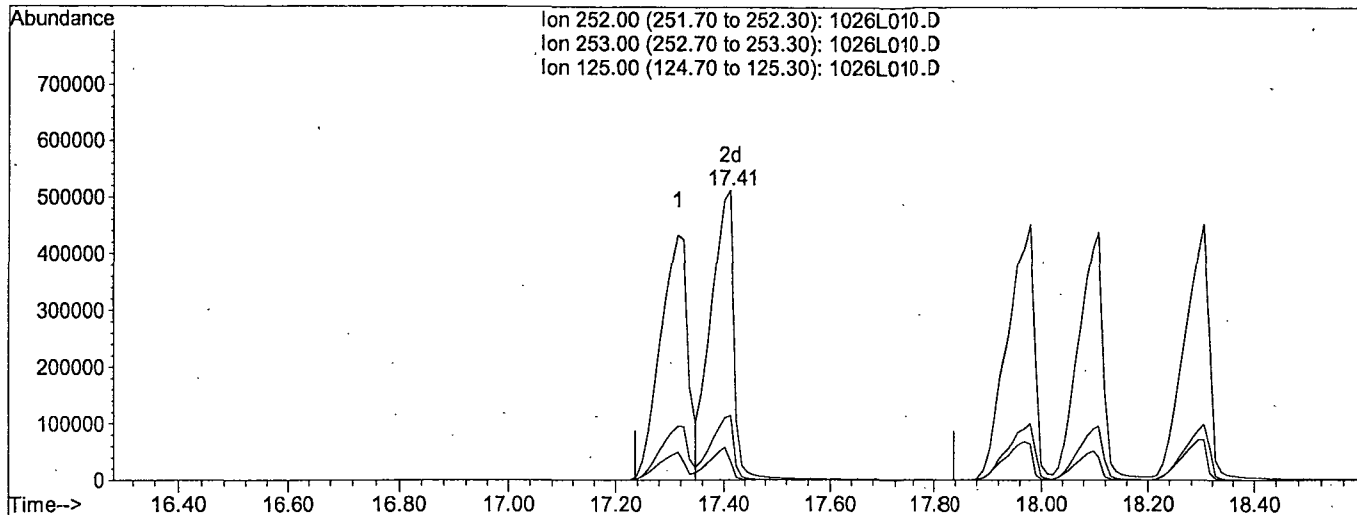
Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.27
125.00	9.90	11.17
0.00	0.00	0.00

Quantitation Report

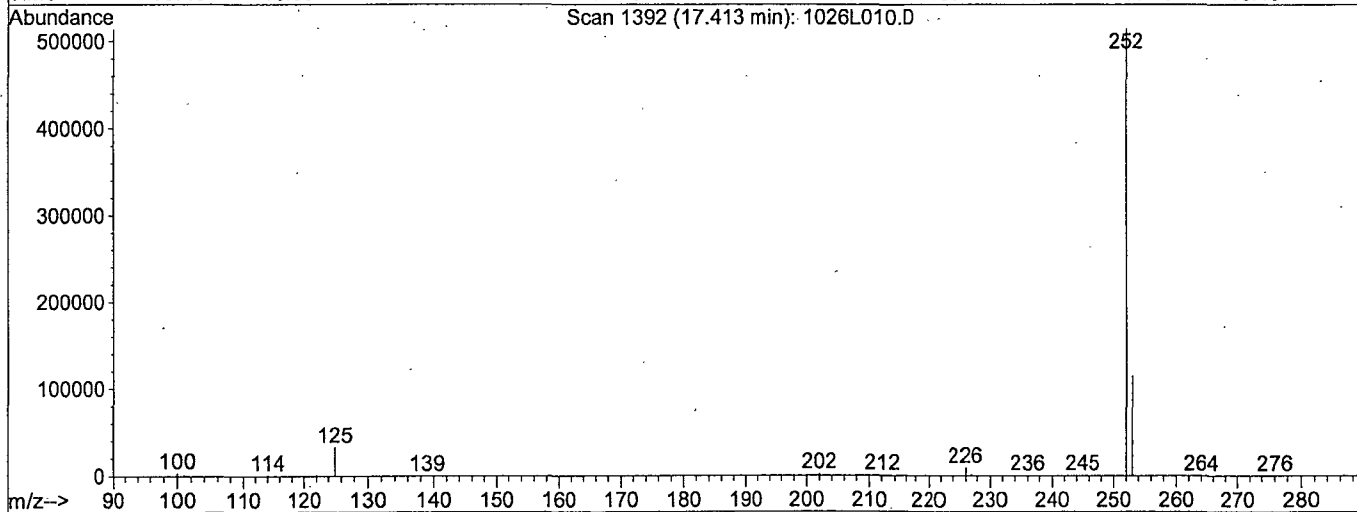
Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:12 2018

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



Ion 252.00 (251.70 to 252.30): 1026L010.D  
 Ion 253.00 (252.70 to 253.30): 1026L010.D  
 Ion 125.00 (124.70 to 125.30): 1026L010.D



TIC: 1026L010.D

(25) Benzo (k) fluoranthene (TM)

17.41min 94.4072ppb m

response 1515838

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.26
125.00	9.90	6.39#
0.00	0.00	0.00

PAH by GCMS SIM  
EPA 8270 SIM

Form 7

Second Source Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/26/18

Matrix: \_\_\_\_\_

Instrument: Linus

Initial Cal. Date: 10/26/18

Data File: 1026L011.D

		Compound	MEAN	CCRF	%D	%Drift
1	TM	Naphthalene	1.034	0.9993	3.3	TM
2	TM	2-Methylnaphthalene	0.6383	0.6413	0.46	TM
3	TM	1-Methylnaphthalene	0.6431	0.6161	4.2	TM
4	TM	Acenaphthylene	4.289	4.407	2.8	TM
5	*TM	Acenaphthene	1.306	1.332	2.0	*TM
6	TM	Fluorene	1.506	1.561	3.6	TM
7	TM	Phenanthrene	1.162	1.168	0.56	TM
8	TM	Anthracene	1.090	1.139	4.5	TM
9	*TM	Fluoranthene	1.692	1.720	1.7	*TM
10	TM	Pyrene	1.275	1.256	1.4	TM
11	TM	Benz (a) anthracene	1.074	1.063	1.0	TM
12	TM	Chrysene	1.151	1.121	2.6	TM
13	TML	Indeno (1,2,3-cd) pyrene	0.7396	0.7805	5.5	TML 7.6
14	TM	Benzo (b) fluoranthene	1.075	1.067	0.71	TM
15	TM	Benzo (k) fluoranthene	1.200	1.235	3.0	TM
16	*TM	Benzo (a) pyrene	0.9390	1.033	10.0	*TM
17	TM	Dibenz (a,h) anthracene	0.9150	0.9194	0.47	TM
18	TM	Benzo (g,h,i) perylene	0.9257	0.9786	5.7	TM
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						

Average

3.0

PAH by GCMS SIM  
EPA 8270 SIM

Form 7

Second Source Calibration

Data File : M:\LINUS\DATA\L181026\1026L011.D Vial: 11  
 Acq On : 26 Oct 18 16:46 Operator: MA  
 Sample : SS SIM 10/26/18 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Oct 29 8:35 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	4.18	136	35068	2.50000	ppb	0.00
7) Acenaphthene-D10(IS)	6.21	164	15606	2.50000	ppb	0.00
12) Phenanthrene-D10(IS)	7.95	188	29941	2.50000	ppb	0.01
17) Chrysene-D12(IS)	14.38	240	41767	2.50000	ppb	0.00
23) Perylene-D12(IS)	18.17	264	39215	2.50000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	3.37	82	17	0.00320	ppb	0.01
Spiked Amount 5.000			Recovery =	0.060%		
4) 2-Methylnaphthalene-D10 (2)	4.97	152	29	0.00179	ppb	0.01
Spiked Amount 5.000			Recovery =	0.040%		
8) Surrogate Recovery (FBP)	5.46	172	33	0.00325	ppb	0.02
Spiked Amount 5.000			Recovery =	0.060%		
15) Fluoranthene-D10 (FRT)	10.11	212	117	0.00627	ppb	0.01
Spiked Amount 5.000			Recovery =	0.120%		
19) Surrogate Recovery (TPH)	11.42	244	200	0.01495	ppb	0.05
Spiked Amount 5.000			Recovery =	0.300%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	4.20	128	70085	4.83393	ppb	99
5) 2-Methylnaphthalene	5.01	142	44975	5.02294	ppb	97
6) 1-Methylnaphthalene	5.12	142	43210	4.79009	ppb	96
9) Acenaphthylene	6.04	152	137556	5.13827	ppb	99
10) Acenaphthene	6.24	154	41566	5.09893	ppb	97
11) Fluorene	6.84	166	48722	5.18226	ppb	98
13) Phenanthrene	7.98	178	69971	5.02806	ppb	99
14) Anthracene	8.05	178	68217	5.22347	ppb	99
16) Fluoranthene	10.15	202	103017	5.08425	ppb	99
18) Pyrene	10.76	202	104952	4.92873	ppb	96
20) Benz (a) anthracene	14.36	228	88798	4.94910	ppb	99
21) Chrysene	14.46	228	93681	4.87125	ppb	99
22) Indeno (1,2,3-cd) pyrene	20.47	276	65202	4.62149	ppb	96
24) Benzo (b) fluoranthene	17.27	252	83679	4.96445	ppb	98
25) Benzo (k) fluoranthene	17.34	252	96884	5.14794	ppb	98
26) Benzo (a) pyrene	18.03	252	80997	5.49925	ppb	99
27) Dibenzo (a,h) anthracene	20.54	278	72107	5.02375	ppb	97
28) Benzo (g,h,i) perylene	20.96	276	76750	5.28564	ppb	97

Quantitation Report

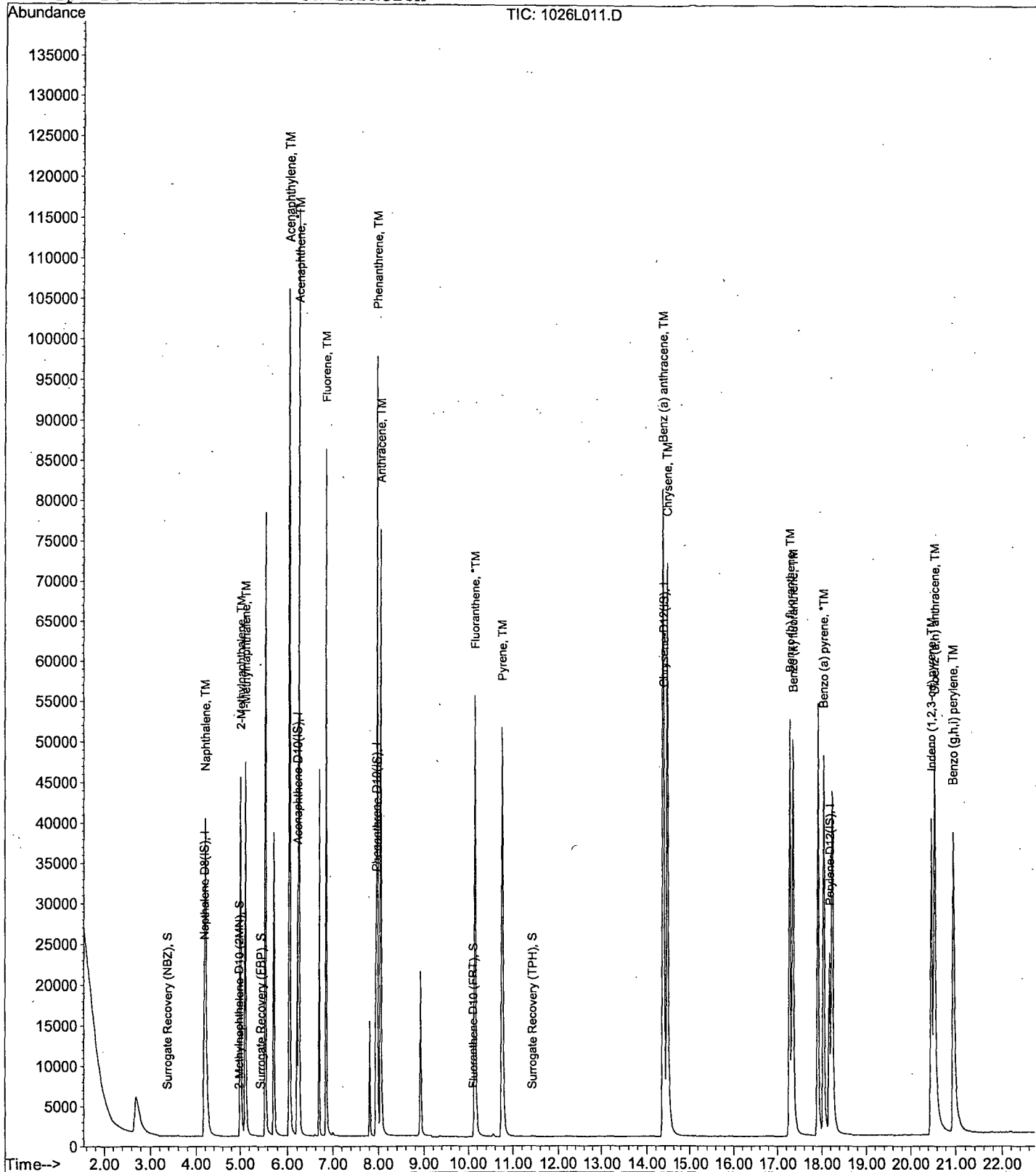
Data File : M:\LINUS\DATA\L181026\1026L011.D  
Acq On : 26 Oct 18 16:46  
Sample : SS SIM 10/26/18  
Misc :

Vial: 11  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 29 8:35 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



PAH by GCMS SIM  
EPA 8270 SIM

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Linus  
Initial Cal. Date: 10/26/18  
Data File: 1026L049.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Napthalene-D8(IS)	ISTD			I
2	S	Surrogate Recovery (NBZ)	0.3784	0.3902	3.1	S
3	TM	Naphthalene	1.034	1.050	1.6	TM
4	S	2-Methylnaphthalene-D10 (2MN)	1.154	1.202	4.2	S
5	TM	2-Methylnaphthalene	0.6383	0.6739	5.6	TM
6	TM	1-Methylnaphthalene	0.6431	0.6544	1.8	TM
7	I	Acenaphthene-D10(IS)	ISTD			I
8	S	Surrogate Recovery (FBP)	1.627	1.752	7.7	S
9	TM	Acenaphthylene	4.289	4.500	4.9	TM
10	*TM	Acenaphthene	1.306	1.322	1.2	*TM
11	TM	Fluorene	1.506	1.587	5.4	TM
12	I	Phenanthrene-D10(IS)	ISTD			I
13	TM	Phenanthrene	1.162	1.227	5.6	TM
14	TM	Anthracene	1.090	1.209	11	TM
15	S	Fluoranthene-D10 (FRT)	1.557	1.736	11	S
16	*TM	Fluoranthene	1.692	1.878	11	*TM
17	I	Chrysene-D12(IS)	ISTD			I
18	TM	Pyrene	1.275	1.334	4.6	TM
19	S	Surrogate Recovery (TPH)	0.8010	0.8043	0.41	S
20	TM	Benz (a) anthracene	1.074	1.132	5.4	TM
21	TM	Chrysene	1.151	1.165	1.2	TM
22	TML	Indeno (1,2,3-cd) pyrene	0.7396	0.8209	11	TML 3.2
23	I	Perylene-D12(IS)	ISTD			I
24	TM	Benzo (b) fluoranthene	1.075	1.138	5.9	TM
25	TM	Benzo (k) fluoranthene	1.200	1.247	3.9	TM
26	*TM	Benzo (a) pyrene	0.9390	1.057	13	*TM
27	TM	Dibenz (a,h) anthracene	0.9150	0.9319	1.8	TM
28	TM	Benzo (g,h,i) perylene	0.9257	0.9583	3.5	TM
29						
30						
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39						
40						

Average

5.4

Data File : M:\LINUS\DATA\L181026\1026L049.D Vial: 49  
 Acq On : 30 Oct 18 13:34 Operator: MA  
 Sample : 5 SIM 10/26/18 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Oct 30 13:01 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	4.18	136	40959	2.50000	ppb	0.00
7) Acenaphthene-D10(IS)	6.21	164	18522	2.50000	ppb	0.00
12) Phenanthrene-D10(IS)	7.94	188	35342	2.50000	ppb	0.00
17) Chrysene-D12(IS)	14.38	240	50362	2.50000	ppb	0.00
23) Perylene-D12(IS)	18.17	264	48183	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.36	82	15983	2.57784	ppb	0.00
Spiked Amount	5.000		Recovery	=	51.560%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	49220	2.60445	ppb	0.00
Spiked Amount	5.000		Recovery	=	52.080%	
8) Surrogate Recovery (FBP)	5.43	172	32458	2.69259	ppb	0.00
Spiked Amount	5.000		Recovery	=	53.860%	
15) Fluoranthene-D10 (FRT)	10.10	212	61339	2.78622	ppb	0.00
Spiked Amount	5.000		Recovery	=	55.720%	
19) Surrogate Recovery (TPH)	11.37	244	40505	2.51020	ppb	0.00
Spiked Amount	5.000		Recovery	=	50.200%	
Target Compounds						
3) Napthalene	4.20	128	85996	5.07826	ppb	99
5) 2-Methylnaphthalene	5.00	142	55201	5.27831	ppb	99
6) 1-Methylnaphthalene	5.11	142	53609	5.08814	ppb	100
9) Acenaphthylene	6.04	152	166699	5.24656	ppb	100
10) Acenaphthene	6.24	154	48963	5.06073	ppb	100
11) Fluorene	6.84	166	58784	5.26813	ppb	100
13) Phenanthrene	7.98	178	86719	5.27925	ppb	100
14) Anthracene	8.05	178	85476	5.54479	ppb	100
16) Fluoranthene	10.15	202	132757	5.55073	ppb	95
18) Pyrene	10.76	202	134327	5.23164	ppb	100
20) Benz (a) anthracene	14.36	228	114041	5.27126	ppb	99
21) Chrysene	14.46	228	117381	5.06194	ppb	100
22) Indeno (1,2,3-cd) pyrene	20.47	276	82689	4.84019	ppb	95
24) Benzo (b) fluoranthene	17.27	252	109711	5.29740	ppb	99
25) Benzo (k) fluoranthene	17.34	252	120139	5.19546	ppb	100
26) Benzo (a) pyrene	18.03	252	101883	5.62982	ppb	100
27) Dibenz (a,h) anthracene	20.54	278	89804	5.09219	ppb	98
28) Benzo (g,h,i) perylene	20.96	276	92344	5.17591	ppb	99

Quantitation Report

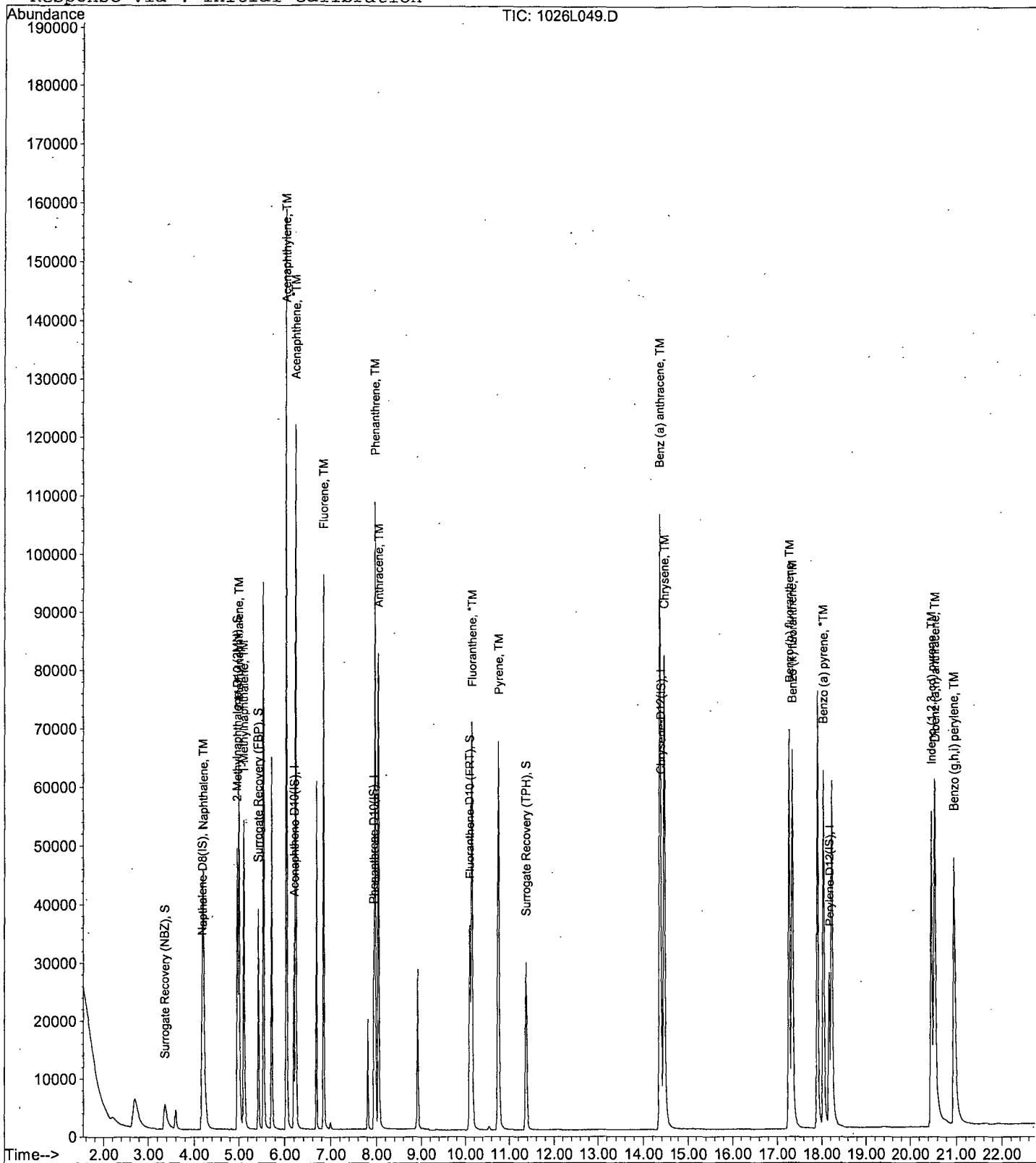
Data File : M:\LINUS\DATA\L181026\1026L049.D  
 Acq On : 30 Oct 18 13:34  
 Sample : 5 SIM 10/26/18  
 Misc :

Vial: 49  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 30 13:01 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration





PAH by GCMS SIM  
EPA 8270 SIM

Form 7

Ending Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Linus  
Initial Cal. Date: 10/26/18  
Data File: 1026L064.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Napthalene-D8(IS)	ISTD			I
2	S	Surrogate Recovery (NBZ)	0.3784	0.3956	4.5	S
3	TM	Naphthalene	1.034	1.053	1.8	TM
4	S	2-Methylnaphthalene-D10 (2MN)	1.154	1.215	5.3	S
5	TM	2-Methylnaphthalene	0.6383	0.6802	6.6	TM
6	TM	1-Methylnaphthalene	0.6431	0.6653	3.5	TM
7	I	Acenaphthene-D10(IS)	ISTD			I
8	S	Surrogate Recovery (FBP)	1.627	1.719	5.7	S
9	TM	Acenaphthylene	4.289	4.550	6.1	TM
10	*TM	Acenaphthene	1.306	1.329	1.8	*TM
11	TM	Fluorene	1.506	1.610	6.9	TM
12	I	Phenanthrene-D10(IS)	ISTD			I
13	TM	Phenanthrene	1.162	1.212	4.3	TM
14	TM	Anthracene	1.090	1.197	9.8	TM
15	S	Fluoranthene-D10 (FRT)	1.557	1.743	12	S
16	*TM	Fluoranthene	1.692	1.847	9.2	*TM
17	I	Chrysene-D12(IS)	ISTD			I
18	TM	Pyrene	1.275	1.348	5.7	TM
19	S	Surrogate Recovery (TPH)	0.8010	0.8280	3.4	S
20	TM	Benz (a) anthracene	1.074	1.157	7.7	TM
21	TM	Chrysene	1.151	1.167	1.4	TM
22	TML	Indeno (1,2,3-cd) pyrene	0.7396	0.8423	14	TML 0.89
23	I	Perylene-D12(IS)	ISTD			I
24	TM	Benzo (b) fluoranthene	1.075	1.177	9.5	TM
25	TM	Benzo (k) fluoranthene	1.200	1.222	1.8	TM
26	*TM	Benzo (a) pyrene	0.9390	1.069	14	*TM
27	TM	Dibenz (a,h) anthracene	0.9150	0.9386	2.6	TM
28	TM	Benzo (g,h,i) perylene	0.9257	0.9481	2.4	TM
29						
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Average

6.1

Data File : M:\LINUS\DATA\L181026\1026L064.D  
 Acq On : 30 Oct 18 21:56  
 Sample : 5 SIM 10/26/18  
 Misc :

Vial: 64  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 31 8:18 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	4.18	136	41160	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	18890	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.94	188	36421	2.50000	ppb	0.00
17) Chrysene-D12 (IS)	14.37	240	50955	2.50000	ppb	-0.01
23) Perylene-D12 (IS)	18.16	264	48456	2.50000	ppb	-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.36	82	16284	2.61356	ppb	0.00
Spiked Amount	5.000		Recovery	=	52.280%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	49995	2.63254	ppb	0.00
Spiked Amount	5.000		Recovery	=	52.660%	
8) Surrogate Recovery (FBP)	5.43	172	32475	2.64152	ppb	0.00
Spiked Amount	5.000		Recovery	=	52.840%	
15) Fluoranthene-D10 (FRT)	10.10	212	63466	2.79743	ppb	0.00
Spiked Amount	5.000		Recovery	=	55.940%	
19) Surrogate Recovery (TPH)	11.37	244	42189	2.58414	ppb	0.00
Spiked Amount	5.000		Recovery	=	51.680%	
Target Compounds						
3) Naphthalene	4.20	128	86658	5.09236	ppb	100
5) 2-Methylnaphthalene	5.00	142	55991	5.32771	ppb	99
6) 1-Methylnaphthalene	5.11	142	54766	5.17257	ppb	100
9) Acenaphthylene	6.04	152	171899	5.30482	ppb	100
10) Acenaphthene	6.24	154	50224	5.08993	ppb	100
11) Fluorene	6.84	166	60829	5.34520	ppb	99
13) Phenanthrene	7.98	178	88302	5.21636	ppb	100
14) Anthracene	8.04	178	87225	5.49062	ppb	98
16) Fluoranthene	10.14	202	134575	5.46005	ppb	99
18) Pyrene	10.76	202	137325	5.28616	ppb	100
20) Benz (a) anthracene	14.36	228	117924	5.38730	ppb	100
21) Chrysene	14.45	228	118915	5.06841	ppb	98
22) Indeno (1,2,3-cd) pyrene	20.47	276	85836	4.95563	ppb	96
24) Benzo (b) fluoranthene	17.26	252	114048	5.47579	ppb	# 98
25) Benzo (k) fluoranthene	17.34	252	118418	5.09218	ppb	99
26) Benzo (a) pyrene	18.03	252	103583	5.69151	ppb	99
27) Dibenz (a,h) anthracene	20.53	278	90960	5.12868	ppb	96
28) Benzo (g,h,i) perylene	20.96	276	91879	5.12083	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1026L064.D L1026.M Wed Oct 31 08:18:26 2018

Quantitation Report

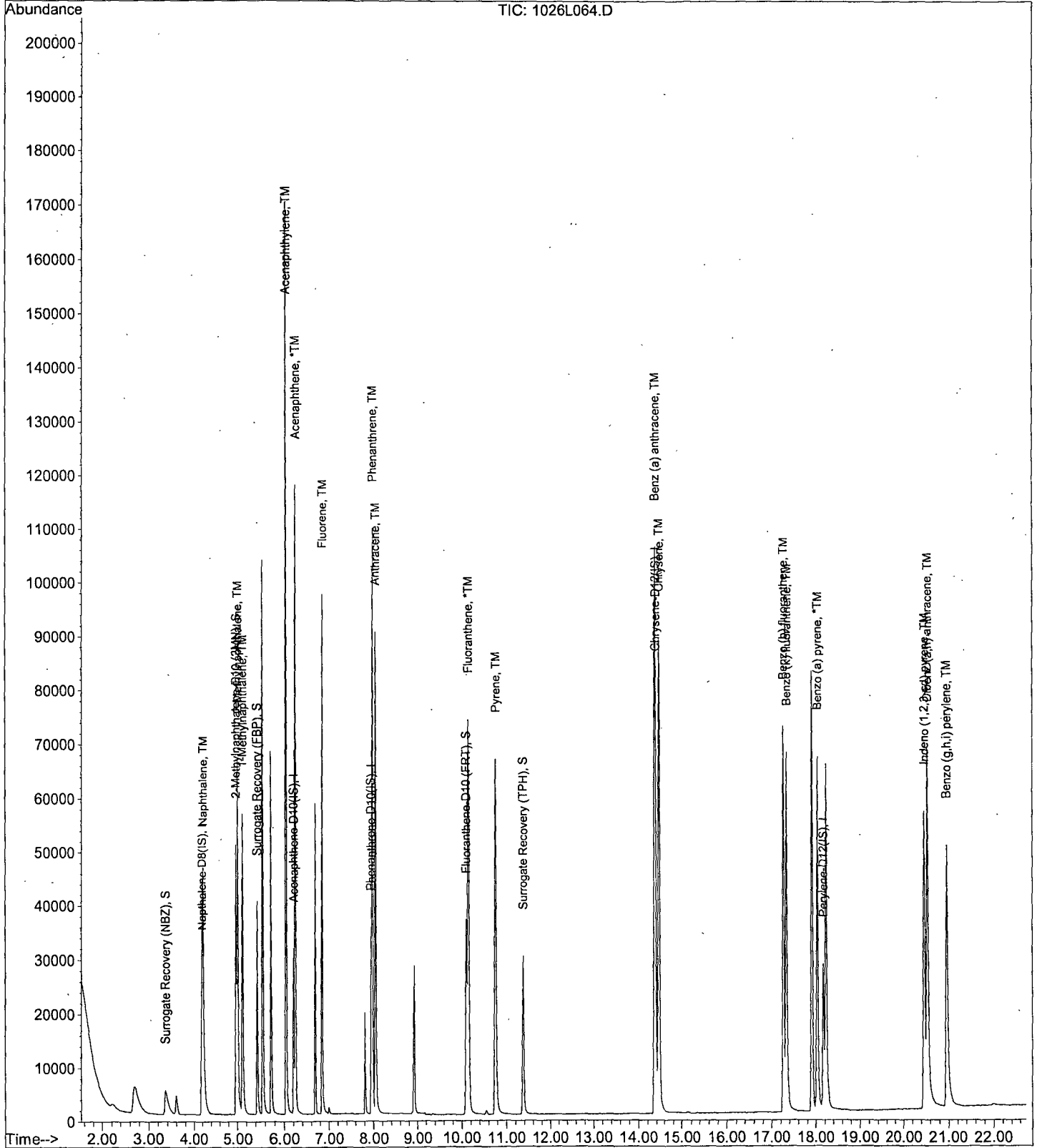
Data File : M:\LINUS\DATA\L181026\1026L064.D  
Acq On : 30 Oct 18 21:56  
Sample : 5 SIM 10/26/18  
Misc :

Vial: 64  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 31 8:18 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : M:\LINUS\DATA\L181026\1026L056.D Vial: 56  
 Acq On : 30 Oct 18 18:03 Operator: MA  
 Sample : AZ81584W18 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 1 13:27 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	4.18	136	31739	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	14266	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	27178	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.39	240	38054	2.50000	ppb	0.01
23) Perylene-D12 (IS)	18.18	264	37255	2.50000	ppb	0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	3.35	82	458466	119.28072	ppb	-0.01
Spiked Amount	6.250					
					Recovery = 1908.496%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	67997	5.80403	ppb	0.00
Spiked Amount	6.250					
					Recovery = 92.864%	
8) Surrogate Recovery (FBP)	5.44	172	749147	100.85816	ppb	0.01
Spiked Amount	6.250					
					Recovery = 1613.728%	
15) Fluoranthene-D10 (FRT)	10.11	212	92873	6.85729	ppb	0.01
Spiked Amount	6.250					
					Recovery = 109.712%	
19) Surrogate Recovery (TPH)	11.41	244	997659	102.28098	ppb	0.04
Spiked Amount	6.250					
					Recovery = 1636.496%	

Target Compounds Qvalue

Quantitation Report

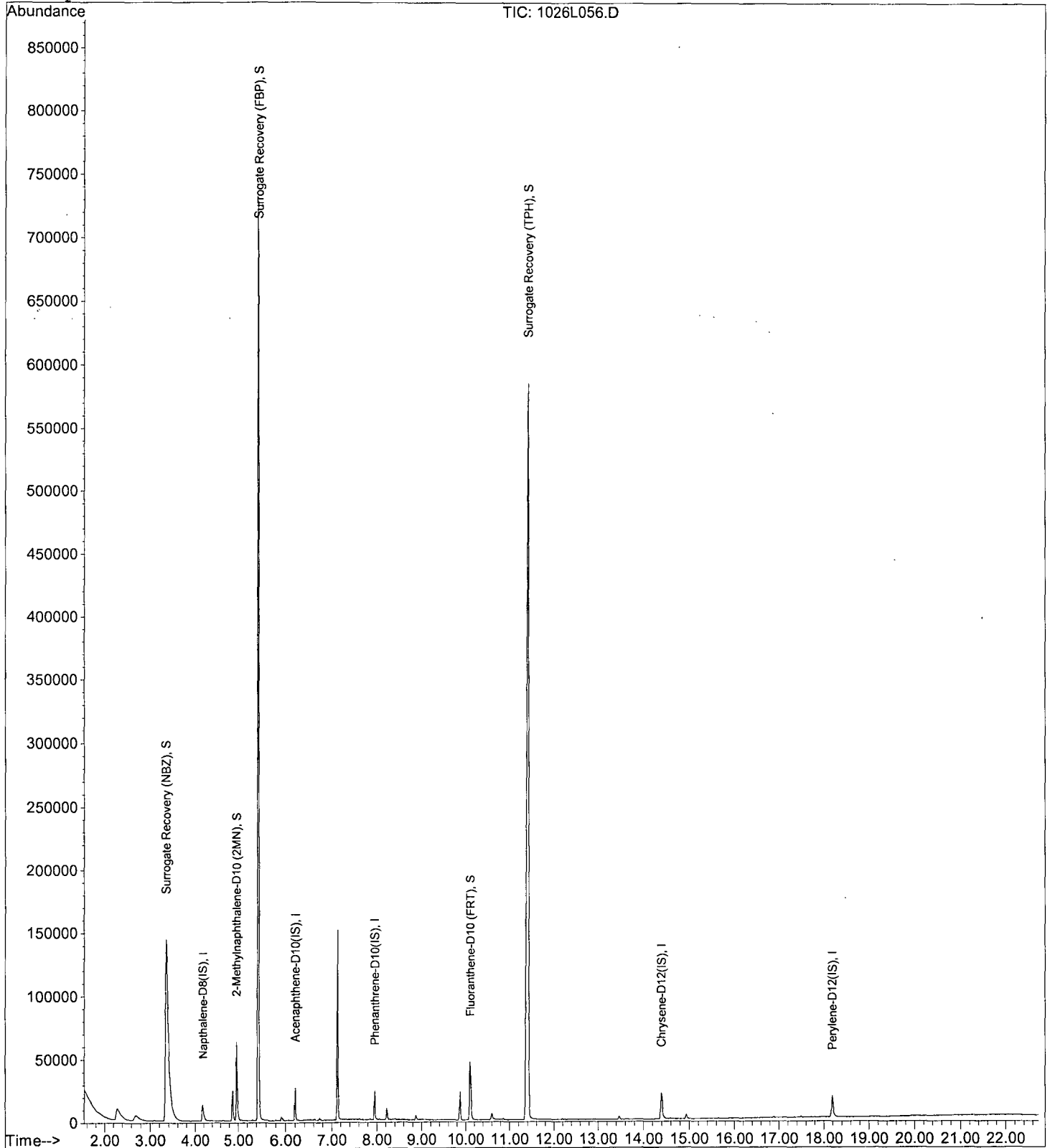
Data File : M:\LINUS\DATA\L181026\1026L056.D  
Acq On : 30 Oct 18 18:03  
Sample : AZ81584W18 1/800  
Misc :

Vial: 56  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 1 13:27 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L057.D Vial: 57  
 Acq On : 30 Oct 18 18:32 Operator: MA  
 Sample : AZ81585W08 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 1 13:28 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	4.18	136	31320	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	14311	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	27186	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.39	240	37697	2.50000	ppb	0.01
23) Perylene-D12 (IS)	18.18	264	37050	2.50000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.35	82	453110	119.46433	ppb	-0.01
Spiked Amount	6.250		Recovery	= 1911.424%		
4) 2-Methylnaphthalene-D10 (2)	4.96	152	65629	5.67685	ppb	0.00
Spiked Amount	6.250		Recovery	= 90.832%		
8) Surrogate Recovery (FBP)	5.44	172	733244	98.40672	ppb	0.01
Spiked Amount	6.250		Recovery	= 1574.512%		
15) Fluoranthene-D10 (FRT)	10.10	212	91935	6.78604	ppb	0.00
Spiked Amount	6.250		Recovery	= 108.576%		
19) Surrogate Recovery (TPH)	11.40	244	1007585	104.27687	ppb	0.03
Spiked Amount	6.250		Recovery	= 1668.432%		

Target Compounds Qvalue

Quantitation Report

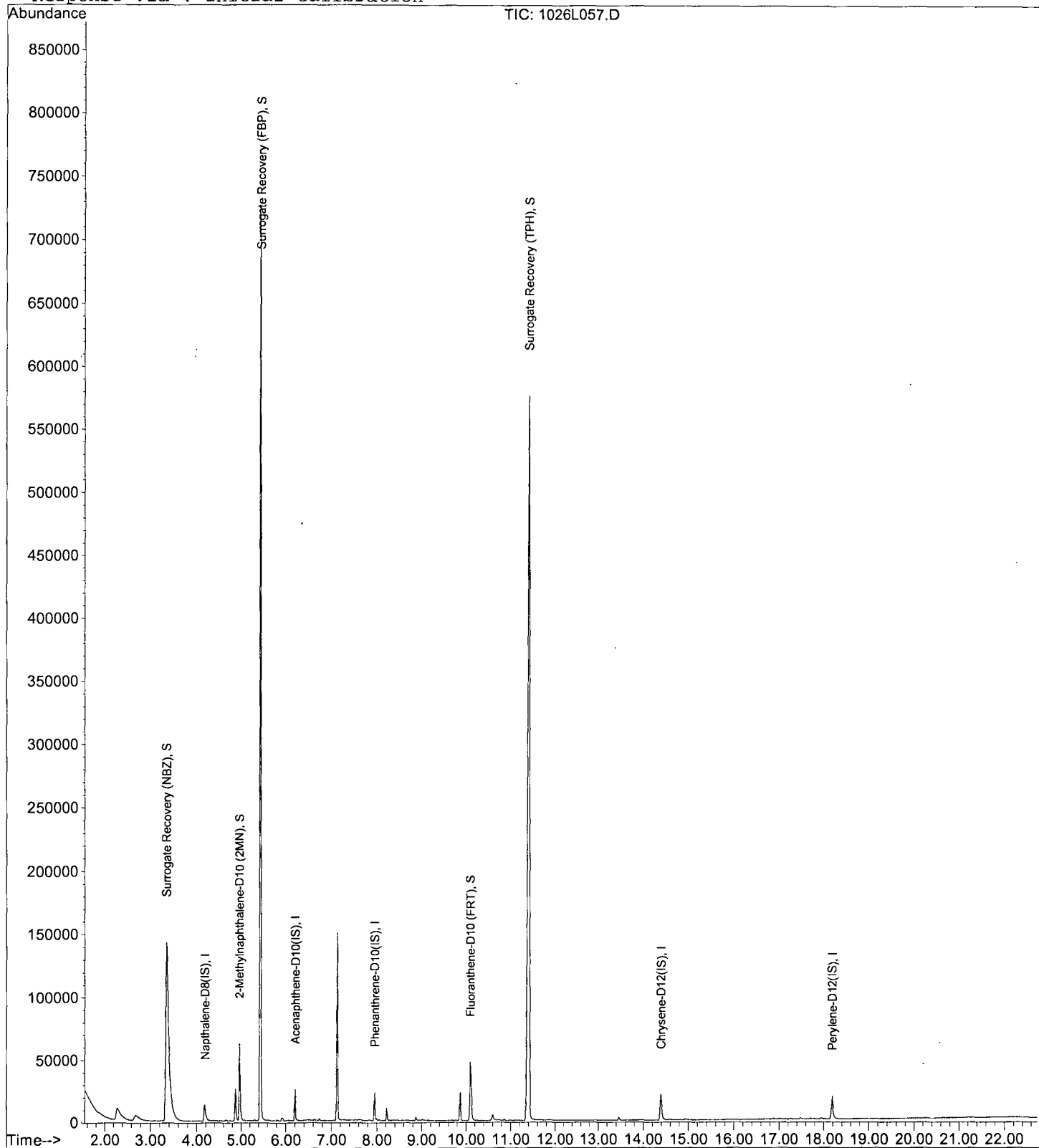
Data File : M:\LINUS\DATA\L181026\1026L057.D  
Acq On : 30 Oct 18 18:32  
Sample : AZ81585W08 1/800  
Misc :

Vial: 57  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 1 13:28 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration





Data File : M:\LINUS\DATA\L181026\1026L058.D Vial: 58  
 Acq On : 30 Oct 18 19:01 Operator: MA  
 Sample : AZ81587W10 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 2 11:32 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	4.18	136	31367	2.50000	ppb	0.00
7) Acenaphthene-D10(IS)	6.21	164	14467	2.50000	ppb	0.00
12) Phenanthrene-D10(IS)	7.95	188	27094	2.50000	ppb	0.01
17) Chrysene-D12(IS)	14.39	240	38097	2.50000	ppb	0.01
23) Perylene-D12(IS)	18.18	264	34873	2.50000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.35	82	452720	119.18265	ppb	-0.01
Spiked Amount	6.250		Recovery	= 1906.928%		
4) 2-Methylnaphthalene-D10 (2)	4.96	152	69477	6.00069	ppb	0.00
Spiked Amount	6.250		Recovery	= 96.016%		
8) Surrogate Recovery (FBP)	5.44	172	735931	97.70231	ppb	0.01
Spiked Amount	6.250		Recovery	= 1563.232%		
15) Fluoranthene-D10 (FRT)	10.10	212	92096	6.82100	ppb	0.00
Spiked Amount	6.250		Recovery	= 109.136%		
19) Surrogate Recovery (TPH)	11.41	244	1004114	102.82656	ppb	0.04
Spiked Amount	6.250		Recovery	= 1645.232%		

Target Compounds

Qvalue

Quantitation Report

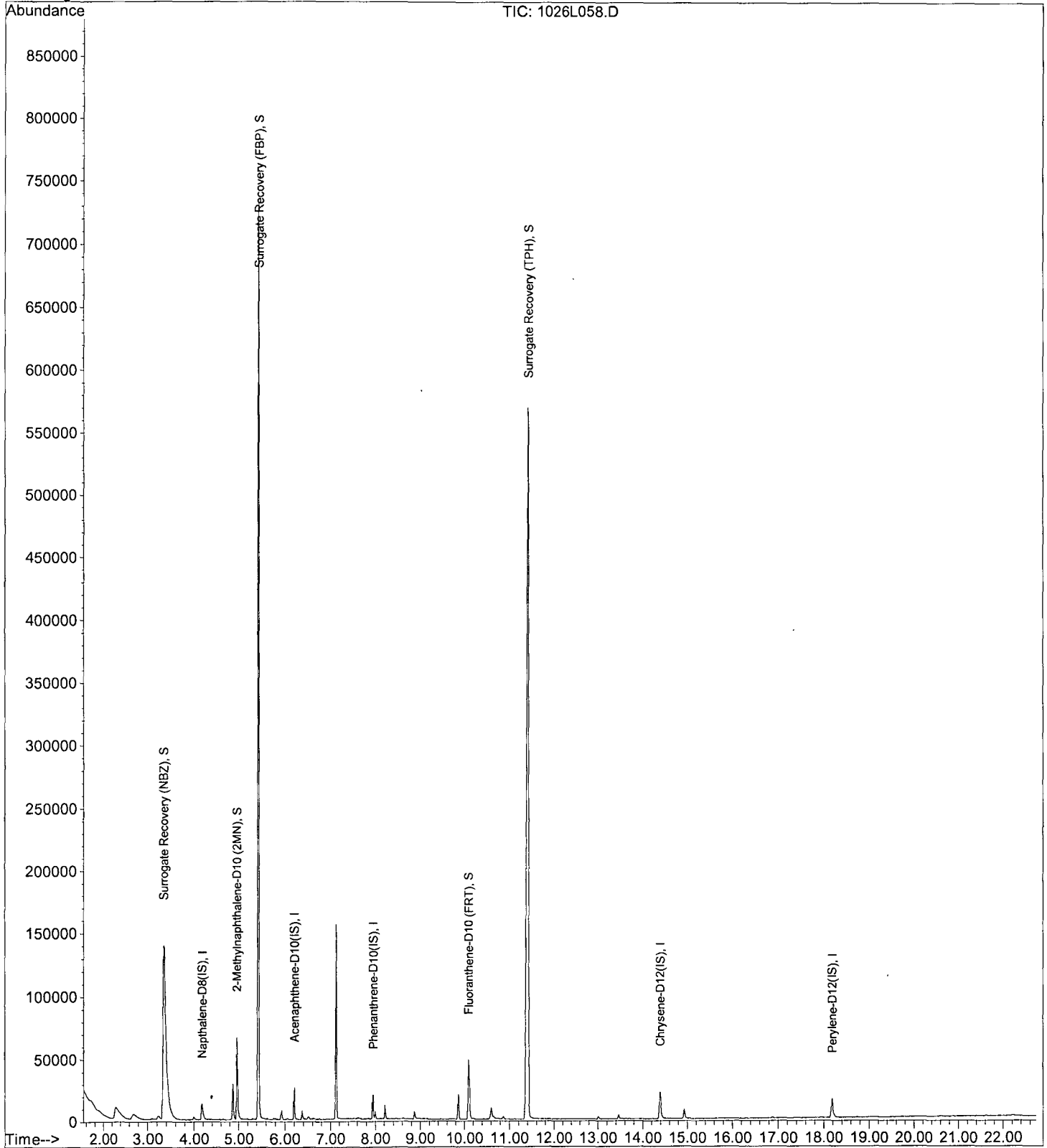
Data File : M:\LINUS\DATA\L181026\1026L058.D  
Acq On : 30 Oct 18 19:01  
Sample : AZ81587W10 1/800  
Misc :

Vial: 58  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 2 11:32 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L051.D Vial: 51  
 Acq On : 30 Oct 18 14:32 Operator: MA  
 Sample : 181024A BLK 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 1 13:03 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	4.18	136	29869	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	13534	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	24672	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.39	240	34458	2.50000	ppb	0.01
23) Perylene-D12 (IS)	18.20	264	33072	2.50000	ppb	0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.35	82	439103	121.39536	ppb	-0.01
Spiked Amount	6.250		Recovery	= 1942.320%		
4) 2-Methylnaphthalene-D10 (2)	4.96	152	63949	5.80024	ppb	0.00
Spiked Amount	6.250		Recovery	= 92.800%		
8) Surrogate Recovery (FBP)	5.43	172	710716	100.85935	ppb	0.00
Spiked Amount	6.250		Recovery	= 1613.744%		
15) Fluoranthene-D10 (FRT)	10.11	212	85360	6.94274	ppb	0.01
Spiked Amount	6.250		Recovery	= 111.088%		
19) Surrogate Recovery (TPH)	11.41	244	924554	104.67797	ppb	0.04
Spiked Amount	6.250		Recovery	= 1674.848%		

Target Compounds Qvalue

Quantitation Report

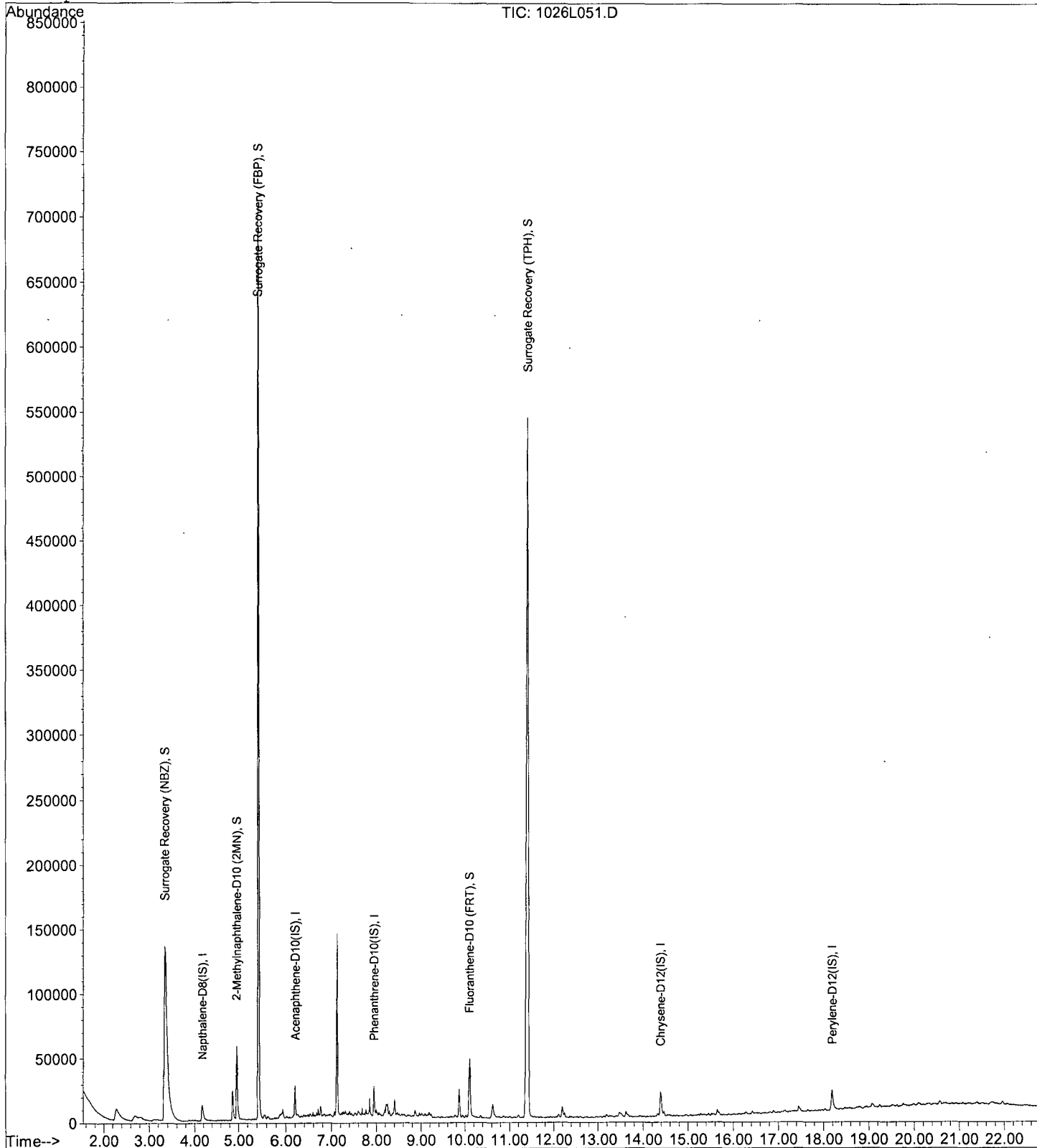
Data File : M:\LINUS\DATA\L181026\1026L051.D  
Acq On : 30 Oct 18 14:32  
Sample : 181024A BLK 1/800  
Misc :

Vial: 51  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 1 13:03 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L052.D Vial: 52  
 Acq On : 30 Oct 18 16:06 Operator: MA  
 Sample : 181024A LCS-2 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Oct 30 15:42 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	4.18	136	35876	2.50000	ppb	0.00
7) Acenaphthene-D10(IS)	6.21	164	16388	2.50000	ppb	0.00
12) Phenanthrene-D10(IS)	7.95	188	30672	2.50000	ppb	0.01
17) Chrysene-D12(IS)	14.39	240	42403	2.50000	ppb	0.01
23) Perylene-D12(IS)	18.18	264	40476	2.50000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.36	82	85	0.01956	ppb	0.00
Spiked Amount 6.250			Recovery =	0.320%		
4) 2-Methylnaphthalene-D10 (2)	4.96	152	63912	4.82627	ppb	0.00
Spiked Amount 6.250			Recovery =	77.216%		
8) Surrogate Recovery (FBP)	5.44	172	38	0.00445	ppb	0.01
Spiked Amount 6.250			Recovery =	0.064%		
15) Fluoranthene-D10 (FRT)	10.11	212	88872	5.81438	ppb	0.01
Spiked Amount 6.250			Recovery =	93.024%		
19) Surrogate Recovery (TPH)	11.40	244	299	0.02751	ppb	0.03
Spiked Amount 6.250			Recovery =	0.448%		
Target Compounds						
3) Naphthalene	4.20	128	66680	5.61937	ppb	99
5) 2-Methylnaphthalene	5.01	142	43196	5.89450	ppb	95
6) 1-Methylnaphthalene	5.12	142	40997	5.55302	ppb	97
9) Acenaphthylene	6.05	152	135865	6.04117	ppb	98
10) Acenaphthene	6.24	154	42159	6.15612	ppb	97
11) Fluorene	6.84	166	50104	6.34369	ppb	98
13) Phenanthrene	7.98	178	70503	6.18194	ppb	99
14) Anthracene	8.05	178	64942	6.06773	ppb	99
16) Fluoranthene	10.15	202	106606	6.41998	ppb	99
18) Pyrene	10.77	202	108039	6.24700	ppb	99
20) Benz (a) anthracene	14.37	228	94273	6.46929	ppb	100
21) Chrysene	14.46	228	95202	6.09511	ppb	98
22) Indeno (1,2,3-cd) pyrene	20.48	276	67658	5.89360	ppb	# 100
24) Benzo (b) fluoranthene	17.28	252	89027	6.39648	ppb	99
25) Benzo (k) fluoranthene	17.35	252	94418	6.07577	ppb	100
26) Benzo (a) pyrene	18.04	252	80872	6.64963	ppb	99
27) Dibenz (a,h) anthracene	20.55	278	73405	6.19357	ppb	99
28) Benzo (g,h,i) perylene	20.97	276	75452	6.29296	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1026L052.D L1026.M Mon Nov 05 12:26:58 2018

Quantitation Report

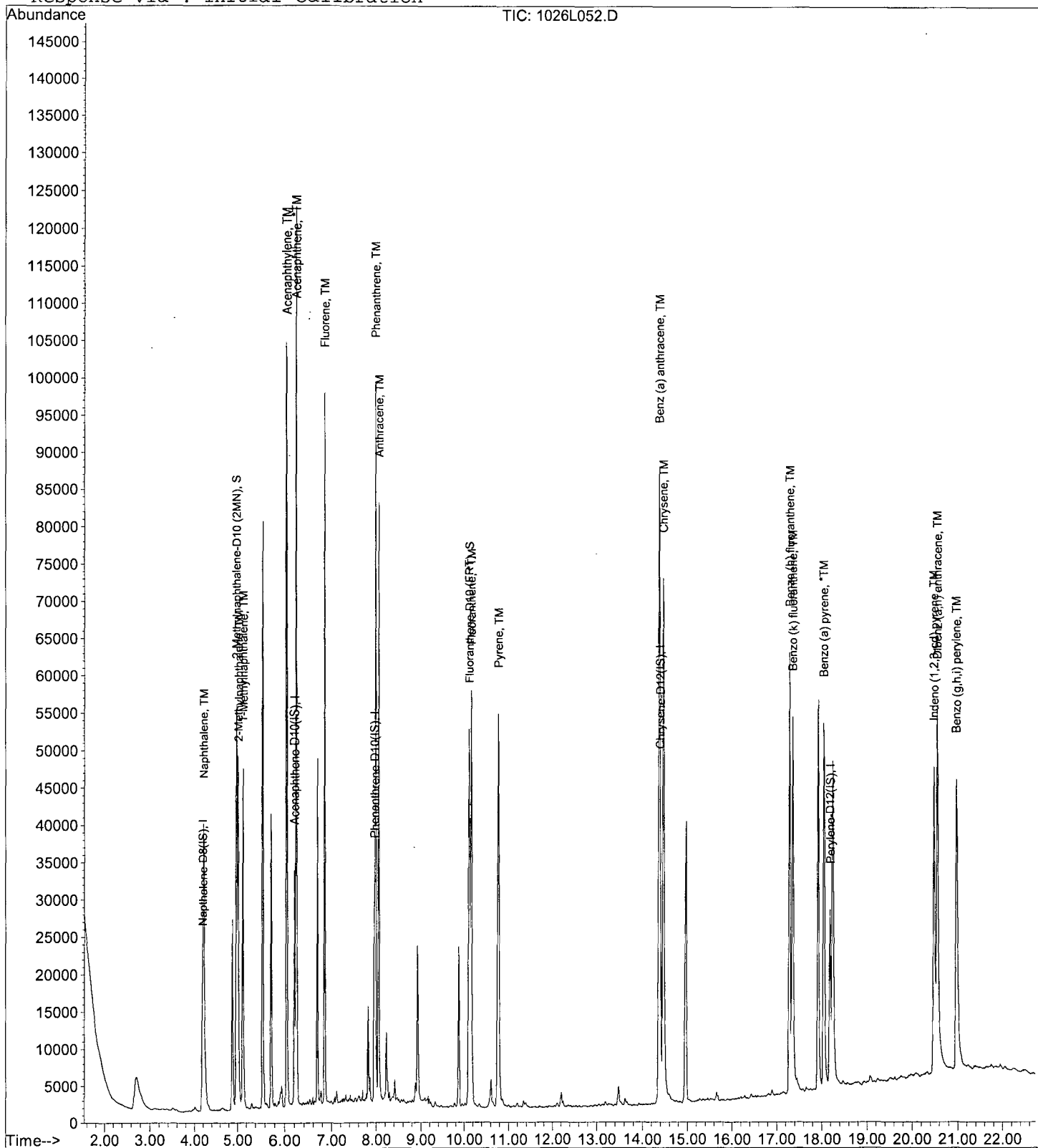
Data File : M:\LINUS\DATA\L181026\1026L052.D  
Acq On : 30 Oct 18 16:06  
Sample : 181024A LCS-2 1/800  
Misc :

Vial: 52  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Oct 30 15:42 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L053.D Vial: 53  
 Acq On : 30 Oct 18 16:36 Operator: MA  
 Sample : 181024A LCSD-2 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Oct 30 16:14 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	35177	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.20	164	15896	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	30177	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.38	240	41298	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.18	264	40486	2.50000	ppb	0.01

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	3.33	82	152	0.03568	ppb	-0.02
Spiked Amount	6.250		Recovery	=	0.576%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	61322	4.72270	ppb	0.00
Spiked Amount	6.250		Recovery	=	75.568%	
8) Surrogate Recovery (FBP)	5.37	172	31	0.00375	ppb	-0.06
Spiked Amount	6.250		Recovery	=	0.064%	
15) Fluoranthene-D10 (FRT)	10.10	212	85809	5.70607	ppb	0.00
Spiked Amount	6.250		Recovery	=	91.296%	
19) Surrogate Recovery (TPH)	11.39	244	227	0.02144	ppb	0.02
Spiked Amount	6.250		Recovery	=	0.336%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	4.20	128	63406	5.44964	ppb	100
5) 2-Methylnaphthalene	5.00	142	40244	5.60080	ppb	100
6) 1-Methylnaphthalene	5.12	142	38730	5.35019	ppb	96
9) Acenaphthylene	6.04	152	116848	5.35640	ppb	100
10) Acenaphthene	6.24	154	39492	5.94517	ppb	98
11) Fluorene	6.84	166	47682	6.22389	ppb	100
13) Phenanthrene	7.98	178	66882	5.96063	ppb	99
14) Anthracene	8.05	178	58741	5.57837	ppb	99
16) Fluoranthene	10.15	202	102577	6.27868	ppb	98
18) Pyrene	10.76	202	103077	6.11956	ppb	97
20) Benz (a) anthracene	14.36	228	88856	6.26071	ppb	99
21) Chrysene	14.46	228	91243	5.99795	ppb	99
22) Indeno (1,2,3-cd) pyrene	20.48	276	62462	5.61238	ppb	# 97
24) Benzo (b) fluoranthene	17.28	252	84579	6.07539	ppb	99
25) Benzo (k) fluoranthene	17.35	252	92137	5.92752	ppb	100
26) Benzo (a) pyrene	18.05	252	71995	5.91826	ppb	98
27) Dibenz (a,h) anthracene	20.55	278	71203	6.00629	ppb	99
28) Benzo (g,h,i) perylene	20.97	276	73311	6.11288	ppb	98

Quantitation Report

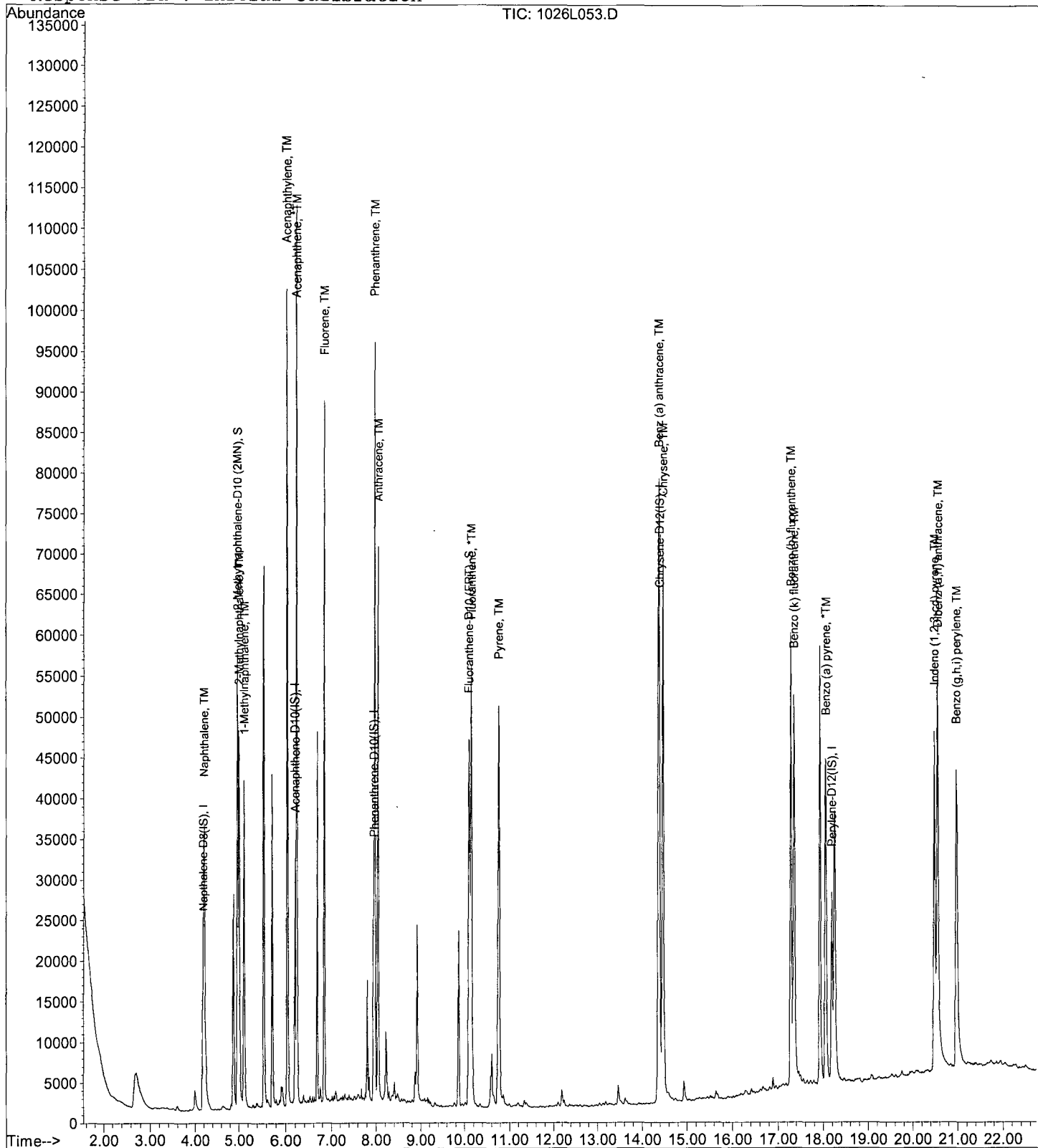
Data File : M:\LINUS\DATA\L181026\1026L053.D  
Acq On : 30 Oct 18 16:36  
Sample : 181024A LCSD-2 1/800  
Misc :

Vial: 53  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Oct 30 16:14 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration





Data File : M:\LINUS\DATA\L181026\1026L054.D Vial: 54  
 Acq On : 30 Oct 18 17:05 Operator: MA  
 Sample : AZ81584W22 MS-2 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Oct 30 16:39 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	34026	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	15182	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	28641	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.38	240	39653	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.18	264	38518	2.50000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.37	82	67	0.01626	ppb	0.01
Spiked Amount	6.250		Recovery	=	0.256%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	64319	5.12108	ppb	0.00
Spiked Amount	6.250		Recovery	=	81.936%	
8) Surrogate Recovery (FBP)	5.43	172	17	0.00215	ppb	0.00
Spiked Amount	6.250		Recovery	=	0.032%	
15) Fluoranthene-D10 (FRT)	10.11	212	89525	6.27244	ppb	0.01
Spiked Amount	6.250		Recovery	=	100.352%	
19) Surrogate Recovery (TPH)	11.39	244	449	0.04418	ppb	0.02
Spiked Amount	6.250		Recovery	=	0.704%	
Target Compounds						
						Qvalue
3) Naphthalene	4.20	128	66466	5.90588	ppb	100
5) 2-Methylnaphthalene	5.00	142	41200	5.92780	ppb	99
6) 1-Methylnaphthalene	5.12	142	39442	5.63286	ppb	97
9) Acenaphthylene	6.04	152	134566	6.45871	ppb	100
10) Acenaphthene	6.24	154	41660	6.56649	ppb	98
11) Fluorene	6.84	166	49710	6.79376	ppb	99
13) Phenanthrene	7.98	178	70713	6.64003	ppb	99
14) Anthracene	8.05	178	64144	6.41816	ppb	100
16) Fluoranthene	10.15	202	107397	6.92625	ppb	98
18) Pyrene	10.76	202	109815	6.79005	ppb	97
20) Benz (a) anthracene	14.36	228	95431	7.00292	ppb	100
21) Chrysene	14.46	228	96024	6.57409	ppb	99
22) Indeno (1,2,3-cd) pyrene	20.48	276	67227	6.23120	ppb	94
24) Benzo (b) fluoranthene	17.28	252	91290	6.89249	ppb	100
25) Benzo (k) fluoranthene	17.35	252	95540	6.46049	ppb	99
26) Benzo (a) pyrene	18.04	252	80884	6.98869	ppb	100
27) Dibenz (a,h) anthracene	20.54	278	74615	6.61569	ppb	96
28) Benzo (g,h,i) perylene	20.97	276	77235	6.76912	ppb	99

Quantitation Report

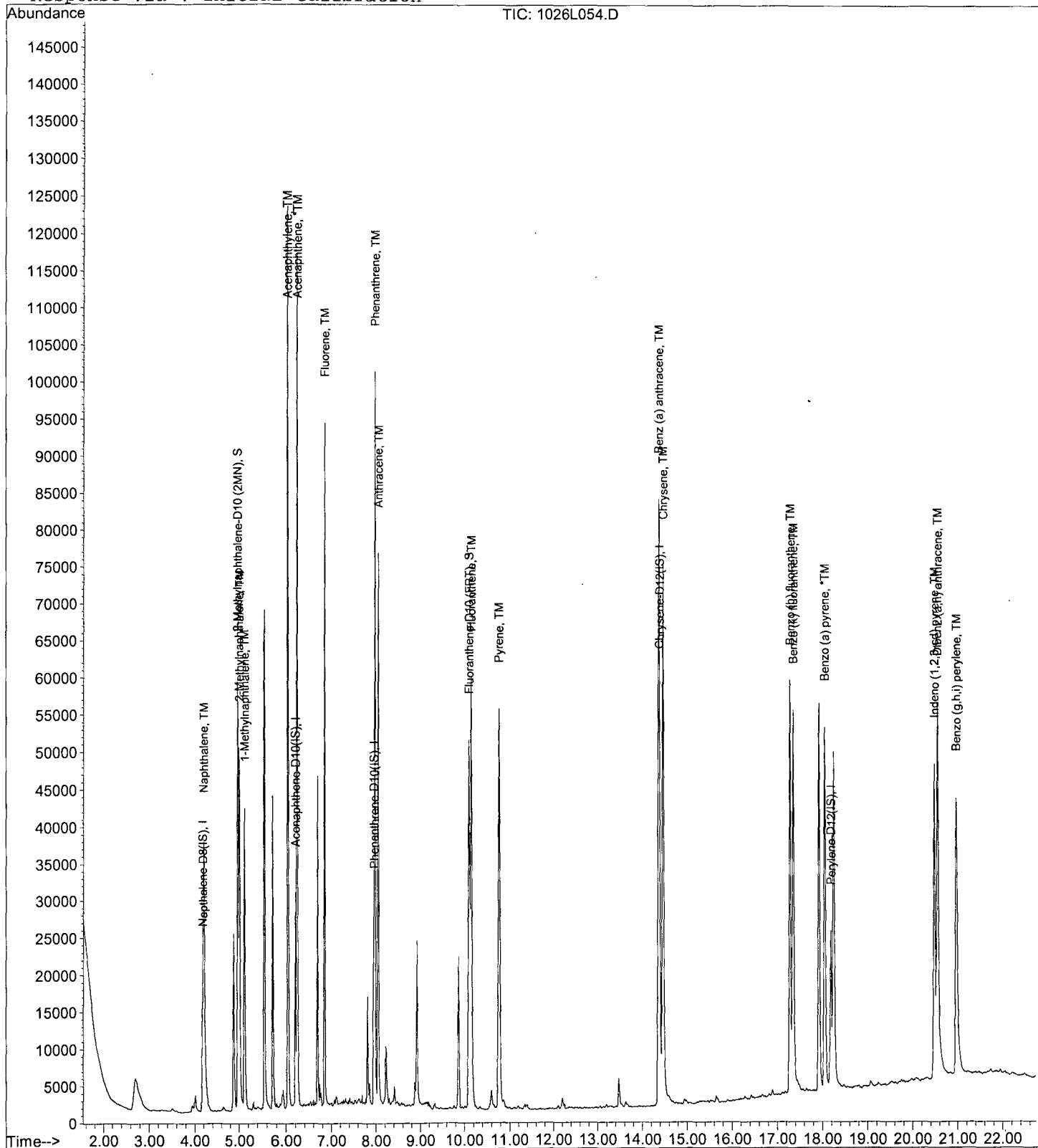
Data File : M:\LINUS\DATA\L181026\1026L054.D  
Acq On : 30 Oct 18 17:05  
Sample : AZ81584W22 MS-2 1/800  
Misc :

Vial: 54  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Oct 30 16:39 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L055.D  
 Acq On : 30 Oct 18 17:34  
 Sample : AZ81584W26 MSD-2 1/800  
 Misc :

Vial: 55  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.25

Quant Time: Oct 31 8:03 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	32483	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.20	164	14802	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	27860	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.38	240	38841	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.18	264	37271	2.50000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.35	82	134	0.03406	ppb	-0.01
Spiked Amount	6.250		Recovery	=	0.544%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	63376	5.28569	ppb	0.00
Spiked Amount	6.250		Recovery	=	84.576%	
8) Surrogate Recovery (FBP)	5.44	172	53	0.00688	ppb	0.01
Spiked Amount	6.250		Recovery	=	0.112%	
15) Fluoranthene-D10 (FRT)	10.10	212	87489	6.30163	ppb	0.00
Spiked Amount	6.250		Recovery	=	100.832%	
19) Surrogate Recovery (TPH)	11.39	244	278	0.02792	ppb	0.02
Spiked Amount	6.250		Recovery	=	0.448%	
Target Compounds						
3) Naphthalene	4.20	128	64684	6.02056	ppb	100
5) 2-Methylnaphthalene	5.00	142	41460	6.24857	ppb	100
6) 1-Methylnaphthalene	5.12	142	39854	5.96206	ppb	95
9) Acenaphthylene	6.04	152	133312	6.56278	ppb	100
10) Acenaphthene	6.24	154	41109	6.64598	ppb	99
11) Fluorene	6.84	166	48905	6.85533	ppb	99
13) Phenanthrene	7.98	178	69401	6.69952	ppb	99
14) Anthracene	8.05	178	63293	6.51054	ppb	99
16) Fluoranthene	10.15	202	104029	6.89711	ppb	97
18) Pyrene	10.76	202	107193	6.76649	ppb	98
20) Benz (a) anthracene	14.36	228	92063	6.89701	ppb	100
21) Chrysene	14.46	228	92724	6.48088	ppb	98
22) Indeno (1,2,3-cd) pyrene	20.48	276	64863	6.14520	ppb	96
24) Benzo (b) fluoranthene	17.28	252	88723	6.92280	ppb	99
25) Benzo (k) fluoranthene	17.35	252	93043	6.50214	ppb	98
26) Benzo (a) pyrene	18.04	252	79712	7.11786	ppb	99
27) Dibenz (a,h) anthracene	20.54	278	72612	6.65350	ppb	96
28) Benzo (g,h,i) perylene	20.97	276	75120	6.80403	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1026L055.D L1026.M Mon Nov 05 12:27:11 2018

Quantitation Report

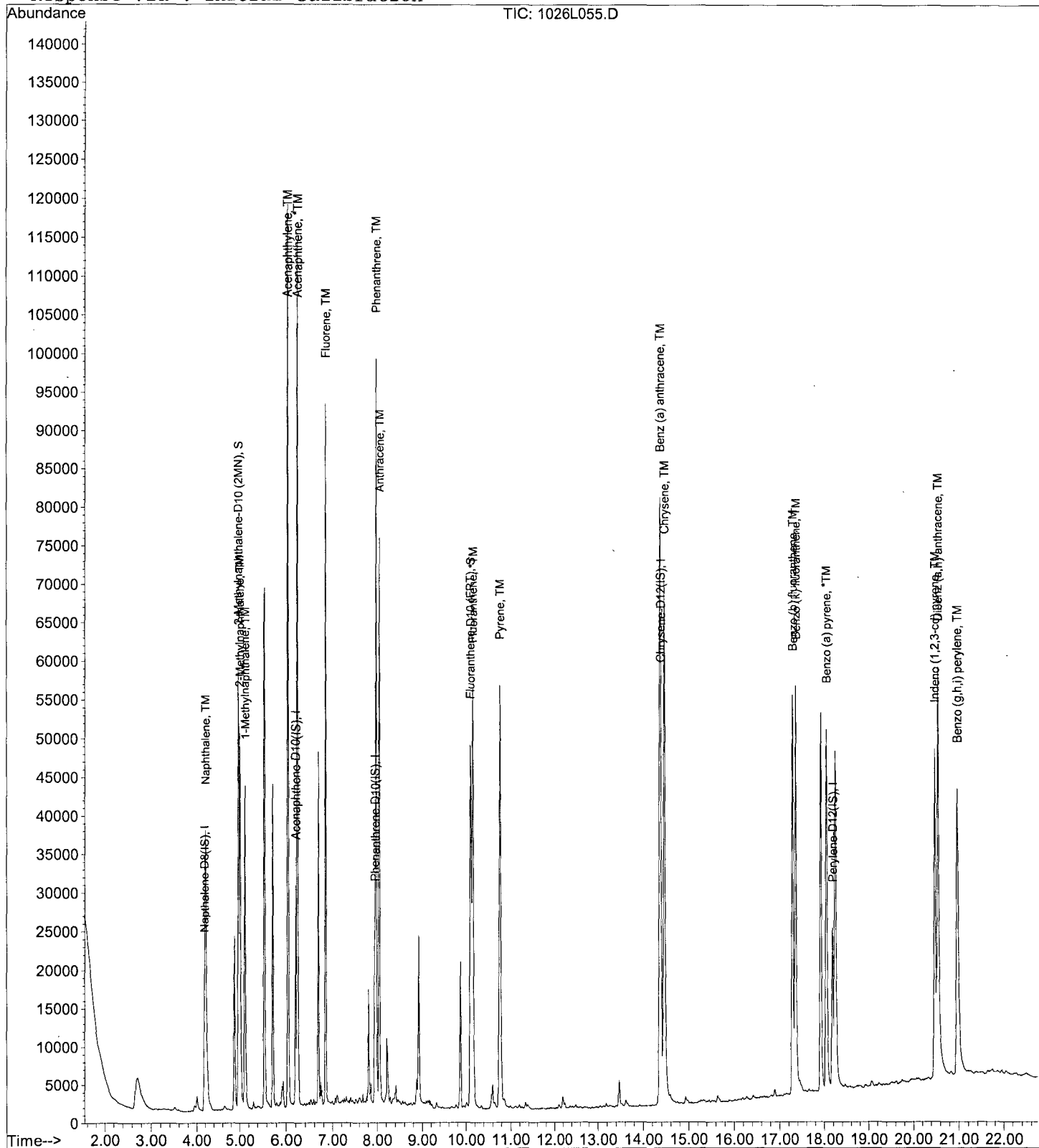
Data File : M:\LINUS\DATA\L181026\1026L055.D  
Acq On : 30 Oct 18 17:34  
Sample : AZ81584W26 MSD-2 1/800  
Misc :

Vial: 55  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Oct 31 8:03 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration

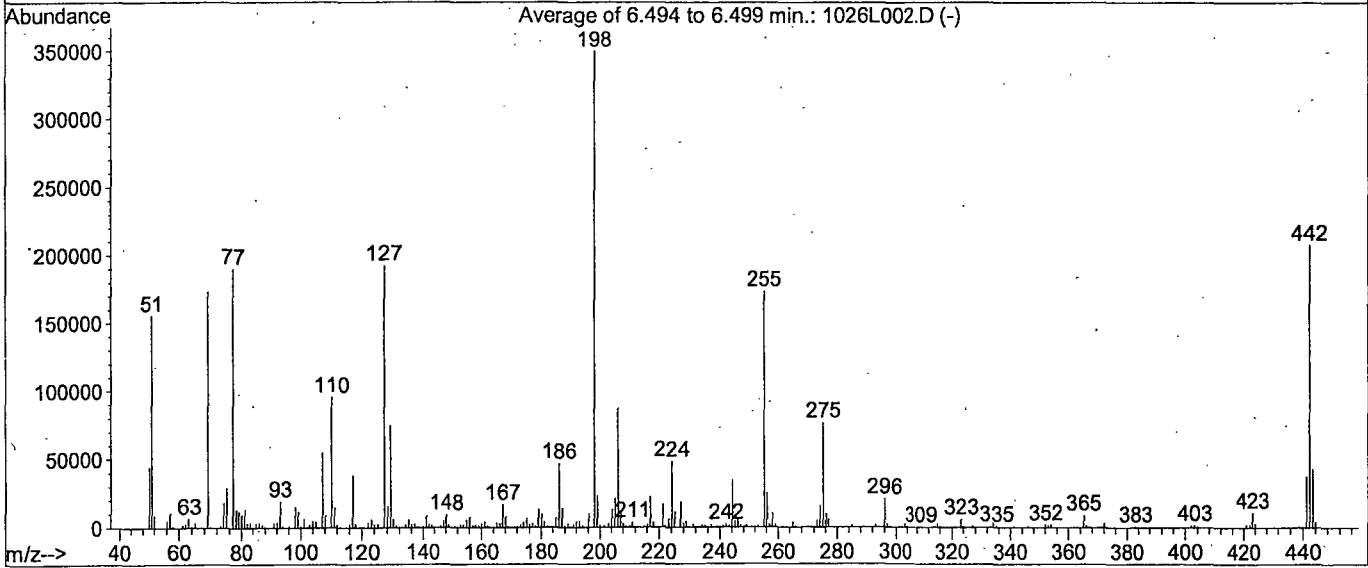
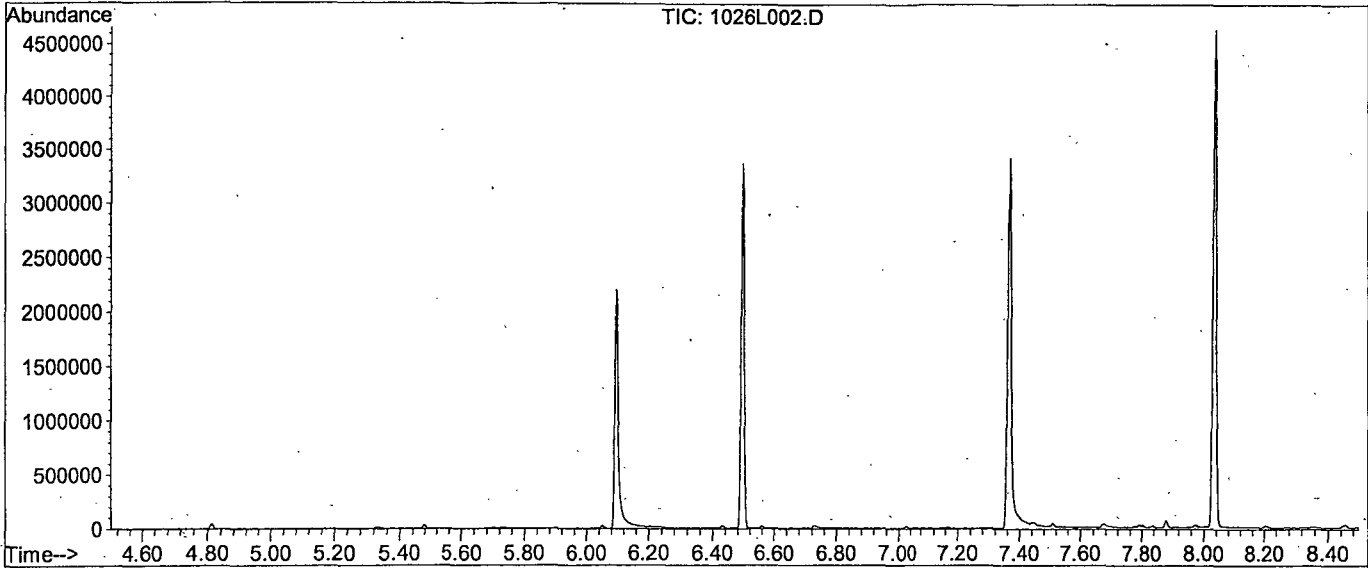


DFTPP

Data File : M:\LINUS\DATA\L181026\1026L002.D  
 Acq On : 26 Oct 18 12:05  
 Sample : SV Tune 03/07/18  
 Misc :

Vial: 2  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270



AutoFind: Scans 1570, 1571, 1572; Background Corrected with Scan 1561

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	44.4	155594	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.3	527	PASS
127	198	10	80	55.0	192576	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	350165	PASS
199	198	5	9	6.5	22893	PASS
275	198	10	60	21.8	76453	PASS
365	198	1	100	2.6	9171	PASS
441	442	0.01	24	18.1	37424	PASS
442	198	50	150	59.1	206955	PASS
443	442	15	24	20.7	42821	PASS

M:\LINUS\DATA\181026\1026L002.D

Data File Name: 1026L002.D  
Data File Path: M:\LINUS\DATA\181026\  
Operator: MA  
Date Acquired: 26 Oct 2018 12:05  
Method File: DFTPP2.M  
Sample Name: SV Tune 03/07/18  
Vial Number: 2  
Instrument Name: Linus

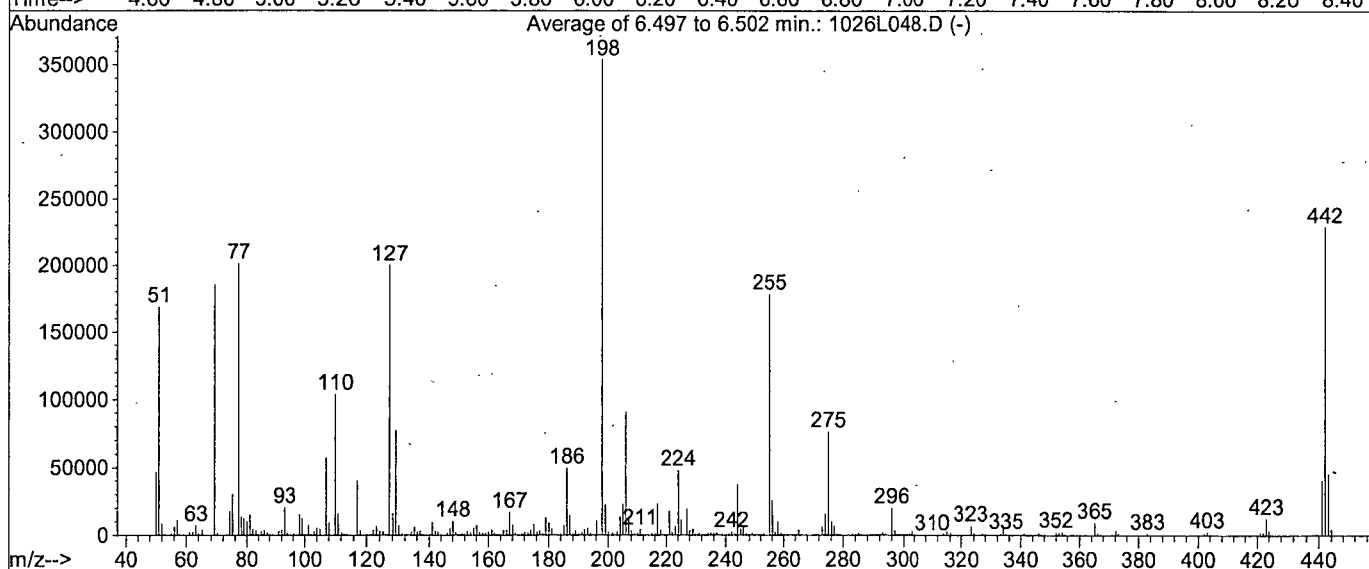
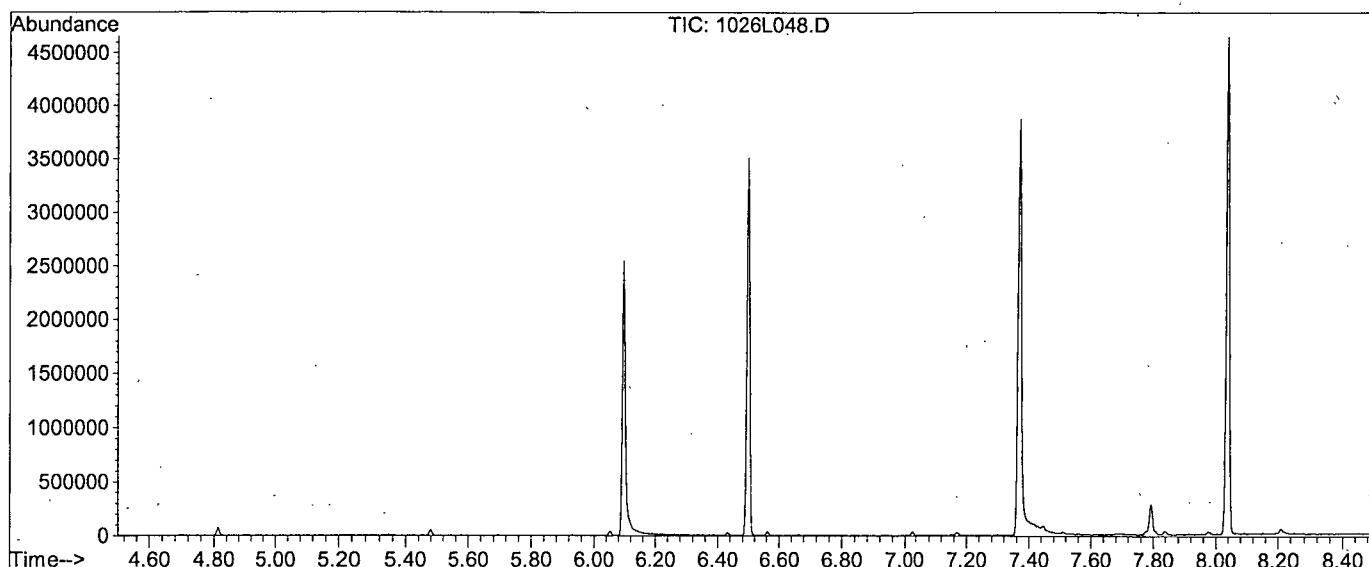
#	Name	Ret Time	Target Response
1)	DDT	8.04	32874800
2)	DDD	7.79	219957
3)	DDE	7.91	378113

Breakdown 1.79

Data File : M:\LINUS\DATA\L181026\1026L048.D  
 Acq On : 30 Oct 18 13:18  
 Sample : SV TUNE 03/07/18  
 Misc :

Vial: 48  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270



AutoFind: Scans 1571, 1572, 1573; Background Corrected with Scan 1562

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	47.6	168591	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	1229	PASS
127	198	10	80	56.5	199829	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	353899	PASS
199	198	5	9	6.3	22400	PASS
275	198	10	60	21.5	76088	PASS
365	198	1	100	2.5	8914	PASS
441	442	0.01	24	17.6	40261	PASS
442	198	50	150	64.7	228907	PASS
443	442	15	24	19.7	45037	PASS

Data File Name: 1026L048.D  
Data File Path: M:\LINUS\DATA\181026\  
Operator: MA  
Date Acquired: 30 Oct 2018 13:18  
Method File: DFTPP2.M  
Sample Name: SV TUNE 03/07/18  
Vial Number: 48  
Instrument Name: Linus

#	Name	Ret Time	Target Response
1)	DDT	8.04	31568000
2)	DDD	7.79	2406000
3)	DDE	7.92	0

Breakdown 7.08



Name of Final Standard PAH SIM Stock (Ampule)

Prep'd By (Initials) GA

Prep Date 10/26/18  
Exp Date 10/26/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270D PAH SIM	O2SI	110780-01	200 ug/mL	353450-39732	08/12/20	1000 uL	1mL	NA	200ug/mL

Name of Final Standard SIM Curve

Prep'd By (Initials) GA

Prep Date 10/26/18  
Exp Date 06/01/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1.0 ug/mL SIM	APPL	SIM 1.0	1.0 ug/mL	10/26/18	06/01/19	10 uL	100uL	MC 56258 90uL	0.1 ug/mL
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
1.0 ug/mL SIM	APPL	SIM 1.0	1.0 ug/mL	10/26/18	06/01/19	20 uL	100uL	MC 56258 80uL	0.2 ug/mL
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
5.0 ug/mL SIM	APPL	SIM 5.0	5.0 ug/mL	10/26/18	06/01/19	10 uL	100uL	MC 56258 90uL	0.5 ug/mL

SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
5.0 ug/mL SIM	APPL	SIM 5.0	5.0 ug/mL	10/26/18	06/01/19	20 uL	100uL	MC 56258 80 uL	1.0 ug/mL
SV Internal Standard	APPL	SIM IS	100 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
PAH SIM	APPL	SIM STOCK	100 ug/mL	10/26/18	10/26/19	5 uL	200uL	MC 56258 190 uL	5.0 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	06/07/18	06/01/19	5 uL	*	*	*
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	4 uL	*	*	*
PAH SIM	APPL	SIM STOCK	200 ug/mL	10/26/18	10/26/19	5 uL	100 uL	MC 56258 90 uL	10 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	06/07/18	06/01/19	5 uL	*	*	*
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
PAH SIM	APPL	SIM STOCK	200	10/26/18	10/26/19	25 uL	100uL	MC 56258 50 uL	50 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	06/07/18	06/01/19	25 uL	*	*	*
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
PAH SIM	APPL	SIM STOCK	200 ug/mL	10/26/18	10/26/19	50 uL	100uL	na	100 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	06/07/18	06/01/19	50 uL	*	*	*
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*

Name of Final Standard 8270 PAH SIM Second Source

Prep'd By (Initials) GA

Prep Date 10/26/18  
Exp Date 10/26/19

Initial Standard Information	Final Standard Information
------------------------------	----------------------------

Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with	Exp Date	Aliquot from Stock	Final Volume	Final Solvent +	Final Standard Conc (range)
				QA #				(or APPL Prep Date)	
				(or reference to APPL prep date)				(or APPL Prep Date)	
PAH SIMPCP	o2si	110780-01 SS	200 ug/mL	06/25/18	03/24/19	5 uL	200uL	MC 56258 195uL	5 ug/mL
SV Internal Standard	APPL		2000 ug/mL	06/25/18	06/25/19	4 uL	*	*	*

Name of  
Final  
Standard

**SIM 2S Surrogate**

Prep'd By (Initials)

**GA**

Prep Date **06/07/18**

Exp Date **06/01/19**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
SIM Surrogate Mix	Restek	33913	2000 ug/mL	A0131716-38553 & 38554	06/01/19 06/07/19	250 uL	5 mL	Acetone #030817A	100 ug/mL
8270 B/N surrog mix	Restek	31086	5000 ug/mL	A0135243-39162	06/04/19	100 uL	*	*	*

Name of  
Final

Standard SIM 2nd Source Ampule

Prep'd By (Initials)

GA

Prep Date 06/25/18

Exp Date 03/24/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270D PAH SIM	O2SI	110780-02 SS	200 ug/mL	G34-327639-38583	03/24/19	1 mL	na	na	200 ug/mL

Name of  
Final

Standard 8270 SIM PAH Internal Standard

Prep'd By (Initials)

GA

Prep Date 06/25/18

Exp Date 06/25/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
SV Internal Standard	Restek	31206	2000 ug/mL	A0130603-38561	06/25/19	350 uL	5,600 uL	MC 56258 5,250 uL	125 ug/mL

Name of Final Standard SIM Surrogate Prep'd By (Initials) MA

Prep Date 09/27/18  
Exp Date 09/27/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Sim Surrogate Deuterated	Restek	33913	2000 ug/mL	A0131718-39321	09/27/19	1250 uL	25 mL	Acetone #030817A	100 ug/mL

Name of Final Standard PAH SIM Spike (Ampules) Prep'd By (Initials) MA

Prep Date 09/27/19  
Exp Date 03/24/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270D PAH SIM	O2SI	110780-01 SS	200 ug/mL	G34-327639-38585	03/24/19	2 mL	2 mL	NA	200ug/mL

Name of Final Standard Semivolatile (SV) Tuning Solution  
 Prep Date 03/07/18  
 Exp Date 03/07/19

Prep'd By (Initials)

GA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38878	03/07/19	1,250 uL	25 mL	MC #56258	50 ug/mL

# Organic Extraction Worksheet

<b>Method</b>	Continuous Liquid/Liquid SVOC 3520C	<b>Extraction Set</b>	181024A	<b>Extraction Method</b>	LIQ003	<b>Units</b>	mL
Spiked ID 1	8270T Spike 10-9-18 EXP 10-9-19	Surrogate ID 1	8270 Surrogate 9-27-18 EXP 3-27-19				
Spiked ID 2	Sim Spike 9-27-18 EXP 3-24-19	Surrogate ID 2	SIM Surrogate 9-27-18 EXP 9-27-19				
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC: YES					
Spiked ID 7		Ext. Start Time:		10/24/18 14:00, 10/25/18 14:30			
Spiked ID 8		Ext. End Time:		10/25/18 9:30, 10/26/18 10:05, 10/30/18 11:45			
GC Requires Extract By:				10/30/18 0:00			
pH1	2	10/24/18 2:09:00 PM		Water Bath Temp Criteria		73,75 °C	
pH2	14	10/25/18 2:00:00 PM					
pH3							

Spiked By: KY

Date 10/24/18

Witnessed By: DL

Date 10/24/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	181024A Blk			1,0.050	1,2	800	1	2/1	10/24/18 14:00	
					equip	e-hp51 E-WB5				
2	181024A LCS-1	0.250	1	1	1	800	1	2/1	10/24/18 14:00	
					equip	E-HP50 E-WB5				
3	181024A LCS-2	0.0250	2	0.050	2	800	1	2/1	10/24/18 14:00	
					equip	E-HP30 E-WB5				
4	181024A LCSD-1	0.250	1	1	1	800	1	2/1	10/24/18 14:00	
					equip	E-HP49 E-WB5				
5	181024A LCSD-2	0.0250	2	0.050	2	800	1	2/1	10/24/18 14:00	
					equip	E-HP29 E-WB5				
6	AZ81584 MS-1 AZ81584W24	0.250	1	1	1	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP48 E-WB5				
7	AZ81584 MSD-1 AZ81584W20	0.250	1	1	1	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP47 E-WB5				
8	AZ81584 MS-2 AZ81584W22	0.0250	2	0.050	2	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP28 e-wb5				
9	AZ81584 MSD-2 AZ81584W26	0.0250	2	0.050	2	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP27 E-WB5				
10	AZ81584 AZ81584W18			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP26 E-WB5				
11	AZ81585 AZ81585W08			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP25 E-WB5				
12	AZ81587 AZ81587W10			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP17 E-WB5				
13	AZ81636 AZ81636W12			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
					equip	E-HP16 E-WB5				
14	AZ81638 AZ81638W09			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
					equip	E-HP15 E-WB6				
15	AZ81640 AZ81640W10			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
					equip	E-HP14 E-WB6				
16	AZ81642 AZ81642W11			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
					equip	E-HP13 E-WB6				

Solvent and Lot#	
PH Strips	HC 727135
Dichloromethane (DCM)	58059
1+1 H2SO4	7-3-18
10N NaOH	10-17-18
Filter Paper	400147
Acidified Na2SO4	10-2-18
B. Na2SO4	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	MP
Date	10/30/18
Time	12:00
Refrigerator	CC-C

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	10/31/18 10:39:53 AM

Reviewed By: *Ky312* Date 10/31/18



# Organic Extraction Worksheet

<b>Method</b>	Continuous Liquid/Liquid SVOC 3520C	<b>Extraction Set</b>	181024A	<b>Extraction Method</b>	LIQ003	<b>Units</b>	mL
Spiked ID 1	8270T Spike 10-9-18 EXP 10-9-19	Surrogate ID 1	8270 Surrogate 9-27-18 EXP 3-27-19				
Spiked ID 2	Sim Spike 9-27-18 EXP 3-24-19	Surrogate ID 2	SIM Surrogate 9-27-18 EXP 9-27-19				
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		YES			
Spiked ID 7		Ext. Start Time:		10/24/18 14:00, 10/25/18 14:30			
Spiked ID 8		Ext. End Time:		10/25/18 9:30, 10/26/18 10:05, 10/26/18 11:45			
GC Requires Extract By:				10/30/18 0:00			
pH1	2	10/24/18 2:09:00 PM		Water Bath Temp Criteria 73,75 °C			
pH2	14	10/25/18 2:00:00 PM					
pH3							

Spiked By: KY

Date 10/24/18

Witnessed By: DL

Date 10/24/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17 AZ81644	AZ81644W12			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
						equip				
						E-HP12 E-WB6				

Solvent and Lot#	
PH Strips	HC 727135
Dichloromethane (DCM)	58059
1+1 H2SO4	7-3-18
10N NaOH	10-17-18
Filter Paper	400147
Acidified Na2SO4	10-2-18
B. Na2SO4	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	10/31/18 10:39:53 AM

Reviewed By: *Key* 313      Date 10/31/18

# Injection Log

Directory: M:\LINUS\DATA\181026\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	1026L002.D	1	SV Tune 03/07/18		26 Oct 18 12:05
3	1026L003.D	1	5 SIM 10/26/18		26 Oct 18 12:21
4	1026L004.D	1	0.1 SIM 10/26/18		26 Oct 18 12:50
5	1026L005.D	1	0.2 SIM 10/26/18		26 Oct 18 13:20
6	1026L006.D	1	0.5 SIM 10/26/18		26 Oct 18 13:49
7	1026L007.D	1	1 SIM 10/26/18		26 Oct 18 14:18
8	1026L008.D	1	10 SIM 10/26/18		26 Oct 18 14:47
9	1026L009.D	1	50 SIM 10/26/18		26 Oct 18 15:16
10	1026L010.D	1	100 SIM 10/26/18		26 Oct 18 15:46
11	1026L011.D	1	SS SIM 10/26/18		26 Oct 18 16:46
48	1026L048.D	1	SV TUNE 03/07/18		30 Oct 18 13:18
49	1026L049.D	1	5 SIM 10/26/18		30 Oct 18 13:34
51	1026L051.D	1.25	181024A BLK 1/800		30 Oct 18 14:32
52	1026L052.D	1.25	181024A LCS-2 1/800		30 Oct 18 16:06
53	1026L053.D	1.25	181024A LCSD-2 1/800		30 Oct 18 16:36
54	1026L054.D	1.25	AZ81584W22 MS-2 1/800		30 Oct 18 17:05
55	1026L055.D	1.25	AZ81584W26 MSD-2 1/800		30 Oct 18 17:34
56	1026L056.D	1.25	AZ81584W18 1/800		30 Oct 18 18:03
57	1026L057.D	1.25	AZ81585W08 1/800		30 Oct 18 18:32
58	1026L058.D	1.25	AZ81587W10 1/800		30 Oct 18 19:01
64	1026L064.D	1	5 SIM 10/26/18		30 Oct 18 21:56

**ORGANICS**  
**Calibration Data**

**APPL, INC.**

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/25/18  
Instrument: Yoda

Initials: \_\_\_\_\_

1025Y003.D 1025Y004.D 1025Y005.D 1025Y006.D 1025Y007.D 1025Y008.D 1025Y009.D 1025Y010.D 1025Y011.D

	Compound	4	5	10	20	40	50	60	80	100	Avg	%RSD	Type	r	Q	MRF
1	I 1,4-dichlorobenzene-D4(IS)	ISTD														
2	1,4-Dioxane		0.0822	0.1238	0.1391	0.1156	0.1243	0.1314	0.1253	0.1327	0.12	14				
3	TM n-Nitrosodimethylamine		0.3198	0.2893	0.2895	0.3170	0.3428	0.3386	0.3157	0.3599	0.32	7.7	TM			
4	TM Pyridine		0.3797	0.5088	0.4370	0.4560	0.5069	0.5219	0.5126	0.5246	0.48	11	TM			
5	S 2-Fluorophenol (S)		1.447	1.474	1.688	1.589	1.666	1.585	1.555	1.571	1.6	5.3	S			
6	S Phenol-D6 (S)		1.848	1.901	2.093	1.850	1.941	1.809	1.755	1.750	1.9	6.0	S			
7	*TM Phenol		2.649	2.757	2.820	2.486	2.402	2.436	2.265	2.182	2.5	9.1	*TM			0.800
8	TM Aniline		1.872	2.001	2.114	1.977	2.005	2.023	1.975	2.017	2.0	3.4	TM			
9	TM Bis (2-chloroethyl) ether		1.334	1.348	1.369	1.245	1.271	1.275	1.240	1.376	1.3	4.3	TM			0.700
10	TM 2-Chlorophenol		1.995	2.029	2.057	1.877	1.897	1.907	1.873	1.933	1.9	3.7	TM			0.800
11	TM 1,3-DCB		2.064	2.156	2.189	1.949	1.933	1.958	1.933	1.942	2.0	5.3	TM			
12	*TM 1,4-DCB		2.127	2.156	2.182	2.007	1.906	1.971	1.865	1.938	2.0	6.0	*TM			
13	TM Benzyl alcohol		1.244	1.292	1.329	1.211	1.238	1.259	1.212	1.289	1.3	3.3	TM			
14	TM 1,2-DCB		2.064	2.054	2.067	1.841	1.835	1.876	1.767	1.846	1.9	6.4	TM			
15	TM 2-Methylphenol		1.555	1.604	1.632	1.546	1.494	1.520	1.483	1.561	1.5	3.3	TM			0.700
16	TM Bis (2-chloroisopropyl) ether		2.542	2.584	2.616	2.402	2.400	2.441	2.390	2.420	2.5	3.7	TM			0.010
17	TML Acetophenone		2.636	2.769	2.633	2.030	1.890	1.910	1.779	1.861	2.2	19	TML	0.996		0.010
18	TML 3&4-Methylphenol		2.070	2.176	2.020	1.546	1.435	1.452	1.356	1.396	1.7	20	TML	0.996		0.600
19	**TM n-Nitrosodi-n-propylamine		1.400	1.477	1.415	1.143	1.166	1.186	1.188	1.329	1.3	10	**TM			0.500
20	TM Hexachloroethane		0.7574	0.7950	0.8050	0.7314	0.7379	0.7578	0.7366	0.7504	0.76	3.6	TM			0.300
21	I Naphthalene-D8(IS)	ISTD														
22	S Nitrobenzene-D5(S)		0.4083	0.4328	0.4683	0.4505	0.5001	0.4407	0.4451	0.4657	0.45	6.0	S			
23	TM Nitrobenzene		0.5001	0.5181	0.5139	0.4909	0.4970	0.4779	0.4713	0.4888	0.49	3.3	TM			0.200
24	TM Isophorone		0.8652	0.9168	0.9152	0.8551	0.8760	0.8490	0.8400	0.8786	0.87	3.3	TM			0.400
25	*TM 2-Nitrophenol		0.2370	0.2591	0.2642	0.2517	0.2554	0.2460	0.2442	0.2519	0.25	3.5	*TM			0.100
26	TM 2,4-Dimethylphenol		0.4374	0.4462	0.4431	0.4177	0.4120	0.4072	0.3948	0.4061	0.42	4.6	TM			0.200
27	TML Benzoic acid		0.2022	0.2740	0.3308	0.3563	0.3897	0.3820	0.3935	0.4031	0.34	21	TML	0.999		
28	TM Bis (2-chloroethoxy) methane		0.5234	0.5360	0.5173	0.4794	0.4853	0.4705	0.4613	0.4659	0.49	5.9	TM			0.300
29	*TM 2,4-Dichlorophenol		0.3791	0.3980	0.3911	0.3686	0.3717	0.3607	0.3482	0.3483	0.37	4.9	*TM			0.200
30	TM 1,2,4-Trichlorobenzene		0.4195	0.4275	0.4109	0.3795	0.3707	0.3651	0.3531	0.3536	0.38	7.8	TM			
31	TM 3,4-Dimethylphenol		0.5794	0.6067	0.6052	0.5594	0.5653	0.5568	0.5402	0.5433	0.57	4.5	TM			
32	TM Naphthalene		1.432	1.426	1.383	1.288	1.252	1.247	1.168	1.168	1.3	8.2	TM			0.700
33	TM 4-Chloroaniline		0.5582	0.5734	0.5561	0.4843	0.4698	0.4632	0.4030	0.3734	0.49	15	TM			0.010
34	TM 2,6-Dichlorophenol		0.3835	0.3879	0.3836	0.3390	0.3259	0.3250	0.2935	0.2753	0.34	13	TM			
35	TM Hexachloropropene		0.2398	0.2604	0.2721	0.2579	0.2649	0.2671	0.2525	0.2433	0.26	4.4	TM			

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/25/18  
Instrument: Yoda

Initials: \_\_\_\_\_

	Compound	4	5	10	20	40	50	60	80	100		Avg	%RSD	Type		Q
36	*TM Hexachlorobutadiene		0.2194	0.2297	0.2245	0.2132	0.2082	0.2127	0.1994	0.1969		0.21	5.4	*TM		0.010
37	TM Caprolactum		0.2182	0.2291	0.2384	0.2265	0.2344	0.2268	0.2261	0.2162		0.23	3.3	TM		0.010
38	*TM 4-Chloro-3-methylphenol		0.3843	0.4096	0.4194	0.3872	0.4022	0.4004	0.3860	0.3952		0.40	3.1	*TM		0.200
39	TM 2-Methylnaphthalene		0.8747	0.8997	0.8766	0.8068	0.7983	0.7982	0.7535	0.7265		0.82	7.6	TM		0.400
40	TM 1-Methylnaphthalene		0.8803	0.9151	0.8942	0.8003	0.7852	0.7648	0.7475	0.7263		0.81	8.9	TM		
41	I Acenaphthene-D10(IS)	ISTD														
42	**TML Hexachlorocyclopentadiene		0.2159	0.3254	0.3835	0.4140	0.4334	0.4200	0.4194	0.4411		0.38	20	**TML	0.999	0.050
43	TM 1,2,4,5-Tetrachlorobenzene		0.8104	0.8379	0.8315	0.7526	0.7314	0.7034	0.6664	0.6536		0.75	9.7	TM		0.010
44	*TM 2,4,6-Trichlorophenol		0.5013	0.5549	0.5603	0.5238	0.5316	0.5292	0.4979	0.5107		0.53	4.4	*TM		0.200
45	TM 2,4,5-Trichlorophenol		0.5702	0.5761	0.5952	0.5475	0.5488	0.5482	0.5295	0.5413		0.56	3.9	TM		0.200
46	S 2-Fluorobiphenyl(S)		1.730	1.770	1.821	1.654	1.746	1.617	1.492	1.508		1.7	7.3	S		
47	TM 1,1'-Biphenyl		2.164	2.234	2.170	1.970	1.876	1.856	1.726	1.715		2.0	10	TM		0.010
48	TM 2-Chloronaphthalene		1.645	1.734	1.725	1.553	1.541	1.482	1.409	1.423		1.6	8.1	TM		0.800
49	TM 2-Nitroaniline		0.4862	0.5502	0.5567	0.5429	0.5556	0.5517	0.5173	0.5586		0.54	4.7	TM		0.010
50	TM Dimethyl phthalate		1.834	1.964	1.919	1.801	1.797	1.794	1.657	1.744		1.8	5.3	TM		0.010
51	TM 2,6-DNT		0.3555	0.4320	0.4418	0.4252	0.4354	0.4318	0.3994	0.4280		0.42	6.8	TM		0.200
52	TM Acenaphthylene		2.628	2.725	2.759	2.574	2.482	2.505	2.231	2.278		2.5	7.6	TM		0.900
53	TM 3-Nitroaniline		0.4276	0.4910	0.5106	0.4724	0.4809	0.4713	0.4422	0.4489		0.47	5.8	TM		0.010
54	*TM Acenaphthene		1.672	1.755	1.670	1.499	1.475	1.481	1.337	1.337		1.5	10	*TM		0.900
55	**TML 2,4-Dinitrophenol		0.0575	0.1232	0.2043	0.2314	0.2592	0.2656	0.2764	0.3061		0.22	39	**TML	0.996	0.010
56	**TM 4-Nitrophenol		0.2721	0.3257	0.3588	0.3653	0.3883	0.3983	0.3717	0.4143		0.36	12	**TM		0.010
57	TM Dibenzofuran		2.464	2.496	2.382	2.140	2.009	1.938	1.732	1.711		2.1	15	TM		0.800
58	TM 2,4-DNT		0.5229	0.5883	0.6057	0.5566	0.5362	0.5170	0.4678	0.4705		0.53	9.4	TM		0.200
59	TM 2,3,4,6-Tetrachlorophenol		0.4433	0.4757	0.4924	0.4726	0.4709	0.4494	0.4249	0.4491		0.46	4.7	TM		0.010
60	TM Diethyl phthalate		1.848	1.924	1.892	1.742	1.716	1.664	1.554	1.624		1.7	7.6	TM		0.010
61	TML 4-Chlorophenyl phenyl ether			0.9404	0.8997	0.7607	0.7053	0.6720	0.6051	0.6241		0.74	18	TML	0.995	0.400
62	TML Fluorene			2.000	1.919	1.630	1.529	1.450	1.327	1.370		1.6	16	TML	0.996	0.900
63	TM 4-Nitroaniline		0.4708	0.5200	0.5209	0.4799	0.4968	0.4725	0.4585	0.4920		0.49	4.7	TM		0.010
64	S 2,4,6-Tribromophenol(S)		0.1910	0.2126	0.2272	0.2105	0.2163	0.1901	0.1828	0.1843		0.20	8.3	S		
65	I Phenanthrene-D10(IS)	ISTD														
66	TML 4,6-Dinitro-2-methylphenol		0.1094	0.1601	0.1895	0.1922	0.2012	0.1993	0.1924	0.2094		0.18	18	TML	0.998	0.010
67	TM Diphenyl amine			0.8355	0.7939	0.6850	0.6482	0.6583	0.5640	0.5753		0.68	15	TM		
68	*TM n-Nitrosodiphenylamine			0.8355	0.7939	0.6850	0.6482	0.6583	0.5640	0.5753		0.68	15	*TM		0.010
69	TM 1,2-Diphenylhydrazine		1.082	1.106	1.079	1.022	1.024	1.028	1.102	1.154		1.1	4.4	TM		
70	TM 4-Bromophenyl phenyl ether		0.2805	0.2921	0.2891	0.2738	0.2714	0.2723	0.2524	0.2464		0.27	5.9	TM		0.100

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/25/18  
Instrument: Yoda

Initials: \_\_\_\_\_

	Compound	4	5	10	20	40	50	60	80	100		Avg	%RSD	Type	Q
71	TM Hexachlorobenzene		0.2989	0.3163	0.3096	0.2849	0.2823	0.2843	0.2563	0.2582		0.29	7.6	TM	0.100
72	TM Atrazine		0.2274	0.2463	0.2447	0.2494	0.2533	0.2614	0.2438	0.2652		0.25	4.7	TM	0.010
73	*TM Pentachlorophenol		0.1194	0.1595	0.1803	0.1856	0.1959	0.1970	0.1843	0.1954		0.18	15	*TM	0.050
74	TM Phenanthrene		1.535	1.556	1.520	1.405	1.341	1.354	1.219	1.247		1.4	9.3	TM	0.700
75	TM Anthracene		1.534	1.630	1.567	1.432	1.388	1.397	1.243	1.306		1.4	9.2	TM	0.700
76	TM Carbazol		1.404	1.474	1.412	1.345	1.333	1.342	1.200	1.232		1.3	6.8	TM	0.010
77	TM Di-n-butylphthalate		1.532	1.684	1.676	1.561	1.557	1.587	1.423	1.418		1.6	6.4	TM	0.010
78	*TM Fluoranthene		1.599	1.650	1.618	1.482	1.469	1.488	1.311	1.376		1.5	7.9	*TM	0.600
79	I Chrysene-D12(IS)	ISTD													
80	TM Benzidine		0.5023	0.5729	0.5988	0.5688	0.5785	0.5804	0.5559	0.5905		0.57	5.2	TM	
81	TM Pyrene		1.683	1.748	1.756	1.652	1.621	1.636	1.522	1.607		1.7	4.6	TM	0.600
82	S Terphenyl-D14(S)		1.048	1.090	1.144	1.063	1.110	1.026	0.9763	1.014		1.1	5.2	S	
83	TM Butyl benzylphthalate		0.6875	0.7381	0.7719	0.7507	0.7445	0.7677	0.7085	0.7378		0.74	3.9	TM	0.010
84	TM 3,3'-Dichlorobenzidine		0.5153	0.5780	0.6107	0.5565	0.5493	0.5524	0.4833	0.4652		0.54	9.0	TM	0.010
85	TM Benz (a) anthracene		1.567	1.601	1.607	1.369	1.289	1.333	1.201	1.269		1.4	12	TM	0.800
86	TM Bis (2-ethylhexyl) phthalate		0.9717	1.060	1.058	0.9322	0.8742	0.8932	0.7888	0.8442		0.93	11	TM	0.010
87	TM Chrysene		1.555	1.591	1.559	1.488	1.422	1.434	1.363	1.407		1.5	5.6	TM	0.700
88	*TM Di-n-octylphthalate		1.513	1.697	1.766	1.768	1.785	1.794	1.743	1.735		1.7	5.3	*TM	0.010
89	I Perylene-D12(IS)	ISTD													
90	TM Benzo (b) fluoranthene		1.425	1.508	1.620	1.418	1.596	1.597	1.382	1.444		1.5	6.3	TM	0.700
91	TM Benzo (k) fluoranthene		1.477	1.531	1.459	1.477	1.380	1.372	1.365	1.366		1.4	4.6	TM	0.700
92	*TM Benzo (a) pyrene	1.218	1.317	1.395	1.423	1.374	1.394	1.417	1.346	1.389		1.4	4.7	*TM	0.700
93	TM Indeno (1,2,3-cd) pyrene		1.504	1.545	1.624	1.566	1.626	1.628	1.542	1.602		1.6	3.0	TM	0.500
94	TM Dibenz (a,h) anthracene	1.180	1.287	1.350	1.426	1.364	1.388	1.416	1.318	1.348		1.3	5.6	TM	0.400
95	TM Benzo (g,h,i) perylene		1.187	1.277	1.320	1.302	1.267	1.324	1.228	1.334		1.3	4.0	TM	0.500
96															
97															
98															
99															
100															
101															
102															
103															
104															
105															

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y003.D Vial: 3  
 Acq On : 25 Oct 18 11:33 Operator: MA  
 Sample : 4ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 25 14:51 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	299628	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1229134	40.00000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	646866	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1199000	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1206033	40.00000	ppb	-0.01
89) Perylene-D12 (IS)	15.81	264	1213261	40.00000	ppb	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol (S)	0.00	112	0d	0.00000	ppb	
Spiked Amount 200.000			Recovery =	0.000%		
6) Phenol-D6 (S)	0.00	99	0d	0.00000	ppb	
Spiked Amount 200.000			Recovery =	0.000%		
22) Nitrobenzene-D5 (S)	0.00	82	0d	0.00000	ppb	
Spiked Amount 100.000			Recovery =	0.000%		
46) 2-Fluorobiphenyl (S)	0.00	172	0d	0.00000	ppb	
Spiked Amount 100.000			Recovery =	0.000%		
64) 2,4,6-Tribromophenol (S)	0.00	330	0d	0.00000	ppb	
Spiked Amount 200.000			Recovery =	0.000%		
82) Terphenyl-D14 (S)	0.00	244	0d	0.00000	ppb	
Spiked Amount 100.000			Recovery =	0.000%		
Target Compounds						
92) Benzo (a) pyrene	15.72	252	147763	3.60635	ppb	99
94) Dibenz (a,h) anthracene	17.86	278	143132	3.53686	ppb	97

Quantitation Report

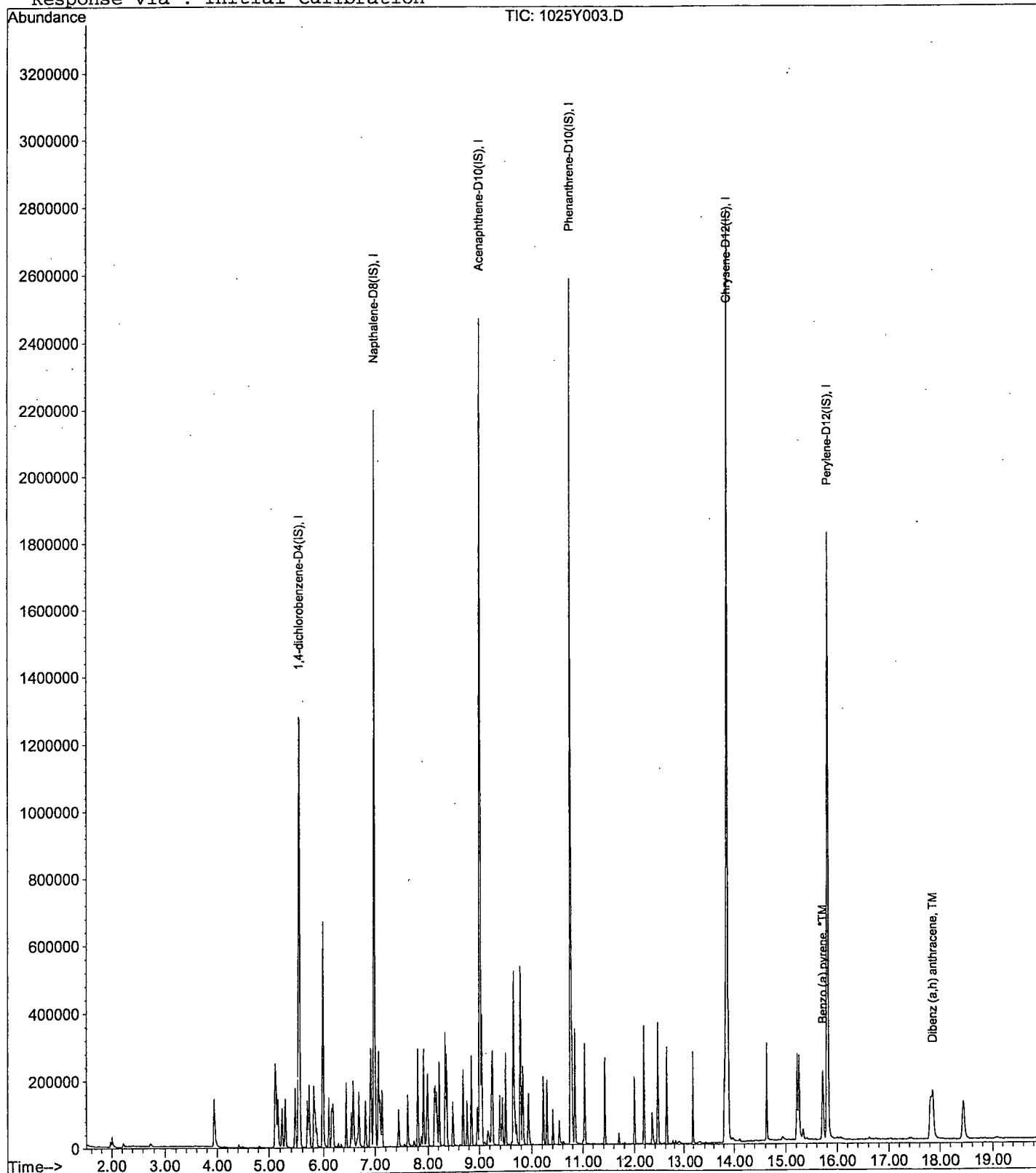
Data File : M:\YODA\DATA\Y181025\1025Y003.D  
Acq On : 25 Oct 18 11:33  
Sample : 4ug/mL 8270 10/18/18  
Misc :

Vial: 3  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 14:51 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y004.D  
 Acq On : 25 Oct 18 12:01  
 Sample : 5ug/mL 8270 10/18/18  
 Misc :

Vial: 4  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:18:52 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	278188	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1122051	40.00000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	578178	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1088043	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1091993	40.00000	ppb	-0.01
89) Perylene-D12 (IS)	15.81	264	1129669	40.00000	ppb	-0.01

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.94	112	100605	9.16892	ppb	0.00
Spiked Amount 200.000			Recovery =	4.585%		
6) Phenol-D6 (S)	5.11	99	128510	9.87603	ppb	-0.01
Spiked Amount 200.000			Recovery =	4.938%		
22) Nitrobenzene-D5 (S)	6.16	82	57273	4.46786	ppb	-0.01
Spiked Amount 100.000			Recovery =	4.468%		
46) 2-Fluorobiphenyl (S)	8.22	172	125033	5.15520	ppb	0.00
Spiked Amount 100.000			Recovery =	5.155%		
64) 2,4,6-Tribromophenol (S)	9.94	330	27611	9.22660	ppb	-0.01
Spiked Amount 200.000			Recovery =	4.614%		
82) Terphenyl-D14 (S)	12.62	244	143015	4.87537	ppb	0.00
Spiked Amount 100.000			Recovery =	4.875%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	286	0.32856		# 1
3) n-Nitrosodimethylamine	1.98	42	11122	5.29803	ppb	88
4) Pyridine	2.00	79	13205	4.04187	ppb	93
7) Phenol	5.13	94	92128	5.29994	ppb	90
8) Aniline	5.16	66	65079m	4.91096	ppb	90
9) Bis (2-chloroethyl) ether	5.23	63	46381	5.10745	ppb	99
10) 2-Chlorophenol	5.29	128	69377	5.18850	ppb	95
11) 1,3-DCB	5.47	146	71761	5.08967	ppb	99
12) 1,4-DCB	5.56	146	73967	5.25936	ppb	94
13) Benzyl alcohol	5.69	108	43273	5.00475	ppb	93
14) 1,2-DCB	5.73	146	71757	5.38435	ppb	97
15) 2-Methylphenol	5.81	107	54087	5.07631	ppb	98
16) Bis (2-chloroisopropyl) et	5.84	45	88410	5.18241	ppb	94
17) Acetophenone	6.00	105	91662	1.39902	ppb	# 70
18) 3&4-Methylphenol	5.99	107	143966	-0.94497	ppb	95
19) n-Nitrosodi-n-propylamine	5.99	70	48666	5.49385	ppb	84
20) Hexachloroethane	6.11	117	26338	4.96713	ppb	95
23) Nitrobenzene	6.19	77	70137	4.98866	ppb	98
24) Isophorone	6.45	82	121351	4.91369	ppb	98
25) 2-Nitrophenol	6.54	139	33236	4.72719	ppb	92
26) 2,4-Dimethylphenol	6.58	122	61342	5.19136	ppb	91
27) Benzoic acid	6.67	105	28356	8.65338	ppb	97
28) Bis (2-chloroethoxy) metha	6.69	93	73409	5.27571	ppb	98
29) 2,4-Dichlorophenol	6.82	162	53167	5.07562	ppb	96
30) 1,2,4-Trichlorobenzene	6.91	180	58841	5.40711	ppb	97
31) 3,4-Dimethylphenol	6.92	107	81264	5.08114	ppb	95
32) Napthalene	7.01	128	200847	5.51654	ppb	99
33) 4-Chloroaniline	7.06	127	78291	6.25637	ppb	97
34) 2,6-Dichlorophenol	7.07	162	53793	5.59344	ppb	98
35) Hexachloropropene	7.10	213	33627	4.60585	ppb	99
36) Hexachlorobutadiene	7.14	225	30779	5.08021	ppb	98
37) Caprolactum	7.44	55	30607	4.78098	ppb	92

(#) = qualifier out of range (m) = manual integration  
 1025Y004.D Y1025NC.M Thu Oct 25 17:29:32 2018

Data File : M:\YODA\DATA\Y181025\1025Y004.D  
 Acq On : 25 Oct 18 12:01  
 Sample : 5ug/mL 8270 10/18/18  
 Misc :

Vial: 4  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:18:52 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.62	107	53898	4.81193	ppb	98
39) 2-Methylnaphthalene	7.80	142	122686	5.30010	ppb	97
40) 1-Methylnaphthalene	7.92	142	123467	5.36805	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	15604	2.63514	ppb	97
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	58570	5.36480	ppb	98
44) 2,4,6-Trichlorophenol	8.12	196	36228	4.75527	ppb	99
45) 2,4,5-Trichlorophenol	8.17	196	41210	5.05470	ppb	96
47) 1,1'-Biphenyl	8.34	154	156378	5.47366	ppb	98
48) 2-Chloronaphthalene	8.36	162	118878	5.19543	ppb	98
49) 2-Nitroaniline	8.48	65	35139	4.54088	ppb	92
50) Dimethyl phthalate	8.69	163	132551	5.03002	ppb	100
51) 2,6-DNT	8.77	165	25692	4.26612	ppb	96
52) Acenaphthylene	8.85	152	189919	5.22472	ppb	99
53) 3-Nitroaniline	8.97	138	30903	4.67170	ppb	99
54) Acenaphthene	9.05	154	120819	5.48632	ppb	99
55) 2,4-Dinitrophenol	9.10	184	4155	10.81735	ppb	89
56) 4-Nitrophenol	9.17	65	19665	3.80378	ppb	94
57) Dibenzofuran	9.25	168	178096	5.81314	ppb	92
58) 2,4-DNT	9.24	165	37792	4.90083	ppb	96
59) 2,3,4,6-Tetrachlorophenol	9.39	232	32036	4.80719	ppb	98
60) Diethyl phthalate	9.50	149	133569	5.26630	ppb	98
61) 4-Chlorophenyl phenyl ethe	9.65	204	66152	5.51360	ppb	87
62) Fluorene	9.65	166	140557	5.50594	ppb	99
63) 4-Nitroaniline	9.68	138	34026	4.92384	ppb	89
66) 4,6-Dinitro-2-methylphenol	9.71	198	14879	2.87402	ppb	91
67) Diphenyl amine	9.79	169	225337	0.75658	ppb	98
68) n-Nitrosodiphenylamine	9.79	169	225337	0.75658	ppb	98
69) 1,2-Diphenylhydrazine	9.84	77	147118	5.01547	ppb #	87
70) 4-Bromophenyl phenyl ether	10.23	248	38148	5.05604	ppb	92
71) Hexachlorobenzene	10.29	284	40649	5.12754	ppb	87
72) Atrazine	10.41	200	15461	2.26716	ppb	96
73) Pentachlorophenol	10.54	266	16240	3.32294	ppb	98
74) Phenanthrene	10.79	178	208757	5.42894	ppb	99
75) Anthracene	10.84	178	208619	5.28612	ppb	99
76) Carbazol	11.04	167	190968	5.17629	ppb	99
77) Di-n-butylphthalate	11.43	149	208356	4.90798	ppb	98
78) Fluoranthene	12.18	202	217445	5.29783	ppb	98
80) Benzidine	12.35	184	68565	9.38814	ppb	95
81) Pyrene	12.45	202	229771	5.09317	ppb	99
83) Butyl benzylphthalate	13.19	149	93840	4.68621	ppb	88
84) 3,3'-Dichlorobenzidine	13.81	252	70332	5.31300	ppb	96
85) Benz (a) anthracene	13.85	228	213920	5.55631	ppb	99
86) Bis (2-ethylhexyl) phthala	13.84	149	132632	5.17822	ppb	98
87) Chrysene	13.89	228	212313	5.22319	ppb	98
88) Di-n-octylphthalate	14.62	149	206541	4.38443	ppb	97
90) Benzo (b) fluoranthene	15.21	252	201251	4.74884	ppb	98
91) Benzo (k) fluoranthene	15.25	252	208523	5.23139	ppb	98
92) Benzo (a) pyrene	15.72	252	185959	4.84407	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.81	276	212368	4.76071	ppb	97
94) Dibenz (a,h) anthracene	17.85	278	181728	4.79755	ppb	97
95) Benzo (g,h,i) perylene	18.44	276	167646	4.61279	ppb	95

Quantitation Report

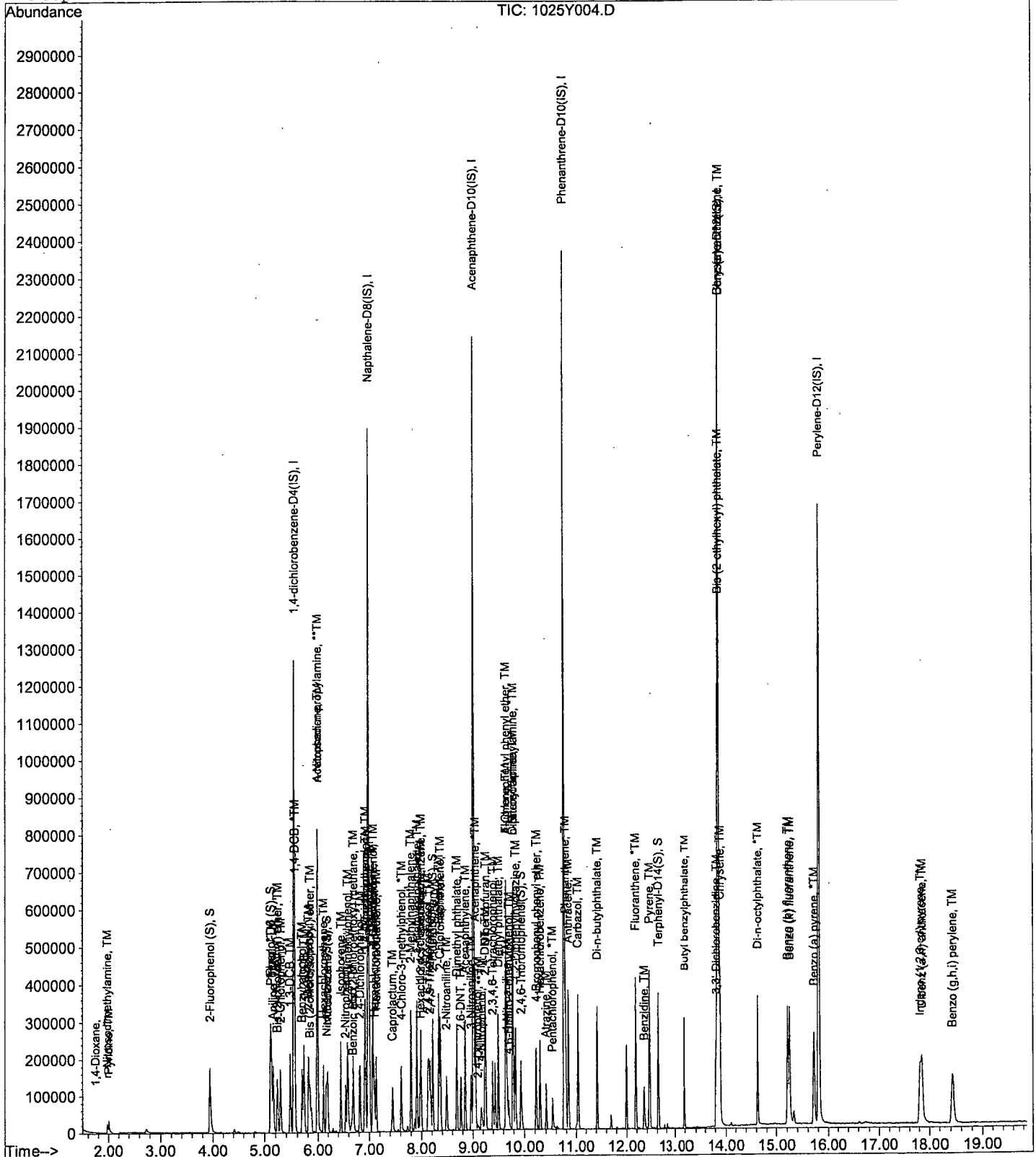
Data File : M:\YODA\DATA\Y181025\1025Y004.D  
 Acq On : 25 Oct 18 12:01  
 Sample : 5ug/mL 8270 10/18/18  
 Misc :

Vial: 4  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

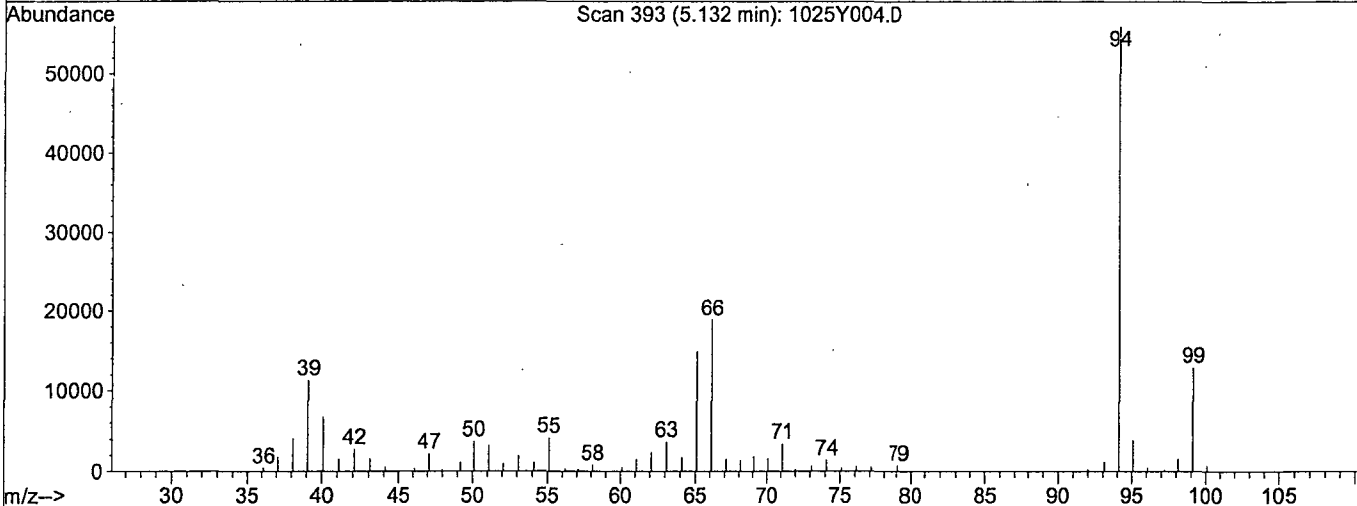
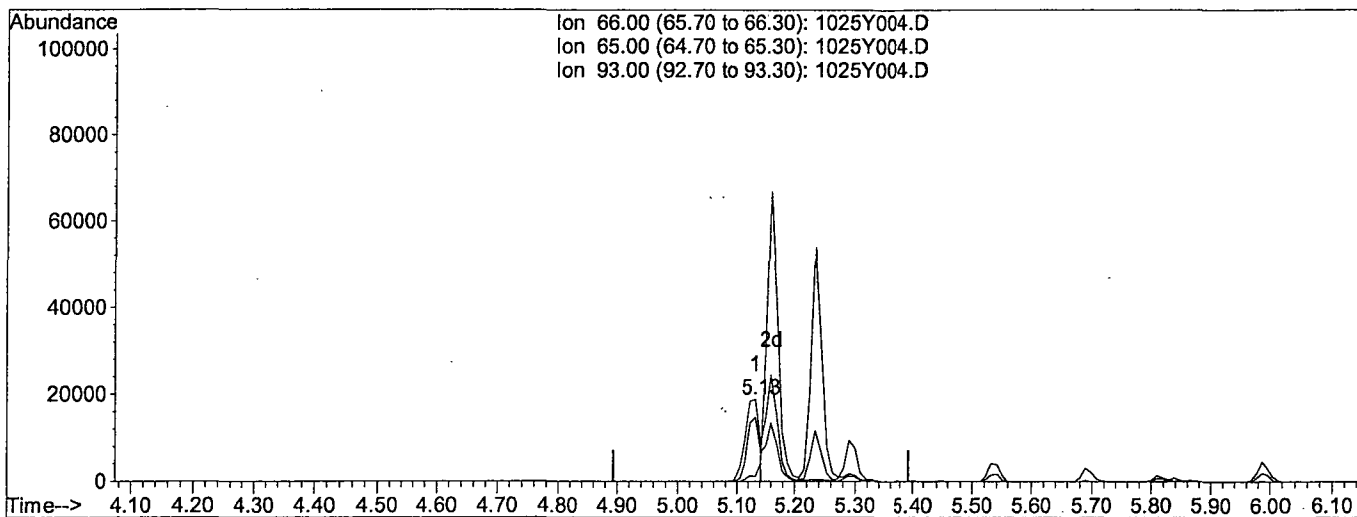
Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration



Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y004.D Vial: 4  
 Acq On : 25 Oct 18 12:01 Operator: MA  
 Sample : 5ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Oct 25 16:22 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y004.D

(8) Aniline (TM)

5.13min 2.4771ppb

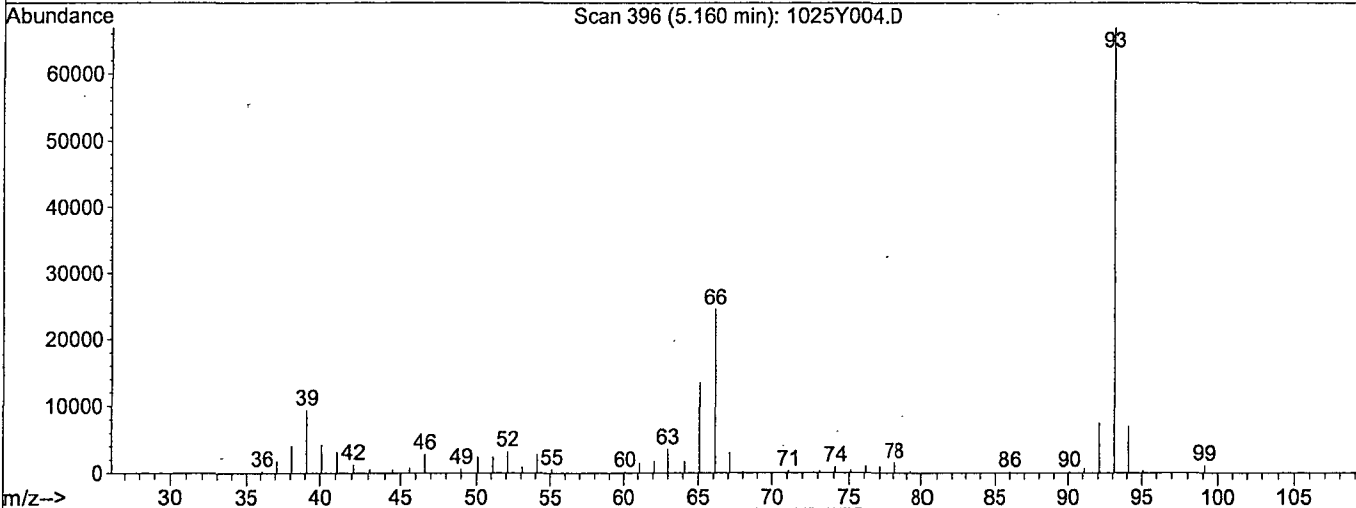
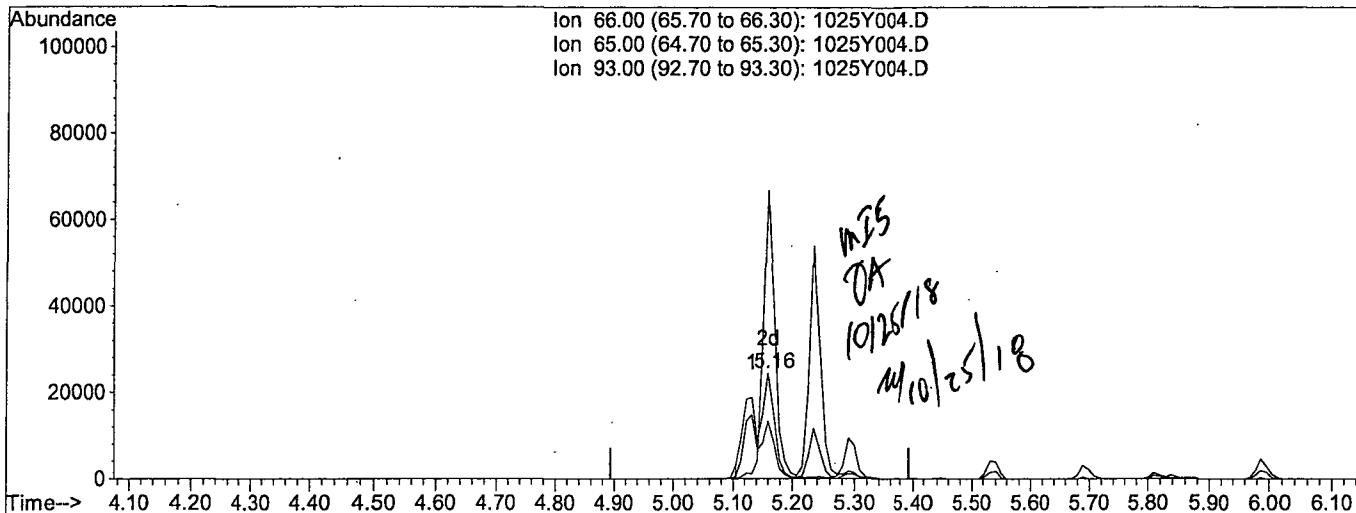
response 32826

Ion	Exp%	Act%
66.00	100	100
65.00	73.00	78.83
93.00	16.80	6.35#
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y004.D Vial: 4  
 Acq On : 25 Oct 18 12:01 Operator: MA  
 Sample : 5ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Oct 25 16:40 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y004.D

(8) Aniline (TM)

5.16min 4.9110ppb m

response 65079

Ion	Exp%	Act%
66.00	100	100
65.00	73.00	54.86
93.00	16.80	272.63#
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y181025\1025Y005.D  
 Acq On : 25 Oct 18 12:28  
 Sample : 10ug/mL 8270 10/18/18  
 Misc :

Vial: 5  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	300232	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1230861	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.01	164	631811	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1201882	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1205751	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	1240435	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	221221	18.94214	ppb	0.00
Spiked Amount 200.000			Recovery =	9.471%		
6) Phenol-D6 (S)	5.12	99	285328	20.43888	ppb	0.00
Spiked Amount 200.000			Recovery =	10.220%		
22) Nitrobenzene-D5 (S)	6.16	82	133193	9.62807	ppb	0.00
Spiked Amount 100.000			Recovery =	9.628%		
46) 2-Fluorobiphenyl (S)	8.22	172	279602	10.54906	ppb	0.00
Spiked Amount 100.000			Recovery =	10.549%		
64) 2,4,6-Tribromophenol (S)	9.94	330	67164	20.84527	ppb	0.00
Spiked Amount 200.000			Recovery =	10.423%		
82) Terphenyl-D14 (S)	12.63	244	328589	10.22856	ppb	0.00
Spiked Amount 100.000			Recovery =	10.229%		

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.75	58	929	1.00388		# 28
3) n-Nitrosodimethylamine	1.98	42	21711	9.58170	ppb	99
4) Pyridine	2.00	79	38193	11.37249	ppb	91
7) Phenol	5.13	94	206906	11.03338	ppb	94
8) Aniline	5.16	66	150183m	11.67874	ppb	1
9) Bis (2-chloroethyl) ether	5.24	63	101174	10.45077	ppb	98
10) 2-Chlorophenol	5.29	128	152294	10.56163	ppb	96
11) 1,3-DCB	5.47	146	161803	10.67379	ppb	98
12) 1,4-DCB	5.56	146	161804	10.65348	ppb	98
13) Benzyl alcohol	5.69	108	96968	10.53145	ppb	98
14) 1,2-DCB	5.73	146	154175	10.69843	ppb	97
15) 2-Methylphenol	5.81	107	120382	10.45634	ppb	97
16) Bis (2-chloroisopropyl) et	5.84	45	193925	10.62578	ppb	95
17) Acetophenone	6.00	105	207799	11.04127	ppb	# 65
18) 3&4-Methylphenol	5.99	107	326662	21.50272	ppb	93
19) n-Nitrosodi-n-propylamine	5.99	70	110886	11.82806	ppb	86
20) Hexachloroethane	6.11	117	59671	10.51312	ppb	97
23) Nitrobenzene	6.19	77	159416	10.46426	ppb	99
24) Isophorone	6.45	82	282118	10.56547	ppb	99
25) 2-Nitrophenol	6.55	139	79727	10.50448	ppb	95
26) 2,4-Dimethylphenol	6.58	122	137297	10.66244	ppb	96
27) Benzoic acid	6.66	105	84326	10.81134	ppb	98
28) Bis (2-chloroethoxy) metha	6.69	93	164934	10.84663	ppb	99
29) 2,4-Dichlorophenol	6.81	162	122464	10.68123	ppb	99
30) 1,2,4-Trichlorobenzene	6.92	180	131536	11.07691	ppb	96
31) 3,4-Dimethylphenol	6.93	107	186695	10.80192	ppb	99
32) Napthalene	7.01	128	438668	10.94097	ppb	99
33) 4-Chloroaniline	7.07	127	176444	12.30075	ppb	96
34) 2,6-Dichlorophenol	7.07	162	119365	11.19004	ppb	99
35) Hexachloropropene	7.10	213	80130	10.15063	ppb	99
36) Hexachlorobutadiene	7.13	225	70672	10.70159	ppb	98
37) Caprolactum	7.46	55	70487	10.16881	ppb	93

(#) = qualifier out of range (m) = manual integration  
 1025Y005.D Y1025NC.M Thu Oct 25 17:29:42 2018

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y005.D  
 Acq On : 25 Oct 18 12:28  
 Sample : 10ug/mL 8270 10/18/18  
 Misc :

Vial: 5  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.61	107	126043	10.41989	ppb	93
39) 2-Methylnaphthalene	7.80	142	276842	10.92661	ppb	99
40) 1-Methylnaphthalene	7.92	142	281584	11.16023	ppb	99
42) Hexachlorocyclopentadiene	7.98	237	51397	8.90604	ppb	96
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	132348	11.12180	ppb	97
44) 2,4,6-Trichlorophenol	8.12	196	87652	10.65793	ppb	97
45) 2,4,5-Trichlorophenol	8.17	196	90992	10.31238	ppb	99
47) 1,1'-Biphenyl	8.34	154	352803	11.35842	ppb	98
48) 2-Chloronaphthalene	8.36	162	273861	10.99149	ppb	100
49) 2-Nitroaniline	8.49	65	86904	10.47296	ppb	98
50) Dimethyl phthalate	8.69	163	310155	10.89603	ppb	99
51) 2,6-DNT	8.76	165	68241	10.69622	ppb	# 76
52) Acenaphthylene	8.85	152	430423	10.88350	ppb	99
53) 3-Nitroaniline	8.97	138	77548	10.73814	ppb	98
54) Acenaphthene	9.05	154	277166	11.51060	ppb	99
55) 2,4-Dinitrophenol	9.10	184	19452	9.77773	ppb	89
56) 4-Nitrophenol	9.16	65	51446	9.82417	ppb	99
57) Dibenzofuran	9.26	168	394310	11.63004	ppb	90
58) 2,4-DNT	9.24	165	92929	11.08363	ppb	89
59) 2,3,4,6-Tetrachlorophenol	9.40	232	75143	10.45294	ppb	98
60) Diethyl phthalate	9.51	149	303842	10.93776	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.66	204	148543	11.35154	ppb	85
62) Fluorene	9.66	166	315913	11.62498	ppb	99
63) 4-Nitroaniline	9.68	138	82137	10.94297	ppb	88
66) 4,6-Dinitro-2-methylphenol	9.71	198	48093	9.38585	ppb	93
67) Diphenyl amine	9.79	169	502110	20.34500	ppb	99
68) n-Nitrosodiphenylamine	9.79	169	502110	20.34500	ppb	99
69) 1,2-Diphenylhydrazine	9.83	77	332208	10.55674	ppb	96
70) 4-Bromophenyl phenyl ether	10.23	248	87774	10.64034	ppb	# 88
71) Hexachlorobenzene	10.30	284	95045	10.83471	ppb	# 86
72) Atrazine	10.41	200	36997	5.22448	ppb	98
73) Pentachlorophenol	10.53	266	47918	9.18154	ppb	95
74) Phenanthrene	10.79	178	467458	10.98724	ppb	99
75) Anthracene	10.84	178	489721	11.24781	ppb	99
76) Carbazol	11.04	167	442898	10.88274	ppb	99
77) Di-n-butylphthalate	11.43	149	506128	10.95897	ppb	99
78) Fluoranthene	12.18	202	495904	10.93795	ppb	97
80) Benzidine	12.34	184	172692	13.26912	ppb	# 97
81) Pyrene	12.45	202	527058	10.66163	ppb	99
83) Butyl benzylphthalate	13.18	149	222487	10.19998	ppb	93
84) 3,3'-Dichlorobenzidine	13.81	252	174217	11.76697	ppb	98
85) Benz (a) anthracene	13.85	228	482577	11.32071	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	319582	11.52940	ppb	97
87) Chrysene	13.89	228	479657	10.67126	ppb	99
88) Di-n-octylphthalate	14.62	149	511451	10.09760	ppb	100
90) Benzo (b) fluoranthene	15.22	252	467753	10.21786	ppb	98
91) Benzo (k) fluoranthene	15.25	252	474686	10.98227	ppb	98
92) Benzo (a) pyrene	15.72	252	432472	10.35493	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.82	276	479114	9.97285	ppb	96
94) Dibenz (a,h) anthracene	17.85	278	418696	10.15110	ppb	97
95) Benzo (g,h,i) perylene	18.43	276	396150	10.06399	ppb	96

Quantitation Report

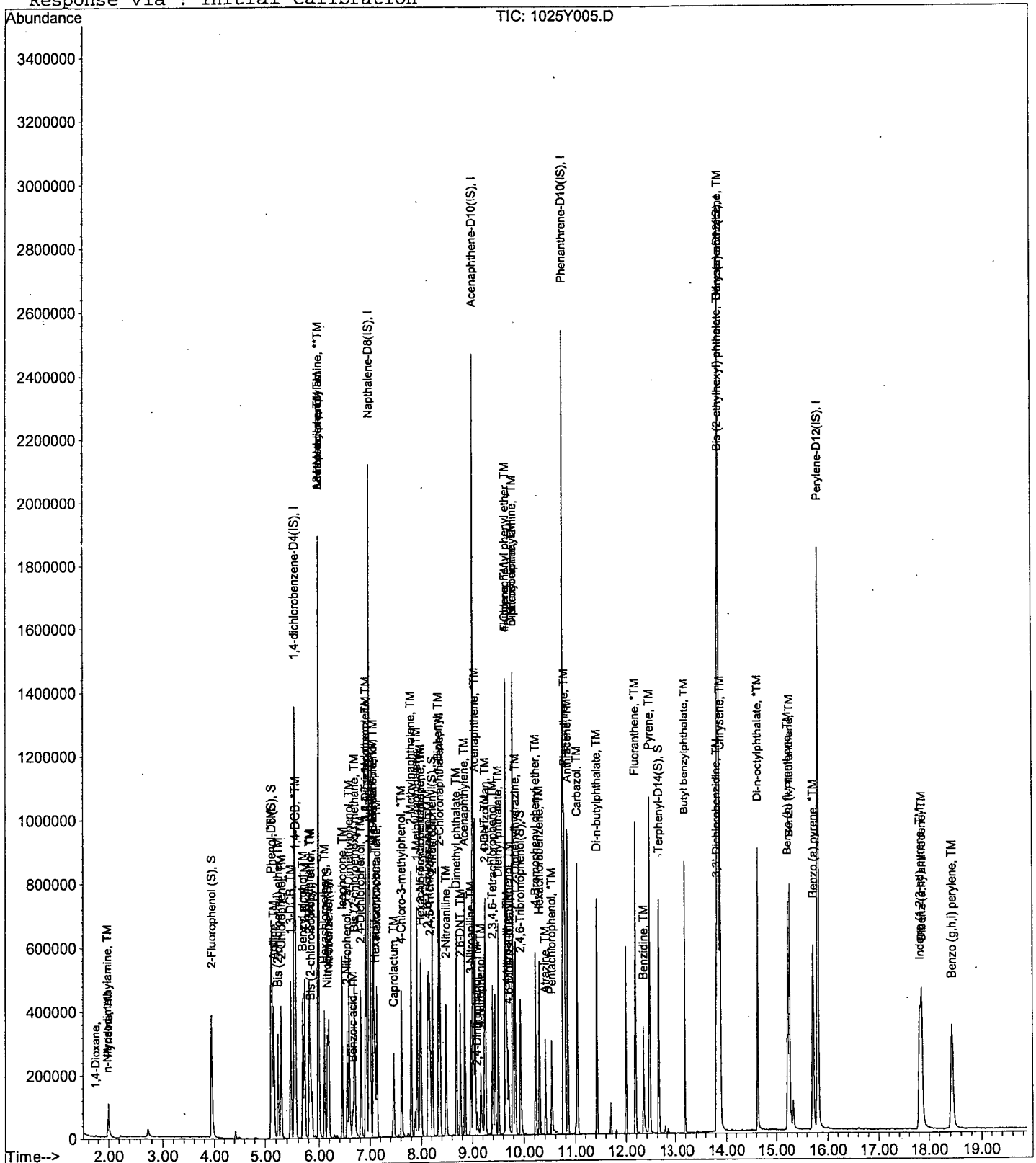
Data File : M:\YODA\DATA\Y181025\1025Y005.D  
Acq On : 25 Oct 18 12:28  
Sample : 10ug/mL 8270 10/18/18  
Misc :

Vial: 5  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



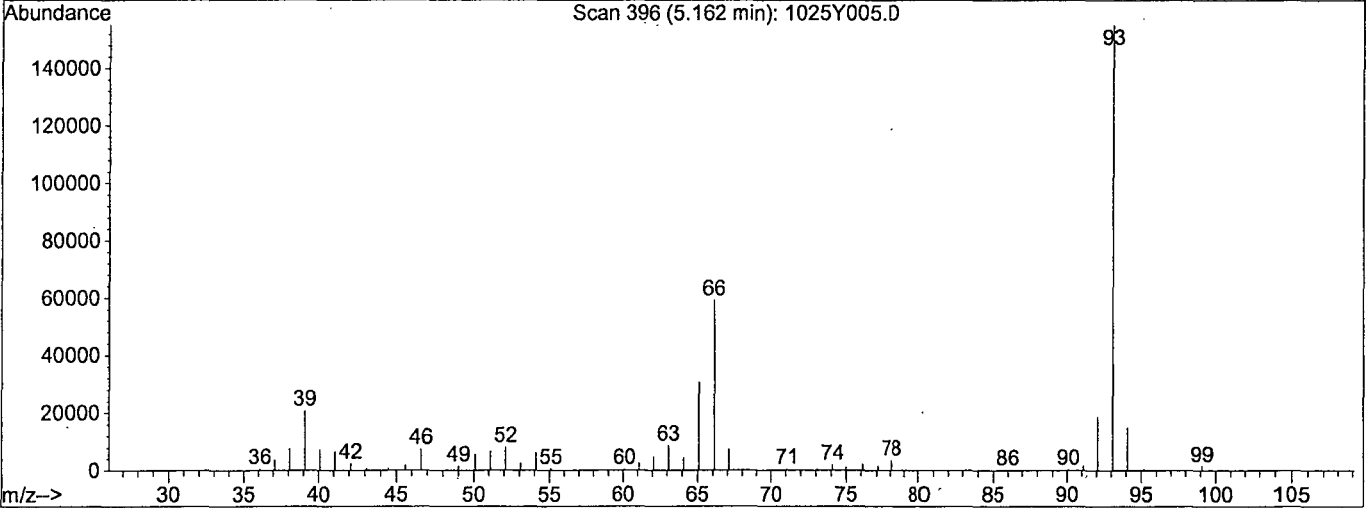
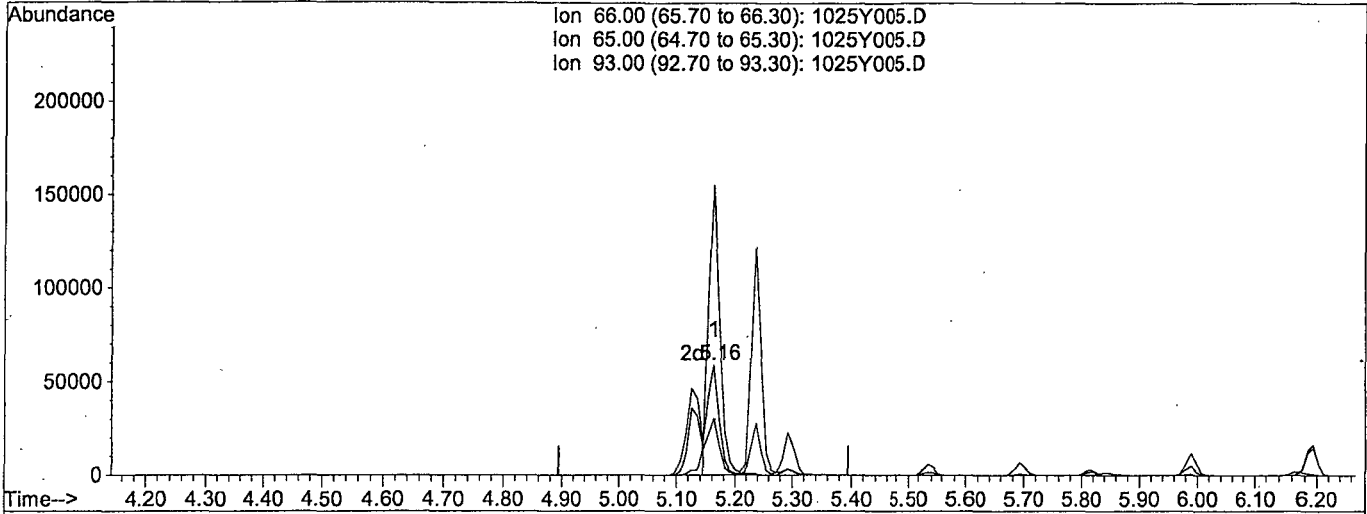


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y005.D  
 Acq On : 25 Oct 18 12:28  
 Sample : 10ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 14:36 2018

Vial: 5  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y005.D

(8) Aniline (TM)

5.16min 6.2649ppb

response 80563

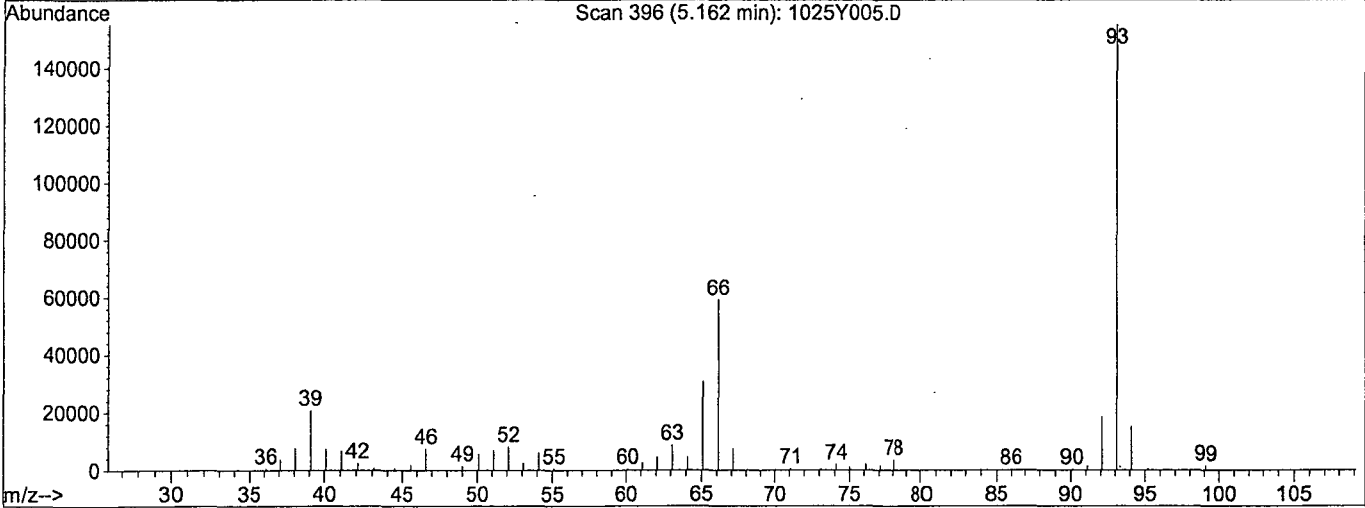
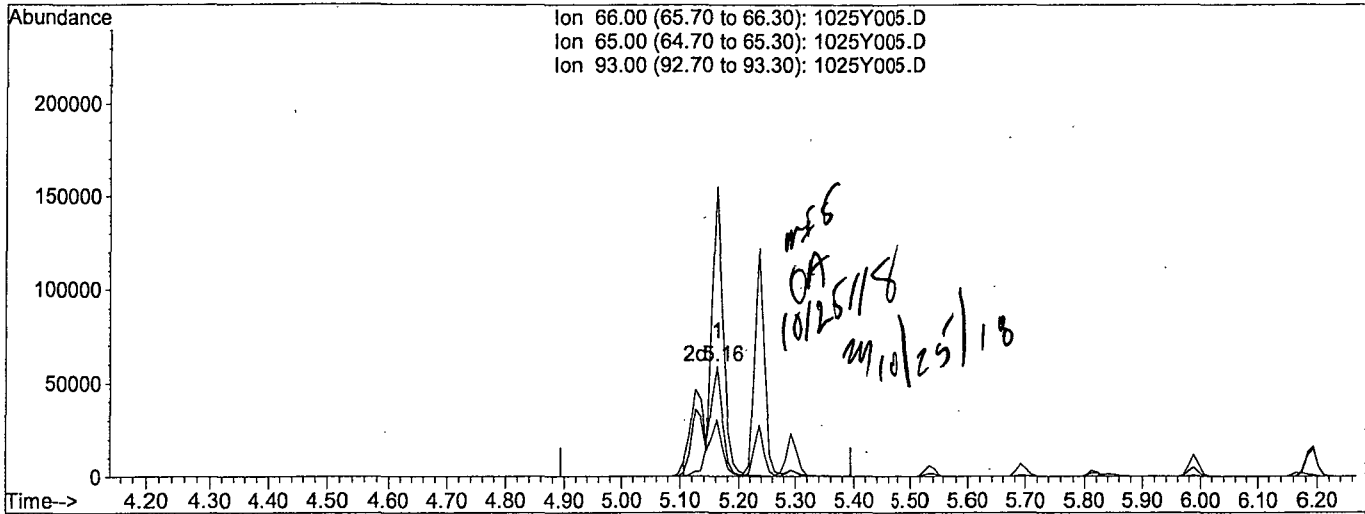
Ion	Exp%	Act%
66.00	100	100
65.00	73.00	50.79#
93.00	16.80	258.44#
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y005.D  
 Acq On : 25 Oct 18 12:28  
 Sample : 10ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:40 2018

Vial: 5  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y005.D

(8) Aniline (TM)		
5.16min	11.6787ppb	m
response	150183	
Ion	Exp%	Act%
66.00	100	100
65.00	73.00	51.84
93.00	16.80	262.84#
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y181025\1025Y006.D  
 Acq On : 25 Oct 18 12:56  
 Sample : 20ug/mL 8270 10/18/18  
 Misc :

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:41 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	290382	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1223444	40.00000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	629900	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1204770	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1181082	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	1220701	40.00000	ppb	-0.01

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.94	112	490073	43.37727	ppb	0.00
Spiked Amount	200.000		Recovery	=	21.689%	
6) Phenol-D6 (S)	5.11	99	607802	45.05458	ppb	-0.01
Spiked Amount	200.000		Recovery	=	22.528%	
22) Nitrobenzene-D5 (S)	6.17	82	286469	20.83144	ppb	0.00
Spiked Amount	100.000		Recovery	=	20.831%	
46) 2-Fluorobiphenyl (S)	8.22	172	573636	21.68875	ppb	0.00
Spiked Amount	100.000		Recovery	=	21.689%	
64) 2,4,6-Tribromophenol (S)	9.94	330	143138	44.65770	ppb	-0.01
Spiked Amount	200.000		Recovery	=	22.329%	
82) Terphenyl-D14 (S)	12.62	244	675637	21.47388	ppb	0.00
Spiked Amount	100.000		Recovery	=	21.474%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	2020	2.21754		95
3) n-Nitrosodimethylamine	1.98	42	42026	19.06529	ppb	96
4) Pyridine	1.99	79	63452	19.10237	ppb	92
7) Phenol	5.13	94	409389	22.56257	ppb	91
8) Aniline	5.16	66	306972m	25.94663	ppb	92
9) Bis (2-chloroethyl) ether	5.23	63	198837	21.22817	ppb	99
10) 2-Chlorophenol	5.29	128	298595	21.37682	ppb	95
11) 1,3-DCB	5.47	146	317791	21.68657	ppb	99
12) 1,4-DCB	5.56	146	316843	21.58129	ppb	99
13) Benzyl alcohol	5.70	108	192921	21.56642	ppb	94
14) 1,2-DCB	5.73	146	300114	21.53440	ppb	99
15) 2-Methylphenol	5.82	107	237023	21.28708	ppb	97
16) Bis (2-chloroisopropyl) et	5.84	45	379752	21.51483	ppb	95
17) Acetophenone	6.00	105	382272	24.76023	ppb	80
18) 3&4-Methylphenol	5.99	107	586631	50.98185	ppb	95
19) n-Nitrosodi-n-propylamine	6.00	70	205387	22.64950	ppb	86
20) Hexachloroethane	6.11	117	116876	21.29903	ppb	97
23) Nitrobenzene	6.19	77	314344	20.77440	ppb	97
24) Isophorone	6.45	82	559872	21.08450	ppb	96
25) 2-Nitrophenol	6.54	139	161628	21.33251	ppb	94
26) 2,4-Dimethylphenol	6.59	122	271081	21.19767	ppb	96
27) Benzoic acid	6.69	105	202378	20.35540	ppb	97
28) Bis (2-chloroethoxy) metha	6.69	93	316442	20.92408	ppb	100
29) 2,4-Dichlorophenol	6.82	162	239229	21.04386	ppb	95
30) 1,2,4-Trichlorobenzene	6.91	180	251353	21.31809	ppb	98
31) 3,4-Dimethylphenol	6.92	107	370196	21.57853	ppb	99
32) Naphthalene	7.01	128	845753	21.25336	ppb	100
33) 4-Chloroaniline	7.07	127	340170	23.24506	ppb	94
34) 2,6-Dichlorophenol	7.07	162	234656	22.23655	ppb	97
35) Hexachloropropene	7.10	213	166441	21.28804	ppb	98
36) Hexachlorobutadiene	7.14	225	137304	20.94525	ppb	100
37) Caprolactum	7.47	55	145853	21.26970	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1025Y006.D Y1025NC.M Thu Oct 25 17:29:33 2018

Data File : M:\YODA\DATA\Y181025\1025Y006.D  
 Acq On : 25 Oct 18 12:56  
 Sample : 20ug/mL 8270 10/18/18  
 Misc :

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:41 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.62	107	256526	21.38628	ppb	99
39) 2-Methylnaphthalene	7.80	142	536219	21.36229	ppb	98
40) 1-Methylnaphthalene	7.92	142	547012	21.77716	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	120772	21.00856	ppb	98
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	261867	22.08838	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	176463	21.55275	ppb	98
45) 2,4,5-Trichlorophenol	8.18	196	187473	21.41641	ppb	98
47) 1,1'-Biphenyl	8.34	154	683309	22.07949	ppb	98
48) 2-Chloronaphthalene	8.37	162	543325	21.89555	ppb	96
49) 2-Nitroaniline	8.48	65	175336	21.17902	ppb	96
50) Dimethyl phthalate	8.69	163	604425	21.31030	ppb	99
51) 2,6-DNT	8.77	165	139132	21.81691	ppb	94
52) Acenaphthylene	8.86	152	869059	22.09946	ppb	99
53) 3-Nitroaniline	8.97	138	160814	22.21857	ppb	98
54) Acenaphthene	9.05	154	525829	21.82990	ppb	99
55) 2,4-Dinitrophenol	9.10	184	64350	20.18899	ppb	90
56) 4-Nitrophenol	9.16	65	113018	21.37567	ppb	98
57) Dibenzofuran	9.25	168	750248	22.14745	ppb	93
58) 2,4-DNT	9.24	165	190755	22.75923	ppb	95
59) 2,3,4,6-Tetrachlorophenol	9.39	232	155081	21.62025	ppb	96
60) Diethyl phthalate	9.51	149	595935	21.52627	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.65	204	283357	21.76006	ppb	90
62) Fluorene	9.65	166	604520	22.33864	ppb	99
63) 4-Nitroaniline	9.68	138	164058	21.74134	ppb	96
66) 4,6-Dinitro-2-methylphenol	9.72	198	114155	22.13697	ppb	# 81
67) Diphenyl amine	9.79	169	956412	38.77147	ppb	99
68) n-Nitrosodiphenylamine	9.79	169	956412	38.77147	ppb	99
69) 1,2-Diphenylhydrazine	9.84	77	649971	20.60106	ppb	92
70) 4-Bromophenyl phenyl ether	10.23	248	174149	21.07741	ppb	93
71) Hexachlorobenzene	10.29	284	186511	21.24507	ppb	91
72) Atrazine	10.41	200	73704	10.39108	ppb	96
73) Pentachlorophenol	10.54	266	108637	20.77287	ppb	98
74) Phenanthrene	10.79	178	915505	21.55342	ppb	99
75) Anthracene	10.85	178	943897	21.63629	ppb	99
76) Carbazol	11.04	167	850675	20.89859	ppb	100
77) Di-n-butylphthalate	11.43	149	1009471	21.85094	ppb	99
78) Fluoranthene	12.19	202	974932	21.45718	ppb	98
80) Benzidine	12.35	184	353619	23.38081	ppb	99
81) Pyrene	12.46	202	1037225	21.42193	ppb	99
83) Butyl benzylphthalate	13.19	149	455845	21.34257	ppb	93
84) 3,3'-Dichlorobenzidine	13.82	252	360616	24.23295	ppb	98
85) Benz (a) anthracene	13.85	228	948804	22.72143	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	624664	23.08335	ppb	99
87) Chrysene	13.90	228	920508	20.92565	ppb	100
88) Di-n-octylphthalate	14.62	149	1042686	21.03047	ppb	94
90) Benzo (b) fluoranthene	15.22	252	988569	21.92385	ppb	99
91) Benzo (k) fluoranthene	15.26	252	890455	20.93840	ppb	99
92) Benzo (a) pyrene	15.72	252	868827	21.10545	ppb	98
93) Indeno (1,2,3-cd) pyrene	17.82	276	991343	21.01223	ppb	98
94) Dibenz (a,h) anthracene	17.87	278	870568	21.47174	ppb	99
95) Benzo (g,h,i) perylene	18.44	276	805511	20.82183	ppb	99

Quantitation Report

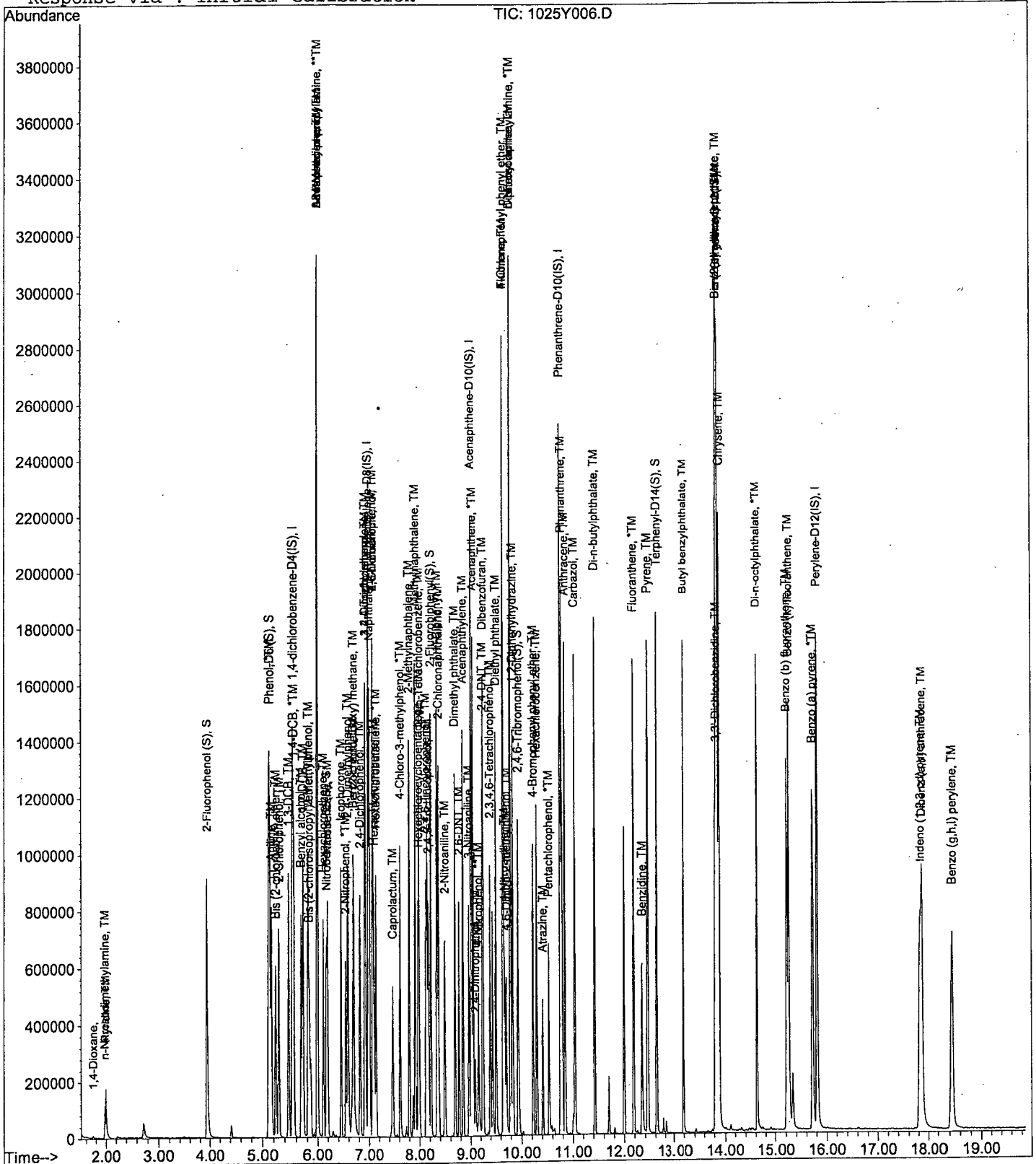
Data File : M:\YODA\DATA\Y181025\1025Y006.D  
Acq On : 25 Oct 18 12:56  
Sample : 20ug/mL 8270 10/18/18  
Misc :

Vial: 6  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:41 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration

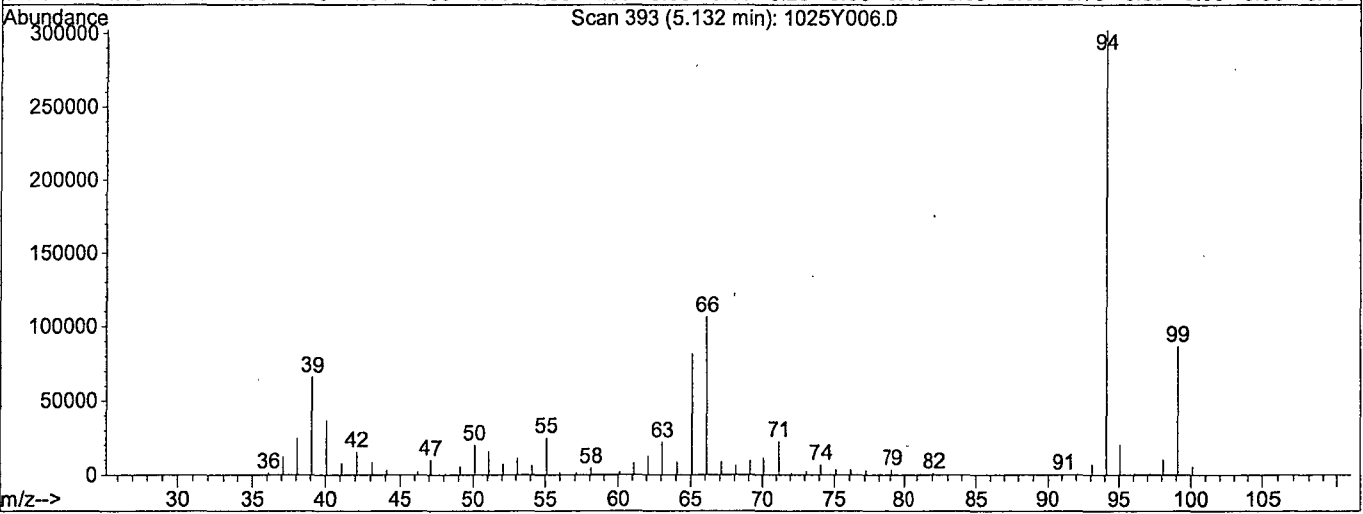
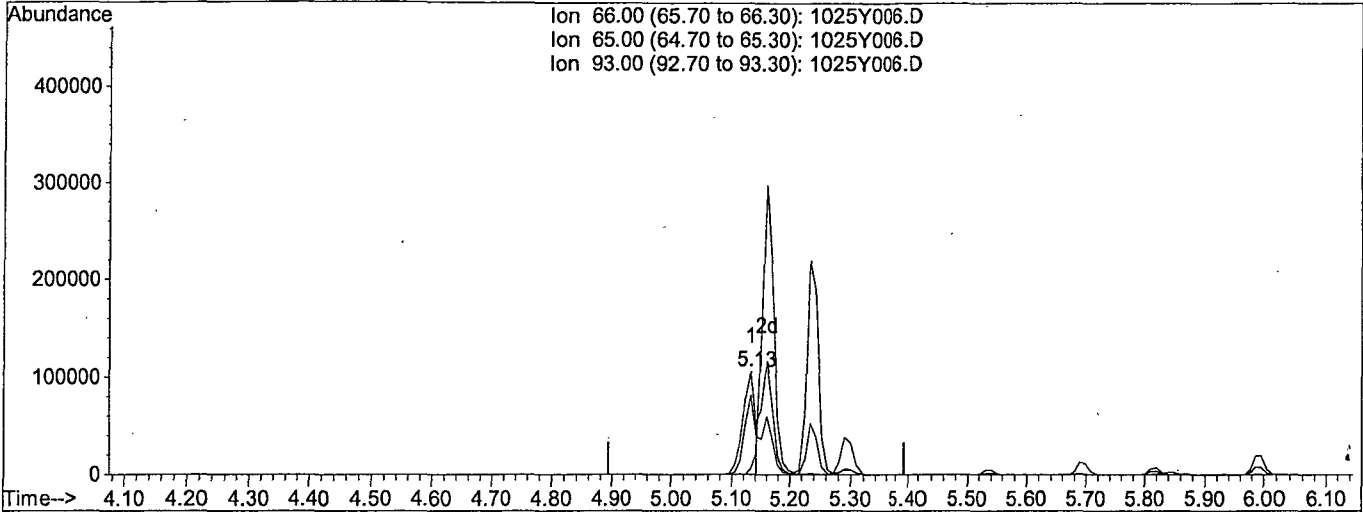


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y006.D  
 Acq On : 25 Oct 18 12:56  
 Sample : 20ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 14:36 2018

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y006.D

(8) Aniline (TM)

5.13min 13.2238ppb

response 156450

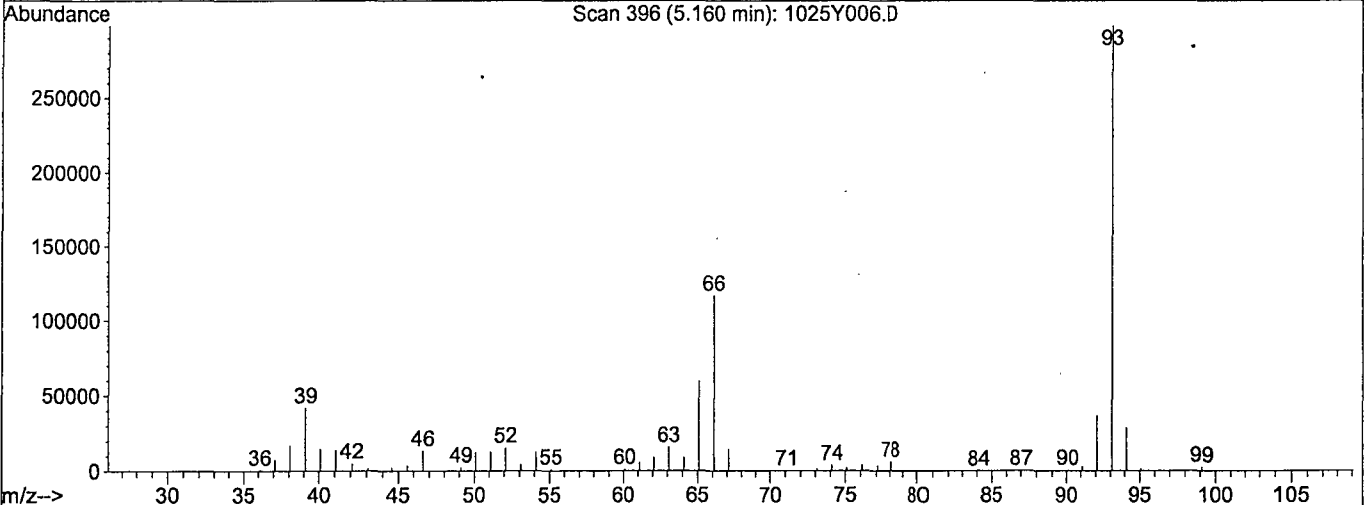
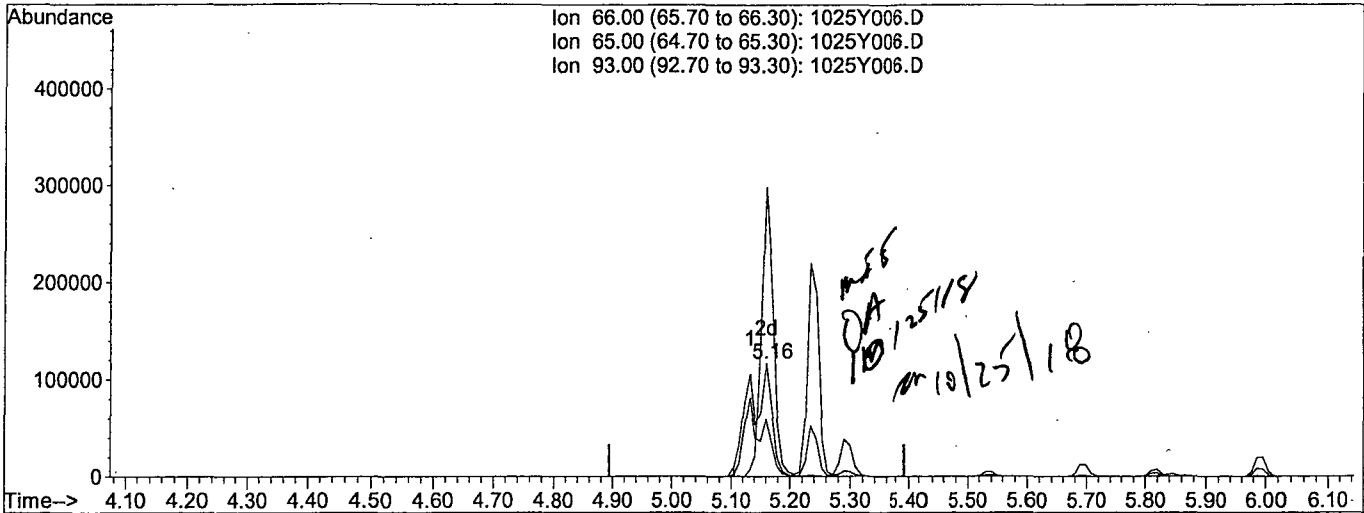
Ion	Exp%	Act%
66.00	100	100
65.00	73.00	76.89
93.00	16.80	6.73#
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y006.D  
 Acq On : 25 Oct 18 12:56  
 Sample : 20ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:41 2018

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y006.D

(8) Aniline (TM)		
5.16min	25.9466ppb	m
response	306972	
Ion	Exp%	Act%
66.00	100	100
65.00	73.00	50.95#
93.00	16.80	255.04#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y007.D  
 Acq On : 25 Oct 18 13:24  
 Sample : 40ug/mL 8270 10/18/18  
 Misc :

Vial: 7  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 14:36 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	318018	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1294060	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	666705	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1245079	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1191788	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1280764	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.94	112	1010384	81.59307	ppb	0.00
Spiked Amount 200.000			Recovery =	40.797%		
6) Phenol-D6 (S)	5.12	99	1176481	79.46738	ppb	0.00
Spiked Amount 200.000			Recovery =	39.734%		
22) Nitrobenzene-D5 (S)	6.17	82	582928	40.21356	ppb	0.00
Spiked Amount 100.000			Recovery =	40.214%		
46) 2-Fluorobiphenyl (S)	8.22	172	1102793	39.41556	ppb	0.00
Spiked Amount 100.000			Recovery =	39.416%		
64) 2,4,6-Tribromophenol (S)	9.95	330	280665	82.93676	ppb	0.00
Spiked Amount 200.000			Recovery =	41.469%		
82) Terphenyl-D14 (S)	12.62	244	1266713	39.94442	ppb	0.00
Spiked Amount 100.000			Recovery =	39.944%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	3677	3.67592		97
3) n-Nitrosodimethylamine	1.98	42	100802	41.95571	ppb	100
4) Pyridine	1.99	79	145029	40.25904	ppb	93
7) Phenol	5.14	94	790588	39.71079	ppb	95
8) Aniline	5.14	66	628810	51.73854	ppb	97
9) Bis (2-chloroethyl) ether	5.24	63	395928	38.56012	ppb	97
10) 2-Chlorophenol	5.30	128	596775	38.87640	ppb	99
11) 1,3-DCB	5.48	146	619939	38.52312	ppb	100
12) 1,4-DCB	5.56	146	638372	39.61299	ppb	98
13) Benzyl alcohol	5.70	108	385142	39.26432	ppb	99
14) 1,2-DCB	5.73	146	585503	38.26801	ppb	99
15) 2-Methylphenol	5.82	107	491626	40.21265	ppb	98
16) Bis (2-chloroisopropyl) et	5.85	45	763870	39.43313	ppb	93
17) Acetophenone	6.01	105	645527	40.38143	ppb	81
18) 3&4-Methylphenol	6.00	107	983419	85.13996	ppb	98
19) n-Nitrosodi-n-propylamine	6.01	70	363553	36.40816	ppb	88
20) Hexachloroethane	6.11	117	232599	38.58005	ppb	97
23) Nitrobenzene	6.19	77	635205	39.86102	ppb	93
24) Isophorone	6.46	82	1106500	39.50287	ppb	98
25) 2-Nitrophenol	6.55	139	325742	40.65749	ppb	99
26) 2,4-Dimethylphenol	6.59	122	540521	40.09089	ppb	97
27) Benzoic acid	6.72	105	461041	39.47378	ppb	97
28) Bis (2-chloroethoxy) metha	6.70	93	620310	38.99171	ppb	99
29) 2,4-Dichlorophenol	6.82	162	476984	39.83231	ppb	98
30) 1,2,4-Trichlorobenzene	6.92	180	491077	39.55043	ppb	98
31) 3,4-Dimethylphenol	6.93	107	723882	39.94000	ppb	97
32) Napthalene	7.01	128	1667378	39.74317	ppb	100
33) 4-Chloroaniline	7.07	127	626753	39.96712	ppb	98
34) 2,6-Dichlorophenol	7.08	162	438666	39.45736	ppb	98
35) Hexachloropropene	7.10	213	333703	40.48736	ppb	99
36) Hexachlorobutadiene	7.14	225	275831	39.98878	ppb	96
37) Caprolactum	7.49	55	293160	40.49900	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y007.D Y1025NC.M Thu Oct 25 17:29:53 2018



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y007.D  
 Acq On : 25 Oct 18 13:24  
 Sample : 40ug/mL 8270 10/18/18  
 Misc :

Vial: 7  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 14:36 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.62	107	501052	39.54708	ppb	94
39) 2-Methylnaphthalene	7.81	142	1044016	39.57169	ppb	100
40) 1-Methylnaphthalene	7.92	142	1035684	39.08276	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	276017	45.51106	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	501748	39.97453	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	349193	40.28802	ppb	97
45) 2,4,5-Trichlorophenol	8.18	196	365033	39.44211	ppb	96
47) 1,1'-Biphenyl	8.34	154	1313687	40.19664	ppb	99
48) 2-Chloronaphthalene	8.37	162	1035114	39.42092	ppb	99
49) 2-Nitroaniline	8.49	65	361980	41.26398	ppb	95
50) Dimethyl phthalate	8.70	163	1200934	40.05736	ppb	100
51) 2,6-DNT	8.77	165	283467	41.88994	ppb	# 77
52) Acenaphthylene	8.86	152	1716029	41.20615	ppb	99
53) 3-Nitroaniline	8.98	138	314968	40.87729	ppb	96
54) Acenaphthene	9.06	154	999581	39.22237	ppb	100
55) 2,4-Dinitrophenol	9.10	184	154249	39.02320	ppb	98
56) 4-Nitrophenol	9.17	65	243516	43.12342	ppb	99
57) Dibenzofuran	9.25	168	1426743	39.85636	ppb	98
58) 2,4-DNT	9.25	165	371114	41.78144	ppb	96
59) 2,3,4,6-Tetrachlorophenol	9.40	232	315102	41.51349	ppb	97
60) Diethyl phthalate	9.51	149	1161119	39.70067	ppb	98
61) 4-Chlorophenyl phenyl ethe	9.65	204	507141	36.80762	ppb	96
62) Fluorene	9.66	166	1086613	37.92570	ppb	99
63) 4-Nitroaniline	9.70	138	319922	39.79147	ppb	89
66) 4,6-Dinitro-2-methylphenol	9.73	198	239355	44.72343	ppb	# 79
67) Diphenyl amine	9.80	169	1705706	67.00904	ppb	98
68) n-Nitrosodiphenylamine	9.80	169	1705706	67.00904	ppb	98
69) 1,2-Diphenylhydrazine	9.84	77	1272463	39.16968	ppb	99
70) 4-Bromophenyl phenyl ether	10.23	248	340841	40.13013	ppb	97
71) Hexachlorobenzene	10.29	284	354740	39.28942	ppb	98
72) Atrazine	10.41	200	155235	21.33653	ppb	97
73) Pentachlorophenol	10.54	266	231100	42.95095	ppb	99
74) Phenanthrene	10.79	178	1749355	40.00535	ppb	100
75) Anthracene	10.85	178	1782539	39.68801	ppb	99
76) Carbazol	11.05	167	1675104	40.06149	ppb	99
77) Di-n-butylphthalate	11.43	149	1943518	40.76549	ppb	100
78) Fluoranthene	12.19	202	1845733	39.45176	ppb	99
80) Benzidine	12.35	184	677888	41.42354	ppb	100
81) Pyrene	12.46	202	1968970	40.26998	ppb	100
83) Butyl benzylphthalate	13.19	149	894703	41.54886	ppb	98
84) 3,3'-Dichlorobenzidine	13.82	252	663209	42.95692	ppb	99
85) Benz (a) anthracene	13.86	228	1631151	38.51858	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1111031	40.66159	ppb	99
87) Chrysene	13.90	228	1773653	40.13804	ppb	99
88) Di-n-octylphthalate	14.63	149	2107342	42.13889	ppb	98
90) Benzo (b) fluoranthene	15.22	252	1816648	37.99937	ppb	99
91) Benzo (k) fluoranthene	15.27	252	1891672	42.87610	ppb	99
92) Benzo (a) pyrene	15.73	252	1759365	40.70527	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.83	276	2006266	40.51838	ppb	98
94) Dibenz (a,h) anthracene	17.88	278	1746636	40.99599	ppb	98
95) Benzo (g,h,i) perylene	18.46	276	1666927	41.10992	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y007.D Y1025NC.M Thu Oct 25 17:29:52 2018

Quantitation Report

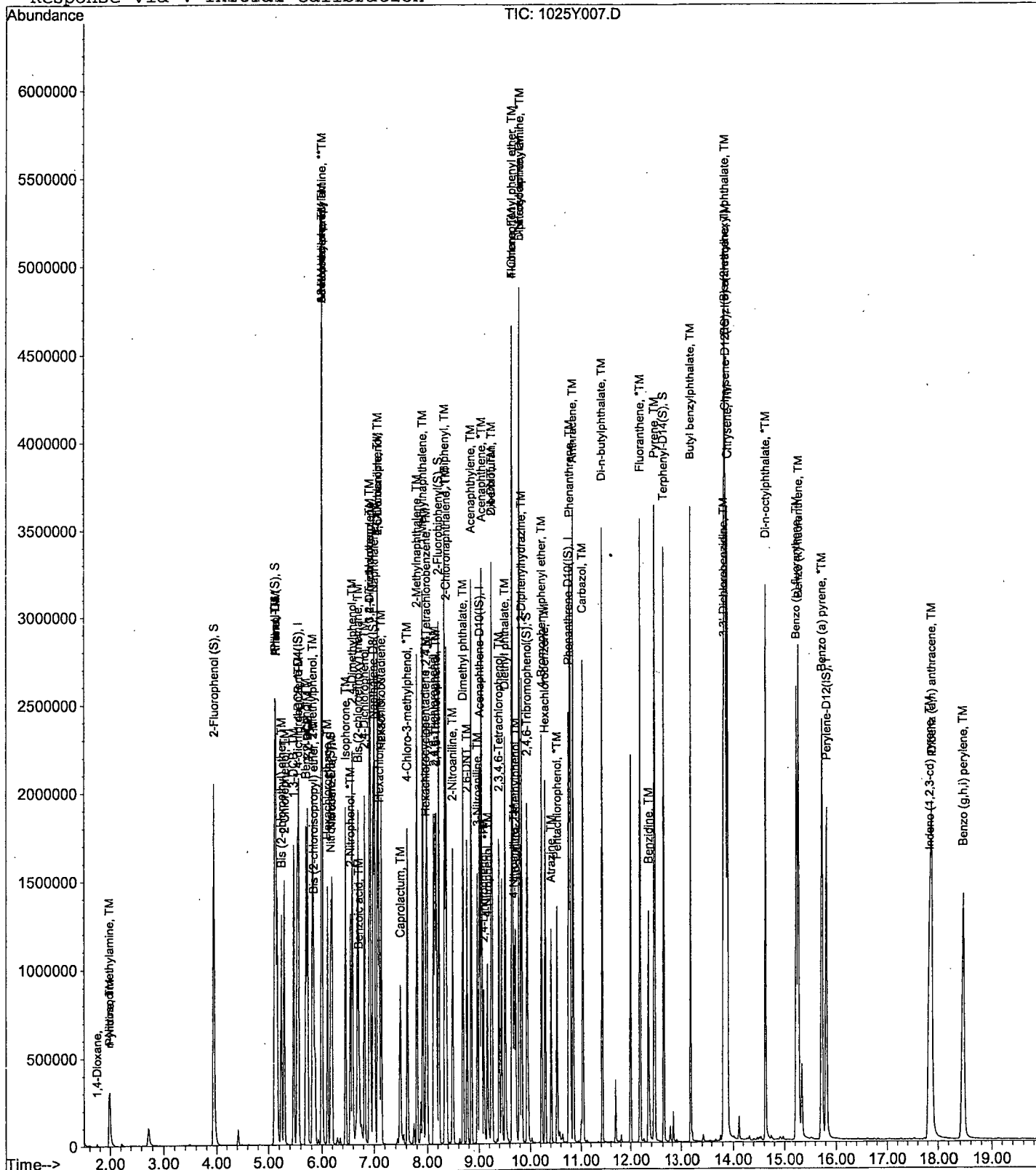
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Acq On : 25 Oct 18 13:24  
Sample : 40ug/mL 8270 10/18/18  
Misc :

Vial: 7  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 14:36 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y008.D  
 Acq On : 25 Oct 18 13:52  
 Sample : 50ug/mL 8270 10/18/18  
 Misc :

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:06 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	354562	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1447172	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	756305	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1417504	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1348063	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1457106	40.00000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol (S)	3.95	112	1476673	105.59151	ppb	0.00
Spiked Amount 200.000			Recovery =	52.796%		
6) Phenol-D6 (S)	5.13	99	1720681	103.75090	ppb	0.00
Spiked Amount 200.000			Recovery =	51.876%		
22) Nitrobenzene-D5 (S)	6.17	82	904668	54.71817	ppb	0.00
Spiked Amount 100.000			Recovery =	54.718%		
46) 2-Fluorobiphenyl (S)	8.23	172	1650975	52.03860	ppb	0.00
Spiked Amount 100.000			Recovery =	52.039%		
64) 2,4,6-Tribromophenol (S)	9.95	330	409016	104.48747	ppb	0.00
Spiked Amount 200.000			Recovery =	52.244%		
82) Terphenyl-D14 (S)	12.63	244	1869638	51.62897	ppb	0.00
Spiked Amount 100.000			Recovery =	51.629%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	5509	4.96554		100
3) n-Nitrosodimethylamine	1.98	42	151913	56.77704	ppb	100
4) Pyridine	1.99	79	224654	53.95160	ppb	100
7) Phenol	5.14	94	1064541	48.04938	ppb	100
8) Aniline	5.14	66	888774	52.62143	ppb	100
9) Bis (2-chloroethyl) ether	5.25	63	563104	48.65181	ppb	100
10) 2-Chlorophenol	5.30	128	840944	49.34459	ppb	100
11) 1,3-DCB	5.48	146	856664	47.67136	ppb	100
12) 1,4-DCB	5.56	146	844788	47.12906	ppb	100
13) Benzyl alcohol	5.70	108	548899	49.80860	ppb	100
14) 1,2-DCB	5.73	146	813072	47.86788	ppb	100
15) 2-Methylphenol	5.82	107	662132	48.75806	ppb	100
16) Bis (2-chloroisopropyl) et	5.84	45	1063565	48.91484	ppb	100
17) Acetophenone	6.01	105	837712	48.57460	ppb	100
18) 3&4-Methylphenol	6.01	107	1271955	96.38878	ppb	100
19) n-Nitrosodi-n-propylamine	6.01	70	516912	45.78402	ppb	100
20) Hexachloroethane	6.11	117	327022	48.38896	ppb	100
23) Nitrobenzene	6.20	77	899117	49.58439	ppb	100
24) Isophorone	6.47	82	1584593	49.74787	ppb	100
25) 2-Nitrophenol	6.56	139	461968	50.94462	ppb	100
26) 2,4-Dimethylphenol	6.59	122	745372	48.90901	ppb	100
27) Benzoic acid	6.74	105	705002	52.14223	ppb	100
28) Bis (2-chloroethoxy) metha	6.70	93	877816	48.91333	ppb	100
29) 2,4-Dichlorophenol	6.82	162	672319	49.76393	ppb	100
30) 1,2,4-Trichlorobenzene	6.92	180	670646	47.78272	ppb	100
31) 3,4-Dimethylphenol	6.94	107	1022611	49.57535	ppb	100
32) Napthalene	7.01	128	2265416	48.24380	ppb	100
33) 4-Chloroaniline	7.08	127	849844	52.65530	ppb	100
34) 2,6-Dichlorophenol	7.08	162	589534	47.52855	ppb	100
35) Hexachloropropene	7.10	213	479179	50.88754	ppb	100
36) Hexachlorobutadiene	7.14	225	376623	48.19772	ppb	100
37) Caprolactum	7.51	55	424032	51.35549	ppb	100

(#) = qualifier out of range (m) = manual integration  
 1025Y008.D Y1025NC.M Thu Oct 25 17:29:33 2018

## Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y008.D  
 Acq On : 25 Oct 18 13:52  
 Sample : 50ug/mL 8270 10/18/18  
 Misc :

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:06 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	727515	50.35943	ppb	100
39) 2-Methylnaphthalene	7.81	142	1444015	48.36749	ppb	100
40) 1-Methylnaphthalene	7.92	142	1420373	47.88072	ppb	100
42) Hexachlorocyclopentadiene	7.98	237	409755	52.90002	ppb	100
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	691484	48.42004	ppb	100
44) 2,4,6-Trichlorophenol	8.13	196	502528	50.42615	ppb	100
45) 2,4,5-Trichlorophenol	8.19	196	518787	48.64596	ppb	100
47) 1,1'-Biphenyl	8.35	154	1773411	47.45435	ppb	100
48) 2-Chloronaphthalene	8.37	162	1456928	48.67684	ppb	100
49) 2-Nitroaniline	8.50	65	525275	51.89217	ppb	100
50) Dimethyl phthalate	8.70	163	1698457	49.27260	ppb	100
51) 2,6-DNT	8.78	165	411620	52.25122	ppb	100
52) Acenaphthylene	8.86	152	2346114	49.34103	ppb	100
53) 3-Nitroaniline	8.98	138	454608	52.53829	ppb	100
54) Acenaphthene	9.06	154	1394818	48.42040	ppb	100
55) 2,4-Dinitrophenol	9.10	184	245054m	50.15466	ppb	100
56) 4-Nitrophenol	9.17	65	367119	54.28665	ppb	100
57) Dibenzofuran	9.26	168	1899351	47.39435	ppb	100
58) 2,4-DNT	9.25	165	506947	50.25700	ppb	100
59) 2,3,4,6-Tetrachlorophenol	9.41	232	445166	51.06694	ppb	100
60) Diethyl phthalate	9.53	149	1622457	48.90323	ppb	100
61) 4-Chlorophenyl phenyl ethe	9.66	204	666818	42.48780	ppb	100
62) Fluorene	9.67	166	1445397	43.28437	ppb	100
63) 4-Nitroaniline	9.70	138	469650	51.95553	ppb	100
66) 4,6-Dinitro-2-methylphenol	9.73	198	356560	52.86526	ppb	100
67) Diphenyl amine	9.80	169	2296953	87.01306	ppb	100
68) n-Nitrosodiphenylamine	9.80	169	2296953	87.01306	ppb	100
69) 1,2-Diphenylhydrazine	9.84	77	1815288	47.50217	ppb	100
70) 4-Bromophenyl phenyl ether	10.23	248	480817	48.91480	ppb	100
71) Hexachlorobenzene	10.30	284	500118	48.42322	ppb	100
72) Atrazine	10.42	200	224418	25.25951	ppb	100
73) Pentachlorophenol	10.54	266	347169	54.52541	ppb	100
74) Phenanthrene	10.80	178	2376811	47.44496	ppb	100
75) Anthracene	10.85	178	2459721	47.83999	ppb	100
76) Carbazol	11.05	167	2362634	49.15594	ppb	100
77) Di-n-butylphthalate	11.43	149	2759688	49.89746	ppb	100
78) Fluoranthene	12.19	202	2602957	48.67849	ppb	100
80) Benzidine	12.35	184	974885	52.83900	ppb	100
81) Pyrene	12.46	202	2732069	49.05629	ppb	100
83) Butyl benzylphthalate	13.19	149	1254571	50.75033	ppb	100
84) 3,3'-Dichlorobenzidine	13.82	252	925602	56.63971	ppb	100
85) Benz (a) anthracene	13.86	228	2171520	45.68871	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1473034	46.58588	ppb	100
87) Chrysene	13.91	228	2396929	47.76659	ppb	100
88) Di-n-octylphthalate	14.63	149	3007984	51.72394	ppb	100
90) Benzo (b) fluoranthene	15.24	252	2907202	53.18449	ppb	100
91) Benzo (k) fluoranthene	15.27	252	2512664	48.86356	ppb	100
92) Benzo (a) pyrene	15.74	252	2538131	51.25869	ppb	100
93) Indeno (1,2,3-cd) pyrene	17.85	276	2961769	51.47471	ppb	100
94) Dibenz (a,h) anthracene	17.90	278	2528524	51.75953	ppb	100
95) Benzo (g,h,i) perylene	18.48	276	2308238	49.24625	ppb	100

(#) = qualifier out of range (m) = manual integration  
 1025Y008.D Y1025NC.M Thu Oct 25 17:29:56 2018

Quantitation Report

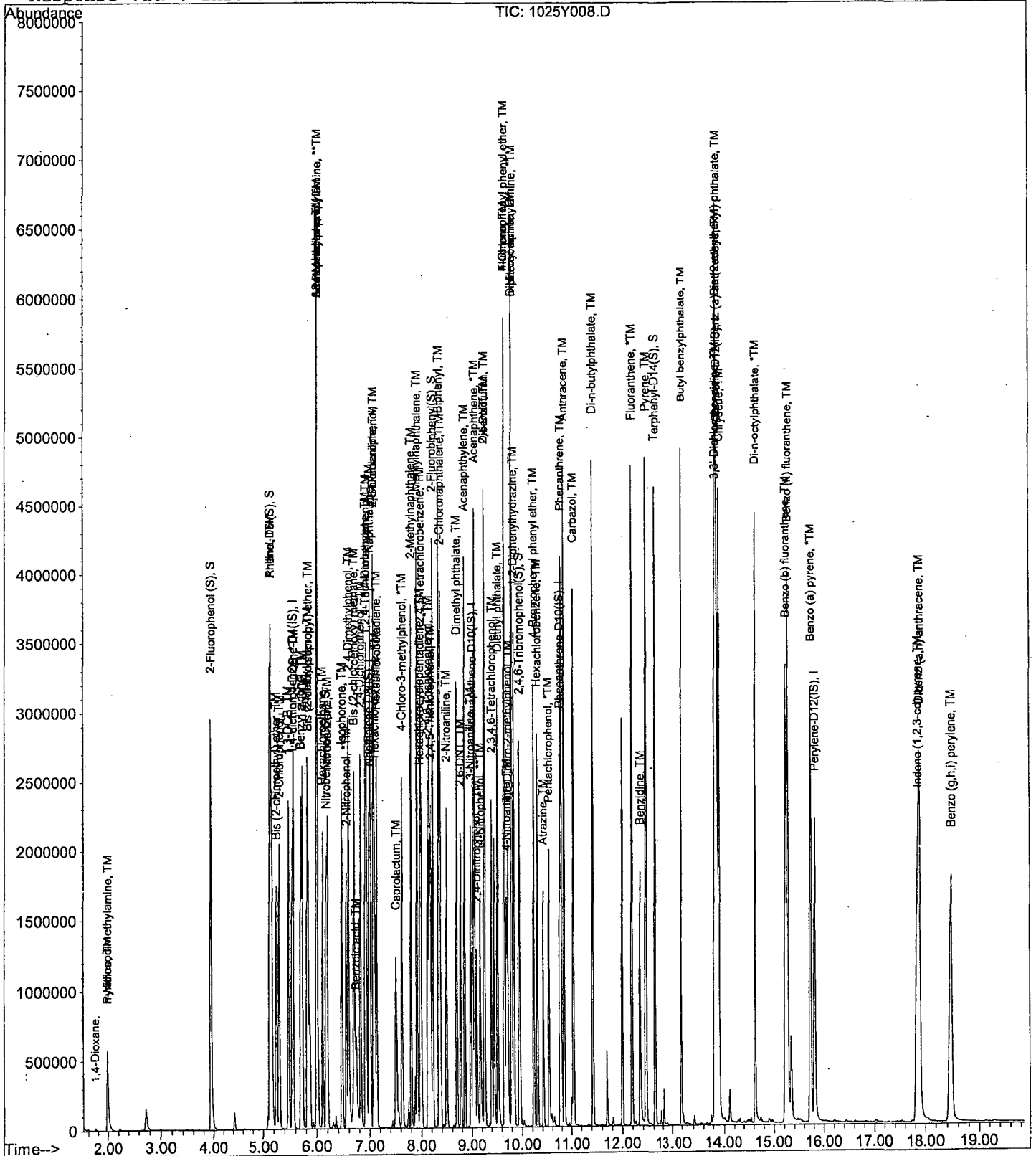
Data File : M:\YODA\DATA\Y181025\1025Y008.D  
Acq On : 25 Oct 18 13:52  
Sample : 50ug/mL 8270 10/18/18  
Misc :

Vial: 8  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:06 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration

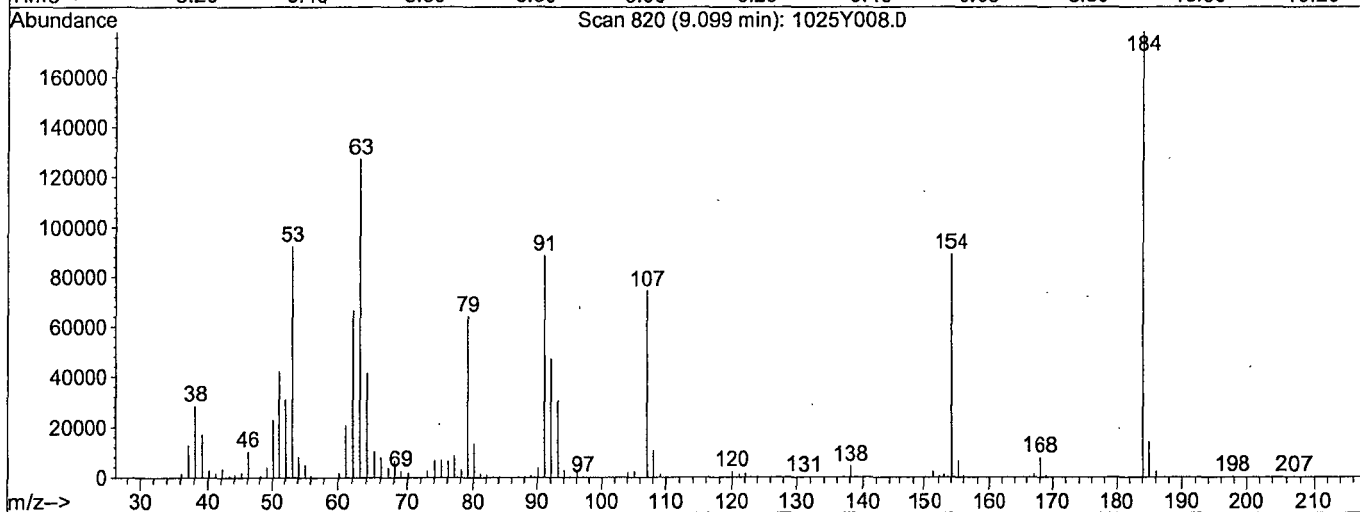
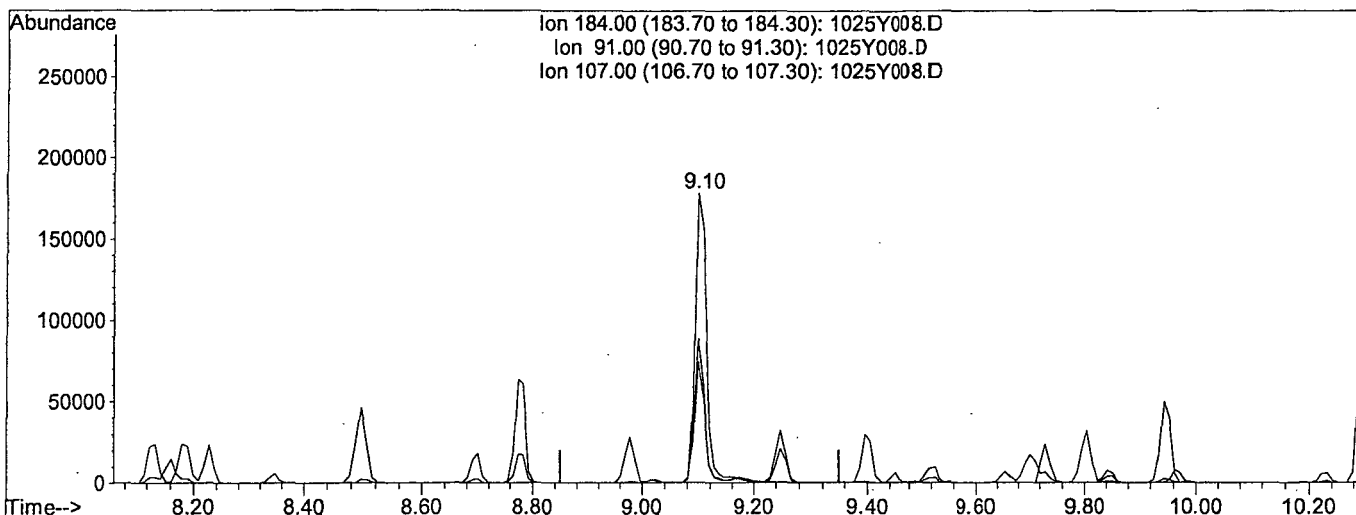


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y008.D  
 Acq On : 25 Oct 18 13:52  
 Sample : 50ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:05 2018

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y008.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.10min 51.9258ppb

response 255966

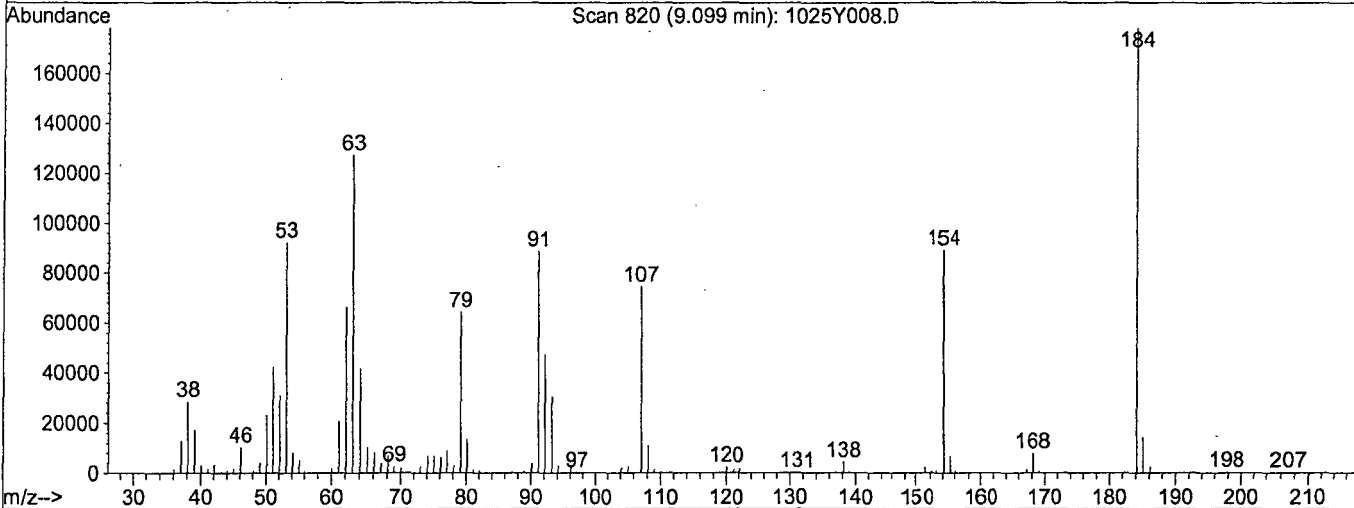
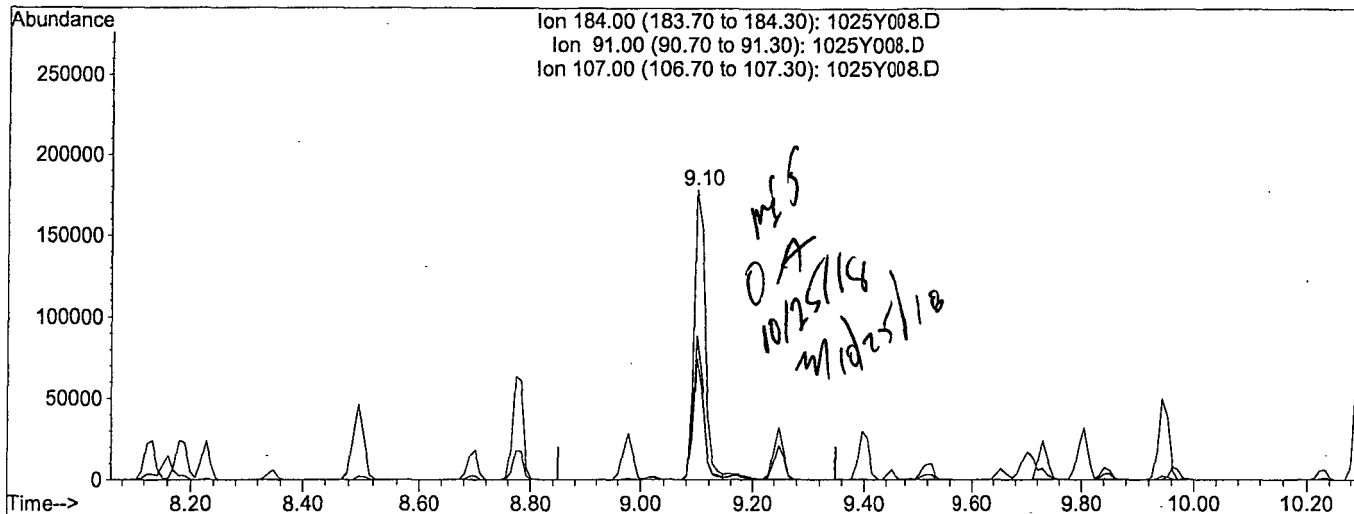
Ion	Exp%	Act%
184.00	100	100
91.00	49.60	49.43
107.00	41.70	41.63
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y008.D  
 Acq On : 25 Oct 18 13:52  
 Sample : 50ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:06 2018

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y008.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.10min 50.1547ppb m

response 245054

Ion	Exp%	Act%
184.00	100	100
91.00	49.60	49.62
107.00	41.70	41.66
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y009.D Vial: 9  
 Acq On : 25 Oct 18 14:20 Operator: MA  
 Sample : 60ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 25 14:37 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	293806	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1248682	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	652245	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1164642	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1106655	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1177661	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	1396667	122.48622	ppb	0.00
Spiked Amount	200.000		Recovery	=	61.243%	
6) Phenol-D6 (S)	5.13	99	1594801	116.90180	ppb	0.00
Spiked Amount	200.000		Recovery	=	58.451%	
22) Nitrobenzene-D5 (S)	6.17	82	825428	59.27506	ppb	0.00
Spiked Amount	100.000		Recovery	=	59.275%	
46) 2-Fluorobiphenyl (S)	8.23	172	1582354	58.14903	ppb	0.00
Spiked Amount	100.000		Recovery	=	58.149%	
64) 2,4,6-Tribromophenol (S)	9.95	330	371964	113.05507	ppb	0.00
Spiked Amount	200.000		Recovery	=	56.528%	
82) Terphenyl-D14 (S)	12.63	244	1703605	58.20318	ppb	0.00
Spiked Amount	100.000		Recovery	=	58.203%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	5793	6.28250		100
3) n-Nitrosodimethylamine	1.98	42	149211	66.20974	ppb	97
4) Pyridine	1.99	79	230010	68.76896	ppb	97
7) Phenol	5.14	94	1073485	58.39068	ppb	100
8) Aniline	5.14	66	891646	78.33248	ppb	98
9) Bis (2-chloroethyl) ether	5.25	63	561785	59.31722	ppb	99
10) 2-Chlorophenol	5.30	128	840318	59.22259	ppb	99
11) 1,3-DCB	5.47	146	862977	58.23576	ppb	97
12) 1,4-DCB	5.56	146	868709	58.41076	ppb	99
13) Benzyl alcohol	5.70	108	554988	61.26081	ppb	98
14) 1,2-DCB	5.73	146	826738	58.75003	ppb	99
15) 2-Methylphenol	5.82	107	669956	59.07720	ppb	100
16) Bis (2-chloroisopropyl) et	5.84	45	1075872	60.01871	ppb	98
17) Acetophenone	6.01	105	841702	59.44702	ppb	99
18) 3&4-Methylphenol	6.00	107	1279902	126.01420	ppb	95
19) n-Nitrosodi-n-propylamine	6.01	70	522780	56.69937	ppb	100
20) Hexachloroethane	6.11	117	333986	60.18057	ppb	98
23) Nitrobenzene	6.20	77	895128	58.18511	ppb	97
24) Isophorone	6.47	82	1590281	58.83296	ppb	99
25) 2-Nitrophenol	6.56	139	460698	59.50766	ppb	99
26) 2,4-Dimethylphenol	6.59	122	762771	58.45886	ppb	98
27) Benzoic acid	6.74	105	715553	60.93105	ppb	99
28) Bis (2-chloroethoxy) metha	6.70	93	881224	57.41215	ppb	100
29) 2,4-Dichlorophenol	6.82	162	675506	58.35074	ppb	97
30) 1,2,4-Trichlorobenzene	6.92	180	683818	57.06262	ppb	100
31) 3,4-Dimethylphenol	6.94	107	1042901	59.54141	ppb	97
32) Napthalene	7.01	128	2334914	57.66174	ppb	100
33) 4-Chloroaniline	7.08	127	867604	57.11266	ppb	99
34) 2,6-Dichlorophenol	7.08	162	608644	56.88494	ppb	98
35) Hexachloropropene	7.10	213	500316	63.00156	ppb	99
36) Hexachlorobutadiene	7.14	225	398396	59.86365	ppb	98
37) Caprolactum	7.51	55	424783	60.68288	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y009.D Y1025NC.M Thu Oct 25 17:29:54 2018



## Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y009.D  
 Acq On : 25 Oct 18 14:20  
 Sample : 60ug/mL 8270 10/18/18  
 Misc :

Vial: 9  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 14:37 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	750028	61.30869	ppb	99
39) 2-Methylnaphthalene	7.81	142	1495064	58.81028	ppb	98
40) 1-Methylnaphthalene	7.92	142	1432507	56.10503	ppb	100
42) Hexachlorocyclopentadiene	7.98	237	410897	69.33167	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	688197	56.07063	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	517705	61.08937	ppb	98
45) 2,4,5-Trichlorophenol	8.19	196	536388	59.30011	ppb	96
47) 1,1'-Biphenyl	8.35	154	1815555	56.74467	ppb	98
48) 2-Chloronaphthalene	8.38	162	1449816	56.58564	ppb	99
49) 2-Nitroaniline	8.50	65	539736	62.69933	ppb	100
50) Dimethyl phthalate	8.70	163	1754748	59.83504	ppb	100
51) 2,6-DNT	8.77	165	422472	63.65250	ppb #	75
52) Acenaphthylene	8.86	152	2451242	59.95919	ppb	100
53) 3-Nitroaniline	8.98	138	461146	61.05255	ppb	100
54) Acenaphthene	9.06	154	1448610	58.25587	ppb	99
55) 2,4-Dinitrophenol	9.10	184	259866	63.34565	ppb	98
56) 4-Nitrophenol	9.17	65	389637	70.06067	ppb	98
57) Dibenzofuran	9.26	168	1896443	54.21534	ppb	100
58) 2,4-DNT	9.25	165	505838	58.23970	ppb	100
59) 2,3,4,6-Tetrachlorophenol	9.41	232	439665	59.01996	ppb	99
60) Diethyl phthalate	9.53	149	1628330	56.91407	ppb	100
61) 4-Chlorophenyl phenyl ethe	9.66	204	657494	49.02602	ppb	99
62) Fluorene	9.67	166	1418764	50.80577	ppb	97
63) 4-Nitroaniline	9.70	138	462291	58.53451	ppb	99
66) 4,6-Dinitro-2-methylphenol	9.73	198	348204	69.36668	ppb	97
67) Diphenyl amine	9.80	169	2300014	96.66443	ppb	99
68) n-Nitrosodiphenylamine	9.80	169	2300014	96.66443	ppb	99
69) 1,2-Diphenylhydrazine	9.84	77	1795234	59.03507	ppb	97
70) 4-Bromophenyl phenyl ether	10.23	248	475767	59.90641	ppb	99
71) Hexachlorobenzene	10.30	284	496642	58.87254	ppb	98
72) Atrazine	10.42	200	228362	33.43771	ppb	99
73) Pentachlorophenol	10.54	266	344131	68.32703	ppb	98
74) Phenanthrene	10.79	178	2365130	57.80814	ppb	99
75) Anthracene	10.85	178	2441122	58.20836	ppb	99
76) Carbazol	11.05	167	2344070	59.83596	ppb	99
77) Di-n-butylphthalate	11.43	149	2772662	62.10556	ppb	100
78) Fluoranthene	12.19	202	2600184	59.54929	ppb	99
80) Benzidine	12.35	184	963474	61.92708	ppb	100
81) Pyrene	12.46	202	2715143	59.80369	ppb	99
83) Butyl benzylphthalate	13.19	149	1274449	63.53586	ppb	97
84) 3,3'-Dichlorobenzidine	13.82	252	917019	63.04532	ppb	98
85) Benz (a) anthracene	13.86	228	2213433	56.50387	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1482746	58.54499	ppb	99
87) Chrysene	13.91	228	2380062	58.01700	ppb	99
88) Di-n-octylphthalate	14.63	149	2977998	63.97074	ppb	99
90) Benzo (b) fluoranthene	15.24	252	2821204	64.75998	ppb	99
91) Benzo (k) fluoranthene	15.27	252	2422949	59.15190	ppb	99
92) Benzo (a) pyrene	15.74	252	2503225	63.04372	ppb	100
93) Indeno (1,2,3-cd) pyrene	17.85	276	2876167	63.21338	ppb	98
94) Dibenz (a,h) anthracene	17.90	278	2501158	63.84752	ppb	98
95) Benzo (g,h,i) perylene	18.48	276	2339552	62.64681	ppb	100

(#) = qualifier out of range (m) = manual integration  
 1025Y009.D Y1025NC.M Thu Oct 25 17:29:54 2018

Quantitation Report

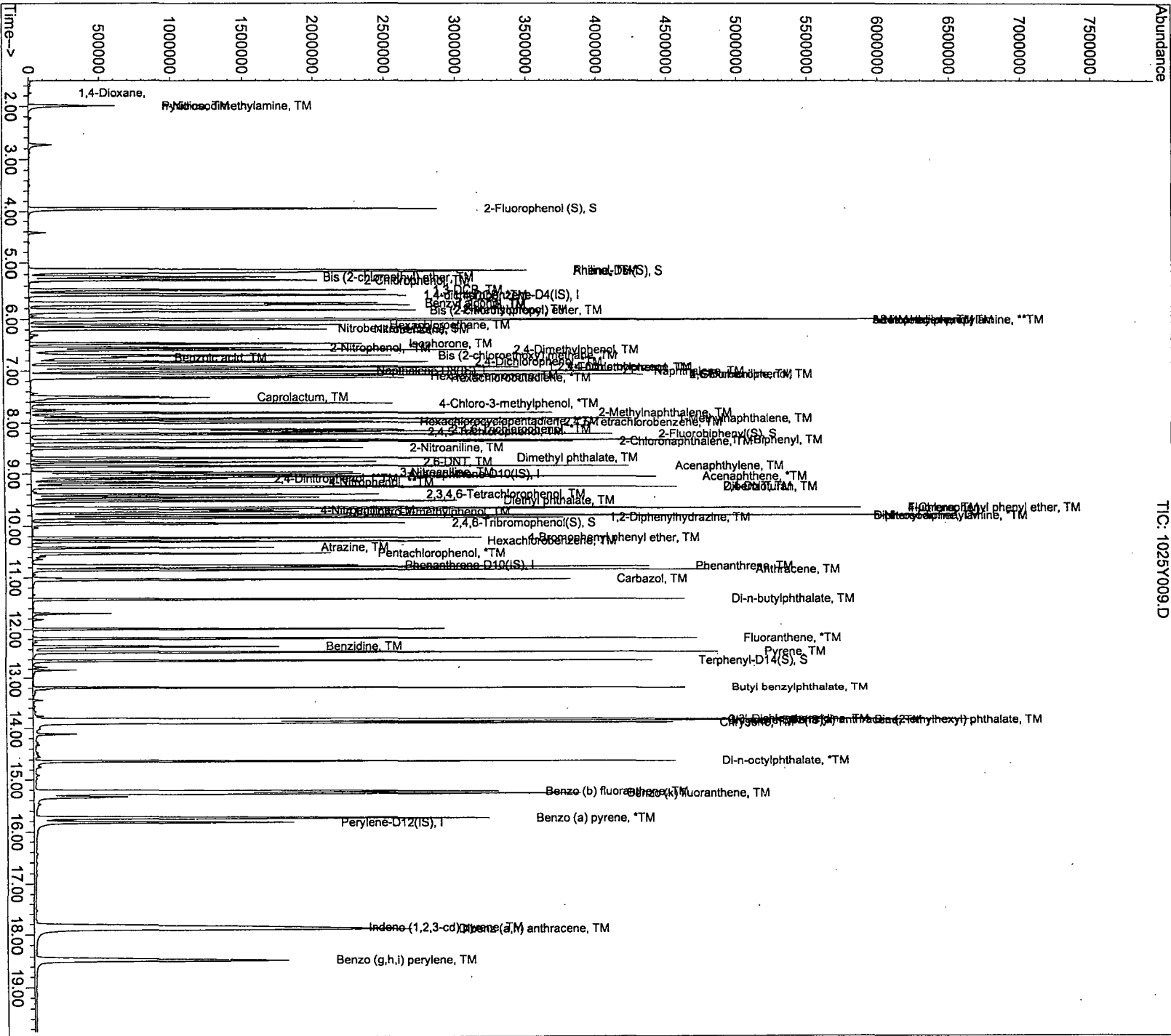
Data File : M:\YODA\DATA\Y181025\1025Y009.D  
Acq On : 25 Oct 18 14:20  
Sample : 60ug/mL 8270 10/18/18  
Misc :

Vial: 9  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 14:37 2018

Quant Results File: Y1025NC.RE5

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y181025\1025Y010.D  
 Acq On : 25 Oct 18 14:48  
 Sample : 80ug/mL 8270 10/18/18  
 Misc :

Vial: 10  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:52 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:49:58 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	298120	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1239535	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	679471	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.77	188	1264268	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.88	240	1132125	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1266945	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.96	112	1854398	158.30900	ppb	0.00
Spiked Amount	200.000		Recovery	=	79.155%	
6) Phenol-D6 (S)	5.13	99	2092472	150.26876	ppb	0.00
Spiked Amount	200.000		Recovery	=	75.135%	
22) Nitrobenzene-D5 (S)	6.18	82	1103339	78.87091	ppb	0.00
Spiked Amount	100.000		Recovery	=	78.871%	
46) 2-Fluorobiphenyl (S)	8.23	172	2027051	71.56952	ppb	0.00
Spiked Amount	100.000		Recovery	=	71.570%	
64) 2,4,6-Tribromophenol (S)	9.95	330	496953	144.92168	ppb	0.00
Spiked Amount	200.000		Recovery	=	72.461%	
82) Terphenyl-D14 (S)	12.63	244	2210595	73.76127	ppb	0.00
Spiked Amount	100.000		Recovery	=	73.761%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.75	58	7469	8.22729		100
3) n-Nitrosodimethylamine	1.98	42	188228	78.54209	ppb	93
4) Pyridine	1.99	79	305613	85.25855	ppb	97
7) Phenol	5.15	94	1350491	72.49504	ppb	90
8) Aniline	5.15	66	1177499	78.82457	ppb	# 79
9) Bis (2-chloroethyl) ether	5.25	63	739454	75.89814	ppb	97
10) 2-Chlorophenol	5.30	128	1116753	77.00027	ppb	98
11) 1,3-DCB	5.48	146	1152459	76.72072	ppb	99
12) 1,4-DCB	5.56	146	1112078	73.89992	ppb	99
13) Benzyl alcohol	5.71	108	722446	76.97596	ppb	97
14) 1,2-DCB	5.73	146	1053574	73.67599	ppb	99
15) 2-Methylphenol	5.83	107	884052	76.55747	ppb	98
16) Bis (2-chloroisopropyl) et	5.85	45	1425097	77.27618	ppb	94
17) Acetophenone	6.01	105	1060989	76.55394	ppb	95
18) 3&4-Methylphenol	6.01	107	1616444	154.33994	ppb	97
19) n-Nitrosodi-n-propylamine	6.04	70	708491	73.80154	ppb	84
20) Hexachloroethane	6.11	117	439196	77.64569	ppb	98
23) Nitrobenzene	6.20	77	1168448	76.21313	ppb	95
24) Isophorone	6.47	82	2082503	76.84727	ppb	97
25) 2-Nitrophenol	6.56	139	605413	77.77800	ppb	94
26) 2,4-Dimethylphenol	6.60	122	978659	75.09293	ppb	97
27) Benzoic acid	6.77	105	975401	79.71615	ppb	98
28) Bis (2-chloroethoxy) metha	6.70	93	1143577	74.95029	ppb	99
29) 2,4-Dichlorophenol	6.83	162	863229	75.14672	ppb	96
30) 1,2,4-Trichlorobenzene	6.92	180	875412	73.37796	ppb	98
31) 3,4-Dimethylphenol	6.94	107	1339179	75.87829	ppb	97
32) Napthalene	7.02	128	2895411	72.12380	ppb	100
33) 4-Chloroaniline	7.08	127	998989	64.32820	ppb	99
34) 2,6-Dichlorophenol	7.08	162	727703	69.22702	ppb	97
35) Hexachloropropene	7.10	213	625852	78.51222	ppb	99
36) Hexachlorobutadiene	7.14	225	494379	74.90339	ppb	98
37) Caprolactum	7.53	55	560419	79.68248	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1025Y010.D Y1025NC.M Thu Oct 25 17:30:34 2018

Data File : M:\YODA\DATA\Y181025\1025Y010.D  
 Acq On : 25 Oct 18 14:48  
 Sample : 80ug/mL 8270 10/18/18  
 Misc :

Vial: 10  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:52 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:49:58 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	956899	77.58053	ppb	94
39) 2-Methylnaphthalene	7.81	142	1868075	73.80573	ppb	100
40) 1-Methylnaphthalene	7.92	142	1853126	73.44569	ppb	99
42) Hexachlorocyclopentadiene	7.98	237	570005	77.91883	ppb	100
43) 1,2,4,5-Tetrachlorobenzene	8.00	216	905579	71.23286	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	676658	75.70139	ppb	99
45) 2,4,5-Trichlorophenol	8.19	196	719566	76.03629	ppb	95
47) 1,1'-Biphenyl	8.35	154	2344956	70.29834	ppb	98
48) 2-Chloronaphthalene	8.37	162	1914231	72.05630	ppb	98
49) 2-Nitroaniline	8.50	65	702929	76.64566	ppb	97
50) Dimethyl phthalate	8.70	163	2251234	73.07697	ppb	99
51) 2,6-DNT	8.78	165	542814	76.33175	ppb	84
52) Acenaphthylene	8.86	152	3031289	70.73584	ppb	99
53) 3-Nitroaniline	8.99	138	600894	75.56813	ppb	94
54) Acenaphthene	9.06	154	1816835	69.98732	ppb	99
55) 2,4-Dinitrophenol	9.11	184	375675	79.60657	ppb	90
56) 4-Nitrophenol	9.18	65	505067	82.17869	ppb	99
57) Dibenzofuran	9.27	168	2353797	65.69856	ppb	98
58) 2,4-DNT	9.26	165	635665	70.19014	ppb	85
59) 2,3,4,6-Tetrachlorophenol	9.41	232	577445	73.93248	ppb	95
60) Diethyl phthalate	9.53	149	2112448	71.24348	ppb	98
61) 4-Chlorophenyl phenyl ethe	9.66	204	822358	58.29531	ppb	96
62) Fluorene	9.67	166	1803473	60.82365	ppb	98
63) 4-Nitroaniline	9.71	138	623093	75.02411	ppb	98
66) 4,6-Dinitro-2-methylphenol	9.74	198	486468	76.25103	ppb	94
67) Diphenyl amine	9.81	169	2851981	129.17108	ppb	99
68) n-Nitrosodiphenylamine	9.81	169	2851981	129.17108	ppb	99
69) 1,2-Diphenylhydrazine	9.85	77	2787284	82.06122	ppb	92
70) 4-Bromophenyl phenyl ether	10.23	248	638296	74.17645	ppb	94
71) Hexachlorobenzene	10.31	284	648074	71.60657	ppb	91
72) Atrazine	10.43	200	308193	39.17258	ppb	97
73) Pentachlorophenol	10.54	266	466031	83.21870	ppb	99
74) Phenanthrene	10.80	178	3082481	69.80685	ppb	99
75) Anthracene	10.85	178	3141722	69.16738	ppb	100
76) Carbazol	11.05	167	3035131	71.50811	ppb	98
77) Di-n-butylphthalate	11.43	149	3598995	73.23157	ppb	99
78) Fluoranthene	12.19	202	3315365	69.96256	ppb	99
80) Benzidine	12.35	184	1258627	78.22096	ppb	99
81) Pyrene	12.46	202	3445765	73.63892	ppb	100
83) Butyl benzylphthalate	13.19	149	1604258	76.76735	ppb	94
84) 3,3'-Dichlorobenzidine	13.83	252	1094222	71.75135	ppb	96
85) Benz (a) anthracene	13.86	228	2719656	68.42029	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1785958	68.01314	ppb	99
87) Chrysene	13.91	228	3086091	73.80016	ppb	99
88) Di-n-octylphthalate	14.63	149	3946319	80.82281	ppb	96
90) Benzo (b) fluoranthene	15.24	252	3501392	73.75617	ppb	99
91) Benzo (k) fluoranthene	15.28	252	3457887	76.44268	ppb	99
92) Benzo (a) pyrene	15.75	252	3410020	78.95777	ppb	98
93) Indeno (1,2,3-cd) pyrene	17.86	276	3907142	78.08684	ppb	98
94) Dibenz (a,h) anthracene	17.91	278	3338407	78.55102	ppb	99
95) Benzo (g,h,i) perylene	18.49	276	3111904	76.75911	ppb	99

Quantitation Report

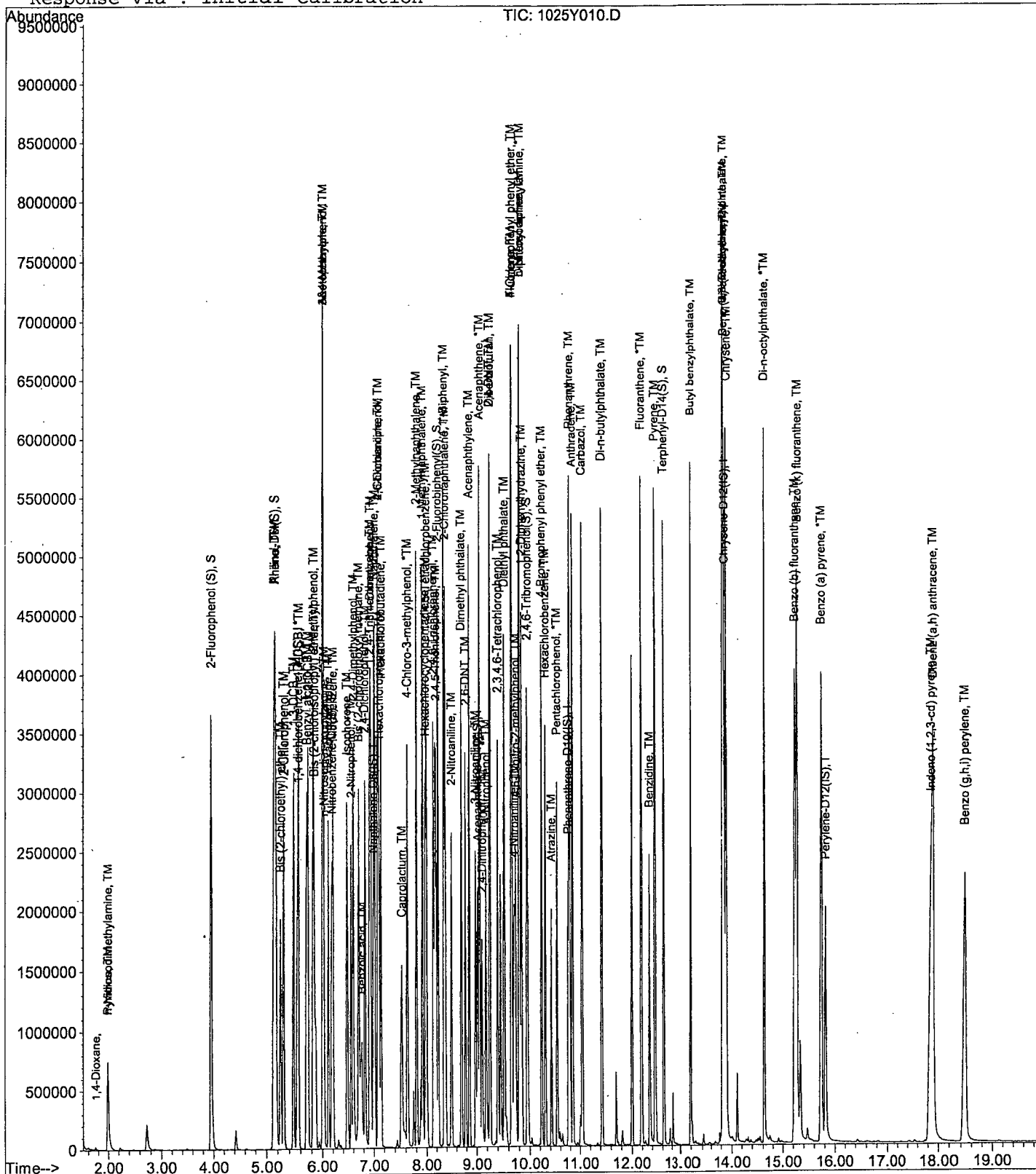
Data File : M:\YODA\DATA\Y181025\1025Y010.D  
Acq On : 25 Oct 18 14:48  
Sample : 80ug/mL 8270 10/18/18  
Misc :

Vial: 10  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:52 2018

Quant Results File: Y1025NC.RES

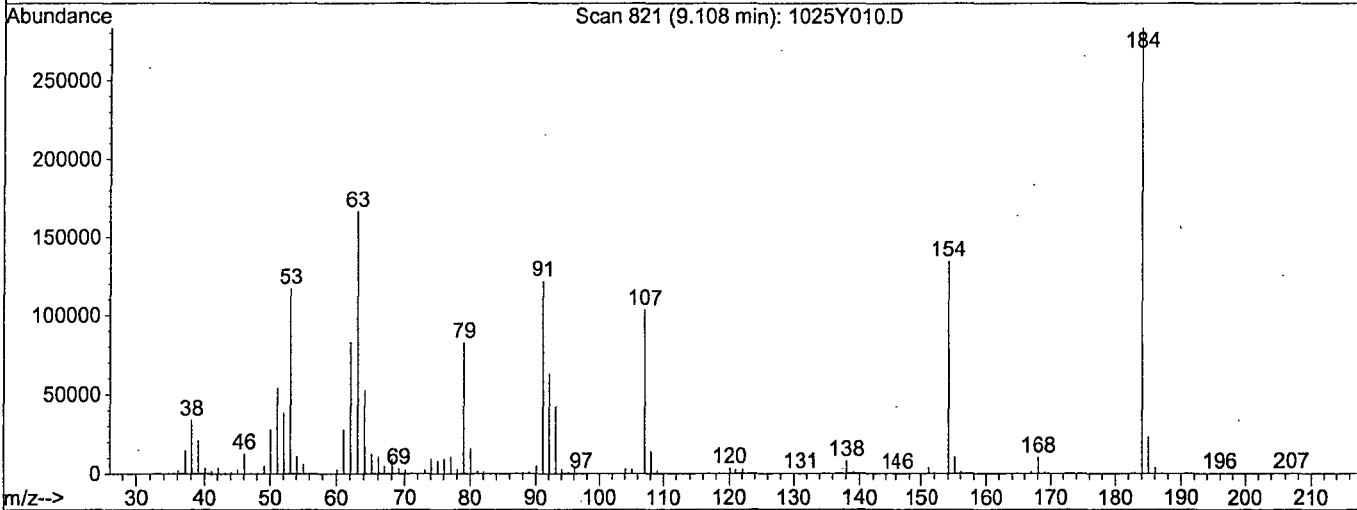
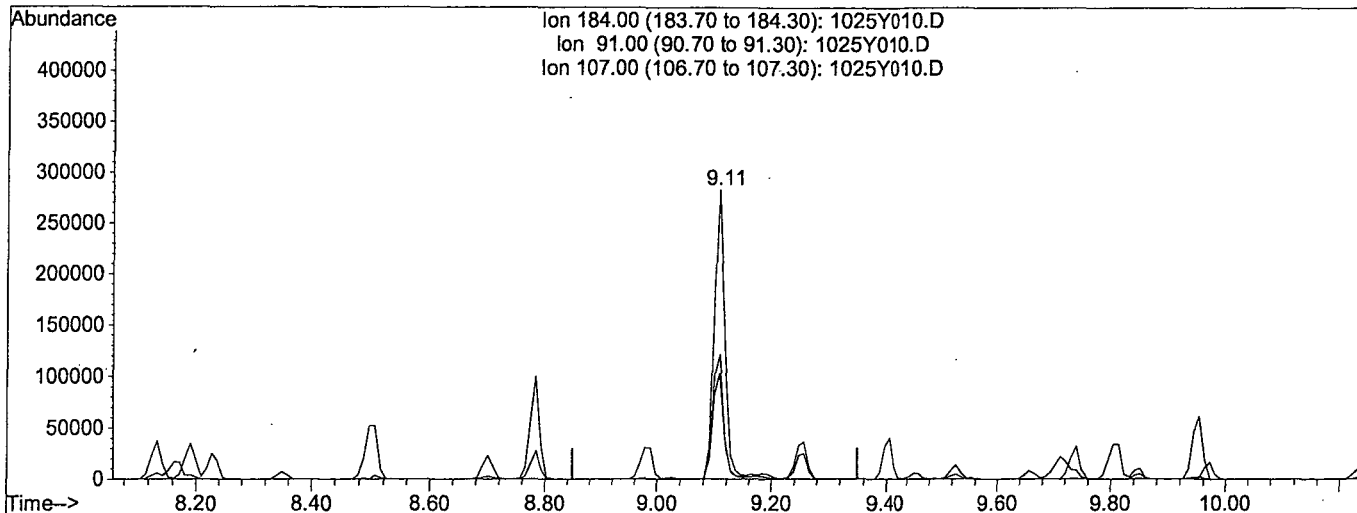
Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y010.D Vial: 10  
 Acq On : 25 Oct 18 14:48 Operator: MA  
 Sample : 80ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Oct 25 14:57 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y010.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.11min 85.8731ppb

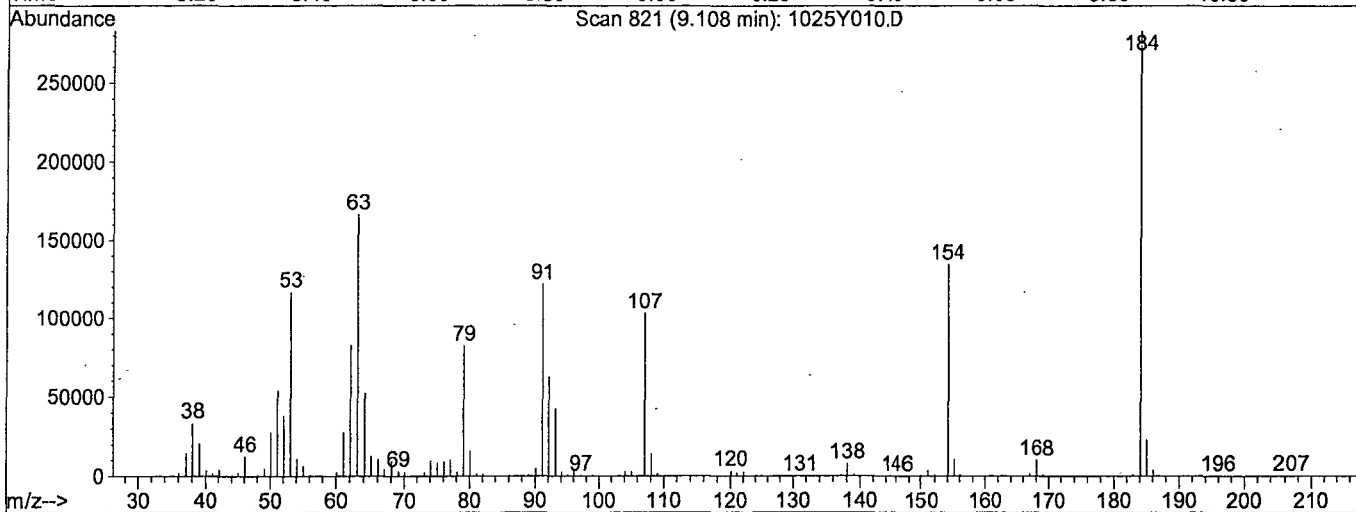
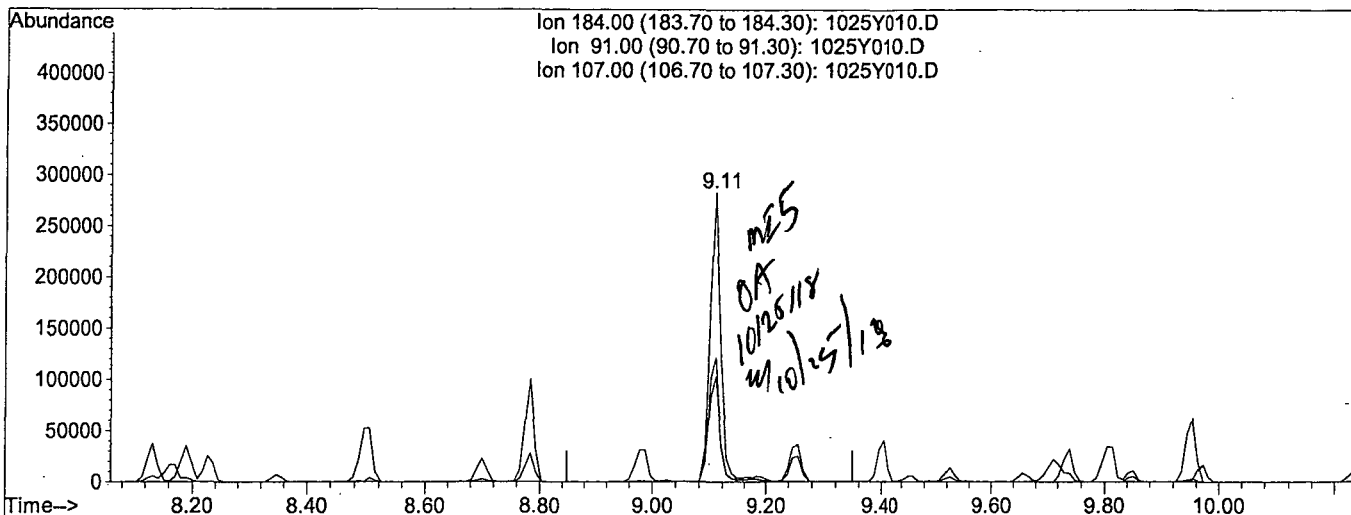
response 375675

Ion	Exp%	Act%
184.00	100	100
91.00	49.40	42.52
107.00	41.60	36.24
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y010.D Vial: 10  
 Acq On : 25 Oct 18 14:48 Operator: MA  
 Sample : 80ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Oct 25 16:07 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y010.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.11min 83.1604ppb m

response 362746

Ion	Exp%	Act%
184.00	100	100
91.00	49.40	43.01
107.00	41.60	36.48
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y181025\1025Y011.D Vial: 11  
 Acq On : 25 Oct 18 15:16 Operator: MA  
 Sample : 100ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 25 16:53 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:49:58 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	284116	40.00000	ppb	0.00
21) Naphthalene-D8 (IS)	6.99	136	1206900	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	630021	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.77	188	1170815	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.88	240	1050283	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.83	264	1174261	40.00000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol (S)	3.95	112	2232374	199.97009	ppb	0.00
Spiked Amount 200.000			Recovery =	99.985%		
6) Phenol-D6 (S)	5.14	99	2486343	187.35510	ppb	0.02
Spiked Amount 200.000			Recovery =	93.677%		
22) Nitrobenzene-D5 (S)	6.18	82	1404992	103.15000	ppb	0.00
Spiked Amount 100.000			Recovery =	103.150%		
46) 2-Fluorobiphenyl (S)	8.23	172	2374842	90.43031	ppb	0.00
Spiked Amount 100.000			Recovery =	90.430%		
64) 2,4,6-Tribromophenol (S)	9.96	330	580689	182.63228	ppb	0.00
Spiked Amount 200.000			Recovery =	91.316%		
82) Terphenyl-D14 (S)	12.63	244	2662866	95.77596	ppb	0.00
Spiked Amount 100.000			Recovery =	95.776%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	9424	10.89244		97
3) n-Nitrosodimethylamine	1.99	42	255611	111.91625	ppb	89
4) Pyridine	1.99	79	372623	109.07650	ppb	94
7) Phenol	5.16	94	1549550	87.28058	ppb #	76
8) Aniline	5.16	66	1432837	100.66741	ppb #	64
9) Bis (2-chloroethyl) ether	5.25	63	977421	105.26816	ppb	99
10) 2-Chlorophenol	5.31	128	1373185	99.34811	ppb	99
11) 1,3-DCB	5.48	146	1379732	96.37788	ppb	96
12) 1,4-DCB	5.56	146	1376578	95.98535	ppb	98
13) Benzyl alcohol	5.71	108	915255	102.32629	ppb	98
14) 1,2-DCB	5.74	146	1311460	96.23021	ppb	100
15) 2-Methylphenol	5.83	107	1108446	100.72092	ppb	99
16) Bis (2-chloroisopropyl) et	5.85	45	1719168	97.81714	ppb	98
17) Acetophenone	6.01	105	1321707	101.91311	ppb	98
18) 3&4-Methylphenol	6.01	107	1983222	202.55082	ppb	97
19) n-Nitrosodi-n-propylamine	6.04	70	944036	103.18464	ppb	84
20) Hexachloroethane	6.12	117	533036	98.88056	ppb	90
23) Nitrobenzene	6.21	77	1474935	98.80542	ppb	97
24) Isophorone	6.48	82	2650980	100.47008	ppb	97
25) 2-Nitrophenol	6.56	139	760170	100.30054	ppb	98
26) 2,4-Dimethylphenol	6.60	122	1225289	96.55920	ppb	98
27) Benzoic acid	6.78	105	1216248	101.08222	ppb	99
28) Bis (2-chloroethoxy) metha	6.71	93	1405755	94.62481	ppb	99
29) 2,4-Dichlorophenol	6.83	162	1050994	93.96622	ppb	98
30) 1,2,4-Trichlorobenzene	6.92	180	1066906	91.84739	ppb	98
31) 3,4-Dimethylphenol	6.94	107	1639376	95.39926	ppb	97
32) Naphthalene	7.02	128	3525329	90.18941	ppb	100
33) 4-Chloroaniline	7.08	127	1126570	74.50516	ppb	95
34) 2,6-Dichlorophenol	7.09	162	830763	81.16824	ppb	97
35) Hexachloropropene	7.11	213	734181	94.59241	ppb	99
36) Hexachlorobutadiene	7.14	225	594034	92.43581	ppb	99
37) Caprolactum	7.55	55	652243	95.24604	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y011.D Y1025NC.M Thu Oct 25 17:30:07 2018



Data File : M:\YODA\DATA\Y181025\1025Y011.D Vial: 11  
 Acq On : 25 Oct 18 15:16 Operator: MA  
 Sample : 100ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 25 16:53 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:49:58 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.64	107	1192402	99.28802	ppb	93
39) 2-Methylnaphthalene	7.81	142	2192026	88.94652	ppb	99
40) 1-Methylnaphthalene	7.93	142	2191424	89.20214	ppb	100
42) Hexachlorocyclopentadiene	7.98	237	694700	101.54904	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	8.00	216	1029526	87.33881	ppb	99
44) 2,4,6-Trichlorophenol	8.14	196	804453	97.06244	ppb	99
45) 2,4,5-Trichlorophenol	8.20	196	852583	97.16344	ppb	94
47) 1,1'-Biphenyl	8.35	154	2701619	87.34748	ppb	98
48) 2-Chloronaphthalene	8.38	162	2241776	91.00929	ppb	97
49) 2-Nitroaniline	8.50	65	879824	103.46365	ppb	99
50) Dimethyl phthalate	8.71	163	2746250	96.14260	ppb	99
51) 2,6-DNT	8.79	165	674065	102.22847	ppb	92
52) Acenaphthylene	8.86	152	3588460	90.31007	ppb	100
53) 3-Nitroaniline	8.98	138	707065	95.89943	ppb	96
54) Acenaphthene	9.07	154	2106539	87.51637	ppb	99
55) 2,4-Dinitrophenol	9.11	184	482121	106.69190	ppb	91
56) 4-Nitrophenol	9.19	65	652587	114.51556	ppb	98
57) Dibenzofuran	9.26	168	2694490	81.11092	ppb	92
58) 2,4-DNT	9.25	165	741133	88.25917	ppb	85
59) 2,3,4,6-Tetrachlorophenol	9.41	232	707425	97.68344	ppb	99
60) Diethyl phthalate	9.53	149	2557601	93.02674	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.66	204	983024	75.15410	ppb	99
62) Fluorene	9.67	166	2158535	81.29619	ppb	99
63) 4-Nitroaniline	9.73	138	774941	100.63117	ppb	96
66) 4,6-Dinitro-2-methylphenol	9.75	198	613024	102.84739	ppb	98
67) Diphenyl amine	9.81	169	3367607	164.69899	ppb	99
68) n-Nitrosodiphenylamine	9.81	169	3367607	164.69899	ppb	99
69) 1,2-Diphenylhydrazine	9.85	77	3378849	107.41783	ppb	97
70) 4-Bromophenyl phenyl ether	10.24	248	721364	90.52099	ppb	96
71) Hexachlorobenzene	10.30	284	755752	90.16925	ppb	97
72) Atrazine	10.43	200	388070	53.26235	ppb	97
73) Pentachlorophenol	10.54	266	571860	110.26730	ppb	100
74) Phenanthrene	10.80	178	3649628	89.24771	ppb	100
75) Anthracene	10.86	178	3823882	90.90525	ppb	99
76) Carbazol	11.06	167	3605924	91.73716	ppb	98
77) Di-n-butylphthalate	11.44	149	4150806	91.20117	ppb	99
78) Fluoranthene	12.20	202	4026512	91.75172	ppb	99
80) Benzidine	12.35	184	1550386	103.86135	ppb	99
81) Pyrene	12.47	202	4219684	97.20526	ppb	100
83) Butyl benzylphthalate	13.20	149	1937337	99.92992	ppb	97
84) 3,3'-Dichlorobenzidine	13.83	252	1221498	86.33869	ppb	99
85) Benz (a) anthracene	13.87	228	3331112	90.33337	ppb	99
86) Bis (2-ethylhexyl) phthala	13.85	149	2216578	90.98979	ppb	100
87) Chrysene	13.91	228	3694086	95.22338	ppb	100
88) Di-n-octylphthalate	14.64	149	4556807	100.59826	ppb	96
90) Benzo (b) fluoranthene	15.25	252	4238332	96.32649	ppb	100
91) Benzo (k) fluoranthene	15.29	252	4010562	95.65848	ppb	99
92) Benzo (a) pyrene	15.75	252	4077181	101.85705	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.88	276	4702968	101.41071	ppb	98
94) Dibenz (a,h) anthracene	17.92	278	3956359	100.43877	ppb	99
95) Benzo (g,h,i) perylene	18.51	276	3916077	104.21928	ppb	99

Quantitation Report

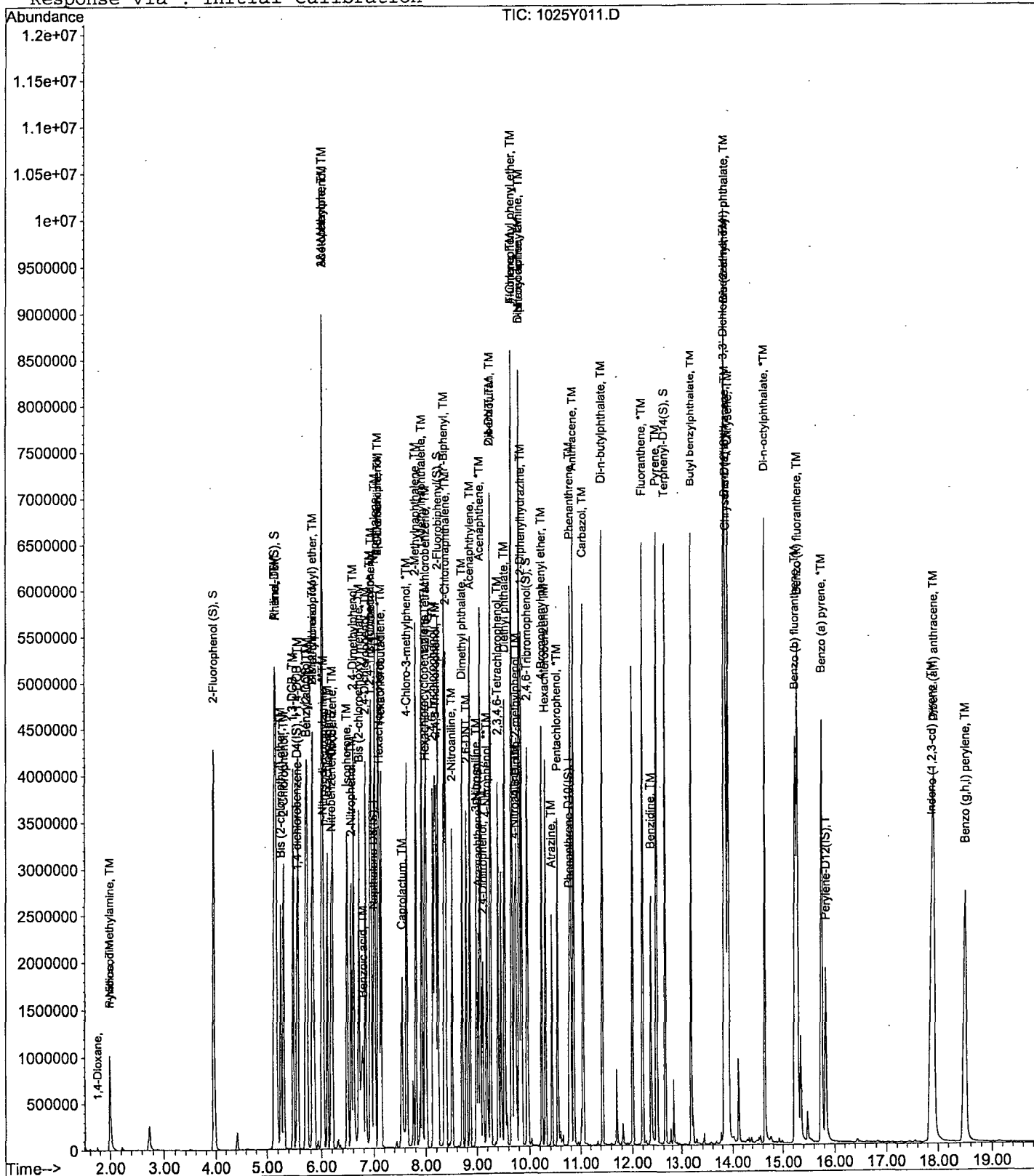
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Acq On : 25 Oct 18 15:16  
Sample : 100ug/mL 8270 10/18/18  
Misc :

Vial: 11  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:53 2018

Quant Results File: Y1025NC.RES

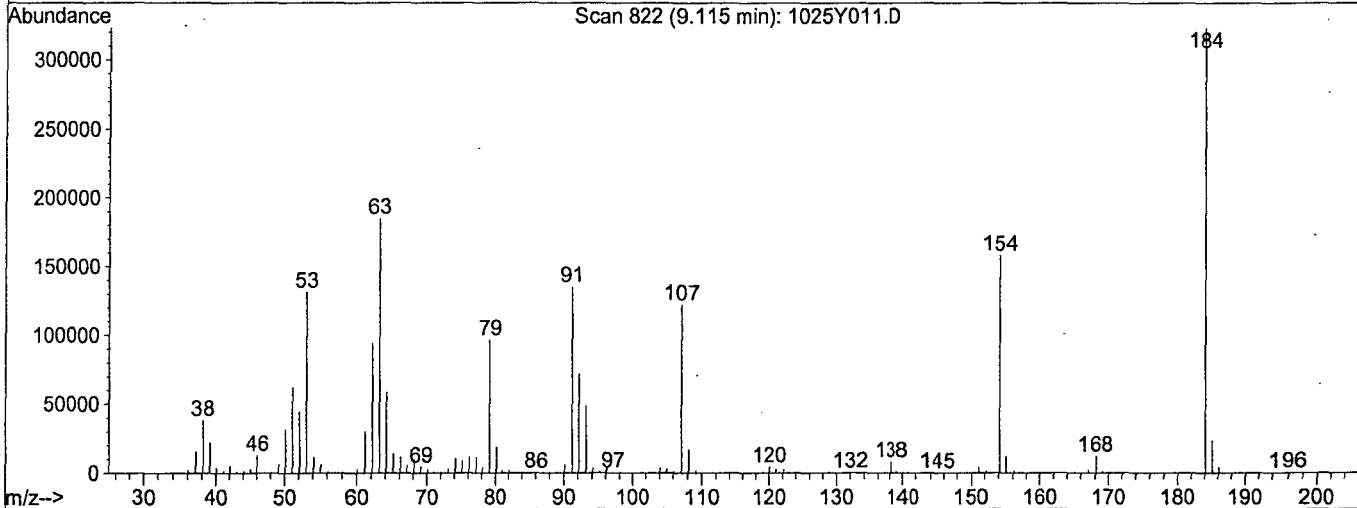
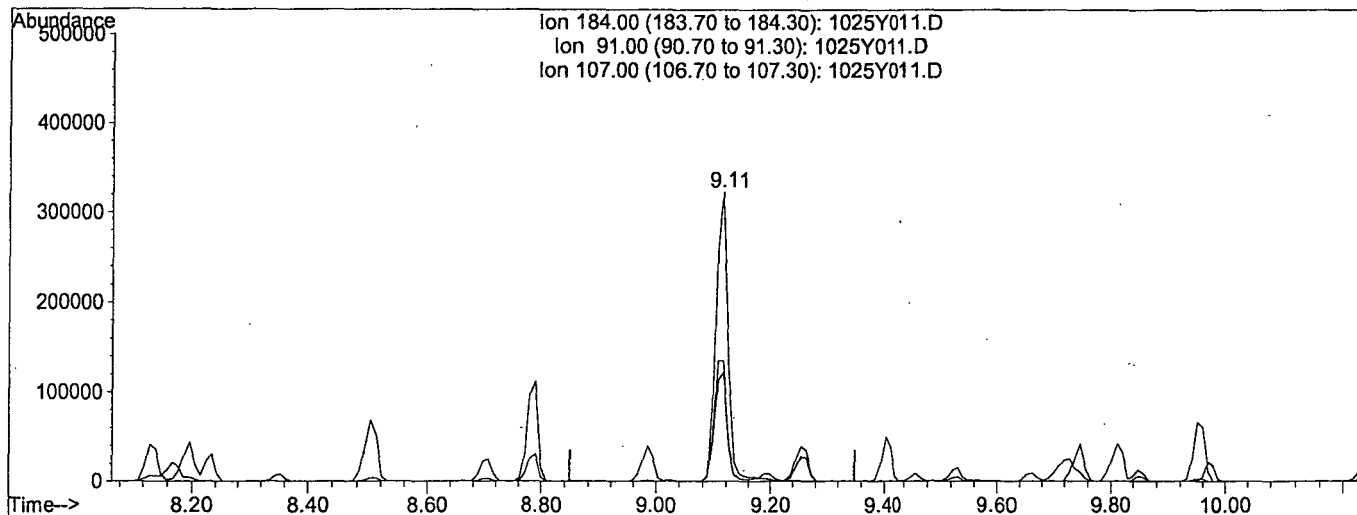
Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y011.D Vial: 11  
 Acq On : 25 Oct 18 15:16 Operator: MA  
 Sample : 100ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Oct 25 15:40 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y011.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.11min 109.9277ppb

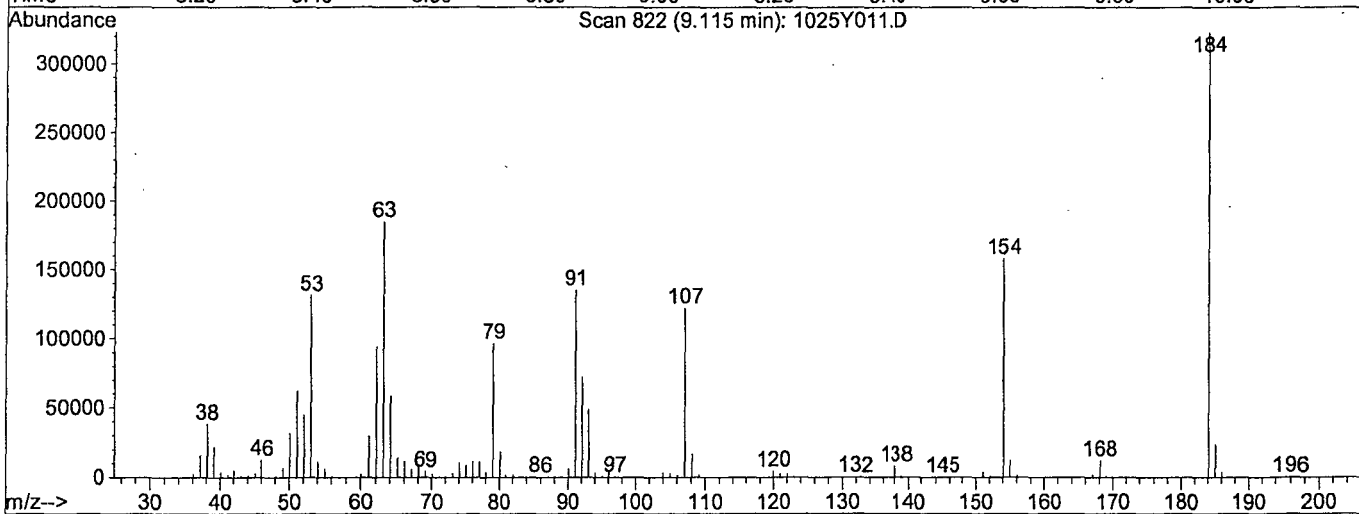
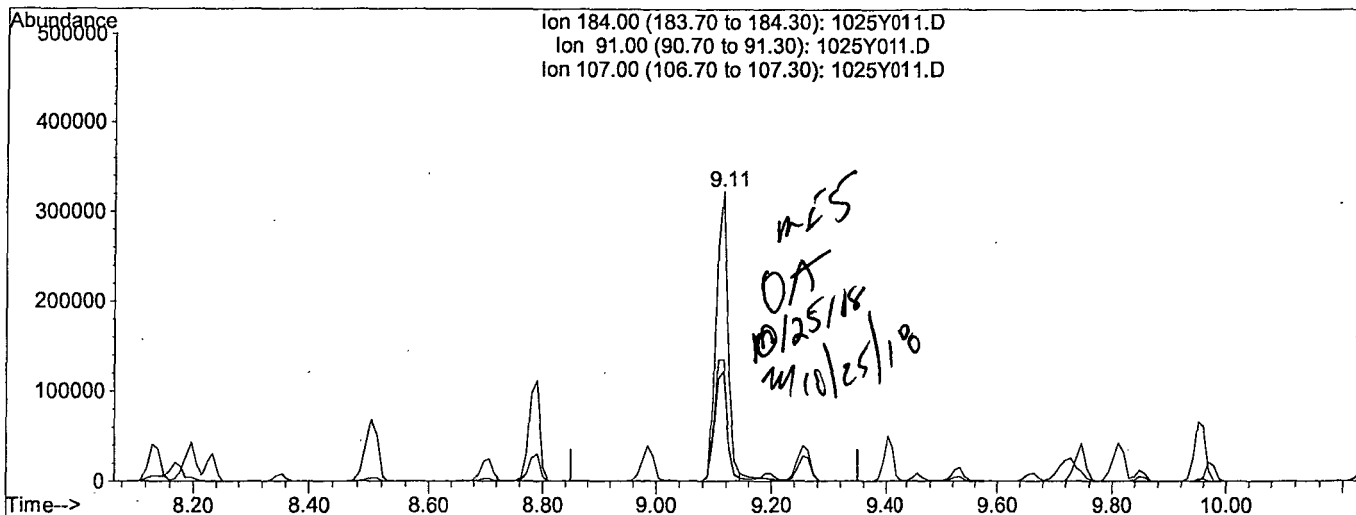
response 482121

Ion	Exp%	Act%
184.00	100	100
91.00	49.40	41.47
107.00	41.60	37.69
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y011.D Vial: 11  
 Acq On : 25 Oct 18 15:16 Operator: MA  
 Sample : 100ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Oct 25 16:09 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y011.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.11min 106.3390ppb m

response 465055

Ion	Exp%	Act%
184.00	100	100
91.00	49.40	41.76
107.00	41.60	37.76
0.00	0.00	0.00

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Yoda  
Initial Cal. Date: 10/25/18  
Data File: 1025Y012.D

		Compound	MEAN	CCRF	%D	%Drift
1		1,4-Dioxane	0.1218	0.1244	2.1	
2	TM	n-Nitrosodimethylamine	0.3216	0.2589	19	TM
3	TM	Pyridine	0.4810	0.4013	17	TM
4	*TM	Phenol	2.499	2.403	3.8	*TM
5	TM	Aniline	1.998	1.731	13	TM
6	TM	Bis (2-chloroethyl) ether	1.307	1.201	8.1	TM
7	TM	2-Chlorophenol	1.946	1.718	12	TM
8	TM	1,3-DCB	2.015	1.784	11	TM
9	*TM	1,4-DCB	2.019	1.787	12	*TM
10	TM	Benzyl alcohol	1.259	1.076	15	TM
11	TM	1,2-DCB	1.919	1.715	11	TM
12	TM	2-Methylphenol	1.549	1.367	12	TM
13	TM	Bis (2-chloroisopropyl) ether	2.474	2.177	12	TM
14	TML	Acetophenone	2.188	1.706	22	TML 13
15	TML	3&4-Methylphenol	1.681	1.327	21	TML 11
16	**TM	n-Nitrosodi-n-propylamine	1.288	1.064	17	**TM
17	TM	Hexachloroethane	0.7589	0.6864	9.6	TM
18	TM	Nitrobenzene	0.4947	0.4496	9.1	TM
19	TM	Isophorone	0.8745	0.7852	10	TM
20	*TM	2-Nitrophenol	0.2512	0.2231	11	*TM
21	TM	2,4-Dimethylphenol	0.4206	0.3656	13	TM
22	TML	Benzoic acid	0.3415	0.3452	1.1	TML 9.2
23	TM	Bis (2-chloroethoxy) methane	0.4924	0.4719	4.2	TM
24	*TM	2,4-Dichlorophenol	0.3707	0.3294	11	*TM
25	TM	1,2,4-Trichlorobenzene	0.3850	0.3326	14	TM
26	TM	3,4-Dimethylphenol	0.5695	0.4899	14	TM
27	TM	Naphthalene	1.295	1.098	15	TM
28	TM	4-Chloroaniline	0.4852	0.4064	16	TM
29	TM	2,6-Dichlorophenol	0.3392	0.2872	15	TM
30	TM	Hexachloropropene	0.2572	0.2341	9.0	TM
31	*TM	Hexachlorobutadiene	0.2130	0.1890	11	*TM
32	TM	Caprolactum	0.2270	0.2016	11	TM
33	*TM	4-Chloro-3-methylphenol	0.3980	0.3571	10	*TM
34	TM	2-Methylnaphthalene	0.8168	0.6740	17	TM
35	TM	1-Methylnaphthalene	0.8142	0.6890	15	TM
36	**TML	Hexachlorocyclopentadiene	0.3816	0.4093	7.3	**TML 2.8
37	TM	1,2,4,5-Tetrachlorobenzene	0.7484	0.6277	16	TM
38	*TM	2,4,6-Trichlorophenol	0.5262	0.4695	11	*TM
39	TM	2,4,5-Trichlorophenol	0.5571	0.4836	13	TM
40	TM	1,1'-Biphenyl	1.964	1.652	16	TM

Average

12.2

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y012.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	2-Chloronaphthalene	1.564	1.389	11	TM
42	TM	2-Nitroaniline	0.5399	0.4821	11	TM
43	TM	Dimethyl phthalate	1.814	1.613	11	TM
44	TM	2,6-DNT	0.4186	0.3880	7.3	TM
45	TM	Acenaphthylene	2.523	2.168	14	TM
46	TM	3-Nitroaniline	0.4681	0.4202	10	TM
47	*TM	Acenaphthene	1.528	1.272	17	*TM
48	**TML	2,4-Dinitrophenol	0.2155	0.2397	11	**TML 9.2
49	**TM	4-Nitrophenol	0.3618	0.3499	3.3	**TM
50	TM	Dibenzofuran	2.109	1.730	18	TM
51	TM	2,4-DNT	0.5331	0.4841	9.2	TM
52	TM	2,3,4,6-Tetrachlorophenol	0.4598	0.4180	9.1	TM
53	TM	Diethyl phthalate	1.746	1.531	12	TM
54	TML	4-Chlorophenyl phenyl ether	0.7439	0.6243	16	TML 10
55	TML	Fluorene	1.604	1.340	16	TML 11
56	TM	4-Nitroaniline	0.4889	0.4338	11	TM
57	TML	4,6-Dinitro-2-methylphenol	0.1817	0.1817	0.00	TML 7.9
58	TM	Diphenyl amine	0.6800	0.5607	18	TM
59	*TM	n-Nitrosodiphenylamine	0.6800	0.5607	18	*TM
60	TM	1,2-Diphenylhydrazine	1.075	0.9477	12	TM
61	TM	4-Bromophenyl phenyl ether	0.2723	0.2417	11	TM
62	TM	Hexachlorobenzene	0.2863	0.2508	12	TM
63	TM	Atrazine	0.2489	0.2399	3.6	TM
64	*TM	Pentachlorophenol	0.1772	0.1717	3.1	*TM
65	TM	Phenanthrene	1.397	1.162	17	TM
66	TM	Anthracene	1.437	1.228	15	TM
67	TM	Carbazol	1.343	1.179	12	TM
68	TM	Di-n-butylphthalate	1.555	1.410	9.3	TM
69	*TM	Fluoranthene	1.499	1.316	12	*TM
70	TM	Benzidine	0.5685	0.5475	3.7	TM
71	TM	Pyrene	1.653	1.493	9.7	TM
72	TM	Butyl benzylphthalate	0.7384	0.7010	5.1	TM
73	TM	3,3'-Dichlorobenzidine	0.5388	0.5024	6.8	TM
74	TM	Benz (a) anthracene	1.404	1.159	18	TM
75	TM	Bis (2-ethylhexyl) phthalate	0.9278	0.8150	12	TM
76	TM	Chrysene	1.477	1.320	11	TM
77	*TM	Di-n-octylphthalate	1.725	1.640	4.9	*TM
78	TM	Benzo (b) fluoranthene	1.499	1.283	14	TM
79	TM	Benzo (k) fluoranthene	1.428	1.271	11	TM
80	*TM	Benzo (a) pyrene	1.364	1.231	9.7	*TM

Average

10.9

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y012.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	Indeno (1,2,3-cd) pyrene	1.580	1.378	13	TM
82	TM	Dibenz (a,h) anthracene	1.342	1.207	10	TM
83	TM	Benzo (g,h,i) perylene	1.280	1.124	12	TM
84						
85						
86						
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113						
114						
115						
116						
117						
118						
119						
120		Average			11.7	

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y012.D  
 Acq On : 25 Oct 18 15:44  
 Sample : SS- 8270 10/18/18  
 Misc :

Vial: 12  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:58 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	386868	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1656168	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	862976	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.77	188	1603520	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.88	240	1476646	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.83	264	1648401	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	0.00	112	0	0.00000	ppb	
Spiked Amount				200.000		
			Recovery	=	0.000%	
6) Phenol-D6 (S)	0.00	99	0	0.00000	ppb	
Spiked Amount				200.000		
			Recovery	=	0.000%	
22) Nitrobenzene-D5 (S)	6.11	82	83944	4.49109	ppb	-0.07
Spiked Amount				100.000		
			Recovery	=	4.491%	
46) 2-Fluorobiphenyl (S)	8.22	172	136	0.00378	ppb	0.00
Spiked Amount				100.000		
			Recovery	=	0.004%	
64) 2,4,6-Tribromophenol (S)	0.00	330	0	0.00000	ppb	
Spiked Amount				200.000		
			Recovery	=	0.000%	
82) Terphenyl-D14 (S)	12.62	244	747	0.01911	ppb	0.00
Spiked Amount				100.000		
			Recovery	=	0.019%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	6016	5.10659		95
3) n-Nitrosodimethylamine	1.98	42	125217	40.26334	ppb	92
4) Pyridine	1.99	79	194063	41.71931	ppb	92
7) Phenol	5.14	94	1162248	48.07770	ppb	94
8) Aniline	5.17	66	837054m	43.31498	ppb	94
9) Bis (2-chloroethyl) ether	5.24	63	580808	45.93893	ppb	99
10) 2-Chlorophenol	5.30	128	830627	44.13361	ppb	97
11) 1,3-DCB	5.47	146	862923	44.26776	ppb	98
12) 1,4-DCB	5.56	146	864003	44.24378	ppb	99
13) Benzyl alcohol	5.70	108	520550	42.74059	ppb	100
14) 1,2-DCB	5.73	146	829434	44.69625	ppb	98
15) 2-Methylphenol	5.83	107	660841	44.09964	ppb	100
16) Bis (2-chloroisopropyl) et	5.85	45	1052745	43.98987	ppb	94
17) Acetophenone	6.00	105	824838	43.45115	ppb	95
18) 3&4-Methylphenol	6.00	107	1283819	89.25332	ppb	98
19) n-Nitrosodi-n-propylamine	6.00	70	514399	41.29139	ppb	98
20) Hexachloroethane	6.12	117	331921	45.21911	ppb	87
23) Nitrobenzene	6.20	77	930745	45.43657	ppb	99
24) Isophorone	6.47	82	1625471	44.89277	ppb	98
25) 2-Nitrophenol	6.55	139	461761	44.39936	ppb	92
26) 2,4-Dimethylphenol	6.60	122	756913	43.46783	ppb	96
27) Benzoic acid	6.75	105	714663	45.40513	ppb	99
28) Bis (2-chloroethoxy) metha	6.70	93	976896	47.91932	ppb	99
29) 2,4-Dichlorophenol	6.83	162	682004	44.43502	ppb	96
30) 1,2,4-Trichlorobenzene	6.92	180	688647	43.20203	ppb	99
31) 3,4-Dimethylphenol	6.93	107	1014136	43.00605	ppb	99
32) Naphthalene	7.02	128	2272459	42.36614	ppb	100
33) 4-Chloroaniline	7.08	127	841244	41.87769	ppb	97
34) 2,6-Dichlorophenol	7.08	162	594483	42.32679	ppb	98
35) Hexachloropropene	7.11	213	484652	45.50405	ppb	97
36) Hexachlorobutadiene	7.14	225	391221	44.36270	ppb	99
37) Caprolactum	7.52	55	417379	44.41554	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1025Y012.D Y1025NC.M Thu Oct 25 17:30:36 2018



## Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y012.D  
 Acq On : 25 Oct 18 15:44  
 Sample : SS- 8270 10/18/18  
 Misc :

Vial: 12  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:58 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	739202	44.85431	ppb	97
39) 2-Methylnaphthalene	7.81	142	1395302	41.25897	ppb	99
40) 1-Methylnaphthalene	7.92	142	1426411	42.31170	ppb	99
42) Hexachlorocyclopentadiene	7.98	237	441562	48.60381	ppb	98
43) 1,2,4,5-Tetrachlorobenzene	8.00	216	677153	41.93852	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	506412	44.60780	ppb	97
45) 2,4,5-Trichlorophenol	8.19	196	521633	43.39978	ppb	98
47) 1,1'-Biphenyl	8.34	154	1782334	42.06992	ppb	98
48) 2-Chloronaphthalene	8.37	162	1498212	44.40410	ppb	98
49) 2-Nitroaniline	8.49	65	520087	44.65029	ppb	96
50) Dimethyl phthalate	8.70	163	1740390	44.48142	ppb	99
51) 2,6-DNT	8.78	165	418526	46.33923	ppb	88
52) Acenaphthylene	8.85	152	2338312	42.96223	ppb	99
53) 3-Nitroaniline	8.98	138	453228	44.87761	ppb	94
54) Acenaphthene	9.06	154	1371833	41.60805	ppb	100
55) 2,4-Dinitrophenol	9.10	184	258568	45.38445	ppb	89
56) 4-Nitrophenol	9.17	65	377398	48.34839	ppb	94
57) Dibenzofuran	9.26	168	1866460	41.01831	ppb	98
58) 2,4-DNT	9.25	165	522235	45.40315	ppb	98
59) 2,3,4,6-Tetrachlorophenol	9.40	232	450896	45.45412	ppb	95
60) Diethyl phthalate	9.52	149	1651997	43.86727	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.65	204	673453	44.86290	ppb	97
62) Fluorene	9.66	166	1445945	44.38941	ppb	99
63) 4-Nitroaniline	9.71	138	467969	44.36467	ppb	91
66) 4,6-Dinitro-2-methylphenol	9.73	198	364179	46.03995	ppb	95
67) Diphenyl amine	9.80	169	2247708	82.45409	ppb	99
68) n-Nitrosodiphenylamine	9.80	169	2247708	82.45409	ppb	99
69) 1,2-Diphenylhydrazine	9.85	77	1899544	44.09312	ppb	94
70) 4-Bromophenyl phenyl ether	10.23	248	484488	44.39067	ppb	92
71) Hexachlorobenzene	10.30	284	502790	43.80056	ppb	92
72) Atrazine	10.42	200	240392	24.09041	ppb	98
73) Pentachlorophenol	10.53	266	344170	48.45559	ppb	98
74) Phenanthrene	10.79	178	2328547	41.57645	ppb	100
75) Anthracene	10.86	178	2461509	42.72674	ppb	99
76) Carbazol	11.05	167	2363833	43.90959	ppb	98
77) Di-n-butylphthalate	11.43	149	2826248	45.34111	ppb	99
78) Fluoranthene	12.19	202	2638457	43.89844	ppb	98
80) Benzidine	12.34	184	1010610	48.15348	ppb	99
81) Pyrene	12.47	202	2755960	45.15571	ppb	99
83) Butyl benzylphthalate	13.19	149	1293875	47.46928	ppb	93
84) 3,3'-Dichlorobenzidine	13.83	252	927314	46.61970	ppb	98
85) Benz (a) anthracene	13.86	228	2138564	41.24879	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1504349	43.92262	ppb	99
87) Chrysene	13.90	228	2436471	44.67122	ppb	100
88) Di-n-octylphthalate	14.63	149	3027268	47.53469	ppb	96
90) Benzo (b) fluoranthene	15.23	252	2644578	42.81628	ppb	99
91) Benzo (k) fluoranthene	15.28	252	2618826	44.49658	ppb	100
92) Benzo (a) pyrene	15.73	252	2536913	45.14799	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.85	276	2840172	43.62729	ppb	97
94) Dibenz (a,h) anthracene	17.90	278	2486583	44.96871	ppb	98
95) Benzo (g,h,i) perylene	18.48	276	2316893	43.92428	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y012.D Y1025NC.M Thu Oct 25 17:30:36 2018

Quantitation Report

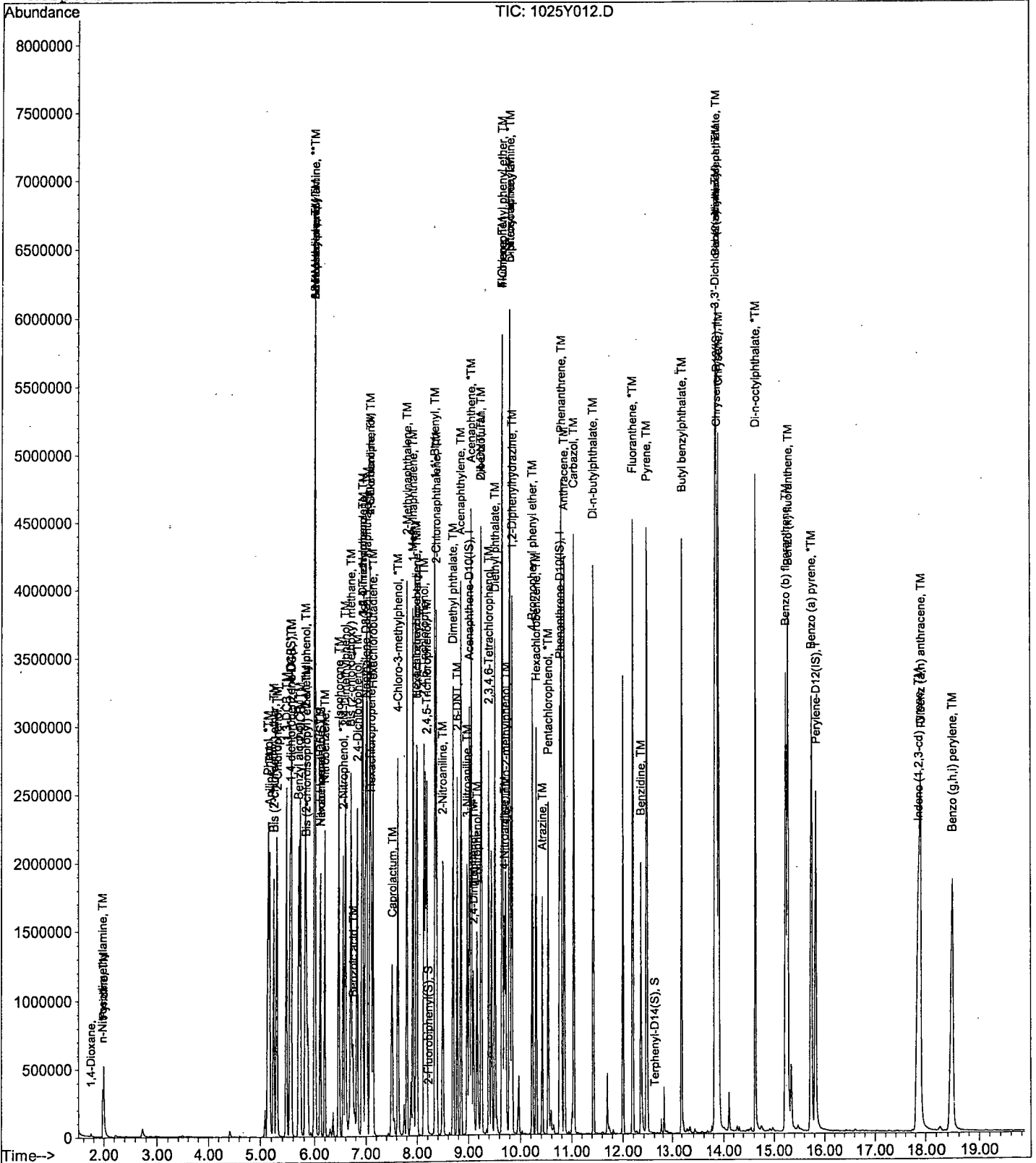
Data File : M:\YODA\DATA\Y181025\1025Y012.D  
Acq On : 25 Oct 18 15:44  
Sample : SS- 8270 10/18/18  
Misc :

Vial: 12  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:58 2018

Quant Results File: Y1025NC.RES

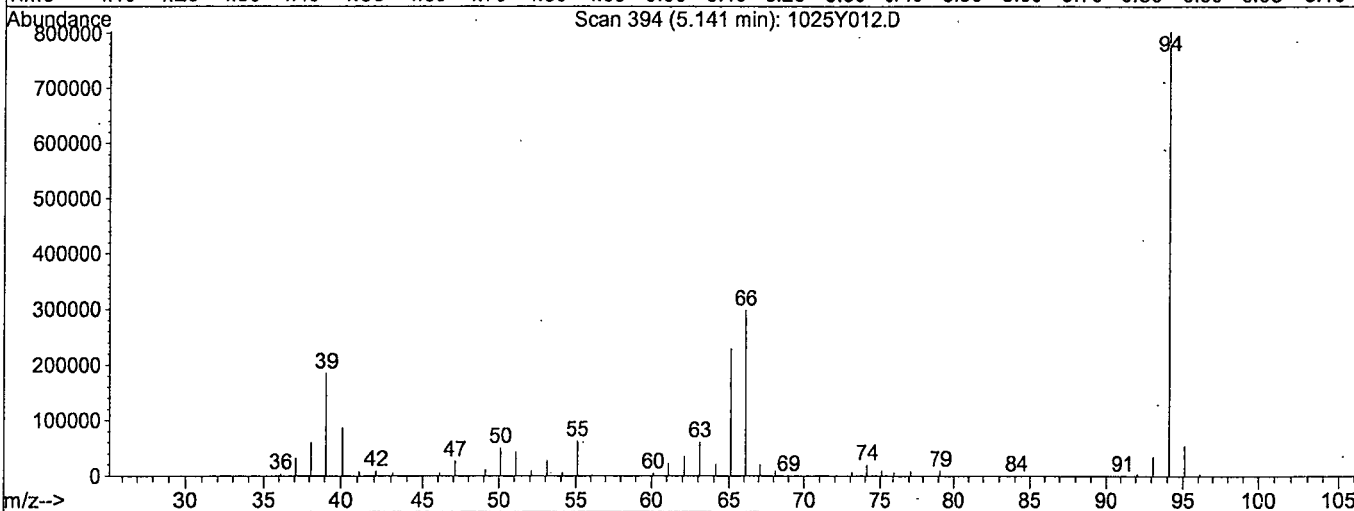
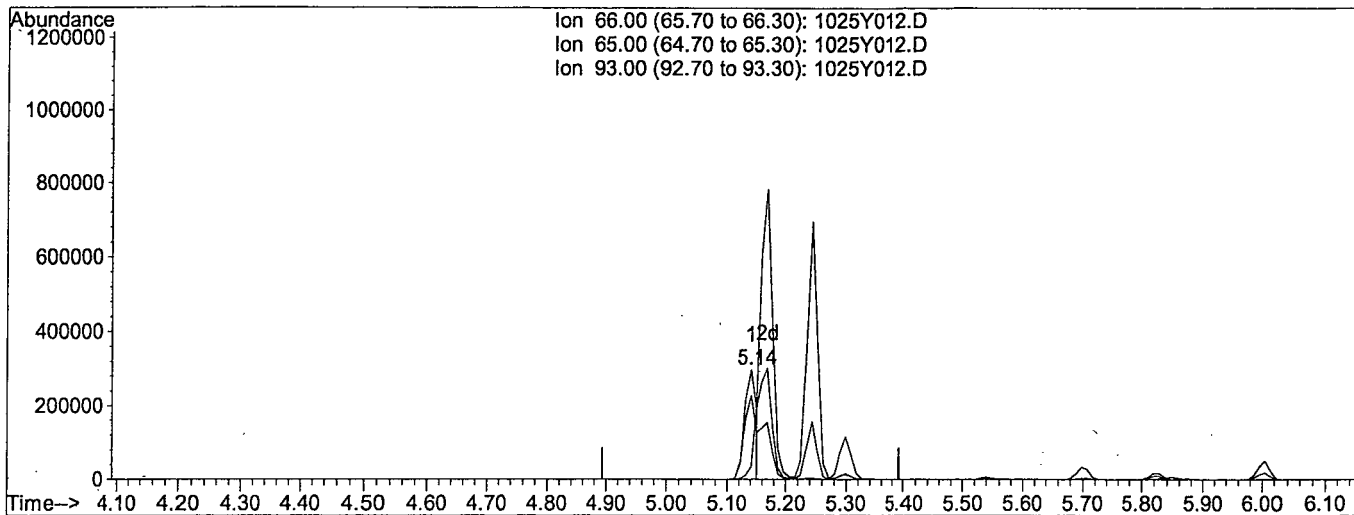
Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y012.D Vial: 12  
 Acq On : 25 Oct 18 15:44 Operator: MA  
 Sample : SS- 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Oct 25 16:57 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y012.D

(8) Aniline (TM)

5.14min 22.0314ppb

response 425752

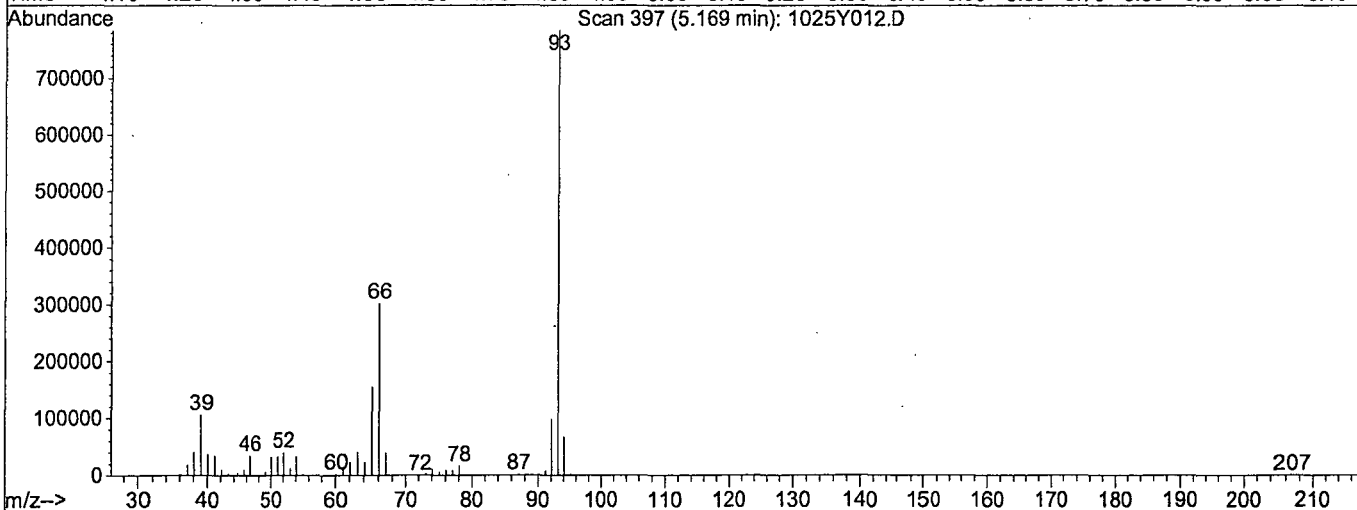
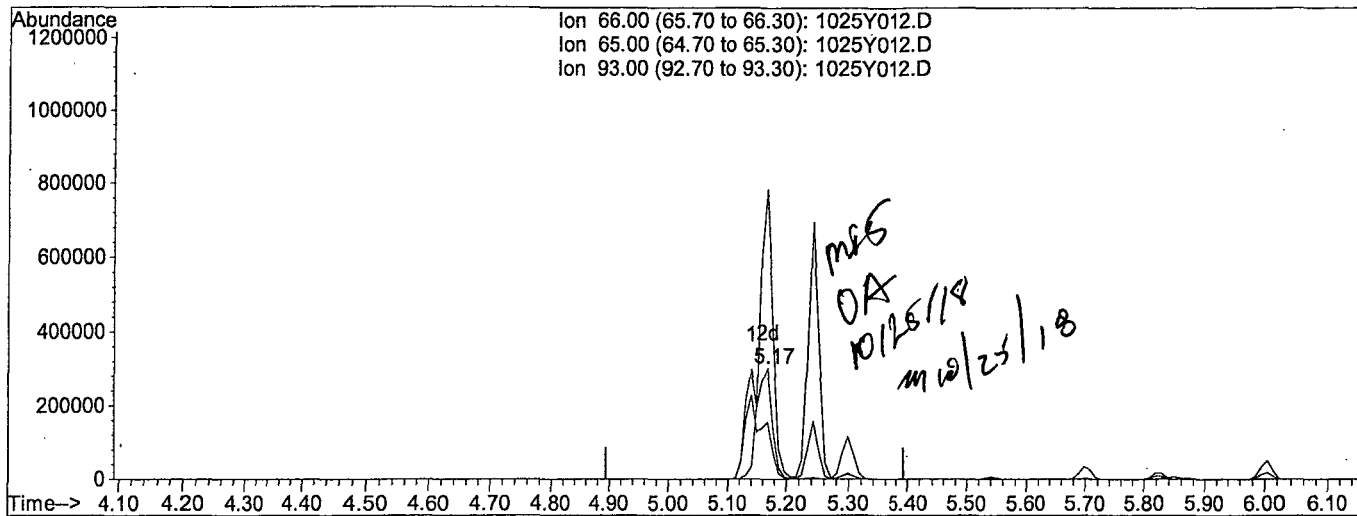
Ion	Exp%	Act%
66.00	100	100
65.00	73.00	76.70
93.00	16.80	11.42#
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y012.D  
 Acq On : 25 Oct 18 15:44  
 Sample : SS- 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:58 2018

Vial: 12  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y012.D

(8) Aniline (TM)

5.17min 43.3150ppb m

response 837054

Ion	Exp%	Act%
66.00	100	100
65.00	73.00	51.40
93.00	16.80	259.64#
0.00	0.00	0.00

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Yoda  
Initial Cal. Date: 10/25/18  
Data File: 1025Y078.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD				I
2		1,4-Dioxane	0.1218	0.1591	31		
3	TM	n-Nitrosodimethylamine	0.3216	0.3958	23		TM
4	TM	Pyridine	0.4810	0.5613	17		TM
5	S	2-Fluorophenol (S)	1.572	1.575	0.23		S
6	S	Phenol-D6 (S)	1.868	1.859	0.52		S
7	*TM	Phenol	2.499	2.820	13		*TM
8	TM	Aniline	1.998	2.274	14		TM
9	TM	Bis (2-chloroethyl) ether	1.307	1.482	13		TM
10	TM	2-Chlorophenol	1.946	2.173	12		TM
11	TM	1,3-DCB	2.015	2.224	10		TM
12	*TM	1,4-DCB	2.019	2.207	9.3		*TM
13	TM	Benzyl alcohol	1.259	1.420	13		TM
14	TM	1,2-DCB	1.919	2.028	5.7		TM
15	TM	2-Methylphenol	1.549	1.748	13		TM
16	TM	Bis (2-chloroisopropyl) ether	2.474	2.778	12		TM
17	TML	Acetophenone	2.188	1.988	9.2		TML 3.3
18	TML	3&4-Methylphenol	1.681	1.487	12		TML 1.6
19	**TM	n-Nitrosodi-n-propylamine	1.288	1.252	2.8		**TM
20	TM	Hexachloroethane	0.7589	0.7701	1.5		TM
21	I	Napthalene-D8(IS)	ISTD				I
22	S	Nitrobenzene-D5(S)	0.4514	0.4328	4.1		S
23	TM	Nitrobenzene	0.4947	0.5305	7.2		TM
24	TM	Isophorone	0.8745	0.9232	5.6		TM
25	*TM	2-Nitrophenol	0.2512	0.2678	6.6		*TM
26	TM	2,4-Dimethylphenol	0.4206	0.4414	5.0		TM
27	TML	Benzoic acid	0.3415	0.4217	24		TML 9.3
28	TM	Bis (2-chloroethoxy) methane	0.4924	0.5139	4.4		TM
29	*TM	2,4-Dichlorophenol	0.3707	0.3885	4.8		*TM
30	TM	1,2,4-Trichlorobenzene	0.3850	0.3940	2.3		TM
31	TM	3,4-Dimethylphenol	0.5695	0.6073	6.6		TM
32	TM	Napthalene	1.295	1.322	2.0		TM
33	TM	4-Chloroaniline	0.4852	0.4744	2.2		TM
34	TM	2,6-Dichlorophenol	0.3392	0.3382	0.31		TM
35	TM	Hexachloropropene	0.2572	0.2811	9.3		TM
36	*TM	Hexachlorobutadiene	0.2130	0.2224	4.4		*TM
37	TM	Caprolactum	0.2270	0.2516	11		TM
38	*TM	4-Chloro-3-methylphenol	0.3980	0.4322	8.6		*TM
39	TM	2-Methylnapthalene	0.8168	0.8466	3.7		TM
40	TM	1-Methylnapthalene	0.8142	0.8389	3.0		TM

Average

8.6

\* 27  
\* 25

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y078.D

		Compound	MEAN	CCRF	%D	%Drift	
41	I	Acenaphthene-D10(IS)	ISTD			I	
42	**TML	Hexachlorocyclopentadiene	0.3816	0.4403	15	**TML	4.1
43	TM	1,2,4,5-Tetrachlorobenzene	0.7484	0.7380	1.4	TM	
44	*TM	2,4,6-Trichlorophenol	0.5262	0.5500	4.5	*TM	
45	TM	2,4,5-Trichlorophenol	0.5571	0.5805	4.2	TM	
46	S	2-Fluorobiphenyl(S)	1.667	1.523	8.7	S	
47	TM	1,1'-Biphenyl	1.964	1.940	1.2	TM	
48	TM	2-Chloronaphthalene	1.564	1.574	0.65	TM	
49	TM	2-Nitroaniline	0.5399	0.5895	9.2	TM	
50	TM	Dimethyl phthalate	1.814	1.878	3.6	TM	
51	TM	2,6-DNT	0.4186	0.4480	7.0	TM	
52	TM	Acenaphthylene	2.523	2.578	2.2	TM	
53	TM	3-Nitroaniline	0.4681	0.5042	7.7	TM	
54	*TM	Acenaphthene	1.528	1.504	1.6	*TM	
55	**TML	2,4-Dinitrophenol	0.2155	0.2679	24	**TML	0.23
56	**TM	4-Nitrophenol	0.3618	0.4147	15	**TM	
57	TM	Dibenzofuran	2.109	2.082	1.3	TM	
58	TM	2,4-DNT	0.5331	0.5601	5.1	TM	
59	TM	2,3,4,6-Tetrachlorophenol	0.4598	0.4946	7.6	TM	
60	TM	Diethyl phthalate	1.746	1.817	4.1	TM	
61	TML	4-Chlorophenyl phenyl ether	0.7439	0.7158	3.8	TML	6.1
62	TML	Fluorene	1.604	1.573	1.9	TML	7.6
63	TM	4-Nitroaniline	0.4889	0.5272	7.8	TM	
64	S	2,4,6-Tribromophenol(S)	0.2019	0.1876	7.1	S	
65	I	Phenanthrene-D10(IS)	ISTD			I	
66	TML	4,6-Dinitro-2-methylphenol	0.1817	0.2148	18	TML	8.0
67	TM	Diphenyl amine	0.6800	0.6759	0.60	TM	
68	*TM	n-Nitrosodiphenylamine	0.6800	0.6759	0.60	*TM	
69	TM	1,2-Diphenylhydrazine	1.075	1.100	2.4	TM	
70	TM	4-Bromophenyl phenyl ether	0.2723	0.2789	2.4	TM	
71	TM	Hexachlorobenzene	0.2863	0.2950	3.0	TM	
72	TM	Atrazine	0.2489	0.2703	8.6	TM	
73	*TM	Pentachlorophenol	0.1772	0.2090	18	*TM	
74	TM	Phenanthrene	1.397	1.401	0.25	TM	
75	TM	Anthracene	1.437	1.451	0.98	TM	
76	TM	Carbazol	1.343	1.393	3.7	TM	
77	TM	Di-n-butylphthalate	1.555	1.648	6.0	TM	
78	*TM	Fluoranthene	1.499	1.544	3.0	*TM	
79	I	Chrysene-D12(IS)	ISTD			I	
80	TM	Benzidine	0.5685	0.5780	1.7	TM	

Average

5.8

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y078.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	Pyrene	1.653	1.751	5.9	TM
82	S	Terphenyl-D14(S)	1.059	1.027	3.0	S
83	TM	Butyl benzylphthalate	0.7384	0.8064	9.2	TM
84	TM	3,3'-Dichlorobenzidine	0.5388	0.5828	8.2	TM
85	TM	Benz (a) anthracene	1.404	1.369	2.5	TM
86	TM	Bis (2-ethylhexyl) phthalate	0.9278	0.9301	0.26	TM
87	TM	Chrysene	1.477	1.536	4.0	TM
88	*TM	Di-n-octylphthalate	1.725	1.937	12	*TM
89	I	Perylene-D12(IS)	ISTD			I
90	TM	Benzo (b) fluoranthene	1.499	1.572	4.9	TM
91	TM	Benzo (k) fluoranthene	1.428	1.434	0.39	TM
92	*TM	Benzo (a) pyrene	1.364	1.469	7.7	*TM
93	TM	Indeno (1,2,3-cd) pyrene	1.580	1.701	7.7	TM
94	TM	Dibenz (a,h) anthracene	1.342	1.458	8.7	TM
95	TM	Benzo (g,h,i) perylene	1.280	1.408	10.0	TM
96						
97						
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116						
117						
118						
119						
120						

Average

6.0

Data File : M:\YODA\DATA\Y181025\1025Y078.D Vial: 78  
 Acq On : 30 Oct 18 9:34 Operator: MA  
 Sample : 50ug/mL 8270 10/18/18 (2) Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 30 10:04 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.53	152	340030	40.00000	ppb	-0.01
21) Napthalene-D8 (IS)	6.99	136	1373939	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.01	164	733668	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1363202	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1272643	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1426774	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.94	112	1339170	100.23335	ppb	0.00
Spiked Amount 200.000			Recovery =	50.116%		
6) Phenol-D6 (S)	5.12	99	1580021	99.48229	ppb	0.00
Spiked Amount 200.000			Recovery =	49.741%		
22) Nitrobenzene-D5 (S)	6.17	82	743247	47.93275	ppb	0.00
Spiked Amount 100.000			Recovery =	47.933%		
46) 2-Fluorobiphenyl (S)	8.22	172	1396480	45.66353	ppb	0.00
Spiked Amount 100.000			Recovery =	45.664%		
64) 2,4,6-Tribromophenol (S)	9.95	330	344098	92.93334	ppb	0.00
Spiked Amount 200.000			Recovery =	46.467%		
82) Terphenyl-D14 (S)	12.62	244	1633342	48.48240	ppb	0.00
Spiked Amount 100.000			Recovery =	48.482%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	6763m	6.53142		72
3) n-Nitrosodimethylamine	1.98	42	168229	61.54502	ppb	100
4) Pyridine	1.99	79	238575	58.35323	ppb	100
7) Phenol	5.14	94	1198774	56.41931	ppb	99
8) Aniline	5.14	66	966647	56.91125	ppb	# 96
9) Bis (2-chloroethyl) ether	5.24	63	629824	56.67781	ppb	98
10) 2-Chlorophenol	5.30	128	923500	55.82721	ppb	99
11) 1,3-DCB	5.47	146	945360	55.17703	ppb	98
12) 1,4-DCB	5.56	146	938188	54.66036	ppb	98
13) Benzyl alcohol	5.70	108	603579	56.38424	ppb	99
14) 1,2-DCB	5.73	146	861853	52.84064	ppb	99
15) 2-Methylphenol	5.82	107	742969	56.40977	ppb	99
16) Bis (2-chloroisopropyl) et	5.84	45	1180688	56.13196	ppb	99
17) Acetophenone	6.01	105	844896	51.63329	ppb	96
18) 3&4-Methylphenol	6.01	107	1264249	101.61569	ppb	100
19) n-Nitrosodi-n-propylamine	6.01	70	532088	48.59465	ppb	96
20) Hexachloroethane	6.11	117	327305	50.73241	ppb	96
23) Nitrobenzene	6.20	77	911013	53.60883	ppb	100
24) Isophorone	6.47	82	1585485	52.78327	ppb	99
25) 2-Nitrophenol	6.55	139	460011	53.31686	ppb	97
26) 2,4-Dimethylphenol	6.59	122	758112	52.47982	ppb	98
27) Benzoic acid	6.75	105	724279	54.64608	ppb	98
28) Bis (2-chloroethoxy) metha	6.70	93	882668	52.19112	ppb	100
29) 2,4-Dichlorophenol	6.82	162	667160	52.39687	ppb	99
30) 1,2,4-Trichlorobenzene	6.92	180	676673	51.17093	ppb	99
31) 3,4-Dimethylphenol	6.93	107	1042976	53.31441	ppb	99
32) Napthalene	7.01	128	2269666	51.00605	ppb	100
33) 4-Chloroaniline	7.07	127	814747	48.89005	ppb	98
34) 2,6-Dichlorophenol	7.08	162	580798	49.84688	ppb	98
35) Hexachloropropene	7.10	213	482759	54.63706	ppb	98
36) Hexachlorobutadiene	7.14	225	381969	52.21087	ppb	99
37) Caprolactum	7.52	55	432163	55.43562	ppb	98



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y078.D  
 Acq On : 30 Oct 18 9:34  
 Sample : 50ug/mL 8270 10/18/18 (2)  
 Misc :

Vial: 78  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 30 10:04 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	742353	54.29858	ppb	98
39) 2-Methylnaphthalene	7.81	142	1453984	51.82588	ppb	99
40) 1-Methylnaphthalene	7.92	142	1440717	51.51472	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	403809	52.07300	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	676826	49.30630	ppb	98
44) 2,4,6-Trichlorophenol	8.13	196	504436	52.26513	ppb	100
45) 2,4,5-Trichlorophenol	8.19	196	532385	52.10117	ppb	99
47) 1,1'-Biphenyl	8.35	154	1779235	49.39865	ppb	98
48) 2-Chloronaphthalene	8.37	162	1443549	50.32462	ppb	99
49) 2-Nitroaniline	8.49	65	540621	54.59343	ppb	98
50) Dimethyl phthalate	8.70	163	1722725	51.79015	ppb	99
51) 2,6-DNT	8.78	165	410855	53.50743	ppb	94
52) Acenaphthylene	8.86	152	2364502	51.10027	ppb	100
53) 3-Nitroaniline	8.98	138	462421	53.85794	ppb	96
54) Acenaphthene	9.06	154	1379526	49.21586	ppb	99
55) 2,4-Dinitrophenol	9.10	184	245687	49.88415	ppb	95
56) 4-Nitrophenol	9.17	65	380356	57.31546	ppb	95
57) Dibenzofuran	9.26	168	1909427	49.35842	ppb	93
58) 2,4-DNT	9.25	165	513701	52.53268	ppb	95
59) 2,3,4,6-Tetrachlorophenol	9.40	232	453634	53.79000	ppb	99
60) Diethyl phthalate	9.52	149	1666690	52.05774	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.65	204	656430	53.03234	ppb	98
62) Fluorene	9.66	166	1442953	53.78395	ppb	98
63) 4-Nitroaniline	9.71	138	483465	53.91187	ppb	94
66) 4,6-Dinitro-2-methylphenol	9.73	198	366062	53.97618	ppb	97
67) Diphenyl amine	9.80	169	2303563	99.40004	ppb	99
68) n-Nitrosodiphenylamine	9.80	169	2303563	99.40004	ppb	99
69) 1,2-Diphenylhydrazine	9.84	77	1875061	51.19777	ppb	99
70) 4-Bromophenyl phenyl ether	10.23	248	475186	51.21374	ppb	96
71) Hexachlorobenzene	10.30	284	502685	51.51138	ppb #	85
72) Atrazine	10.42	200	230308	27.14859	ppb	98
73) Pentachlorophenol	10.54	266	356064	58.96756	ppb	98
74) Phenanthrene	10.80	178	2386705	50.12741	ppb	100
75) Anthracene	10.85	178	2472739	50.48831	ppb	100
76) Carbazol	11.05	167	2372858	51.84758	ppb	99
77) Di-n-butylphthalate	11.43	149	2807906	52.98813	ppb	100
78) Fluoranthene	12.19	202	2631775	51.50650	ppb	99
80) Benzidine	12.35	184	919510	50.83588	ppb	100
81) Pyrene	12.46	202	2785700	52.95950	ppb	100
83) Butyl benzylphthalate	13.19	149	1282893	54.61105	ppb	97
84) 3,3'-Dichlorobenzidine	13.82	252	927171	54.08443	ppb	99
85) Benz (a) anthracene	13.86	228	2177512	48.73256	ppb	99
86) Bis (2-ethylhexyl) phthala	13.84	149	1479683	50.12773	ppb	99
87) Chrysene	13.91	228	2444116	51.99459	ppb	100
88) Di-n-octylphthalate	14.63	149	3081385	56.14040	ppb	99
90) Benzo (b) fluoranthene	15.23	252	2804303	52.45479	ppb	99
91) Benzo (k) fluoranthene	15.27	252	2557013	50.19502	ppb	99
92) Benzo (a) pyrene	15.73	252	2619230	53.85353	ppb	98
93) Indeno (1,2,3-cd) pyrene	17.85	276	3033027	53.82667	ppb	98
94) Dibenz (a,h) anthracene	17.90	278	2601194	54.34854	ppb	99
95) Benzo (g,h,i) perylene	18.48	276	2510629	54.99065	ppb	100

Quantitation Report

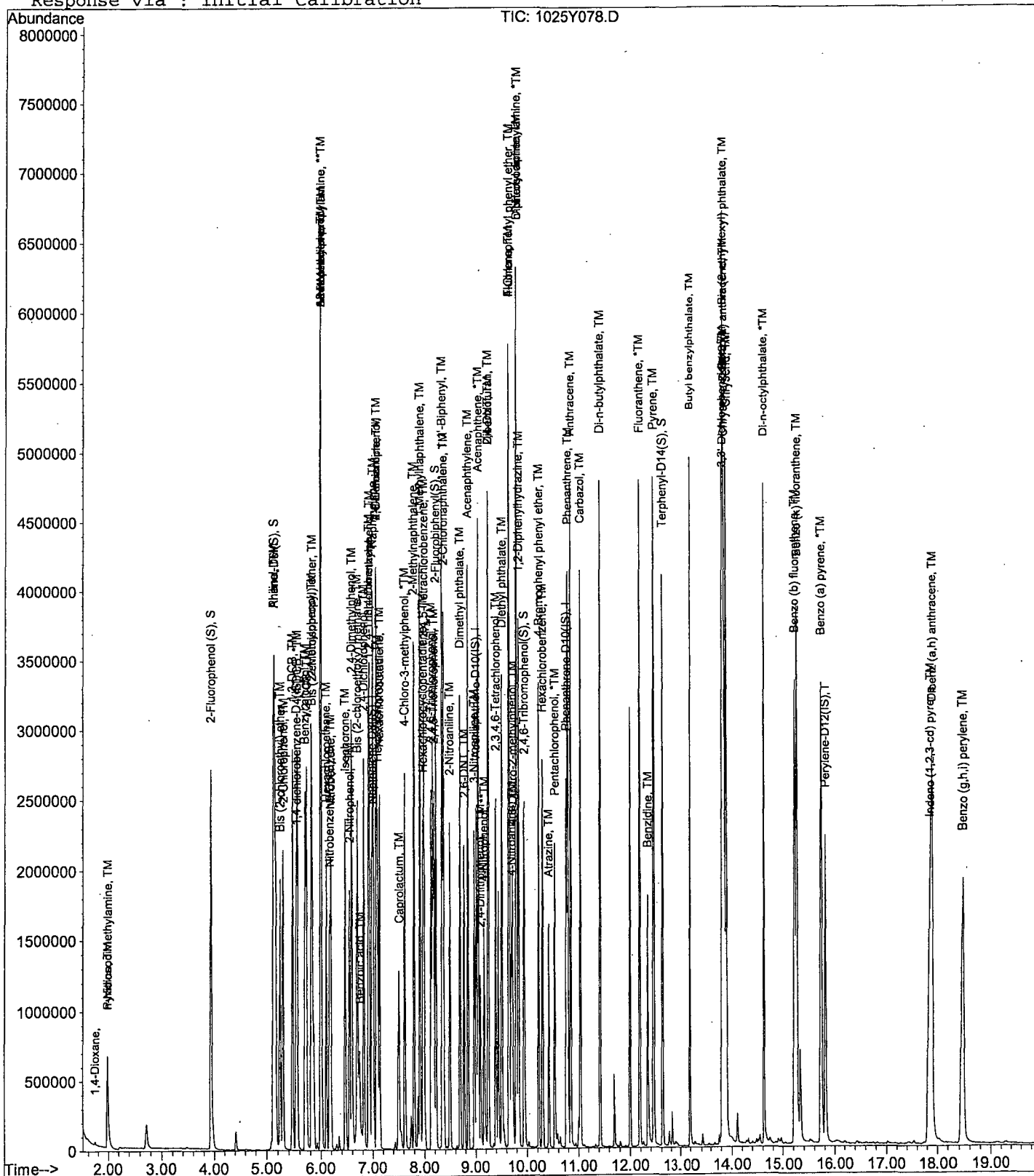
Data File : M:\YODA\DATA\Y181025\1025Y078.D  
Acq On : 30 Oct 18 9:34  
Sample : 50ug/mL 8270 10/18/18 (2)  
Misc :

Vial: 78  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 30 10:04 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration

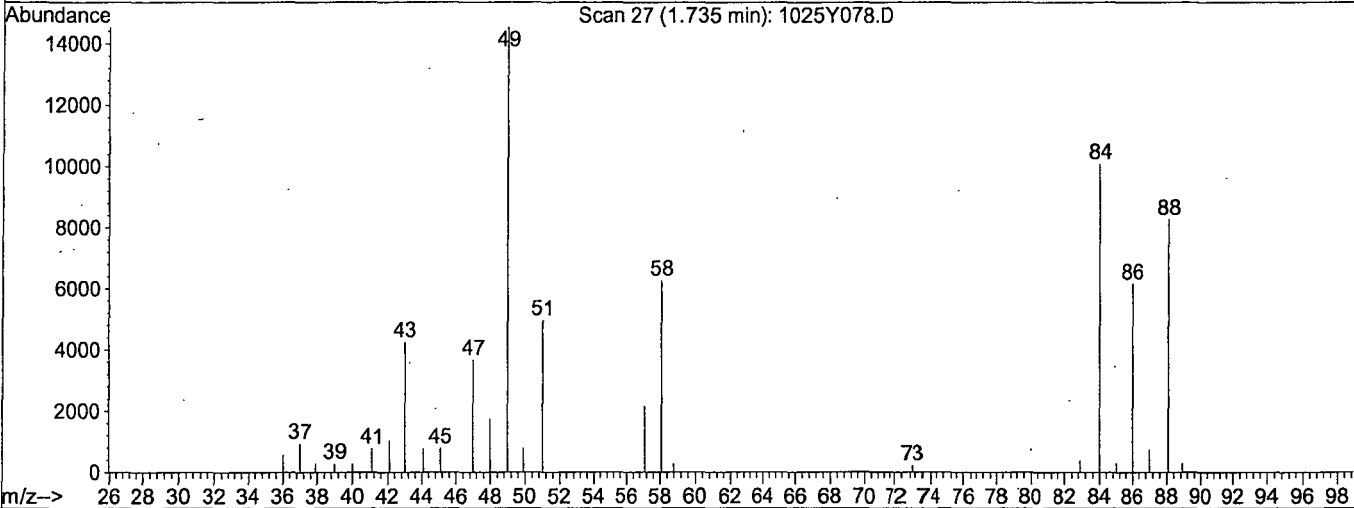
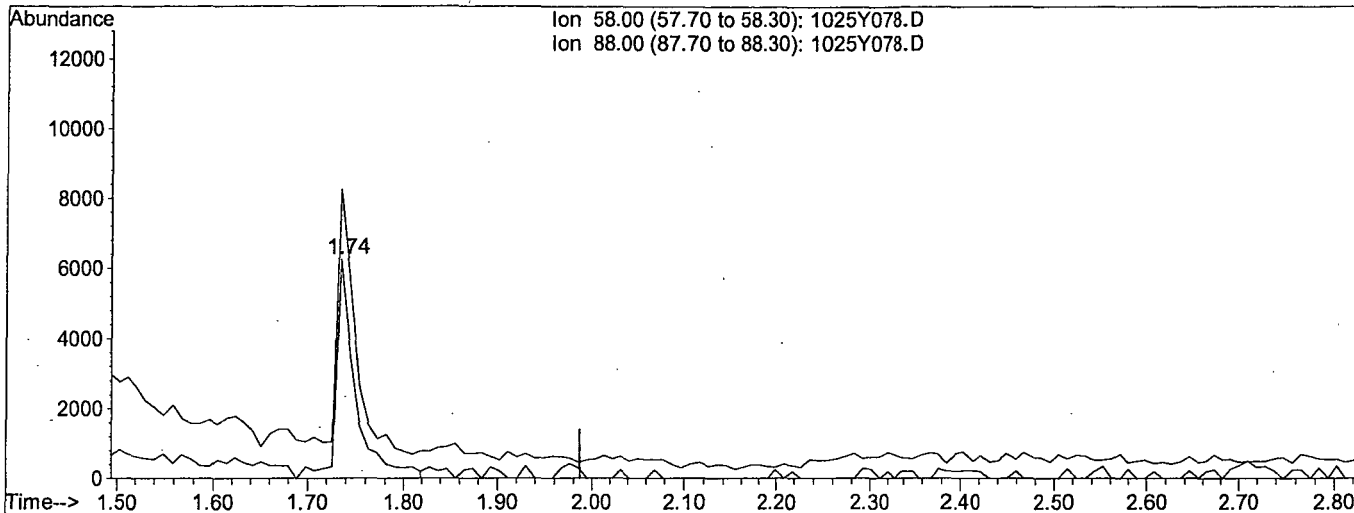


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y078.D  
 Acq On : 30 Oct 18 9:34  
 Sample : 50ug/mL 8270 10/18/18 (2)  
 Misc :  
 Quant Time: Oct 30 10:03 2018

Vial: 78  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y078.D

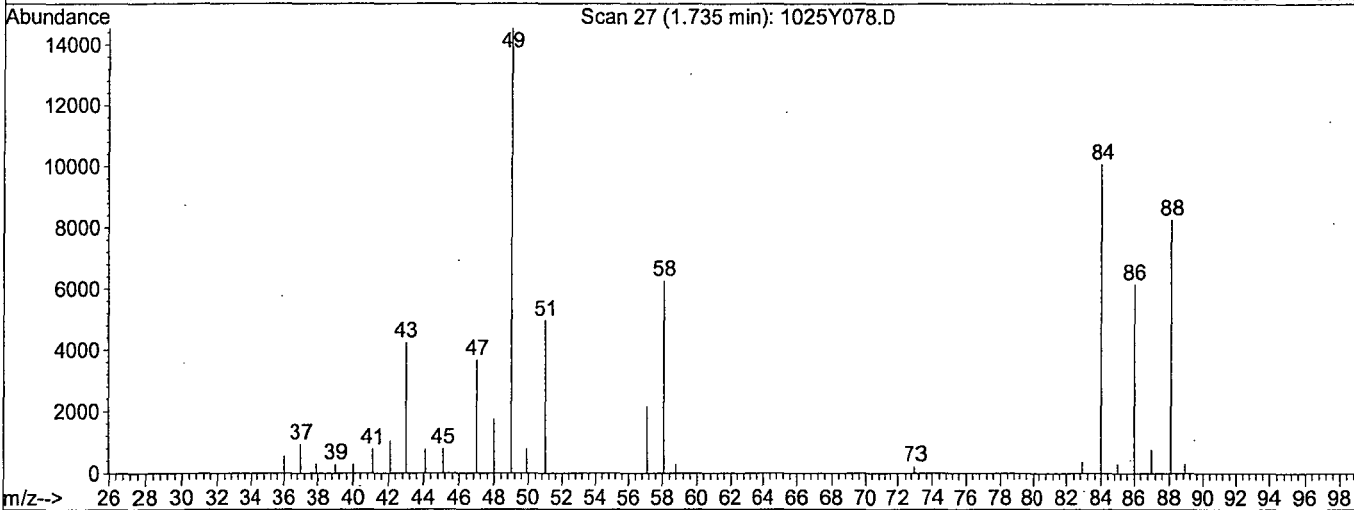
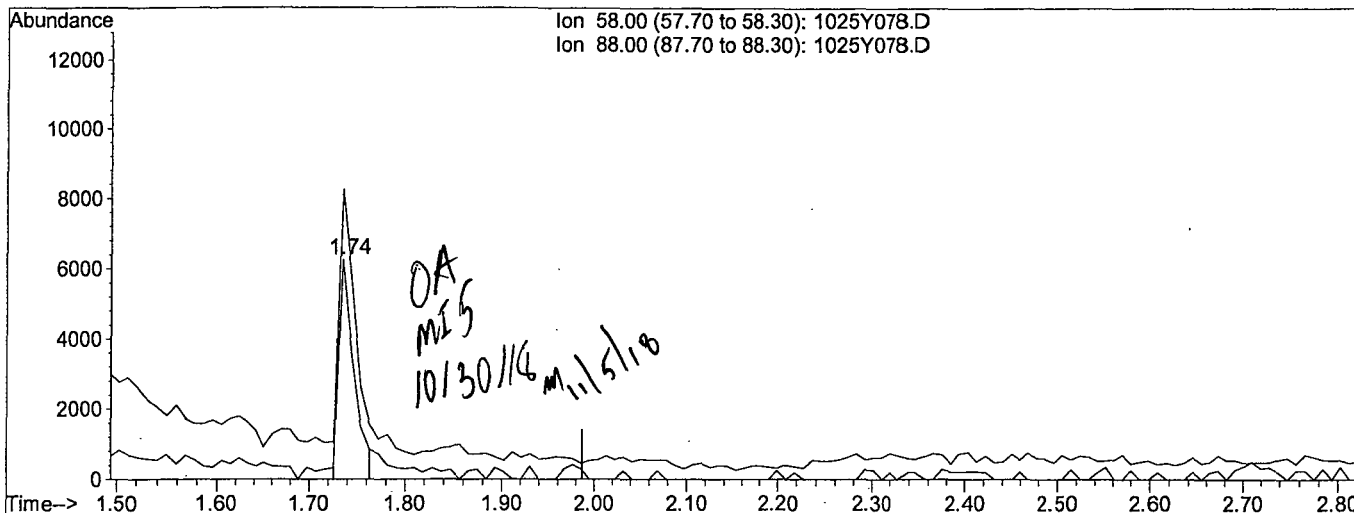
(2) 1,4-Dioxane  
 1.74min 8.4127  
 response 8711

Ion	Exp%	Act%
58.00	100	100
88.00	148.00	113.14
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y078.D Vial: 78  
 Acq On : 30 Oct 18 9:34 Operator: MA  
 Sample : 50ug/mL 8270 10/18/18 (2) Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Oct 30 10:04 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y078.D

(2) 1,4-Dioxane  
 1.74min 6.5314 m  
 response 6763

Ion	Exp%	Act%
58.00	100	100
88.00	148.00	145.73
0.00	0.00	0.00
0.00	0.00	0.00

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Ending Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Yoda  
Initial Cal. Date: 10/25/18  
Data File: 1025Y096.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2		1,4-Dioxane	0.1218	0.1847	52		*NT
3	TM	n-Nitrosodimethylamine	0.3216	0.3686	15	TM	
4	TM	Pyridine	0.4810	0.4989	3.7	TM	
5	S	2-Fluorophenol (S)	1.572	1.545	1.7	S	
6	S	Phenol-D6 (S)	1.868	1.795	3.9	S	
7	*TM	Phenol	2.499	2.697	7.9	*TM	
8	TM	Aniline	1.998	2.178	9.0	TM	
9	TM	Bis (2-chloroethyl) ether	1.307	1.426	9.0	TM	
10	TM	2-Chlorophenol	1.946	2.113	8.6	TM	
11	TM	1,3-DCB	2.015	2.106	4.5	TM	
12	*TM	1,4-DCB	2.019	2.131	5.5	*TM	
13	TM	Benzyl alcohol	1.259	1.390	10	TM	
14	TM	1,2-DCB	1.919	2.019	5.2	TM	
15	TM	2-Methylphenol	1.549	1.674	8.0	TM	
16	TM	Bis (2-chloroisopropyl) ether	2.474	2.632	6.4	TM	
17	TML	Acetophenone	2.188	1.977	9.7	TML	2.6
18	TML	3&4-Methylphenol	1.681	1.490	11	TML	1.8
19	**TM	n-Nitrosodi-n-propylamine	1.288	1.267	1.7	**TM	
20	TM	Hexachloroethane	0.7589	0.8109	6.8	TM	
21	I	Napthalene-D8(IS)	ISTD			I	
22	S	Nitrobenzene-D5(S)	0.4514	0.4933	9.3	S	
23	TM	Nitrobenzene	0.4947	0.5863	18	TM	
24	TM	Isophorone	0.8745	1.028	18	TM	
25	*TM	2-Nitrophenol	0.2512	0.3042	21	*TM	
26	TM	2,4-Dimethylphenol	0.4206	0.4928	17	TM	
27	TML	Benzoic acid	0.3415	0.4862	42	TML	25
28	TM	Bis (2-chloroethoxy) methane	0.4924	0.5624	14	TM	
29	*TM	2,4-Dichlorophenol	0.3707	0.4346	17	*TM	
30	TM	1,2,4-Trichlorobenzene	0.3850	0.3845	0.13	TM	
31	TM	3,4-Dimethylphenol	0.5695	0.5917	3.9	TM	
32	TM	Napthalene	1.295	1.295	0.00	TM	
33	TM	4-Chloroaniline	0.4852	0.4646	4.2	TM	
34	TM	2,6-Dichlorophenol	0.3392	0.3318	2.2	TM	
35	TM	Hexachloropropene	0.2572	0.2770	7.7	TM	
36	*TM	Hexachlorobutadiene	0.2130	0.2201	3.4	*TM	
37	TM	Caprolactum	0.2270	0.2526	11	TM	
38	*TM	4-Chloro-3-methylphenol	0.3980	0.4320	8.5	*TM	
39	TM	2-Methylnapthalene	0.8168	0.8489	3.9	TM	
40	TM	1-Methylnapthalene	0.8142	0.8446	3.7	TM	
Average					10.1		

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y096.D

		Compound	MEAN	CCRF	%D	%Drift
41	I	Acenaphthene-D10(IS)	ISTD			I
42	**TML	Hexachlorocyclopentadiene	0.3816	0.3918	2.7	**TML 6.7
43	TM	1,2,4,5-Tetrachlorobenzene	0.7484	0.6756	9.7	TM
44	*TM	2,4,6-Trichlorophenol	0.5262	0.5085	3.4	*TM
45	TM	2,4,5-Trichlorophenol	0.5571	0.5498	1.3	TM
46	S	2-Fluorobiphenyl(S)	1.667	1.506	9.7	S
47	TM	1,1'-Biphenyl	1.964	1.910	2.7	TM
48	TM	2-Chloronaphthalene	1.564	1.560	0.24	TM
49	TM	2-Nitroaniline	0.5399	0.5746	6.4	TM
50	TM	Dimethyl phthalate	1.814	1.835	1.2	TM
51	TM	2,6-DNT	0.4186	0.4506	7.6	TM
52	TM	Acenaphthylene	2.523	2.524	0.06	TM
53	TM	3-Nitroaniline	0.4681	0.5044	7.7	TM
54	*TM	Acenaphthene	1.528	1.488	2.6	*TM
55	**TML	2,4-Dinitrophenol	0.2155	0.2855	33	**TML 5.4
56	**TM	4-Nitrophenol	0.3618	0.4117	14	**TM
57	TM	Dibenzofuran	2.109	1.966	6.8	TM
58	TM	2,4-DNT	0.5331	0.5385	1.00	TM
59	TM	2,3,4,6-Tetrachlorophenol	0.4598	0.4759	3.5	TM
60	TM	Diethyl phthalate	1.746	1.765	1.1	TM
61	TML	4-Chlorophenyl phenyl ether	0.7439	0.6871	7.6	TML 0.94
62	TML	Fluorene	1.604	1.508	6.0	TML 2.3
63	TM	4-Nitroaniline	0.4889	0.5250	7.4	TM
64	S	2,4,6-Tribromophenol(S)	0.2019	0.1860	7.8	S
65	I	Phenanthrene-D10(IS)	ISTD			I
66	TML	4,6-Dinitro-2-methylphenol	0.1817	0.2112	16	TML 6.2
67	TM	Diphenyl amine	0.6800	0.6259	8.0	TM
68	*TM	n-Nitrosodiphenylamine	0.6800	0.6259	8.0	*TM
69	TM	1,2-Diphenylhydrazine	1.075	1.072	0.24	TM
70	TM	4-Bromophenyl phenyl ether	0.2723	0.2508	7.9	TM
71	TM	Hexachlorobenzene	0.2863	0.2757	3.7	TM
72	TM	Atrazine	0.2489	0.2670	7.3	TM
73	*TM	Pentachlorophenol	0.1772	0.2099	18	*TM
74	TM	Phenanthrene	1.397	1.368	2.1	TM
75	TM	Anthracene	1.437	1.430	0.51	TM
76	TM	Carbazol	1.343	1.380	2.7	TM
77	TM	Di-n-butylphthalate	1.555	1.467	5.7	TM
78	*TM	Fluoranthene	1.499	1.527	1.9	*TM
79	I	Chrysene-D12(IS)	ISTD			I
80	TM	Benzidine	0.5685	0.6097	7.3	TM

Average

6.3

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y096.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	Pyrene	1.653	1.852	12	TM
82	S	Terphenyl-D14(S)	1.059	1.099	3.8	S
83	TM	Butyl benzylphthalate	0.7384	0.8800	19	TM
84	TM	3,3'-Dichlorobenzidine	0.5388	0.5781	7.3	TM
85	TM	Benz (a) anthracene	1.404	1.347	4.1	TM
86	TM	Bis (2-ethylhexyl) phthalate	0.9278	0.9121	1.7	TM
87	TM	Chrysene	1.477	1.507	2.0	TM
88	*TM	Di-n-octylphthalate	1.725	2.029	18	*TM
89	I	Perylene-D12(IS)	ISTD			I
90	TM	Benzo (b) fluoranthene	1.499	1.521	1.5	TM
91	TM	Benzo (k) fluoranthene	1.428	1.415	0.91	TM
92	*TM	Benzo (a) pyrene	1.364	1.451	6.4	*TM
93	TM	Indeno (1,2,3-cd) pyrene	1.580	1.640	3.8	TM
94	TM	Dibenz (a,h) anthracene	1.342	1.421	5.9	TM
95	TM	Benzo (g,h,i) perylene	1.280	1.462	14	TM
96						
97						
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120						

Average

7.2

Data File : M:\YODA\DATA\Y181025\1025Y096.D Vial: 96  
 Acq On : 30 Oct 18 19:22 Operator: MA  
 Sample : 50ug/mL 8270 10/18/18 (2) Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 31 5:39 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	366683	40.00000	ppb	0.00
21) Naphthalene-D8 (IS)	6.99	136	1410697	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	831252	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.77	188	1544430	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.88	240	1304930	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1432591	40.00000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol (S)	3.94	112	1415907	98.27379	ppb	0.00
Spiked Amount 200.000			Recovery =	49.137%		
6) Phenol-D6 (S)	5.13	99	1645895	96.09737	ppb	0.00
Spiked Amount 200.000			Recovery =	48.049%		
22) Nitrobenzene-D5 (S)	6.17	82	869851	54.63586	ppb	0.00
Spiked Amount 100.000			Recovery =	54.636%		
46) 2-Fluorobiphenyl (S)	8.22	172	1564885	45.16313	ppb	0.00
Spiked Amount 100.000			Recovery =	45.163%		
64) 2,4,6-Tribromophenol (S)	9.95	330	386615	92.15841	ppb	0.00
Spiked Amount 200.000			Recovery =	46.079%		
82) Terphenyl-D14 (S)	12.62	244	1793371	51.91543	ppb	0.00
Spiked Amount 100.000			Recovery =	51.915%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.73	58	8468	7.58361		78
3) n-Nitrosodimethylamine	1.98	42	168946	57.31476	ppb	99
4) Pyridine	1.99	79	228686	51.86878	ppb	98
7) Phenol	5.15	94	1236267	53.95469	ppb	93
8) Aniline	5.15	66	998099	54.49169	ppb	# 67
9) Bis (2-chloroethyl) ether	5.24	63	653384	54.52413	ppb	99
10) 2-Chlorophenol	5.30	128	968276	54.27935	ppb	97
11) 1,3-DCB	5.47	146	965083	52.23387	ppb	98
12) 1,4-DCB	5.56	146	976824	52.77465	ppb	98
13) Benzyl alcohol	5.70	108	637189	55.19736	ppb	99
14) 1,2-DCB	5.73	146	925565	52.62211	ppb	99
15) 2-Methylphenol	5.83	107	767201	54.01560	ppb	99
16) Bis (2-chloroisopropyl) et	5.85	45	1206187	53.17606	ppb	95
17) Acetophenone	6.01	105	906182	51.32070	ppb	91
18) 3&4-Methylphenol	6.01	107	1365538	101.80062	ppb	98
19) n-Nitrosodi-n-propylamine	6.01	70	580627	49.17322	ppb	94
20) Hexachloroethane	6.11	117	371692	53.42475	ppb	99
23) Nitrobenzene	6.20	77	1033795	59.24884	ppb	99
24) Isophorone	6.47	82	1813406	58.79805	ppb	99
25) 2-Nitrophenol	6.55	139	536378	60.54817	ppb	98
26) 2,4-Dimethylphenol	6.59	122	869038	58.59107	ppb	99
27) Benzoic acid	6.76	105	857406	62.43717	ppb	99
28) Bis (2-chloroethoxy) metha	6.70	93	991656	57.10761	ppb	99
29) 2,4-Dichlorophenol	6.82	162	766284	58.61366	ppb	98
30) 1,2,4-Trichlorobenzene	6.92	180	677979	49.93378	ppb	99
31) 3,4-Dimethylphenol	6.93	107	1043428	51.94772	ppb	99
32) Naphthalene	7.02	128	2284416	49.99984	ppb	100
33) 4-Chloroaniline	7.07	127	819246	47.87907	ppb	98
34) 2,6-Dichlorophenol	7.08	162	585069	48.90504	ppb	99
35) Hexachloropropene	7.10	213	488426	53.83807	ppb	99
36) Hexachlorobutadiene	7.14	225	388198	51.67968	ppb	99
37) Caprolactum	7.52	55	445514	55.65913	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y096.D Y1025NC.M Wed Oct 31 05:39:05 2018



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y096.D  
 Acq On : 30 Oct 18 19:22  
 Sample : 50ug/mL 8270 10/18/18 (2)  
 Misc :

Vial: 96  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 31 5:39 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	761756	54.26597	ppb	93
39) 2-Methylnaphthalene	7.81	142	1496989	51.96841	ppb	100
40) 1-Methylnaphthalene	7.92	142	1489329	51.86532	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	407145	46.64397	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	702027	45.13839	ppb	98
44) 2,4,6-Trichlorophenol	8.13	196	528352	48.31658	ppb	99
45) 2,4,5-Trichlorophenol	8.19	196	571274	49.34384	ppb	96
47) 1,1'-Biphenyl	8.34	154	1984559	48.63094	ppb	99
48) 2-Chloronaphthalene	8.37	162	1621088	49.87954	ppb	98
49) 2-Nitroaniline	8.49	65	597047	53.21362	ppb	96
50) Dimethyl phthalate	8.70	163	1906969	50.59898	ppb	100
51) 2,6-DNT	8.78	165	468166	53.81363	ppb	91
52) Acenaphthylene	8.86	152	2622881	50.02982	ppb	99
53) 3-Nitroaniline	8.98	138	524054	53.87100	ppb	94
54) Acenaphthene	9.06	154	1545931	48.67794	ppb	99
55) 2,4-Dinitrophenol	9.11	184	296657	52.69299	ppb	88
56) 4-Nitrophenol	9.18	65	427748	56.89006	ppb	99
57) Dibenzofuran	9.26	168	2042336	46.59639	ppb	95
58) 2,4-DNT	9.25	165	559498	50.49921	ppb	96
59) 2,3,4,6-Tetrachlorophenol	9.40	232	494539	51.75632	ppb	95
60) Diethyl phthalate	9.52	149	1833702	50.55057	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.65	204	713954	50.47207	ppb	96
62) Fluorene	9.66	166	1567023	51.15075	ppb	99
63) 4-Nitroaniline	9.71	138	545547	53.69309	ppb	96
66) 4,6-Dinitro-2-methylphenol	9.74	198	407754	53.11103	ppb	83
67) Diphenyl amine	9.80	169	2416509	92.03794	ppb	99
68) n-Nitrosodiphenylamine	9.80	169	2416509	92.03794	ppb	99
69) 1,2-Diphenylhydrazine	9.84	77	2069747	49.88212	ppb	98
70) 4-Bromophenyl phenyl ether	10.23	248	484105	46.05263	ppb	94
71) Hexachlorobenzene	10.30	284	532294	48.14496	ppb	87
72) Atrazine	10.42	200	257770	26.82024	ppb	98
73) Pentachlorophenol	10.54	266	405188	59.22889	ppb	98
74) Phenanthrene	10.80	178	2640644	48.95290	ppb	100
75) Anthracene	10.85	178	2760332	49.74688	ppb	99
76) Carbazol	11.05	167	2663275	51.36470	ppb	98
77) Di-n-butylphthalate	11.43	149	2831765	47.16776	ppb	99
78) Fluoranthene	12.19	202	2948573	50.93510	ppb	100
80) Benzidine	12.35	184	994590	53.62624	ppb	99
81) Pyrene	12.46	202	3020720	56.00663	ppb	99
83) Butyl benzylphthalate	13.19	149	1435468	59.59406	ppb	98
84) 3,3'-Dichlorobenzidine	13.83	252	942926	53.64255	ppb	# 97
85) Benz (a) anthracene	13.86	228	2197988	47.97372	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1487763	49.15441	ppb	99
87) Chrysene	13.91	228	2457792	50.99186	ppb	99
88) Di-n-octylphthalate	14.63	149	3310343	58.81958	ppb	98
90) Benzo (b) fluoranthene	15.23	252	2723527	50.73701	ppb	99
91) Benzo (k) fluoranthene	15.28	252	2534139	49.54400	ppb	99
92) Benzo (a) pyrene	15.73	252	2599055	53.22173	ppb	98
93) Indeno (1,2,3-cd) pyrene	17.85	276	2936197	51.89666	ppb	98
94) Dibenz (a,h) anthracene	17.90	278	2544615	52.95052	ppb	99
95) Benzo (g,h,i) perylene	18.48	276	2617410	57.09670	ppb	97

Quantitation Report

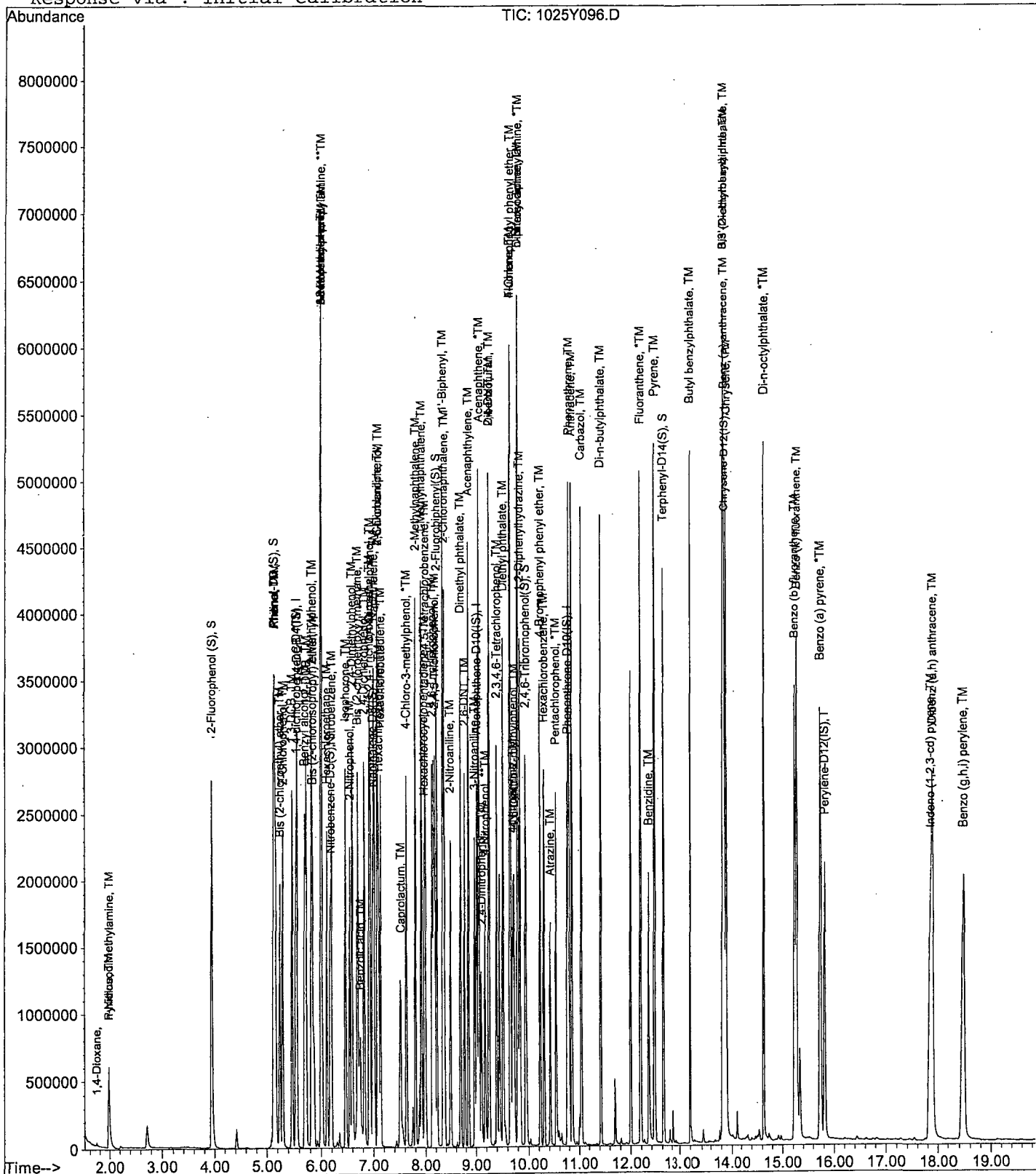
Data File : M:\YODA\DATA\Y181025\1025Y096.D  
Acq On : 30 Oct 18 19:22  
Sample : 50ug/mL 8270 10/18/18 (2)  
Misc :

Vial: 96  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 31 5:39 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : M:\YODA\DATA\Y181025\1025Y088.D Vial: 88  
 Acq On : 30 Oct 18 15:39 Operator: MA  
 Sample : AZ81584W18 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Time: Oct 30 16:11 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	287375	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1143448	40.0000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	580007	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1152004	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1082778	40.0000	ppb	-0.01
89) Perylene-D12 (IS)	15.81	264	1066563	40.0000	ppb	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol (S)	3.95	112	1768734	195.8021	ppb	0.00
Spiked Amount 250.000			Recovery =	78.321%		
6) Phenol-D6 (S)	5.12	99	2224841	207.1859	ppb	0.00
Spiked Amount 250.000			Recovery =	82.874%		
22) Nitrobenzene-D5 (S)	6.17	82	1165968	112.9398	ppb	0.00
Spiked Amount 125.000			Recovery =	90.352%		
46) 2-Fluorobiphenyl (S)	8.22	172	1847284	95.5091	ppb	0.00
Spiked Amount 125.000			Recovery =	76.407%		
64) 2,4,6-Tribromophenol (S)	9.94	330	441240	188.4259	ppb	-0.01
Spiked Amount 250.000			Recovery =	75.370%		
82) Terphenyl-D14 (S)	12.63	244	1887191	82.3000	ppb	0.00
Spiked Amount 125.000			Recovery =	65.840%		

Target Compounds Qvalue

Quantitation Report

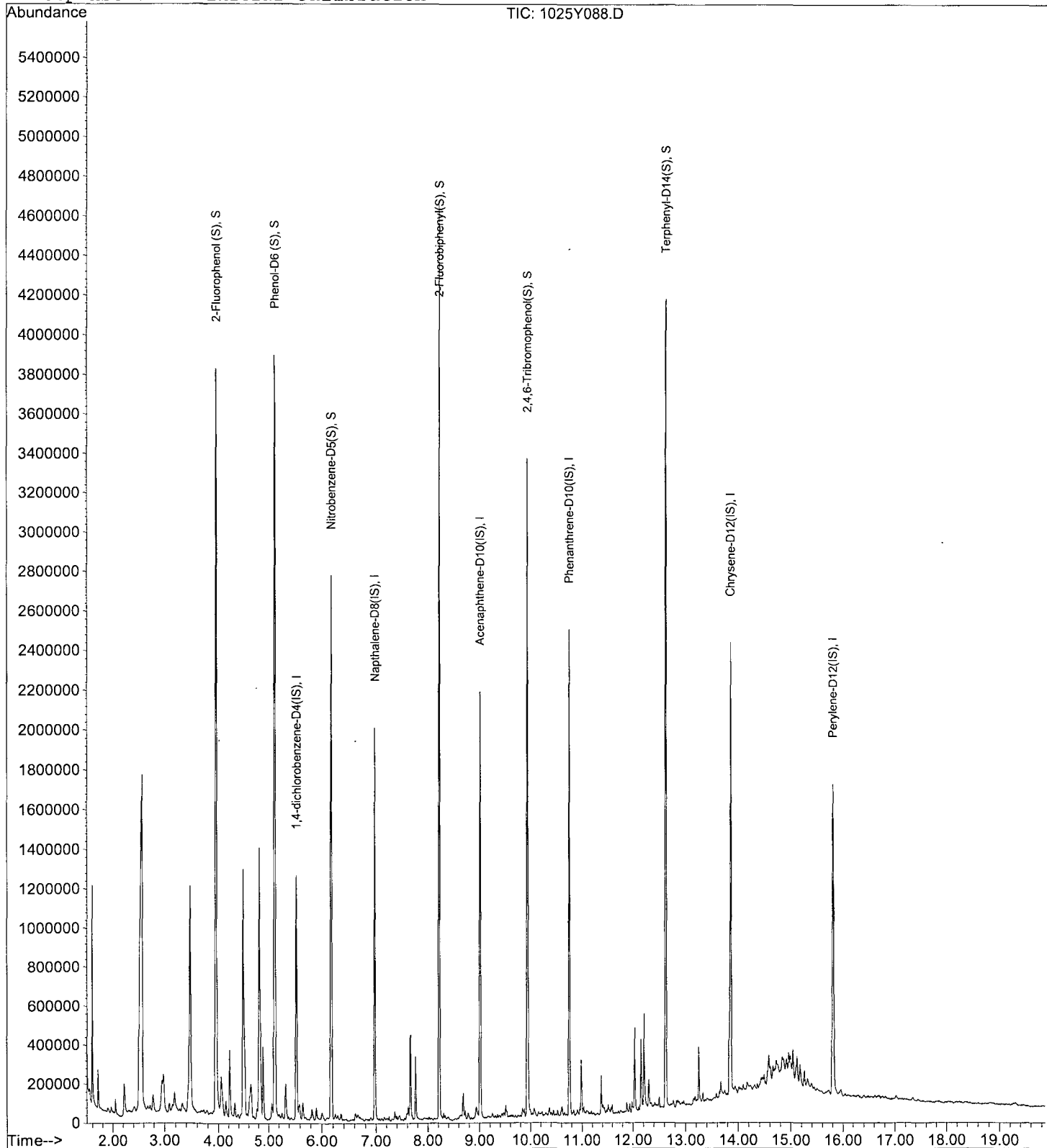
Data File : M:\YODA\DATA\Y181025\1025Y088.D  
Acq On : 30 Oct 18 15:39  
Sample : AZ81584W18 1/800  
Misc :

Vial: 88  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Oct 30 16:11 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



LSC Area Percent Report

Data File : M:\YODA\DATA\Y181025\1025Y088.D  
 Acq On : 30 Oct 18 15:39  
 Sample : AZ81584W18 1/800  
 Misc :  
 MS Integration Params: LSCINT.P

Vial: 88  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25000

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.002  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

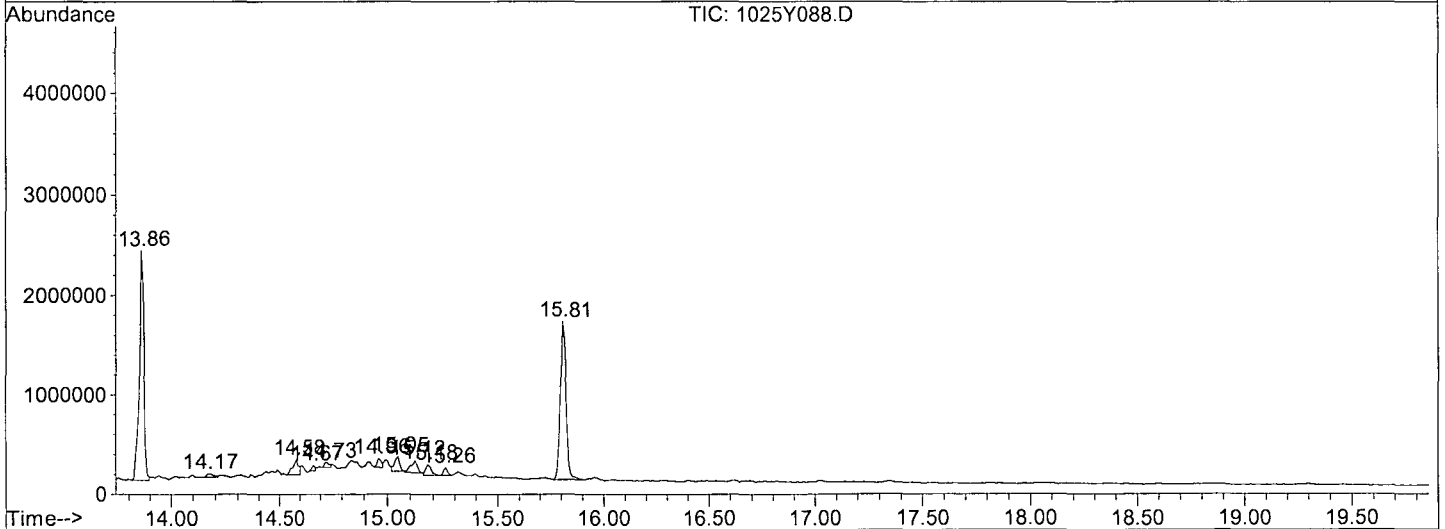
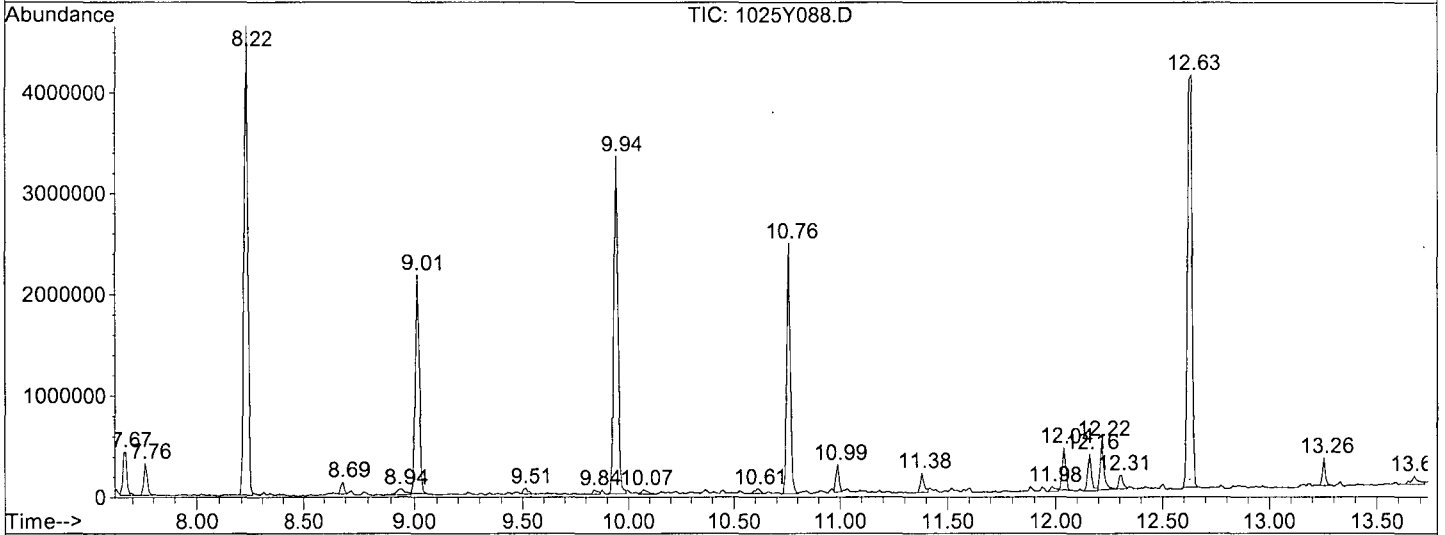
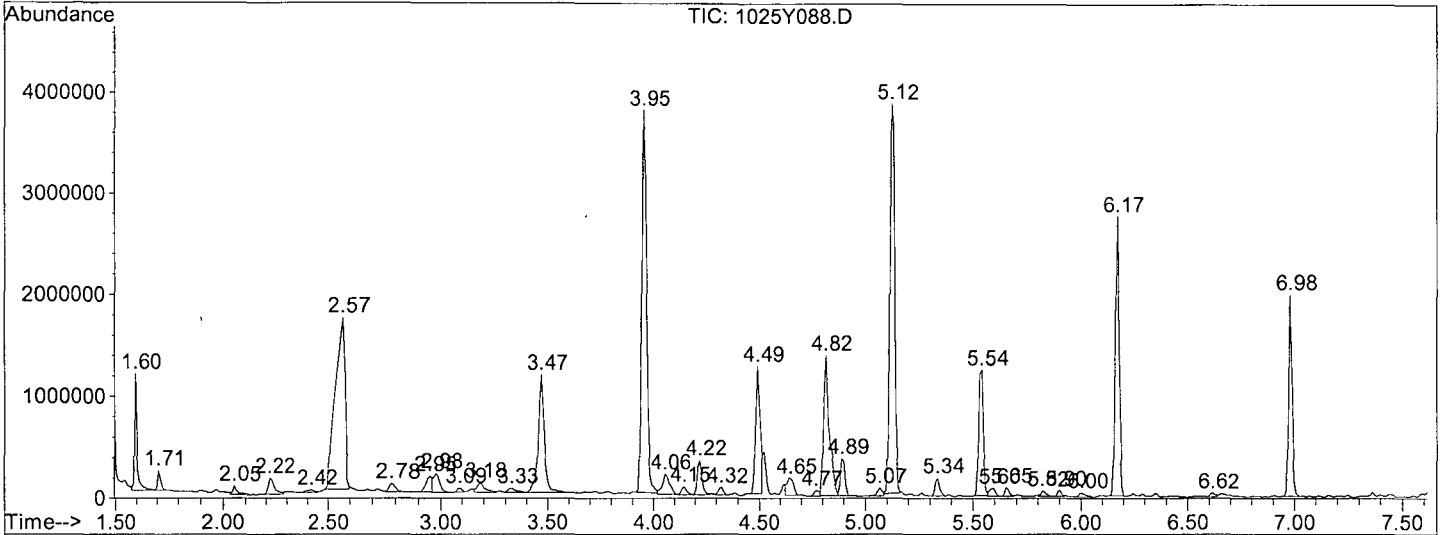
If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	1.595	10	12	22	rVB	1139527	3671906	929009	15.18%	1.294%
2	1.707	22	24	29	rVB2	195084	1700179	195463	3.19%	0.272%
3	2.050	59	61	69	rVB2	85820	2154242	119529	1.95%	0.167%
4	2.217	76	79	86	rBV2	160255	2357424	347406	5.68%	0.484%
5	2.422	96	101	104	rBV4	26548	1710159	67183	1.10%	0.094%
6	2.570	108	117	120	rVV	1686498	8047427	5407187	88.33%	7.533%
7	2.784	137	140	146	rVB	86527	2040058	163562	2.67%	0.228%
8	2.951	153	158	159	rBV2	157192	1558837	310060	5.07%	0.432%
9	2.979	159	161	168	rVB	191138	2579973	364257	5.95%	0.507%
10	3.090	170	173	175	rBV	42751	1097688	68773	1.12%	0.096%
11	3.183	180	183	191	rVV	99935	2581448	237154	3.87%	0.330%
12	3.331	195	199	206	rVV3	43813	2375147	122249	2.00%	0.170%
13	3.471	206	214	228	rVB	1161362	6831937	2329817	38.06%	3.246%
14	3.953	262	266	273	rBV	3770292	8358292	6029392	98.50%	8.400%
15	4.055	273	277	283	rVB4	199112	2579014	464873	7.59%	0.648%
16	4.148	283	287	292	rVB3	79831	1933554	143524	2.34%	0.200%
17	4.223	292	295	300	rBV	338364	2232795	530630	8.67%	0.739%
18	4.325	303	306	309	rVB	73216	1336855	116195	1.90%	0.162%
19	4.492	320	324	326	rBV	1248949	3038260	1830884	29.91%	2.551%
20	4.650	338	341	345	rVB3	167746	1957749	367743	6.01%	0.512%
21	4.770	350	354	356	rBV	54019	1273056	106944	1.75%	0.149%
22	4.817	356	359	365	rVV2	1379670	4936678	2555363	41.74%	3.560%
23	4.891	365	367	371	rVB	366387	1868138	524361	8.57%	0.731%
24	5.067	380	386	388	rBV3	83048	1700253	146645	2.40%	0.204%
25	5.123	388	392	396	rVV	3845584	7792984	6121411	100.00%	8.528%
26	5.337	411	415	419	rVB	178501	1818480	263920	4.31%	0.368%
27	5.541	433	437	440	rBV	1239296	3200231	1795608	29.33%	2.502%
28	5.596	440	443	447	rVB2	74868	1616675	141902	2.32%	0.198%
29	5.652	447	449	453	rBV	84024	1315363	120117	1.96%	0.167%
30	5.819	465	467	472	rVB	55772	1467251	93261	1.52%	0.130%
31	5.903	472	476	478	rBV	61849	1237789	84109	1.37%	0.117%
32	6.005	483	487	493	rVB3	41118	2027970	95893	1.57%	0.134%
33	6.172	501	505	508	rBV	2751370	4833857	3437138	56.15%	4.788%
34	6.618	550	553	555	rBV	35961	1031513	63053	1.03%	0.088%
35	6.980	589	592	597	rVB	1987328	4022041	2344488	38.30%	3.266%
36	7.667	663	666	671	rVB	428144	2367201	603899	9.87%	0.841%
37	7.760	673	676	680	rBV	315690	1735078	374937	6.13%	0.522%
38	8.224	722	726	729	rBV	4631990	6920116	5536977	90.45%	7.714%
39	8.688	773	776	778	rBV	117106	1133753	136724	2.23%	0.190%
40	8.939	798	803	808	rBV5	58845	2105933	158873	2.60%	0.221%
41	9.013	808	811	815	rVV	2154598	4173934	2620060	42.80%	3.650%
42	9.514	863	865	869	rVB3	59533	1352198	93421	1.53%	0.130%
43	9.839	898	900	903	rBV2	44112	1078741	77553	1.27%	0.108%
44	9.941	907	911	916	rBV	3338748	62431382	4433344	72.42%	6.176%
45	10.071	922	925	931	rVB2	41738	1873636	84990	1.39%	0.118%

LSC Report - Integrated Chromatogram

File : M:\YODA\DATA\Y181025\1025Y088.D  
 Operator : MA  
 Acquired : 30 Oct 18 15:39 using AcqMethod SVOC416  
 Instrument : Yoda  
 Sample Name: AZ81584W18 1/800  
 Misc Info :  
 Vial Number: 88  
 Quant File : Y1025NC.RES (RTE Integrator)



Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y088.D Vial: 88  
 Acq On : 30 Oct 18 15:39 Operator: MA  
 Sample : AZ81584W18 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 1 2-Pentanone, 4-hydroxy-4-methy Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.47	64.88 ppb	2329820	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	50
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	50
3	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	40
4	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	40
5	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	38

\*\*\*\*\*  
 Peak Number 2 Benzene, 1,2,3-trimethyl- Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.34	7.35 ppb	263920	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	97
2	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	97
3	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	97
4	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	97
5	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	97



Tentatively Identified Compound (LSC) summary

Operator ID: MA Date Acquired: 30 Oct 18 15:39  
Data File: M:\YODA\DATA\Y181025\1025Y088.D  
Name: AZ81584W18 1/800  
Misc:  
Method: M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title: EPA 8270C  
Library Searched: M:\DATABASE\WILEY138.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
2-Pentanone, 4-hydro	3.47	64.9	ppb	2329820	ISTD01	5.54	1795610	40.0
Benzene, 1,2,3-trime	5.34	7.3	ppb	263920	ISTD01	5.54	1795610	40.0

1025Y088.D Y1025NC.M Tue Nov 06 09:58:43 2018

Data File : M:\YODA\DATA\Y181025\1025Y089.D Vial: 89  
 Acq On : 30 Oct 18 16:07 Operator: MA  
 Sample : AZ81585W08 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Time: Nov 2 14:42 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	263745	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	940628	40.00000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	594660	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1289712	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1164239	40.00000	ppb	-0.01
89) Perylene-D12 (IS)	15.81	264	1196901	40.00000	ppb	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.95	112	1854121	223.64419	ppb	0.00
Spiked Amount	250.000		Recovery	=	89.458%	
6) Phenol-D6 (S)	5.12	99	2348865	238.33290	ppb	0.00
Spiked Amount	250.000		Recovery	=	95.333%	
22) Nitrobenzene-D5 (S)	6.17	82	1234103	145.31492	ppb	0.00
Spiked Amount	125.000		Recovery	=	116.252%	
46) 2-Fluorobiphenyl (S)	8.22	172	1876196	94.61366	ppb	0.00
Spiked Amount	125.000		Recovery	=	75.691%	
64) 2,4,6-Tribromophenol (S)	9.94	330	475822	198.18682	ppb	-0.01
Spiked Amount	250.000		Recovery	=	79.275%	
82) Terphenyl-D14 (S)	12.63	244	1924352	78.04875	ppb	0.00
Spiked Amount	125.000		Recovery	=	62.439%	

Target Compounds Qvalue

Quantitation Report

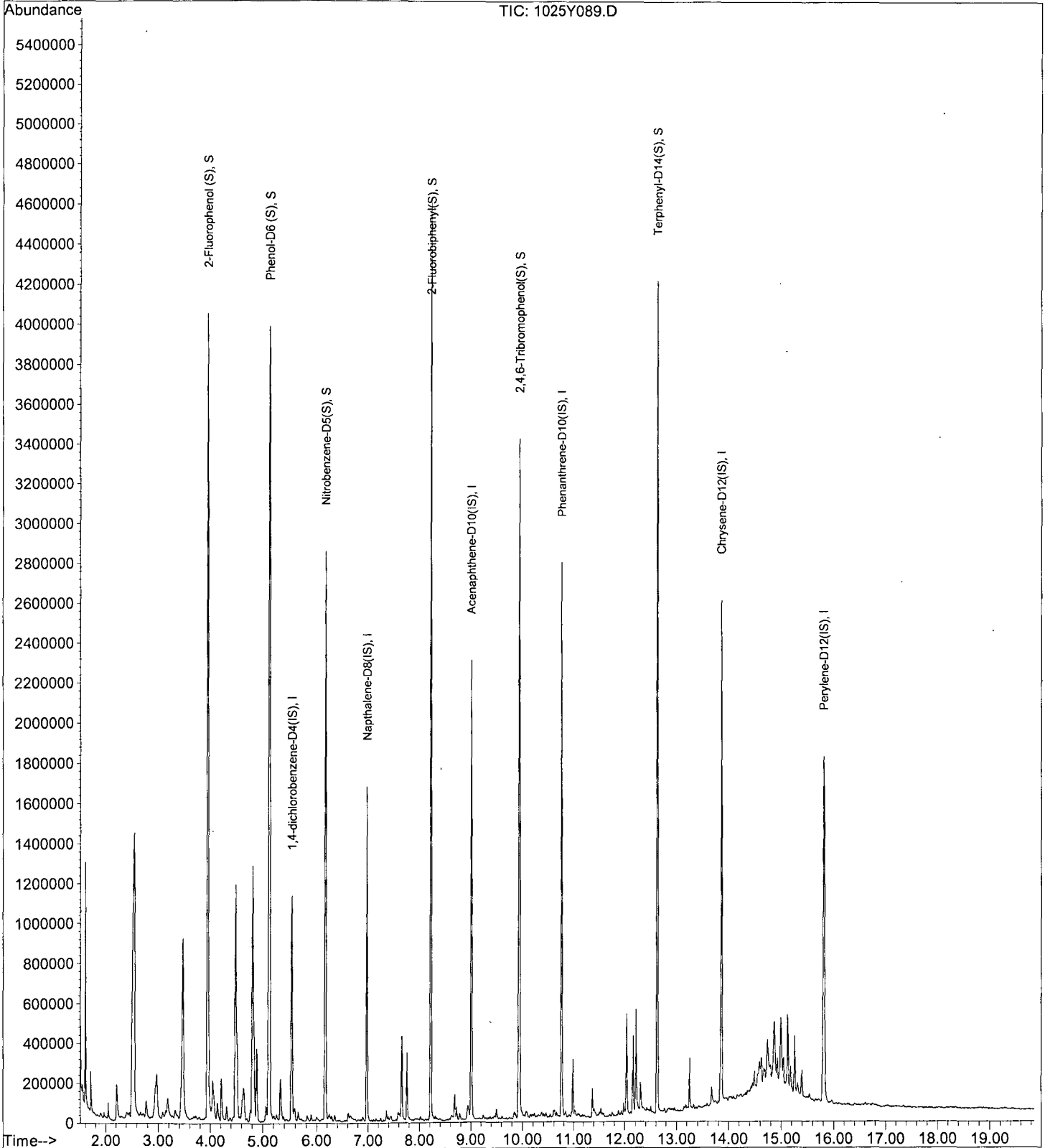
Data File : M:\YODA\DATA\Y181025\1025Y089.D  
Acq On : 30 Oct 18 16:07  
Sample : AZ81585W08 1/800  
Misc :

Vial: 89  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Nov 2 14:42 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



## LSC Area Percent Report

Data File : M:\YODA\DATA\Y181025\1025Y089.D  
 Acq On : 30 Oct 18 16:07  
 Sample : AZ81585W08 1/800  
 Misc :  
 MS Integration Params: LSCINT.P

Vial: 89  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25000

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.002  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

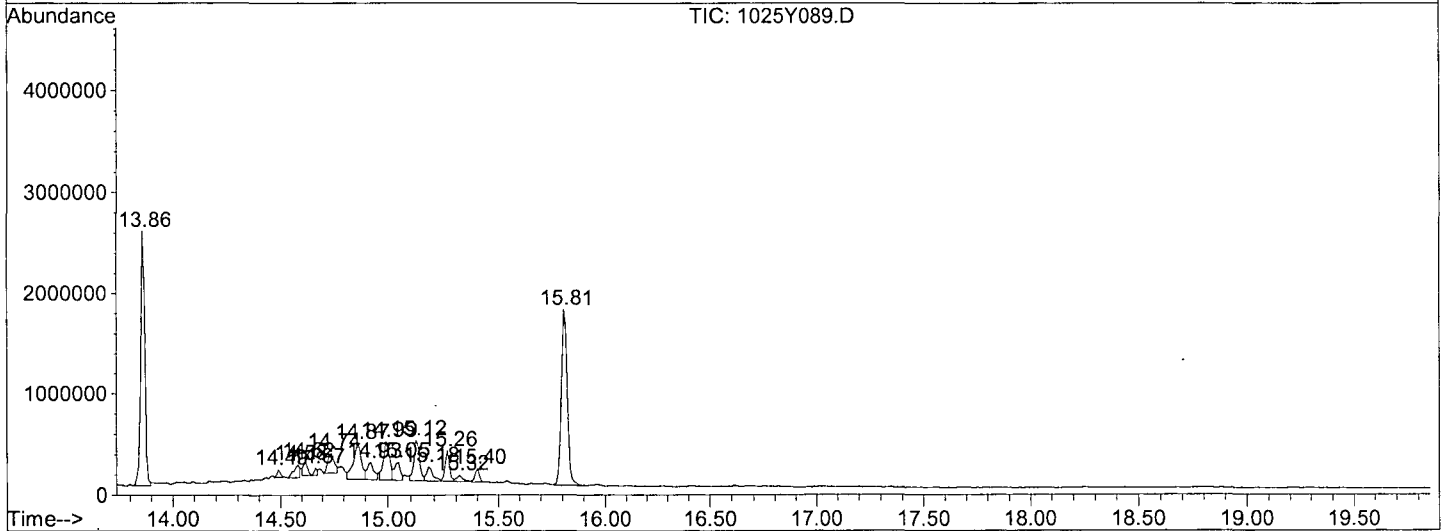
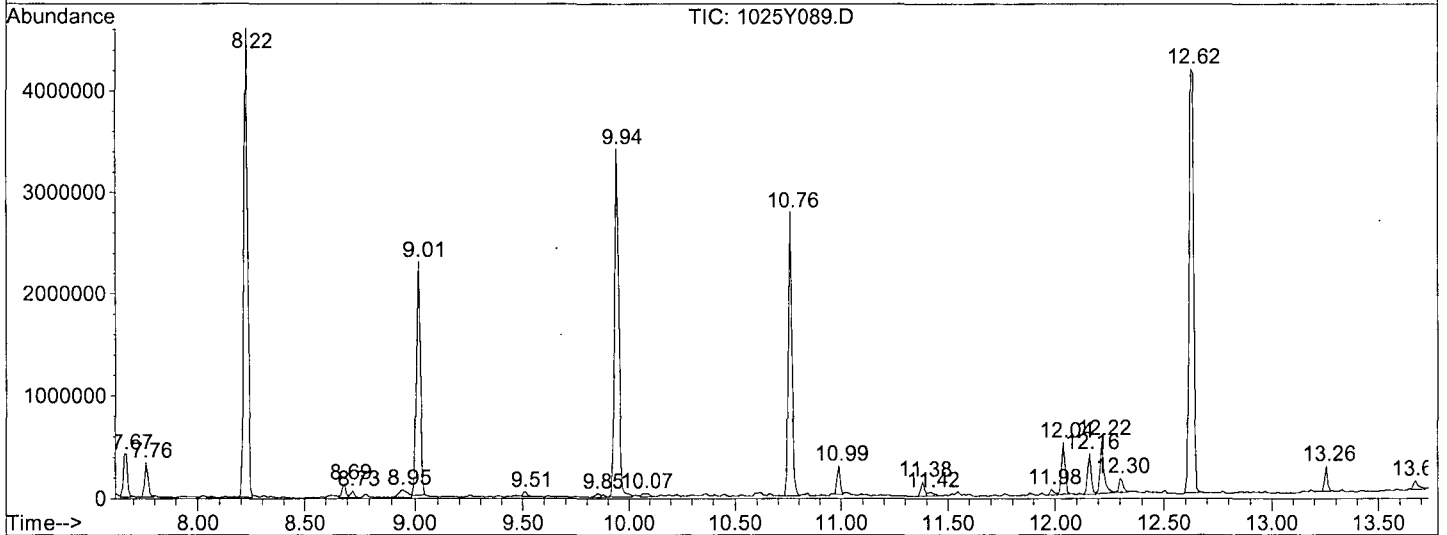
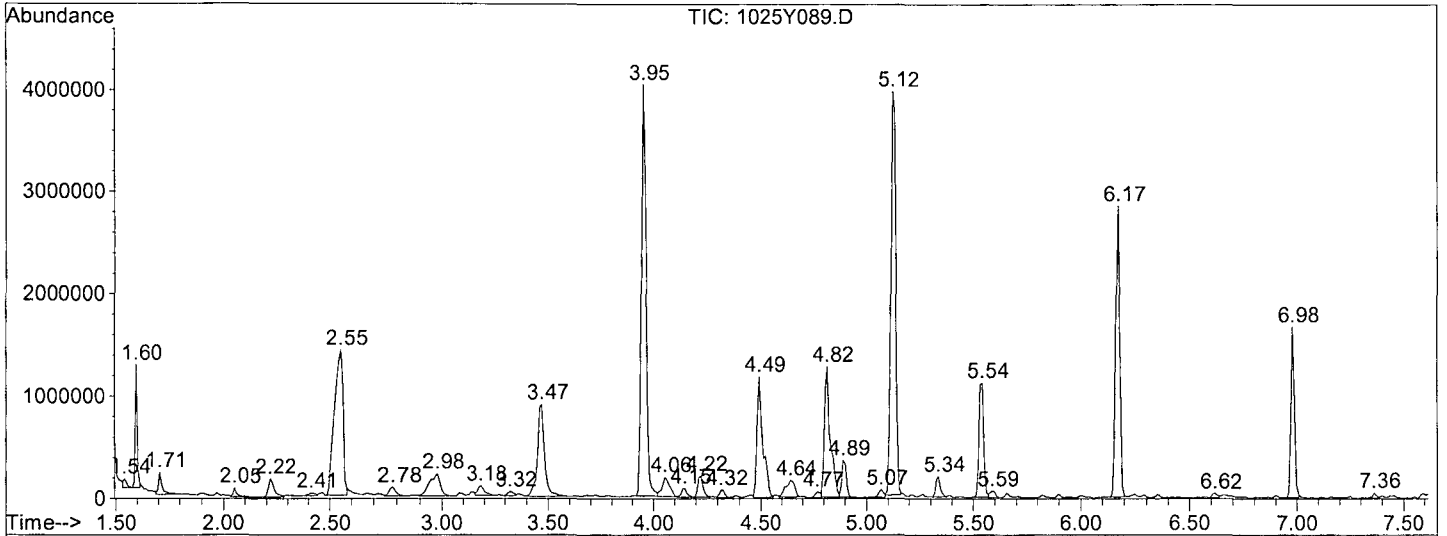
If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	1.540	5	6	10	rVB	89829	1166515	92221	1.43%	0.123%
2	1.596	10	12	14	rBV	1201369	1649158	816964	12.65%	1.085%
3	1.707	22	24	35	rVB2	216757	2661690	265975	4.12%	0.353%
4	2.050	59	61	73	rVB	89057	2496529	111671	1.73%	0.148%
5	2.218	73	79	86	rBV2	181682	2512762	365519	5.66%	0.486%
6	2.412	95	100	103	rBV5	29385	1416721	71767	1.11%	0.095%
7	2.552	108	115	118	rBV	1421144	5888624	3980832	61.66%	5.289%
8	2.784	136	140	147	rVB	84979	2053168	175408	2.72%	0.233%
9	2.979	152	161	170	rVB3	220769	3819531	746472	11.56%	0.992%
10	3.183	180	183	191	rVB	93078	2187432	207690	3.22%	0.276%
11	3.322	195	198	201	rBV2	40474	1111470	84488	1.31%	0.112%
12	3.471	206	214	228	rVB	901686	5767303	2048337	31.73%	2.721%
13	3.954	262	266	273	rBV	4023654	8421786	6383460	98.87%	8.480%
14	4.056	273	277	283	rVV4	188612	2266977	452491	7.01%	0.601%
15	4.148	283	287	292	rVB3	86442	1676820	163804	2.54%	0.218%
16	4.223	292	295	300	rBV	206961	1775521	350624	5.43%	0.466%
17	4.316	303	305	309	rVB	71993	1149802	117176	1.81%	0.156%
18	4.492	321	324	331	rVV2	1177323	4341985	2246178	34.79%	2.984%
19	4.641	334	340	345	rVB5	161602	2355480	496315	7.69%	0.659%
20	4.770	350	354	356	rBV	59874	1093122	111949	1.73%	0.149%
21	4.817	356	359	365	rVV2	1273575	4617359	2445299	37.88%	3.249%
22	4.891	365	367	371	rVB	360465	1680235	503348	7.80%	0.669%
23	5.068	379	386	388	rBV3	77597	1614420	140748	2.18%	0.187%
24	5.123	388	392	396	rVV	3950894	7921453	6456200	100.00%	8.577%
25	5.337	411	415	419	rBV	200481	1629582	297303	4.60%	0.395%
26	5.541	433	437	440	rBV	1116634	2838976	1632107	25.28%	2.168%
27	5.587	440	442	446	rVB2	62795	1182163	109501	1.70%	0.145%
28	6.172	501	505	508	rBV	2839731	4803422	3590737	55.62%	4.770%
29	6.618	550	553	555	rBV	41890	903998	74067	1.15%	0.098%
30	6.980	589	592	595	rBV	1668810	3031216	1946015	30.14%	2.585%
31	7.361	629	633	636	rBV	49798	1218419	69444	1.08%	0.092%
32	7.667	663	666	669	rVV	414810	1716594	570844	8.84%	0.758%
33	7.760	673	676	680	rBV	335205	1566316	403250	6.25%	0.536%
34	8.224	722	726	729	rBV	4592816	6820979	5631995	87.23%	7.482%
35	8.688	773	776	778	rVV	126309	1010733	161113	2.50%	0.214%
36	8.725	778	780	784	rVB	62651	1115022	71088	1.10%	0.094%
37	8.948	798	804	808	rBV3	71801	1846891	195291	3.02%	0.259%
38	9.013	808	811	814	rVV	2280448	3845933	2663933	41.26%	3.539%
39	9.514	863	865	868	rVB2	46988	956551	65511	1.01%	0.087%
40	9.849	897	901	907	rBV3	34748	1743063	90636	1.40%	0.120%
41	9.941	907	911	919	rVV	3409341	6861664	4793437	74.25%	6.368%
42	10.071	923	925	932	rVB4	32852	1643988	80564	1.25%	0.107%
43	10.758	995	999	1004	rBV	2777890	4867109	3348125	51.86%	4.448%
44	10.990	1021	1024	1026	rVB	277616	1168238	295497	4.58%	0.393%
45	11.380	1063	1066	1068	rBV2	141447	1008358	168220	2.61%	0.223%

LSC Report - Integrated Chromatogram

File : M:\YODA\DATA\Y181025\1025Y089.D  
Operator : MA  
Acquired : 30 Oct 18 16:07 using AcqMethod SVOC416  
Instrument : Yoda  
Sample Name: AZ81585W08 1/800  
Misc Info :  
Vial Number: 89  
Quant File : Y1025NC.RES (RTE Integrator)



## Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y089.D Vial: 89  
 Acq On : 30 Oct 18 16:07 Operator: MA  
 Sample : AZ81585W08 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 1 Benzene, 1,2,4-trimethyl- Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.34	9.11 ppb	297303	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	97
2		Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	97
3		Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	97
4		Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	95
5		Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	95

\*\*\*\*\*  
 Peak Number 2 Benzenesulfonothioic acid, S-p Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.04	8.28 ppb	554309	Phenanthrene-D10 (IS)	10.76

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzenesulfonothioic acid, S-phenyl	250	C12H10O2S2	001212-08-4	91
2		2-PHENYL-2-OXO-2-PHOSPHA-3-OXA-8,9.	250	C13H15O3P	055816-83-6	38
3		ACRYLONITRILE, 2-PHENYLSULFONE-	193	C9H7NO2S	000000-00-0	35
4		Benzenesulfonamide, N-hydroxy-	173	C6H7NO3S	000599-71-3	25
5		4-D-HIPPURIC-BZH-AZLACTONE	251	C16H13NO2	000000-00-0	22

\*\*\*\*\*  
 Peak Number 3 1,2-Benzenedicarboxylic acid, Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.87	13.70 ppb	921973	Perylene-D12 (IS)	15.81

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		1,2-Benzenedicarboxylic acid, diiso	418	C26H42O4	028553-12-0	90
2		1,2-Benzenedicarboxylic acid, bis(2	390	C24H38O4	000117-81-7	53
3		1,2-Benzenedicarboxylic acid, decyl	390	C24H38O4	025724-58-7	50
4		1,2-Benzenedicarboxylic acid, dinon	418	C26H42O4	000084-76-4	50
5		1,2-Benzenedicarboxylic acid, bis(4	334	C20H30O4	000146-50-9	50

Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y089.D Vial: 89  
 Acq On : 30 Oct 18 16:07 Operator: MA  
 Sample : AZ81585W08 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 4 1,2-Benzenedicarboxylic acid, Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.12	9.95 ppb	669472	Perylene-D12 (IS)	15.81

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			1,2-Benzenedicarboxylic acid, diiso	418	C26H42O4	028553-12-0	83
2			Di-isodecyl phthalate	446	C28H46O4	000000-00-0	53
3			1,2-Benzenedicarboxylic acid, dihep	362	C22H34O4	003648-21-3	47
4			Furo[3,2-b]pyridine, 2-methyl-, 4-o	149	C8H7NO2	069022-83-9	47
5			1,2-Benzenedicarboxylic acid, bis(2	390	C24H38O4	000117-81-7	45

Tentatively Identified Compound (LSC) summary

Operator ID: MA Date Acquired: 30 Oct 18 16:07  
 Data File: M:\YODA\DATA\Y181025\1025Y089.D  
 Name: AZ81585W08 1/800  
 Misc:  
 Method: M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title: EPA 8270C  
 Library Searched: M:\DATABASE\WILEY138.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Benzene, 1,2,4-trime	5.34	9.1	ppb	297303	ISTD01	5.54	1632110	40.0
Benzenesulfonothioic	12.04	8.3	ppb	554309	ISTD04	10.76	3348130	40.0
1,2-Benzenedicarboxy	14.87	13.7	ppb	921973	ISTD06	15.81	3363930	40.0
1,2-Benzenedicarboxy	15.12	10.0	ppb	669472	ISTD06	15.81	3363930	40.0

1025Y089.D Y1025NC.M Tue Nov 06 10:00:23 2018



Data File : M:\YODA\DATA\Y181025\1025Y090.D Vial: 90  
 Acq On : 30 Oct 18 16:35 Operator: MA  
 Sample : AZ81587W10 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Time: Oct 30 16:51 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.53	152	295649	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1281722	40.0000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	573710	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1080860	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1043562	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	941268	40.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol (S)	3.96	112	1700497	182.9798	ppb	0.00
Spiked Amount 250.000			Recovery =	73.192%		
6) Phenol-D6 (S)	5.13	99	2293075	207.5640	ppb	0.00
Spiked Amount 250.000			Recovery =	83.026%		
22) Nitrobenzene-D5 (S)	6.17	82	1174569	101.4989	ppb	0.00
Spiked Amount 125.000			Recovery =	81.199%		
46) 2-Fluorobiphenyl (S)	8.23	172	1815606	94.9016	ppb	0.00
Spiked Amount 125.000			Recovery =	75.922%		
64) 2,4,6-Tribromophenol (S)	9.94	330	449208	193.9340	ppb	0.00
Spiked Amount 250.000			Recovery =	77.574%		
82) Terphenyl-D14 (S)	12.63	244	1922965	87.0115	ppb	0.00
Spiked Amount 125.000			Recovery =	69.610%		

Target Compounds Qvalue

Quantitation Report

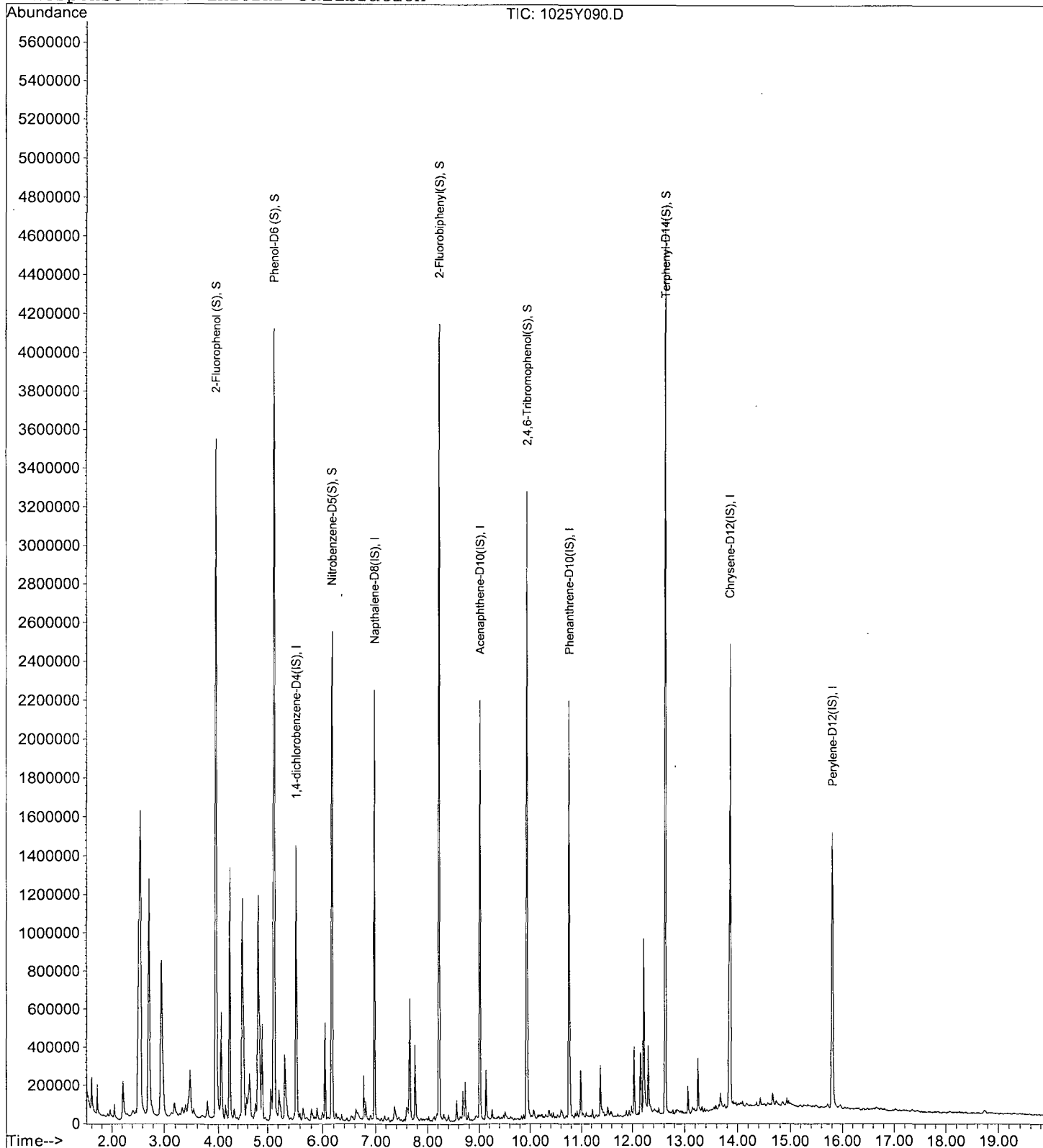
Data File : M:\YODA\DATA\Y181025\1025Y090.D  
Acq On : 30 Oct 18 16:35  
Sample : AZ81587W10 1/800  
Misc :

Vial: 90  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Oct 30 16:51 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



LSC Area Percent Report

Data File : M:\YODA\DATA\Y181025\1025Y090.D  
 Acq On : 30 Oct 18 16:35  
 Sample : AZ81587W10 1/800  
 Misc :  
 MS Integration Params: LSCINT.P

Vial: 90  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25000

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs : 0.002  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

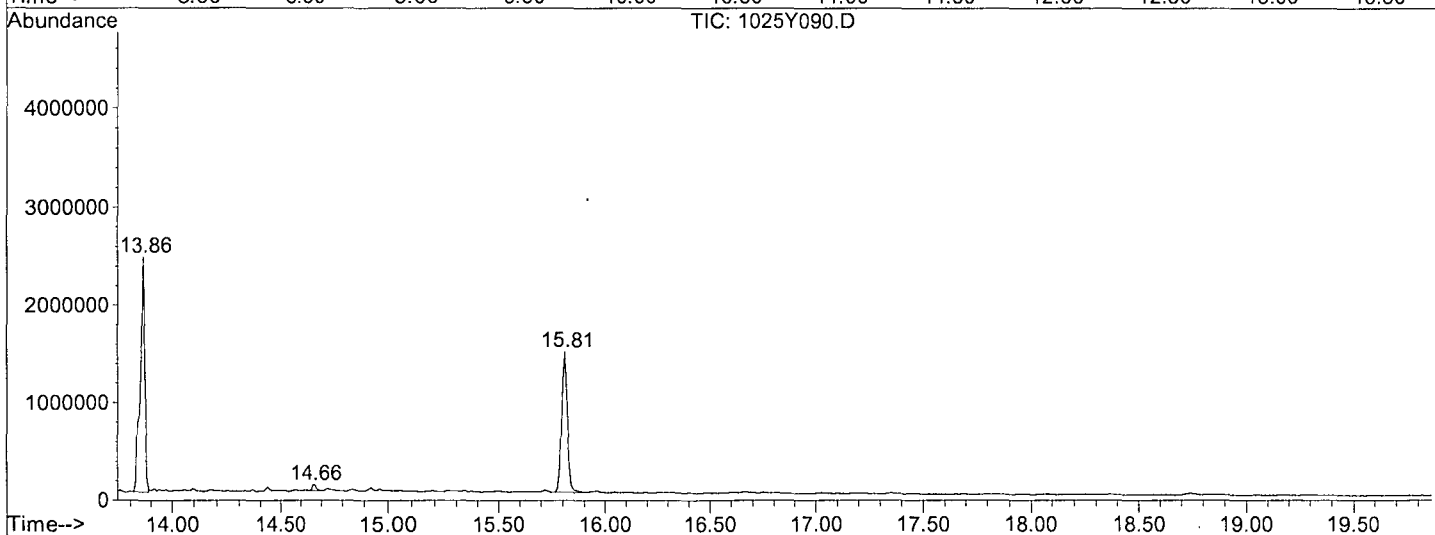
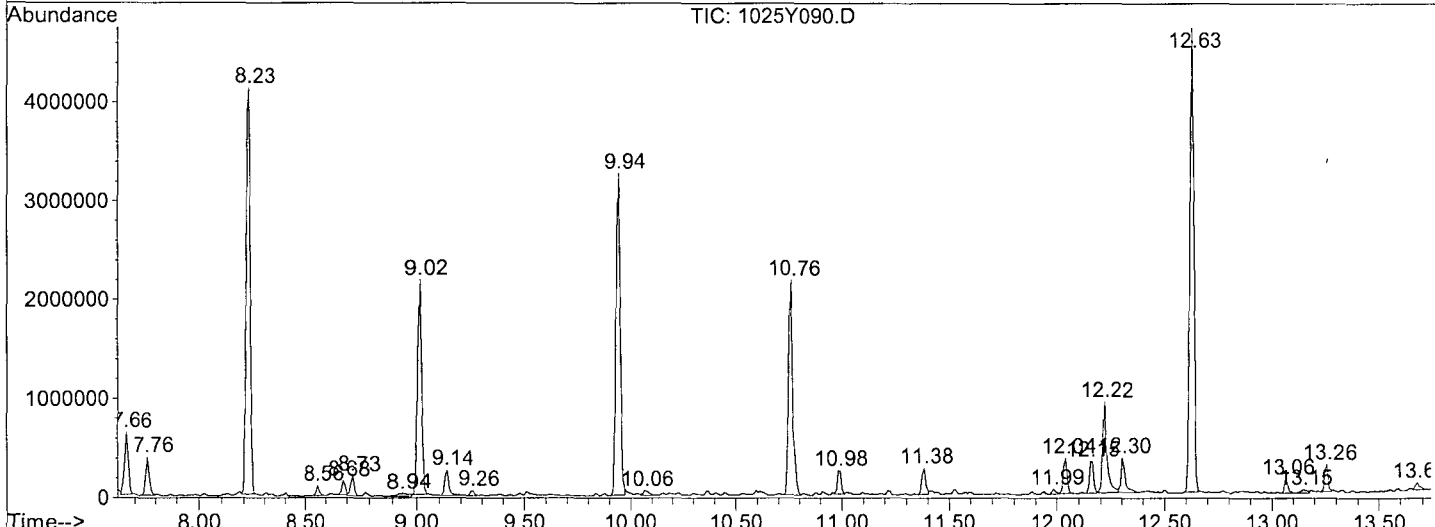
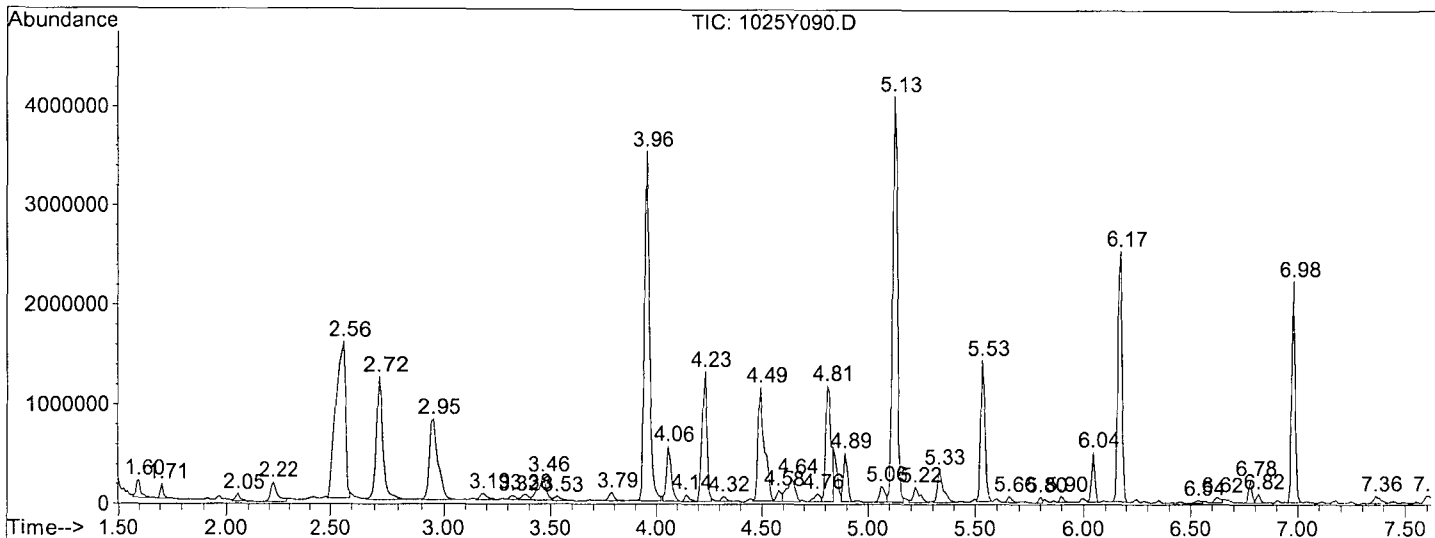
If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	1.598	9	12	18	rVB	181130	1268678	289940	4.45%	0.366%
2	1.710	22	24	27	rVB	149903	714930	143196	2.20%	0.181%
3	2.053	58	61	71	rVB	79085	1355033	134180	2.06%	0.169%
4	2.220	73	79	86	rBV2	200255	1597814	451252	6.92%	0.569%
5	2.564	108	116	119	rBV	1574502	6554410	5022691	77.06%	6.337%
6	2.721	127	133	146	rVB	1235602	4326756	2458772	37.72%	3.102%
7	2.954	152	158	169	rVB2	814079	3770767	2142678	32.87%	2.703%
8	3.186	179	183	189	rVB	64998	1119882	155487	2.39%	0.196%
9	3.325	195	198	201	rBV2	38165	666093	75162	1.15%	0.095%
10	3.381	201	204	207	rVV2	55155	713431	117210	1.80%	0.148%
11	3.464	207	213	218	rVV2	239425	1711362	581586	8.92%	0.734%
12	3.529	218	220	230	rVB2	47533	1293851	104884	1.61%	0.132%
13	3.789	244	248	256	rVB	85084	1267750	151502	2.32%	0.191%
14	3.956	261	266	273	rVV	3519232	7130687	6002605	92.09%	7.574%
15	4.058	274	277	283	rVB	557978	1857818	870142	13.35%	1.098%
16	4.142	283	286	291	rBV2	71170	840351	124746	1.91%	0.157%
17	4.235	291	296	299	rBV	1308221	2854906	2129623	32.67%	2.687%
18	4.318	302	305	310	rVB3	49705	812589	85129	1.31%	0.107%
19	4.495	320	324	330	rVV3	1149588	3408737	2442233	37.47%	3.081%
20	4.578	330	333	335	rVV	109063	667405	196106	3.01%	0.247%
21	4.643	335	340	344	rVV4	233127	1672661	610281	9.36%	0.770%
22	4.764	348	353	355	rBV3	82956	821270	179479	2.75%	0.226%
23	4.810	355	358	361	rVV	1169366	2785871	2151437	33.01%	2.715%
24	4.894	365	367	371	rVB	493719	1529084	622963	9.56%	0.786%
25	5.061	380	385	388	rBV4	163865	1006712	306948	4.71%	0.387%
26	5.126	388	392	396	rVV	4099672	7453374	6517933	100.00%	8.224%
27	5.219	399	402	409	rVV2	156740	1262738	322394	4.95%	0.407%
28	5.330	411	414	423	rVB	337006	1770659	634523	9.74%	0.801%
29	5.534	433	436	441	rVB	1419081	2728168	1859420	28.53%	2.346%
30	5.655	446	449	453	rBV	62810	711264	97316	1.49%	0.123%
31	5.804	462	465	466	rBV	60705	430178	78245	1.20%	0.099%
32	5.896	473	475	480	rVB2	60966	726476	85089	1.31%	0.107%
33	6.045	488	491	494	rVB	506633	1103892	536400	8.23%	0.677%
34	6.175	501	505	508	rVB	2521895	4227118	3459730	53.08%	4.365%
35	6.537	538	544	546	rBV2	28787	756259	69255	1.06%	0.087%
36	6.620	549	553	556	rBV	57567	728566	122315	1.88%	0.154%
37	6.778	567	570	572	rBV	227044	714958	256849	3.94%	0.324%
38	6.815	572	574	578	rVB2	92808	745875	117517	1.80%	0.148%
39	6.983	589	592	595	rBV	2225650	3448241	2606771	39.99%	3.289%
40	7.363	628	633	639	rBV3	77543	1141856	189322	2.90%	0.239%
41	7.605	655	659	662	rBV2	75247	797494	187684	2.88%	0.237%
42	7.660	662	665	668	rVB	620174	1570886	831488	12.76%	1.049%
43	7.762	673	676	680	rBV2	383087	1150131	477653	7.33%	0.603%
44	8.227	722	726	729	rVB	4104092	61113395	5396238	82.79%	6.809%
45	8.561	759	762	766	rVB	102155	726478	109999	1.69%	0.139%

LSC Report - Integrated Chromatogram

File : M:\YODA\DATA\Y181025\1025Y090.D  
 Operator : MA  
 Acquired : 30 Oct 18 16:35 using AcqMethod SVOC416  
 Instrument : Yoda  
 Sample Name: AZ81587W10 1/800  
 Misc Info :  
 Vial Number: 90  
 Quant File : Y1025NC.RES (RTE Integrator)



Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y090.D Vial: 90  
 Acq On : 30 Oct 18 16:35 Operator: MA  
 Sample : AZ81587W10 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 1 3-Penten-2-one, 4-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.72	66.12 ppb	2458770	1,4-dichlorobenzene-D4 (IS)	5.53

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2		3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3		3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
4		3-Hexen-2-one	98	C6H10O	000763-93-9	90
5		2-Pentene, 3,4-dimethyl-, (E)-	98	C7H14	004914-92-5	86

\*\*\*\*\*  
 Peak Number 2 2-Pentanone, 4-hydroxy-4-methyl- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.46	15.64 ppb	581586	1,4-dichlorobenzene-D4 (IS)	5.53

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2		2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	50
3		2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	50
4		2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	38
5		3-Hydroxy-2-pentanone	102	C5H10O2	003142-66-3	32

\*\*\*\*\*  
 Peak Number 3 Benzene, 1,2,4-trimethyl- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.33	17.06 ppb	634523	1,4-dichlorobenzene-D4 (IS)	5.53

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	97
2		Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	97
3		Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	97
4		Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	95
5		Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	95

Tentatively Identified Compound (LSC) summary

Operator ID: MA Date Acquired: 30 Oct 18 16:35  
Data File: M:\YODA\DATA\Y181025\1025Y090.D  
Name: AZ81587W10 1/800  
Misc:  
Method: M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title: EPA 8270C  
Library Searched: M:\DATABASE\WILEY138.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
3-Penten-2-one, 4-me	2.72	66.1	ppb	2458770	ISTD01	5.53	1859420	40.0
2-Pentanone, 4-hydro	3.46	15.6	ppb	581586	ISTD01	5.53	1859420	40.0
Benzene, 1,2,4-trime	5.33	17.1	ppb	634523	ISTD01	5.53	1859420	40.0

1025Y090.D Y1025NC.M Tue Nov 06 10:00:58 2018

Data File : M:\YODA\DATA\Y181025\1025Y083.D Vial: 83  
 Acq On : 30 Oct 18 13:20 Operator: MA  
 Sample : 181024A BLK 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Time: Oct 30 14:22 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.53	152	255115	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1052103	40.0000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	576600	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1164199	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1223922	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	1093573	40.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol (S)	3.96	112	1647290	205.4177	ppb	0.00
Spiked Amount 250.000			Recovery =	82.167%		
6) Phenol-D6 (S)	5.13	99	2146824	225.2012	ppb	0.00
Spiked Amount 250.000			Recovery =	90.080%		
22) Nitrobenzene-D5 (S)	6.17	82	1081739	113.8783	ppb	0.00
Spiked Amount 125.000			Recovery =	91.102%		
46) 2-Fluorobiphenyl (S)	8.23	172	1866030	97.0484	ppb	0.00
Spiked Amount 125.000			Recovery =	77.638%		
64) 2,4,6-Tribromophenol (S)	9.94	330	456118	195.9303	ppb	0.00
Spiked Amount 250.000			Recovery =	78.372%		
82) Terphenyl-D14 (S)	12.63	244	1970979	76.0417	ppb	0.00
Spiked Amount 125.000			Recovery =	60.834%		

Target Compounds Qvalue

Quantitation Report

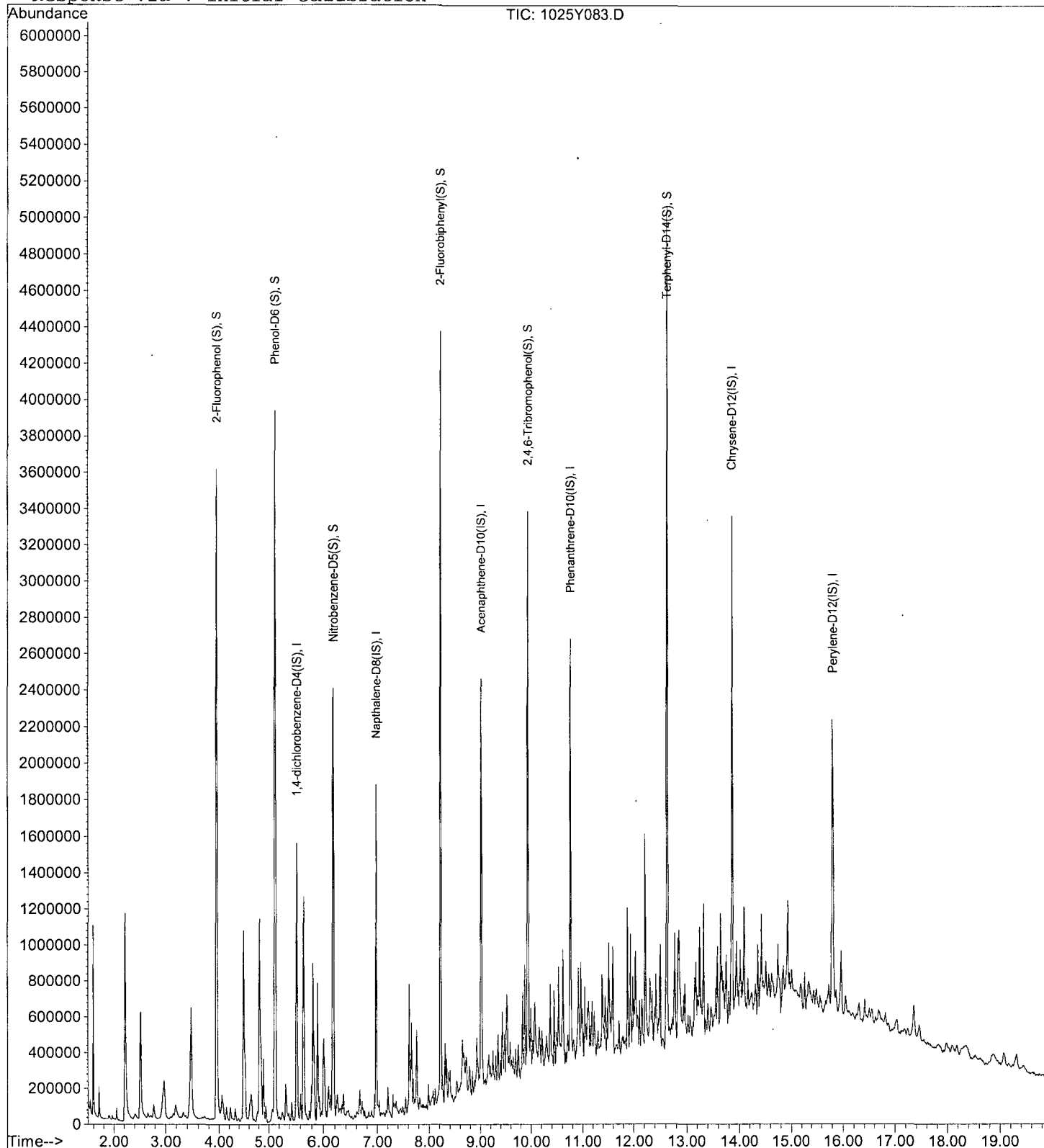
Data File : M:\YODA\DATA\Y181025\1025Y083.D  
Acq On : 30 Oct 18 13:20  
Sample : 181024A BLK 1/800  
Misc :

Vial: 83  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Oct 30 14:22 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration





Tentatively Identified Compound (LSC) summary

Operator ID: MA Date Acquired: 30 Oct 18 13:20  
 Data File: M:\YODA\DATA\Y181025\1025Y083.D  
 Name: 181024A BLK 1/800  
 Misc:  
 Method: M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title: EPA 8270C  
 Library Searched: M:\DATABASE\WILEY138.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Furan, tetrahydro-2-	1.60	18.4	ppb	756198	ISTD01	5.53	2051360	40.0
Benzene, methyl-	2.22	51.4	ppb	2108190	ISTD01	5.53	2051360	40.0
Acetic acid, ethyl e	2.53	29.7	ppb	1218990	ISTD01	5.53	2051360	40.0
Nonane, 3-methyl-5-p	5.65	38.6	ppb	1583470	ISTD01	5.53	2051360	40.0
Heptane, 4-ethyl-2,2	5.90	21.2	ppb	871567	ISTD01	5.53	2051360	40.0
SULFONE, CHLORO PHEN	7.66	14.3	ppb	620508	ISTD02	6.98	2165140	40.0
Hexadecane	9.53	13.7	ppb	816585	ISTD03	9.02	2969640	40.0
unknown hydrocarbon	12.22	26.4	ppb	1731350	ISTD04	10.76	3278860	40.0

1025Y083.D Y1025NC.M Tue Nov 06 10:01:19 2018

LSC Area Percent Report

Data File : M:\YODA\DATA\Y181025\1025Y083.D  
 Acq On : 30 Oct 18 13:20  
 Sample : 181024A BLK 1/800  
 Misc :  
 MS Integration Params: LSCINT.P

Vial: 83  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25000

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.002  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

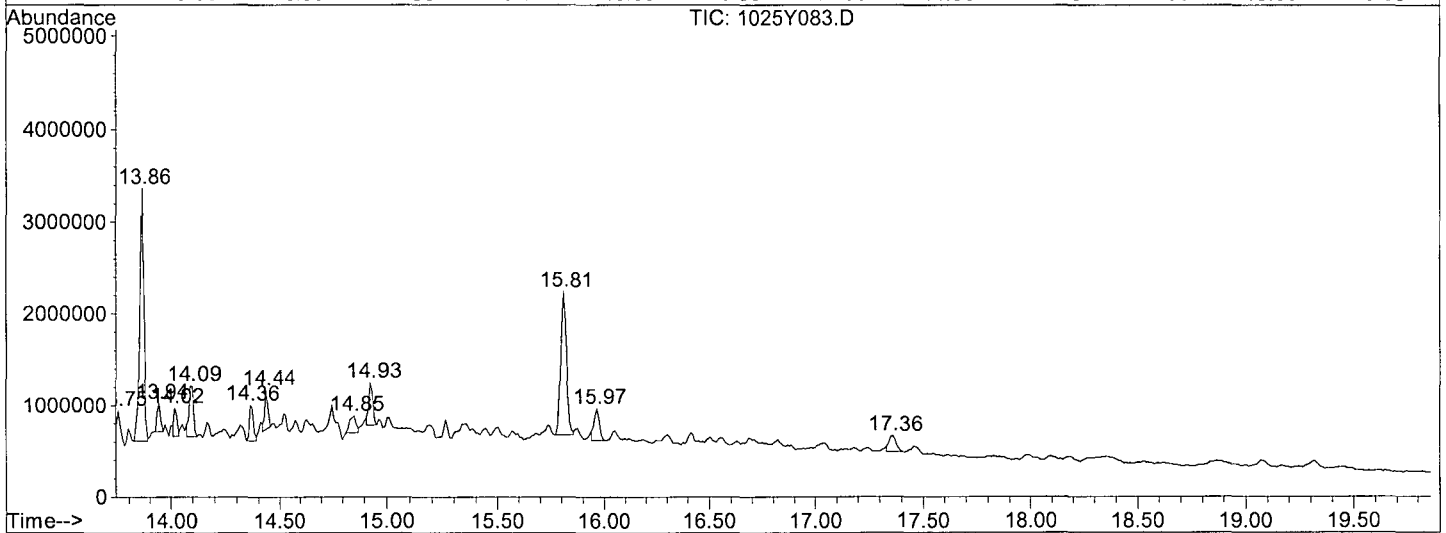
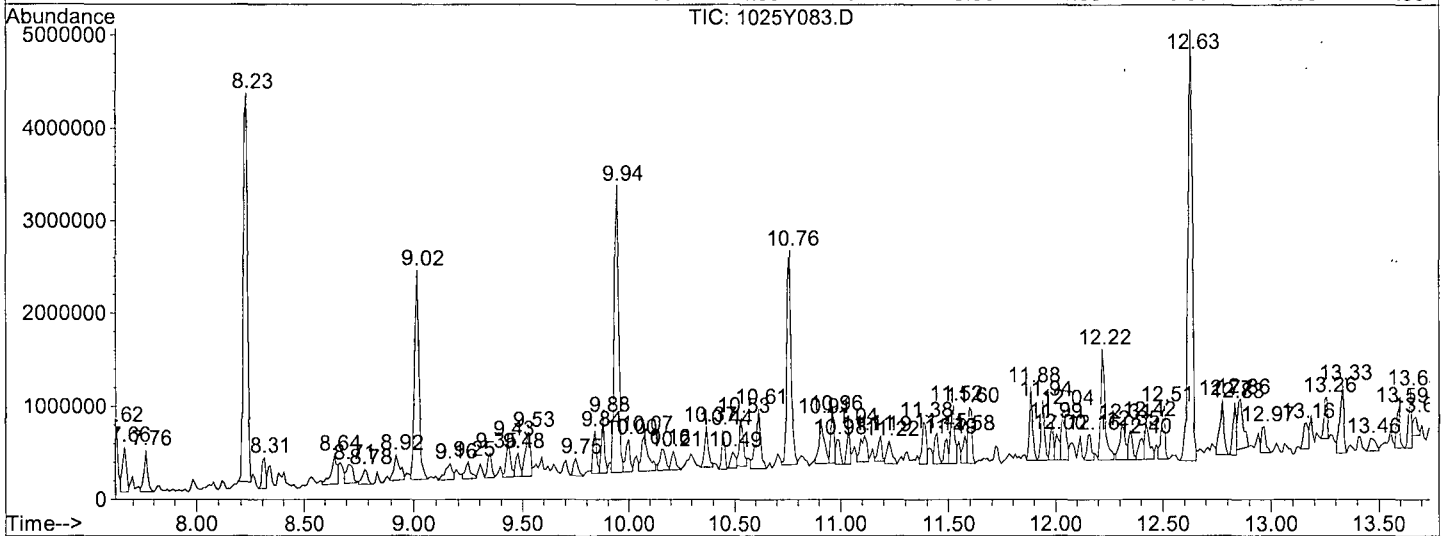
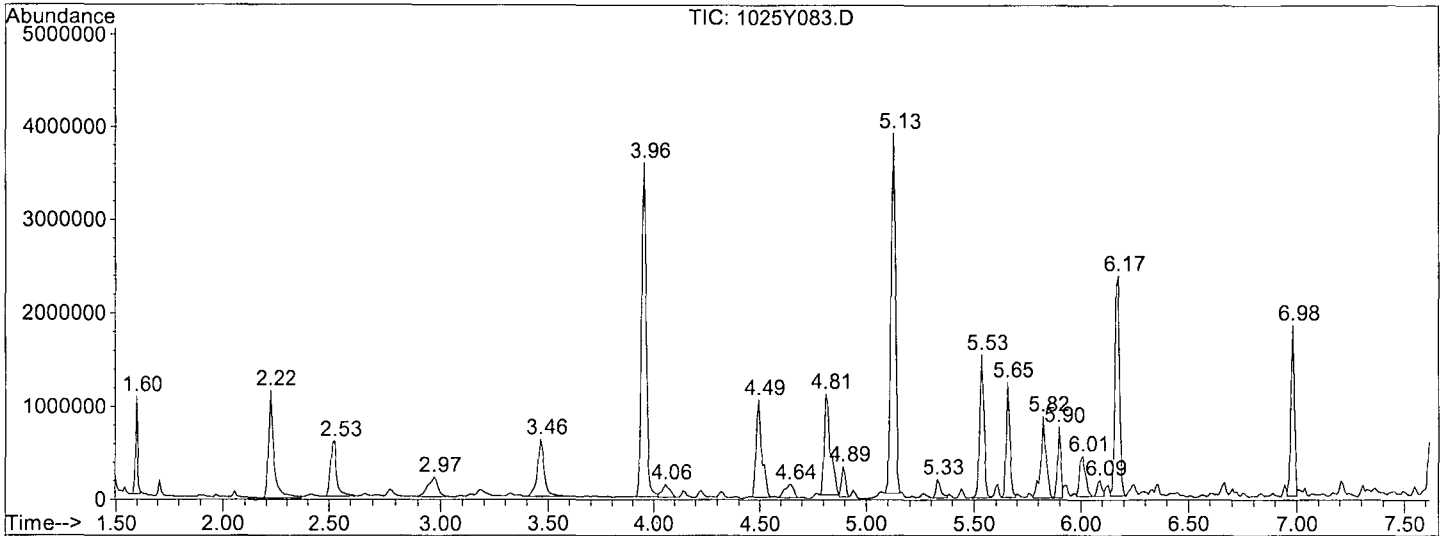
If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	1.598	10	12	14	rBV	1052045	1319854	756198	11.84%	0.721%
2	2.220	75	79	95	rBV	1157866	3819423	2108191	33.02%	2.011%
3	2.526	107	112	124	rBV	595392	2703307	1218989	19.09%	1.163%
4	2.972	151	160	169	rVB3	214711	2273695	682433	10.69%	0.651%
5	3.464	206	213	228	rVB	618394	3320151	1381531	21.64%	1.318%
6	3.956	261	266	273	rBV	3583664	6791835	5723829	89.65%	5.459%
7	4.058	273	277	284	rVB4	138945	1432763	348526	5.46%	0.332%
8	4.494	320	324	330	rVV2	1047743	2920045	2006442	31.43%	1.914%
9	4.643	334	340	345	rVB4	146912	1421355	441207	6.91%	0.421%
10	4.810	355	358	365	rVB3	1089665	3187799	2198873	34.44%	2.097%
11	4.893	365	367	370	rVB	334496	1057067	420327	6.58%	0.401%
12	5.125	388	392	395	rBV	3872673	6672529	5786565	90.63%	5.519%
13	5.330	411	414	419	rBV	201371	1001673	318134	4.98%	0.303%
14	5.534	431	436	441	rBV2	1541108	2922582	2051359	32.13%	1.957%
15	5.654	446	449	453	rBV	1243959	2249854	1583468	24.80%	1.510%
16	5.822	462	467	472	rVB	876796	2578343	1543267	24.17%	1.472%
17	5.896	472	475	477	rBV	765140	1308012	871567	13.65%	0.831%
18	6.007	484	487	492	rVB2	435858	1790122	857245	13.43%	0.818%
19	6.091	492	496	498	rBV	173043	815157	279951	4.38%	0.267%
20	6.174	501	505	509	rVB	2363317	4413245	3522442	55.17%	3.360%
21	6.982	589	592	594	rVV	1836389	2872165	2165135	33.91%	2.065%
22	7.623	658	661	663	rVV	700874	1438739	857001	13.42%	0.817%
23	7.660	663	665	667	rVV2	482430	1366207	620508	9.72%	0.592%
24	7.762	673	676	680	rVB	443617	1391587	547576	8.58%	0.522%
25	8.226	722	726	728	rVV	4181823	6357708	5490294	85.99%	5.236%
26	8.310	732	735	736	rBV	331599	909950	425192	6.66%	0.406%
27	8.644	765	771	773	rVV	311183	1706274	643309	10.08%	0.614%
28	8.709	776	778	782	rVV2	200729	1370724	409028	6.41%	0.390%
29	8.783	783	786	790	rVB2	161594	1219615	271741	4.26%	0.259%
30	8.922	798	801	805	rVV3	273000	1561034	505333	7.91%	0.482%
31	9.015	808	811	816	rVB	2239508	4679105	2969639	46.51%	2.832%
32	9.164	821	827	829	rVV2	176801	1548105	407416	6.38%	0.389%
33	9.247	833	836	840	rVV	188139	1421088	318702	4.99%	0.304%
34	9.349	844	847	849	rVV	266634	1133452	352095	5.51%	0.336%
35	9.433	853	856	859	rVV3	387755	1489985	563162	8.82%	0.537%
36	9.479	859	861	863	rVV	252344	1152824	341317	5.35%	0.326%
37	9.526	863	866	868	rVV2	472804	1835786	816585	12.79%	0.779%
38	9.748	887	890	894	rVB	188184	1347922	280294	4.39%	0.267%
39	9.841	898	900	902	rVV	452214	1553892	534527	8.37%	0.510%
40	9.878	902	904	906	rVV	602072	1543147	609103	9.54%	0.581%
41	9.943	908	911	914	rVV	3090085	6455372	4401686	68.94%	4.198%
42	9.999	914	917	919	rVV	347524	1450949	491770	7.70%	0.469%
43	10.073	922	925	931	rVV2	370234	2628527	904977	14.17%	0.863%
44	10.157	932	934	938	rVV	222223	1589462	429360	6.72%	0.410%
45	10.213	938	940	944	rVB	194651	1486135	286780	4.49%	0.274%

LSC Report - Integrated Chromatogram

File : M:\YODA\DATA\Y181025\1025Y083.D  
 Operator : MA  
 Acquired : 30 Oct 18 13:20 using AcqMethod SVOC416  
 Instrument : Yoda  
 Sample Name: 181024A BLK 1/800  
 Misc Info :  
 Vial Number: 83  
 Quant File : Y1025NC.RES (RTE Integrator)



Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y083.D Vial: 83  
 Acq On : 30 Oct 18 13:20 Operator: MA  
 Sample : 181024A BLK 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 1 Furan, tetrahydro-2-(methoxyme Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.60	18.43 ppb	756198	1,4-dichlorobenzene-D4 (IS)	5.53

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Furan, tetrahydro-2-(methoxymethyl)	116	C6H12O2	019354-27-9	72
2		3-Penten-2-ol	86	C5H10O	001569-50-2	58
3		3-Buten-2-ol, 2-methyl-	86	C5H10O	000115-18-4	52
4		Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	47
5		CIS-1-METHOXY-2-BUTENE	86	C5H10O	010034-14-7	45

\*\*\*\*\*  
 Peak Number 2 Benzene, methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.22	51.39 ppb	2108190	1,4-dichlorobenzene-D4 (IS)	5.53

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzene, methyl-	92	C7H8	000108-88-3	94
2		Benzene, methyl-	92	C7H8	000108-88-3	91
3		Benzene, methyl-	92	C7H8	000108-88-3	91
4		Benzene, methyl-	92	C7H8	000108-88-3	91
5		Benzene, methyl-	92	C7H8	000108-88-3	91

\*\*\*\*\*  
 Peak Number 3 Acetic acid, ethyl ester Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.53	29.71 ppb	1218990	1,4-dichlorobenzene-D4 (IS)	5.53

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Acetic acid, ethyl ester	88	C4H8O2	000141-78-6	50
2		Acetic acid, ethyl ester	88	C4H8O2	000141-78-6	43
3		Acetic acid, pentyl ester	130	C7H14O2	000628-63-7	28
4		1-Butanol, 3-methyl-, acetate	130	C7H14O2	000123-92-2	25
5		Acetic acid, pentyl ester	130	C7H14O2	000628-63-7	25

## Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y083.D Vial: 83  
Acq On : 30 Oct 18 13:20 Operator: MA  
Sample : 181024A BLK 1/800 Inst : Yoda  
Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
Peak Number 4 Nonane, 3-methyl-5-propyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.65	38.60 ppb	1583470	1,4-dichlorobenzene-D4 (IS)	5.53

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Nonane, 3-methyl-5-propyl-	184	C13H28	031081-18-2	78
2		Nonane, 3,7-dimethyl-	156	C11H24	017302-32-8	59
3		Decane, 2-methyl-	156	C11H24	006975-98-0	59
4		Nonane, 5-butyl-	184	C13H28	017312-63-9	59
5		Hexadecane	226	C16H34	000544-76-3	53

\*\*\*\*\*  
Peak Number 5 Heptane, 4-ethyl-2,2,6,6-tetra Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.90	21.24 ppb	871567	1,4-dichlorobenzene-D4 (IS)	5.53

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Heptane, 4-ethyl-2,2,6,6-tetramethy	184	C13H28	062108-31-0	78
2		Hexane, 2,2,5-trimethyl-	128	C9H20	003522-94-9	64
3		Hexane, 2,2,5-trimethyl-	128	C9H20	003522-94-9	64
4		Hexane, 2,2,5-trimethyl-	128	C9H20	003522-94-9	64
5		Hexane, 2,2,5,5-tetramethyl-	142	C10H22	001071-81-4	59

\*\*\*\*\*  
Peak Number 6 SULFONE, CHLORO PHENYL Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.66	14.33 ppb	620508	Napthalene-D8 (IS)	6.98

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	SULFONE, CHLORO PHENYL	176	C6H5ClO2S	000000-00-0	96
2		Phenol, 4-hexyl-	178	C12H18O	002446-69-7	70
3		N,N-DICHLOROBENZENESULFONAMIDE	225	C6H5Cl2NO2S	000473-29-0	64
4		Benzenesulfonyl chloride	176	C6H5ClO2S	000098-09-9	43
5		Benzenesulfonyl chloride	176	C6H5ClO2S	000098-09-9	37

Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y083.D Vial: 83  
 Acq On : 30 Oct 18 13:20 Operator: MA  
 Sample : 181024A BLK 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 7 Hexadecane Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.53	13.75 ppb	816585	Acenaphthene-D10 (IS)	9.02

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Hexadecane	226	C16H34	000544-76-3	80
2		Hexadecane	226	C16H34	000544-76-3	72
3		Decane, 2,3,7-trimethyl-	184	C13H28	062238-13-5	72
4		Nonane, 5-butyl-	184	C13H28	017312-63-9	72
5		Dodecane	170	C12H26	000112-40-3	72

\*\*\*\*\*  
 Peak Number 8 unknown hydrocarbon Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.22	26.40 ppb	1731350	Phenanthrene-D10 (IS)	10.76

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		HEPTADECENE-(8)-CARBONIC ACID-(1)	282	C18H34O2	000000-00-0	99
2		9-Octadecenoic acid (Z)-	282	C18H34O2	000112-80-1	95
3		9-Hexadecenoic acid	254	C16H30O2	002091-29-4	83
4		15-Tetracosenoic acid, methyl ester	380	C25H48O2	002733-88-2	83
5		9-Octadecenoic acid (Z)-	282	C18H34O2	000112-80-1	68

Data File : M:\YODA\DATA\Y181025\1025Y084.D  
 Acq On : 30 Oct 18 13:48  
 Sample : 181024A LCS-1 1/800  
 Misc :

Vial: 84  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Oct 30 14:22 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	187593	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	733115	40.0000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	482637	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	981125	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	916139	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	987819	40.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol (S)	3.95	112	1787111	303.0670	ppb	0.00
Spiked Amount 250.000			Recovery =	121.227%		
6) Phenol-D6 (S)	5.13	99	2186785	311.9605	ppb	0.00
Spiked Amount 250.000			Recovery =	124.784%		
22) Nitrobenzene-D5 (S)	6.17	82	1124102	169.8284	ppb	0.00
Spiked Amount 125.000			Recovery =	135.862%		
46) 2-Fluorobiphenyl (S)	8.22	172	1706370	106.0222	ppb	0.00
Spiked Amount 125.000			Recovery =	84.818%		
64) 2,4,6-Tribromophenol (S)	9.95	330	428310	219.8045	ppb	0.00
Spiked Amount 250.000			Recovery =	87.922%		
82) Terphenyl-D14 (S)	12.62	244	1838052	94.7371	ppb	0.00
Spiked Amount 125.000			Recovery =	75.790%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	3560	7.7898		81
3) n-Nitrosodimethylamine	1.97	42	86932	72.0580	ppb	79
4) Pyridine	1.99	79	99973	55.4030	ppb	98
7) Phenol	5.14	94	685216	73.0682	ppb	97
8) Aniline	5.14	66	588855	78.5505	ppb	94
9) Bis (2-chloroethyl) ether	5.24	63	398727	81.2980	ppb	98
10) 2-Chlorophenol	5.30	128	541998	74.2365	ppb	99
11) 1,3-DCB	5.47	146	459611	60.7802	ppb	98
12) 1,4-DCB	5.56	146	470213	62.0709	ppb	96
13) Benzyl alcohol	5.70	108	360616	76.3272	ppb	95
14) 1,2-DCB	5.73	146	442372	61.4516	ppb	98
15) 2-Methylphenol	5.82	107	432923	74.4740	ppb	99
16) Bis (2-chloroisopropyl) et	5.84	45	709956	76.4746	ppb	97
17) Acetophenone	6.00	105	614264	87.4424	ppb	99
18) 3&4-Methylphenol	6.00	107	918024	172.4880	ppb	98
19) n-Nitrosodi-n-propylamine	6.00	70	377411	78.0962	ppb	93
20) Hexachloroethane	6.11	117	159472	56.0051	ppb	97
23) Nitrobenzene	6.19	77	610087	84.1025	ppb	94
24) Isophorone	6.46	82	939819	73.2966	ppb	99
25) 2-Nitrophenol	6.55	139	273771	74.3343	ppb	96
26) 2,4-Dimethylphenol	6.59	122	341365	55.3584	ppb	95
27) Benzoic acid	6.76	105	25292	8.8052	ppb	91
28) Bis (2-chloroethoxy) metha	6.69	93	579750	80.3055	ppb	99
29) 2,4-Dichlorophenol	6.82	162	397129	73.0655	ppb	99
30) 1,2,4-Trichlorobenzene	6.92	180	350557	62.1024	ppb	98
31) 3,4-Dimethylphenol	6.92	107	567670	67.9785	ppb	99
32) Naphthalene	7.01	128	1302469	68.5697	ppb	100
33) 4-Chloroaniline	7.07	127	381280	53.5978	ppb	97
34) 2,6-Dichlorophenol	7.07	162	376298	75.6572	ppb	98
35) Hexachloropropene	7.10	213	217801	57.7460	ppb	98
36) Hexachlorobutadiene	7.14	225	183520	58.7654	ppb	99
37) Caprolactum	7.49	55	241398	72.5405	ppb	97

(#) = qualifier out of range (m) = manual integration  
 1025Y084.D Y1025NC.M Fri Nov 02 14:17:59 2018

Data File : M:\YODA\DATA\Y181025\1025Y084.D  
 Acq On : 30 Oct 18 13:48  
 Sample : 181024A LCS-1 1/800  
 Misc :

Vial: 84  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Oct 30 14:22 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.62	107	431848	73.9970	ppb	91
39) 2-Methylnaphthalene	7.80	142	829342	69.2510	ppb	100
40) 1-Methylnaphthalene	7.92	142	838373	70.2256	ppb	98
42) Hexachlorocyclopentadiene	7.97	237	78359	21.6366	ppb	98
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	395734	54.7795	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	290447	57.1823	ppb	98
45) 2,4,5-Trichlorophenol	8.18	196	315043	58.5842	ppb	96
47) 1,1'-Biphenyl	8.35	154	1071897	56.5488	ppb	98
48) 2-Chloronaphthalene	8.37	162	852824	56.4934	ppb	100
49) 2-Nitroaniline	8.49	65	313271	60.1114	ppb	93
50) Dimethyl phthalate	8.69	163	1089993	62.2650	ppb	99
51) 2,6-DNT	8.77	165	240535	59.5241	ppb	86
52) Acenaphthylene	8.86	152	1371252	56.3105	ppb	100
53) 3-Nitroaniline	8.98	138	258119	57.1243	ppb	92
54) Acenaphthene	9.05	154	850689	57.6680	ppb	99
55) 2,4-Dinitrophenol	9.10	184	129788	51.8306	ppb	87
56) 4-Nitrophenol	9.17	65	210045	60.1427	ppb	99
57) Dibenzofuran	9.26	168	1220303	59.9397	ppb	95
58) 2,4-DNT	9.25	165	311939	60.6147	ppb	92
59) 2,3,4,6-Tetrachlorophenol	9.39	232	244969	55.1945	ppb #	93
60) Diethyl phthalate	9.52	149	994900	59.0471	ppb	98
61) 4-Chlorophenyl phenyl ethe	9.65	204	429792	65.9139	ppb	96
62) Fluorene	9.66	166	903194	63.3835	ppb	98
63) 4-Nitroaniline	9.69	138	261988	55.5124	ppb	98
66) 4,6-Dinitro-2-methylphenol	9.72	198	193468	50.3832	ppb	97
67) Diphenyl amine	9.80	169	1429844	107.1571	ppb	99
68) n-Nitrosodiphenylamine	9.80	169	1429844	107.1571	ppb	99
69) 1,2-Diphenylhydrazine	9.84	77	1083366	51.3756	ppb	97
70) 4-Bromophenyl phenyl ether	10.23	248	289018	54.0995	ppb	98
71) Hexachlorobenzene	10.29	284	286925	51.0648	ppb	100
72) Atrazine	10.42	200	138525	28.3604	ppb	99
73) Pentachlorophenol	10.54	266	194019	55.8053	ppb	99
74) Phenanthrene	10.79	178	1455906	53.1075	ppb	99
75) Anthracene	10.85	178	1506491	53.4226	ppb	99
76) Carbazol	11.04	167	1391720	52.8147	ppb	99
77) Di-n-butylphthalate	11.43	149	1708349	55.9910	ppb	99
78) Fluoranthene	12.19	202	1532397	52.0871	ppb	100
80) Benzidine	12.35	184	109281	10.4909	ppb	99
81) Pyrene	12.46	202	1638667	54.0948	ppb	100
83) Butyl benzylphthalate	13.19	149	761541	56.2910	ppb	98
84) 3,3'-Dichlorobenzidine	13.82	252	428515	43.4044	ppb	98
85) Benz (a) anthracene	13.86	228	1306612	50.7762	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	984843	57.9337	ppb	99
87) Chrysene	13.90	228	1482373	54.7582	ppb	100
88) Di-n-octylphthalate	14.63	149	1870813	59.1855	ppb	99
90) Benzo (b) fluoranthene	15.23	252	1643846	55.5148	ppb	100
91) Benzo (k) fluoranthene	15.27	252	1392655	49.3582	ppb	100
92) Benzo (a) pyrene	15.73	252	1418225	52.6470	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.85	276	1552199	49.7344	ppb	99
94) Dibenz (a,h) anthracene	17.89	278	1443598	54.4564	ppb	97
95) Benzo (g,h,i) perylene	18.47	276	1383241	54.7006	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1025Y084.D Y1025NC.M Fri Nov 02 14:18:00 2018



Quantitation Report

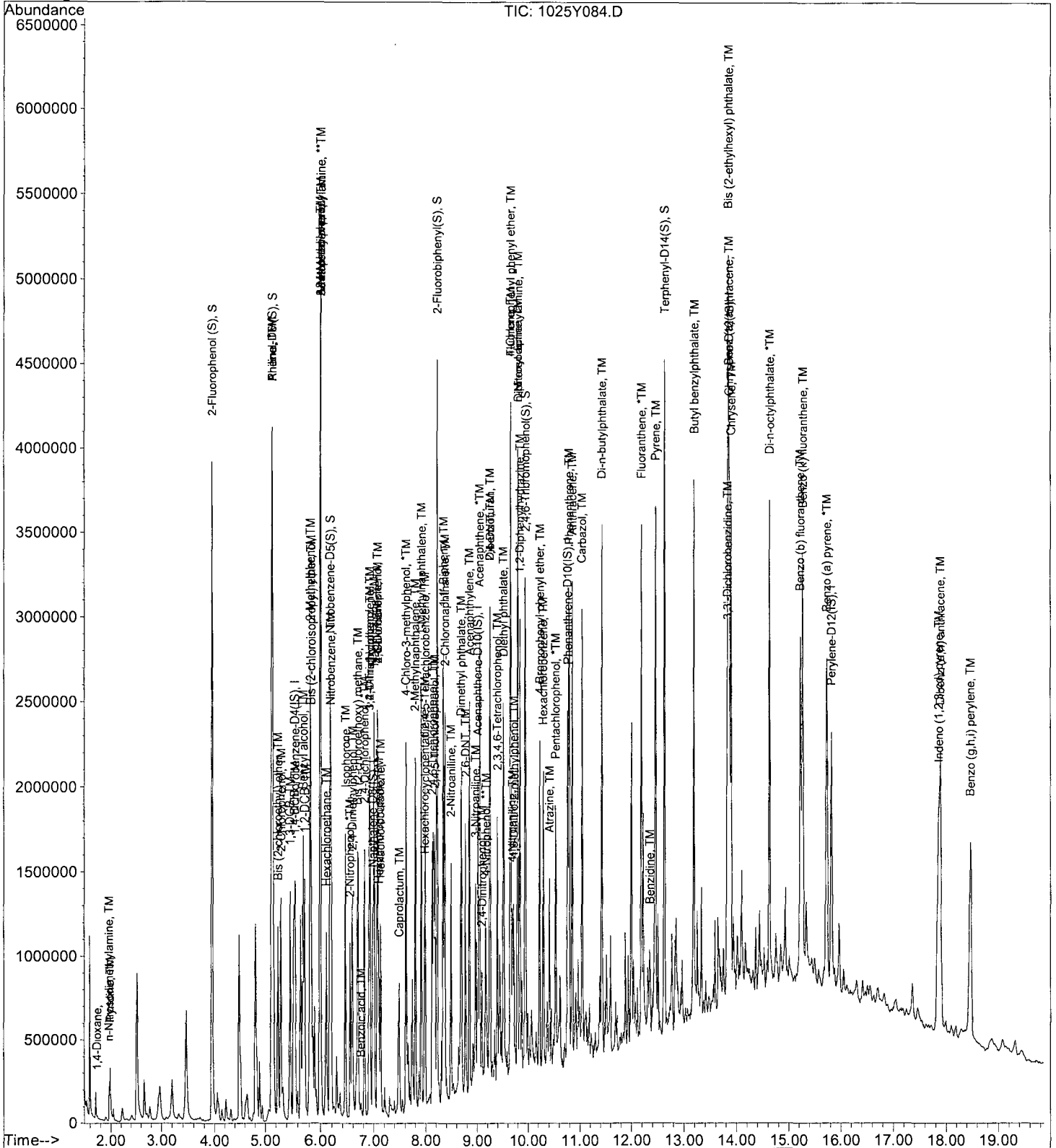
Data File : M:\YODA\DATA\Y181025\1025Y084.D  
 Acq On : 30 Oct 18 13:48  
 Sample : 181024A LCS-1 1/800  
 Misc :

Vial: 84  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Oct 30 14:22 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration



Data File : M:\YODA\DATA\Y181025\1025Y085.D  
 Acq On : 30 Oct 18 14:16  
 Sample : 181024A LCSD-1 1/800  
 Misc :

Vial: 85  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Oct 30 14:23 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	243855	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1052353	40.0000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.01	164	609125	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1131357	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1010602	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1100500	40.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol (S)	3.95	112	1940199	253.1153	ppb	0.00
Spiked Amount 250.000			Recovery =	101.246%		
6) Phenol-D6 (S)	5.13	99	2324168	255.0622	ppb	0.00
Spiked Amount 250.000			Recovery =	102.025%		
22) Nitrobenzene-D5 (S)	6.17	82	1236171	130.1049	ppb	0.00
Spiked Amount 125.000			Recovery =	104.084%		
46) 2-Fluorobiphenyl (S)	8.22	172	2069953	101.9057	ppb	0.00
Spiked Amount 125.000			Recovery =	81.525%		
64) 2,4,6-Tribromophenol (S)	9.95	330	524450	213.2537	ppb	0.00
Spiked Amount 250.000			Recovery =	85.302%		
82) Terphenyl-D14 (S)	12.63	244	1954578	91.3264	ppb	0.00
Spiked Amount 125.000			Recovery =	73.061%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	3700	6.2282		79
3) n-Nitrosodimethylamine	1.98	42	105947	67.5579	ppb	96
4) Pyridine	1.99	79	100152	42.6968	ppb	90
7) Phenol	5.15	94	759486	62.3025	ppb	92
8) Aniline	5.15	66	681646	69.9495	ppb	# 70
9) Bis (2-chloroethyl) ether	5.24	63	455367	71.4251	ppb	99
10) 2-Chlorophenol	5.30	128	594151	62.6039	ppb	98
11) 1,3-DCB	5.47	146	539200	54.8538	ppb	98
12) 1,4-DCB	5.56	146	548998	55.7505	ppb	98
13) Benzyl alcohol	5.70	108	412575	67.1772	ppb	99
14) 1,2-DCB	5.73	146	532642	56.9201	ppb	98
15) 2-Methylphenol	5.82	107	501628	66.3836	ppb	99
16) Bis (2-chloroisopropyl) et	5.84	45	814508	67.4941	ppb	99
17) Acetophenone	6.01	105	675560	72.8230	ppb	90
18) 3&4-Methylphenol	6.00	107	1012652	143.8290	ppb	94
19) n-Nitrosodi-n-propylamine	6.01	70	389179	61.9512	ppb	91
20) Hexachloroethane	6.11	117	191878	51.8386	ppb	99
23) Nitrobenzene	6.20	77	695381	66.7806	ppb	99
24) Isophorone	6.46	82	1105573	60.0672	ppb	99
25) 2-Nitrophenol	6.55	139	320032	60.5349	ppb	98
26) 2,4-Dimethylphenol	6.59	122	454417	51.3369	ppb	96
27) Benzoic acid	6.77	105	26465	7.6758	ppb	97
28) Bis (2-chloroethoxy) metha	6.70	93	698568	67.4099	ppb	99
29) 2,4-Dichlorophenol	6.82	162	502273	64.3771	ppb	97
30) 1,2,4-Trichlorobenzene	6.92	180	459614	56.7223	ppb	99
31) 3,4-Dimethylphenol	6.93	107	752726	62.7947	ppb	96
32) Napthalene	7.01	128	1692631	62.0780	ppb	100
33) 4-Chloroaniline	7.07	127	540317	52.9130	ppb	97
34) 2,6-Dichlorophenol	7.08	162	474892	66.5156	ppb	96
35) Hexachloropropene	7.10	213	300510	55.5050	ppb	97
36) Hexachlorobutadiene	7.14	225	251653	56.1372	ppb	98
37) Caprolactum	7.49	55	317257	66.4154	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y085.D Y1025NC.M Fri Nov 02 14:18:05 2018

Data File : M:\YODA\DATA\Y181025\1025Y085.D  
 Acq On : 30 Oct 18 14:16  
 Sample : 181024A LCSD-1 1/800  
 Misc :

Vial: 85  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Oct 30 14:23 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	551808	65.8691	ppb	99
39) 2-Methylnaphthalene	7.81	142	1080328	62.8433	ppb	99
40) 1-Methylnaphthalene	7.92	142	1096169	63.9656	ppb	100
42) Hexachlorocyclopentadiene	7.97	237	113222	24.2705	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	523699	57.4395	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	377185	58.8388	ppb	100
45) 2,4,5-Trichlorophenol	8.19	196	403441	59.4436	ppb	96
47) 1,1'-Biphenyl	8.34	154	1393932	58.2675	ppb	99
48) 2-Chloronaphthalene	8.37	162	1118426	58.7029	ppb	100
49) 2-Nitroaniline	8.49	65	404589	61.5127	ppb	96
50) Dimethyl phthalate	8.70	163	1276298	57.7679	ppb	100
51) 2,6-DNT	8.77	165	311056	60.9912	ppb	# 79
52) Acenaphthylene	8.86	152	1799609	58.5551	ppb	100
53) 3-Nitroaniline	8.98	138	340271	59.6678	ppb	94
54) Acenaphthene	9.06	154	1088509	58.4669	ppb	100
55) 2,4-Dinitrophenol	9.10	184	174829	54.7190	ppb	94
56) 4-Nitrophenol	9.17	65	260315	59.0587	ppb	95
57) Dibenzofuran	9.25	168	1563170	60.8370	ppb	97
58) 2,4-DNT	9.25	165	404270	62.2435	ppb	95
59) 2,3,4,6-Tetrachlorophenol	9.40	232	317980	56.7674	ppb	98
60) Diethyl phthalate	9.52	149	1295322	60.9132	ppb	100
61) 4-Chlorophenyl phenyl ethe	9.65	204	514544	61.8251	ppb	96
62) Fluorene	9.66	166	1060751	58.1440	ppb	99
63) 4-Nitroaniline	9.70	138	314491	52.7996	ppb	95
66) 4,6-Dinitro-2-methylphenol	9.73	198	238564	53.6586	ppb	86
67) Diphenyl amine	9.80	169	1753450	113.9595	ppb	99
68) n-Nitrosodiphenylamine	9.80	169	1753450	113.9595	ppb	99
69) 1,2-Diphenylhydrazine	9.84	77	1399986	57.5745	ppb	96
70) 4-Bromophenyl phenyl ether	10.23	248	378439	61.4312	ppb	98
71) Hexachlorobenzene	10.29	284	331051	51.0943	ppb	100
72) Atrazine	10.42	200	155762	27.6548	ppb	97
73) Pentachlorophenol	10.54	266	221189	55.1721	ppb	99
74) Phenanthrene	10.79	178	1643919	52.0029	ppb	99
75) Anthracene	10.85	178	1678093	51.6059	ppb	100
76) Carbazol	11.05	167	1569014	51.6362	ppb	99
77) Di-n-butylphthalate	11.43	149	1914265	54.4087	ppb	100
78) Fluoranthene	12.19	202	1746515	51.4821	ppb	99
80) Benzidine	12.35	184	38925	3.3875	ppb	# 85
81) Pyrene	12.46	202	1799427	53.8493	ppb	100
83) Butyl benzylphthalate	13.19	149	880139	58.9763	ppb	99
84) 3,3'-Dichlorobenzidine	13.82	252	508502	46.6919	ppb	98
85) Benz (a) anthracene	13.86	228	1291159	45.4857	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1868812	99.6578	ppb	99
87) Chrysene	13.91	228	1602208	53.6527	ppb	100
88) Di-n-octylphthalate	14.63	149	2122357	60.8674	ppb	99
90) Benzo (b) fluoranthene	15.23	252	1854635	56.2204	ppb	99
91) Benzo (k) fluoranthene	15.27	252	1523626	48.4709	ppb	100
92) Benzo (a) pyrene	15.73	252	1551639	51.7019	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.84	276	1701800	48.9446	ppb	97
94) Dibenz (a,h) anthracene	17.89	278	1580036	53.5004	ppb	99
95) Benzo (g,h,i) perylene	18.47	276	1510129	53.6038	ppb	97

(#) = qualifier out of range (m) = manual integration  
 1025Y085.D Y1025NC.M Fri Nov 02 14:18:06 2018

Quantitation Report

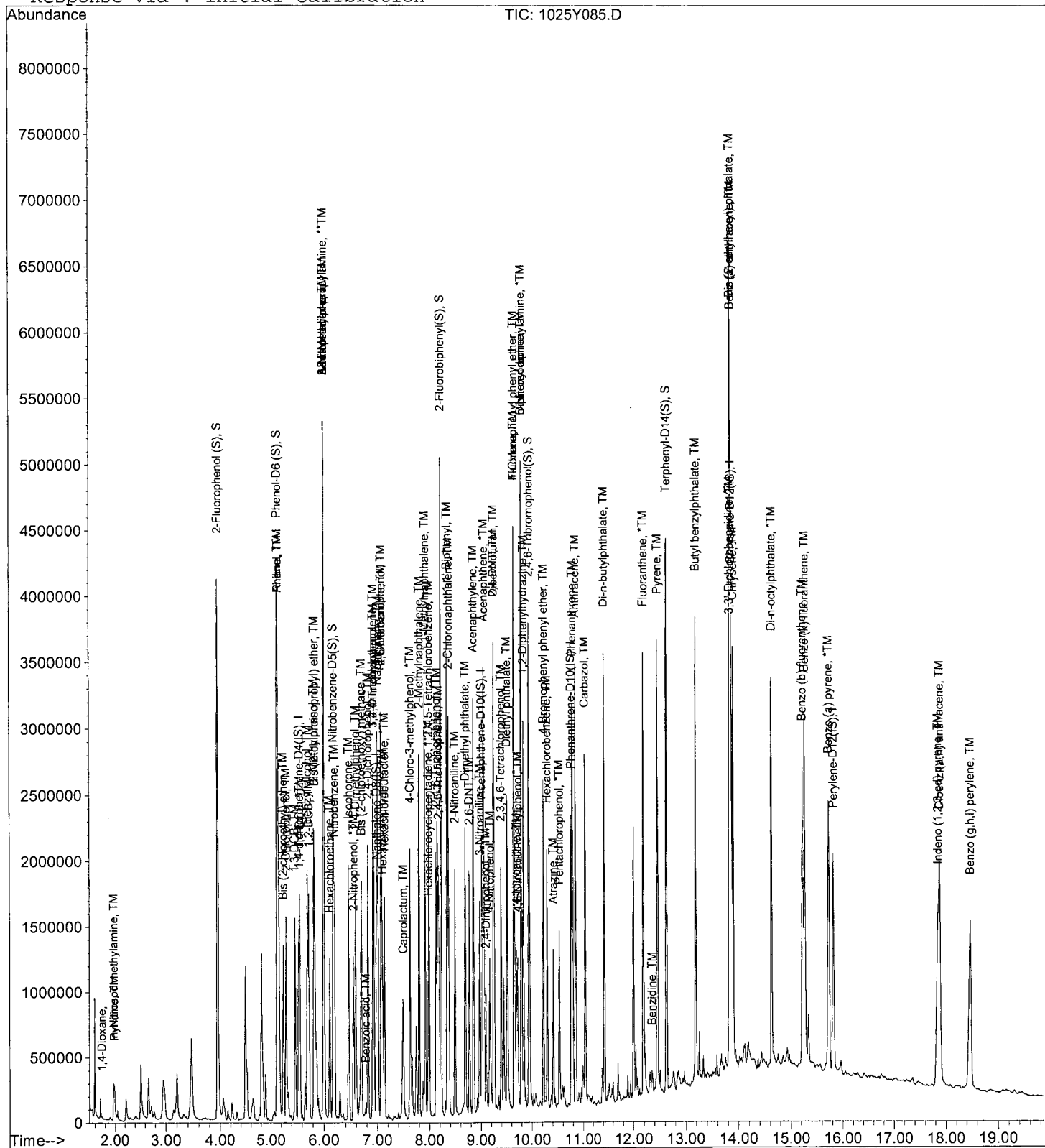
Data File : M:\YODA\DATA\Y181025\1025Y085.D  
Acq On : 30 Oct 18 14:16  
Sample : 181024A LCSD-1 1/800  
Misc :

Vial: 85  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Oct 30 14:23 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y181025\1025Y086.D  
 Acq On : 30 Oct 18 14:43  
 Sample : AZ81584W24 MS-1 1/800  
 Misc :

Vial: 86  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Oct 30 16:09 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	274422	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1143409	40.0000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.01	164	593066	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1266711	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1158132	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1209736	40.0000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.96	112	1898648	220.1047	ppb	0.02
Spiked Amount	250.000		Recovery	=	88.042%	
6) Phenol-D6 (S)	5.13	99	2122982	207.0320	ppb	0.00
Spiked Amount	250.000		Recovery	=	82.813%	
22) Nitrobenzene-D5 (S)	6.17	82	1213313	117.5298	ppb	0.00
Spiked Amount	125.000		Recovery	=	94.024%	
46) 2-Fluorobiphenyl (S)	8.22	172	2049969	103.6546	ppb	0.00
Spiked Amount	125.000		Recovery	=	82.924%	
64) 2,4,6-Tribromophenol (S)	9.95	330	514017	214.6710	ppb	0.00
Spiked Amount	250.000		Recovery	=	85.868%	
82) Terphenyl-D14 (S)	12.63	244	2110967	86.0690	ppb	0.00
Spiked Amount	125.000		Recovery	=	68.855%	

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.74	58	3591	5.3715		87
3) n-Nitrosodimethylamine	1.98	42	101551	57.5420	ppb	92
4) Pyridine	1.99	79	90990	34.4701	ppb	92
7) Phenol	5.15	94	690268	50.3172	ppb	94
8) Aniline	5.15	66	626397	57.1200	ppb	# 79
9) Bis (2-chloroethyl) ether	5.24	63	434820	60.6054	ppb	98
10) 2-Chlorophenol	5.30	128	607990	56.9264	ppb	98
11) 1,3-DCB	5.48	146	548874	49.6183	ppb	99
12) 1,4-DCB	5.56	146	549789	49.6120	ppb	98
13) Benzyl alcohol	5.70	108	401425	58.0813	ppb	97
14) 1,2-DCB	5.73	146	535094	50.8128	ppb	99
15) 2-Methylphenol	5.82	107	480336	56.4855	ppb	99
16) Bis (2-chloroisopropyl) et	5.84	45	796952	58.6834	ppb	99
17) Acetophenone	6.00	105	658463	62.0675	ppb	91
18) 3&4-Methylphenol	6.00	107	989733	122.7096	ppb	97
19) n-Nitrosodi-n-propylamine	6.00	70	384004	54.3187	ppb	88
20) Hexachloroethane	6.11	117	191567	45.9898	ppb	98
23) Nitrobenzene	6.20	77	669296	59.1570	ppb	100
24) Isophorone	6.46	82	1170665	58.5386	ppb	98
25) 2-Nitrophenol	6.55	139	347717	60.5338	ppb	98
26) 2,4-Dimethylphenol	6.59	122	446039	46.3775	ppb	95
27) Benzoic acid	6.77	105	24013	7.1749	ppb	99
28) Bis (2-chloroethoxy) metha	6.70	93	735670	65.3368	ppb	99
29) 2,4-Dichlorophenol	6.82	162	503475	59.3922	ppb	98
30) 1,2,4-Trichlorobenzene	6.91	180	455403	51.7269	ppb	98
31) 3,4-Dimethylphenol	6.93	107	706455	54.2414	ppb	98
32) Napthalene	7.01	128	1650763	55.7212	ppb	99
33) 4-Chloroaniline	7.07	127	488061	43.9894	ppb	97
34) 2,6-Dichlorophenol	7.08	162	474268	61.1382	ppb	97
35) Hexachloropropene	7.10	213	284445	48.3539	ppb	98
36) Hexachlorobutadiene	7.14	225	235867	48.4257	ppb	98
37) Caprolactum	7.49	55	308595	59.4574	ppb	98

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

Data File : M:\YODA\DATA\Y181025\1025Y086.D  
 Acq On : 30 Oct 18 14:43  
 Sample : AZ81584W24 MS-1 1/800  
 Misc :

Vial: 86  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Oct 30 16:09 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	507806	55.7894	ppb	100
39) 2-Methylnaphthalene	7.81	142	1050666	56.2507	ppb	100
40) 1-Methylnaphthalene	7.92	142	1047806	56.2742	ppb	100
42) Hexachlorocyclopentadiene	7.97	237	110015	24.2286	ppb	98
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	506101	57.0124	ppb	98
44) 2,4,6-Trichlorophenol	8.13	196	369467	59.1954	ppb	99
45) 2,4,5-Trichlorophenol	8.18	196	395930	59.9165	ppb	95
47) 1,1'-Biphenyl	8.34	154	1337904	57.4398	ppb	97
48) 2-Chloronaphthalene	8.37	162	1064829	57.4031	ppb	100
49) 2-Nitroaniline	8.49	65	344705	53.8272	ppb	97
50) Dimethyl phthalate	8.70	163	1195590	55.5802	ppb	100
51) 2,6-DNT	8.77	165	273332	55.0456	ppb	# 79
52) Acenaphthylene	8.85	152	1552010	51.8662	ppb	100
53) 3-Nitroaniline	8.98	138	287230	51.7307	ppb	96
54) Acenaphthene	9.06	154	963641	53.1615	ppb	98
55) 2,4-Dinitrophenol	9.10	184	153898	50.3278	ppb	96
56) 4-Nitrophenol	9.17	65	240358	56.0076	ppb	100
57) Dibenzofuran	9.25	168	1393034	55.6835	ppb	97
58) 2,4-DNT	9.24	165	365175	57.7466	ppb	94
59) 2,3,4,6-Tetrachlorophenol	9.40	232	304704	55.8703	ppb	98
60) Diethyl phthalate	9.52	149	1279144	61.7812	ppb	100
61) 4-Chlorophenyl phenyl ethe	9.65	204	519672	64.6402	ppb	98
62) Fluorene	9.66	166	1105944	63.1181	ppb	99
63) 4-Nitroaniline	9.70	138	335408	57.8361	ppb	88
66) 4,6-Dinitro-2-methylphenol	9.73	198	244179	49.3236	ppb	85
67) Diphenyl amine	9.80	169	1712744	99.4195	ppb	98
68) n-Nitrosodiphenylamine	9.80	169	1712744	99.4195	ppb	98
69) 1,2-Diphenylhydrazine	9.84	77	1339328	49.1944	ppb	97
70) 4-Bromophenyl phenyl ether	10.23	248	362628	52.5747	ppb	98
71) Hexachlorobenzene	10.30	284	363107	50.0535	ppb	# 82
72) Atrazine	10.41	200	172712	27.3876	ppb	98
73) Pentachlorophenol	10.54	266	240969	53.6833	ppb	98
74) Phenanthrene	10.80	178	1780147	50.2950	ppb	100
75) Anthracene	10.85	178	1829872	50.2604	ppb	99
76) Carbazol	11.05	167	1540789	45.2890	ppb	99
77) Di-n-butylphthalate	11.43	149	1917579	48.6790	ppb	100
78) Fluoranthene	12.19	202	1902276	50.0817	ppb	99
80) Benzidine	12.35	184	149004	11.3154	ppb	96
81) Pyrene	12.46	202	1993768	52.0646	ppb	100
83) Butyl benzylphthalate	13.19	149	971681	56.8162	ppb	96
84) 3,3'-Dichlorobenzidine	13.82	252	505404	40.4958	ppb	100
85) Benz (a) anthracene	13.86	228	1604775	49.3323	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1161750	54.0606	ppb	99
87) Chrysene	13.91	228	1773577	51.8257	ppb	99
88) Di-n-octylphthalate	14.63	149	2291179	57.3386	ppb	98
90) Benzo (b) fluoranthene	15.23	252	1778769	49.0517	ppb	99
91) Benzo (k) fluoranthene	15.27	252	1511114	43.7320	ppb	100
92) Benzo (a) pyrene	15.73	252	1677915	50.8610	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.85	276	1815043	47.4879	ppb	96
94) Dibenz (a,h) anthracene	17.89	278	1697449	52.2861	ppb	99
95) Benzo (g,h,i) perylene	18.47	276	1604988	51.8266	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y086.D Y1025NC.M Fri Nov 02 14:18:11 2018

Quantitation Report

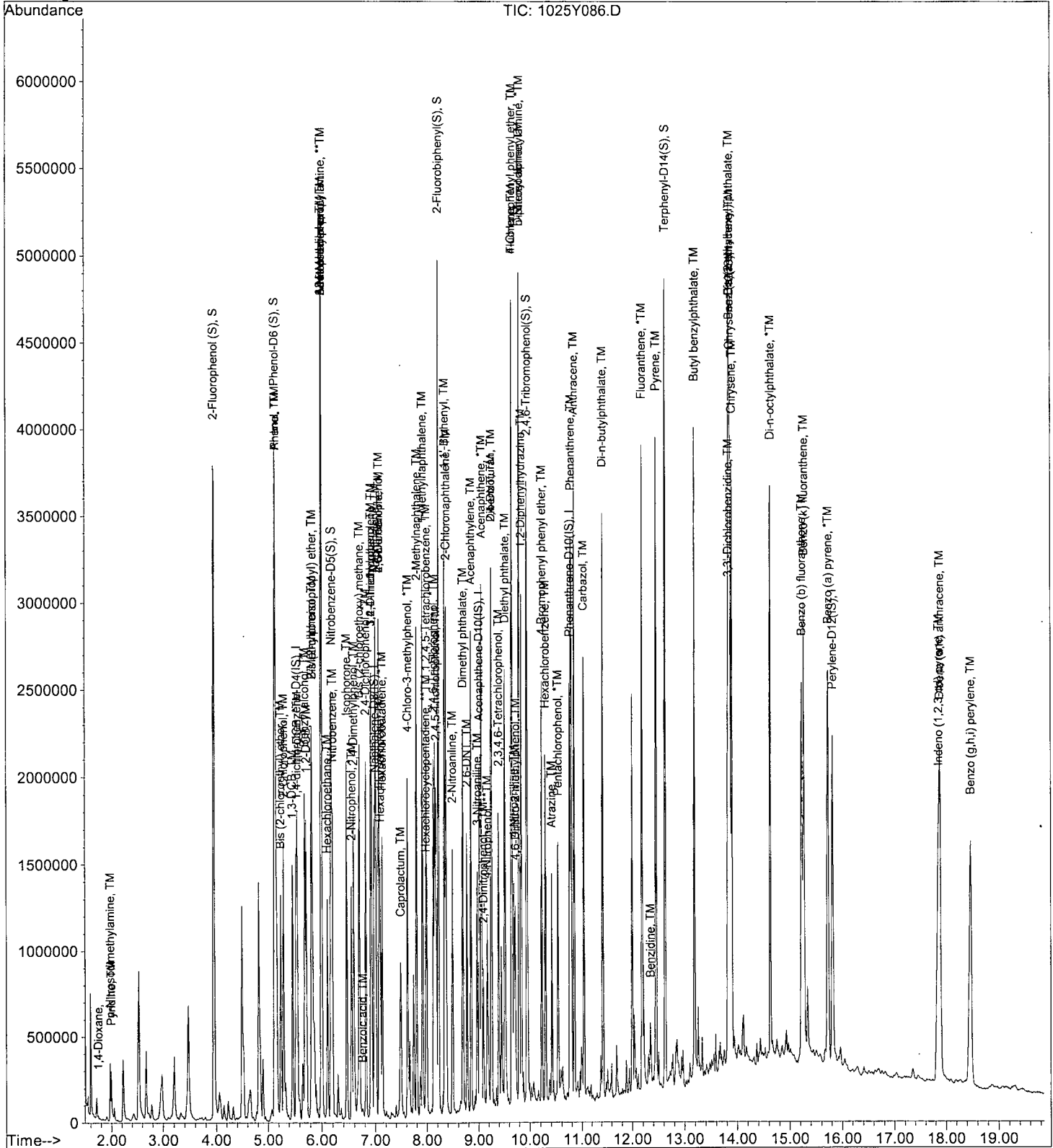
Data File : M:\YODA\DATA\Y181025\1025Y086.D  
Acq On : 30 Oct 18 14:43  
Sample : AZ81584W24 MS-1 1/800  
Misc :

Vial: 86  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Oct 30 16:09 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y181025\1025Y087.D  
 Acq On : 30 Oct 18 15:11  
 Sample : AZ81584W20 MSD-1 1/800  
 Misc :

Vial: 87  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Oct 30 16:10 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	274577	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1150950	40.0000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	620184	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1150894	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1030615	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1091534	40.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol (S)	3.95	112	1916831	222.0872	ppb	0.00
Spiked Amount 250.000			Recovery =	88.835%		
6) Phenol-D6 (S)	5.13	99	2032282	198.0752	ppb	0.00
Spiked Amount 250.000			Recovery =	79.230%		
22) Nitrobenzene-D5 (S)	6.17	82	1066651	102.6461	ppb	0.00
Spiked Amount 125.000			Recovery =	82.117%		
46) 2-Fluorobiphenyl (S)	8.22	172	1810096	87.5236	ppb	0.00
Spiked Amount 125.000			Recovery =	70.019%		
64) 2,4,6-Tribromophenol (S)	9.95	330	466047	186.1265	ppb	0.00
Spiked Amount 250.000			Recovery =	74.450%		
82) Terphenyl-D14 (S)	12.63	244	1890222	86.6044	ppb	0.00
Spiked Amount 125.000			Recovery =	69.283%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	4493	6.7169		84
3) n-Nitrosodimethylamine	1.98	42	98108	55.5597	ppb	89
4) Pyridine	1.99	79	109966	41.6353	ppb	94
7) Phenol	5.15	94	668781	48.7234	ppb	95
8) Aniline	5.15	66	618225	56.3430	ppb	# 78
9) Bis (2-chloroethyl) ether	5.24	63	381336	53.1208	ppb	99
10) 2-Chlorophenol	5.30	128	521890	48.8372	ppb	96
11) 1,3-DCB	5.48	146	464504	41.9676	ppb	99
12) 1,4-DCB	5.56	146	474421	42.7868	ppb	98
13) Benzyl alcohol	5.70	108	353390	51.1024	ppb	99
14) 1,2-DCB	5.73	146	467893	44.4063	ppb	99
15) 2-Methylphenol	5.82	107	428318	50.3400	ppb	99
16) Bis (2-chloroisopropyl) et	5.85	45	697494	51.3309	ppb	94
17) Acetophenone	6.00	105	596621	55.4966	ppb	93
18) 3&4-Methylphenol	6.00	107	882339	107.5040	ppb	96
19) n-Nitrosodi-n-propylamine	6.00	70	342768	48.4583	ppb	92
20) Hexachloroethane	6.11	117	168989	40.5466	ppb	98
23) Nitrobenzene	6.20	77	595810	52.3167	ppb	99
24) Isophorone	6.46	82	1047729	52.0480	ppb	98
25) 2-Nitrophenol	6.55	139	304946	52.7400	ppb	98
26) 2,4-Dimethylphenol	6.59	122	411699	42.5265	ppb	98
27) Benzoic acid	6.72	105	383742	44.9077	ppb	98
28) Bis (2-chloroethoxy) metha	6.70	93	640027	56.4701	ppb	99
29) 2,4-Dichlorophenol	6.82	162	438062	51.3372	ppb	98
30) 1,2,4-Trichlorobenzene	6.91	180	395293	44.6051	ppb	98
31) 3,4-Dimethylphenol	6.93	107	640343	48.8432	ppb	99
32) Napthalene	7.01	128	1456450	48.8401	ppb	100
33) 4-Chloroaniline	7.07	127	442545	39.6256	ppb	99
34) 2,6-Dichlorophenol	7.08	162	420267	53.8219	ppb	98
35) Hexachloropropene	7.10	213	257209	43.4374	ppb	97
36) Hexachlorobutadiene	7.14	225	210711	42.9775	ppb	99
37) Caprolactum	7.50	55	270896	51.8519	ppb	97

(#) = qualifier out of range (m) = manual integration  
 1025Y087.D Y1025NC.M Fri Nov 02 14:18:16 2018



Data File : M:\YODA\DATA\Y181025\1025Y087.D  
 Acq On : 30 Oct 18 15:11  
 Sample : AZ81584W20 MSD-1 1/800  
 Misc :

Vial: 87  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Oct 30 16:10 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	477565	52.1232	ppb	99
39) 2-Methylnaphthalene	7.81	142	930690	49.5009	ppb	99
40) 1-Methylnaphthalene	7.92	142	942135	50.2674	ppb	100
42) Hexachlorocyclopentadiene	7.97	237	98845	21.3033	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	448197	48.2818	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	327876	50.2348	ppb	98
45) 2,4,5-Trichlorophenol	8.19	196	347366	50.2687	ppb	98
47) 1,1'-Biphenyl	8.34	154	1195650	49.0879	ppb	99
48) 2-Chloronaphthalene	8.37	162	953410	49.1493	ppb	100
49) 2-Nitroaniline	8.49	65	341943	51.0611	ppb	97
50) Dimethyl phthalate	8.70	163	1197357	53.2285	ppb	100
51) 2,6-DNT	8.77	165	268651	51.7372	ppb	# 75
52) Acenaphthylene	8.85	152	1541117	49.2502	ppb	99
53) 3-Nitroaniline	8.98	138	282634	48.6772	ppb	99
54) Acenaphthene	9.06	154	932292	49.1831	ppb	100
55) 2,4-Dinitrophenol	9.10	184	146670	46.6578	ppb	97
56) 4-Nitrophenol	9.17	65	237799	52.9884	ppb	98
57) Dibenzofuran	9.25	168	1331545	50.8983	ppb	98
58) 2,4-DNT	9.24	165	352693	53.3341	ppb	96
59) 2,3,4,6-Tetrachlorophenol	9.40	232	275597	48.3236	ppb	99
60) Diethyl phthalate	9.52	149	1148054	53.0251	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.65	204	469165	53.9449	ppb	99
62) Fluorene	9.66	166	989345	52.2493	ppb	98
63) 4-Nitroaniline	9.70	138	300737	49.5901	ppb	96
66) 4,6-Dinitro-2-methylphenol	9.73	198	222034	49.3612	ppb	92
67) Diphenyl amine	9.80	169	1560506	99.6981	ppb	98
68) n-Nitrosodiphenylamine	9.80	169	1560506	99.6981	ppb	98
69) 1,2-Diphenylhydrazine	9.84	77	1191129	48.1537	ppb	99
70) 4-Bromophenyl phenyl ether	10.23	248	319697	51.0148	ppb	97
71) Hexachlorobenzene	10.30	284	326210	49.4925	ppb	# 83
72) Atrazine	10.41	200	153077	26.7167	ppb	100
73) Pentachlorophenol	10.54	266	214161	52.5122	ppb	99
74) Phenanthrene	10.80	178	1599198	49.7295	ppb	99
75) Anthracene	10.85	178	1651539	49.9271	ppb	99
76) Carbazol	11.05	167	1521163	49.2116	ppb	100
77) Di-n-butylphthalate	11.43	149	1869128	52.2240	ppb	100
78) Fluoranthene	12.19	202	1685594	48.8429	ppb	100
80) Benzidine	12.35	184	219254	18.7103	ppb	98
81) Pyrene	12.46	202	1775703	52.1075	ppb	99
83) Butyl benzylphthalate	13.19	149	881831	57.9423	ppb	99
84) 3,3'-Dichlorobenzidine	13.82	252	445910	40.1495	ppb	98
85) Benz (a) anthracene	13.86	228	1442287	49.8231	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1079706	56.4592	ppb	99
87) Chrysene	13.90	228	1551719	50.9530	ppb	99
88) Di-n-octylphthalate	14.63	149	2092181	58.8368	ppb	99
90) Benzo (b) fluoranthene	15.23	252	1736610	53.0751	ppb	100
91) Benzo (k) fluoranthene	15.27	252	1476482	47.3570	ppb	99
92) Benzo (a) pyrene	15.73	252	1484323	49.8651	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.85	276	1616138	46.8627	ppb	97
94) Dibenz (a,h) anthracene	17.89	278	1494767	51.0289	ppb	99
95) Benzo (g,h,i) perylene	18.47	276	1450709	51.9176	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y087.D Y1025NC.M Fri Nov 02 14:18:17 2018

Quantitation Report

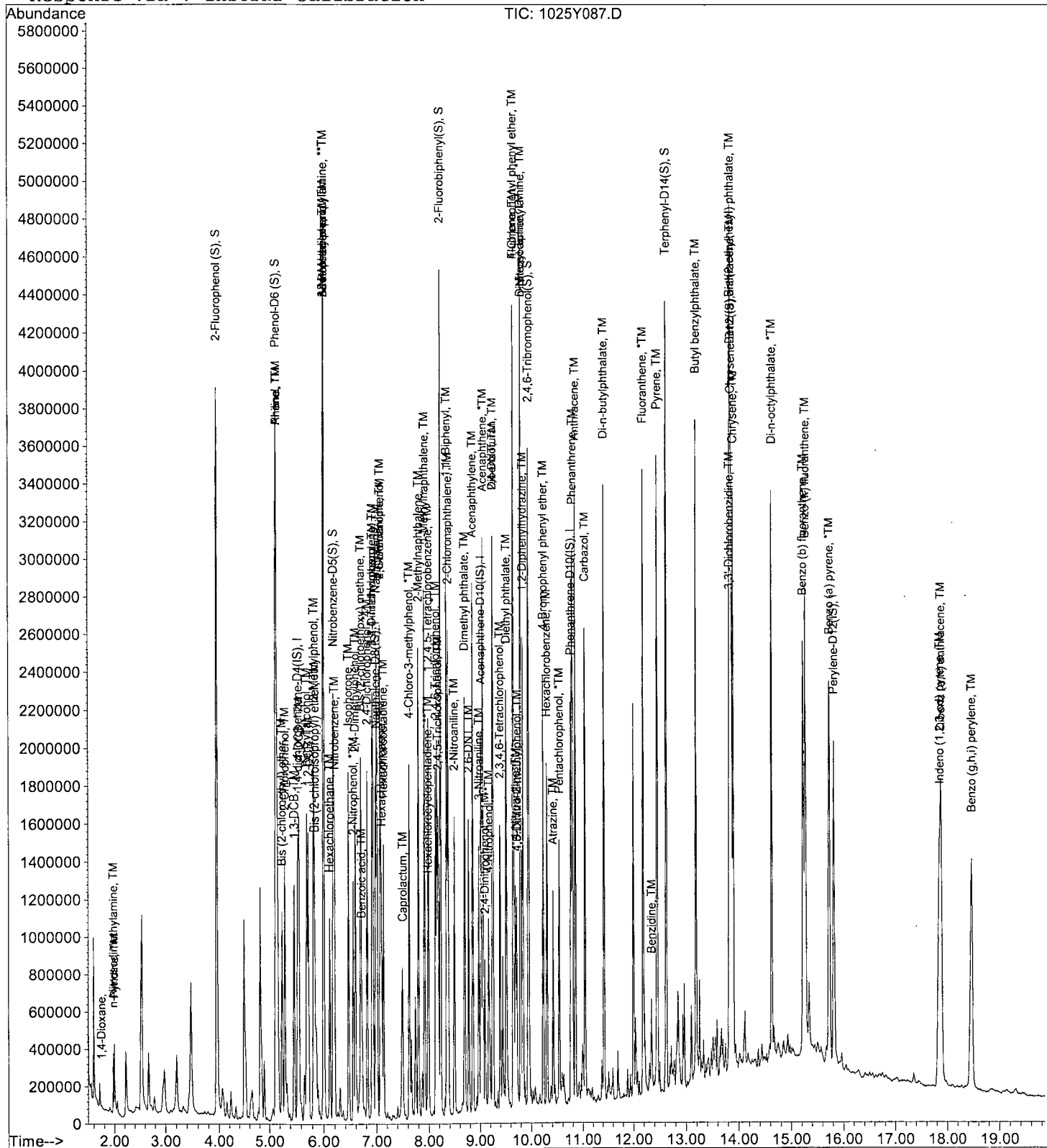
Data File : M:\YODA\DATA\Y181025\1025Y087.D  
Acq On : 30 Oct 18 15:11  
Sample : AZ81584W20 MSD-1 1/800  
Misc :

Vial: 87  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Oct 30 16:10 2018

Quant Results File: Y1025NC.RES

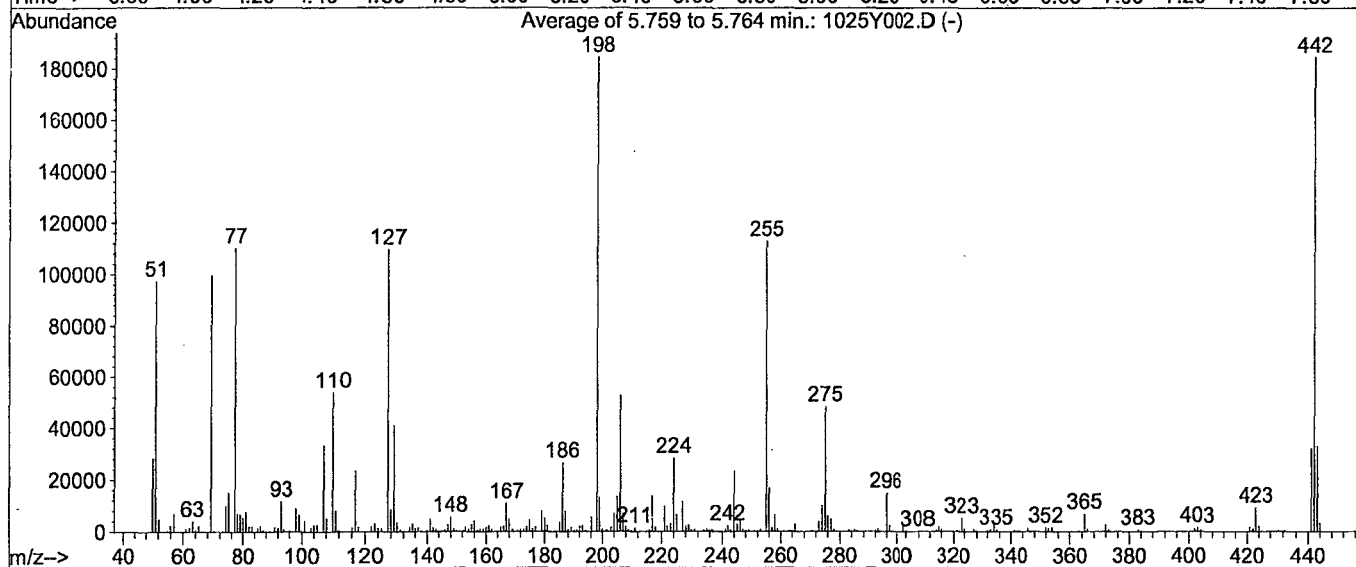
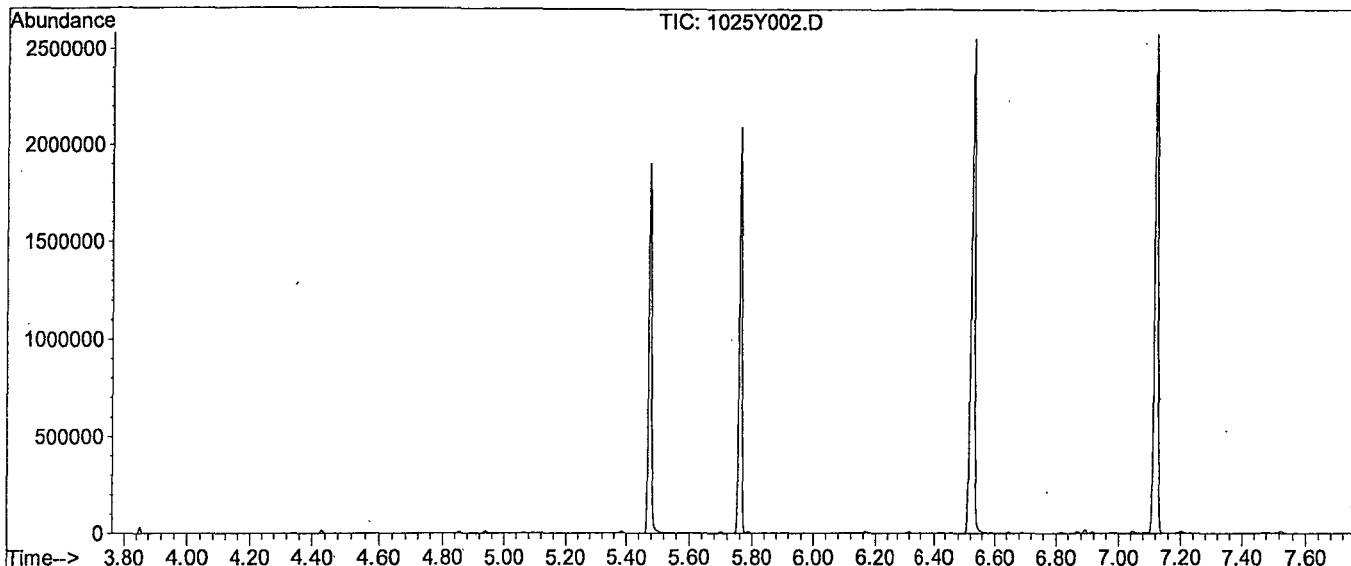
Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y181025\1025Y002.D  
 Acq On : 25 Oct 18 11:17  
 Sample : SV Tune 03/07/18  
 Misc :

Vial: 2  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C



AutoFind: Scans 870, 871, 872; Background Corrected with Scan 862

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	10	80	52.8	97467	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.4	371	PASS
127	198	10	80	59.4	109768	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	184661	PASS
199	198	5	9	7.1	13044	PASS
275	198	10	60	26.1	48283	PASS
365	198	1	100	3.7	6805	PASS
441	442	0.01	24	17.3	32043	PASS
442	198	50	150	100.0	184749	PASS
443	442	15	24	17.8	32880	PASS

Data File Name: 1025Y002.D  
Data File Path: M:\YODA\DATA\Y181025\  
Operator: MA  
Date Acquired: 25 Oct 2018 11:17  
Method File: DFTPP2.M  
Sample Name: SV Tune 03/07/18  
Vial Number: 2  
Instrument Name: Yoda

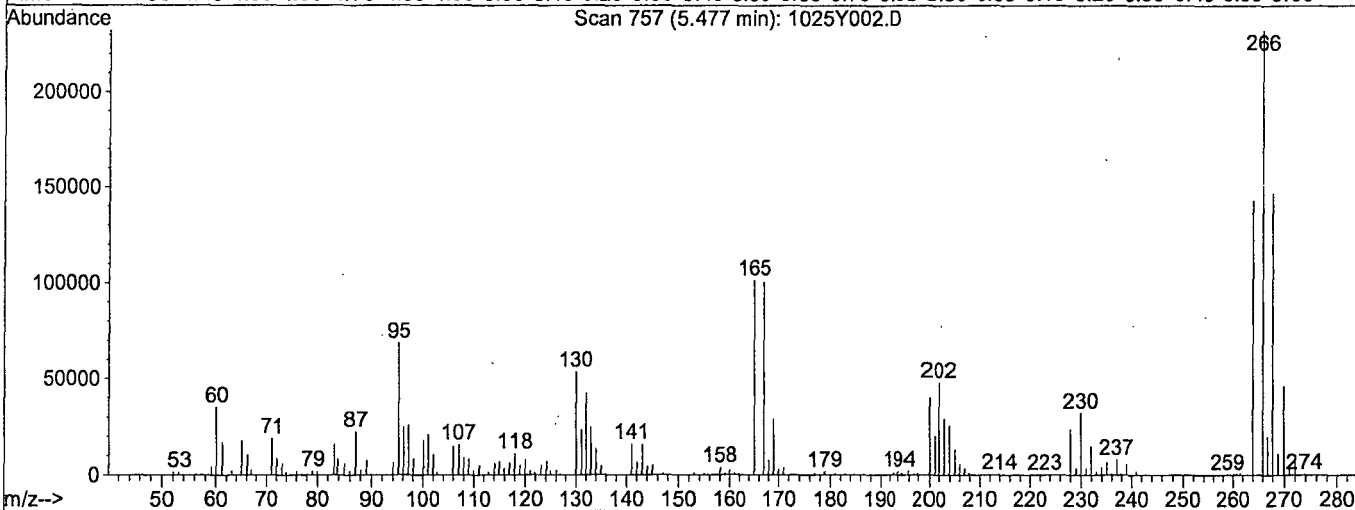
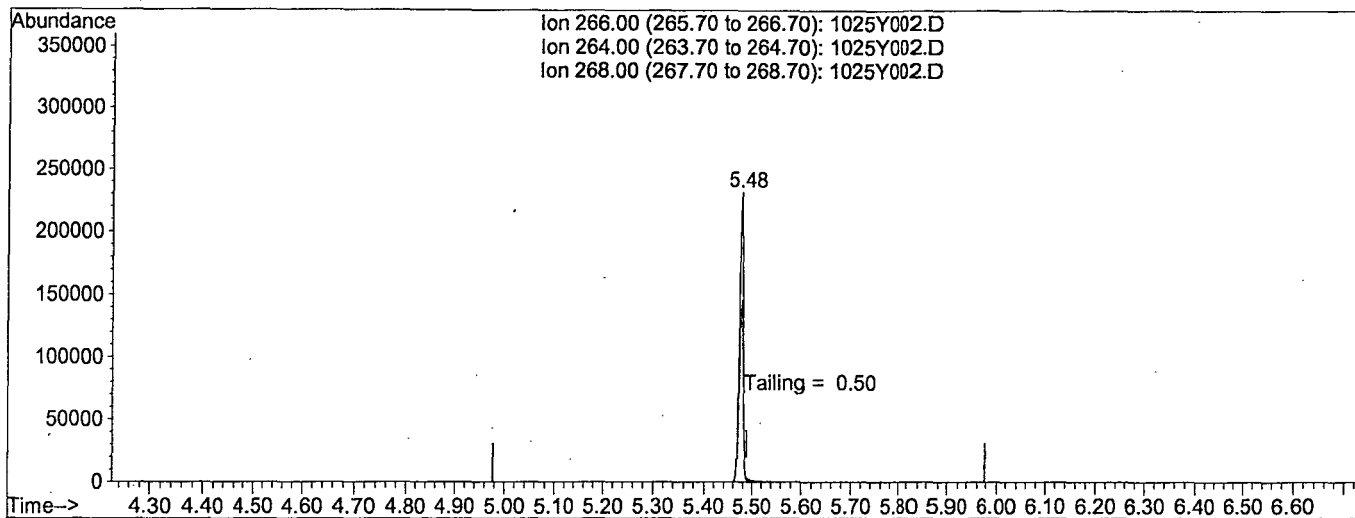
#	Name	Ret Time	Target Response
1)	DDT	7.13	19507100
2)	DDD	6.93	122658
3)	DDE	7.09	0

Breakdown 0.62

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y002.D Vial: 2  
 Acq On : 25 Oct 18 11:17 Operator: MA  
 Sample : SV Tune 03/07/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Oct 25 13:10 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Oct 25 09:06:57 2018  
 Response via : Single Level Calibration



TIC: 1025Y002.D

(5) Pentachlorophenol

5.48min 0.0000

response 1348374

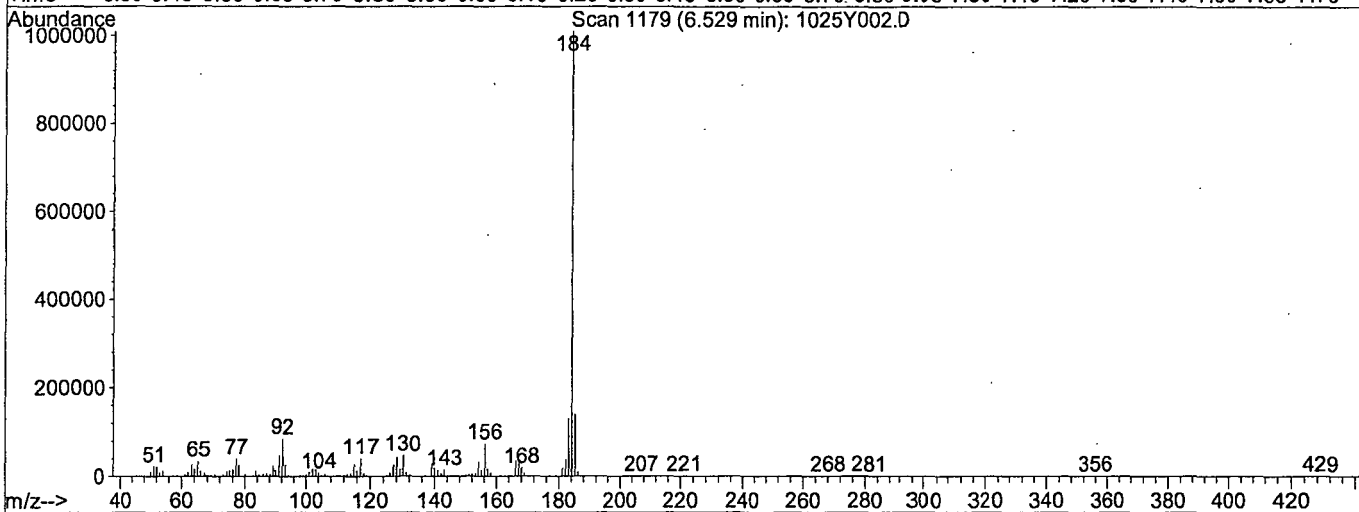
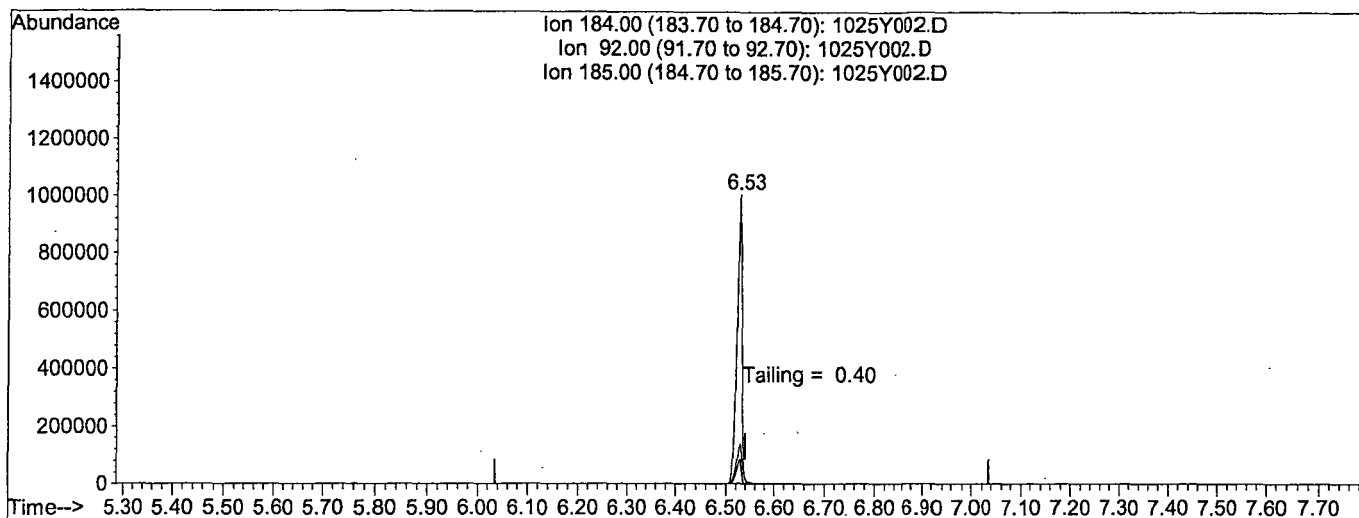
Ion	Exp%	Act%
266.00	100	100
264.00	57.80	62.08
268.00	63.30	62.31
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y002.D  
 Acq On : 25 Oct 18 11:17  
 Sample : SV Tune 03/07/18  
 Misc :  
 Quant Time: Oct 25 13:10 2018

Vial: 2  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Oct 25 09:06:57 2018  
 Response via : Single Level Calibration



TIC: 1025Y002.D

(6) Benzidine

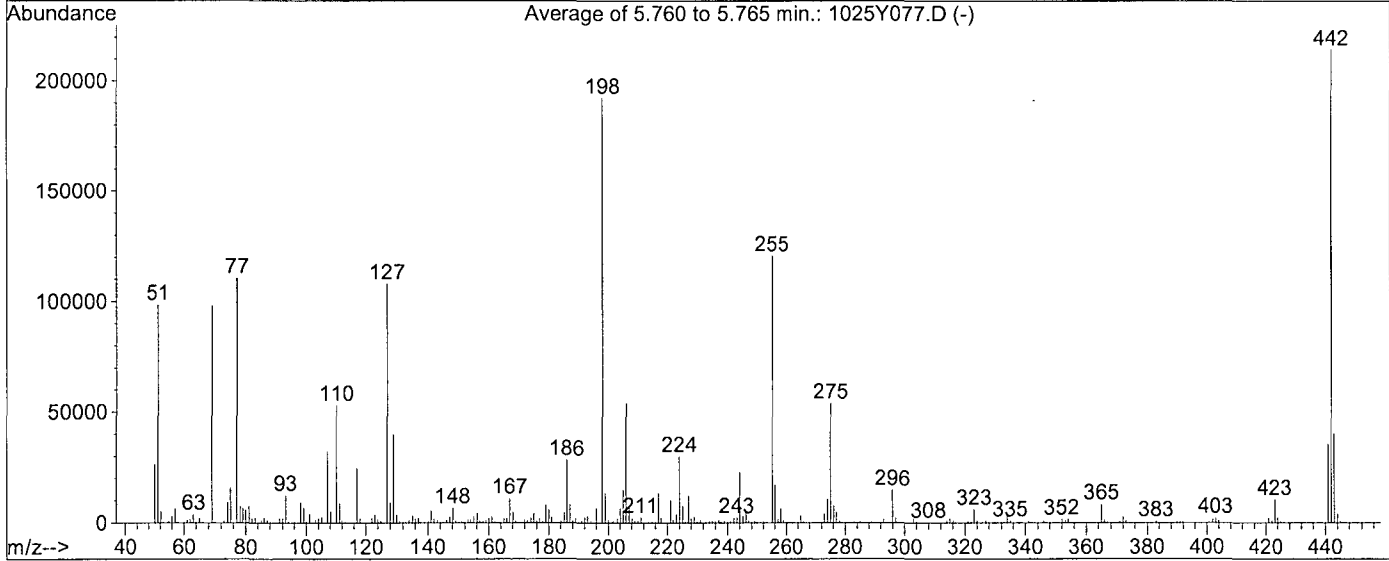
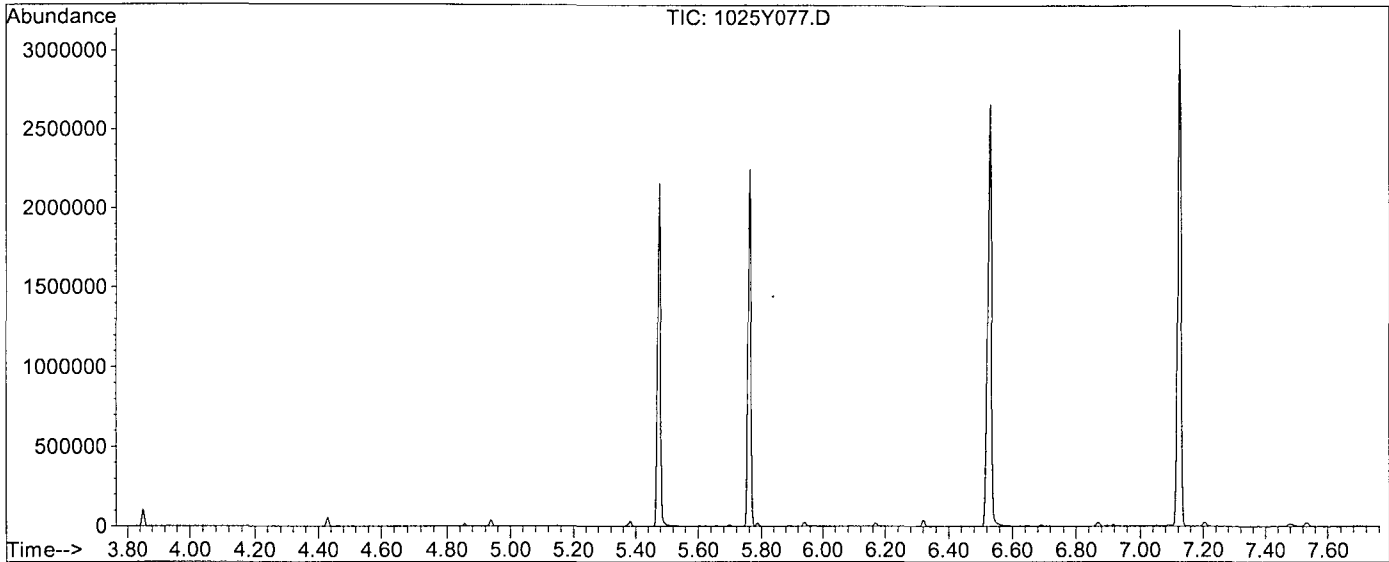
6.53min 0.0000

response 7252222

Ion	Exp%	Act%
184.00	100	100
92.00	7.80	8.06
185.00	14.30	14.29
0.00	0.00	0.00

DFTPP

Data File : M:\YODA\DATA\Y181025\1025Y077.D Vial: 77  
 Acq On : 30 Oct 18 9:19 am Operator: MA  
 Sample : SV TUNE 03/07/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Method : M:\YODA\DATA\Y181025\DFTPP2.M (Chemstation Integrator)  
 Title :



Spectrum Information: Average of 5.760 to 5.765 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	51.1	98363	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.3	321	PASS
127	198	10	80	56.1	107920	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	192320	PASS
199	198	5	9	6.9	13348	PASS
275	198	10	60	28.0	53925	PASS
365	198	1	100	4.3	8290	PASS
441	442	0.01	24	16.6	35549	PASS
442	198	50	150	111.6	214571	PASS
443	442	17	23	18.8	40248	PASS

Data File Name: 1025Y077.D  
Data File Path: M:\YODA\DATA\Y181025\  
Operator: MA  
Date Acquired: 30 Oct 2018 09:19  
Method File: DFTPP2.M  
Sample Name: SV TUNE 03/07/18  
Vial Number: 77  
Instrument Name: Yoda

#	Name	Ret Time	Target Response
1)	DDT	7.12	22598100
2)	DDD	6.91	227715
3)	DDE	7.03	0

Breakdown 1.00

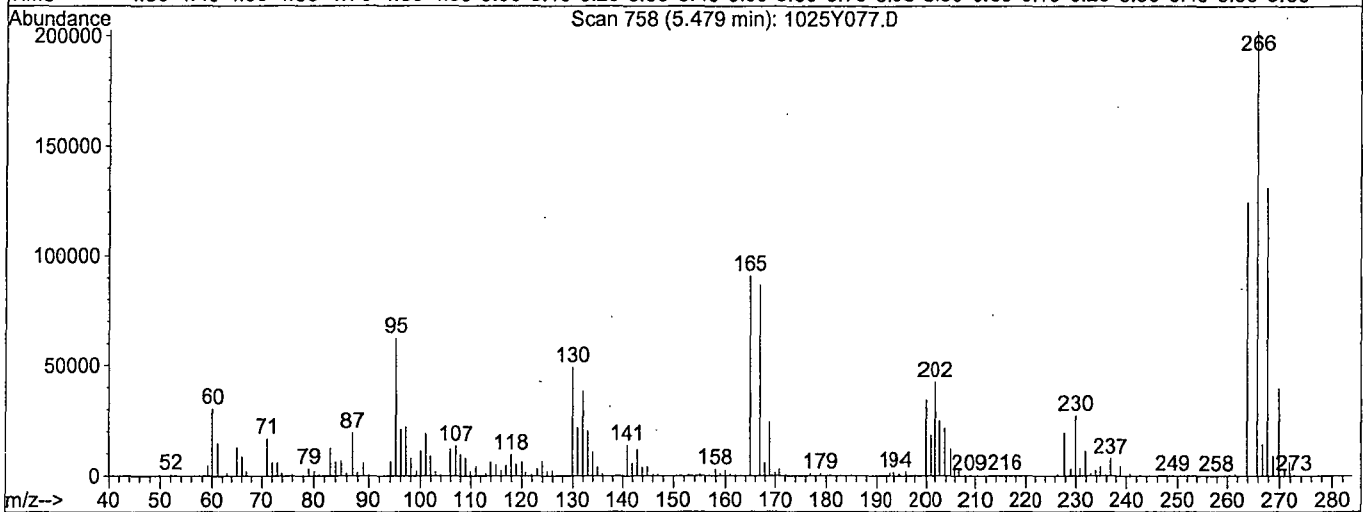
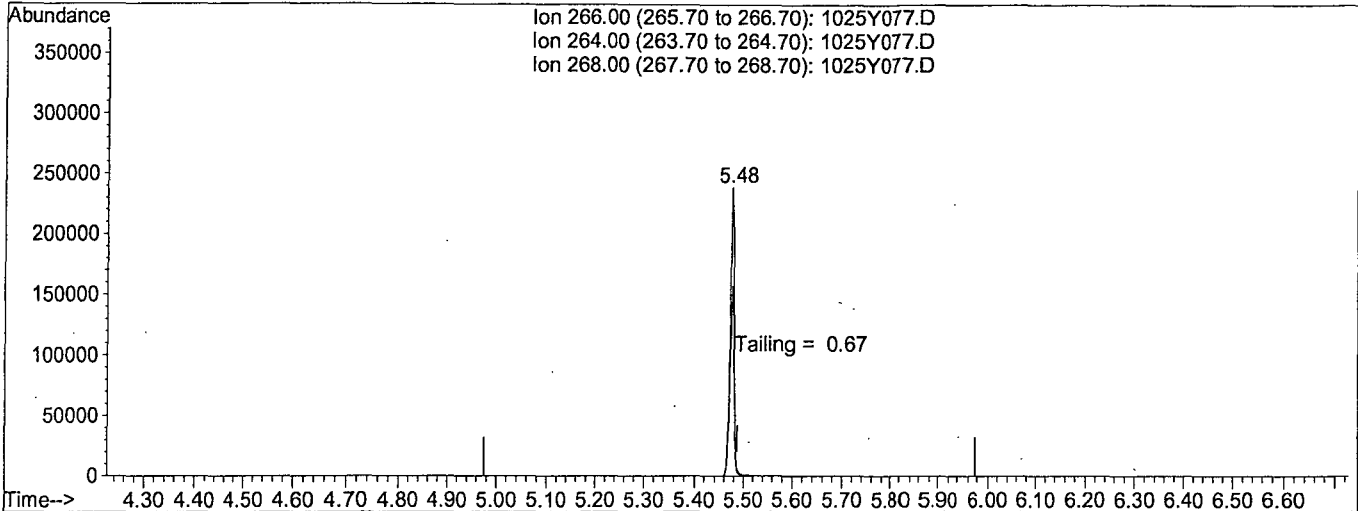


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y077.D  
 Acq On : 30 Oct 18 9:19  
 Sample : SV TUNE 03/07/18  
 Misc :  
 Quant Time: Oct 30 9:43 2018

Vial: 77  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Mon Oct 29 16:30:38 2018  
 Response via : Single Level Calibration



TIC: 1025Y077.D

(5) Pentachlorophenol

5.48min 0.0000

response 1424827

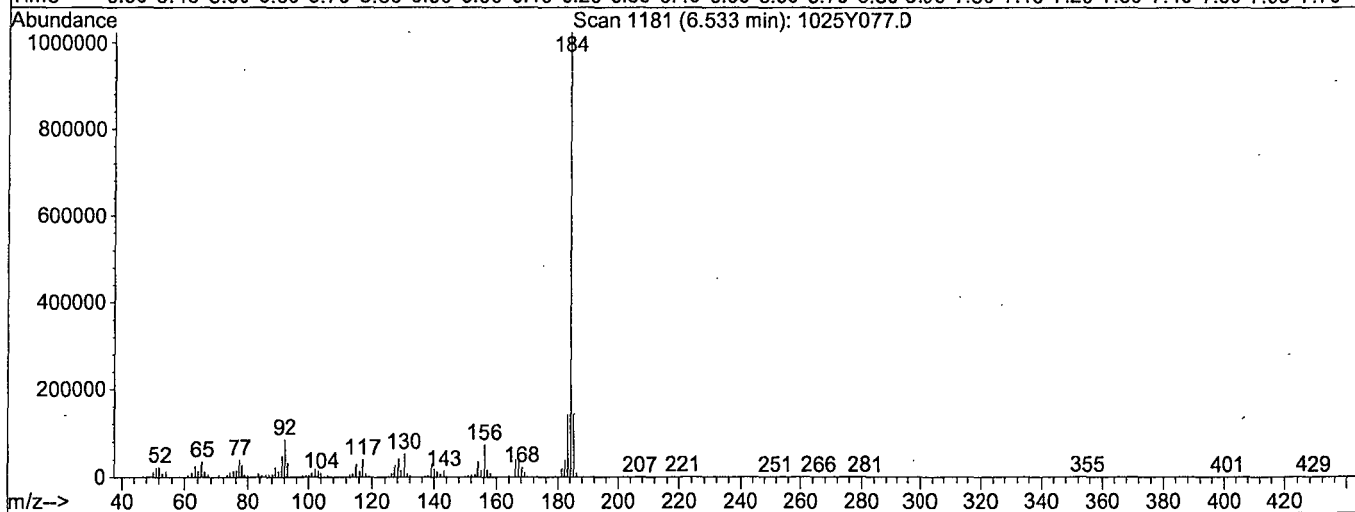
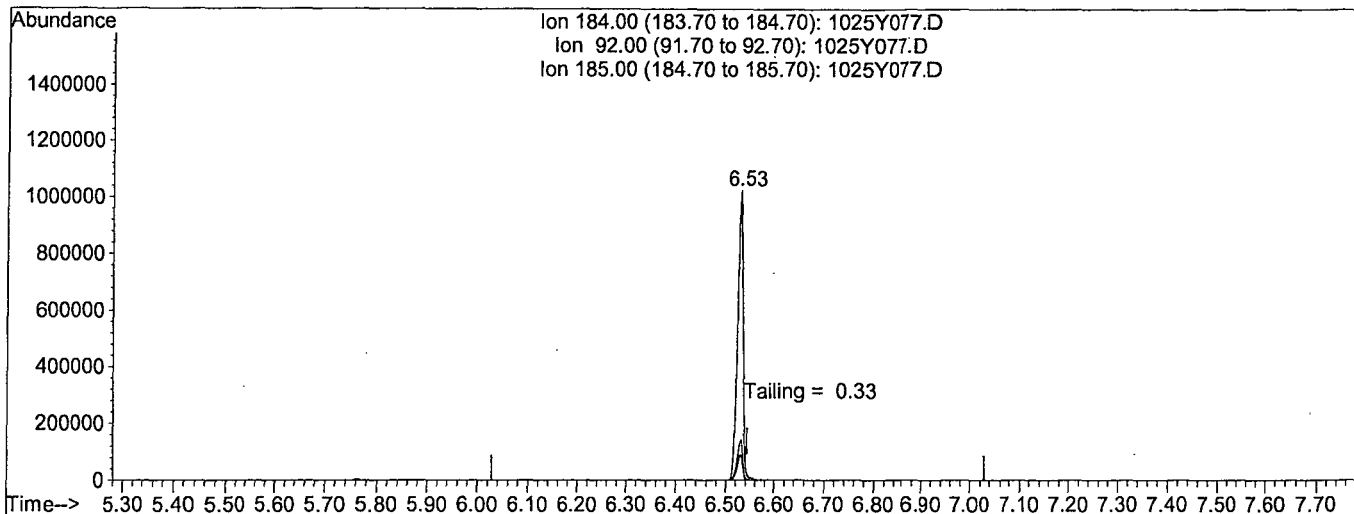
Ion	Exp%	Act%
266.00	100	100
264.00	64.30	64.74
268.00	67.40	63.95
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y077.D  
 Acq On : 30 Oct 18 9:19  
 Sample : SV TUNE 03/07/18  
 Misc :  
 Quant Time: Oct 30 9:43 2018

Vial: 77  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Mon Oct 29 16:30:38 2018  
 Response via : Single Level Calibration



TIC: 1025Y077.D

(6) Benzidine

6.53min 0.0000

response 8026942

Ion	Exp%	Act%
184.00	100	100
92.00	8.80	8.52
185.00	14.30	13.95
0.00	0.00	0.00

Name of Final Standard 8270 Full Scan Standard Curve  
 Prep Date 10/18/18  
 Exp Date 12/19/18

Prep'd By (Initials) OA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	4 uL	200uL	MC 56258 192uL	4 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	4 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	5 uL	200uL	MC 56258 190uL	5 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	5 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	5 uL	100uL	MC 56258 90uL	10 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	5 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	10 uL	100uL	MC 56258 80 uL	20 ug/mL

8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	20 uL	100uL	MC 56258 60 uL	40 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	20 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	50 uL	200 uL	MC 56258 100 uL	50 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	30 uL	100uL	MC 56258 40 uL	60 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	30 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	40 uL	100uL	MC 56258 20 uL	80 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	40 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	50 uL	100uL	na	100 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*

Name of

Final

Standard 8270 Full Scan Second Source

Prep'd By (Initials)

OA

Prep Date 10/18/19

Exp Date 02/16/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 SS Stock	o2si	8270 SS Stock	200 ug/mL	04/19/18	04/19/19	50 uL	200uL	MC 56258 150uL	50 ug/mL
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	4 uL	*	*	*

8270 Full Scan Stock						
12/19/17 -GA						
8270 Source Stock						
Exp: 12/19/18						
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
Absolute	10001	2000	012317-38399 012317-38400	12/19/17	12/19/18	2000
Absolute	10002	2000	062216-37964 062216-37965	12/19/17	12/19/18	2000
Absolute	10004	2000	012516-38188 012516-38508	12/19/17	12/19/18	2000
Absolute	10005	2000	110314-38248 110314-38249	12/19/17	12/19/18	2000
Absolute	10006	2000	021717-38253 021717-38254	12/19/17	12/19/18	2000
Absolute	10007	2000	080116-38258 080116-38259	12/19/17	12/19/18	2000
Absolute	10018	2000	090216-38192 090216-38192	12/19/17	12/19/18	2000
Absolute	70023	1000	091217-038263 091217-038264	12/19/17	12/19/18	2000
Absolute	82705	2000	041217-38268 041217-38269	12/19/17	12/19/18	2000
Absolute	94552	various	102017-38402 102017-38403	12/19/17	12/19/18	2000
				Final Vol.		20000

G34

G34

Name of  
Final

Standard 8270 Surrogate 200/400 ppm

Prep'd By (Initials)

GA

Prep Date 06/13/18

Exp Date 05/29/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 Acid Surrogate Mix	Restek	33029	10,000 ug/mL	A0130078-38378	05/29/19	200 uL	5 mL	MC 56258	400 ug/mL
8270 B/N Surrogate Mix	Restek	31086	5000 ug/mL	A0130555-38549	06/04/19	200 uL	*	*	200 ug/mL

Name of  
Final  
Standard

**8270 SS STOCK**

Prep'd By (Initials)

OA

Prep Date 04/19/18

Exp Date 04/19/19

Initial Standard Information					Final Standard Information				
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep. Date)	Final Standard Conc (range)
	Absolute	10001	2000	G34-081717-38180	04/19/19	1.0 mL	10 mL	NA	2000 ug/mL
	Absolute	10002	2000	G34-020217-38183	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10004	2000	010815-38624	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10005	2000	041317-37803	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10006	2000	011718-38826	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10007	2000	020515-38628	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10018	2000	G34-030216-38198	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	70023	1000	013118-38829	04/19/19	1.0 mL	*	*	1000 ug/mL
	Absolute	82705	2000	090617-38831	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	94552	various	013118-38824	04/19/19	1.0 mL	*	*	various



Name of  
 Final **8270 Surrogate 100/200**  
 Standard **ppm**

Prep'd By (Initials) **GA**

Prep Date **09/07/18**  
 Exp Date **03/07/19**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 Acid Surrogate Mix	Restek	33029	10,000 ug/mL	A0132399-38918 & A0132399 39394	07/11/2019 09/07/19	5.0 mL	250 mL	Acetone #030817A	200 ug/mL
8270 B/N Surrogate Mix	Restek	31086	5000 ug/mL	A0135243-39164 & 39165	08/09/19 09/07/19	5.0 mL	250 mL	*	100 ug/mL

Name of Final Standard 8270 Full Scan Spike Prep'd By (Initials) OA  
 Prep Date 09/20/18  
 Exp Date 09/20/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc.(range)
10001	Absolute	10001	2000	051018-39432	09/20/19	1.0 mL	10 mL	NA	2000 ug/mL
10002	Absolute	10002	2000	051018-39438	09/20/19	1.0 mL			2000 ug/mL
10004	Absolute	10004	2000	071618-39442	09/20/19	1.0 mL			2000 ug/mL
10005	Absolute	10005	2000	110314-38938	09/20/19	1.0 mL			2000 ug/mL
10006	Absolute	10006	2000	071318-39448	09/20/19	1.0 mL			2000 ug/mL
10007	Absolute	10007	2000	080116-38946	09/20/19	1.0 mL			2000 ug/mL
10018	Absolute	10018	2000	062718-39453	09/20/19	1.0 mL			2000 ug/mL
70023	Absolute	70023	1000	620818-39488	09/20/19	1.0 mL			1000 ug/mL
82705	Absolute	82705	2000	090617-39227	09/20/19	1.0 mL			2000 ug/mL
94552	Absolute	94552	various	102017-38956	09/20/19	1.0 mL			various

Name of Final

Standard 8270 Internal Standard (Ampule)

Prep'd By (Initials)

GA

Prep Date 10/11/18

Exp Date 10/11/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile Internal Standard	Restek	31206	2mg/mL	A0138585 - 39541 39542	10/11/19	2 mL	2 mL	NA	2mg/mL

Name of  
 Final  
 Standard Semivolatile (SV) Tuning Solution

Prep'd By (Initials)

GA

Prep Date 03/07/18

Exp Date 03/07/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38878	03/07/19	1,250 uL	25 mL	MC #56258	50 ug/mL

# Organic Extraction Worksheet

Method	Continuous Liquid/Liquid SVOC 3520C	Extraction Set	181024A	Extraction Method	LIQ003	Units	mL
Spiked ID 1	8270T Spike 10-9-18 EXP 10-9-19		Surrogate ID 1	8270 Surrogate 9-27-18 EXP 3-27-19			
Spiked ID 2	Sim Spike 9-27-18 EXP 3-24-19		Surrogate ID 2	SIM Surrogate 9-27-18 EXP 9-27-19			
Spiked ID 3			Surrogate ID 3				
Spiked ID 4			Surrogate ID 4				
Spiked ID 5			Surrogate ID 5				
Spiked ID 6			Sufficient Vol for Matrix QC: YES				
Spiked ID 7			Ext. Start Time: 10/24/18 14:00, 10/25/18 14:30				
Spiked ID 8			Ext. End Time: 10/25/18 9:30, 10/26/18 10:05, 10/30/18 11:45				
				GC Requires Extract By:	10/30/18 0:00		
				pH1	2	10/24/18 2:09:00 PM	Water Bath Temp Criteria 73,75 °C
				pH2	14	10/25/18 2:00:00 PM	
				pH3			

Spiked By: KY

Date 10/24/18

Witnessed By: DL

Date 10/24/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1 181024A Blk				1,0.050	1,2	800	1	2/1	10/24/18 14:00	
					equip	e-hp51 E-WB5				
2 181024A LCS-1		0.250	1	1	1	800	1	2/1	10/24/18 14:00	
					equip	E-HP50 E-WB5				
3 181024A LCS-2		0.0250	2	0.050	2	800	1	2/1	10/24/18 14:00	
					equip	E-HP30 E-WB5				
4 181024A LCSD-1		0.250	1	1	1	800	1	2/1	10/24/18 14:00	
					equip	E-HP49 E-WB5				
5 181024A LCSD-2		0.0250	2	0.050	2	800	1	2/1	10/24/18 14:00	
					equip	E-HP29 E-WB5				
6 AZ81584 MS-1	AZ81584W24	0.250	1	1	1	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP48 E-WB5				
7 AZ81584 MSD-1	AZ81584W20	0.250	1	1	1	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP47 E-WB5				
8 AZ81584 MS-2	AZ81584W22	0.0250	2	0.050	2	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP28 e-wb5				
9 AZ81584 MSD-2	AZ81584W26	0.0250	2	0.050	2	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP27 E-WB5				
10 AZ81584	AZ81584W18			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP26 E-WB5				
11 AZ81585	AZ81585W08			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP25 E-WB5				
12 AZ81587	AZ81587W10			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP17 E-WB5				
13 AZ81636	AZ81636W12			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
					equip	E-HP16 E-WB5				
14 AZ81638	AZ81638W09			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
					equip	E-HP15 E-WB6				
15 AZ81640	AZ81640W10			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
					equip	E-HP14 E-WB6				
16 AZ81642	AZ81642W11			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
					equip	E-HP13 E-WB6				

Solvent and Lot#	
PH Strips	HC 727135
Dichloromethane (DCM)	58059
I+I H2SO4	7-3-18
10N NaOH	10-17-18
Filter Paper	400147
Acidified Na2SO4	10-2-18
B. Na2SO4	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	MA
Date	10/30/18
Time	12:00
Refrigerator	C6-C

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	10/31/18 10:39:53 AM

Reviewed By: *Ky* 437 Date 10/31/18

# Organic Extraction Worksheet


<b>Method</b>	Continuous Liquid/Liquid SVOC 3520C	<b>Extraction Set</b>	181024A	<b>Extraction Method</b>	LIQ003	<b>Units</b>	mL	
Spiked ID 1	8270T Spike 10-9-18 EXP 10-9-19	Surrogate ID 1	8270 Surrogate 9-27-18 EXP 3-27-19					
Spiked ID 2	Sim Spike 9-27-18 EXP 3-24-19	Surrogate ID 2	SIM Surrogate 9-27-18 EXP 9-27-19					
Spiked ID 3		Surrogate ID 3						
Spiked ID 4		Surrogate ID 4						
Spiked ID 5		Surrogate ID 5						
Spiked ID 6		Sufficient Vol for Matrix QC:		YES				
Spiked ID 7		Ext. Start Time:		10/24/18 14:00, 10/25/18 14:30				
Spiked ID 8		Ext. End Time:		10/25/18 9:30, 10/26/18 10:05, 10/30/18 11:15				
		GC Requires Extract By:		10/30/18 0:00				
		pH1	2	10/24/18 2:09:00 PM	Water Bath Temp Criteria			73,75 °C
		pH2	14	10/25/18 2:00:00 PM				
		pH3						

Spiked By: KY

Date 10/24/18

Witnessed By: DL

Date 10/24/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ81644 			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
						equip				
						E-HP12 E-WB6				

Solvent and Lot#	
PH Strips	HC 727135
Dichloromethane (DCM)	58059
1+1 H2SO4	7-3-18
10N NaOH	10-17-18
Filter Paper	400147
Acidified Na2SO4	10-2-18
B. Na2SO4	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	10/31/18 10:39:53 AM

Reviewed By: *Key* 438      Date 10/31/18

## Injection Log

Directory: M:\YODA\DATA\Y181025\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	1025Y002.D	1	SV Tune 03/07/18		25 Oct 18 11:17
3	1025Y003.D	1	4ug/mL 8270 10/18/18		25 Oct 18 11:33
4	1025Y004.D	1	5ug/mL 8270 10/18/18		25 Oct 18 12:01
5	1025Y005.D	1	10ug/mL 8270 10/18/18		25 Oct 18 12:28
6	1025Y006.D	1	20ug/mL 8270 10/18/18		25 Oct 18 12:56
7	1025Y007.D	1	40ug/mL 8270 10/18/18		25 Oct 18 13:24
8	1025Y008.D	1	50ug/mL 8270 10/18/18		25 Oct 18 13:52
9	1025Y009.D	1	60ug/mL 8270 10/18/18		25 Oct 18 14:20
10	1025Y010.D	1	80ug/mL 8270 10/18/18		25 Oct 18 14:48
11	1025Y011.D	1	100ug/mL 8270 10/18/18		25 Oct 18 15:16
12	1025Y012.D	1	SS- 8270 10/18/18		25 Oct 18 15:44
77	1025Y077.D	1	SV TUNE 03/07/18		30 Oct 18 9:19
78	1025Y078.D	1	50ug/mL 8270 10/18/18 (2)		30 Oct 18 9:34
83	1025Y083.D	1.25	181024A BLK 1/800		30 Oct 18 13:20
84	1025Y084.D	1.25	181024A LCS-1 1/800		30 Oct 18 13:48
85	1025Y085.D	1.25	181024A LCSD-1 1/800		30 Oct 18 14:16
86	1025Y086.D	1.25	AZ81584W24 MS-1 1/800		30 Oct 18 14:43
87	1025Y087.D	1.25	AZ81584W20 MSD-1 1/800		30 Oct 18 15:11
88	1025Y088.D	1.25	AZ81584W18 1/800		30 Oct 18 15:39
89	1025Y089.D	1.25	AZ81585W08 1/800		30 Oct 18 16:07
90	1025Y090.D	1.25	AZ81587W10 1/800		30 Oct 18 16:35
96	1025Y096.D	1	50ug/mL 8270 10/18/18 (2)		30 Oct 18 19:22

**ORGANICS  
Calibration Data**

**APPL, INC.**



2MEE  
EPA 8270

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 08/01/18  
Instrument: Yoda

Initials: \_\_\_\_\_

0801Y003.D 0801Y005.D 0801Y006.D 0801Y007.D 0801Y004.D 0801Y008.D 0801Y009.D 0801Y010.D

	Compound	1	2	3	4	5	6	7	8		Avg	%RSD	Type	r^2	Q	MRF
1	I 1,4-dichlorobenzene-D4(IS)															
2	TML 2-(2-Methoxyethoxy)ethanol	0.1397	0.2559	0.2135	0.2096	0.2114	0.2268	0.2198	0.2224		0.21	15	TML	0.998		
3	I Napthalene-D8(IS)															
4	I Acenaphthene-D10(IS)															
5	I Phenanthrene-D10(IS)															
6	I Chrysene-D12(IS)															
7	I Perylene-D12(IS)															
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9																
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Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y003.D Vial: 3  
 Acq On : 1 Aug 18 15:09 Operator: MA  
 Sample : 50ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	423228	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1672731	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	846835	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1554428	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1480723	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1510378	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.90	45	73888	40.09311	ppb	92

Quantitation Report

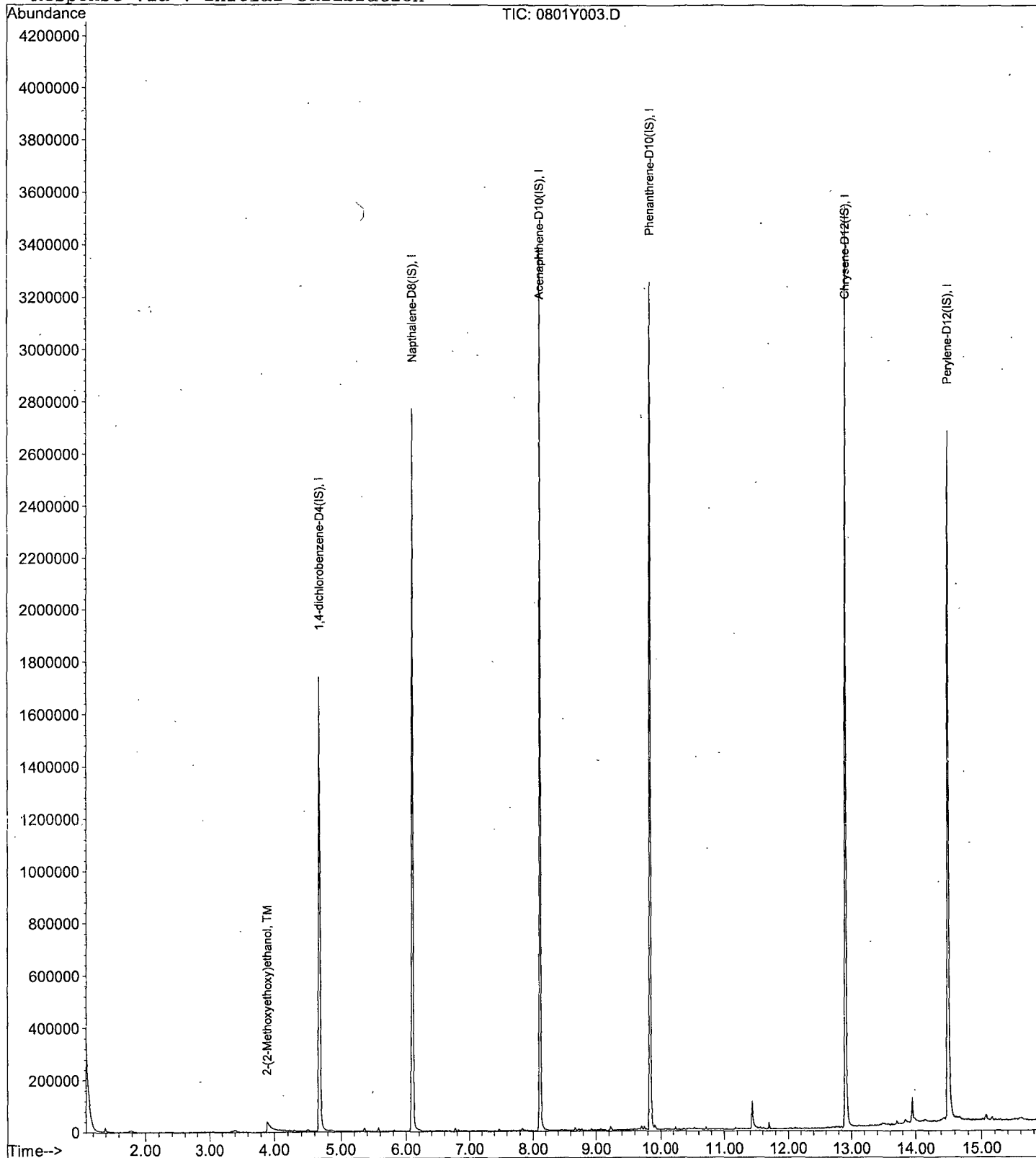
Data File : M:\YODA\DATA\Y180801M\0801Y003.D  
Acq On : 1 Aug 18 15:09  
Sample : 50ug/ml MEE 08/01/18  
Misc : soil

Vial: 3  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y004.D  
 Acq On : 1 Aug 18 15:34  
 Sample : 500ug/ml MEE 08/01/18  
 Misc : soil

Vial: 4  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	444036	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1697285	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	865268	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.83	188	1608326	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1531073	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1598774	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.88	45	1173343	482.22697	ppb	99

Quantitation Report

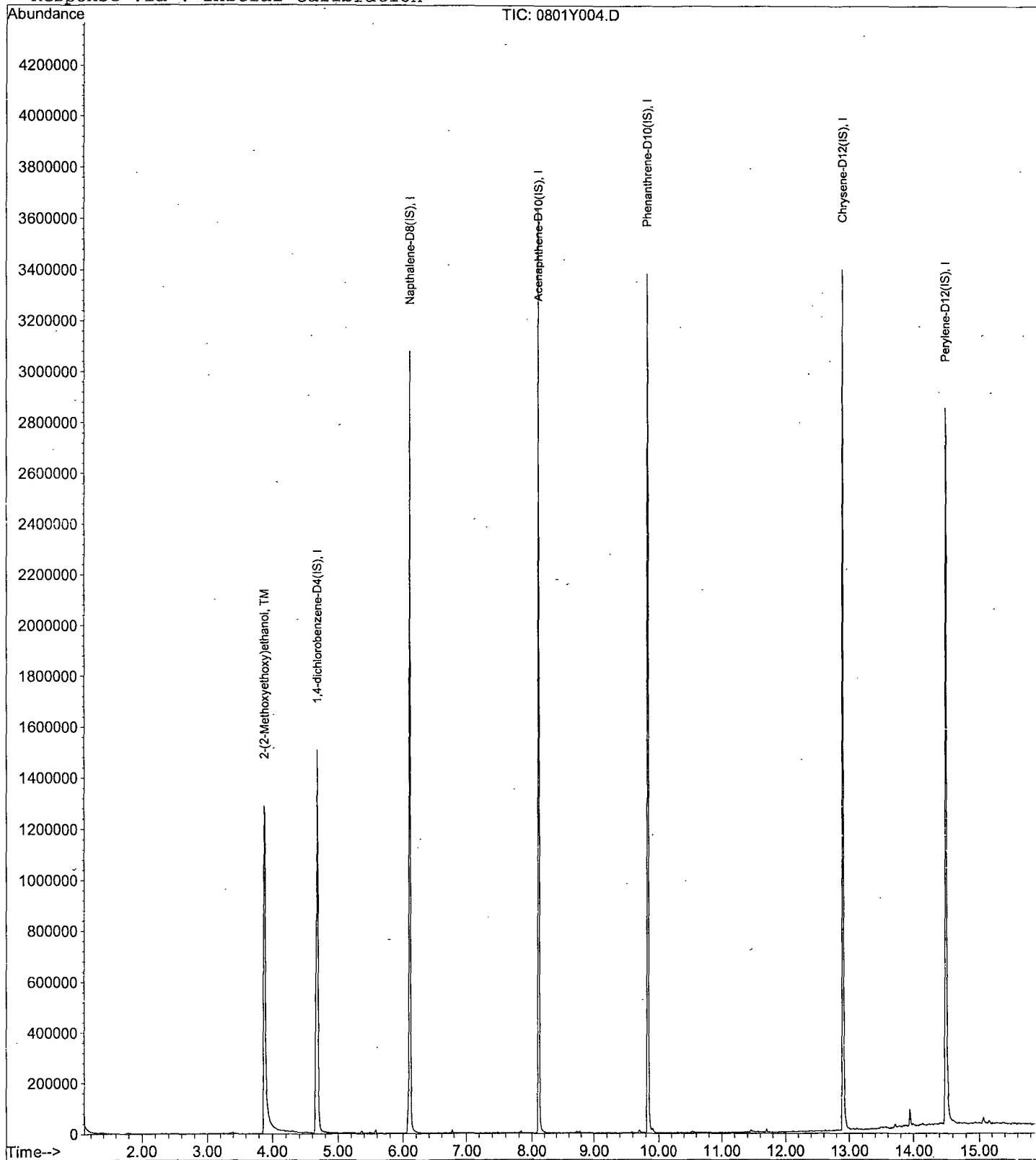
Data File : M:\YODA\DATA\Y180801M\0801Y004.D  
Acq On : 1 Aug 18 15:34  
Sample : 500ug/ml MEE 08/01/18  
Misc : soil

Vial: 4  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y005.D Vial: 5  
 Acq On : 1 Aug 18 16:26 Operator: MA  
 Sample : 100ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	412018	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1553432	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	800497	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1436197	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1368694	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1351563	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.87	45	263617	123.44322	ppb	99

Quantitation Report

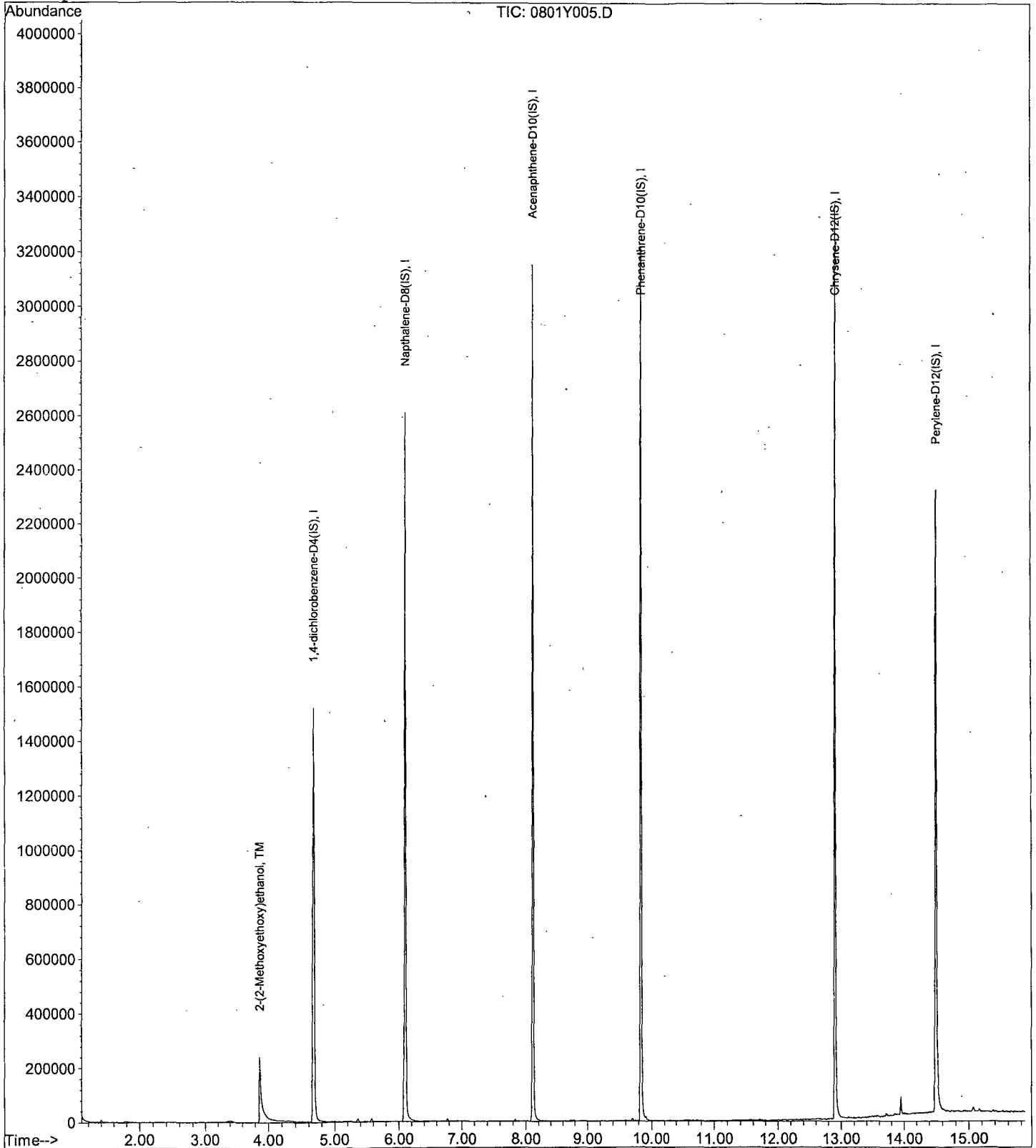
Data File : M:\YODA\DATA\Y180801M\0801Y005.D  
Acq On : 1 Aug 18 16:26  
Sample : 100ug/ml MEE 08/01/18  
Misc : soil

Vial: 5  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y006.D                      Vial: 6  
 Acq On : 1 Aug 18 16:51                                              Operator: MA  
 Sample : 200ug/ml MEE 08/01/18                                      Inst : Yoda  
 Misc : soil                                                              Multiplr: 1.00

Quant Time: Aug 2 9:28 2018                                      Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	408598	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1570821	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	801658	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1450305	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1375178	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1308796	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.87	45	436085	200.02396	ppb	98



Quantitation Report

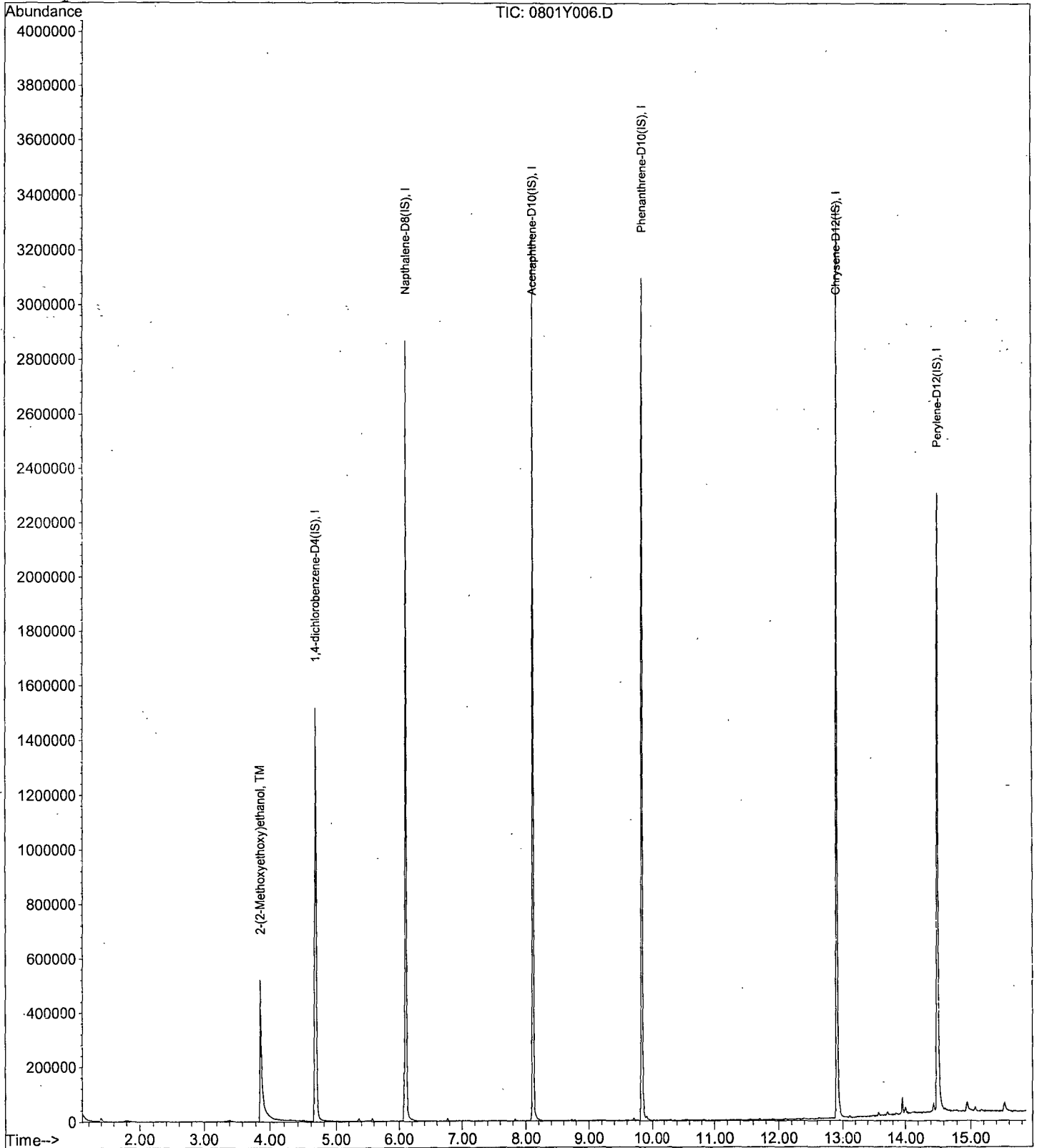
Data File : M:\YODA\DATA\Y180801M\0801Y006.D  
Acq On : 1 Aug 18 16:51  
Sample : 200ug/ml MEE 08/01/18  
Misc : soil

Vial: 6  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y007.D Vial: 7  
 Acq On : 1 Aug 18 17:16 Operator: MA  
 Sample : 400ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	404706	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1558208	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	769410	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.83	188	1420741	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1352975	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.50	264	1257373	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.87	45	848145	384.27446	ppb	97

Quantitation Report

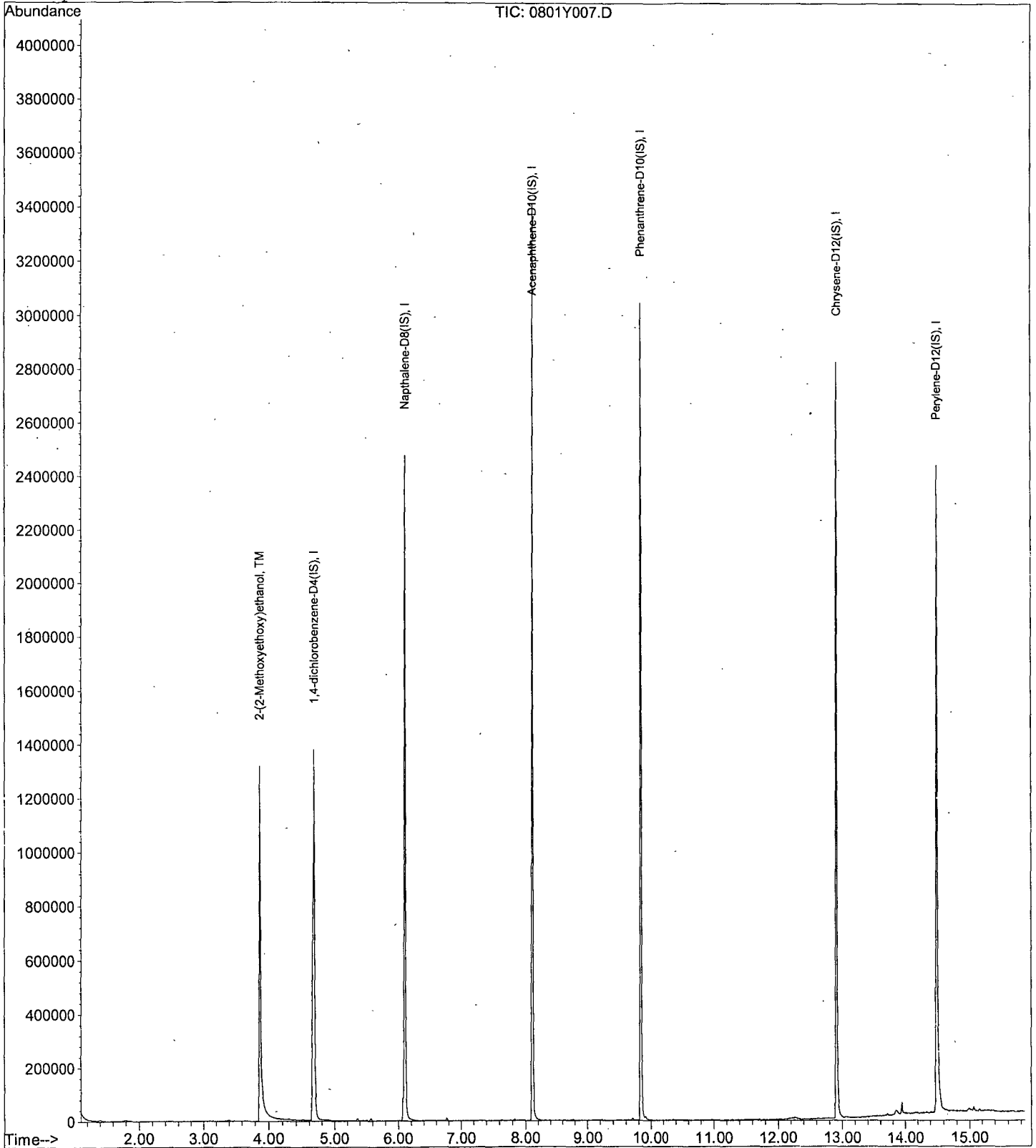
Data File : M:\YODA\DATA\Y180801M\0801Y007.D  
Acq On : 1 Aug 18 17:16  
Sample : 400ug/ml MEE 08/01/18  
Misc : soil

Vial: 7  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y008.D Vial: 8  
 Acq On : 1 Aug 18 17:41 Operator: MA  
 Sample : 600ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.69	152	405475	40.00000	ppb	0.01
3) Napthalene-D8 (IS)	6.11	136	1552965	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	796436	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.83	188	1490717	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.90	240	1398690	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.50	264	1658322	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.91	45	1379331	618.26307	ppb	97

Quantitation Report

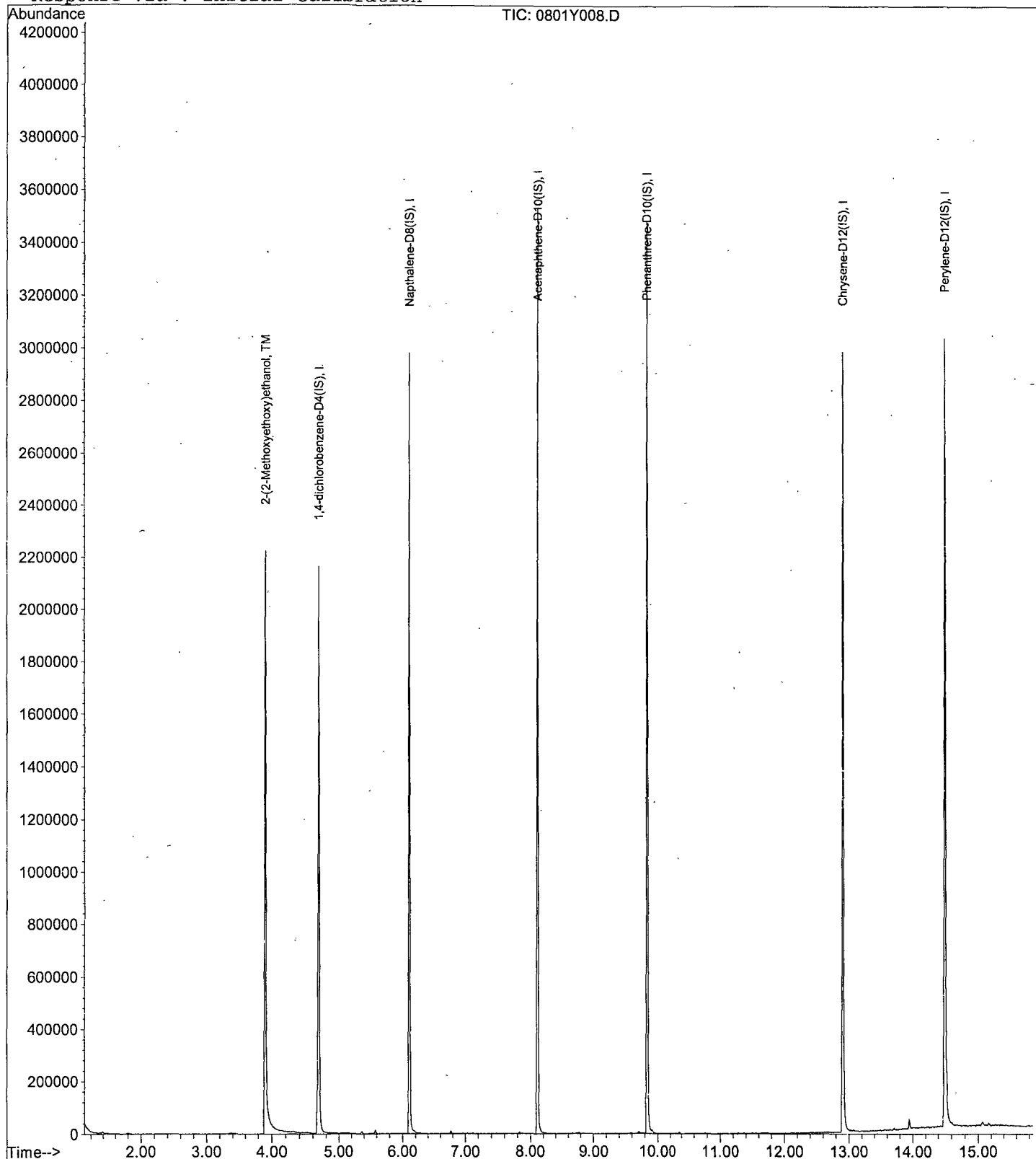
Data File : M:\YODA\DATA\Y180801M\0801Y008.D  
Acq On : 1 Aug 18 17:41  
Sample : 600ug/ml MEE.08/01/18  
Misc : soil

Vial: 8  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y009.D  
 Acq On : 1 Aug 18 18:06  
 Sample : 800ug/ml MEE 08/01/18  
 Misc : soil

Vial: 9  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.69	152	408320	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1525383	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	796830	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1438835	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1358221	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1353471	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.92	45	1795349	796.55050	ppb	98

Quantitation Report

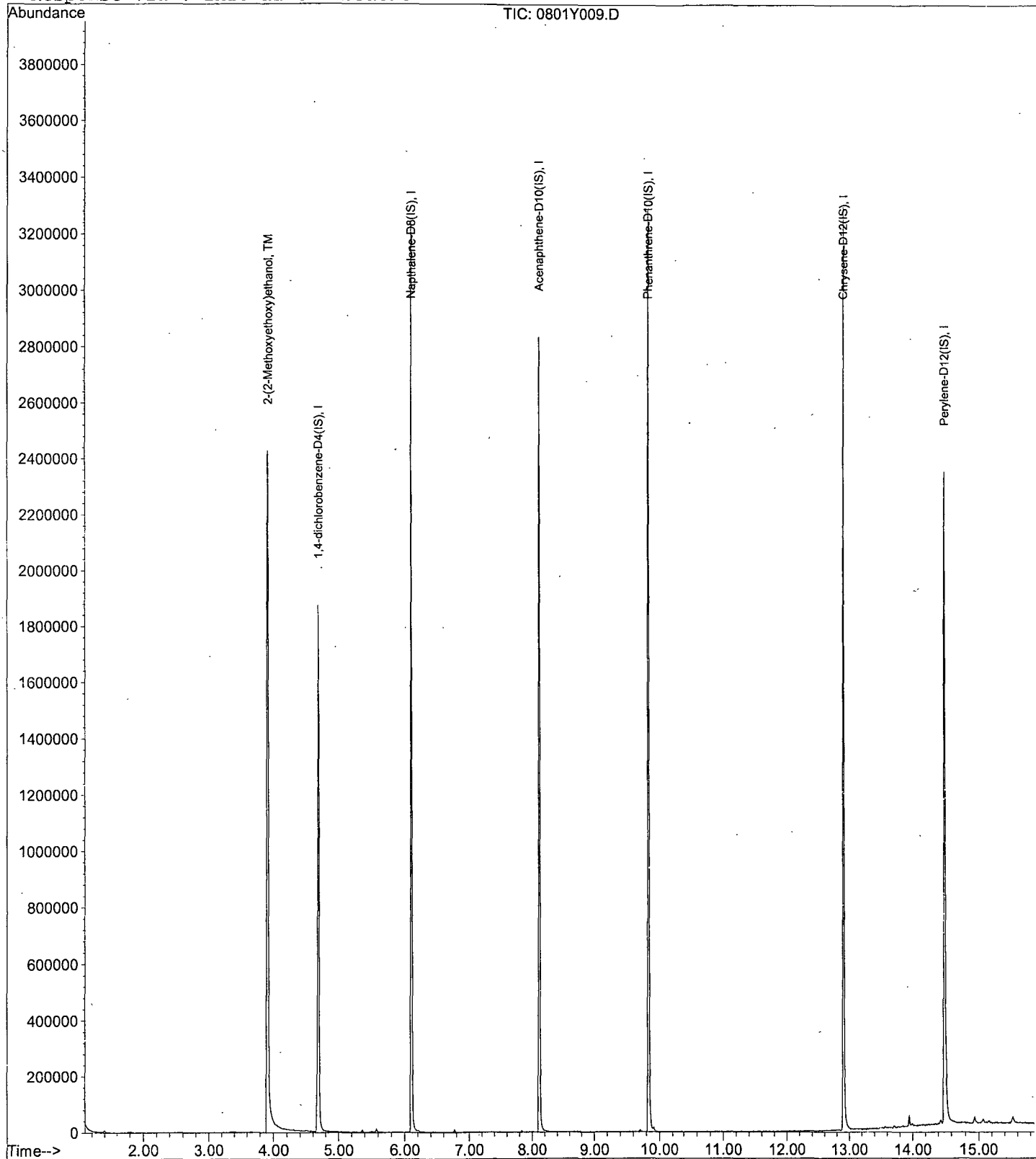
Data File : M:\YODA\DATA\Y180801M\0801Y009.D  
Acq On : 1 Aug 18 18:06  
Sample : 800ug/ml MEE 08/01/18  
Misc : soil

Vial: 9  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y010.D Vial: 10  
 Acq On : 1 Aug 18 18:31 Operator: MA  
 Sample : 1000ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.69	152	405400	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1531861	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	798997	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1470941	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1395838	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1333379	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.93	45	2254478	1005.12472	ppb	97



Quantitation Report

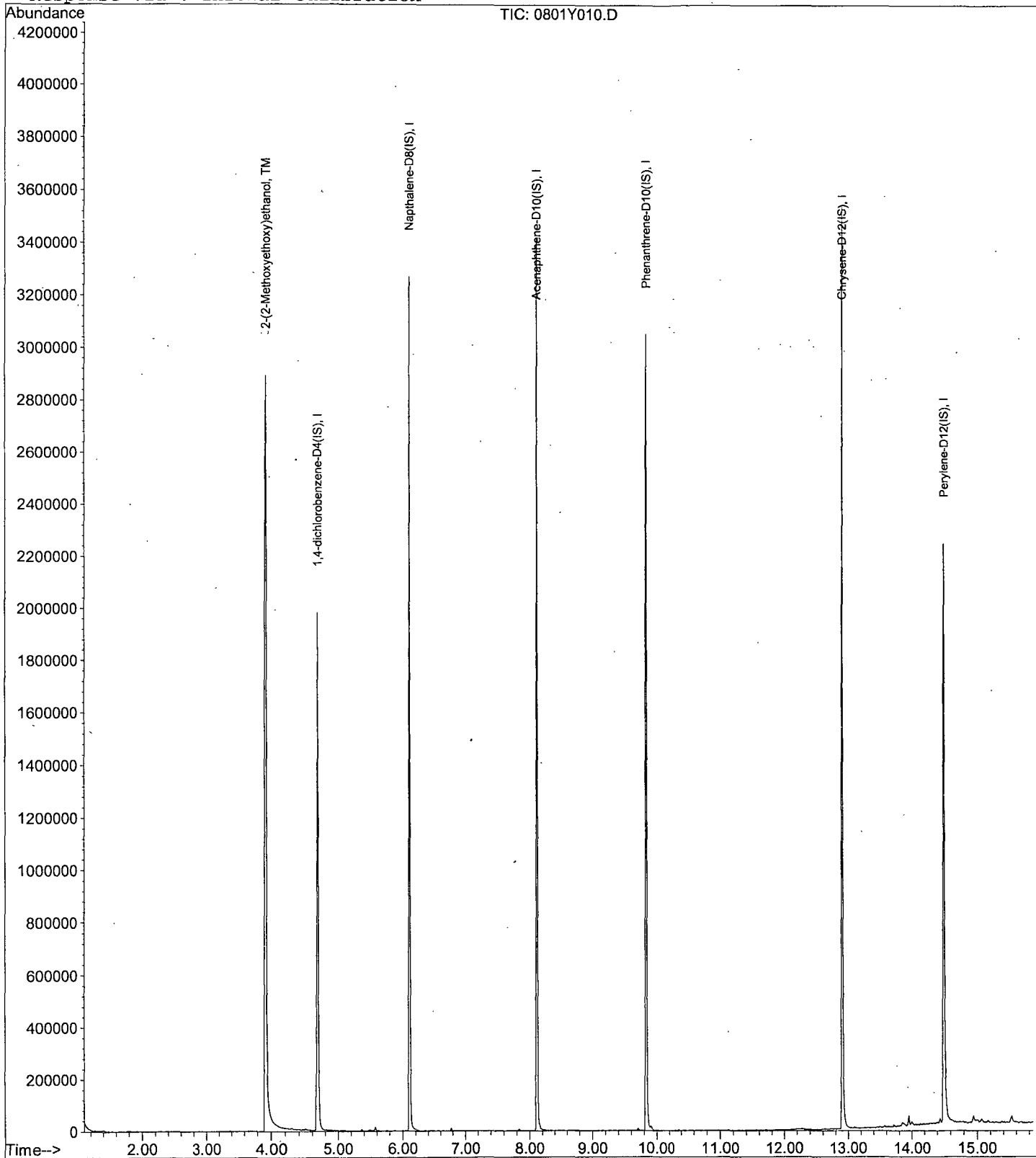
Data File : M:\YODA\DATA\Y180801M\0801Y010.D  
Acq On : 1 Aug 18 18:31  
Sample : 1000ug/ml MEE 08/01/18  
Misc : soil

Vial: 10  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



2MEE  
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 1 Aug 18 18:55

Matrix: \_\_\_\_\_

Instrument: Yoda

Initial Cal. Date: 08/01/18

Data File: 0801Y011.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TML	2-(2-Methoxyethoxy)ethanol	0.2124	0.2617	23	TML	19
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
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31							
32							
33							
34							
35							
36							
37							
38							
39							
40							

Average

23.0

Data File : M:\YODA\DATA\Y180801M\0801Y011.D Vial: 11  
 Acq On : 1 Aug 18 18:55 Operator: MA  
 Sample : SS ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:31 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:29:28 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	402794	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1509521	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	769368	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1397959	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1355134	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1392217	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.89	45	1317418	594.78167	ppb	98

$$Algo = \frac{(1317418 + 0.0492) \times 40}{0.22 \times 402794} = 594.7 \quad MA \quad 8/2/18$$

Quantitation Report

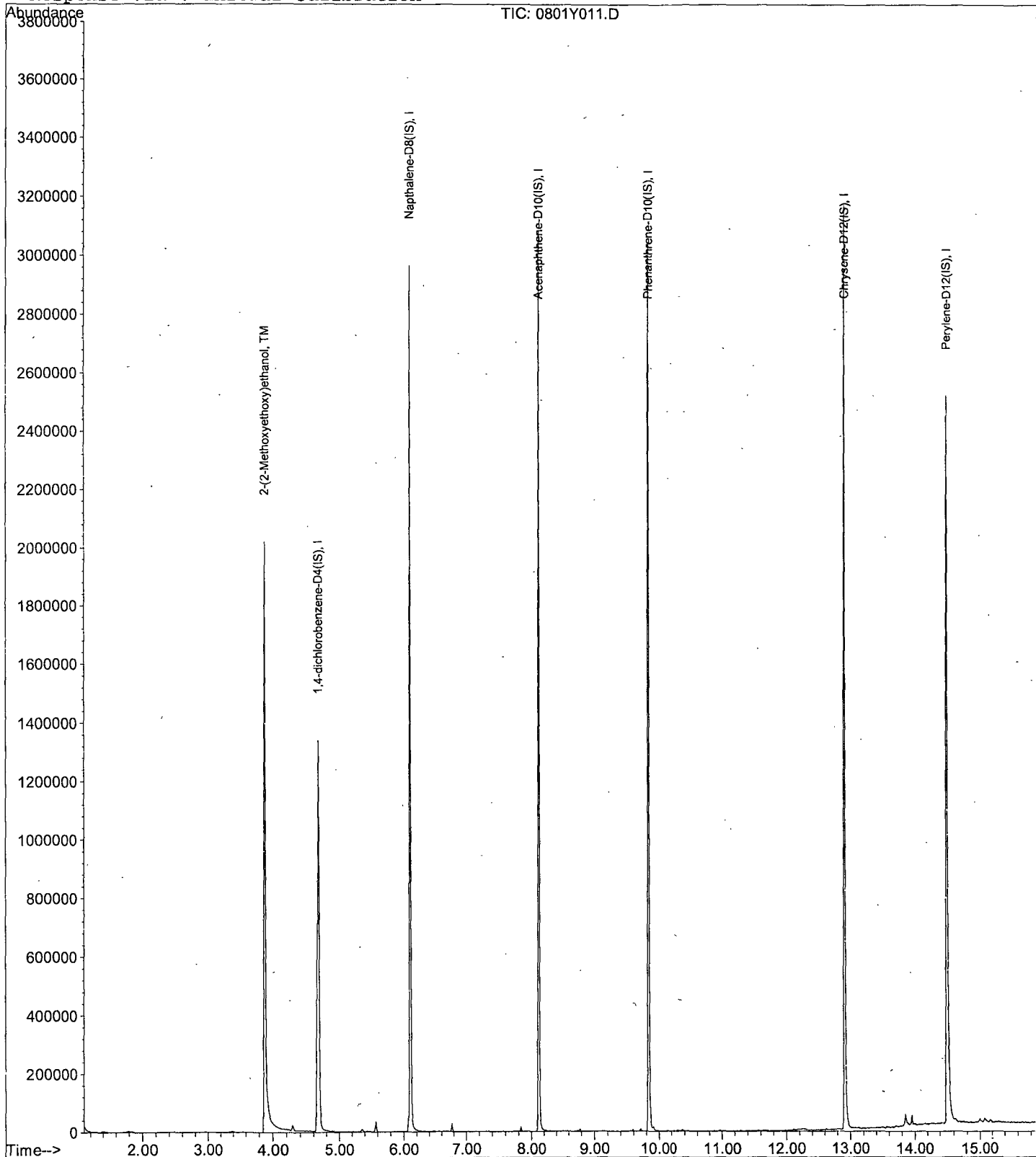
Data File : M:\YODA\DATA\Y180801M\0801Y011.D  
Acq On : 1 Aug 18 18:55  
Sample : SS ug/ml MEE 08/01/18  
Misc : soil

Vial: 11  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:31 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



2MEE  
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/31/18

Matrix: \_\_\_\_\_

Instrument: Yoda

Initial Cal. Date: 08/01/18

Data File: 0801Y070.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I
2	TML	2-(2-Methoxyethoxy)ethanol	0.2124	0.2493	17	TML 13
3	I	Napthalene-D8(IS)	ISTD			I
4	I	Acenaphthene-D10(IS)	ISTD			I
5	I	Phenanthrene-D10(IS)	ISTD			I
6	I	Chrysene-D12(IS)	ISTD			I
7	I	Perylene-D12(IS)	ISTD			I
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
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25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						

Average

17.0

Data File : M:\YODA\DATA\Y180801M\0801Y070.D Vial: 70  
 Acq On : 31 Oct 18 6:51 Operator: MA  
 Sample : 500ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:19 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	357281	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1484912	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	759796	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1392264	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1474563	40.00000	ppb	0.00
7) Perylene-D12 (IS)	15.43	264	2044915	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	4.49	45	1113167	567.00588	ppb	100

Quantitation Report

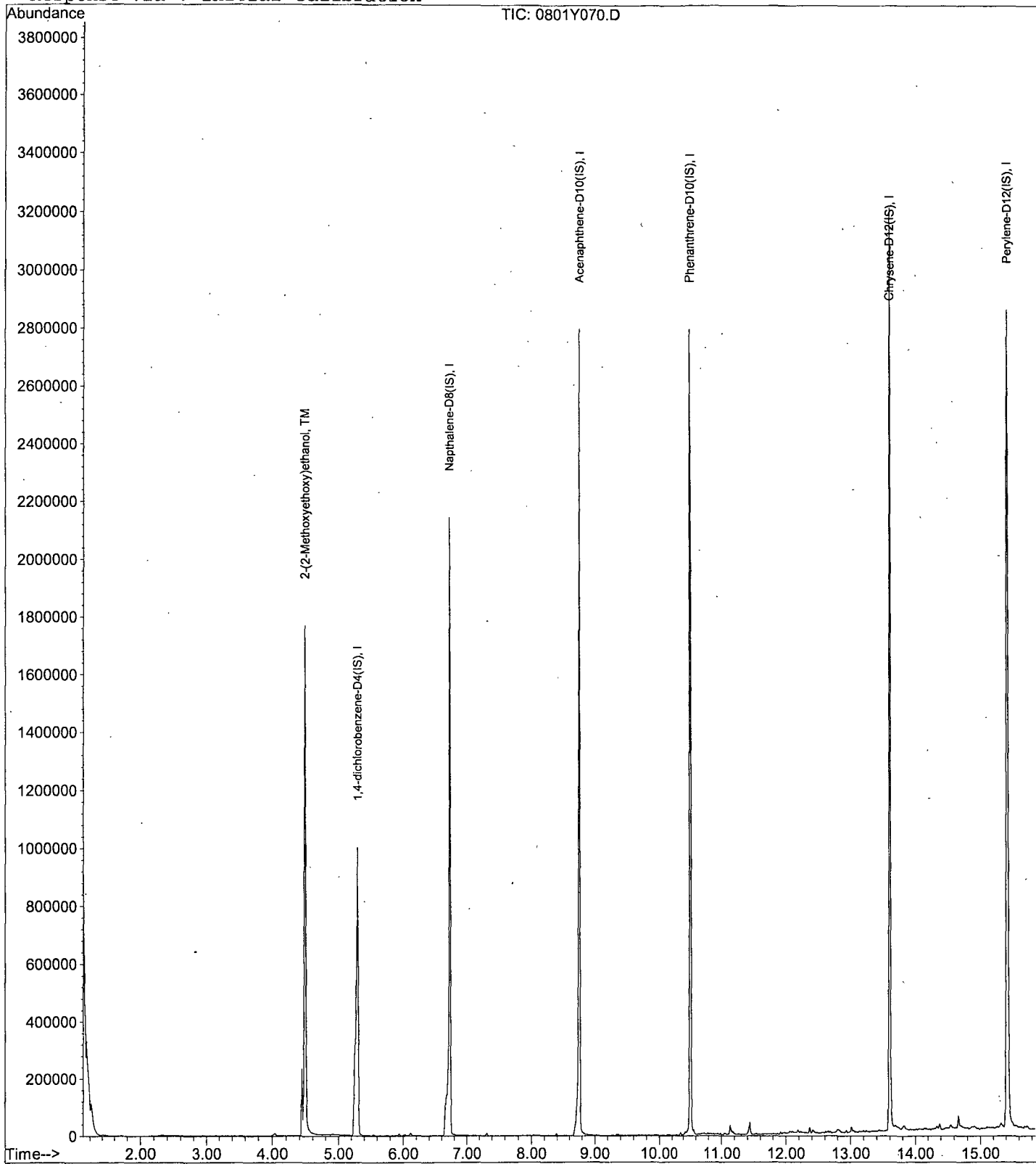
Data File : M:\YODA\DATA\Y180801M\0801Y070.D  
Acq On : 31 Oct 18 6:51  
Sample : 500ug/ml MEE 08/01/18  
Misc : soil

Vial: 70  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:19 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



2MEE  
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/31/18

Matrix: \_\_\_\_\_

Instrument: Yoda

Initial Cal. Date: 08/01/18

Data File: 0801Y098.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TML	2-(2-Methoxyethoxy)ethanol	0.2124	0.2077	2.2	TML	5.2
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
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26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40		Average			2.2		



Data File : M:\YODA\DATA\Y180801M\0801Y098.D Vial: 98  
 Acq On : 31 Oct 18 18:12 Operator: MA  
 Sample : 500ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:17 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.31	152	387693	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1637394	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	845559	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1555868	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1391754	40.00000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1264016	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	4.50	45	1006670	474.00632	ppb	98

Quantitation Report

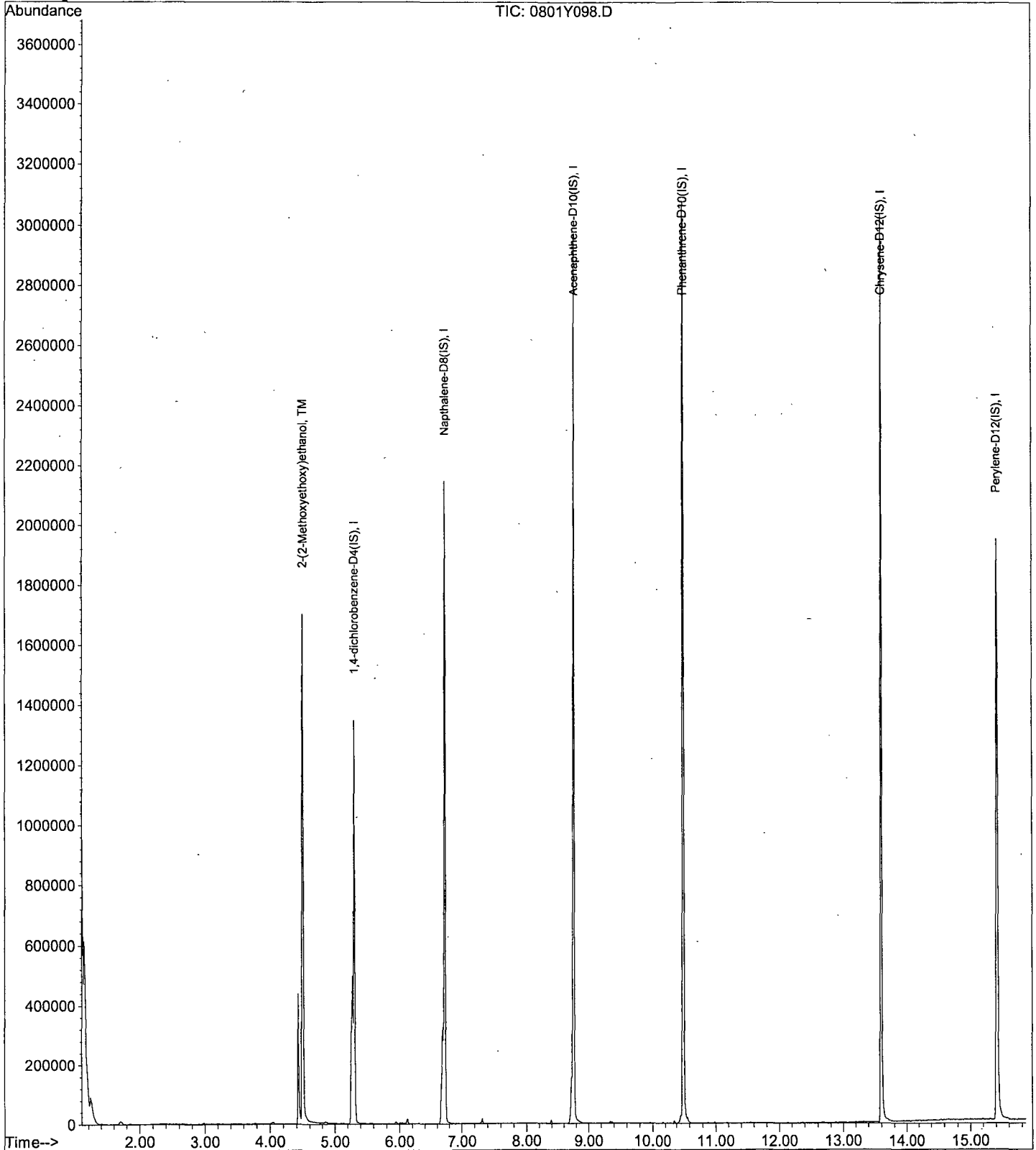
Data File : M:\YODA\DATA\Y180801M\0801Y098.D  
Acq On : 31 Oct 18 18:12  
Sample : 500ug/ml MEE 08/01/18  
Misc : soil

Vial: 98  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:17 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : M:\YODA\DATA\Y180801M\0801Y078.D Vial: 78  
 Acq On : 31 Oct 18 10:20 Operator: MA  
 Sample : AZ81584W12 2/500 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 9:04 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	277768	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1105911	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	669404	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1284777	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1174296	40.00000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1129898	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Quantitation Report

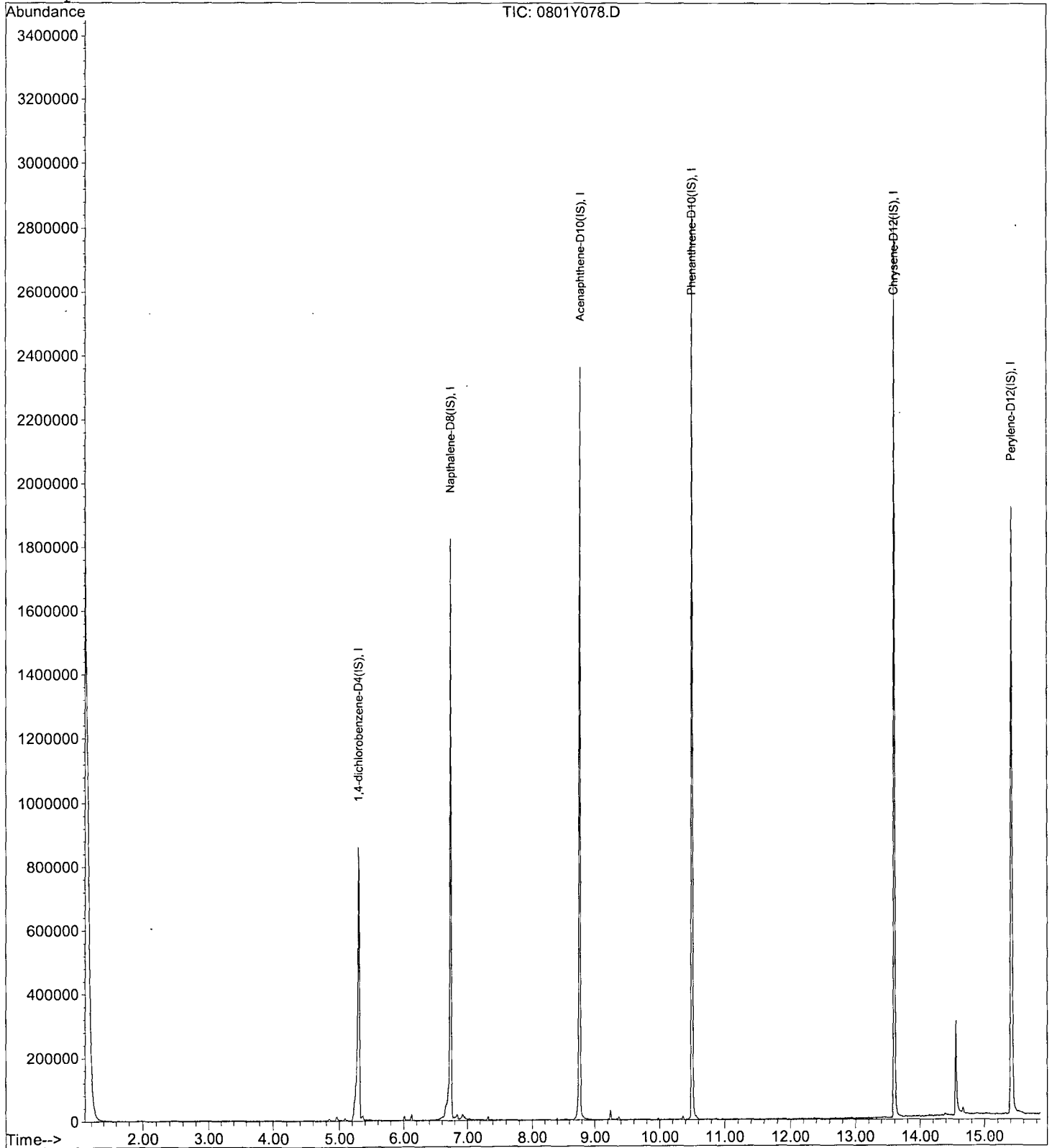
Data File : M:\YODA\DATA\Y180801M\0801Y078.D  
Acq On : 31 Oct 18 10:20  
Sample : AZ81584W12 2/500  
Misc : soil

Vial: 78  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 9:04 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y077.D Vial: 77  
 Acq On : 31 Oct 18 9:57 Operator: MA  
 Sample : AZ81585W05 2/500 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 9:04 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	204462	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	796173	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	403309	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	750432	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	693402	40.00000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	654836	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Quantitation Report

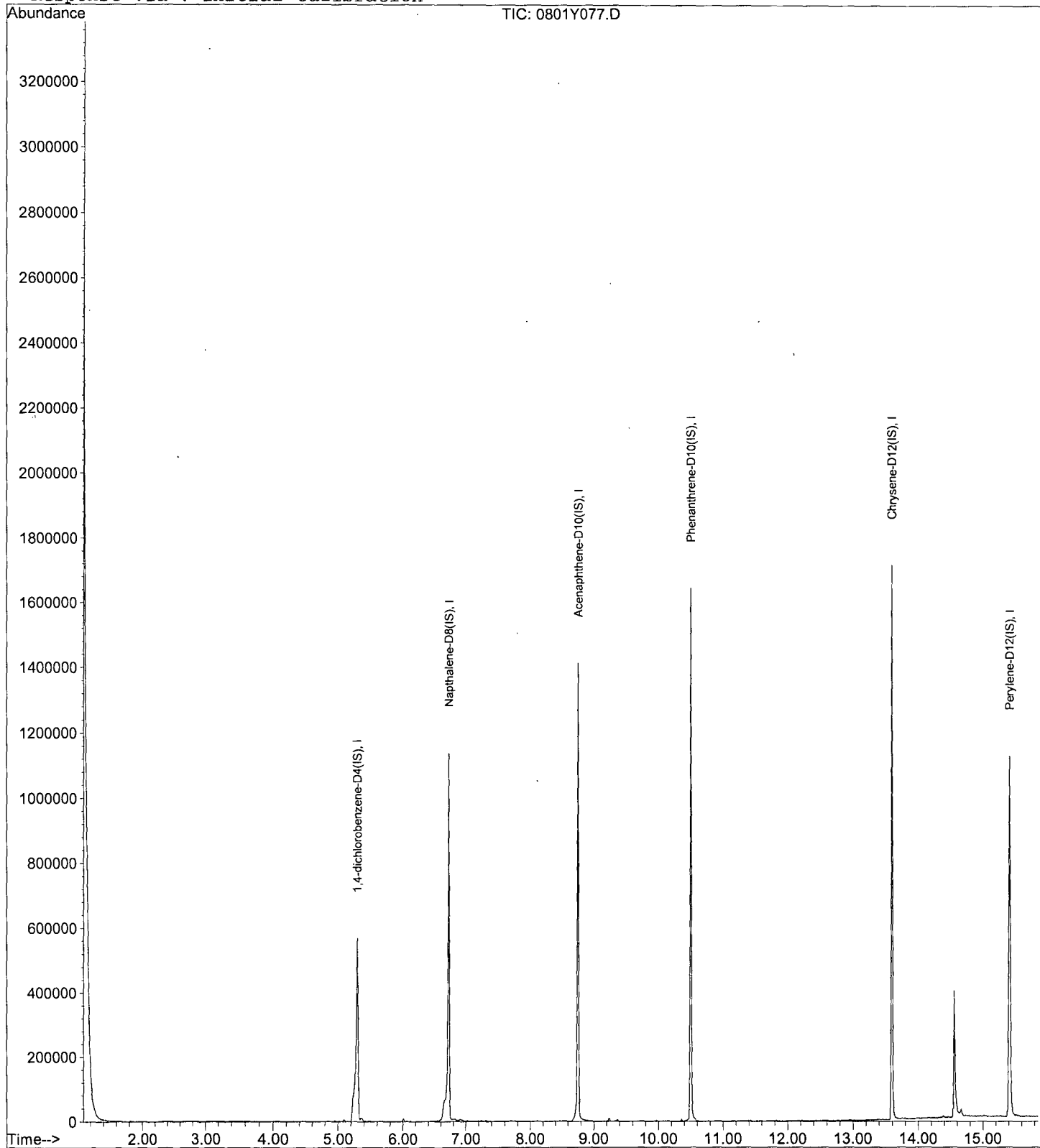
Data File : M:\YODA\DATA\Y180801M\0801Y077.D  
Acq On : 31 Oct 18 9:57  
Sample : AZ81585W05 2/500  
Misc : soil

Vial: 77  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 9:04 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y081.D Vial: 81  
 Acq On : 31 Oct 18 11:31 Operator: MA  
 Sample : AZ81587W09 2/500 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	314487	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1238420	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	703687	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1339590	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1245101	40.00000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1153593	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue



Quantitation Report

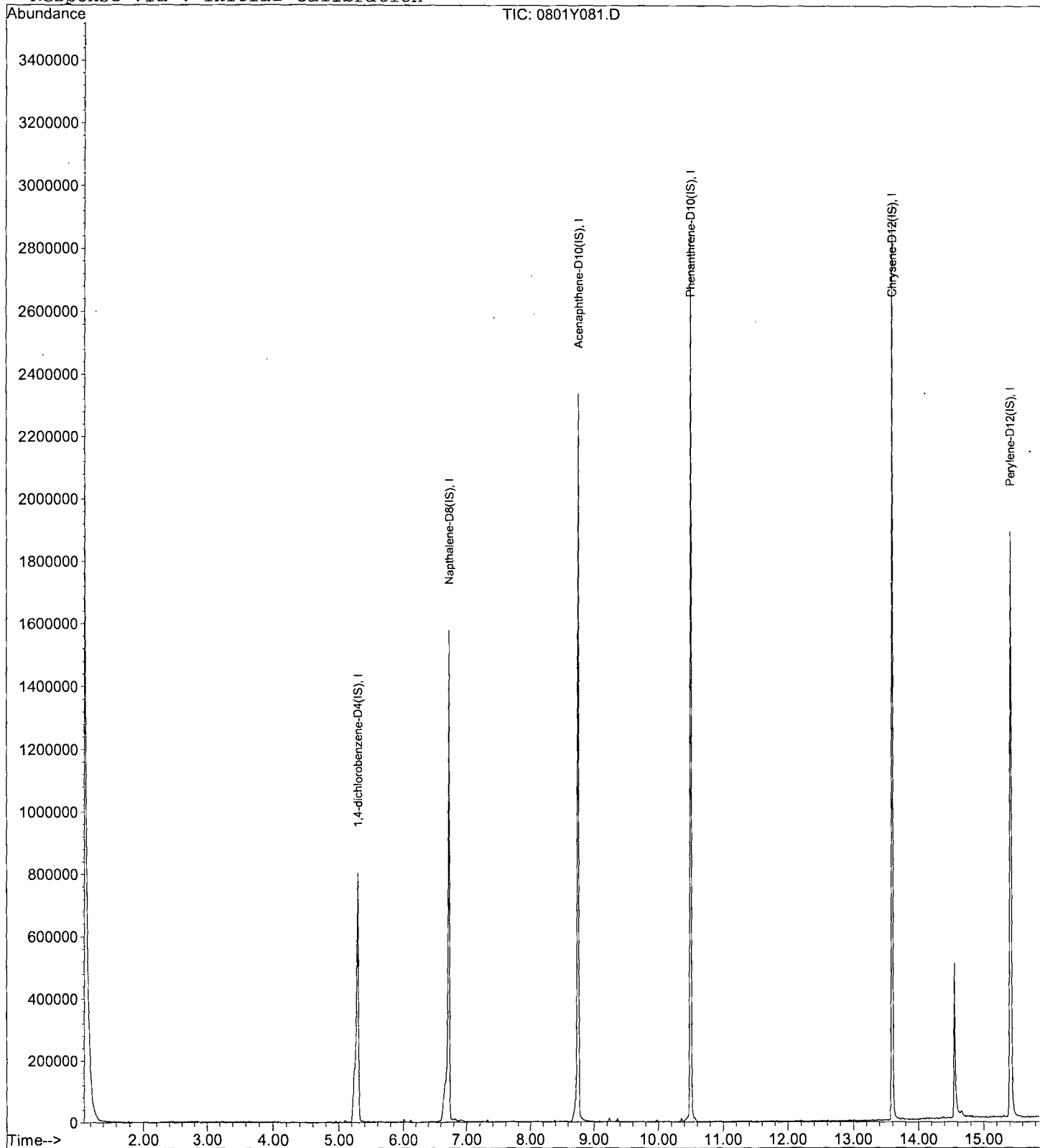
Data File : M:\YODA\DATA\Y180801M\0801Y081.D  
Acq On : 31 Oct 18 11:31  
Sample : AZ81587W09 2/500  
Misc : soil

Vial: 81  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y079.D Vial: 79  
 Acq On : 31 Oct 18 10:43 Operator: MA  
 Sample : 181029A Blk 2/500 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.31	152	233584	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1284274	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	664335	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1204751	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1112334	40.00000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1097799	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Quantitation Report

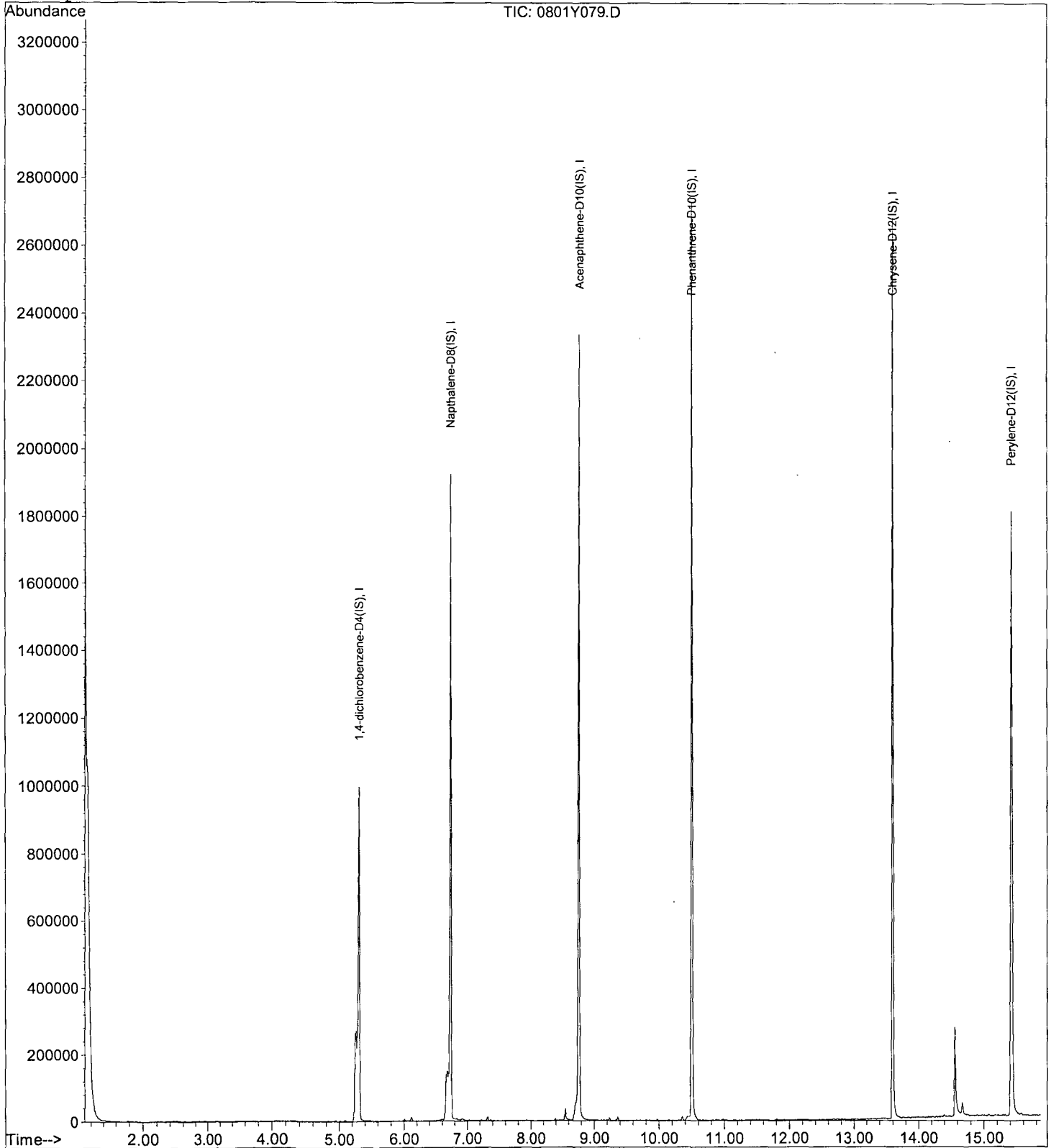
Data File : M:\YODA\DATA\Y180801M\0801Y079.D  
Acq On : 31 Oct 18 10:43  
Sample : 181029A Blk 2/500  
Misc : soil

Vial: 79  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y080.D Vial: 80  
 Acq On : 31 Oct 18 11:07 Operator: MA  
 Sample : 181029A LCS-1 2/500 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	392175	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1594599	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	819390	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1395149	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1241785	40.00000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1311326	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.48	45	140476	72.98891	ppb	98

Quantitation Report

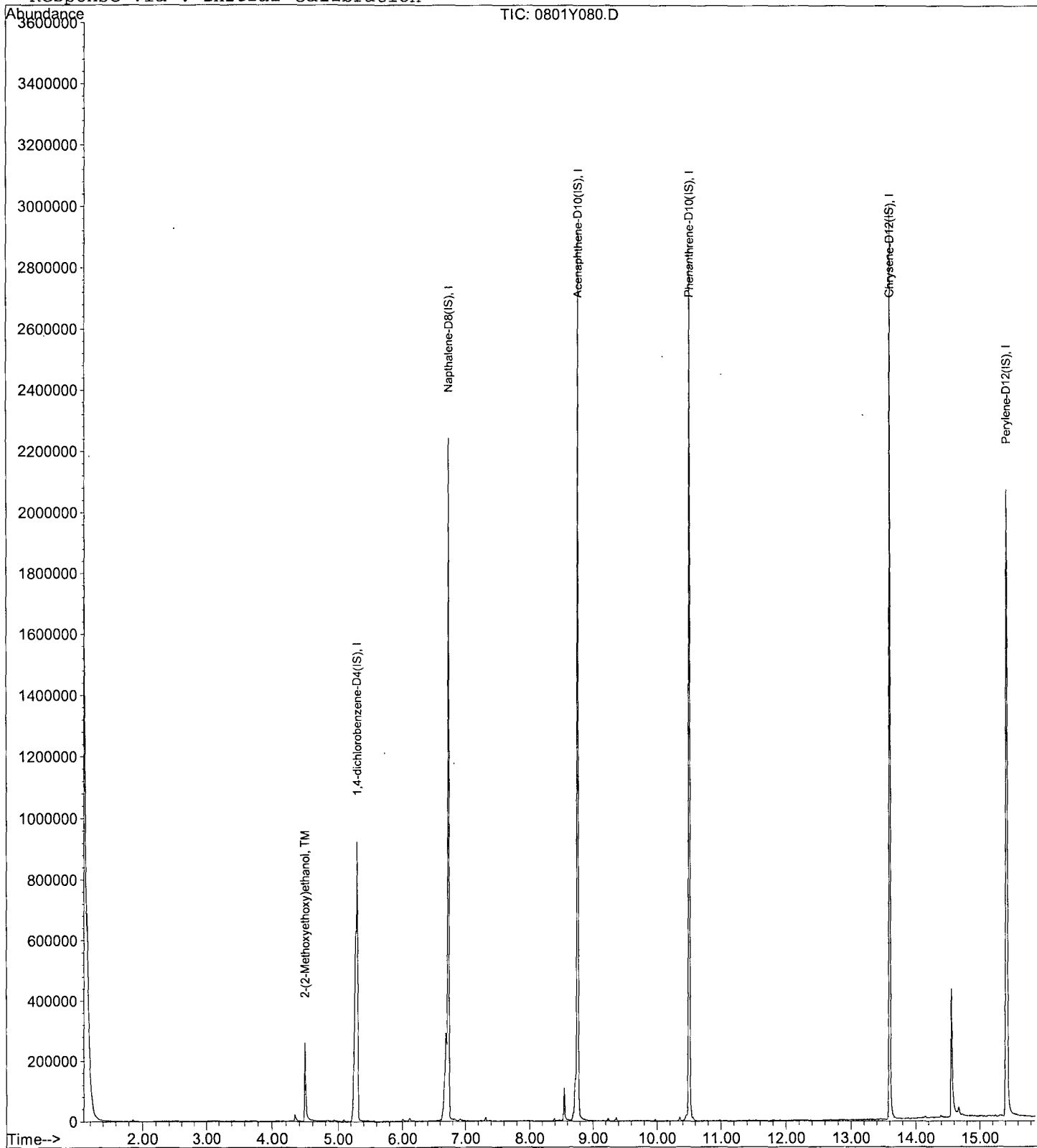
Data File : M:\YODA\DATA\Y180801M\0801Y080.D  
Acq On : 31 Oct 18 11:07  
Sample : 181029A LCS-1 2/500  
Misc : soil

Vial: 80  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y097.D Vial: 97  
 Acq On : 31 Oct 18 17:49 Operator: MA  
 Sample : 181029A LCSD-1 2/500 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.31	152	353234	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1396888	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	700025	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1287861	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1186080	40.00000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1218318	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	4.51	45	159843	89.88618	ppb	100

Quantitation Report

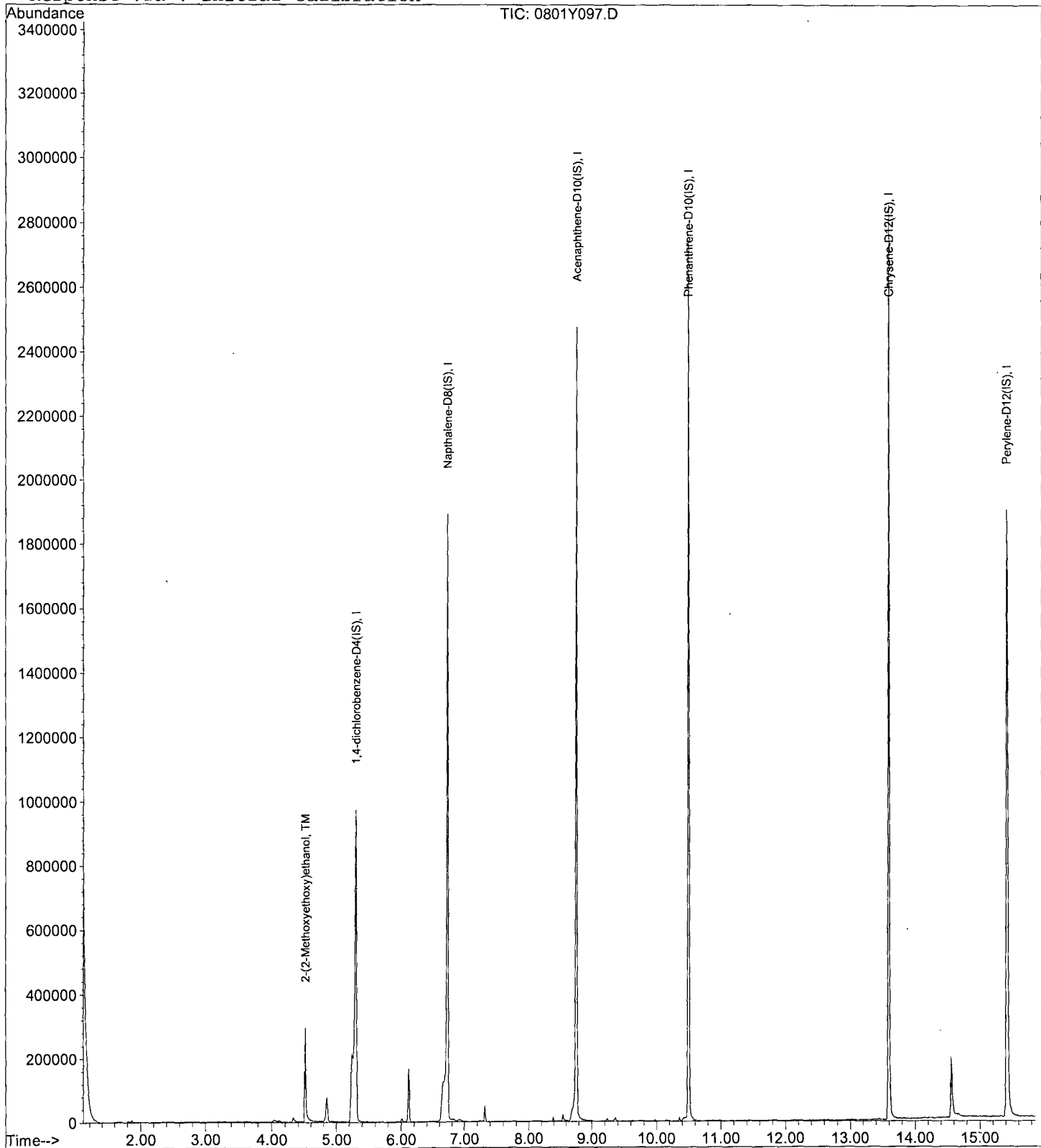
Data File : M:\YODA\DATA\Y180801M\0801Y097.D  
Acq On : 31 Oct 18 17:49  
Sample : 181029A LCSD-1 2/500  
Misc : soil

Vial: 97  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y074.D Vial: 74  
 Acq On : 31 Oct 18 8:47 Operator: MA  
 Sample : AZ81584W17 MS-1 2/460 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	321562	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1209356	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.75	164	709287	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1301625	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1176134	40.00000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1216389	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	4.51	45	160023	97.97144	ppb	99



Quantitation Report

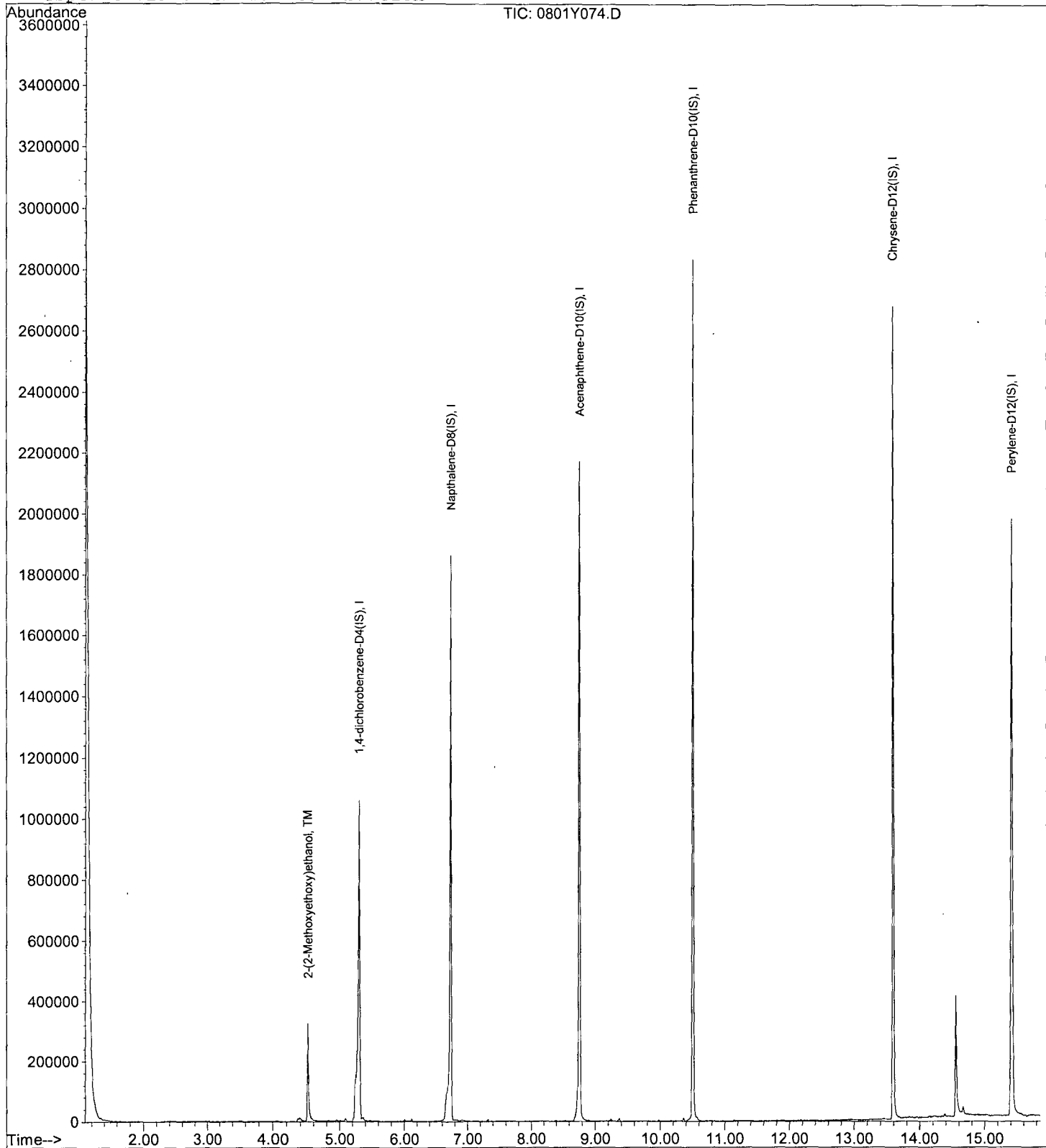
Data File : M:\YODA\DATA\Y180801M\0801Y074.D  
Acq On : 31 Oct 18 8:47  
Sample : AZ81584W17 MS-1 2/460  
Misc : soil

Vial: 74  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y075.D Vial: 75  
 Acq On : 31 Oct 18 9:10 Operator: MA  
 Sample : AZ81584W14 MSD-1 2/460 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	318166	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1242531	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	632522	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1168693	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1144053	40.00000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1140195	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.49	45	136936	85.92299	ppb	97

Quantitation Report

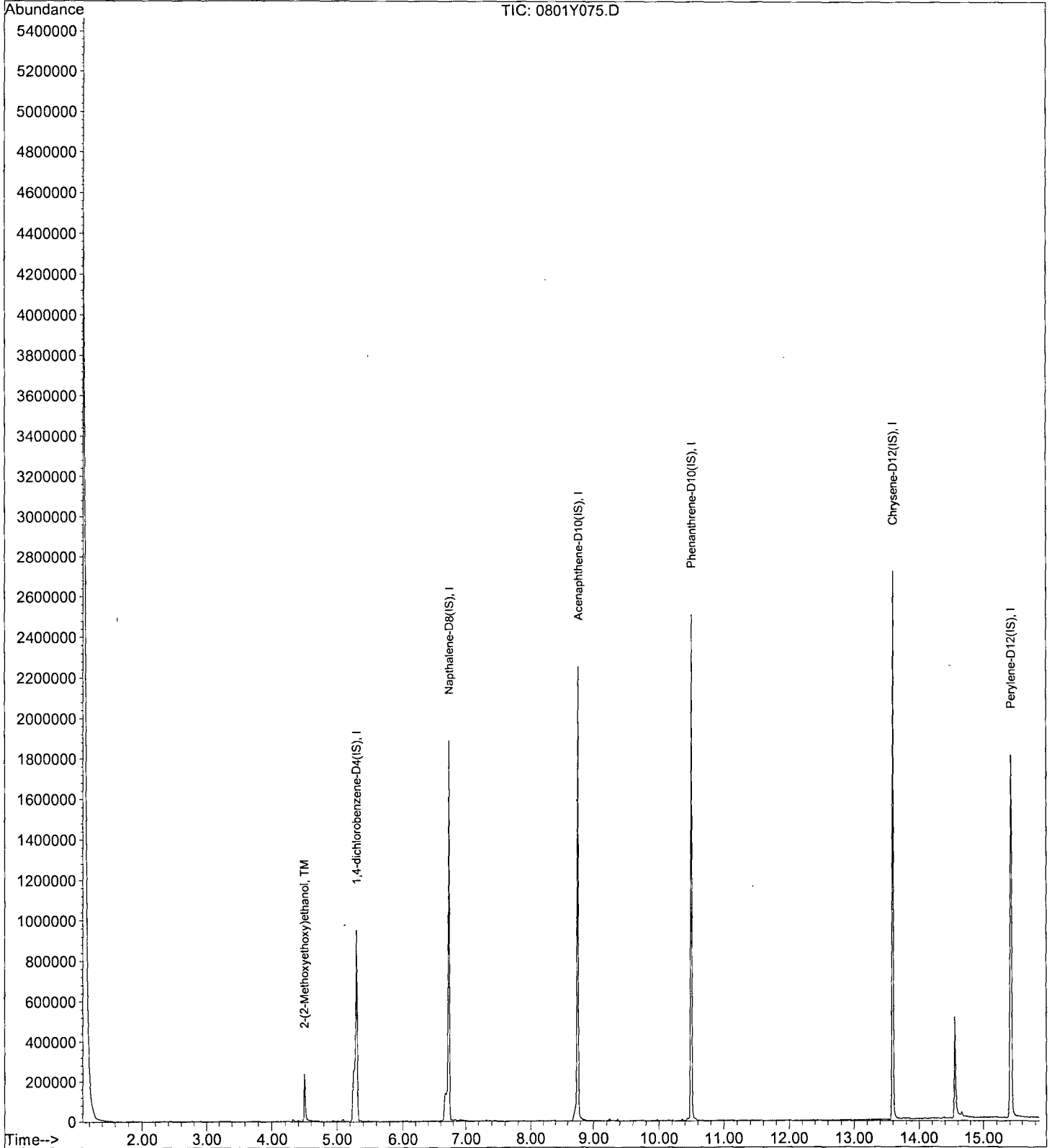
Data File : M:\YODA\DATA\Y180801M\0801Y075.D  
Acq On : 31 Oct 18 9:10  
Sample : AZ81584W14 MSD-1 2/460  
Misc : soil

Vial: 75  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

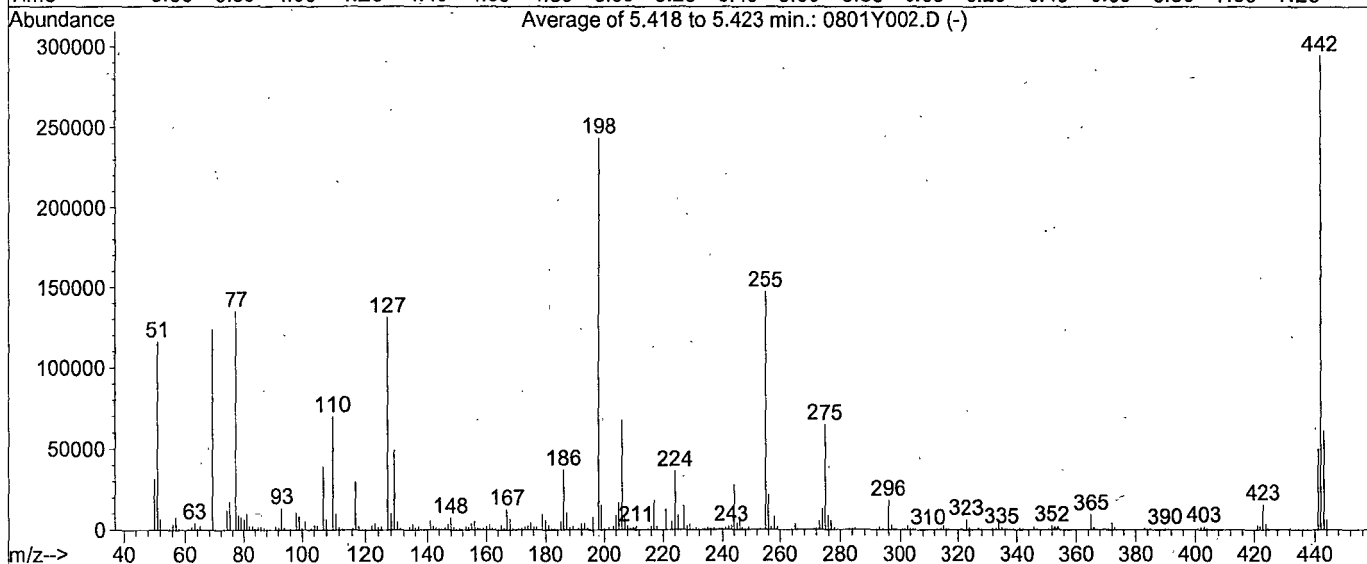
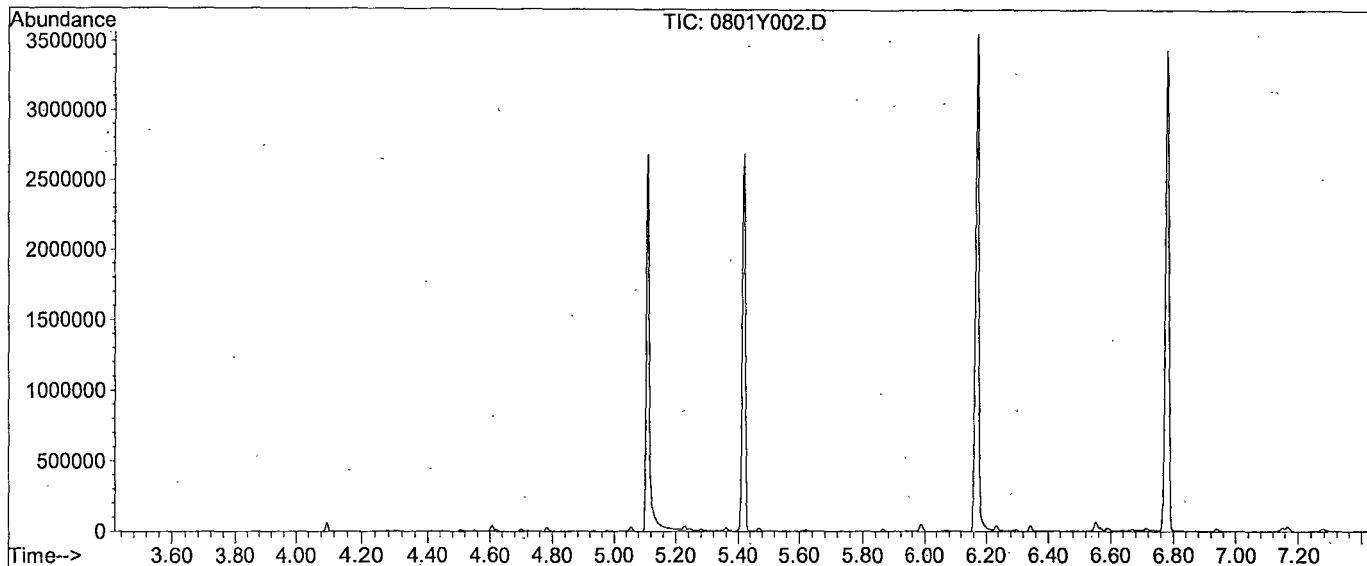
Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y002.D  
 Acq On : 1 Aug 18 14:52  
 Sample : SV Tune 03/07/18  
 Misc :

Vial: 2  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C



AutoFind: Scans 732, 733, 734; Background Corrected with Scan 723

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	47.8	116235	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	582	PASS
127	198	10	80	53.9	131100	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	243285	PASS
199	198	5	9	6.3	15320	PASS
275	198	10	60	26.6	64613	PASS
365	198	1	100	3.8	9226	PASS
441	442	0.01	24	16.8	49651	PASS
442	198	50	150	121.2	294869	PASS
443	442	15	24	20.7	61115	PASS

M:\YODA\DATA\Y180801\0801Y002.D

Data File Name: 0801Y002.D  
Data File Path: M:\YODA\DATA\Y180801\  
Operator: MA  
Date Acquired: 1 Aug 18 14:52  
Method File: DFTPP2.M  
Sample Name: SV Tune 03/07/18  
Vial Number: 2  
Instrument Name: Yoda

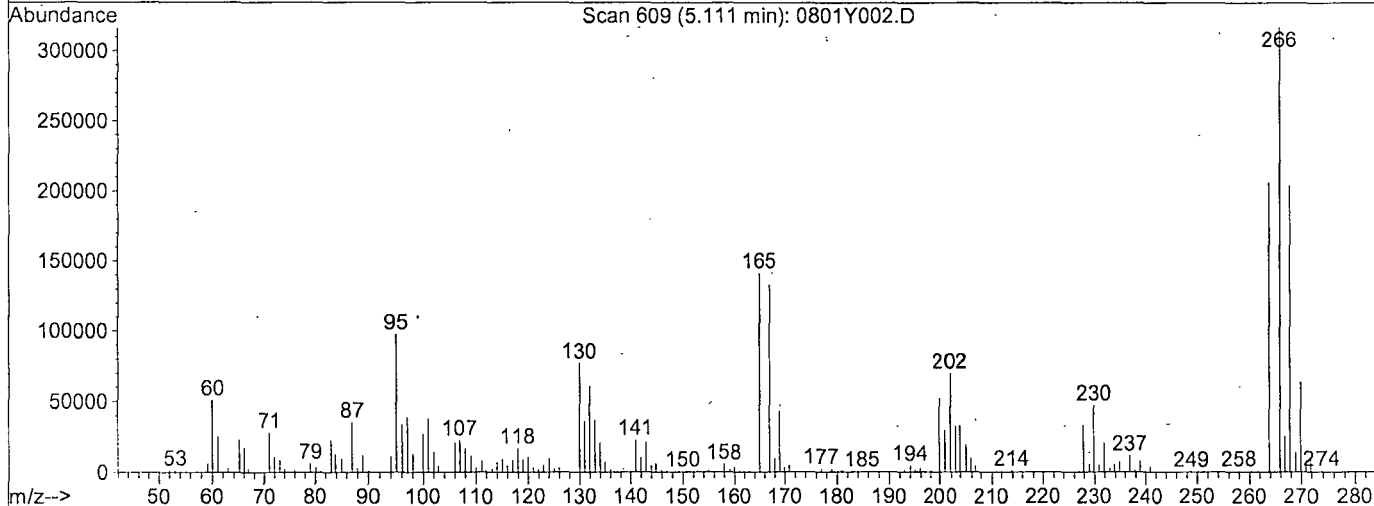
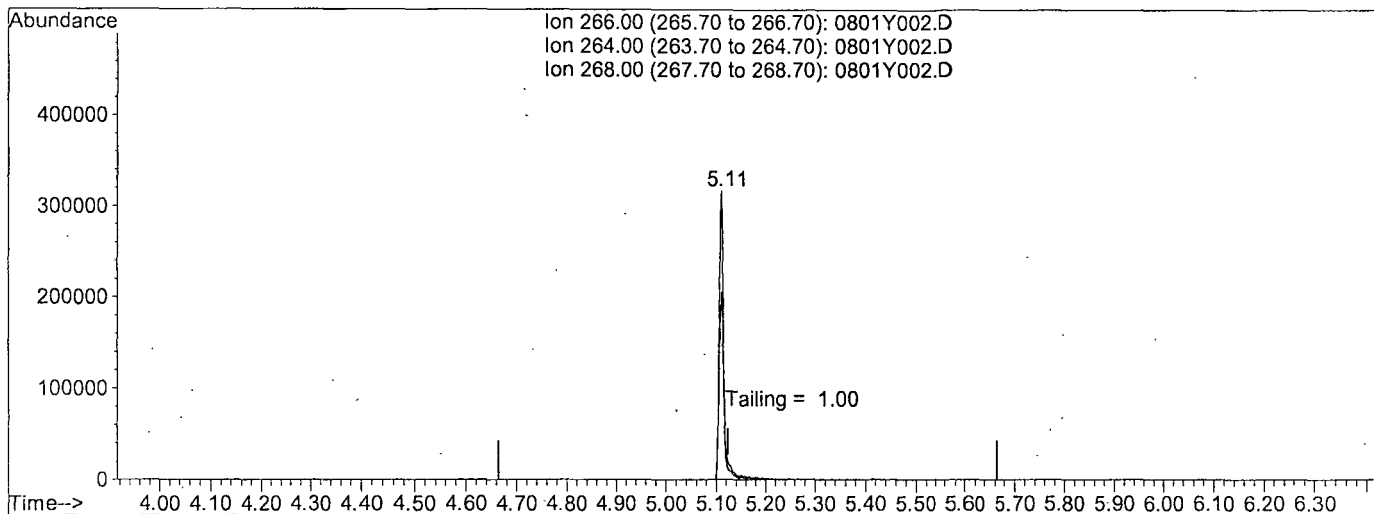
#	Name	Ret Time	Target Response
1)	DDT	6.66	26824100
2)	DDD	6.46	639080
3)	DDE	6.55	564547

Breakdown 4.29

Quantitation Report

Data File : M:\YODA\DATA\Y180801\0801Y002.D Vial: 2  
 Acq On : 1 Aug 18 14:52 Operator: MA  
 Sample : SV Tune 03/07/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Aug 1 14:55 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y180716\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Wed Jul 25 12:12:29 2018  
 Response via : Single Level Calibration



TIC: 0801Y002.D

(5) Pentachlorophenol

5.11min 0.0000 m

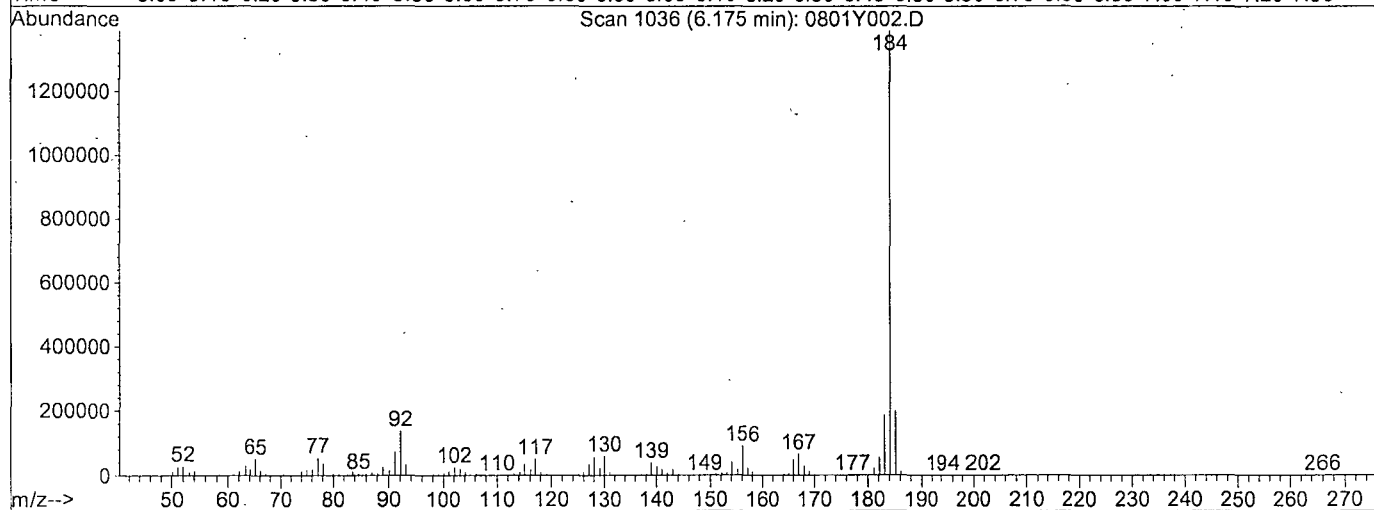
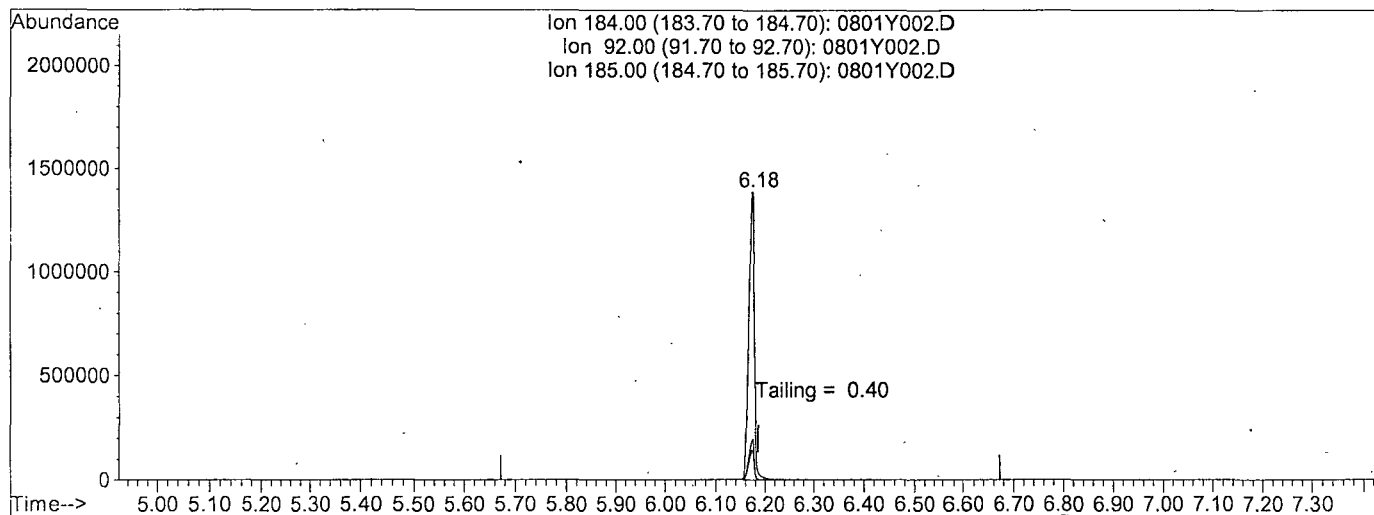
response 1984014

Ion	Exp%	Act%
266.00	100	100
264.00	64.20	64.17
268.00	61.30	65.81
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y180801\0801Y002.D Vial: 2  
 Acq On : 1 Aug 18 14:52 Operator: MA  
 Sample : SV Tune 03/07/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Aug 1 14:55 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y180716\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Wed Jul 25 12:12:29 2018  
 Response via : Single Level Calibration



TIC: 0801Y002.D

(6) Benzidine

6.17min 0.0000

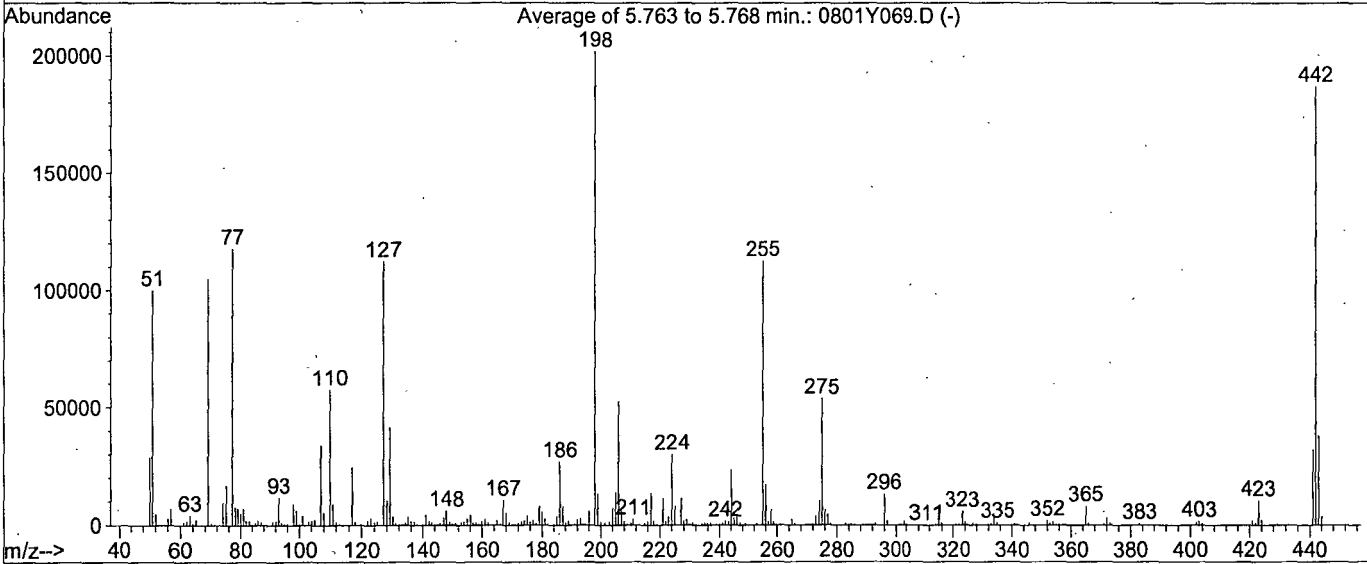
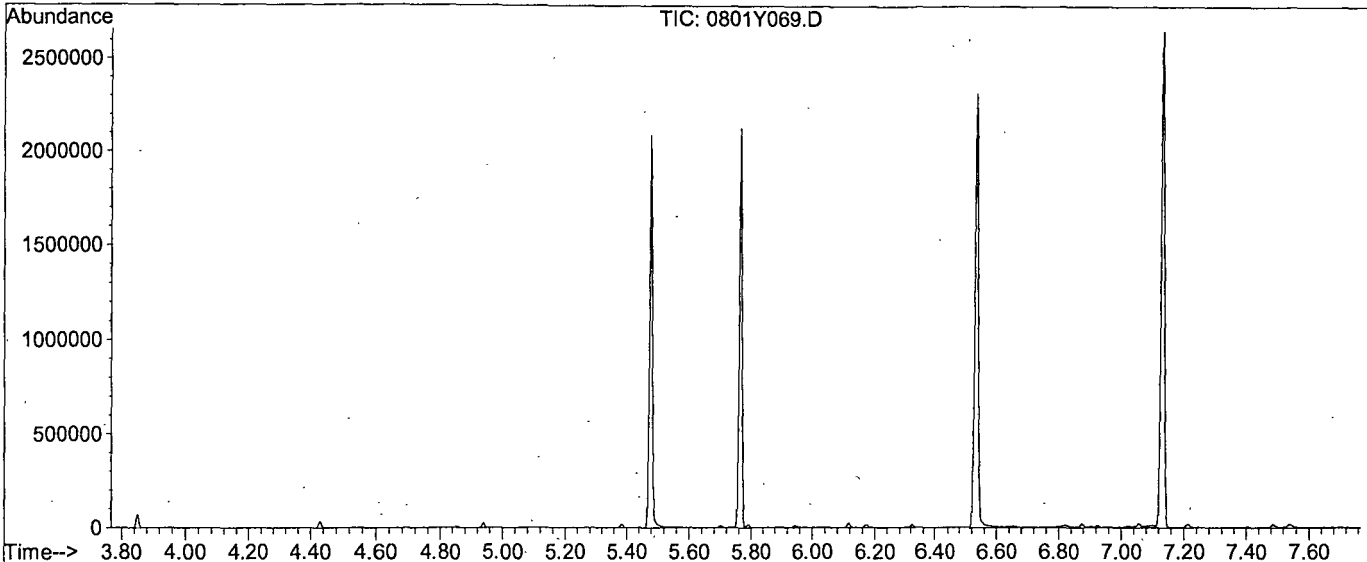
response 10907511

Ion	Exp%	Act%
184.00	100	100
92.00	10.20	9.66
185.00	14.00	13.74
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y180801M\0801Y069.D  
 Acq On : 31 Oct 18 6:36  
 Sample : SV TUNE 03/07/18  
 Misc : soil

Vial: 69  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C



AutoFind: Scans 871, 872, 873; Background Corrected with Scan 863

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	49.6	100069	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	760	PASS
127	198	10	80	55.5	112144	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	201941	PASS
199	198	5	9	6.5	13143	PASS
275	198	10	60	26.6	53648	PASS
365	198	1	100	3.9	7927	PASS
441	442	0.01	24	17.1	31907	PASS
442	198	50	150	92.6	186987	PASS
443	442	15	24	20.3	37923	PASS



Data File Name: 0801Y069.D  
Data File Path: M:\YODA\DATA\Y180801M\  
Operator: MA  
Date Acquired: 31 Oct 2018 06:36  
Method File: DFTPP2.M  
Sample Name: SV TUNE 03/07/18  
Vial Number: 69  
Instrument Name: Yoda

#	Name	Ret Time	Target Response
1)	DDT	7.13	19429200
2)	DDD	6.93	114381
3)	DDE	7.06	0

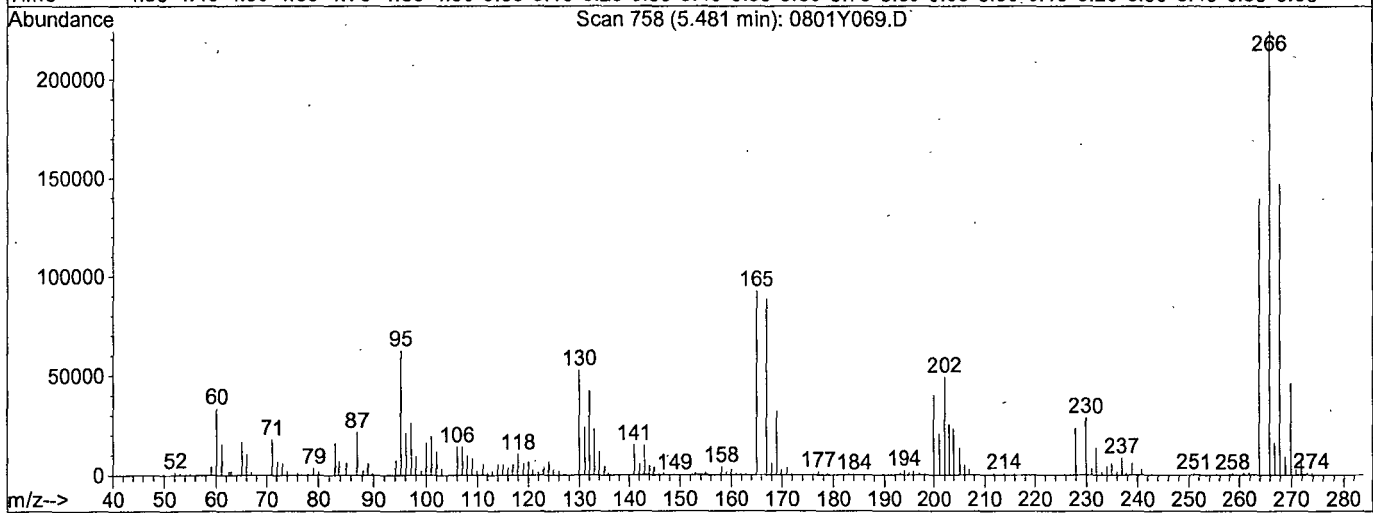
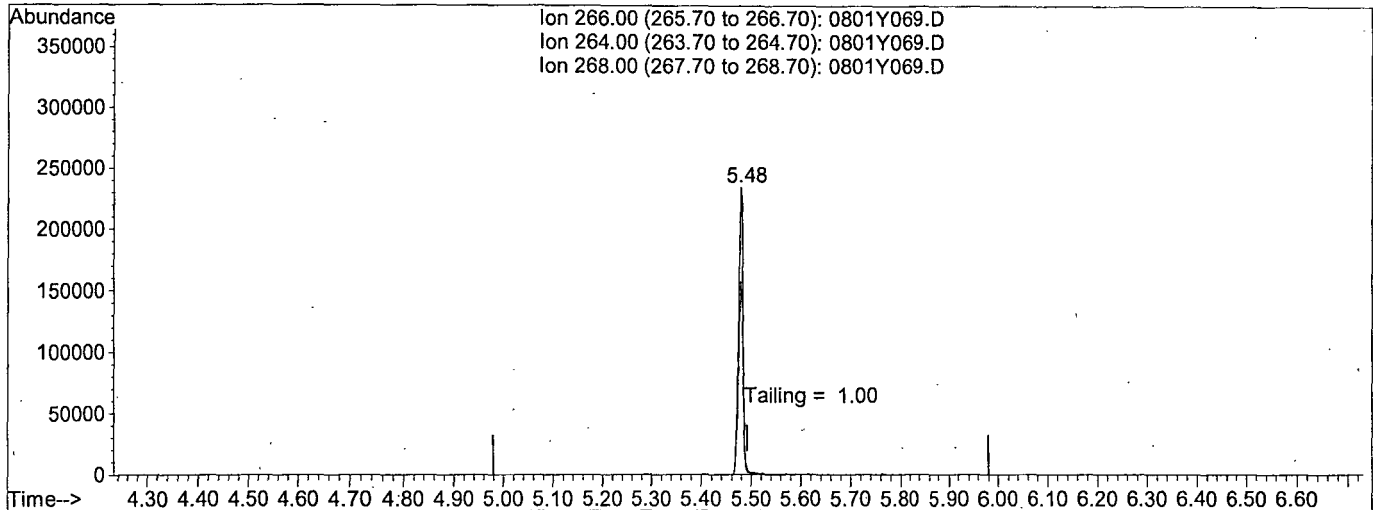
Breakdown 0.59

Quantitation Report

Data File : M:\YODA\DATA\Y180801M\0801Y069.D  
 Acq On : 31 Oct 18 6:36  
 Sample : SV TUNE 03/07/18  
 Misc : soil  
 Quant Time: Oct 31 6:16 2018

Vial: 69  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y180801M\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Wed Oct 31 07:16:04 2018  
 Response via : Single Level Calibration



TIC: 0801Y069.D

(5) Pentachlorophenol

5.48min 0.0000

response 1468963

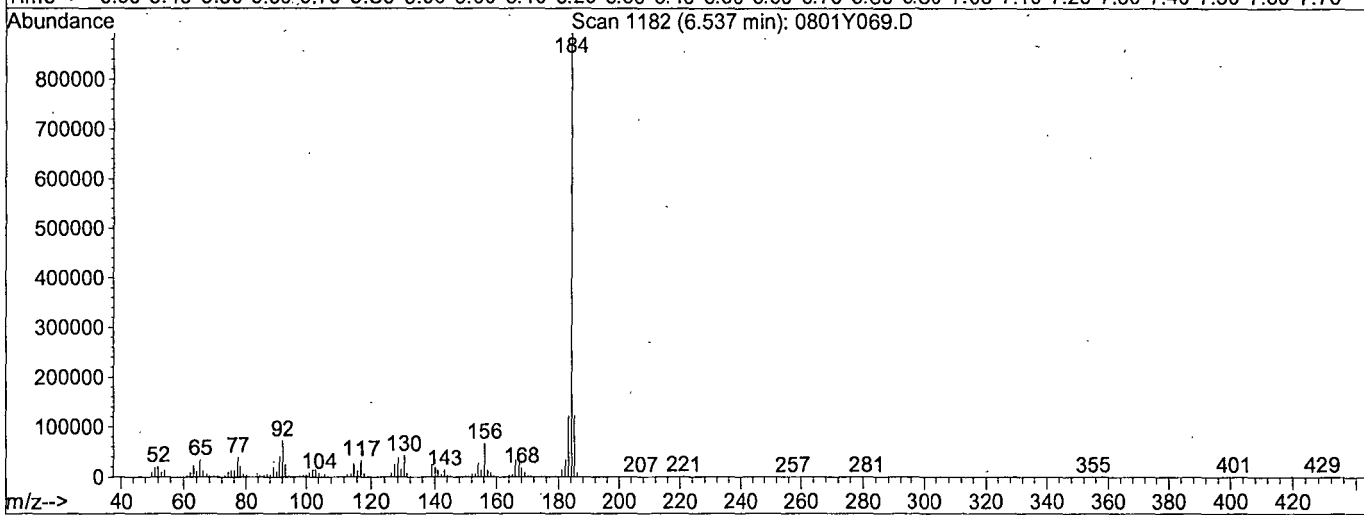
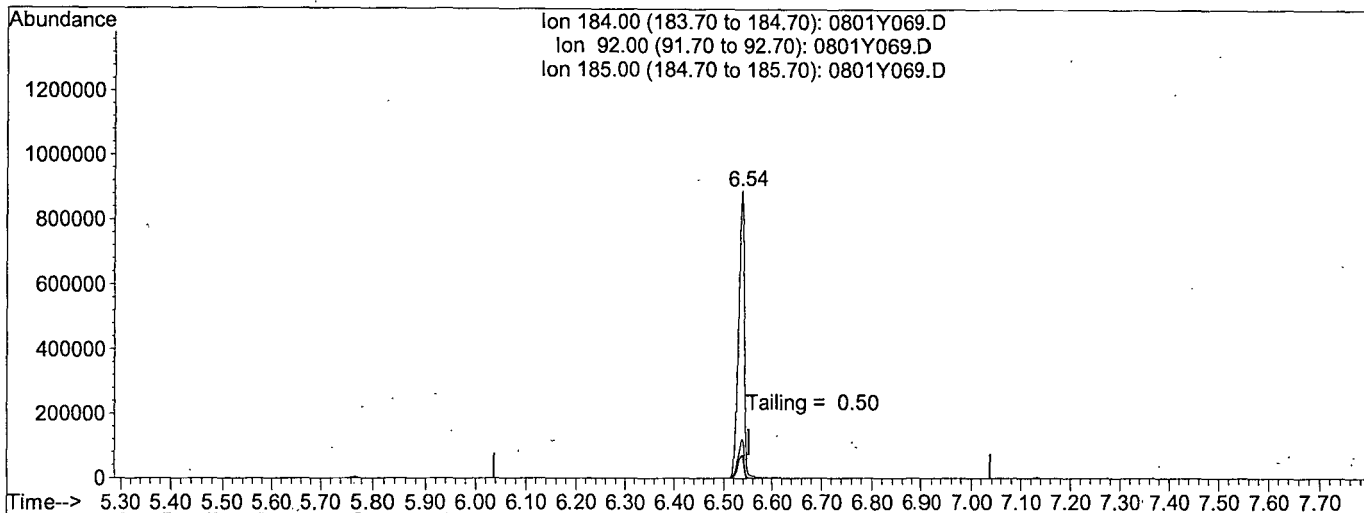
Ion	Exp%	Act%
266.00	100	100
264.00	64.70	64.44
268.00	67.10	64.99
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y180801M\0801Y069.D  
 Acq On : 31 Oct 18 6:36  
 Sample : SV TUNE 03/07/18  
 Misc : soil  
 Quant Time: Oct 31 6:16 2018

Vial: 69  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y180801M\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Wed Oct 31 07:16:04 2018  
 Response via : Single Level Calibration



TIC: 0801Y069.D

(6) Benzidine

6.54min 0.0000

response 7364167

Ion	Exp%	Act%
184.00	100	100
92.00	8.10	8.27
185.00	13.70	14.03
0.00	0.00	0.00

# Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water		Extraction Set	180727A	Extraction Method	MWE2MEE	Units	mL
Spiked ID 1	Diethylene Glycol 7-25-18 EXP 10-3-18		Surrogate ID 1					
Spiked ID 2	MEE 10320ug/MI 5-22-17 EXP 8-4-18		Surrogate ID 2					
Spiked ID 3			Surrogate ID 3					
Spiked ID 4			Surrogate ID 4					
Spiked ID 5			Surrogate ID 5					
Spiked ID 6			Sufficient Vol for Matrix QC:		NO			
Spiked ID 7			Ext. Start Time:		07/27/18 10:55			
Spiked ID 8			Ext. End Time:		07/30/18 12:00			

**STANDARD PREPARATION MA 11/5/18**

GC Requires Extract By:		07/31/18 0:00	
pH1		Water Bath Temp Criteria	
pH2			
pH3			

Spiked By: DL

Date 07/27/18

Witnessed By: RP

Date 07/27/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1 180727A Blk				NA	NA	500	2	7	07/27/18 10:55	
2 180727A LCS-1		0.040	1	NA	NA	500	2	7	07/27/18 10:55	
3 180727A SS		0.097	2	NA	NA	500	2	7	07/27/18 10:55	
4 AZ76727 MS-1	AZ76727W14	0.040	1	NA	NA	500	2	7	07/27/18 10:55	86359
5 AZ76727 MSD-1	AZ76727W15	0.040	1	NA	NA	500	2	7	07/27/18 10:55	86359
6 AZ76727	AZ76727W13			NA	NA	500	2	7	07/27/18 10:55	86359
7 AZ76728	AZ76728W05			NA	NA	500	2	7	07/27/18 10:55	86359
8 AZ76730	AZ76730W08			NA	NA	490	2	7	07/27/18 10:55	86359
9 AZ76732	AZ76732W05			NA	NA	500	2	7	07/27/18 10:55	86359
10 AZ76733	AZ76733W04			NA	NA	500	2	7	07/27/18 10:55	86359
11 AZ76734	AZ76734W04			NA	NA	480	2	7	07/27/18 10:55	86359
12 AZ76760	AZ76760W09			NA	NA	500	2	7	07/27/18 10:55	86367
13 AZ76762	AZ76762W09			NA	NA	500	2	7	07/27/18 10:55	86367
14 AZ76764	AZ76764W09			NA	NA	500	2	7	07/27/18 10:55	86367
15 AZ76766	AZ76766W09			NA	NA	490	2	7	07/27/18 10:55	86367
16 AZ76768	AZ76768W08			NA	NA	500	2	7	07/27/18 10:55	86367

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	8099704
PH Strip	HC613865
Di Water	7-27-18
Dichloromethane	57278
Methanol	121417A

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified 07/30/18 7:00:03 AM

Reviewed By:

Date

# Organic Extraction Worksheet












Method	Solid Phase Extraction of 2MEE in Water		Extraction Set	180727A	Extraction Method	MWE2MEE	Units	mL
Spiked ID 1	Diethylene Glycol 7-25-18 EXP 10-3-18		Surrogate ID 1					
Spiked ID 2	MEE 10320ug/ML 5-22-17 EXP 8-4-18		Surrogate ID 2					
Spiked ID 3			Surrogate ID 3					
Spiked ID 4			Surrogate ID 4					
Spiked ID 5			Surrogate ID 5					
Spiked ID 6			Sufficient Vol for Matrix QC:		NO			
Spiked ID 7			Ext. Start Time:		07/27/18 10:55			
Spiked ID 8			Ext. End Time:		07/30/18 12:00			
			GC Requires Extract By:		07/31/18 0:00			
			pH1		Water Bath Temp Criteria			
			pH2					
			pH3					

Spiked By: DL

Date 07/27/18

Witnessed By: RP

Date 07/27/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ76879 	AZ76879W08 		NA	NA	500	2	7	07/27/18 10:55	86376
18	AZ76880 	AZ76880W05 		NA	NA	490	2	7	07/27/18 10:55	86376
19	AZ76882 	AZ76882W08 		NA	NA	500	2	7	07/27/18 10:55	86376
20	AZ76884 	AZ76884W09 		NA	NA	500	2	7	07/27/18 10:55	86376
21	AZ76886 	AZ76886W09 		NA	NA	500	2	7	07/27/18 10:55	86376
22	M Std 		1	1	NA	500	2	7	07/27/18 10:55	

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	8099704
PH Strip	HC613865
Di Water	7-27-18
Dichloromethane	57278
Methanol	121417A

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	07/30/18 7:00:03 AM

Reviewed By:

Date

Name of  
Final  
Standard  
Prep Date  
Exp Date

MEE Curve

Prep'd By (Initials)

GA

08/01/18

11/10/18

Initial Standard Information						Final Standard Information			
MEE M STD Stock	APPL		200 ug/mL	07/27/18	11/1018	5 uL	200uL	Methanol 195uL	50 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	4 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/1018	5 uL	100uL	Methanol 95uL	100 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/1018	10 uL	100uL	Methanol 90 uL	200 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/1018	20 uL	100uL	Methanol 80 uL	400 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/1018	50 uL	200 uL	Methanol 150 uL	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	4 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/1018	30 uL	100uL	Methanol 70 uL	600 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/1018	40 uL	100uL	Methanol 60 uL	800 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/1018	50 uL	100uL	Methanol 50uL	1000 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*

Name of  
Final  
Standard Diethylene Glycol

Prep'd By (Initials) GA

Prep Date 07/25/18

Exp Date 11/10/18

Initial Standard Information					Final Standard Information				
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Diethylene glycol monomethyl ether	AccuStandard	72273	2000 ug/mL	216101007-37330 and 37331	10/03/18	2.0 mL	4 mL	Methanol #042317C	1000 ug/mL

Given to Extraction to do **MEE M STD Stock** (used for ICAL) Final concentration 2000ug/L  
 APPL re-certified diethylene glycol monomethyl ether lot 216101007-37330 and 37331 and extended the expiration date to 11/10/18 per verification with a second source from ChemService lot 7079100-39417  
 Inj on Yoda 0801Y064

Methoxyethoxyethanol-Neat (MEE) SS Stock: 5/22/17-R.H. ex: 08/04/18						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MEE	Neat 99.5%	HEM SERVIC	0.1032g	10 mL	10320 ug/ml	MC
		Cat: N-12404-1G				#56258
		Lot: 5259000-37082				
		OP: 09/27/16				
		EXP: 08/04/18				

0.097ml were spiked in 500ml of water and extracted on 06/07/17. Final concentration is 2000ug

APPL re-certified MEE SS stock Lot 5259000-37082 and extended the expiration date to 8/04/18 per verification with a different source Accu Standards Lot # 216101007-37334,5 injected on 05/04/18



Name of Final Standard 8270 Internal Standard (Ampule)      Prep'd By (Initials) OA  
 Prep Date 06/22/18  
 Exp Date 06/22/19

Initial Standard Information					Final Standard Information				
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
EPA 8270 Semivolatile Internal Standard	RESTEK	CRM48902	2000 ug/mL	A0130603-38562	06/22/19	1000 uL	1 mL	NA	100ug/mL

# Organic Extraction Worksheet

<b>Method</b>	Solid Phase Extraction of 2MEE in Water	<b>Extraction Set</b>	181029A	<b>Extraction Method</b>	MWE2MEE	<b>Units</b>	mL
Spiked ID 1	Diethylene Glycol 7-25-18 EXP 10-3-18	Surrogate ID 1					
Spiked ID 2	2MEE SS STK 8-3-18 EXP 8-3-19	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		YES			
Spiked ID 7		Ext. Start Time:		10/29/18 13:50			
Spiked ID 8		Ext. End Time:		10/30/18 16:10			
GC Requires Extract By:				10/30/18 0:00			
pH1				Water Bath Temp Criteria			
pH2							
pH3							

Spiked By: KY

Date 10/29/18

Witnessed By: DL

Date 10/29/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1 181029A Bik				NA	NA	500	2	7	10/29/18 13:50	
2 181029A LCS-1		0.040	1	NA	NA	500	2	7	10/29/18 13:50	LOQ
3 181029A LCSD-1		0.040	1	NA	NA	500	2	7	10/29/18 13:50	
4 181029A SS		0.097	2	NA	NA	500	2	7	10/29/18 13:50	
5 AZ77514	AZ77514W01	0.040	1	NA	NA	500	2	7	10/29/18 13:50	86492 LOD
6 AZ81584 MS-1	AZ81584W17	0.040	1	NA	NA	460	2	7	10/29/18 13:50	87198
7 AZ81584 MSD-1	AZ81584W14	0.040	1	NA	NA	460	2	7	10/29/18 13:50	87198
8 AZ81584	AZ81584W12			NA	NA	500	2	7	10/29/18 13:50	87198
9 AZ81585	AZ81585W05			NA	NA	500	2	7	10/29/18 13:50	87198
10 AZ81587	AZ81587W09			NA	NA	500	2	7	10/29/18 13:50	87198
11 AZ81636	AZ81636W09			NA	NA	470	2	7	10/29/18 13:50	87212
12 AZ81638	AZ81638W05			NA	NA	490	2	7	10/29/18 13:50	87212
13 AZ81640	AZ81640W08			NA	NA	480	2	7	10/29/18 13:50	87212
14 AZ81642	AZ81642W09			NA	NA	500	2	7	10/29/18 13:50	87212
15 AZ81644	AZ81644W09			NA	NA	490	2	7	10/29/18 13:50	87212
16 AZ81676	AZ81676W08			NA	NA	490	2	7	10/29/18 13:50	87219

<b>Solvent and Lot#</b>	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	10699801
PH Strip	HC 727135
Di Water	10-29-18
Dichloromethane	58059
Methanol	58055

<b>Extraction COC Transfer</b>	
Extraction lab employee Initials	KY
GC analyst's initials	DA
Date	10/30/18
Time	17:11
Refrigerator	GC-C

	<b>Technician's Initials</b>
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	10/29/18 2:20:25 PM

Reviewed By: *KY* 498 Date 10/31/18

# Organic Extraction Worksheet









<b>Method</b>	Solid Phase Extraction of 2MEE in Water	<b>Extraction Set</b>	181029A	<b>Extraction Method</b>	MWE2MEE	<b>Units</b>	mL
Spiked ID 1	Diethylene Glycol 7-25-18 EXP 10-3-18		Surrogate ID 1				
Spiked ID 2	2MEE SS STK 8-3-18 EXP 8-3-19		Surrogate ID 2				
Spiked ID 3			Surrogate ID 3				
Spiked ID 4			Surrogate ID 4				
Spiked ID 5			Surrogate ID 5				
Spiked ID 6			Sufficient Vol for Matrix QC: YES				
Spiked ID 7			Ext. Start Time:	10/29/18 13:50			
Spiked ID 8			Ext. End Time:	10/30/18 16:10			
			GC Requires Extract By:	10/30/18 0:00			
			pH1			Water Bath Temp Criteria	
			pH2				
			pH3				

Spiked By: KY

Date 10/29/18

Witnessed By: DL

Date 10/29/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ81677 	AZ81677W09		NA	NA	450	2	7	10/29/18 13:50	87219
18	AZ81678 	AZ81678W09		NA	NA	500	2	7	10/29/18 13:50	87219
19	AZ81840 	AZ81840W09		NA	NA	470	2	7	10/29/18 13:50	87238
20	AZ81841 	AZ81841W08		NA	NA	450	2	7	10/29/18 13:50	87238
21	AZ81842 	AZ81842W08		NA	NA	500	2	7	10/29/18 13:50	87238
22	AZ81901 	AZ81901W07		NA	NA	450	2	7	10/29/18 13:50	87248
23	AZ81903 	AZ81903W08		NA	NA	500	2	7	10/29/18 13:50	87248
24	M Std 	1	1	NA	NA	500	2	7	10/29/18 13:50	

Ks 10/31/18

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	10699801
PH Strip	HC 727135
Di Water	10-29-18
Dichloromethane	58059
Methanol	58055

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	10/29/18 2:20:25 PM

Reviewed By: *Ks* 499      Date 10/31/18

# Injection Log

Directory: M:\YODA\DATA\Y180801M\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	0801Y002.D	1	SV Tune 03/07/18		1 Aug 18 14:52
2	3	0801Y003.D	1	50ug/ml MEE 08/01/18	soil	1 Aug 18 15:09
3	4	0801Y004.D	1	500ug/ml MEE 08/01/18	soil	1 Aug 18 15:34
4	5	0801Y005.D	1	100ug/ml MEE 08/01/18	soil	1 Aug 18 16:26
5	6	0801Y006.D	1	200ug/ml MEE 08/01/18	soil	1 Aug 18 16:51
6	7	0801Y007.D	1	400ug/ml MEE 08/01/18	soil	1 Aug 18 17:16
7	8	0801Y008.D	1	600ug/ml MEE 08/01/18	soil	1 Aug 18 17:41
8	9	0801Y009.D	1	800ug/ml MEE 08/01/18	soil	1 Aug 18 18:06
9	10	0801Y010.D	1	1000ug/ml MEE 08/01/18	soil	1 Aug 18 18:31
10	11	0801Y011.D	1	SS ug/ml MEE 08/01/18	soil	1 Aug 18 18:55
11	69	0801Y069.D	1	SV TUNE 03/07/18	soil	31 Oct 18 6:36
12	70	0801Y070.D	1	500ug/ml MEE 08/01/18	soil	31 Oct 18 6:51
13	74	0801Y074.D	1	AZ81584W17 MS-1 2/460	soil	31 Oct 18 8:47
14	75	0801Y075.D	1	AZ81584W14 MSD-1 2/460	soil	31 Oct 18 9:10
15	77	0801Y077.D	1	AZ81585W05 2/500	soil	31 Oct 18 9:57
16	78	0801Y078.D	1	AZ81584W12 2/500	soil	31 Oct 18 10:20
17	79	0801Y079.D	1	181029A Blk 2/500	soil	31 Oct 18 10:43
18	80	0801Y080.D	1	181029A LCS-1 2/500	soil	31 Oct 18 11:07
19	81	0801Y081.D	1	AZ81587W09 2/500	soil	31 Oct 18 11:31
20	97	0801Y097.D	1	181029A LCSD-1 2/500	soil	31 Oct 18 17:49
21	98	0801Y098.D	1	500ug/ml MEE 08/01/18	soil	31 Oct 18 18:12

**ORGANICS**  
**Calibration Data**

**APPL, INC.**

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 6  
Initial Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Initial Cal. Date: 10/23/18

Matrix: \_\_\_\_\_

Instrument: Loki

Initials: \_\_\_\_\_

1023L03.D 1023L04.D 1023L05.D 1023L08.D 1023L07.D 1023L08.D 1023L09.D 1023L10.D

1	2	3	4	5	6	7	8				Avg	%RSD	Type	r <sup>2</sup>	Q	MRF	
1	I	Fluorobenzene (IS)															
2	TM	Dichlorodifluoromethane		0.8734	0.8726	0.6612	0.6857	0.6567			0.75	15	TM				
3	TM	Freon 114		0.5071	0.5887	0.4659	0.4870	0.4718	0.3906	0.4892	0.49	12	TM				
4	TM**L	Chloromethane		0.7767	0.7090	0.6487	0.6098	0.5725	0.4696	0.5461	0.62	17	TM**L	0.994			
5	TM*	Vinyl chloride		0.7519	0.6659	0.6448	0.6224	0.6115	0.4954	0.5871	0.63	12	TM*				
6	TML	Bromomethane		0.6311	0.5959	0.5208	0.4785	0.4394	0.3470	0.4296	0.49	20	TML	0.990			
7	TM	Chloroethane	0.3602	0.3982	0.4251	0.3664	0.3520	0.3229	0.2511	0.3293	0.35	15	TM				
8	TM	Dichlorofluoromethane		1.254	1.158	1.092	1.065	1.043	0.8493	1.043	1.1	12	TM				
9	TM	Trichlorofluoromethane		1.166	1.151	1.135	1.058	1.042	0.8575	1.035	1.1	9.9	TM				
10	TM	Acrolein	0.0431	0.0383	0.0346	0.0345	0.0344	0.0326	0.0334	0.0356	0.04	9.5	TM				
11	TML	Acetone			0.5859	0.2245	0.1647	0.1484	0.1102	0.1227	0.23	80	TML	0.994			
12	TM	Freon-113		0.5888	0.6055	0.5613	0.5433	0.5068	0.4184	0.5180	0.53	12	TM				
13	TM*L	1,1-DCE		0.2820	0.2401	0.2099	0.2025	0.2030	0.1646	0.2049	0.22	17	TM*L	0.990			
14	TM	t-Butanol		0.0439	0.0366	0.0320	0.0374	0.0324	0.0334		0.04	12	TM				
15	TM	Acetonitrile		0.0624	0.0599	0.0544	0.0541	0.0459	0.0447	0.0519	0.05	12	TM				
16	TML	Methyl Acetate		0.3761	0.3591	0.3343	0.3029	0.2573			0.33	14	TML	0.990			
17	TM	Iodomethane		0.2926	0.2545	0.2951	0.3298	0.3629	0.2998		0.31	12	TM				
18	TM	Acrylonitrile		0.0995	0.1159	0.1125	0.1046	0.1120	0.0874	0.1029	0.10	9.3	TM				
19	TM	Methylene chloride		0.6468	0.6827	0.6649	0.6391	0.5615	0.4434	0.5513	0.60	14	TM				
20	TM	Carbon disulfide	1.888	1.852	1.796	1.580	1.529	1.502	1.212	1.508	1.6	14	TM				
21	TM	Methyl t-butyl ether (MtBE)	1.380	1.358	1.271	1.310	1.259	1.272	1.038	1.312	1.3	8.2	TM				
22	TM	Trans-1,2-DCE	0.6099	0.6179	0.5658	0.5915	0.5410	0.5199	0.4279	0.5240	0.55	11	TM				
23	TM	Diisopropyl Ether	1.392	1.326	1.234	1.340	1.334	1.347	1.112	1.389	1.3	7.1	TM				
24	TM**	1,1-DCA	1.185	1.042	1.028	1.050	0.9927	0.9388	0.7640	0.9393	0.99	12	TM**				
25	TM	Vinyl Acetate	0.3697	0.4002	0.3401	0.3784	0.3330	0.3321	0.2747	0.3290	0.34	11	TM				
26	TM	Ethyl tert Butyl Ether	1.259	1.217	1.205	1.323	1.327	1.327	1.116	1.453	1.3	8.0	TM				
27	TM	MEK (2-Butanone)			0.1757	0.1712	0.1601	0.1556	0.1210	0.1498	0.16	13	TM				
28	TM	Cis-1,2-DCE	0.6944	0.7078	0.6360	0.6725	0.6456	0.6382	0.5071	0.6173	0.64	9.7	TM				
29	TM	2,2-Dichloropropane		1.066	0.9605	0.9747	0.9195	0.8968	0.7134	0.8769	0.92	12	TM				
30	TM*	Chloroform	1.248	1.163	1.207	1.212	1.173	1.101	0.8658	1.076	1.1	10	TM*				
31	TM	Bromochloromethane	0.3678	0.4234	0.3387	0.3499	0.3436	0.3328	0.2572	0.3063	0.34	14	TM				
32	SL	Dibromofluoromethane(S)	1.047	0.9749	0.7727	0.7744	0.8480	0.8872	0.6664	0.6255	0.82	18	SL	0.994			
33	TM	1,1,1-TCA	1.132	1.141	1.144	1.118	1.045	1.005	0.8142	0.9999	1.0	11	TM				
34	TM	Cyclohexane	0.3956	0.4219	0.3422	0.3661	0.3414	0.3555	0.2954	0.3784	0.36	11	TM				
35	TM	1,1-Dichloropropene	0.6966	0.7083	0.6851	0.6948	0.6606	0.6806	0.5666	0.7195	0.68	7.1	TM				

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/23/18 \_\_\_\_\_  
Instrument: Loki \_\_\_\_\_

Initials: \_\_\_\_\_

	Compound	1	2	3	4	5	6	7	8			Avg	%RSD	Type	Q	MRF
36	TM 2,2,4-Trimethylpentane	1.163	1.302	1.174	1.216	1.256	1.291	1.087	1.361			1.2	7.2	TM		
37	SL 1,2-DCA-D4(S)	1.115	1.042	0.7869	0.8259	0.9321	0.9642	0.7437	0.6948			0.89	17	SL	0.994	
38	TM Carbon Tetrachloride	0.9854	0.9820	0.9172	0.9924	0.9431	0.9409	0.7768	0.9556			0.94	7.4	TM		
39	TM Tert Amyl Methyl Ether	1.310	1.188	1.194	1.260	1.288	1.306	1.101	1.369			1.3	6.9	TM		
40	TM 1,2-DCA	0.7829	0.7793	0.8483	0.8282	0.8460	0.8076	0.6401	0.7818			0.79	8.4	TM		
41	TM Benzene	2.220	2.324	2.077	2.172	2.151	2.082	1.675	2.043			2.1	9.1	TM		
42	TM TCE		0.3022	0.3080	0.3065	0.2939	0.2982	0.2357	0.2907			0.29	8.6	TM		
43	TM 2-Pentanone	0.2637	0.2465	0.2409	0.2507	0.2566	0.2631	0.2671	0.2684			0.26	4.0	TM		
44	TM* 1,2-Dichloropropane	0.6611	0.5631	0.6040	0.5991	0.5564	0.5620	0.4407	0.5379			0.57	11	TM*		
45	TM Bromodichloromethane	1.057	1.002	0.9188	0.9987	0.9491	0.9075	0.7272	0.8842			0.93	11	TM		
46	TM Methyl Cyclohexane	0.6165	0.7004	0.6714	0.6681	0.6933	0.6917	0.6085	0.7805			0.68	7.9	TM		
47	TM Dibromomethane	0.3854	0.4578	0.4629	0.4410	0.3861	0.3758	0.3036	0.3673			0.40	14	TM		
48	TM 2-Chloroethyl vinyl ether													TM		
49	TML MIBK (methyl isobutyl ketone)		0.5268	0.4655	0.3418	0.3694	0.3537					0.41	20	TML	0.999	
50	TM 1-Bromo-2-chloroethane	0.4000	0.3513	0.3478	0.3717	0.3670	0.3465	0.2877	0.3498			0.35	9.0	TM		
51	TM Cis-1,3-Dichloropropene	1.030	0.8499	0.9099	0.9698	0.9447	0.9399	0.7858	0.9872			0.93	8.4	TM		
52	TM* Toluene	2.617	2.540	2.410	2.669	2.603	2.551	2.087	2.538			2.5	7.4	TM*		
53	TM Trans-1,3-Dichloropropene	0.8798	0.8158	0.8013	0.9332	0.8601	0.8634	0.7225	0.8942			0.85	7.7	TM		
54	TM 1,1,2-TCA	0.4944	0.4163	0.4250	0.4686	0.4243	0.4288	0.3455	0.4130			0.43	10	TM		
55	TM 2-Hexanone	0.2304	0.2372	0.2357	0.2149	0.2153	0.2291	0.1927	0.2581			0.23	8.5	TM		
56	I Chlorobenzene-D5 (IS)															
57	SL Toluene-D8(S)	3.014	2.812	2.271	2.412	2.795	2.955	2.192	2.082			2.6	14	SL	0.992	
58	TM 1,2-EDB	0.5082	0.5114	0.4832	0.5542	0.5196	0.5181	0.3990	0.4886			0.50	9.1	TM		
59	TM Tetrachloroethene	0.7929	0.8044	0.9102	0.9263	0.8625	0.8287	0.6477	0.7810			0.82	11	TM		
60	TM 1-Chlorohexane	0.6237	0.5852	0.5048	0.5952	0.5998	0.6530	0.5290	0.6808			0.60	9.8	TM		
61	TM 1,1,1,2-Tetrachloroethane	0.8986	0.7986	0.7536	0.8112	0.7576	0.7461	0.5752	0.6908			0.75	13	TM		
62	TM m&p-Xylene	1.100	1.002	0.9618	1.155	1.252	1.285	1.016	1.257			1.1	11	TM		
63	TM o-Xylene	0.9651	0.8202	0.8636	1.041	1.009	1.036	0.8361	1.050			0.95	10	TM		
64	TM Styrene	0.8932	0.7227	0.8623	1.037	1.058	1.159	0.9044	1.111			0.97	15	TM		
65	SL 4-Bromofluorobenzene(S)	1.092	1.017	0.8018	0.9328	1.076	1.115	0.8434	0.8110			0.96	14	SL	0.993	
66	TM 1,3-Dichloropropane	0.8201	0.8491	0.8352	0.8583	0.8044	0.8094	0.6232	0.7653			0.80	9.5	TM		
67	TM Dibromochloromethane	0.7519	0.7377	0.7115	0.7782	0.7235	0.7298	0.5654	0.6843			0.71	9.1	TM		
68	TM** Chlorobenzene	1.962	1.719	1.809	1.854	1.790	1.755	1.354	1.632			1.7	10	TM**		
69	TM* Ethylbenzene	2.546	2.376	2.426	2.684	2.636	2.805	2.198	2.702			2.5	7.9	TM*		
70	TM** Bromoform	0.5797	0.4756	0.4937	0.5272	0.5129	0.5121	0.3965	0.5018			0.50	10	TM**		

**VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS**

**Form 6  
Initial Calibration**

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/23/18  
Instrument: Loki

Initials: \_\_\_\_\_

	Compound	1	2	3	4	5	6	7	8			Avg	%RSD	Type	Q	MRF
71	I	1,4-Dichlorobenzene-D (IS)														
72	TM	Isopropylbenzene	3.994	4.094	3.710	4.020	4.291	4.176	3.540	4.152		4.0	6.3	TM		
73	TM**	1,1,2,2-Tetrachloroethane	1.130	1.048	1.059	1.082	1.014	0.9181	0.7180	0.8804		0.98	14	TM**		
74	TML	1,2,3-Trichloropropane		0.4177	0.3436	0.3448	0.3465	0.3015	0.2466	0.2950		0.33	16	TML	0.992	
75	TM	t-1,4-Dichloro-2-Butene			0.2245	0.2085	0.2229	0.2098	0.1687	0.2090		0.21	9.7	TM		
76	TM	Bromobenzene	1.467	1.485	1.487	1.438	1.438	1.302	1.065	1.247		1.4	11	TM		
77	TM	n-Propylbenzene	2.808	2.563	2.757	3.104	3.217	3.070	2.671	3.033		2.9	8.1	TM		
78	TM	4-Ethyltoluene	3.832	3.349	3.575	4.045	4.530	4.207	3.519	4.082		3.9	10	TM		
79	TM	2-Chlorotoluene	3.197	2.906	2.880	3.134	3.274	3.012	2.478	2.838		3.0	8.5	TM		
80	TM	1,3,5-Trimethylbenzene	2.055	1.763	1.941	2.356	2.532	2.365	1.966	2.318		2.2	12	TM		
81	TM	4-Chlorotoluene	3.531	3.417	3.258	3.735	3.966	3.636	2.935	3.418		3.5	9.0	TM		
82	TM	Tert-Butylbenzene	3.011	3.001	2.678	3.222	3.336	3.229	2.748	3.290		3.1	8.1	TM		
83	TM	1,2,4-Trimethylbenzene	2.912	2.965	2.762	3.515	3.980	3.822	3.182	3.799		3.4	14	TM		
84	TM	Sec-Butylbenzene	4.437	4.072	3.819	4.501	4.930	4.636	3.905	4.658		4.4	9.1	TM		
85	TM	p-Isopropyltoluene	4.093	3.886	3.510	4.328	4.491	4.251	3.539	4.307		4.1	9.1	TM		
86	TM	Benzyl Chloride	1.743	1.383	1.434	1.431	1.510	1.405	1.198	1.503		1.5	11	TM		
87	TM	1,3-DCB	2.843	2.685	2.552	2.719	2.776	2.494	2.027	2.439		2.6	10	TM		
88	TM	1,4-DCB	3.020	2.944	2.952	2.802	2.841	2.521	2.009	2.470		2.7	13	TM		
89	TM	n-Butylbenzene	3.017	2.891	2.928	3.229	3.547	3.453	2.871	3.575		3.2	9.5	TM		
90	TM	1,2-DCB	2.738	2.521	2.480	2.488	2.567	2.333	1.925	2.369		2.4	9.8	TM		
91	TM	Hexachloroethane	1.055	1.031	0.9343	0.8929	0.9610	0.8074	0.6562	0.8412		0.90	14	TM		
92	TM	1,2-Dibromo-3-chloropropane			0.1707	0.1833	0.1927	0.1565	0.1464	0.1717		0.17	10.0	TM		
93	TM	1,2,4-Trichlorobenzene	1.668	1.429	1.376	1.568	1.656	1.618	1.444	1.819		1.6	9.5	TM		
94	TM	Hexachlorobutadiene	1.211	1.251	1.114	1.066	1.086	0.9786	0.8317	1.007		1.1	12	TM		
95	TML	Naphthalene		1.822	1.482	1.988	2.225	2.400	2.259			2.0	17	TML	0.999	
96	TM	1,2,3-Trichlorobenzene	0.8055	0.7264	0.6227	0.8464	0.8588	0.8584	0.7525	0.9184		0.80	12	TM		
97																
98																
99																
100																
101																
102																
103																
104																
105																



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181023\1023L03.D  
 Acq On : 23 Oct 18 13:39  
 Sample : 0.3ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 2  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:16:04 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	227904	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	248256	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	139776	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	47710	3.8289	ppb	0.00
Spiked Amount 25.000			Recovery =	15.316%		
37) 1,2-DCA-D4(S)	4.36	65	50837	7.7256	ppb	0.00
Spiked Amount 25.000			Recovery =	30.904%		
57) Toluene-D8(S)	6.91	98	149671	6.9916	ppb	0.00
Spiked Amount 25.000			Recovery =	27.968%		
65) 4-Bromofluorobenzene(S)	9.84	95	54237	6.5375	ppb	0.00
Spiked Amount 25.000			Recovery =	26.152%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	2097	0.3067	ppb	# 79
3) Freon 114	0.79	85	1434	0.3238	ppb	98
4) Chloromethane	0.82	50	2343	0.2297	ppb	# 74
5) Vinyl chloride	0.87	62	2257	0.3958	ppb	94
6) Bromomethane	1.04	94	1767	0.4274	ppb	84
7) Chloroethane	1.10	64	985	0.3081	ppb	# 65
8) Dichlorofluoromethane	1.21	67	3053	0.3124	ppb	95
9) Trichlorofluoromethane	1.24	101	3060	0.3156	ppb	100
10) Acrolein	1.50	56	3933	12.0458	ppb	# 85
11) Acetone	1.60	43	5848	1.7260	ppb	99
12) Freon-113	1.57	101	1465	0.3006	ppb	91
13) 1,1-DCE	1.56	63	678	0.9835	ppb	91
14) t-Butanol	2.05	59	4537	11.9654	ppb	91
15) Acetonitrile	1.79	41	7963	13.7337	ppb	# 86
16) Methyl Acetate	1.85	43	1486	-0.2239	ppb	94
17) Iodomethane	1.65	142	912	0.3272	ppb	# 67
18) Acrylonitrile	2.12	52	173	0.1808	ppb	# 1
19) Methylene chloride	1.90	84	1752	0.3211	ppb	# 70
20) Carbon disulfide	1.69	76	5163	0.3522	ppb	# 79
21) Methyl t-butyl ether (MtBE)	2.15	73	3774	0.3247	ppb	95
22) Trans-1,2-DCE	2.12	96	1668	0.3328	ppb	85
23) Diisopropyl Ether	2.64	45	3806	0.3189	ppb	92
24) 1,1-DCA	2.51	63	3241	0.3582	ppb	98
25) Vinyl Acetate	2.64	43	1011	0.3218	ppb	# 95
26) Ethyl tert Butyl Ether	3.06	59	3442	0.2954	ppb	89
27) MEK (2-Butanone)	3.26	43	553	0.3899	ppb	# 43
28) Cis-1,2-DCE	3.17	96	1899	0.3256	ppb	83
29) 2,2-Dichloropropane	3.14	77	2666	0.3195	ppb	94
30) Chloroform	3.63	83	3414	0.3305	ppb	81
31) Bromochloromethane	3.48	128	1006	0.3246	ppb	83
33) 1,1,1-TCA	3.84	97	3097	0.3236	ppb	96
34) Cyclohexane	3.92	41	1082	0.3278	ppb	94
35) 1,1-Dichloropropene	4.15	75	1905	0.3089	ppb	# 87
36) 2,2,4-Trimethylpentane	4.63	57	3180	0.2833	ppb	# 77
38) Carbon Tetrachloride	4.10	117	2695	0.3156	ppb	76
39) Tert Amyl Methyl Ether	4.72	73	3584	0.3140	ppb	# 92
40) 1,2-DCA	4.48	62	2141	0.2976	ppb	# 78
41) Benzene	4.43	78	6072	0.3183	ppb	# 86
42) TCE	5.40	95	1151	0.4342	ppb	# 67

(#) = qualifier out of range (m) = manual integration  
 1023L03.D L1023W.M Wed Oct 24 07:46:03 2018

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181023\1023L03.D  
 Acq On : 23 Oct 18 13:39  
 Sample : 0.3ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 2  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:16:04 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.72	43	24038	9.1642	ppb	99
44) 1,2-Dichloropropane	5.67	63	1808	0.3507	ppb #	71
45) Bromodichloromethane	6.06	83	2891	0.3408	ppb #	87
46) Methyl Cyclohexane	5.61	83	1686	0.2725	ppb	77
47) Dibromomethane	5.80	93	1054	0.2909	ppb	78
49) MIBK (methyl isobutyl ket	6.85	43	987	0.0815	ppb #	69
50) 1-Bromo-2-chloroethane	6.39	63	1094	0.3402	ppb	96
51) Cis-1,3-Dichloropropene	6.63	75	2816	0.3332	ppb #	57
52) Toluene	6.99	91	7156	0.3138	ppb	81
53) Trans-1,3-Dichloropropene	7.30	75	2406	0.3119	ppb	92
54) 1,1,2-TCA	7.49	83	1352	0.3473	ppb	96
55) 2-Hexanone	7.84	43	630	0.3049	ppb #	52
58) 1,2-EDB	8.00	107	1514	0.3063	ppb #	76
59) Tetrachloroethene	7.61	166	2362	0.2904	ppb #	83
60) 1-Chlorohexane	8.61	91	1858	0.3137	ppb	93
61) 1,1,1,2-Tetrachloroethane	8.68	131	2677	0.3576	ppb	99
62) m&p-Xylene	8.86	91	6551	0.5845	ppb	87
63) o-Xylene	9.28	106	2875	0.3039	ppb	94
64) Styrene	9.31	104	2661	0.2767	ppb	93
66) 1,3-Dichloropropane	7.67	76	2443	0.3092	ppb	99
67) Dibromochloromethane	7.90	129	2240	0.3176	ppb	88
68) Chlorobenzene	8.57	112	5844	0.3393	ppb	92
69) Ethylbenzene	8.72	91	7585	0.2999	ppb	87
70) Bromoform	9.46	173	1727	0.3479	ppb	88
72) Isopropylbenzene	9.70	105	6700	0.2998	ppb #	86
73) 1,1,2,2-Tetrachloroethane	10.05	83	1896	0.3456	ppb	97
74) 1,2,3-Trichloropropane	10.05	110	688	0.2812	ppb	88
75) t-1,4-Dichloro-2-Butene	10.11	53	87	0.0751	ppb	99
76) Bromobenzene	9.98	156	2460	0.3221	ppb	87
77) n-Propylbenzene	10.15	91	4710	0.2902	ppb #	82
78) 4-Ethyltoluene	10.28	105	6428	0.2954	ppb	98
79) 2-Chlorotoluene	10.21	91	5363	0.3235	ppb	99
80) 1,3,5-Trimethylbenzene	10.35	105	3447	0.2852	ppb	84
81) 4-Chlorotoluene	10.33	91	5922	0.3038	ppb	97
82) Tert-Butylbenzene	10.69	119	5051	0.2948	ppb	99
83) 1,2,4-Trimethylbenzene	10.74	105	4884	0.2594	ppb	95
84) Sec-Butylbenzene	10.93	105	7443	0.3046	ppb	96
85) p-Isopropyltoluene	11.09	119	6865	0.3031	ppb	97
86) Benzyl Chloride	11.26	91	2923	0.3603	ppb	95
87) 1,3-DCB	11.00	146	4769	0.3323	ppb #	88
88) 1,4-DCB	11.10	146	5066	0.3362	ppb	98
89) n-Butylbenzene	11.53	91	5060	0.2838	ppb	94
90) 1,2-DCB	11.50	146	4593	0.3384	ppb	96
91) Hexachloroethane	11.77	117	1769	0.3526	ppb	96
92) 1,2-Dibromo-3-chloropropan	12.32	75	406	0.4266	ppb #	33
93) 1,2,4-Trichlorobenzene	13.22	180	2797	0.3182	ppb	96
94) Hexachlorobutadiene	13.43	225	2032	0.3402	ppb	94
95) Naphthalene	13.47	128	2997	0.3804	ppb #	86
96) 1,2,3-Trichlorobenzene	13.72	180	1351	0.3026	ppb #	66

(#) = qualifier out of range (m) = manual integration  
 1023L03.D L1023W.M Wed Oct 24 07:46:04 2018

Quantitation Report

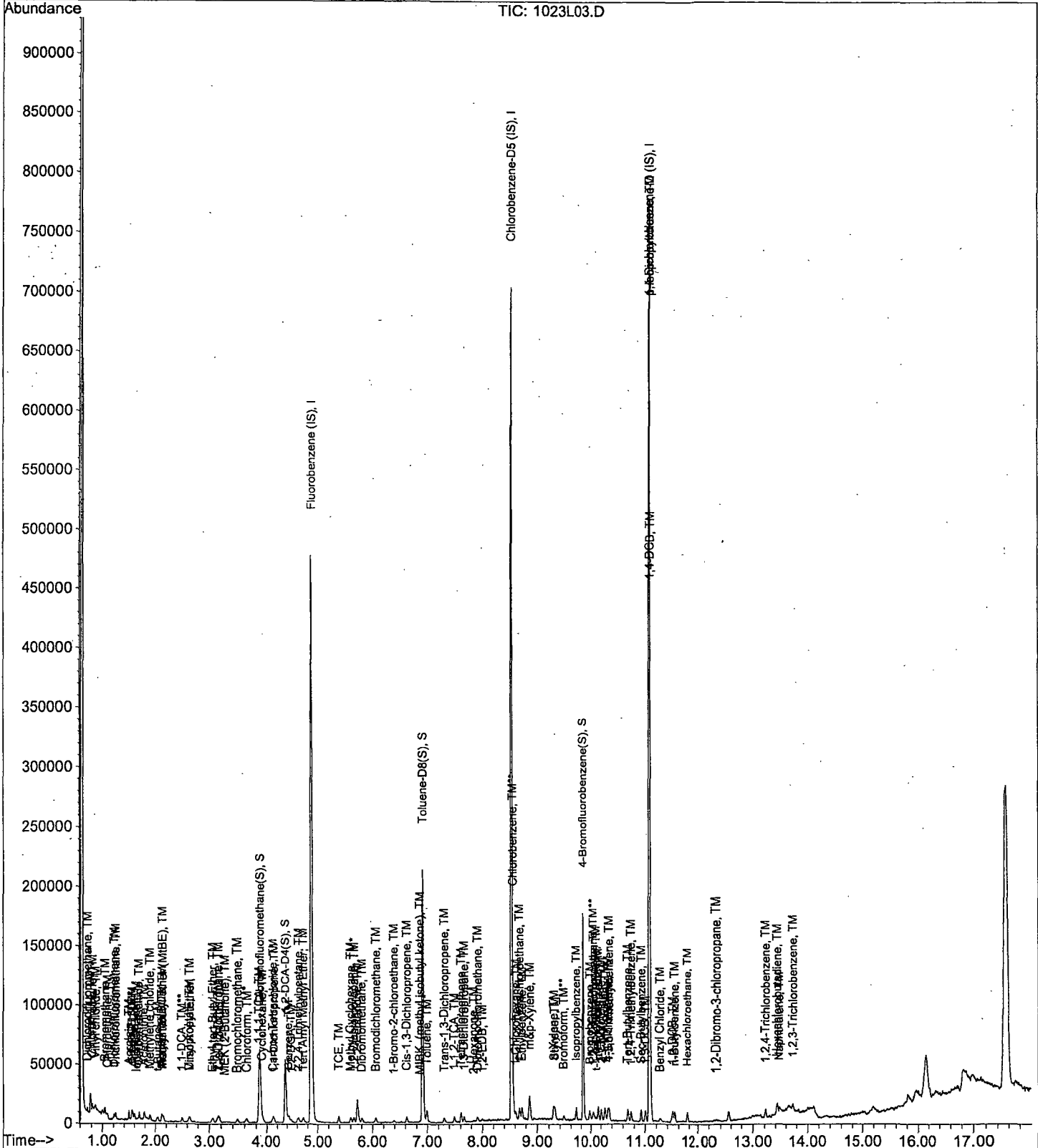
Data File : M:\LOKI\DATA\181023\1023L03.D  
Acq On : 23 Oct 18 13:39  
Sample : 0.3ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 2  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 07:41:53 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181023\1023L04.D  
 Acq On : 23 Oct 18 14:07  
 Sample : 0.5ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	230144	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	257024	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	140416	25.0000	ppb	0.00

System Monitoring Compounds

32) Dibromofluoromethane(S)	3.87	111	44873	3.2339	ppb	0.00
Spiked Amount 25.000			Recovery	=	12.936%	
37) 1,2-DCA-D4(S)	4.36	65	47959	7.2173	ppb	0.00
Spiked Amount 25.000			Recovery	=	28.868%	
57) Toluene-D8(S)	6.91	98	144541	6.5216	ppb	0.00
Spiked Amount 25.000			Recovery	=	26.088%	
65) 4-Bromofluorobenzene(S)	9.84	95	52263	6.0847	ppb	0.00
Spiked Amount 25.000			Recovery	=	24.340%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	4020	0.5823	ppb	94
3) Freon 114	0.79	85	2334	0.5220	ppb	100
4) Chloromethane	0.82	50	3575	0.4770	ppb	89
5) Vinyl chloride	0.87	62	3461	0.6010	ppb	93
6) Bromomethane	1.04	94	2905	0.7211	ppb	89
7) Chloroethane	1.10	64	1833	0.5678	ppb	85
8) Dichlorofluoromethane	1.21	67	5774	0.5850	ppb	89
9) Trichlorofluoromethane	1.24	101	5368	0.5482	ppb	97
10) Acrolein	1.50	56	8804	26.7021	ppb	# 99
11) Acetone	1.61	43	4519	0.4200	ppb	91
12) Freon-113	1.57	101	2710	0.5507	ppb	94
13) 1,1-DCE	1.56	63	1298	1.3186	ppb	# 64
14) t-Butanol	2.05	59	10108	26.3984	ppb	96
15) Acetonitrile	1.79	41	14356	24.5187	ppb	# 82
16) Methyl Acetate	1.84	43	1731	-0.1256	ppb	91
17) Iodomethane	1.65	142	1347	0.4785	ppb	# 91
18) Acrylonitrile	2.11	52	458	0.4740	ppb	# 25
19) Methylene chloride	1.91	84	2977	0.5403	ppb	89
20) Carbon disulfide	1.69	76	8523	0.5757	ppb	94
21) Methyl t-butyl ether (MtBE)	2.15	73	6250	0.5325	ppb	95
22) Trans-1,2-DCE	2.13	96	2844	0.5620	ppb	85
23) Diisopropyl Ether	2.65	45	6105	0.5065	ppb	98
24) 1,1-DCA	2.51	63	4794	0.5247	ppb	95
25) Vinyl Acetate	2.64	43	1842	0.5806	ppb	# 95
26) Ethyl tert Butyl Ether	3.06	59	5603	0.4762	ppb	# 83
27) MEK (2-Butanone)	3.25	43	1027	0.7170	ppb	92
28) Cis-1,2-DCE	3.16	96	3258	0.5531	ppb	82
29) 2,2-Dichloropropane	3.14	77	4906	0.5822	ppb	97
30) Chloroform	3.64	83	5352	0.5130	ppb	80
31) Bromochloromethane	3.47	128	1949	0.6227	ppb	94
33) 1,1,1-TCA	3.85	97	5252	0.5434	ppb	95
34) Cyclohexane	3.91	41	1942	0.5827	ppb	82
35) 1,1-Dichloropropene	4.14	75	3260	0.5235	ppb	95
36) 2,2,4-Trimethylpentane	4.63	57	5994	0.5288	ppb	# 79
38) Carbon Tetrachloride	4.12	117	4520	0.5242	ppb	92
39) Tert Amyl Methyl Ether	4.71	73	5466	0.4743	ppb	# 86
40) 1,2-DCA	4.48	62	3587	0.4937	ppb	99
41) Benzene	4.43	78	10696	0.5552	ppb	94
42) TCE	5.38	95	1391	0.5197	ppb	# 85

(#) = qualifier out of range (m) = manual integration  
 1023L04.D L1023W.M Wed Oct 24 07:46:07 2018

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181023\1023L04.D  
 Acq On : 23 Oct 18 14:07  
 Sample : 0.5ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.72	43	56561	21.3534	ppb	99
44) 1,2-Dichloropropane	5.65	63	2592	0.4979	ppb #	88
45) Bromodichloromethane	6.06	83	4613	0.5385	ppb	90
46) Methyl Cyclohexane	5.60	83	3224	0.5159	ppb	87
47) Dibromomethane	5.81	93	2107	0.5758	ppb	86
49) MIBK (methyl isobutyl ket	6.86	43	2425	0.5237	ppb	96
50) 1-Bromo-2-chloroethane	6.39	63	1617	0.4980	ppb	99
51) Cis-1,3-Dichloropropene	6.63	75	3912	0.4584	ppb #	82
52) Toluene	6.99	91	11693	0.5077	ppb	81
53) Trans-1,3-Dichloropropene	7.30	75	3755	0.4820	ppb	92
54) 1,1,2-TCA	7.48	83	1916	0.4874	ppb	93
55) 2-Hexanone	7.84	43	1092	0.5233	ppb #	63
58) 1,2-EDB	7.99	107	2629	0.5137	ppb	96
59) Tetrachloroethene	7.61	166	4135	0.4910	ppb	86
60) 1-Chlorohexane	8.62	91	3008	0.4906	ppb	89
61) 1,1,1,2-Tetrachloroethane	8.68	131	4105	0.5296	ppb	87
62) m&p-Xylene	8.86	91	10306	0.8882	ppb	95
63) o-Xylene	9.28	106	4216	0.4305	ppb	97
64) Styrene	9.30	104	3715	0.3731	ppb	99
66) 1,3-Dichloropropane	7.66	76	4365	0.5336	ppb	83
67) Dibromochloromethane	7.91	129	3792	0.5193	ppb	97
68) Chlorobenzene	8.56	112	8838	0.4957	ppb	89
69) Ethylbenzene	8.72	91	12215	0.4665	ppb	91
70) Bromoform	9.46	173	2445	0.4757	ppb	93
72) Isopropylbenzene	9.70	105	11498	0.5121	ppb	93
73) 1,1,2,2-Tetrachloroethane	10.04	83	2943	0.5340	ppb	84
74) 1,2,3-Trichloropropane	10.07	110	1173	0.5813	ppb	79
75) t-1,4-Dichloro-2-Butene	10.11	53	462	0.3969	ppb	98
76) Bromobenzene	9.98	156	4170	0.5436	ppb	78
77) n-Propylbenzene	10.15	91	7198	0.4415	ppb	98
78) 4-Ethyltoluene	10.28	105	9405	0.4302	ppb	88
79) 2-Chlorotoluene	10.21	91	8161	0.4901	ppb	90
80) 1,3,5-Trimethylbenzene	10.35	105	4950	0.4077	ppb	95
81) 4-Chlorotoluene	10.33	91	9595	0.4899	ppb	100
82) Tert-Butylbenzene	10.69	119	8429	0.4897	ppb	97
83) 1,2,4-Trimethylbenzene	10.74	105	8328	0.4404	ppb	94
84) Sec-Butylbenzene	10.92	105	11435	0.4659	ppb	100
85) p-Isopropyltoluene	11.09	119	10913	0.4797	ppb	98
86) Benzyl Chloride	11.26	91	3884	0.4766	ppb #	87
87) 1,3-DCB	11.00	146	7541	0.5230	ppb	88
88) 1,4-DCB	11.10	146	8268	0.5462	ppb	96
89) n-Butylbenzene	11.53	91	8120	0.4534	ppb	91
90) 1,2-DCB	11.49	146	7080	0.5192	ppb	90
91) Hexachloroethane	11.77	117	2895	0.5744	ppb	88
92) 1,2-Dibromo-3-chloropropan	12.32	75	563	0.5889	ppb #	79
93) 1,2,4-Trichlorobenzene	13.22	180	4013	0.4545	ppb	90
94) Hexachlorobutadiene	13.43	225	3512	0.5854	ppb	84
95) Naphthalene	13.47	128	5116	0.5445	ppb	94
96) 1,2,3-Trichlorobenzene	13.73	180	2040	0.4548	ppb	90

Quantitation Report

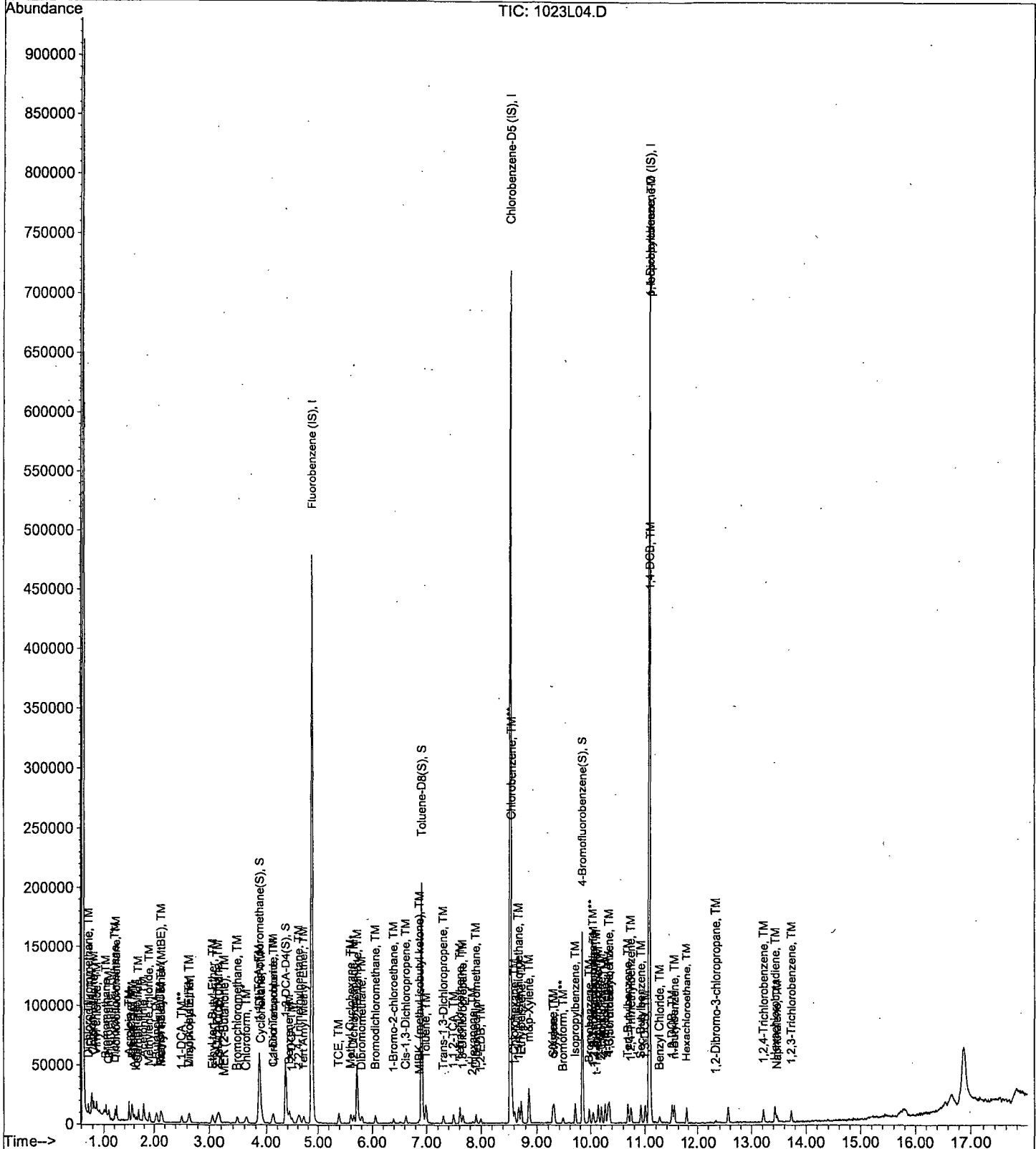
Data File : M:\LOKI\DATA\181023\1023L04.D  
Acq On : 23 Oct 18 14:07  
Sample : 0.5ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 3  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 07:41:53 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181023\1023L05.D  
 Acq On : 23 Oct 18 14:35  
 Sample : 1.0ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.88	96	226944	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	244864	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	139840	25.0000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	3.88	111	70141	7.9599	ppb	0.00
Spiked Amount 25.000			Recovery =	31.840%		
37) 1,2-DCA-D4(S)	4.37	65	71429	10.9008	ppb	0.00
Spiked Amount 25.000			Recovery =	43.604%		
57) Toluene-D8(S)	6.91	98	222436	10.5346	ppb	0.00
Spiked Amount 25.000			Recovery =	42.140%		
65) 4-Bromofluorobenzene(S)	9.84	95	78536	9.5976	ppb	0.00
Spiked Amount 25.000			Recovery =	38.392%		
Target Compounds						
2) Dichlorodifluoromethane	0.73	85	7921	1.1636	ppb	Qvalue 100
3) Freon 114	0.79	85	5344	1.2119	ppb	99
4) Chloromethane	0.82	50	6436	1.0808	ppb	100
5) Vinyl chloride	0.87	62	6045	1.0645	ppb	87
6) Bromomethane	1.04	94	5409	1.3975	ppb	92
7) Chloroethane	1.10	64	3859	1.2123	ppb	# 83
8) Dichlorofluoromethane	1.21	67	10516	1.0804	ppb	99
9) Trichlorofluoromethane	1.24	101	10452	1.0825	ppb	95
10) Acrolein	1.49	56	15684	48.2395	ppb	# 97
11) Acetone	1.60	43	5319	1.2442	ppb	100
12) Freon-113	1.57	101	5497	1.1327	ppb	94
13) 1,1-DCE	1.55	63	2180	1.8172	ppb	87
14) t-Butanol	2.05	59	16400	43.4347	ppb	93
15) Acetonitrile	1.79	41	27192	47.0963	ppb	99
16) Methyl Acetate	1.85	43	3260	0.5463	ppb	94
17) Iodomethane	1.64	142	2310	0.8322	ppb	96
18) Acrylonitrile	2.11	52	1052	1.1040	ppb	# 38
19) Methylene chloride	1.90	84	6197	1.1406	ppb	87
20) Carbon disulfide	1.69	76	16300	1.1166	ppb	93
21) Methyl t-butyl ether (MtBE)	2.15	73	11539	0.9970	ppb	97
22) Trans-1,2-DCE	2.12	96	5136	1.0292	ppb	93
23) Diisopropyl Ether	2.64	45	11203	0.9427	ppb	92
24) 1,1-DCA	2.51	63	9328	1.0354	ppb	96
25) Vinyl Acetate	2.64	43	3087	0.9867	ppb	# 95
26) Ethyl tert Butyl Ether	3.07	59	10936	0.9425	ppb	# 88
27) MEK (2-Butanone)	3.25	43	1595	1.1293	ppb	90
28) Cis-1,2-DCE	3.18	96	5773	0.9939	ppb	97
29) 2,2-Dichloropropane	3.15	77	8719	1.0493	ppb	# 89
30) Chloroform	3.64	83	10955	1.0649	ppb	87
31) Bromochloromethane	3.47	128	3075	0.9963	ppb	91
33) 1,1,1-TCA	3.85	97	10389	1.0900	ppb	81
34) Cyclohexane	3.91	41	3106	0.9450	ppb	92
35) 1,1-Dichloropropene	4.14	75	6219	1.0127	ppb	95
36) 2,2,4-Trimethylpentane	4.62	57	10660	0.9537	ppb	# 68
38) Carbon Tetrachloride	4.12	117	8326	0.9792	ppb	90
39) Tert Amyl Methyl Ether	4.71	73	10835	0.9534	ppb	# 96
40) 1,2-DCA	4.49	62	7701	1.0748	ppb	100
41) Benzene	4.43	78	18851	0.9922	ppb	93
42) TCE	5.39	95	2796	1.0593	ppb	94

(#) = qualifier out of range (m) = manual integration  
 1023L05.D L1023W.M Wed Oct 24 07:46:11 2018

## Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181023\1023L05.D  
 Acq On : 23 Oct 18 14:35  
 Sample : 1.0ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.72	43	109171	41.7963	ppb	95
44) 1,2-Dichloropropane	5.66	63	5483	1.0680	ppb #	88
45) Bromodichloromethane	6.05	83	8341	0.9874	ppb	86
46) Methyl Cyclohexane	5.60	83	6095	0.9891	ppb	100
47) Dibromomethane	5.80	93	4202	1.1645	ppb	78
49) MIBK (methyl isobutyl ket	6.87	43	4226	1.0997	ppb #	91
50) 1-Bromo-2-chloroethane	6.39	63	3157	0.9860	ppb	94
51) Cis-1,3-Dichloropropene	6.62	75	8260	0.9815	ppb #	83
52) Toluene	6.99	91	21875	0.9632	ppb	98
53) Trans-1,3-Dichloropropene	7.30	75	7274	0.9468	ppb	96
54) 1,1,2-TCA	7.48	83	3858	0.9953	ppb	95
55) 2-Hexanone	7.85	43	2140	1.0400	ppb #	71
58) 1,2-EDB	7.99	107	4733	0.9707	ppb	85
59) Tetrachloroethene	7.61	166	8915	1.1111	ppb	91
60) 1-Chlorohexane	8.61	91	4944	0.8463	ppb	97
61) 1,1,1,2-Tetrachloroethane	8.68	131	7381	0.9995	ppb	88
62) m&p-Xylene	8.86	91	18840	1.7044	ppb	95
63) o-Xylene	9.28	106	8459	0.9066	ppb	86
64) Styrene	9.30	104	8446	0.8903	ppb	92
66) 1,3-Dichloropropane	7.66	76	8180	1.0497	ppb	88
67) Dibromochloromethane	7.90	129	6969	1.0017	ppb	90
68) Chlorobenzene	8.57	112	17719	1.0431	ppb	86
69) Ethylbenzene	8.72	91	23764	0.9527	ppb	94
70) Bromoform	9.47	173	4836	0.9876	ppb	90
72) Isopropylbenzene	9.70	105	20751	0.9281	ppb	94
73) 1,1,2,2-Tetrachloroethane	10.04	83	5923	1.0792	ppb	94
74) 1,2,3-Trichloropropane	10.06	110	1922	1.0528	ppb	84
75) t-1,4-Dichloro-2-Butene	10.10	53	1256	1.0835	ppb	94
76) Bromobenzene	9.97	156	8315	1.0883	ppb	96
77) n-Propylbenzene	10.15	91	15422	0.9498	ppb	95
78) 4-Ethyltoluene	10.27	105	19995	0.9184	ppb	97
79) 2-Chlorotoluene	10.20	91	16109	0.9713	ppb	96
80) 1,3,5-Trimethylbenzene	10.35	105	10857	0.8978	ppb	88
81) 4-Chlorotoluene	10.33	91	18223	0.9343	ppb	97
82) Tert-Butylbenzene	10.69	119	14980	0.8739	ppb	97
83) 1,2,4-Trimethylbenzene	10.74	105	15448	0.8202	ppb	97
84) Sec-Butylbenzene	10.92	105	21364	0.8740	ppb	95
85) p-Isopropyltoluene	11.09	119	19631	0.8664	ppb	97
86) Benzyl Chloride	11.26	91	8020	0.9882	ppb	95
87) 1,3-DCB	11.00	146	14275	0.9942	ppb	98
88) 1,4-DCB	11.10	146	16515	1.0956	ppb	99
89) n-Butylbenzene	11.53	91	16379	0.9183	ppb	92
90) 1,2-DCB	11.49	146	13871	1.0215	ppb	97
91) Hexachloroethane	11.76	117	5226	1.0412	ppb	78
92) 1,2-Dibromo-3-chloropropan	12.33	75	955	1.0031	ppb #	83
93) 1,2,4-Trichlorobenzene	13.22	180	7696	0.8751	ppb	81
94) Hexachlorobutadiene	13.43	225	6234	1.0433	ppb	95
95) Naphthalene	13.46	128	8292	0.7948	ppb	97
96) 1,2,3-Trichlorobenzene	13.73	180	3483	0.7797	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1023L05.D L1023W.M Wed Oct 24 07:46:12 2018



Quantitation Report

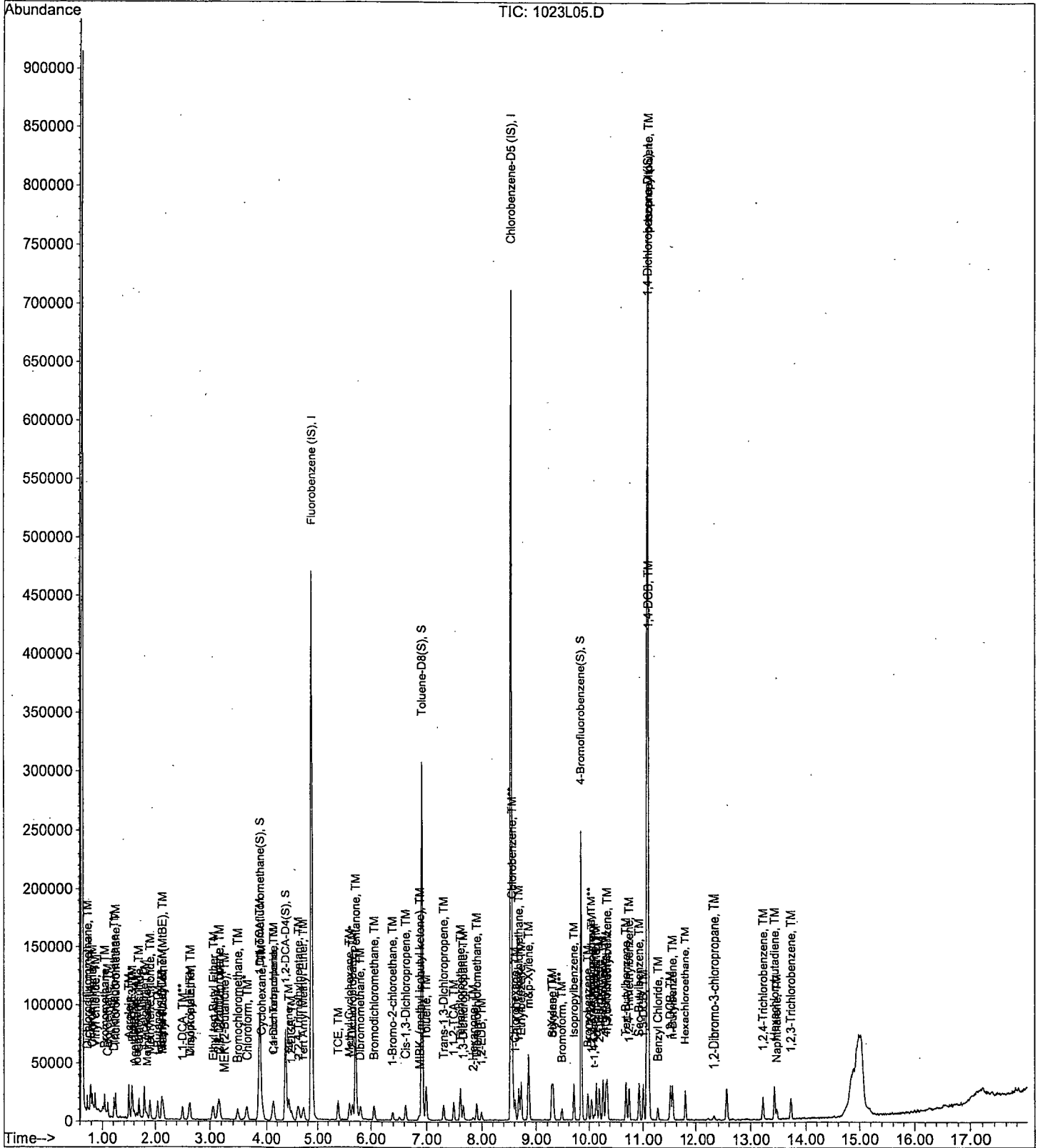
Data File : M:\LOKI\DATA\181023\1023L05.D  
Acq On : 23 Oct 18 14:35  
Sample : 1.0ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 4  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 07:41:53 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181023\1023L06.D  
 Acq On : 23 Oct 18 15:03  
 Sample : 5.0ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 5  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	236672	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	255872	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	162048	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.88	111	73308	7.9880	ppb	0.00
Spiked Amount 25.000			Recovery =	31.952%		
37) 1,2-DCA-D4(S)	4.37	65	78190	11.4421	ppb	0.00
Spiked Amount 25.000			Recovery =	45.768%		
57) Toluene-D8(S)	6.91	98	246891	11.1898	ppb	0.00
Spiked Amount 25.000			Recovery =	44.760%		
65) 4-Bromofluorobenzene(S)	9.84	95	95468	11.1648	ppb	0.00
Spiked Amount 25.000			Recovery =	44.660%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	31296	4.4083	ppb	95
3) Freon 114	0.79	85	22053	4.7957	ppb	100
4) Chloromethane	0.82	50	30705	5.8534	ppb	97
5) Vinyl chloride	0.87	62	30523	5.1539	ppb	97
6) Bromomethane	1.04	94	24566	6.2215	ppb	100
7) Chloroethane	1.10	64	17344	5.2248	ppb	98
8) Dichlorofluoromethane	1.21	67	51693	5.0928	ppb	97
9) Trichlorofluoromethane	1.24	101	53730	5.3360	ppb	95
10) Acrolein	1.49	56	32672	96.3592	ppb	97
11) Acetone	1.60	43	10628	5.8984	ppb	96
12) Freon-113	1.57	101	26568	5.2498	ppb	95
13) 1,1-DCE	1.55	63	9935	5.8877	ppb	91
14) t-Butanol	2.05	59	30322	77.0057	ppb	99
15) Acetonitrile	1.79	41	51515	85.5561	ppb	97
16) Methyl Acetate	1.84	43	15824	5.7007	ppb	94
17) Iodomethane	1.65	142	13968	4.8251	ppb	98
18) Acrylonitrile	2.11	52	5324	5.3576	ppb	73
19) Methylene chloride	1.90	84	31472	5.5545	ppb	91
20) Carbon disulfide	1.69	76	74765	4.9109	ppb	99
21) Methyl t-butyl ether (MtBE)	2.15	73	61985	5.1356	ppb	97
22) Trans-1,2-DCE	2.13	96	27997	5.3797	ppb	94
23) Diisopropyl Ether	2.64	45	63406	5.1159	ppb	94
24) 1,1-DCA	2.51	63	49724	5.2925	ppb	99
25) Vinyl Acetate	2.64	43	17912	5.4900	ppb	99
26) Ethyl tert Butyl Ether	3.06	59	62627	5.1755	ppb	99
27) MEK (2-Butanone)	3.24	43	8105	5.5027	ppb	94
28) Cis-1,2-DCE	3.17	96	31830	5.2548	ppb	96
29) 2,2-Dichloropropane	3.15	77	46139	5.3243	ppb	99
30) Chloroform	3.64	83	57375	5.3480	ppb	96
31) Bromochloromethane	3.48	128	16562	5.1457	ppb	96
33) 1,1,1-TCA	3.85	97	52916	5.3239	ppb	99
34) Cyclohexane	3.91	41	17330	5.0560	ppb	96
35) 1,1-Dichloropropene	4.13	75	32890	5.1356	ppb	98
36) 2,2,4-Trimethylpentane	4.63	57	57576	4.9391	ppb	93
38) Carbon Tetrachloride	4.11	117	46973	5.2973	ppb	90
39) Tert Amyl Methyl Ether	4.71	73	59661	5.0339	ppb	99
40) 1,2-DCA	4.48	62	39204	5.2468	ppb	97
41) Benzene	4.43	78	102788	5.1879	ppb	99
42) TCE	5.38	95	14509	5.2711	ppb	93

(#) = qualifier out of range (m) = manual integration  
 1023L06.D L1023W.M Wed Oct 24 07:46:15 2018

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181023\1023L06.D  
 Acq On : 23 Oct 18 15:03  
 Sample : 5.0ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 5  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	237020	87.0136	ppb	98
44) 1,2-Dichloropropane	5.66	63	28359	5.2969	ppb #	96
45) Bromodichloromethane	6.05	83	47272	5.3658	ppb	96
46) Methyl Cyclohexane	5.60	83	31625	4.9214	ppb	97
47) Dibromomethane	5.80	93	20873	5.5470	ppb	92
49) MIBK (methyl isobutyl ket	6.86	43	16179	4.6434	ppb	96
50) 1-Bromo-2-chloroethane	6.39	63	17592	5.2684	ppb	97
51) Cis-1,3-Dichloropropene	6.62	75	45905	5.2302	ppb	94
52) Toluene	6.99	91	126345	5.3345	ppb	95
53) Trans-1,3-Dichloropropene	7.30	75	44172	5.5135	ppb	100
54) 1,1,2-TCA	7.49	83	22182	5.4875	ppb	95
55) 2-Hexanone	7.84	43	10173	4.7406	ppb #	82
58) 1,2-EDB	7.99	107	28360	5.5662	ppb	99
59) Tetrachloroethene	7.61	166	47401	5.6535	ppb	94
60) 1-Chlorohexane	8.61	91	30460	4.9899	ppb	96
61) 1,1,1,2-Tetrachloroethane	8.68	131	41514	5.3797	ppb	96
62) m&p-Xylene	8.86	91	118232	10.2358	ppb	99
63) o-Xylene	9.28	106	53253	5.4620	ppb	92
64) Styrene	9.30	104	53072	5.3534	ppb	99
66) 1,3-Dichloropropane	7.66	76	43923	5.3938	ppb	93
67) Dibromochloromethane	7.90	129	39825	5.4782	ppb	97
68) Chlorobenzene	8.57	112	94881	5.3451	ppb	98
69) Ethylbenzene	8.72	91	137367	5.2699	ppb	99
70) Bromoform	9.46	173	26979	5.2725	ppb	100
72) Isopropylbenzene	9.70	105	130292	5.0287	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.04	83	35075	5.5150	ppb	95
74) 1,2,3-Trichloropropane	10.06	110	11174	5.8820	ppb	87
75) t-1,4-Dichloro-2-Butene	10.10	53	6758	5.0309	ppb	93
76) Bromobenzene	9.97	156	46604	5.2639	ppb	99
77) n-Propylbenzene	10.15	91	100584	5.3459	ppb	99
78) 4-Ethyltoluene	10.27	105	131092	5.1960	ppb	96
79) 2-Chlorotoluene	10.20	91	101354	5.2738	ppb	98
80) 1,3,5-Trimethylbenzene	10.35	105	76352	5.4487	ppb	99
81) 4-Chlorotoluene	10.33	91	121061	5.3561	ppb	97
82) Tert-Butylbenzene	10.69	119	104408	5.2565	ppb	97
83) 1,2,4-Trimethylbenzene	10.74	105	113915	5.2195	ppb	97
84) Sec-Butylbenzene	10.92	105	145890	5.1506	ppb	99
85) p-Isopropyltoluene	11.09	119	140280	5.3428	ppb	97
86) Benzyl Chloride	11.26	91	46366	4.9299	ppb	97
87) 1,3-DCB	11.00	146	88127	5.2965	ppb	98
88) 1,4-DCB	11.10	146	90818	5.1990	ppb	97
89) n-Butylbenzene	11.53	91	104644	5.0628	ppb	99
90) 1,2-DCB	11.49	146	80650	5.1251	ppb	98
91) Hexachloroethane	11.76	117	28938	4.9754	ppb	99
92) 1,2-Dibromo-3-chloropropan	12.32	75	5940	5.3842	ppb #	87
93) 1,2,4-Trichlorobenzene	13.21	180	50813	4.9863	ppb	94
94) Hexachlorobutadiene	13.43	225	34551	4.9900	ppb	96
95) Naphthalene	13.46	128	64415	4.4977	ppb	99
96) 1,2,3-Trichlorobenzene	13.72	180	27432	5.2992	ppb	94

Quantitation Report

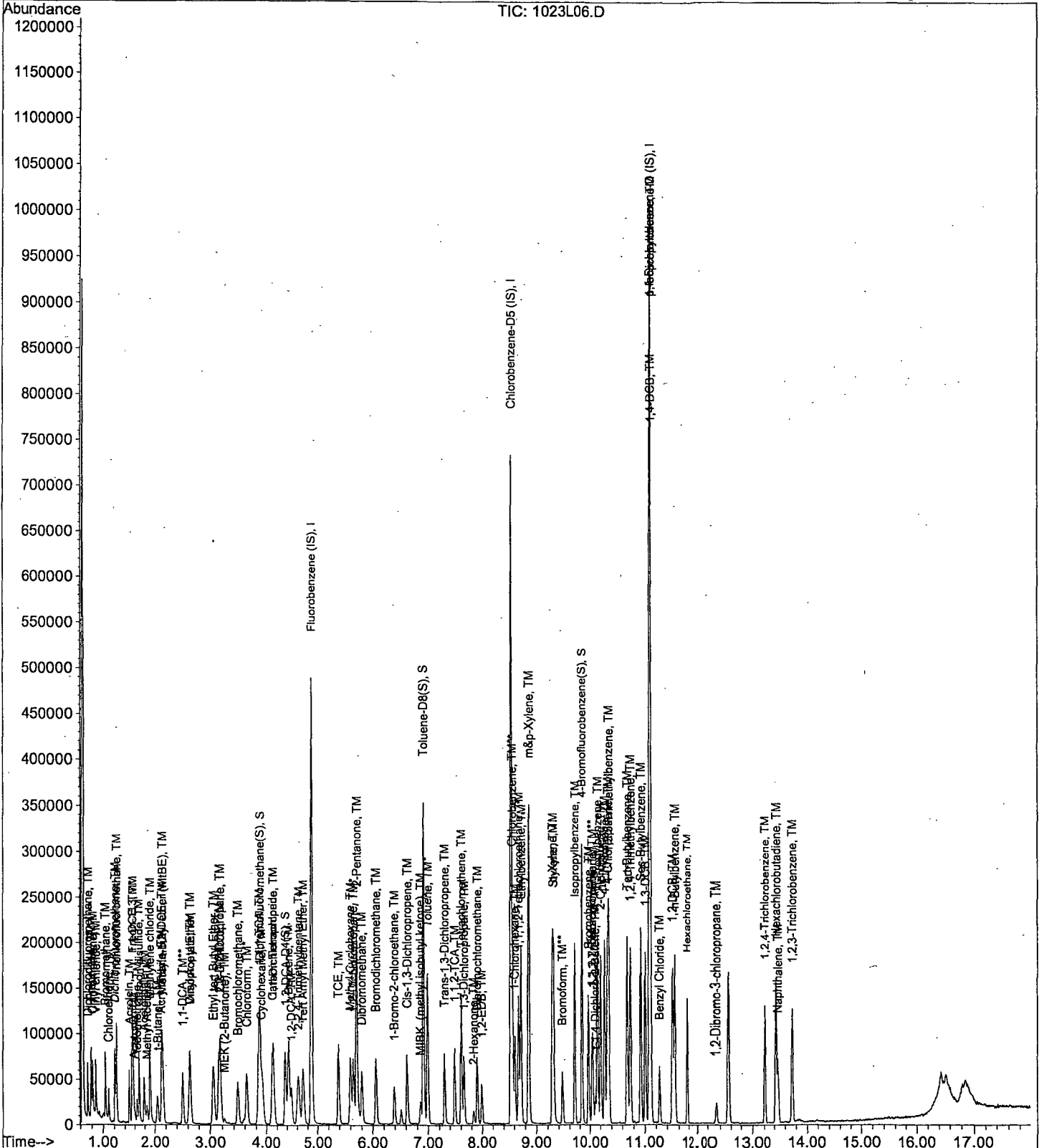
Data File : M:\LOKI\DATA\181023\1023L06.D  
 Acq On : 23 Oct 18 15:03  
 Sample : 5.0ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 5  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:41:53 2018  
 Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181023\1023L07.D  
 Acq On : 23 Oct 18 15:31  
 Sample : 10ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 6  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.88	96	242688	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	261312	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	157376	25.0000	ppb	0.00
<b>System Monitoring Compounds</b>						
32) Dibromofluoromethane(S)	3.87	111	164646	23.2602	ppb	0.00
Spiked Amount	25.000		Recovery	=	93.040%	
37) 1,2-DCA-D4(S)	4.36	65	180960	25.8248	ppb	0.00
Spiked Amount	25.000		Recovery	=	103.300%	
57) Toluene-D8(S)	6.91	98	584334	25.9322	ppb	0.00
Spiked Amount	25.000		Recovery	=	103.728%	
65) 4-Bromofluorobenzene(S)	9.84	95	224926	25.7571	ppb	0.00
Spiked Amount	25.000		Recovery	=	103.028%	
<b>Target Compounds</b>						
2) Dichlorodifluoromethane	0.73	85	66568	9.1442	ppb	100
3) Freon 114	0.79	85	47277	10.0261	ppb	100
4) Chloromethane	0.82	50	59195	11.2287	ppb	100
5) Vinyl chloride	0.87	62	60418	9.9489	ppb	100
6) Bromomethane	1.04	94	46309	11.4712	ppb	100
7) Chloroethane	1.10	64	34171	10.0386	ppb	100
8) Dichlorofluoromethane	1.21	67	103375	9.9320	ppb	100
9) Trichlorofluoromethane	1.24	101	102673	9.9438	ppb	100
10) Acrolein	1.49	56	41796	120.2129	ppb	100
11) Acetone	1.60	43	15991	10.4477	ppb	100
12) Freon-113	1.57	101	52737	10.1623	ppb	100
13) 1,1-DCE	1.55	63	19656	10.7934	ppb	100
14) t-Butanol	2.04	59	45417	112.4818	ppb	100
15) Acetonitrile	1.79	41	65616	106.2737	ppb	100
16) Methyl Acetate	1.85	43	29401	11.0308	ppb	100
17) Iodomethane	1.65	142	32016	10.7855	ppb	100
18) Acrylonitrile	2.11	52	10155	9.9658	ppb	100
19) Methylene chloride	1.90	84	62036	10.6773	ppb	100
20) Carbon disulfide	1.69	76	148390	9.5053	ppb	100
21) Methyl t-butyl ether (MtBE)	2.15	73	122203	9.8739	ppb	100
22) Trans-1,2-DCE	2.12	96	52513	9.8405	ppb	100
23) Diisopropyl Ether	2.64	45	129454	10.1860	ppb	100
24) 1,1-DCA	2.51	63	96371	10.0032	ppb	100
25) Vinyl Acetate	2.64	43	32328	9.6629	ppb	100
26) Ethyl tert Butyl Ether	3.06	59	128837	10.3831	ppb	100
27) MEK (2-Butanone)	3.24	43	15539	10.2884	ppb	100
28) Cis-1,2-DCE	3.17	96	62672	10.0900	ppb	100
29) 2,2-Dichloropropane	3.15	77	89260	10.0451	ppb	100
30) Chloroform	3.63	83	113863	10.3503	ppb	100
31) Bromochloromethane	3.48	128	33359	10.1076	ppb	100
33) 1,1,1-TCA	3.85	97	101402	9.9492	ppb	100
34) Cyclohexane	3.91	41	33137	9.4281	ppb	100
35) 1,1-Dichloropropene	4.13	75	64128	9.7651	ppb	100
36) 2,2,4-Trimethylpentane	4.62	57	121931	10.2005	ppb	100
38) Carbon Tetrachloride	4.11	117	91550	10.0685	ppb	100
39) Tert Amyl Methyl Ether	4.71	73	124998	10.2852	ppb	100
40) 1,2-DCA	4.48	62	82124	10.7184	ppb	100
41) Benzene	4.43	78	208827	10.2786	ppb	100
42) TCE	5.38	95	28528	10.1073	ppb	100

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181023\1023L07.D  
 Acq On : 23 Oct 18 15:31  
 Sample : 10ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 6  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	311019	111.3493	ppb	100
44) 1,2-Dichloropropane	5.65	63	54011	9.8380	ppb	100
45) Bromodichloromethane	6.05	83	92136	10.1990	ppb	100
46) Methyl Cyclohexane	5.60	83	67298	10.2132	ppb	100
47) Dibromomethane	5.80	93	37485	9.7146	ppb	100
49) MIBK (methyl isobutyl ket	6.86	43	35856	10.2992	ppb	100
50) 1-Bromo-2-chloroethane	6.39	63	35624	10.4042	ppb	100
51) Cis-1,3-Dichloropropene	6.62	75	91705	10.1895	ppb	100
52) Toluene	6.99	91	252689	10.4045	ppb	100
53) Trans-1,3-Dichloropropene	7.30	75	83492	10.1630	ppb	100
54) 1,1,2-TCA	7.49	83	41193	9.9379	ppb	100
55) 2-Hexanone	7.84	43	20897	9.4965	ppb	100
58) 1,2-EDB	7.99	107	54315	10.4385	ppb	100
59) Tetrachloroethene	7.61	166	90155	10.5289	ppb	100
60) 1-Chlorohexane	8.61	91	62689	10.0558	ppb	100
61) 1,1,1,2-Tetrachloroethane	8.68	131	79185	10.0478	ppb	100
62) m&p-Xylene	8.86	91	261632	22.1790	ppb	100
63) o-Xylene	9.28	106	105434	10.5889	ppb	100
64) Styrene	9.30	104	110632	10.9272	ppb	100
66) 1,3-Dichloropropane	7.66	76	84082	10.1105	ppb	100
67) Dibromochloromethane	7.90	129	75620	10.1855	ppb	100
68) Chlorobenzene	8.57	112	187103	10.3211	ppb	100
69) Ethylbenzene	8.72	91	275515	10.3497	ppb	100
70) Bromoform	9.46	173	53613	10.2595	ppb	100
72) Isopropylbenzene	9.70	105	270128	10.7352	ppb	100
73) 1,1,2,2-Tetrachloroethane	10.04	83	63805	10.3301	ppb	100
74) 1,2,3-Trichloropropane	10.06	110	21810	11.9724	ppb	100
75) t-1,4-Dichloro-2-Butene	10.10	53	14030	10.7545	ppb	100
76) Bromobenzene	9.97	156	90513	10.5268	ppb	100
77) n-Propylbenzene	10.15	91	202496	11.0819	ppb	100
78) 4-Ethyltoluene	10.27	105	285148	11.6378	ppb	100
79) 2-Chlorotoluene	10.20	91	206074	11.0410	ppb	100
80) 1,3,5-Trimethylbenzene	10.35	105	159360	11.7100	ppb	100
81) 4-Chlorotoluene	10.33	91	249683	11.3746	ppb	100
82) Tert-Butylbenzene	10.69	119	209975	10.8851	ppb	100
83) 1,2,4-Trimethylbenzene	10.74	105	250521	11.8196	ppb	100
84) Sec-Butylbenzene	10.92	105	310314	11.2807	ppb	100
85) p-Isopropyltoluene	11.09	119	282738	11.0883	ppb	100
86) Benzyl Chloride	11.26	91	95079	10.4096	ppb	100
87) 1,3-DCB	11.00	146	174760	10.8149	ppb	100
88) 1,4-DCB	11.10	146	178855	10.5428	ppb	100
89) n-Butylbenzene	11.53	91	223290	11.1237	ppb	100
90) 1,2-DCB	11.49	146	161582	10.5730	ppb	100
91) Hexachloroethane	11.76	117	60494	10.7096	ppb	100
92) 1,2-Dibromo-3-chloropropan	12.32	75	12128	11.3195	ppb	100
93) 1,2,4-Trichlorobenzene	13.21	180	104264	10.5351	ppb	100
94) Hexachlorobutadiene	13.43	225	68370	10.1673	ppb	100
95) Naphthalene	13.46	128	140051	9.8887	ppb	100
96) 1,2,3-Trichlorobenzene	13.72	180	54064	10.7539	ppb	100

Quantitation Report

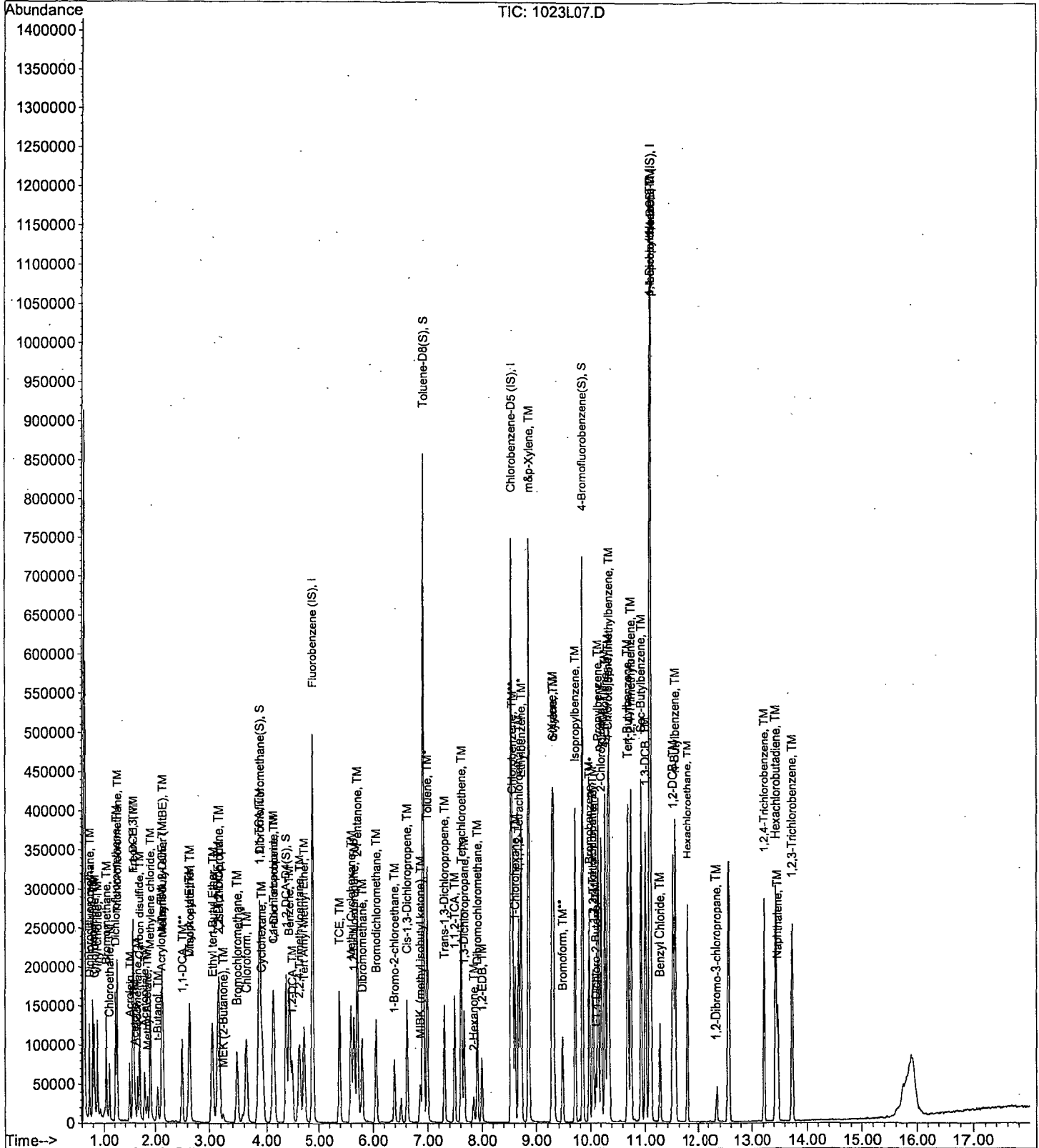
Data File : M:\LOKI\DATA\181023\1023L07.D  
Acq On : 23 Oct 18 15:31  
Sample : 10ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 6  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 07:41:53 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181023\1023L08.D  
 Acq On : 23 Oct 18 15:59  
 Sample : 20ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 7  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.88	96	249600	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	266752	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	177152	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Dibromofluoromethane(S)	3.87	111	177154	24.5578	ppb	0.00
Spiked Amount				25.000		
				Recovery =	98.232%	
37) 1,2-DCA-D4(S)	4.36	65	192539	26.7164	ppb	0.00
Spiked Amount				25.000		
				Recovery =	106.864%	
57) Toluene-D8(S)	6.91	98	630504	27.4106	ppb	0.00
Spiked Amount				25.000		
				Recovery =	109.644%	
65) 4-Bromofluorobenzene(S)	9.84	95	237884	26.6854	ppb	0.00
Spiked Amount				25.000		
				Recovery =	106.740%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	131136	17.5148	ppb	99
3) Freon 114	0.79	85	94203	19.4245	ppb	93
4) Chloromethane	0.82	50	114314	21.3069	ppb	100
5) Vinyl chloride	0.87	62	122107	19.5502	ppb	97
6) Bromomethane	1.03	94	87428	21.0909	ppb	97
7) Chloroethane	1.09	64	64480	18.4182	ppb	97
8) Dichlorofluoromethane	1.21	67	208211	19.4504	ppb	100
9) Trichlorofluoromethane	1.24	101	208161	19.6019	ppb	97
10) Acrolein	1.49	56	48893	136.7309	ppb	# 91
11) Acetone	1.60	43	29638	21.9051	ppb	99
12) Freon-113	1.57	101	101197	18.9605	ppb	94
13) 1,1-DCE	1.55	63	40528	21.0260	ppb	99
14) t-Butanol	2.05	59	48498	116.7862	ppb	97
15) Acetonitrile	1.79	41	68734	108.2409	ppb	96
16) Methyl Acetate	1.85	43	51381	19.3477	ppb	100
17) Iodomethane	1.64	142	72472	23.7382	ppb	99
18) Acrylonitrile	2.11	52	22362	21.3377	ppb	83
19) Methylene chloride	1.90	84	112157	18.7693	ppb	98
20) Carbon disulfide	1.69	76	299869	18.6766	ppb	99
21) Methyl t-butyl ether (MtBE)	2.15	73	254013	19.9556	ppb	99
22) Trans-1,2-DCE	2.12	96	103815	18.9153	ppb	98
23) Diisopropyl Ether	2.64	45	269017	20.5812	ppb	96
24) 1,1-DCA	2.51	63	187453	18.9186	ppb	100
25) Vinyl Acetate	2.64	43	66306	19.2701	ppb	100
26) Ethyl tert Butyl Ether	3.06	59	264881	20.7558	ppb	99
27) MEK (2-Butanone)	3.24	43	31078	20.0070	ppb	95
28) Cis-1,2-DCE	3.17	96	127426	19.9470	ppb	98
29) 2,2-Dichloropropane	3.15	77	179069	19.5939	ppb	99
30) Chloroform	3.63	83	219866	19.4326	ppb	97
31) Bromochloromethane	3.47	128	66461	19.5796	ppb	99
33) 1,1,1-TCA	3.85	97	200634	19.1404	ppb	98
34) Cyclohexane	3.92	41	70991	19.6389	ppb	90
35) 1,1-Dichloropropene	4.13	75	135899	20.1209	ppb	96
36) 2,2,4-Trimethylpentane	4.63	57	257803	20.9700	ppb	94
38) Carbon Tetrachloride	4.11	117	187884	20.0909	ppb	97
39) Tert Amyl Methyl Ether	4.72	73	260840	20.8683	ppb	95
40) 1,2-DCA	4.48	62	161270	20.4653	ppb	94
41) Benzene	4.43	78	415646	19.8918	ppb	99
42) TCE	5.38	95	59552	20.5147	ppb	97

(#) = qualifier out of range (m) = manual integration  
 1023L08.D L1023W.M Wed Oct 24 07:46:23 2018



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181023\1023L08.D  
 Acq On : 23 Oct 18 15:59  
 Sample : 20ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 7  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	393887	137.1121	ppb	100
44) 1,2-Dichloropropane	5.66	63	112222	19.8750	ppb	97
45) Bromodichloromethane	6.05	83	181208	19.5033	ppb	99
46) Methyl Cyclohexane	5.60	83	138112	20.3795	ppb	99
47) Dibromomethane	5.80	93	75048	18.9109	ppb	98
49) MIBK (methyl isobutyl ket	6.86	43	70631	19.9339	ppb	99
50) 1-Bromo-2-chloroethane	6.39	63	69184	19.6460	ppb	97
51) Cis-1,3-Dichloropropene	6.62	75	187676	20.2756	ppb	98
52) Toluene	6.99	91	509445	20.3957	ppb	98
53) Trans-1,3-Dichloropropene	7.30	75	172409	20.4052	ppb	100
54) 1,1,2-TCA	7.49	83	85630	20.0864	ppb	98
55) 2-Hexanone	7.83	43	45740	20.2106	ppb	# 86
58) 1,2-EDB	7.99	107	110564	20.8154	ppb	98
59) Tetrachloroethene	7.61	166	176844	20.2318	ppb	97
60) 1-Chlorohexane	8.61	91	139346	21.8964	ppb	99
61) 1,1,1,2-Tetrachloroethane	8.68	131	159218	19.7913	ppb	95
62) m&p-Xylene	8.86	91	548416	45.5420	ppb	100
63) o-Xylene	9.28	106	221089	21.7515	ppb	98
64) Styrene	9.30	104	247424	23.9399	ppb	99
66) 1,3-Dichloropropane	7.66	76	172729	20.3463	ppb	96
67) Dibromochloromethane	7.90	129	155740	20.5494	ppb	94
68) Chlorobenzene	8.57	112	374474	20.2356	ppb	96
69) Ethylbenzene	8.72	91	598621	22.0285	ppb	97
70) Bromoform	9.46	173	109275	20.4847	ppb	97
72) Isopropylbenzene	9.70	105	591801	20.8934	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.04	83	130113	18.7139	ppb	98
74) 1,2,3-Trichloropropane	10.06	110	42725	20.9458	ppb	94
75) t-1,4-Dichloro-2-Butene	10.10	53	29732	20.2465	ppb	97
76) Bromobenzene	9.97	156	184486	19.0609	ppb	96
77) n-Propylbenzene	10.15	91	435072	21.1521	ppb	98
78) 4-Ethyltoluene	10.27	105	596286	21.6195	ppb	97
79) 2-Chlorotoluene	10.20	91	426728	20.3108	ppb	98
80) 1,3,5-Trimethylbenzene	10.35	105	335168	21.8792	ppb	96
81) 4-Chlorotoluene	10.33	91	515325	20.8555	ppb	99
82) Tert-Butylbenzene	10.69	119	457615	21.0746	ppb	99
83) 1,2,4-Trimethylbenzene	10.74	105	541722	22.7052	ppb	100
84) Sec-Butylbenzene	10.92	105	657006	21.2176	ppb	99
85) p-Isopropyltoluene	11.09	119	602426	20.9882	ppb	99
86) Benzyl Chloride	11.26	91	199181	19.3726	ppb	99
87) 1,3-DCB	11.00	146	353403	19.4287	ppb	98
88) 1,4-DCB	11.10	146	357263	18.7083	ppb	99
89) n-Butylbenzene	11.53	91	489297	21.6542	ppb	99
90) 1,2-DCB	11.49	146	330590	19.2171	ppb	99
91) Hexachloroethane	11.76	117	114422	17.9955	ppb	94
92) 1,2-Dibromo-3-chloropropan	12.32	75	22178	18.3887	ppb	80
93) 1,2,4-Trichlorobenzene	13.21	180	229290	20.5818	ppb	97
94) Hexachlorobutadiene	13.43	225	138685	18.3216	ppb	95
95) Naphthalene	13.46	128	340084	21.1635	ppb	98
96) 1,2,3-Trichlorobenzene	13.72	180	121648	21.4959	ppb	98

Quantitation Report

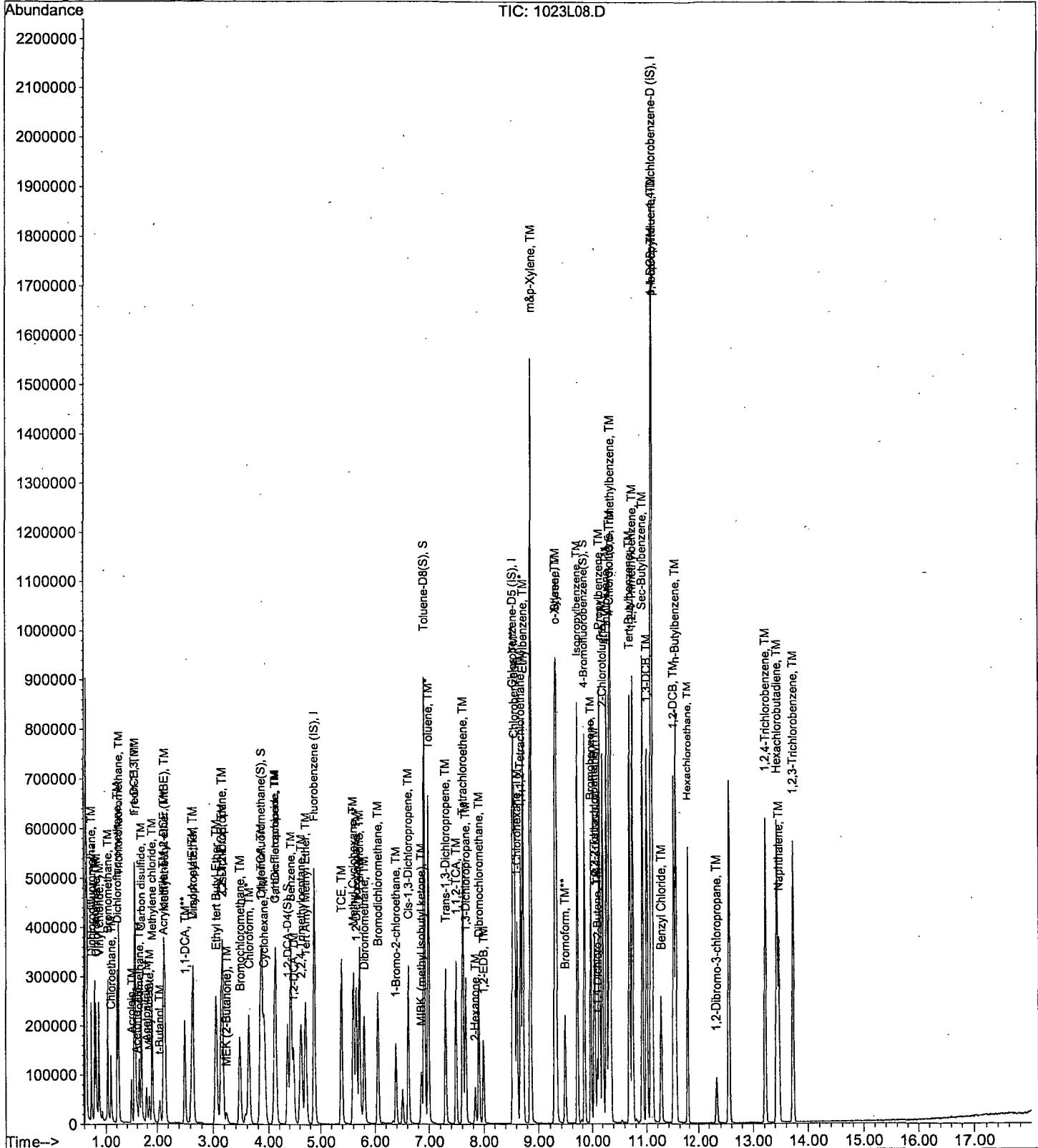
Data File : M:\LOKI\DATA\181023\1023L08.D  
Acq On : 23 Oct 18 15:59  
Sample : 20ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 7  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 07:41:53 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181023\1023L09.D  
 Acq On : 23 Oct 18 16:27  
 Sample : 50ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 8  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.88	96	249152	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	278144	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	174016	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Dibromofluoromethane(S)	3.87	111	332062	50.3655	ppb	0.00
Spiked Amount	25.000		Recovery	= 201.464%		
37) 1,2-DCA-D4 (S)	4.36	65	370570	51.5121	ppb	0.00
Spiked Amount	25.000		Recovery	= 206.048%		
57) Toluene-D8 (S)	6.91	98	1219191	50.8323	ppb	0.00
Spiked Amount	25.000		Recovery	= 203.328%		
65) 4-Bromofluorobenzene(S)	9.84	95	469147	50.4726	ppb	0.00
Spiked Amount	25.000		Recovery	= 201.892%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	261952	35.0498	ppb	97
3) Freon 114	0.79	85	194635	40.2055	ppb	98
4) Chloromethane	0.82	50	234005	43.9616	ppb	98
5) Vinyl chloride	0.87	62	246874	39.5974	ppb	100
6) Bromomethane	1.03	94	172595	41.7506	ppb	99
7) Chloroethane	1.09	64	125128	35.8060	ppb	99
8) Dichlorofluoromethane	1.21	67	423220	39.6069	ppb	99
9) Trichlorofluoromethane	1.24	101	427287	40.3088	ppb	95
10) Acrolein	1.50	56	58217	163.0985	ppb	# 86
11) Acetone	1.60	43	54927	43.9555	ppb	100
12) Freon-113	1.57	101	208487	39.1329	ppb	96
13) 1,1-DCE	1.55	63	82008	41.9965	ppb	97
14) t-Butanol	2.06	59	58336	140.7293	ppb	97
15) Acetonitrile	1.80	41	77897	122.8911	ppb	99
16) Methyl Acetate	1.85	43	99690	38.4216	ppb	100
17) Iodomethane	1.64	142	149376	49.0160	ppb	98
18) Acrylonitrile	2.11	52	43544	41.6241	ppb	80
19) Methylene chloride	1.90	84	221011	37.0524	ppb	95
20) Carbon disulfide	1.68	76	604127	37.6941	ppb	99
21) Methyl t-butyl ether (MtBE)	2.15	73	517197	40.7047	ppb	98
22) Trans-1,2-DCE	2.12	96	213236	38.9218	ppb	99
23) Diisopropyl Ether	2.64	45	553955	42.4566	ppb	99
24) 1,1-DCA	2.51	63	380689	38.4899	ppb	99
25) Vinyl Acetate	2.64	43	136896	39.8568	ppb	# 98
26) Ethyl tert Butyl Ether	3.06	59	556039	43.6491	ppb	97
27) MEK (2-Butanone)	3.24	43	59191	38.1738	ppb	95
28) Cis-1,2-DCE	3.17	96	252698	39.6279	ppb	99
29) 2,2-Dichloropropane	3.15	77	355469	38.9657	ppb	99
30) Chloroform	3.63	83	441392	39.0820	ppb	96
31) Bromochloromethane	3.47	128	128173	37.8280	ppb	99
33) 1,1,1-TCA	3.85	97	405714	38.7745	ppb	98
34) Cyclohexane	3.92	41	147181	40.7893	ppb	85
35) 1,1-Dichloropropene	4.13	75	282316	41.8742	ppb	98
36) 2,2,4-Trimethylpentane	4.63	57	541778	44.1481	ppb	92
38) Carbon Tetrachloride	4.11	117	387088	41.4666	ppb	99
39) Tert Amyl Methyl Ether	4.71	73	548535	43.9641	ppb	94
40) 1,2-DCA	4.48	62	318980	40.5515	ppb	96
41) Benzene	4.43	78	834755	40.0212	ppb	98
42) TCE	5.38	95	117448	40.5317	ppb	96

(#) = qualifier out of range (m) = manual integration  
 1023L09.D L1023W.M Wed Oct 24 07:46:27 2018

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181023\1023L09.D  
 Acq On : 23 Oct 18 16:27  
 Sample : 50ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 8  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	465849	162.4537	ppb	99
44) 1,2-Dichloropropane	5.65	63	219614	38.9646	ppb #	95
45) Bromodichloromethane	6.05	83	362367	39.0715	ppb	100
46) Methyl Cyclohexane	5.60	83	303198	44.8196	ppb	98
47) Dibromomethane	5.80	93	151265	38.1849	ppb	96
49) MIBK (methyl isobutyl ket	6.86	43	142870	40.6272	ppb	98
50) 1-Bromo-2-chloroethane	6.39	63	143360	40.7828	ppb	96
51) Cis-1,3-Dichloropropene	6.62	75	391560	42.3783	ppb	97
52) Toluene	6.99	91	1039845	41.7051	ppb	98
53) Trans-1,3-Dichloropropene	7.30	75	360035	42.6879	ppb	99
54) 1,1,2-TCA	7.49	83	172150	40.4542	ppb	95
55) 2-Hexanone	7.83	43	96044	42.5142	ppb	91
58) 1,2-EDB	7.99	107	221967	40.0772	ppb	100
59) Tetrachloroethene	7.61	166	360295	39.5312	ppb	96
60) 1-Chlorohexane	8.61	91	294295	44.3506	ppb	96
61) 1,1,1,2-Tetrachloroethane	8.68	131	320001	38.1479	ppb	96
62) m&p-Xylene	8.86	91	1130290	90.0182	ppb	100
63) o-Xylene	9.28	106	465116	43.8856	ppb	99
64) Styrene	9.30	104	503104	46.6848	ppb	98
66) 1,3-Dichloropropane	7.66	76	346688	39.1650	ppb	98
67) Dibromochloromethane	7.90	129	314538	39.8025	ppb	97
68) Chlorobenzene	8.57	112	753378	39.0432	ppb	97
69) Ethylbenzene	8.72	91	1222878	43.1573	ppb	99
70) Bromoform	9.46	173	220589	39.6579	ppb	99
72) Isopropylbenzene	9.70	105	1231973	44.2784	ppb	100
73) 1,1,2,2-Tetrachloroethane	10.04	83	249872	36.5862	ppb	99
74) 1,2,3-Trichloropropane	10.06	110	85834	42.9943	ppb	90
75) t-1,4-Dichloro-2-Butene	10.10	53	58715	40.7035	ppb	92
76) Bromobenzene	9.97	156	370605	38.9805	ppb	94
77) n-Propylbenzene	10.15	91	929472	46.0029	ppb	98
78) 4-Ethyltoluene	10.27	105	1224583	45.1998	ppb	97
79) 2-Chlorotoluene	10.20	91	862189	41.7769	ppb	97
80) 1,3,5-Trimethylbenzene	10.35	105	684160	45.4656	ppb	96
81) 4-Chlorotoluene	10.33	91	1021415	42.0822	ppb	97
82) Tert-Butylbenzene	10.69	119	956447	44.8411	ppb	97
83) 1,2,4-Trimethylbenzene	10.74	105	1107265	47.2452	ppb	98
84) Sec-Butylbenzene	10.92	105	1359070	44.6814	ppb	99
85) p-Isopropyltoluene	11.09	119	1231705	43.6853	ppb	98
86) Benzyl Chloride	11.26	91	417080	41.2968	ppb	99
87) 1,3-DCB	11.00	146	705581	39.4892	ppb	100
88) 1,4-DCB	11.10	146	699072	37.2671	ppb	99
89) n-Butylbenzene	11.53	91	999067	45.0113	ppb	99
90) 1,2-DCB	11.49	146	670043	39.6513	ppb	98
91) Hexachloroethane	11.76	117	228366	36.5630	ppb	92
92) 1,2-Dibromo-3-chloropropan	12.32	75	50937	42.9951	ppb	89
93) 1,2,4-Trichlorobenzene	13.21	180	502441	45.9135	ppb	98
94) Hexachlorobutadiene	13.43	225	289451	38.9283	ppb	98
95) Naphthalene	13.46	128	786213	49.6108	ppb	99
96) 1,2,3-Trichlorobenzene	13.72	180	261888	47.1112	ppb	98

Quantitation Report

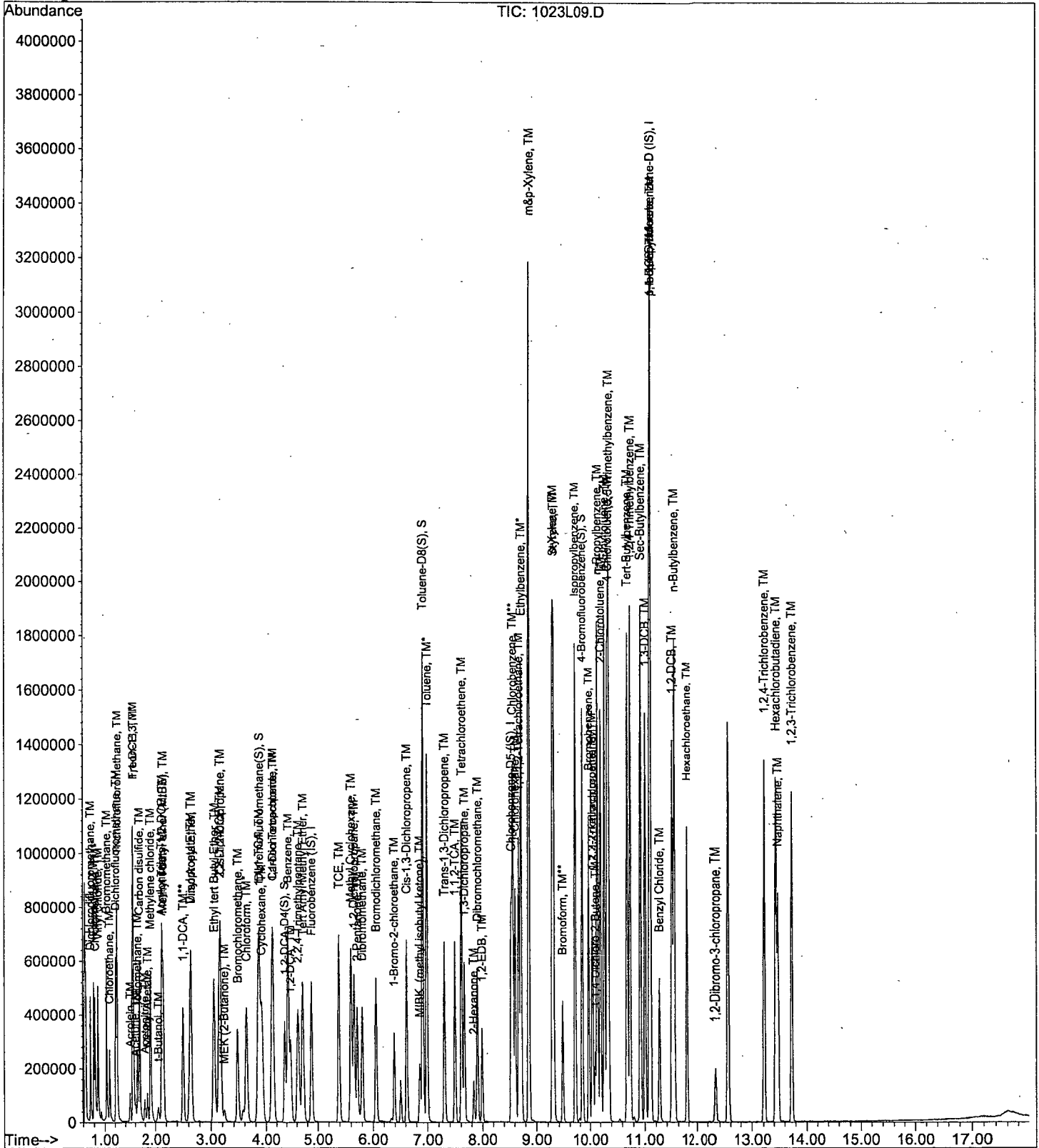
Data File : M:\LOKI\DATA\181023\1023L09.D  
Acq On : 23 Oct 18 16:27  
Sample : 50ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 8  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 07:41:53 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181023\1023L10.D  
 Acq On : 23 Oct 18 16:55  
 Sample : 100ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 9  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.88	96	249344	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	276416	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	185792	25.0000	ppb	0.00
<b>System Monitoring Compounds</b>						
32) Dibromofluoromethane(S)	3.87	111	623896	98.8057	ppb	0.00
Spiked Amount	25.000		Recovery	= 395.224%		
37) 1,2-DCA-D4 (S)	4.36	65	692972	96.2543	ppb	0.00
Spiked Amount	25.000		Recovery	= 385.016%		
57) Toluene-D8 (S)	6.91	98	2301830	96.5713	ppb	0.00
Spiked Amount	25.000		Recovery	= 386.284%		
65) 4-Bromofluorobenzene(S)	9.84	95	896648	97.0678	ppb	0.00
Spiked Amount	25.000		Recovery	= 388.272%		
<b>Target Compounds</b>						
2) Dichlorodifluoromethane	0.73	85	609280	81.4603	ppb	97
3) Freon 114	0.79	85	487913	100.7099	ppb	97
4) Chloromethane	0.82	50	544713	102.5916	ppb	99
5) Vinyl chloride	0.87	62	585538	93.8451	ppb	98
6) Bromomethane	1.03	94	427543	103.4024	ppb	100
7) Chloroethane	1.09	64	328394	93.8992	ppb	100
8) Dichlorofluoromethane	1.21	67	1040691	97.3177	ppb	100
9) Trichlorofluoromethane	1.23	101	1032435	97.3213	ppb	97
10) Acrolein	1.50	56	70995	198.7437	ppb	# 97
11) Acetone	1.61	43	122732	102.8708	ppb	99
12) Freon-113	1.56	101	516665	96.9030	ppb	98
13) 1,1-DCE	1.55	63	204352	103.6606	ppb	98
14) t-Butanol	2.12	59	90414	217.9460	ppb	# 23
15) Acetonitrile	1.80	41	103434	163.0529	ppb	98
16) Methyl Acetate	1.85	43	271199	105.9273	ppb	97
17) Iodomethane	1.64	142	390016	127.8808	ppb	99
18) Acrylonitrile	2.11	52	102660	98.0580	ppb	82
19) Methylene chloride	1.90	84	550148	92.1611	ppb	94
20) Carbon disulfide	1.68	76	1503999	93.7688	ppb	99
21) Methyl t-butyl ether (MtBE)	2.15	73	1308655	102.9152	ppb	98
22) Trans-1,2-DCE	2.12	96	522586	95.3138	ppb	98
23) Diisopropyl Ether	2.64	45	1385808	106.1302	ppb	99
24) 1,1-DCA	2.51	63	936838	94.6469	ppb	100
25) Vinyl Acetate	2.64	43	328108	95.4539	ppb	99
26) Ethyl tert Butyl Ether	3.06	59	1448787	113.6422	ppb	98
27) MEK (2-Butanone)	3.24	43	149434	96.2995	ppb	99
28) Cis-1,2-DCE	3.17	96	615759	96.4886	ppb	98
29) 2,2-Dichloropropane	3.15	77	874562	95.7936	ppb	98
30) Chloroform	3.63	83	1073309	94.9604	ppb	99
31) Bromochloromethane	3.47	128	305462	90.0824	ppb	99
33) 1,1,1-TCA	3.85	97	997473	95.2561	ppb	99
34) Cyclohexane	3.91	41	377130	104.4361	ppb	86
35) 1,1-Dichloropropene	4.13	75	717585	106.3531	ppb	97
36) 2,2,4-Trimethylpentane	4.62	57	1357271	110.5153	ppb	88
38) Carbon Tetrachloride	4.11	117	953061	102.0176	ppb	98
39) Tert Amyl Methyl Ether	4.71	73	1365240	109.3372	ppb	93
40) 1,2-DCA	4.48	62	779797	99.0583	ppb	96
41) Benzene	4.43	78	2037101	97.5908	ppb	99
42) TCE	5.38	95	289984	99.9973	ppb	98

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181023\1023L10.D  
 Acq On : 23 Oct 18 16:55  
 Sample : 100ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 9  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.72	43	535341	186.5436	ppb	99
44) 1,2-Dichloropropane	5.65	63	536467	95.1084	ppb #	95
45) Bromodichloromethane	6.05	83	881755	95.0002	ppb	99
46) Methyl Cyclohexane	5.60	83	778410	114.9783	ppb	98
47) Dibromomethane	5.80	93	366376	92.4156	ppb	96
49) MIBK (methyl isobutyl ket	6.86	43	375105	106.9531	ppb	98
50) 1-Bromo-2-chloroethane	6.39	63	348928	99.1859	ppb	96
51) Cis-1,3-Dichloropropene	6.62	75	984546	106.4747	ppb	99
52) Toluene	6.99	91	2530848	101.4267	ppb	99
53) Trans-1,3-Dichloropropene	7.30	75	891798	105.6556	ppb	100
54) 1,1,2-TCA	7.49	83	411962	96.7339	ppb	98
55) 2-Hexanone	7.84	43	257423	113.8613	ppb	91
58) 1,2-EDB	7.99	107	540279	98.1599	ppb	99
59) Tetrachloroethene	7.61	166	863480	95.3324	ppb	96
60) 1-Chlorohexane	8.61	91	752722	114.1451	ppb	96
61) 1,1,1,2-Tetrachloroethane	8.68	131	763822	91.6260	ppb	96
62) m&p-Xylene	8.86	91	2780332	222.8145	ppb	99
63) o-Xylene	9.28	106	1161470	110.2745	ppb	98
64) Styrene	9.30	104	1228800	114.7375	ppb	98
66) 1,3-Dichloropropane	7.66	76	846211	96.1932	ppb	100
67) Dibromochloromethane	7.90	129	756576	96.3378	ppb	98
68) Chlorobenzene	8.57	112	1803996	94.0752	ppb	97
69) Ethylbenzene	8.72	91	2988007	106.1106	ppb	98
70) Bromoform	9.47	173	554787	100.3642	ppb	98
72) Isopropylbenzene	9.70	105	3086114	103.8878	ppb	100
73) 1,1,2,2-Tetrachloroethane	10.04	83	654284	89.7280	ppb	99
74) 1,2,3-Trichloropropane	10.06	110	219254	103.0714	ppb	87
75) t-1,4-Dichloro-2-Butene	10.11	53	155317	100.8471	ppb	97
76) Bromobenzene	9.97	156	926469	91.2702	ppb	98
77) n-Propylbenzene	10.15	91	2253679	104.4727	ppb	99
78) 4-Ethyltoluene	10.28	105	3033313	104.8643	ppb	98
79) 2-Chlorotoluene	10.21	91	2109116	95.7185	ppb	96
80) 1,3,5-Trimethylbenzene	10.35	105	1722674	107.2236	ppb	95
81) 4-Chlorotoluene	10.33	91	2540423	98.0312	ppb	99
82) Tert-Butylbenzene	10.69	119	2444714	107.3508	ppb	99
83) 1,2,4-Trimethylbenzene	10.74	105	2823025	112.8192	ppb	99
84) Sec-Butylbenzene	10.92	105	3461868	106.6001	ppb	100
85) p-Isopropyltoluene	11.09	119	3200845	106.3299	ppb	98
86) Benzyl Chloride	11.26	91	1117219	103.6089	ppb	99
87) 1,3-DCB	11.00	146	1812521	95.0115	ppb	98
88) 1,4-DCB	11.10	146	1835320	91.6385	ppb	99
89) n-Butylbenzene	11.53	91	2657957	112.1599	ppb	98
90) 1,2-DCB	11.49	146	1760789	97.5941	ppb	99
91) Hexachloroethane	11.76	117	625177	93.7510	ppb	95
92) 1,2-Dibromo-3-chloropropan	12.32	75	127599	100.8777	ppb	90
93) 1,2,4-Trichlorobenzene	13.21	180	1351968	115.7134	ppb	98
94) Hexachlorobutadiene	13.43	225	748226	94.2510	ppb	97
95) Naphthalene	13.46	128	2186597	128.9972	ppb	100
96) 1,2,3-Trichlorobenzene	13.72	180	682496	114.9927	ppb	96

Quantitation Report

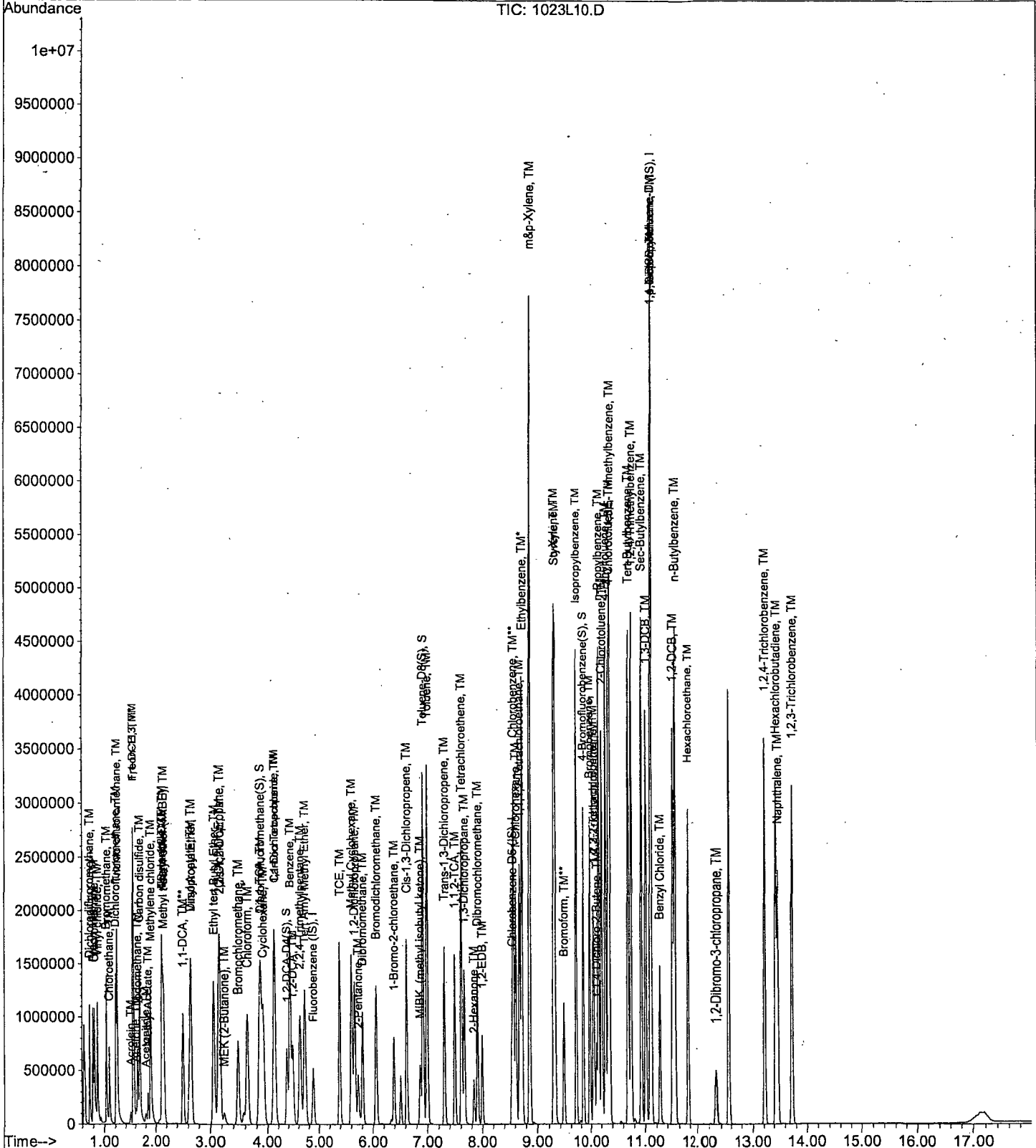
Data File : M:\LOKI\DATA\181023\1023L10.D  
Acq On : 23 Oct 18 16:55  
Sample : 100ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 9  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

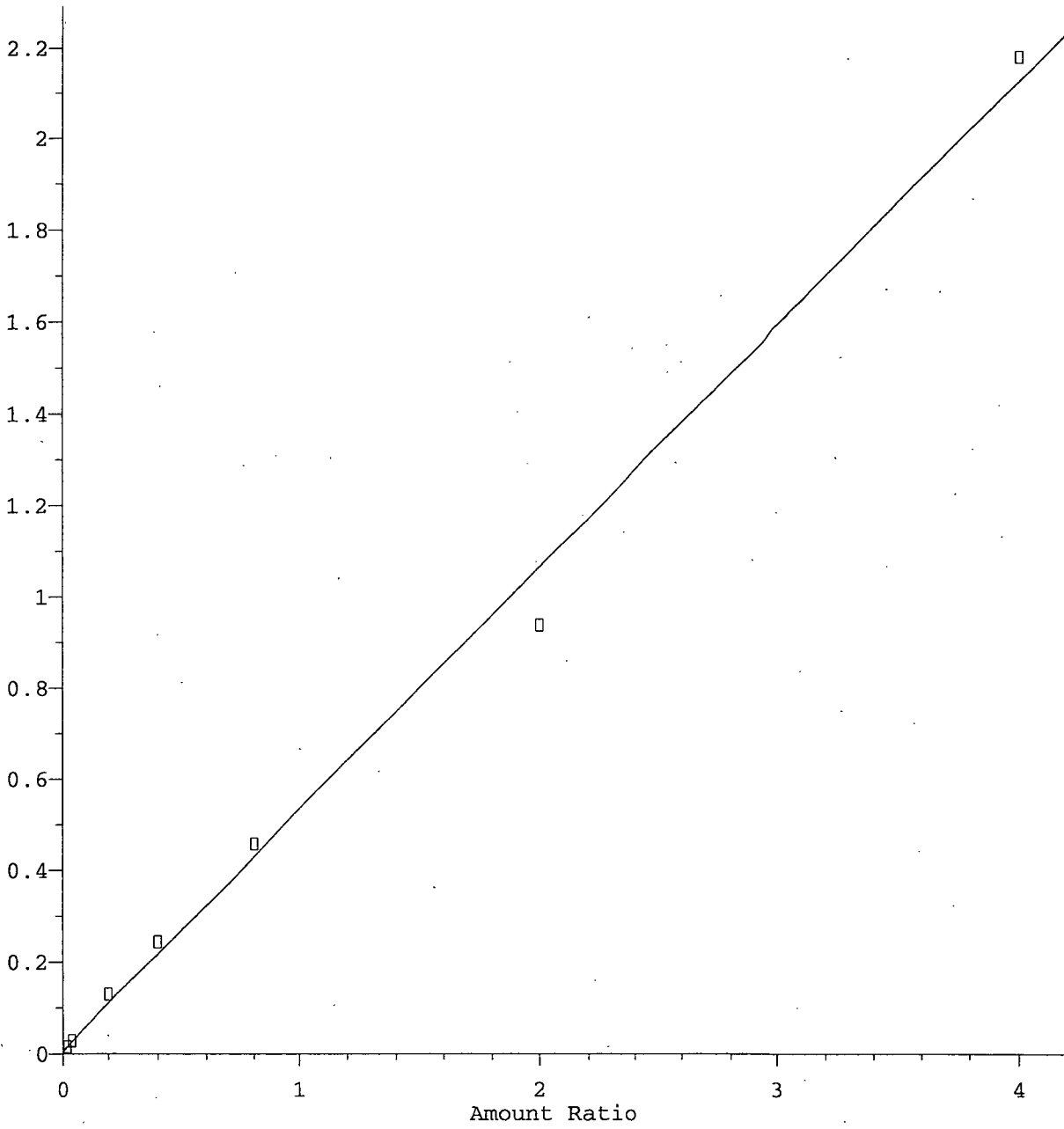
Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 07:41:53 2018  
Response via : Initial Calibration





Chloromethane

Response Ratio

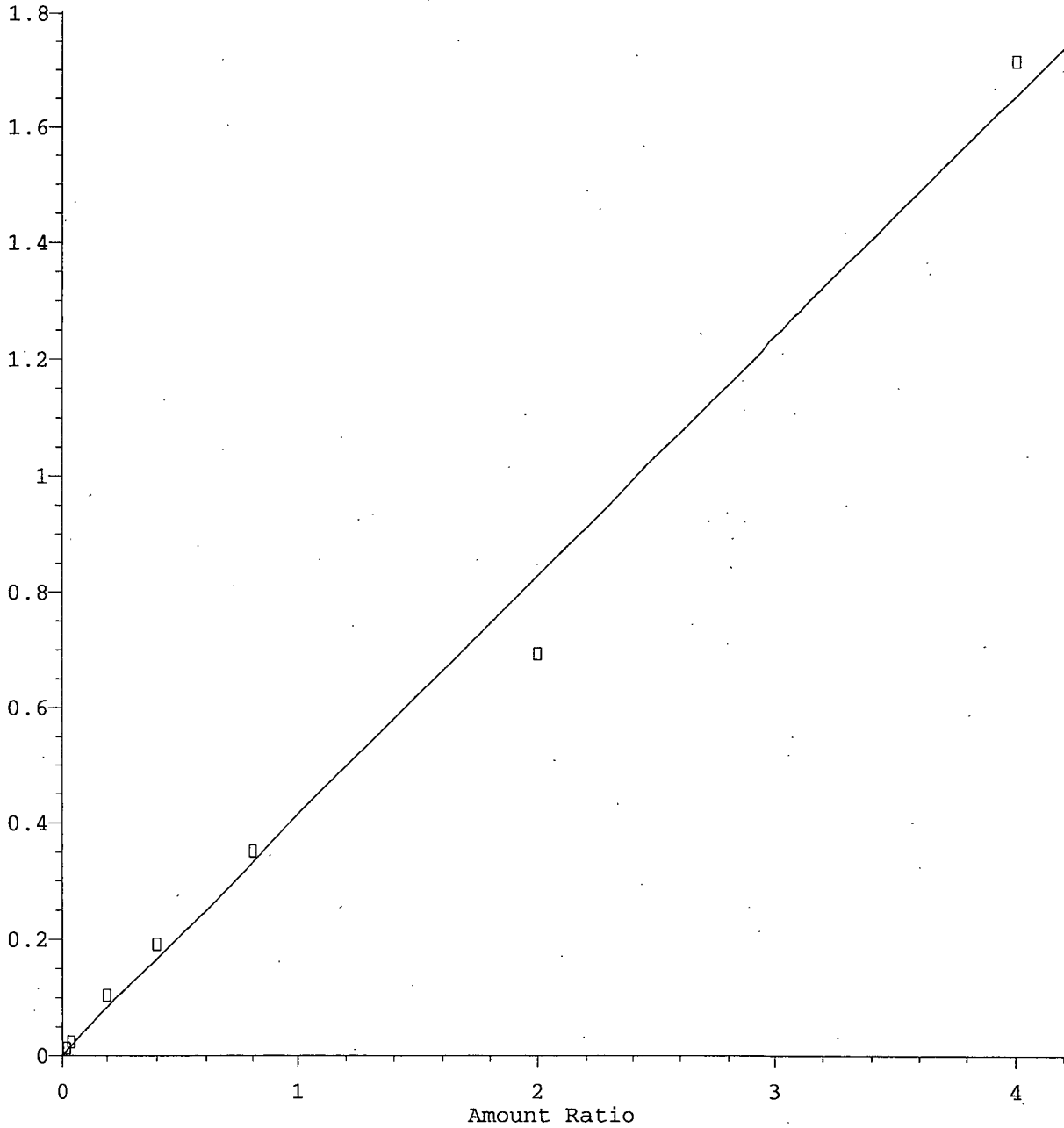


Resp Ratio = 5.31e-001 \* Amt + 5.40e-003  
Coef of Det (r^2) = 0.994 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018

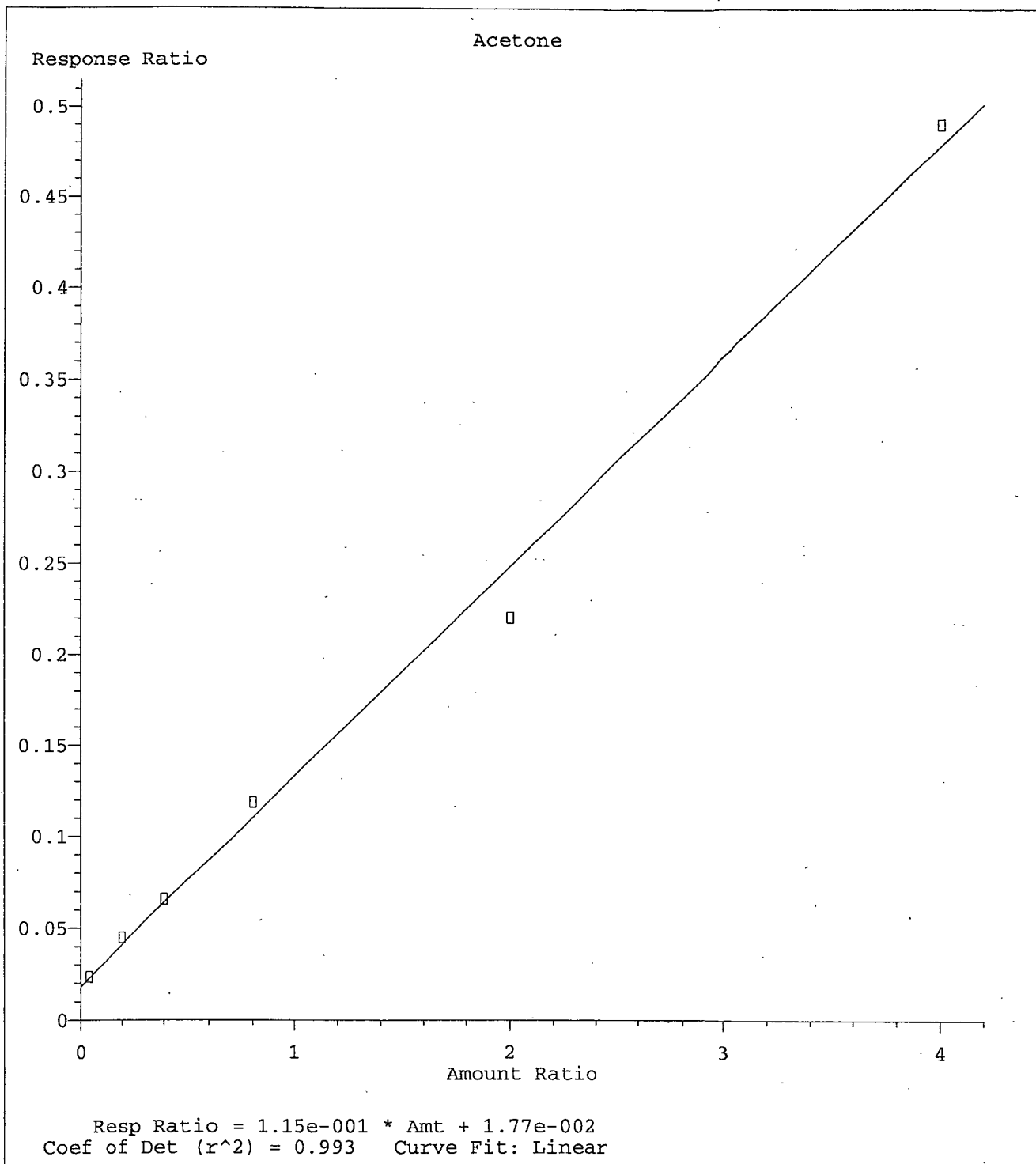
Bromomethane

Response Ratio



Resp Ratio = 4.14e-001 \* Amt + 6.69e-004  
Coef of Det (r^2) = 0.990 Curve Fit: Linear

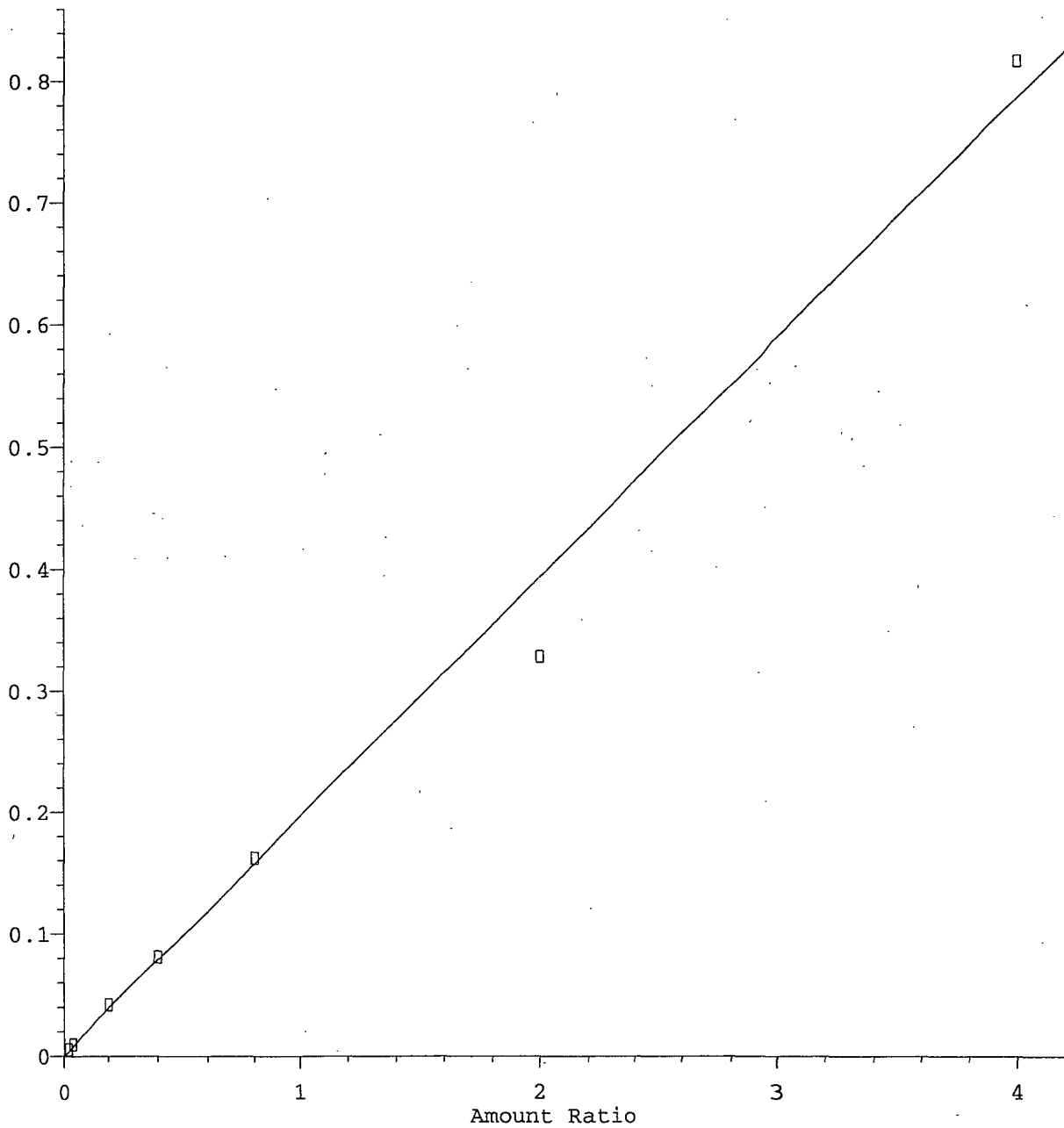
Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018



Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018

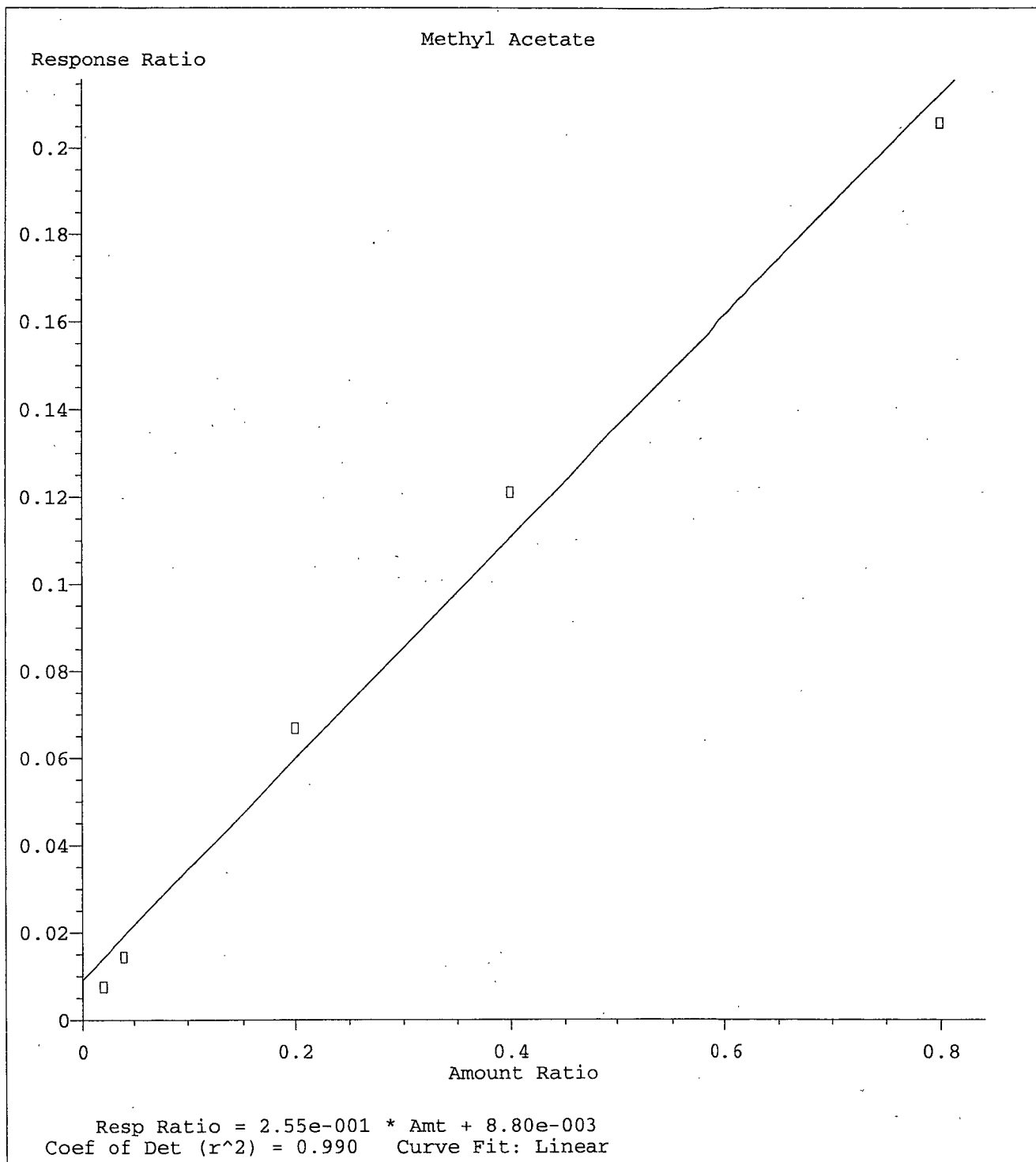
1,1-DCE

Response Ratio



Resp Ratio = 1.97e-001 \* Amt  
Coef of Det (r^2) = 0.990 Curve Fit: Linear/(0,0)

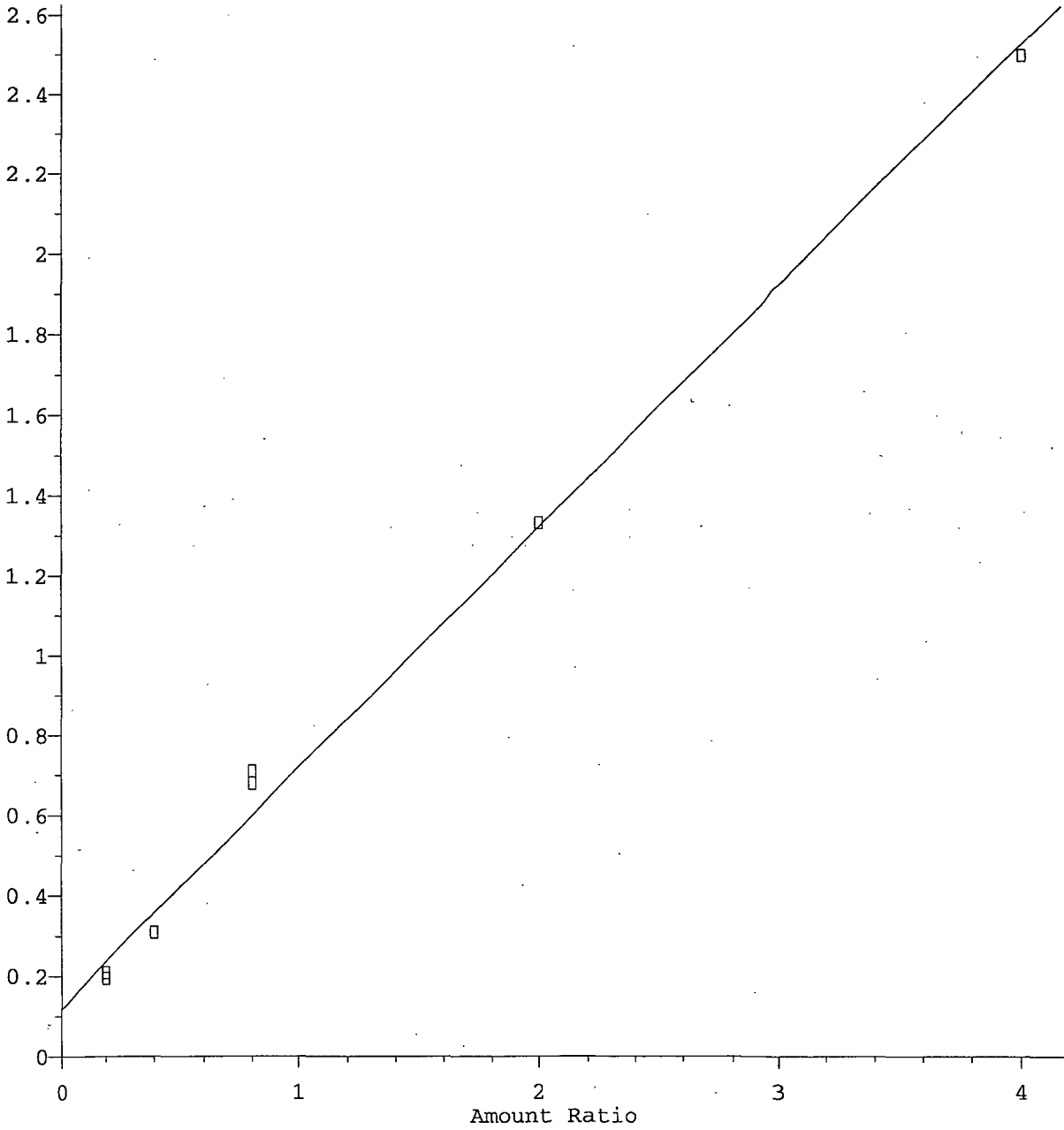
Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 11:02:36 2018



Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018

Dibromofluoromethane(S)

Response Ratio

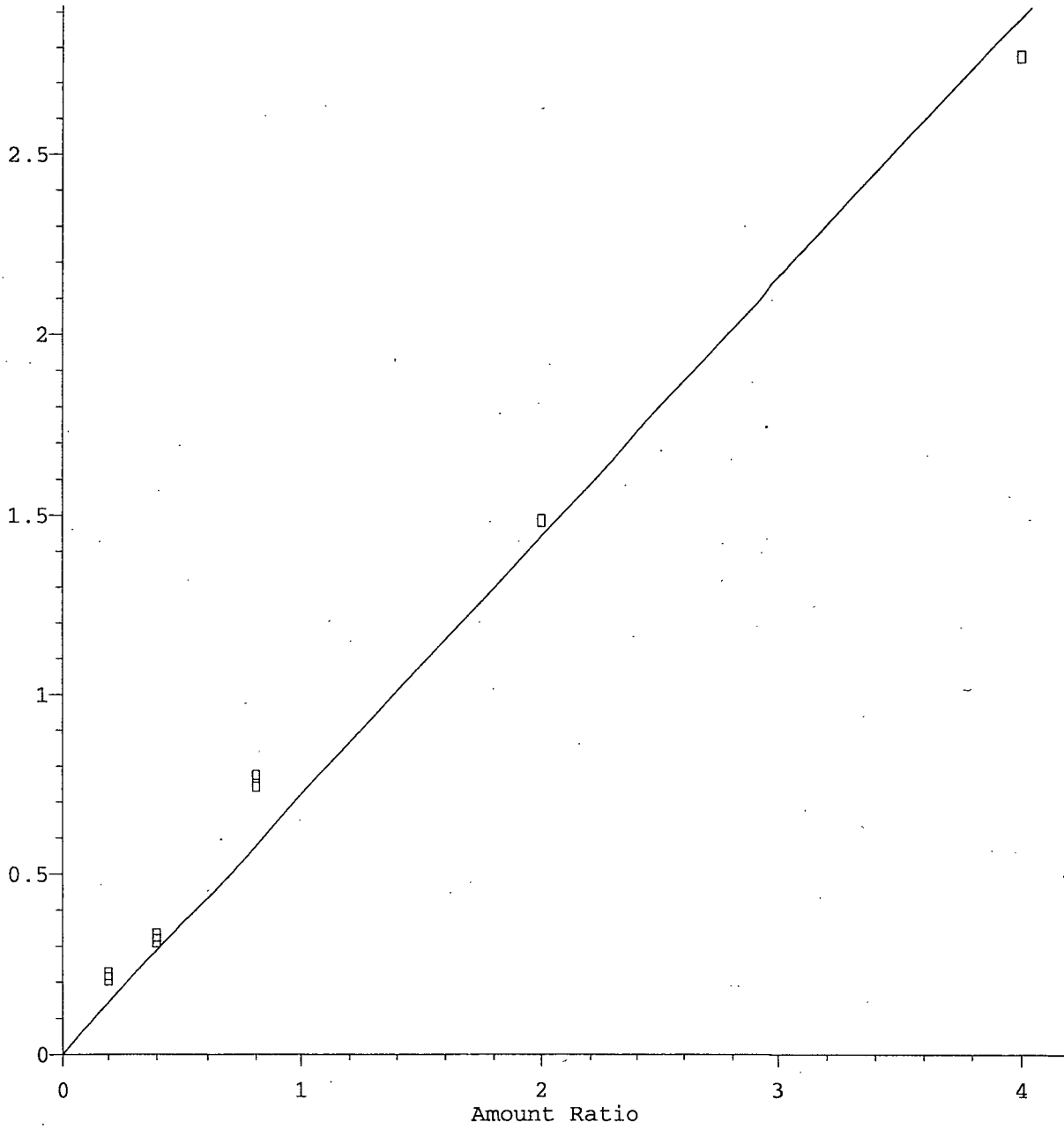


Resp Ratio = 6.04e-001 \* Amt + 1.17e-001  
Coef of Det (r^2) = 0.994 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018

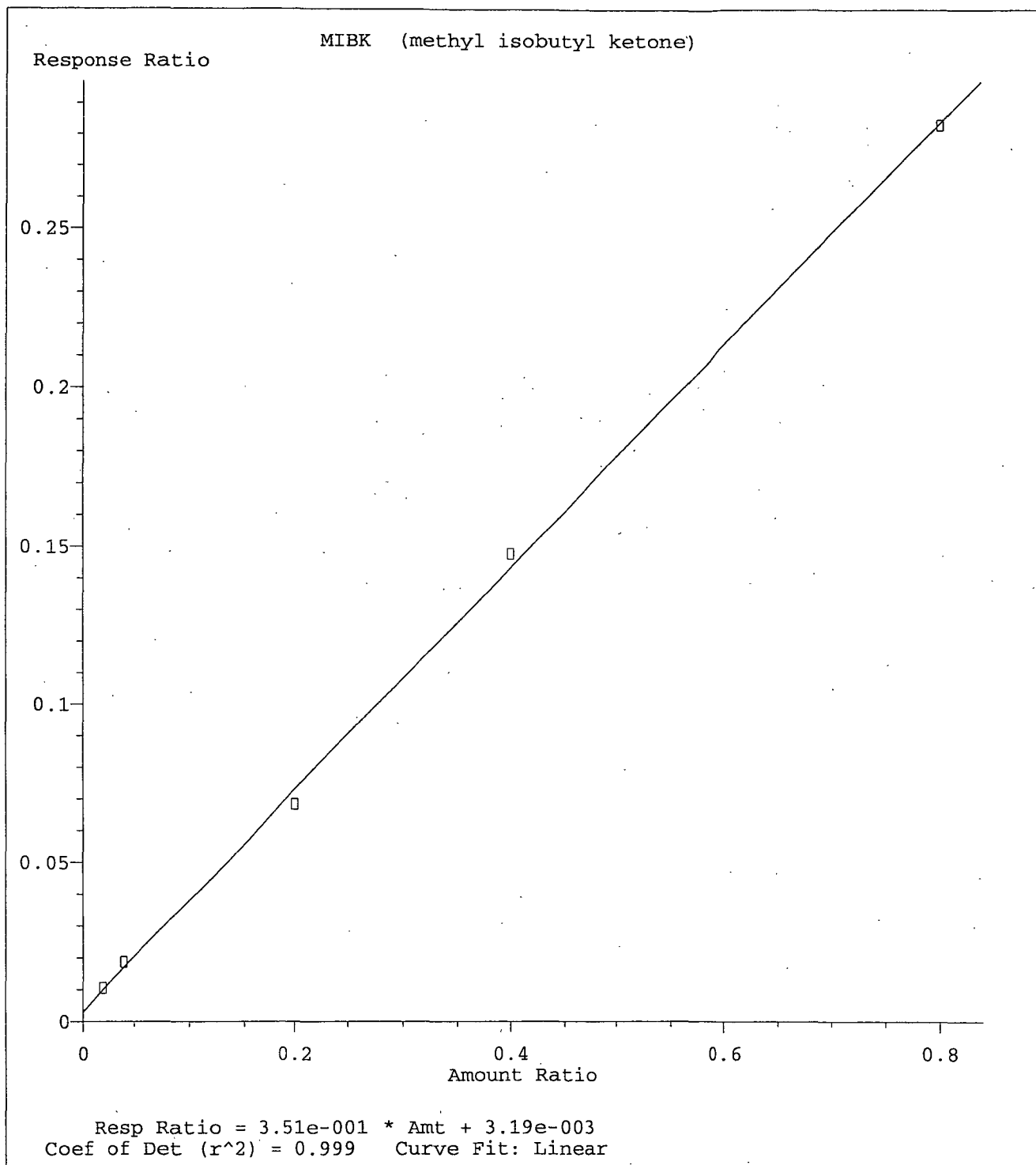
1,2-DCA-D4(S)

Response Ratio



Resp Ratio = 7.22e-001 \* Amt  
Coef of Det (r<sup>2</sup>) = 0.994 Curve Fit: Linear/(0,0).

Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018

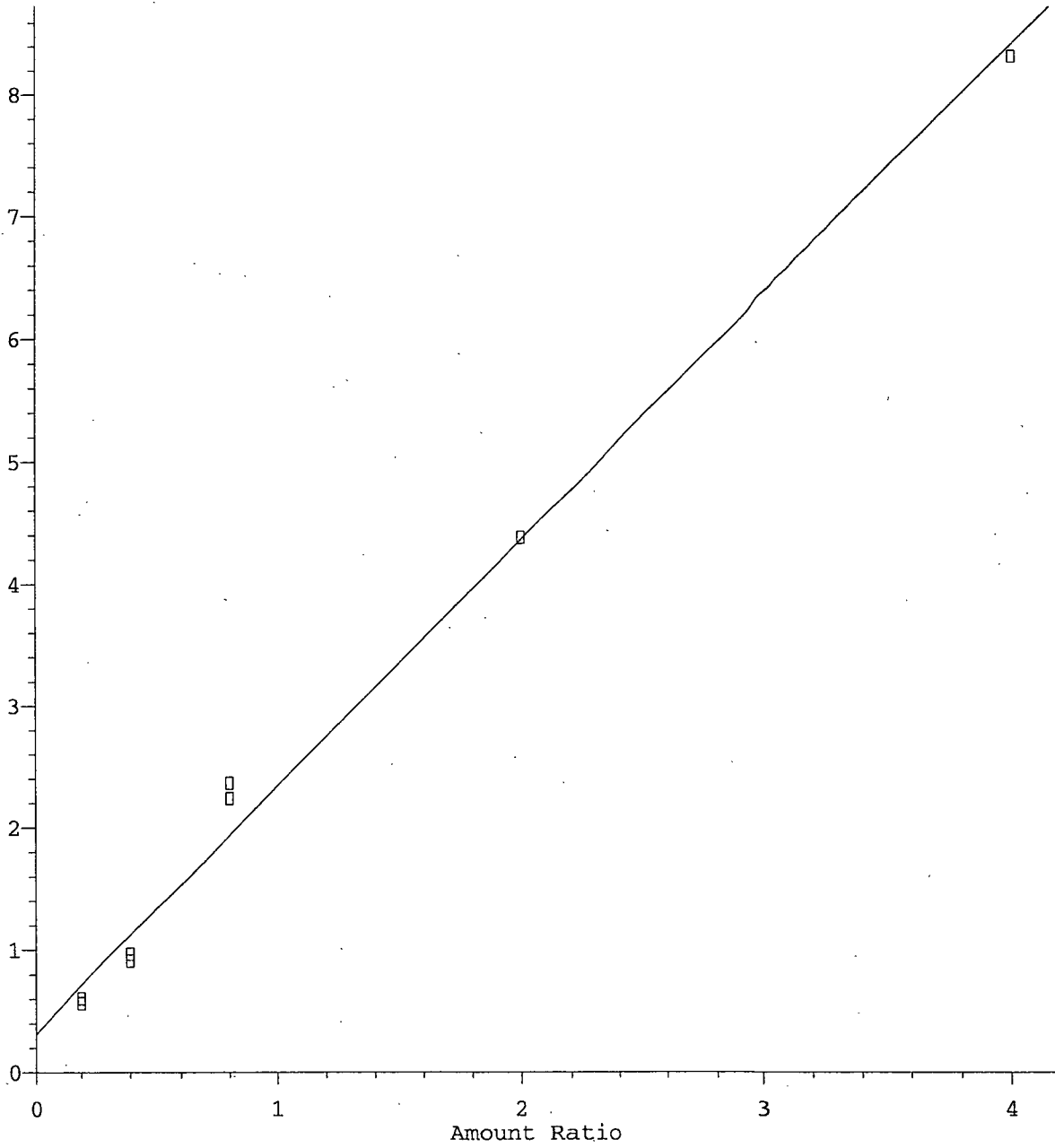


Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018



Toluene-D8 (S)

Response Ratio

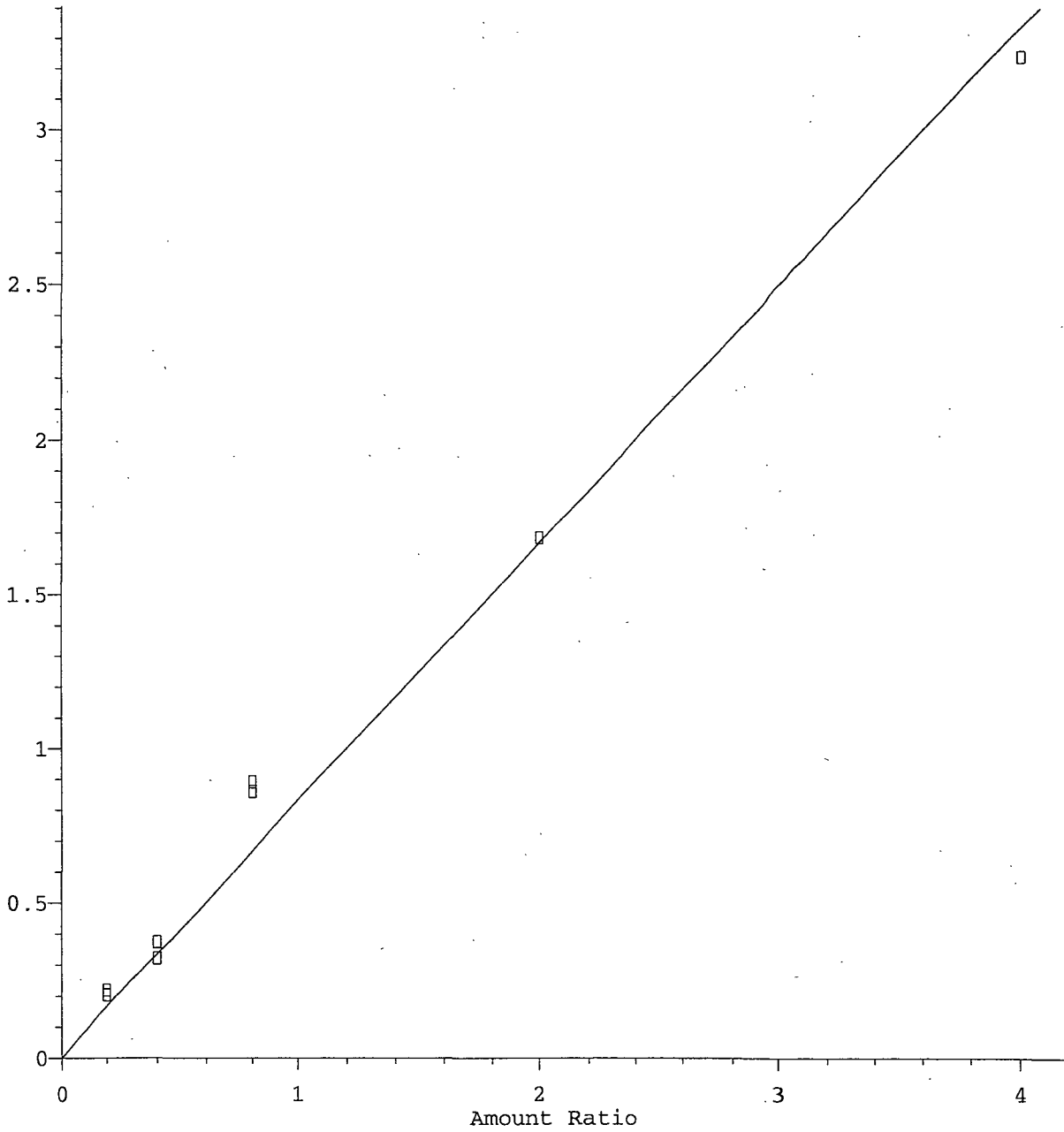


Resp Ratio = 2.03e+000 \* Amt + 3.11e-001  
Coef of Det (r^2) = 0.992 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018

4-Bromofluorobenzene(S)

Response Ratio

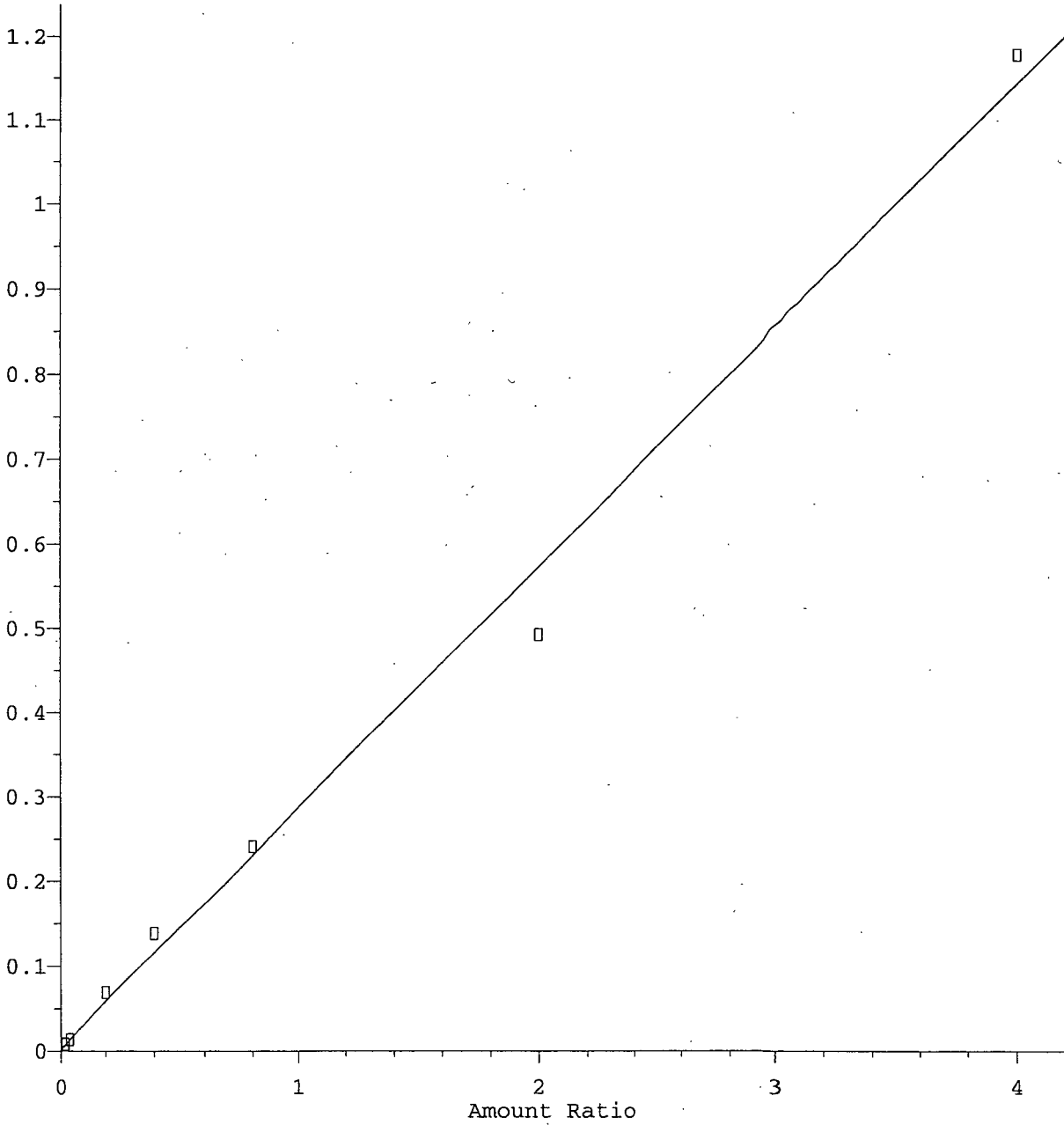


Resp Ratio = 8.35e-001 \* Amt  
Coef of Det (r<sup>2</sup>) = 0.992 Curve Fit: Linear/(0,0)

Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018

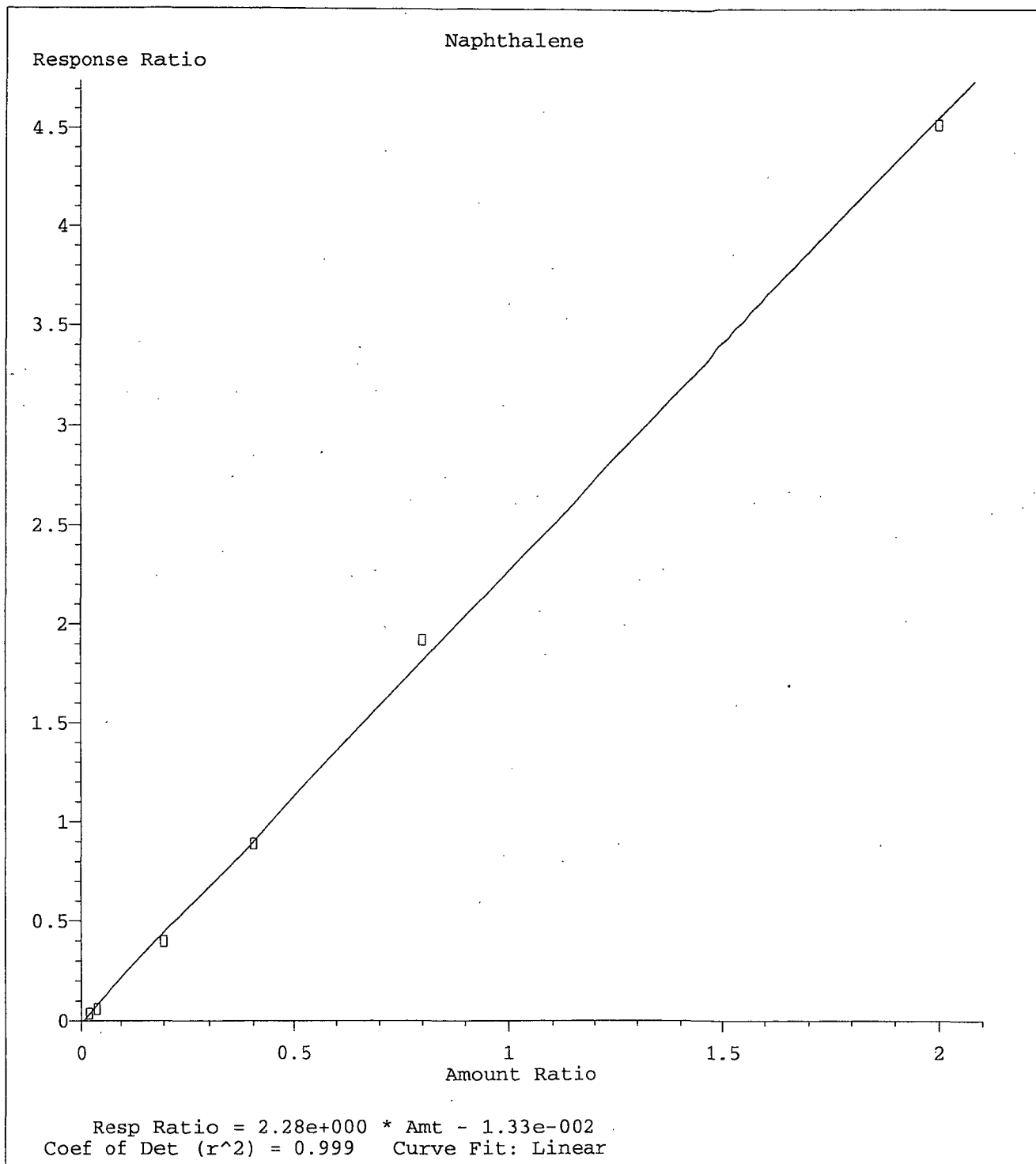
1,2,3-Trichloropropane

Response Ratio



Resp Ratio = 2.86e-001 \* Amt + 1.71e-003  
Coef of Det (r^2) = 0.992 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018



Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/23/18

Matrix: \_\_\_\_\_

Instrument: Loki

Initial Cal. Date: 10/23/18

Data File: 1023L14.D

		Compound	MEAN	CCRF	%D	%Drift
1	TM	Dichlorodifluoromethane	0.7499	0.7645	1.9	TM
2	TM	Freon 114	0.4857	0.4684	3.6	TM
3	TM**L	Chloromethane	0.6189	0.6428	3.9	TM**L 18
4	TM*	Vinyl chloride	0.6256	0.6223	0.53	TM*
5	TML	Bromomethane	0.4918	0.4742	3.6	TML 14
6	TM	Chloroethane	0.3507	0.3445	1.8	TM
7	TM	Dichlorofluoromethane	1.072	0.9770	8.9	TM
8	TM	Trichlorofluoromethane	1.064	1.081	1.6	TM
9	TM	Acrolein	0.0358	0.0319	11	TM
10	TML	Acetone	0.2261	0.1714	24	TML 10
11	TM	Freon-113	0.5346	0.4859	9.1	TM
12	TM*L	1,1-DCE	0.2153	0.2136	0.78	TM*L 8.4
13	TM	t-Butanol	0.0360	0.0357	0.63	TM
14	TM	Acetonitrile	0.0533	0.0511	4.1	TM
15	TML	Methyl Acetate	0.3259	0.3042	6.7	TML 11
16	TM	Iodomethane	0.3058	0.3047	0.35	TM
17	TM	Acrylonitrile	0.1050	0.1000	4.7	TM
18	TM	Methylene chloride	0.5985	0.6378	6.6	TM
19	TM	Carbon disulfide	1.608	1.513	5.9	TM
20	TM	Methyl t-butyl ether (MtBE)	1.275	1.207	5.3	TM
21	TM	Trans-1,2-DCE	0.5497	0.5720	4.0	TM
22	TM	Diisopropyl Ether	1.309	1.208	7.7	TM
23	TM**	1,1-DCA	0.9924	0.9667	2.6	TM**
24	TM	Vinyl Acetate	0.3446	0.3318	3.7	TM
25	TM	Ethyl tert Butyl Ether	1.278	1.200	6.2	TM
26	TM	MEK (2-Butanone)	0.1556	0.1564	0.54	TM
27	TM	Cis-1,2-DCE	0.6398	0.6278	1.9	TM
28	TM	2,2-Dichloropropane	0.9154	0.8620	5.8	TM
29	TM*	Chloroform	1.133	1.124	0.83	TM*
30	TM	Bromochloromethane	0.3400	0.3430	0.90	TM
31	TM	1,1,1-TCA	1.050	1.028	2.1	TM
32	TM	Cyclohexane	0.3621	0.3387	6.5	TM
33	TM	1,1-Dichloropropene	0.6765	0.6570	2.9	TM
34	TM	2,2,4-Trimethylpentane	1.231	1.080	12	TM
35	TM	Carbon Tetrachloride	0.9367	0.9465	1.0	TM
36	TM	Tert Amyl Methyl Ether	1.252	1.179	5.8	TM
37	TM	1,2-DCA	0.7893	0.8211	4.0	TM
38	TM	Benzene	2.093	2.106	0.64	TM
39	TM	TCE	0.2908	0.3018	3.8	TM
40	TM	2-Pentanone	0.2571	0.2511	2.4	TM
Average					4.5	

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/23/18  
Instrument: Loki  
Cal. Date: 10/23/18  
Data File: 1023L14.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM*	1,2-Dichloropropane	0.5655	0.5539	2.1	TM*
42	TM	Bromodichloromethane	0.9306	0.8878	4.6	TM
43	TM	Methyl Cyclohexane	0.6788	0.6419	5.4	TM
44	TM	Dibromomethane	0.3975	0.3827	3.7	TM
45	TM	2-Chloroethyl vinyl ether	0.0000	0.0004	0.00	TM
46	TML	MIBK (methyl isobutyl ketone)	0.4115	0.3487	15	TML 2.9
47	TM	1-Bromo-2-chloroethane	0.3527	0.3175	10.0	TM
48	TM	Cis-1,3-Dichloropropene	0.9271	0.9134	1.5	TM
49	TM*	Toluene	2.502	2.566	2.6	TM*
50	TM	Trans-1,3-Dichloropropene	0.8463	0.8499	0.43	TM
51	TM	1,1,2-TCA	0.4270	0.4271	0.02	TM
52	TM	2-Hexanone	0.2267	0.1993	12	TM
53	TM	1,2-EDB	0.4978	0.5124	2.9	TM
54	TM	Tetrachloroethene	0.8192	0.8479	3.5	TM
55	TM	1-Chlorohexane	0.5964	0.5518	7.5	TM
56	TM	1,1,1,2-Tetrachloroethane	0.7540	0.7481	0.78	TM
57	TM	m&p-Xylene	1.129	1.209	7.1	TM
58	TM	o-Xylene	0.9526	1.020	7.1	TM
59	TM	Styrene	0.9686	1.056	9.0	TM
60	TM	1,3-Dichloropropane	0.7956	0.7994	0.48	TM
61	TM	Dibromochloromethane	0.7103	0.7188	1.2	TM
62	TM**	Chlorobenzene	1.734	1.701	1.9	TM**
63	TM*	Ethylbenzene	2.547	2.626	3.1	TM*
64	TM**	Bromoform	0.4999	0.4930	1.4	TM**
65	TM	Isopropylbenzene	3.997	4.144	3.7	TM
66	TM**	1,1,2,2-Tetrachloroethane	0.9812	0.9048	7.8	TM**
67	TML	1,2,3-Trichloropropane	0.3280	0.3156	3.8	TML 8.9
68	TM	t-1,4-Dichloro-2-Butene	0.2072	0.1940	6.4	TM
69	TM	Bromobenzene	1.366	1.364	0.13	TM
70	TM	n-Propylbenzene	2.903	3.157	8.8	TM
71	TM	4-Ethyltoluene	3.892	4.053	4.1	TM
72	TM	2-Chlorotoluene	2.965	3.105	4.7	TM
73	TM	1,3,5-Trimethylbenzene	2.162	2.404	11	TM
74	TM	4-Chlorotoluene	3.487	3.733	7.0	TM
75	TM	Tert-Butylbenzene	3.064	3.248	6.0	TM
76	TM	1,2,4-Trimethylbenzene	3.367	3.796	13	TM
77	TM	Sec-Butylbenzene	4.370	4.730	8.2	TM
78	TM	p-Isopropyltoluene	4.051	4.310	6.4	TM
79	TM	Benzyl Chloride	1.451	0.0992	93	TM
80	TM	1,3-DCB	2.567	2.603	1.4	TM
Average					7.2	

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VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/23/18

Matrix: 0

Instrument: Loki

Cal. Date: 10/23/18

Data File: 1023L14.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	1,4-DCB	2.695	2.644	1.9	TM
82	TM	n-Butylbenzene	3.189	3.305	3.7	TM
83	TM	1,2-DCB	2.428	2.395	1.3	TM
84	TM	Hexachloroethane	0.8973	0.8248	8.1	TM
85	TM	1,2-Dibromo-3-chloropropane	0.1702	0.1728	1.5	TM
86	TM	1,2,4-Trichlorobenzene	1.572	1.538	2.1	TM
87	TM	Hexachlorobutadiene	1.068	1.032	3.4	TM
88	TML	Naphthalene	2.029	2.137	5.3	TML 5.0
89	TM	1,2,3-Trichlorobenzene	0.7986	0.8230	3.1	TM
90						
91						
92						
93						
94						
95						
96						
97						
98						
99						
100						
101						
102						
103						
104						
105						
106						
107						
108						
109						
110						
111						
112						
113						
114						
115						
116						
117						
118						
119						
120						

Average

3.4

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181023\1023L14.D  
 Acq On : 23 Oct 18 18:47  
 Sample : (SS) 10ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 13  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 11:11 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.88	96	241856	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	260480	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	161920	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Dibromofluoromethane(S)	3.87	111	165676	23.5333	ppb	0.00
Spiked Amount 25.000			Recovery =	94.132%		
37) 1,2-DCA-D4(S)	4.36	65	182677	26.1596	ppb	0.00
Spiked Amount 25.000			Recovery =	104.640%		
57) Toluene-D8(S)	6.91	98	593450	24.2317	ppb	0.00
Spiked Amount 25.000			Recovery =	96.928%		
65) 4-Bromofluorobenzene(S)	9.84	95	227774	26.1665	ppb	0.00
Spiked Amount 25.000			Recovery =	104.668%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	73960	10.1946	ppb	97
3) Freon 114	0.79	85	45317	9.6435	ppb	96
4) Chloromethane	0.82	50	62182	11.8496	ppb	100
5) Vinyl chloride	0.87	62	60202	9.9474	ppb	100
6) Bromomethane	1.04	94	45871	11.4016	ppb	98
7) Chloroethane	1.10	64	33328	9.8247	ppb	99
8) Dichlorofluoromethane	1.21	67	94514	9.1119	ppb	98
9) Trichlorofluoromethane	1.24	101	104574	10.1627	ppb	93
10) Acrolein	1.49	56	38554	111.2698	ppb	# 97
11) Acetone	1.60	43	16582	11.0266	ppb	99
12) Freon-113	1.57	101	47005	9.0890	ppb	93
13) 1,1-DCE	1.55	63	20664	10.8377	ppb	97
14) t-Butanol	2.05	59	43222	124.2159	ppb	99
15) Acetonitrile	1.79	41	61815	119.8516	ppb	99
16) Methyl Acetate	1.84	43	29431	11.0839	ppb	93
17) Iodomethane	1.64	142	29480	9.9653	ppb	98
18) Acrylonitrile	2.11	52	9677	9.5294	ppb	80
19) Methylene chloride	1.90	84	61700	10.6560	ppb	98
20) Carbon disulfide	1.69	76	146407	9.4105	ppb	98
21) Methyl t-butyl ether (MtBE)	2.15	73	116770	9.4673	ppb	98
22) Trans-1,2-DCE	2.12	96	55333	10.4046	ppb	96
23) Diisopropyl Ether	2.64	45	116875	9.2278	ppb	99
24) 1,1-DCA	2.51	63	93523	9.7410	ppb	99
25) Vinyl Acetate	2.63	43	32096	9.6265	ppb	# 94
26) Ethyl tert Butyl Ether	3.06	59	116047	9.3845	ppb	99
27) MEK (2-Butanone)	3.24	43	15133	10.0541	ppb	99
28) Cis-1,2-DCE	3.17	96	60732	9.8113	ppb	99
29) 2,2-Dichloropropane	3.15	77	83388	9.4165	ppb	96
30) Chloroform	3.63	83	108727	9.9174	ppb	96
31) Bromochloromethane	3.47	128	33187	10.0900	ppb	93
33) 1,1,1-TCA	3.85	97	99423	9.7886	ppb	99
34) Cyclohexane	3.92	41	32767	9.3549	ppb	84
35) 1,1-Dichloropropene	4.14	75	63557	9.7114	ppb	97
36) 2,2,4-Trimethylpentane	4.63	57	104518	8.7738	ppb	98
38) Carbon Tetrachloride	4.12	117	91564	10.1046	ppb	91
39) Tert Amyl Methyl Ether	4.71	73	114093	9.4202	ppb	99
40) 1,2-DCA	4.48	62	79437	10.4034	ppb	# 93
41) Benzene	4.43	78	203761	10.0637	ppb	98
42) TCE	5.38	95	29192	10.3782	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1023L14.D L1023W.M Wed Oct 24 11:12:20 2018



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181023\1023L14.D  
 Acq On : 23 Oct 18 18:47  
 Sample : (SS) 10ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 13  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 11:11 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	303630	122.0624	ppb	99
44) 1,2-Dichloropropane	5.66	63	53584	9.7938	ppb	97
45) Bromodichloromethane	6.05	83	85887	9.5400	ppb	100
46) Methyl Cyclohexane	5.60	83	62100	9.4567	ppb	97
47) Dibromomethane	5.80	93	37023	9.6279	ppb	96
49) MIBK (methyl isobutyl ket	6.86	43	33738	9.7115	ppb	97
50) 1-Bromo-2-chloroethane	6.39	63	30720	9.0028	ppb	94
51) Cis-1,3-Dichloropropene	6.62	75	88366	9.8523	ppb	98
52) Toluene	6.99	91	248282	10.2583	ppb	100
53) Trans-1,3-Dichloropropene	7.30	75	82226	10.0433	ppb	98
54) 1,1,2-TCA	7.49	83	41317	10.0021	ppb	90
55) 2-Hexanone	7.83	43	19278	8.7909	ppb #	89
58) 1,2-EDB	7.99	107	53389	10.2933	ppb	95
59) Tetrachloroethene	7.61	166	88341	10.3500	ppb	97
60) 1-Chlorohexane	8.61	91	57498	9.2526	ppb	92
61) 1,1,1,2-Tetrachloroethane	8.68	131	77944	9.9220	ppb	99
62) m&p-Xylene	8.86	91	251968	21.4280	ppb	100
63) o-Xylene	9.28	106	106286	10.7086	ppb	96
64) Styrene	9.30	104	110032	10.9027	ppb	98
66) 1,3-Dichloropropane	7.66	76	83294	10.0477	ppb	99
67) Dibromochloromethane	7.90	129	74891	10.1196	ppb	98
68) Chlorobenzene	8.57	112	177262	9.8094	ppb	98
69) Ethylbenzene	8.72	91	273652	10.3125	ppb	96
70) Bromoform	9.47	173	51369	9.8615	ppb	99
72) Isopropylbenzene	9.70	105	268426	10.3682	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.04	83	58601	9.2213	ppb	96
74) 1,2,3-Trichloropropane	10.06	110	20438	10.8910	ppb	84
75) t-1,4-Dichloro-2-Butene	10.10	53	12568	9.3635	ppb	91
76) Bromobenzene	9.97	156	88352	9.9871	ppb	96
77) n-Propylbenzene	10.15	91	204480	10.8765	ppb	98
78) 4-Ethyltoluene	10.28	105	262496	10.4126	ppb	95
79) 2-Chlorotoluene	10.20	91	201104	10.4723	ppb	94
80) 1,3,5-Trimethylbenzene	10.35	105	155712	11.1208	ppb	98
81) 4-Chlorotoluene	10.33	91	241753	10.7043	ppb	99
82) Tert-Butylbenzene	10.69	119	210344	10.5982	ppb	98
83) 1,2,4-Trimethylbenzene	10.74	105	245864	11.2743	ppb	97
84) Sec-Butylbenzene	10.92	105	306356	10.8243	ppb	98
85) p-Isopropyltoluene	11.09	119	279149	10.6403	ppb	98
86) Benzyl Chloride	11.26	91	6427	0.6839	ppb	95
87) 1,3-DCB	11.00	146	168605	10.1412	ppb	98
88) 1,4-DCB	11.10	146	171240	9.8107	ppb	98
89) n-Butylbenzene	11.53	91	214070	10.3651	ppb	98
90) 1,2-DCB	11.49	146	155138	9.8665	ppb	97
91) Hexachloroethane	11.76	117	53422	9.1922	ppb	93
92) 1,2-Dibromo-3-chloropropan	12.32	75	11191	10.1518	ppb	90
93) 1,2,4-Trichlorobenzene	13.21	180	99644	9.7858	ppb	95
94) Hexachlorobutadiene	13.43	225	66836	9.6603	ppb	95
95) Naphthalene	13.46	128	138413	9.5045	ppb	98
96) 1,2,3-Trichlorobenzene	13.72	180	53304	10.3052	ppb	97

Quantitation Report

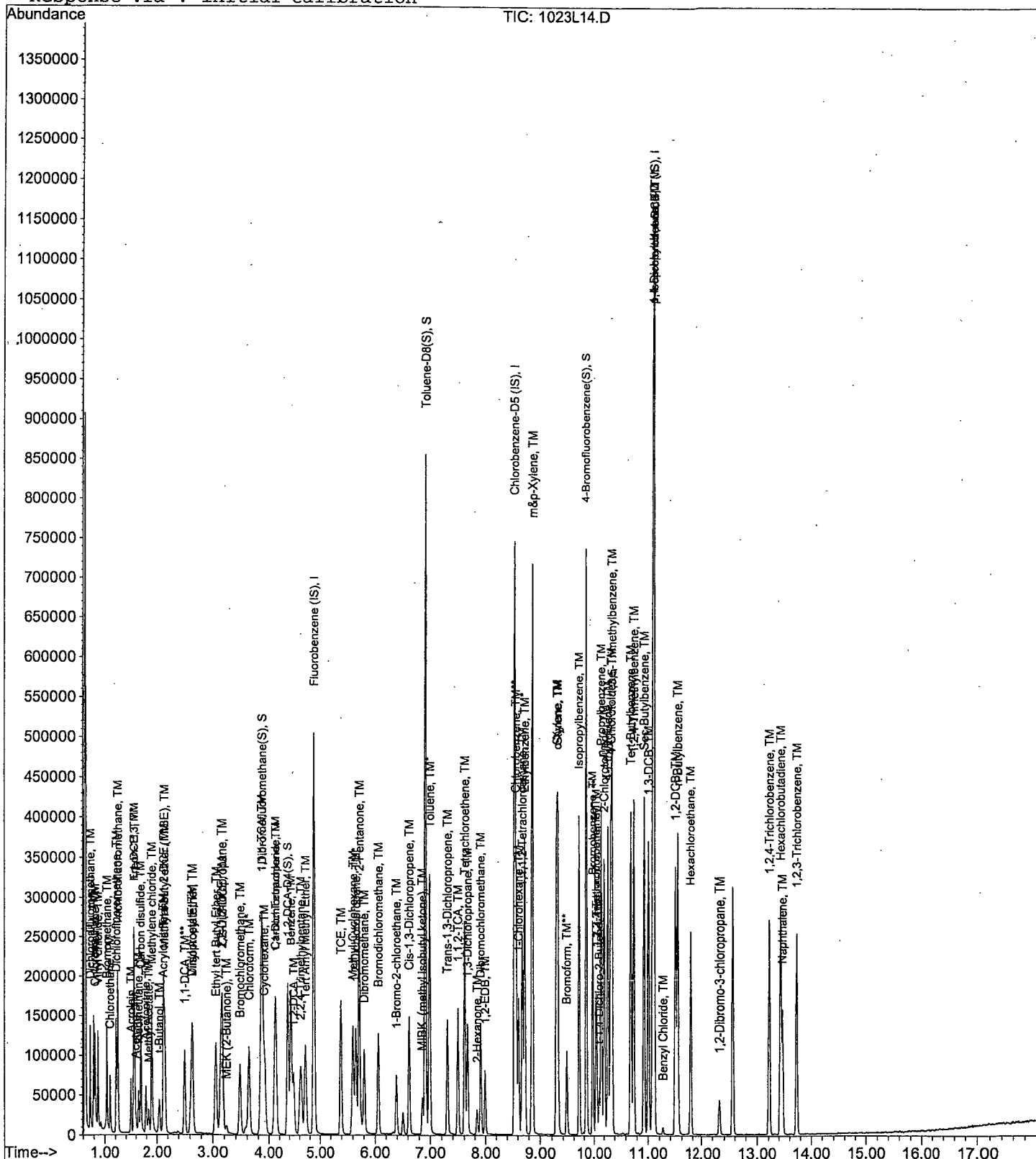
Data File : M:\LOKI\DATA\181023\1023L14.D  
Acq On : 23 Oct 18 18:47  
Sample : (SS) 10ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 13  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 24 11:11 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 11:02:36 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/24/18

Matrix: \_\_\_\_\_

Instrument: Loki

Initial Cal. Date: 10/23/18

Data File: 1024L04.D

	Compound	MEAN	CCRF	%D	%Drift
1	I Fluorobenzene (IS)	ISTD			I
2	TM Dichlorodifluoromethane	0.7499	0.6903	8.0	TM
3	TM Freon 114	0.4857	0.4733	2.6	TM
4	TM**L Chloromethane	0.6189	0.6016	2.8	TM**L 11
5	TM* Vinyl chloride	0.6256	0.6430	2.8	TM*
6	TML Bromomethane	0.4918	0.4797	2.4	TML 15
7	TM Chloroethane	0.3507	0.3382	3.5	TM
8	TM Dichlorofluoromethane	1.072	1.091	1.7	TM
9	TM Trichlorofluoromethane	1.064	1.086	2.1	TM
10	TM Acrolein	0.0358	0.0315	12	TM
11	TML Acetone	0.2261	0.1643	27	TML 4.1
12	TM Freon-113	0.5346	0.5236	2.0	TM
13	TM*L 1,1-DCE	0.2153	0.2149	0.18	TM*L 9.0
14	TM t-Butanol	0.0360	0.0321	11	TM
15	TM Acetonitrile	0.0533	0.0446	16	TM
16	TML Methyl Acetate	0.3259	0.2395	27	TML 15
17	TM Iodomethane	0.3058	0.3349	9.5	TM
18	TM Acrylonitrile	0.1050	0.1005	4.2	TM
19	TM Methylene chloride	0.5985	0.5805	3.0	TM
20	TM Carbon disulfide	1.608	1.549	3.7	TM
21	TM Methyl t-butyl ether (MtBE)	1.275	1.179	7.6	TM
22	TM Trans-1,2-DCE	0.5497	0.5290	3.8	TM
23	TM Diisopropyl Ether	1.309	1.305	0.30	TM
24	TM** 1,1-DCA	0.9924	0.9825	1.00	TM**
25	TM Vinyl Acetate	0.3446	0.3445	0.04	TM
26	TM Ethyl tert Butyl Ether	1.278	1.293	1.1	TM
27	TM MEK (2-Butanone)	0.1556	0.1412	9.2	TM
28	TM Cis-1,2-DCE	0.6398	0.6457	0.91	TM
29	TM 2,2-Dichloropropane	0.9154	0.9647	5.4	TM
30	TM* Chloroform	1.133	1.144	0.96	TM*
31	TM Bromochloromethane	0.3400	0.3288	3.3	TM
32	SL Dibromofluoromethane(S)	0.7811	0.7505	3.9	SL 5.0
33	TM 1,1,1-TCA	1.050	1.035	1.4	TM
34	TM Cyclohexane	0.3621	0.3527	2.6	TM
35	TM 1,1-Dichloropropene	0.6765	0.6798	0.49	TM
36	TM 2,2,4-Trimethylpentane	1.231	1.285	4.3	TM
37	SL 1,2-DCA-D4(S)	0.8407	0.7866	6.4	SL 9.0
38	TM Carbon Tetrachloride	0.9367	0.9682	3.4	TM
39	TM Tert Amyl Methyl Ether	1.252	1.205	3.8	TM
40	TM 1,2-DCA	0.7893	0.8016	1.6	TM

Average

5.2

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/24/18

Matrix: 0

Instrument: Loki

Cal. Date: 10/23/18

Data File: 1024L04.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	Benzene	2.093	2.138	2.2	TM
42	TM	TCE	0.2908	0.2816	3.2	TM
43	TM	2-Pentanone	0.2571	0.2391	7.0	TM
44	TM*	1,2-Dichloropropane	0.5655	0.5640	0.26	TM*
45	TM	Bromodichloromethane	0.9306	0.9141	1.8	TM
46	TM	Methyl Cyclohexane	0.6788	0.6702	1.3	TM
47	TM	Dibromomethane	0.3975	0.3809	4.2	TM
48	TM	2-Chloroethyl vinyl ether	0.0000	0.0005	0.00	TM
49	TML	MIBK (methyl isobutyl ketone)	0.4115	0.3371	18	TML 6.2
50	TM	1-Bromo-2-chloroethane	0.3527	0.3501	0.73	TM
51	TM	Cis-1,3-Dichloropropene	0.9271	0.9050	2.4	TM
52	TM*	Toluene	2.502	2.616	4.6	TM*
53	TM	Trans-1,3-Dichloropropene	0.8463	0.8193	3.2	TM
54	TM	1,1,2-TCA	0.4270	0.4334	1.5	TM
55	TM	2-Hexanone	0.2267	0.2115	6.7	TM
56	I	Chlorobenzene-D5 (IS)	ISTD			I
57	SL	Toluene-D8(S)	2.423	2.443	0.84	SL 5.0
58	TM	1,2-EDB	0.4978	0.4976	0.05	TM
59	TM	Tetrachloroethene	0.8192	0.8286	1.2	TM
60	TM	1-Chlorohexane	0.5964	0.6177	3.6	TM
61	TM	1,1,1,2-Tetrachloroethane	0.7540	0.7516	0.32	TM
62	TM	m&p-Xylene	1.129	1.217	7.9	TM
63	TM	o-Xylene	0.9526	1.001	5.1	TM
64	TM	Styrene	0.9686	1.103	14	TM
65	SL	4-Bromofluorobenzene(S)	0.9063	0.9498	4.8	SL 14
66	TM	1,3-Dichloropropane	0.7956	0.7704	3.2	TM
67	TM	Dibromochloromethane	0.7103	0.6618	6.8	TM
68	TM**	Chlorobenzene	1.734	1.754	1.1	TM**
69	TM*	Ethylbenzene	2.547	2.726	7.0	TM*
70	TM**	Bromoform	0.4999	0.4762	4.7	TM**
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
72	TM	Isopropylbenzene	3.997	4.217	5.5	TM
73	TM**	1,1,2,2-Tetrachloroethane	0.9812	0.9072	7.5	TM**
74	TML	1,2,3-Trichloropropane	0.3280	0.2946	10	TML 1.6
75	TM	t-1,4-Dichloro-2-Butene	0.2072	0.1822	12	TM
76	TM	Bromobenzene	1.366	1.391	1.9	TM
77	TM	n-Propylbenzene	2.903	3.079	6.1	TM
78	TM	4-Ethyltoluene	3.892	4.289	10	TM
79	TM	2-Chlorotoluene	2.965	3.095	4.4	TM
80	TM	1,3,5-Trimethylbenzene	2.162	2.507	16	TM

Average

5.0

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/24/18  
Instrument: Loki  
Cal. Date: 10/23/18  
Data File: 1024L04.D

		Compound	MEAN	CCRF	%D	%Drift	
81	TM	4-Chlorotoluene	3.487	3.813	9.3	TM	
82	TM	Tert-Butylbenzene	3.064	3.269	6.7	TM	
83	TM	1,2,4-Trimethylbenzene	3.367	3.851	14	TM	
84	TM	Sec-Butylbenzene	4.370	4.772	9.2	TM	
85	TM	p-Isopropyltoluene	4.051	4.467	10	TM	
86	TM	Benzyl Chloride	1.451	1.433	1.2	TM	
87	TM	1,3-DCB	2.567	2.616	1.9	TM	
88	TM	1,4-DCB	2.695	2.668	0.98	TM	
89	TM	n-Butylbenzene	3.189	3.513	10	TM	
90	TM	1,2-DCB	2.428	2.389	1.6	TM	
91	TM	Hexachloroethane	0.8973	0.8929	0.49	TM	
92	TM	1,2-Dibromo-3-chloropropane	0.1702	0.1582	7.1	TM	
93	TM	1,2,4-Trichlorobenzene	1.572	1.603	1.9	TM	
94	TM	Hexachlorobutadiene	1.068	1.057	1.1	TM	
95	TML	Naphthalene	2.029	2.127	4.8	TML	5.4
96	TM	1,2,3-Trichlorobenzene	0.7986	0.8251	3.3	TM	
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							

Average

5.2

Data File : M:\LOKI\DATA\181023\1024L04.D  
 Acq On : 24 Oct 18 8:55  
 Sample : 181024A CCV/LCS 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 12:23 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.88	96	243840	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	266112	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	166848	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Dibromofluoromethane(S)	3.87	111	183007	26.2466	ppb	0.00
Spiked Amount 25.000			Recovery =	104.988%		
37) 1,2-DCA-D4 (S)	4.36	65	191795	27.2418	ppb	0.00
Spiked Amount 25.000			Recovery =	108.968%		
57) Toluene-D8 (S)	6.91	98	650144	26.2622	ppb	0.00
Spiked Amount 25.000			Recovery =	105.048%		
65) 4-Bromofluorobenzene(S)	9.84	95	252746	28.4208	ppb	0.00
Spiked Amount 25.000			Recovery =	113.684%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	67328	9.2049	ppb	99
3) Freon 114	0.79	85	46159	9.7427	ppb	98
4) Chloromethane	0.82	50	58675	11.0740	ppb	99
5) Vinyl chloride	0.87	62	62716	10.2785	ppb	96
6) Bromomethane	1.04	94	46791	11.5361	ppb	99
7) Chloroethane	1.10	64	32990	9.6459	ppb	95
8) Dichlorofluoromethane	1.21	67	106374	10.1718	ppb	99
9) Trichlorofluoromethane	1.24	101	105900	10.2079	ppb	94
10) Acrolein	1.49	56	38351	109.7833	ppb	96
11) Acetone	1.60	43	16023	10.4087	ppb	97
12) Freon-113	1.57	101	51073	9.7952	ppb	97
13) 1,1-DCE	1.55	63	20960	10.9035	ppb	95
14) t-Butanol	2.05	59	39116	111.5010	ppb	98
15) Acetonitrile	1.79	41	54407	104.6301	ppb	98
16) Methyl Acetate	1.85	43	23358	8.5413	ppb	95
17) Iodomethane	1.64	142	32664	10.9518	ppb	98
18) Acrylonitrile	2.10	52	9804	9.5759	ppb	83
19) Methylene chloride	1.90	84	56624	9.6998	ppb	97
20) Carbon disulfide	1.69	76	151096	9.6329	ppb	99
21) Methyl t-butyl ether (MtBE)	2.15	73	114947	9.2437	ppb	98
22) Trans-1,2-DCE	2.12	96	51593	9.6224	ppb	100
23) Diisopropyl Ether	2.64	45	127307	9.9697	ppb	100
24) 1,1-DCA	2.51	63	95832	9.9003	ppb	100
25) Vinyl Acetate	2.64	43	33600	9.9956	ppb	99
26) Ethyl tert Butyl Ether	3.06	59	126079	10.1128	ppb	98
27) MEK (2-Butanone)	3.24	43	13776	9.0780	ppb	100
28) Cis-1,2-DCE	3.17	96	62979	10.0915	ppb	98
29) 2,2-Dichloropropane	3.15	77	94094	10.5391	ppb	98
30) Chloroform	3.64	83	111594	10.0961	ppb	97
31) Bromochloromethane	3.47	128	32069	9.6708	ppb	87
33) 1,1,1-TCA	3.85	97	100951	9.8582	ppb	95
34) Cyclohexane	3.91	41	34401	9.7415	ppb	96
35) 1,1-Dichloropropene	4.13	75	66305	10.0489	ppb	96
36) 2,2,4-Trimethylpentane	4.62	57	125298	10.4326	ppb	98
38) Carbon Tetrachloride	4.12	117	94431	10.3362	ppb	99
39) Tert Amyl Methyl Ether	4.71	73	117511	9.6235	ppb	99
40) 1,2-DCA	4.48	62	78188	10.1565	ppb	95
41) Benzene	4.43	78	208530	10.2155	ppb	98
42) TCE	5.38	95	27464	9.6844	ppb	95

(#) = qualifier out of range (m) = manual integration  
 1024L04.D L1023W.M Thu Oct 25 09:08:03 2018

Data File : M:\LOKI\DATA\181023\1024L04.D  
 Acq On : 24 Oct 18 8:55  
 Sample : 181024A CCV/LCS 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 12:23 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	291545	116.2505	ppb	100
44) 1,2-Dichloropropane	5.65	63	55015	9.9736	ppb #	95
45) Bromodichloromethane	6.05	83	89160	9.8229	ppb	99
46) Methyl Cyclohexane	5.60	83	65369	9.8735	ppb	99
47) Dibromomethane	5.80	93	37147	9.5816	ppb	94
49) MIBK (methyl isobutyl ket	6.85	43	32882	9.3806	ppb	92
50) 1-Bromo-2-chloroethane	6.39	63	34152	9.9271	ppb	97
51) Cis-1,3-Dichloropropene	6.62	75	88272	9.7617	ppb	98
52) Toluene	6.99	91	255133	10.4555	ppb	100
53) Trans-1,3-Dichloropropene	7.30	75	79911	9.6811	ppb	97
54) 1,1,2-TCA	7.49	83	42275	10.1508	ppb	98
55) 2-Hexanone	7.83	43	20627	9.3295	ppb #	88
58) 1,2-EDB	7.99	107	52965	9.9955	ppb	96
59) Tetrachloroethene	7.61	166	88203	10.1151	ppb	96
60) 1-Chlorohexane	8.61	91	65753	10.3571	ppb	99
61) 1,1,1,2-Tetrachloroethane	8.68	131	80000	9.9682	ppb	97
62) m&p-Xylene	8.86	91	259136	21.5711	ppb	99
63) o-Xylene	9.28	106	106592	10.5121	ppb	100
64) Styrene	9.30	104	117456	11.3920	ppb	97
66) 1,3-Dichloropropane	7.66	76	82008	9.6832	ppb	95
67) Dibromochloromethane	7.90	129	70446	9.3175	ppb	99
68) Chlorobenzene	8.57	112	186674	10.1117	ppb	97
69) Ethylbenzene	8.72	91	290141	10.7025	ppb	97
70) Bromoform	9.46	173	50691	9.5254	ppb	98
72) Isopropylbenzene	9.70	105	281439	10.5498	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.04	83	60549	9.2464	ppb	98
74) 1,2,3-Trichloropropane	10.06	110	19662	10.1582	ppb	91
75) t-1,4-Dichloro-2-Butene	10.10	53	12160	8.7919	ppb	98
76) Bromobenzene	9.97	156	92864	10.1871	ppb	99
77) n-Propylbenzene	10.15	91	205504	10.6081	ppb	97
78) 4-Ethyltoluene	10.27	105	286265	11.0201	ppb	96
79) 2-Chlorotoluene	10.20	91	206582	10.4398	ppb	95
80) 1,3,5-Trimethylbenzene	10.35	105	167296	11.5952	ppb	96
81) 4-Chlorotoluene	10.33	91	254466	10.9344	ppb	99
82) Tert-Butylbenzene	10.69	119	218203	10.6695	ppb	98
83) 1,2,4-Trimethylbenzene	10.74	105	257034	11.4384	ppb	96
84) Sec-Butylbenzene	10.92	105	318483	10.9204	ppb	99
85) p-Isopropyltoluene	11.09	119	298093	11.0268	ppb	100
86) Benzyl Chloride	11.26	91	95651	9.8777	ppb	99
87) 1,3-DCB	11.00	146	174610	10.1922	ppb	97
88) 1,4-DCB	11.10	146	178092	9.9019	ppb	98
89) n-Butylbenzene	11.53	91	234484	11.0182	ppb	98
90) 1,2-DCB	11.49	146	159469	9.8423	ppb	99
91) Hexachloroethane	11.76	117	59591	9.9508	ppb	98
92) 1,2-Dibromo-3-chloropropan	12.32	75	10558	9.2947	ppb	97
93) 1,2,4-Trichlorobenzene	13.21	180	106967	10.1947	ppb	95
94) Hexachlorobutadiene	13.43	225	70516	9.8911	ppb	96
95) Naphthalene	13.46	128	141955	9.4605	ppb	97
96) 1,2,3-Trichlorobenzene	13.72	180	55064	10.3310	ppb	96

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

Quantitation Report

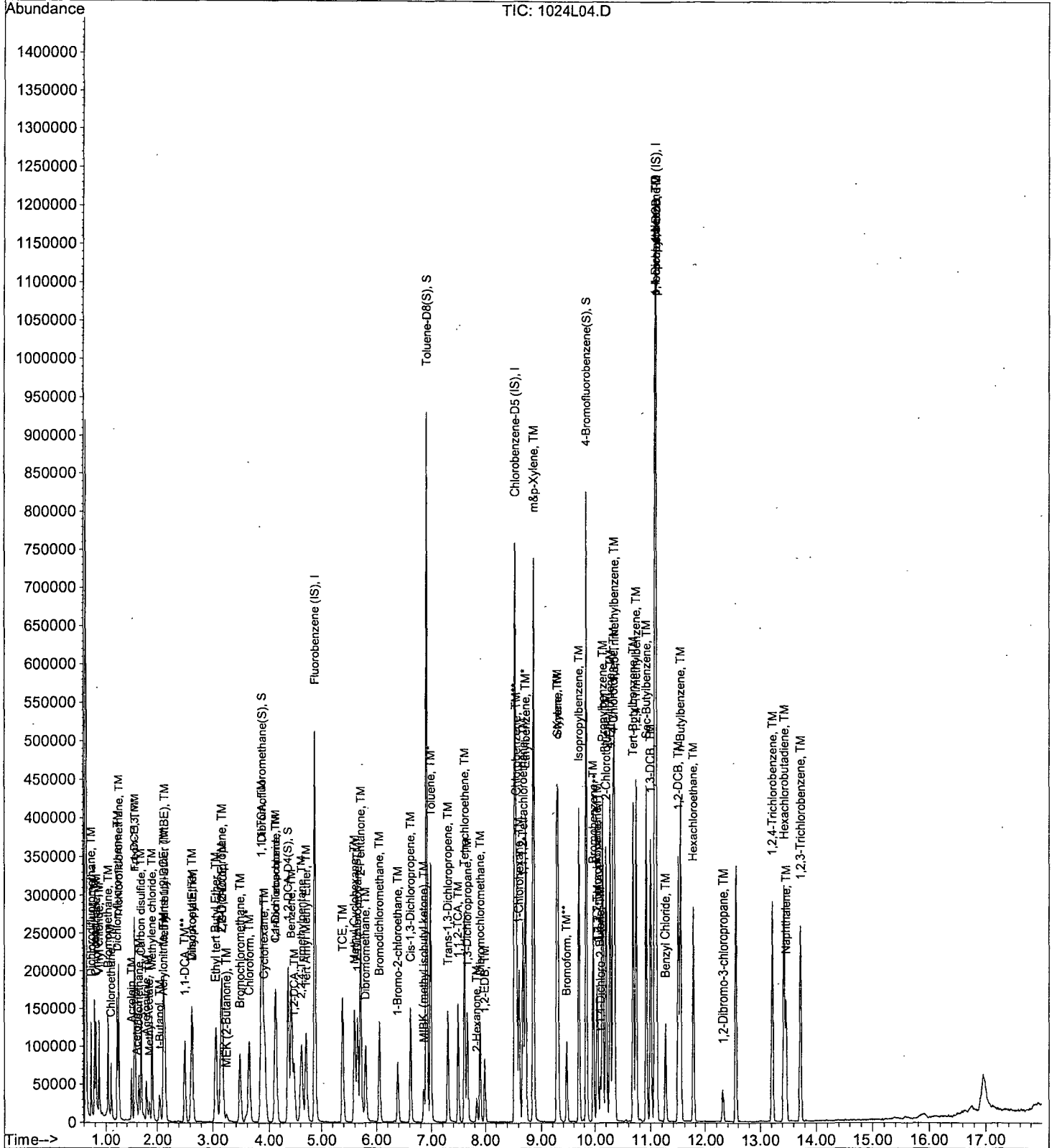
Data File : M:\LOKI\DATA\181023\1024L04.D  
Acq On : 24 Oct 18 8:55  
Sample : 181024A CCV/LCS 10ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 3  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 24 12:23 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 11:02:36 2018  
Response via : Initial Calibration





VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/24/18

Matrix: \_\_\_\_\_

Instrument: Loki

Initial Cal. Date: 10/23/18

Data File: 1024L28.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Fluorobenzene (IS)	ISTD			- I
2	TM	Dichlorodifluoromethane	0.7499	0.9129	22	TM
3	TM	Freon 114	0.4857	0.5318	9.5	TM
4	TM**L	Chloromethane	0.6189	0.7041	14	TM**L 30
5	TM*	Vinyl chloride	0.6256	0.7251	16	TM*
6	TML	Bromomethane	0.4918	0.5312	8.0	TML 28
7	TM	Chloroethane	0.3507	0.3580	2.1	TM
8	TM	Dichlorofluoromethane	1.072	1.093	1.9	TM
9	TM	Trichlorofluoromethane	1.064	1.219	15	TM
10	TM	Acrolein	0.0358	0.0350	2.4	TM
11	TML	Acetone	0.2261	0.1785	21	TML 16
12	TM	Freon-113	0.5346	0.5462	2.2	TM
13	TM*L	1,1-DCE	0.2153	0.2242	4.1	TM*L 14
14	TM	t-Butanol	0.0360	0.0356	1.2	TM
15	TM	Acetonitrile	0.0533	0.0477	11	TM
16	TML	Methyl Acetate	0.3259	0.2540	22	TML 8.9
17	TM	Iodomethane	0.3058	0.3202	4.7	TM
18	TM	Acrylonitrile	0.1050	0.1059	0.92	TM
19	TM	Methylene chloride	0.5985	0.5902	1.4	TM
20	TM	Carbon disulfide	1.608	1.714	6.6	TM
21	TM	Methyl t-butyl ether (MtBE)	1.275	1.269	0.48	TM
22	TM	Trans-1,2-DCE	0.5497	0.5686	3.4	TM
23	TM	Diisopropyl Ether	1.309	1.320	0.82	TM
24	TM**	1,1-DCA	0.9924	1.005	1.2	TM**
25	TM	Vinyl Acetate	0.3446	0.3504	1.7	TM
26	TM	Ethyl tert Butyl Ether	1.278	1.362	6.6	TM
27	TM	MEK (2-Butanone)	0.1556	0.1522	2.2	TM
28	TM	Cis-1,2-DCE	0.6398	0.6623	3.5	TM
29	TM	2,2-Dichloropropane	0.9154	0.8047	12	TM
30	TM*	Chloroform	1.133	1.168	3.1	TM*
31	TM	Bromochloromethane	0.3400	0.3522	3.6	TM
32	SL	Dibromofluoromethane(S)	0.8245	0.9199	12	SL 28
33	TM	1,1,1-TCA	1.050	1.077	2.6	TM
34	TM	Cyclohexane	0.3621	0.3976	9.8	TM
35	TM	1,1-Dichloropropene	0.6765	0.7252	7.2	TM
36	TM	2,2,4-Trimethylpentane	1.231	1.246	1.2	TM
37	SL	1,2-DCA-D4(S)	0.8881	1.001	13	SL 39
38	TM	Carbon Tetrachloride	0.9367	1.023	9.3	TM
39	TM	Tert Amyl Methyl Ether	1.252	1.264	0.99	TM
40	TM	1,2-DCA	0.7893	0.8541	8.2	TM

Average

6.9

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/24/18

Matrix: 0

Instrument: Loki

Cal. Date: 10/23/18

Data File: 1024L28.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	Benzene	2.093	2.203	5.2	TM	
42	TM	TCE	0.2908	0.3248	12	TM	
43	TM	2-Pentanone	0.2571	0.2600	1.1	TM	
44	TM*	1,2-Dichloropropane	0.5655	0.5888	4.1	TM*	
45	TM	Bromodichloromethane	0.9306	0.9403	1.0	TM	
46	TM	Methyl Cyclohexane	0.6788	0.7216	6.3	TM	
47	TM	Dibromomethane	0.3975	0.3945	0.74	TM	
48	TM	2-Chloroethyl vinyl ether	0.0000	0.0174	0.00	TM	
49	TML	MIBK (methyl isobutyl ketone)	0.4115	0.3640	12	TML	1.5
50	TM	1-Bromo-2-chloroethane	0.3527	0.3738	6.0	TM	
51	TM	Cis-1,3-Dichloropropene	0.9271	0.9007	2.9	TM	
52	TM*	Toluene	2.502	2.701	7.9	TM*	
53	TM	Trans-1,3-Dichloropropene	0.8463	0.8769	3.6	TM	
54	TM	1,1,2-TCA	0.4270	0.4451	4.2	TM	
55	TM	2-Hexanone	0.2267	0.2279	0.53	TM	
56	I	Chlorobenzene-D5 (IS)	ISTD			I	
57	SL	Toluene-D8(S)	2.567	2.984	16	SL	28
58	TM	1,2-EDB	0.4978	0.5237	5.2	TM	
59	TM	Tetrachloroethene	0.8192	0.8493	3.7	TM	
60	TM	1-Chlorohexane	0.5964	0.6271	5.1	TM	
61	TM	1,1,1,2-Tetrachloroethane	0.7540	0.7660	1.6	TM	
62	TM	m&p-Xylene	1.129	1.273	13	TM	
63	TM	o-Xylene	0.9526	1.038	8.9	TM	
64	TM	Styrene	0.9686	1.133	17	TM	
65	SL	4-Bromofluorobenzene(S)	0.9611	1.163	21	SL	39
66	TM	1,3-Dichloropropane	0.7956	0.8280	4.1	TM	
67	TM	Dibromochloromethane	0.7103	0.7410	4.3	TM	
68	TM**	Chlorobenzene	1.734	1.804	4.0	TM**	
69	TM*	Ethylbenzene	2.547	2.756	8.2	TM*	
70	TM**	Bromoform	0.4999	0.5285	5.7	TM**	
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
72	TM	Isopropylbenzene	3.997	4.070	1.8	TM	
73	TM**	1,1,2,2-Tetrachloroethane	0.9812	0.8875	9.6	TM**	
74	TML	1,2,3-Trichloropropane	0.3280	0.3110	5.2	TML	7.3
75	TM	t-1,4-Dichloro-2-Butene	0.2072	0.1935	6.6	TM	
76	TM	Bromobenzene	1.366	1.361	0.35	TM	
77	TM	n-Propylbenzene	2.903	3.026	4.3	TM	
78	TM	4-Ethyltoluene	3.892	4.109	5.6	TM	
79	TM	2-Chlorotoluene	2.965	3.033	2.3	TM	
80	TM	1,3,5-Trimethylbenzene	2.162	2.406	11	TM	

Average

6.1

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/24/18  
Instrument: Loki  
Cal. Date: 10/23/18  
Data File: 1024L28.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	4-Chlorotoluene	3.487	3.644	4.5	TM
82	TM	Tert-Butylbenzene	3.064	3.143	2.6	TM
83	TM	1,2,4-Trimethylbenzene	3.367	3.715	10	TM
84	TM	Sec-Butylbenzene	4.370	4.632	6.0	TM
85	TM	p-Isopropyltoluene	4.051	4.212	4.0	TM
86	TM	Benzyl Chloride	1.451	0.9924	32	TM
87	TM	1,3-DCB	2.567	2.611	1.7	TM
88	TM	1,4-DCB	2.695	2.581	4.2	TM
89	TM	n-Butylbenzene	3.189	3.281	2.9	TM
90	TM	1,2-DCB	2.428	2.359	2.8	TM
91	TM	Hexachloroethane	0.8973	0.8161	9.1	TM
92	TM	1,2-Dibromo-3-chloropropane	0.1702	0.1706	0.25	TM
93	TM	1,2,4-Trichlorobenzene	1.572	1.556	1.0	TM
94	TM	Hexachlorobutadiene	1.068	0.9445	12	TM
95	TML	Naphthalene	2.029	2.203	8.6	TML 2.1
96	TM	1,2,3-Trichlorobenzene	0.7986	0.8201	2.7	TM
97						
98						
99						
100						
101						
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112						
113						
114						
115						
116						
117						
118						
119						
120						

Average

6.5

Data File : M:\LOKI\DATA\181023\1024L28.D  
 Acq On : 24 Oct 18 20:07  
 Sample : Ending CCV 10ug/L 10/24/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 27  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 8:49 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	241792	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	262464	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	173632	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	177938	25.6415	ppb	0.00
Spiked Amount				25.000		
				Recovery	= 102.568%	
37) 1,2-DCA-D4(S)	4.37	65	193629	27.7352	ppb	0.00
Spiked Amount				25.000		
				Recovery	= 110.940%	
57) Toluene-D8(S)	6.91	98	626494	25.5705	ppb	0.00
Spiked Amount				25.000		
				Recovery	= 102.280%	
65) 4-Bromofluorobenzene(S)	9.84	95	244119	27.8323	ppb	0.00
Spiked Amount				25.000		
				Recovery	= 111.328%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	88296	12.1738	ppb	96
3) Freon 114	0.79	85	51433	10.9478	ppb	95
4) Chloromethane	0.82	50	68094	13.0039	ppb	98
5) Vinyl chloride	0.87	62	70128	11.5906	ppb	98
6) Bromomethane	1.04	94	51372	12.7771	ppb	97
7) Chloroethane	1.10	64	34627	10.2103	ppb	97
8) Dichlorofluoromethane	1.21	67	105702	10.1932	ppb	99
9) Trichlorofluoromethane	1.24	101	117875	11.4584	ppb	95
10) Acrolein	1.49	56	42265	122.0123	ppb	# 99
11) Acetone	1.60	43	17268	11.6456	ppb	94
12) Freon-113	1.57	101	52827	10.2174	ppb	95
13) 1,1-DCE	1.55	63	21680	11.3736	ppb	97
14) t-Butanol	2.05	59	42979	123.5503	ppb	100
15) Acetonitrile	1.79	41	57648	111.8019	ppb	97
16) Methyl Acetate	1.85	43	24570	9.1132	ppb	98
17) Iodomethane	1.64	142	30968	10.4711	ppb	99
18) Acrylonitrile	2.11	52	10246	10.0924	ppb	88
19) Methylene chloride	1.90	84	57087	9.8619	ppb	85
20) Carbon disulfide	1.69	76	165729	10.6553	ppb	97
21) Methyl t-butyl ether (MtBE)	2.15	73	122714	9.9519	ppb	99
22) Trans-1,2-DCE	2.12	96	54993	10.3434	ppb	98
23) Diisopropyl Ether	2.64	45	127656	10.0817	ppb	99
24) 1,1-DCA	2.51	63	97162	10.1227	ppb	97
25) Vinyl Acetate	2.64	43	33888	10.1667	ppb	100
26) Ethyl tert Butyl Ether	3.06	59	131775	10.6592	ppb	97
27) MEK (2-Butanone)	3.24	43	14719	9.7816	ppb	92
28) Cis-1,2-DCE	3.17	96	64052	10.3503	ppb	99
29) 2,2-Dichloropropane	3.15	77	77827	8.7909	ppb	97
30) Chloroform	3.63	83	112978	10.3079	ppb	95
31) Bromochloromethane	3.48	128	34066	10.3600	ppb	98
33) 1,1,1-TCA	3.85	97	104186	10.2602	ppb	100
34) Cyclohexane	3.92	41	38455	10.9817	ppb	91
35) 1,1-Dichloropropene	4.13	75	70140	10.7201	ppb	96
36) 2,2,4-Trimethylpentane	4.63	57	120490	10.1173	ppb	89
38) Carbon Tetrachloride	4.11	117	98985	10.9265	ppb	99
39) Tert Amyl Methyl Ether	4.71	73	122282	10.0990	ppb	98
40) 1,2-DCA	4.48	62	82604	10.8210	ppb	98
41) Benzene	4.43	78	213040	10.5248	ppb	99
42) TCE	5.38	95	31416	11.1718	ppb	97

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

Data File : M:\LOKI\DATA\181023\1024L28.D  
 Acq On : 24 Oct 18 20:07  
 Sample : Ending CCV 10ug/L 10/24/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 27  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 8:49 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	314377	126.4163	ppb	100
44) 1,2-Dichloropropane	5.65	63	56943	10.4105	ppb	97
45) Bromodichloromethane	6.05	83	90942	10.1041	ppb	98
46) Methyl Cyclohexane	5.60	83	69790	10.6306	ppb	99
47) Dibromomethane	5.80	93	38158	9.9257	ppb	96
49) MIBK (methyl isobutyl ket	6.86	43	35207	10.1470	ppb	# 94
50) 1-Bromo-2-chloroethane	6.39	63	36152	10.5975	ppb	92
51) Cis-1,3-Dichloropropene	6.62	75	87110	9.7148	ppb	98
52) Toluene	6.99	91	261186	10.7943	ppb	97
53) Trans-1,3-Dichloropropene	7.30	75	84809	10.3616	ppb	98
54) 1,1,2-TCA	7.49	83	43051	10.4247	ppb	93
55) 2-Hexanone	7.83	43	22040	10.0530	ppb	92
58) 1,2-EDB	7.99	107	54976	10.5192	ppb	97
59) Tetrachloroethene	7.61	166	89169	10.3680	ppb	96
60) 1-Chlorohexane	8.61	91	65838	10.5146	ppb	97
61) 1,1,1,2-Tetrachloroethane	8.68	131	80422	10.1600	ppb	94
62) m&p-Xylene	8.86	91	267312	22.5610	ppb	100
63) o-Xylene	9.28	106	108937	10.8927	ppb	99
64) Styrene	9.30	104	118952	11.6974	ppb	99
66) 1,3-Dichloropropane	7.66	76	86926	10.4066	ppb	99
67) Dibromochloromethane	7.90	129	77794	10.4324	ppb	97
68) Chlorobenzene	8.56	112	189347	10.3990	ppb	98
69) Ethylbenzene	8.72	91	289375	10.8226	ppb	100
70) Bromoform	9.46	173	55481	10.5704	ppb	100
72) Isopropylbenzene	9.70	105	282643	10.1809	ppb	96
73) 1,1,2,2-Tetrachloroethane	10.04	83	61636	9.0447	ppb	92
74) 1,2,3-Trichloropropane	10.06	110	21601	10.7322	ppb	90
75) t-1,4-Dichloro-2-Butene	10.10	53	13437	9.3356	ppb	91
76) Bromobenzene	9.97	156	94531	9.9648	ppb	97
77) n-Propylbenzene	10.15	91	210176	10.4254	ppb	98
78) 4-Ethyltoluene	10.27	105	285391	10.5572	ppb	97
79) 2-Chlorotoluene	10.20	91	210634	10.2287	ppb	97
80) 1,3,5-Trimethylbenzene	10.35	105	167104	11.1294	ppb	97
81) 4-Chlorotoluene	10.33	91	253119	10.4515	ppb	100
82) Tert-Butylbenzene	10.69	119	218286	10.2565	ppb	99
83) 1,2,4-Trimethylbenzene	10.74	105	258028	11.0340	ppb	94
84) Sec-Butylbenzene	10.92	105	321725	10.6006	ppb	99
85) p-Isopropyltoluene	11.09	119	292527	10.3981	ppb	98
86) Benzyl Chloride	11.26	91	68926	6.8397	ppb	96
87) 1,3-DCB	11.00	146	181342	10.1716	ppb	99
88) 1,4-DCB	11.10	146	179233	9.5759	ppb	98
89) n-Butylbenzene	11.53	91	227905	10.2906	ppb	99
90) 1,2-DCB	11.49	146	163812	9.7154	ppb	98
91) Hexachloroethane	11.76	117	56680	9.0949	ppb	96
92) 1,2-Dibromo-3-chloropropan	12.32	75	11851	10.0254	ppb	94
93) 1,2,4-Trichlorobenzene	13.21	180	108084	9.8986	ppb	99
94) Hexachlorobutadiene	13.43	225	65600	8.8421	ppb	92
95) Naphthalene	13.46	128	153020	9.7943	ppb	100
96) 1,2,3-Trichlorobenzene	13.72	180	56960	10.2692	ppb	98

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

1024L28.D L1023W.M

Thu Oct 25 09:08:15 2018

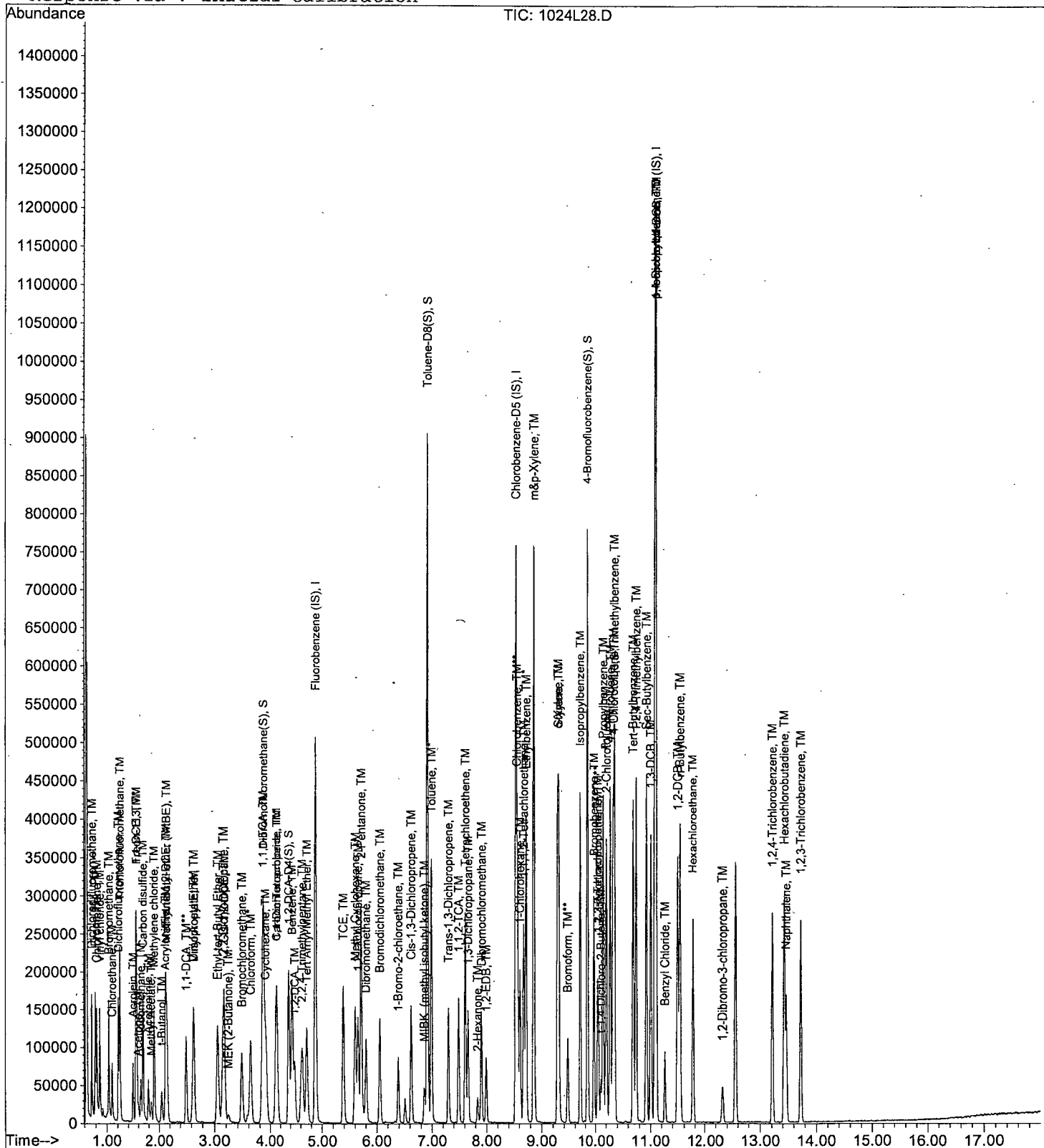
Data File : M:\LOKI\DATA\181023\1024L28.D  
Acq On : 24 Oct 18 20:07  
Sample : Ending CCV 10ug/L 10/24/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 27  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 8:49 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 11:02:36 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

**Form 6**  
**Initial Calibration**

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: water

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/24/18  
Instrument: Thor

Initials: DG

1024T03.D    1024T04.D    1024T08.D    1024T07.D    1024T08.D    1024T09.D    1024T10.D    1024T11.D

	Compound	1	2	4	5	6	7	8	9			Avg	%RSD	Type	r <sup>2</sup>	Q	MRF
1	I	Fluorobenzene (IS)															
2	TM	Dichlorodifluoromethane		0.2229	0.2517	0.2164	0.2119	0.2102	0.2428	0.2222		0.23	7.0	TM			
3	TM	Freon 114		0.1408	0.1373	0.1120	0.1178	0.1179	0.1344	0.1028		0.12	12	TM			
4	TM**	Chloromethane		0.2001	0.1735	0.1722	0.1585	0.1589	0.1651	0.1592		0.17	8.7	TM**			
5	TM*	Vinyl chloride		0.1801	0.2141	0.2089	0.2020	0.1988	0.2159	0.2023		0.20	5.9	TM*			
6	TM	Bromomethane		0.1316	0.1054	0.1009	0.0924	0.0891	0.1034	0.0986		0.10	13	TM			
7	TML	Chloroethane		0.1497	0.1013	0.0974	0.0952	0.0888	0.0971	0.0912		0.10	20	TML	0.999		
8	TM	Dichlorofluoromethane		0.4028	0.3164	0.2991	0.2810	0.2851	0.3041			0.31	14	TM			
9	TM	Trichlorofluoromethane		0.2845	0.2859	0.2692	0.2508	0.2568	0.2813	0.2646		0.27	5.1	TM			
10	TM	Acrolein		0.0173	0.0158	0.0176	0.0168	0.0155	0.0166	0.0165		0.02	4.6	TM			
11	TML	Acetone		0.2703	0.0887	0.0819	0.0502	0.0538	0.0464	0.0456		0.09	89	TML	0.999		
12	TM	Freon-113		0.1521	0.1601	0.1409	0.1406	0.1344	0.1489	0.1140		0.14	10	TM			
13	TM*	1,1-DCE		0.2397	0.2526	0.2172	0.2190	0.2171	0.2357	0.1904		0.22	9.0	TM*			
14	TM	Acetonitrile		0.0188	0.0169	0.0184	0.0190	0.0182	0.0181	0.0186		0.02	3.8	TM			
15	TM	t-Butanol	0.0182	0.0130	0.0140	0.0141	0.0150	0.0146	0.0167	0.0191		0.02	14	TM			
16	TM	Methyl Acetate		0.1363	0.1419	0.1400	0.1111	0.1174	0.1240	0.1067		0.13	11	TM			
17	TML	Iodomethane		0.0792	0.0846	0.0815	0.0934	0.1091	0.1543	0.1495		0.11	30	TML	0.996		
18	TML	Acrylonitrile		0.0852	0.0439	0.0588	0.0554	0.0535	0.0542			0.06	24	TML	1.000		
19	TM	Methylene chloride		0.2481	0.1976	0.2002	0.1853	0.1799	0.1928	0.1591		0.19	14	TM			
20	TM	Carbon disulfide		0.6173	0.5108	0.4625	0.4700	0.4502	0.4953	0.4046		0.49	14	TM			
21	TM	Methyl t-butyl ether (MtBE)		0.5274	0.4780	0.4576	0.4390	0.4224	0.4642	0.3846		0.45	9.9	TM			
22	TM	Trans-1,2-DCE		0.2412	0.1930	0.1741	0.1678	0.1700	0.1845			0.19	15	TM			
23	TM	Hexane					0.1001					0.10		TM			
24	TM	Diisopropyl Ether		0.5279	0.5200	0.4830	0.4739	0.4563	0.5007	0.4161		0.48	8.0	TM			
25	TM**	1,1-DCA		0.3501	0.3363	0.3196	0.3045	0.2971	0.3249	0.2692		0.31	8.5	TM**			
26	TM	Vinyl Acetate		0.1586	0.1614	0.1624	0.1517	0.1462	0.1588	0.1323		0.15	7.1	TM			
27	TM	Ethyl tert Butyl Ether		0.3943	0.3685	0.3844	0.3556	0.3545	0.3915	0.3354		0.37	6.0	TM			
28	TM	MEK (2-Butanone)			0.0283	0.0293	0.0266	0.0309	0.0305	0.0297		0.03	5.4	TM			
29	TM	Cis-1,2-DCE		0.3385	0.2995	0.2848	0.2746	0.2668	0.2906	0.2421		0.29	11	TM			
30	TM	2,2-Dichloropropane		0.3400	0.2580	0.2562	0.2454	0.2485	0.2620	0.2165		0.26	15	TM			
31	TM*	Chloroform		0.3512	0.3470	0.3338	0.3242	0.3103	0.3402	0.2832		0.33	7.3	TM*			
32	TM	Bromochloromethane		0.0513	0.0521	0.0519	0.0496	0.0500	0.0537	0.0426		0.05	7.2	TM			
33	S	Dibromofluoromethane(S)	0.4355	0.4474	0.3809	0.4212	0.4109	0.4131	0.4210	0.4019		0.42	4.9	S			
34	TM	1,1,1-TCA		0.3161	0.3010	0.2792	0.2685	0.2648	0.2908	0.2394		0.28	9.1	TM			
35	TML	Cyclohexane		0.2468	0.1496	0.1298	0.1236	0.1229	0.1415			0.15	31	TML	0.994		

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

**Form 6**  
**Initial Calibration**

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: water

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/24/18  
Instrument: Thor

Initials: DG

	Compound	1	2	4	5	6	7	8	9			Avg	%RSD	Type	Q	MRF
36	TM	1,1-Dichloropropene		0.1550	0.1423	0.1255	0.1151	0.1198	0.1294	0.1050		0.13	13	TM		
37	TM	2,2,4-Trimethylpentane		0.5461	0.5545	0.4869	0.4947	0.4712	0.5297	0.4117		0.50	10.0	TM		
38	S	1,2-DCA-D4(S)	0.4825	0.5155	0.4352	0.4714	0.4569	0.4567	0.4669	0.4473		0.47	5.3	S		
39	TM	Carbon Tetrachloride		0.2138	0.2390	0.2259	0.2213	0.2211	0.2494	0.2023		0.22	6.9	TM		
40	TM	Tert Amyl Methyl Ether		0.3884	0.3437	0.3488	0.3250	0.3153	0.3569	0.3075		0.34	8.1	TM		
41	TM	1,2-DCA		0.2789	0.2538	0.2519	0.2439	0.2457	0.2586	0.2188		0.25	7.2	TM		
42	TM	Benzene		0.8635	0.8209	0.7660	0.7473	0.7218	0.7845	0.6459		0.76	9.2	TM		
43	TM	TCE		0.2158	0.2304	0.1963	0.1982	0.1904	0.2058	0.1739		0.20	9.0	TM		
44	TM	2-Pentanone		0.1200	0.1196	0.1280	0.1247	0.1212	0.1254	0.1184		0.12	2.9	TM		
45	TM*	1,2-Dichloropropane		0.2065	0.1927	0.1940	0.1878	0.1805	0.1976	0.1639		0.19	7.2	TM*		
46	TM	Bromodichloromethane		0.2973	0.2652	0.2558	0.2445	0.2436	0.2669	0.2256		0.26	8.9	TM		
47	TM	Methyl Cyclohexane		0.2720	0.2988	0.2841	0.2752	0.2571	0.2917	0.2316		0.27	8.3	TM		
48	TM	Dibromomethane		0.1376	0.1437	0.1321	0.1237	0.1237	0.1342	0.1132		0.13	7.9	TM		
49	TM	MIBK (methyl isobutyl ketone)		0.0711	0.0617	0.0669	0.0617	0.0670	0.0662	0.0644		0.07	5.1	TM		
50	TM	1-Bromo-2-chloroethane		0.2545	0.2666	0.2632	0.2510	0.2467	0.2650	0.2228		0.25	6.0	TM		
51	TM	2-Chloroethyl vinyl ether			0.0040	0.0041	0.0044	0.0040	0.0040	0.0033		0.00	8.7	TM		
52	TM	Cis-1,3-Dichloropropene		0.3700	0.3302	0.3166	0.3016	0.2946	0.3233	0.2745		0.32	9.6	TM		
53	TM*	Toluene		0.5633	0.5288	0.4912	0.4990	0.4950	0.5383	0.4540		0.51	7.1	TM*		
54	TM	Trans-1,3-Dichloropropene		0.1883	0.1861	0.1680	0.1669	0.1629	0.1871	0.1601		0.17	7.1	TM		
55	TM	1,1,2-TCA		0.1574	0.1556	0.1607	0.1568	0.1455	0.1608	0.1356		0.15	6.1	TM		
56	TM	2-Hexanone		0.0618	0.0609	0.0606	0.0576	0.0589	0.0597	0.0596		0.06	2.3	TM		
57	I	Chlorobenzene-D5 (IS)														
58	S	Toluene-D8(S)	2.084	2.132	1.812	1.938	1.894	1.854	1.937	1.751		1.9	6.7	S		
59	TM	1,2-EDB		0.2590	0.2445	0.2406	0.2239	0.2210	0.2408	0.1966		0.23	8.7	TM		
60	TM	Tetrachloroethene		0.3681	0.3247	0.2863	0.2628	0.2556	0.2838			0.30	14	TM		
61	TM	1-Chlorohexane		0.3211	0.3169	0.3029	0.2754	0.2656	0.2966	0.2335		0.29	11	TM		
62	TM	1,1,1,2-Tetrachloroethane		0.2480	0.2418	0.2358	0.2294	0.2204	0.2479	0.1980		0.23	7.7	TM		
63	TM	m&p-Xylene		0.2561	0.2687	0.2582	0.2523	0.2488	0.2828	0.2217		0.26	7.4	TM		
64	TM	o-Xylene		0.2585	0.2796	0.2706	0.2627	0.2521	0.2848	0.2325		0.26	6.7	TM		
65	TM	Styrene		0.3595	0.4243	0.4075	0.4034	0.4108	0.4653	0.3929		0.41	7.8	TM		
66	S	4-Bromofluorobenzene(S)	0.7791	0.7971	0.6623	0.7263	0.7130	0.6976	0.7329	0.6747		0.72	6.5	S		
67	TM	1,3-Dichloropropane		0.4117	0.3930	0.4022	0.3650	0.3463	0.3873	0.3070		0.37	9.8	TM		
68	TM	Dibromochloromethane		0.2224	0.2583	0.2450	0.2317	0.2278	0.2593	0.2095		0.24	7.9	TM		
69	TM**	Chlorobenzene		0.7035	0.7014	0.6505	0.6455	0.6209	0.6826	0.5469		0.65	8.4	TM**		
70	TM*	Ethylbenzene		1.249	1.163	1.102	1.064	1.025	1.156	0.9148		1.1	9.9	TM*		



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 6  
Initial Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: water

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/24/18  
Instrument: Thor

Initials: DG

	Compound	1	2	4	5	6	7	8	9			Avg	%RSD	Type	Q	MRF
71	TM** Bromoform		0.1568	0.1761	0.1810	0.1709	0.1686	0.1876	0.1555			0.17	7.0	TM**		
72	I 1,4-Dichlorobenzene-D (IS)															
73	TM Isopropylbenzene		2.457	2.319	2.110	2.006	1.960	2.123	1.691			2.1	12	TM		
74	TM** 1,1,2,2-Tetrachloroethane		0.3531	0.3910	0.3774	0.3603	0.3589	0.3722	0.2978			0.36	8.3	TM**		
75	TM 1,2,3-Trichloropropane		0.0885	0.1053	0.1137	0.1129	0.1036	0.1141	0.0914			0.10	10	TM		
76	TM t-1,4-Dichloro-2-Butene		0.1066	0.1234	0.1078	0.1091	0.0953	0.1005	0.0899			0.10	10	TM		
77	TM Bromobenzene		0.6686	0.6037	0.5620	0.5474	0.5235	0.5643	0.4604			0.56	12	TM		
78	TM n-Propylbenzene		1.686	1.697	1.555	1.512	1.523	1.643	1.329			1.6	8.2	TM		
79	TM 4-Ethyltoluene		2.160	2.021	1.893	1.859	1.807	1.954	1.589			1.9	9.4	TM		
80	TM 2-Chlorotoluene		1.059	1.007	0.9503	0.9345	0.9025	0.9511	0.7831			0.94	9.2	TM		
81	TM 1,3,5-Trimethylbenzene		1.913	1.879	1.752	1.697	1.654	1.784	1.450			1.7	9.0	TM		
82	TM 4-Chlorotoluene		1.121	1.111	1.052	1.037	1.005	1.099	0.8921			1.0	7.6	TM		
83	TM Tert-Butylbenzene		0.9904	1.079	0.9863	0.9753	0.9423	1.041	0.8312			0.98	8.0	TM		
84	TM 1,2,4-Trimethylbenzene		1.303	1.216	1.129	1.114	1.112	1.217	0.9824			1.2	8.9	TM		
85	TM Sec-Butylbenzene		2.395	2.415	2.142	2.113	2.086	2.255	1.805			2.2	9.6	TM		
86	TM p-Isopropyltoluene		1.892	1.979	1.804	1.754	1.716	1.881	1.544			1.8	7.9	TM		
87	TM Benzyl Chloride		0.7089	0.6542	0.6784	0.6532	0.6447	0.6918	0.7022			0.68	3.8	TM		
88	TM 1,3-DCB		1.097	1.083	0.9965	0.9329	0.9273	1.003	0.8244			0.98	9.7	TM		
89	TM 1,4-DCB		1.182	1.040	0.9991	0.9349	0.9209	0.9962	0.8176			0.98	12	TM		
90	TM n-Butylbenzene		1.048	0.9601	0.9631	0.9770	0.9945	1.133	0.9439			1.0	6.6	TM		
91	TM 1,2-DCB		0.9740	1.059	0.9840	0.9412	0.9148	0.9967	0.8231			0.96	7.8	TM		
92	TM Hexachloroethane		0.2738	0.2996	0.2931	0.2858	0.2882	0.3211	0.3039			0.30	5.1	TM		
93	TM 1,2-Dibromo-3-chloropropane		0.0876	0.1209	0.1252	0.1136	0.1113	0.1194	0.1048			0.11	11	TM		
94	TML 1,2,4-Trichlorobenzene		0.4004	0.4007	0.4367	0.4699	0.4996	0.5932	0.5527			0.48	16	TML	0.998	
95	TM Hexachlorobutadiene		0.3575	0.3158	0.2924	0.2997	0.2885	0.3159	0.2713			0.31	9.0	TM		
96	TML Naphthalene		0.5468	0.4928	0.5719	0.6376	0.7080	0.8342				0.63	20	TML	0.994	
97	TML 1,2,3-Trichlorobenzene		0.3597	0.3644	0.4425	0.4700	0.5013	0.5645	0.5279			0.46	17	TML	0.999	
98																
99																
100																
101																
102																
103																
104																
105																

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T181024\1024T04.D  
 Acq On : 24 Oct 18 10:46  
 Sample : 0.5ug/L VOC STD 18/10/24  
 Misc : IS&S 10/15/18,8/13/18

Vial: 3  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 9:28 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.41	96	843648	25.000	ppb	0.00
57) Chlorobenzene-D5 (IS)	9.58	117	699520	25.000	ppb	0.00
72) 1,4-Dichlorobenzene-D (IS)	11.90	152	349760	25.000	ppb	0.00

System Monitoring Compounds

33) Dibromofluoromethane(S)	5.61	111	75493	5.371	ppb	0.00
Spiked Amount	25.000		Recovery	=	21.484%	
38) 1,2-DCA-D4(S)	6.00	65	86980	5.525	ppb	0.00
Spiked Amount	25.000		Recovery	=	22.100%	
58) Toluene-D8(S)	8.13	98	298307	5.537	ppb	0.00
Spiked Amount	25.000		Recovery	=	22.148%	
66) 4-Bromofluorobenzene(S)	10.76	95	111520	5.514	ppb	0.00
Spiked Amount	25.000		Recovery	=	22.056%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.16	85	3761	0.494	ppb	93
3) Freon 114	1.26	135	2376	0.571	ppb	88
4) Chloromethane	1.30	50	3377	0.590	ppb	95
5) Vinyl chloride	1.39	62	3038	0.443	ppb #	59
6) Bromomethane	1.67	94	2221	0.639	ppb	92
7) Chloroethane	1.77	64	2526	0.379	ppb #	81
8) Dichlorofluoromethane	1.96	67	6796	0.640	ppb	98
9) Trichlorofluoromethane	2.00	101	4801	0.526	ppb	98
10) Acrolein	2.43	56	14563	26.033	ppb	100
11) Acetone	2.61	43	4561	0.339	ppb	97
12) Freon-113	2.55	101	2567	0.537	ppb	85
13) 1,1-DCE	2.52	61	4045	0.534	ppb	84
14) Acetonitrile	2.92	41	15885	25.710	ppb	95
15) t-Butanol	3.37	59	10955	20.834	ppb	100
16) Methyl Acetate	3.01	43	2299	0.544	ppb	90
17) Iodomethane	2.67	142	1337	2.407	ppb #	86
18) Acrylonitrile	3.45	52	1437	0.678	ppb #	50
19) Methylene chloride	3.10	84	4187	0.637	ppb	96
20) Carbon disulfide	2.73	76	10416	0.633	ppb	93
21) Methyl t-butyl ether (MtBE)	3.52	73	8898	0.582	ppb	98
22) Trans-1,2-DCE	3.47	96	4070	0.640	ppb	78
23) Hexane	3.52	57	2588	0.766	ppb #	92
24) Diisopropyl Ether	4.32	45	8908	0.547	ppb	97
25) 1,1-DCA	4.10	63	5907	0.557	ppb	99
26) Vinyl Acetate	4.31	87	2676	0.518	ppb	86
27) Ethyl tert Butyl Ether	4.84	59	6653	0.534	ppb	97
28) MEK (2-Butanone)	5.05	43	1029	1.043	ppb #	45
29) Cis-1,2-DCE	4.96	61	5711	0.593	ppb	90
30) 2,2-Dichloropropane	4.95	77	5737	0.651	ppb	99
31) Chloroform	5.42	83	5926	0.537	ppb	95
32) Bromochloromethane	5.27	128	866	0.512	ppb	89
34) 1,1,1-TCA	5.60	97	5334	0.565	ppb	83
35) Cyclohexane	5.67	41	4165	1.328	ppb #	53
36) 1,1-Dichloropropene	5.82	75	2616	0.608	ppb #	83
37) 2,2,4-Trimethylpentane	6.20	57	9215	0.547	ppb	90
39) Carbon Tetrachloride	5.81	117	3608	0.476	ppb	90
40) Tert Amyl Methyl Ether	6.26	73	6553	0.570	ppb #	98
41) 1,2-DCA	6.09	62	4706	0.557	ppb	96
42) Benzene	6.06	78	14569	0.565	ppb #	81

(#) = qualifier out of range (m) = manual integration  
 1024T04.D T1024W.M Thu Oct 25 09:34:02 2018

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T181024\1024T04.D  
 Acq On : 24 Oct 18 10:46  
 Sample : 0.5ug/L VOC STD 18/10/24  
 Misc : IS&S 10/15/18,8/13/18

Vial: 3  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 9:28 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) TCE	6.83	95	3642	0.535	ppb	90
44) 2-Pentanone	7.07	43	101271	24.501	ppb	97
45) 1,2-Dichloropropane	7.06	63	3484	0.546	ppb #	88
46) Bromodichloromethane	7.38	83	5016	0.578	ppb	93
47) Methyl Cyclohexane	7.02	83	4590	0.498	ppb	88
48) Dibromomethane	7.18	93	2322	0.530	ppb	86
49) MIBK (methyl isobutyl ket	8.04	58	1199	0.542	ppb #	70
50) 1-Bromo-2-chloroethane	7.68	63	4295	0.503	ppb	90
52) Cis-1,3-Dichloropropene	7.86	75	6243	0.586	ppb	89
53) Toluene	8.19	91	9504	0.552	ppb	93
54) Trans-1,3-Dichloropropene	8.44	75	3178	0.541	ppb #	77
55) 1,1,2-TCA	8.61	83	2655	0.514	ppb	89
56) 2-Hexanone	8.90	58	1043	0.516	ppb #	93
59) 1,2-EDB	9.10	107	3624	0.557	ppb	93
60) Tetrachloroethene	8.75	166	5150	0.620	ppb	92
61) 1-Chlorohexane	9.61	91	4493	0.559	ppb	94
62) 1,1,1,2-Tetrachloroethane	9.69	131	3469	0.535	ppb	99
63) m&p-Xylene	9.85	106	7166	1.002	ppb	89
64) o-Xylene	10.24	106	3616	0.491	ppb	86
65) Styrene	10.26	104	5030	0.439	ppb #	83
67) 1,3-Dichloropropane	8.78	76	5760	0.552	ppb	90
68) Dibromochloromethane	9.00	129	3112	0.471	ppb	89
69) Chlorobenzene	9.61	112	9842	0.541	ppb	89
70) Ethylbenzene	9.73	91	17471	0.570	ppb	96
71) Bromoform	10.42	173	2194	0.459	ppb	94
73) Isopropylbenzene	10.62	105	17184	0.586	ppb	96
74) 1,1,2,2-Tetrachloroethane	10.91	83	2470	0.492	ppb	86
75) 1,2,3-Trichloropropane	10.95	110	619	0.425	ppb #	71
76) t-1,4-Dichloro-2-Butene	10.97	53	746	0.510	ppb #	70
77) Bromobenzene	10.90	156	4677	0.595	ppb	87
78) n-Propylbenzene	11.02	91	11792	0.539	ppb	99
79) 4-Ethyltoluene	11.14	105	15111	0.569	ppb	98
80) 2-Chlorotoluene	11.10	91	7409	0.563	ppb	99
81) 1,3,5-Trimethylbenzene	11.21	105	13383	0.552	ppb	91
82) 4-Chlorotoluene	11.21	91	7841	0.536	ppb	95
83) Tert-Butylbenzene	11.53	119	6928	0.506	ppb	88
84) 1,2,4-Trimethylbenzene	11.58	105	9112	0.565	ppb	94
85) Sec-Butylbenzene	11.74	105	16756	0.551	ppb	97
86) p-Isopropyltoluene	11.90	119	13235	0.527	ppb #	83
87) Benzyl Chloride	12.07	91	4959	0.524	ppb #	91
88) 1,3-DCB	11.83	146	7675	0.559	ppb	96
89) 1,4-DCB	11.93	146	8271	0.601	ppb	99
90) n-Butylbenzene	12.30	91	7333	0.523	ppb	97
91) 1,2-DCB	12.29	146	6813	0.509	ppb	90
92) Hexachloroethane	12.54	117	1915	0.464	ppb #	84
93) 1,2-Dibromo-3-chloropropan	13.06	157	613	0.392	ppb #	79
94) 1,2,4-Trichlorobenzene	13.89	180	2801	1.043	ppb	92
95) Hexachlorobutadiene	14.08	225	2501	0.584	ppb	93
96) Naphthalene	14.13	128	3825	1.741	ppb	97
97) 1,2,3-Trichlorobenzene	14.37	180	2516	0.786	ppb #	70

Quantitation Report

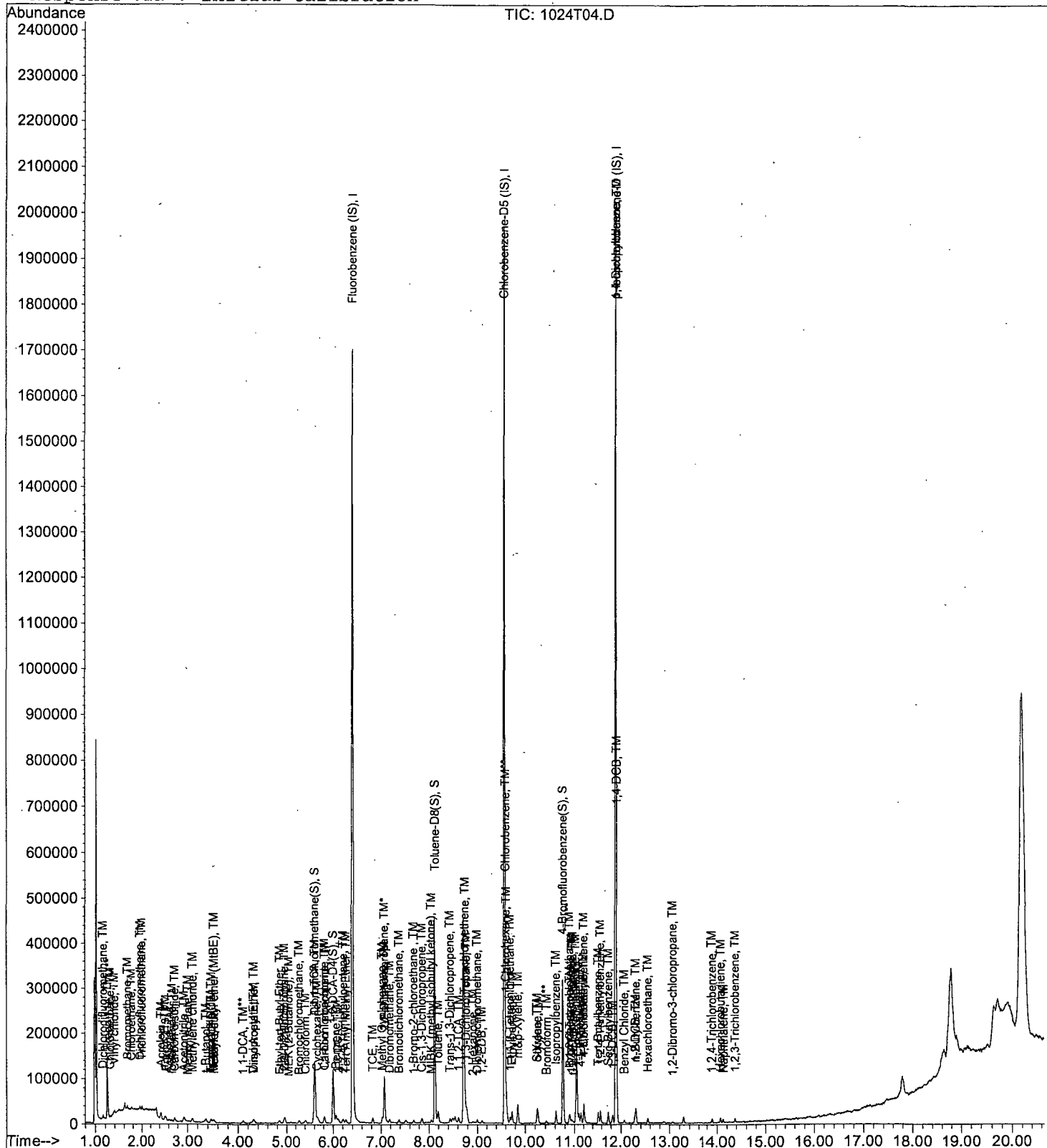
Data File : M:\THOR\DATA\T181024\1024T04.D  
Acq On : 24 Oct 18 10:46  
Sample : 0.5ug/L VOC STD 18/10/24  
Misc : IS&S 10/15/18, 8/13/18

Vial: 3  
Operator: DG,SV, CMM.PM,KV  
Inst : Thor  
Multiplr: 1.00

Quant Time: Oct 25 9:28 2018

Quant Results File: T1024W.RES

Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:28:00 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T181024\1024T06.D Vial: 5  
 Acq On : 24 Oct 18 11:43 Operator: DG,SV, CMM.PM,KV  
 Sample : 2.0ug/L VOC STD 18/10/24 Inst : Thor  
 Misc : IS&S 10/15/18,8/13/18 Multiplr: 1.00

Quant Time: Oct 25 9:28 2018 Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	6.41	96	875712	25.000	ppb	0.00
57) Chlorobenzene-D5 (IS)	9.58	117	712640	25.000	ppb	0.00
72) 1,4-Dichlorobenzene-D (IS)	11.90	152	343616	25.000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
33) Dibromofluoromethane(S)	5.61	111	133429	9.146	ppb	0.00
Spiked Amount 25.000			Recovery =	36.584%		
38) 1,2-DCA-D4(S)	6.00	65	152451	9.329	ppb	0.00
Spiked Amount 25.000			Recovery =	37.316%		
58) Toluene-D8(S)	8.13	98	516394	9.409	ppb	0.00
Spiked Amount 25.000			Recovery =	37.636%		
66) 4-Bromofluorobenzene(S)	10.75	95	188788	9.162	ppb	0.00
Spiked Amount 25.000			Recovery =	36.648%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.15	85	17631	2.233	ppb	98
3) Freon 114	1.26	135	9620	2.228	ppb	97
4) Chloromethane	1.30	50	12153	2.045	ppb	99
5) Vinyl chloride	1.39	62	15000	2.108	ppb	98
6) Bromomethane	1.67	94	7386	2.046	ppb	89
7) Chloroethane	1.76	64	7096	1.778	ppb	97
8) Dichlorofluoromethane	1.96	67	22168	2.011	ppb	99
9) Trichlorofluoromethane	2.00	101	20026	2.114	ppb	98
10) Acrolein	2.43	56	41589	71.622	ppb	99
11) Acetone	2.61	43	6212	1.290	ppb	# 78
12) Freon-113	2.55	101	11218	2.262	ppb	96
13) 1,1-DCE	2.52	61	17693	2.250	ppb	95
14) Acetonitrile	2.92	41	44394	69.222	ppb	99
15) t-Butanol	3.35	59	36744	67.320	ppb	99
16) Methyl Acetate	3.02	43	9941	2.264	ppb	99
17) Iodomethane	2.66	142	5929	3.254	ppb	99
18) Acrylonitrile	3.45	52	3072	1.515	ppb	91
19) Methylene chloride	3.10	84	13841	2.029	ppb	86
20) Carbon disulfide	2.73	76	35784	2.097	ppb	95
21) Methyl t-butyl ether (MtBE)	3.51	73	33484	2.109	ppb	# 94
22) Trans-1,2-DCE	3.47	96	13523	2.049	ppb	90
23) Hexane	3.52	57	7674	2.188	ppb	# 90
24) Diisopropyl Ether	4.31	45	36429	2.155	ppb	99
25) 1,1-DCA	4.10	63	23557	2.138	ppb	99
26) Vinyl Acetate	4.31	87	11309	2.109	ppb	88
27) Ethyl tert Butyl Ether	4.84	59	25815	1.996	ppb	89
28) MEK (2-Butanone)	5.04	43	1983	1.937	ppb	# 82
29) Cis-1,2-DCE	4.96	61	20983	2.100	ppb	93
30) 2,2-Dichloropropane	4.95	77	18077	1.978	ppb	99
31) Chloroform	5.41	83	24313	2.122	ppb	94
32) Bromochloromethane	5.28	128	3652	2.078	ppb	99
34) 1,1,1-TCA	5.61	97	21087	2.150	ppb	99
35) Cyclohexane	5.66	41	10479	2.590	ppb	89
36) 1,1-Dichloropropene	5.82	75	9972	2.234	ppb	97
37) 2,2,4-Trimethylpentane	6.20	57	38849	2.221	ppb	96
39) Carbon Tetrachloride	5.81	117	16743	2.127	ppb	95
40) Tert Amyl Methyl Ether	6.27	73	24081	2.017	ppb	96
41) 1,2-DCA	6.09	62	17777	2.028	ppb	100
42) Benzene	6.06	78	57512	2.148	ppb	96

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T181024\1024T06.D  
 Acq On : 24 Oct 18 11:43  
 Sample : 2.0ug/L VOC STD 18/10/24  
 Misc : IS&S 10/15/18,8/13/18

Vial: 5  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 9:28 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) TCE	6.82	95	16139	2.286	ppb	96
44) 2-Pentanone	7.07	43	314281	73.253	ppb	99
45) 1,2-Dichloropropane	7.06	63	13497	2.039	ppb	98
46) Bromodichloromethane	7.38	83	18578	2.064	ppb	97
47) Methyl Cyclohexane	7.03	83	20934	2.190	ppb	99
48) Dibromomethane	7.18	93	10069	2.215	ppb	79
49) MIBK (methyl isobutyl ket	8.05	58	4324	1.883	ppb #	66
50) 1-Bromo-2-chloroethane	7.68	63	18678	2.109	ppb	91
51) 2-Chloroethyl vinyl ether	7.68	106	279	2.015	ppb	90
52) Cis-1,3-Dichloropropene	7.85	75	23134	2.091	ppb	99
53) Toluene	8.20	91	37048	2.074	ppb	96
54) Trans-1,3-Dichloropropene	8.44	75	13036	2.136	ppb	93
55) 1,1,2-TCA	8.61	83	10900	2.031	ppb	97
56) 2-Hexanone	8.90	58	4263	2.033	ppb #	77
59) 1,2-EDB	9.10	107	13940	2.105	ppb	93
60) Tetrachloroethene	8.75	166	18512	2.187	ppb	93
61) 1-Chlorohexane	9.61	91	18066	2.205	ppb	98
62) 1,1,1,2-Tetrachloroethane	9.69	131	13785	2.088	ppb	90
63) m&p-Xylene	9.85	106	30640	4.207	ppb	97
64) o-Xylene	10.24	106	15942	2.127	ppb	97
65) Styrene	10.26	104	24192	2.074	ppb	100
67) 1,3-Dichloropropane	8.78	76	22403	2.106	ppb	91
68) Dibromochloromethane	9.00	129	14727	2.186	ppb	93
69) Chlorobenzene	9.61	112	39985	2.157	ppb	98
70) Ethylbenzene	9.73	91	66322	2.122	ppb	98
71) Bromoform	10.42	173	10042	2.061	ppb	90
73) Isopropylbenzene	10.62	105	63735	2.213	ppb	97
74) 1,1,2,2-Tetrachloroethane	10.91	83	10748	2.180	ppb	96
75) 1,2,3-Trichloropropane	10.94	110	2895	2.021	ppb	91
76) t-1,4-Dichloro-2-Butene	10.97	53	3392	2.358	ppb #	67
77) Bromobenzene	10.89	156	16595	2.151	ppb	100
78) n-Propylbenzene	11.03	91	46663	2.171	ppb	98
79) 4-Ethyltoluene	11.14	105	55550	2.130	ppb	96
80) 2-Chlorotoluene	11.10	91	27688	2.140	ppb	98
81) 1,3,5-Trimethylbenzene	11.20	105	51666	2.169	ppb	96
82) 4-Chlorotoluene	11.21	91	30528	2.125	ppb	95
83) Tert-Butylbenzene	11.53	119	29648	2.206	ppb	98
84) 1,2,4-Trimethylbenzene	11.57	105	33432	2.109	ppb	97
85) Sec-Butylbenzene	11.74	105	66394	2.223	ppb	99
86) p-Isopropyltoluene	11.90	119	54399	2.204	ppb	97
87) Benzyl Chloride	12.07	91	17984	1.935	ppb	98
88) 1,3-DCB	11.84	146	29776	2.209	ppb	94
89) 1,4-DCB	11.92	146	28589	2.113	ppb	95
90) n-Butylbenzene	12.30	91	26392	1.915	ppb	96
91) 1,2-DCB	12.29	146	29112	2.215	ppb	98
92) Hexachloroethane	12.55	117	8237	2.031	ppb	92
93) 1,2-Dibromo-3-chloropropan	13.06	157	3324	2.163	ppb #	85
94) 1,2,4-Trichlorobenzene	13.89	180	11014	2.115	ppb	90
95) Hexachlorobutadiene	14.08	225	8680	2.065	ppb	89
96) Naphthalene	14.13	128	13548	2.588	ppb	96
97) 1,2,3-Trichlorobenzene	14.37	180	10018	1.813	ppb	95

Quantitation Report

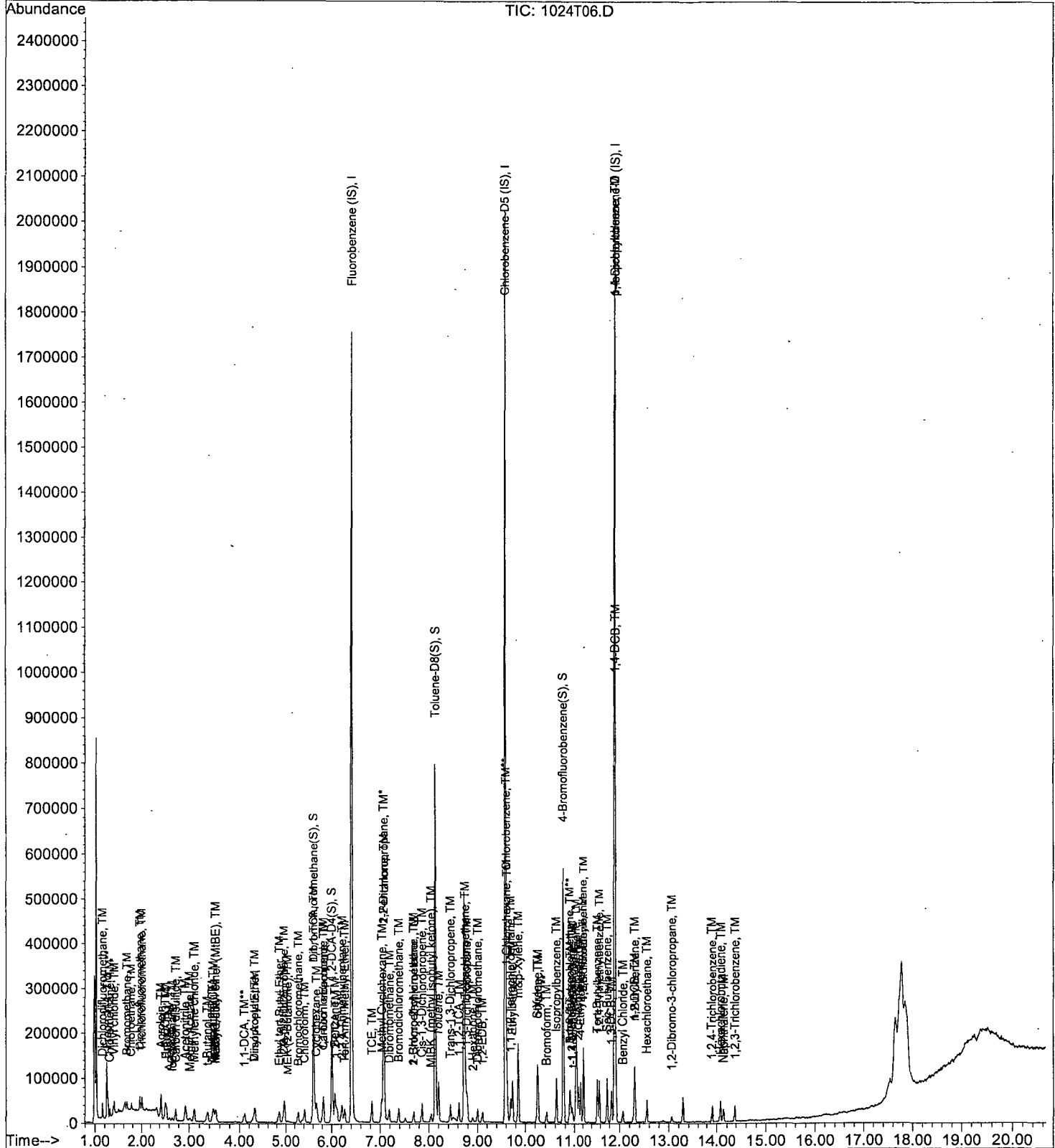
Data File : M:\THOR\DATA\T181024\1024T06.D  
 Acq On : 24 Oct 18 11:43  
 Sample : 2.0ug/L VOC STD 18/10/24  
 Misc : IS&S 10/15/18,8/13/18

Vial: 5  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 9:28 2018

Quant Results File: T1024W.RES

Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T181024\1024T07.D  
 Acq On : 24 Oct 18 12:12  
 Sample : 5.0ug/L VOC STD 18/10/24  
 Misc : IS&S 10/15/18,8/13/18

Vial: 6  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 9:28 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.41	96	874752	25.000	ppb	0.00
57) Chlorobenzene-D5 (IS)	9.58	117	724928	25.000	ppb	0.00
72) 1,4-Dichlorobenzene-D (IS)	11.90	152	366720	25.000	ppb	0.00

System Monitoring Compounds

33) Dibromofluoromethane(S)	5.61	111	368459	25.283	ppb	0.00
Spiked Amount 25.000			Recovery =	101.132%		
38) 1,2-DCA-D4(S)	6.00	65	412381	25.262	ppb	0.00
Spiked Amount 25.000			Recovery =	101.048%		
58) Toluene-D8(S)	8.13	98	1404896	25.164	ppb	0.00
Spiked Amount 25.000			Recovery =	100.656%		
66) 4-Bromofluorobenzene(S)	10.75	95	526486	25.118	ppb	0.00
Spiked Amount 25.000			Recovery =	100.472%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.16	85	37853	4.799	ppb	98
3) Freon 114	1.26	135	19597	4.543	ppb	92
4) Chloromethane	1.30	50	30133	5.076	ppb	97
5) Vinyl chloride	1.39	62	36544	5.141	ppb	95
6) Bromomethane	1.67	94	17657	4.896	ppb	93
7) Chloroethane	1.76	64	17042	4.892	ppb	100
8) Dichlorofluoromethane	1.96	67	52330	4.752	ppb	99
9) Trichlorofluoromethane	2.00	101	47088	4.976	ppb	93
10) Acrolein	2.43	56	61740	106.441	ppb	96
11) Acetone	2.61	43	14329	6.521	ppb	# 73
12) Freon-113	2.55	101	24647	4.975	ppb	96
13) 1,1-DCE	2.52	61	37995	4.836	ppb	95
14) Acetonitrile	2.92	41	64551	100.763	ppb	96
15) t-Butanol	3.36	59	49387	90.583	ppb	98
16) Methyl Acetate	3.02	43	24501	5.587	ppb	93
17) Iodomethane	2.66	142	14253	4.810	ppb	# 97
18) Acrylonitrile	3.45	52	10293	5.342	ppb	99
19) Methylene chloride	3.10	84	35023	5.141	ppb	95
20) Carbon disulfide	2.73	76	80919	4.746	ppb	99
21) Methyl t-butyl ether (MtBE)	3.51	73	80050	5.047	ppb	95
22) Trans-1,2-DCE	3.47	96	30451	4.618	ppb	90
23) Hexane	3.51	57	18013	5.142	ppb	# 99
24) Diisopropyl Ether	4.31	45	84493	5.004	ppb	98
25) 1,1-DCA	4.10	63	55919	5.081	ppb	99
26) Vinyl Acetate	4.31	87	28415	5.306	ppb	100
27) Ethyl tert Butyl Ether	4.84	59	67254	5.207	ppb	100
28) MEK (2-Butanone)	5.04	43	5119	5.006	ppb	# 87
29) Cis-1,2-DCE	4.97	61	49826	4.992	ppb	92
30) 2,2-Dichloropropane	4.95	77	44820	4.909	ppb	94
31) Chloroform	5.41	83	58390	5.101	ppb	95
32) Bromochloromethane	5.27	128	9080	5.172	ppb	99
34) 1,1,1-TCA	5.61	97	48840	4.985	ppb	97
35) Cyclohexane	5.67	41	22710	5.102	ppb	94
36) 1,1-Dichloropropene	5.82	75	21952	4.923	ppb	96
37) 2,2,4-Trimethylpentane	6.21	57	85184	4.876	ppb	98
39) Carbon Tetrachloride	5.81	117	39520	5.027	ppb	97
40) Tert Amyl Methyl Ether	6.26	73	61029	5.118	ppb	99
41) 1,2-DCA	6.09	62	44077	5.034	ppb	96
42) Benzene	6.06	78	134010	5.011	ppb	99

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



Data File : M:\THOR\DATA\T181024\1024T07.D  
 Acq On : 24 Oct 18 12:12  
 Sample : 5.0ug/L VOC STD 18/10/24  
 Misc : IS&S 10/15/18,8/13/18

Vial: 6  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 9:28 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Compound	R.T.	Qion	Response	Conc	Unit	Qvalue
43) TCE	6.82	95	34342	4.870	ppb	97
44) 2-Pentanone	7.07	43	447790	104.486	ppb	100
45) 1,2-Dichloropropane	7.06	63	33944	5.133	ppb	99
46) Bromodichloromethane	7.38	83	44756	4.977	ppb	99
47) Methyl Cyclohexane	7.03	83	49705	5.205	ppb	91
48) Dibromomethane	7.18	93	23107	5.089	ppb	92
49) MIBK (methyl isobutyl ket	8.04	58	11697	5.099	ppb	87
50) 1-Bromo-2-chloroethane	7.68	63	46050	5.205	ppb	99
51) 2-Chloroethyl vinyl ether	7.68	106	715	5.169	ppb	# 58
52) Cis-1,3-Dichloropropene	7.85	75	55389	5.012	ppb	97
53) Toluene	8.19	91	85936	4.816	ppb	98
54) Trans-1,3-Dichloropropene	8.44	75	29400	4.823	ppb	99
55) 1,1,2-TCA	8.61	83	28117	5.245	ppb	91
56) 2-Hexanone	8.90	58	10599	5.061	ppb	# 86
59) 1,2-EDB	9.10	107	34877	5.177	ppb	97
60) Tetrachloroethene	8.75	166	41510	4.822	ppb	98
61) 1-Chlorohexane	9.61	91	43910	5.269	ppb	99
62) 1,1,1,2-Tetrachloroethane	9.69	131	34191	5.091	ppb	99
63) m&p-Xylene	9.85	106	74856	10.103	ppb	99
64) o-Xylene	10.24	106	39232	5.145	ppb	100
65) Styrene	10.26	104	59080	4.980	ppb	100
67) 1,3-Dichloropropane	8.78	76	58319	5.389	ppb	94
68) Dibromochloromethane	9.00	129	35520	5.184	ppb	99
69) Chlorobenzene	9.61	112	94320	5.003	ppb	95
70) Ethylbenzene	9.73	91	159747	5.025	ppb	97
71) Bromoform	10.42	173	26244	5.295	ppb	99
73) Isopropylbenzene	10.62	105	154763	5.036	ppb	98
74) 1,1,2,2-Tetrachloroethane	10.91	83	27680	5.261	ppb	99
75) 1,2,3-Trichloropropane	10.94	110	8338	5.454	ppb	98
76) t-1,4-Dichloro-2-Butene	10.97	53	7906	5.150	ppb	95
77) Bromobenzene	10.90	156	41222	5.006	ppb	97
78) n-Propylbenzene	11.03	91	114058	4.973	ppb	100
79) 4-Ethyltoluene	11.14	105	138849	4.988	ppb	96
80) 2-Chlorotoluene	11.10	91	69701	5.049	ppb	96
81) 1,3,5-Trimethylbenzene	11.21	105	128468	5.054	ppb	98
82) 4-Chlorotoluene	11.20	91	77143	5.031	ppb	99
83) Tert-Butylbenzene	11.53	119	72336	5.043	ppb	96
84) 1,2,4-Trimethylbenzene	11.57	105	82816	4.895	ppb	99
85) Sec-Butylbenzene	11.74	105	157124	4.929	ppb	100
86) p-Isopropyltoluene	11.90	119	132300	5.023	ppb	98
87) Benzyl Chloride	12.06	91	49753	5.016	ppb	99
88) 1,3-DCB	11.83	146	73087	5.081	ppb	97
89) 1,4-DCB	11.92	146	73275	5.074	ppb	99
90) n-Butylbenzene	12.30	91	70640	4.802	ppb	98
91) 1,2-DCB	12.29	146	72172	5.146	ppb	98
92) Hexachloroethane	12.55	117	21500	4.967	ppb	94
93) 1,2-Dibromo-3-chloropropan	13.06	157	9182	5.597	ppb	94
94) 1,2,4-Trichlorobenzene	13.89	180	32028	4.578	ppb	93
95) Hexachlorobutadiene	14.08	225	21443	4.779	ppb	97
96) Naphthalene	14.13	128	41944	4.816	ppb	100
97) 1,2,3-Trichlorobenzene	14.37	180	32456	4.588	ppb	93

(#) = qualifier out of range (m) = manual integration  
 1024T07.D T1024W.M Thu Oct 25 09:34:10 2018

Quantitation Report

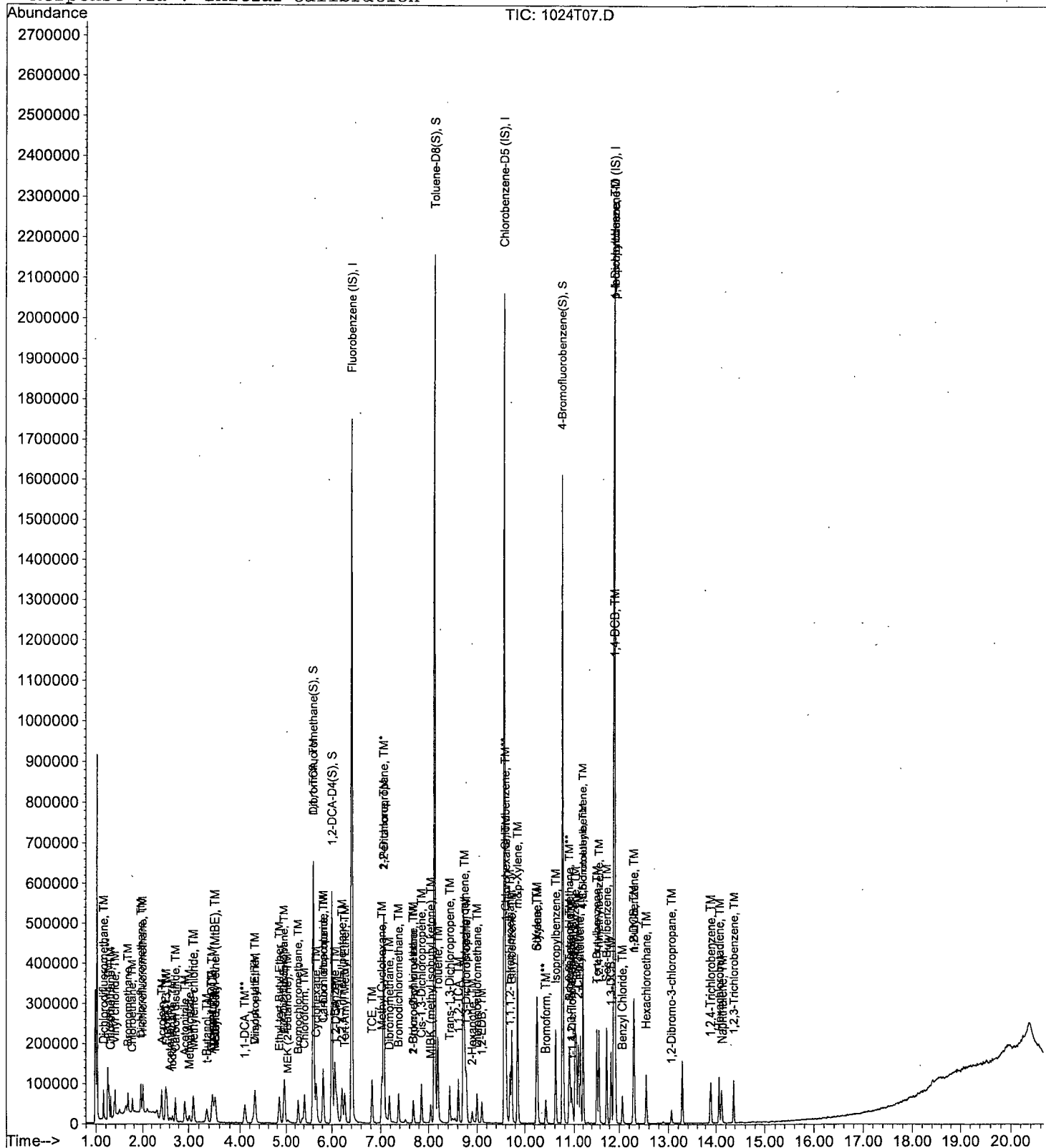
Data File : M:\THOR\DATA\T181024\1024T07.D  
 Acq On : 24 Oct 18 12:12  
 Sample : 5.0ug/L VOC STD 18/10/24  
 Misc : IS&S 10/15/18,8/13/18

Vial: 6  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 9:28 2018

Quant Results File: T1024W.RES

Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T181024\1024T08.D  
 Acq On : 24 Oct 18 12:40  
 Sample : 10ug/L VOC STD 18/10/24  
 Misc : IS&S 10/15/18,8/13/18

Vial: 7  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 9:28 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.41	96	904448	25.000	ppb	0.00
57) Chlorobenzene-D5 (IS)	9.58	117	748736	25.000	ppb	0.00
72) 1,4-Dichlorobenzene-D (IS)	11.90	152	383872	25.000	ppb	0.00

System Monitoring Compounds

33) Dibromofluoromethane(S)	5.61	111	371645	24.665	ppb	0.00
Spiked Amount	25.000		Recovery	=	98.660%	
38) 1,2-DCA-D4(S)	6.00	65	413220	24.482	ppb	0.00
Spiked Amount	25.000		Recovery	=	97.928%	
58) Toluene-D8(S)	8.13	98	1418170	24.594	ppb	0.00
Spiked Amount	25.000		Recovery	=	98.376%	
66) 4-Bromofluorobenzene(S)	10.75	95	533813	24.658	ppb	0.00
Spiked Amount	25.000		Recovery	=	98.632%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.16	85	76675	9.401	ppb	100
3) Freon 114	1.26	135	42626	9.556	ppb	100
4) Chloromethane	1.30	50	57346	9.343	ppb	100
5) Vinyl chloride	1.39	62	73064	9.942	ppb	100
6) Bromomethane	1.66	94	33432	8.966	ppb	100
7) Chloroethane	1.76	64	34427	9.978	ppb	100
8) Dichlorofluoromethane	1.96	67	101650	8.927	ppb	100
9) Trichlorofluoromethane	2.00	101	90751	9.276	ppb	100
10) Acrolein	2.43	56	75927	126.602	ppb	100
11) Acetone	2.61	43	18159	8.603	ppb	100
12) Freon-113	2.55	101	50880	9.934	ppb	100
13) 1,1-DCE	2.52	61	79225	9.753	ppb	100
14) Acetonitrile	2.92	41	85975	129.799	ppb	100
15) t-Butanol	3.36	59	67867	120.391	ppb	100
16) Methyl Acetate	3.01	43	40203	8.866	ppb	100
17) Iodomethane	2.67	142	33799	8.254	ppb	100
18) Acrylonitrile	3.45	52	20037	10.157	ppb	100
19) Methylene chloride	3.10	84	67038	9.517	ppb	100
20) Carbon disulfide	2.73	76	170046	9.647	ppb	100
21) Methyl t-butyl ether (MtBE)	3.51	73	158806	9.684	ppb	100
22) Trans-1,2-DCE	3.47	96	60719	8.907	ppb	100
23) Hexane	3.52	57	36223	10.000	ppb	# 100
24) Diisopropyl Ether	4.31	45	171439	9.820	ppb	100
25) 1,1-DCA	4.10	63	110168	9.682	ppb	100
26) Vinyl Acetate	4.32	87	54868	9.909	ppb	100
27) Ethyl tert Butyl Ether	4.84	59	128653	9.633	ppb	100
28) MEK (2-Butanone)	5.04	43	9628	9.107	ppb	100
29) Cis-1,2-DCE	4.96	61	99336	9.625	ppb	100
30) 2,2-Dichloropropane	4.95	77	88766	9.403	ppb	100
31) Chloroform	5.41	83	117289	9.910	ppb	100
32) Bromochloromethane	5.27	128	17936	9.882	ppb	100
34) 1,1,1-TCA	5.61	97	97144	9.591	ppb	100
35) Cyclohexane	5.67	41	44731	9.320	ppb	100
36) 1,1-Dichloropropene	5.82	75	41632	9.029	ppb	100
37) 2,2,4-Trimethylpentane	6.21	57	178974	9.909	ppb	100
39) Carbon Tetrachloride	5.81	117	80064	9.850	ppb	100
40) Tert Amyl Methyl Ether	6.26	73	117577	9.536	ppb	100
41) 1,2-DCA	6.09	62	88233	9.747	ppb	100
42) Benzene	6.06	78	270345	9.777	ppb	100

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

Data File : M:\THOR\DATA\T181024\1024T08.D  
 Acq On : 24 Oct 18 12:40  
 Sample : 10ug/L VOC STD 18/10/24  
 Misc : IS&S 10/15/18,8/13/18

Vial: 7  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 9:28 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) TCE	6.83	95	71706	9.834	ppb	100
44) 2-Pentanone	7.07	43	564093	127.302	ppb	100
45) 1,2-Dichloropropane	7.06	63	67950	9.938	ppb	100
46) Bromodichloromethane	7.37	83	88466	9.515	ppb	100
47) Methyl Cyclohexane	7.03	83	99553	10.082	ppb	100
48) Dibromomethane	7.18	93	44757	9.534	ppb	100
49) MIBK (methyl isobutyl ket	8.05	58	22306	9.404	ppb	100
50) 1-Bromo-2-chloroethane	7.68	63	90815	9.928	ppb	100
51) 2-Chloroethyl vinyl ether	7.68	106	1581	11.054	ppb	100
52) Cis-1,3-Dichloropropene	7.86	75	109099	9.549	ppb	100
53) Toluene	8.19	91	180544	9.786	ppb	100
54) Trans-1,3-Dichloropropene	8.44	75	60368	9.579	ppb	100
55) 1,1,2-TCA	8.61	83	56732	10.236	ppb	100
56) 2-Hexanone	8.90	58	20837	9.622	ppb	100
59) 1,2-EDB	9.10	107	67056	9.636	ppb	100
60) Tetrachloroethene	8.75	166	78714	8.853	ppb	100
61) 1-Chlorohexane	9.61	91	82477	9.581	ppb	100
62) 1,1,1,2-Tetrachloroethane	9.69	131	68702	9.905	ppb	100
63) m&p-Xylene	9.85	106	151104	19.746	ppb	100
64) o-Xylene	10.24	106	78664	9.988	ppb	100
65) Styrene	10.26	104	120808	9.860	ppb	100
67) 1,3-Dichloropropane	8.78	76	109319	9.780	ppb	100
68) Dibromochloromethane	9.00	129	69390	9.805	ppb	100
69) Chlorobenzene	9.61	112	193333	9.928	ppb	100
70) Ethylbenzene	9.73	91	318594	9.703	ppb	100
71) Bromoform	10.42	173	51178	9.997	ppb	100
73) Isopropylbenzene	10.62	105	308064	9.576	ppb	100
74) 1,1,2,2-Tetrachloroethane	10.91	83	55328	10.046	ppb	100
75) 1,2,3-Trichloropropane	10.94	110	17336	10.833	ppb	100
76) t-1,4-Dichloro-2-Butene	10.97	53	16746	10.421	ppb	100
77) Bromobenzene	10.90	156	84045	9.750	ppb	100
78) n-Propylbenzene	11.02	91	232162	9.670	ppb	100
79) 4-Ethyltoluene	11.14	105	285500	9.798	ppb	100
80) 2-Chlorotoluene	11.09	91	143495	9.930	ppb	100
81) 1,3,5-Trimethylbenzene	11.20	105	260632	9.796	ppb	100
82) 4-Chlorotoluene	11.20	91	159296	9.924	ppb	100
83) Tert-Butylbenzene	11.53	119	149760	9.974	ppb	100
84) 1,2,4-Trimethylbenzene	11.57	105	171008	9.657	ppb	100
85) Sec-Butylbenzene	11.74	105	324478	9.724	ppb	100
86) p-Isopropyltoluene	11.90	119	269280	9.767	ppb	100
87) Benzyl Chloride	12.06	91	100302	9.660	ppb	100
88) 1,3-DCB	11.83	146	143245	9.513	ppb	100
89) 1,4-DCB	11.92	146	143548	9.496	ppb	100
90) n-Butylbenzene	12.30	91	150016	9.743	ppb	100
91) 1,2-DCB	12.29	146	144520	9.844	ppb	100
92) Hexachloroethane	12.55	117	43878	9.684	ppb	100
93) 1,2-Dibromo-3-chloropropan	13.06	157	17440	10.156	ppb	100
94) 1,2,4-Trichlorobenzene	13.89	180	72154	9.063	ppb	100
95) Hexachlorobutadiene	14.08	225	46022	9.799	ppb	100
96) Naphthalene	14.13	128	97904	8.999	ppb	100
97) 1,2,3-Trichlorobenzene	14.37	180	72166	9.241	ppb	100

Quantitation Report

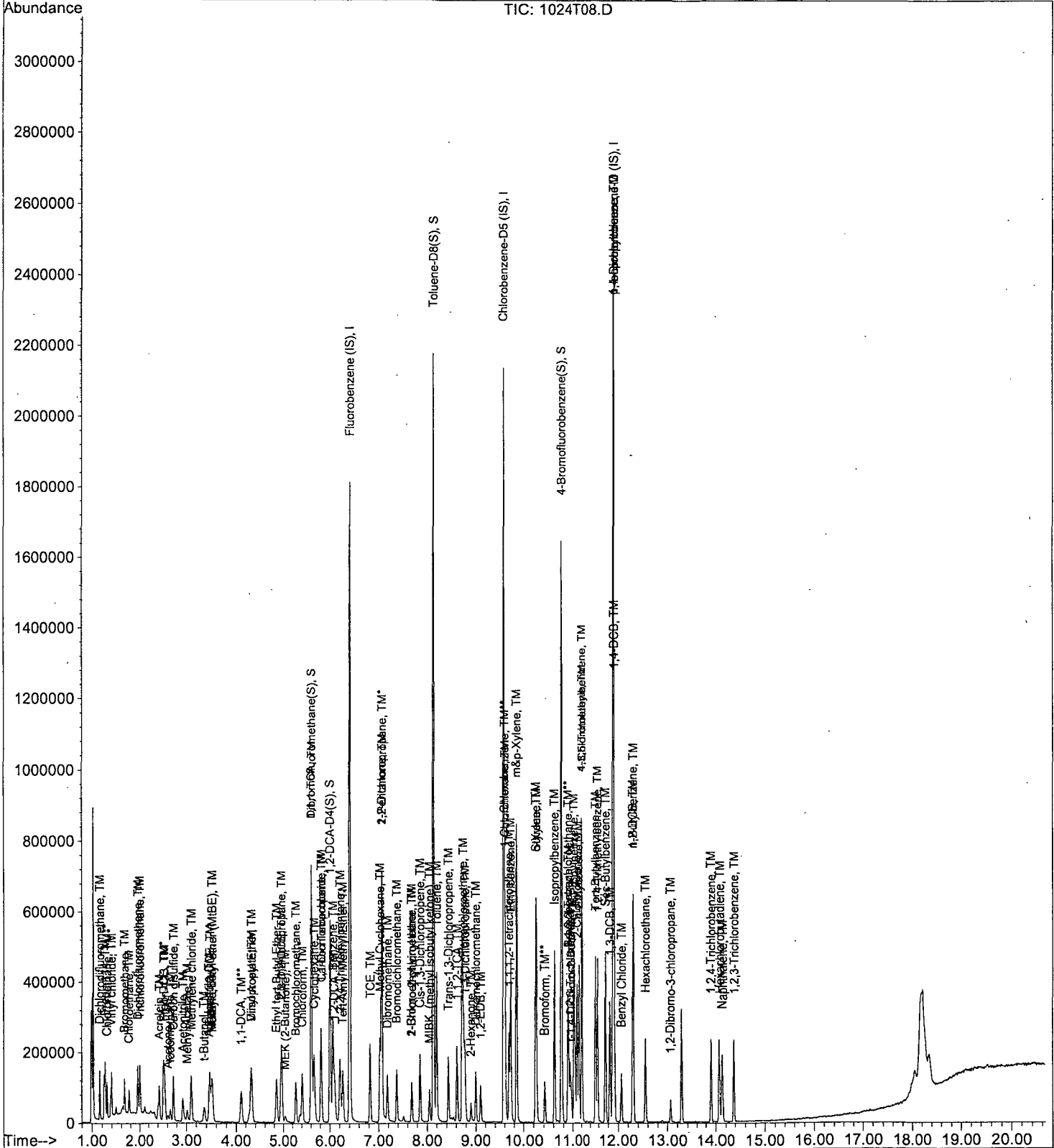
Data File : M:\THOR\DATA\T181024\1024T08.D  
Acq On : 24 Oct 18 12:40  
Sample : 10ug/L VOC STD 18/10/24  
Misc : IS&S 10/15/18,8/13/18

Vial: 7  
Operator: DG,SV, CMM.PM,KV  
Inst : Thor  
Multiplr: 1.00

Quant Time: Oct 25 9:28 2018

Quant Results File: T1024W.RES

Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:28:00 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T181024\1024T09.D Vial: 8  
 Acq On : 24 Oct 18 13:09 Operator: DG,SV, CMM.PM,KV  
 Sample : 20ug/L VOC STD 18/10/24 Inst : Thor  
 Misc : IS&S 10/15/18,8/13/18 Multiplr: 1.00

Quant Time: Oct 25 9:28 2018 Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.41	96	906752	25.000	ppb	0.00
57) Chlorobenzene-D5 (IS)	9.58	117	772736	25.000	ppb	0.00
72) 1,4-Dichlorobenzene-D (IS)	11.90	152	392320	25.000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) Dibromofluoromethane(S)	5.61	111	749210	49.596	ppb	0.00
Spiked Amount 25.000			Recovery = 198.384%			
38) 1,2-DCA-D4(S)	6.00	65	828188	48.943	ppb	0.00
Spiked Amount 25.000			Recovery = 195.772%			
58) Toluene-D8(S)	8.13	98	2865864	48.156	ppb	0.00
Spiked Amount 25.000			Recovery = 192.624%			
66) 4-Bromofluorobenzene(S)	10.75	95	1078079	48.251	ppb	0.00
Spiked Amount 25.000			Recovery = 193.004%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.15	85	152495	18.650	ppb	100
3) Freon 114	1.26	135	85507	19.121	ppb	97
4) Chloromethane	1.30	50	115295	18.736	ppb	97
5) Vinyl chloride	1.39	62	144192	19.570	ppb	100
6) Bromomethane	1.66	94	64660	17.297	ppb	96
7) Chloroethane	1.76	64	64390	18.996	ppb	90
8) Dichlorofluoromethane	1.96	67	206823	18.117	ppb	99
9) Trichlorofluoromethane	2.00	101	186262	18.990	ppb	97
10) Acrolein	2.43	56	84147	139.952	ppb	97
11) Acetone	2.61	43	39001	21.522	ppb	96
12) Freon-113	2.54	101	97506	18.988	ppb	97
13) 1,1-DCE	2.52	61	157473	19.337	ppb	96
14) Acetonitrile	2.92	41	99141	149.295	ppb	99
15) t-Butanol	3.36	59	79222	140.176	ppb	99
16) Methyl Acetate	3.01	43	85145	18.729	ppb	98
17) Iodomethane	2.66	142	79116	16.406	ppb	94
18) Acrylonitrile	3.44	52	38831	19.737	ppb	94
19) Methylene chloride	3.10	84	130515	18.480	ppb	98
20) Carbon disulfide	2.73	76	326564	18.479	ppb	96
21) Methyl t-butyl ether (MtBE)	3.51	73	306414	18.638	ppb	97
22) Trans-1,2-DCE	3.47	96	123301	18.040	ppb	95
23) Hexane	3.51	57	65972	18.166	ppb	# 99
24) Diisopropyl Ether	4.31	45	330978	18.911	ppb	99
25) 1,1-DCA	4.10	63	215505	18.891	ppb	96
26) Vinyl Acetate	4.31	87	106074	19.107	ppb	100
27) Ethyl tert Butyl Ether	4.84	59	257125	19.203	ppb	97
28) MEK (2-Butanone)	5.04	43	22445	21.176	ppb	98
29) Cis-1,2-DCE	4.96	61	193552	18.707	ppb	97
30) 2,2-Dichloropropane	4.95	77	180270	19.047	ppb	96
31) Chloroform	5.41	83	225069	18.969	ppb	97
32) Bromochloromethane	5.27	128	36240	19.915	ppb	90
34) 1,1,1-TCA	5.61	97	192082	18.915	ppb	98
35) Cyclohexane	5.67	41	89119	18.086	ppb	91
36) 1,1-Dichloropropene	5.82	75	86872	18.793	ppb	98
37) 2,2,4-Trimethylpentane	6.21	57	341814	18.876	ppb	99
39) Carbon Tetrachloride	5.81	117	160390	19.681	ppb	100
40) Tert Amyl Methyl Ether	6.26	73	228747	18.505	ppb	98
41) 1,2-DCA	6.09	62	178217	19.637	ppb	99
42) Benzene	6.06	78	523626	18.890	ppb	98

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

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T181024\1024T09.D  
 Acq On : 24 Oct 18 13:09  
 Sample : 20ug/L VOC STD 18/10/24  
 Misc : IS&S 10/15/18,8/13/18

Vial: 8  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 9:28 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) TCE	6.82	95	138108	18.893	ppb	98
44) 2-Pentanone	7.07	43	659485	148.452	ppb	100
45) 1,2-Dichloropropane	7.06	63	130931	19.101	ppb	99
46) Bromodichloromethane	7.38	83	176730	18.960	ppb	99
47) Methyl Cyclohexane	7.03	83	186523	18.842	ppb	98
48) Dibromomethane	7.18	93	89766	19.074	ppb	93
49) MIBK (methyl isobutyl ket	8.04	58	48622	20.447	ppb	94
50) 1-Bromo-2-chloroethane	7.68	63	178931	19.512	ppb	96
51) 2-Chloroethyl vinyl ether	7.68	106	2904	20.252	ppb	93
52) Cis-1,3-Dichloropropene	7.85	75	213682	18.655	ppb	97
53) Toluene	8.19	91	359104	19.415	ppb	99
54) Trans-1,3-Dichloropropene	8.44	75	118192	18.706	ppb	98
55) 1,1,2-TCA	8.61	83	105575	19.000	ppb	98
56) 2-Hexanone	8.90	58	42714	19.674	ppb	97
59) 1,2-EDB	9.10	107	136604	19.021	ppb	95
60) Tetrachloroethene	8.75	166	157980	17.216	ppb	98
61) 1-Chlorohexane	9.61	91	164187	18.481	ppb	99
62) 1,1,1,2-Tetrachloroethane	9.70	131	136272	19.036	ppb	99
63) m&p-Xylene	9.85	106	307648	38.954	ppb	98
64) o-Xylene	10.24	106	155840	19.173	ppb	99
65) Styrene	10.26	104	253952	20.083	ppb	98
67) 1,3-Dichloropropane	8.78	76	214103	18.559	ppb	99
68) Dibromochloromethane	9.00	129	140854	19.286	ppb	100
69) Chlorobenzene	9.61	112	383829	19.099	ppb	99
70) Ethylbenzene	9.73	91	633717	18.701	ppb	100
71) Bromoform	10.42	173	104225	19.726	ppb	96
73) Isopropylbenzene	10.62	105	615066	18.708	ppb	100
74) 1,1,2,2-Tetrachloroethane	10.91	83	112640	20.012	ppb	94
75) 1,2,3-Trichloropropane	10.94	110	32528	19.888	ppb	90
76) t-1,4-Dichloro-2-Butene	10.97	53	29902	18.208	ppb	94
77) Bromobenzene	10.89	156	164311	18.650	ppb	100
78) n-Propylbenzene	11.02	91	477993	19.481	ppb	99
79) 4-Ethyltoluene	11.14	105	567101	19.043	ppb	100
80) 2-Chlorotoluene	11.10	91	283255	19.179	ppb	97
81) 1,3,5-Trimethylbenzene	11.20	105	519126	19.091	ppb	99
82) 4-Chlorotoluene	11.20	91	315414	19.228	ppb	100
83) Tert-Butylbenzene	11.53	119	295744	19.272	ppb	98
84) 1,2,4-Trimethylbenzene	11.57	105	349056	19.287	ppb	99
85) Sec-Butylbenzene	11.74	105	654712	19.198	ppb	98
86) p-Isopropyltoluene	11.89	119	538616	19.114	ppb	98
87) Benzyl Chloride	12.06	91	202357	19.069	ppb	98
88) 1,3-DCB	11.83	146	291026	18.911	ppb	99
89) 1,4-DCB	11.92	146	289044	18.710	ppb	99
90) n-Butylbenzene	12.30	91	312139	19.835	ppb	98
91) 1,2-DCB	12.29	146	287113	19.136	ppb	100
92) Hexachloroethane	12.55	117	90465	19.536	ppb	94
93) 1,2-Dibromo-3-chloropropan	13.06	157	34931	19.904	ppb	97
94) 1,2,4-Trichlorobenzene	13.89	180	156792	18.498	ppb	99
95) Hexachlorobutadiene	14.08	225	90554	18.865	ppb	94
96) Naphthalene	14.13	128	222208	18.256	ppb	100
97) 1,2,3-Trichlorobenzene	14.37	180	157349	19.204	ppb	97

Quantitation Report

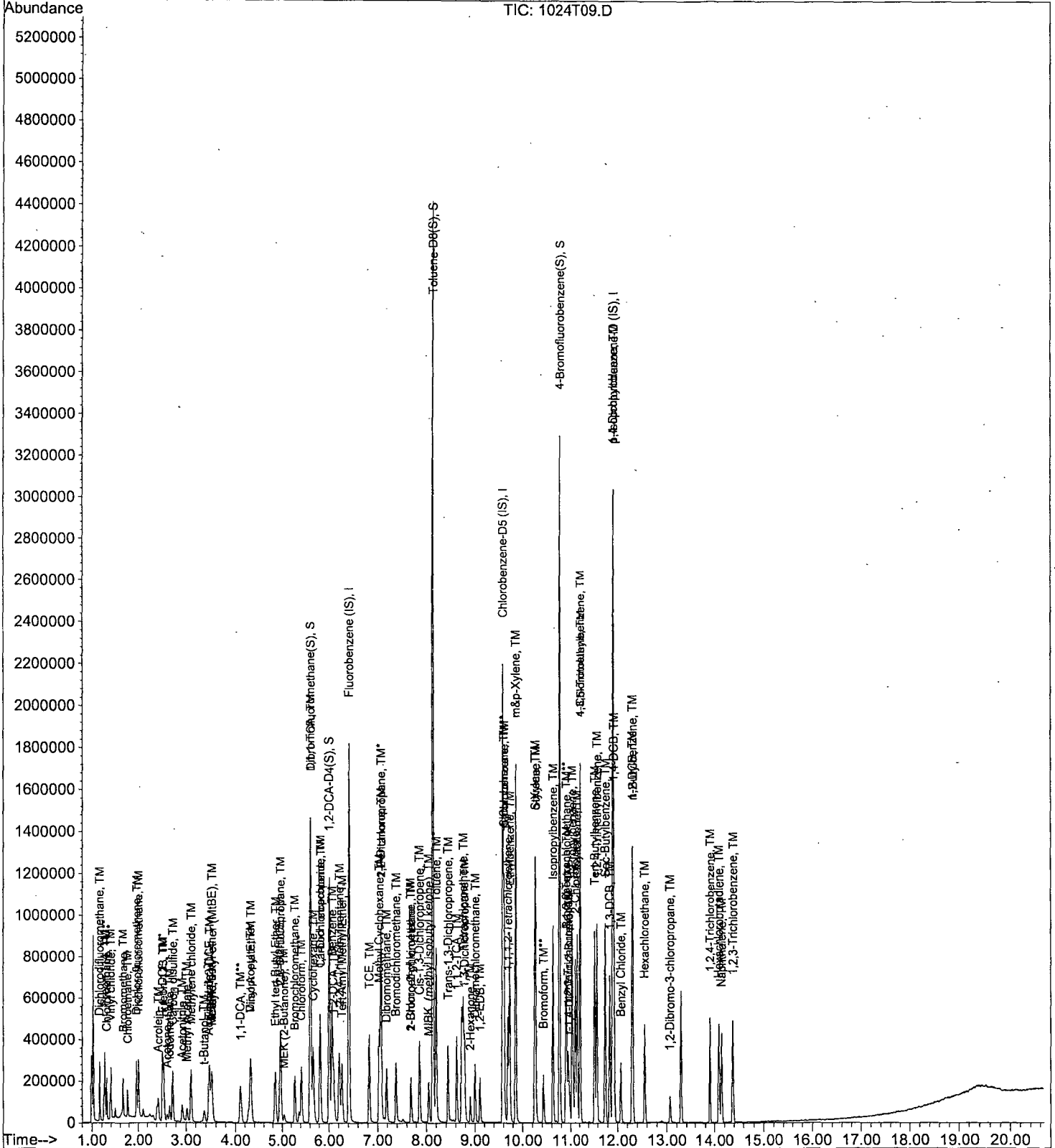
Data File : M:\THOR\DATA\T181024\1024T09.D  
Acq On : 24 Oct 18 13:09  
Sample : 20ug/L VOC STD 18/10/24  
Misc : IS&S 10/15/18, 8/13/18

Vial: 8  
Operator: DG,SV, CMM.PM,KV  
Inst : Thor  
Multiplr: 1.00

Quant Time: Oct 25 9:28 2018

Quant Results File: T1024W.RES

Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:28:00 2018  
Response via : Initial Calibration





Data File : M:\THOR\DATA\T181024\1024T10.D  
 Acq On : 24 Oct 18 13:37  
 Sample : 40ug/L VOC STD 18/10/24  
 Misc : IS&S 10/15/18,8/13/18

Vial: 9  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 9:28 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	6.41	96	893440	25.000	ppb	0.00
57) Chlorobenzene-D5 (IS)	9.58	117	744832	25.000	ppb	0.00
72) 1,4-Dichlorobenzene-D (IS)	11.90	152	399424	25.000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
33) Dibromofluoromethane(S)	5.61	111	752286	50.541	ppb	0.00
Spiked Amount 25.000			Recovery =	202.164%		
38) 1,2-DCA-D4(S)	6.00	65	834264	50.036	ppb	0.00
Spiked Amount 25.000			Recovery =	200.144%		
58) Toluene-D8(S)	8.13	98	2886065	50.312	ppb	0.00
Spiked Amount 25.000			Recovery =	201.248%		
66) 4-Bromofluorobenzene(S)	10.75	95	1091775	50.695	ppb	0.00
Spiked Amount 25.000			Recovery =	202.780%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.15	85	347058	43.077	ppb	100
3) Freon 114	1.26	135	192140	43.607	ppb	93
4) Chloromethane	1.30	50	236011	38.924	ppb	98
5) Vinyl chloride	1.39	62	308672	42.518	ppb	99
6) Bromomethane	1.66	94	147766	40.117	ppb	98
7) Chloroethane	1.76	64	138875	42.105	ppb	93
8) Dichlorofluoromethane	1.96	67	434667	38.643	ppb	100
9) Trichlorofluoromethane	2.00	101	402096	41.605	ppb	97
10) Acrolein	2.43	56	103766	175.154	ppb	97
11) Acetone	2.61	43	66287	39.085	ppb	97
12) Freon-113	2.54	101	212828	42.063	ppb	95
13) 1,1-DCE	2.52	61	336970	41.995	ppb	92
14) Acetonitrile	2.92	41	113501	173.467	ppb	98
15) t-Butanol	3.36	59	104452	187.572	ppb	93
16) Methyl Acetate	3.01	43	177210	39.561	ppb	96
17) Iodomethane	2.67	142	220624	42.501	ppb	99
18) Acrylonitrile	3.44	52	77460	40.072	ppb	92
19) Methylene chloride	3.10	84	275573	39.602	ppb	96
20) Carbon disulfide	2.73	76	707965	40.657	ppb	98
21) Methyl t-butyl ether (MtBE)	3.51	73	663518	40.960	ppb	98
22) Trans-1,2-DCE	3.47	96	263790	39.171	ppb	99
23) Hexane	3.51	57	142055	39.700	ppb	# 95
24) Diisopropyl Ether	4.31	45	715813	41.508	ppb	98
25) 1,1-DCA	4.10	63	464506	41.324	ppb	97
26) Vinyl Acetate	4.31	87	227005	41.500	ppb	99
27) Ethyl tert Butyl Ether	4.84	59	559636	42.419	ppb	100
28) MEK (2-Butanone)	5.03	43	43619	41.766	ppb	97
29) Cis-1,2-DCE	4.96	61	415440	40.750	ppb	96
30) 2,2-Dichloropropane	4.95	77	374525	40.161	ppb	96
31) Chloroform	5.41	83	486346	41.600	ppb	98
32) Bromochloromethane	5.27	128	76816	42.843	ppb	96
34) 1,1,1-TCA	5.61	97	415750	41.551	ppb	96
35) Cyclohexane	5.67	41	202218	41.074	ppb	90
36) 1,1-Dichloropropene	5.82	75	185019	40.622	ppb	95
37) 2,2,4-Trimethylpentane	6.21	57	757146	42.435	ppb	99
39) Carbon Tetrachloride	5.81	117	356536	44.402	ppb	98
40) Tert Amyl Methyl Ether	6.26	73	510242	41.891	ppb	98
41) 1,2-DCA	6.09	62	369626	41.334	ppb	99
42) Benzene	6.06	78	1121499	41.060	ppb	98

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

## Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T181024\1024T10.D  
 Acq On : 24 Oct 18 13:37  
 Sample : 40ug/L VOC STD 18/10/24  
 Misc : IS&S 10/15/18,8/13/18

Vial: 9  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 9:28 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) TCE	6.82	95	294248	40.852	ppb	99
44) 2-Pentanone	7.07	43	784161	179.146	ppb	98
45) 1,2-Dichloropropane	7.06	63	282468	41.821	ppb	99
46) Bromodichloromethane	7.38	83	381490	41.538	ppb	99
47) Methyl Cyclohexane	7.03	83	416924	42.743	ppb	96
48) Dibromomethane	7.18	93	191809	41.363	ppb	94
49) MIBK (methyl isobutyl ket	8.04	58	94690	40.414	ppb	94
50) 1-Bromo-2-chloroethane	7.68	63	378814	41.924	ppb	97
51) 2-Chloroethyl vinyl ether	7.68	106	5646	39.961	ppb	81
52) Cis-1,3-Dichloropropene	7.85	75	462136	40.946	ppb	98
53) Toluene	8.19	91	769536	42.225	ppb	100
54) Trans-1,3-Dichloropropene	8.44	75	267456	42.961	ppb	100
55) 1,1,2-TCA	8.61	83	229851	41.982	ppb	98
56) 2-Hexanone	8.90	58	85355	39.901	ppb	99
59) 1,2-EDB	9.10	107	287027	41.464	ppb	100
60) Tetrachloroethene	8.75	166	338199	38.236	ppb	99
61) 1-Chlorohexane	9.61	91	353476	41.278	ppb	99
62) 1,1,1,2-Tetrachloroethane	9.69	131	295390	42.809	ppb	100
63) m&p-Xylene	9.85	106	674089	88.551	ppb	99
64) o-Xylene	10.24	106	339456	43.328	ppb	98
65) Styrene	10.26	104	554560	45.498	ppb	99
67) 1,3-Dichloropropane	8.78	76	461525	41.506	ppb	98
68) Dibromochloromethane	9.00	129	308958	43.887	ppb	98
69) Chlorobenzene	9.61	112	813457	41.993	ppb	99
70) Ethylbenzene	9.73	91	1378226	42.196	ppb	100
71) Bromoform	10.42	173	223544	43.894	ppb	93
73) Isopropylbenzene	10.62	105	1356769	40.533	ppb	99
74) 1,1,2,2-Tetrachloroethane	10.91	83	237888	41.512	ppb	96
75) 1,2,3-Trichloropropane	10.94	110	72912	43.787	ppb	97
76) t-1,4-Dichloro-2-Butene	10.97	53	64238	38.419	ppb	89
77) Bromobenzene	10.90	156	360652	40.208	ppb	98
78) n-Propylbenzene	11.03	91	1049737	42.023	ppb	99
79) 4-Ethyltoluene	11.14	105	1248930	41.193	ppb	99
80) 2-Chlorotoluene	11.10	91	607857	40.425	ppb	97
81) 1,3,5-Trimethylbenzene	11.20	105	1140323	41.190	ppb	99
82) 4-Chlorotoluene	11.20	91	702656	42.072	ppb	99
83) Tert-Butylbenzene	11.53	119	665344	42.586	ppb	99
84) 1,2,4-Trimethylbenzene	11.57	105	777472	42.196	ppb	98
85) Sec-Butylbenzene	11.74	105	1441174	41.508	ppb	98
86) p-Isopropyltoluene	11.90	119	1202059	41.900	ppb	99
87) Benzyl Chloride	12.06	91	442125	40.923	ppb	99
88) 1,3-DCB	11.83	146	641013	40.913	ppb	96
89) 1,4-DCB	11.92	146	636650	40.478	ppb	99
90) n-Butylbenzene	12.30	91	723831	45.178	ppb	99
91) 1,2-DCB	12.29	146	636954	41.697	ppb	99
92) Hexachloroethane	12.55	117	205223	43.530	ppb	92
93) 1,2-Dibromo-3-chloropropan	13.06	157	76336	42.724	ppb	97
94) 1,2,4-Trichlorobenzene	13.89	180	379120	42.988	ppb	98
95) Hexachlorobutadiene	14.08	225	201886	41.311	ppb	97
96) Naphthalene	14.13	128	533120	41.100	ppb	99
97) 1,2,3-Trichlorobenzene	14.37	180	360753	42.683	ppb	96

(#) = qualifier out of range (m) = manual integration  
 1024T10.D T1024W.M Thu Oct 25 09:34:20 2018

Quantitation Report

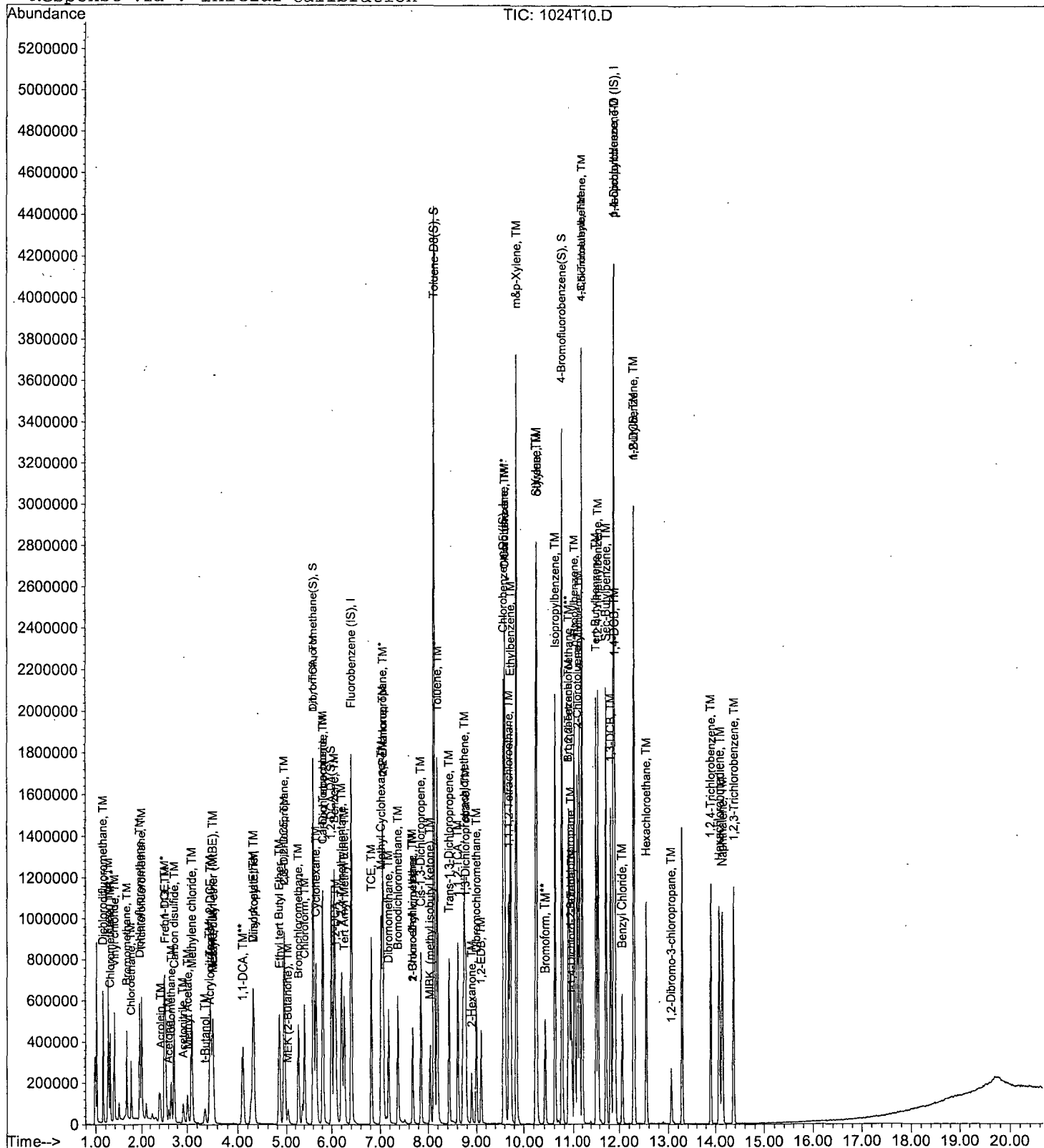
Data File : M:\THOR\DATA\T181024\1024T10.D  
 Acq On : 24 Oct 18 13:37  
 Sample : 40ug/L VOC STD 18/10/24  
 Misc : IS&S 10/15/18,8/13/18

Vial: 9  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 9:28 2018

Quant Results File: T1024W.RES

Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T181024\1024T11.D Vial: 10  
 Acq On : 24 Oct 18 14:06 Operator: DG,SV, CMM.PM,KV  
 Sample : 100ug/L VOC STD 18/10/24 Inst : Thor  
 Misc : IS&S 10/15/18,8/13/18 Multiplr: 1.00

Quant Time: Oct 25 9:28 2018 Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.41	96	887424	25.000	ppb	0.00
57) Chlorobenzene-D5 (IS)	9.58	117	785792	25.000	ppb	0.00
72) 1,4-Dichlorobenzene-D (IS)	11.90	152	416256	25.000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) Dibromofluoromethane(S)	5.61	111	1426570	96.492	ppb	0.00
Spiked Amount	25.000		Recovery	=	385.968%	
38) 1,2-DCA-D4(S)	6.00	65	1587836	95.879	ppb	0.00
Spiked Amount	25.000		Recovery	=	383.516%	
58) Toluene-D8(S)	8.13	98	5504188	90.952	ppb	0.00
Spiked Amount	25.000		Recovery	=	363.808%	
66) 4-Bromofluorobenzene(S)	10.75	95	2120591	93.334	ppb	0.00
Spiked Amount	25.000		Recovery	=	373.336%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.15	85	788816	98.571	ppb	99
3) Freon 114	1.26	135	364848	83.366	ppb	94
4) Chloromethane	1.30	50	565233	93.853	ppb	98
5) Vinyl chloride	1.39	62	718016	99.574	ppb	99
6) Bromomethane	1.66	94	349880	95.633	ppb	100
7) Chloroethane	1.75	64	323607	99.371	ppb	98
8) Dichlorofluoromethane	1.95	67	892477	79.882	ppb	99
9) Trichlorofluoromethane	2.00	101	939138	97.832	ppb	97
10) Acrolein	2.43	56	116818	198.522	ppb	97
11) Acetone	2.61	43	162031	100.140	ppb	92
12) Freon-113	2.54	101	404580	80.503	ppb	97
13) 1,1-DCE	2.52	61	675963	84.813	ppb	93
14) Acetonitrile	2.93	41	132069	203.213	ppb	99
15) t-Butanol	3.37	59	135748	245.426	ppb	95
16) Methyl Acetate	3.01	43	378845	85.148	ppb	96
17) Iodomethane	2.66	142	530673	99.868	ppb	98
18) Acrylonitrile	3.44	52	165773	86.468	ppb	89
19) Methylene chloride	3.10	84	564768	81.711	ppb	96
20) Carbon disulfide	2.73	76	1436276	83.042	ppb	98
21) Methyl t-butyl ether (MtBE)	3.51	73	1365053	84.839	ppb	98
22) Trans-1,2-DCE	3.47	96	533006	79.683	ppb	97
23) Hexane	3.51	57	295374	83.108	ppb	# 95
24) Diisopropyl Ether	4.31	45	1476897	86.222	ppb	99
25) 1,1-DCA	4.10	63	955582	85.588	ppb	97
26) Vinyl Acetate	4.31	87	469589	86.430	ppb	98
27) Ethyl tert Butyl Ether	4.84	59	1190561	90.853	ppb	98
28) MEK (2-Butanone)	5.03	43	105440	101.646	ppb	95
29) Cis-1,2-DCE	4.96	61	859265	84.856	ppb	96
30) 2,2-Dichloropropane	4.95	77	768585	82.976	ppb	98
31) Chloroform	5.41	83	1005396	86.581	ppb	96
32) Bromochloromethane	5.27	128	151104	84.847	ppb	98
34) 1,1,1-TCA	5.61	97	849818	85.509	ppb	94
35) Cyclohexane	5.67	41	376084	76.523	ppb	96
36) 1,1-Dichloropropene	5.82	75	372736	82.392	ppb	98
37) 2,2,4-Trimethylpentane	6.20	57	1461301	82.456	ppb	100
39) Carbon Tetrachloride	5.81	117	717933	90.016	ppb	99
40) Tert Amyl Methyl Ether	6.26	73	1091702	90.237	ppb	97
41) 1,2-DCA	6.09	62	776834	87.459	ppb	100
42) Benzene	6.06	78	2292792	84.513	ppb	98

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

Data File : M:\THOR\DATA\T181024\1024T11.D  
 Acq On : 24 Oct 18 14:06  
 Sample : 100ug/L VOC STD 18/10/24  
 Misc : IS&S 10/15/18,8/13/18

Vial: 10  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 9:28 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) TCE	6.82	95	617181	86.268	ppb	100
44) 2-Pentanone	7.07	43	840495	193.318	ppb	98
45) 1,2-Dichloropropane	7.06	63	581734	86.713	ppb	98
46) Bromodichloromethane	7.38	83	800814	87.786	ppb	99
47) Methyl Cyclohexane	7.03	83	822253	84.870	ppb	99
48) Dibromomethane	7.18	93	401968	87.271	ppb	93
49) MIBK (methyl isobutyl ket	8.04	58	228468	98.172	ppb	94
50) 1-Bromo-2-chloroethane	7.68	63	790892	88.122	ppb	96
51) 2-Chloroethyl vinyl ether	7.69	106	11815	84.191	ppb	78
52) Cis-1,3-Dichloropropene	7.85	75	974298	86.910	ppb	97
53) Toluene	8.19	91	1611644	89.031	ppb	99
54) Trans-1,3-Dichloropropene	8.44	75	568128	91.876	ppb	99
55) 1,1,2-TCA	8.61	83	481380	88.518	ppb	98
56) 2-Hexanone	8.90	58	211439	99.512	ppb	98
59) 1,2-EDB	9.10	107	617951	84.616	ppb	99
60) Tetrachloroethene	8.75	166	684852	73.392	ppb	99
61) 1-Chlorohexane	9.61	91	733842	81.230	ppb	98
62) 1,1,1,2-Tetrachloroethane	9.70	131	622198	85.470	ppb	99
63) m&p-Xylene	9.85	106	1393528	173.517	ppb	98
64) o-Xylene	10.24	106	730752	88.410	ppb	99
65) Styrene	10.26	104	1234944	96.037	ppb	99
67) 1,3-Dichloropropane	8.78	76	965058	82.265	ppb	98
68) Dibromochloromethane	9.00	129	658470	88.659	ppb	100
69) Chlorobenzene	9.61	112	1719124	84.120	ppb	99
70) Ethylbenzene	9.73	91	2875445	83.446	ppb	99
71) Bromoform	10.42	173	488895	90.993	ppb	95
73) Isopropylbenzene	10.62	105	2816071	80.728	ppb	98
74) 1,1,2,2-Tetrachloroethane	10.91	83	495808	83.022	ppb	95
75) 1,2,3-Trichloropropane	10.94	110	152256	87.738	ppb	98
76) t-1,4-Dichloro-2-Butene	10.97	53	149661	85.889	ppb	95
77) Bromobenzene	10.90	156	766511	82.000	ppb	97
78) n-Propylbenzene	11.03	91	2212324	84.982	ppb	98
79) 4-Ethyltoluene	11.14	105	2645777	83.736	ppb	99
80) 2-Chlorotoluene	11.10	91	1303851	83.206	ppb	99
81) 1,3,5-Trimethylbenzene	11.21	105	2413578	83.655	ppb	99
82) 4-Chlorotoluene	11.21	91	1485449	85.347	ppb	99
83) Tert-Butylbenzene	11.53	119	1383936	84.999	ppb	100
84) 1,2,4-Trimethylbenzene	11.57	105	1635704	85.185	ppb	98
85) Sec-Butylbenzene	11.74	105	3005095	83.052	ppb	98
86) p-Isopropyltoluene	11.90	119	2570684	85.982	ppb	98
87) Benzyl Chloride	12.06	91	1169152	103.841	ppb	99
88) 1,3-DCB	11.83	146	1372697	84.071	ppb	96
89) 1,4-DCB	11.92	146	1361311	83.052	ppb	99
90) n-Butylbenzene	12.30	91	1571638	94.128	ppb	99
91) 1,2-DCB	12.29	146	1370411	86.085	ppb	98
92) Hexachloroethane	12.55	117	506016	102.992	ppb	92
93) 1,2-Dibromo-3-chloropropan	13.06	157	174428	93.676	ppb	99
94) 1,2,4-Trichlorobenzene	13.89	180	920254	99.215	ppb	98
95) Hexachlorobutadiene	14.08	225	451767	88.705	ppb	99
96) Naphthalene	14.13	128	1384448	100.305	ppb	98
97) 1,2,3-Trichlorobenzene	14.37	180	878932	99.185	ppb	99

Quantitation Report

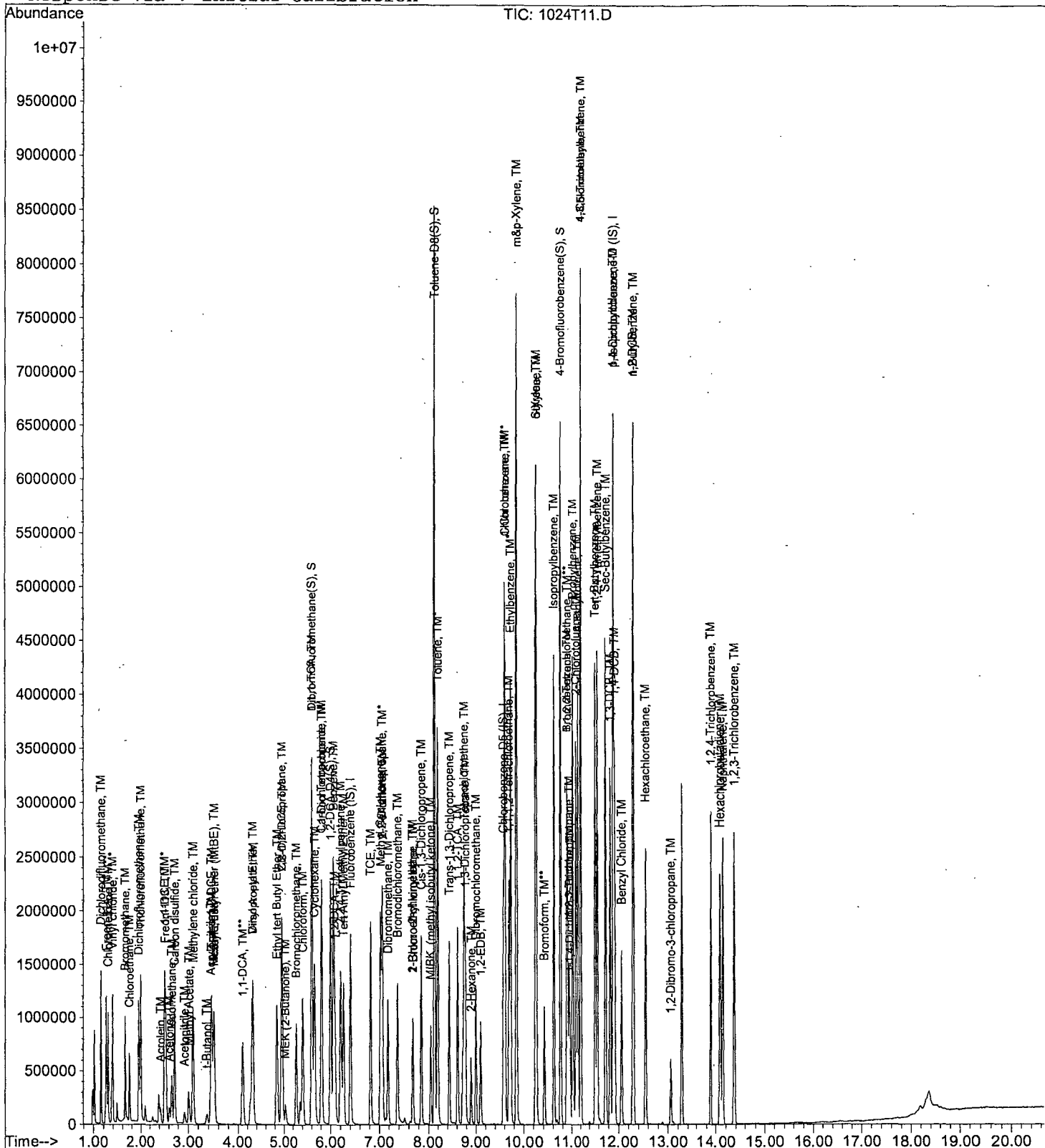
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Acq On : 24 Oct 18 14:06  
Sample : 100ug/L VOC STD 18/10/24  
Misc : IS&S 10/15/18,8/13/18

Vial: 10  
Operator: DG,SV, CMM.PM,KV  
Inst : Thor  
Multiplr: 1.00

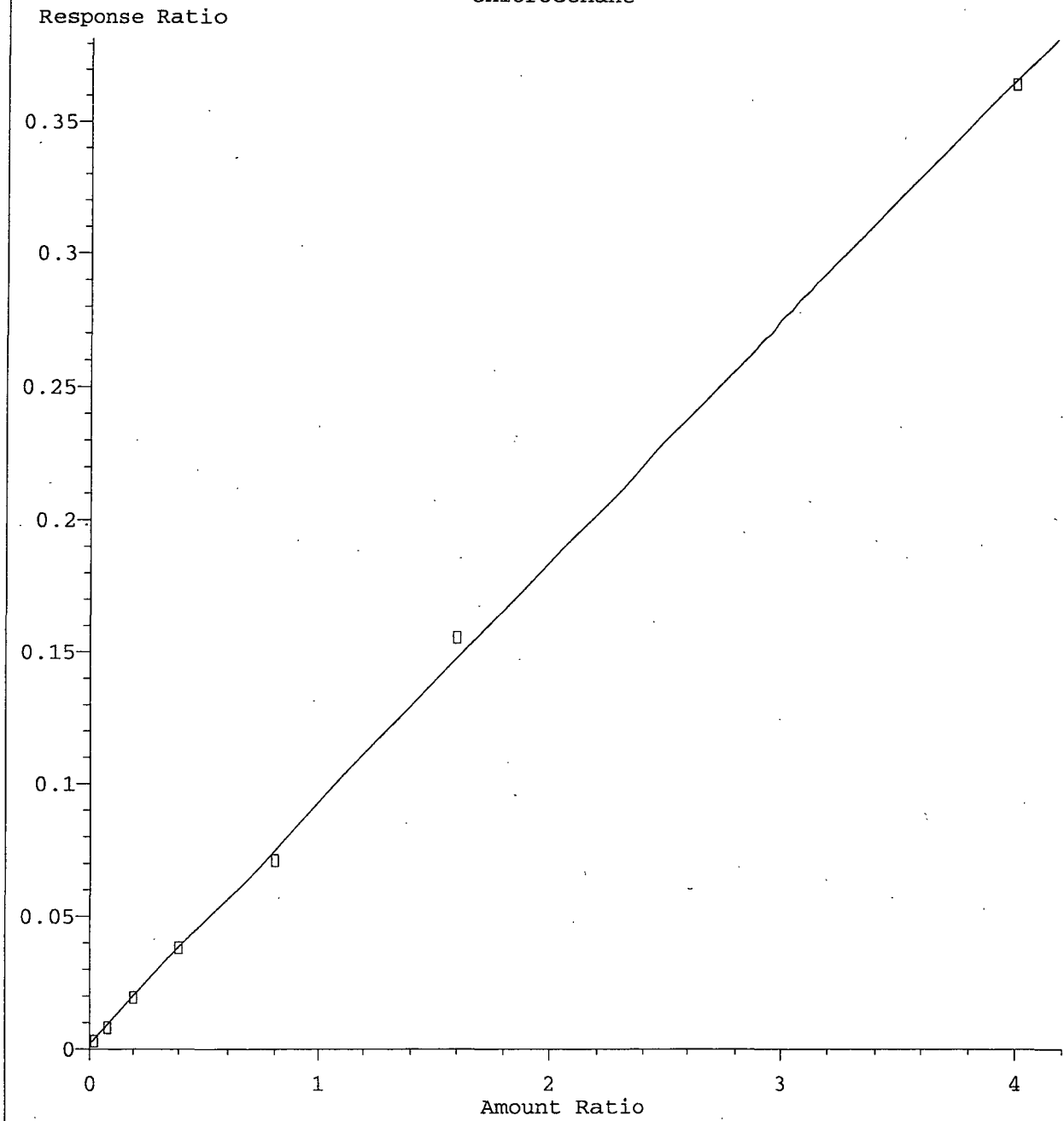
Quant Time: Oct 25 9:28 2018

Quant Results File: T1024W.RES

Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:28:00 2018  
Response via : Initial Calibration

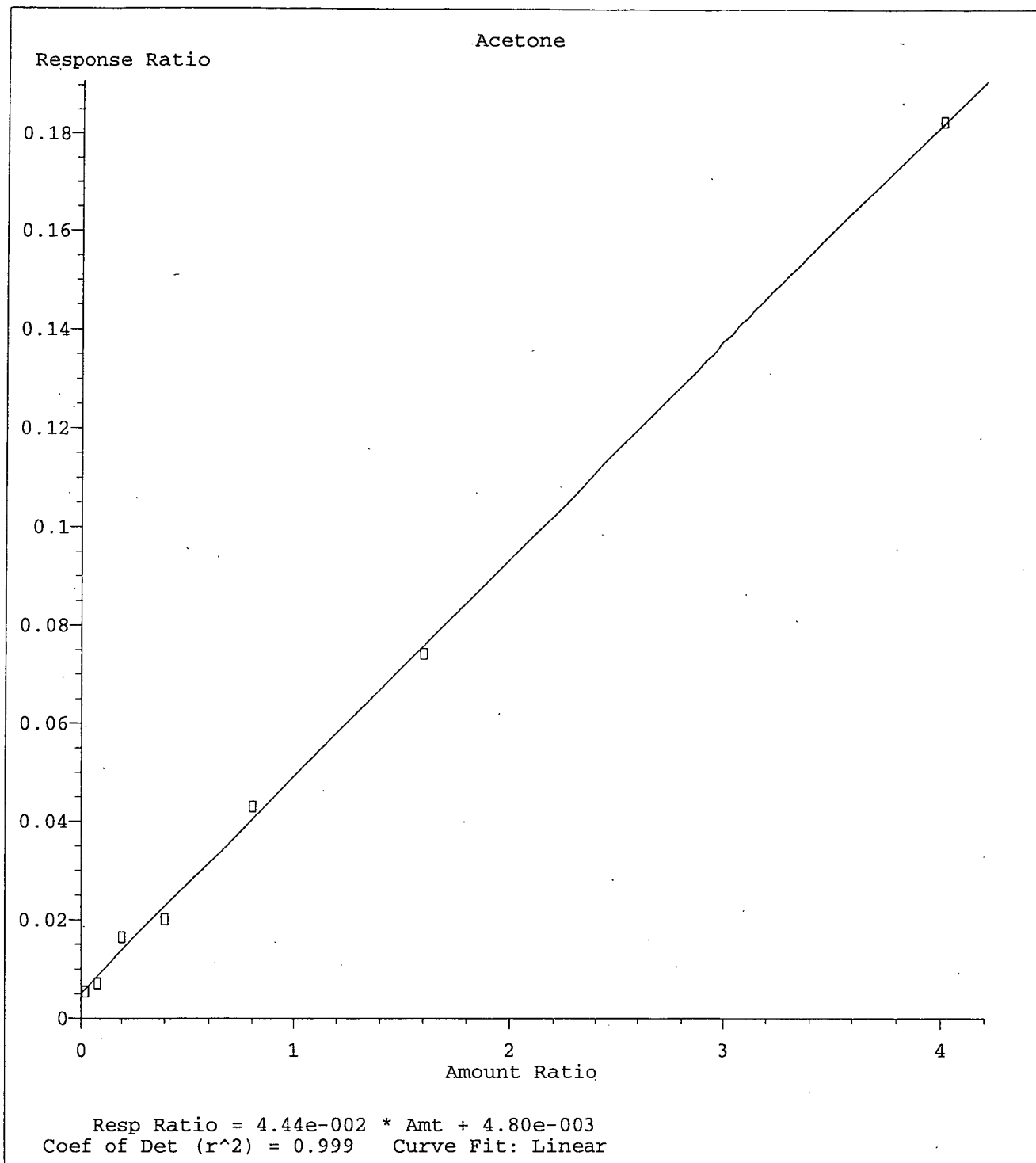


Chloroethane



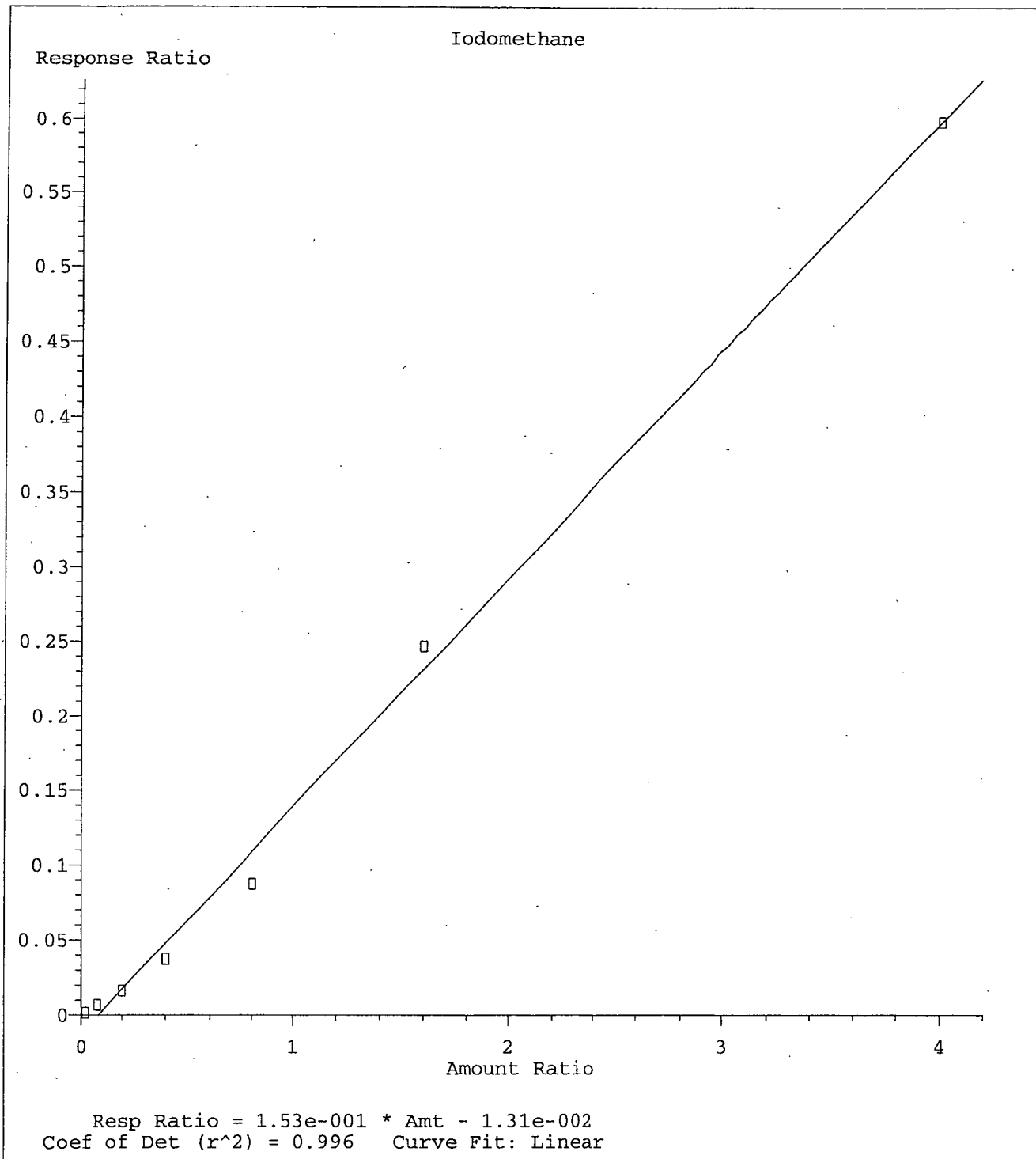
Resp Ratio = 9.13e-002 \* Amt + 1.61e-003  
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: M:\THOR\DATA\T181024\T1024W.M  
Calibration Table Last Updated: Thu Oct 25 09:28:00 2018



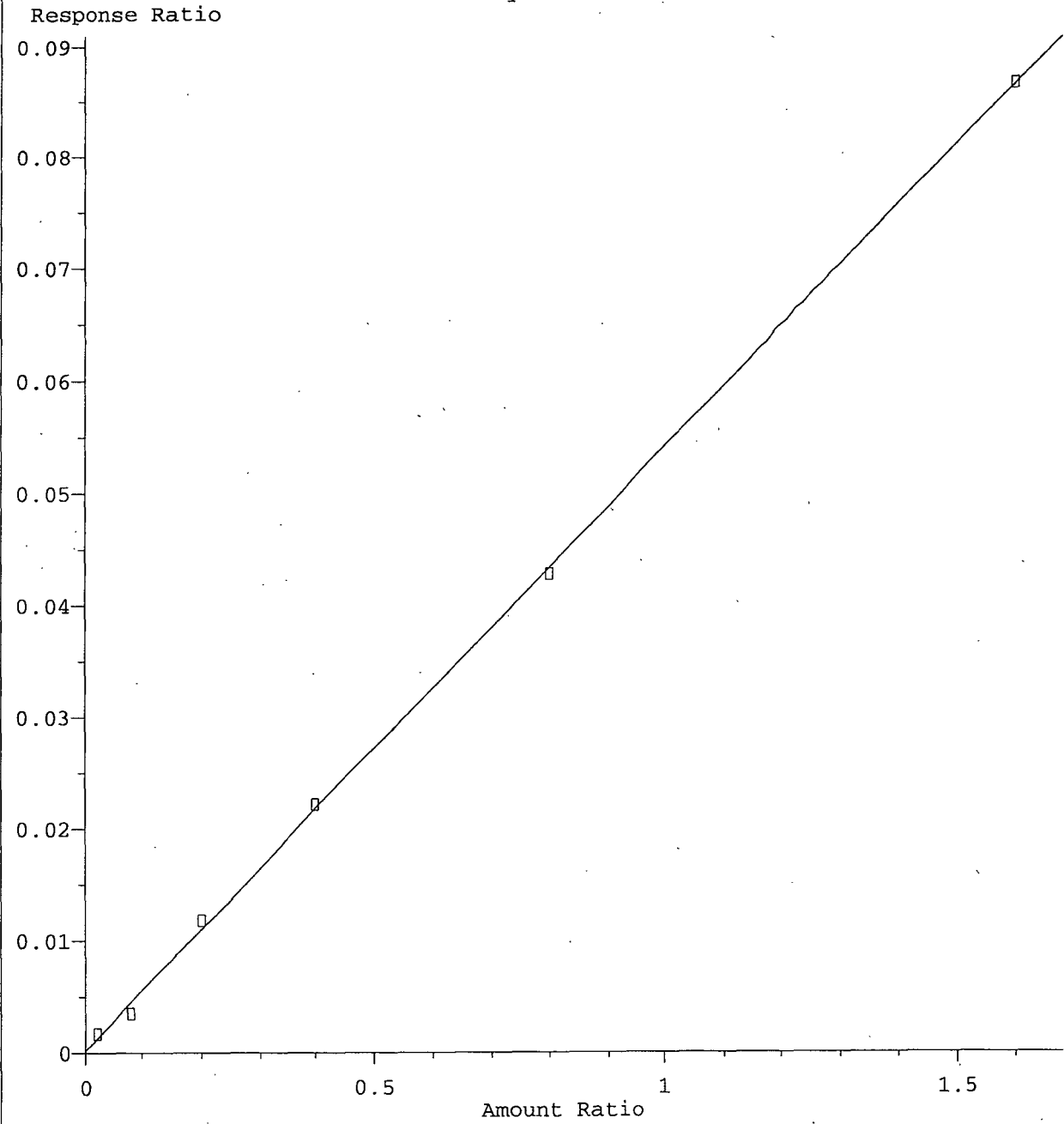
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Calibration Table Last Updated: Thu Oct 25 09:28:00 2018





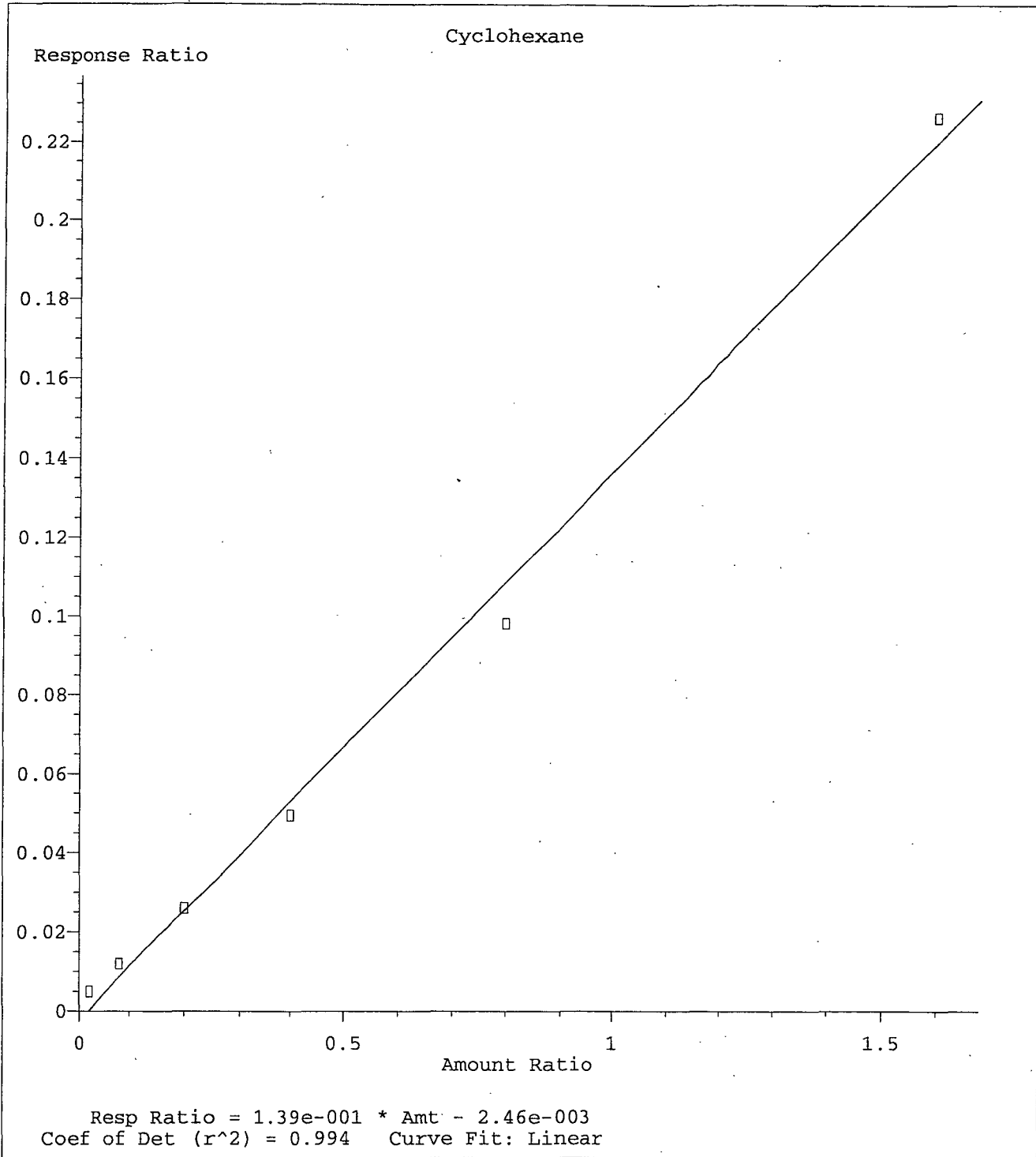
Method Name: M:\THOR\DATA\T181024\T1024W.M  
Calibration Table Last Updated: Thu Oct 25 09:28:00 2018

Acrylonitrile



Resp Ratio = 5.39e-002 \* Amt + 2.40e-004  
Coef of Det (r^2) = 1.000 Curve Fit: Linear

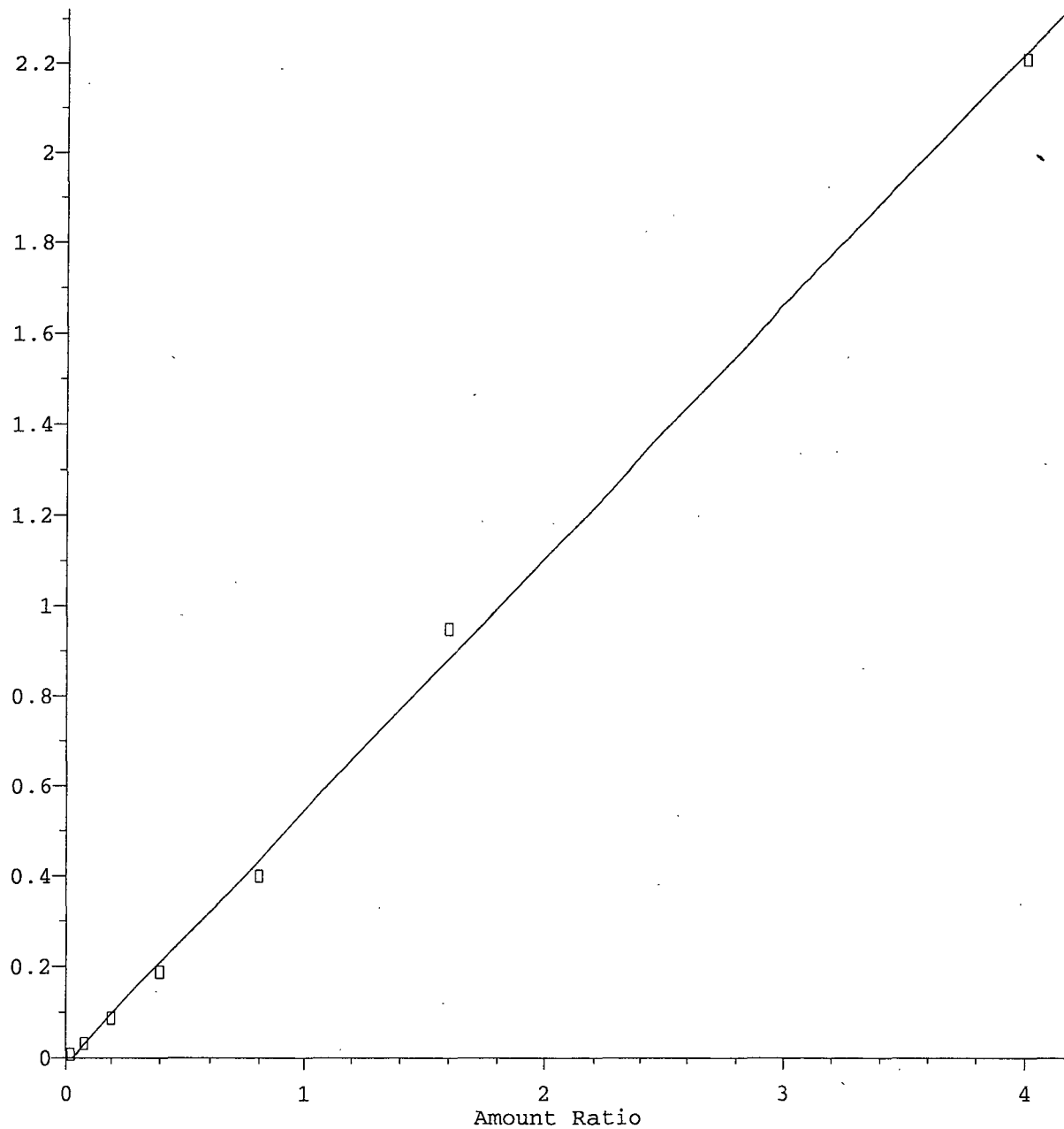
Method Name: M:\THOR\DATA\T181024\T1024W.M  
Calibration Table Last Updated: Thu Oct 25 09:28:00 2018



Method Name: M:\THOR\DATA\T181024\T1024W.M  
 Calibration Table Last Updated: Thu Oct 25 09:28:00 2018

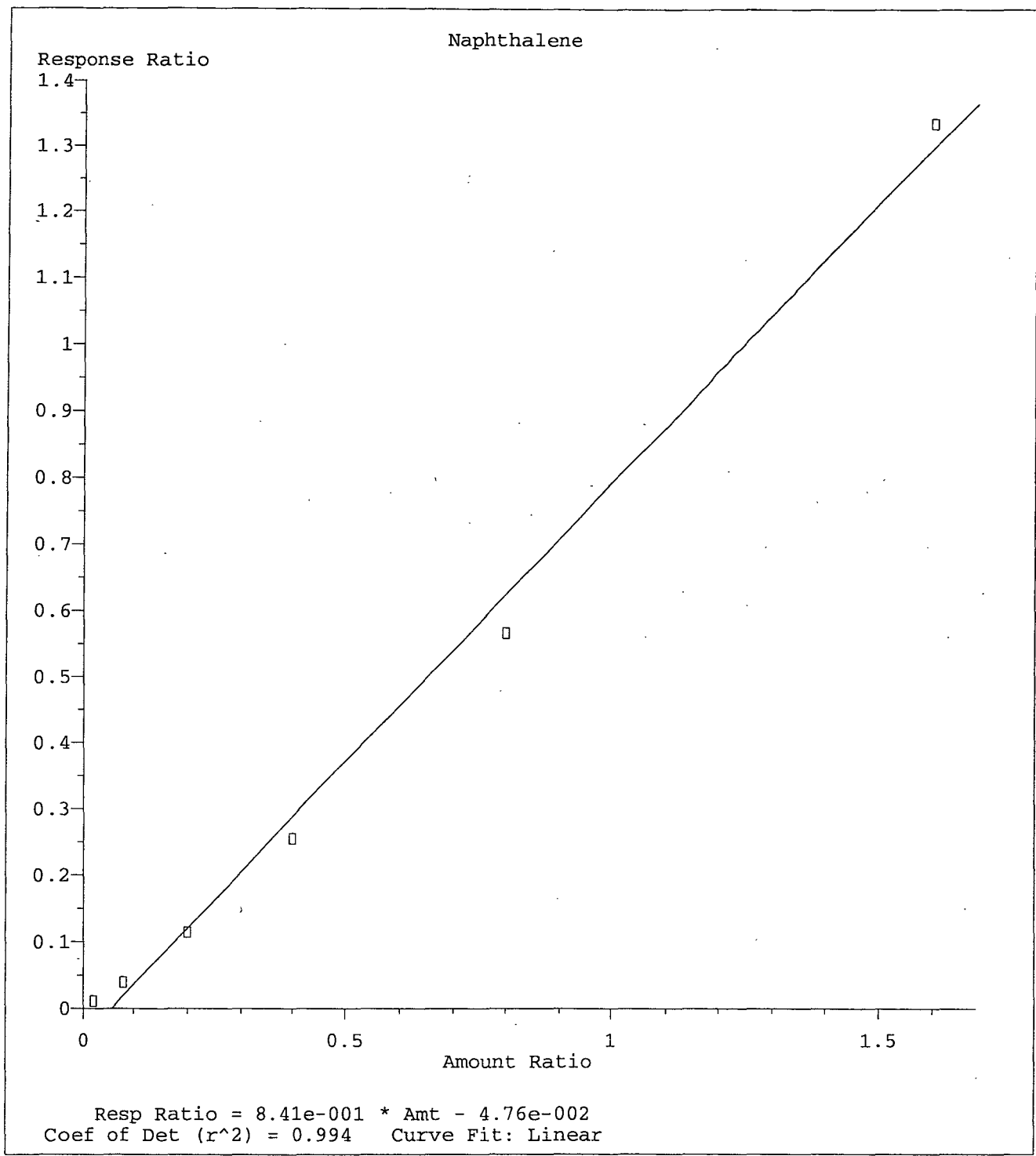
1,2,4-Trichlorobenzene

Response Ratio



Resp Ratio = 5.61e-001 \* Amt - 1.54e-002  
Coef of Det (r^2) = 0.998 Curve Fit: Linear

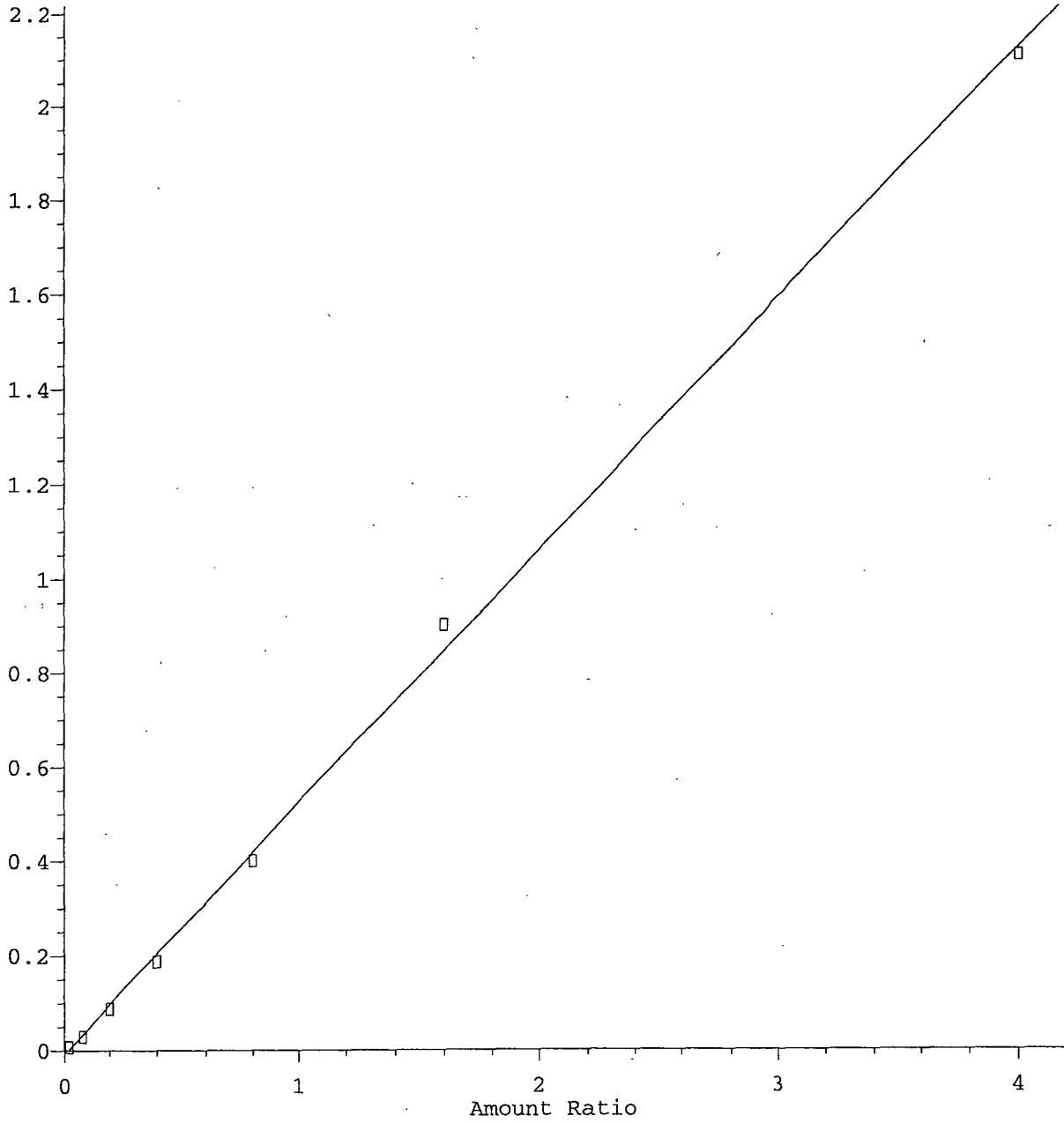
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Calibration Table Last Updated: Thu Oct 25 09:28:00 2018



Method Name: M:\THOR\DATA\T181024\T1024W.M  
Calibration Table Last Updated: Thu Oct 25 09:28:00 2018

1,2,3-Trichlorobenzene

Response Ratio



Resp Ratio = 5.35e-001 \* Amt - 9.62e-003  
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: M:\THOR\DATA\T181024\T1024W.M  
Calibration Table Last Updated: Thu Oct 25 09:28:00 2018

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Thor  
Initial Cal. Date: 10/24/18  
Data File: 1025T03.D

		Compound	MEAN	CCRF	%D	%Drift
1	TM	Dichlorodifluoromethane	0.2254	0.2100	6.9	TM
2	TM	Freon 114	0.1233	0.1178	4.5	TM
3	TM**	Chloromethane	0.1697	0.1617	4.7	TM**
4	TM*	Vinyl chloride	0.2031	0.1998	1.6	TM*
5	TM	Bromomethane	0.1031	0.0994	3.5	TM
6	TML	Chloroethane	0.1029	0.0993	3.5	TML 4.3
7	TM	Dichlorofluoromethane	0.3147	0.2879	8.5	TM
8	TM	Trichlorofluoromethane	0.2704	0.2569	5.0	TM
9	TM	Acrolein	0.0166	0.0142	14	TM
10	TML	Acetone	0.0910	0.0549	40	TML 3.3
11	TM	Freon-113	0.1416	0.1364	3.7	TM
12	TM*	1,1-DCE	0.2245	0.2152	4.1	TM*
13	TM	Acetonitrile	0.0183	0.0157	14	TM
14	TM	t-Butanol	0.0156	0.0129	17	TM
15	TM	Methyl Acetate	0.1253	0.1155	7.9	TM
16	TML	Iodomethane	0.1074	0.1048	2.4	TML 10.0
17	TML	Acrylonitrile	0.0585	0.0474	19	TML 13
18	TM	Methylene chloride	0.1947	0.1826	6.2	TM
19	TM	Carbon disulfide	0.4872	0.4516	7.3	TM
20	TM	Methyl t-butyl ether (MtBE)	0.4533	0.4264	5.9	TM
21	TM	Trans-1,2-DCE	0.1884	0.1621	14	TM
22	TM	Hexane	0.1001	0.0965	3.7	TM
23	TM	Diisopropyl Ether	0.4825	0.4830	0.09	TM
24	TM**	1,1-DCA	0.3145	0.3072	2.3	TM**
25	TM	Vinyl Acetate	0.1531	0.1451	5.2	TM
26	TM	Ethyl tert Butyl Ether	0.3692	0.3505	5.0	TM
27	TM	MEK (2-Butanone)	0.0292	0.0270	7.7	TM
28	TM	Cis-1,2-DCE	0.2853	0.2767	3.0	TM
29	TM	2,2-Dichloropropane	0.2609	0.2700	3.5	TM
30	TM*	Chloroform	0.3271	0.3219	1.6	TM*
31	TM	Bromochloromethane	0.0502	0.0493	1.7	TM
32	TM	1,1,1-TCA	0.2800	0.2676	4.4	TM
33	TML	Cyclohexane	0.1524	0.1242	18	TML 6.4
34	TM	1,1-Dichloropropene	0.1274	0.1226	3.8	TM
35	TM	2,2,4-Trimethylpentane	0.4993	0.5052	1.2	TM
36	TM	Carbon Tetrachloride	0.2247	0.2246	0.06	TM
37	TM	Tert Amyl Methyl Ether	0.3408	0.3193	6.3	TM
38	TM	1,2-DCA	0.2502	0.2470	1.3	TM
39	TM	Benzene	0.7643	0.7514	1.7	TM
40	TM	TCE	0.2015	0.1927	4.4	TM

Average

6.7

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Thor  
Cal. Date: 10/24/18  
Data File: 1025T03.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	2-Pentanone	0.1225	0.1090	11	TM
42	TM*	1,2-Dichloropropane	0.1890	0.1884	0.33	TM*
43	TM	Bromodichloromethane	0.2570	0.2466	4.0	TM
44	TM	Methyl Cyclohexane	0.2729	0.2689	1.5	TM
45	TM	Dibromomethane	0.1298	0.1295	0.18	TM
46	TM	MIBK (methyl isobutyl ketone)	0.0656	0.0621	5.3	TM
47	TM	1-Bromo-2-chloroethane	0.2528	0.2438	3.6	TM
48	TM	2-Chloroethyl vinyl ether	0.0040	0.0041	3.4	TM
49	TM	Cis-1,3-Dichloropropene	0.3158	0.3030	4.1	TM
50	TM*	Toluene	0.5100	0.5088	0.22	TM*
51	TM	Trans-1,3-Dichloropropene	0.1742	0.1726	0.94	TM
52	TM	1,1,2-TCA	0.1532	0.1534	0.12	TM
53	TM	2-Hexanone	0.0599	0.0550	8.1	TM
54	TM	1,2-EDB	0.2323	0.2246	3.3	TM
55	TM	Tetrachloroethene	0.2969	0.2727	8.1	TM
56	TM	1-Chlorohexane	0.2874	0.2811	2.2	TM
57	TM	1,1,1,2-Tetrachloroethane	0.2316	0.2365	2.1	TM
58	TM	m&p-Xylene	0.2555	0.2549	0.22	TM
59	TM	o-Xylene	0.2630	0.2650	0.78	TM
60	TM	Styrene	0.4091	0.4076	0.36	TM
61	TM	1,3-Dichloropropane	0.3732	0.3702	0.82	TM
62	TM	Dibromochloromethane	0.2363	0.2405	1.8	TM
63	TM**	Chlorobenzene	0.6502	0.6403	1.5	TM**
64	TM*	Ethylbenzene	1.096	1.066	2.8	TM*
65	TM**	Bromoform	0.1709	0.1694	0.90	TM**
66	TM	Isopropylbenzene	2.095	2.108	0.64	TM
67	TM**	1,1,2,2-Tetrachloroethane	0.3587	0.3743	4.4	TM**
68	TM	1,2,3-Trichloropropane	0.1042	0.1130	8.4	TM
69	TM	t-1,4-Dichloro-2-Butene	0.1047	0.0980	6.4	TM
70	TM	Bromobenzene	0.5614	0.5722	1.9	TM
71	TM	n-Propylbenzene	1.564	1.583	1.2	TM
72	TM	4-Ethyltoluene	1.898	1.910	0.64	TM
73	TM	2-Chlorotoluene	0.9411	0.9539	1.4	TM
74	TM	1,3,5-Trimethylbenzene	1.733	1.769	2.1	TM
75	TM	4-Chlorotoluene	1.045	1.082	3.5	TM
76	TM	Tert-Butylbenzene	0.9779	1.003	2.6	TM
77	TM	1,2,4-Trimethylbenzene	1.153	1.146	0.60	TM
78	TM	Sec-Butylbenzene	2.173	2.172	0.04	TM
79	TM	p-Isopropyltoluene	1.796	1.825	1.6	TM
80	TM	Benzyl Chloride	0.6762	0.7268	7.5	TM
		Average			2.8	



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Thor  
Cal. Date: 10/24/18  
Data File: 1025T03.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	1,3-DCB	0.9806	0.9901	0.97	TM
82	TM	1,4-DCB	0.9844	0.9766	0.79	TM
83	TM	n-Butylbenzene	1.003	1.028	2.5	TM
84	TM	1,2-DCB	0.9561	1.003	4.9	TM
85	TM	Hexachloroethane	0.2951	0.2963	0.40	TM
86	TM	1,2-Dibromo-3-chloropropane	0.1118	0.1136	1.6	TM
87	TML	1,2,4-Trichlorobenzene	0.4790	0.4659	2.7	TML 10
88	TM	Hexachlorobutadiene	0.3059	0.3149	3.0	TM
89	TML	Naphthalene	0.6319	0.5497	13	TML 20
90	TML	1,2,3-Trichlorobenzene	0.4615	0.4336	6.0	TML 14
91						
92						
93						
94						
95						
96						
97						
98						
99						
100						
101						
102						
103						
104						
105						
106						
107						
108						
109						
110						
111						
112						
113						
114						
115						
116						
117						
118						
119						
120		Average			3.6	

Average

3.6

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T181024\1025T03.D  
 Acq On : 25 Oct 18 12:37  
 Sample : (SS)10ug/L VOC STD 18/10/25  
 Misc : IS&S 10/15/18,8/13/18

Vial: 2  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 26 7:14 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.41	96	898688	25.0000	ppb	0.00
57) Chlorobenzene-D5 (IS)	9.58	117	745280	25.0000	ppb	0.00
72) 1,4-Dichlorobenzene-D (IS)	11.90	152	368064	25.0000	ppb	0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	5.61	111	80192	5.3561	ppb	0.00
Spiked Amount	5.000		Recovery	=	107.120%	
38) 1,2-DCA-D4 (S)	6.00	65	90719	5.4093	ppb	0.00
Spiked Amount	5.000		Recovery	=	108.180%	
58) Toluene-D8 (S)	8.13	98	309094	5.3852	ppb	0.00
Spiked Amount	5.000		Recovery	=	107.700%	
66) 4-Bromofluorobenzene(S)	10.75	95	116655	5.4134	ppb	0.00
Spiked Amount	5.000		Recovery	=	108.260%	
Target Compounds						
2) Dichlorodifluoromethane	1.15	85	75482	9.3141	ppb	97
3) Freon 114	1.26	135	42333	9.5516	ppb	93
4) Chloromethane	1.30	50	58135	9.5320	ppb	93
5) Vinyl chloride	1.39	62	71824	9.8357	ppb	98
6) Bromomethane	1.67	94	35736	9.6454	ppb	95
7) Chloroethane	1.77	64	35701	10.4331	ppb	99
8) Dichlorofluoromethane	1.96	67	103483	9.1462	ppb	98
9) Trichlorofluoromethane	2.01	101	92341	9.4988	ppb	96
10) Acrolein	2.43	56	63785	107.0382	ppb	94
11) Acetone	2.61	43	19749	9.6722	ppb	98
12) Freon-113	2.54	101	49031	9.6339	ppb	99
13) 1,1-DCE	2.52	61	77368	9.5857	ppb	95
14) Acetonitrile	2.92	41	70607	107.2805	ppb	94
15) t-Butanol	3.36	59	57946	103.4504	ppb	93
16) Methyl Acetate	3.01	43	41507	9.2121	ppb	93
17) Iodomethane	2.67	142	37685	9.0002	ppb	99
18) Acrylonitrile	3.45	52	17056	8.6849	ppb	91
19) Methylene chloride	3.10	84	65649	9.3791	ppb	91
20) Carbon disulfide	2.73	76	162340	9.2685	ppb	97
21) Methyl t-butyl ether (MtBE)	3.51	73	153278	9.4069	ppb	97
22) Trans-1,2-DCE	3.47	96	58259	8.6004	ppb	96
23) Hexane	3.51	57	34675	9.6340	ppb	# 97
24) Diisopropyl Ether	4.31	45	173619	10.0089	ppb	99
25) 1,1-DCA	4.10	63	110443	9.7680	ppb	96
26) Vinyl Acetate	4.31	87	52155	9.4791	ppb	99
27) Ethyl tert Butyl Ether	4.84	59	126005	9.4951	ppb	99
28) MEK (2-Butanone)	5.04	43	9696	9.2300	ppb	98
29) Cis-1,2-DCE	4.96	61	99459	9.6989	ppb	96
30) 2,2-Dichloropropane	4.95	77	97067	10.3479	ppb	97
31) Chloroform	5.41	83	115704	9.8391	ppb	98
32) Bromochloromethane	5.27	128	17736	9.8342	ppb	98
34) 1,1,1-TCA	5.61	97	96197	9.5581	ppb	94
35) Cyclohexane	5.67	41	44642	9.3593	ppb	90
36) 1,1-Dichloropropene	5.82	75	44080	9.6216	ppb	96
37) 2,2,4-Trimethylpentane	6.21	57	181590	10.1180	ppb	99
39) Carbon Tetrachloride	5.81	117	80720	9.9940	ppb	96
40) Tert Amyl Methyl Ether	6.26	73	114764	9.3672	ppb	96
41) 1,2-DCA	6.09	62	88794	9.8715	ppb	97
42) Benzene	6.06	78	270122	9.8320	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1025T03.D T1024W.M Fri Oct 26 07:15:03 2018

Data File : M:\THOR\DATA\T181024\1025T03.D  
 Acq On : 25 Oct 18 12:37  
 Sample : (SS)10ug/L VOC STD 18/10/25  
 Misc : IS&S 10/15/18,8/13/18

Vial: 2  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 26 7:14 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) TCE	6.82	95	69280	9.5624	ppb	97
44) 2-Pentanone	7.07	43	489970	111.2830	ppb	100
45) 1,2-Dichloropropane	7.06	63	67717	9.9674	ppb #	96
46) Bromodichloromethane	7.37	83	88664	9.5977	ppb	96
47) Methyl Cyclohexane	7.03	83	96650	9.8508	ppb	99
48) Dibromomethane	7.18	93	46561	9.9821	ppb	96
49) MIBK (methyl isobutyl ket	8.04	58	22322	9.4715	ppb	98
50) 1-Bromo-2-chloroethane	7.68	63	87644	9.6430	ppb	96
51) 2-Chloroethyl vinyl ether	7.68	106	1469	10.3365	ppb	86
52) Cis-1,3-Dichloropropene	7.86	75	108906	9.5929	ppb	97
53) Toluene	8.19	91	182912	9.9778	ppb	98
54) Trans-1,3-Dichloropropene	8.44	75	62032	9.9059	ppb	99
55) 1,1,2-TCA	8.61	83	55139	10.0121	ppb	96
56) 2-Hexanone	8.90	58	19774	9.1898	ppb	93
59) 1,2-EDB	9.10	107	66962	9.6675	ppb	100
60) Tetrachloroethene	8.75	166	81292	9.1851	ppb	97
61) 1-Chlorohexane	9.61	91	83793	9.7793	ppb	97
62) 1,1,1,2-Tetrachloroethane	9.70	131	70489	10.2093	ppb	99
63) m&p-Xylene	9.85	106	152000	19.9553	ppb	98
64) o-Xylene	10.24	106	79008	10.0784	ppb	100
65) Styrene	10.26	104	121520	9.9639	ppb	100
67) 1,3-Dichloropropane	8.78	76	110347	9.9177	ppb	98
68) Dibromochloromethane	9.00	129	71691	10.1775	ppb	98
69) Chlorobenzene	9.61	112	190881	9.8479	ppb	99
70) Ethylbenzene	9.73	91	317722	9.7216	ppb	98
71) Bromoform	10.42	173	50502	9.9103	ppb	94
73) Isopropylbenzene	10.62	105	310421	10.0640	ppb	97
74) 1,1,2,2-Tetrachloroethane	10.91	83	55112	10.4367	ppb	96
75) 1,2,3-Trichloropropane	10.94	110	16640	10.8444	ppb	93
76) t-1,4-Dichloro-2-Butene	10.97	53	14423	9.3610	ppb	85
77) Bromobenzene	10.90	156	84249	10.1929	ppb	97
78) n-Propylbenzene	11.03	91	233045	10.1241	ppb	99
79) 4-Ethyltoluene	11.14	105	281168	10.0638	ppb	100
80) 2-Chlorotoluene	11.10	91	140433	10.1352	ppb	96
81) 1,3,5-Trimethylbenzene	11.21	105	260456	10.2095	ppb	97
82) 4-Chlorotoluene	11.21	91	159296	10.3507	ppb	99
83) Tert-Butylbenzene	11.53	119	147648	10.2557	ppb	98
84) 1,2,4-Trimethylbenzene	11.57	105	168768	9.9399	ppb	97
85) Sec-Butylbenzene	11.74	105	319822	9.9962	ppb	97
86) p-Isopropyltoluene	11.90	119	268676	10.1631	ppb	99
87) Benzyl Chloride	12.06	91	107007	10.7485	ppb	97
88) 1,3-DCB	11.83	146	145773	10.0968	ppb	98
89) 1,4-DCB	11.92	146	143783	9.9206	ppb	99
90) n-Butylbenzene	12.30	91	151296	10.2478	ppb	98
91) 1,2-DCB	12.29	146	147652	10.4894	ppb	95
92) Hexachloroethane	12.55	117	43618	10.0402	ppb	91
93) 1,2-Dibromo-3-chloropropan	13.06	157	16728	10.1600	ppb	92
94) 1,2,4-Trichlorobenzene	13.89	180	68591	8.9915	ppb	98
95) Hexachlorobutadiene	14.08	225	46365	10.2959	ppb	99
96) Naphthalene	14.13	128	80936	7.9537	ppb	97
97) 1,2,3-Trichlorobenzene	14.37	180	63835	8.5597	ppb	95

Quantitation Report

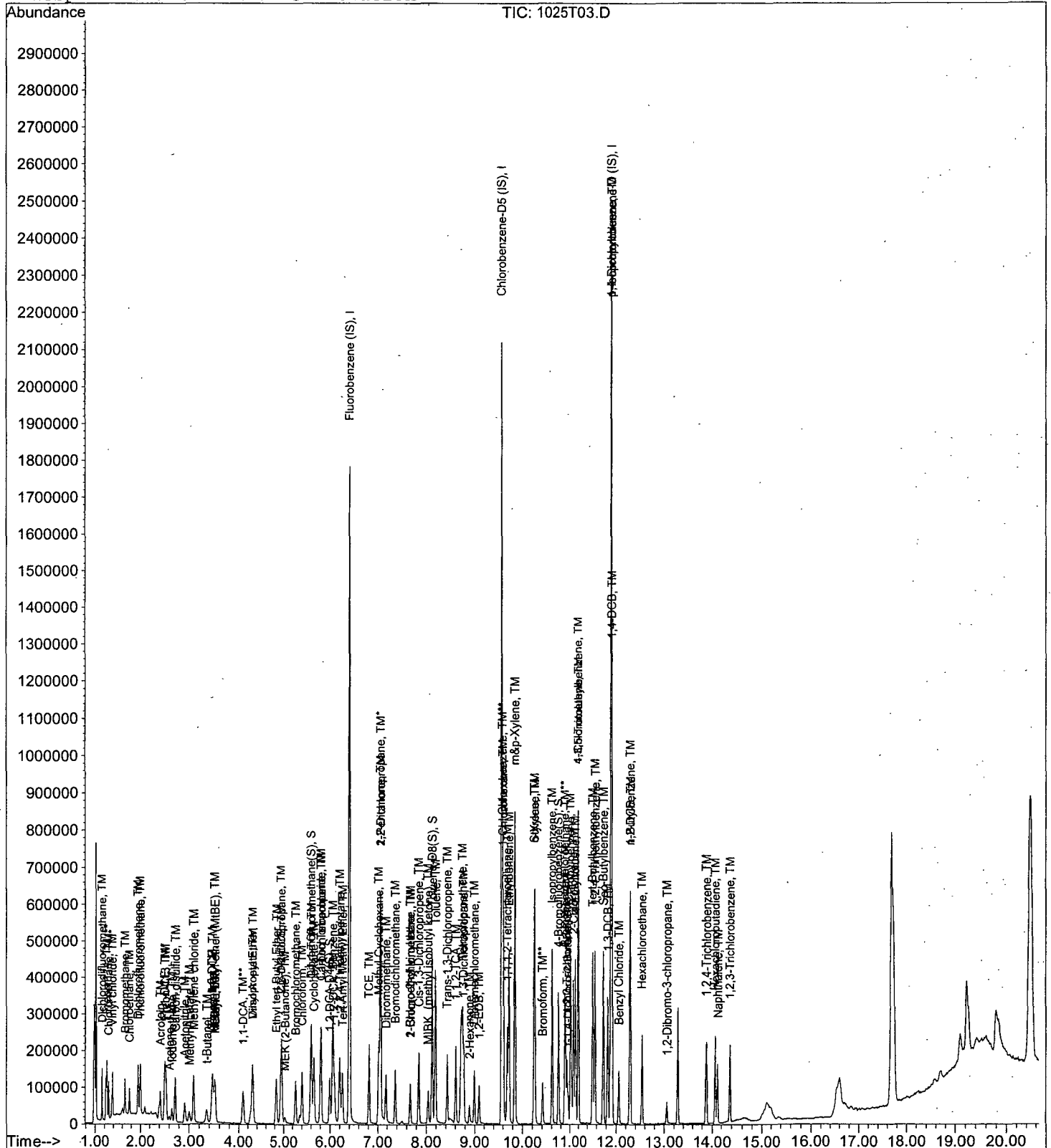
Data File : M:\THOR\DATA\T181024\1025T03.D  
Acq On : 25 Oct 18 12:37  
Sample : (SS)10ug/L VOC STD 18/10/25  
Misc : IS&S 10/15/18, 8/13/18

Vial: 2  
Operator: DG, SV, CMM.PM, KV  
Inst : Thor  
Multiplr: 1.00

Quant Time: Oct 26 7:14 2018

Quant Results File: T1024W.RES

Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Fri Oct 26 07:13:12 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Thor  
Initial Cal. Date: 10/24/18  
Data File: 1025T04.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Fluorobenzene (IS)	ISTD			I
2	TM	Dichlorodifluoromethane	0.2254	0.2125	5.7	TM
3	TM	Freon 114	0.1233	0.1225	0.66	TM
4	TM**	Chloromethane	0.1697	0.1597	5.9	TM**
5	TM*	Vinyl chloride	0.2031	0.1946	4.2	TM*
6	TM	Bromomethane	0.1031	0.0965	6.4	TM
7	TML	Chloroethane	0.1029	0.0958	6.9	TML 0.52
8	TM	Dichlorofluoromethane	0.3147	0.2939	6.6	TM
9	TM	Trichlorofluoromethane	0.2704	0.2707	0.08	TM
10	TM	Acrolein	0.0166	0.0140	16	TM
11	TML	Acetone	0.0910	0.0470	48	TML 21
12	TM	Freon-113	0.1416	0.1408	0.58	TM
13	TM*	1,1-DCE	0.2245	0.2205	1.8	TM*
14	TM	Acetonitrile	0.0183	0.0172	6.1	TM
15	TM	t-Butanol	0.0156	0.0133	14	TM
16	TM	Methyl Acetate	0.1253	0.1144	8.7	TM
17	TML	Iodomethane	0.1074	0.1036	3.5	TML 11
18	TML	Acrylonitrile	0.0585	0.0534	8.7	TML 2.1
19	TM	Methylene chloride	0.1947	0.1841	5.4	TM
20	TM	Carbon disulfide	0.4872	0.4532	7.0	TM
21	TM	Methyl t-butyl ether (MtBE)	0.4533	0.4438	2.1	TM
22	TM	Trans-1,2-DCE	0.1884	0.1725	8.5	TM
23	TM	Hexane	0.1001	0.0936	6.5	TM
24	TM	Diisopropyl Ether	0.4825	0.4773	1.1	TM
25	TM**	1,1-DCA	0.3145	0.3116	0.92	TM**
26	TM	Vinyl Acetate	0.1531	0.1517	0.90	TM
27	TM	Ethyl tert Butyl Ether	0.3692	0.3585	2.9	TM
28	TM	MEK (2-Butanone)	0.0292	0.0267	8.6	TM
29	TM	Cis-1,2-DCE	0.2853	0.2883	1.1	TM
30	TM	2,2-Dichloropropane	0.2609	0.2800	7.3	TM
31	TM*	Chloroform	0.3271	0.3338	2.0	TM*
32	TM	Bromochloromethane	0.0502	0.0513	2.2	TM
33	S	Dibromofluoromethane(S)	0.4165	0.4549	9.2	S
34	TM	1,1,1-TCA	0.2800	0.2846	1.7	TM
35	TML	Cyclohexane	0.1524	0.1315	14	TML 1.2
36	TM	1,1-Dichloropropene	0.1274	0.1185	7.0	TM
37	TM	2,2,4-Trimethylpentane	0.4993	0.5228	4.7	TM
38	S	1,2-DCA-D4(S)	0.4665	0.4912	5.3	S
39	TM	Carbon Tetrachloride	0.2247	0.2380	5.9	TM
40	TM	Tert Amyl Methyl Ether	0.3408	0.3215	5.7	TM

\* NT  
EW  
10/26/18

Average

6.5

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Thor  
Cal. Date: 10/24/18  
Data File: 1025T04.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	1,2-DCA	0.2502	0.2504	0.08	TM
42	TM	Benzene	0.7643	0.7609	0.44	TM
43	TM	TCE	0.2015	0.1949	3.3	TM
44	TM	2-Pentanone	0.1225	0.1130	7.7	TM
45	TM*	1,2-Dichloropropane	0.1890	0.1976	4.6	TM*
46	TM	Bromodichloromethane	0.2570	0.2557	0.52	TM
47	TM	Methyl Cyclohexane	0.2729	0.2694	1.3	TM
48	TM	Dibromomethane	0.1298	0.1292	0.42	TM
49	TM	MIBK (methyl isobutyl ketone)	0.0656	0.0607	7.4	TM
50	TM	1-Bromo-2-chloroethane	0.2528	0.2541	0.48	TM
51	TM	2-Chloroethyl vinyl ether	0.0040	0.0039	1.2	TM
52	TM	Cis-1,3-Dichloropropene	0.3158	0.3173	0.46	TM
53	TM*	Toluene	0.5100	0.5170	1.4	TM*
54	TM	Trans-1,3-Dichloropropene	0.1742	0.1700	2.4	TM
55	TM	1,1,2-TCA	0.1532	0.1553	1.4	TM
56	TM	2-Hexanone	0.0599	0.0565	5.7	TM
57	I	Chlorobenzene-D5 (IS)	ISTD			I
58	S	Toluene-D8(S)	1.925	2.043	6.1	S
59	TM	1,2-EDB	0.2323	0.2246	3.3	TM
60	TM	Tetrachloroethene	0.2969	0.2638	11	TM
61	TM	1-Chlorohexane	0.2874	0.2780	3.3	TM
62	TM	1,1,1,2-Tetrachloroethane	0.2316	0.2326	0.41	TM
63	TM	m&p-Xylene	0.2555	0.2618	2.5	TM
64	TM	o-Xylene	0.2630	0.2690	2.3	TM
65	TM	Styrene	0.4091	0.4055	0.88	TM
66	S	4-Bromofluorobenzene(S)	0.7229	0.7726	6.9	S
67	TM	1,3-Dichloropropane	0.3732	0.3656	2.0	TM
68	TM	Dibromochloromethane	0.2363	0.2446	3.5	TM
69	TM**	Chlorobenzene	0.6502	0.6464	0.58	TM**
70	TM*	Ethylbenzene	1.096	1.078	1.7	TM*
71	TM**	Bromoform	0.1709	0.1720	0.62	TM**
72	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
73	TM	Isopropylbenzene	2.095	2.209	5.4	TM
74	TM**	1,1,2,2-Tetrachloroethane	0.3587	0.4059	13	TM**
75	TM	1,2,3-Trichloropropane	0.1042	0.1150	10	TM
76	TM	t-1,4-Dichloro-2-Butene	0.1047	0.1035	1.1	TM
77	TM	Bromobenzene	0.5614	0.5794	3.2	TM
78	TM	n-Propylbenzene	1.564	1.645	5.2	TM
79	TM	4-Ethyltoluene	1.898	1.996	5.2	TM
80	TM	2-Chlorotoluene	0.9411	0.9975	6.0	TM

Average

3.5

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Thor  
Cal. Date: 10/24/18  
Data File: 1025T04.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	1,3,5-Trimethylbenzene	1.733	1.815	4.7	TM
82	TM	4-Chlorotoluene	1.045	1.106	5.8	TM
83	TM	Tert-Butylbenzene	0.9779	1.015	3.8	TM
84	TM	1,2,4-Trimethylbenzene	1.153	1.227	6.4	TM
85	TM	Sec-Butylbenzene	2.173	2.314	6.5	TM
86	TM	p-Isopropyltoluene	1.796	1.921	7.0	TM
87	TM	Benzyl Chloride	0.6762	0.7393	9.3	TM
88	TM	1,3-DCB	0.9806	1.046	6.7	TM
89	TM	1,4-DCB	0.9844	1.025	4.1	TM
90	TM	n-Butylbenzene	1.003	1.077	7.4	TM
91	TM	1,2-DCB	0.9561	1.035	8.2	TM
92	TM	Hexachloroethane	0.2951	0.3278	11	TM
93	TM	1,2-Dibromo-3-chloropropane	0.1118	0.1212	8.4	TM
94	TML	1,2,4-Trichlorobenzene	0.4790	0.5036	5.1	TML 3.4
95	TM	Hexachlorobutadiene	0.3059	0.3256	6.4	TM
96	TML	Naphthalene	0.6319	0.6441	1.9	TML 9.2
97	TML	1,2,3-Trichlorobenzene	0.4615	0.5010	8.6	TML 1.8
98						
99						
100						
101						
102						
103						
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105						
106						
107						
108						
109						
110						
111						
112						
113						
114						
115						
116						
117						
118						
119						
120						

Average

6.5

Data File : M:\THOR\DATA\T181024\1025T04.D  
 Acq On : 25 Oct 18 13:06  
 Sample : 181025A CCV 10ug/L  
 Misc : IS&S 10/15/18,8/13/18

Vial: 3  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 26 7:14 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Oct 26 07:13:12 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.41	96	862848	25.0000	ppb	0.00
57) Chlorobenzene-D5 (IS)	9.58	117	729920	25.0000	ppb	0.00
72) 1,4-Dichlorobenzene-D (IS)	11.90	152	349376	25.0000	ppb	0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	5.61	111	78503	5.4611	ppb	0.00
Spiked Amount	5.000		Recovery	=	109.220%	
38) 1,2-DCA-D4(S)	6.00	65	84761	5.2639	ppb	0.00
Spiked Amount	5.000		Recovery	=	105.280%	
58) Toluene-D8(S)	8.13	98	298254	5.3056	ppb	0.00
Spiked Amount	5.000		Recovery	=	106.120%	
66) 4-Bromofluorobenzene(S)	10.75	95	112783	5.3439	ppb	0.00
Spiked Amount	5.000		Recovery	=	106.880%	
Target Compounds						
2) Dichlorodifluoromethane	1.15	85	73342	9.4259	ppb	Qvalue 100
3) Freon 114	1.26	135	42272	9.9340	ppb	96
4) Chloromethane	1.30	50	55111	9.4115	ppb	97
5) Vinyl chloride	1.39	62	67160	9.5790	ppb	99
6) Bromomethane	1.67	94	33298	9.3606	ppb	97
7) Chloroethane	1.77	64	33077	10.0523	ppb	99
8) Dichlorofluoromethane	1.96	67	101439	9.3379	ppb	100
9) Trichlorofluoromethane	2.00	101	93414	10.0084	ppb	96
10) Acrolein	2.43	56	60371	105.5172	ppb	98
11) Acetone	2.61	43	16221	7.8833	ppb	97
12) Freon-113	2.55	101	48583	9.9424	ppb	93
13) 1,1-DCE	2.52	61	76086	9.8185	ppb	92
14) Acetonitrile	2.92	41	74163	117.3640	ppb	95
15) t-Butanol	3.36	59	57508	106.9330	ppb	96
16) Methyl Acetate	3.01	43	39480	9.1261	ppb	100
17) Iodomethane	2.67	142	35760	8.9202	ppb	98
18) Acrylonitrile	3.44	52	18431	9.7889	ppb	88
19) Methylene chloride	3.10	84	63549	9.4562	ppb	100
20) Carbon disulfide	2.73	76	156403	9.3004	ppb	99
21) Methyl t-butyl ether (MtBE)	3.51	73	153177	9.7912	ppb	97
22) Trans-1,2-DCE	3.47	96	59541	9.1548	ppb	96
23) Hexane	3.51	57	32321	9.3530	ppb	# 97
24) Diisopropyl Ether	4.31	45	164731	9.8910	ppb	100
25) 1,1-DCA	4.10	63	107555	9.9077	ppb	97
26) Vinyl Acetate	4.31	87	52352	9.9101	ppb	96
27) Ethyl tert Butyl Ether	4.84	59	123716	9.7098	ppb	98
28) MEK (2-Butanone)	5.04	43	9215	9.1365	ppb	99
29) Cis-1,2-DCE	4.96	61	99511	10.1071	ppb	95
30) 2,2-Dichloropropane	4.95	77	96636	10.7299	ppb	97
31) Chloroform	5.41	83	115211	10.2041	ppb	96
32) Bromochloromethane	5.27	128	17696	10.2195	ppb	97
34) 1,1,1-TCA	5.61	97	98228	10.1652	ppb	88
35) Cyclohexane	5.67	41	45380	9.8832	ppb	95
36) 1,1-Dichloropropene	5.82	75	40888	9.2955	ppb	97
37) 2,2,4-Trimethylpentane	6.21	57	180440	10.4716	ppb	98
39) Carbon Tetrachloride	5.81	117	82133	10.5913	ppb	93
40) Tert Amyl Methyl Ether	6.26	73	110967	9.4334	ppb	98
41) 1,2-DCA	6.09	62	86434	10.0083	ppb	98
42) Benzene	6.06	78	262629	9.9563	ppb	98



Data File : M:\THOR\DATA\T181024\1025T04.D  
 Acq On : 25 Oct 18 13:06  
 Sample : 181025A CCV 10ug/L  
 Misc : IS&S 10/15/18,8/13/18

Vial: 3  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 26 7:14 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Oct 26 07:13:12 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) TCE	6.82	95	67274	9.6712	ppb	98
44) 2-Pentanone	7.07	43	487471	115.3142	ppb	98
45) 1,2-Dichloropropane	7.06	63	68208	10.4566	ppb	100
46) Bromodichloromethane	7.38	83	88239	9.9484	ppb	99
47) Methyl Cyclohexane	7.03	83	92993	9.8717	ppb	99
48) Dibromomethane	7.18	93	44596	9.9580	ppb	95
49) MIBK (methyl isobutyl ket	8.04	58	20963	9.2643	ppb	85
50) 1-Bromo-2-chloroethane	7.68	63	87686	10.0483	ppb	93
51) 2-Chloroethyl vinyl ether	7.68	106	1348	9.8791	ppb	78
52) Cis-1,3-Dichloropropene	7.85	75	109507	10.0465	ppb	98
53) Toluene	8.19	91	178432	10.1377	ppb	100
54) Trans-1,3-Dichloropropene	8.44	75	58680	9.7598	ppb	99
55) 1,1,2-TCA	8.61	83	53599	10.1368	ppb	96
56) 2-Hexanone	8.90	58	19486	9.4321	ppb	91
59) 1,2-EDB	9.10	107	65590	9.6687	ppb	99
60) Tetrachloroethene	8.75	166	77035	8.8873	ppb	98
61) 1-Chlorohexane	9.61	91	81163	9.6717	ppb	98
62) 1,1,1,2-Tetrachloroethane	9.69	131	67899	10.0411	ppb	99
63) m&p-Xylene	9.85	106	152896	20.4953	ppb	98
64) o-Xylene	10.24	106	78544	10.2301	ppb	99
65) Styrene	10.26	104	118392	9.9117	ppb	100
67) 1,3-Dichloropropane	8.78	76	106756	9.7969	ppb	98
68) Dibromochloromethane	9.00	129	71402	10.3498	ppb	95
69) Chlorobenzene	9.61	112	188734	9.9420	ppb	99
70) Ethylbenzene	9.73	91	314705	9.8319	ppb	99
71) Bromoform	10.42	173	50218	10.0620	ppb	92
73) Isopropylbenzene	10.62	105	308731	10.5446	ppb	99
74) 1,1,2,2-Tetrachloroethane	10.91	83	56728	11.3173	ppb	97
75) 1,2,3-Trichloropropane	10.94	110	16075	11.0366	ppb	97
76) t-1,4-Dichloro-2-Butene	10.97	53	14467	9.8918	ppb	96
77) Bromobenzene	10.89	156	80966	10.3197	ppb	94
78) n-Propylbenzene	11.02	91	229848	10.5193	ppb	98
79) 4-Ethyltoluene	11.14	105	278873	10.5156	ppb	100
80) 2-Chlorotoluene	11.10	91	139396	10.5985	ppb	100
81) 1,3,5-Trimethylbenzene	11.20	105	253638	10.4740	ppb	99
82) 4-Chlorotoluene	11.20	91	154624	10.5846	ppb	99
83) Tert-Butylbenzene	11.53	119	141888	10.3827	ppb	99
84) 1,2,4-Trimethylbenzene	11.57	105	171520	10.6424	ppb	99
85) Sec-Butylbenzene	11.74	105	323351	10.6471	ppb	98
86) p-Isopropyltoluene	11.90	119	268443	10.6975	ppb	100
87) Benzyl Chloride	12.06	91	103316	10.9329	ppb	99
88) 1,3-DCB	11.83	146	146176	10.6663	ppb	94
89) 1,4-DCB	11.92	146	143202	10.4090	ppb	99
90) n-Butylbenzene	12.30	91	150528	10.7412	ppb	100
91) 1,2-DCB	12.29	146	144603	10.8223	ppb	99
92) Hexachloroethane	12.55	117	45808	11.1083	ppb	89
93) 1,2-Dibromo-3-chloropropan	13.06	157	16941	10.8398	ppb	98
94) 1,2,4-Trichlorobenzene	13.89	180	70376	9.6635	ppb	95
95) Hexachlorobutadiene	14.08	225	45498	10.6438	ppb	99
96) Naphthalene	14.13	128	90008	9.0755	ppb	95
97) 1,2,3-Trichlorobenzene	14.37	180	70017	9.8209	ppb	97

Quantitation Report

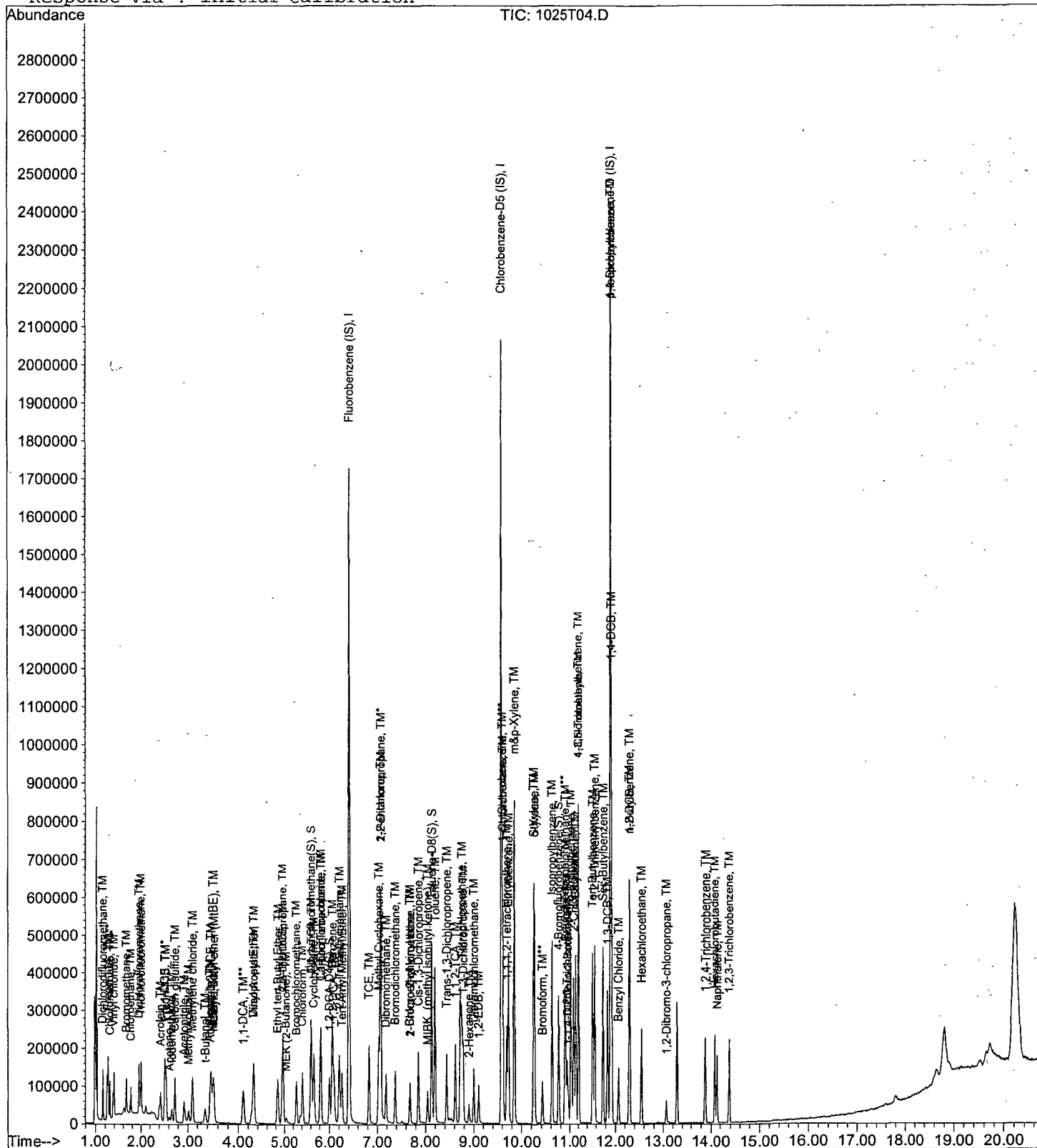
Data File : M:\THOR\DATA\T181024\1025T04.D  
Acq On : 25 Oct 18 13:06  
Sample : 181025A CCV 10ug/L  
Misc : IS&S 10/15/18,8/13/18

Vial: 3  
Operator: DG,SV, CMM.PM,KV  
Inst : Thor  
Multiplr: 1.00

Quant Time: Oct 26 7:14 2018

Quant Results File: T1024W.RES

Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Fri Oct 26 07:13:12 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/26/18  
Instrument: Thor  
Initial Cal. Date: 10/24/18  
Data File: 1025T30.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Fluorobenzene (IS)	ISTD			I
2	TM	Dichlorodifluoromethane	0.2254	0.2195	2.6	TM
3	TM	Freon 114	0.1233	0.1258	2.0	TM
4	TM**	Chloromethane	0.1697	0.1601	5.6	TM**
5	TM*	Vinyl chloride	0.2031	0.1875	7.7	TM*
6	TM	Bromomethane	0.1031	0.1035	0.44	TM
7	TML	Chloroethane	0.1029	0.0970	5.8	TML 1.8
8	TM	Dichlorofluoromethane	0.3147	0.2909	7.6	TM
9	TM	Trichlorofluoromethane	0.2704	0.2617	3.2	TM
10	TM	Acrolein	0.0166	0.0128	23	TM
11	TML	Acetone	0.0910	0.0534	41	TML 6.8
12	TM	Freon-113	0.1416	0.1471	3.9	TM
13	TM*	1,1-DCE	0.2245	0.2168	3.5	TM*
14	TM	Acetonitrile	0.0183	0.0153	16	TM
15	TM	t-Butanol	0.0156	0.0103	34	TM
16	TM	Methyl Acetate	0.1253	0.0993	21	TM
17	TML	Iodomethane	0.1074	0.1123	4.5	TML 5.1
18	TML	Acrylonitrile	0.0585	0.0474	19	TML 13
19	TM	Methylene chloride	0.1947	0.1957	0.50	TM
20	TM	Carbon disulfide	0.4872	0.4577	6.1	TM
21	TM	Methyl t-butyl ether (MtBE)	0.4533	0.4046	11	TM
22	TM	Trans-1,2-DCE	0.1884	0.1724	8.5	TM
23	TM	Hexane	0.1001	0.0867	13	TM
24	TM	Diisopropyl Ether	0.4825	0.4668	3.3	TM
25	TM**	1,1-DCA	0.3145	0.3087	1.8	TM**
26	TM	Vinyl Acetate	0.1531	0.1510	1.3	TM
27	TM	Ethyl tert Butyl Ether	0.3692	0.3273	11	TM
28	TM	MEK (2-Butanone)	0.0292	0.0207	29	TM
29	TM	Cis-1,2-DCE	0.2853	0.2831	0.75	TM
30	TM	2,2-Dichloropropane	0.2609	0.2837	8.7	TM
31	TM*	Chloroform	0.3271	0.3347	2.3	TM*
32	TM	Bromochloromethane	0.0502	0.0543	8.3	TM
33	S	Dibromofluoromethane(S)	0.4165	0.4194	0.69	S
34	TM	1,1,1-TCA	0.2800	0.2824	0.88	TM
35	TML	Cyclohexane	0.1524	0.1294	15	TML 2.6
36	TM	1,1-Dichloropropene	0.1274	0.1224	3.9	TM
37	TM	2,2,4-Trimethylpentane	0.4993	0.5483	9.8	TM
38	S	1,2-DCA-D4(S)	0.4665	0.4430	5.1	S
39	TM	Carbon Tetrachloride	0.2247	0.2329	3.7	TM
40	TM	Tert Amyl Methyl Ether	0.3408	0.2851	16	TM

Average

9.3

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/26/18  
Instrument: Thor  
Cal. Date: 10/24/18  
Data File: 1025T30.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	1,2-DCA	0.2502	0.2407	3.8	TM
42	TM	Benzene	0.7643	0.7693	0.66	TM
43	TM	TCE	0.2015	0.1976	2.0	TM
44	TM	2-Pentanone	0.1225	0.0929	24	TM
45	TM*	1,2-Dichloropropane	0.1890	0.1923	1.8	TM*
46	TM	Bromodichloromethane	0.2570	0.2512	2.2	TM
47	TM	Methyl Cyclohexane	0.2729	0.2827	3.6	TM
48	TM	Dibromomethane	0.1298	0.1212	6.6	TM
49	TM	MIBK (methyl isobutyl ketone)	0.0656	0.0536	18	TM
50	TM	1-Bromo-2-chloroethane	0.2528	0.2364	6.5	TM
51	TM	2-Chloroethyl vinyl ether	0.0040	0.0039	1.3	TM
52	TM	Cis-1,3-Dichloropropene	0.3158	0.3070	2.8	TM
53	TM*	Toluene	0.5100	0.5165	1.3	TM*
54	TM	Trans-1,3-Dichloropropene	0.1742	0.1566	10	TM
55	TM	1,1,2-TCA	0.1532	0.1464	4.4	TM
56	TM	2-Hexanone	0.0599	0.0482	20	TM
57	I	Chlorobenzene-D5 (IS)	ISTD			I
58	S	Toluene-D8(S)	1.925	1.913	0.65	S
59	TM	1,2-EDB	0.2323	0.2158	7.1	TM
60	TM	Tetrachloroethene	0.2969	0.2762	7.0	TM
61	TM	1-Chlorohexane	0.2874	0.2849	0.88	TM
62	TM	1,1,1,2-Tetrachloroethane	0.2316	0.2386	3.0	TM
63	TM	m&p-Xylene	0.2555	0.2588	1.3	TM
64	TM	o-Xylene	0.2630	0.2549	3.1	TM
65	TM	Styrene	0.4091	0.4129	0.92	TM
66	S	4-Bromofluorobenzene(S)	0.7229	0.7099	1.8	S
67	TM	1,3-Dichloropropane	0.3732	0.3470	7.0	TM
68	TM	Dibromochloromethane	0.2363	0.2321	1.8	TM
69	TM**	Chlorobenzene	0.6502	0.6451	0.78	TM**
70	TM*	Ethylbenzene	1.096	1.096	0.01	TM*
71	TM**	Bromoform	0.1709	0.1587	7.1	TM**
72	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
73	TM	Isopropylbenzene	2.095	2.084	0.55	TM
74	TM**	1,1,2,2-Tetrachloroethane	0.3587	0.3255	9.2	TM**
75	TM	1,2,3-Trichloropropane	0.1042	0.0959	8.0	TM
76	TM	t-1,4-Dichloro-2-Butene	0.1047	0.0943	9.9	TM
77	TM	Bromobenzene	0.5614	0.5526	1.6	TM
78	TM	n-Propylbenzene	1.564	1.577	0.88	TM
79	TM	4-Ethyltoluene	1.898	1.968	3.7	TM
80	TM	2-Chlorotoluene	0.9411	0.9586	1.9	TM

Average

4.9

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/26/18  
Instrument: Thor  
Cal. Date: 10/24/18  
Data File: 1025T30.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	1,3,5-Trimethylbenzene	1.733	1.740	0.44	TM
82	TM	4-Chlorotoluene	1.045	1.093	4.6	TM
83	TM	Tert-Butylbenzene	0.9779	0.9810	0.32	TM
84	TM	1,2,4-Trimethylbenzene	1.153	1.165	1.00	TM
85	TM	Sec-Butylbenzene	2.173	2.143	1.4	TM
86	TM	p-Isopropyltoluene	1.796	1.816	1.1	TM
87	TM	Benzyl Chloride	0.6762	0.6205	8.2	TM
88	TM	1,3-DCB	0.9806	0.9921	1.2	TM
89	TM	1,4-DCB	0.9844	0.9763	0.82	TM
90	TM	n-Butylbenzene	1.003	1.053	5.0	TM
91	TM	1,2-DCB	0.9561	0.9544	0.18	TM
92	TM	Hexachloroethane	0.2951	0.3001	1.7	TM
93	TM	1,2-Dibromo-3-chloropropane	0.1118	0.0937	16	TM
94	TML	1,2,4-Trichlorobenzene	0.4790	0.4488	6.3	TML 13
95	TM	Hexachlorobutadiene	0.3059	0.3140	2.7	TM
96	TML	Naphthalene	0.6319	0.4850	23	TML 28
97	TML	1,2,3-Trichlorobenzene	0.4615	0.4184	9.3	TML 17
98						
99						
100						
101						
102						
103						
104						
105						
106						
107						
108						
109						
110						
111						
112						
113						
114						
115						
116						
117						
118						
119						
120						

Average

4.9

Data File : M:\THOR\DATA\T181024\1025T30.D  
 Acq On : 26 Oct 18 6:46  
 Sample : Ending CCV 10ug/L 18/10/25  
 Misc : IS&S 10/15/18,8/13/18

Vial: 26  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 26 9:08 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Oct 26 08:02:24 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.40	96	879808	25.0000	ppb	0.00
57) Chlorobenzene-D5 (IS)	9.57	117	741824	25.0000	ppb	0.00
72) 1,4-Dichlorobenzene-D (IS)	11.90	152	375616	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) Dibromofluoromethane(S)	5.60	111	368982	25.1736	ppb	0.00
Spiked Amount 25.000			Recovery =	100.696%		
38) 1,2-DCA-D4 (S)	6.00	65	389738	23.7374	ppb	0.00
Spiked Amount 25.000			Recovery =	94.948%		
58) Toluene-D8 (S)	8.12	98	1418999	24.8375	ppb	0.00
Spiked Amount 25.000			Recovery =	99.352%		
66) 4-Bromofluorobenzene(S)	10.75	95	526623	24.5521	ppb	0.00
Spiked Amount 25.000			Recovery =	98.208%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.15	85	77240	9.7355	ppb	98
3) Freon 114	1.26	135	44261	10.2009	ppb	94
4) Chloromethane	1.30	50	56354	9.4382	ppb	97
5) Vinyl chloride	1.39	62	65976	9.2287	ppb	99
6) Bromomethane	1.67	94	36432	10.0442	ppb	98
7) Chloroethane	1.76	64	34131	10.1780	ppb	99
8) Dichlorofluoromethane	1.96	67	102389	9.2437	ppb	96
9) Trichlorofluoromethane	2.00	101	92082	9.6755	ppb	99
10) Acrolein	2.42	56	56438	96.7415	ppb	99
11) Acetone	2.60	43	18784	9.3200	ppb	89
12) Freon-113	2.54	101	51774	10.3911	ppb	98
13) 1,1-DCE	2.52	61	76288	9.6547	ppb	94
14) Acetonitrile	2.92	41	67408	104.6178	ppb	97
15) t-Butanol	3.34	59	45461	82.9027	ppb	99
16) Methyl Acetate	3.01	43	34939	7.9208	ppb	90
17) Iodomethane	2.66	142	39509	9.4860	ppb	96
18) Acrylonitrile	3.43	52	16684	8.6777	ppb	93
19) Methylene chloride	3.10	84	68870	10.0504	ppb	97
20) Carbon disulfide	2.73	76	161083	9.3941	ppb	97
21) Methyl t-butyl ether (MtBE)	3.51	73	142384	8.9258	ppb	96
22) Trans-1,2-DCE	3.46	96	60671	9.1487	ppb	99
23) Hexane	3.51	57	30498	8.6553	ppb	# 99
24) Diisopropyl Ether	4.30	45	164273	9.6734	ppb	97
25) 1,1-DCA	4.10	63	108646	9.8153	ppb	97
26) Vinyl Acetate	4.30	87	53141	9.8655	ppb	95
27) Ethyl tert Butyl Ether	4.84	59	115185	8.8660	ppb	99
28) MEK (2-Butanone)	5.03	43	7299	7.0973	ppb	93
29) Cis-1,2-DCE	4.96	61	99644	9.9255	ppb	99
30) 2,2-Dichloropropane	4.94	77	99833	10.8712	ppb	99
31) Chloroform	5.41	83	117800	10.2323	ppb	94
32) Bromochloromethane	5.27	128	19120	10.8291	ppb	95
34) 1,1,1-TCA	5.60	97	99399	10.0881	ppb	97
35) Cyclohexane	5.66	41	45549	9.7357	ppb	92
36) 1,1-Dichloropropene	5.82	75	43080	9.6051	ppb	99
37) 2,2,4-Trimethylpentane	6.20	57	192949	10.9817	ppb	98
39) Carbon Tetrachloride	5.81	117	81965	10.3659	ppb	99
40) Tert Amyl Methyl Ether	6.26	73	100328	8.3646	ppb	96
41) 1,2-DCA	6.09	62	84718	9.6205	ppb	99
42) Benzene	6.06	78	270738	10.0659	ppb	98

Data File : M:\THOR\DATA\T181024\1025T30.D  
 Acq On : 26 Oct 18 6:46  
 Sample : Ending CCV 10ug/L 18/10/25  
 Misc : IS&S 10/15/18,8/13/18

Vial: 26  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 26 9:08 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Fri Oct 26 08:02:24 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) TCE	6.82	95	69523	9.8019	ppb	98
44) 2-Pentanone	7.06	43	408857	94.8532	ppb	98
45) 1,2-Dichloropropane	7.06	63	67676	10.1751	ppb	97
46) Bromodichloromethane	7.37	83	88406	9.7751	ppb	99
47) Methyl Cyclohexane	7.02	83	99490	10.3578	ppb	99
48) Dibromomethane	7.18	93	42638	9.3372	ppb	94
49) MIBK (methyl isobutyl ket	8.04	58	18851	8.1704	ppb	90
50) 1-Bromo-2-chloroethane	7.68	63	83211	9.3517	ppb	96
51) 2-Chloroethyl vinyl ether	7.67	106	1373	9.8684	ppb	80
52) Cis-1,3-Dichloropropene	7.85	75	108023	9.7193	ppb	95
53) Toluene	8.19	91	181760	10.1278	ppb	98
54) Trans-1,3-Dichloropropene	8.43	75	55128	8.9923	ppb	97
55) 1,1,2-TCA	8.61	83	51522	9.5561	ppb	99
56) 2-Hexanone	8.90	58	16947	8.0450	ppb	95
59) 1,2-EDB	9.10	107	64038	9.2884	ppb	96
60) Tetrachloroethene	8.75	166	81950	9.3026	ppb	98
61) 1-Chlorohexane	9.61	91	84538	9.9122	ppb	98
62) 1,1,1,2-Tetrachloroethane	9.69	131	70790	10.3007	ppb	98
63) m&p-Xylene	9.85	106	153600	20.2593	ppb	98
64) o-Xylene	10.24	106	75632	9.6927	ppb	93
65) Styrene	10.26	104	122512	10.0920	ppb	99
67) 1,3-Dichloropropane	8.78	76	102971	9.2979	ppb	97
68) Dibromochloromethane	9.00	129	68882	9.8243	ppb	97
69) Chlorobenzene	9.60	112	191426	9.9220	ppb	98
70) Ethylbenzene	9.73	91	325278	9.9992	ppb	100
71) Bromoform	10.42	173	47097	9.2852	ppb	96
73) Isopropylbenzene	10.62	105	313053	9.9452	ppb	99
74) 1,1,2,2-Tetrachloroethane	10.91	83	48912	9.0763	ppb	95
75) 1,2,3-Trichloropropane	10.94	110	14402	9.1972	ppb	99
76) t-1,4-Dichloro-2-Butene	10.97	53	14169	9.0113	ppb	88
77) Bromobenzene	10.89	156	83023	9.8426	ppb	99
78) n-Propylbenzene	11.02	91	236988	10.0884	ppb	98
79) 4-Ethyltoluene	11.14	105	295657	10.3697	ppb	98
80) 2-Chlorotoluene	11.10	91	144030	10.1858	ppb	100
81) 1,3,5-Trimethylbenzene	11.20	105	261484	10.0437	ppb	100
82) 4-Chlorotoluene	11.20	91	164288	10.4605	ppb	100
83) Tert-Butylbenzene	11.53	119	147392	10.0320	ppb	100
84) 1,2,4-Trimethylbenzene	11.57	105	175003	10.0999	ppb	98
85) Sec-Butylbenzene	11.74	105	321936	9.8600	ppb	100
86) p-Isopropyltoluene	11.90	119	272821	10.1124	ppb	99
87) Benzyl Chloride	12.06	91	93225	9.1759	ppb	99
88) 1,3-DCB	11.83	146	149056	10.1166	ppb	96
89) 1,4-DCB	11.92	146	146690	9.9177	ppb	99
90) n-Butylbenzene	12.30	91	158144	10.4963	ppb	97
91) 1,2-DCB	12.29	146	143393	9.9820	ppb	98
92) Hexachloroethane	12.55	117	45093	10.1710	ppb	92
93) 1,2-Dibromo-3-chloropropan	13.06	157	14082	8.3810	ppb	98
94) 1,2,4-Trichlorobenzene	13.89	180	67424	8.6861	ppb	97
95) Hexachlorobutadiene	14.08	225	47183	10.2669	ppb	99
96) Naphthalene	14.13	128	72872	7.1839	ppb	99
97) 1,2,3-Trichlorobenzene	14.37	180	62870	8.2765	ppb	98

Quantitation Report

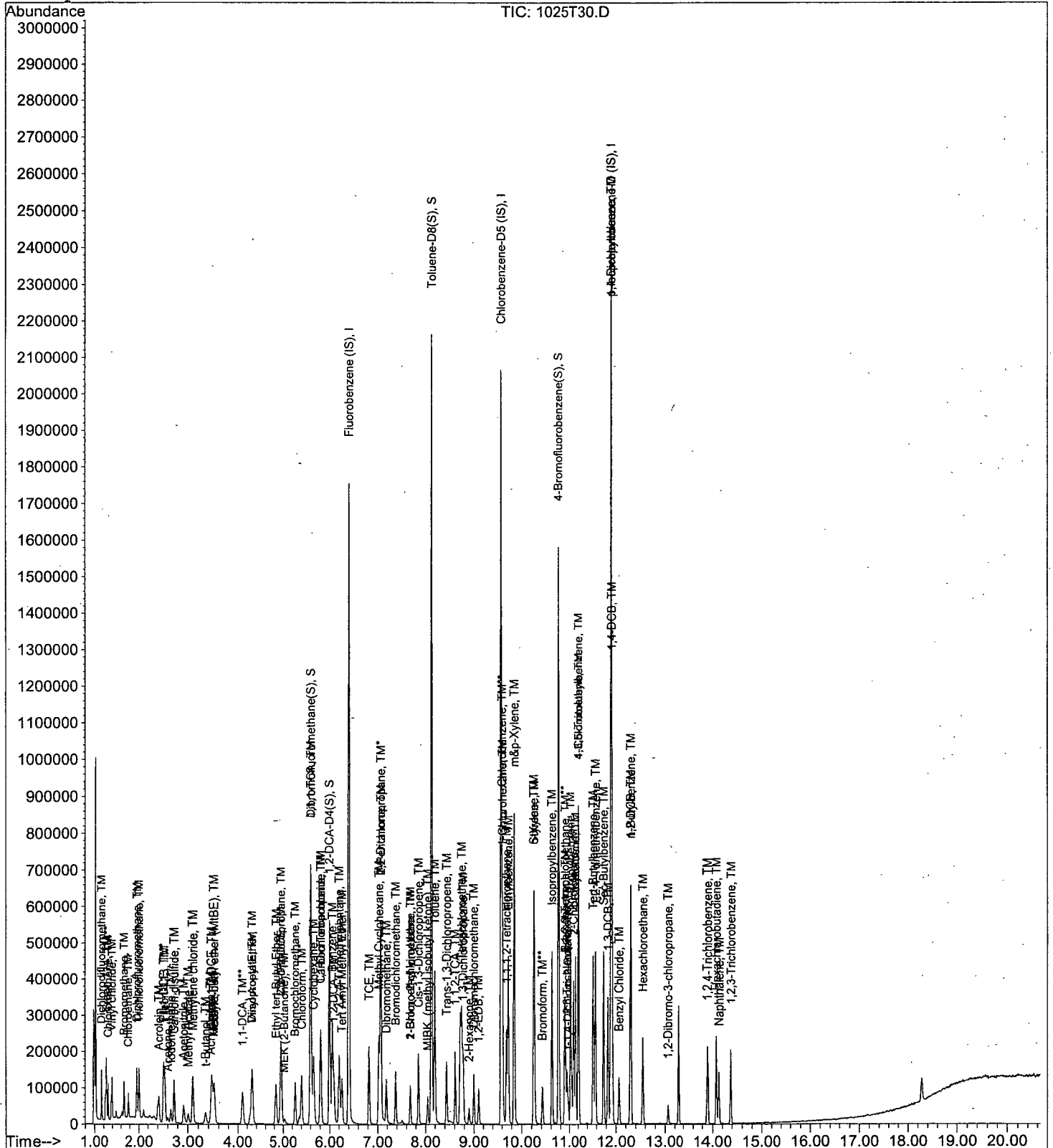
Data File : M:\THOR\DATA\T181024\1025T30.D  
Acq On : 26 Oct 18 6:46  
Sample : Ending CCV 10ug/L 18/10/25  
Misc : IS&S 10/15/18,8/13/18

Vial: 26  
Operator: DG,SV, CMM.PM,KV  
Inst : Thor  
Multiplr: 1.00

Quant Time: Oct 26 9:08 2018

Quant Results File: T1024W.RES

Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Fri Oct 26 08:02:24 2018  
Response via : Initial Calibration





**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : M:\LOKI\DATA\181023\1024L13.D Vial: 12  
 Acq On : 24 Oct 18 13:07 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81583W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 24 13:33 2018 Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	223808	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	255872	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	143296	25.0000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	3.87	111	169610	26.5497	ppb	0.00
Spiked Amount				25.000		
					Recovery =	106.200%
37) 1,2-DCA-D4 (S)	4.37	65	177875	27.5260	ppb	0.00
Spiked Amount				25.000		
					Recovery =	110.104%
57) Toluene-D8 (S)	6.91	98	554591	22.8663	ppb	0.00
Spiked Amount				25.000		
					Recovery =	91.464%
65) 4-Bromofluorobenzene(S)	9.84	95	198367	23.1987	ppb	0.00
Spiked Amount				25.000		
					Recovery =	92.796%

Target Compounds Qvalue

Quantitation Report

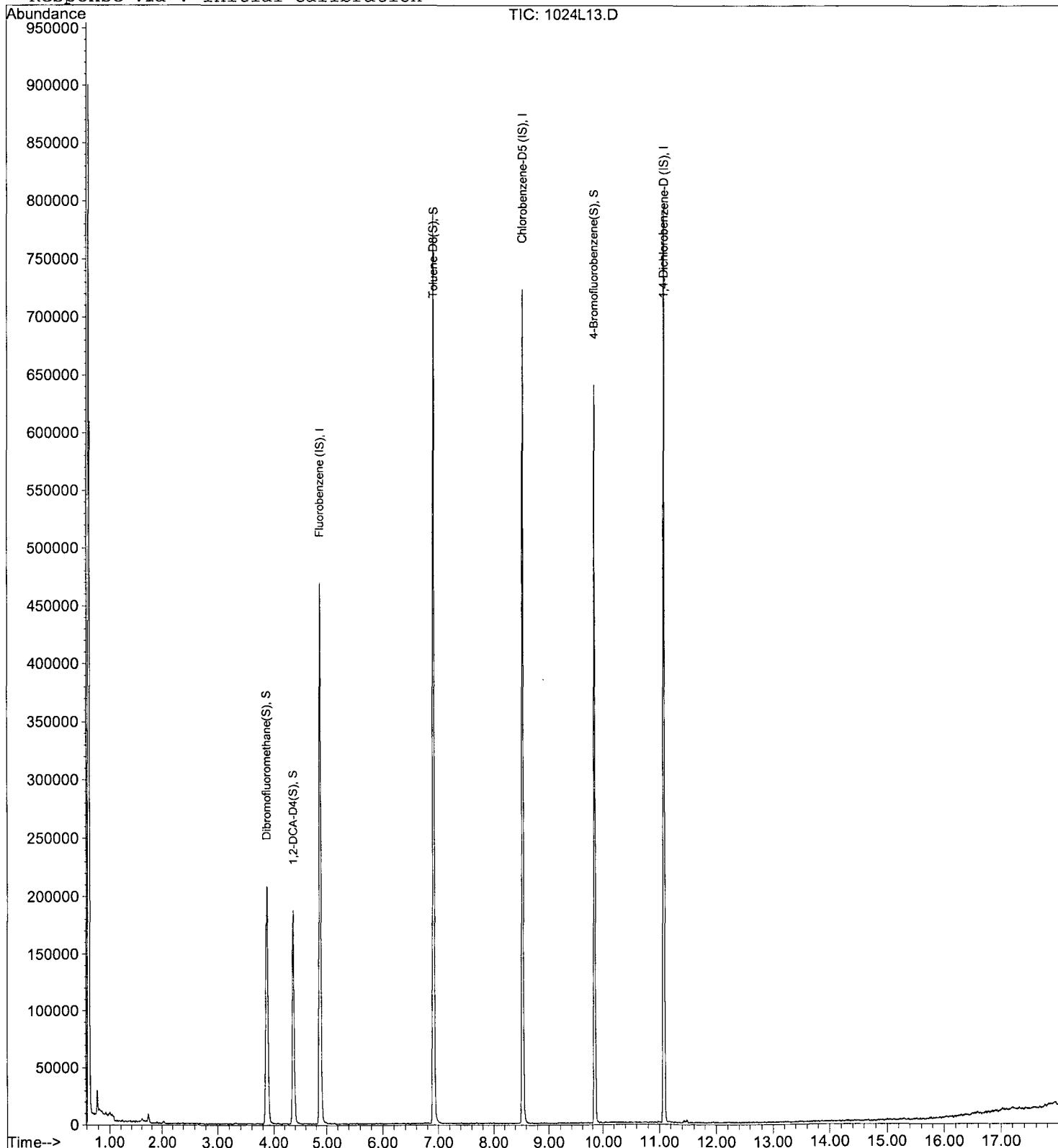
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Sample : AZ81583W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 12  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 24 13:33 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 11:02:36 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1024L18.D Vial: 17  
 Acq On : 24 Oct 18 15:27 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81584W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 25 9:01 2018 Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	215040	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	246464	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	139072	25.0000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	3.87	111	164098	26.7679	ppb	0.00
Spiked Amount				25.000		
					Recovery =	107.072%
37) 1,2-DCA-D4(S)	4.37	65	172481	27.7796	ppb	0.00
Spiked Amount				25.000		
					Recovery =	111.120%
57) Toluene-D8(S)	6.91	98	532326	22.7727	ppb	0.00
Spiked Amount				25.000		
					Recovery =	91.092%
65) 4-Bromofluorobenzene(S)	9.84	95	188074	22.8345	ppb	0.00
Spiked Amount				25.000		
					Recovery =	91.340%
Target Compounds						Qvalue
52) Toluene	6.99	91	5069	0.2356	ppb	97
62) m&p-Xylene	8.86	91	6777	0.6091	ppb	100
63) o-Xylene	9.28	106	1861	0.1982	ppb	63
69) Ethylbenzene	8.72	91	25487	1.0151	ppb	92

Quantitation Report

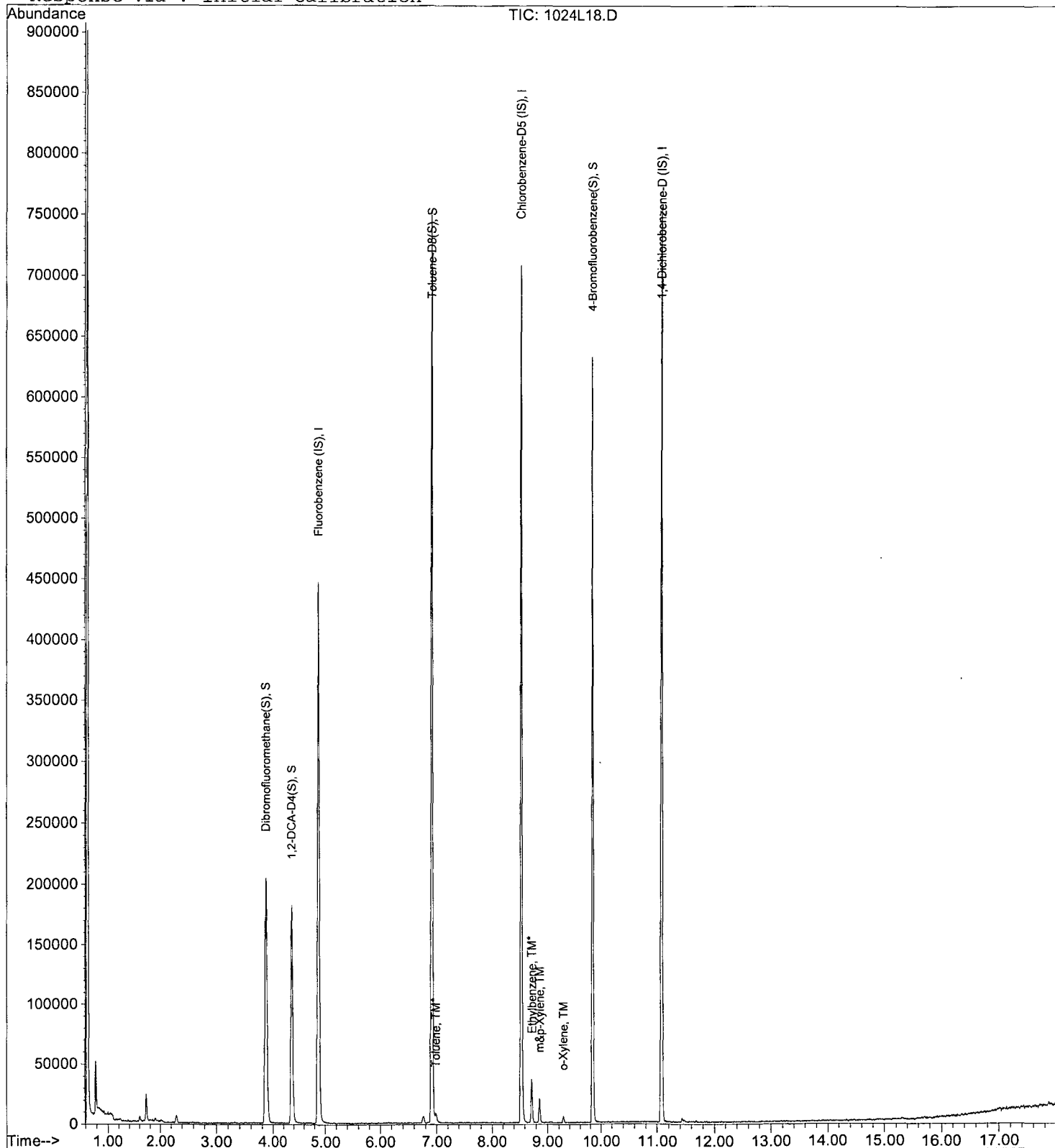
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Acq On : 24 Oct 18 15:27  
Sample : AZ81584W01  
Misc : IS&S 9/28/18,8/23/18

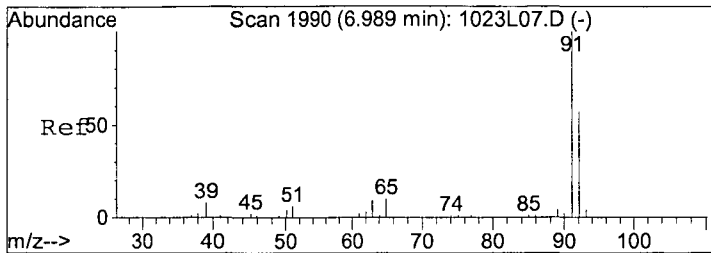
Vial: 17  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:01 2018

Quant Results File: L1023W.RES

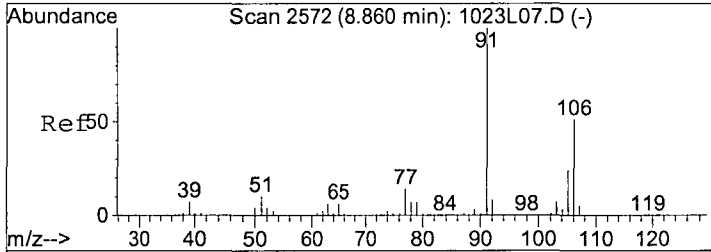
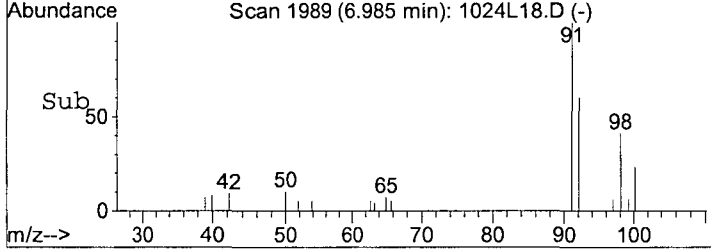
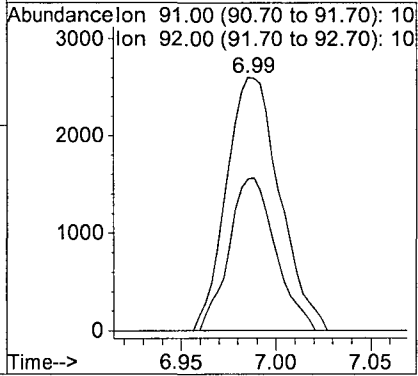
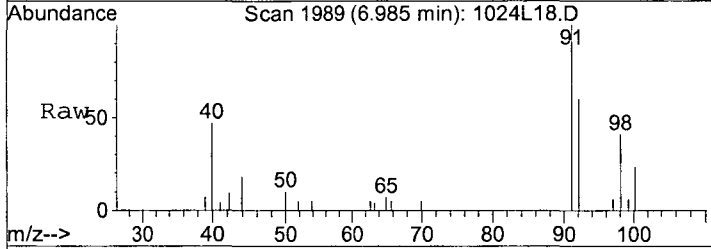
Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 11:02:36 2018  
Response via : Initial Calibration





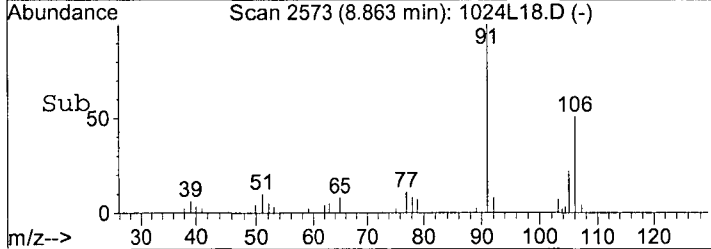
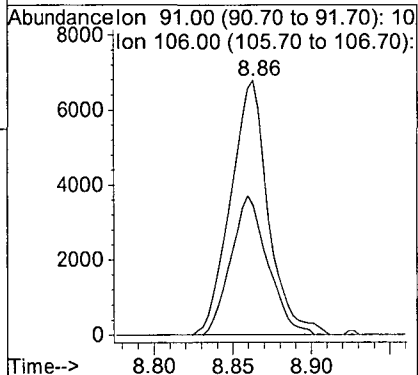
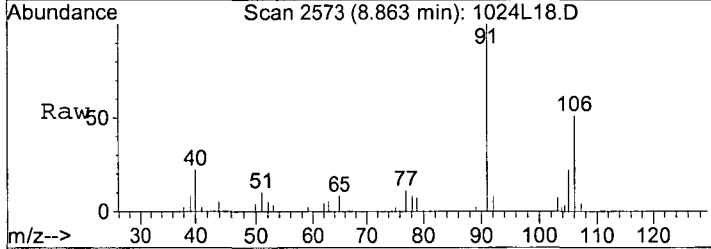
#52  
 Toluene  
 Concen: 0.2356 ppb  
 RT: 6.99 min Scan# 1989  
 Delta R.T. -0.00 min  
 Lab File: 1024L18.D  
 Acq: 24 Oct 18 15:27

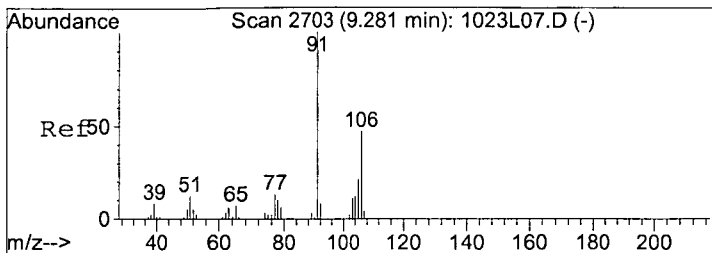
Tgt Ion: 91 Resp: 5069  
 Ion Ratio Lower Upper  
 91 100  
 92 59.7 40.2 74.6



#62  
 m&p-Xylene  
 Concen: 0.6091 ppb  
 RT: 8.86 min Scan# 2573  
 Delta R.T. 0.00 min  
 Lab File: 1024L18.D  
 Acq: 24 Oct 18 15:27

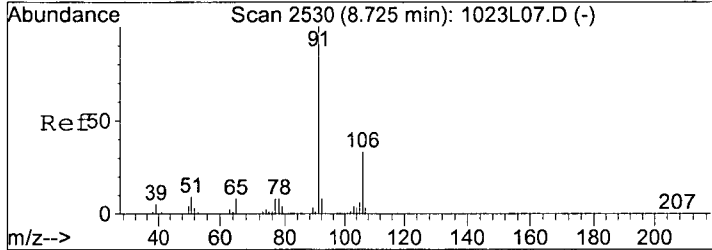
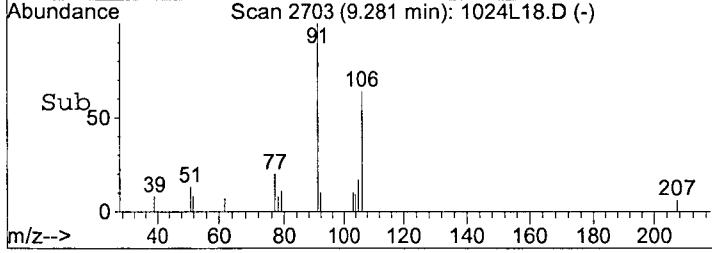
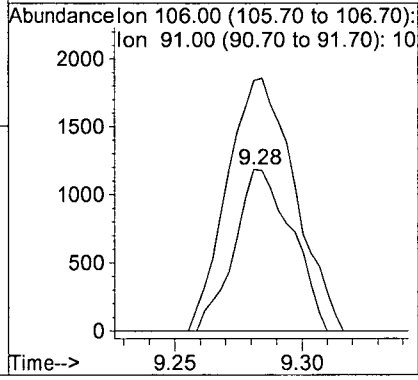
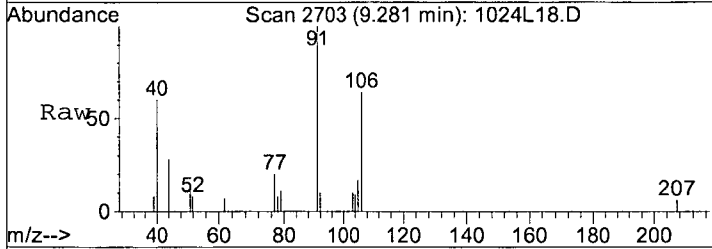
Tgt Ion: 91 Resp: 6777  
 Ion Ratio Lower Upper  
 91 100  
 106 50.8 40.7 61.1





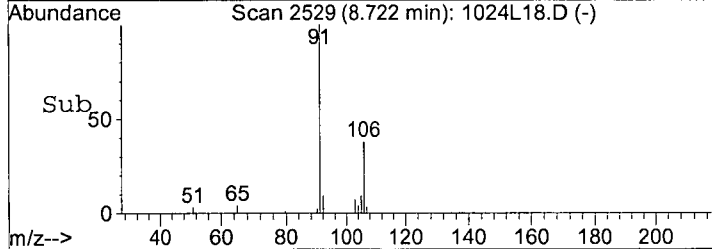
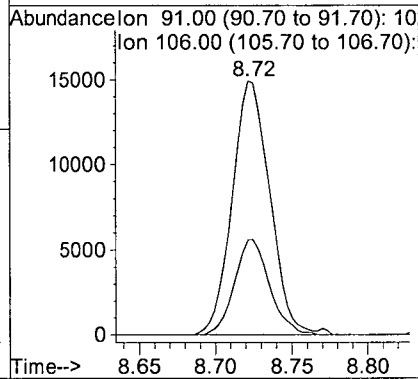
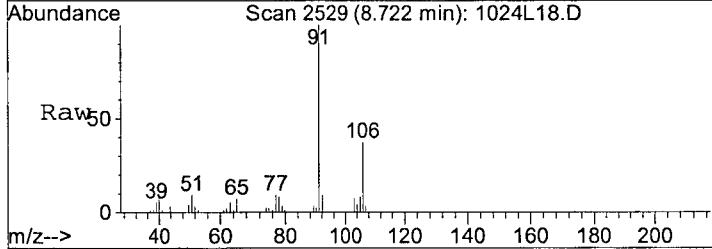
#63  
 o-Xylene  
 Concen: 0.1982 ppb  
 RT: 9.28 min Scan# 2703  
 Delta R.T. 0.00 min  
 Lab File: 1024L18.D  
 Acq: 24 Oct 18 15:27

Tgt Ion: 106 Resp: 1861  
 Ion Ratio Lower Upper  
 106 100  
 91 155.1 149.4 277.4



#69  
 Ethylbenzene  
 Concen: 1.0151 ppb  
 RT: 8.72 min Scan# 2529  
 Delta R.T. -0.00 min  
 Lab File: 1024L18.D  
 Acq: 24 Oct 18 15:27

Tgt Ion: 91 Resp: 25487  
 Ion Ratio Lower Upper  
 91 100  
 106 37.4 23.0 42.8



Data File : M:\LOKI\DATA\181023\1024L19.D  
 Acq On : 24 Oct 18 15:55  
 Sample : AZ81585W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 18  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:02 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	207104	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	232704	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	136128	25.0000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	3.87	111	158219	26.8033	ppb	0.00
Spiked Amount	25.000		Recovery	=	107.212%	
37) 1,2-DCA-D4(S)	4.36	65	164966	27.5873	ppb	0.00
Spiked Amount	25.000		Recovery	=	110.348%	
57) Toluene-D8(S)	6.91	98	518810	23.6304	ppb	0.00
Spiked Amount	25.000		Recovery	=	94.520%	
65) 4-Bromofluorobenzene(S)	9.84	95	183673	23.6188	ppb	0.00
Spiked Amount	25.000		Recovery	=	94.476%	
Target Compounds						Qvalue
52) Toluene	6.99	91	4420	0.2133	ppb	99
62) m&p-Xylene	8.86	91	5451	0.5189	ppb	98
63) o-Xylene	9.28	106	1896	0.2138	ppb	96
69) Ethylbenzene	8.72	91	23371	0.9859	ppb	99



Quantitation Report

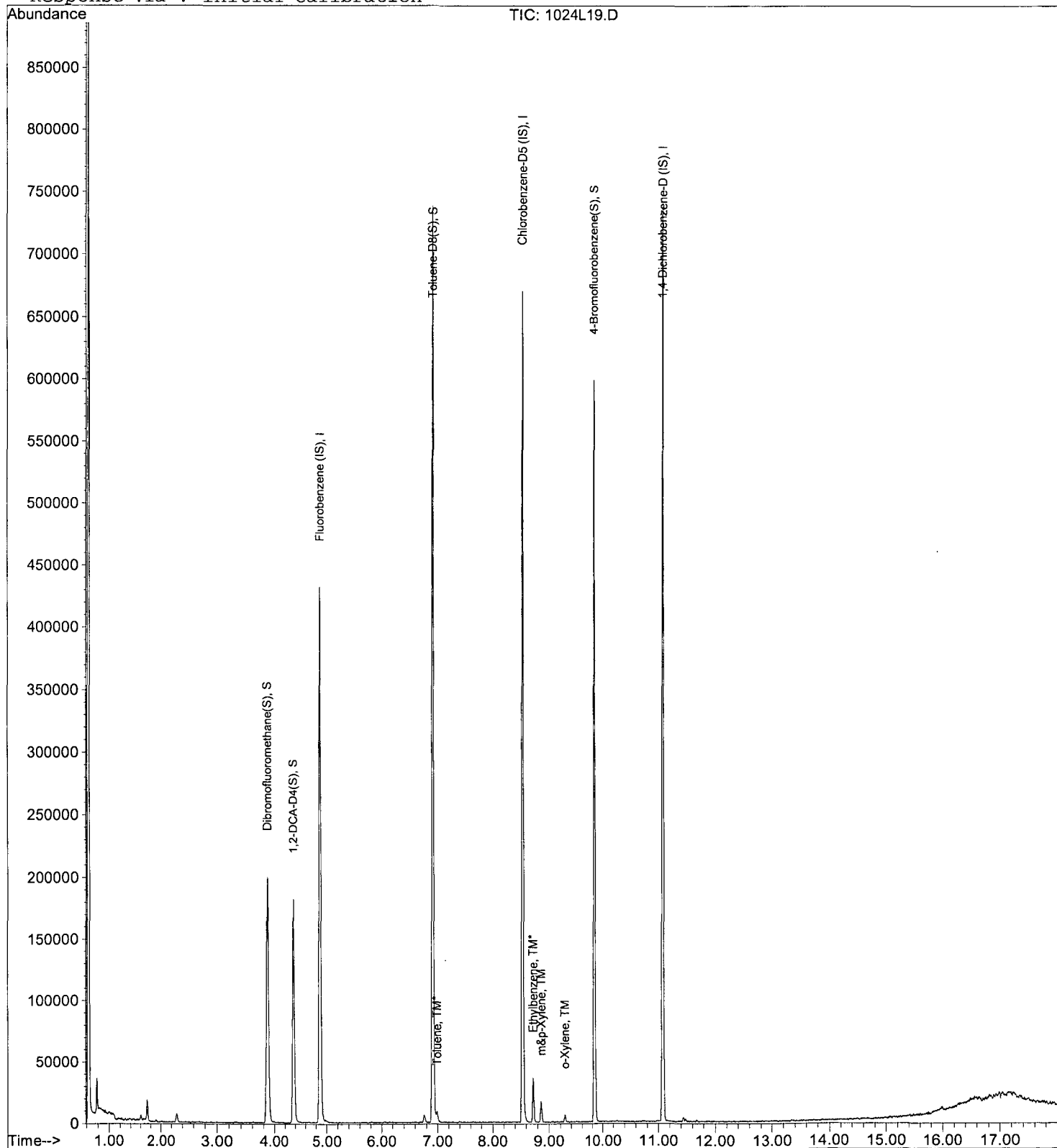
Data File : M:\LOKI\DATA\181023\1024L19.D  
Acq On : 24 Oct 18 15:55  
Sample : AZ81585W01  
Misc : IS&S 9/28/18,8/23/18

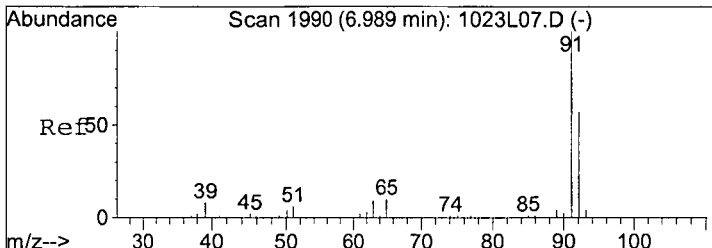
Vial: 18  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:02 2018

Quant Results File: L1023W.RES

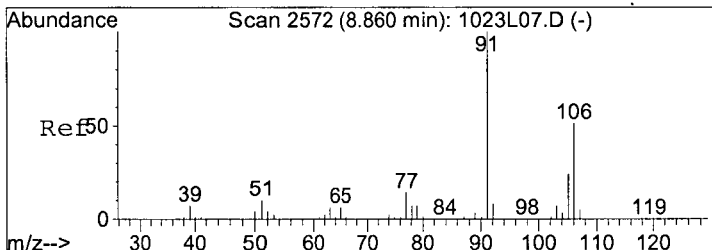
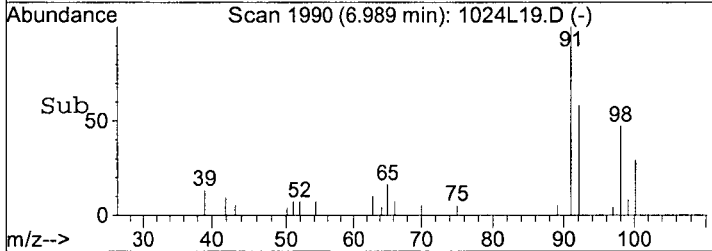
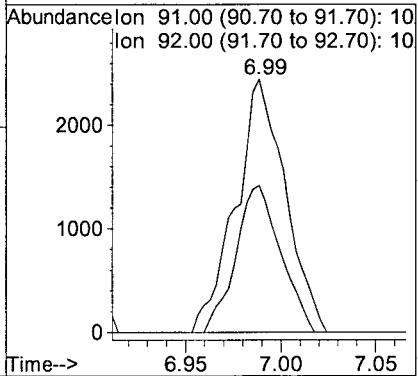
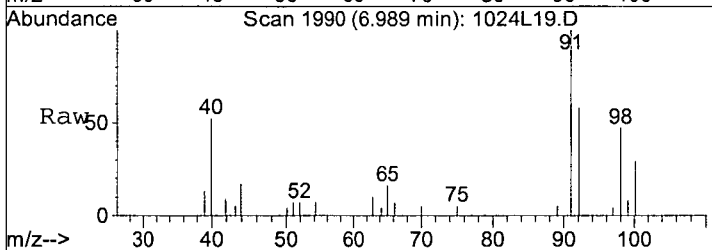
Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 11:02:36 2018  
Response via : Initial Calibration





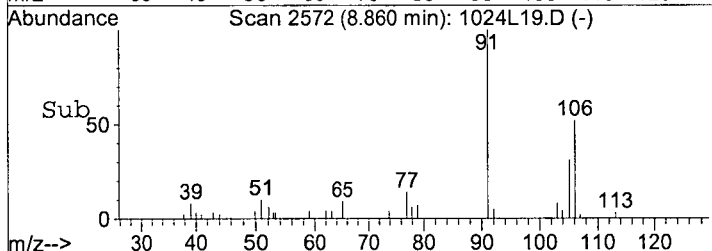
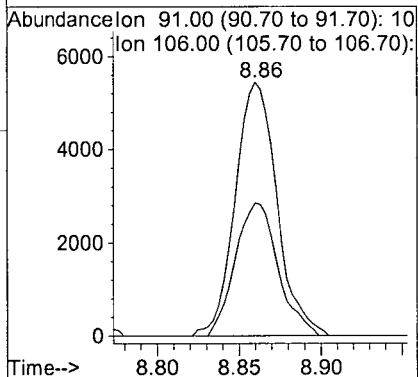
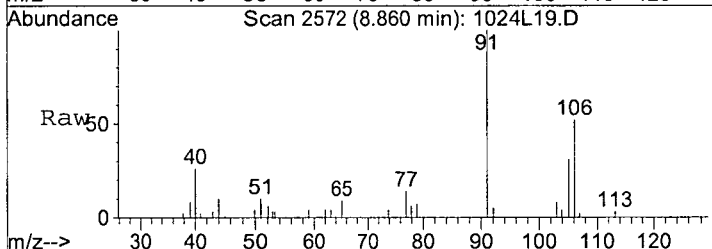
#52  
Toluene  
Concen: 0.2133 ppb  
RT: 6.99 min Scan# 1990  
Delta R.T. 0.00 min  
Lab File: 1024L19.D  
Acq: 24 Oct 18 15:55

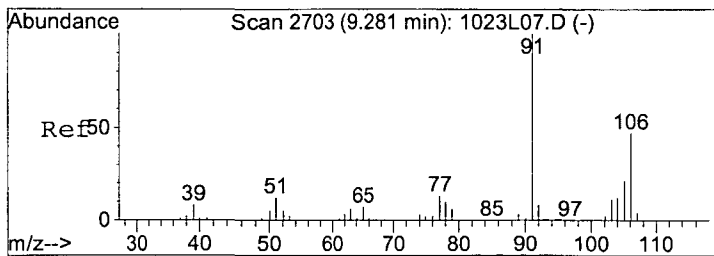
Tgt Ion: 91 Resp: 4420  
Ion Ratio Lower Upper  
91 100  
92 57.9 40.2 74.6



#62  
m&p-Xylene  
Concen: 0.5189 ppb  
RT: 8.86 min Scan# 2572  
Delta R.T. 0.00 min  
Lab File: 1024L19.D  
Acq: 24 Oct 18 15:55

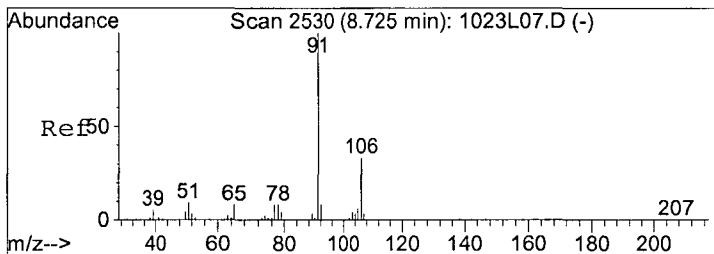
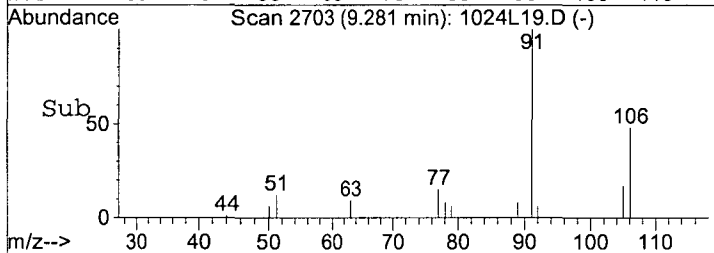
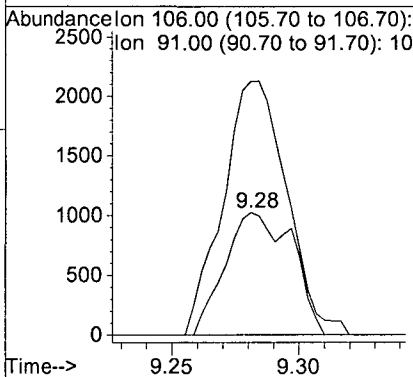
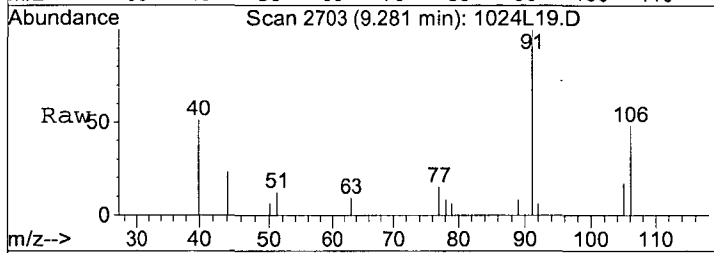
Tgt Ion: 91 Resp: 5451  
Ion Ratio Lower Upper  
91 100  
106 52.4 40.7 61.1





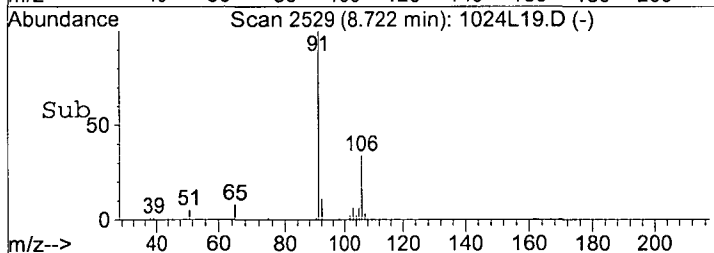
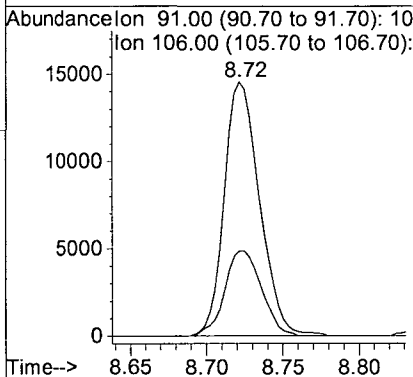
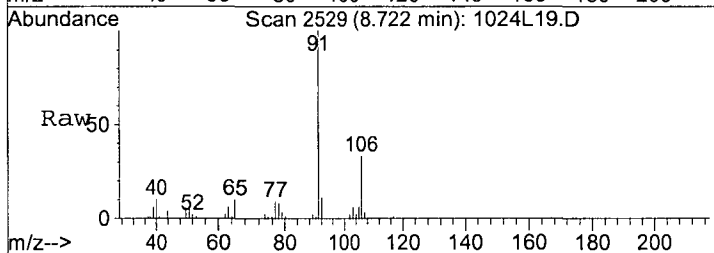
#63  
 o-Xylene  
 Concen: 0.2138 ppb  
 RT: 9.28 min Scan# 2703  
 Delta R.T. 0.00 min  
 Lab File: 1024L19.D  
 Acq: 24 Oct 18 15:55

Tgt Ion: 106 Resp: 1896  
 Ion Ratio Lower Upper  
 106 100  
 91 207.1 149.4 277.4



#69  
 Ethylbenzene  
 Concen: 0.9859 ppb  
 RT: 8.72 min Scan# 2529  
 Delta R.T. -0.00 min  
 Lab File: 1024L19.D  
 Acq: 24 Oct 18 15:55

Tgt Ion: 91 Resp: 23371  
 Ion Ratio Lower Upper  
 91 100  
 106 33.5 23.0 42.8



Data File : M:\LOKI\DATA\181023\1024L14.D Vial: 13  
 Acq On : 24 Oct 18 13:35 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81586W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 25 8:52 2018 Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	214464	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	249216	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	136000	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	165159	27.0577	ppb	0.00
Spiked Amount				25.000		
					Recovery =	108.232%
37) 1,2-DCA-D4(S)	4.36	65	174121	28.1190	ppb	0.00
Spiked Amount				25.000		
					Recovery =	112.476%
57) Toluene-D8(S)	6.91	98	533202	22.5222	ppb	0.00
Spiked Amount				25.000		
					Recovery =	90.088%
65) 4-Bromofluorobenzene(S)	9.84	95	187628	22.5288	ppb	0.00
Spiked Amount				25.000		
					Recovery =	90.116%

Target Compounds Qvalue

Quantitation Report

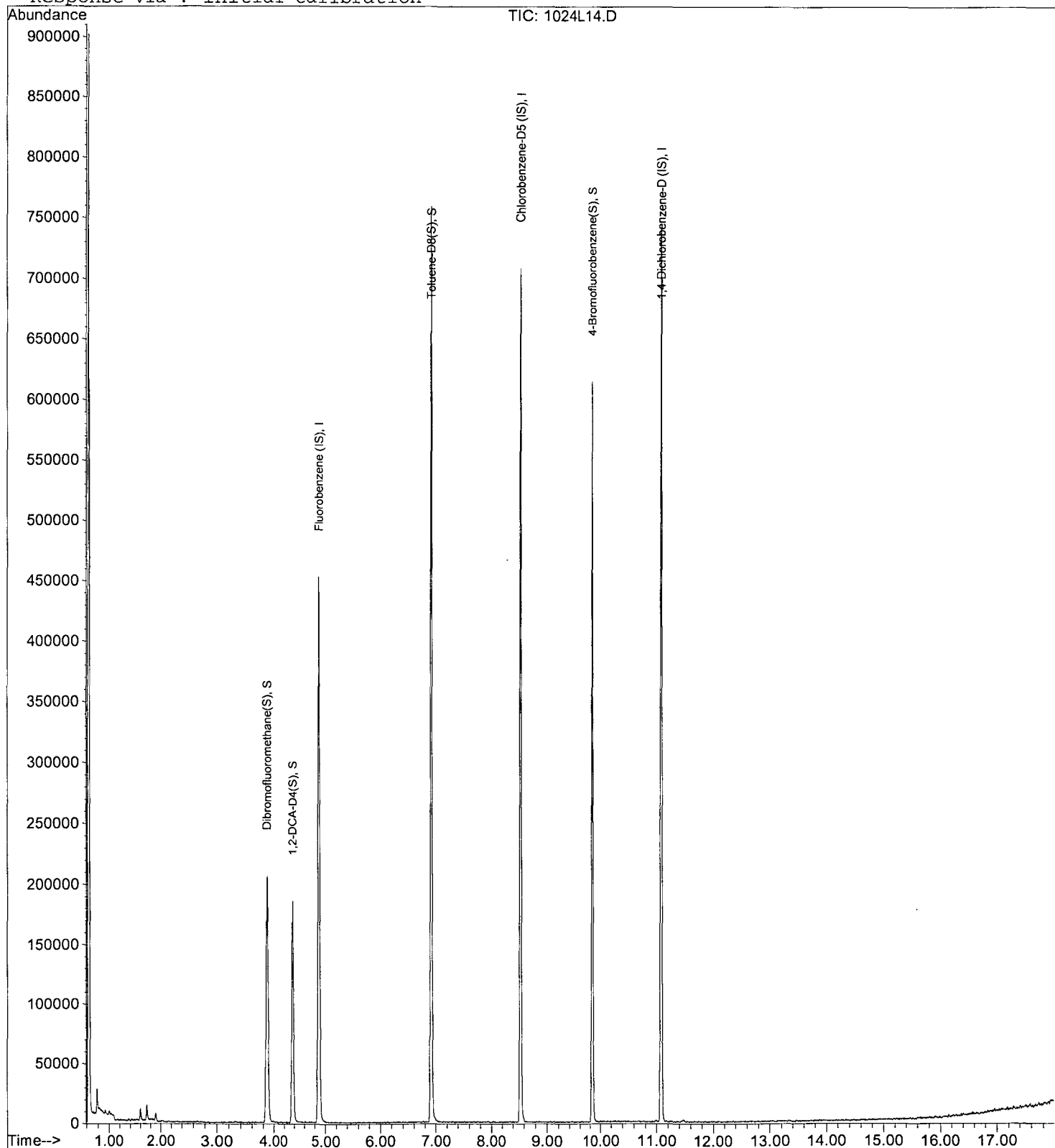
Data File : M:\LOKI\DATA\181023\1024L14.D  
Acq On : 24 Oct 18 13:35  
Sample : AZ81586W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 13  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 8:52 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 11:02:36 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T181024\1025T11.D  
 Acq On : 25 Oct 18 16:39  
 Sample : AZ81587W02  
 Misc : IS&S 10/15/18,8/13/18

Vial: 10  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 26 8:00 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.41	96	823680	25.0000	ppb	0.00
57) Chlorobenzene-D5 (IS)	9.58	117	664384	25.0000	ppb	0.00
72) 1,4-Dichlorobenzene-D (IS)	11.90	152	321152	25.0000	ppb	0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	5.61	111	360667	26.2830	ppb	0.00
Spiked Amount	25.000		Recovery	=	105.132%	
38) 1,2-DCA-D4(S)	6.00	65	395652	25.7396	ppb	0.00
Spiked Amount	25.000		Recovery	=	102.960%	
58) Toluene-D8(S)	8.13	98	1350380	26.3915	ppb	0.00
Spiked Amount	25.000		Recovery	=	105.564%	
66) 4-Bromofluorobenzene(S)	10.75	95	482329	25.1081	ppb	0.00
Spiked Amount	25.000		Recovery	=	100.432%	

Target Compounds

Qvalue

Quantitation Report

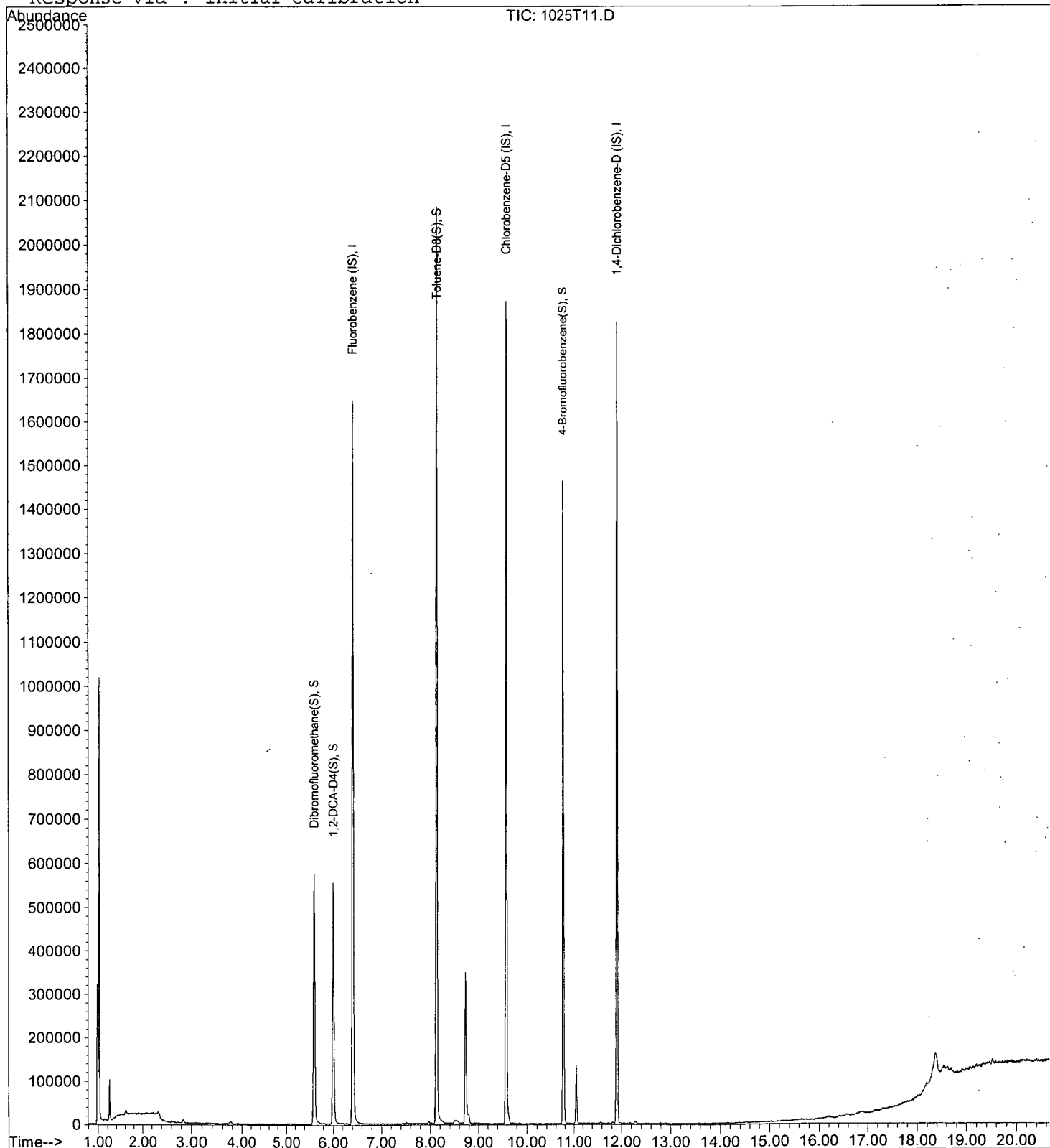
Data File : M:\THOR\DATA\T181024\1025T11.D  
Acq On : 25 Oct 18 16:39  
Sample : AZ81587W02  
Misc : IS&S 10/15/18,8/13/18

Vial: 10  
Operator: DG,SV, CMM.PM,KV  
Inst : Thor  
Multiplr: 1.00

Quant Time: Oct 26 8:00 2018

Quant Results File: T1024W.RES

Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:28:00 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1024L11.D  
 Acq On : 24 Oct 18 12:11  
 Sample : 181024A Blk  
 Misc : IS&S 9/28/18,8/23/18

Vial: 10  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 13:21 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	226112	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	260352	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	143808	25.0000	ppb	0.00

System Monitoring Compounds

32) Dibromofluoromethane(S)	3.87	111	172708	26.7973	ppb	0.00
Spiked Amount 25.000			Recovery =	107.188%		
37) 1,2-DCA-D4(S)	4.37	65	182056	27.8859	ppb	0.00
Spiked Amount 25.000			Recovery =	111.544%		
57) Toluene-D8(S)	6.91	98	571718	23.2173	ppb	0.00
Spiked Amount 25.000			Recovery =	92.868%		
65) 4-Bromofluorobenzene(S)	9.84	95	201226	23.1281	ppb	0.00
Spiked Amount 25.000			Recovery =	92.512%		

Target Compounds

Qvalue



Quantitation Report

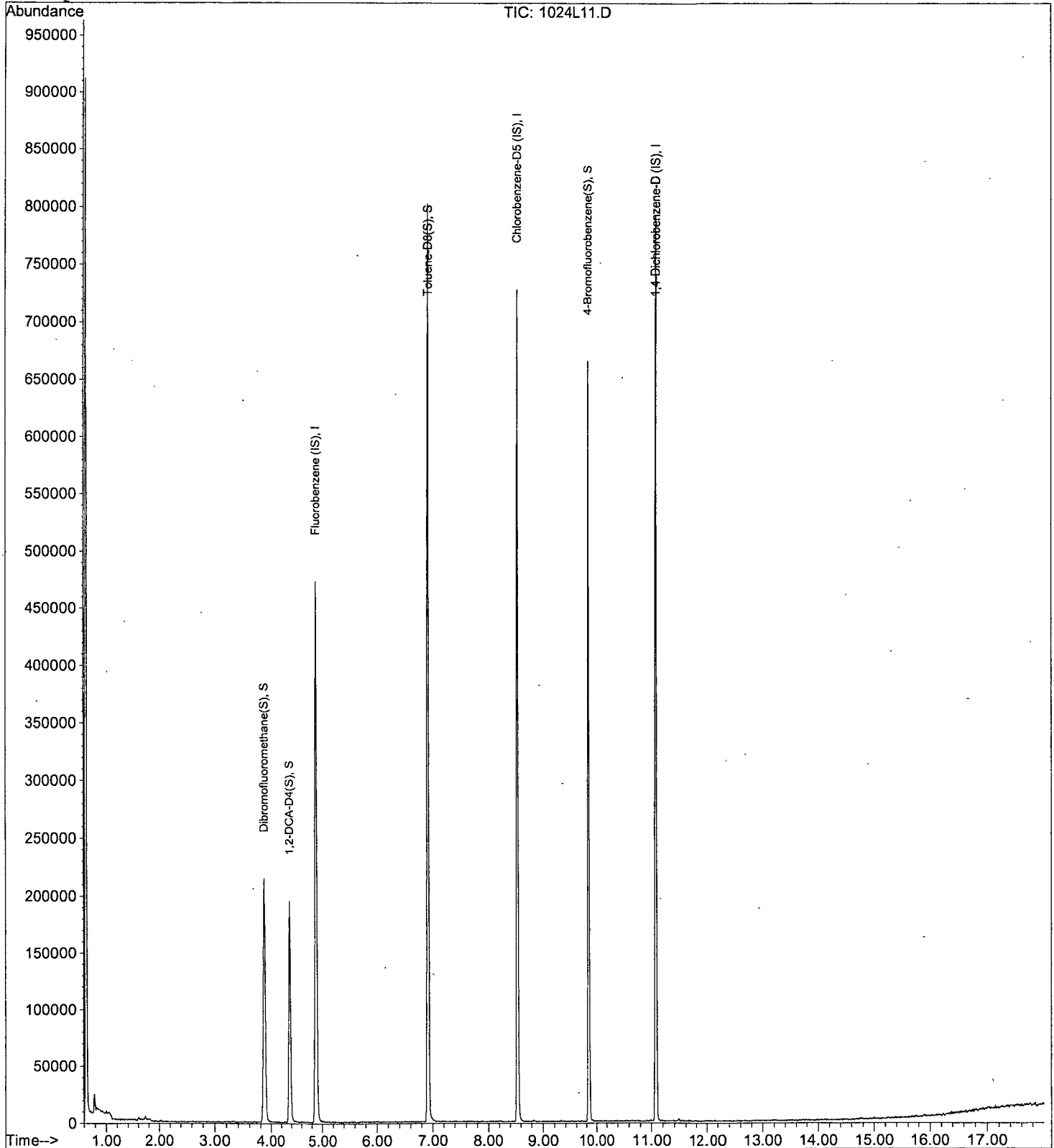
Data File : M:\LOKI\DATA\181023\1024L11.D  
Acq On : 24 Oct 18 12:11  
Sample : 181024A Blk  
Misc : IS&S 9/28/18, 8/23/18

Vial: 10  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 24 13:21 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 11:02:36 2018  
Response via : Initial Calibration



Data File : M:\THOR\DATA\T181024\1025T08.D  
 Acq On : 25 Oct 18 15:13  
 Sample : 181025A blk  
 Misc : IS&S 10/15/18,8/13/18

Vial: 7  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 26 7:50 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.41	96	838336	25.0000	ppb	0.00
57) Chlorobenzene-D5 (IS)	9.58	117	696960	25.0000	ppb	0.00
72) 1,4-Dichlorobenzene-D (IS)	11.90	152	331648	25.0000	ppb	0.00
System Monitoring Compounds						
33) Dibromofluoromethane(S)	5.61	111	364960	26.1309	ppb	0.00
Spiked Amount	25.000		Recovery	=	104.524%	
38) 1,2-DCA-D4(S)	6.00	65	397112	25.3830	ppb	0.00
Spiked Amount	25.000		Recovery	=	101.532%	
58) Toluene-D8(S)	8.13	98	1391522	25.9244	ppb	0.00
Spiked Amount	25.000		Recovery	=	103.696%	
66) 4-Bromofluorobenzene(S)	10.76	95	501537	24.8877	ppb	0.00
Spiked Amount	25.000		Recovery	=	99.552%	

Target Compounds

Qvalue

Quantitation Report

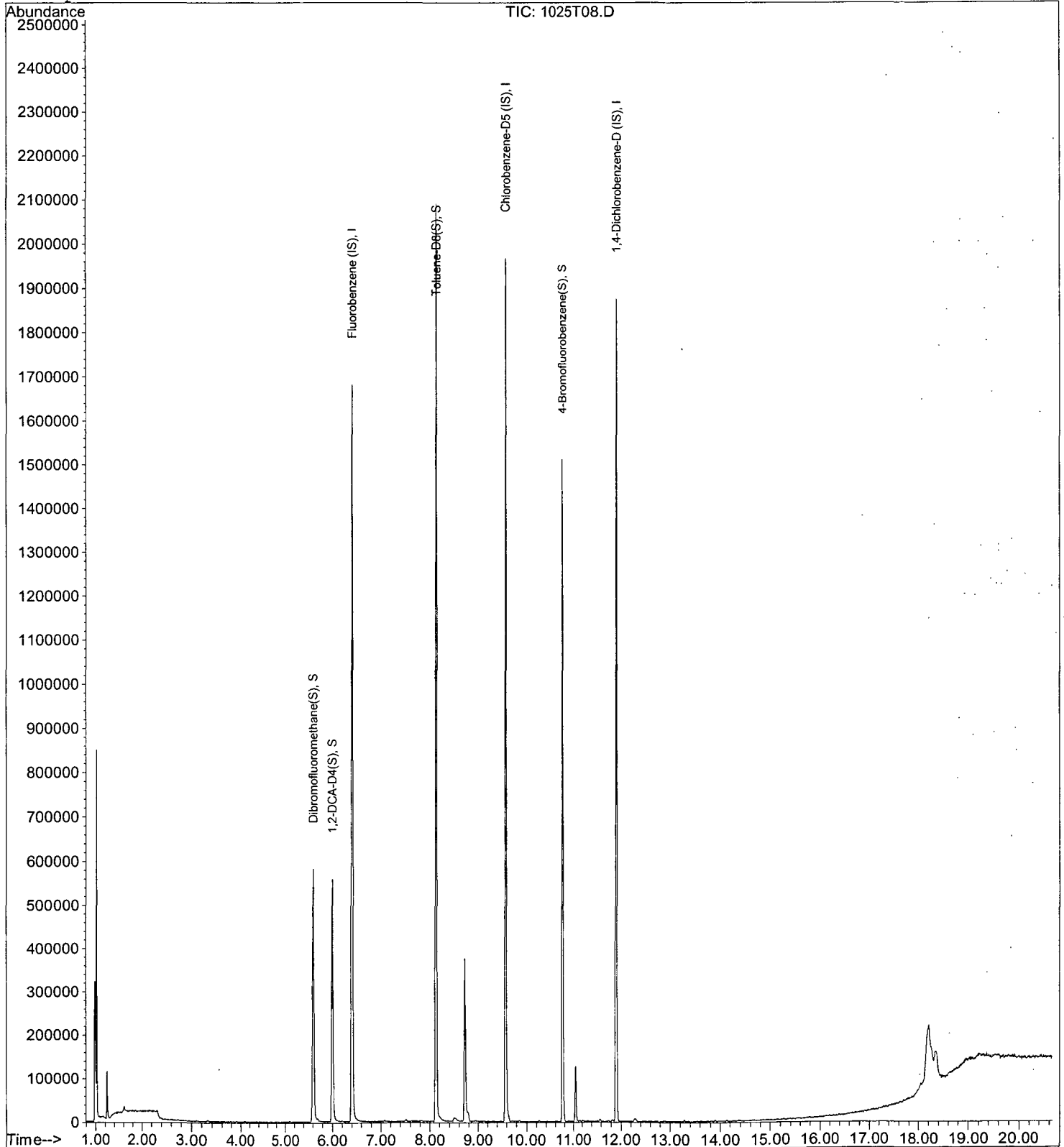
Data File : M:\THOR\DATA\T181024\1025T08.D  
Acq On : 25 Oct 18 15:13  
Sample : 181025A blk  
Misc : IS&S 10/15/18,8/13/18

Vial: 7  
Operator: DG,SV, CMM.PM,KV  
Inst : Thor  
Multiplr: 1.00

Quant Time: Oct 26 7:50 2018

Quant Results File: T1024W.RES

Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:28:00 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1024L04.D  
 Acq On : 24 Oct 18 8:55  
 Sample : 181024A CCV/LCS 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 12:23 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	243840	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	266112	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	166848	25.0000	ppb	0.00

System Monitoring Compounds

32) Dibromofluoromethane(S)	3.87	111	183007	26.2466	ppb	0.00
Spiked Amount	25.000		Recovery	=	104.988%	
37) 1,2-DCA-D4(S)	4.36	65	191795	27.2418	ppb	0.00
Spiked Amount	25.000		Recovery	=	108.968%	
57) Toluene-D8(S)	6.91	98	650144	26.2622	ppb	0.00
Spiked Amount	25.000		Recovery	=	105.048%	
65) 4-Bromofluorobenzene(S)	9.84	95	252746	28.4208	ppb	0.00
Spiked Amount	25.000		Recovery	=	113.684%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	67328	9.2049	ppb	99
3) Freon 114	0.79	85	46159	9.7427	ppb	98
4) Chloromethane	0.82	50	58675	11.0740	ppb	99
5) Vinyl chloride	0.87	62	62716	10.2785	ppb	96
6) Bromomethane	1.04	94	46791	11.5361	ppb	99
7) Chloroethane	1.10	64	32990	9.6459	ppb	95
8) Dichlorofluoromethane	1.21	67	106374	10.1718	ppb	99
9) Trichlorofluoromethane	1.24	101	105900	10.2079	ppb	94
10) Acrolein	1.49	56	38351	109.7833	ppb	96
11) Acetone	1.60	43	16023	10.4087	ppb	97
12) Freon-113	1.57	101	51073	9.7952	ppb	97
13) 1,1-DCE	1.55	63	20960	10.9035	ppb	95
14) t-Butanol	2.05	59	39116	111.5010	ppb	98
15) Acetonitrile	1.79	41	54407	104.6301	ppb	98
16) Methyl Acetate	1.85	43	23358	8.5413	ppb	95
17) Iodomethane	1.64	142	32664	10.9518	ppb	98
18) Acrylonitrile	2.10	52	9804	9.5759	ppb	83
19) Methylene chloride	1.90	84	56624	9.6998	ppb	97
20) Carbon disulfide	1.69	76	151096	9.6329	ppb	99
21) Methyl t-butyl ether (MtBE)	2.15	73	114947	9.2437	ppb	98
22) Trans-1,2-DCE	2.12	96	51593	9.6224	ppb	100
23) Diisopropyl Ether	2.64	45	127307	9.9697	ppb	100
24) 1,1-DCA	2.51	63	95832	9.9003	ppb	100
25) Vinyl Acetate	2.64	43	33600	9.9956	ppb	99
26) Ethyl tert Butyl Ether	3.06	59	126079	10.1128	ppb	98
27) MEK (2-Butanone)	3.24	43	13776	9.0780	ppb	100
28) Cis-1,2-DCE	3.17	96	62979	10.0915	ppb	98
29) 2,2-Dichloropropane	3.15	77	94094	10.5391	ppb	98
30) Chloroform	3.64	83	111594	10.0961	ppb	97
31) Bromochloromethane	3.47	128	32069	9.6708	ppb	87
33) 1,1,1-TCA	3.85	97	100951	9.8582	ppb	95
34) Cyclohexane	3.91	41	34401	9.7415	ppb	96
35) 1,1-Dichloropropene	4.13	75	66305	10.0489	ppb	96
36) 2,2,4-Trimethylpentane	4.62	57	125298	10.4326	ppb	98
38) Carbon Tetrachloride	4.12	117	94431	10.3362	ppb	99
39) Tert Amyl Methyl Ether	4.71	73	117511	9.6235	ppb	99
40) 1,2-DCA	4.48	62	78188	10.1565	ppb	95
41) Benzene	4.43	78	208530	10.2155	ppb	98
42) TCE	5.38	95	27464	9.6844	ppb	95

Data File : M:\LOKI\DATA\181023\1024L04.D  
 Acq On : 24 Oct 18 8:55  
 Sample : 181024A CCV/LCS 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 12:23 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	291545	116.2505	ppb	100
44) 1,2-Dichloropropane	5.65	63	55015	9.9736	ppb #	95
45) Bromodichloromethane	6.05	83	89160	9.8229	ppb	99
46) Methyl Cyclohexane	5.60	83	65369	9.8735	ppb	99
47) Dibromomethane	5.80	93	37147	9.5816	ppb	94
49) MIBK (methyl isobutyl ket	6.85	43	32882	9.3806	ppb	92
50) 1-Bromo-2-chloroethane	6.39	63	34152	9.9271	ppb	97
51) Cis-1,3-Dichloropropene	6.62	75	88272	9.7617	ppb	98
52) Toluene	6.99	91	255133	10.4555	ppb	100
53) Trans-1,3-Dichloropropene	7.30	75	79911	9.6811	ppb	97
54) 1,1,2-TCA	7.49	83	42275	10.1508	ppb	98
55) 2-Hexanone	7.83	43	20627	9.3295	ppb #	88
58) 1,2-EDB	7.99	107	52965	9.9955	ppb	96
59) Tetrachloroethene	7.61	166	88203	10.1151	ppb	96
60) 1-Chlorohexane	8.61	91	65753	10.3571	ppb	99
61) 1,1,1,2-Tetrachloroethane	8.68	131	80000	9.9682	ppb	97
62) m&p-Xylene	8.86	91	259136	21.5711	ppb	99
63) o-Xylene	9.28	106	106592	10.5121	ppb	100
64) Styrene	9.30	104	117456	11.3920	ppb	97
66) 1,3-Dichloropropane	7.66	76	82008	9.6832	ppb	95
67) Dibromochloromethane	7.90	129	70446	9.3175	ppb	99
68) Chlorobenzene	8.57	112	186674	10.1117	ppb	97
69) Ethylbenzene	8.72	91	290141	10.7025	ppb	97
70) Bromoform	9.46	173	50691	9.5254	ppb	98
72) Isopropylbenzene	9.70	105	281439	10.5498	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.04	83	60549	9.2464	ppb	98
74) 1,2,3-Trichloropropane	10.06	110	19662	10.1582	ppb	91
75) t-1,4-Dichloro-2-Butene	10.10	53	12160	8.7919	ppb	98
76) Bromobenzene	9.97	156	92864	10.1871	ppb	99
77) n-Propylbenzene	10.15	91	205504	10.6081	ppb	97
78) 4-Ethyltoluene	10.27	105	286265	11.0201	ppb	96
79) 2-Chlorotoluene	10.20	91	206582	10.4398	ppb	95
80) 1,3,5-Trimethylbenzene	10.35	105	167296	11.5952	ppb	96
81) 4-Chlorotoluene	10.33	91	254466	10.9344	ppb	99
82) Tert-Butylbenzene	10.69	119	218203	10.6695	ppb	98
83) 1,2,4-Trimethylbenzene	10.74	105	257034	11.4384	ppb	96
84) Sec-Butylbenzene	10.92	105	318483	10.9204	ppb	99
85) p-Isopropyltoluene	11.09	119	298093	11.0268	ppb	100
86) Benzyl Chloride	11.26	91	95651	9.8777	ppb	99
87) 1,3-DCB	11.00	146	174610	10.1922	ppb	97
88) 1,4-DCB	11.10	146	178092	9.9019	ppb	98
89) n-Butylbenzene	11.53	91	234484	11.0182	ppb	98
90) 1,2-DCB	11.49	146	159469	9.8423	ppb	99
91) Hexachloroethane	11.76	117	59591	9.9508	ppb	98
92) 1,2-Dibromo-3-chloropropan	12.32	75	10558	9.2947	ppb	97
93) 1,2,4-Trichlorobenzene	13.21	180	106967	10.1947	ppb	95
94) Hexachlorobutadiene	13.43	225	70516	9.8911	ppb	96
95) Naphthalene	13.46	128	141955	9.4605	ppb	97
96) 1,2,3-Trichlorobenzene	13.72	180	55064	10.3310	ppb	96

(#) = qualifier out of range (m) = manual integration  
 1024L04.D L1023W.M Fri Oct 26 13:44:50 2018

Quantitation Report

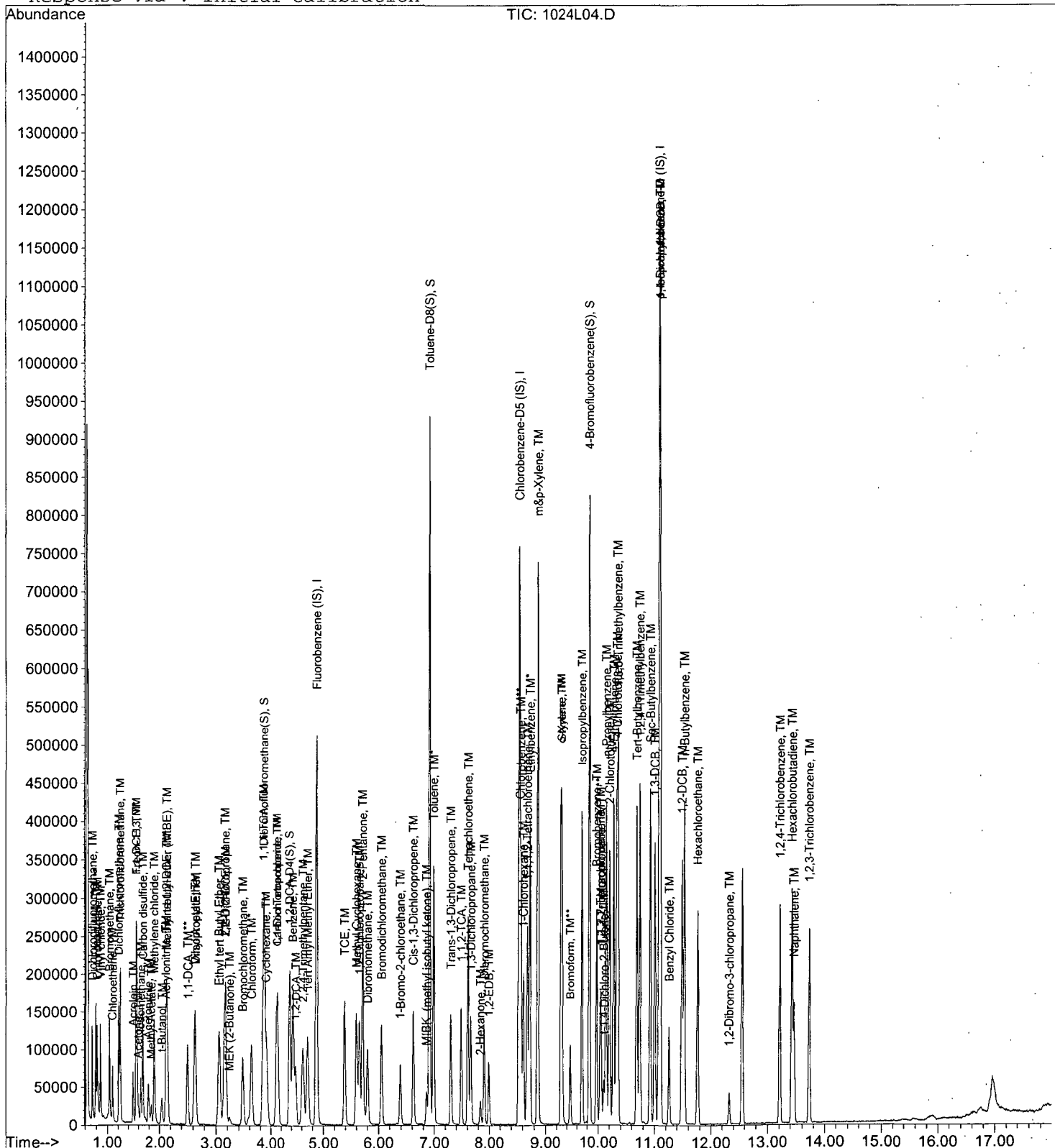
Data File : M:\LOKI\DATA\181023\1024L04.D  
Acq On : 24 Oct 18 8:55  
Sample : 181024A CCV/LCS 10ug/L  
Misc : IS&S 9/28/18, 8/23/18

Vial: 3  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 24 12:23 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 11:05:23 2018  
Response via : Initial Calibration



Data File : M:\THOR\DATA\T181024\1025T05.D  
 Acq On : 25 Oct 18 13:34  
 Sample : 181025A LCS 10ug/L  
 Misc : IS&S 10/15/18,8/13/18

Vial: 4  
 Operator: DG, SV, CMM.PM, KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 15:03 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	6.41	96	879616	25.0000	ppb	0.00
57) Chlorobenzene-D5 (IS)	9.58	117	757952	25.0000	ppb	0.00
72) 1,4-Dichlorobenzene-D (IS)	11.90	152	381824	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
33) Dibromofluoromethane(S)	5.61	111	365905	24.9691	ppb	0.00
Spiked Amount	25.000		Recovery	=	99.876%	
38) 1,2-DCA-D4(S)	6.00	65	403748	24.5960	ppb	0.00
Spiked Amount	25.000		Recovery	=	98.384%	
58) Toluene-D8(S)	8.13	98	1401571	24.0105	ppb	0.00
Spiked Amount	25.000		Recovery	=	96.040%	
66) 4-Bromofluorobenzene(S)	10.75	95	515556	23.5246	ppb	0.00
Spiked Amount	25.000		Recovery	=	94.100%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.16	85	73728	9.2949	ppb	98
3) Freon 114	1.26	135	40745	9.3927	ppb	97
4) Chloromethane	1.30	50	56289	9.4294	ppb	98
5) Vinyl chloride	1.39	62	70720	9.8945	ppb	98
6) Bromomethane	1.67	94	33696	9.2920	ppb	100
7) Chloroethane	1.76	64	32107	9.5505	ppb	92
8) Dichlorofluoromethane	1.96	67	101562	9.1710	ppb	96
9) Trichlorofluoromethane	2.00	101	92654	9.7377	ppb	96
10) Acrolein	2.43	56	64679	110.8918	ppb	91
11) Acetone	2.61	43	17239	8.3333	ppb	93
12) Freon-113	2.55	101	47595	9.5545	ppb	96
13) 1,1-DCE	2.52	61	76441	9.6762	ppb	95
14) Acetonitrile	2.92	41	74587	115.7849	ppb	96
15) t-Butanol	3.36	59	57649	105.1517	ppb	100
16) Methyl Acetate	3.01	43	42453	9.6263	ppb	96
17) Iodomethane	2.67	142	36808	8.9858	ppb	99
18) Acrylonitrile	3.44	52	18084	9.4173	ppb	88
19) Methylene chloride	3.10	84	65245	9.5235	ppb	91
20) Carbon disulfide	2.73	76	162108	9.4559	ppb	100
21) Methyl t-butyl ether (MtBE)	3.52	73	149837	9.3951	ppb	98
22) Trans-1,2-DCE	3.47	96	62259	9.3902	ppb	96
23) Hexane	3.51	57	33537	9.5199	ppb	# 98
24) Diisopropyl Ether	4.31	45	165460	9.7454	ppb	97
25) 1,1-DCA	4.10	63	108722	9.8243	ppb	98
26) Vinyl Acetate	4.31	87	53030	9.8471	ppb	93
27) Ethyl tert Butyl Ether	4.84	59	127739	9.8344	ppb	96
28) MEK (2-Butanone)	5.04	43	9305	9.0498	ppb	91
29) Cis-1,2-DCE	4.96	61	99136	9.8770	ppb	95
30) 2,2-Dichloropropane	4.95	77	94096	10.2487	ppb	97
31) Chloroform	5.41	83	113372	9.8498	ppb	99
32) Bromochloromethane	5.27	128	17664	10.0066	ppb	93
34) 1,1,1-TCA	5.61	97	96753	9.8217	ppb	99
35) Cyclohexane	5.67	41	44133	9.4487	ppb	92
36) 1,1-Dichloropropene	5.82	75	42280	9.4288	ppb	97
37) 2,2,4-Trimethylpentane	6.21	57	172724	9.8327	ppb	100
39) Carbon Tetrachloride	5.81	117	80362	10.1654	ppb	94
40) Tert Amyl Methyl Ether	6.26	73	113780	9.4882	ppb	99
41) 1,2-DCA	6.09	62	88181	10.0159	ppb	100
42) Benzene	6.06	78	258822	9.6249	ppb	98

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

Data File : M:\THOR\DATA\T181024\1025T05.D  
 Acq On : 25 Oct 18 13:34  
 Sample : 181025A LCS 10ug/L  
 Misc : IS&S 10/15/18,8/13/18

Vial: 4  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 15:03 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) TCE	6.82	95	67549	9.5256	ppb	98
44) 2-Pentanone	7.07	43	502702	116.6503	ppb	97
45) 1,2-Dichloropropane	7.06	63	66098	9.9400	ppb	97
46) Bromodichloromethane	7.37	83	87684	9.6974	ppb	97
47) Methyl Cyclohexane	7.03	83	93795	9.7671	ppb	95
48) Dibromomethane	7.18	93	43497	9.5274	ppb	96
49) MIBK (methyl isobutyl ket	8.04	58	22347	9.6877	ppb	97
50) 1-Bromo-2-chloroethane	7.68	63	86518	9.7255	ppb	94
51) 2-Chloroethyl vinyl ether	7.69	106	1609	11.5671	ppb #	66
52) Cis-1,3-Dichloropropene	7.85	75	106825	9.6136	ppb	99
53) Toluene	8.19	91	178048	9.9231	ppb	98
54) Trans-1,3-Dichloropropene	8.44	75	57136	9.3219	ppb	98
55) 1,1,2-TCA	8.61	83	53196	9.8688	ppb	96
56) 2-Hexanone	8.90	58	20868	9.9085	ppb	95
59) 1,2-EDB	9.10	107	66597	9.4540	ppb	97
60) Tetrachloroethene	8.75	166	78375	8.7075	ppb	99
61) 1-Chlorohexane	9.61	91	81586	9.3626	ppb	95
62) 1,1,1,2-Tetrachloroethane	9.70	131	68930	9.8166	ppb	94
63) m&p-Xylene	9.85	106	150784	19.4647	ppb	99
64) o-Xylene	10.24	106	80096	10.0464	ppb	99
65) Styrene	10.26	104	119344	9.6219	ppb	100
67) 1,3-Dichloropropane	8.78	76	105627	9.3348	ppb	98
68) Dibromochloromethane	9.00	129	68225	9.5235	ppb	97
69) Chlorobenzene	9.61	112	190635	9.6708	ppb	99
70) Ethylbenzene	9.73	91	311432	9.3698	ppb	99
71) Bromoform	10.42	173	48960	9.4471	ppb	98
73) Isopropylbenzene	10.62	105	306898	9.5912	ppb	99
74) 1,1,2,2-Tetrachloroethane	10.91	83	54776	9.9992	ppb	96
75) 1,2,3-Trichloropropane	10.94	110	15745	9.8913	ppb	90
76) t-1,4-Dichloro-2-Butene	10.97	53	13905	8.6996	ppb	94
77) Bromobenzene	10.90	156	82719	9.6472	ppb	95
78) n-Propylbenzene	11.03	91	231727	9.7040	ppb	97
79) 4-Ethyltoluene	11.14	105	282695	9.7539	ppb	99
80) 2-Chlorotoluene	11.10	91	138741	9.6522	ppb	96
81) 1,3,5-Trimethylbenzene	11.20	105	257235	9.7199	ppb	100
82) 4-Chlorotoluene	11.21	91	161024	10.0859	ppb	99
83) Tert-Butylbenzene	11.53	119	146304	9.7961	ppb	98
84) 1,2,4-Trimethylbenzene	11.57	105	166720	9.4655	ppb	96
85) Sec-Butylbenzene	11.74	105	321134	9.6755	ppb	99
86) p-Isopropyltoluene	11.90	119	267479	9.7532	ppb	98
87) Benzyl Chloride	12.06	91	104478	10.1163	ppb	98
88) 1,3-DCB	11.83	146	146969	9.8128	ppb	97
89) 1,4-DCB	11.92	146	147254	9.7939	ppb	99
90) n-Butylbenzene	12.30	91	152384	9.9496	ppb	98
91) 1,2-DCB	12.29	146	146426	10.0274	ppb	99
92) Hexachloroethane	12.55	117	44450	9.8629	ppb	86
93) 1,2-Dibromo-3-chloropropan	13.06	157	15595	9.1305	ppb	88
94) 1,2,4-Trichlorobenzene	13.89	180	75649	9.5161	ppb	98
95) Hexachlorobutadiene	14.08	225	44088	9.4374	ppb	97
96) Naphthalene	14.13	128	100296	9.2256	ppb	99
97) 1,2,3-Trichlorobenzene	14.37	180	74757	9.6050	ppb	98



Quantitation Report

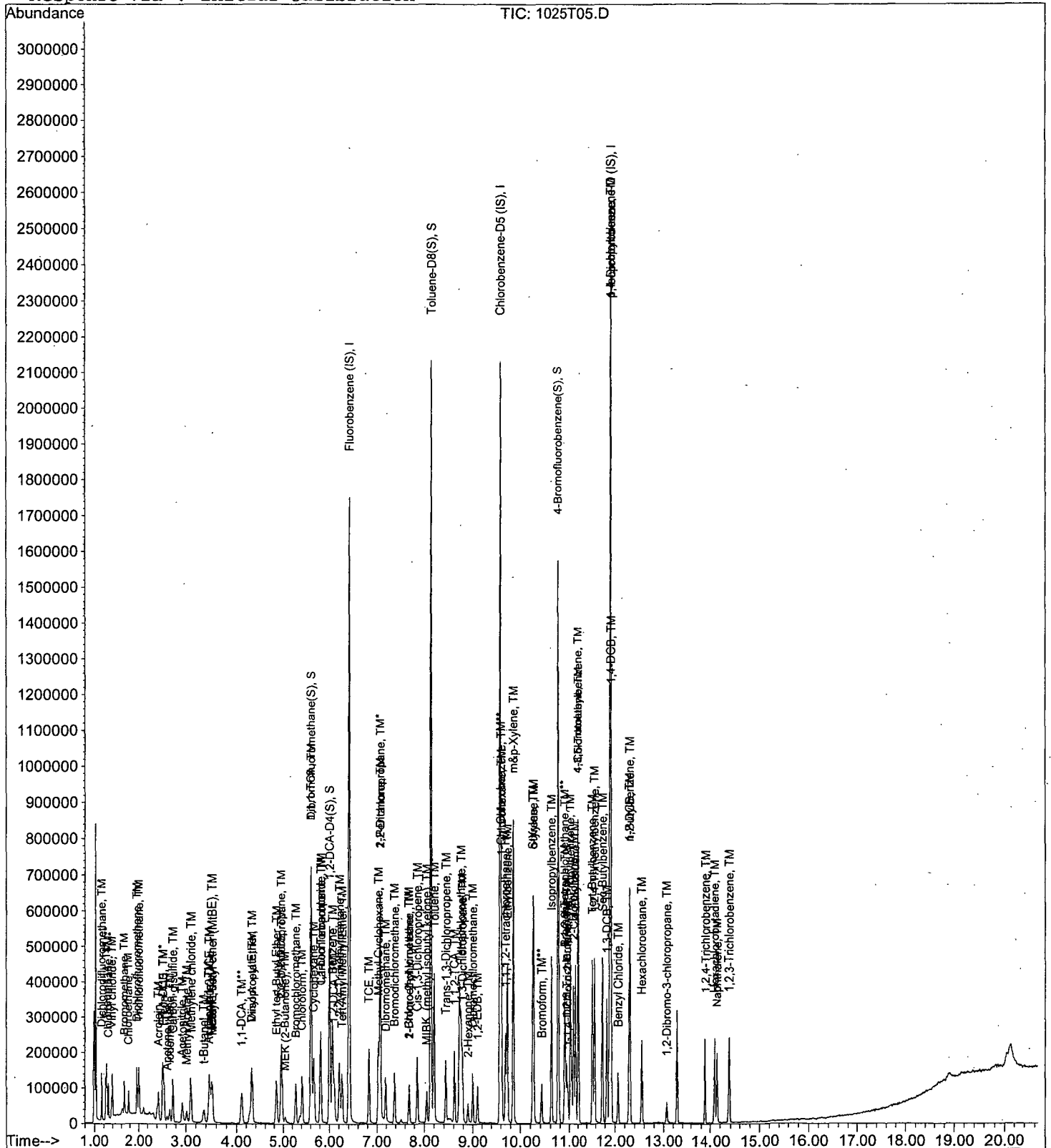
Data File : M:\THOR\DATA\T181024\1025T05.D  
 Acq On : 25 Oct 18 13:34  
 Sample : 181025A LCS 10ug/L  
 Misc : IS&S 10/15/18,8/13/18

Vial: 4  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 15:03 2018

Quant Results File: T1024W.RES

Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration



Data File : M:\THOR\DATA\T181024\1025T06.D  
 Acq On : 25 Oct 18 14:16  
 Sample : 181025A LCSD 10ug/L  
 Misc : IS&S 10/15/18,8/13/18

Vial: 5  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 15:04 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.41	96	837888	25.0000	ppb	0.00
57) Chlorobenzene-D5 (IS)	9.58	117	710976	25.0000	ppb	0.00
72) 1,4-Dichlorobenzene-D (IS)	11.90	152	362432	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) Dibromofluoromethane(S)	5.61	111	355264	25.4503	ppb	0.00
Spiked Amount 25.000			Recovery =	101.800%		
38) 1,2-DCA-D4 (S)	6.00	65	388348	24.8361	ppb	0.00
Spiked Amount 25.000			Recovery =	99.344%		
58) Toluene-D8 (S)	8.13	98	1360641	24.8494	ppb	0.00
Spiked Amount 25.000			Recovery =	99.396%		
66) 4-Bromofluorobenzene(S)	10.75	95	509362	24.7777	ppb	0.00
Spiked Amount 25.000			Recovery =	99.112%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.16	85	71208	9.4243	ppb	98
3) Freon 114	1.27	135	41202	9.9710	ppb	88
4) Chloromethane	1.30	50	55322	9.7289	ppb	99
5) Vinyl chloride	1.39	62	67520	9.9172	ppb	98
6) Bromomethane	1.67	94	32778	9.4890	ppb	95
7) Chloroethane	1.77	64	32787	10.2702	ppb	99
8) Dichlorofluoromethane	1.96	67	97909	9.2815	ppb	100
9) Trichlorofluoromethane	2.01	101	87597	9.6647	ppb	95
10) Acrolein	2.43	56	59704	107.4600	ppb	96
11) Acetone	2.62	43	14790	7.2367	ppb	99
12) Freon-113	2.55	101	48344	10.1882	ppb	96
13) 1,1-DCE	2.52	61	74968	9.9624	ppb	95
14) Acetonitrile	2.92	41	73408	119.6298	ppb	95
15) t-Butanol	3.35	59	52965	101.4193	ppb	98
16) Methyl Acetate	3.01	43	38577	9.1830	ppb	92
17) Iodomethane	2.67	142	35259	9.0243	ppb	95
18) Acrylonitrile	3.44	52	16701	9.1268	ppb	98
19) Methylene chloride	3.10	84	63993	9.8059	ppb	100
20) Carbon disulfide	2.73	76	155427	9.5177	ppb	95
21) Methyl t-butyl ether (MtBE)	3.51	73	143215	9.4271	ppb	97
22) Trans-1,2-DCE	3.47	96	57766	9.1465	ppb	98
23) Hexane	3.51	57	32158	9.5830	ppb	# 95
24) Diisopropyl Ether	4.31	45	162141	10.0255	ppb	99
25) 1,1-DCA	4.10	63	108134	10.2578	ppb	95
26) Vinyl Acetate	4.31	87	50748	9.8926	ppb	98
27) Ethyl tert Butyl Ether	4.84	59	121823	9.8460	ppb	97
28) MEK (2-Butanone)	5.03	43	7985	8.1528	ppb	99
29) Cis-1,2-DCE	4.96	61	96930	10.1382	ppb	92
30) 2,2-Dichloropropane	4.94	77	87170	9.9672	ppb	97
31) Chloroform	5.41	83	112837	10.2915	ppb	95
32) Bromochloromethane	5.27	128	17192	10.2242	ppb	99
34) 1,1,1-TCA	5.61	97	93613	9.9762	ppb	94
35) Cyclohexane	5.67	41	44504	9.9768	ppb	91
36) 1,1-Dichloropropene	5.82	75	41520	9.7204	ppb	97
37) 2,2,4-Trimethylpentane	6.20	57	172368	10.3011	ppb	98
39) Carbon Tetrachloride	5.81	117	78326	10.4013	ppb	98
40) Tert Amyl Methyl Ether	6.26	73	110816	9.7012	ppb	97
41) 1,2-DCA	6.09	62	83839	9.9970	ppb	98
42) Benzene	6.06	78	255987	9.9936	ppb	98

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

Data File : M:\THOR\DATA\T181024\1025T06.D  
 Acq On : 25 Oct 18 14:16  
 Sample : 181025A LCSD 10ug/L  
 Misc : IS&S 10/15/18,8/13/18

Vial: 5  
 Operator: DG,SV, CMM.PM,KV  
 Inst : Thor  
 Multiplr: 1.00

Quant Time: Oct 25 15:04 2018

Quant Results File: T1024W.RES

Quant Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:28:00 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_TEST

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) TCE	6.82	95	66776	9.8856	ppb	98
44) 2-Pentanone	7.07	43	477997	116.4414	ppb	98
45) 1,2-Dichloropropane	7.06	63	64984	10.2592	ppb	99
46) Bromodichloromethane	7.37	83	84854	9.8518	ppb	100
47) Methyl Cyclohexane	7.03	83	91547	10.0077	ppb	97
48) Dibromomethane	7.18	93	44376	10.2040	ppb	93
49) MIBK (methyl isobutyl ket	8.04	58	20213	9.1990	ppb	90
50) 1-Bromo-2-chloroethane	7.68	63	85464	10.0854	ppb	96
51) 2-Chloroethyl vinyl ether	7.68	106	1160	8.7546	ppb	97
52) Cis-1,3-Dichloropropene	7.85	75	104192	9.8436	ppb	97
53) Toluene	8.19	91	168320	9.8481	ppb	98
54) Trans-1,3-Dichloropropene	8.44	75	54952	9.4120	ppb	100
55) 1,1,2-TCA	8.61	83	52453	10.2155	ppb	96
56) 2-Hexanone	8.90	58	19670	9.8048	ppb	83
59) 1,2-EDB	9.10	107	64177	9.7124	ppb	96
60) Tetrachloroethene	8.75	166	77740	9.2076	ppb	97
61) 1-Chlorohexane	9.61	91	81636	9.9873	ppb	99
62) 1,1,1,2-Tetrachloroethane	9.69	131	68751	10.4380	ppb	95
63) m&p-Xylene	9.85	106	147648	20.3192	ppb	97
64) o-Xylene	10.24	106	74592	9.9742	ppb	96
65) Styrene	10.26	104	113184	9.7281	ppb	99
67) 1,3-Dichloropropane	8.78	76	101492	9.5620	ppb	98
68) Dibromochloromethane	9.00	129	69468	10.3377	ppb	99
69) Chlorobenzene	9.61	112	185611	10.0380	ppb	99
70) Ethylbenzene	9.73	91	309469	9.9259	ppb	99
71) Bromoform	10.42	173	49029	10.0855	ppb	100
73) Isopropylbenzene	10.62	105	300185	9.8833	ppb	98
74) 1,1,2,2-Tetrachloroethane	10.91	83	53120	10.2158	ppb	94
75) 1,2,3-Trichloropropane	10.94	110	15301	10.1267	ppb	98
76) t-1,4-Dichloro-2-Butene	10.97	53	13474	8.8810	ppb	95
77) Bromobenzene	10.89	156	81060	9.9595	ppb	99
78) n-Propylbenzene	11.02	91	232787	10.2700	ppb	100
79) 4-Ethyltoluene	11.14	105	277485	10.0864	ppb	97
80) 2-Chlorotoluene	11.09	91	140555	10.3016	ppb	96
81) 1,3,5-Trimethylbenzene	11.21	105	253029	10.0725	ppb	100
82) 4-Chlorotoluene	11.21	91	158272	10.4440	ppb	99
83) Tert-Butylbenzene	11.53	119	143616	10.1306	ppb	99
84) 1,2,4-Trimethylbenzene	11.57	105	160256	9.5853	ppb	96
85) Sec-Butylbenzene	11.74	105	318077	10.0962	ppb	97
86) p-Isopropyltoluene	11.90	119	264245	10.1508	ppb	99
87) Benzyl Chloride	12.06	91	98459	10.0436	ppb	98
88) 1,3-DCB	11.83	146	145063	10.2038	ppb	96
89) 1,4-DCB	11.92	146	145128	10.1690	ppb	99
90) n-Butylbenzene	12.30	91	149696	10.2970	ppb	99
91) 1,2-DCB	12.29	146	143327	10.3404	ppb	99
92) Hexachloroethane	12.55	117	44672	10.4426	ppb	89
93) 1,2-Dibromo-3-chloropropan	13.06	157	15651	9.6536	ppb	97
94) 1,2,4-Trichlorobenzene	13.89	180	73205	9.6880	ppb	99
95) Hexachlorobutadiene	14.08	225	45669	10.2989	ppb	99
96) Naphthalene	14.13	128	86760	8.5331	ppb	96
97) 1,2,3-Trichlorobenzene	14.37	180	69201	9.3780	ppb	98

Quantitation Report

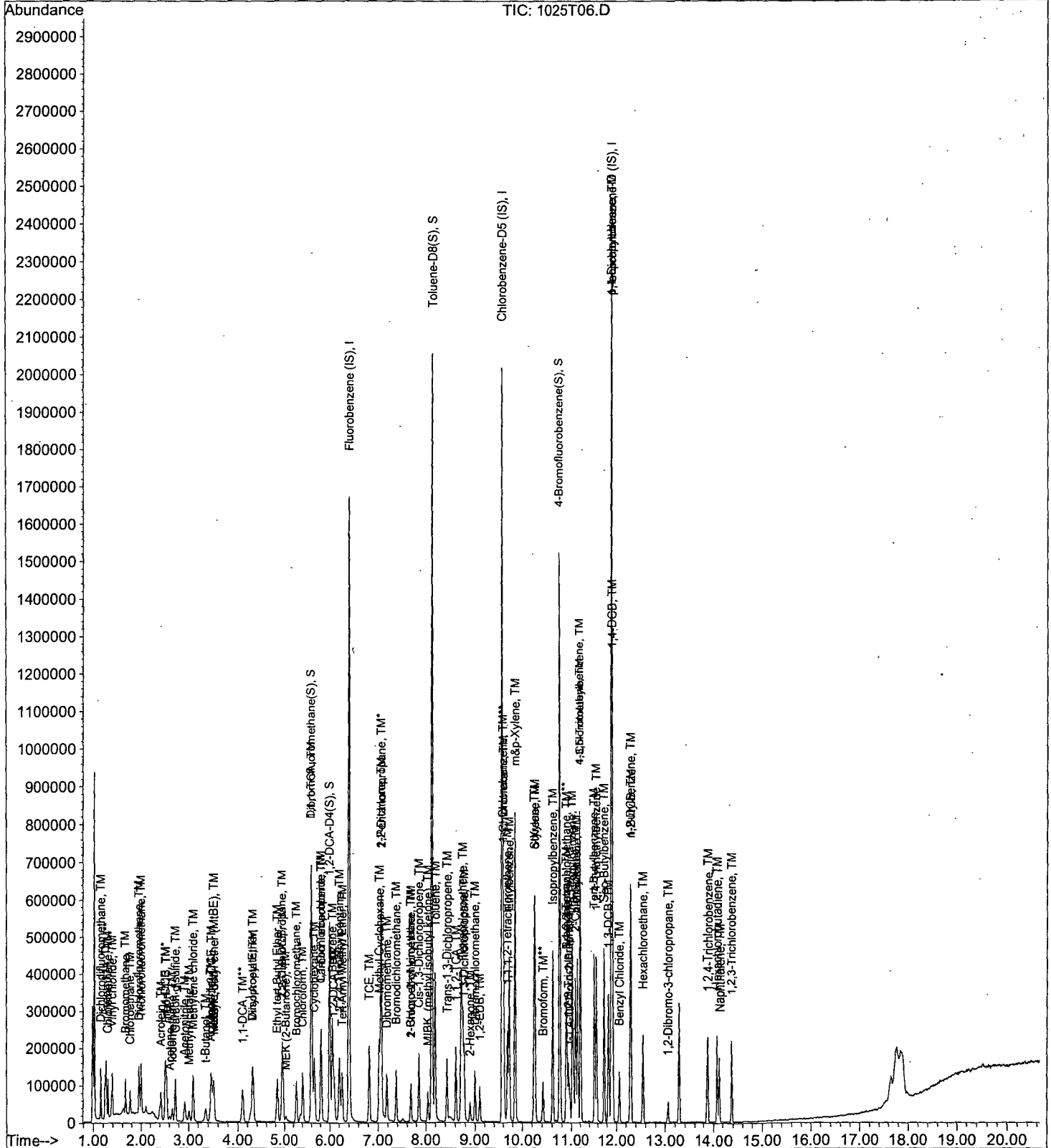
Data File : M:\THOR\DATA\T181024\1025T06.D  
Acq On : 25 Oct 18 14:16  
Sample : 181025A LCSD 10ug/L  
Misc : IS&S 10/15/18,8/13/18

Vial: 5  
Operator: DG,SV, CMM.PM,KV  
Inst : Thor  
Multiplr: 1.00

Quant Time: Oct 25 15:04 2018

Quant Results File: T1024W.RES

Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:28:00 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1024L05.D  
 Acq On : 24 Oct 18 9:23  
 Sample : 181024A LCSD 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 9:47 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:41:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.88	96	246208	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.53	117	270848	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	169536	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Dibromofluoromethane(S)	3.87	111	175835	24.7409	ppb	0.00
Spiked Amount 25.000			Recovery =	98.964%		
37) 1,2-DCA-D4(S)	4.36	65	187118	26.3219	ppb	0.00
Spiked Amount 25.000			Recovery =	105.288%		
57) Toluene-D8(S)	6.91	98	618470	24.2953	ppb	0.00
Spiked Amount 25.000			Recovery =	97.180%		
65) 4-Bromofluorobenzene(S)	9.84	95	242268	26.7662	ppb	0.00
Spiked Amount 25.000			Recovery =	107.064%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	65376	8.8521	ppb	98
3) Freon 114	0.79	85	46507	9.7218	ppb	99
4) Chloromethane	0.82	50	60507	11.3154	ppb	95
5) Vinyl chloride	0.87	62	63427	10.2950	ppb	96
6) Bromomethane	1.04	94	46528	11.3603	ppb	99
7) Chloroethane	1.10	64	34575	10.0121	ppb	96
8) Dichlorofluoromethane	1.21	67	106268	10.0640	ppb	98
9) Trichlorofluoromethane	1.24	101	107374	10.2504	ppb	97
10) Acrolein	1.49	56	40839	115.7811	ppb	# 96
11) Acetone	1.60	43	16382	10.5877	ppb	95
12) Freon-113	1.57	101	54831	10.4148	ppb	96
13) 1,1-DCE	1.55	63	21216	11.4445	ppb	98
14) t-Butanol	2.05	59	37275	105.2313	ppb	97
15) Acetonitrile	1.79	41	50956	97.0510	ppb	98
16) Methyl Acetate	1.85	43	23814	8.6327	ppb	92
17) Iodomethane	1.64	142	33920	11.2636	ppb	99
18) Acrylonitrile	2.11	52	10093	9.7633	ppb	80
19) Methylene chloride	1.90	84	57472	9.7504	ppb	91
20) Carbon disulfide	1.69	76	151292	9.5526	ppb	98
21) Methyl t-butyl ether (MtBE)	2.15	73	118557	9.4423	ppb	97
22) Trans-1,2-DCE	2.12	96	52443	9.6868	ppb	97
23) Diisopropyl Ether	2.64	45	129086	10.0118	ppb	97
24) 1,1-DCA	2.51	63	96426	9.8658	ppb	99
25) Vinyl Acetate	2.64	43	33344	9.8241	ppb	99
26) Ethyl tert Butyl Ether	3.06	59	130024	10.3289	ppb	98
27) MEK (2-Butanone)	3.24	43	15172	9.9018	ppb	97
28) Cis-1,2-DCE	3.17	96	64000	10.1564	ppb	98
29) 2,2-Dichloropropane	3.15	77	93566	10.3791	ppb	99
30) Chloroform	3.63	83	111926	10.0287	ppb	95
31) Bromochloromethane	3.47	128	33820	10.1007	ppb	91
33) 1,1,1-TCA	3.85	97	104314	10.0886	ppb	97
34) Cyclohexane	3.91	41	36022	10.1024	ppb	94
35) 1,1-Dichloropropene	4.13	75	69574	10.4429	ppb	99
36) 2,2,4-Trimethylpentane	4.62	57	134534	11.0939	ppb	97
38) Carbon Tetrachloride	4.11	117	95366	10.3382	ppb	96
39) Tert Amyl Methyl Ether	4.71	73	122819	9.9614	ppb	97
40) 1,2-DCA	4.48	62	80424	10.3465	ppb	94
41) Benzene	4.43	78	209863	10.1819	ppb	100
42) TCE	5.38	95	29032	10.1388	ppb	95

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

Data File : M:\LOKI\DATA\181023\1024L05.D  
 Acq On : 24 Oct 18 9:23  
 Sample : 181024A LCSD 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 9:47 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:41:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	304379	120.2006	ppb	99
44) 1,2-Dichloropropane	5.66	63	56630	10.1676	ppb	97
45) Bromodichloromethane	6.05	83	91860	10.0230	ppb	96
46) Methyl Cyclohexane	5.60	83	70488	10.5443	ppb	98
47) Dibromomethane	5.80	93	38126	9.7395	ppb	92
49) MIBK (methyl isobutyl ket	6.86	43	35371	10.0084	ppb	92
50) 1-Bromo-2-chloroethane	6.39	63	34712	9.9929	ppb	96
51) Cis-1,3-Dichloropropene	6.62	75	90903	9.9560	ppb	98
52) Toluene	6.99	91	263184	10.6818	ppb	100
53) Trans-1,3-Dichloropropene	7.30	75	87119	10.4529	ppb	96
54) 1,1,2-TCA	7.49	83	41286	9.8180	ppb	93
55) 2-Hexanone	7.83	43	20119	9.0122	ppb	# 95
58) 1,2-EDB	7.99	107	53608	9.9399	ppb	96
59) Tetrachloroethene	7.61	166	88465	9.9678	ppb	92
60) 1-Chlorohexane	8.61	91	70029	10.8377	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.68	131	81466	9.9733	ppb	99
62) m&p-Xylene	8.86	91	265174	21.6878	ppb	98
63) o-Xylene	9.28	106	111965	10.8489	ppb	94
64) Styrene	9.30	104	116568	11.1081	ppb	98
66) 1,3-Dichloropropane	7.66	76	85250	9.8900	ppb	99
67) Dibromochloromethane	7.90	129	76533	9.9456	ppb	95
68) Chlorobenzene	8.57	112	190091	10.1167	ppb	97
69) Ethylbenzene	8.72	91	292845	10.6134	ppb	98
70) Bromoform	9.46	173	52829	9.7535	ppb	99
72) Isopropylbenzene	9.70	105	289917	10.6953	ppb	100
73) 1,1,2,2-Tetrachloroethane	10.04	83	63496	9.5427	ppb	100
74) 1,2,3-Trichloropropane	10.06	110	20833	10.5989	ppb	89
75) t-1,4-Dichloro-2-Butene	10.10	53	14139	10.0607	ppb	85
76) Bromobenzene	9.97	156	92875	10.0268	ppb	100
77) n-Propylbenzene	10.15	91	215232	10.9341	ppb	98
78) 4-Ethyltoluene	10.27	105	292698	11.0891	ppb	97
79) 2-Chlorotoluene	10.20	91	213734	10.6300	ppb	95
80) 1,3,5-Trimethylbenzene	10.35	105	172160	11.7431	ppb	95
81) 4-Chlorotoluene	10.33	91	255608	10.8093	ppb	99
82) Tert-Butylbenzene	10.69	119	224829	10.8192	ppb	98
83) 1,2,4-Trimethylbenzene	10.74	105	264998	11.6058	ppb	99
84) Sec-Butylbenzene	10.92	105	326878	11.0306	ppb	99
85) p-Isopropyltoluene	11.09	119	300233	10.9299	ppb	99
86) Benzyl Chloride	11.26	91	97704	9.9297	ppb	99
87) 1,3-DCB	11.00	146	180201	10.3518	ppb	98
88) 1,4-DCB	11.10	146	178847	9.7862	ppb	100
89) n-Butylbenzene	11.53	91	236976	10.9587	ppb	98
90) 1,2-DCB	11.49	146	163224	9.9144	ppb	98
91) Hexachloroethane	11.76	117	58964	9.6900	ppb	93
92) 1,2-Dibromo-3-chloropropan	12.32	75	10614	9.1959	ppb	90
93) 1,2,4-Trichlorobenzene	13.21	180	111366	10.4456	ppb	100
94) Hexachlorobutadiene	13.43	225	70664	9.7548	ppb	98
95) Naphthalene	13.46	128	150176	9.8437	ppb	99
96) 1,2,3-Trichlorobenzene	13.72	180	57856	10.6828	ppb	97

(#) = qualifier out of range (m) = manual integration  
 1024L05.D L1023W.M Thu Oct 25 09:08:08 2018

Quantitation Report

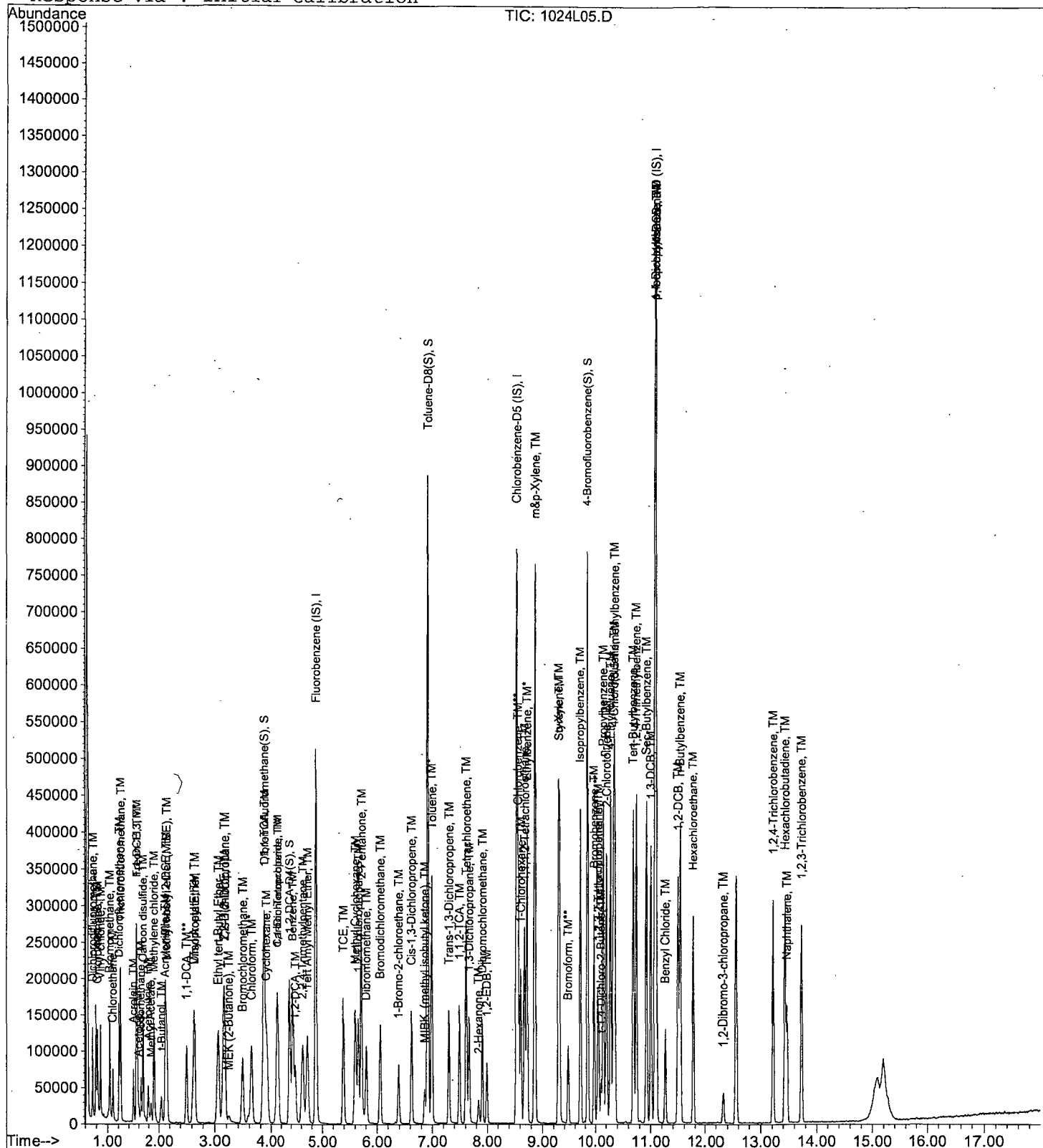
Data File : M:\LOKI\DATA\181023\1024L05.D  
Acq On : 24 Oct 18 9:23  
Sample : 181024A LCSD 10ug/L  
Misc : IS&S 9/28/18, 8/23/18

Vial: 4  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 24 9:47 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 11:02:36 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1024L22.D  
 Acq On : 24 Oct 18 17:19  
 Sample : AZ81584W02 MS 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 21  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 8:49 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	234432	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.53	117	260352	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	167680	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	167517	24.7572	ppb	0.00
Spiked Amount 25.000			Recovery =	99.028%		
37) 1,2-DCA-D4(S)	4.36	65	180830	26.7151	ppb	0.00
Spiked Amount 25.000			Recovery =	106.860%		
57) Toluene-D8(S)	6.91	98	580729	23.6436	ppb	0.00
Spiked Amount 25.000			Recovery =	94.576%		
65) 4-Bromofluorobenzene(S)	9.84	95	225489	25.9168	ppb	0.00
Spiked Amount 25.000			Recovery =	103.668%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	79304	11.2773	ppb	98
3) Freon 114	0.79	85	49151	10.7906	ppb	99
4) Chloromethane	0.82	50	60993	11.9941	ppb	96
5) Vinyl chloride	0.87	62	62365	10.6311	ppb	99
6) Bromomethane	1.04	94	43805	11.2323	ppb	97
7) Chloroethane	1.10	64	34286	10.4272	ppb	98
8) Dichlorofluoromethane	1.21	67	89043	8.8563	ppb	98
9) Trichlorofluoromethane	1.24	101	104332	10.4603	ppb	95
10) Acrolein	1.49	56	37909	112.8730	ppb	# 94
11) Acetone	1.60	43	17853	12.6726	ppb	92
12) Freon-113	1.57	101	45963	9.1689	ppb	98
13) 1,1-DCE	1.55	63	19744	10.6831	ppb	93
14) t-Butanol	2.05	59	37582	111.4275	ppb	95
15) Acetonitrile	1.79	41	46638	93.2889	ppb	98
16) Methyl Acetate	1.85	43	19843	7.4466	ppb	97
17) Iodomethane	1.64	142	26328	9.1817	ppb	95
18) Acrylonitrile	2.11	52	8513	8.6486	ppb	81
19) Methylene chloride	1.90	84	53573	9.5454	ppb	97
20) Carbon disulfide	1.69	76	136918	9.0793	ppb	96
21) Methyl t-butyl ether (MtBE)	2.15	73	97206	8.1307	ppb	97
22) Trans-1,2-DCE	2.12	96	52487	10.1820	ppb	98
23) Diisopropyl Ether	2.64	45	99787	8.1282	ppb	98
24) 1,1-DCA	2.51	63	91785	9.8627	ppb	98
25) Vinyl Acetate	2.63	43	27984	8.6590	ppb	# 93
26) Ethyl tert Butyl Ether	3.06	59	98911	8.2520	ppb	97
27) MEK (2-Butanone)	3.24	43	12337	8.4560	ppb	88
28) Cis-1,2-DCE	3.17	96	57948	9.6580	ppb	96
29) 2,2-Dichloropropane	3.15	77	77580	9.0381	ppb	97
30) Chloroform	3.63	83	106098	9.9841	ppb	95
31) Bromochloromethane	3.48	128	32130	10.0780	ppb	92
33) 1,1,1-TCA	3.85	97	97880	9.9419	ppb	100
34) Cyclohexane	3.91	41	31070	9.1513	ppb	91
35) 1,1-Dichloropropene	4.13	75	64981	10.2434	ppb	96
36) 2,2,4-Trimethylpentane	4.62	57	103780	8.9878	ppb	99
38) Carbon Tetrachloride	4.11	117	90163	10.2651	ppb	99
39) Tert Amyl Methyl Ether	4.72	73	96602	8.2286	ppb	99
40) 1,2-DCA	4.48	62	77075	10.4137	ppb	98
41) Benzene	4.43	78	194360	9.9034	ppb	100
42) TCE	5.38	95	26088	9.5683	ppb	95

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



Data File : M:\LOKI\DATA\181023\1024L22.D  
 Acq On : 24 Oct 18 17:19  
 Sample : AZ81584W02 MS 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 21  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 8:49 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	278004	115.2997	ppb	99
44) 1,2-Dichloropropane	5.65	63	49168	9.2713	ppb #	92
45) Bromodichloromethane	6.05	83	83148	9.5282	ppb	98
46) Methyl Cyclohexane	5.60	83	62483	9.8164	ppb	97
47) Dibromomethane	5.80	93	34180	9.1701	ppb	94
49) MIBK (methyl isobutyl ket	6.86	43	27956	8.2691	ppb	97
50) 1-Bromo-2-chloroethane	6.39	63	28216	8.5308	ppb	98
51) Cis-1,3-Dichloropropene	6.62	75	77878	8.9579	ppb	98
52) Toluene	6.99	91	241319	10.2863	ppb	98
53) Trans-1,3-Dichloropropene	7.30	75	75688	9.5375	ppb	99
54) 1,1,2-TCA	7.49	83	38017	9.4947	ppb	92
55) 2-Hexanone	7.84	43	15615	7.3460	ppb	88
58) 1,2-EDB	7.99	107	47892	9.2381	ppb	94
59) Tetrachloroethene	7.61	166	83899	9.8344	ppb	96
60) 1-Chlorohexane	8.61	91	52052	8.3804	ppb	96
61) 1,1,1,2-Tetrachloroethane	8.68	131	75260	9.5850	ppb	98
62) m&p-Xylene	8.86	91	257600	21.9177	ppb	98
63) o-Xylene	9.28	106	99399	10.0196	ppb	98
64) Styrene	9.30	104	102208	10.1324	ppb	99
66) 1,3-Dichloropropane	7.66	76	78672	9.4948	ppb	97
67) Dibromochloromethane	7.90	129	69598	9.4090	ppb	96
68) Chlorobenzene	8.57	112	171555	9.4983	ppb	98
69) Ethylbenzene	8.72	91	291148	10.9772	ppb	99
70) Bromoform	9.46	173	49557	9.5183	ppb	99
72) Isopropylbenzene	9.70	105	256809	9.5787	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.04	83	58067	8.8234	ppb	96
74) 1,2,3-Trichloropropane	10.06	110	19474	10.0089	ppb	90
75) t-1,4-Dichloro-2-Butene	10.10	53	10331	7.4325	ppb	87
76) Bromobenzene	9.97	156	85860	9.3721	ppb	95
77) n-Propylbenzene	10.15	91	189696	9.7435	ppb	96
78) 4-Ethyltoluene	10.27	105	232129	8.8917	ppb	98
79) 2-Chlorotoluene	10.20	91	193874	9.7490	ppb	97
80) 1,3,5-Trimethylbenzene	10.35	105	151296	10.4342	ppb	96
81) 4-Chlorotoluene	10.33	91	233967	10.0037	ppb	99
82) Tert-Butylbenzene	10.69	119	202954	9.8746	ppb	99
83) 1,2,4-Trimethylbenzene	10.74	105	232473	10.2941	ppb	95
84) Sec-Butylbenzene	10.92	105	295892	10.0955	ppb	99
85) p-Isopropyltoluene	11.09	119	269483	9.9190	ppb	100
86) Benzyl Chloride	11.09	91	60654	6.2325	ppb #	55
87) 1,3-DCB	11.00	146	164385	9.5478	ppb	98
88) 1,4-DCB	11.10	146	169272	9.3648	ppb	99
89) n-Butylbenzene	11.53	91	211392	9.8838	ppb	98
90) 1,2-DCB	11.49	146	147901	9.0831	ppb	99
91) Hexachloroethane	11.76	117	56169	9.3329	ppb	96
92) 1,2-Dibromo-3-chloropropan	12.32	75	10041	8.7957	ppb	91
93) 1,2,4-Trichlorobenzene	13.21	180	94651	8.9761	ppb	97
94) Hexachlorobutadiene	13.43	225	65763	9.1787	ppb	98
95) Naphthalene	13.46	128	129060	8.5724	ppb	97
96) 1,2,3-Trichlorobenzene	13.72	180	50024	9.3389	ppb	97

(#) = qualifier out of range (m) = manual integration  
 1024L22.D L1023W.M Thu Oct 25 09:14:27 2018

Quantitation Report

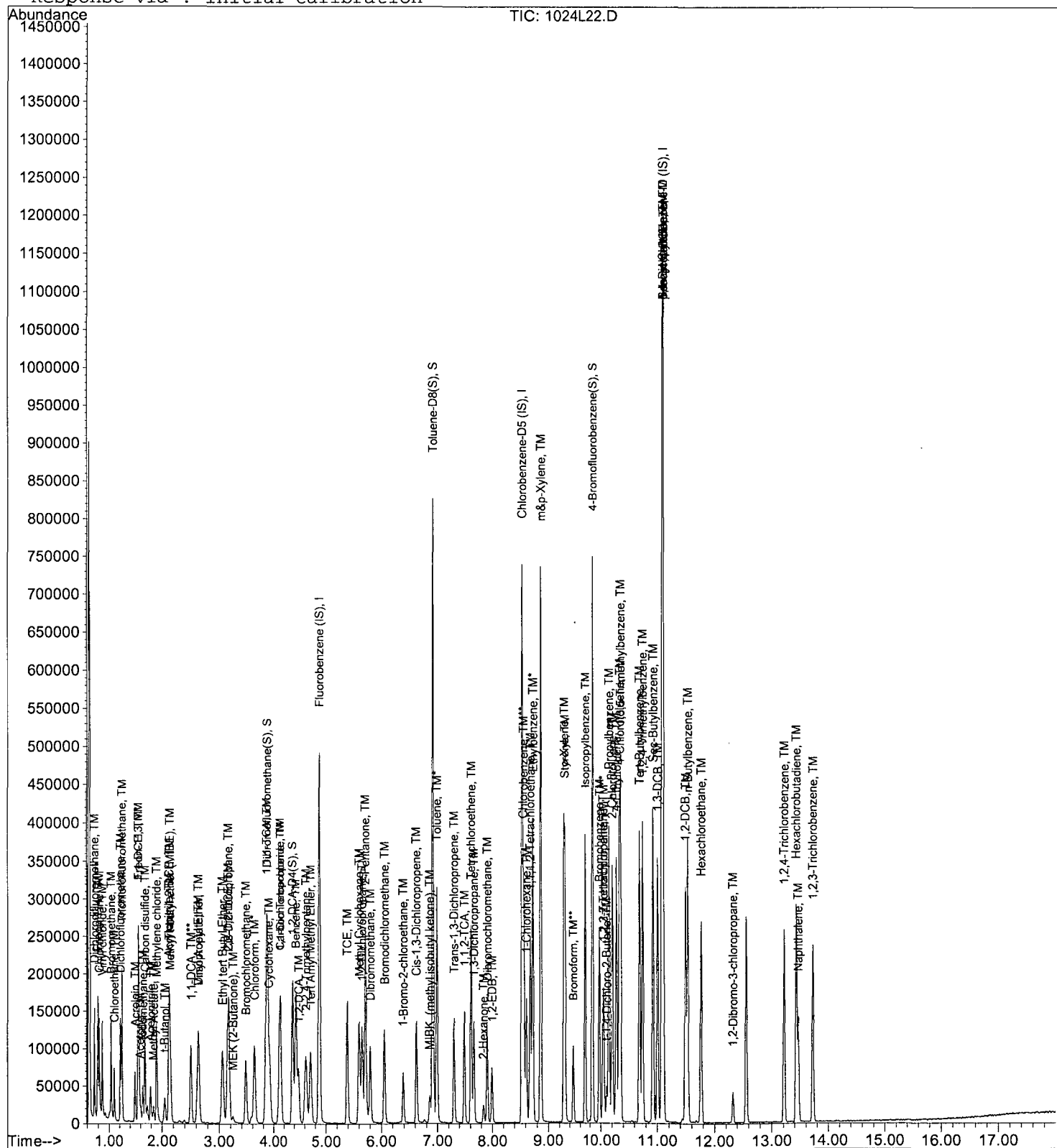
Data File : M:\LOKI\DATA\181023\1024L22.D  
Acq On : 24 Oct 18 17:19  
Sample : AZ81584W02 MS 10ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 21  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 8:49 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 11:02:36 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1024L23.D  
 Acq On : 24 Oct 18 17:47  
 Sample : AZ81584W03 MSD 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 22  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 8:49 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	232960	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	262016	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	165568	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	167969	25.0246	ppb	0.00
Spiked Amount 25.000						Recovery = 100.100%
37) 1,2-DCA-D4(S)	4.36	65	180233	26.7952	ppb	0.00
Spiked Amount 25.000						Recovery = 107.180%
57) Toluene-D8(S)	6.91	98	588130	23.8171	ppb	0.00
Spiked Amount 25.000						Recovery = 95.268%
65) 4-Bromofluorobenzene(S)	9.84	95	231191	26.4034	ppb	0.00
Spiked Amount 25.000						Recovery = 105.612%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	75720	10.8357	ppb	96
3) Freon 114	0.79	85	49642	10.9672	ppb	97
4) Chloromethane	0.82	50	61881	12.2510	ppb	97
5) Vinyl chloride	0.87	62	61505	10.5508	ppb	100
6) Bromomethane	1.04	94	45344	11.7020	ppb	97
7) Chloroethane	1.09	64	31446	9.6239	ppb	100
8) Dichlorofluoromethane	1.21	67	89677	8.9757	ppb	99
9) Trichlorofluoromethane	1.24	101	101857	10.2767	ppb	97
10) Acrolein	1.49	56	37186	111.4199	ppb	92
11) Acetone	1.60	43	16282	11.3150	ppb	96
12) Freon-113	1.57	101	45851	9.2044	ppb	97
13) 1,1-DCE	1.55	63	19880	10.8246	ppb	99
14) t-Butanol	2.05	59	35475	105.8450	ppb	94
15) Acetonitrile	1.79	41	48978	98.5886	ppb	91
16) Methyl Acetate	1.85	43	19508	7.3580	ppb	96
17) Iodomethane	1.64	142	26832	9.4166	ppb	98
18) Acrylonitrile	2.11	52	8238	8.4221	ppb	87
19) Methylene chloride	1.90	84	53337	9.5634	ppb	100
20) Carbon disulfide	1.69	76	137681	9.1876	ppb	98
21) Methyl t-butyl ether (MtBE)	2.15	73	97513	8.2079	ppb	98
22) Trans-1,2-DCE	2.12	96	52065	10.1639	ppb	97
23) Diisopropyl Ether	2.64	45	100705	8.2548	ppb	99
24) 1,1-DCA	2.51	63	89990	9.7309	ppb	99
25) Vinyl Acetate	2.63	43	29936	9.3216	ppb	# 98
26) Ethyl tert Butyl Ether	3.06	59	96284	8.0836	ppb	95
27) MEK (2-Butanone)	3.24	43	12610	8.6978	ppb	90
28) Cis-1,2-DCE	3.17	96	56711	9.5115	ppb	97
29) 2,2-Dichloropropane	3.15	77	79199	9.2850	ppb	98
30) Chloroform	3.63	83	105622	10.0021	ppb	95
31) Bromochloromethane	3.48	128	30306	9.5660	ppb	97
33) 1,1,1-TCA	3.85	97	95812	9.7933	ppb	97
34) Cyclohexane	3.91	41	32123	9.5212	ppb	94
35) 1,1-Dichloropropene	4.13	75	62757	9.9554	ppb	95
36) 2,2,4-Trimethylpentane	4.63	57	103513	9.0213	ppb	88
38) Carbon Tetrachloride	4.11	117	88736	10.1665	ppb	96
39) Tert Amyl Methyl Ether	4.72	73	97043	8.3184	ppb	97
40) 1,2-DCA	4.48	62	71833	9.7668	ppb	94
41) Benzene	4.43	78	195295	10.0139	ppb	99
42) TCE	5.38	95	28736	10.6062	ppb	96

(#) = qualifier out of range (m) = manual integration  
 1024L23.D L1023W.M Thu Oct 25 09:14:30 2018

Data File : M:\LOKI\DATA\181023\1024L23.D  
 Acq On : 24 Oct 18 17:47  
 Sample : AZ81584W03 MSD 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 22  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 8:49 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	274912	114.7378	ppb	100
44) 1,2-Dichloropropane	5.66	63	50989	9.6754	ppb #	96
45) Bromodichloromethane	6.05	83	81726	9.4244	ppb	99
46) Methyl Cyclohexane	5.60	83	62669	9.9078	ppb	98
47) Dibromomethane	5.80	93	34024	9.1859	ppb	96
49) MIBK (methyl isobutyl ket	6.86	43	27045	8.0441	ppb	96
50) 1-Bromo-2-chloroethane	6.39	63	27552	8.3827	ppb	94
51) Cis-1,3-Dichloropropene	6.62	75	79782	9.2349	ppb	97
52) Toluene	6.99	91	244001	10.4664	ppb	99
53) Trans-1,3-Dichloropropene	7.30	75	75787	9.6103	ppb	97
54) 1,1,2-TCA	7.49	83	38853	9.7648	ppb	98
55) 2-Hexanone	7.83	43	15286	7.2367	ppb #	88
58) 1,2-EDB	7.99	107	49748	9.5351	ppb	91
59) Tetrachloroethene	7.61	166	84556	9.8485	ppb	98
60) 1-Chlorohexane	8.61	91	53403	8.5433	ppb	96
61) 1,1,1,2-Tetrachloroethane	8.68	131	72728	9.2037	ppb	95
62) m&p-Xylene	8.86	91	255488	21.5999	ppb	99
63) o-Xylene	9.28	106	100734	10.0897	ppb	97
64) Styrene	9.30	104	106120	10.4534	ppb	98
66) 1,3-Dichloropropane	7.66	76	76421	9.1646	ppb	96
67) Dibromochloromethane	7.90	129	68509	9.2029	ppb	100
68) Chlorobenzene	8.57	112	171956	9.4600	ppb	98
69) Ethylbenzene	8.72	91	293787	11.0064	ppb	98
70) Bromoform	9.46	173	47763	9.1155	ppb	98
72) Isopropylbenzene	9.70	105	260994	9.8590	ppb	100
73) 1,1,2,2-Tetrachloroethane	10.04	83	57151	8.7950	ppb	99
74) 1,2,3-Trichloropropane	10.06	110	18816	9.7909	ppb	85
75) t-1,4-Dichloro-2-Butene	10.10	53	11290	8.2260	ppb	94
76) Bromobenzene	9.97	156	86419	9.5534	ppb	99
77) n-Propylbenzene	10.15	91	192512	10.0143	ppb	97
78) 4-Ethyltoluene	10.27	105	229543	8.9048	ppb	100
79) 2-Chlorotoluene	10.20	91	192714	9.8143	ppb	99
80) 1,3,5-Trimethylbenzene	10.35	105	156352	10.9205	ppb	97
81) 4-Chlorotoluene	10.33	91	232117	10.0512	ppb	99
82) Tert-Butylbenzene	10.69	119	200128	9.8613	ppb	96
83) 1,2,4-Trimethylbenzene	10.74	105	233316	10.4632	ppb	96
84) Sec-Butylbenzene	10.92	105	292451	10.1053	ppb	99
85) p-Isopropyltoluene	11.09	119	274393	10.2286	ppb	98
86) Benzyl Chloride	11.09	91	59773	6.2203	ppb #	55
87) 1,3-DCB	11.00	146	163349	9.6086	ppb	98
88) 1,4-DCB	11.10	146	167903	9.4075	ppb	99
89) n-Butylbenzene	11.53	91	206947	9.7994	ppb	98
90) 1,2-DCB	11.49	146	147362	9.1654	ppb	99
91) Hexachloroethane	11.76	117	55452	9.3313	ppb	94
92) 1,2-Dibromo-3-chloropropan	12.32	75	9953	8.8298	ppb	93
93) 1,2,4-Trichlorobenzene	13.21	180	94727	9.0979	ppb	97
94) Hexachlorobutadiene	13.43	225	63176	8.9301	ppb	97
95) Naphthalene	13.46	128	132654	8.9175	ppb	98
96) 1,2,3-Trichlorobenzene	13.72	180	50368	9.5230	ppb	97

(#) = qualifier out of range (m) = manual integration  
 1024L23.D L1023W.M Thu Oct 25 09:14:31 2018

Quantitation Report

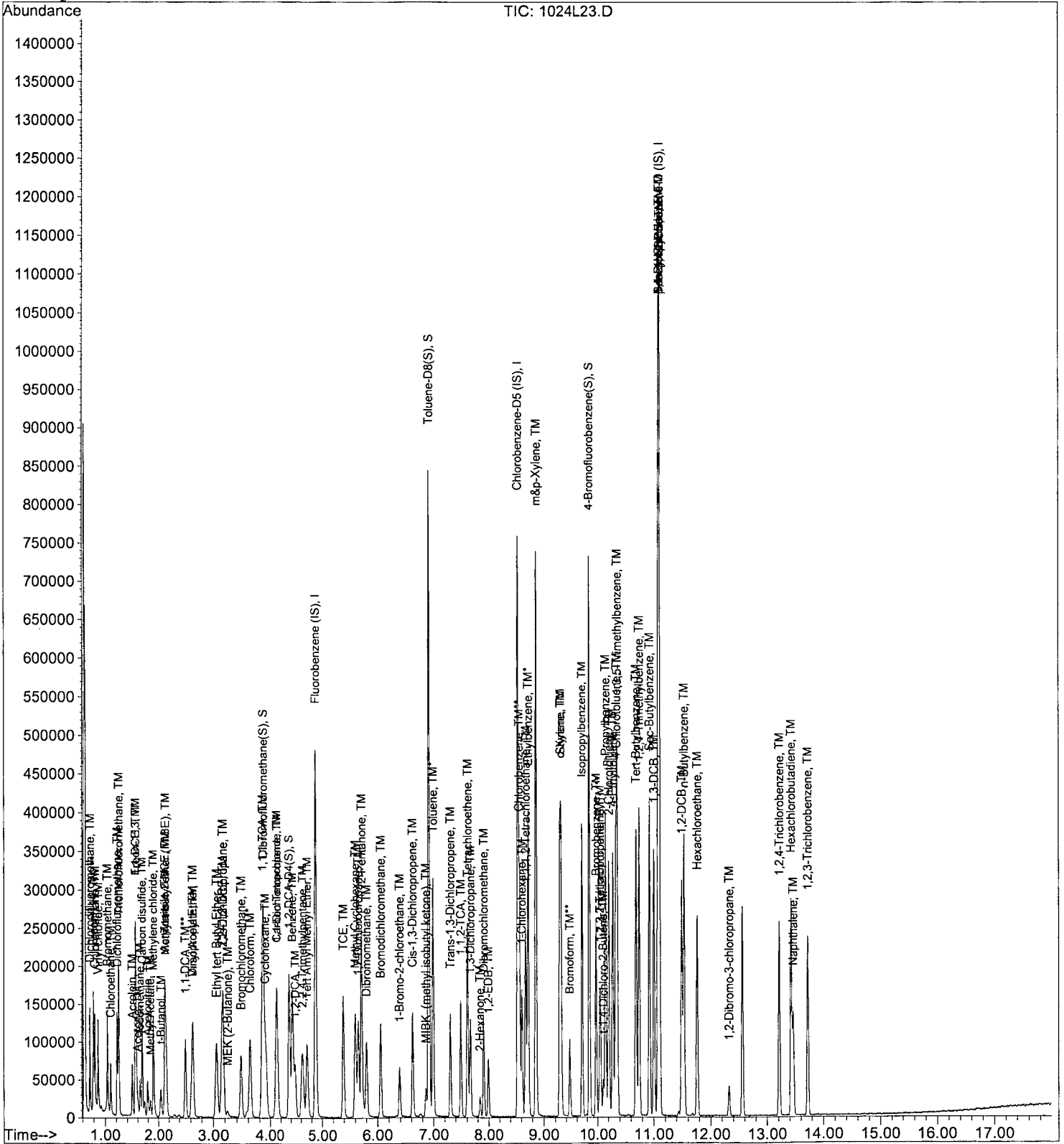
Data File : M:\LOKI\DATA\181023\1024L23.D  
Acq On : 24 Oct 18 17:47  
Sample : AZ81584W03 MSD 10ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 22  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 8:49 2018

Quant Results File: L1023W.RES

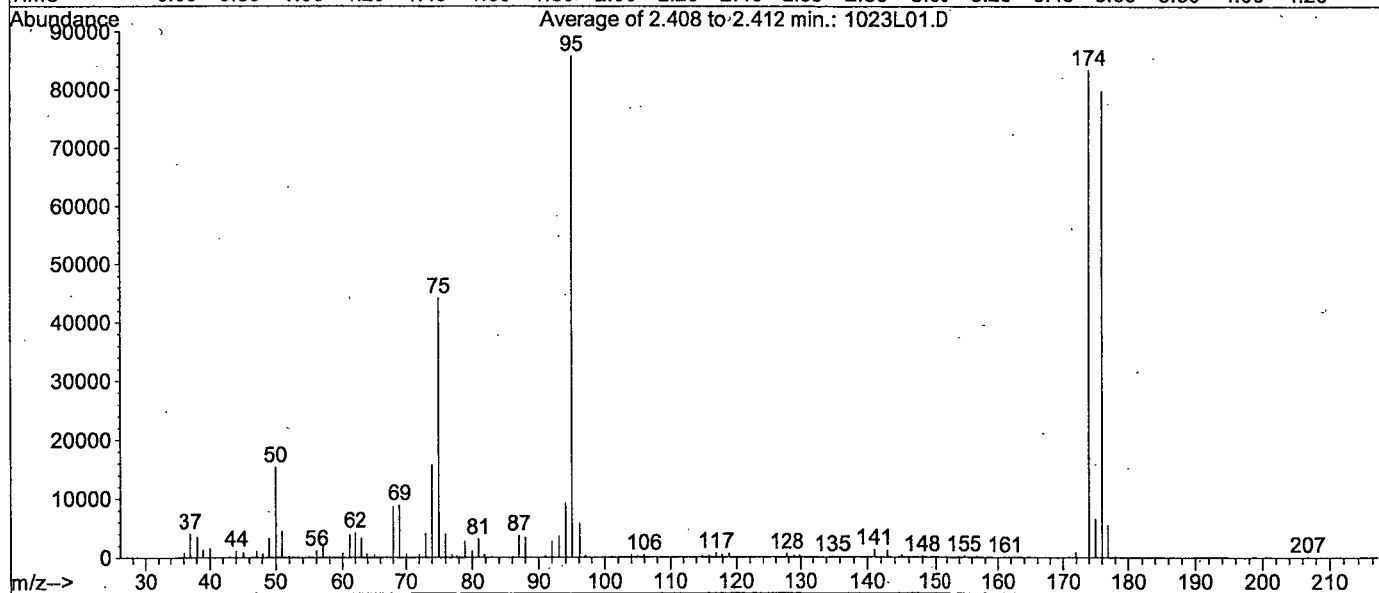
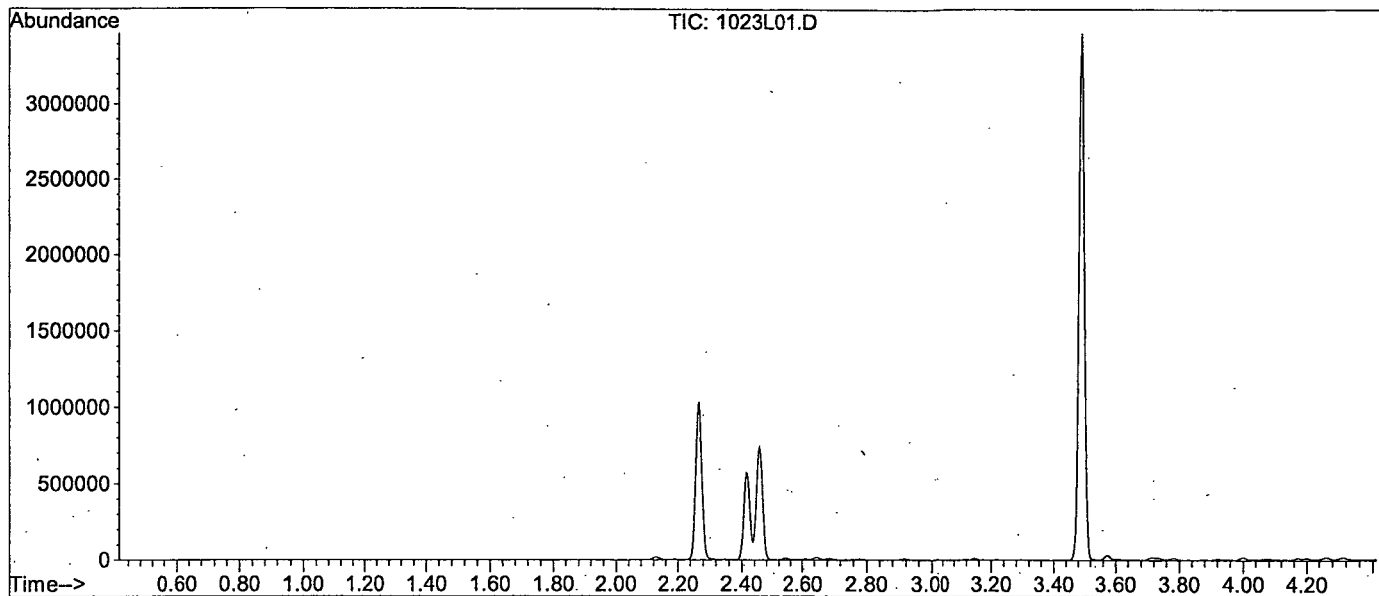
Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 11:02:36 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L01.D  
 Acq On : 23 Oct 18 12:54  
 Sample : 25ug/L BFB STD 9/2/18  
 Misc : 2ul

Vial: 1  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B



Spectrum Information: Average of 2.408 to 2.412 min.

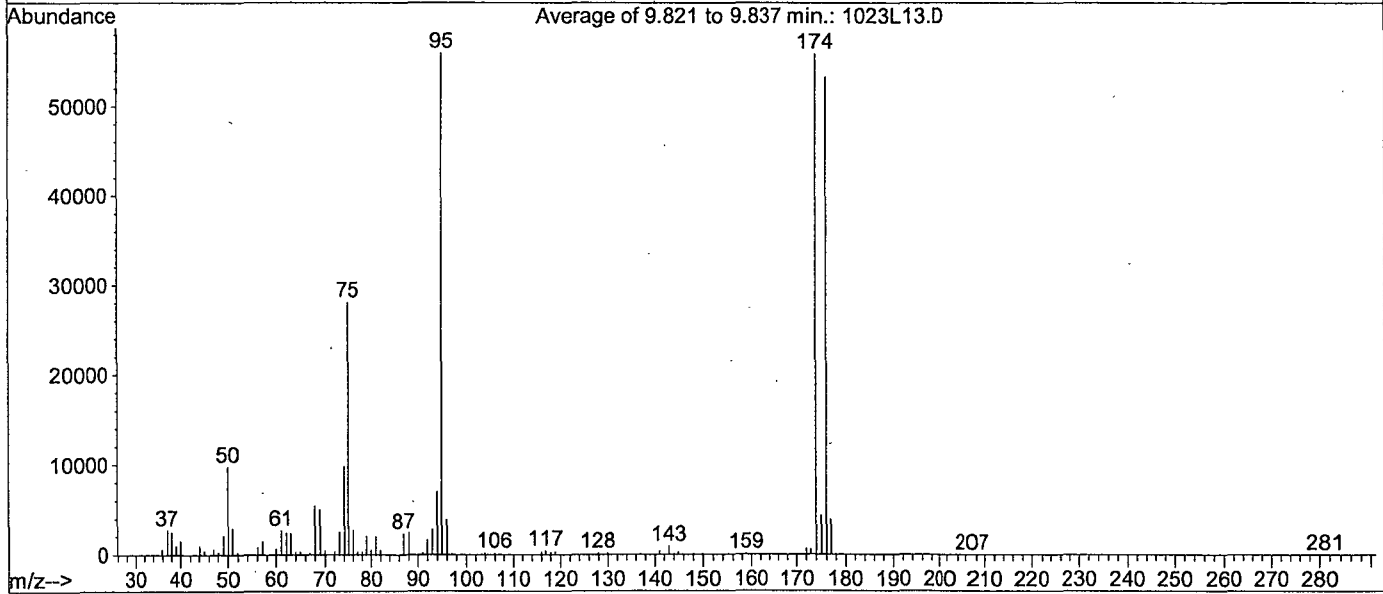
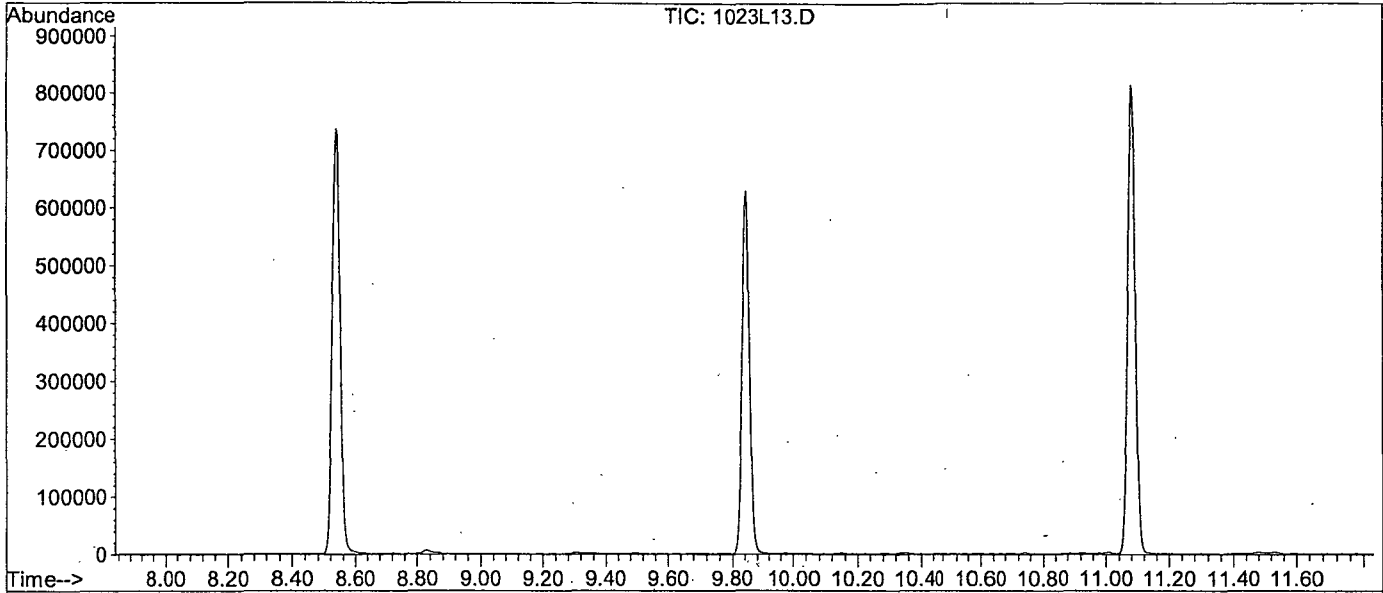
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	15403	PASS
75	95	30	60	51.6	44232	PASS
95	95	100	100	100.0	85744	PASS
96	95	5	9	6.7	5755	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	97.3	83404	PASS
175	174	5	9	7.9	6624	PASS
176	174	95	101	95.7	79804	PASS
177	176	5	9	6.9	5533	PASS

BFB

Data File : M:\LOKI\DATA\181023\1023L13.D  
Acq On : 23 Oct 18 18:19  
Sample : 25ug/L BFB STD 9/2/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 12  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B



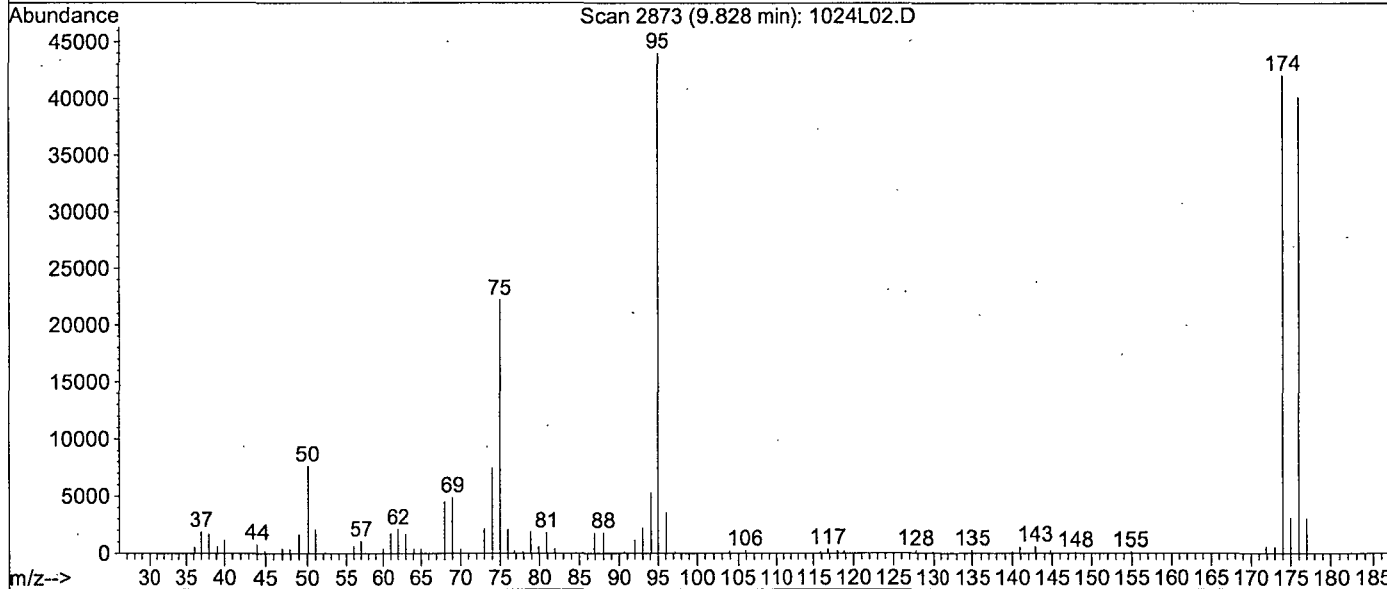
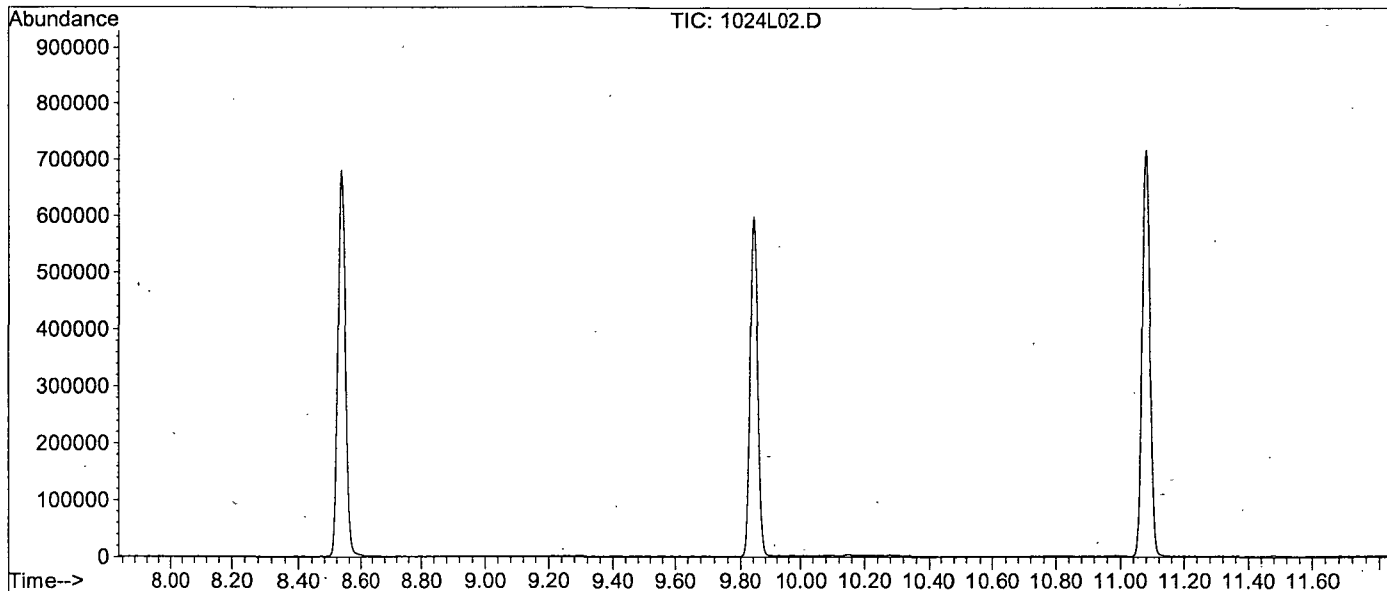
Spectrum Information: Average of 9.821 to 9.837 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.5	9771	PASS
75	95	30	60	50.3	28138	PASS
95	95	100	100	100.0	55964	PASS
96	95	5	9	7.1	3968	PASS
173	174	0.00	2	1.0	563	PASS
174	95	50	100	99.9	55907	PASS
175	174	5	9	7.8	4364	PASS
176	174	95	101	95.3	53277	PASS
177	176	5	9	7.4	3938	PASS

Data File : M:\LOKI\DATA\181023\1024L02.D  
Acq On : 24 Oct 18 7:59  
Sample : 25ug/L BFB STD 9/2/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 1  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B



Spectrum Information: Scan 2873

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.3	7643	PASS
75	95	30	60	50.5	22248	PASS
95	95	100	100	100.0	44056	PASS
96	95	5	9	8.1	3578	PASS
173	174	0.00	2	1.3	539	PASS
174	95	50	100	95.6	42112	PASS
175	174	5	9	7.3	3075	PASS
176	174	95	101	95.4	40184	PASS
177	176	5	9	7.6	3053	PASS

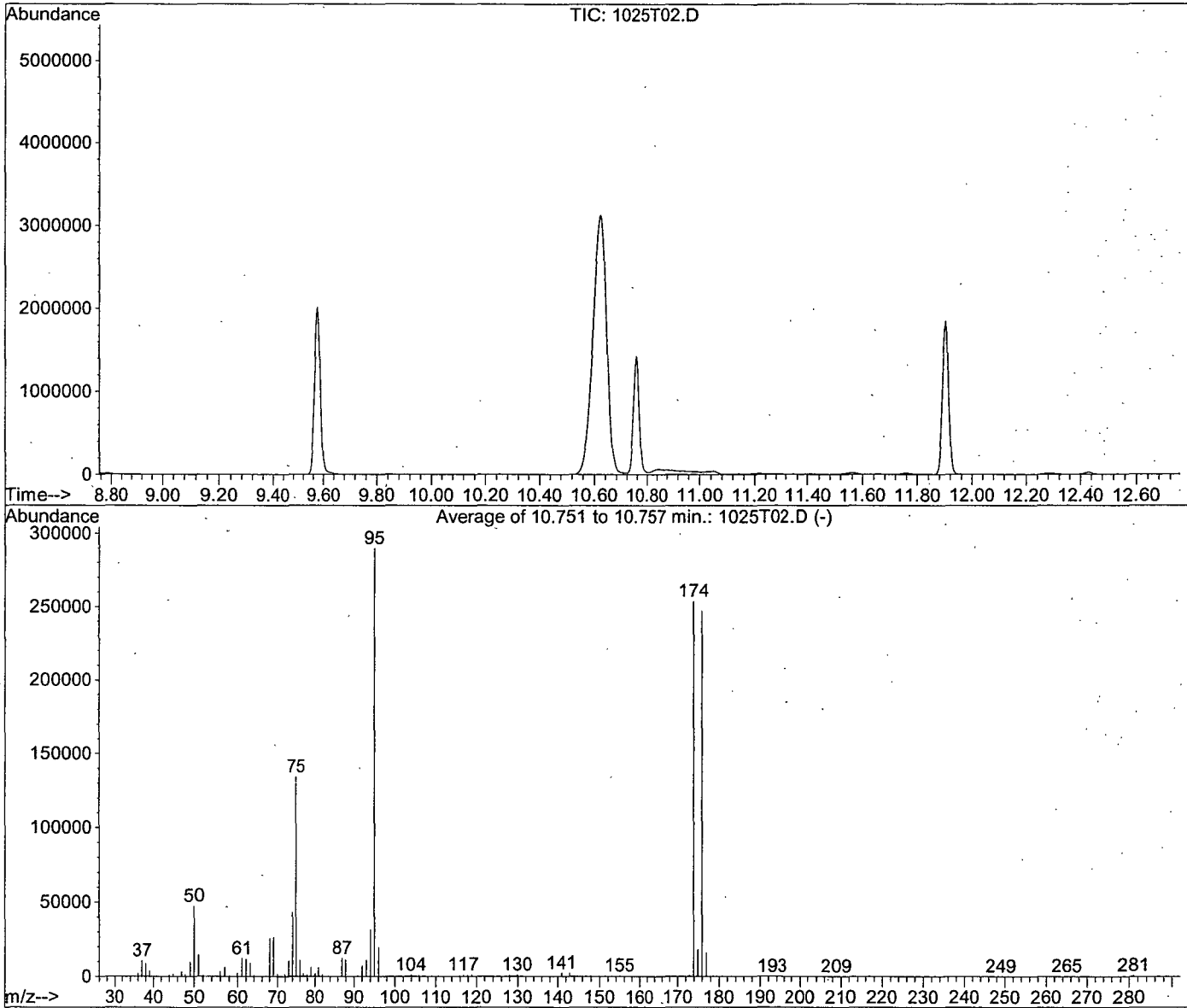


BFB

Data File : M:\THOR\DATA\T181024\1025T02.D  
Acq On : 25 Oct 18 12:09  
Sample : 25ug/mL BFB STD 9/2/18  
Misc : IS&S 10/15/18,8/13/18

Vial: 1  
Operator: DG,SV, CMM.PM,KV  
Inst : Thor  
Multiplr: 1.00

Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
Title : METHOD 8260B



Spectrum Information: Average of 10.751 to 10.757 min.

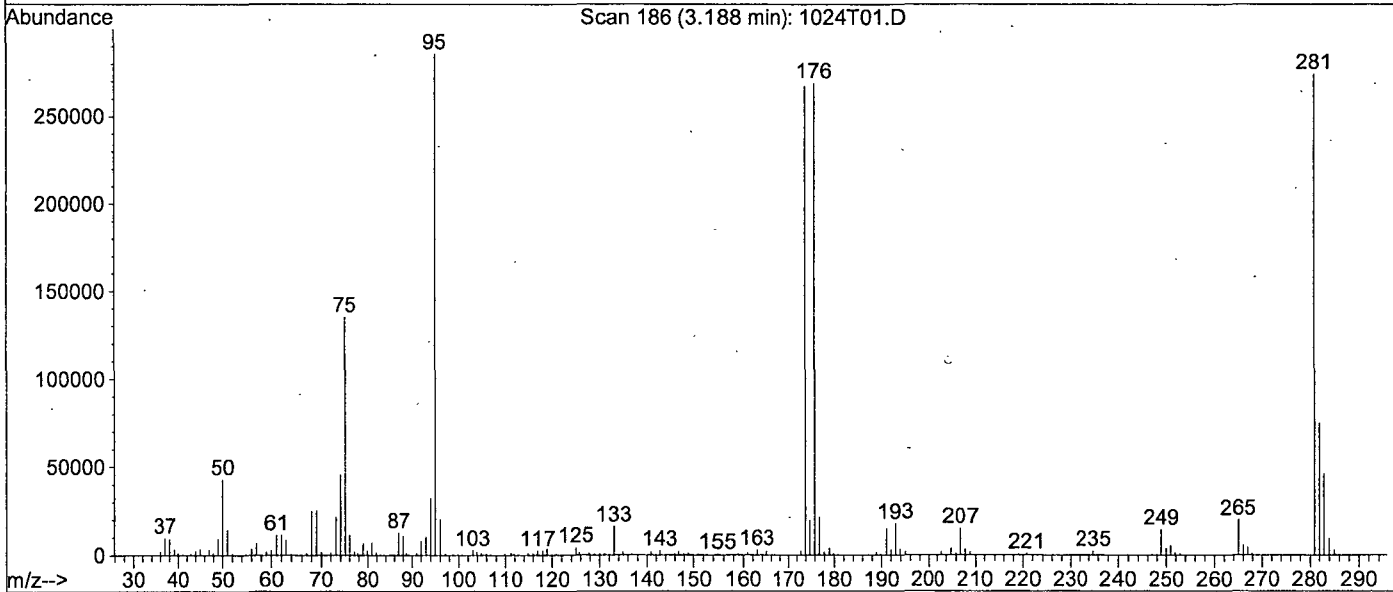
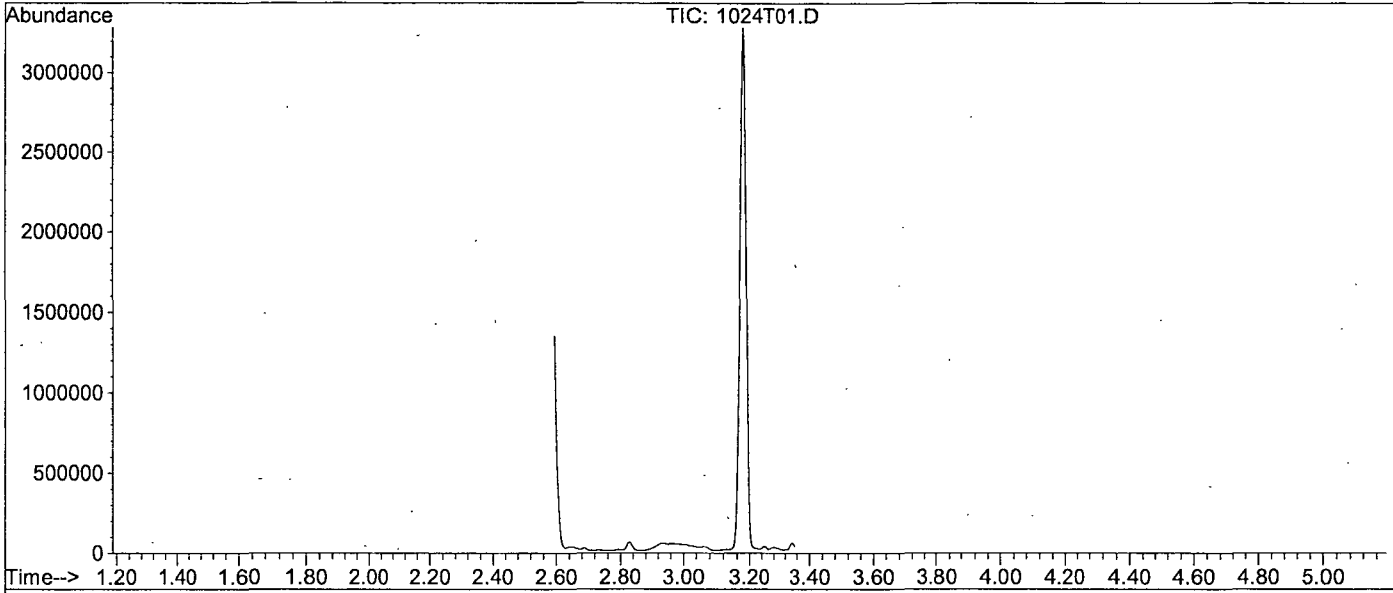
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.4	47445	PASS
75	95	30	60	46.4	134427	PASS
95	95	100	100	100.0	289749	PASS
96	95	5	9	6.8	19668	PASS
173	174	0.00	2	0.4	1096	PASS
174	95	50	100	87.5	253653	PASS
175	174	5	9	7.2	18384	PASS
176	174	95	101	97.3	246891	PASS
177	176	5	9	6.5	16158	PASS

BFB

Data File : M:\THOR\DATA\T181024\1024T01.D  
Acq On : 24 Oct 18 9:30  
Sample : 25ug/mL BFB STD 9/2/18  
Misc : 2ul

Vial: 1  
Operator: DG,SV, CMM.PM,KV  
Inst : Thor  
Multiplr: 1.00

Method : M:\THOR\DATA\T181024\T1024W.M (RTE Integrator)  
Title : METHOD 8260B



Spectrum Information: Scan 186

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.0	42984	PASS
75	95	30	60	47.3	135168	PASS
95	95	100	100	100.0	285696	PASS
96	95	5	9	7.1	20400	PASS
173	174	0.00	2	0.8	2243	PASS
174	95	50	100	93.6	267328	PASS
175	174	5	9	7.3	19552	PASS
176	174	95	101	100.6	269056	PASS
177	176	5	9	8.0	21616	PASS

## Loki 8260 Standard Prep

Loki 8260 Water Calibration Curve										
0.3ug/L						Prepared By (Initials): DG				
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.3ug/L	5	Prepared 10/23/18	10/31/18	N/A	3uL	50mL	P&T Water	0.3
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	3uL			0.3
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	3uL			0.3
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	2uL			10
0.5ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.5ug/L	5	Prepared 10/23/18	10/31/18	N/A	5uL	50mL	P&T Water	0.5
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	5uL			0.5
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	5uL			0.5
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	5uL			25
1.0ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	1.0ug/L	5	Prepared 10/23/18	10/31/18	N/A	10uL	50mL	P&T Water	1
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	10uL			1
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	10uL			1
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	10uL			50
2.0ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	2.0ug/L	5	Prepared 10/23/18	10/31/18	N/A	20uL	50mL	P&T Water	2
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	20uL			2
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	20uL			2
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	15uL			75
5ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	5ug/L	50	Prepared 10/23/18	12/22/18	N/A	5uL	50mL	P&T Water	5
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	5uL			5
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	5uL			5
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	5uL			5
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	20uL			100
10ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	10ug/L	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	25uL			125

20ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	20ug/L	50	Prepared 10/23/18	12/22/18	N/A	20uL	50mL	P&T Water	20
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	20uL			20
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	20uL			20
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	20uL			20
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	30uL			150
40ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	40ug/L	50	Prepared 10/23/18	12/22/18	N/A	40uL	50mL	P&T Water	40
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	40uL			40
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	35uL			175
100ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	100ug/L	50	Prepared 10/23/18	12/22/18	N/A	100uL	50mL	P&T Water	100
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	100uL			100
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	100uL			100
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	100uL			100
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	40uL			200
Loki 8260 Water Second Source (SS)										
Prepared: 10/23/18										
Expires: 11/22/18										
Prepared By (Initials): <u>DG</u>										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 4	Phenova	8260 Water SS	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 5	O2SI	8260 Water SS	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 6	Various	8260 Water SS	50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. TBA	Various	8260 Water SS	250	Prepared 10/23/18	10/31/18	N/A	25uL			250
8260 Water Continuing Calibrations (CCV)/ Lab Control Spikes (LCS)										
Prepared: 10/23/18										
Expires: 10/24/18										
Prepared By (Initials): <u>DG</u>										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	CCV/ LCS	50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. TBA	Various	CCV/ LCS	250	Prepared 10/23/18	10/31/18	N/A	25uL			125
LCS (X4 Ketones)										
Prepared: 10/23/18										
Expires: 10/24/18										
Prepared By (Initials): <u>DG</u>										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	LCS X4 Ketones	50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. TBA	Various	LCS X4 Ketones	250	Prepared 10/23/18	10/31/18	N/A	25uL			125

<b>Loki 8260 Water Surrogate</b>										
Prepared: 09/28/18						Prepared By (Initials): DG				
Expires: 04/02/19										
Methanol Lot No: 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260 Surrogate Solution	O2SI	120002-01	2,000	275545-36334	09/28/19	04/02/19	375uL	15mL	Methanol	50
<b>Loki 8260 Water Internal Standard</b>										
Prepared: 09/28/18						Prepared By (Initials): DG				
Expires: 06/29/19										
Methanol Lot No: 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Internal Standard Solution	O2SI	120004-02	2,000	326533-38434	06/29/19	04/27/21	375uL	15mL	Methanol	50

### Thor 8260 Standard Prep

Thor 8260 Water Calibration Curve										
0.3ug/L					Prepared By (Initials): <u>PC</u>					
Prepared: 10/24/18										
Expires: 11/23/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.3ug/L	5	Prepared 10/23/18	10/31/18	N/A	3uL	50mL	P&T Water	0.3
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	3uL			0.3
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	3uL			0.3
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	2uL			10
0.5ug/L										
Prepared: 10/24/18										
Expires: 11/23/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.5ug/L	5	Prepared 10/23/18	10/31/18	N/A	5uL	50mL	P&T Water	0.5
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	5uL			0.5
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	5uL			0.5
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	5uL			25
1.0ug/L										
Prepared: 10/24/18										
Expires: 11/23/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	1.0ug/L	5	Prepared 10/23/18	10/31/18	N/A	10uL	50mL	P&T Water	1
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	10uL			1
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	10uL			1
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	10uL			50
2.0ug/L										
Prepared: 10/24/18										
Expires: 11/23/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	2.0ug/L	5	Prepared 10/23/18	10/31/18	N/A	20uL	50mL	P&T Water	2
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	20uL			2
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	20uL			2
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	15uL			75
5ug/L										
Prepared: 10/24/18										
Expires: 11/23/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	5ug/L	50	Prepared 10/23/18	12/22/18	N/A	5uL	50mL	P&T Water	5
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	5uL			5
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	5uL			5
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	5uL			5
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	20uL			100
10ug/L										
Prepared: 10/24/18										
Expires: 11/23/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	10ug/L	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	25uL			125

20ug/L										
Prepared: 10/24/18										
Expires: 11/23/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	20ug/L	50	Prepared 10/23/18	12/22/18	N/A	20uL	50mL	P&T Water	20
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	20uL			20
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	20uL			20
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	20uL			20
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	30uL			150
40ug/L										
Prepared: 10/24/18										
Expires: 11/23/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	40ug/L	50	Prepared 10/23/18	12/22/18	N/A	40uL	50mL	P&T Water	40
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	40uL			40
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	35uL			175
100ug/L										
Prepared: 10/24/18										
Expires: 11/23/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	100ug/L	50	Prepared 10/23/18	12/22/18	N/A	100uL	50mL	P&T Water	100
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	100uL			100
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	100uL			100
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	100uL			100
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	40uL			200
Thor 8260 Water Second Source (SS)										
Prepared: 10/24/18										
Expires: 11/23/18										
						Prepared By (Initials): PC				
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 4	Phenova	8260 Water SS	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 5	O2SI	8260 Water SS	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 6	Various	8260 Water SS	50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. TBA	Various	8260 Water SS	250	Prepared 10/23/18	10/31/18	N/A	25uL			250
8260 Water Continuing Calibrations (CCV)/ Lab Control Spikes (LCS)										
Prepared: 10/24/18										
Expires: 10/25/18										
						Prepared By (Initials): PC				
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	CCV/ LCS	50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. TBA	Various	CCV/ LCS	250	Prepared 10/23/18	10/31/18	N/A	25uL			125
LCS (X4 Ketones)										
Prepared: 10/24/18										
Expires: 10/25/18										
						Prepared By (Initials): PC				
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	LCS X4 Ketones	50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. TBA	Various	LCS X4 Ketones	250	Prepared 10/23/18	10/31/18	N/A	25uL			125

<b>Thor 8260 Water Surrogate</b>										
Prepared: 08/13/18						Prepared By (Initials): <u>PC</u>				
Expires: 04/02/19										
Methanol Lot No: 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260 Surrogate Solution	O2SI	120002-01	2,000	275545-36329	06/09/19	04/02/19	375uL	15mL	Methanol	50
<b>Thor 8260 Water Internal Standard</b>										
Prepared: 06/29/18						Prepared By (Initials): <u>PC</u>				
Expires: 04/13/19										
Methanol Lot No: 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Internal Standard Solution	O2SI	120004-02	2,000	326533-38442	04/13/19	04/27/21	375uL	15mL	Methanol	50



### Primary and Secondary Working Standards

Primary Standards										
VOA STD 7										
Prepared: 10/23/18 C										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses STD	Phenova	ALO-101206	2,000	CL12418-39660	09/13/19	04/30/23	100uL	4mL	Methanol	50
Hexachloroethane	Absolute	70199	1,000	071317-39700	09/04/19	05/14/28	200uL			50
Benzyl Chloride	O2SI	020228-02	1,000	041918-39343	09/04/19	04/19/19	200uL			50
VOA STD 8										
Prepared: 10/23/18 D										
Expires: 10/31/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Additions STD	Phenova	ALO-101206	2,000	CL12622-39323	06/20/19	05/31/20	100uL	4mL	Methanol	50
VOC's-54 COMP	Phenova	ALO-101200	2,000	CL12490-39490	06/20/19	05/30/20	100uL			50
Vinyl Acetate	Phenova	ALO-101228	2,000	CL12805-39766	09/06/19	10/31/18	100uL			50
VOA STD TBA										
Prepared: 10/23/18 E										
Expires: 10/31/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOC Mix	Phenova	ALO-130176	2,000	CL12228-39680	09/06/19	08/31/28	500uL	4mL	Methanol	250
Acrolein	Phenova	ALO-101224	5,000	CL12863-39768	09/06/19	10/31/18	200uL			250
VOA STD 1										
Prepared: 10/23/18 F										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
2-CEVE	O2SI	020145-02	2,000	292247-38407	09/06/19	11/12/19	50	2mL	Methanol	50
VOA STD 2										
Prepared: 10/23/18 G										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
HSL's Ketone Solution	O2SI	121020-05	2,000	CL12729-39663	10/17/19	08/01/28	100	4mL	Methanol	50
VOA STD 9										
Prepared: 10/23/18 H										
Expires: 10/31/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 7	O2SI	VOA STD. 9	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5
VOA STD. 8	O2SI	VOA STD. 9	50	Prepared 10/23/18	10/31/18	N/A	200uL			5
VOA STD. 10										
Prepared: 10/23/18 I										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 1	O2SI	VOA STD. 10	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5
VOA STD. 12										
Prepared: 10/23/18 J										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 2	O2SI	VOA STD. 12	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5

Second Source (SS) Standards										
VOA STD. 3										
Prepared: 10/23/18 K										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Ketones Standard	Phenova	ALO-101211	2,000	CL12730-39669	07/25/19	08/01/28	50uL	2mL	Methanol	50
VOA STD. 5										
Prepared: 10/23/18 L										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260 Gases (SS)	Phenova	ALO-101206	2,000	CL12417-39649	09/13/19	04/30/23	50uL	2mL	Methanol	50
2-CEVE (SS)	O2SI	020145-02-02-SS	2,000	71018-39539	06/20/19	11/12/19	50uL			50
VOA STD. 6										
Prepared: 10/23/18 M										
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
502.2 Calibration STD. (54-compounds)	Phenova	ALO-101200	2,000	CL12489-39484	06/20/19	05/31/23	50uL	2mL	Methanol	50
Vinyl Acetate	Phenova	ALO-101228	1,000	CL12869-39767	09/06/19	10/31/18	50uL			50
Hexachloroethane	O2SI	020049-02	1,000	218051281	06/20/19	05/14/28	50uL			50
VOA STD. TBA										
Prepared: 10/23/18 N										
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOA Mix (4-3)	Phenova	ALO-130179	2,000	CL12228-39309	08/13/19	08/31/20	250uL	2mL	Methanol	250
Acrolein	Phenova	ALO-101224	5,000	CL12868-39769	09/06/19	10/31/18	100uL			250
VOA STD. 0										
Prepared: 10/23/18 O										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Addition STD.	Phenova	ALO-130175	2,000	CL12230-39138	07/25/19	01/31/20	50uL	2mL	Methanol	50
BFB Tune										
Prepared: 08/29/18										
Expires: 08/07/19										
Methanol Lot No. 9077-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
4-Bromofluorobenzene	O2SI	020135-03	2,500	320514-38965	08/07/19	09/03/20	20uL	2mL	Methanol	25

## Injection Log

Directory: M:\LOKI\DATA\181023\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1023L01.D	1	25ug/L BFB STD 9/2/18	2ul	23 Oct 18 12:54
2	2	1023L03.D	1	0.3ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 13:39
3	3	1023L04.D	1	0.5ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 14:07
4	4	1023L05.D	1	1.0ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 14:35
5	5	1023L06.D	1	5.0ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 15:03
6	6	1023L07.D	1	10ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 15:31
7	7	1023L08.D	1	20ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 15:59
8	8	1023L09.D	1	50ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 16:27
9	9	1023L10.D	1	100ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 16:55
10	12	1023L13.D	1	25ug/L BFB STD 9/2/18	IS&S 9/28/18,8/23/18	23 Oct 18 18:19
11	13	1023L14.D	1	(SS) 10ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 18:47
12	1	1024L02.D	1	25ug/L BFB STD 9/2/18	IS&S 9/28/18,8/23/18	24 Oct 18 7:59
13	3	1024L04.D	1	181024A CCV/LCS 10ug/L	IS&S 9/28/18,8/23/18	24 Oct 18 8:55
14	4	1024L05.D	1	181024A LCSD 10ug/L	IS&S 9/28/18,8/23/18	24 Oct 18 9:23
15	10	1024L11.D	1	181024A Blk	IS&S 9/28/18,8/23/18	24 Oct 18 12:11
16	12	1024L13.D	1	AZ81583W01	IS&S 9/28/18,8/23/18	24 Oct 18 13:07
17	13	1024L14.D	1	AZ81586W01	IS&S 9/28/18,8/23/18	24 Oct 18 13:35
18	17	1024L18.D	1	AZ81584W01	IS&S 9/28/18,8/23/18	24 Oct 18 15:27
19	18	1024L19.D	1	AZ81585W01	IS&S 9/28/18,8/23/18	24 Oct 18 15:55
20	21	1024L22.D	1	AZ81584W02 MS 10ug/L	IS&S 9/28/18,8/23/18	24 Oct 18 17:19
21	22	1024L23.D	1	AZ81584W03 MSD 10ug/L	IS&S 9/28/18,8/23/18	24 Oct 18 17:47
22	27	1024L28.D	1	Ending CCV 10ug/L 10/24/18	IS&S 9/28/18,8/23/18	24 Oct 18 20:07

## Injection Log

Directory: M:\THOR\DATA\T181024\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1024T01.D	1	25ug/mL BFB STD 9/2/18	2ul	24 Oct 18 9:30
2	2	1024T03.D	1	0.3ug/L VOC STD 18/10/24	IS&S 10/15/18,8/13/18	24 Oct 18 10:18
3	3	1024T04.D	1	0.5ug/L VOC STD 18/10/24	IS&S 10/15/18,8/13/18	24 Oct 18 10:46
4	5	1024T06.D	1	2.0ug/L VOC STD 18/10/24	IS&S 10/15/18,8/13/18	24 Oct 18 11:43
5	6	1024T07.D	1	5.0ug/L VOC STD 18/10/24	IS&S 10/15/18,8/13/18	24 Oct 18 12:12
6	7	1024T08.D	1	10ug/L VOC STD 18/10/24	IS&S 10/15/18,8/13/18	24 Oct 18 12:40
7	8	1024T09.D	1	20ug/L VOC STD 18/10/24	IS&S 10/15/18,8/13/18	24 Oct 18 13:09
8	9	1024T10.D	1	40ug/L VOC STD 18/10/24	IS&S 10/15/18,8/13/18	24 Oct 18 13:37
9	10	1024T11.D	1	100ug/L VOC STD 18/10/24	IS&S 10/15/18,8/13/18	24 Oct 18 14:06
10	1	1025T02.D	1	25ug/mL BFB STD 9/2/18	IS&S 10/15/18,8/13/18	25 Oct 18 12:09
11	2	1025T03.D	1	(SS)10ug/L VOC STD 18/10/25	IS&S 10/15/18,8/13/18	25 Oct 18 12:37
12	3	1025T04.D	1	181025A CCV 10ug/L	IS&S 10/15/18,8/13/18	25 Oct 18 13:06
13	4	1025T05.D	1	181025A LCS 10ug/L	IS&S 10/15/18,8/13/18	25 Oct 18 13:34
14	5	1025T06.D	1	181025A LCSD 10ug/L	IS&S 10/15/18,8/13/18	25 Oct 18 14:16
15	7	1025T08.D	1	181025A blk	IS&S 10/15/18,8/13/18	25 Oct 18 15:13
16	10	1025T11.D	1	AZ81587W02	IS&S 10/15/18,8/13/18	25 Oct 18 16:39
17	26	1025T30.D	1	Ending CCV 10ug/L 18/10/25	IS&S 10/15/18,8/13/18	26 Oct 18 6:46

**ORGANICS**  
**Calibration Data**

**APPL, INC.**

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

**Form 6**  
**Initial Calibration**

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: water

SDG No: \_\_\_\_\_  
Initial Cal. Date: 09/19/18  
Instrument: Loki

Initials: DG

0919L33.D    0919L34.D    0919L35.D    0919L36.D    0919L37.D    0919L38.D    0919L39.D

	Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r <sup>2</sup>	Q	MRF
1	I Fluorobenzene (IS)																
2	TMHBL Gasoline C6-C10	15.4	6.882	3.929	1.907	1.491	1.402	1.324				4.6	112	TMHBL	0.999		
3	I Chlorobenzene-D5 (IS)																
4	I 1,4-Dichlorobenzene-D (IS)																
5																	
6																	
7																	
8																	
9																	
10																	
11																	
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35																	

Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\180915\0919L33.D Vial: 32  
 Acq On : 19 Sep 18 21:20 Operator: PM,DG,SV,CMM,KV  
 Sample : 20ug/L VOC GAS STD 18/09/19 Inst : Loki  
 Misc : IS&S 8/30/18,8/23/18 Multiplr: 1.00

Quant Time: Sep 20 8:24 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:17:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	655321	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	888041	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	863044	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	8053939m	23.563	ppb	100

Quantitation Report

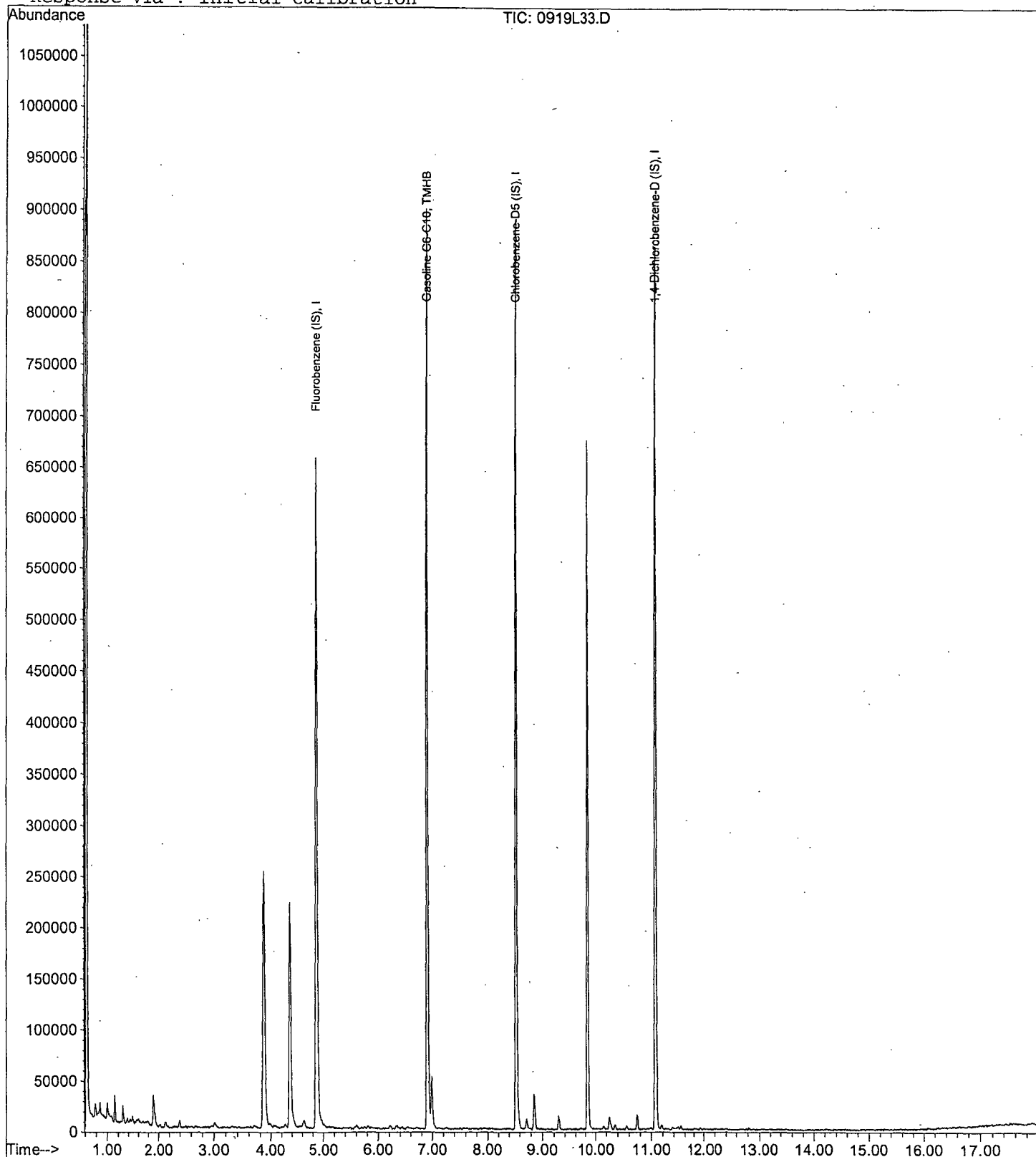
Data File : M:\LOKI\DATA\180915\0919L33.D  
Acq On : 19 Sep 18 21:20  
Sample : 20ug/L VOC GAS STD 18/09/19  
Misc : IS&S 8/30/18,8/23/18

Vial : 32  
Operator : PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr : 1.00

Quant Time: Sep 20 8:24 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\180915\0919L34.D Vial: 33  
 Acq On : 19 Sep 18 21:48 Operator: PM,DG,SV,CMM,KV  
 Sample : 50ug/L VOC GAS STD 18/09/19 Inst : Loki  
 Misc : IS&S 8/30/18,8/23/18 Multiplr: 1.00

Quant Time: Sep 20 8:25 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:17:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	668290	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	889744	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	878355	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	9197833m	59.385	ppb	100

Quantitation Report

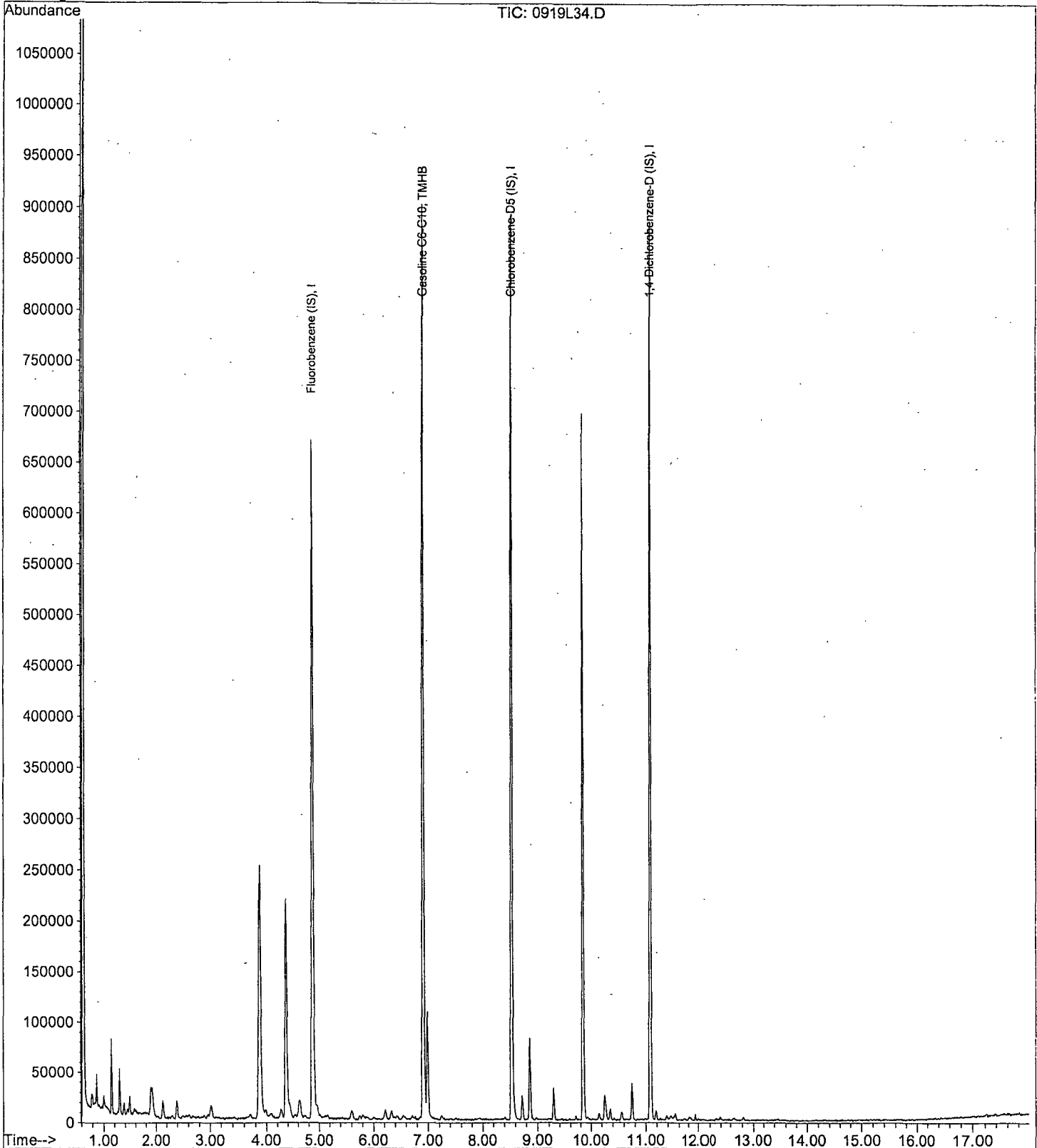
Data File : M:\LOKI\DATA\180915\0919L34.D  
Acq On : 19 Sep 18 21:48  
Sample : 50ug/L VOC GAS STD 18/09/19  
Misc : IS&S 8/30/18,8/23/18

Vial : 33  
Operator : PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr : 1.00

Quant Time: Sep 20 8:25 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\180915\0919L35.D  
Acq On : 19 Sep 18 22:16  
Sample : 100ug/L VOC GAS STD 18/09/19  
Misc : IS&S 8/30/18,8/23/18

Vial: 34  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Sep 20 8:25 2018

Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:17:13 2018  
Response via : Initial Calibration  
DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.88	TIC	670166	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	873087	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	899572	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	10532909m	106.890	ppb	100

Quantitation Report

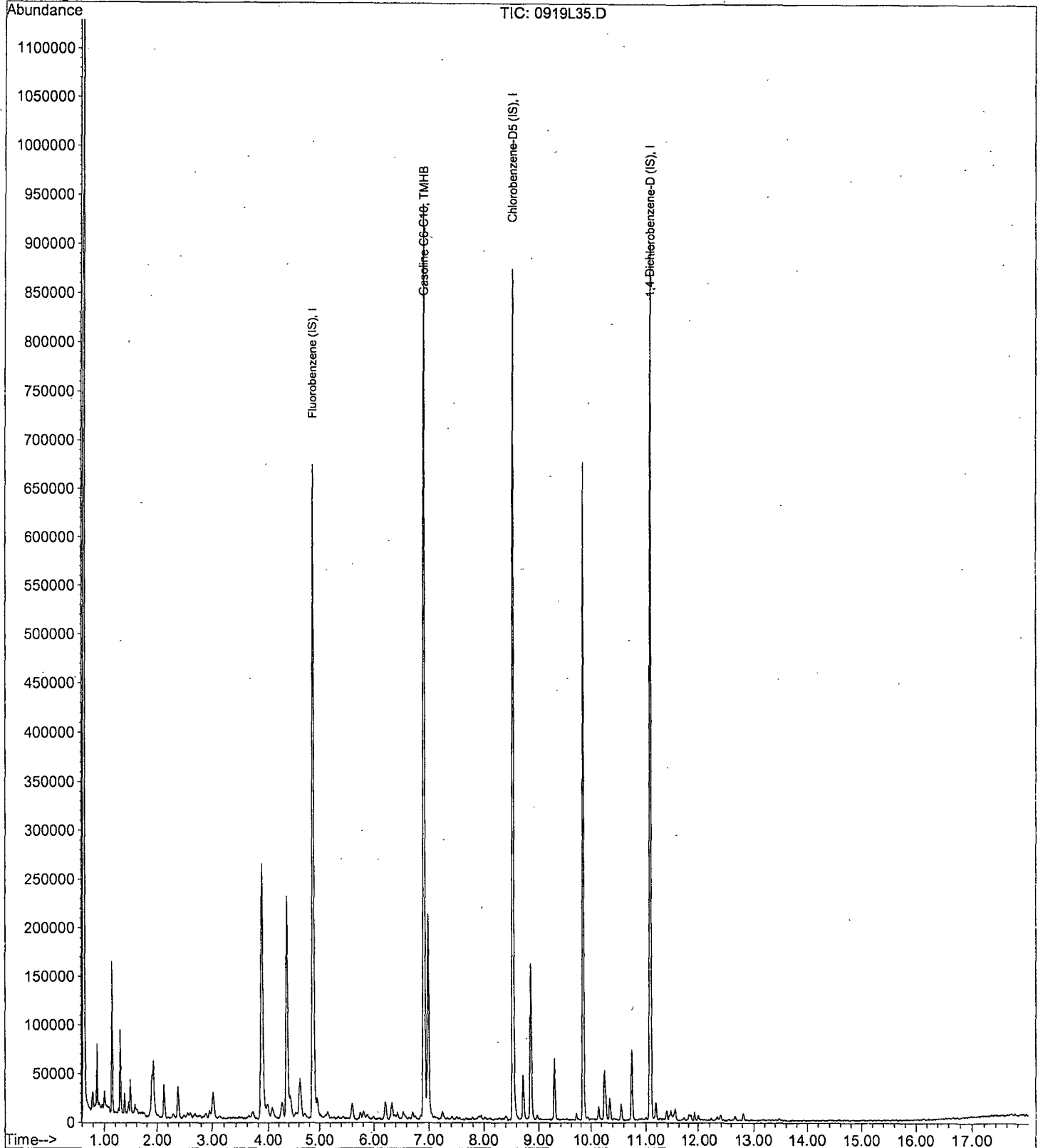
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Acq On : 19 Sep 18 22:16  
Sample : 100ug/L VOC GAS STD 18/09/19  
Misc : IS&S 8/30/18,8/23/18

Vial: 34  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Sep 20 8:25 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\180915\0919L36.D Vial: 35  
 Acq On : 19 Sep 18 22:44 Operator: PM,DG,SV,CMM,KV  
 Sample : 300ug/L VOC GAS STD 18/09/19 Inst : Loki  
 Misc : IS&S 8/30/18,8/23/18 Multiplr: 1.00

Quant Time: Sep 20 8:26 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:17:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.88	TIC	718087	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	969706	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	991570	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	8.54	TIC	16432098m	281.147	ppb	100

Quantitation Report

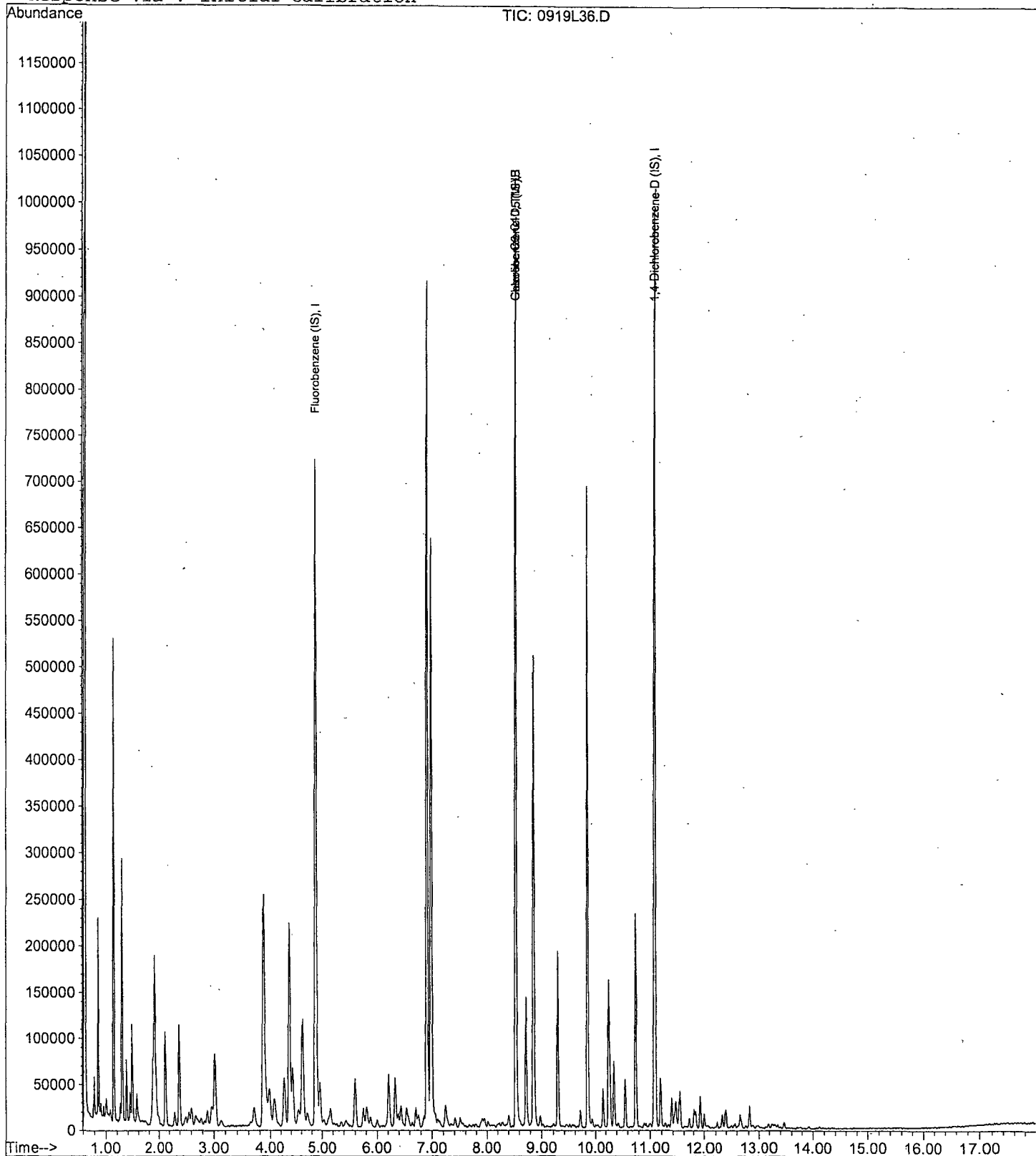
Data File : M:\LOKI\DATA\180915\0919L36.D  
Acq On : 19 Sep 18 22:44  
Sample : 300ug/L VOC GAS STD 18/09/19  
Misc : IS&S 8/30/18,8/23/18

Vial: 35  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Sep 20 8:26 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\180915\0919L37.D  
 Acq On : 19 Sep 18 23:12  
 Sample : 600ug/L VOC GAS STD 18/09/19  
 Misc : IS&S 8/30/18,8/23/18

Vial: 36  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Sep 20 8:26 2018

Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:17:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	700643	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	968178	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	991178	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.99	TIC	25066879m	594.676	ppb	100

Quantitation Report

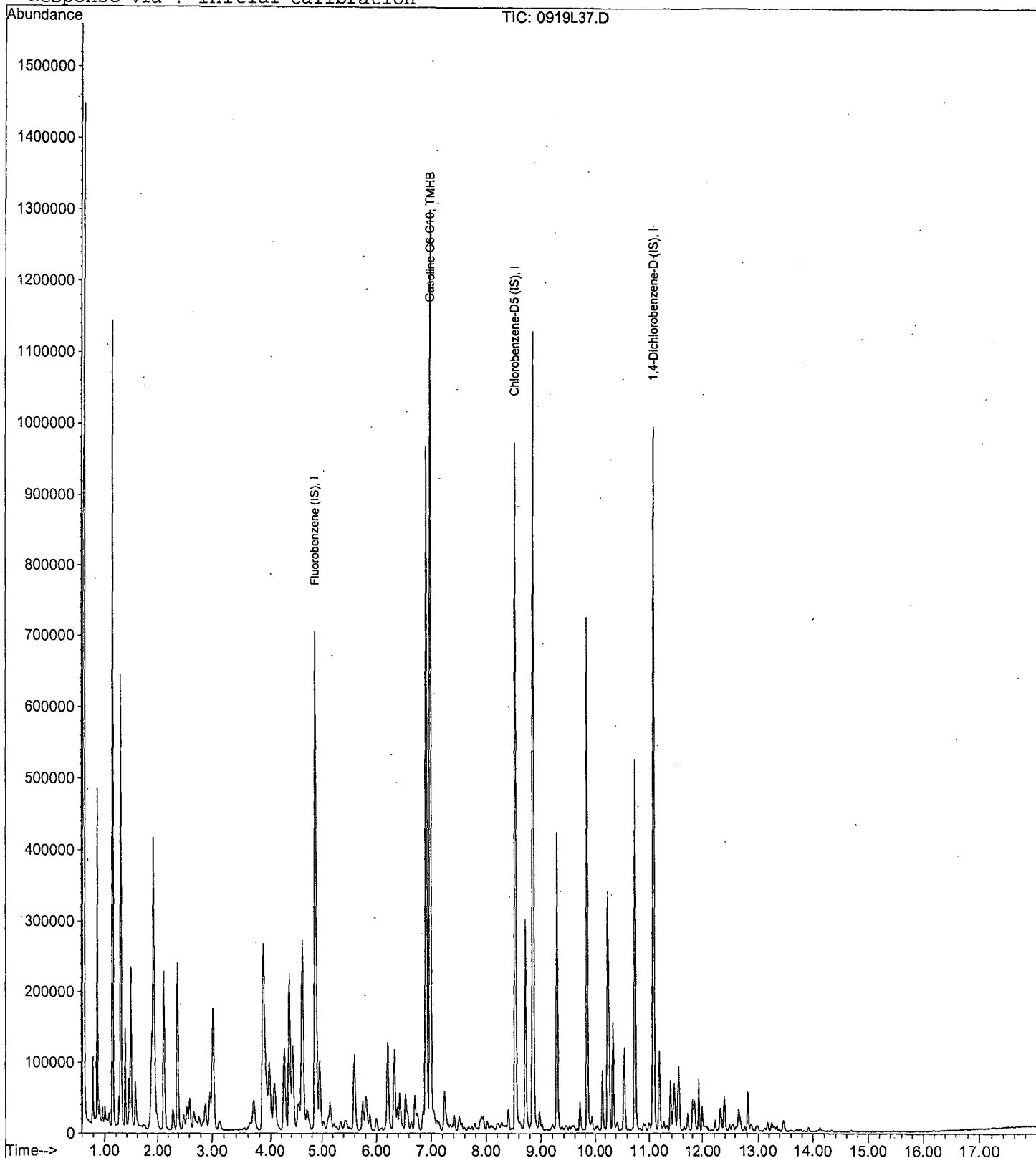
Data File : M:\LOKI\DATA\180915\0919L37.D  
Acq On : 19 Sep 18 23:12  
Sample : 600ug/L VOC GAS STD 18/09/19  
Misc : IS&S 8/30/18,8/23/18

Vial : 36  
Operator : PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr : 1.00

Quant Time: Sep 20 8:26 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\180915\0919L38.D Vial: 37  
 Acq On : 19 Sep 18 23:40 Operator: PM, DG, SV, CMM, KV  
 Sample : 800ug/L VOC GAS STD 18/09/19 Inst : Loki  
 Misc : IS&S 8/30/18, 8/23/18 Multiplr: 1.00

Quant Time: Sep 20 8:28 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:17:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.88	TIC	726019	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	990263	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	1024708	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.99	TIC	32576102m	815.772	ppb	100

Quantitation Report

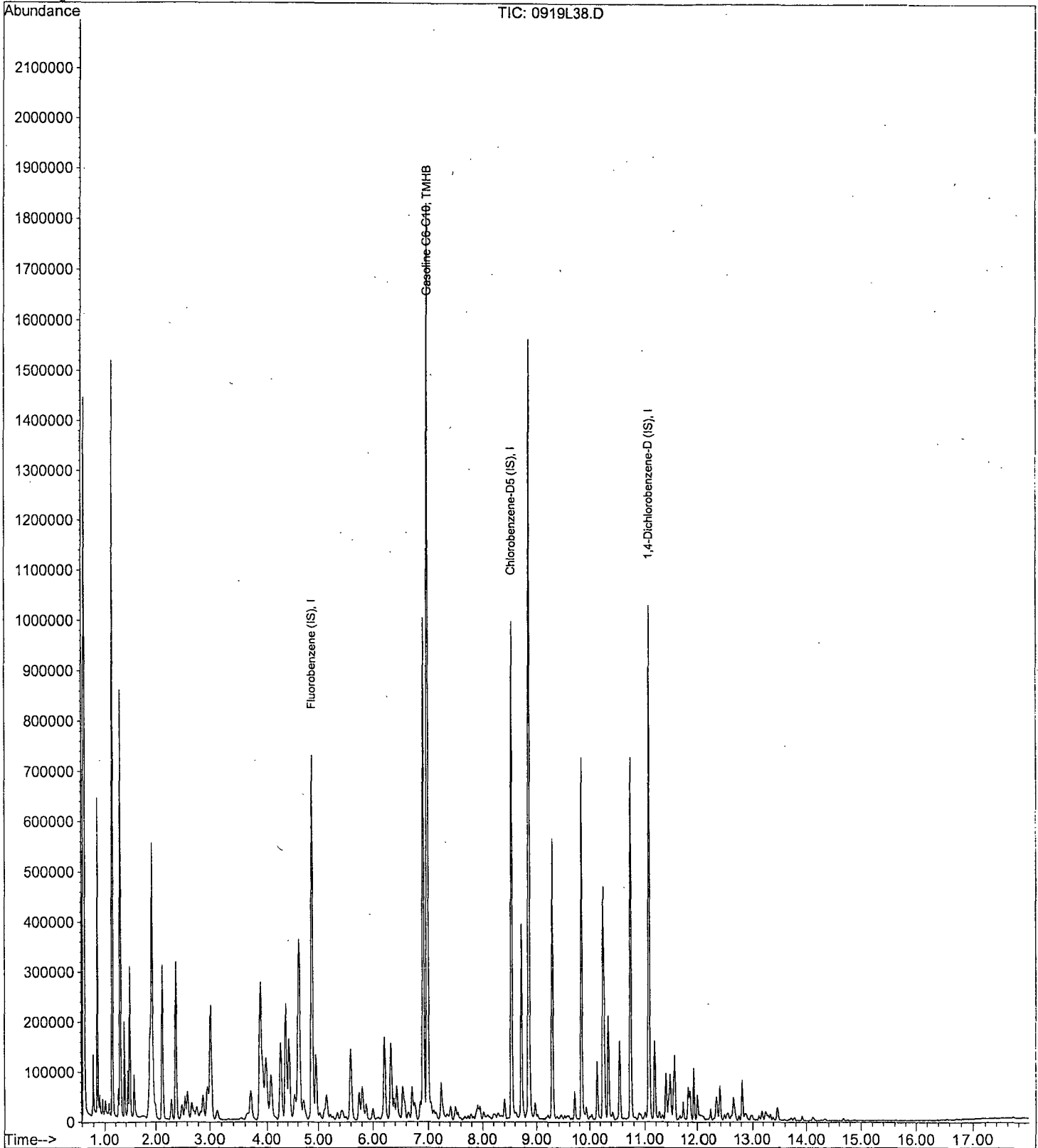
Data File : M:\LOKI\DATA\180915\0919L38.D  
Acq On : 19 Sep 18 23:40  
Sample : 800ug/L VOC GAS STD 18/09/19  
Misc : IS&S 8/30/18,8/23/18

Vial: 37  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Sep 20 8:28 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\180915\0919L39.D  
 Acq On : 20 Sep 18 00:09  
 Sample : 1000ug/L VOC GAS STD 18/09/19  
 Misc : IS&S 8/30/18,8/23/18

Vial: 38  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Sep 20 8:27 2018

Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:17:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	728891	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	1014695	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	1050391	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.99	TIC	38607524m	1012.685	ppb	100

Quantitation Report

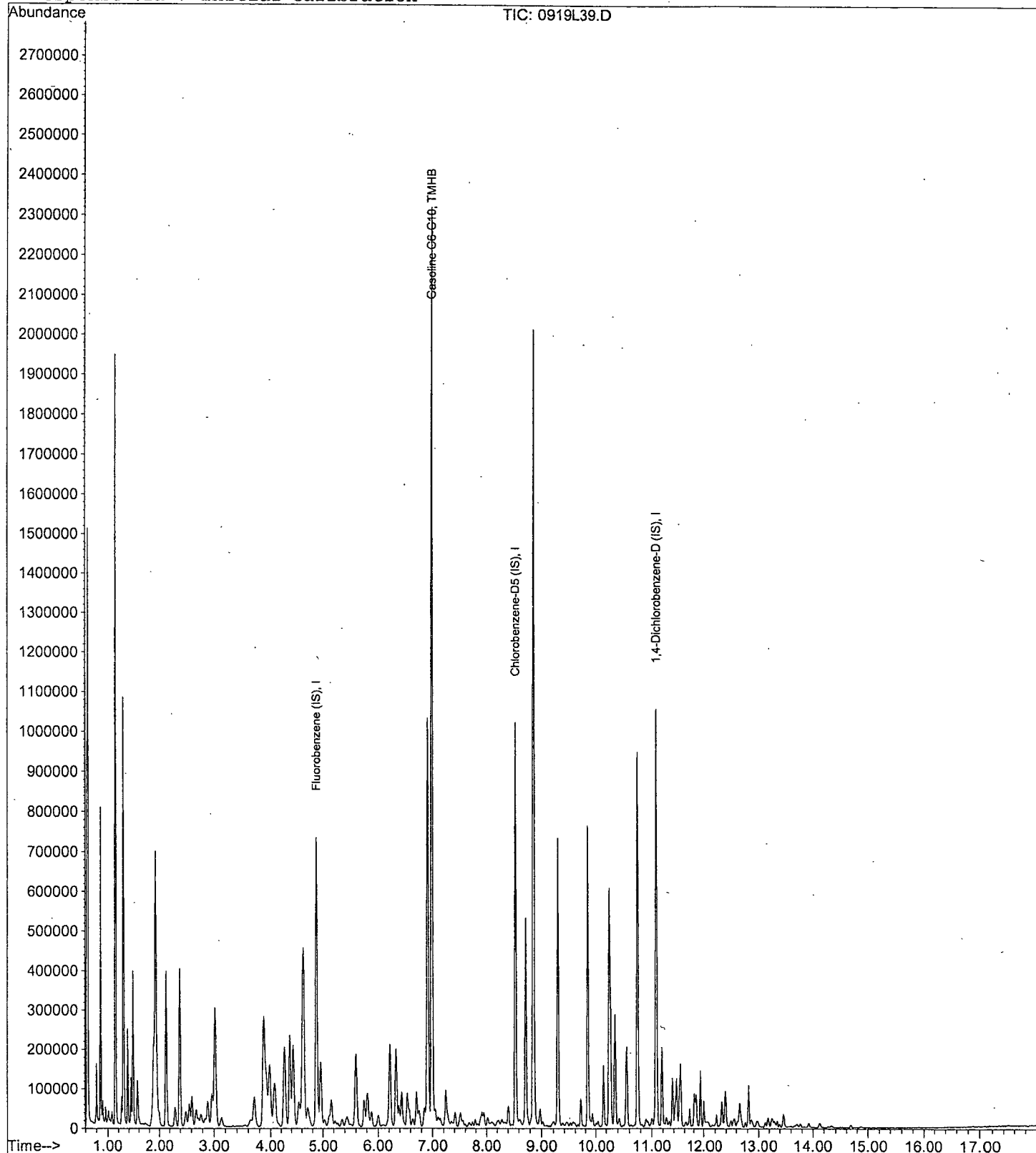
Data File : M:\LOKI\DATA\180915\0919L39.D  
Acq On : 20 Sep 18 00:09  
Sample : 1000ug/L VOC GAS STD 18/09/19  
Misc : IS&S 8/30/18,8/23/18

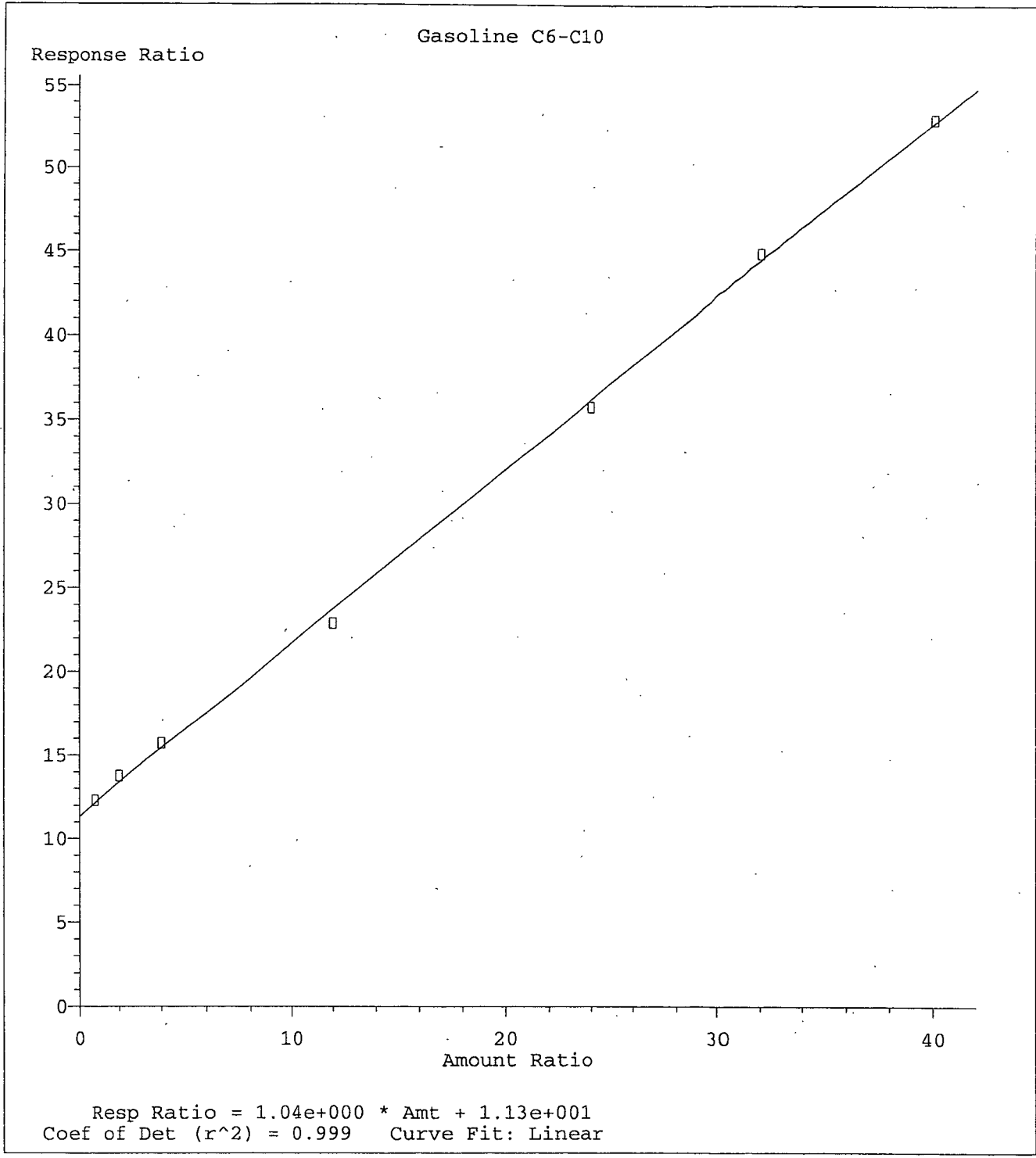
Vial: 38  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Sep 20 8:27 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration





Method Name: M:\LOKI\DATA\180915\LGAS915.M  
 Calibration Table Last Updated: Thu Sep 20 08:28:14 2018

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/23/18  
Instrument: Loki

Initials: \_\_\_\_\_

1023L03.D    1023L04.D    1023L05.D    1023L06.D    1023L07.D    1023L08.D    1023L09.D    1023L10.D

	Compound	1	2	3	4	5	6	7	8			Avg	%RSD	Type	r <sup>2</sup>	Q	MRF
1	I Fluorobenzene (IS)																
2	SL Dibromofluoromethane(S)	1.047	0.9749	0.7727	0.7744	0.8480	0.8872	0.6664	0.6255			0.82	18	SL	0.994		
3	SL 1,2-DCA-D4(S)	1.115	1.042	0.7869	0.8259	0.9321	0.9642	0.7437	0.6948			0.89	17	SL	0.994		
4	I Chlorobenzene-D5 (IS)																
5	SL Toluene-D8(S)	3.014	2.812	2.271	2.412	2.795	2.955	2.192	2.082			2.6	14	SL	0.992		
6	SL 4-Bromofluorobenzene(S)	1.092	1.017	0.8018	0.9328	1.076	1.115	0.8434	0.8110			0.96	14	SL	0.993		
7	I 1,4-Dichlorobenzene-D (IS)																
8																	
9																	
10																	
11																	
12																	
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14																	
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35																	

Data File : M:\LOKI\DATA\181023\1023L03.D  
 Acq On : 23 Oct 18 13:39  
 Sample : 0.3ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 2  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018.  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	227904	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	248256	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	139776	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	47710	3.8289	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	15.316%	
3) 1,2-DCA-D4(S)	4.36	65	50837	7.7256	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	30.904%	
5) Toluene-D8(S)	6.91	98	149671	3.5930	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	14.372%	
6) 4-Bromofluorobenzene(S)	9.84	95	54237	6.5375	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	26.152%	

Target Compounds Qvalue

Quantitation Report

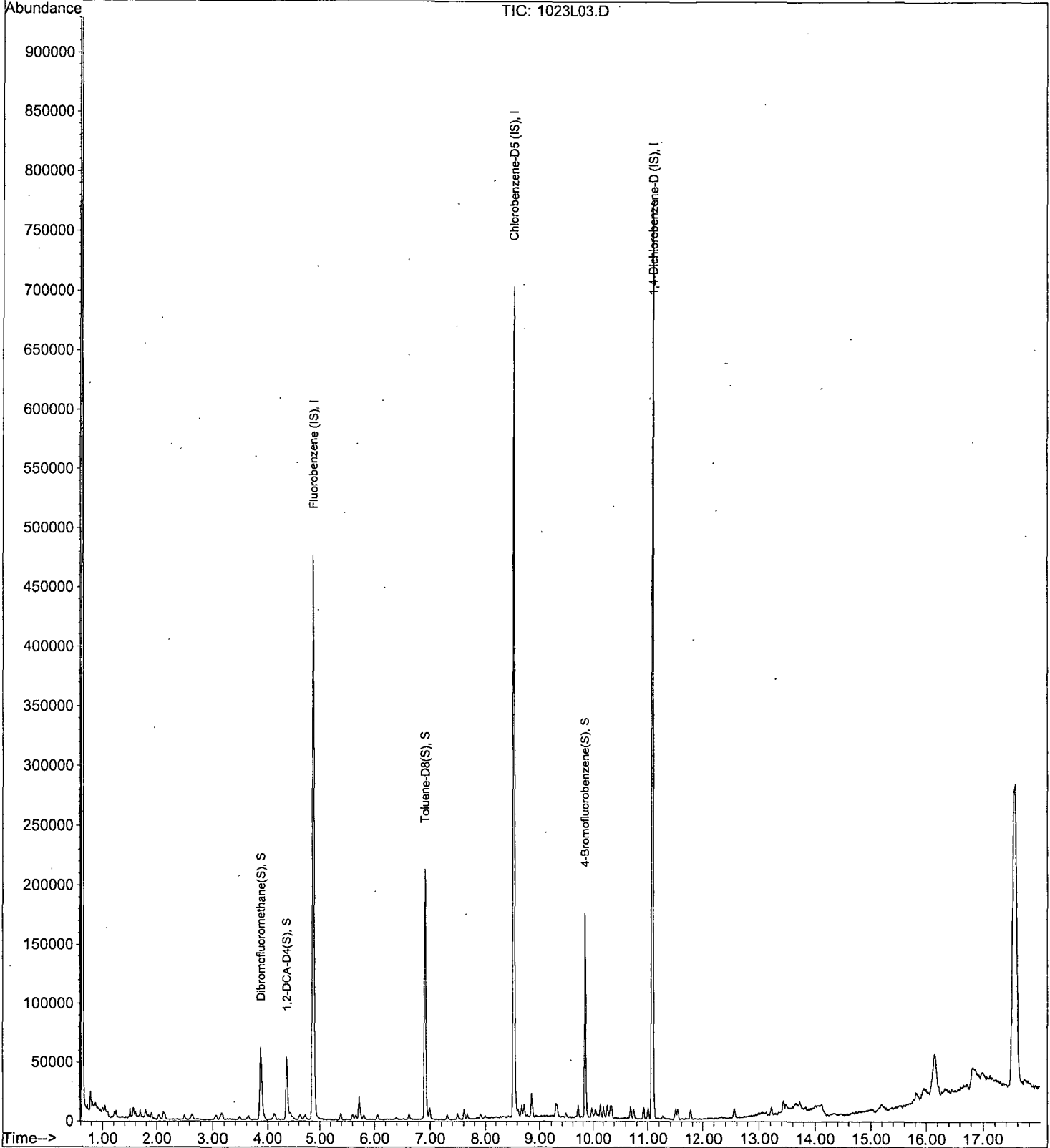
Data File : M:\LOKI\DATA\181023\1023L03.D  
Acq On : 23 Oct 18 13:39  
Sample : 0.3ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 2  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:43:23 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181023\1023L04.D  
 Acq On : 23 Oct 18 14:07  
 Sample : 0.5ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	230144	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	257024	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	140416	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	44873	3.2339	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	12.936%	
3) 1,2-DCA-D4(S)	4.36	65	47959	7.2173	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	28.868%	
5) Toluene-D8(S)	6.91	98	144541	3.0938	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	12.376%	
6) 4-Bromofluorobenzene(S)	9.84	95	52263	6.0847	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	24.340%	

Target Compounds Qvalue

Quantitation Report

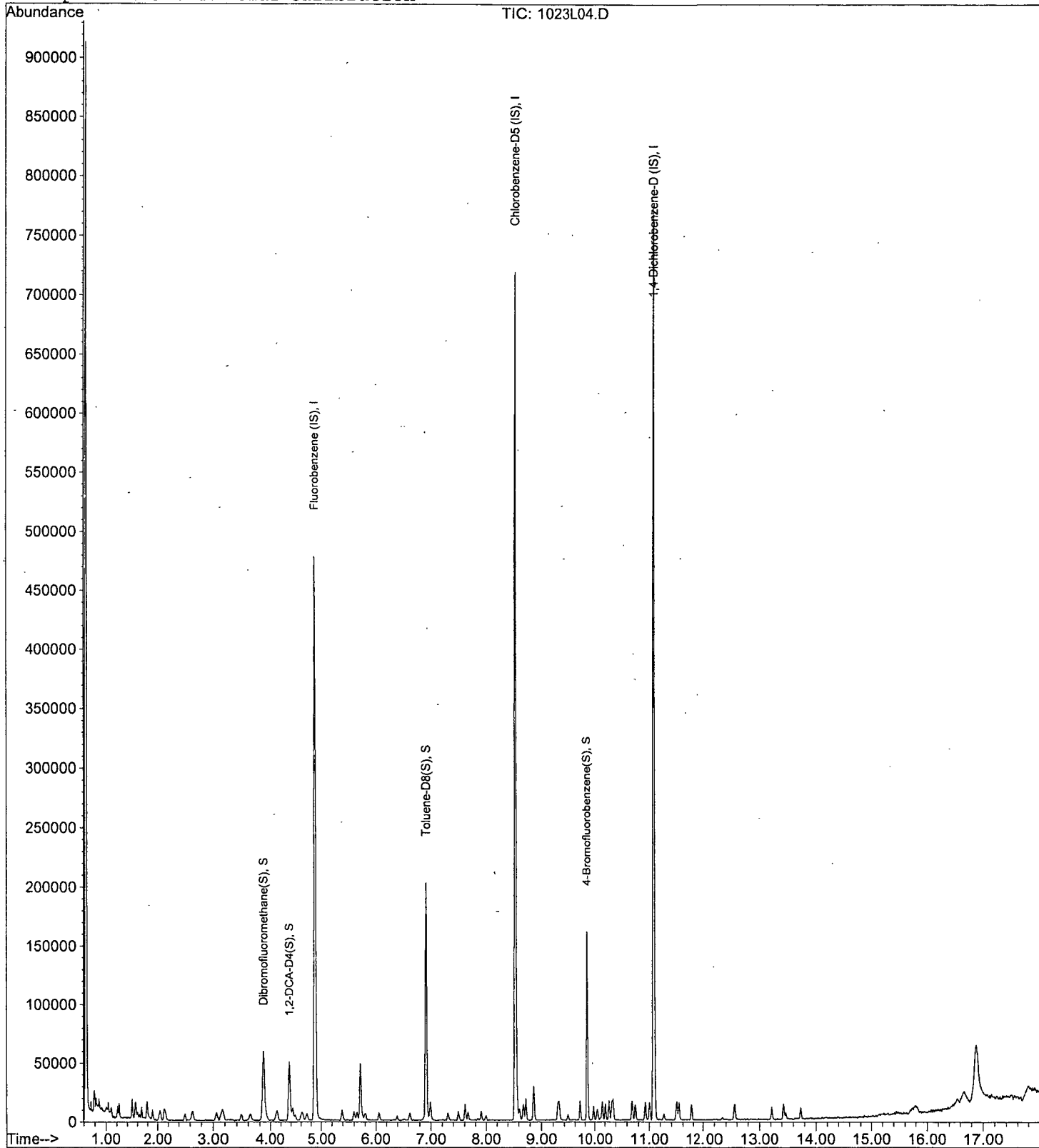
Data File : M:\LOKI\DATA\181023\1023L04.D  
Acq On : 23 Oct 18 14:07  
Sample : 0.5ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 3  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:43:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L05.D  
 Acq On : 23 Oct 18 14:35  
 Sample : 1.0ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	226944	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	244864	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	139840	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.88	111	70141	7.9599	ppb	0.00
Spiked Amount	25.000		Recovery	=	31.840%	
3) 1,2-DCA-D4(S)	4.37	65	71429	10.9008	ppb	0.00
Spiked Amount	25.000		Recovery	=	43.604%	
5) Toluene-D8(S)	6.91	98	222436	7.3565	ppb	0.00
Spiked Amount	25.000		Recovery	=	29.428%	
6) 4-Bromofluorobenzene(S)	9.84	95	78536	9.5976	ppb	0.00
Spiked Amount	25.000		Recovery	=	38.392%	

Target Compounds

Qvalue

Quantitation Report

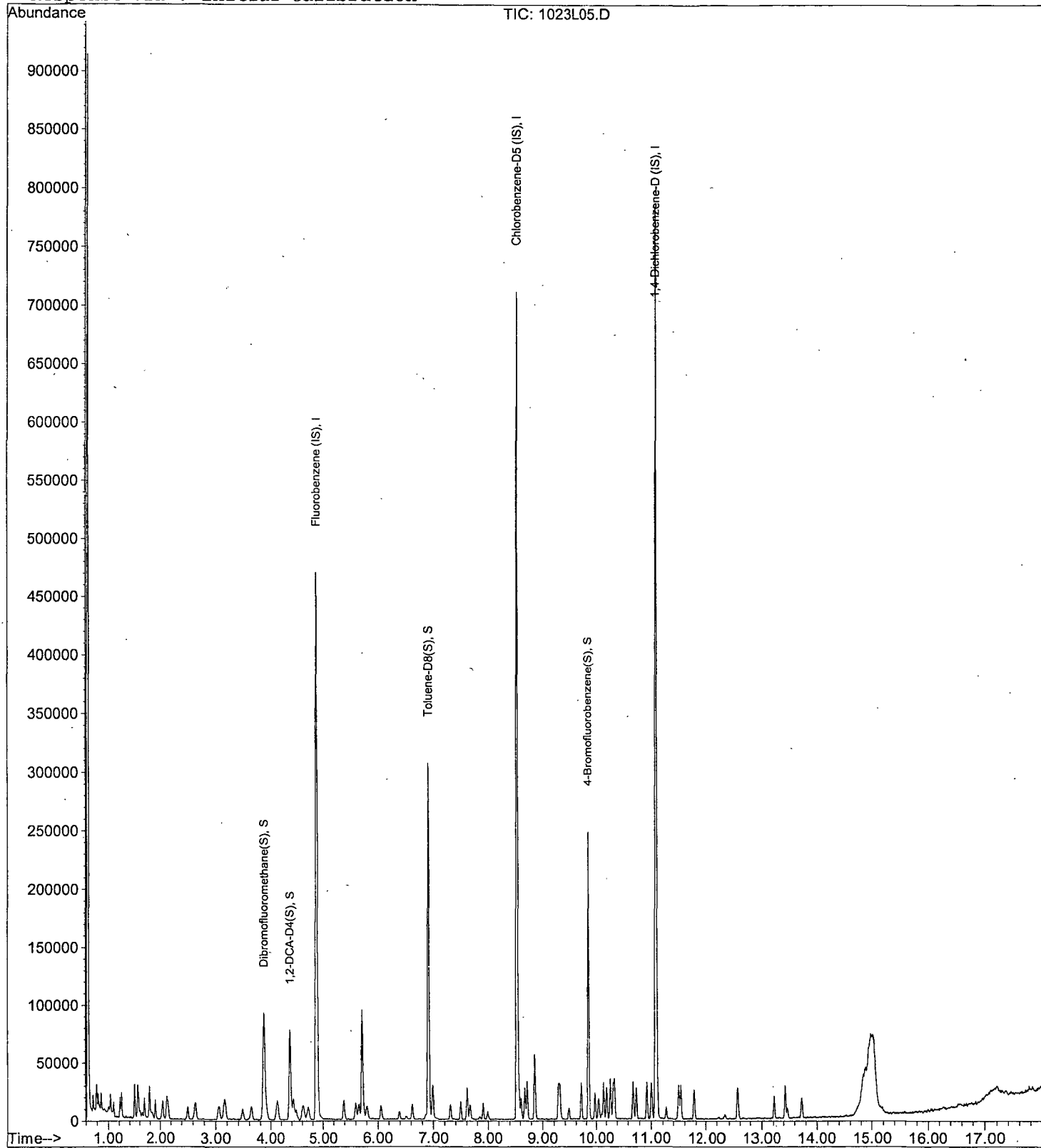
Data File : M:\LOKI\DATA\181023\1023L05.D  
Acq On : 23 Oct 18 14:35  
Sample : 1.0ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 4  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:43:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L06.D  
 Acq On : 23 Oct 18 15:03  
 Sample : 5.0ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 5  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	236672	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	255872	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	162048	25.0000	ppb	0.00
<b>System Monitoring Compounds</b>						
2) Dibromofluoromethane(S)	3.88	111	73308	7.9880	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	31.952%	
3) 1,2-DCA-D4(S)	4.37	65	78190	11.4421	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	45.768%	
5) Toluene-D8(S)	6.91	98	246891	8.0525	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	32.208%	
6) 4-Bromofluorobenzene(S)	9.84	95	95468	11.1648	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	44.660%	

Target Compounds

Qvalue

Quantitation Report

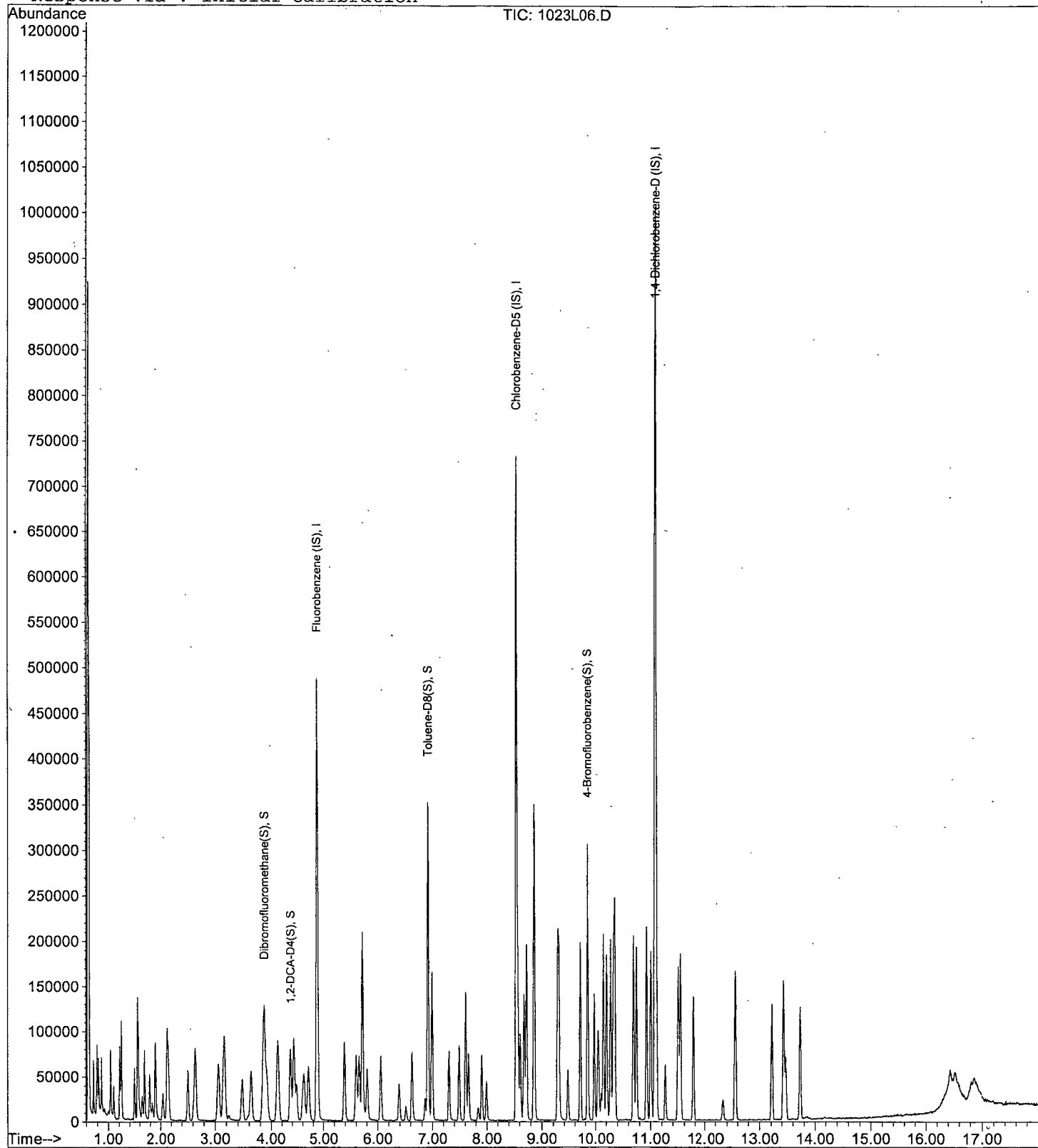
Data File : M:\LOKI\DATA\181023\1023L06.D  
Acq On : 23 Oct 18 15:03  
Sample : 5.0ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 5  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:43:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L07.D  
 Acq On : 23 Oct 18 15:31  
 Sample : 10ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 6  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	242688	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	261312	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	157376	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.87	111	164646	23.2602	ppb	0.00
Spiked Amount	25.000					
				Recovery	=	93.040%
3) 1,2-DCA-D4(S)	4.36	65	180960	25.8248	ppb	0.00
Spiked Amount	25.000					
				Recovery	=	103.300%
5) Toluene-D8(S)	6.91	98	584334	23.7126	ppb	0.00
Spiked Amount	25.000					
				Recovery	=	94.852%
6) 4-Bromofluorobenzene(S)	9.84	95	224926	25.7571	ppb	0.00
Spiked Amount	25.000					
				Recovery	=	103.028%

Target Compounds

Qvalue

Quantitation Report

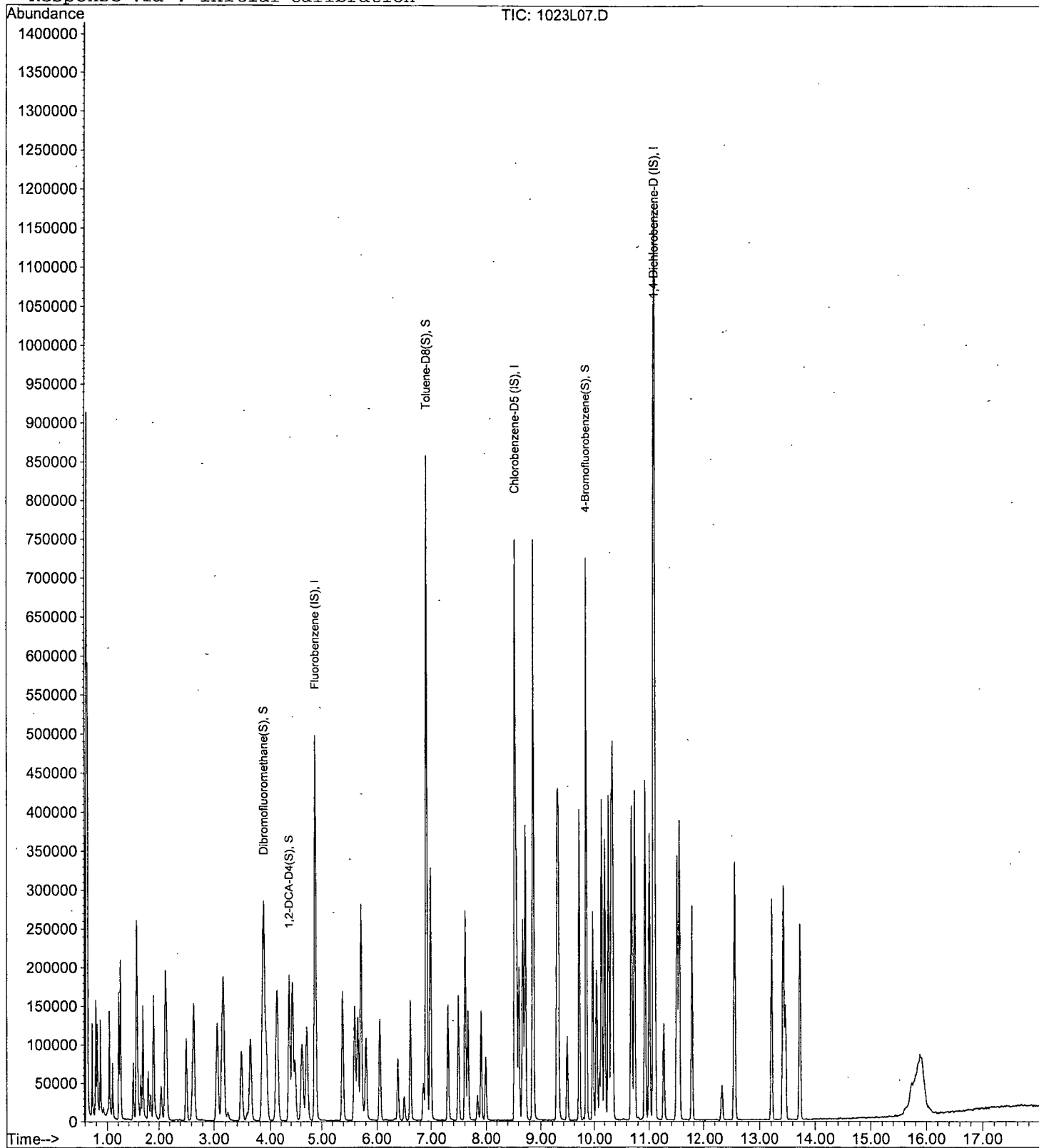
Data File : M:\LOKI\DATA\181023\1023L07.D  
Acq On : 23 Oct 18 15:31  
Sample : 10ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 6  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:43:23 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181023\1023L08.D  
 Acq On : 23 Oct 18 15:59  
 Sample : 20ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 7  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	249600	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	266752	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	177152	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	177154	24.5578	ppb	0.00
Spiked Amount 25.000			Recovery =	98.232%		
3) 1,2-DCA-D4(S)	4.36	65	192539	26.7164	ppb	0.00
Spiked Amount 25.000			Recovery =	106.864%		
5) Toluene-D8(S)	6.91	98	630504	25.2830	ppb	0.00
Spiked Amount 25.000			Recovery =	101.132%		
6) 4-Bromofluorobenzene(S)	9.84	95	237884	26.6854	ppb	0.00
Spiked Amount 25.000			Recovery =	106.740%		

Target Compounds Qvalue

Quantitation Report

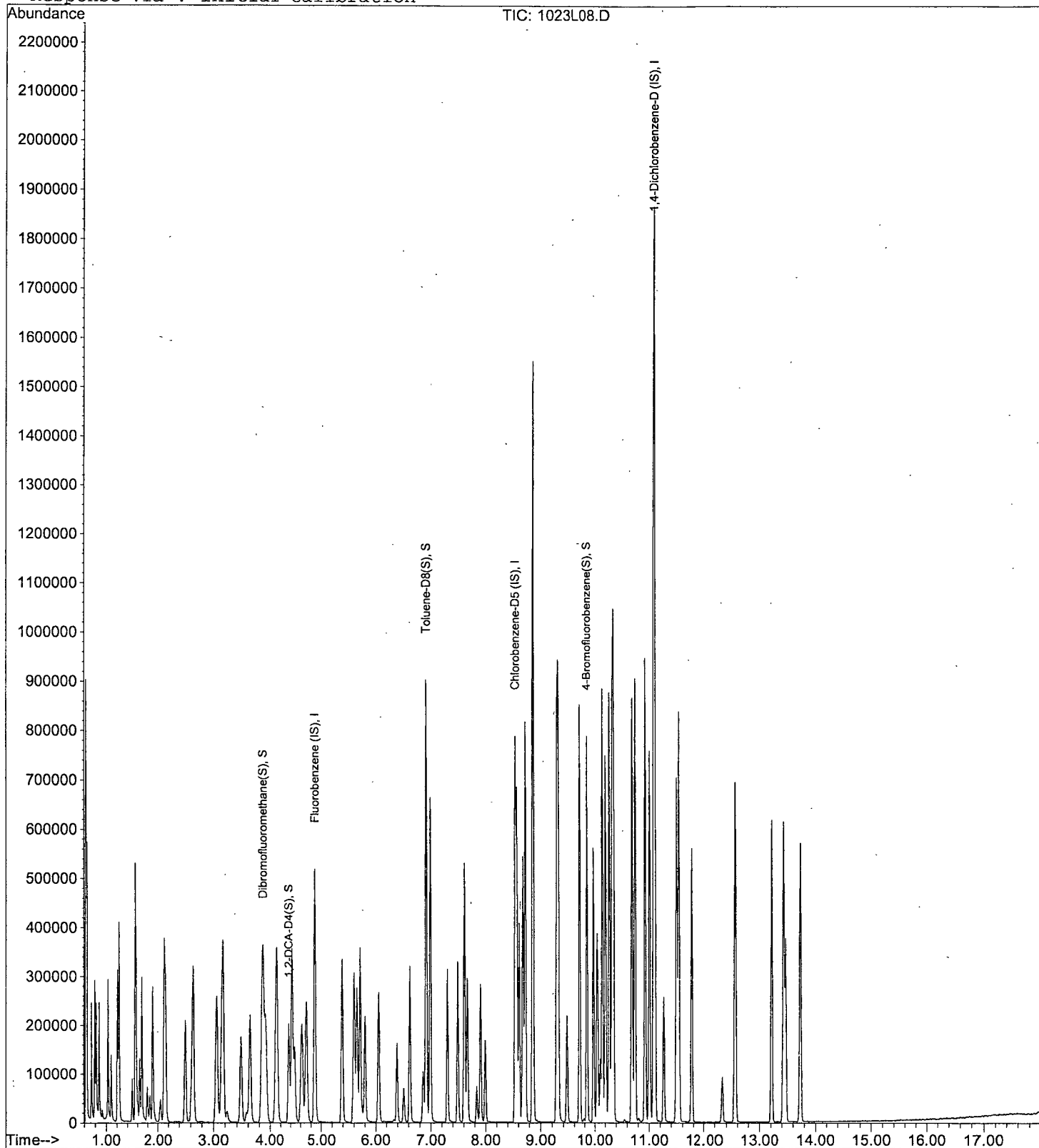
Data File : M:\LOKI\DATA\181023\1023L08.D  
Acq On : 23 Oct 18 15:59  
Sample : 20ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 7  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:43:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L09.D  
 Acq On : 23 Oct 18 16:27  
 Sample : 50ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 8  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	249152	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	278144	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	174016	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.87	111	332062	50.3655	ppb	0.00
Spiked Amount				25.000		
				Recovery	= 201.464%	
3) 1,2-DCA-D4(S)	4.36	65	370570	51.5121	ppb	0.00
Spiked Amount				25.000		
				Recovery	= 206.048%	
5) Toluene-D8(S)	6.91	98	1219191	50.1627	ppb	0.00
Spiked Amount				25.000		
				Recovery	= 200.652%	
6) 4-Bromofluorobenzene(S)	9.84	95	469147	50.4726	ppb	0.00
Spiked Amount				25.000		
				Recovery	= 201.892%	

Target Compounds

Qvalue

Quantitation Report

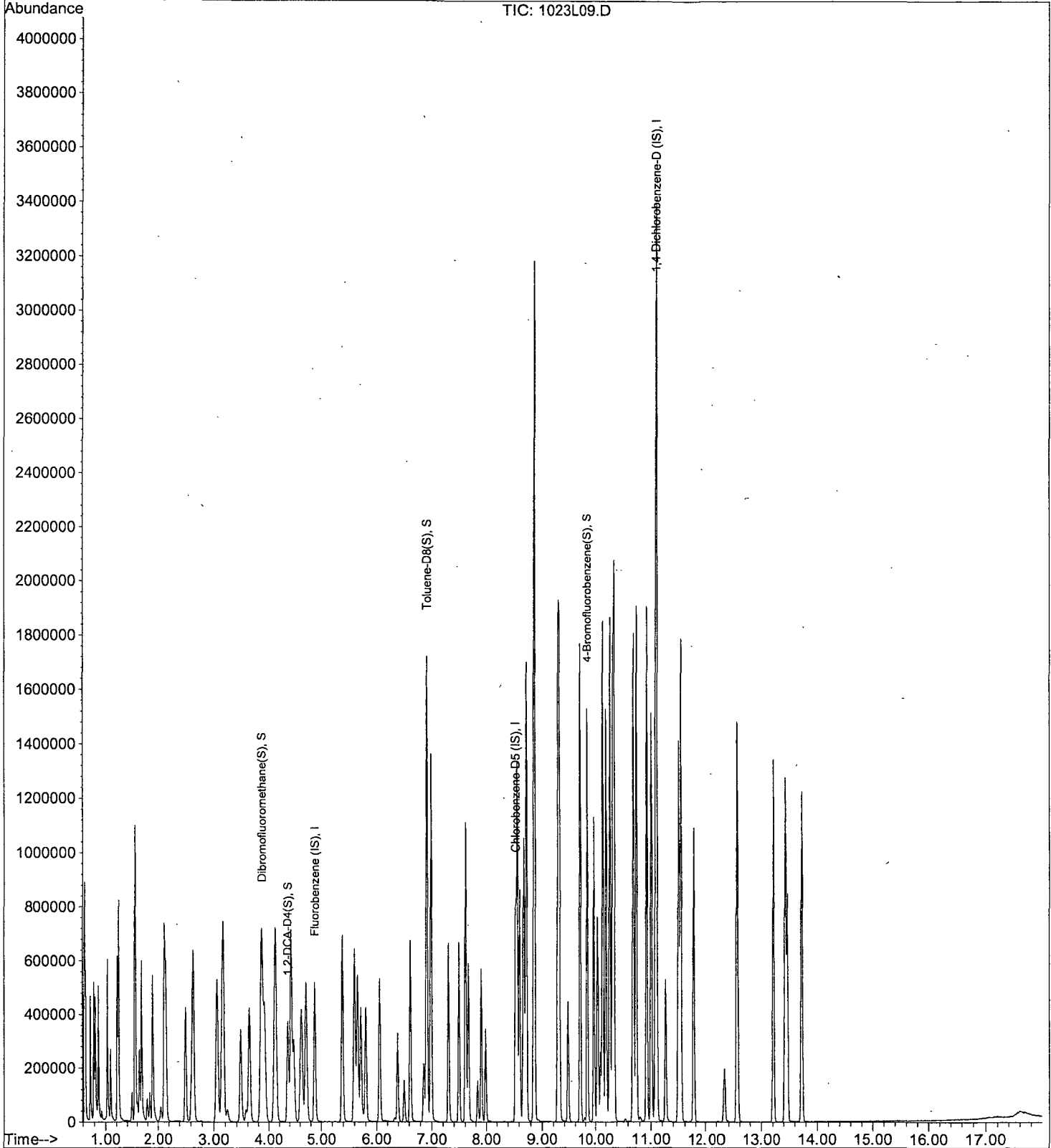
Data File : M:\LOKI\DATA\181023\1023L09.D  
Acq On : 23 Oct 18 16:27  
Sample : 50ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 8  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:43:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L10.D Vial: 9  
 Acq On : 23 Oct 18 16:55 Operator: PM, DG, SV, CMM, KV  
 Sample : 100ug/L VOC STD 10/23/18 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 25 9:31 2018 Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	249344	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	276416	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	185792	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.87	111	623896	98.8057	ppb	0.00
Spiked Amount	25.000		Recovery	= 395.224%		
3) 1,2-DCA-D4(S)	4.36	65	692972	96.2543	ppb	0.00
Spiked Amount	25.000		Recovery	= 385.016%		
5) Toluene-D8(S)	6.91	98	2301830	98.7487	ppb	0.00
Spiked Amount	25.000		Recovery	= 394.996%		
6) 4-Bromofluorobenzene(S)	9.84	95	896648	97.0678	ppb	0.00
Spiked Amount	25.000		Recovery	= 388.272%		

Target Compounds Qvalue

Quantitation Report

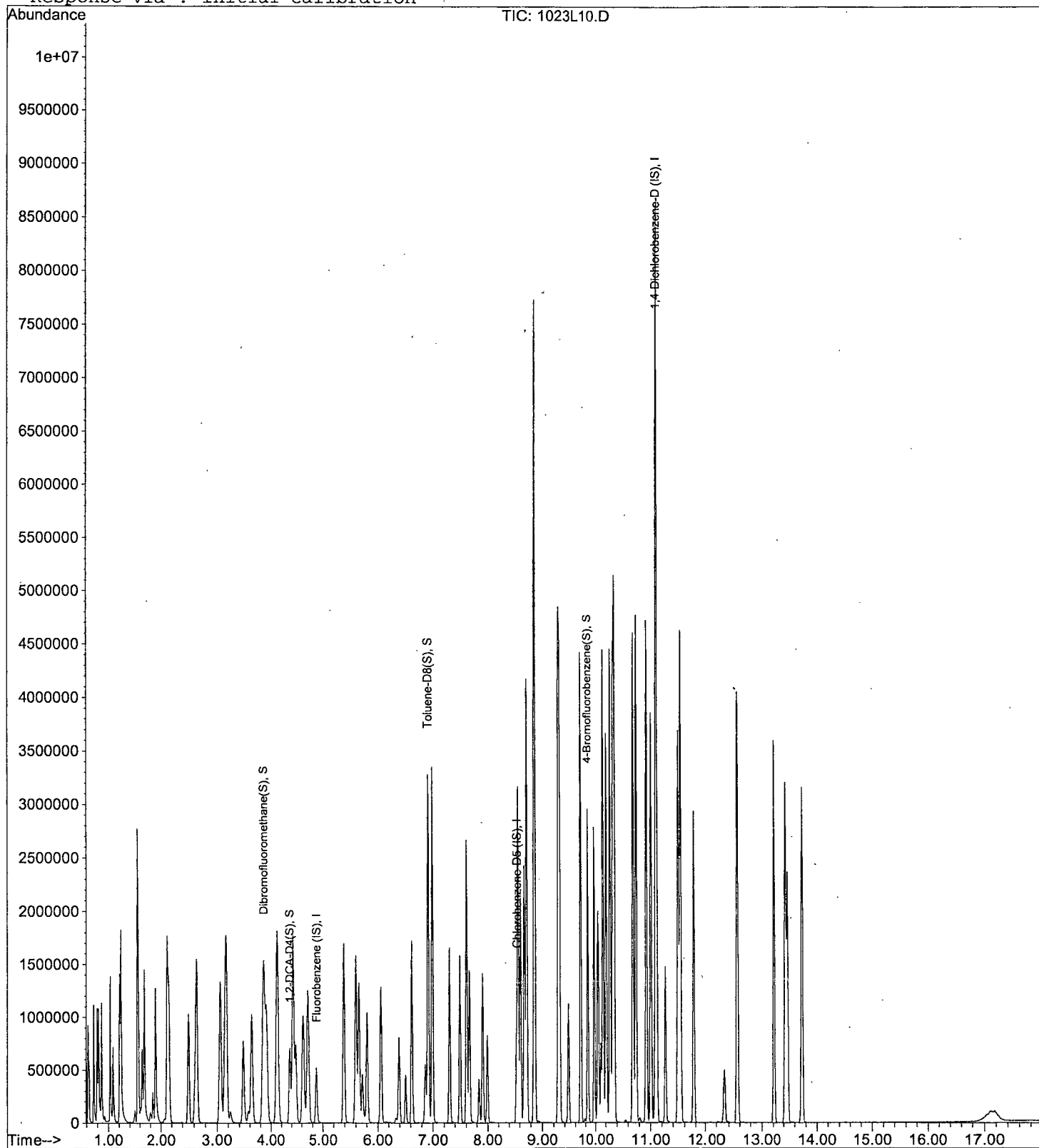
Data File : M:\LOKI\DATA\181023\1023L10.D  
Acq On : 23 Oct 18 16:55  
Sample : 100ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 9  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:31 '2018

Quant Results File: LSUR1023.RES

Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:43:23 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 09/20/18

Matrix: water

Instrument: Loki

Initial Cal. Date: 09/19/18

Data File: 0919L44.D

	Compound	MEAN	CCRF	%D	%Drift
1	TMHB Gasoline C6-C10	4.614	1.883	59	TMHBL 9.4
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
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35					
36					
37					
38					
39					
40	Average			-59.0	

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\180915\0919L44.D Vial: 43  
 Acq On : 20 Sep 18 2:29 Operator: PM,DG,SV,CMM,KV  
 Sample : (SS)300ug/L VOC GAS STD 18/09/19 Inst : Loki  
 Misc : IS&S 8/30/18,8/23/18 Multiplr: 1.00

Quant Time: Sep 20 8:45 2018 Quant Results File: LSUR915.RES

Quant Method : M:\LOKI\DATA\180915\LSUR915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Sep 18 13:25:38 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	335744	25.000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	330368	25.000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	155264	25.000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.88	111	211395	25.320	ppb	0.00
Spiked Amount	25.000					
					Recovery =	101.280%
3) 1,2-DCA-D4(S)	4.37	65	201692	24.490	ppb	0.00
Spiked Amount	25.000					
					Recovery =	97.960%
5) Toluene-D8(S)	6.91	98	671799	24.672	ppb	0.00
Spiked Amount	25.000					
					Recovery =	98.688%
6) 4-Bromofluorobenzene(S)	9.84	95	231971	23.347	ppb	0.00
Spiked Amount	25.000					
					Recovery =	93.388%
Target Compounds						Qvalue



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\180915\0919L44.D Vial: 43  
 Acq On : 20 Sep 18 2:29 Operator: PM,DG,SV,CMM,KV  
 Sample : (SS)300ug/L VOC GAS STD 18/09/19 Inst : Loki  
 Misc : IS&S 8/30/18,8/23/18 Multiplr: 1.00

Quant Time: Sep 20 8:31 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	687305	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	935573	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	911358	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	15527206m	271.771	ppb	100

Quantitation Report

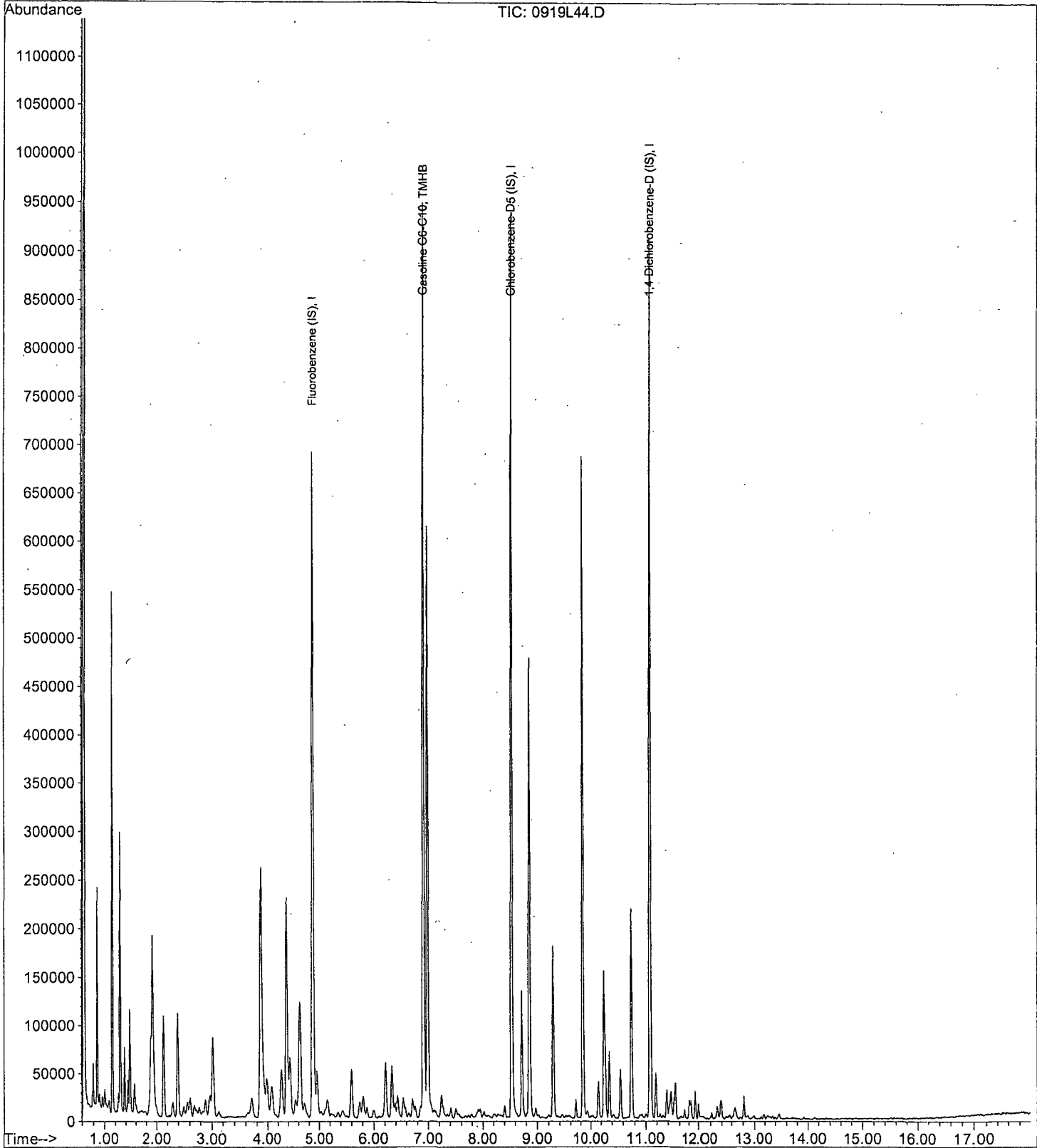
Data File : M:\LOKI\DATA\180915\0919L44.D  
Acq On : 20 Sep 18 2:29  
Sample : (SS)300ug/L VOC GAS STD 18/09/19  
Misc : IS&S 8/30/18,8/23/18

Vial: 43  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Sep 20 8:31 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/24/18  
Instrument: Loki  
Initial Cal. Date: 09/19/18  
Data File: 1024L07.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Fluorobenzene (IS)	ISTD			I
2	TMHB	Gasoline C6-C10	4.614	1.976	57	TMHBL 0.41
3	I	Chlorobenzene-D5 (IS)	ISTD			I
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
5						
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39						
40						

Average

57.0

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/24/18

Matrix: \_\_\_\_\_

Instrument: Loki

Initial Cal. Date: 10/23/18

Data File: 1024L07.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	SL	Dibromofluoromethane(S)	0.7811	0.7082	9.3	SL	2.0
3	SL	1,2-DCA-D4(S)	0.8407	0.7517	11	SL	4.1
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	SL	Toluene-D8(S)	2.423	2.224	8.2	SL	5.7
6	SL	4-Bromofluorobenzene(S)	0.9063	0.8161	10.0	SL	2.3
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
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36							
37							
38							
39							
40		Average			9.6		

Data File : M:\LOKI\DATA\181023\1024L07.D  
 Acq On : 24 Oct 18 10:19  
 Sample : 181024A CCV 300ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 6  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 12:21 2018

Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	510136	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	781753	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	868078	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	12096181m	298.7841	ppb	100

Data File : M:\LOKI\DATA\181023\1024L07.D  
 Acq On : 24 Oct 18 10:19  
 Sample : 181024A CCV 300ug/L  
 Misc : IS&S 9/28/18,8/23/18  
 MS Integration Params: LSCINT.P  
 Quant Time: Oct 25 9:32 2018

Vial: 6  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00000

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	246720	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	274496	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	161280	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.87	111	174718	24.4920	ppb	0.00
Spiked Amount	25.000			Recovery	=	97.968%
3) 1,2-DCA-D4(S)	4.36	65	185458	26.0342	ppb	0.00
Spiked Amount	25.000			Recovery	=	104.136%
5) Toluene-D8(S)	6.91	98	610529	23.5651	ppb	0.00
Spiked Amount	25.000			Recovery	=	94.260%
6) 4-Bromofluorobenzene(S)	9.84	95	224019	24.4211	ppb	0.00
Spiked Amount	25.000			Recovery	=	97.684%

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration  
 1024L07.D LSUR1023.M Thu Oct 25 09:34:12 2018

Quantitation Report

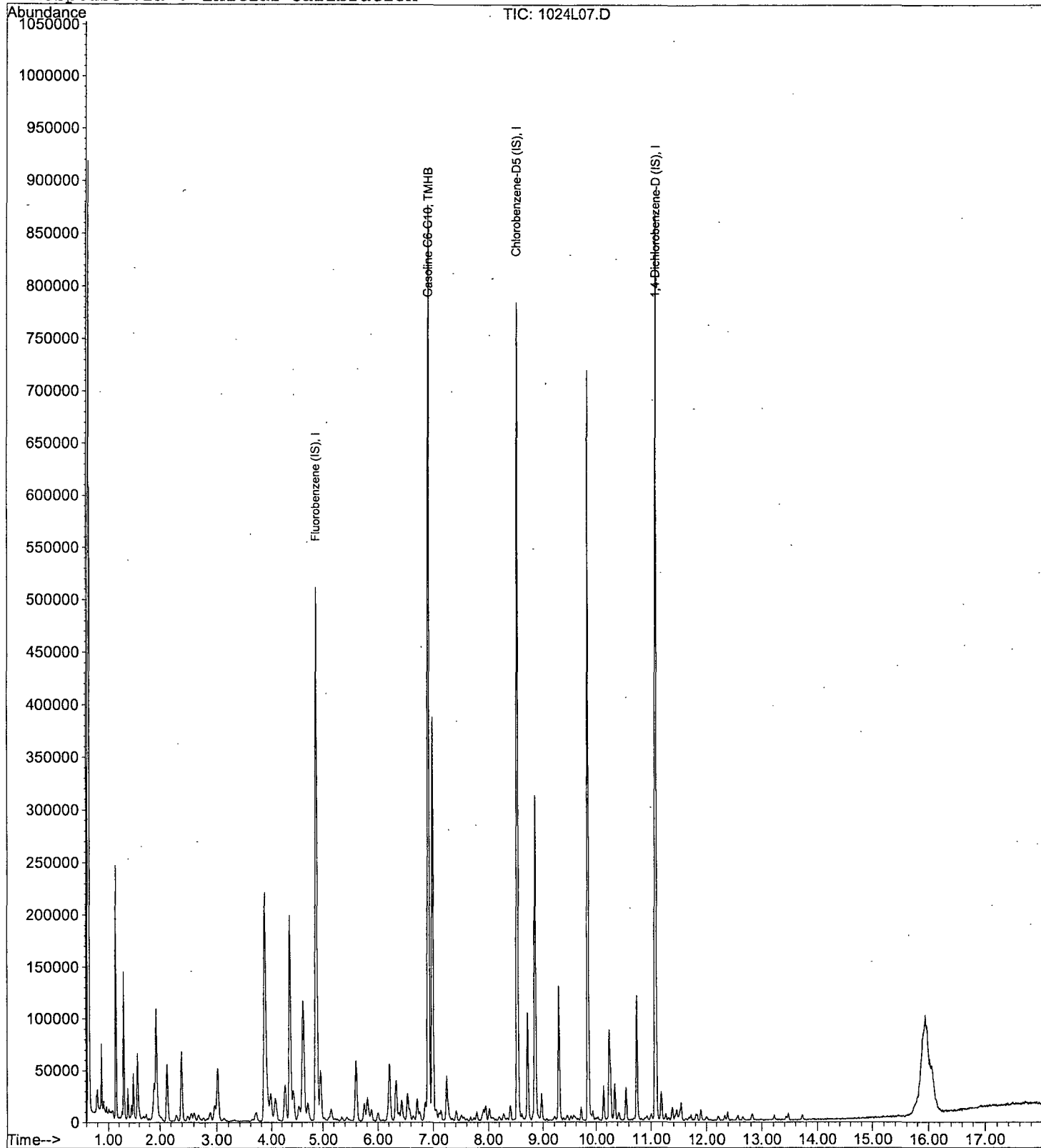
Data File : M:\LOKI\DATA\181023\1024L07.D  
Acq On : 24 Oct 18 10:19  
Sample : 181024A CCV 300ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 6  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 24 12:21 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/24/18  
Instrument: Loki  
Initial Cal. Date: 09/19/18  
Data File: 1024L29.D

	Compound	MEAN	CCRF	%D	%Drift
1	Fluorobenzene (IS)	ISTD			
2	TMHB Gasoline C6-C10	4.614	1.942	58	TMHBL 3.7
3	Chlorobenzene-D5 (IS)	ISTD			
4	1,4-Dichlorobenzene-D (IS)	ISTD			
5					
6					
7					
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32					
33					
34					
35					
36					
37					
38					
39					
40	Average			58.0	



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/24/18

Matrix: \_\_\_\_\_

Instrument: Loki

Initial Cal. Date: 10/23/18

Data File: 1024L29.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	SL	Dibromofluoromethane(S)	0.7811	0.7057	9.7	SL	2.4
3	SL	1,2-DCA-D4(S)	0.8407	0.7627	9.3	SL	5.7
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	SL	Toluene-D8(S)	2.423	2.243	7.4	SL	4.8
6	SL	4-Bromofluorobenzene(S)	0.9063	0.8286	8.6	SL	0.82
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
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35							
36							
37							
38							
39							
40							

Average

8.8

Data File : M:\LOKI\DATA\181023\1024L29.D Vial: 28  
 Acq On : 24 Oct 18 20:35 Operator: PM, DG, SV, CMM, KV  
 Sample : Ending CCV 300ug/L 10/24/18 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 25 9:25 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	494088	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	749322	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	838237	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	11512739m	288.8810	ppb	100

Data File : M:\LOKI\DATA\181023\1024L29.D  
 Acq On : 24 Oct 18 20:35  
 Sample : Ending CCV 300ug/L 10/24/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 28  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:32 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	235840	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	262272	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	156096	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	166436	24.3906	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	97.564%	
3) 1,2-DCA-D4(S)	4.36	65	179878	26.4158	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	105.664%	
5) Toluene-D8(S)	6.91	98	588383	23.8020	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	95.208%	
6) 4-Bromofluorobenzene(S)	9.84	95	217322	24.7952	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	99.180%	

Target Compounds Qvalue

Quantitation Report

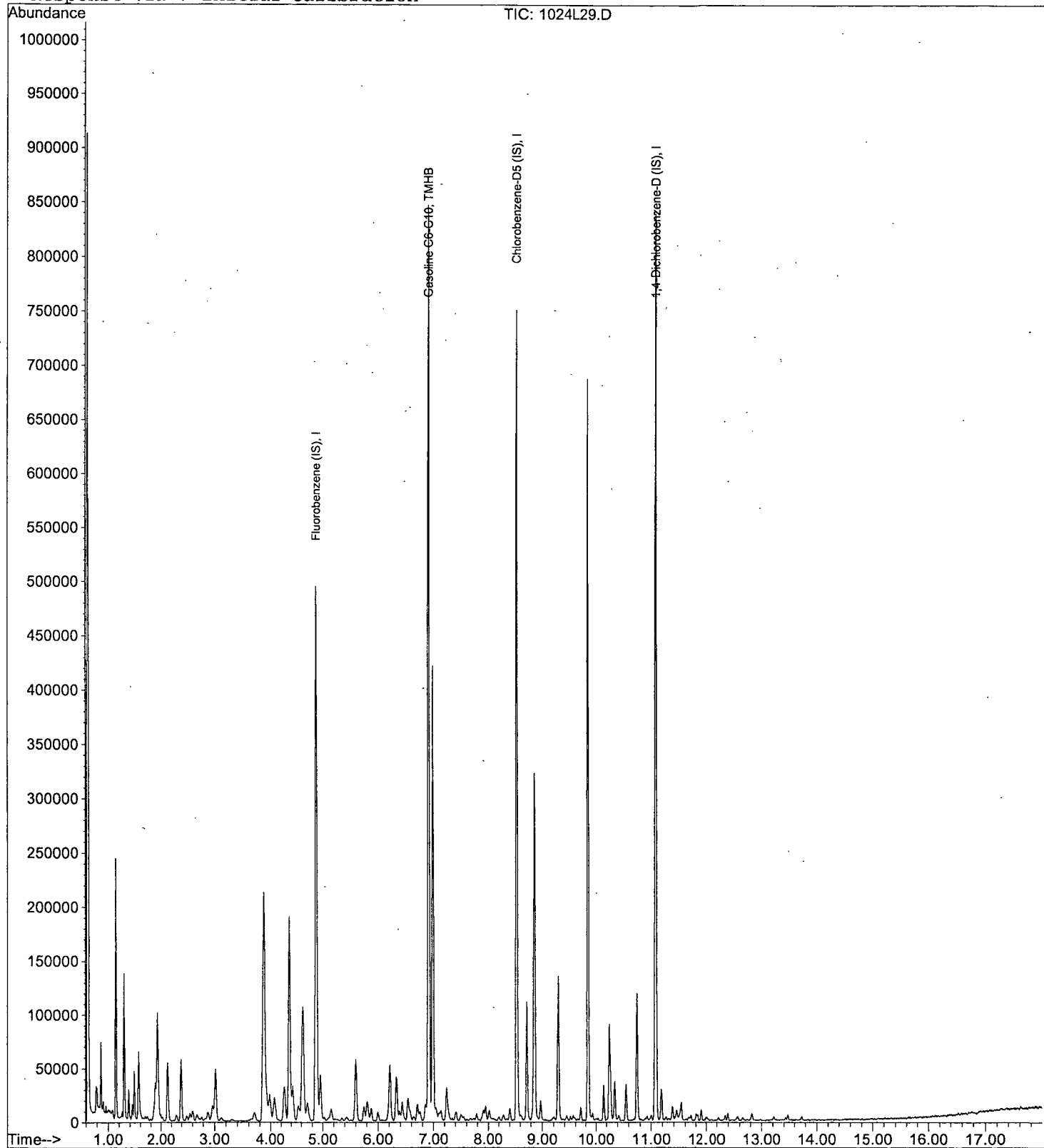
Data File : M:\LOKI\DATA\181023\1024L29.D  
Acq On : 24 Oct 18 20:35  
Sample : Ending CCV 300ug/L 10/24/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 28  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:25 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



**ORGANICS**

**Raw Data**

**APPL, INC.**

Data File : M:\LOKI\DATA\181023\1024L13.D Vial: 12  
 Acq On : 24 Oct 18 13:07 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81583W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 25 9:21 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	467874	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	721765	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	793869	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181023\1024L13.D Vial: 12  
 Acq On : 24 Oct 18 13:07 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81583W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 25 9:32 2018 Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	223808	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	255872	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	143296	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	169610	26.5497	ppb	0.00
Spiked Amount 25.000						
					Recovery = 106.200%	
3) 1,2-DCA-D4(S)	4.37	65	177875	27.5260	ppb	0.00
Spiked Amount 25.000						
					Recovery = 110.104%	
5) Toluene-D8(S)	6.91	98	554591	22.8663	ppb	0.00
Spiked Amount 25.000						
					Recovery = 91.464%	
6) 4-Bromofluorobenzene(S)	9.84	95	198367	23.1987	ppb	0.00
Spiked Amount 25.000						
					Recovery = 92.796%	

Target Compounds Qvalue

Quantitation Report

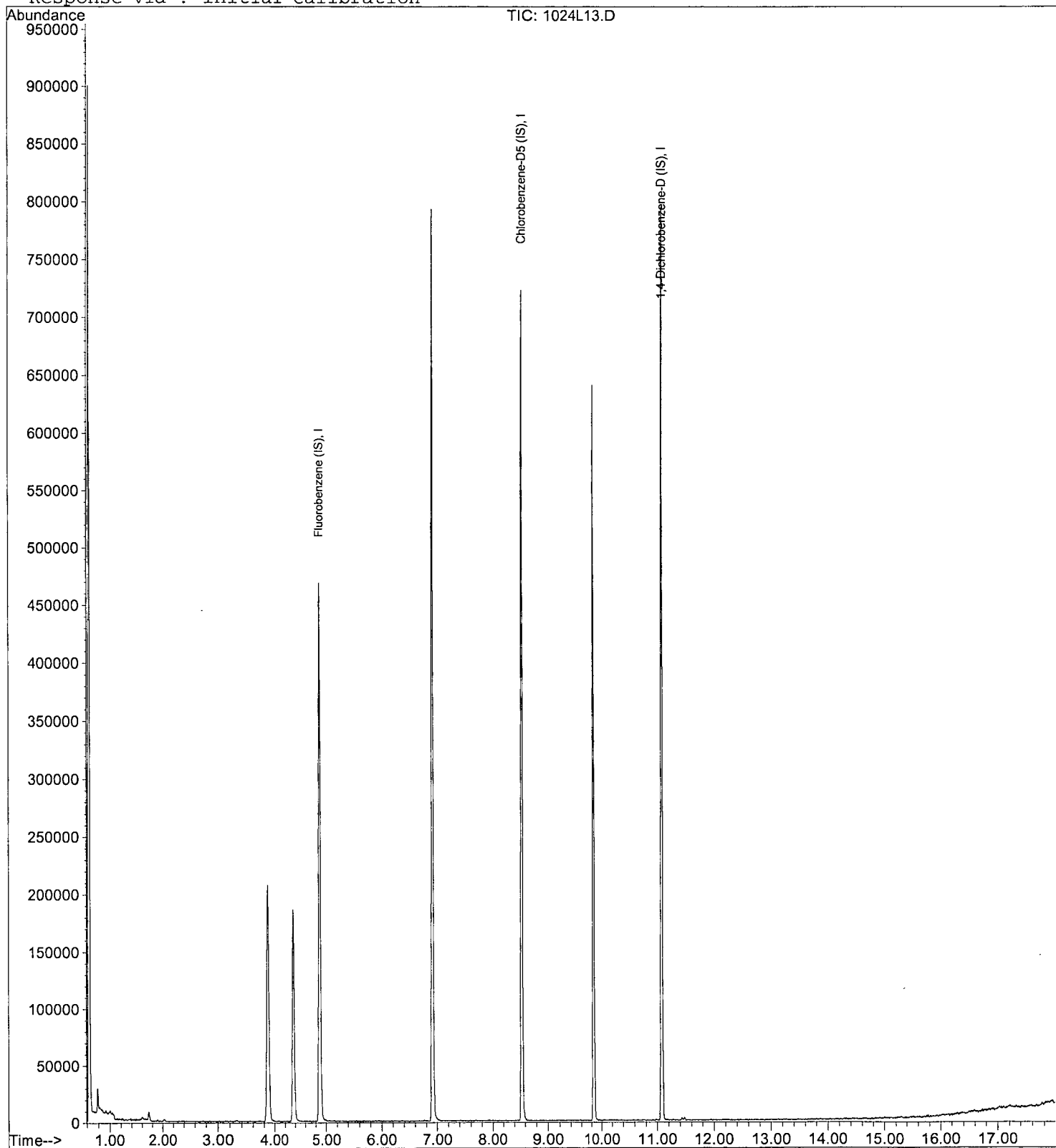
Data File : M:\LOKI\DATA\181023\1024L13.D  
Acq On : 24 Oct 18 13:07  
Sample : AZ81583W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 12  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:21 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181023\1024L18.D Vial: 17  
 Acq On : 24 Oct 18 15:27 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81584W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 25 9:22 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	446339	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	706719	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	754787	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181023\1024L18.D  
 Acq On : 24 Oct 18 15:27  
 Sample : AZ81584W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 17  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:32 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	215040	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	246464	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	139072	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	164098	26.7679	ppb	0.00
Spiked Amount				25.000		
					Recovery =	107.072%
3) 1,2-DCA-D4(S)	4.37	65	172481	27.7796	ppb	0.00
Spiked Amount				25.000		
					Recovery =	111.120%
5) Toluene-D8(S)	6.91	98	532326	22.7727	ppb	0.00
Spiked Amount				25.000		
					Recovery =	91.092%
6) 4-Bromofluorobenzene(S)	9.84	95	188074	22.8345	ppb	0.00
Spiked Amount				25.000		
					Recovery =	91.340%

Target Compounds Qvalue

Quantitation Report

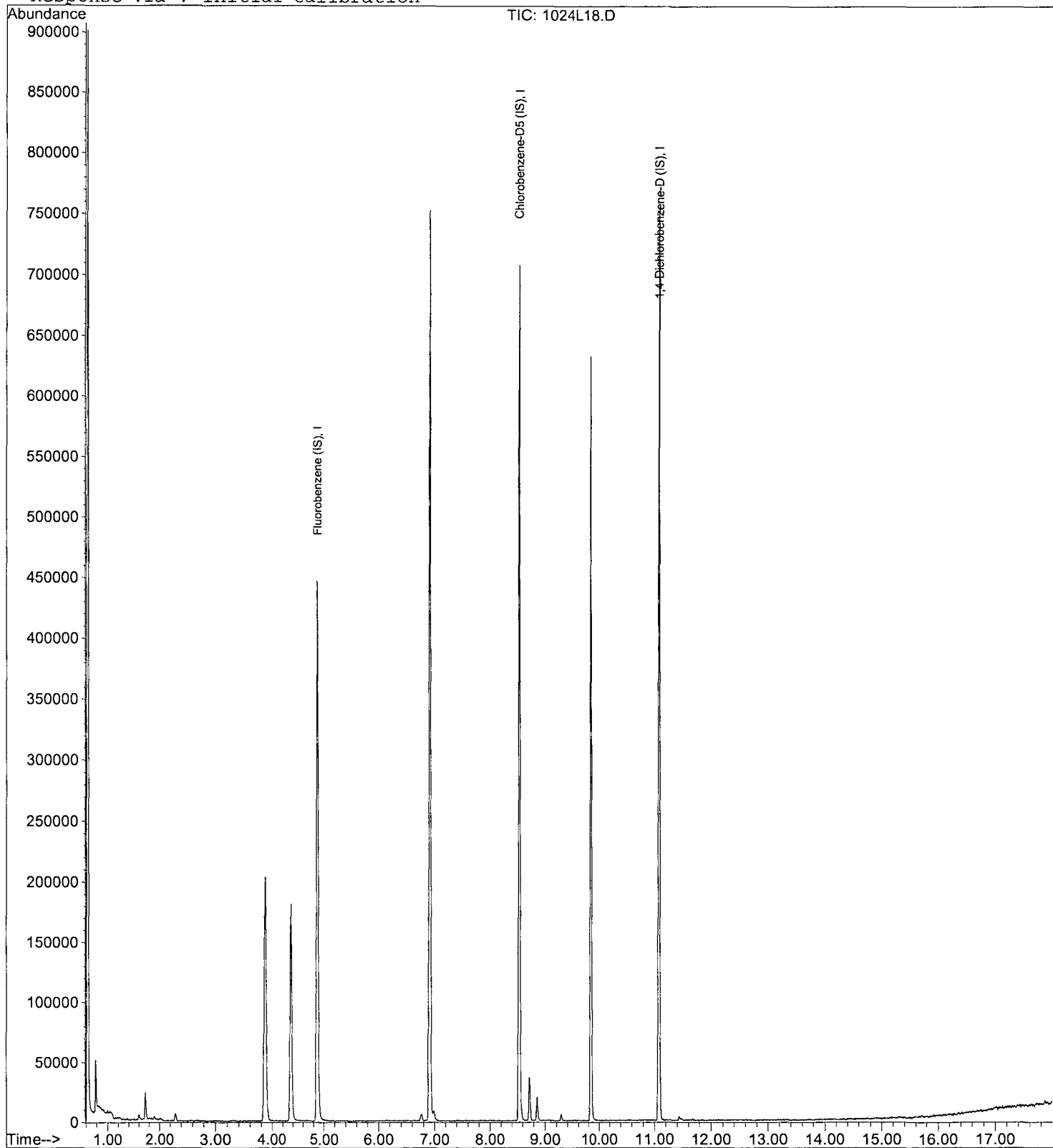
Data File : M:\LOKI\DATA\181023\1024L18.D  
Acq On : 24 Oct 18 15:27  
Sample : AZ81584W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 17  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:22 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1024L19.D Vial: 18  
 Acq On : 24 Oct 18 15:55 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81585W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 25 9:22 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	430626	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	668861	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	736736	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181023\1024L19.D Vial: 18  
 Acq On : 24 Oct 18 15:55 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81585W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 25 9:32 2018 Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	207104	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	232704	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	136128	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	158219	26.8033	ppb	0.00
Spiked Amount				25.000		
					Recovery =	107.212%
3) 1,2-DCA-D4(S)	4.36	65	164966	27.5873	ppb	0.00
Spiked Amount				25.000		
					Recovery =	110.348%
5) Toluene-D8(S)	6.91	98	518810	23.6304	ppb	0.00
Spiked Amount				25.000		
					Recovery =	94.520%
6) 4-Bromofluorobenzene(S)	9.84	95	183673	23.6188	ppb	0.00
Spiked Amount				25.000		
					Recovery =	94.476%

Target Compounds Qvalue

Quantitation Report

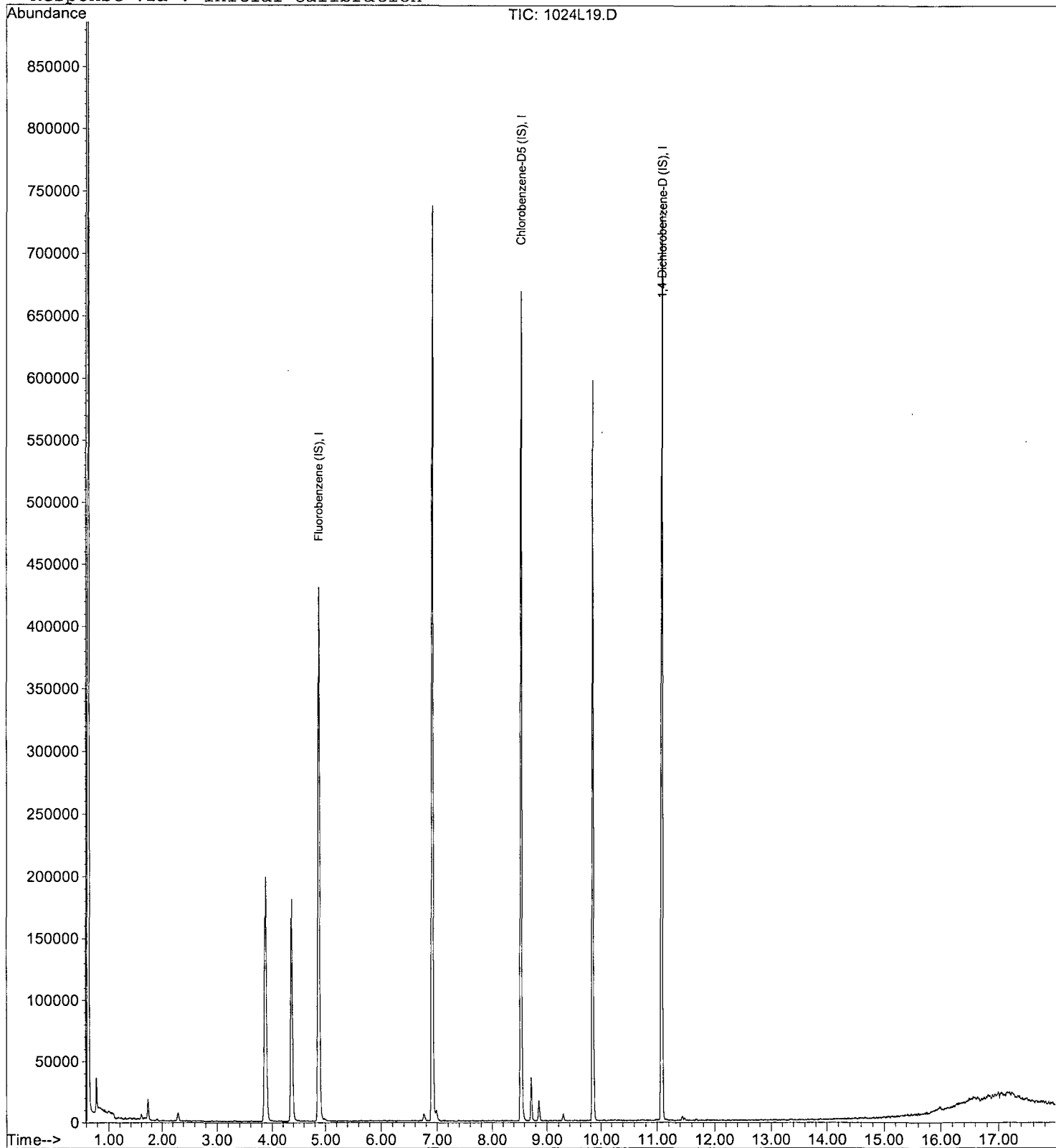
Data File : M:\LOKI\DATA\181023\1024L19.D  
Acq On : 24 Oct 18 15:55  
Sample : AZ81585W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 18  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:22 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1024L14.D Vial: 13  
 Acq On : 24 Oct 18 13:35 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81586W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 25 9:22 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	450869	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	706755	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	740485	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181023\1024L14.D Vial: 13  
 Acq On : 24 Oct 18 13:35 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81586W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 25 9:32 2018 Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	214464	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	249216	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	136000	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	165159	27.0577	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	108.232%
3) 1,2-DCA-D4(S)	4.36	65	174121	28.1190	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	112.476%
5) Toluene-D8(S)	6.91	98	533202	22.5222	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	90.088%
6) 4-Bromofluorobenzene(S)	9.84	95	187628	22.5288	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	90.116%

Target Compounds Qvalue



Quantitation Report

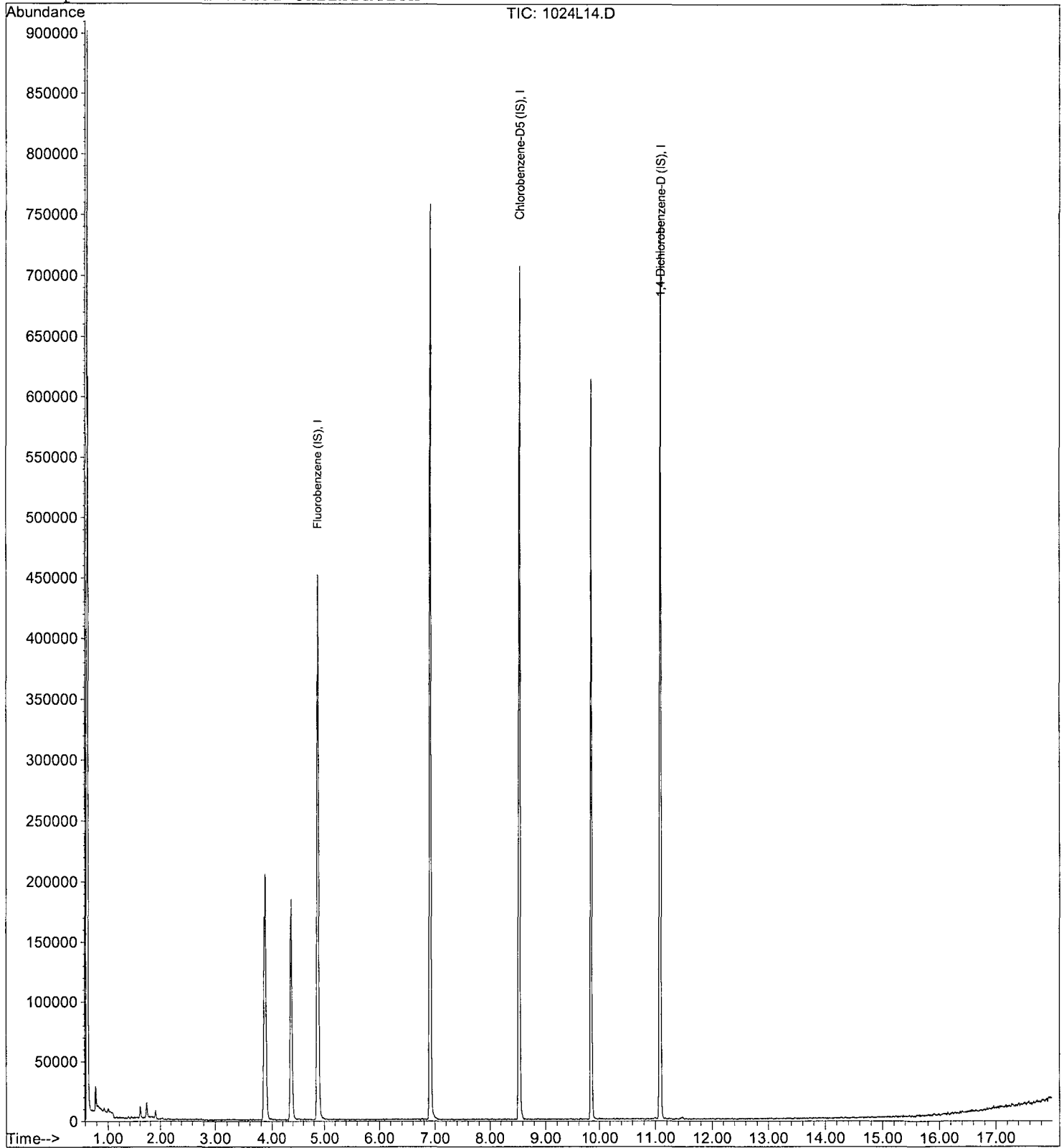
Data File : M:\LOKI\DATA\181023\1024L14.D  
Acq On : 24 Oct 18 13:35  
Sample : AZ81586W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 13  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:22 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1024L20.D Vial: 19  
 Acq On : 24 Oct 18 16:23 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81587W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 25 9:23 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	450383	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.53	TIC	698983	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	739466	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181023\1024L20.D Vial: 19  
 Acq On : 24 Oct 18 16:23 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81587W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 25 9:32 2018 Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	216192	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.53	117	248000	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	136960	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	159344	25.6885	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	102.756%
3) 1,2-DCA-D4(S)	4.36	65	165135	26.4547	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	105.820%
5) Toluene-D8(S)	6.91	98	512130	21.6047	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	86.420%
6) 4-Bromofluorobenzene(S)	9.84	95	181597	21.9116	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	87.648%

Target Compounds Qvalue

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

Quantitation Report

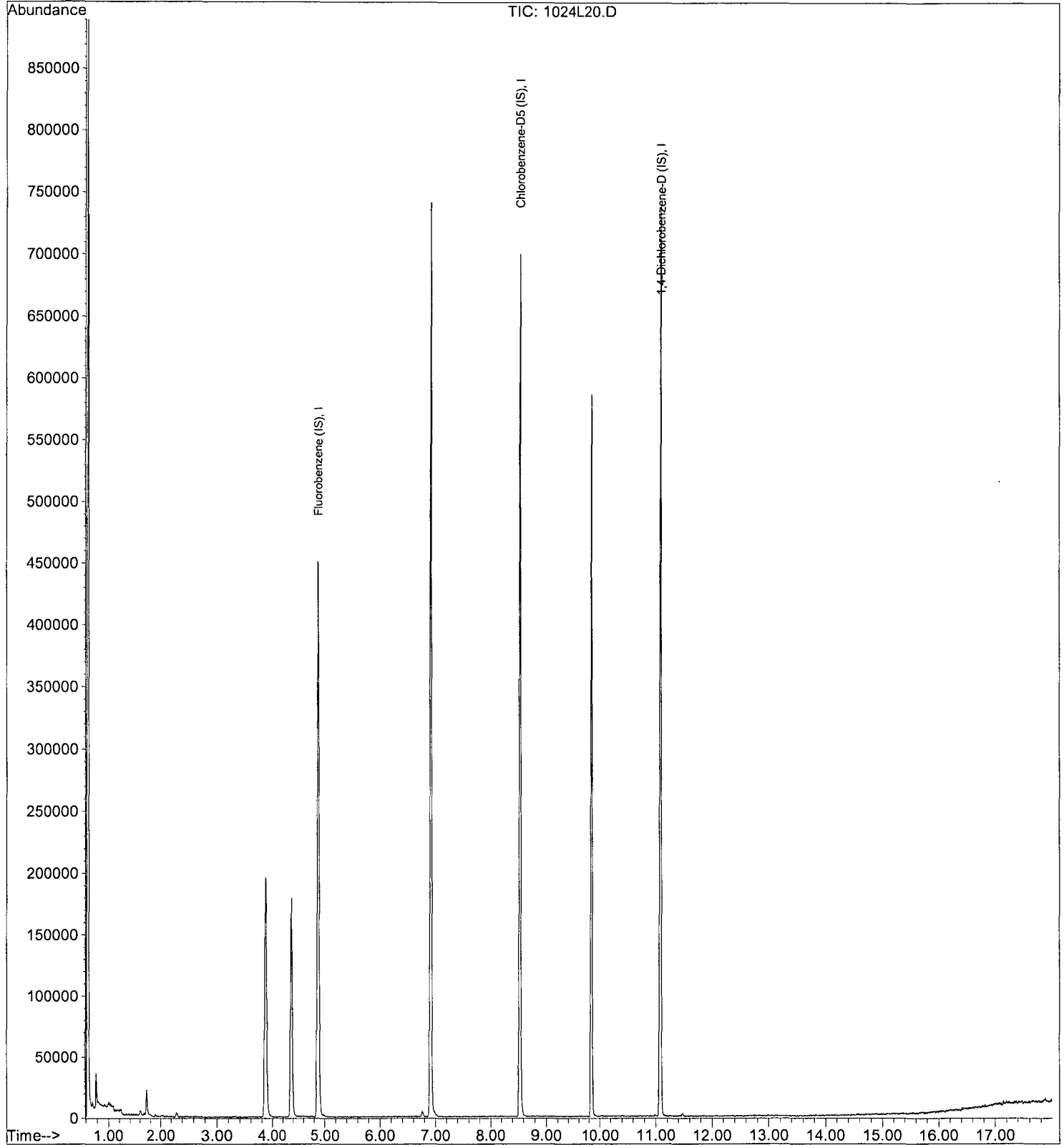
Data File : M:\LOKI\DATA\181023\1024L20.D  
Acq On : 24 Oct 18 16:23  
Sample : AZ81587W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 19  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:23 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1024L11.D Vial: 10  
 Acq On : 24 Oct 18 12:11 Operator: PM,DG,SV,CMM,KV  
 Sample : 181024A Blk Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 25 9:21 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	472287	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	726754	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	791228	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181023\1024L11.D  
 Acq On : 24 Oct 18 12:11  
 Sample : 181024A Blk  
 Misc : IS&S 9/28/18,8/23/18

Vial: 10  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:32 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	226112	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	260352	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	143808	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.87	111	172708	26.7973	ppb	0.00
Spiked Amount	25.000		Recovery	= 107.188%		
3) 1,2-DCA-D4 (S)	4.37	65	182056	27.8859	ppb	0.00
Spiked Amount	25.000		Recovery	= 111.544%		
5) Toluene-D8 (S)	6.91	98	571718	23.2173	ppb	0.00
Spiked Amount	25.000		Recovery	= 92.868%		
6) 4-Bromofluorobenzene(S)	9.84	95	201226	23.1281	ppb	0.00
Spiked Amount	25.000		Recovery	= 92.512%		

Target Compounds

Qvalue

Quantitation Report

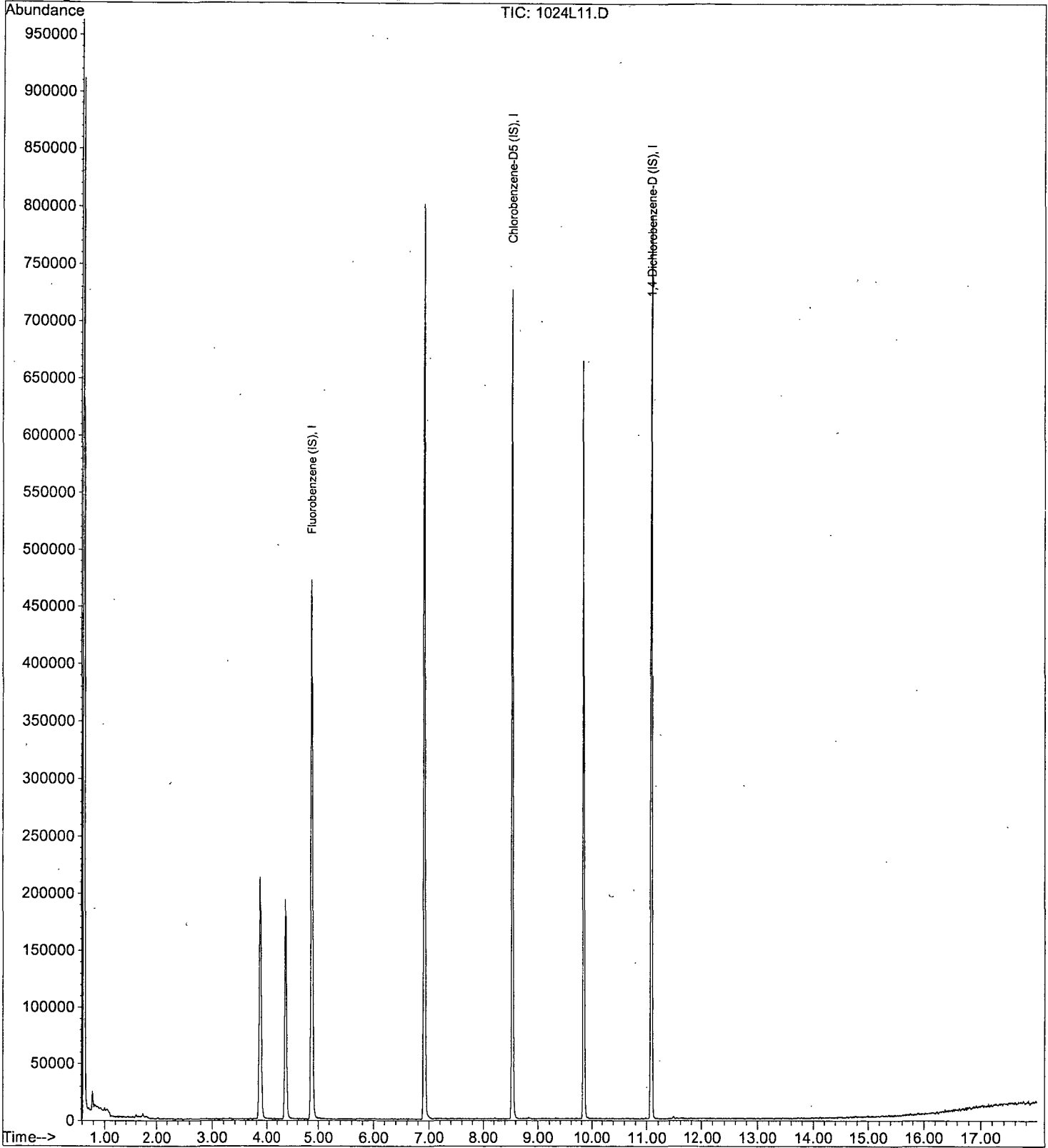
Data File : M:\LOKI\DATA\181023\1024L11.D  
Acq On : 24 Oct 18 12:11  
Sample : 181024A Blk  
Misc : IS&S 9/28/18,8/23/18

Vial: 10  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:21 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\181023\1024L08.D  
 Acq On : 24 Oct 18 10:47  
 Sample : 181024A LCS 300ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 7  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 12:21 2018

Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	499900	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	772191	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	853926	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	11887473m	300.4243	ppb	100



Data File : M:\LOKI\DATA\181023\1024L08.D  
 Acq On : 24 Oct 18 10:47  
 Sample : 181024A LCS 300ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 7  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:32 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	239296	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	274496	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	155520	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.87	111	172268	24.9780	ppb	0.00
Spiked Amount	25.000		Recovery	=	99.912%	
3) 1,2-DCA-D4(S)	4.37	65	188160	27.2330	ppb	0.00
Spiked Amount	25.000		Recovery	=	108.932%	
5) Toluene-D8(S)	6.91	98	609719	23.5288	ppb	0.00
Spiked Amount	25.000		Recovery	=	94.116%	
6) 4-Bromofluorobenzene(S)	9.84	95	223886	24.4066	ppb	0.00
Spiked Amount	25.000		Recovery	=	97.628%	

Target Compounds

Qvalue

Quantitation Report

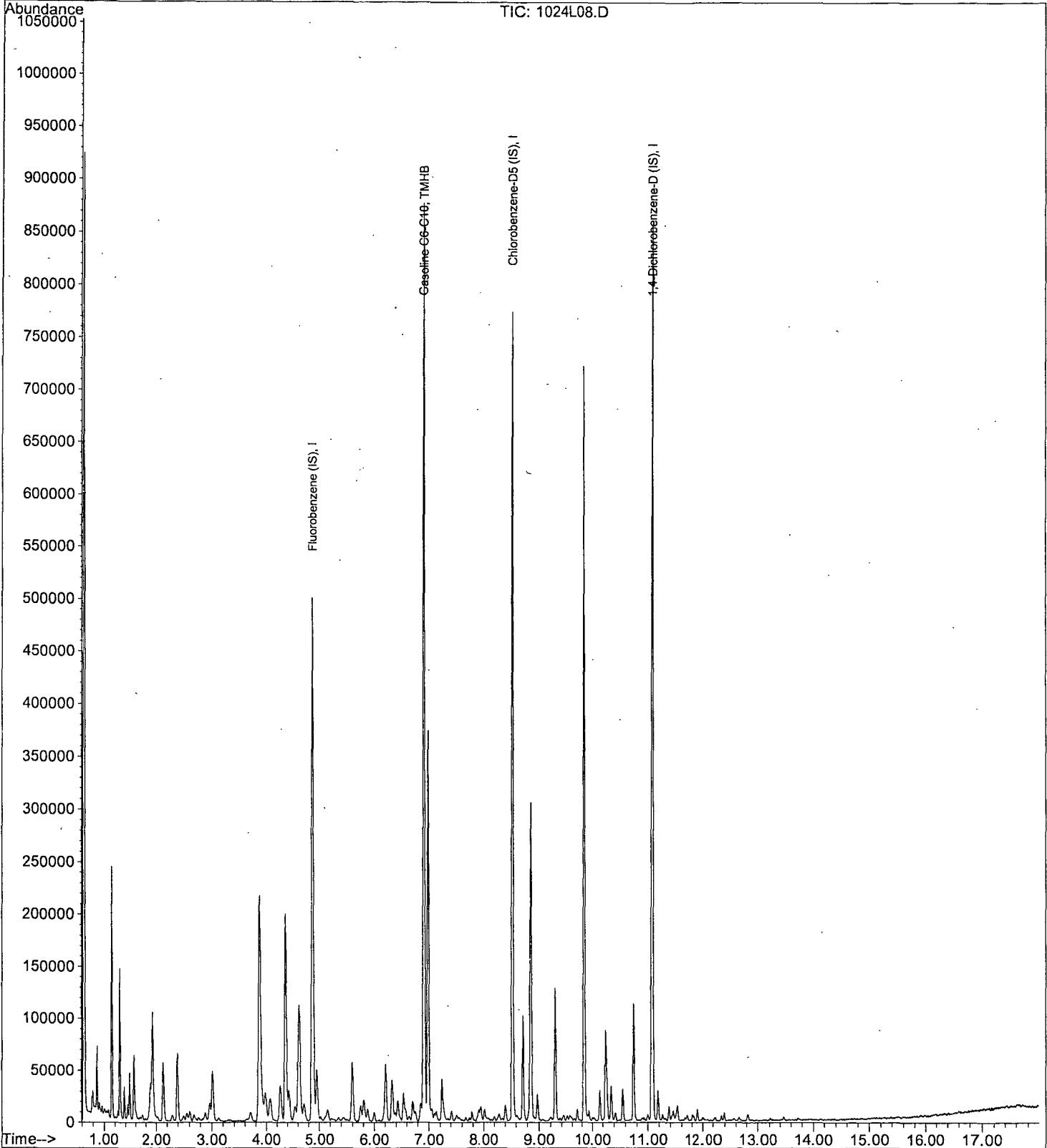
Data File : M:\LOKI\DATA\181023\1024L08.D  
Acq On : 24 Oct 18 10:47  
Sample : 181024A LCS 300ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 7  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 24 12:21 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1024L09.D Vial: 8  
 Acq On : 24 Oct 18 11:15 Operator: PM, DG, SV, CMM, KV  
 Sample : 181024A LCSD 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 24 12:22 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	488577	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	768549	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	852508	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	11819832m	310.3750	ppb	100

Data File : M:\LOKI\DATA\181023\1024L09.D  
 Acq On : 24 Oct 18 11:15  
 Sample : 181024A LCSD 300ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 8  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:32 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	232384	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	271488	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	154304	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.87	111	175241	26.3949	ppb	0.00
Spiked Amount	25.000		Recovery	=	105.580%	
3) 1,2-DCA-D4(S)	4.37	65	185825	27.6950	ppb	0.00
Spiked Amount	25.000		Recovery	=	110.780%	
5) Toluene-D8(S)	6.91	98	620428	24.3179	ppb	0.00
Spiked Amount	25.000		Recovery	=	97.272%	
6) 4-Bromofluorobenzene(S)	9.84	95	224620	24.7579	ppb	0.00
Spiked Amount	25.000		Recovery	=	99.032%	

Target Compounds Qvalue

Quantitation Report

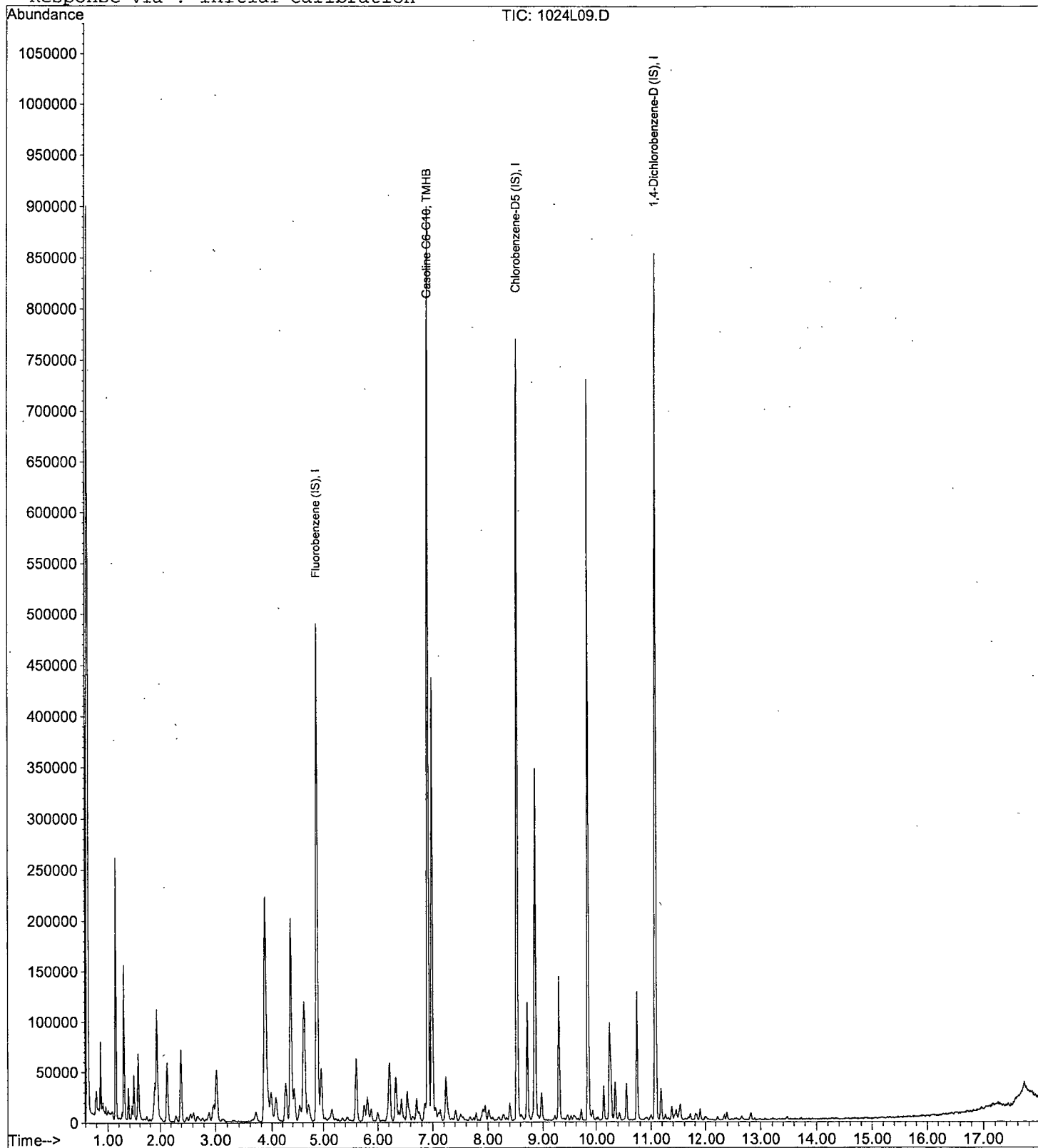
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Acq On : 24 Oct 18 11:15  
Sample : 181024A LCSD 300ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 8  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 24 12:22 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1024L26.D Vial: 25  
 Acq On : 24 Oct 18 19:11 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81584W05 MS 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 25 9:23 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	478814	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	733370	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	843400	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	10977875m	279.8682	ppb	100

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

Data File : M:\LOKI\DATA\181023\1024L26.D  
 Acq On : 24 Oct 18 19:11  
 Sample : AZ81584W05 MS 300ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 25  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:32 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	228224	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	257984	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	155264	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	173016	26.5605	ppb	0.00
Spiked Amount				25.000		
					Recovery =	106.240%
3) 1,2-DCA-D4(S)	4.37	65	180891	27.4510	ppb	0.00
Spiked Amount				25.000		
					Recovery =	109.804%
5) Toluene-D8(S)	6.91	98	602188	24.9205	ppb	0.00
Spiked Amount				25.000		
					Recovery =	99.680%
6) 4-Bromofluorobenzene(S)	9.84	95	221419	25.6826	ppb	0.00
Spiked Amount				25.000		
					Recovery =	102.732%

Target Compounds Qvalue

Quantitation Report

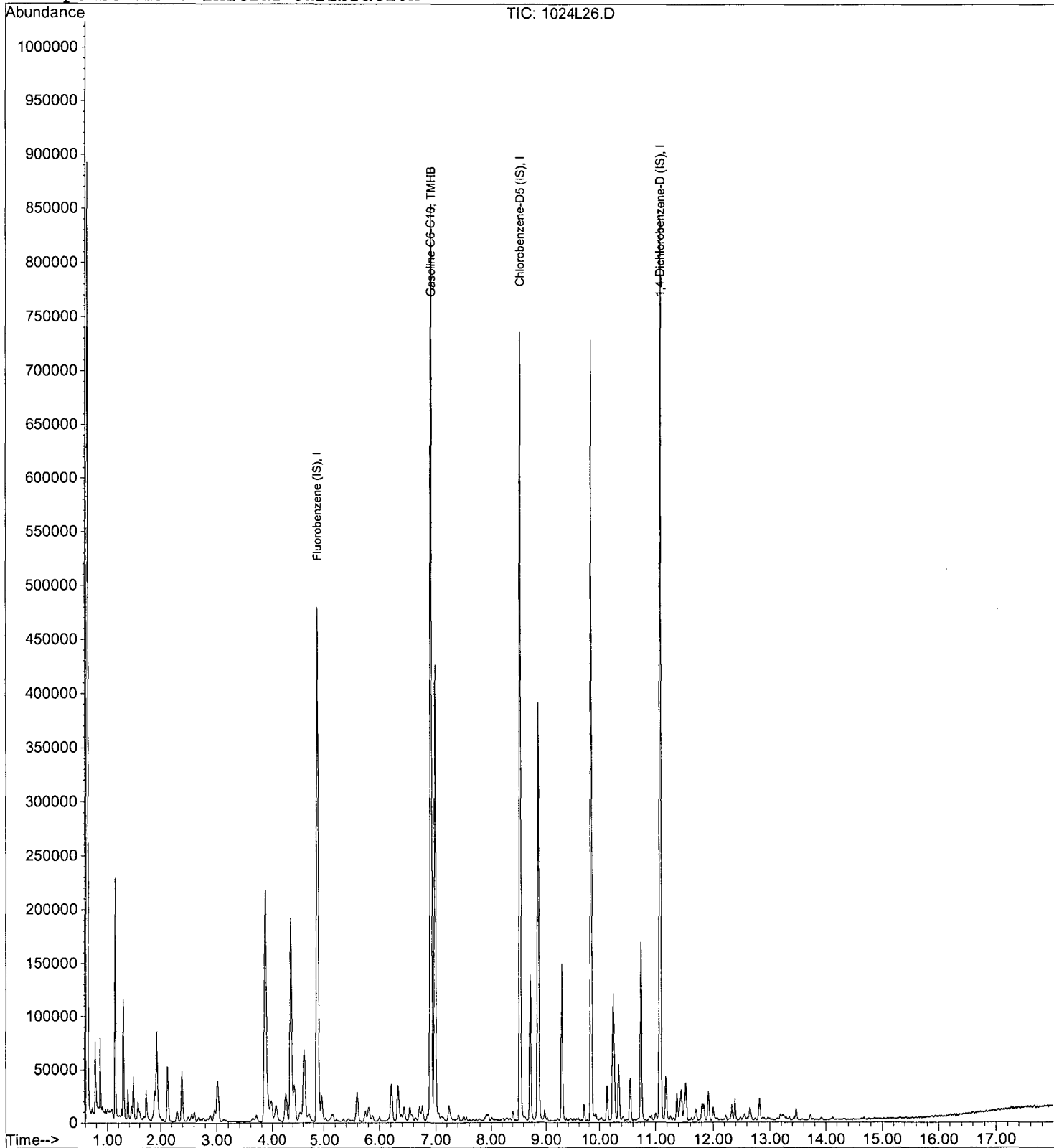
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Acq On : 24 Oct 18 19:11  
Sample : AZ81584W05 MS 300ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 25  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:23 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181023\1024L27.D Vial: 26  
 Acq On : 24 Oct 18 19:39 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81584W06 MSD 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 25 9:24 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	487512	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	738135	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	858565	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	11113343m	276.7049	ppb	100

Data File : M:\LOKI\DATA\181023\1024L27.D Vial: 26  
 Acq On : 24 Oct 18 19:39 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81584W06 MSD 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 25 9:32 2018 Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	235392	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	259072	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	157184	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	165454	24.2734	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	97.092%
3) 1,2-DCA-D4(S)	4.36	65	175015	25.7506	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	103.004%
5) Toluene-D8(S)	6.91	98	571760	23.3529	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	93.412%
6) 4-Bromofluorobenzene(S)	9.84	95	209252	24.1694	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	96.676%

Target Compounds Qvalue

Quantitation Report

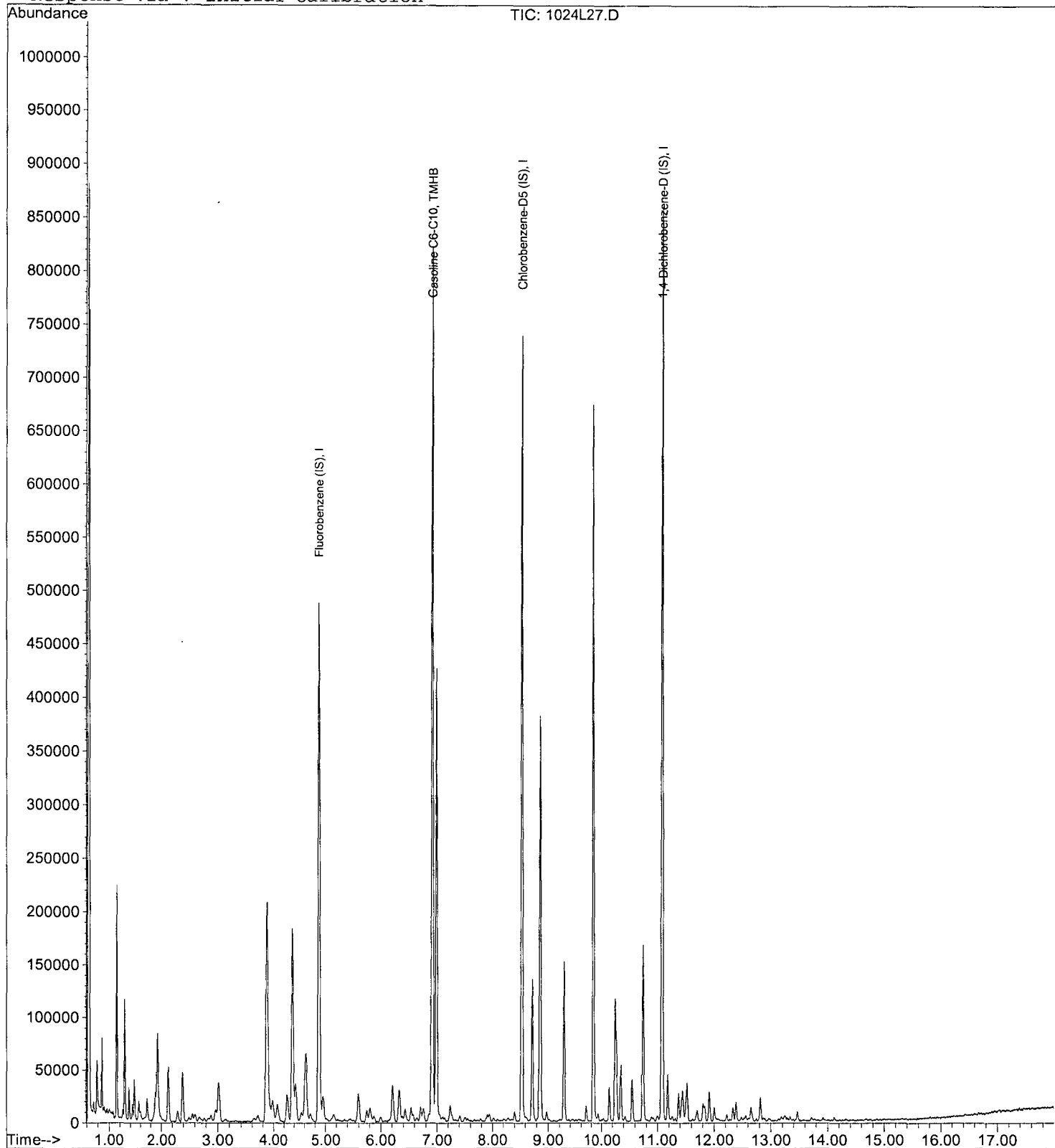
Data File : M:\LOKI\DATA\181023\1024L27.D  
Acq On : 24 Oct 18 19:39  
Sample : AZ81584W06 MSD 300ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 26  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:24 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



GASOLINE							
<b>09/12/18</b>							
Gasoline 2000ug/ml PRIMARY SOURCE							
Supplier	ID #		ug/ml	Lot #	Date	Exp.	
Restek		Unleaded Gasoline	50,000	A092370-36126	04/27/18F-KV	01/31/20	80
J.T BAKER		Purge & Trap MeOH		9077	09/06/18	09/06/19	1920
<b>04/27/18</b>							
Gasoline 2000ug/ml SECONDARY SOURCE							
Supplier	ID #		ug/ml	Lot #	Date	Exp.	
O2SI	020246-06	Unleaded Gasoline	5,000	G34-325261-38383	04/27/18E-KV	07/23/20	200
OMNISOLV		Purge & Trap MeOH		57159-MX0480-1	04/20/18	04/20/19	300

### Loki Gas Standard Prep

Gas Primary Working Standard										
Prepared: 09/11/18						Prepared By (Initials): <u>CMM</u>				
Expires: 04/27/19										
Methanol Lot No. 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
50,000ug/mL Gas STD	Restek	30205	50,000	A092370-36126	04/27/19	01/31/20	80uL	2mL	Methanol	2,000
Gas Second Source (SS) Working Standard										
Prepared: 04/27/18						Prepared By (Initials): <u>PC</u>				
Expires: 04/27/19										
Methanol Lot No. 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Gasoline (5,000ppm)	O2SI	020246-06	5,000	G34-325261-38383	04/27/19	07/23/20	200uL	500uL	Methanol	2,000
Loki Gas Calibration Curve										
Prepared: 09/19/18						Prepared By (Initials): <u>PC</u>				
Expires: 11/18/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA Gasses Standards	Phenova	20ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	1uL	100mL	P&T Water	20
VOA Gasses Standards	Phenova	50ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	2.5uL	100mL	P&T Water	50
VOA Gasses Standards	Phenova	100ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	5uL	100mL	P&T Water	100
VOA Gasses Standards	Phenova	300ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	15uL	100mL	P&T Water	300
VOA Gasses Standards	Phenova	600ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	30uL	100mL	P&T Water	600
VOA Gasses Standards	Phenova	800ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	40uL	100mL	P&T Water	800
VOA Gasses Standards	Phenova	1,000ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	50uL	100mL	P&T Water	1,000
Loki Gas Second Source										
Prepared: 09/19/18						Prepared By (Initials): <u>PC</u>				
Expires: 11/18/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
50,000ug/mL Gas STD	Phenova	SS 300ug/L	2,000	Prepared 04/27/18	04/27/19	N/A	15uL	100mL	P&T Water	300
Loki Gas Continuing Calibrations/Lab Control Spikes										
Prepared: 09/19/18						Prepared By (Initials): <u>PC</u>				
Expires: 09/20/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses Standards	Phenova	300ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	15uL	100mL	P&T Water	300
Loki Gas Surrogate										
Prepared: 08/30/18						Prepared By (Initials): <u>PC</u>				
Expires: 04/02/19										
Methanol Lot No. 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260B Surrogate Solution	O2SI	120002-01	2,000	275545-36329	06/09/19	04/02/19	375uL	15mL	Methanol	50
Loki Gas Internal Standard										
Prepared: 08/24/18						Prepared By (Initials): <u>PC</u>				
Expires: 04/13/19										
Methanol Lot No. 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
IS Solution	O2SI	120004-02	2,000	326533-38443	04/13/19	04/27/21	375uL	15mL	Methanol	50

### Loki Gas Standard Prep

Gas Primary Working Standard										
Prepared: 09/11/18						Prepared By (Initials): <u>CMM</u>				
Expires: 04/27/19										
Methanol Lot No. 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
50,000ug/mL Gas STD	Restek	30205	50,000	A092370-36126	04/27/19	01/31/20	80uL	2mL	Methanol	2,000
Gas Second Source (SS) Working Standard										
Prepared: 04/27/18						Prepared By (Initials): <u>PC</u>				
Expires: 04/27/19										
Methanol Lot No. 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Gasoline (5,000ppm)	O2SI	020246-06	5,000	G34-325261-38383	04/27/19	07/23/20	200uL	500uL	Methanol	2,000
Loki Gas Calibration Curve										
Prepared: 09/19/18						Prepared By (Initials): <u>PC</u>				
Expires: 11/18/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA Gasses Standards	Phenova	20ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	1uL	100mL	P&T Water	20
VOA Gasses Standards	Phenova	50ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	2.5uL	100mL	P&T Water	50
VOA Gasses Standards	Phenova	100ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	5uL	100mL	P&T Water	100
VOA Gasses Standards	Phenova	300ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	15uL	100mL	P&T Water	300
VOA Gasses Standards	Phenova	600ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	30uL	100mL	P&T Water	600
VOA Gasses Standards	Phenova	800ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	40uL	100mL	P&T Water	800
VOA Gasses Standards	Phenova	1,000ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	50uL	100mL	P&T Water	1,000
Loki Gas Second Source										
Prepared: 09/19/18						Prepared By (Initials): <u>PC</u>				
Expires: 11/18/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
50,000ug/mL Gas STD	Phenova	SS 300ug/L	2,000	Prepared 04/27/18	04/27/19	N/A	15uL	100mL	P&T Water	300
Loki Gas Continuing Calibrations/Lab Control Spikes										
Prepared: 09/19/18						Prepared By (Initials): <u>PC</u>				
Expires: 09/20/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses Standards	Phenova	300ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	15uL	100mL	P&T Water	300
Loki Gas Surrogate										
Prepared: 08/30/18						Prepared By (Initials): <u>PC</u>				
Expires: 04/02/19										
Methanol Lot No. 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260B Surrogate Solution	O2SI	120002-01	2,000	275545-36329	06/09/19	04/02/19	375uL	15mL	Methanol	50
Loki Gas Internal Standard										
Prepared: 08/24/18						Prepared By (Initials): <u>PC</u>				
Expires: 04/13/19										
Methanol Lot No. 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
IS Solution	O2SI	120004-02	2,000	326533-38443	04/13/19	04/27/21	375uL	15mL	Methanol	50

## Loki 8260 Standard Prep

Loki 8260 Water Calibration Curve										
0.3ug/L						Prepared By (Initials): <u>DG</u>				
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.3ug/L	5	Prepared 10/23/18	10/31/18	N/A	3uL	50mL	P&T Water	0.3
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	3uL			0.3
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	3uL			0.3
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	2uL			10
0.5ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.5ug/L	5	Prepared 10/23/18	10/31/18	N/A	5uL	50mL	P&T Water	0.5
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	5uL			0.5
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	5uL			0.5
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	5uL			25
1.0ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	1.0ug/L	5	Prepared 10/23/18	10/31/18	N/A	10uL	50mL	P&T Water	1
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	10uL			1
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	10uL			1
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	10uL			50
2.0ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	2.0ug/L	5	Prepared 10/23/18	10/31/18	N/A	20uL	50mL	P&T Water	2
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	20uL			2
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	20uL			2
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	15uL			75
5ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	5ug/L	50	Prepared 10/23/18	12/22/18	N/A	5uL	50mL	P&T Water	5
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	5uL			5
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	5uL			5
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	5uL			5
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	20uL			100
10ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	10ug/L	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	25uL			125

20ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	20ug/L	50	Prepared 10/23/18	12/22/18	N/A	20uL	50mL	P&T Water	20
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	20uL			20
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	20uL			20
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	20uL			20
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	30uL			150
40ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	40ug/L	50	Prepared 10/23/18	12/22/18	N/A	40uL	50mL	P&T Water	40
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	40uL			40
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	35uL			175
100ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	100ug/L	50	Prepared 10/23/18	12/22/18	N/A	100uL	50mL	P&T Water	100
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	100uL			100
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	100uL			100
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	100uL			100
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	40uL			200
Loki 8260 Water Second Source (SS)										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 4	Phenova	8260 Water SS	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 5	O2SI	8260 Water SS	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 6	Various	8260 Water SS	50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. TBA	Various	8260 Water SS	250	Prepared 10/23/18	10/31/18	N/A	25uL			250
VOA STD. TBA	Various	8260 Water SS	250	Prepared 10/23/18	10/31/18	N/A	25uL			250
8260 Water Continuing Calibrations (CCV)/ Lab Control Spikes (LCS)										
Prepared: 10/23/18										
Expires: 10/24/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	CCV/ LCS	50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. TBA	Various	CCV/ LCS	250	Prepared 10/23/18	10/31/18	N/A	25uL			125
LCS (X4 Ketones)										
Prepared: 10/23/18										
Expires: 10/24/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	LCS X4 Ketones	50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. TBA	Various	LCS X4 Ketones	250	Prepared 10/23/18	10/31/18	N/A	25uL			125



<b>Loki 8260 Water Surrogate</b>										
Prepared: 09/28/18						Prepared By (Initials): DG				
Expires: 04/02/19										
Methanol Lot No: 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260 Surrogate Solution	O2SI	120002-01	2,000	275545-36334	09/28/19	04/02/19	375uL	15mL	Methanol	50
<b>Loki 8260 Water Internal Standard</b>										
Prepared: 09/28/18						Prepared By (Initials): DG				
Expires: 06/29/19										
Methanol Lot No: 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Internal Standard Solution	O2SI	120004-02	2,000	326533-38434	06/29/19	04/27/21	375uL	15mL	Methanol	50

### Primary and Secondary Working Standards

Primary Standards										
VOA STD 7										
Prepared: 10/23/18 C										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses STD	Phenova	ALO-101206	2,000	CL12418-39660	09/13/19	04/30/23	100uL	4mL	Methanol	50
Hexachloroethane	Absolute	70199	1,000	071317-39700	09/04/19	05/14/28	200uL			50
Benzyl Chloride	O2SI	020228-02	1,000	041918-39343	09/04/19	04/19/19	200uL			50
VOA STD 8										
Prepared: 10/23/18 D										
Expires: 10/31/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Additions STD	Phenova	ALO-101206	2,000	CL12622-39323	06/20/19	05/31/20	100uL	4mL	Methanol	50
VOC's-54 COMP	Phenova	ALO-101200	2,000	CL12490-39490	06/20/19	05/30/20	100uL			50
Vinyl Acetate	Phenova	ALO-101228	2,000	CL12805-39766	09/06/19	10/31/18	100uL			50
VOA STD TBA										
Prepared: 10/23/18 E										
Expires: 10/31/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOC Mix	Phenova	ALO-130176	2,000	CL12228-39680	09/06/19	08/31/28	500uL	4mL	Methanol	250
Acrolein	Phenova	ALO-101224	5,000	CL12863-39768	09/06/19	10/31/18	200uL			250
VOA STD 1										
Prepared: 10/23/18 F										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
2-CEVE	O2SI	020145-02	2,000	292247-38407	09/06/19	11/12/19	50	2mL	Methanol	50
VOA STD 2										
Prepared: 10/23/18 G										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
HSL's Ketone Solution	O2SI	121020-05	2,000	CL12729-39663	10/17/19	08/01/28	100	4mL	Methanol	50
VOA STD 9										
Prepared: 10/23/18 H										
Expires: 10/31/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 7	O2SI	VOA STD. 9	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5
VOA STD. 8	O2SI	VOA STD. 9	50	Prepared 10/23/18	10/31/18	N/A	200uL			5
VOA STD. 10										
Prepared: 10/23/18 I										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 1	O2SI	VOA STD. 10	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5
VOA STD. 12										
Prepared: 10/23/18 J										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 2	O2SI	VOA STD. 12	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5

Second Source (SS) Standards										
VOA STD. 3										
Prepared: 10/23/18 K										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Ketones Standard	Phenova	ALO-101211	2,000	CL12730-39669	07/25/19	08/01/28	50uL	2mL	Methanol	50
VOA STD. 5										
Prepared: 10/23/18 L										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260 Gases (SS)	Phenova	ALO-101206	2,000	CL12417-39649	09/13/19	04/30/23	50uL	2mL	Methanol	50
2-CEVE (SS)	O2SI	020145-02-02-SS	2,000	71018-39539	06/20/19	11/12/19	50uL			50
VOA STD. 6										
Prepared: 10/23/18 M										
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
502.2 Calibration STD. (54-compounds)	Phenova	ALO-101200	2,000	CL12489-39484	06/20/19	05/31/23	50uL	2mL	Methanol	50
Vinyl Acetate	Phenova	ALO-101228	1,000	CL12868-39767	09/06/19	10/31/18	50uL			50
Hexachloroethane	O2SI	020049-02	1,000	218051281	06/20/19	05/14/28	50uL			50
VOA STD. TBA										
Prepared: 10/23/18 N										
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOA Mix (4-3)	Phenova	ALO-130179	2,000	CL12228-39309	08/13/19	08/31/20	250uL	2mL	Methanol	250
Acrolein	Phenova	ALO-101224	5,000	CL12868-39769	09/06/19	10/31/18	100uL			250
VOA STD. O										
Prepared: 10/23/18 O										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Addition STD.	Phenova	ALO-130175	2,000	CL12230-39138	07/25/19	01/31/20	50uL	2mL	Methanol	50
BFB Tune										
Prepared: 08/29/18										
Expires: 08/07/19										
Methanol Lot No. 9077-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
4-Bromofluorobenzene	O2SI	020135-03	2,500	320514-38965	08/07/19	09/03/20	20uL	2mL	Methanol	25

## Injection Log

Directory: M:\LOK\DATA\180915\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	32	0919L33.D	1	20ug/L VOC GAS STD 18/09/19	IS&S 8/30/18,8/23/18	19 Sep 18 21:20
2	33	0919L34.D	1	50ug/L VOC GAS STD 18/09/19	IS&S 8/30/18,8/23/18	19 Sep 18 21:48
3	34	0919L35.D	1	100ug/L VOC GAS STD 18/09/19	IS&S 8/30/18,8/23/18	19 Sep 18 22:16
4	35	0919L36.D	1	300ug/L VOC GAS STD 18/09/19	IS&S 8/30/18,8/23/18	19 Sep 18 22:44
5	36	0919L37.D	1	600ug/L VOC GAS STD 18/09/19	IS&S 8/30/18,8/23/18	19 Sep 18 23:12
6	37	0919L38.D	1	800ug/L VOC GAS STD 18/09/19	IS&S 8/30/18,8/23/18	19 Sep 18 23:40
7	38	0919L39.D	1	1000ug/L VOC GAS STD 18/09/19	IS&S 8/30/18,8/23/18	20 Sep 18 00:09
8	43	0919L44.D	1	(SS)300ug/L VOC GAS STD 18/09/19	IS&S 8/30/18,8/23/18	20 Sep 18 2:29
9	2	1023L03.D	1	0.3ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 13:39
10	3	1023L04.D	1	0.5ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 14:07
11	4	1023L05.D	1	1.0ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 14:35
12	5	1023L06.D	1	5.0ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 15:03
13	6	1023L07.D	1	10ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 15:31
14	7	1023L08.D	1	20ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 15:59
15	8	1023L09.D	1	50ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 16:27
16	9	1023L10.D	1	100ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 16:55
17	6	1024L07.D	1	181024A CCV 300ug/L	IS&S 9/28/18,8/23/18	24 Oct 18 10:19
18	7	1024L08.D	1	181024A LCS 300ug/L	IS&S 9/28/18,8/23/18	24 Oct 18 10:47
19	8	1024L09.D	1	181024A LCSD 300ug/L	IS&S 9/28/18,8/23/18	24 Oct 18 11:15
20	10	1024L11.D	1	181024A Blk	IS&S 9/28/18,8/23/18	24 Oct 18 12:11
21	12	1024L13.D	1	AZ81583W01	IS&S 9/28/18,8/23/18	24 Oct 18 13:07
22	13	1024L14.D	1	AZ81586W01	IS&S 9/28/18,8/23/18	24 Oct 18 13:35
23	17	1024L18.D	1	AZ81584W01	IS&S 9/28/18,8/23/18	24 Oct 18 15:27
24	18	1024L19.D	1	AZ81585W01	IS&S 9/28/18,8/23/18	24 Oct 18 15:55
25	19	1024L20.D	1	AZ81587W01	IS&S 9/28/18,8/23/18	24 Oct 18 16:23
26	25	1024L26.D	1	AZ81584W05 MS 300ug/L	IS&S 9/28/18,8/23/18	24 Oct 18 19:11
27	26	1024L27.D	1	AZ81584W06 MSD 300ug/L	IS&S 9/28/18,8/23/18	24 Oct 18 19:39
28	28	1024L29.D	1	Ending CCV 300ug/L 10/24/18	IS&S 9/28/18,8/23/18	24 Oct 18 20:35

**ORGANICS  
Calibration Data**

**APPL, INC.**

**Form 6**  
**Initial Calibration**

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/29/18 \_\_\_\_\_  
Instrument: 7890 \_\_\_\_\_

Initials: \_\_\_\_\_

18102900.D    18102901.D    18102903.D    18102904.D    18102905.D    18102906.D    18102907.D

	Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r <sup>2</sup>	Q
1	ATML Methane	19615	9373	10954	15702	14030	13431	10703				13401	26	ATM	0.996	
2	ATM Ethane	14917	8316	8621	12025	10728	10915	8329				10550	23	ATM		*
3	ATM Ethene	12812	7388	7413	10412	9206	9538	7250				9145	22	ATM		*
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35																

2.038643

Data File : G:\ROCKY\DATA\181029RS\18102900.D Vial: 1  
 Acq On : 29 Oct 18 10:29 Operator: cmm  
 Sample : RSK Std 1 10/29/18 Inst : 7890  
 Misc : 125uL from RSK Std 3 Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:07 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:05:00 2018  
 Response via : Multiple Level Calibration

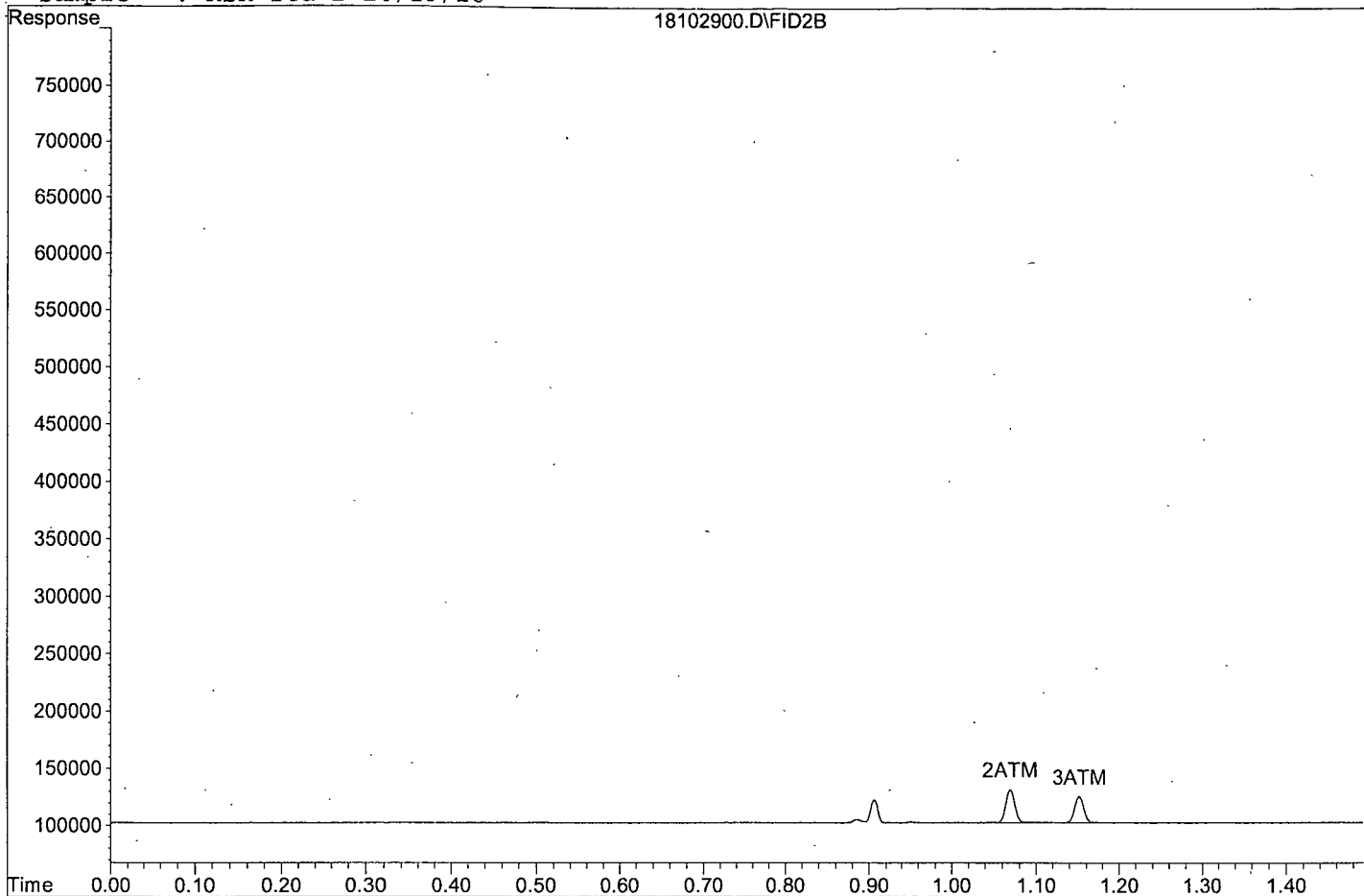
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
2) ATM Ethane	1.07	29163	5.528 ppb
3) ATM Ethene	1.15	23381	5.113 ppb
Target Compounds			
1) ATM Methane	0.91	20400	N.D. ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102900.D

Sample : RSK Std 1 10/29/18





Data File : G:\ROCKY\DATA\181029RS\18102901.D Vial: 2  
 Acq On : 29 Oct 18 10:32 Operator: cmm  
 Sample : RSK Std 2 10/29/18 Inst : 7890  
 Misc : 250uL from RSK Std 3 Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:07 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:05:00 2018  
 Response via : Multiple Level Calibration

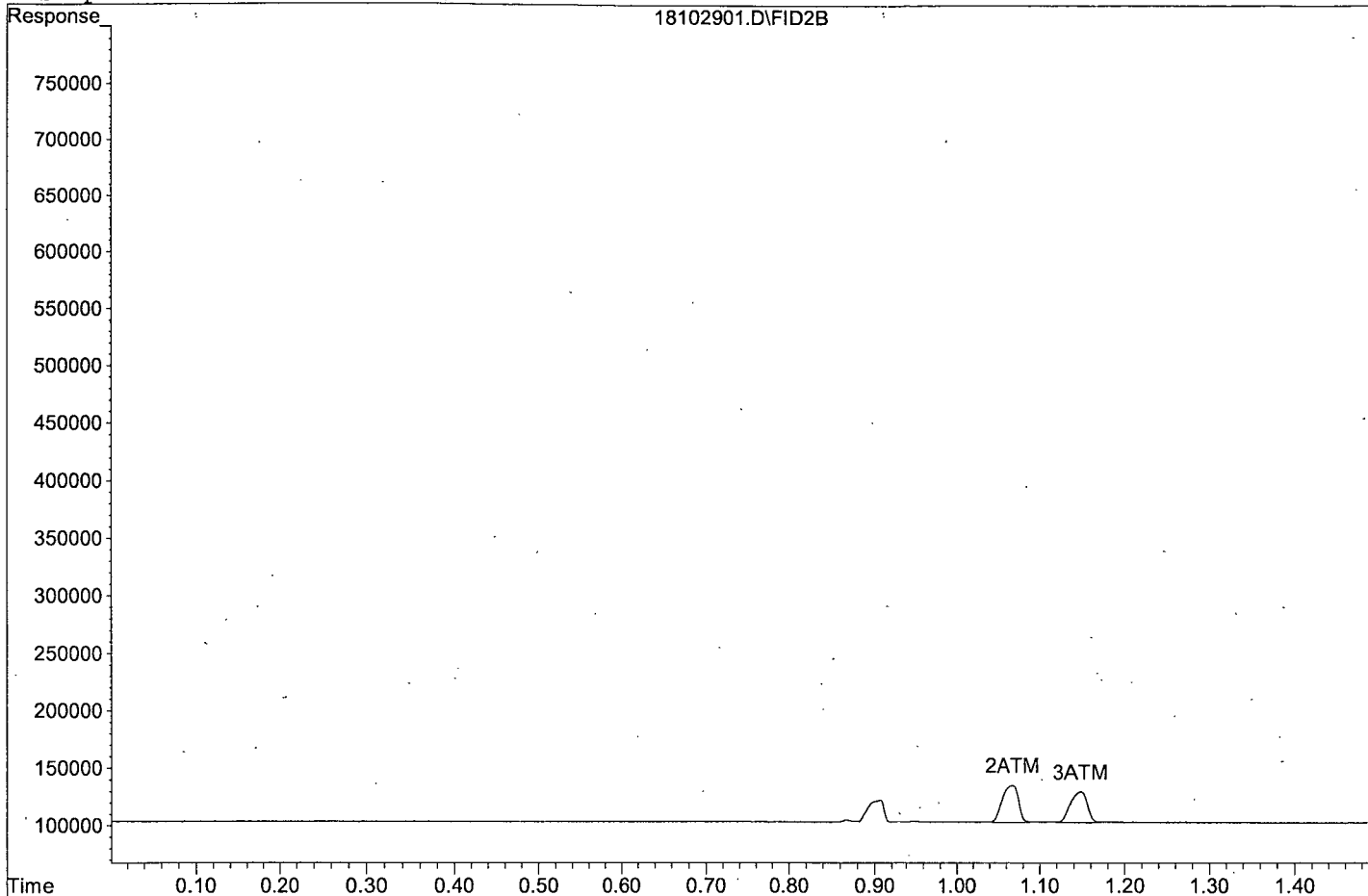
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
2) ATM Ethane	1.07	32474	6.156 ppb
3) ATM Ethene	1.15	26966	5.897 ppb
Target Compounds			
1) ATM Methane	0.91	19495 ✓	N.D. ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102901.D

Sample : RSK Std 2 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102903.D Vial: 4  
 Acq On : 29 Oct 18 10:40 Operator: cmm  
 Sample : RSK Std 3 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:07 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:05:00 2018  
 Response via : Multiple Level Calibration

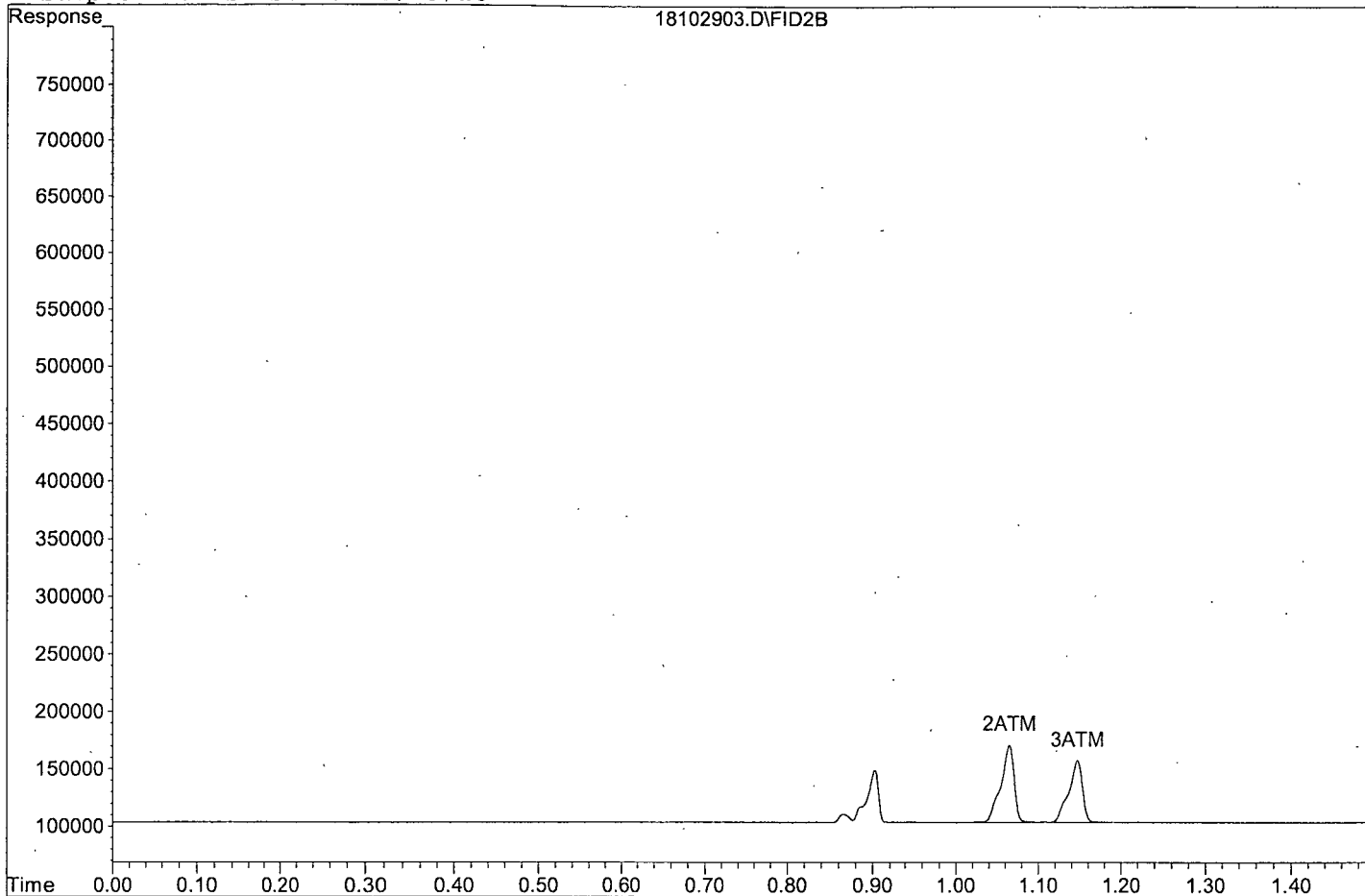
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
2) ATM Ethane	1.07	67242	12.747 ppb
3) ATM Ethene	1.15	54115	11.834 ppb
Target Compounds			
1) ATM Methane	0.90	45677 ✓	N.D. ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102903.D

Sample : RSK Std 3 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102904.D Vial: 5  
 Acq On : 29 Oct 18 10:42 Operator: cmm  
 Sample : RSK Std 4 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:02 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:02:34 2018  
 Response via : Multiple Level Calibration

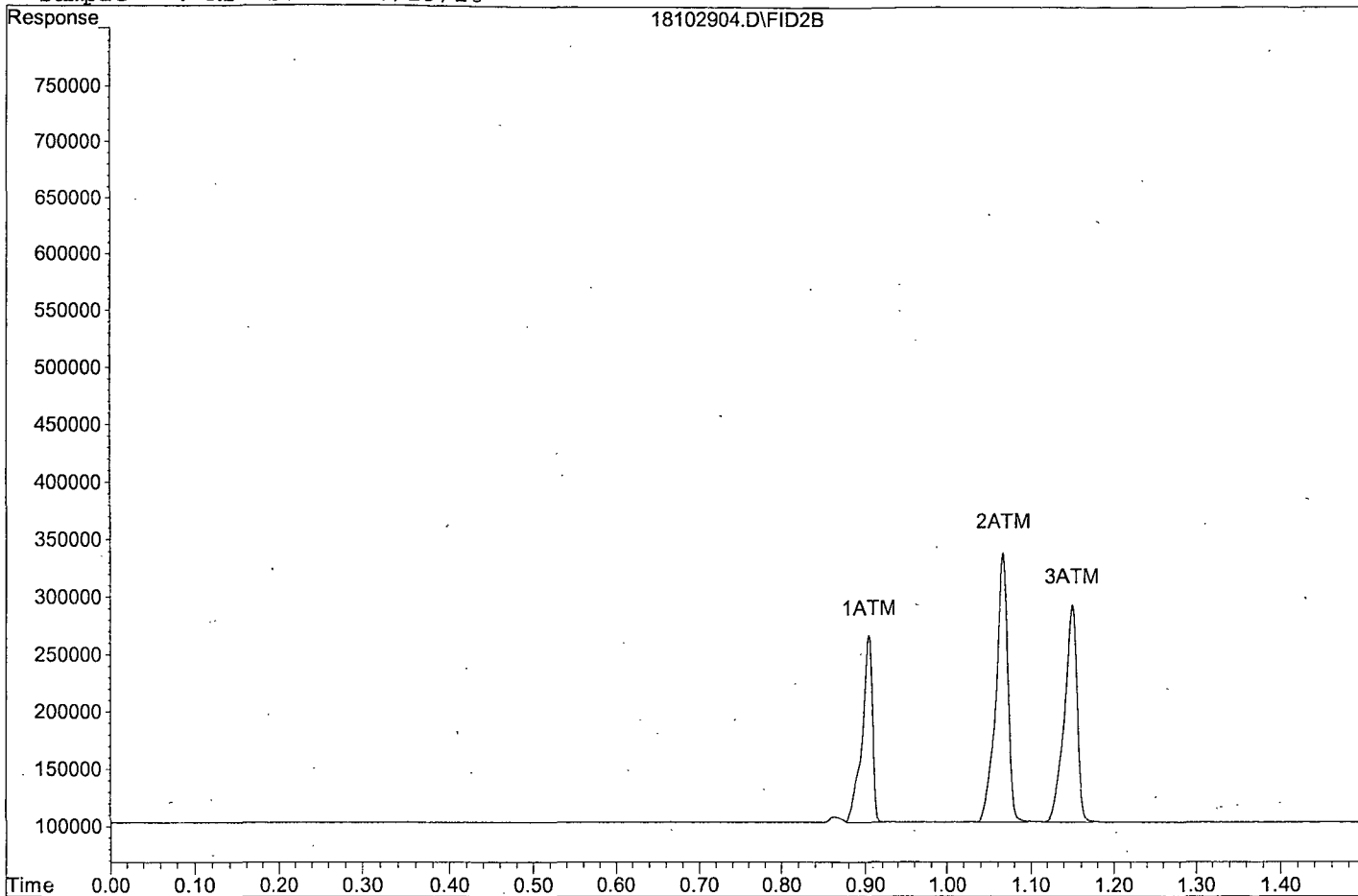
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.91	163698	17.293 ppb
2) ATM Ethane	1.07	235032	44.556 ppb
3) ATM Ethene	1.15	189804	41.508 ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102904.D

Sample : RSK Std 4 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102905.D Vial: 6  
 Acq On : 29 Oct 18 10:44 Operator: cmm  
 Sample : RSK Std 5 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:02 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:02:34 2018  
 Response via : Multiple Level Calibration

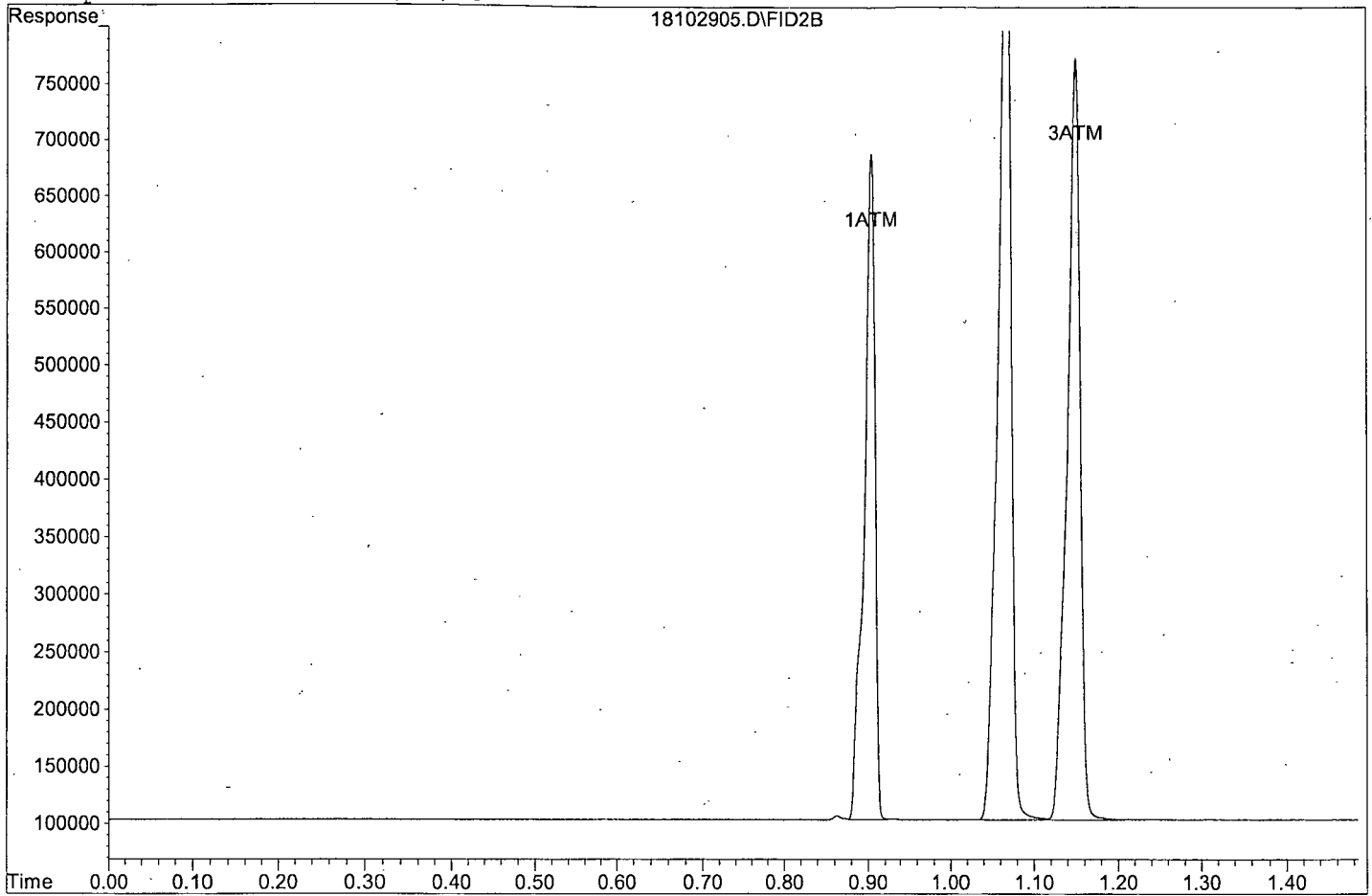
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.90	585044	96.247 ppb
2) ATM Ethane	1.07	838627	158.980 ppb
3) ATM Ethene	1.15	671284	146.802 ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102905.D

Sample : RSK Std 5 10/29/18





Data File : G:\ROCKY\DATA\181029RS\18102906.D Vial: 7  
 Acq On : 29 Oct 18 10:47 Operator: cmm  
 Sample : RSK Std 6 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:02 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:02:34 2018  
 Response via : Multiple Level Calibration

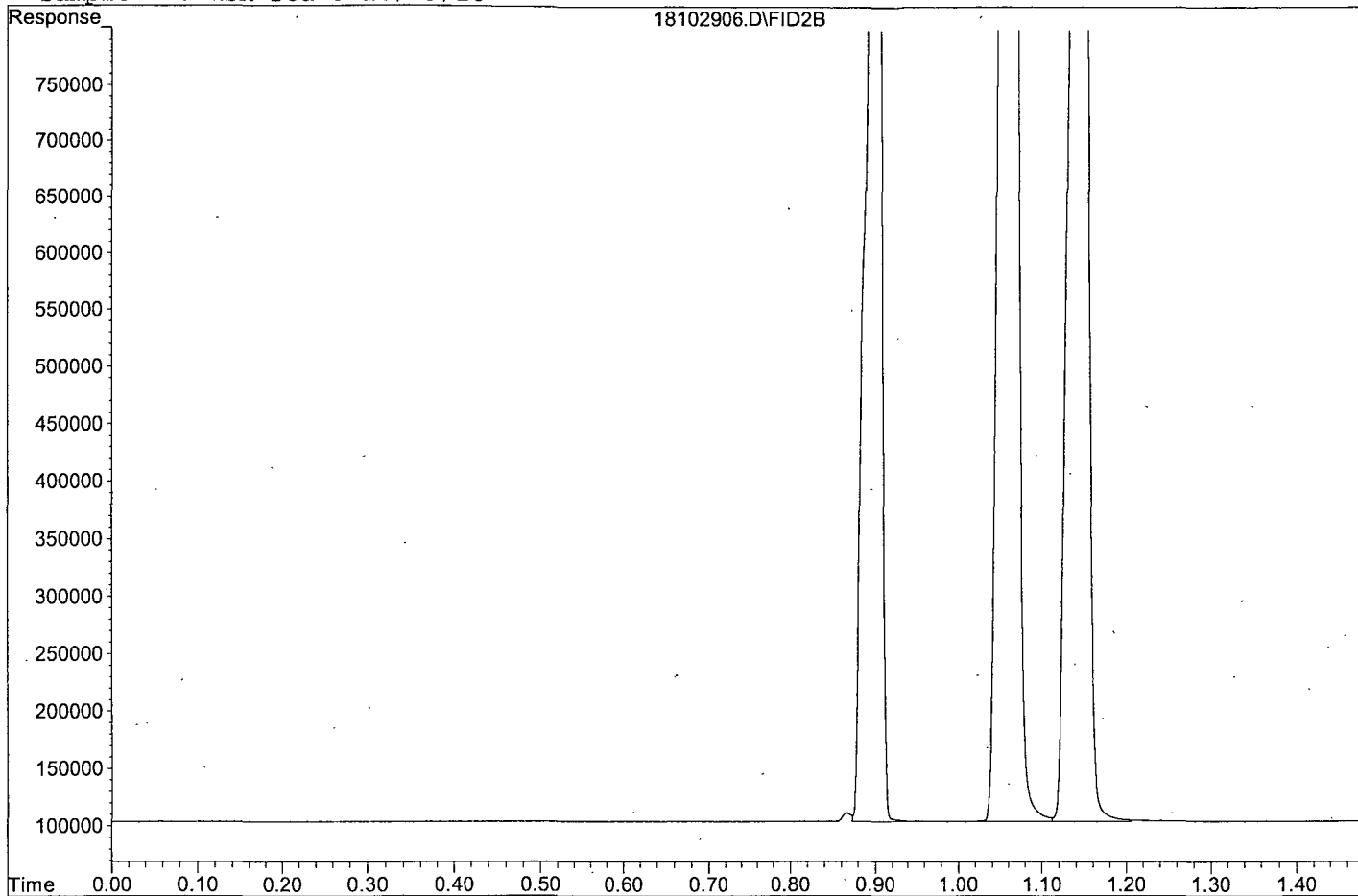
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.90	1400165	248.989 ppb
2) ATM Ethane	1.06	2133368	404.427 ppb
3) ATM Ethene	1.15	1738763	380.248 ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102906.D

Sample : RSK Std 6 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102907.D Vial: 8  
 Acq On : 29 Oct 18 10:49 Operator: cmm  
 Sample : RSK Std 7 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:02 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct. 29 11:02:34 2018  
 Response via : Multiple Level Calibration

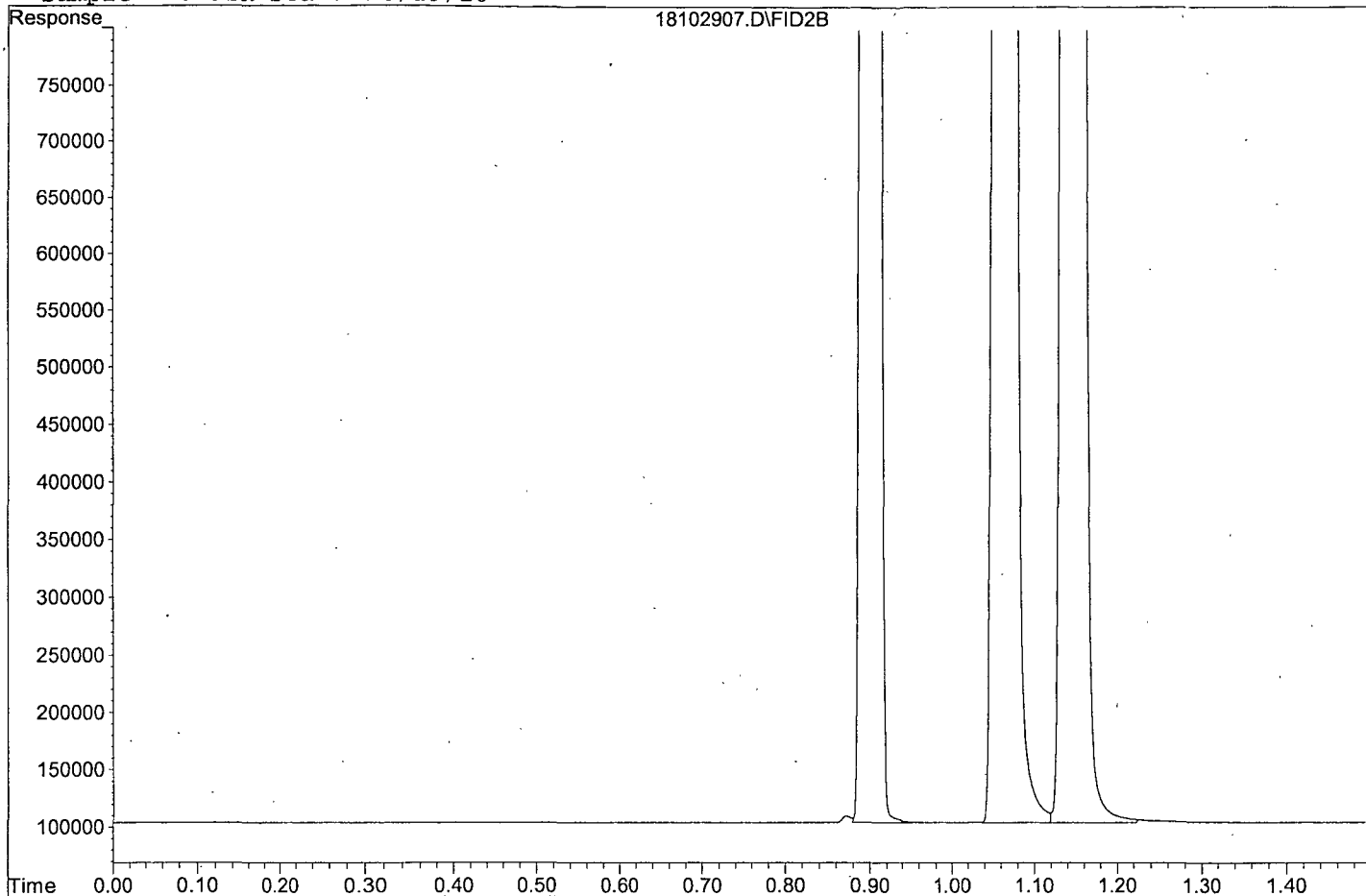
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.91	4462952	822.912 ppb
2) ATM Ethane	1.07	6510961	1234.297 ppb
3) ATM Ethene	1.15	5286849	1156.173 ppb

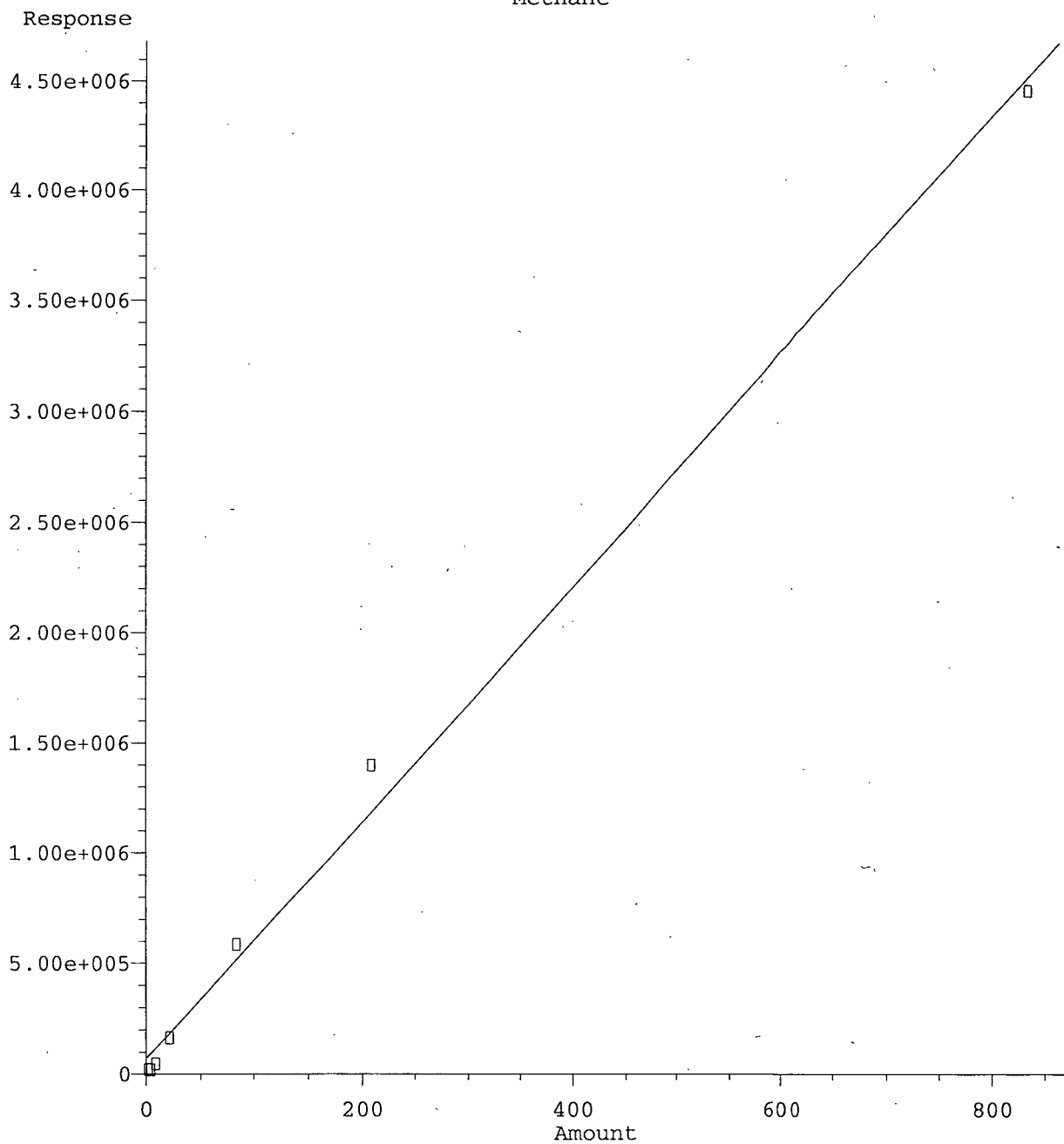
Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102907.D

Sample : RSK Std 7 10/29/18



Methane



Response = 5.34e+003 \* Amt + 7.14e+004  
Coef of Det (r^2) = 0.996 Curve Fit: Linear

Method Name: G:\ROCKY\DATA\181029RS\RSK1029.M  
Calibration Table Last Updated: Mon Oct 29 11:05:00 2018

RSK 175

RSK 175

Form 7

### Second Source Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/29/18

Matrix: \_\_\_\_\_

Instrument: 7890

Initial Cal. Date: 10/29/18

Data File: 18102908.D

		Compound	MEAN	CCRF	%D	%Drift	
1	ATML	Methane	13401	11162	17	ATML	11
2	ATM	Ethane	10550	8709	17	ATM	
3	ATM	Ethene	9145	7473	18	ATM	
4							
5							
6							
7							
8							
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11							
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38							
39							
40							

Average

17.3

Data File : G:\ROCKY\DATA\181029RS\18102908.D Vial: 9  
 Acq On : 29 Oct 18 10:51 Operator: cmm  
 Sample : SS RSK Std 5 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:05 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:05:00 2018  
 Response via : Multiple Level Calibration

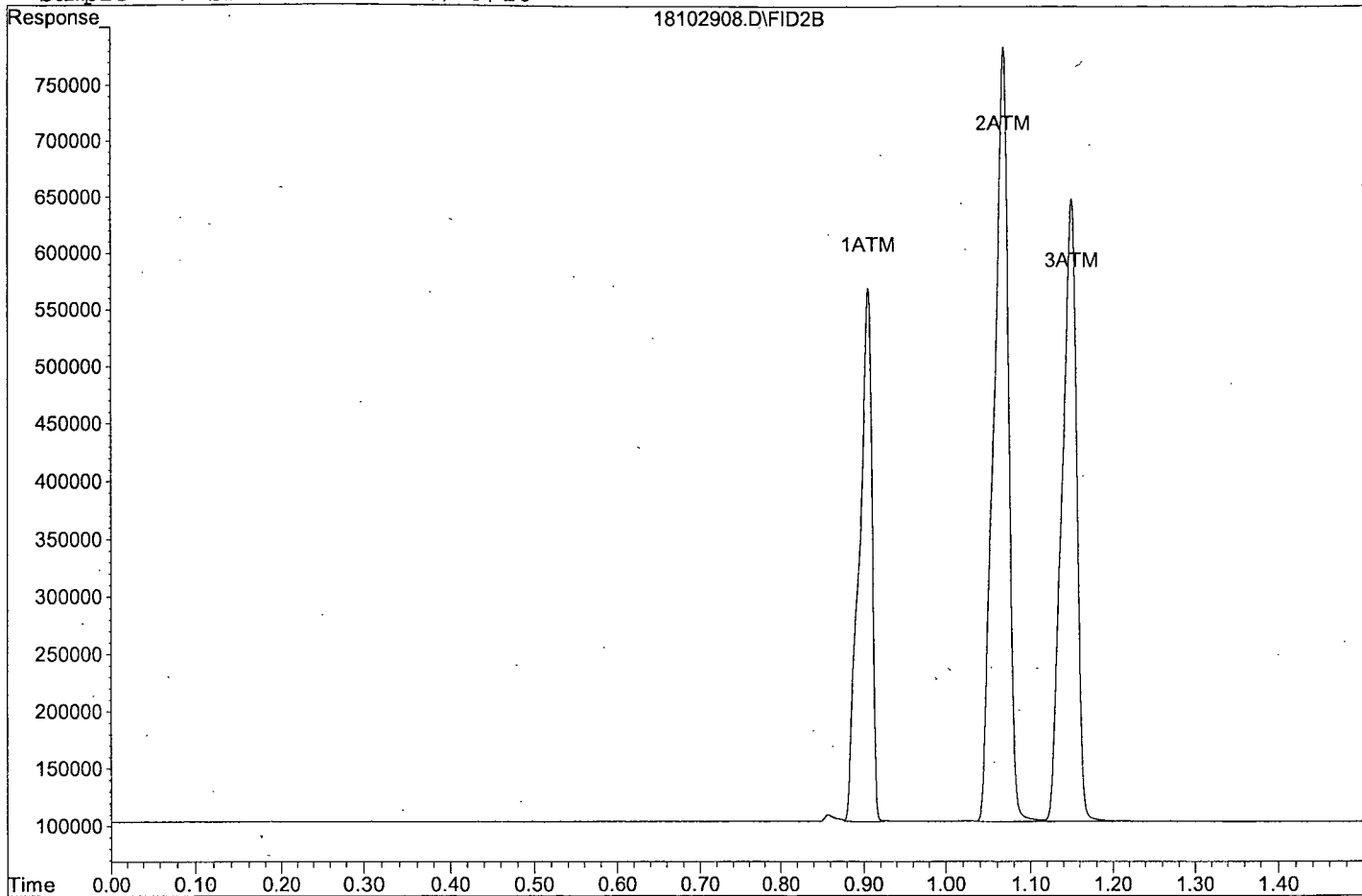
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.91	465450	73.837 ppb
2) ATM Ethane	1.07	680794	129.060 ppb
3) ATM Ethene	1.15	544918	119.167 ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102908.D

Sample : SS RSK Std 5 10/29/18





RSK 175  
RSK 175

Form 7

### Ending Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/29/18  
Instrument: 7890  
Initial Cal. Date: 10/29/18  
Data File: 18102933.D

		Compound	MEAN	CCRF	%D	%Drift	
1	ATML	Methane	13401	9911	26	ATML	23
2	ATM	Ethane	10550	7617	28	ATM	*nt
3	ATM	Ethene	9145	6406	30	ATM	*nt
4							
5							
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39							
40							

Average

28.0

Data File : G:\ROCKY\DATA\181029RS\18102933.D Vial: 14  
 Acq On : 29 Oct 18 14:11 Operator: cmm  
 Sample : Ending CCV RSK Std 5 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 14:13 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 14:13:45 2018  
 Response via : Multiple Level Calibration

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

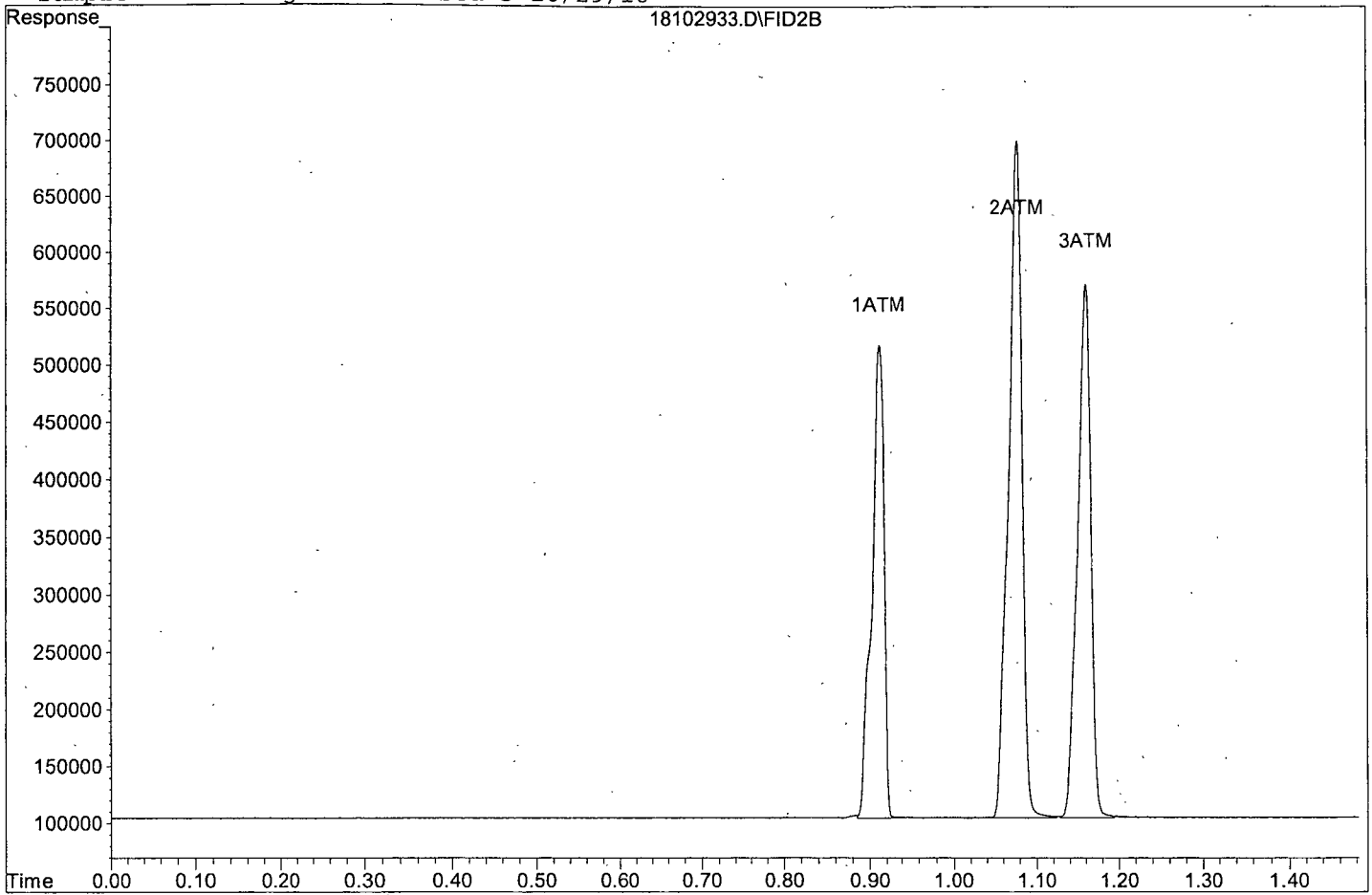
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.91	413269	64.059 ppb
2) ATM Ethane	1.08	595427	112.876 ppb
3) ATM Ethene	1.16	467149	102.160 ppb

Target Compounds

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102933.D

Sample : Ending CCV RSK Std 5 10/29/18



**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : G:\ROCKY\DATA\181029RS\18102914.D Vial: 1  
 Acq On : 29 Oct 18 12:11 Operator: cmm  
 Sample : AZ81583W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 12:14 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
----------	------	----------	------------

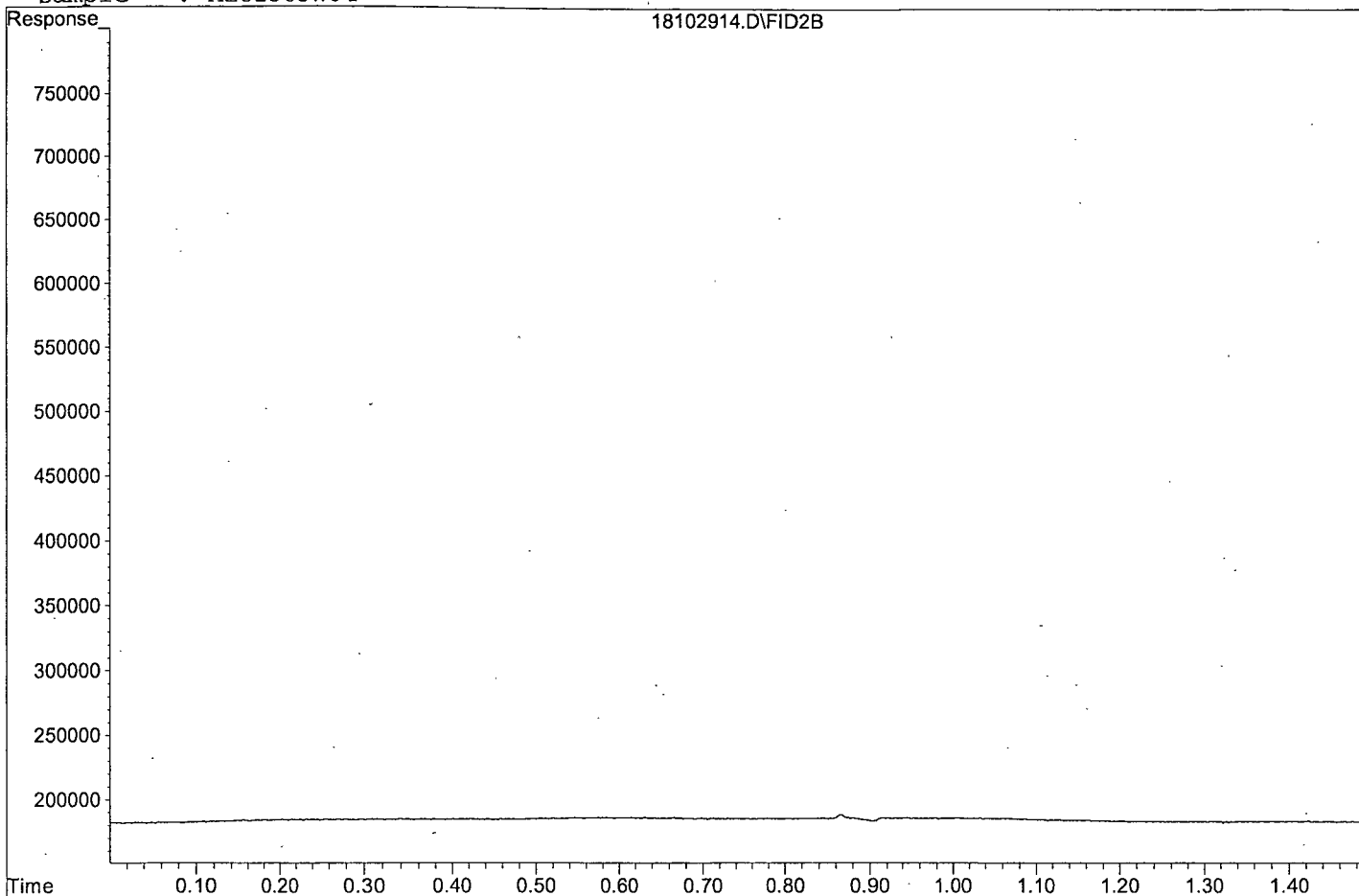
Target Compounds

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

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102914.D

Sample : AZ81583W04



Data File : G:\ROCKY\DATA\181029RS\18102915.D Vial: 2  
 Acq On : 29 Oct 18 12:13 Operator: cmm  
 Sample : AZ81584W07 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 12:16 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
----------	------	----------	------	-------

Target Compounds

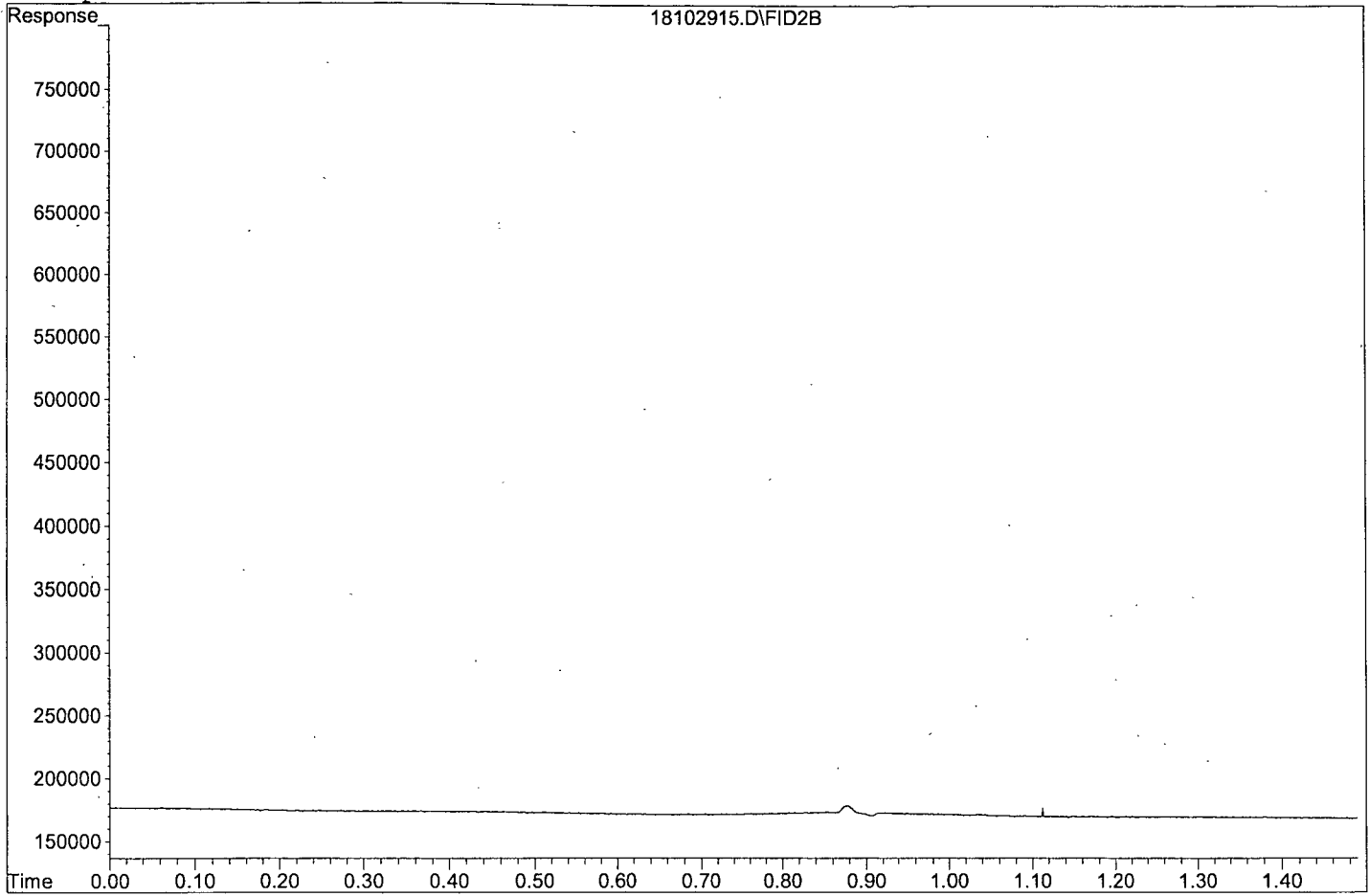
Target Compounds

1) ATM Methane	0.00	0	N.D.	ppb d
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102915.D

Sample : AZ81584W07





Data File : G:\ROCKY\DATA\181029RS\18102916.D Vial: 3  
 Acq On : 29 Oct 18 12:15 Operator: cmm  
 Sample : AZ81586W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 12:18 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
----------	------	----------	------	-------

Target Compounds

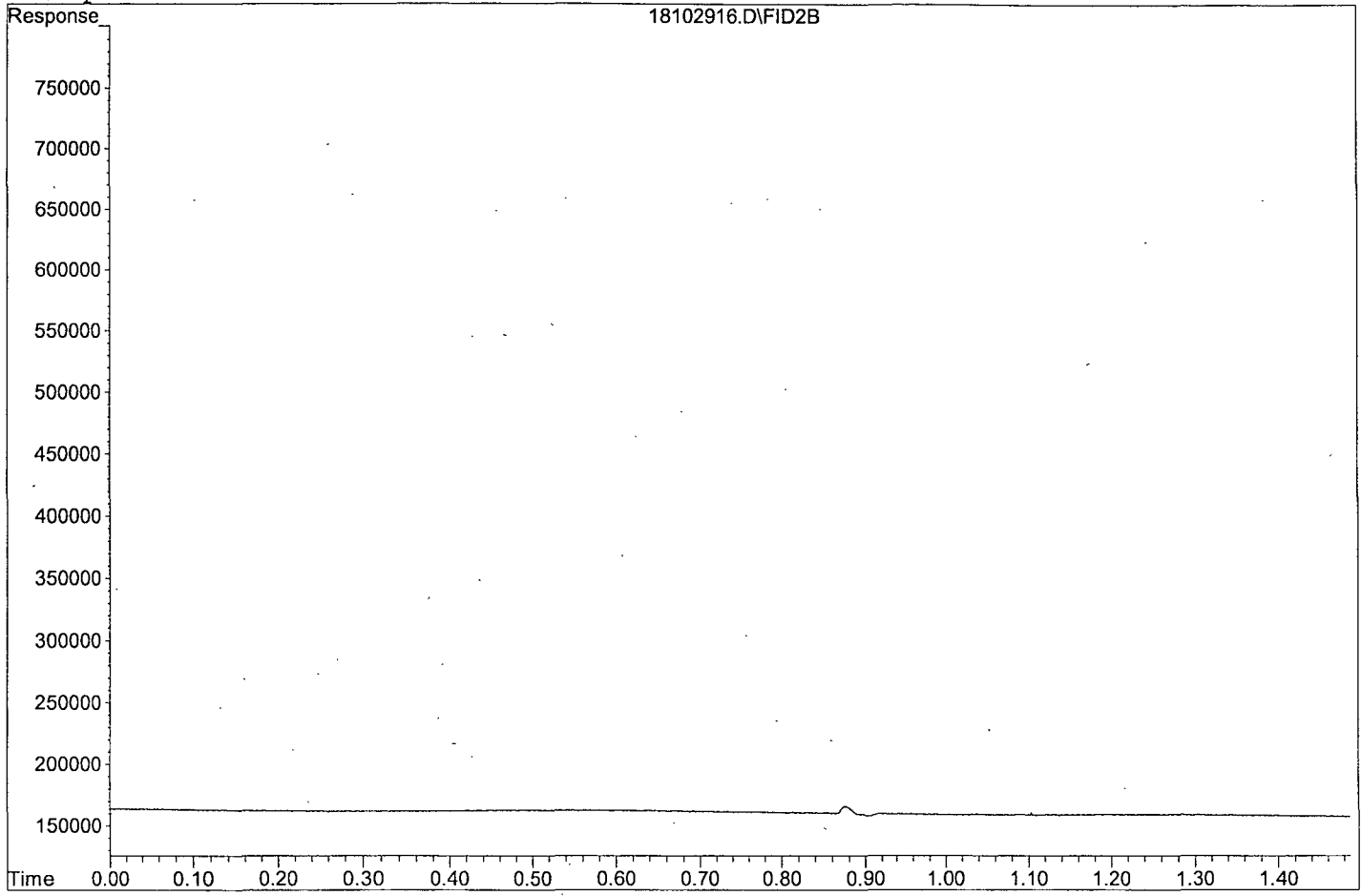
Target Compounds

1) ATM Methane	0.00	0	N.D.	ppb d
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102916.D

Sample : AZ81586W04



Data File : G:\ROCKY\DATA\181029RS\18102917.D Vial: 4  
 Acq On : 29 Oct 18 12:18 Operator: cmm  
 Sample : AZ81587W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 12:22 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
----------	------	----------	------	-------

Target Compounds

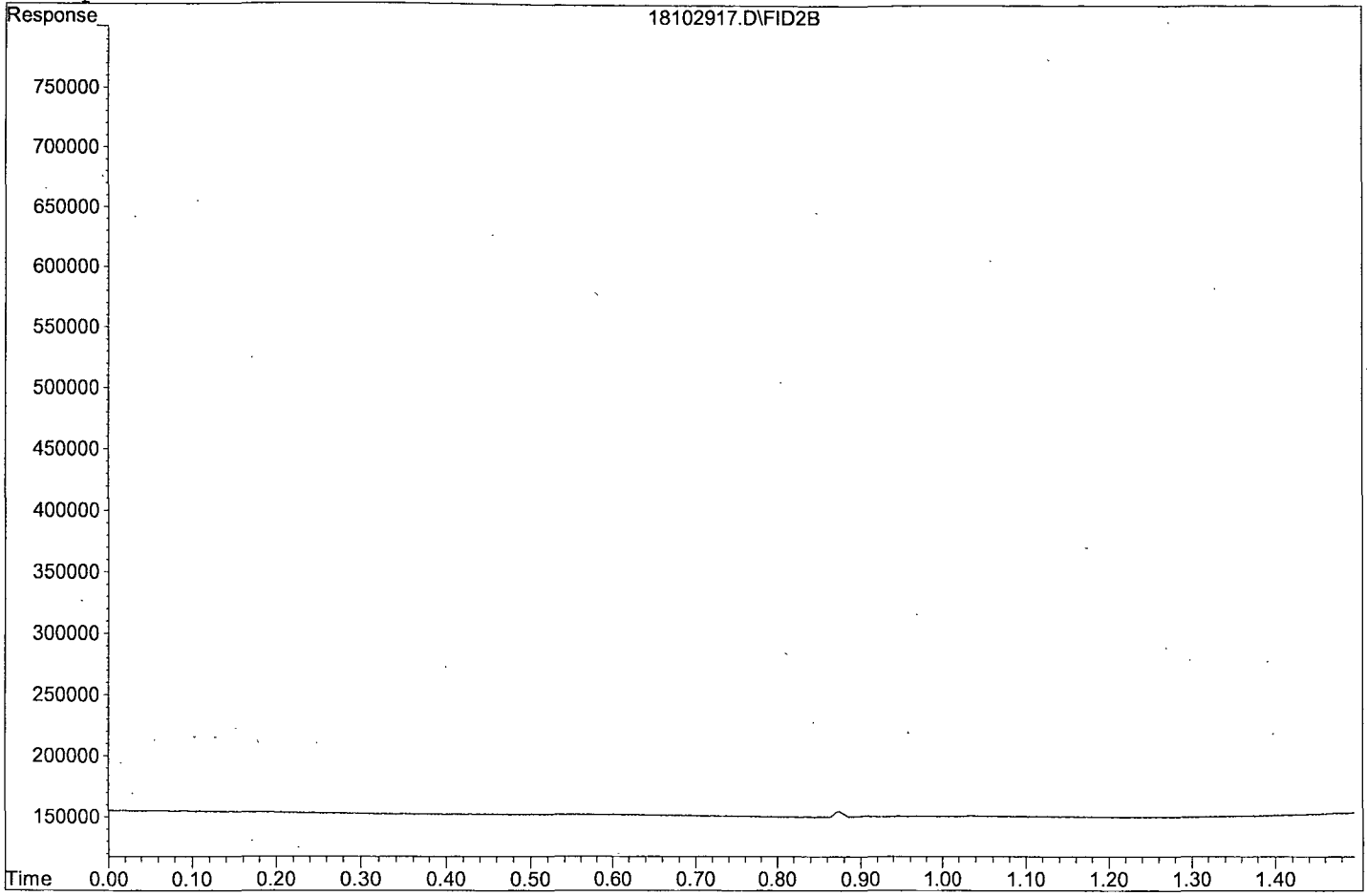
Target Compounds

1) ATM Methane	0.00	0	N.D.	ppb d
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102917.D

Sample : AZ81587W04



Data File : G:\ROCKY\DATA\181029RS\18102912.D Vial: 3  
 Acq On : 29 Oct 18 11:34 Operator: cmm  
 Sample : 181029A Blk Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:37 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
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Target Compounds

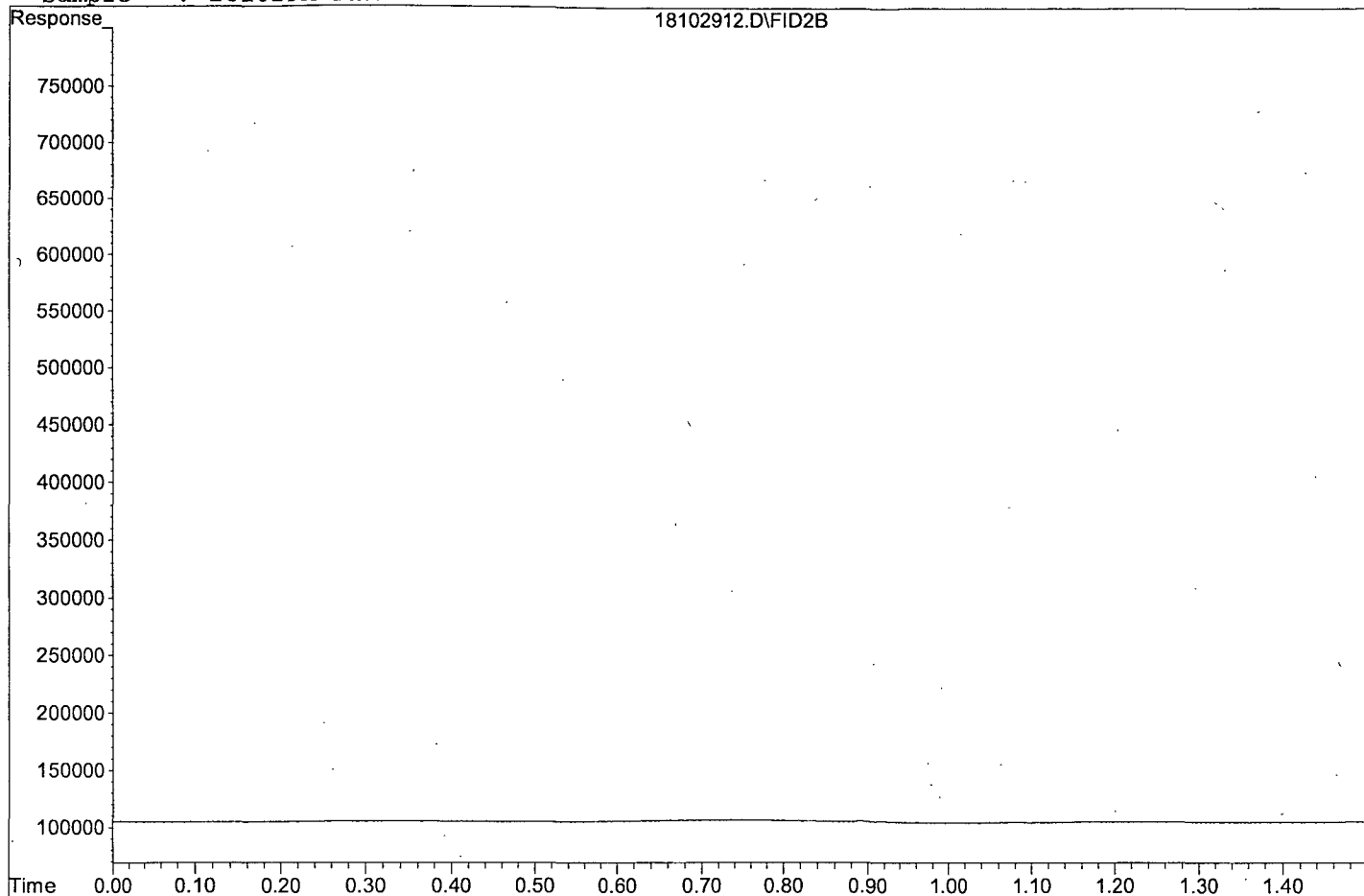
Target Compounds

1) ATM Methane	0.00	0	N.D. ppb d
2) ATM Ethane	0.00	0	N.D. ppb d
3) ATM Ethene	0.00	0	N.D. ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102912.D

Sample : 181029A Blk



Data File : G:\ROCKY\DATA\181029RS\18102910.D Vial: 1  
 Acq On : 29 Oct 18 11:29 Operator: cmm  
 Sample : 181029A LCS RSK Std 5 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:31 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

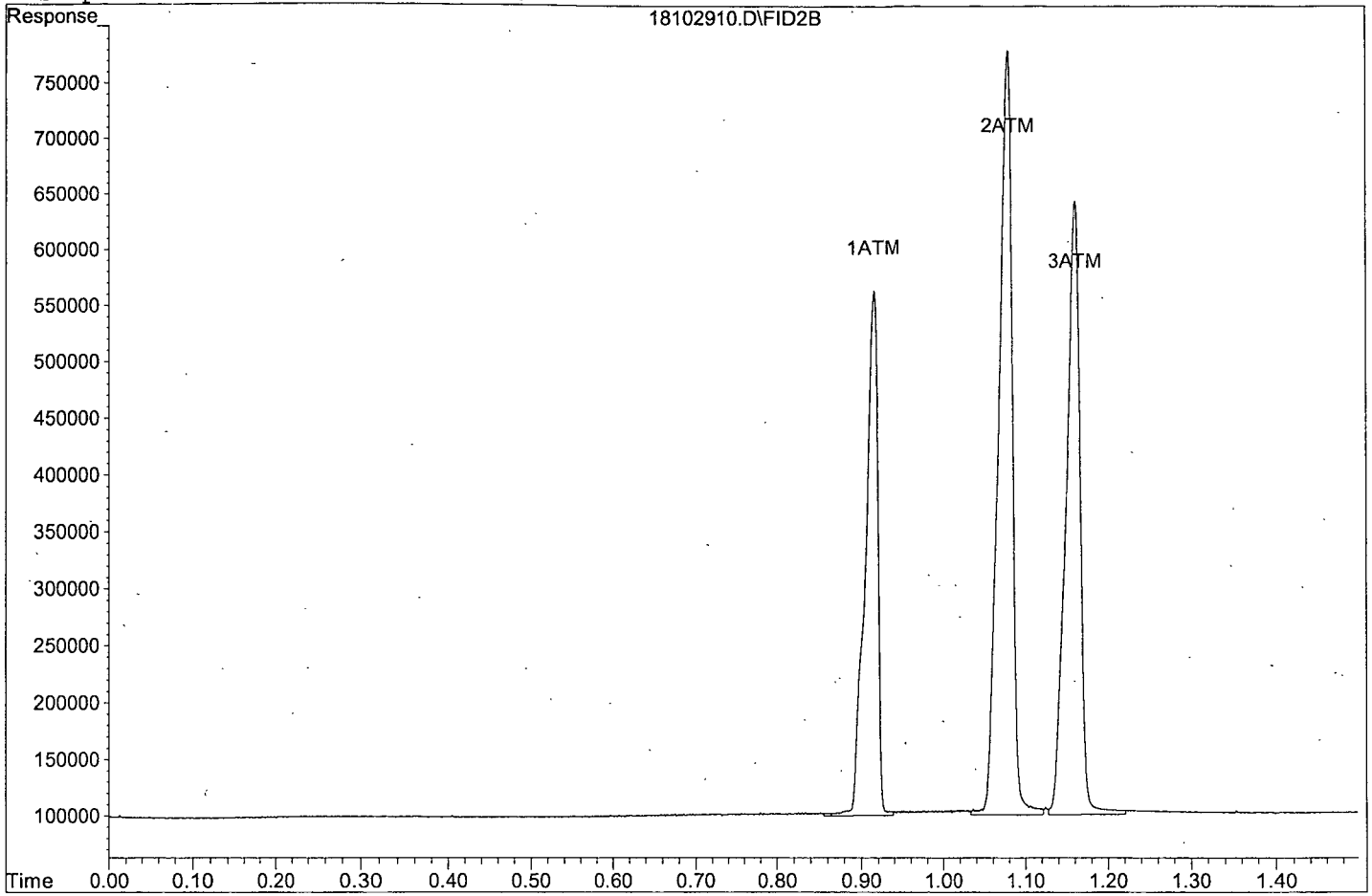
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.92	463602	73.490 ppb
2) ATM Ethane	1.08	679858	128.882 ppb
3) ATM Ethene	1.16	543114	118.773 ppb

Target Compounds

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102910.D

Sample : 181029A LCS RSK Std 5





Data File : G:\ROCKY\DATA\181029RS\18102911.D Vial: 2  
 Acq On : 29 Oct 18 11:32 Operator: cmm  
 Sample : 181029A LCSD RSK Std 5 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:34 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

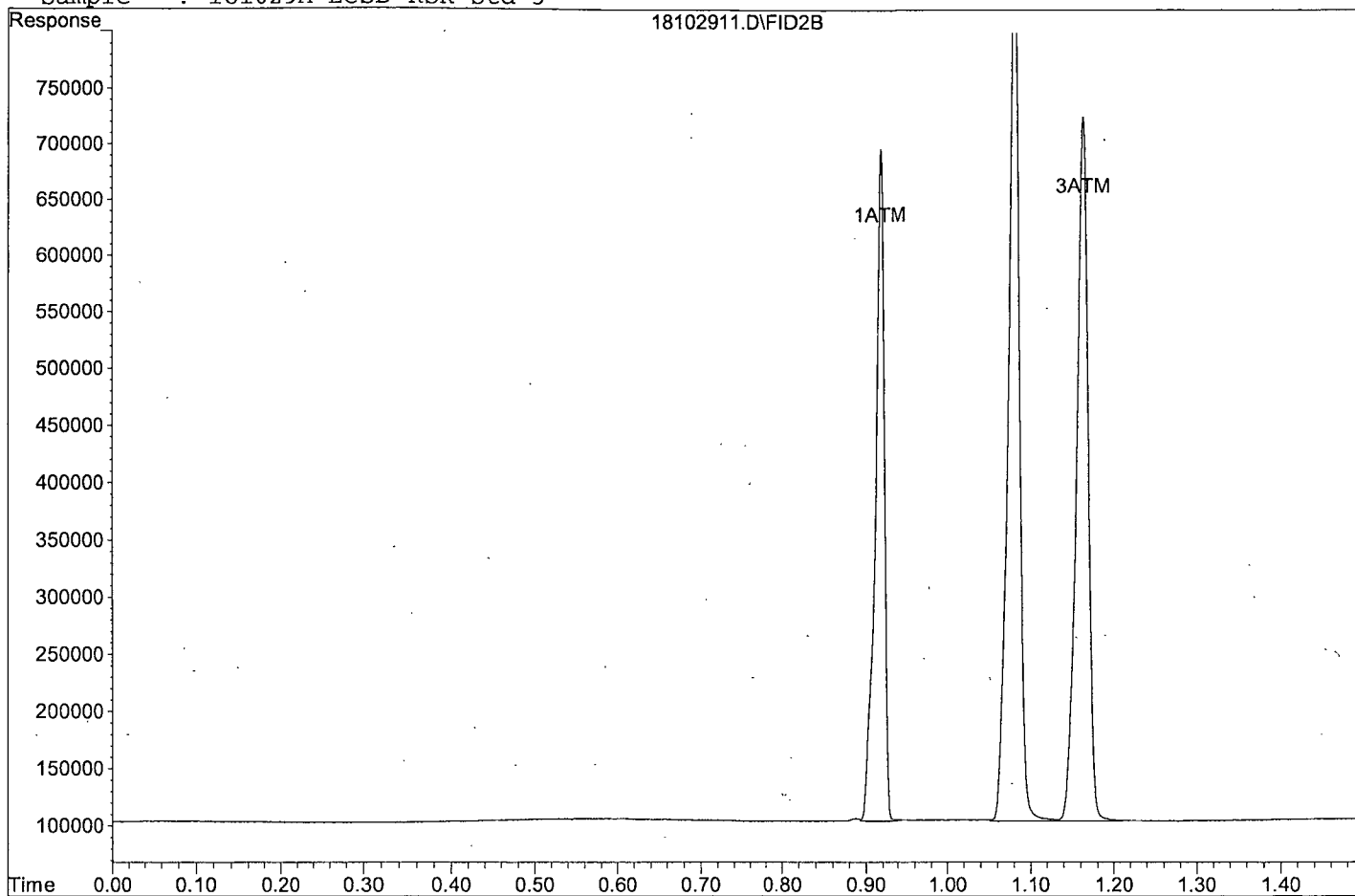
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.92	591178	97.396 ppb
2) ATM Ethane	1.08	790708	149.896 ppb
3) ATM Ethene	1.16	619673	135.515 ppb

Target Compounds

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102911.D

Sample : 181029A LCSD RSK Std 5



**Primary Source Stock Standard 10,000ppmV**

Manufacturer Exp Date 09-21-2021

RSK Gas Mix (Scott Mini-Mix) Cat.# X04NI97CP140001, Lot # 16-401303031-1

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

**RSK Calibration Curve (prepared in 1.0 L Tedlar Bags at room temp)****Expires 12/24/18****CMM 08/05/18**

Analyte	Conc Std 1 (1/2 = LOD) (ug/L)	Conc Std 2 (LOQ Chk) (ug/L)	Conc Std 3 (ug/L)	Conc Std 4 (ug/L)	Conc Std 5 (ug/L)	Conc Std 6 (ug/L)	Conc Std 7 (ug/L)
Methane (MW 16.04)	2.08	4.16	8.34	20.85	83.40	208.5	834.0
Ethane (MW 30.07)	3.91	7.81	15.6	39.09	156.35	390.9	1563.5
Ethene (MW 28.05)	3.65	7.30	14.6	36.46	145.84	364.6	1458.4
Stock Source	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC0 06L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410
Stock Conc (ppmv)	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV
Stock Aliquot (mL)	0.010	0.020	0.040	0.100	0.400	1.00	4.00
Final Volume P&T Water	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL

**Second Source Stock Standard 10,000ppmV**

Manufacturer Exp date 09/21/2021

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

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

**Second Source****Expires 10/29/18****CMM 10/29/18**

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

**CCV/LCS/LCSD****CMM 10/29/18**

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

## Injection Log

Directory: G:\ROCKY\DATA\181029RS\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	18102900.D	1	RSK Std 1 10/29/18	125uL from RSK Std 3	29 Oct 18 10:29
2	2	18102901.D	1	RSK Std 2 10/29/18	250uL from RSK Std 3	29 Oct 18 10:32
3	4	18102903.D	1	RSK Std 3 10/29/18		29 Oct 18 10:40
4	5	18102904.D	1	RSK Std 4 10/29/18		29 Oct 18 10:42
5	6	18102905.D	1	RSK Std 5 10/29/18		29 Oct 18 10:44
6	7	18102906.D	1	RSK Std 6 10/29/18		29 Oct 18 10:47
7	8	18102907.D	1	RSK Std 7 10/29/18		29 Oct 18 10:49
8	9	18102908.D	1	SS RSK Std 5 10/29/18		29 Oct 18 10:51
9	1	18102910.D	1	181029A LCS RSK Std 5		29 Oct 18 11:29
10	2	18102911.D	1	181029A LCSD RSK Std 5		29 Oct 18 11:32
11	3	18102912.D	1	181029A Blk		29 Oct 18 11:34
12	1	18102914.D	1	AZ81583W04		29 Oct 18 12:11
13	2	18102915.D	1	AZ81584W07		29 Oct 18 12:13
14	3	18102916.D	1	AZ81586W04		29 Oct 18 12:15
15	4	18102917.D	1	AZ81587W04		29 Oct 18 12:18
16	14	18102933.D	1	Ending CCV RSK Std 5 10/29/18		29 Oct 18 14:11

**INORGANIC ANALYSIS**  
**Calibration Data**

**APPL, INC.**

INITIAL AND CONTINUING CALIBRATION VERIFICATION

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

ARF No: 87198 SDG: 87198

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 06/15/18

Analyte	Calibration Verification									M
	True ICV	Found 12:31	%R(1)	True CCV1	Found 11:33	%R(1)	True CCV1	Found 11:39	%R(1)	
Ferrous Iron	3	3.16507	106	4	4.10493	103	4	4.10493	103	

A.P.P.L. INC.

3

BLANKS

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

Contract: AECOM

ARF No.: 87198

SDG: 87198

Preparation Blank Matrix (soil/water): water

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

Analyte	Calibration Blanks										M
	ICB 06/15/18 12:32	C	CCB 10/23/18 11:34	C	CCB 10/23/18 11:40	C		C		C	
Ferrous Iron	1.000	U	1.000	U	1.000	U					

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: \_\_\_\_\_

ARF No: \_\_\_\_\_ SDG: \_\_\_\_\_

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: \_\_\_\_\_

Analysis Date: 09/24/18

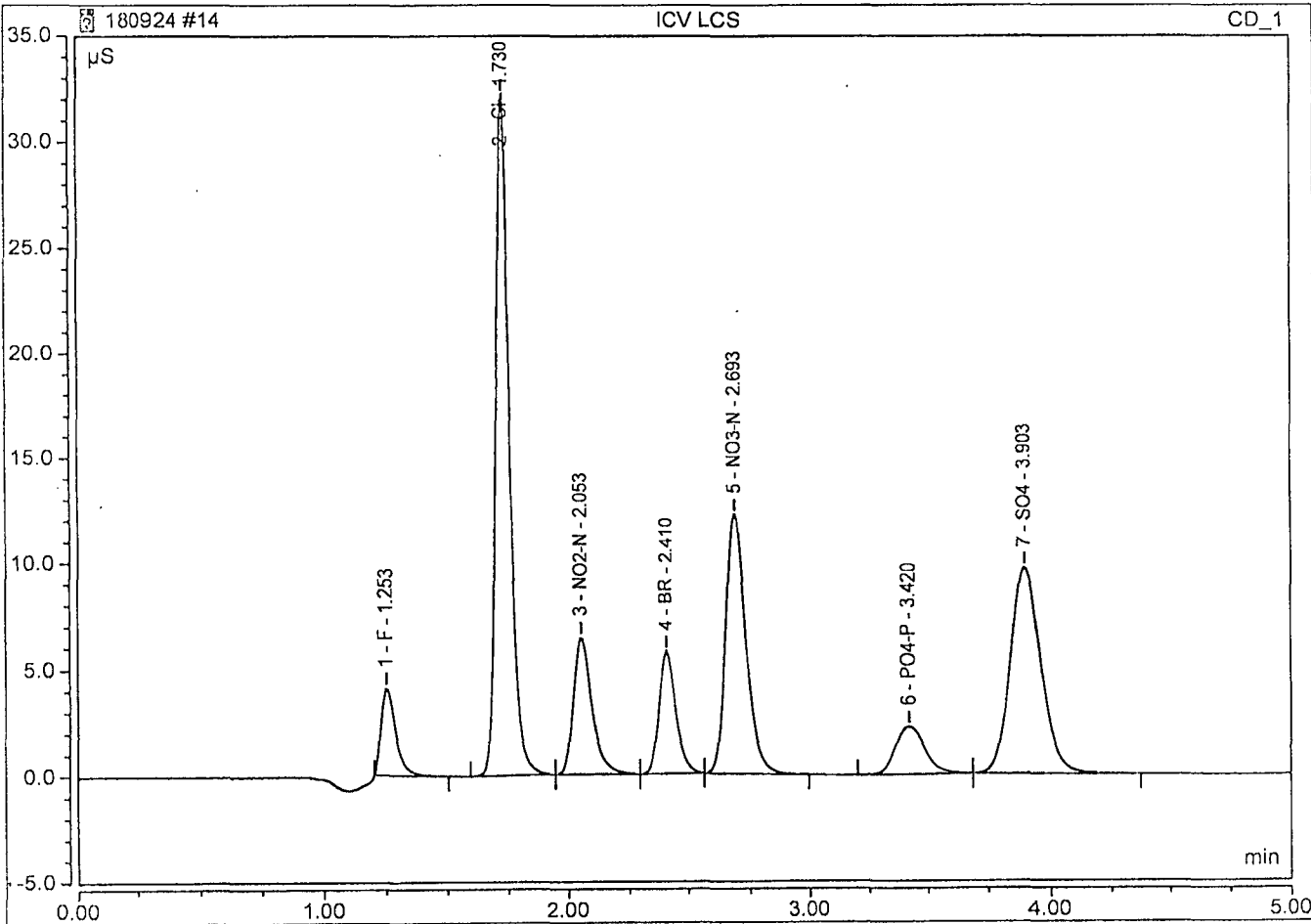
Analyte	Calibration Verification									M
	True ICV	Found 11:51	%R(1)	True	Found	%R(1)	True	Found	%R(1)	
bromide	12.5	12.7618	102							
chloride	20	18.7141	93.6							
fluoride	2.5	2.3808	95.2							
Nitrate(NO3)	22.1	21.9977	99.5							
Nitrate(NO3)-N	5	4.9672	99.3							
Nitrite(NO2)	9.98	10.2042	102							
Nitrite(NO2)-N	3.04	3.1067	102							
phosphate-p	5	4.9649	99.3							
sulfate	20	19.129	95.6							



### Peak Integration Report

Sample Name:	ICV LCS	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:51	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.25	F	BMB	0.271	4.107	2.3807
2	1.73	Cl	BMB	2.043	32.215	18.7141
3	2.05	NO2-N	BMB	0.562	6.419	3.1067
4	2.41	BR	BMB	0.480	5.743	12.7618
5	2.69	NO3-N	BMB	1.141	12.194	4.9672
6	3.42	PO4-P	BMB	0.319	2.256	4.9649
7	3.90	SO4	BMB	1.364	9.663	19.1290
TOTAL:				6.18	72.60	66.02



Algorithm Check: HH 180926  
 $y = \text{Peak Area}$   
 $x = \text{mg/L NO}_3\text{-N}$   
 $y = .2308 x - .0053$   
 $y = 1.141 \therefore x = 4.966 \checkmark$

BLANKS

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

Contract: \_\_\_\_\_

ARF No.: \_\_\_\_\_

SDG: \_\_\_\_\_

Preparation Blank Matrix (soil/water): water

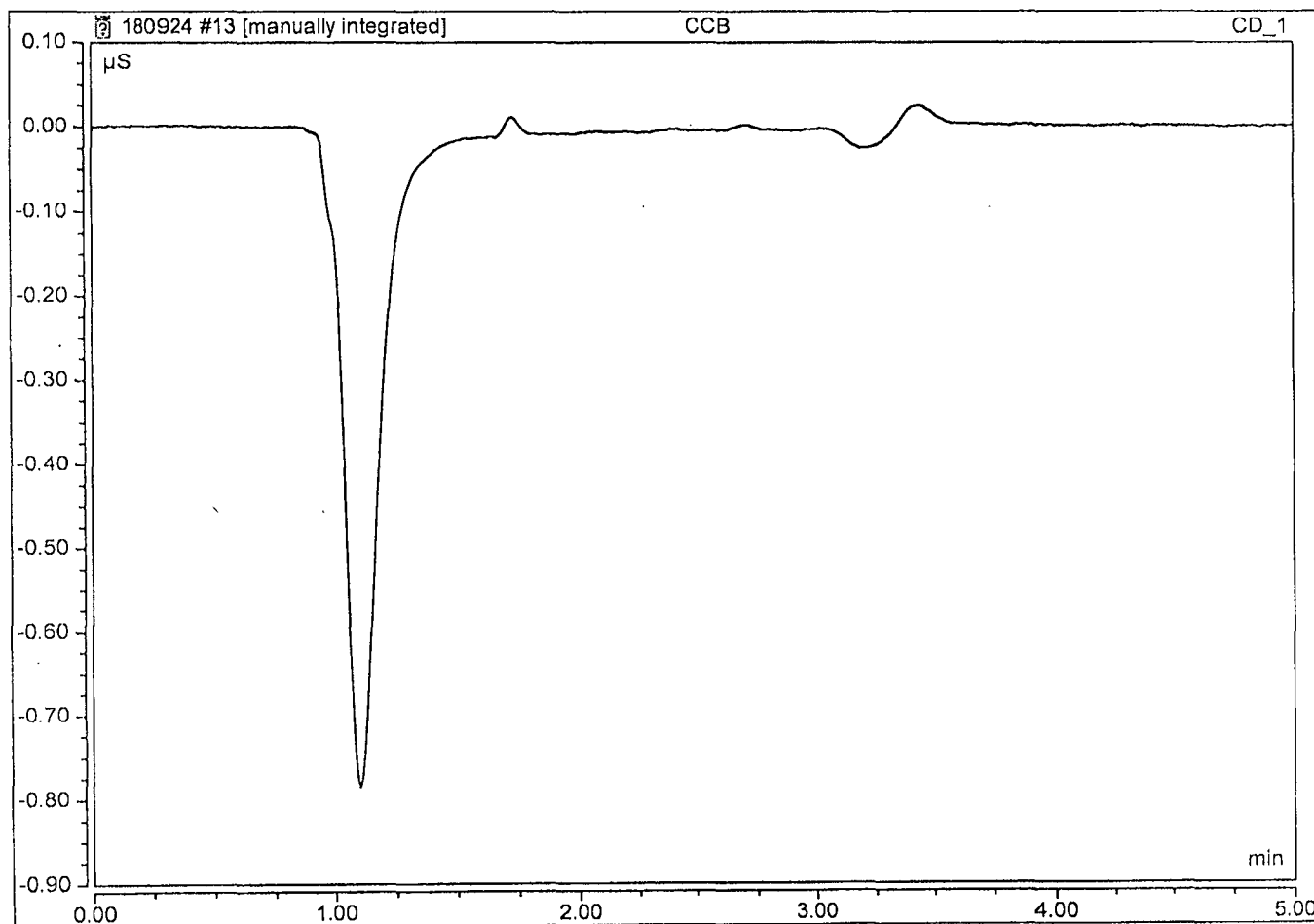
Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	CCB 09/24/18 11:43	C		C		C		C		C	
bromide	.500	U									
chloride	1.000	U									
fluoride	.100	U									
Nitrate(NO3)	.500	U									
Nitrate(NO3)-N	.200	U									
Nitrite(NO2)	.300	U									
Nitrite(NO2)-N	.100	U									
phosphate-p	.200	U									
sulfate	1.000	U									

### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:43	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00



INITIAL AND CONTINUING CALIBRATION VERIFICATION

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

ARF No: 87198 SDG: 87198

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

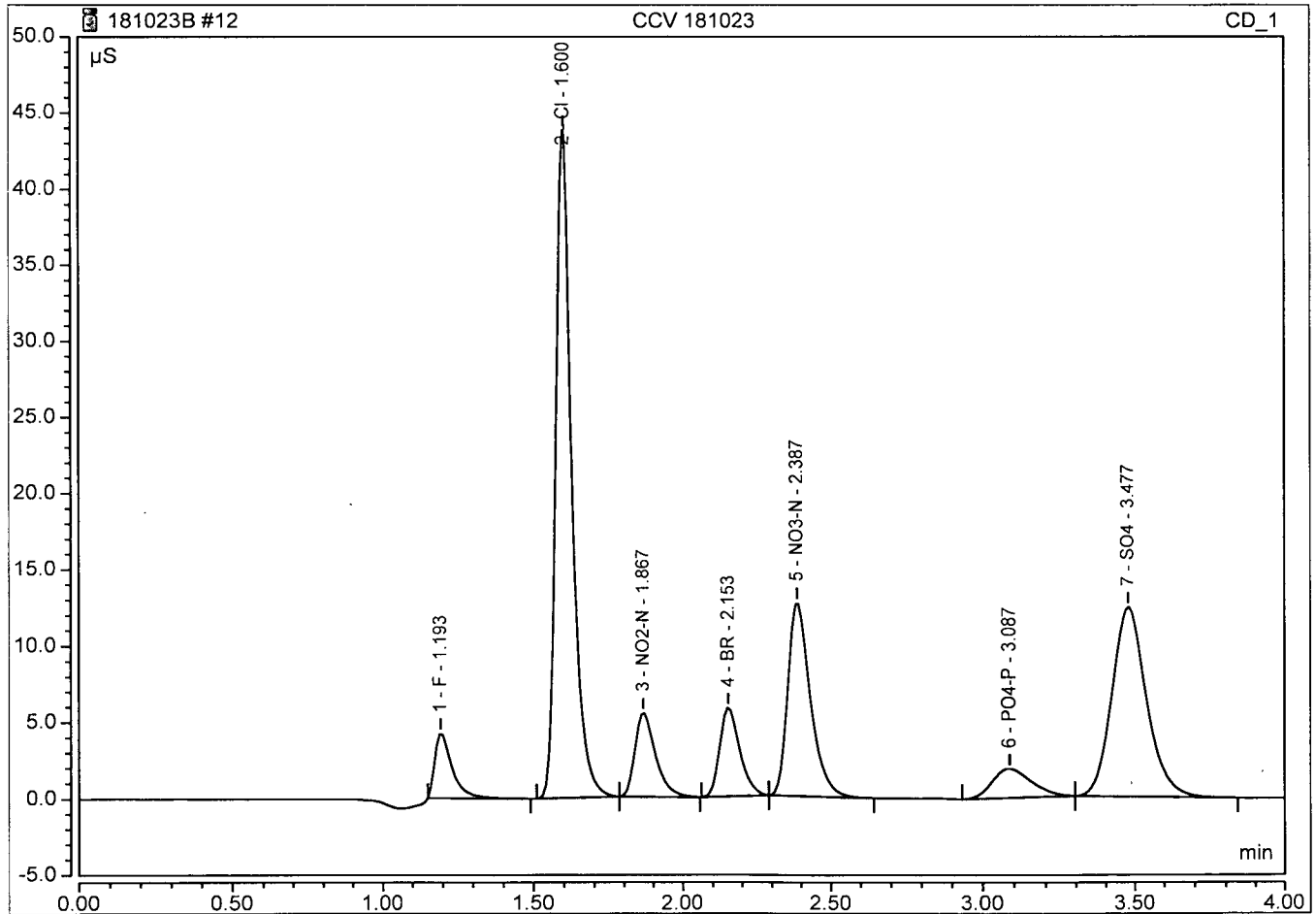
Analysis Date: 10/23/18

Analyte	Calibration Verification									M
	True CCV1	Found 16:55	%R(1)	True CCV1	Found 17:46	%R(1)	True	Found	%R(1)	
chloride	25	24.1466	96.6	25	24.0907	96.4				
Nitrate(NO3)	22.1	21.4973	97.3	22.1	21.3870	96.8				
sulfate	25	23.7625	95.0	25	23.7915	95.2				

### Peak Integration Report

Sample Name:	CCV 181023	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	23-Oct-2018 / 16:55	Run Time:	4.00

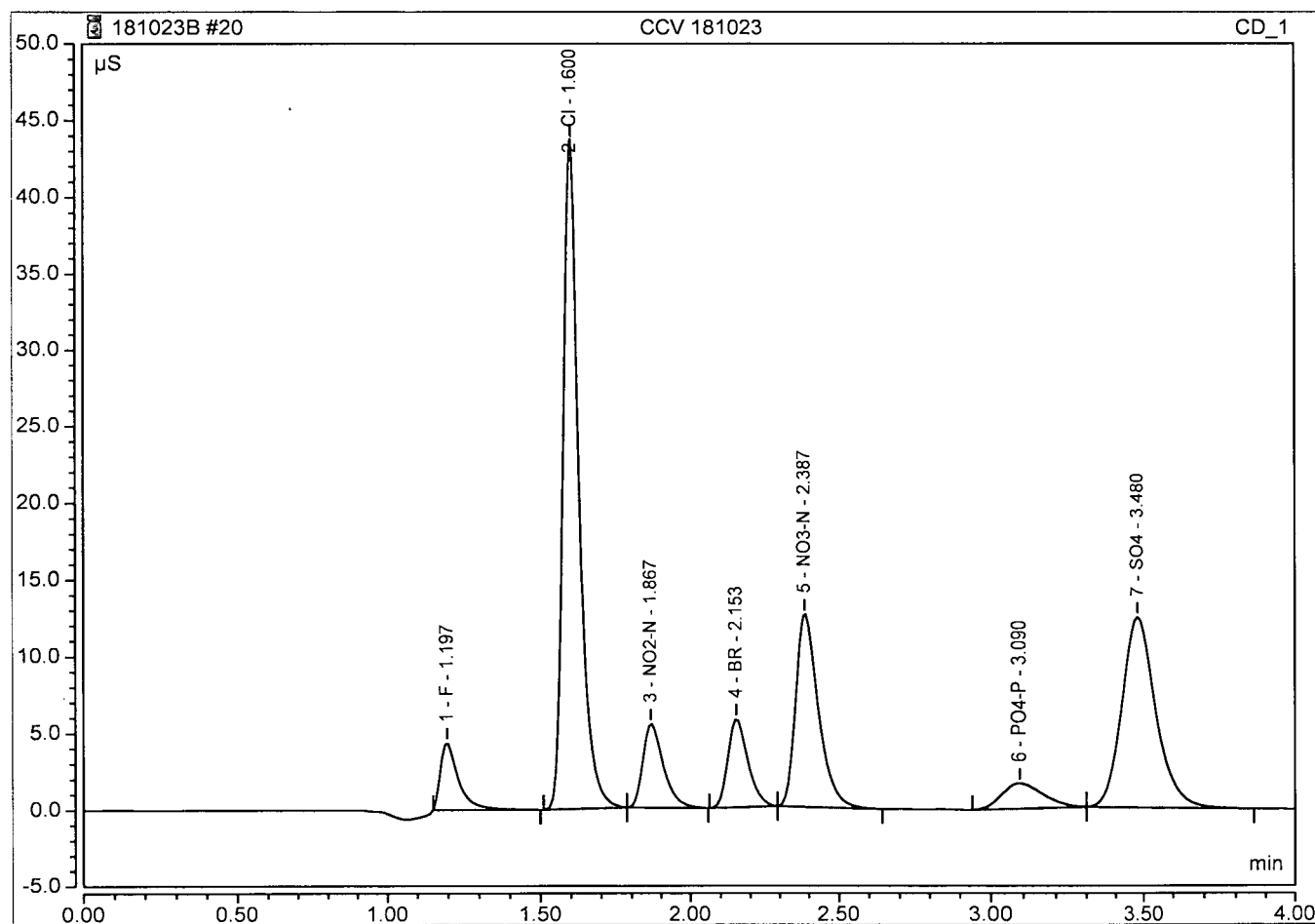
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.19	F	BMB	0.283	4.273	2.4812
2	1.60	Cl	BMB	2.643	43.812	24.1466
3	1.87	NO <sub>2</sub> -N	BMB	0.448	5.495	2.4769
4	2.15	BR	BMB	0.455	5.807	12.1080
5	2.39	NO <sub>3</sub> -N	BMB	1.115	12.647	4.8542
6	3.09	PO <sub>4</sub> -P	BMB	0.272	1.887	4.2651
7	3.48	SO <sub>4</sub>	BMB	1.696	12.392	23.7625
TOTAL:				6.91	86.31	74.09



### Peak Integration Report

Sample Name:	CCV 181023	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	23-Oct-2018 / 17:46	Run Time:	4.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.20	F	BMB	0.299	4.390	2.6175
2	1.60	Cl	BMB	2.637	43.693	24.0907
3	1.87	NO2-N	BMB	0.447	5.473	2.4736
4	2.15	BR	BMB	0.453	5.776	12.0476
5	2.39	NO3-N	BMB	1.109	12.550	4.8293
6	3.09	PO4-P	BMB	0.243	1.664	3.8337
7	3.48	SO4	BMB	1.698	12.377	23.7915
TOTAL:				6.89	85.92	73.68



A.P.P.L. INC.

3

BLANKS

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

Contract: AECOM

ARF No.: 87198

SDG: 87198

Preparation Blank Matrix (soil/water): water

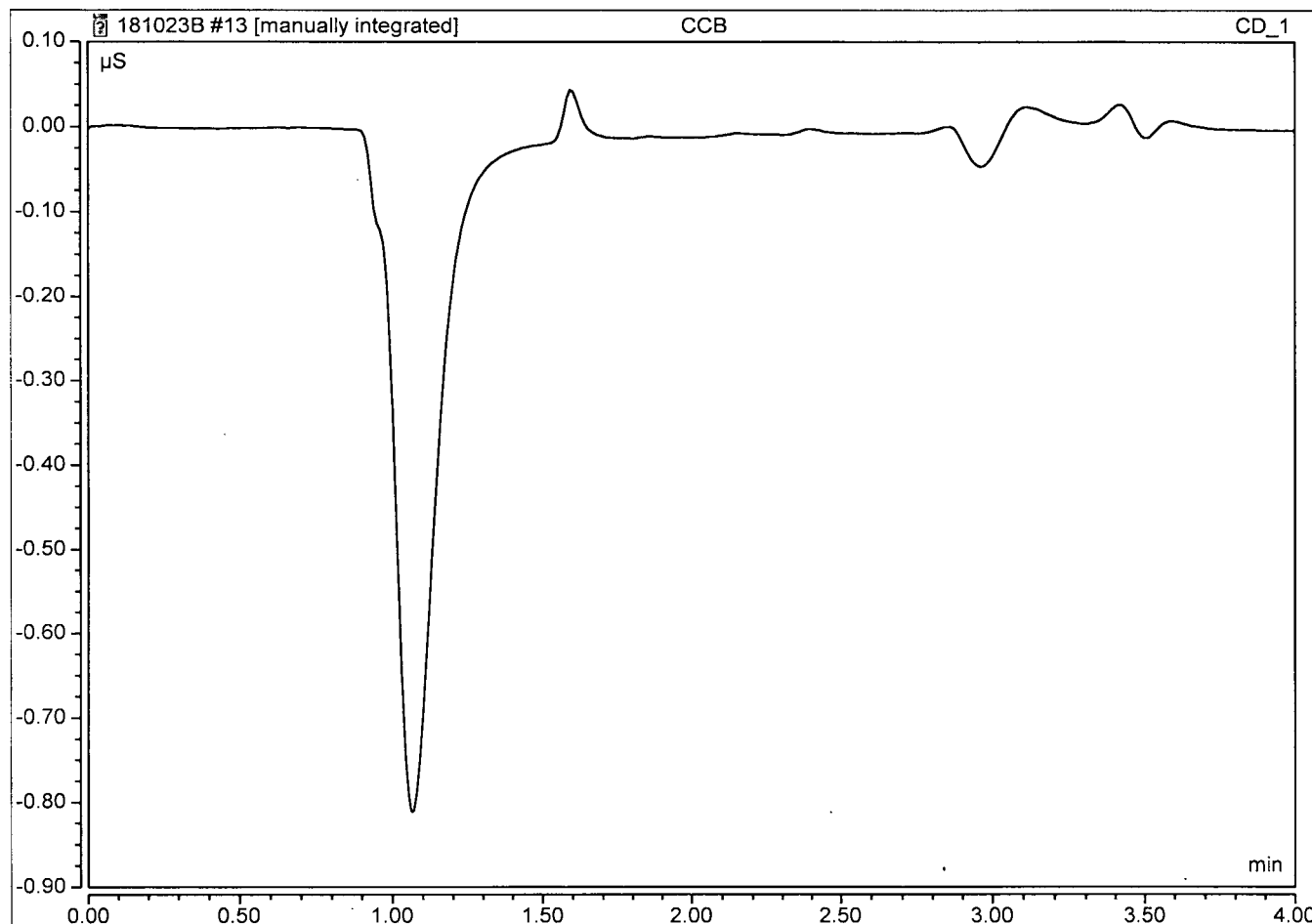
Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	CCB 10/23/18 17:01	C	CCB 10/23/18 17:52	C		C		C		C	
chloride	1.000	U	1.000	U							
Nitrate(NO3)	.500	U	.500	U							
sulfate	1.000	U	1.000	U							

### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	23-Oct-2018 / 17:01	Run Time:	4.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00

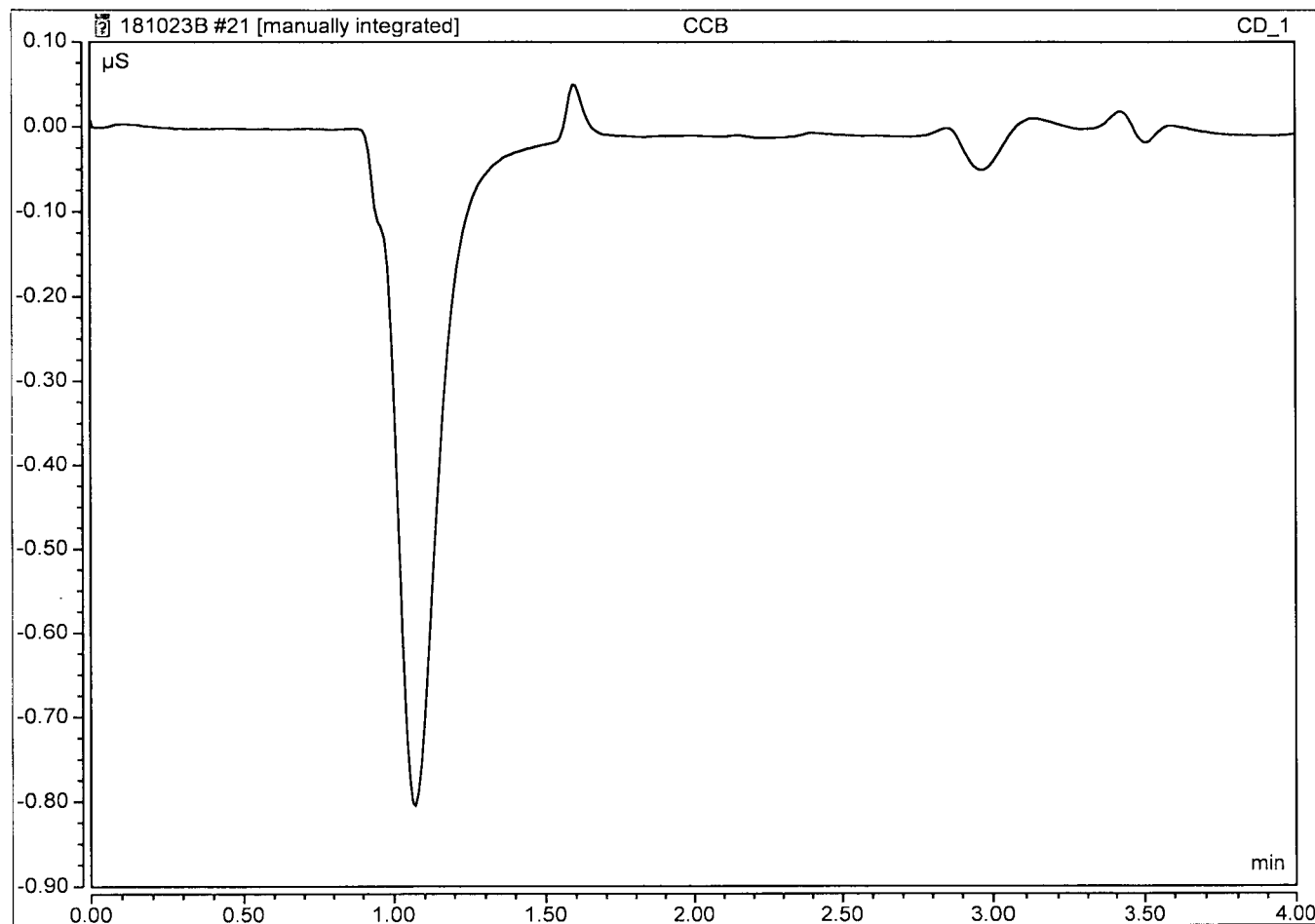




### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	23-Oct-2018 / 17:52	Run Time:	4.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00



A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

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

ARF No: 87198 SDG: 87198

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 10/30/18

Analyte	Calibration Verification									M
	True ICV	Found 14:32	%R(1)	True CCV1	Found 15:04	%R(1)	True	Found	%R(1)	
TOXN	3	3.0057	100	3	2.9472	98.2				

A.P.P.L. INC.

3

BLANKS

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

Contract: AECOM

ARF No.: 87198

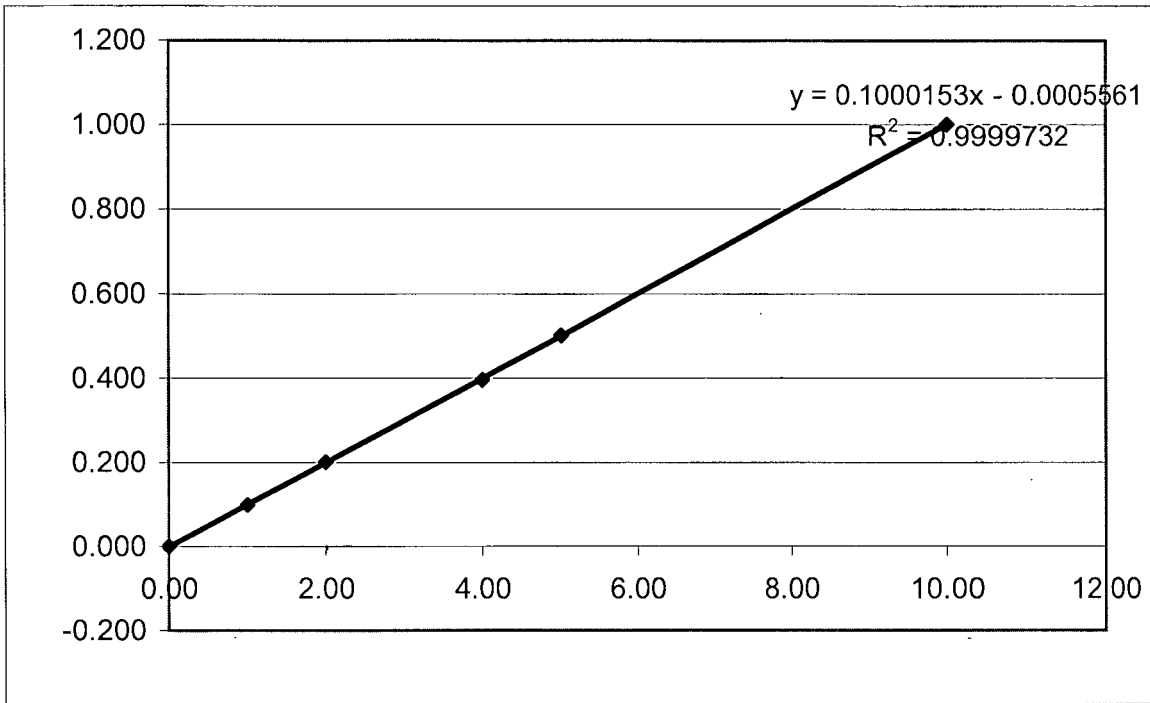
SDG: 87198

Preparation Blank Matrix (soil/water): water

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

Analyte	Calibration Blanks										M
	ICB 10/30/18 14:34	C	CCB 10/30/18 15:06	C		C		C		C	
TOXN	.100	U	.100	U							

181023 Ferrous Iron



X	Y
0.00	0.000
1.00	0.099
2.00	0.201
4.00	0.396
5.00	0.501
10.00	1.000

Algorithm Check  
 reading (y)= 0.326  
 dilution= 1  
 result (x)= 3.27  
 Compares to 3.26506147

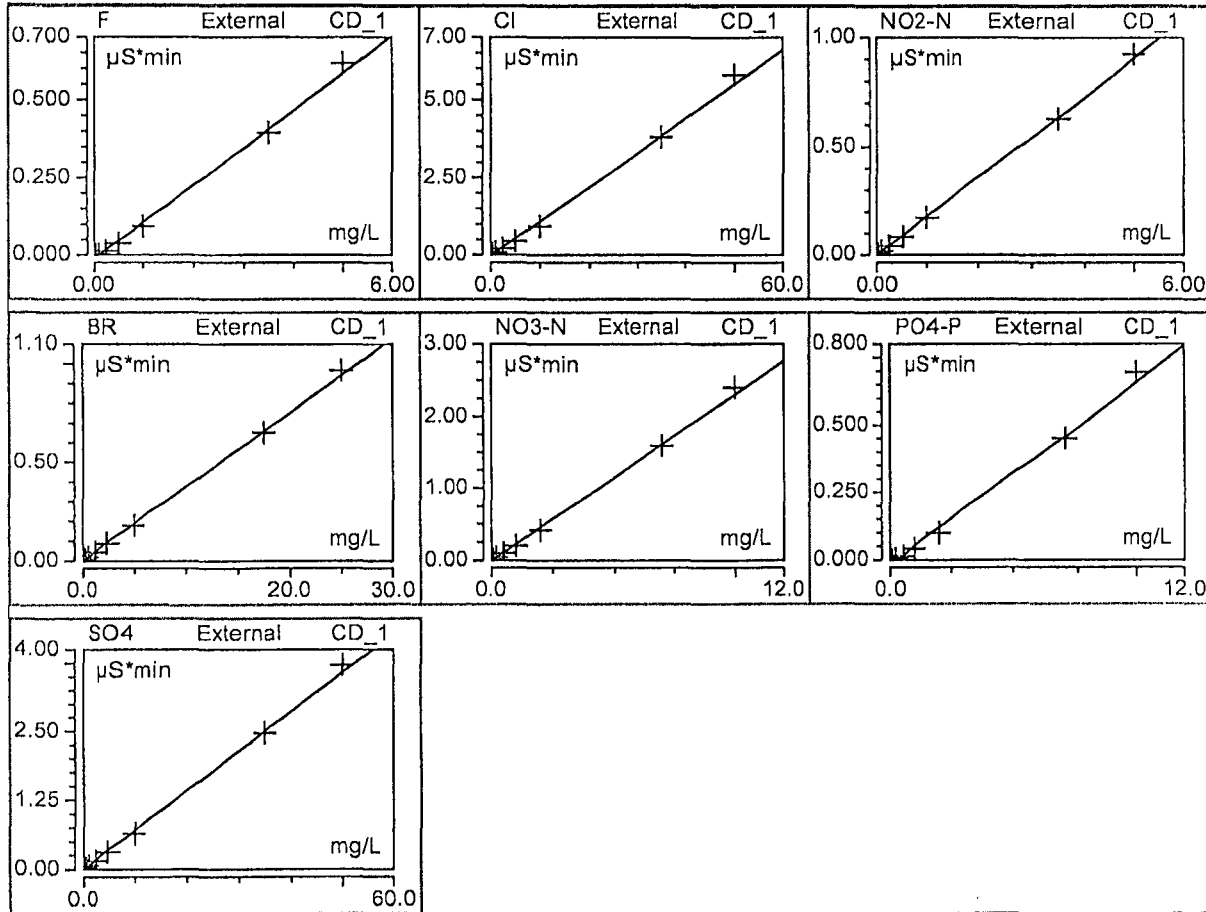
HH 10/30/18

13:44

### Calibration Batch Report

Sequence:	180924	Injection Volume:	25.00
Instrument Method:	Anions IM	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:36	Run Time:	5

Calibration Summary						
Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Coeff.Det. %
F	Area	Lin, WithOffset, 1/A	6	-0.013904	0.119725	99.34
Cl	Area	Lin, WithOffset, 1/A	7	-0.023621	0.110450	99.36
NO2-N	Area	Lin, WithOffset, 1/A	7	-0.001107	0.181176	99.92
BR	Area	Lin, WithOffset, 1/A	7	-0.000715	0.037662	99.88
NO3-N	Area	Lin, WithOffset, 1/A	7	-0.005336	0.230793	99.68
PO4-P	Area	Lin, WithOffset, 1/A	6	-0.015615	0.067471	99.04
SO4	Area	Lin, WithOffset, 1/A	7	-0.008285	0.071734	99.71

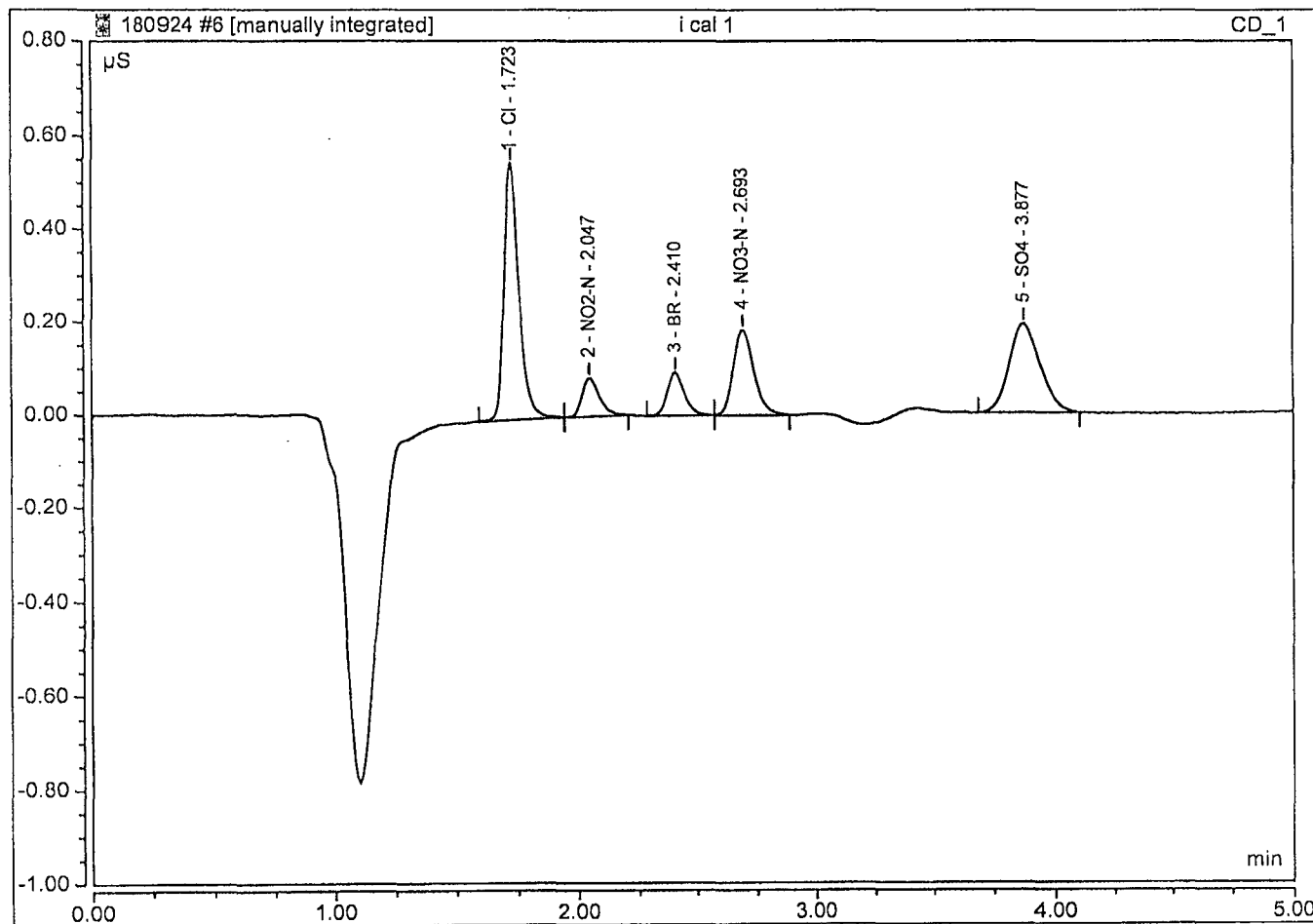


Injection Name	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1
	F	Cl	NO2-N	BR	NO3-N	PO4-P	SO4
ical 1	n.a.	0.5622	0.0441	0.2341	0.1016	n.a.	0.5074
ical 2	0.135	0.9959	0.1035	0.4942	0.1991	0.2894	0.9909
ical 3	0.220	2.1289	0.2368	1.1823	0.4535	0.4157	2.2625
ical 4	0.427	4.2154	0.4726	2.3380	0.8947	0.8302	4.4921
ical 5	0.889	8.5779	0.9575	4.7219	1.8093	1.6962	9.0988
ical 6	3.410	34.7347	3.4715	17.2981	6.9001	6.9186	34.5706
ical 7	5.269	52.6849	5.1040	25.6813	10.4216	10.5499	51.9777

### Peak Integration Report

Sample Name:	i cal 1	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 10:51	Run Time:	5.00

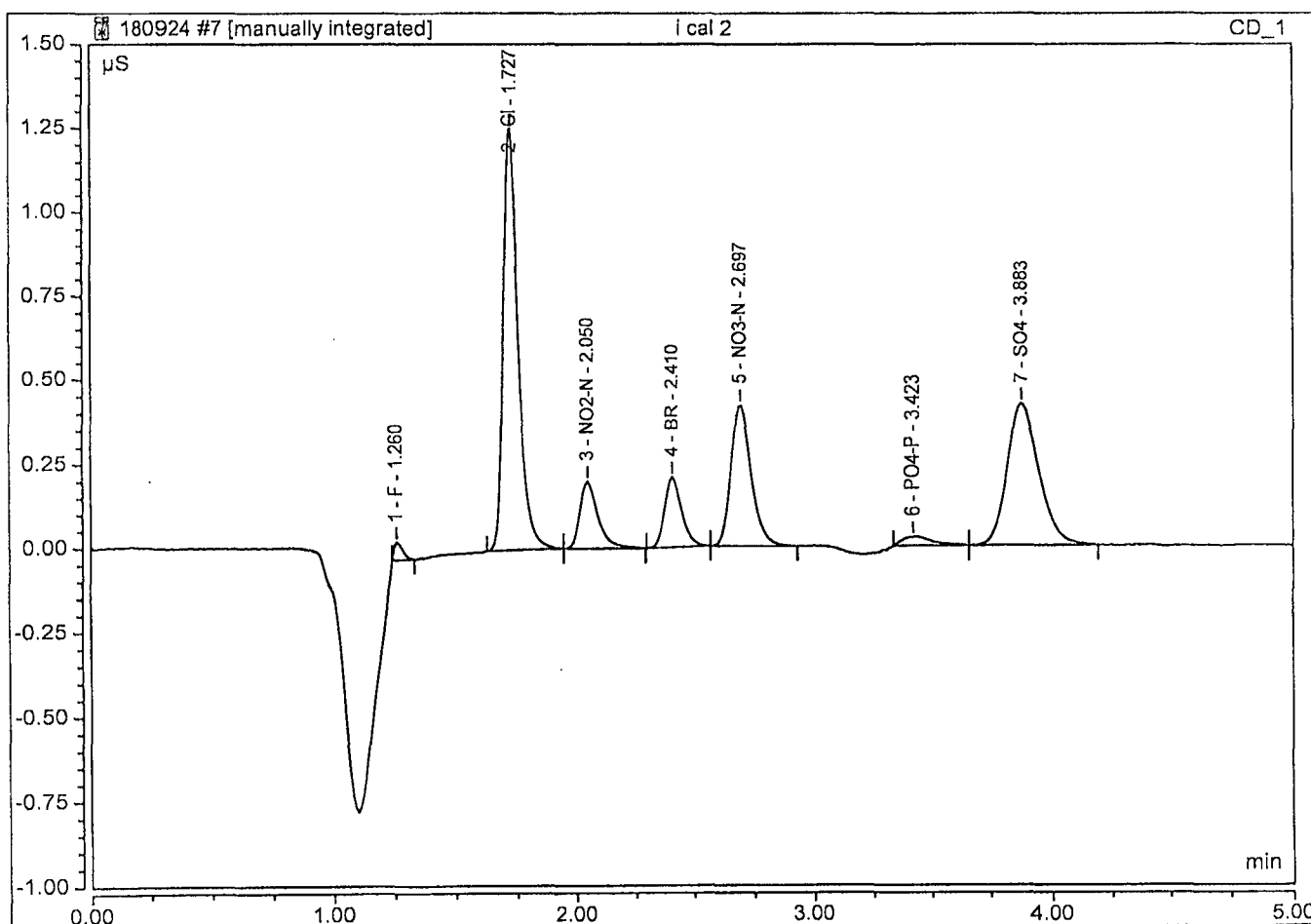
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.72	Cl	BMB	0.038	0.553	0.5622
2	2.05	NO2-N	BMB	0.007	0.083	0.0441
3	2.41	BR	BMB	0.008	0.093	0.2341
4	2.69	NO3-N	BMB	0.018	0.184	0.1016
5	3.88	SO4	BMB	0.028	0.192	0.5074
TOTAL:				0.10	1.10	1.45



### Peak Integration Report

Sample Name:	i cal 2	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 10:59	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB*	0.002	0.053	0.1347
2	1.73	Cl	BMB	0.086	1.253	0.9959
3	2.05	NO2-N	BMB	0.018	0.200	0.1035
4	2.41	BR	BMB	0.018	0.209	0.4942
5	2.70	NO3-N	BMB	0.041	0.418	0.1991
6	3.42	PO4-P	BMB*	0.004	0.027	0.2894
7	3.88	SO4	bMB*	0.063	0.420	0.9909
TOTAL:				0.23	2.58	3.21



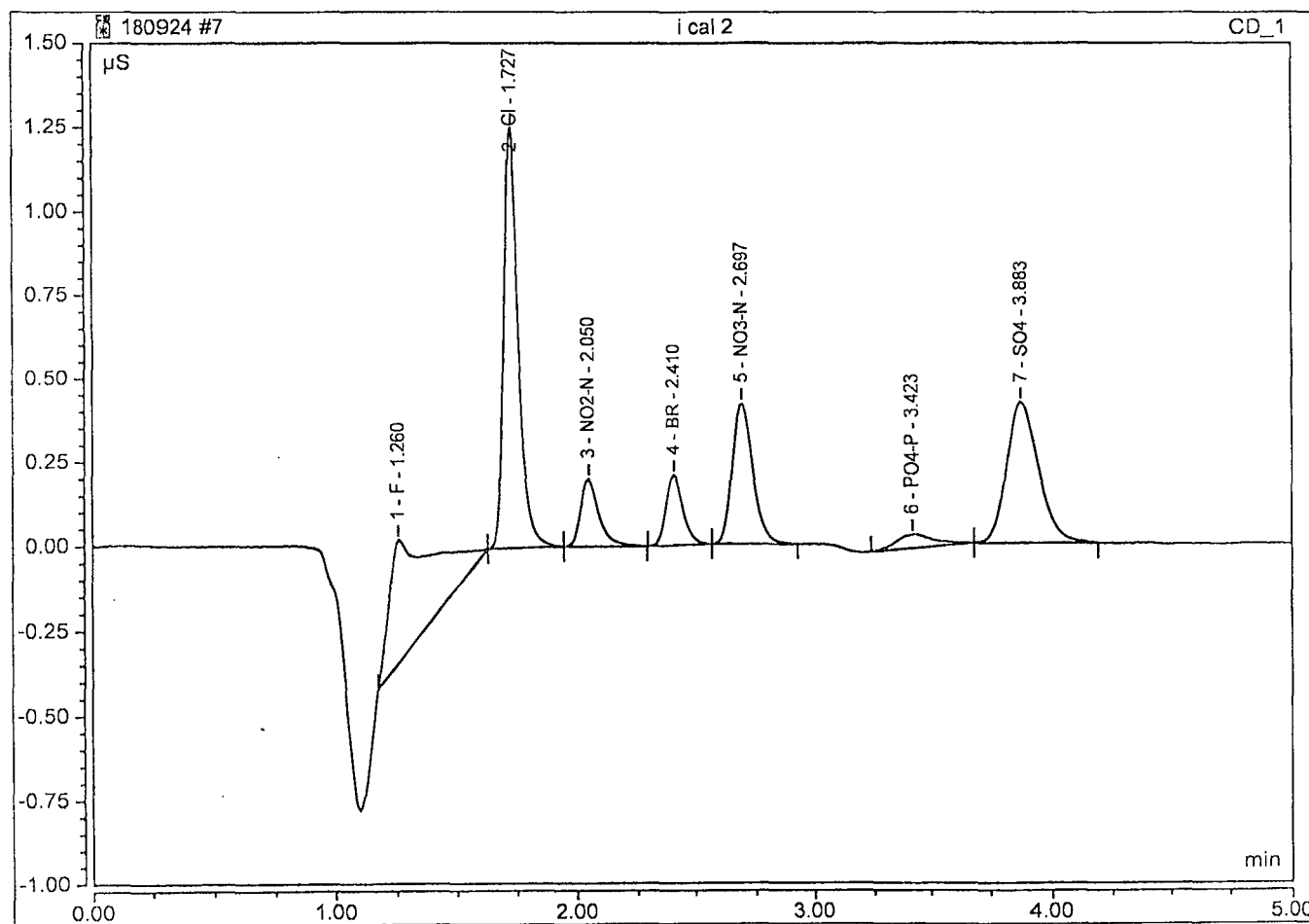
F M: 1 180926 HH  
 PO<sub>4</sub> M: 1 180926 HH

JR 09-26-18

### Peak Integration Report

Sample Name:	I cal 2	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 10:59	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB	0.075	0.362	0.7410
2	1.73	Cl	BMB	0.086	1.253	0.9959
3	2.05	NO2-N	BMB	0.018	0.200	0.1035
4	2.41	BR	BMB	0.018	0.209	0.4942
5	2.70	NO3-N	BMB	0.041	0.418	0.1991
6	3.42	PO4-P	BMB	0.008	0.040	0.3441
7	3.88	SO4	BMB	0.063	0.419	0.9886
TOTAL:				0.31	2.90	3.87

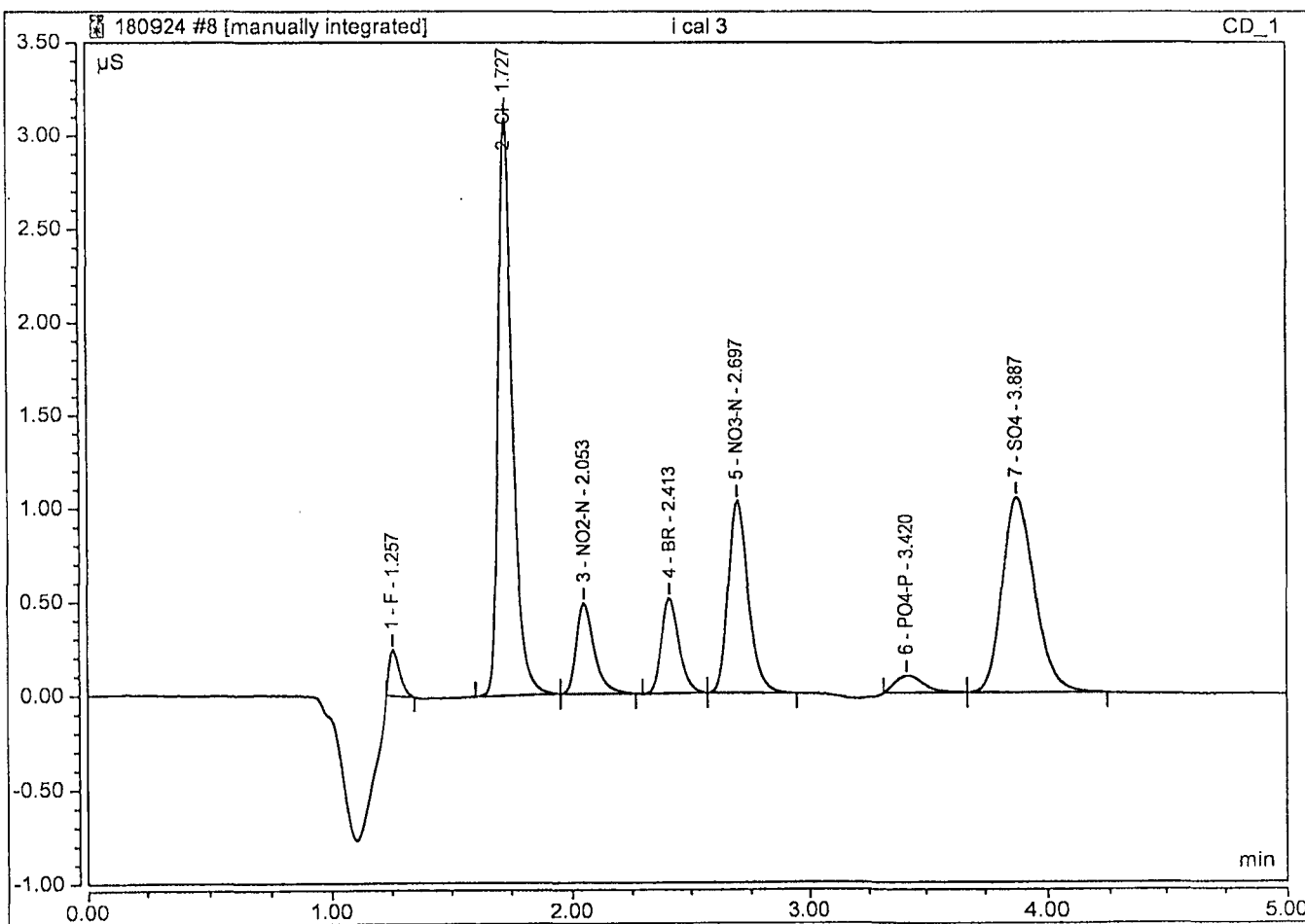




### Peak Integration Report

Sample Name:	i cal 3	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:06	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB*	0.012	0.245	0.2204
2	1.73	Cl	BMB	0.212	3.095	2.1289
3	2.05	NO2-N	BMB	0.042	0.484	0.2368
4	2.41	BR	BMB	0.044	0.508	1.1823
5	2.70	NO3-N	BMB	0.099	1.026	0.4535
6	3.42	PO4-P	BMB*	0.012	0.090	0.4157
7	3.89	SO4	BMB	0.154	1.039	2.2625
TOTAL:				0.58	6.49	6.90

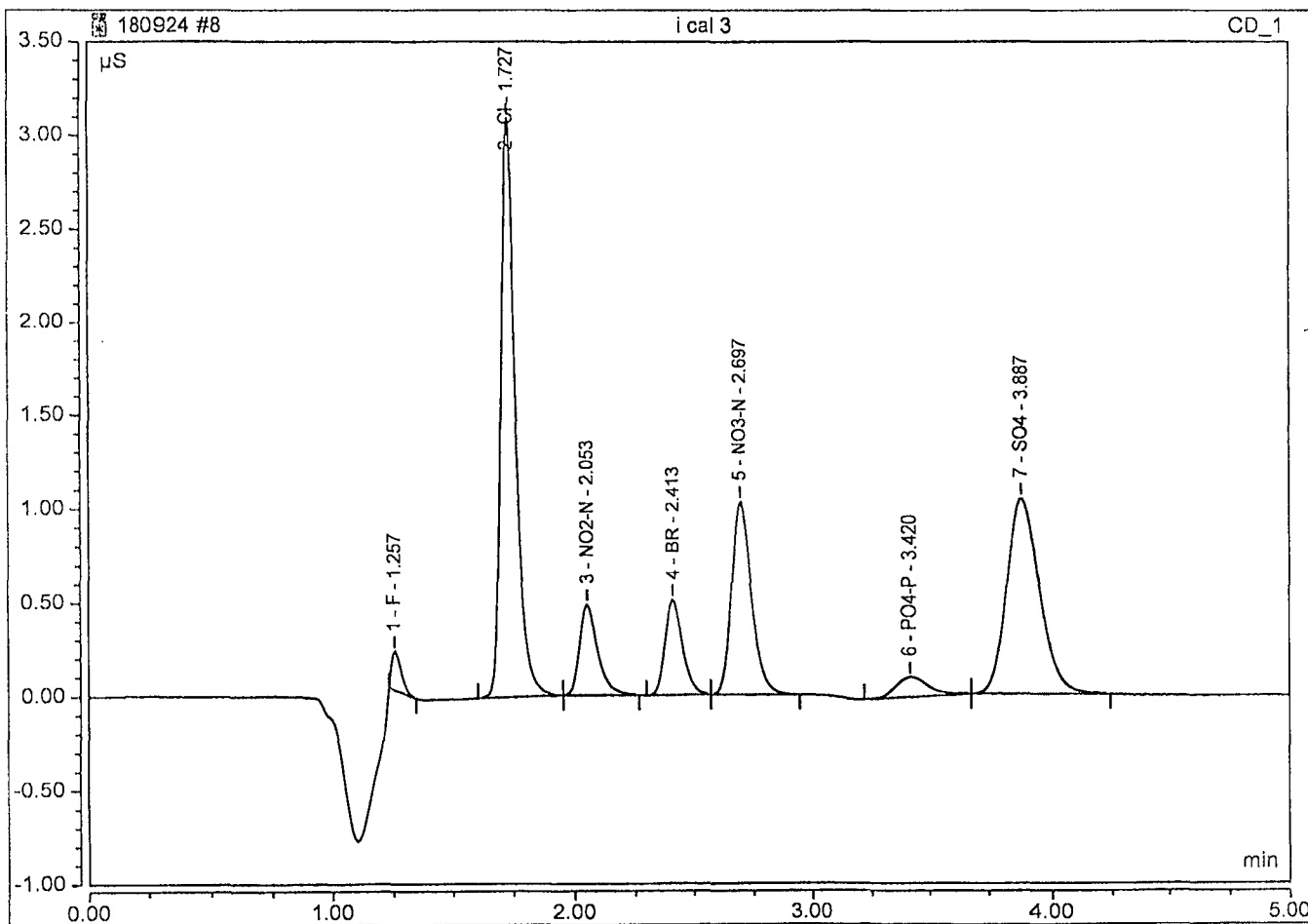


F M:1 180926 HH  
 PO4 M:1 180926 HH  
 JR 09-26-18

### Peak Integration Report

Sample Name:	i cal 3	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:06	Run Time:	5.00

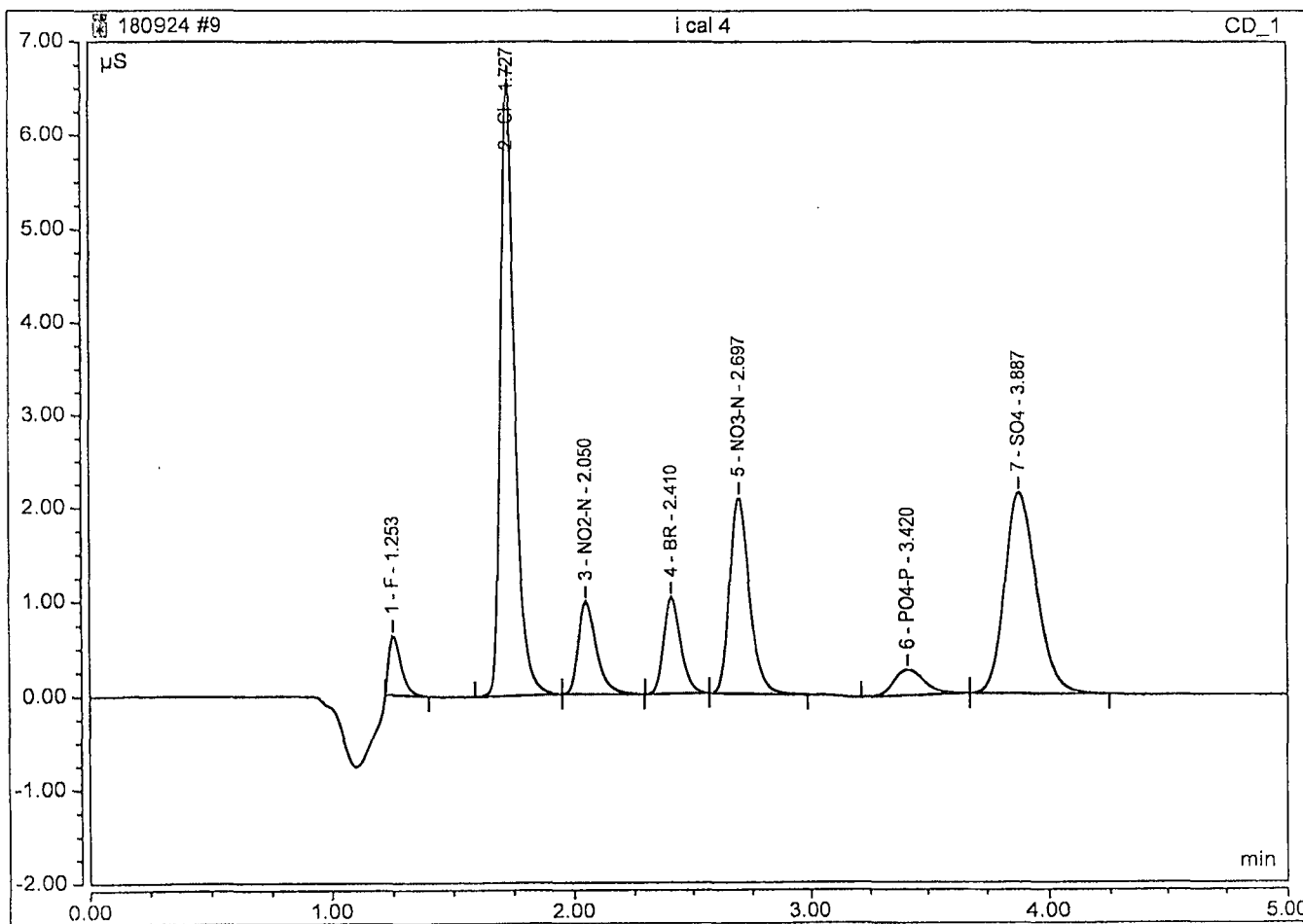
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB	0.010	0.207	0.1969
2	1.73	Cl	BMB	0.212	3.095	2.1289
3	2.05	NO2-N	BMB	0.042	0.484	0.2368
4	2.41	BR	BMB	0.044	0.508	1.1823
5	2.70	NO3-N	BMB	0.099	1.026	0.4535
6	3.42	PO4-P	BMB	0.017	0.105	0.4781
7	3.89	SO4	BMB	0.154	1.039	2.2625
TOTAL:				0.58	6.46	6.94



### Peak Integration Report

Sample Name:	i cal 4	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:14	Run Time:	5.00

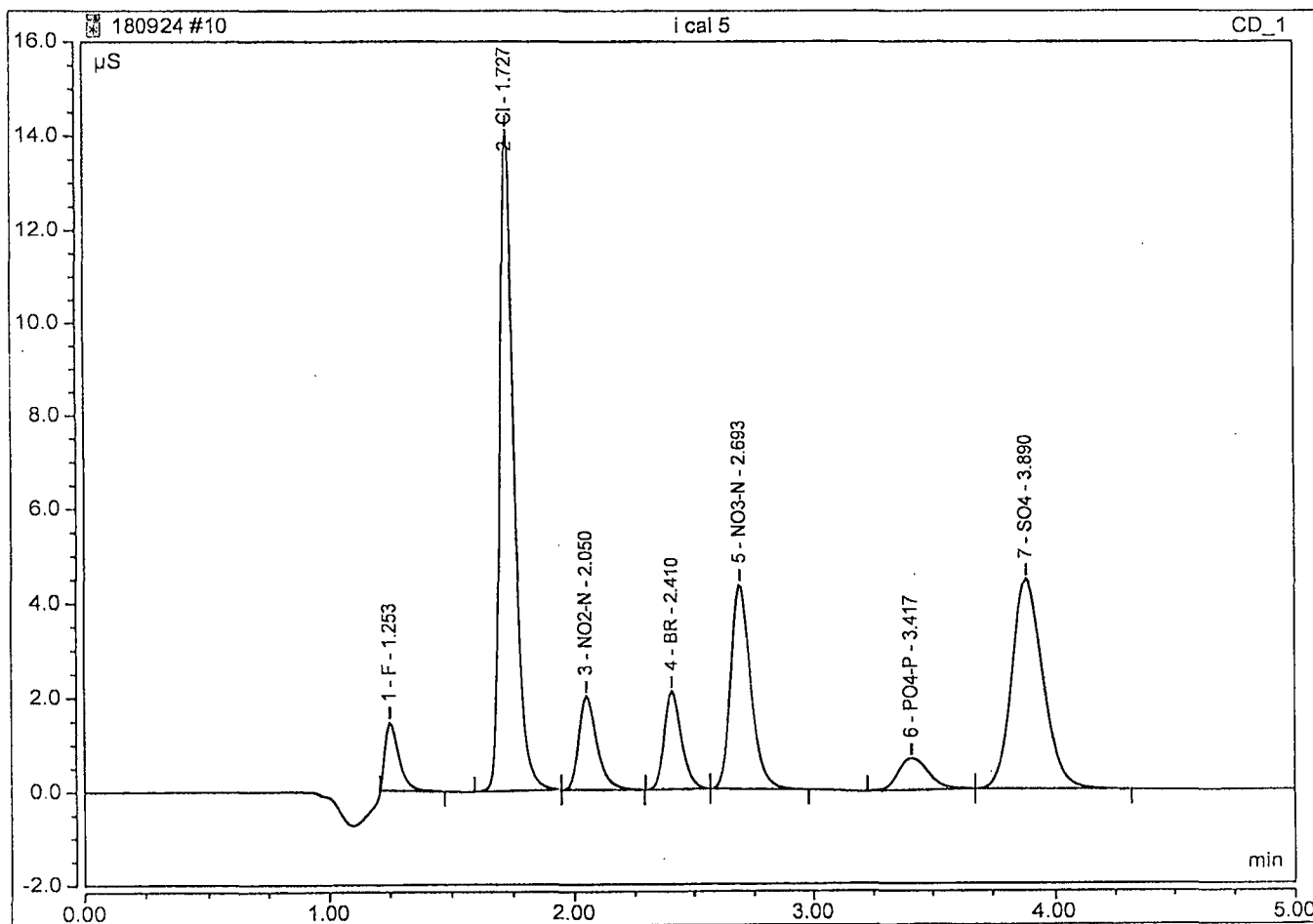
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.25	F	BMB	0.037	0.633	0.4272
2	1.73	Cl	BMB	0.442	6.587	4.2154
3	2.05	NO <sub>2</sub> -N	BMB	0.085	0.978	0.4726
4	2.41	BR	BMB	0.087	1.020	2.3380
5	2.70	NO <sub>3</sub> -N	BMB	0.201	2.080	0.8947
6	3.42	PO <sub>4</sub> -P	BMB	0.040	0.267	0.8302
7	3.89	SO <sub>4</sub>	BMB	0.314	2.135	4.4921
TOTAL:				1.21	13.70	13.67



### Peak Integration Report

Sample Name:	i cal 5	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:21	Run Time:	5.00

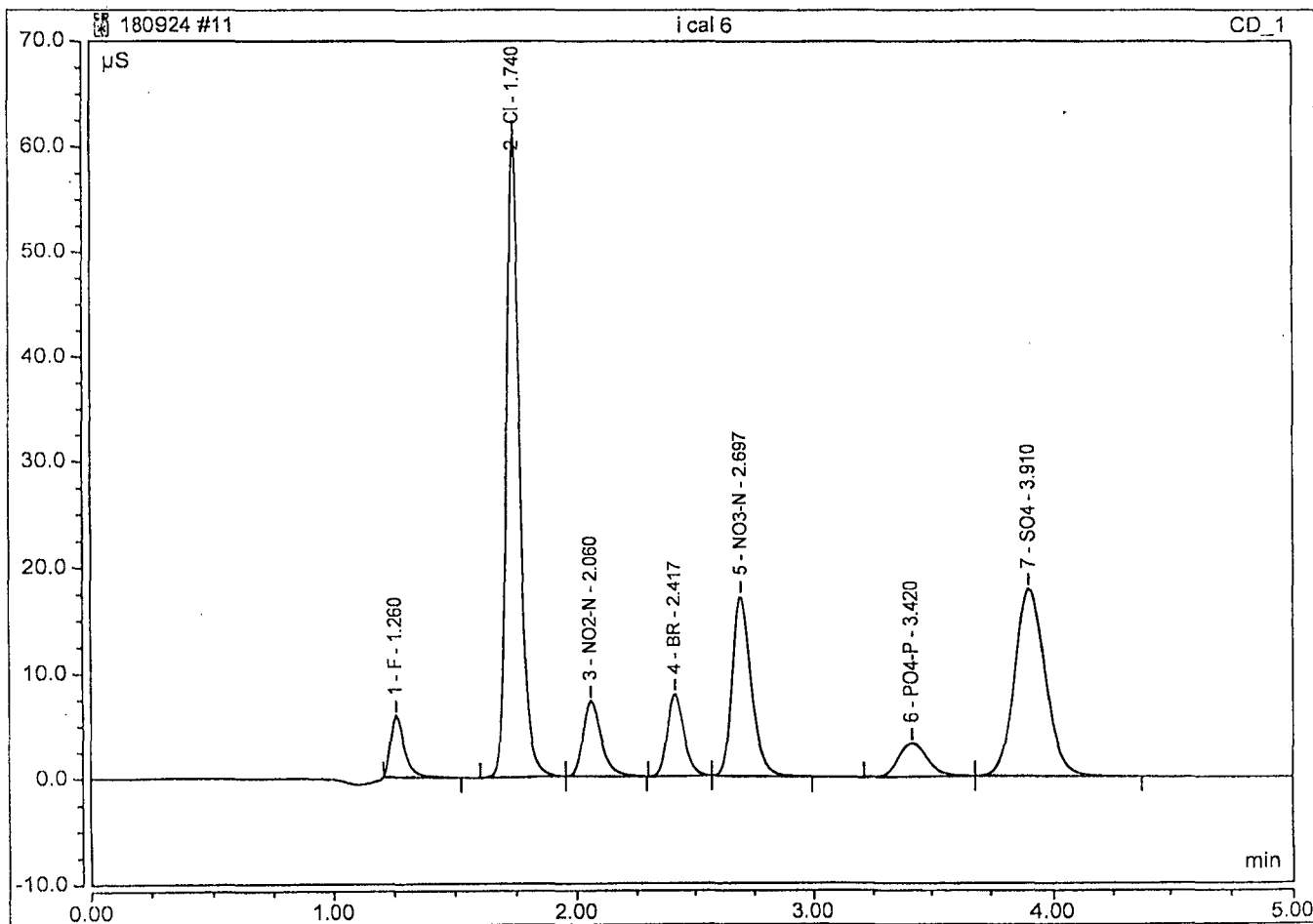
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.25	F	BMB	0.093	1.455	0.8893
2	1.73	Cl	BMB	0.924	14.090	8.5779
3	2.05	NO <sub>2</sub> -N	BMB	0.172	1.985	0.9575
4	2.41	BR	BMB	0.177	2.085	4.7219
5	2.69	NO <sub>3</sub> -N	BMB	0.412	4.323	1.8093
6	3.42	PO <sub>4</sub> -P	BMB	0.099	0.678	1.6962
7	3.89	SO <sub>4</sub>	BMB	0.644	4.443	9.0988
TOTAL:				2.52	29.06	27.75



### Peak Integration Report

Sample Name:	I cal 6	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:28	Run Time:	5.00

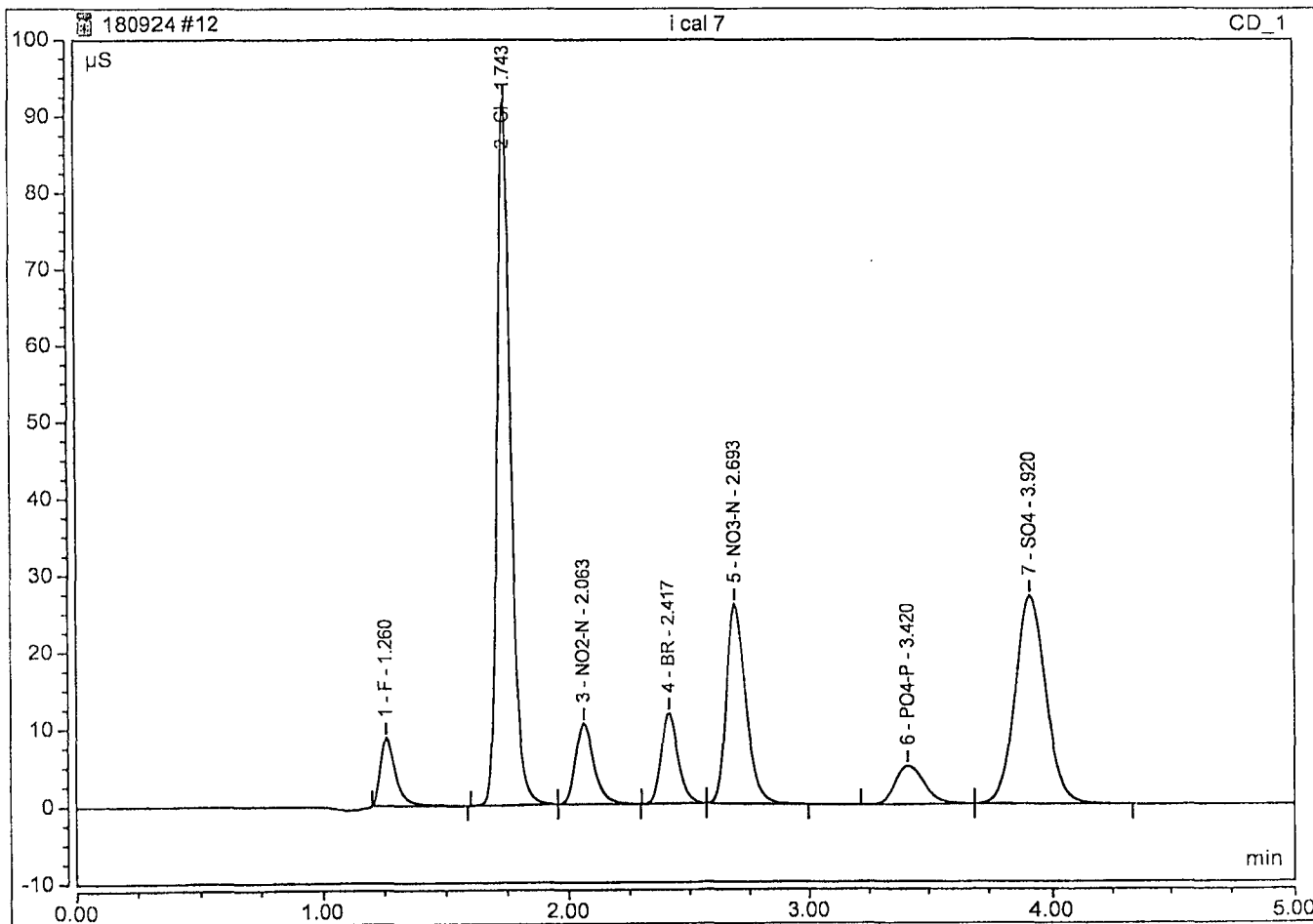
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB	0.394	5.883	3.4098
2	1.74	Cl	BMB	3.813	60.935	34.7347
3	2.06	NO2-N	BMB	0.628	7.206	3.4715
4	2.42	BR	BMB	0.651	7.839	17.2981
5	2.70	NO3-N	BMB	1.587	17.063	6.9001
6	3.42	PO4-P	BMB	0.451	3.196	6.9186
7	3.91	SO4	BMB	2.472	17.710	34.5706
TOTAL:				10.00	119.83	107.30

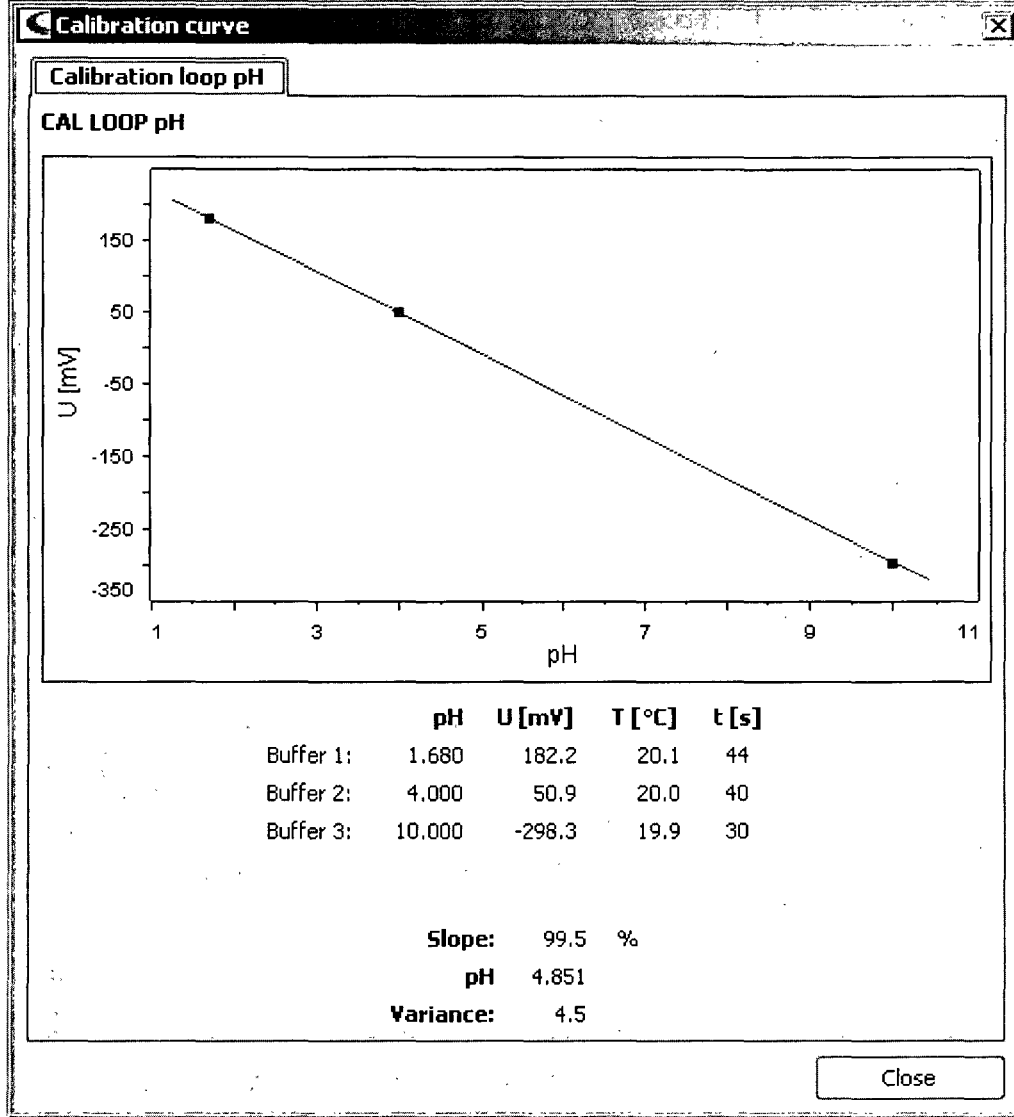


### Peak Integration Report

Sample Name:	i cal 7	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:36	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB	0.617	8.838	5.2687
2	1.74	Cl	BMB	5.795	92.222	52.6849
3	2.06	NO <sub>2</sub> -N	BMB	0.924	10.519	5.1040
4	2.42	BR	BMB	0.966	11.770	25.6813
5	2.69	NO <sub>3</sub> -N	BMB	2.400	25.942	10.4216
6	3.42	PO <sub>4</sub> -P	BMB	0.696	4.987	10.5499
7	3.92	SO <sub>4</sub>	BMB	3.720	26.940	51.9777
TOTAL:				15.12	181.22	161.69





**INORGANIC ANALYSIS**  
**Raw Data**

**APPL, INC.**



**SPECTROPHOTOMETRIC ANALYSIS (Ferrous Iron)**

Method: SM3500Fe  
 Analyte: Ferrous Iron  
 Analyst: HH  
 Units: mg/L  
 QCG: 181023  
 Notes:  
 Final Volume: 50mL

Instrument: GENESYS 10UV  
 Raw Spec: abs. @ 510nm  
 R-Squared: 0.99997  
 Reagent (lot#): COLORIZING REAGENT (0926/18)  
 BUFFER (09/19/18)

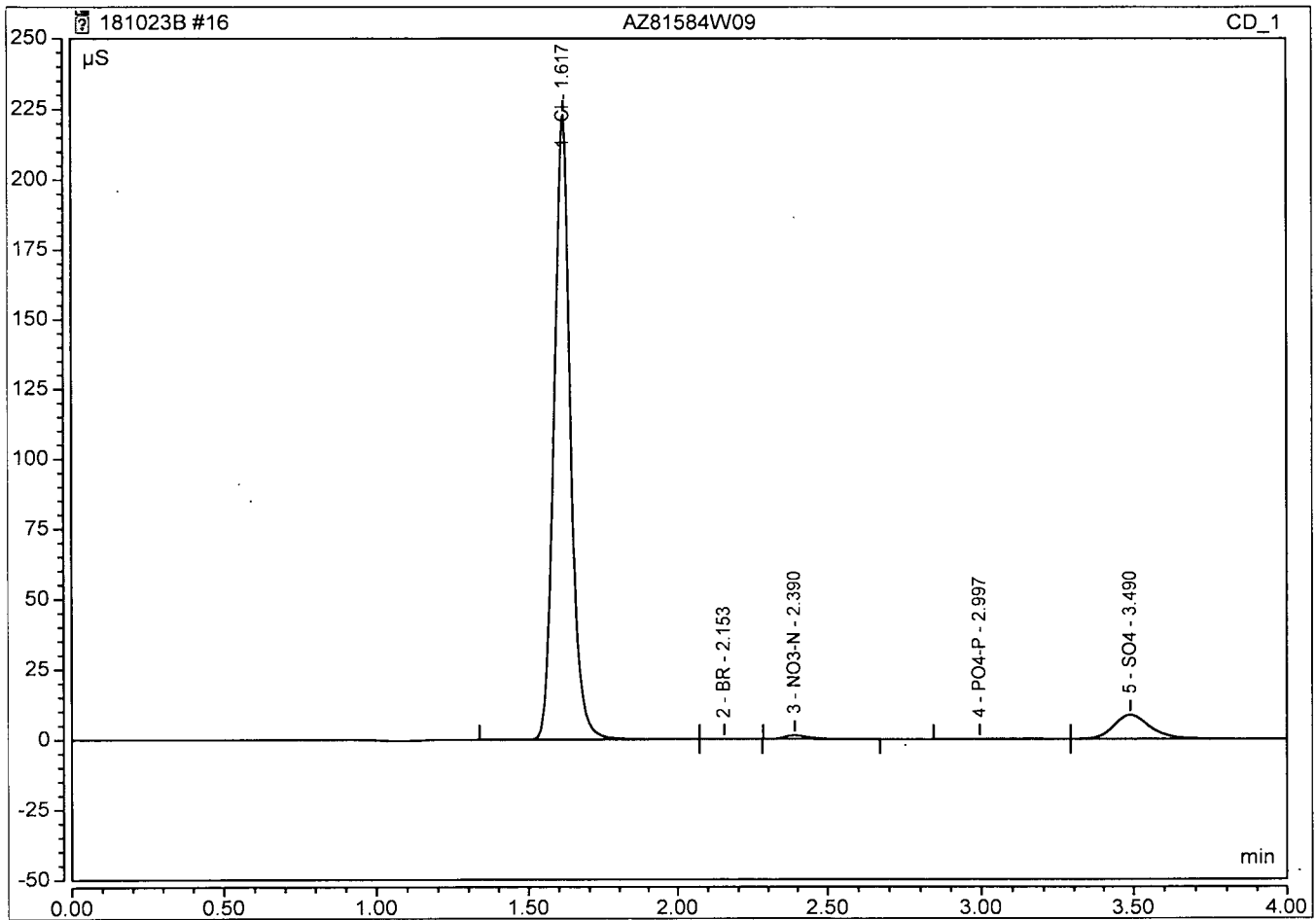
Analyst Completes  
 Formula Locked Cells

Date	Time	APPL ID	DF	Raw Result	SubSample Amt	Raw BLK	Calc Conc	Result	QC True	QC%	Row Complete
06/15/18	12:27	0 HH 180615	1	0.000							
06/15/18	12:27	1	1	0.099							
06/15/18	12:28	2	1	0.201							
06/15/18	12:28	3	1	0.396							
06/15/18	12:29	4	1	0.501							
06/15/18	12:30	5	1	1.000							
06/15/18	12:31	180615A ICV	1	0.316	25mL		3.17	3.17	3.000	105.5%	#NAME?
06/15/18	12:32	180615A ICB	1	0.000	25mL		0.01	0.01			#NAME?
10/23/18	11:33	CCV 4.0 181023	1	0.410			4.10	4.105	4.000	102.6%	#NAME?
10/23/18	11:34	CCB 181023	1	0.004			0.05	0.046			#NAME?
10/23/18	11:34	181023A LCS	1	0.326			3.27	3.265	3.000	108.8%	#NAME?
10/23/18	11:36	181023A LCSD	1	0.314			3.15	3.145	3.000	104.8%	#NAME?
10/23/18	11:37	AZ81584W11	1	0.016			0.17	0.166			#REF!
10/23/18	11:37	AZ81587W07	1	0.175			1.76	1.755			#REF!
10/23/18	11:38	AZ81584W11 MS	1	0.326			3.27	3.265			
10/23/18	11:38	AZ81584W11 Dup	1	0.015			0.16	0.156	6.27	2.5%	
10/23/18	11:39	CCV 4.0 181023	1	0.410			4.10	4.105	6.27	65.5%	
10/23/18	11:40	CCB 181023	1	0.003			0.04	0.036	4.00	0.9%	
								0.000			

### Peak Integration Report

Sample Name:	AZ81584W09	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	23-Oct-2018 / 17:20	Run Time:	4.00

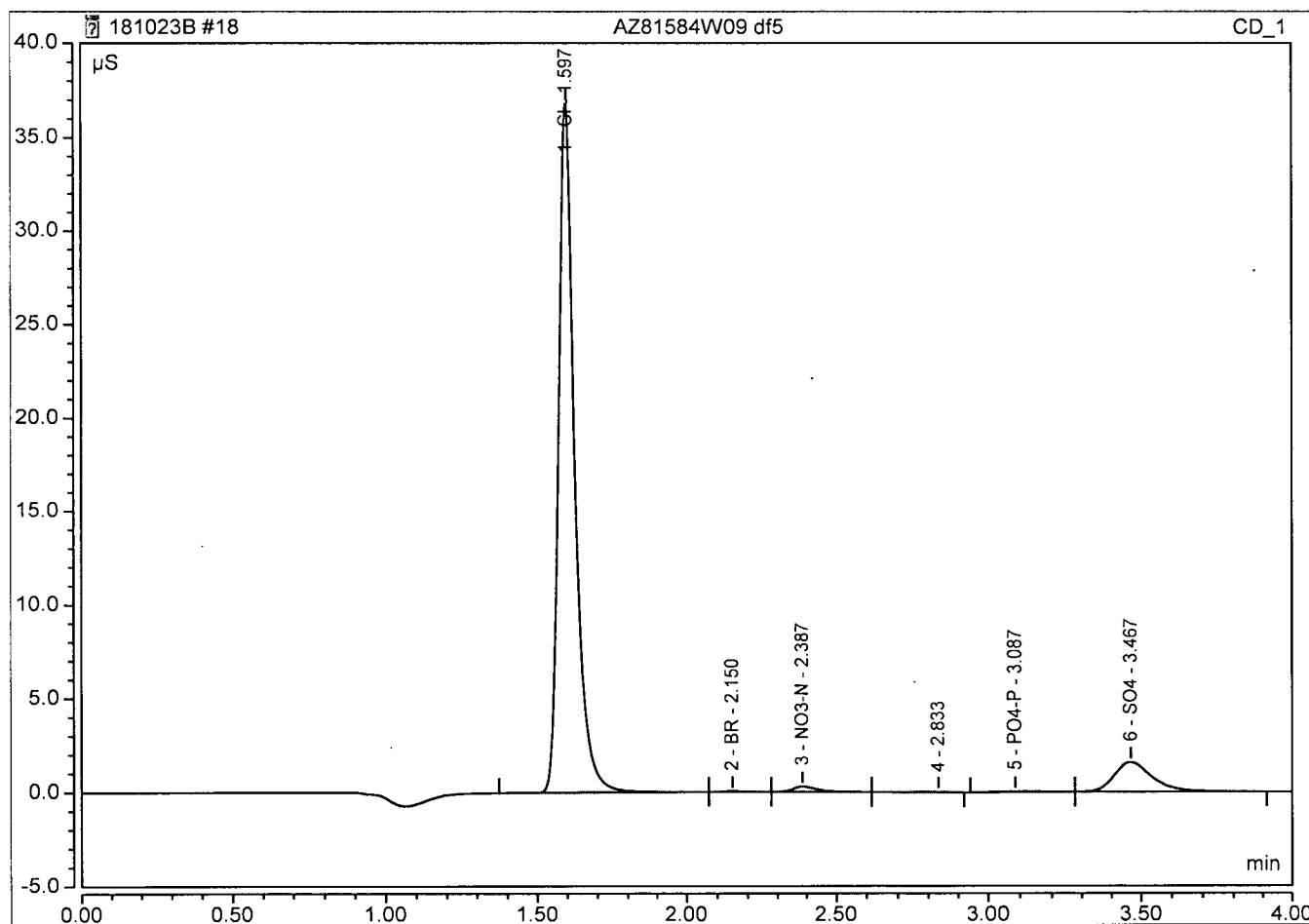
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.62	Cl	BMB	13.871	222.894	125.7971
2	2.15	BR	BMB	0.013	0.166	0.3719
3	2.39	NO3-N	BMB	0.127	1.358	0.5715
4	3.00	PO4-P	BMB	0.020	0.090	0.5311
5	3.49	SO4	BMB	1.174	8.482	16.4785
TOTAL:				15.20	232.99	143.75



### Peak Integration Report

Sample Name:	AZ81584W09 df5	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	5.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	23-Oct-2018 / 17:33	Run Time:	4.00

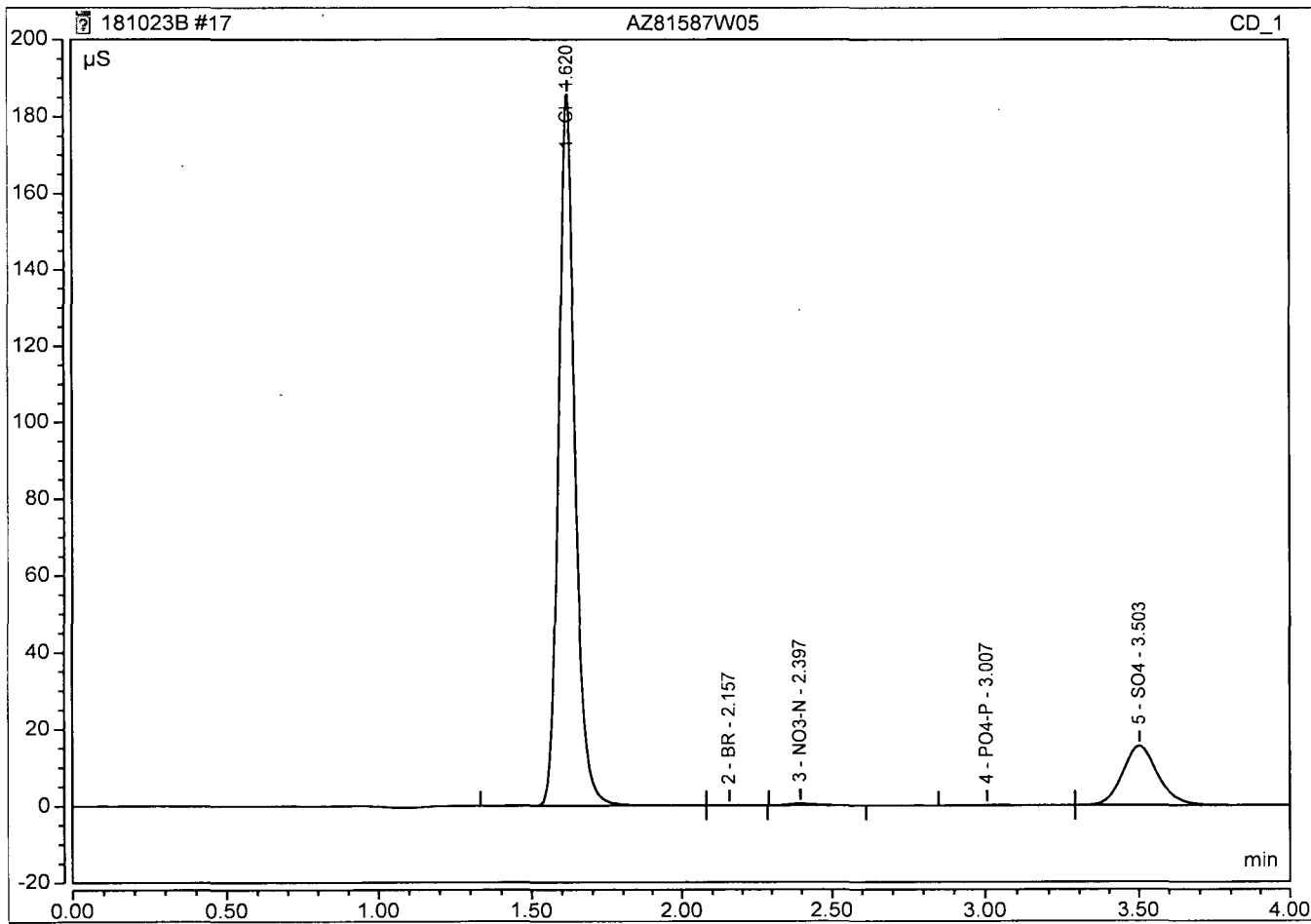
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.60	Cl	BMB	2.255	36.799	103.1553
2	2.15	BR	BMB	0.003	0.035	0.4571
3	2.39	NO3-N	BMB	0.026	0.277	0.6748
5	3.09	PO4-P	BMB	0.006	0.034	1.6113
6	3.47	SO4	BMB	0.228	1.579	16.4959
<b>TOTAL:</b>				2.52	38.72	122.39



### Peak Integration Report

Sample Name:	AZ81587W05	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	23-Oct-2018 / 17:27	Run Time:	4.00

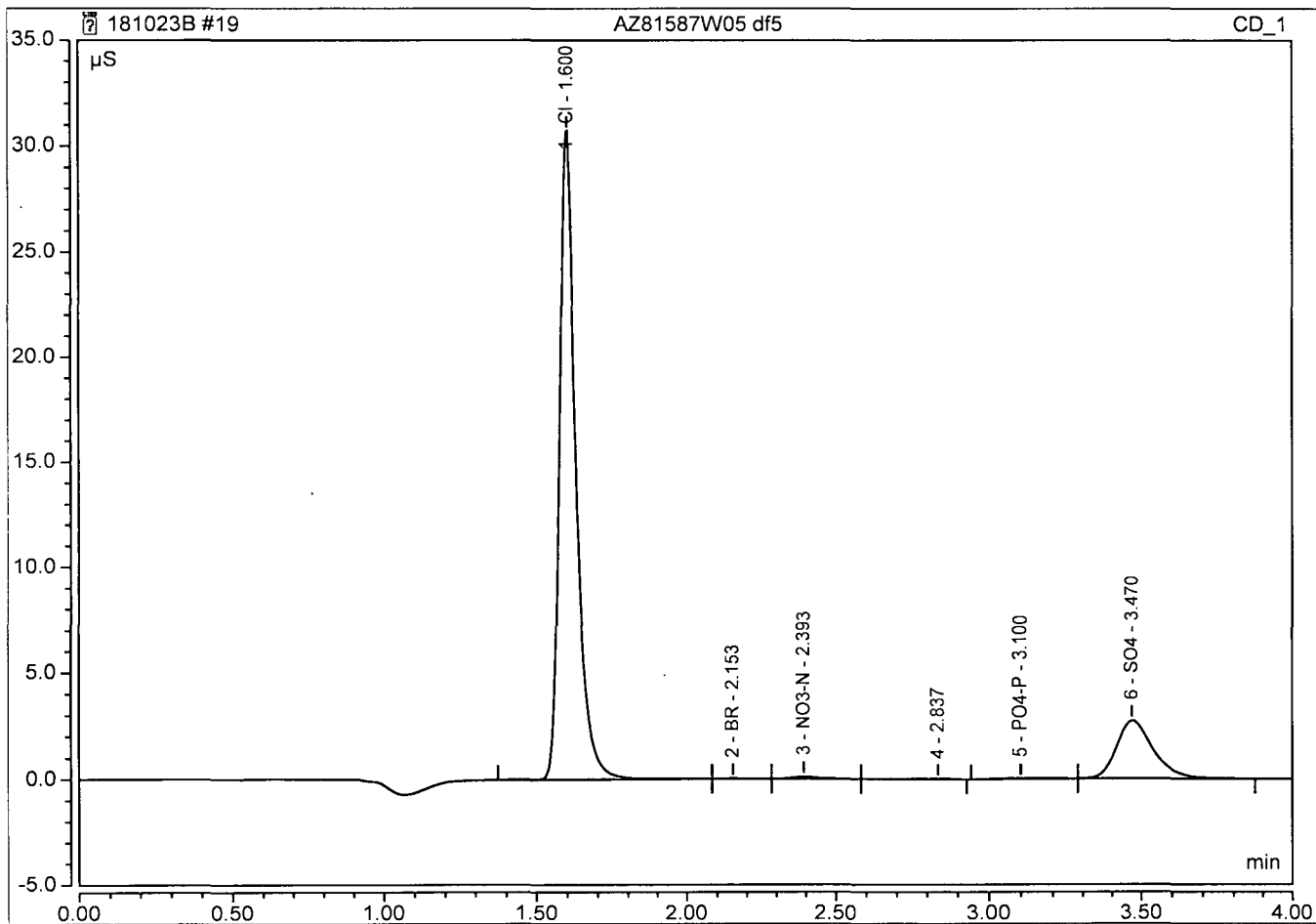
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.62	Cl	BMB	11.495	185.623	104.2906
2	2.16	BR	BMB	0.010	0.120	0.2720
3	2.40	NO3-N	BMB	0.043	0.470	0.2108
4	3.01	PO4-P	BMB	0.022	0.103	0.5560
5	3.50	SO4	BMB	2.097	15.343	29.3473
TOTAL:				13.67	201.66	134.68



### Peak Integration Report

Sample Name:	AZ81587W05 df5	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	5.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	23-Oct-2018 / 17:40	Run Time:	4.00

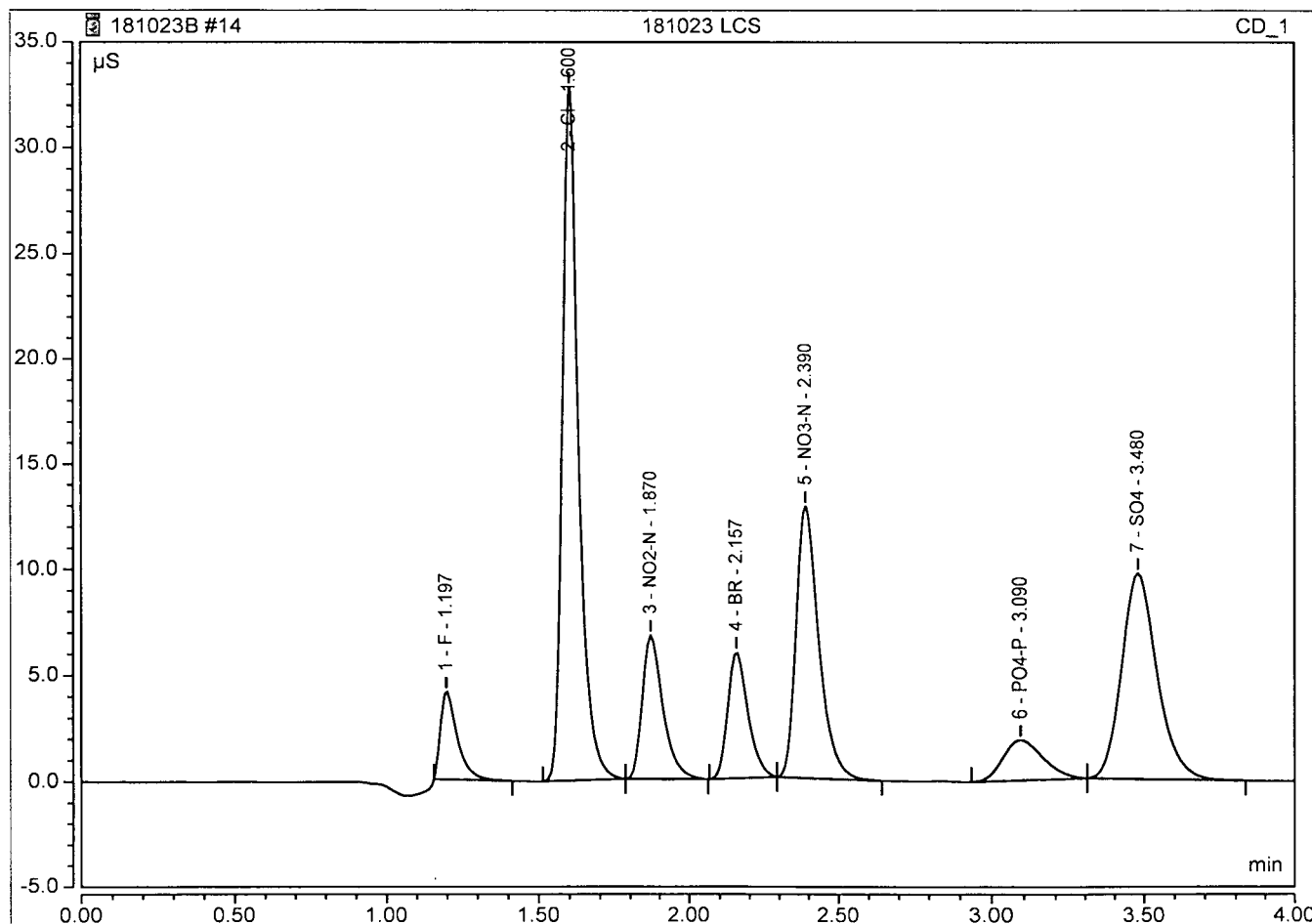
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.60	Cl	BMB	1.895	30.729	86.8767
2	2.15	BR	BMB	0.002	0.026	0.3721
3	2.39	NO3-N	BMB	0.010	0.104	0.3280
5	3.10	PO4-P	BMB	0.006	0.032	1.6318
6	3.47	SO4	BMB	0.389	2.720	27.6940
TOTAL:				2.30	33.61	116.90



### Peak Integration Report

Sample Name:	181023 LCS	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	23-Oct-2018 / 17:08	Run Time:	4.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.20	F	BMB	0.263	4.113	2.3133
2	1.60	Cl	BMB	1.995	32.837	18.2732
3	1.87	NO2-N	BMB	0.556	6.765	3.0723
4	2.16	BR	BMB	0.465	5.938	12.3593
5	2.39	NO3-N	BMB	1.128	12.791	4.9108
6	3.09	PO4-P	BMB	0.275	1.898	4.3015
7	3.48	SO4	BMB	1.325	9.662	18.5884
TOTAL:				6.01	74.00	63.82

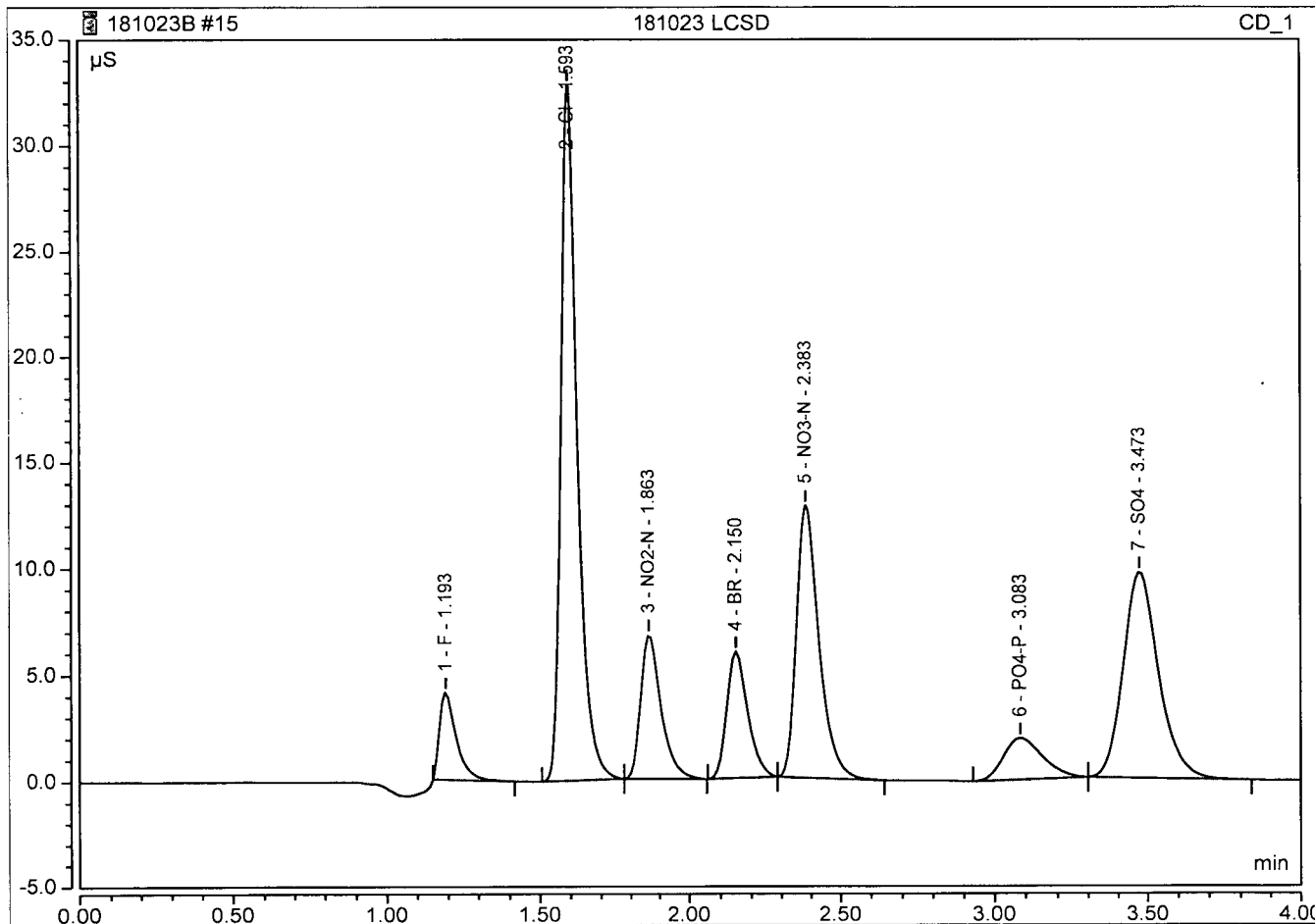


Algorithm Check: HH 181030  
 $y = \text{Peak Area}$   
 $x = \text{mg/L Br}$   
 $y = 0.0377x - .0007$   
 $y = .465 \therefore x = 12.35 \checkmark$

### Peak Integration Report

Sample Name:	181023 LCSD	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	23-Oct-2018 / 17:14	Run Time:	4.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.19	F	BMB	0.264	4.110	2.3248
2	1.59	Cl	BMB	1.995	32.831	18.2775
3	1.86	NO2-N	BMB	0.556	6.771	3.0769
4	2.15	BR	BMB	0.465	5.943	12.3723
5	2.38	NO3-N	BMB	1.129	12.787	4.9139
6	3.08	PO4-P	BMB	0.283	1.960	4.4286
7	3.47	SO4	BMB	1.325	9.671	18.5876
TOTAL:				6.02	74.07	63.98



## Metrohm 814/809 Titrando Data

Sample ID	Analysis Date/Time	Method	Titration Volume		OH	CO3	HCO3	Total Alk	Unit	Sample Vol	N	Batch	Initials
			(to 8.3)	(total)									
181029A BLK	2018-10-29 13:29:02 UTC-8	Alkalinity	0.000	0.056	0.00	0.00	2.24	2.24	mg/L	25 mL	0.0200	181029A	AR
AZ81587W05	2018-10-29 11:42:44 UTC-8	Alkalinity	0.000	1.182	0.00	0.00	47.28	47.28	mg/L	25 mL	0.0200	181029A	AR
AZ81584W09	2018-10-29 11:07:44 UTC-8	Alkalinity	0.000	1.494	0.00	0.00	59.76	59.76	mg/L	25 mL	0.0200	181029A	AR
181029A LCSD	2018-10-29 10:42:19 UTC-8	Alkalinity	0.000	5.790	0.00	0.00	231.60	231.60	mg/L	25 mL	0.0200	181029A	AR
181029A LCS	2018-10-29 10:32:42 UTC-8	Alkalinity	0.000	5.876	0.00	0.00	235.04	235.04	mg/L	25 mL	0.0200	181029A	AR



# AQ2 Tray Report



**Serial Number:** 190170  
**Software Version:** 2.1.0  
**Report Requested By:** Joel  
**Date & Time:** 2018-10-30 15:18:17  
**Tray Number:** 93  
**Tray Name:** 181030A TOXN

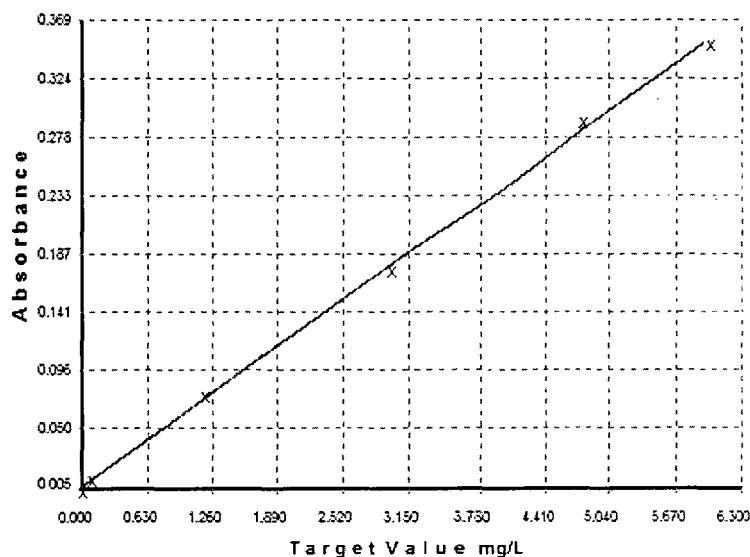
## TOXN

### Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0047	-0.0454	0.0000	
S90	0.0142	0.1183	0.1000	18.29
S91	0.0799	1.2507	1.2000	4.23
S92	0.1773	2.9314	3.0000	-2.29
S93	0.2918	4.9058	4.8000	2.20
S94	0.3517	5.9392	6.0000	-1.01
S0	0.0054	-0.0339	0.0000	

**Polynomial Order:** 1  
**Correlation Coefficient:** 0.9996  
**Carryover(%):** 0.2  
**Calibration equation:**  $y = bx + a$   
**y =:** Concentration mg/L  
**x =:** Measured absorbance  
**a =:** -1.270205E-001  
**b =:** 1.724661E+001  
**Date & Time:** 2018-10-30 14:29:48

### Calibration Graph



## Reagents

Name	Batch	Prepared By	Expiry Date
NO3 W Buffer	Algorithm Check	Joel	
Sulfa-NEDD	$y = 17.25x - 0.13$ $y = 3.00$ ✓	Joel JR	

## Test Results

Cup Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
S1	Standard 1	0.0047			0.004732			JR	2018-10-30 14:16:00
S90	Standard 90	0.0142			0.014223			JR	2018-10-30 14:18:20
S91	Standard 91	0.0799			0.079884			JR	2018-10-30 14:20:37
S92	Standard 92	0.1773			0.177333			JR	2018-10-30 14:22:55
S93	Standard 93	0.2918			0.291817			JR	2018-10-30 14:25:13
S94	Standard 94	0.3517			0.351734			JR	2018-10-30 14:27:31
S0	Standard 0	0.0054			0.005402			JR	2018-10-30 14:29:48
2	ICV	3.0057	mg/L	✓	0.181641			JR	2018-10-30 14:32:06
3	ICB	-0.0254	mg/L		0.005891			JR	2018-10-30 14:34:24
	CCV	2.8860	mg/L		0.174701			JR	2018-10-30 14:36:42
	CCB	-0.0265	mg/L		0.005827			JR	2018-10-30 14:39:01
4	U1	181030A BLK	-0.0376	mg/L	0.005183			JR	2018-10-30 14:41:19
5	U2	181030A LCS	2.9834	mg/L	0.180348			JR	2018-10-30 14:43:37
6	U3	181030A LCSD	2.9608	mg/L	0.179040			JR	2018-10-30 14:45:57
7	U4	AZ81584W10	0.5379	mg/L	0.038552			JR	2018-10-30 14:48:15
8	U5	AZ81584W10 MS	3.0498	mg/L	0.184200			JR	2018-10-30 14:50:33
9	U6	AZ81584W10 MSD	3.1202	mg/L	0.188282			JR	2018-10-30 14:52:51

10	U7	AZ81587W06	0.2006	mg/L	0.018995	JR	2018-10-30 14:55:10
11	U8	AZ81636W06	0.7206	mg/L	0.049149	JR	2018-10-30 14:57:28
12	U9	AZ81640W06	-0.0014	mg/L	0.007286	JR	2018-10-30 14:59:47
13	U10	AZ81642W06	0.9302	mg/L	0.061297	JR	2018-10-30 15:02:05
	CCV	CCV	2.9472	mg/L	0.178253	JR	2018-10-30 15:04:24
	CCB	CCB	-0.0167	mg/L	0.006395	JR	2018-10-30 15:06:43
14	U11	AZ81644W06	0.5641	mg/L	0.040070	JR	2018-10-30 15:07:51
15	U12	AZ81676W06	1.5066	mg/L	0.094721	JR	2018-10-30 15:08:47
16	U13	AZ81677W06	0.4253	mg/L	0.032026	JR	2018-10-30 15:09:44
17	U14	AZ81678W06	0.4665	mg/L	0.034416	JR	2018-10-30 15:10:40
18	U15	AZ81840W06	0.0293	mg/L	0.009062	JR	2018-10-30 15:11:36
19	U16	AZ81841W06	1.8760	mg/L	0.116141	JR	2018-10-30 15:12:33
20	U17	AZ81842W06	1.9744	mg/L	0.121846	JR	2018-10-30 15:13:29
	CCV	CCV	2.9304	mg/L	0.177276	JR	2018-10-30 15:14:25
	CCB	CCB	-0.0243	mg/L	0.005956	JR	2018-10-30 15:15:22

Method Ferrous Iron Standards Prep'd By (Initials) HH  
 Prep Date 06/15/18  
 Exp Date 06/15/19

Stock Label	Supplier	Batch Number	Exp Date	Aliquot from Stock	Final Volume	Solvent	Ferrous Iron Concentration
Ferrous Ammonium Sulfate	J.T.Baker	0000184592	08/21/20	0.351	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L
Ferrous Sulfate	Mallinckrodt	Lot 5056 KDRX	NA	0.249	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L

Method Ferrous Iron CCV/LCS/MS/ICV Prep'd By (Initials) HH  
 Prep Date See Injection Log  
 Exp Date 24 Hours

Initial Standard Information	Supplier	Batch Number	Exp Date	Final Standard Information			
Ferrous Iron CCV	J.T.Baker	0000184592	06/14/19	500uL	25mL	Deionized water	4mg/L
Ferrous Iron LCS	Mallinckrodt	Lot 5056 KDRX	06/14/19	375uL	25mL	Deionized water	3mg/L

Method Ferrous Iron Calibration Curve Prep'd By (Initials) HH  
 Prep Date 06/15/18  
 Exp Date 06/16/18

**Final Standard Information**

Point Label	Supplier	Batch Number	Exp Date	Aliquot from Stock	Final Volume	Solvent	Ferrous Iron Concentration
0 HH 180615	J.T.Baker	0000184592	06/14/19	0	25mL	Deionized water	0mg/L
1	J.T.Baker	0000184592	06/14/19	0.125	25mL	Deionized water	1mg/L
2	J.T.Baker	0000184592	06/14/19	0.25	25mL	Deionized water	2mg/L
3	J.T.Baker	0000184592	06/14/19	0.5	25mL	Deionized water	4mg/L
4	J.T.Baker	0000184592	06/14/19	0.625	25mL	Deionized water	5mg/L
5	J.T.Baker	0000184592	06/14/19	1.25	25mL	Deionized water	10mg/L
Ferrous Iron ICV	Mallinckrodt	Lot 5056 KDRX	06/14/19	375uL	25mL	Deionized water	3mg/L

Anion Chromatography Working Standard									
Prep Date: 09/24/18									
Exp Date: 09/25/18									
Prep'd By (Initials): HH									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (ug/mL)
Ion Chromatography Standard Fluoride 1000ug/mL in H2O	o2si	O2SI-062002-01-01	1000	142626-24-38407	04/20/19	125 uL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O	o2si	O2SI-062004-01-01	1000	142626-24-38408	04/20/19	125 uL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	250 uL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	250 uL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	250 uL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	625 uL	25 mL	Millipore Water	12.5
Sulfate Standard	Ultra Scientific	ICC-006	1000	G34-CR-2905-39056	07/31/21	1250 uL	25 mL	Millipore Water	25

Anion Chromatography Calibration Curve									
Prep Date: 09/24/18									
Exp Date: 09/25/18									
Prep'd By (Initials): HH									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/mL)	Reference To APPL Prep Date	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
Anion Chromatography Working Standard	Varries	ICal1	5.0-50.0	Prepared 09/24/18	09/25/18	8 uL	1000 uL	Millipore Water	0.08-0.40
Anion Chromatography Working Standard	Varries	ICal2	5.0-50.0	Prepared 09/24/18	09/25/18	20 uL	1000 uL	Millipore Water	0.1-1.0
Anion Chromatography Working Standard	Varries	ICal3	5.0-50.0	Prepared 09/24/18	09/25/18	50 uL	1000 uL	Millipore Water	0.25-2.5
Anion Chromatography Working Standard	Varries	ICal4	5.0-50.0	Prepared 09/24/18	09/25/18	100 uL	1000 uL	Millipore Water	0.5-5.0
Anion Chromatography Working Standard	Varries	ICal5	5.0-50.0	Prepared 09/24/18	09/25/18	200 uL	1000 uL	Millipore Water	1.0-10.0
Anion Chromatography Working Standard	Varries	ICal6	5.0-50.0	Prepared 09/24/18	09/25/18	700 uL	1000 uL	Millipore Water	3.5-35.0
Anion Chromatography Working Standard	Varries	ICal7	5.0-50.0	Prepared 09/24/18	09/25/18	1000 uL	1000 uL	Millipore Water	5.0-50.0

Anion Chromatography LCS/ICV									
Prep Date: See Injection Log									
Exp Date: 24 hours after prep									
Prep'd By (Initials): HH									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (ug/mL)
Flouride	Inorganic Ventures	ICF1	993-999	K2-F652018-38331	10/19/18	62.5 uL	25 mL	Millipore Water	2.5
Nitrite	Inorganic Ventures	ICNO21	993-1001	M2-NOX660562-38333	10/19/18	250 uL	25 mL	Millipore Water	3.04
Chloride	Inorganic Ventures	ICCL1	995-1001	N2CL664868-39036	04/16/19	500 uL	25 mL	Millipore Water	20
O-Phosphate as P	Inorganic Ventures	IPPO41	1001-1009	M2-POX665826-38334	10/19/18	125 uL	25 mL	Millipore Water	5
Nitrate as N	Inorganic Ventures	ICNNO31	994-1002	N2-NOX667147-39509	09/12/19	125 uL	25 mL	Millipore Water	5
Ion Chromatography Bromide Standard	CPI International	4400-IC8M	1000	161681-8-39539	02/06/20	312.5 uL	25 mL	Millipore Water	12.5
Sulfate	Inorganic Ventures	ICSO41	998-1006	N2-SOX664928-39508	08/13/19	500 uL	25 mL	Millipore Water	20

Anion Chromatography CCV									
Prep Date: See Injection Log									
Exp Date: 24 hours after prep									
Prep'd By (Initials): HH									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (ug/mL)
Ion Chromatography Standard Fluoride 1000ug/mL in H2O	o2si	O2SI-062002-01-01	1000	142626-24-38407	04/20/19	62.5 uL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O	o2si	O2SI-062004-01-01	1000	142626-24-38408	04/20/19	62.5 uL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	125 uL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	125 uL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	125 uL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	312.5 uL	25 mL	Millipore Water	12.5
Sulfate Standard	Ultra Scientific	ICC-006	1000	G34-CR-2905-39056	07/31/21	625 uL	25 mL	Millipore Water	25

**Anion Chromatography Working Standard**  
 Prep Date: 10/23/18  
 Exp Date: 10/24/18

Prep'd By (Initials): HH

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (ug/mL)
Ion Chromatography Standard Fluoride 1000ug/mL in H2O	o2si	O2SI-062002-01-01	1000	142626-24-38407	04/20/19	125 uL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O	o2si	O2SI-062004-01-01	1000	142626-24-38408	04/20/19	125 uL	25 mL	Millipore Water	5
Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	250 uL	25 mL	Millipore Water	50
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	250 uL	25 mL	Millipore Water	10
Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	250 uL	25 mL	Millipore Water	10
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	625 uL	25 mL	Millipore Water	25
Sulfate Standard	Ultra Scientific	ICC-006	1000	G34-CR-2905-39056	07/31/21	1250 uL	25 mL	Millipore Water	50

**Anion Chromatography Calibration Curve**  
 Prep Date: 10/23/18  
 Exp Date: 10/24/18

Prep'd By (Initials): HH

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/mL)	Reference To APPL Prep Date	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Conc. Range (ug/mL)
Anion Chromatography Working Standard	Varries	ICal1	5.0-50.0	Prepared 10/23/18	10/24/18	200 uL	25000 uL	Millipore Water	0.08-0.40
Anion Chromatography Working Standard	Varries	ICal2	5.0-50.0	Prepared 10/23/18	10/24/18	20 uL	1000 uL	Millipore Water	0.1-1.0
Anion Chromatography Working Standard	Varries	ICal3	5.0-50.0	Prepared 10/23/18	10/24/18	50 uL	1000 uL	Millipore Water	0.25-2.5
Anion Chromatography Working Standard	Varries	ICal4	5.0-50.0	Prepared 10/23/18	10/24/18	100 uL	1000 uL	Millipore Water	0.5-5.0
Anion Chromatography Working Standard	Varries	ICal5	5.0-50.0	Prepared 10/23/18	10/24/18	200 uL	1000 uL	Millipore Water	1.0-10.0
Anion Chromatography Working Standard	Varries	ICal6	5.0-50.0	Prepared 10/23/18	10/24/18	700 uL	1000 uL	Millipore Water	3.5-35.0
Anion Chromatography Working Standard	Varries	ICal7	5.0-50.0	Prepared 10/23/18	10/24/18	1000 uL	1000 uL	Millipore Water	5.0-50.0

**Anion Chromatography LCS/ICV**  
 Prep Date: See injection Log  
 Exp Date: 24 hours after prep

Prep'd By (Initials): HH

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (ug/mL)
Fluoride	Inorganic Ventures	ICF1	993-999	K-F652018-39801	10/23/19	62.5 uL	25 mL	Millipore Water	2.5
Nitrite	Inorganic Ventures	ICNO21	993-1001	M2-NOX660562-39802	10/23/19	250 uL	25 mL	Millipore Water	3.04
Chloride	Inorganic Ventures	ICCL1	995-1001	N2CL664868-39036	04/16/19	500 uL	25 mL	Millipore Water	20
O-Phosphate as P	Inorganic Ventures	IPPO41	1001-1009	M2-POX655826-39803	10/23/19	125 uL	25 mL	Millipore Water	5
Nitrate as N	Inorganic Ventures	ICNNO31	994-1002	N2-NOX667147-39510	10/23/19	125 uL	25 mL	Millipore Water	5
Ion Chromatography Bromide Standard	CPI International	4400-IC8M	995-1005	16H087-37320	01/15/19	312.5 uL	25 mL	Millipore Water	12.5
Sulfate	Inorganic Ventures	ICSO41	998-1006	K2-SOX01111-38875	08/13/19	500 uL	25 mL	Millipore Water	20

**Anion Chromatography CCV**  
 Prep Date: See injection Log  
 Exp Date: 24 hours after prep

Prep'd By (Initials): HH

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (ug/mL)
Ion Chromatography Standard Fluoride 1000ug/mL in H2O	o2si	O2SI-062002-01-01	1000	142626-24-38407	04/20/19	62.5 uL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O	o2si	O2SI-062004-01-01	1000	142626-24-38408	04/20/19	62.5 uL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	125 uL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	125 uL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	125 uL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	312.5 uL	25 mL	Millipore Water	12.5
Sulfate Standard	Ultra Scientific	ICC-006	1000	G34-CR-2905-39056	07/31/21	625 uL	25 mL	Millipore Water	25

**Tiamo Alkalinity Standard Prep**

Alkalinity

Prep'd By (Initials): AR

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Unit	Conc	Lot Number - QA Number	Prep/Opened	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc
Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	J.T.Baker	NA	NA	167828	NA	NA	PURCHASED	NA	NA	NA
0.10N Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	J.T.Baker	Normality	0.1N	167828	09/05/18	09/05/19	3ml	1L	DI	0.10N
0.02N Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	J.T.Baker	Normality	0.02N	167828	10/24/18	10/24/19	200mL	1L	DI	0.02N
Inorganic Spike(NaHCO <sub>3</sub> )	BDH	NA	NA	1575C510	10/18/18	08/14/20	PURCHASED	NA	NA	NA
Inorganic Spike Solution	BDH	Milligrams/Liters	250mg/L	1575C510	10/18/18	10/18/19	3.5g	500mL	DI	250mg/L
Standarizing Solution(NaCO <sub>3</sub> )	J.T.Baker	Normality	1N	178494	07/25/17	07/25/19	PURCHASED	NA	NA	NA

## Nitrite

### High Point @ 1.5 mg/L

0.075 mL NO<sub>2</sub> O<sub>2</sub>Si lot 142626-24 – 38408 exp: 04/20/19  
50 mL DI Water

### CCV @ 0.75 mg/L

0.0375 mL NO<sub>2</sub> O<sub>2</sub>Si lot 142626-24 – 38408 exp: 4/20/19  
50 mL DI Water

### ICV/LCS @ 0.73 mg/L

0.12mL NO<sub>2</sub> Inorganic Ventures lot M2-NOX660562 – 38802 exp: 10/23/19  
50 mL DI Water

### 1 mg/L NO<sub>2</sub>

400 uL of High point and 200 uL of DI made directly into a sample cup

Prep 10/23/18  
Exp 10/30/18  
JR

## Nitrate/TOXN

### High Point @ 6 mg/L

0.30 mL NO<sub>3</sub> O<sub>2</sub>Si lot 880117-4 – 39577 exp: 02/21/20  
50 mL DI Water

### CCV @ 3.0 mg/L

0.15 mL NO<sub>3</sub> O<sub>2</sub>Si lot 880117-4 – 39577 exp: 02/21/20  
50 mL DI Water

### ICV/LCS @ 3.0 mg/L

0.150 mL NO<sub>3</sub> Inorganic Ventures lot M2-NOX667147 – 39510 exp: 10/23/18  
50 mL DI Water

### 1 mg/L NO<sub>3</sub>

100 uL of High point and 500 uL of DI made directly into a sample cup

### MS @ 2.5 mg/L NO<sub>3</sub> and 0.73 mg/L NO<sub>2</sub>

0.125 mL NO<sub>3</sub> Inorganic Ventures lot M2-NOX667147 – 39510 M2-NOX667147 – 39510 and 0.12mL  
M2-NOX660562 – 38802 exp: 10/23/19  
Final volume 50 mL of sample

Prep 10/23/18  
Exp 10/30/18  
JR

# SM3500FeB Injection Log

Directory: I:\Spec Sheets\Ferrous Iron (Fe2)\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
2	15 Jun 2018	12:27	0 HH 180615		Upload Temp	1.
1	15 Jun 2018	12:27	1		Upload Temp	1.
3	15 Jun 2018	12:28	3		Upload Temp	1.
4	15 Jun 2018	12:28	2		Upload Temp	1.
5	15 Jun 2018	12:29	4		Upload Temp	1.
6	15 Jun 2018	12:30	5		Upload Temp	1.
7	15 Jun 2018	12:31	180615A ICV		Upload Temp	1.
8	15 Jun 2018	12:32	180615A ICB		Upload Temp	1.
9	23 Oct 2018	11:33	CCV 4.0 181023		Upload Temp	1.
10	23 Oct 2018	11:34	CCB 181023		Upload Temp	1.
11	23 Oct 2018	11:34	181023A LCS		Upload Temp	1.
12	23 Oct 2018	11:36	181023A LCSD		Upload Temp	1.
13	23 Oct 2018	11:37	AZ81584W11		Upload Temp	1.
14	23 Oct 2018	11:37	AZ81587W07		Upload Temp	1.
17	23 Oct 2018	11:39	CCV 4.0 181023		Upload Temp	1.
18	23 Oct 2018	11:40	CCB 181023		Upload Temp	1.



## EPA 9056A Injection Log

Directory: I:\Dionex\Charlie\

inID	Injected		Sample Name	Misc Info	FileName	Multiplier
	24 Sep 2018	10:51	i cal 1		Anions	1.
	24 Sep 2018	10:59	i cal 2		Anions	1.
	24 Sep 2018	11:06	i cal 3		Anions	1.
	24 Sep 2018	11:14	i cal 4		Anions	1.
	24 Sep 2018	11:21	i cal 5		Anions	1.
	24 Sep 2018	11:28	i cal 6		Anions	1.
	24 Sep 2018	11:36	i cal 7		Anions	1.
	24 Sep 2018	11:43	CCB		Anions	1.
	24 Sep 2018	11:51	ICV LCS		Anions	1.

# EPA 300.0 Injection Log

Directory: I:\Dionex\Charlie\

RunID	Injected	Sample Name	Misc Info	FileName	Multiplier
12	23 Oct 2018 16:55	CCV 181023		Anions	1.
13	23 Oct 2018 17:01	CCB		Anions	1.
14	23 Oct 2018 17:08	181023 LCS		Anions	1.
15	23 Oct 2018 17:14	181023 LCSD		Anions	1.
16	23 Oct 2018 17:20	AZ81584W09		Anions	1.
17	23 Oct 2018 17:27	AZ81587W05		Anions	1.
18	23 Oct 2018 17:33	AZ81584W09 df5		Anions	5.
19	23 Oct 2018 17:40	AZ81587W05 df5		Anions	5.
20	23 Oct 2018 17:46	CCV 181023		Anions	1.
21	23 Oct 2018 17:52	CCB		Anions	1.

# SM 2320B Injection Log

Directory: I:\Tiamo\EXPORT\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	29 Oct 2018	10:32	181029A LCS		181029A1_A	1.
2	29 Oct 2018	10:42	181029A LCSD		181029A1_A	1.
4	29 Oct 2018	11:07	AZ81584W09		181029A1_A	1.
8	29 Oct 2018	11:42	AZ81587W05		181029A1_A	1.
22	29 Oct 2018	13:29	181029A BLK		181029A1_A	1.

# EPA 353.2 Injection Log

Directory: I:\EVE\Export\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	30 Oct 2018	14:16	Standard 1 TOXN/NO3		181030A TO	1.
2	30 Oct 2018	14:18	Standard 90 TOXN/NO3		181030A TO	1.
3	30 Oct 2018	14:20	Standard 91 TOXN/NO3		181030A TO	1.
4	30 Oct 2018	14:22	Standard 92 TOXN/NO3		181030A TO	1.
5	30 Oct 2018	14:25	Standard 93 TOXN/NO3		181030A TO	1.
6	30 Oct 2018	14:27	Standard 94 TOXN/NO3		181030A TO	1.
7	30 Oct 2018	14:29	Standard 0 TOXN/NO3		181030A TO	1.
8	30 Oct 2018	14:32	ICV TOXN/NO3		181030A TO	1.
9	30 Oct 2018	14:34	ICB TOXN/NO3		181030A TO	1.
12	30 Oct 2018	14:41	181030A BLK TOXN/NO3		181030A TO	1.
13	30 Oct 2018	14:43	181030A LCS TOXN/NO3		181030A TO	1.
14	30 Oct 2018	14:45	181030A LCSD TOXN/NO3		181030A TO	1.
15	30 Oct 2018	14:48	AZ81584W10 TOXN/NO3		181030A TO	1.
18	30 Oct 2018	14:55	AZ81587W06 TOXN/NO3		181030A TO	1.
22	30 Oct 2018	15:04	CCV TOXN/NO3		181030A TO	1.
23	30 Oct 2018	15:06	CCB TOXN/NO3		181030A TO	1.



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

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

## Data Validatable Report

November 13, 2018

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, Hawaii 96813

Attn: Margie Pascua

Title: Report of Data: Case 87212

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

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

Dear Ms. Pascua:

Nine water samples were received October 24, 2018. Written results for the requested analyses are being provided on this November 13, 2018.

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

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

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

Paula McCartney, Laboratory Director  
APPL, Inc.

PM/rp  
Enclosure  
cc: File

Number of pages in this report: 859

Data Validation Package  
for  
60481245 CIV 0053 Red Hill Fuel Storage  
APPL SDG 87212

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# **CASE NARRATIVE**

# Case Narrative

ARF: 87212

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

## Sample Receipt Information:

Nine water samples were received October 24, 2018, at 2.0°C, 2.0°C, 2.0°C, 3.5°C, and 3.0°C. The sample group was assigned Analytical Request Form (ARF) number 87212.

## Sample Preparation and Analysis Information:

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

For the EPA 8270D SIM analysis, the samples were extracted according to EPA method 3520C.

For the EPA 8270D Phenol analysis, the samples were extracted according to EPA method 3520C. The samples were screened for Tentatively Identified Compounds (TICs).

For the APPL SOP ANA2MEE analysis, the samples were extracted according to EPA method 3535.

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

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

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

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

## Analytical Exceptions, Deviations and Abnormalities.

**EPA 8015B:** In the 181029A method blank, Diesel (C10-C24) and Oil (C24-C40) were detected at concentration greater than the LOQ. Corrective action: All of the samples were re-extracted and re-analyzed. Both sets of data are reported.

The surrogates Ortho-Terphenyl and Octacosane recovered above the upper control limit in sample ERH694. Corrective action: The sample was re-extracted and re-analyzed. Both sets of data are reported.

In the 181029A LCS, Oil (C24-C40) recovered above the 113% upper control limit. Corrective action: All of the samples were re-extracted and re-analyzed. Both sets of data are reported.



**EPA 8270D Phenol:** In the lab control spike, Phenol and three surrogates recovered above the upper control limit. Corrective action: None, Phenol was not detected in the associated samples.

**APPL SOP ANA2MEE:** In the lab control spikes, the RPD exceeded the 20% limit at 20.7%. All spike recoveries were acceptable.

**Inorganic Analyses:** The samples were received the day after collection. They were analyzed for ferrous iron as soon as possible on the day received.

In the method blank, total alkalinity and bicarbonate was detected above the LOQ. Corrective action: The concentration of total alkalinity and bicarbonate in the samples exceeds the blank concentration by ten-fold or more.

SDG	Received	Client ID	APPL ID	Collected DateTime	Matrix	Method	Method Description
87212	10/24/18	ERH690	AZ81636	10/22/18 2:25:00 PM	WATER	SM 2320B	Wetlab 2320B - Water
87212	10/24/18	ERH690	AZ81636	10/22/18 2:25:00 PM	WATER	EPA 300.0	Wetlab 300.0 - Water
87212	10/24/18	ERH690	AZ81636	10/22/18 2:25:00 PM	WATER	SM3500FeB	Ferrous Iron
87212	10/24/18	ERH690	AZ81636	10/22/18 2:25:00 PM	WATER	EPA 353.2	EPA 353.2 - WATER
87212	10/24/18	ERH690	AZ81636	10/22/18 2:25:00 PM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87212	10/24/18	ERH690	AZ81636	10/22/18 2:25:00 PM	WATER	EPA 8270D	EPA 8270D WATER
87212	10/24/18	ERH690	AZ81636	10/22/18 2:25:00 PM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
87212	10/24/18	ERH690	AZ81636	10/22/18 2:25:00 PM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
87212	10/24/18	ERH690	AZ81636	10/22/18 2:25:00 PM	WATER	EPA 8015B-eLL	EPA 8015B TPH RE-EXTRACT
87212	10/24/18	ERH690	AZ81636	10/22/18 2:25:00 PM	WATER	EPA 8260B	EPA 8260B GRO WATER
87212	10/24/18	ERH690	AZ81636	10/22/18 2:25:00 PM	WATER	RSK 175	METHANE BY RSK 175
87212	10/24/18	ERH690	AZ81636	10/22/18 2:25:00 PM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ
87212	10/24/18	ERH689	AZ81637	10/22/18 1:50:00 PM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87212	10/24/18	ERH689	AZ81637	10/22/18 1:50:00 PM	WATER	EPA 8260B	EPA 8260B GRO WATER
87212	10/24/18	ERH689	AZ81637	10/22/18 1:50:00 PM	WATER	RSK 175	METHANE BY RSK 175
87212	10/24/18	ERH684	AZ81638	10/23/18 9:50:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87212	10/24/18	ERH684	AZ81638	10/23/18 9:50:00 AM	WATER	EPA 8270D	EPA 8270D WATER
87212	10/24/18	ERH684	AZ81638	10/23/18 9:50:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
87212	10/24/18	ERH684	AZ81638	10/23/18 9:50:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH SGC
87212	10/24/18	ERH684	AZ81638	10/23/18 9:50:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
87212	10/24/18	ERH684	AZ81638	10/23/18 9:50:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH RE-EXTRACT
87212	10/24/18	ERH684	AZ81638	10/23/18 9:50:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87212	10/24/18	ERH684	AZ81638	10/23/18 9:50:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ
87212	10/24/18	ERH682	AZ81639	10/23/18 9:20:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87212	10/24/18	ERH682	AZ81639	10/23/18 9:20:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87212	10/24/18	ERH682	AZ81639	10/23/18 9:20:00 AM	WATER	RSK 175	METHANE BY RSK 175
87212	10/24/18	ERH683	AZ81640	10/23/18 9:50:00 AM	WATER	SM 2320B	Wetlab 2320B - Water
87212	10/24/18	ERH683	AZ81640	10/23/18 9:50:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water
87212	10/24/18	ERH683	AZ81640	10/23/18 9:50:00 AM	WATER	SM3500FeB	Ferrous Iron
87212	10/24/18	ERH683	AZ81640	10/23/18 9:50:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER
87212	10/24/18	ERH683	AZ81640	10/23/18 9:50:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87212	10/24/18	ERH683	AZ81640	10/23/18 9:50:00 AM	WATER	EPA 8270D	EPA 8270D WATER
87212	10/24/18	ERH683	AZ81640	10/23/18 9:50:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
87212	10/24/18	ERH683	AZ81640	10/23/18 9:50:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH SGC
87212	10/24/18	ERH683	AZ81640	10/23/18 9:50:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
87212	10/24/18	ERH683	AZ81640	10/23/18 9:50:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH RE-EXTRACT
87212	10/24/18	ERH683	AZ81640	10/23/18 9:50:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87212	10/24/18	ERH683	AZ81640	10/23/18 9:50:00 AM	WATER	RSK 175	METHANE BY RSK 175
87212	10/24/18	ERH683	AZ81640	10/23/18 9:50:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ
87212	10/24/18	ERH693	AZ81641	10/23/18 7:45:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87212	10/24/18	ERH693	AZ81641	10/23/18 7:45:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87212	10/24/18	ERH693	AZ81641	10/23/18 7:45:00 AM	WATER	RSK 175	METHANE BY RSK 175
87212	10/24/18	ERH694	AZ81642	10/23/18 8:30:00 AM	WATER	SM 2320B	Wetlab 2320B - Water
87212	10/24/18	ERH694	AZ81642	10/23/18 8:30:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water
87212	10/24/18	ERH694	AZ81642	10/23/18 8:30:00 AM	WATER	SM3500FeB	Ferrous Iron
87212	10/24/18	ERH694	AZ81642	10/23/18 8:30:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER
87212	10/24/18	ERH694	AZ81642	10/23/18 8:30:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87212	10/24/18	ERH694	AZ81642	10/23/18 8:30:00 AM	WATER	EPA 8270D	EPA 8270D WATER
87212	10/24/18	ERH694	AZ81642	10/23/18 8:30:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
87212	10/24/18	ERH694	AZ81642	10/23/18 8:30:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
87212	10/24/18	ERH694	AZ81642	10/23/18 8:30:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH RE-EXTRACT
87212	10/24/18	ERH694	AZ81642	10/23/18 8:30:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87212	10/24/18	ERH694	AZ81642	10/23/18 8:30:00 AM	WATER	RSK 175	METHANE BY RSK 175
87212	10/24/18	ERH694	AZ81642	10/23/18 8:30:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ
87212	10/24/18	ERH691	AZ81643	10/23/18 10:45:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87212	10/24/18	ERH691	AZ81643	10/23/18 10:45:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87212	10/24/18	ERH691	AZ81643	10/23/18 10:45:00 AM	WATER	RSK 175	METHANE BY RSK 175
87212	10/24/18	ERH692	AZ81644	10/23/18 11:50:00 AM	WATER	SM 2320B	Wetlab 2320B - Water
87212	10/24/18	ERH692	AZ81644	10/23/18 11:50:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water
87212	10/24/18	ERH692	AZ81644	10/23/18 11:50:00 AM	WATER	SM3500FeB	Ferrous Iron
87212	10/24/18	ERH692	AZ81644	10/23/18 11:50:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER
87212	10/24/18	ERH692	AZ81644	10/23/18 11:50:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87212	10/24/18	ERH692	AZ81644	10/23/18 11:50:00 AM	WATER	EPA 8270D	EPA 8270D WATER
87212	10/24/18	ERH692	AZ81644	10/23/18 11:50:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
87212	10/24/18	ERH692	AZ81644	10/23/18 11:50:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
87212	10/24/18	ERH692	AZ81644	10/23/18 11:50:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH RE-EXTRACT
87212	10/24/18	ERH692	AZ81644	10/23/18 11:50:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87212	10/24/18	ERH692	AZ81644	10/23/18 11:50:00 AM	WATER	RSK 175	METHANE BY RSK 175
87212	10/24/18	ERH692	AZ81644	10/23/18 11:50:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ

**APPL Inc.**  
**Abbreviations and Flags**


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

**SAMPLE RECORDS MANAGEMENT  
CHAIN OF CUSTODY,  
ARF, CRF, AND  
CLIENT COMMUNICATION**

# APPL - Analysis Request Form

87212

Client: AECOM  
 Address: 1001 Bishop Street, Suite 1600  
Honolulu, HI 96813  
 Attn: Margie Pascua  
 Phone: 808-356-5373 Fax: 808-523-8950  
 Job: 60571032 CV18F0126 Red Hill Fuel Storage  
 PO #: 18S-S22209-HI27 PO# 102604  
 Chain of Custody (Y/N): Y # RH102318-1-5  
 RAD Screen (Y/N): Y pH (Y/N): Y  
 Turn Around Type: 1 WEEK

Received by: AAR   
 Date Received: 10/24/18 Time: 11:25  
 Delivered by: FEDEX  
 Shuttle Custody Seals (Y/N): Y Time Zone: -10  
 Chest Temp(s): 2.0X3,3.5,3.0°C  
 Color: VOA/M-PurpPink  
 Samples Chilled until Placed in Refrig/Freezer: Y  
 Project Manager: Libby Cheesebor  
 QC Report Type: DVP4DOD/EQUIS/HI  
 Due Date: 10/31/18

Comments:

**PM: login and F1s to Margie.Pascua@aecom.com**

**AN: 7 day TAT for Form 1s; 21 day TAT for PKG STYLE 1; DOD v5.1; DOD Forms (LOQ/LOD database/DL)**

**8260: BTEX & TPH-G only; 8270 SIM: 1-methylnaphthalene, 2-methylnaphthalene & naphthalene only.**

**TPH D & O both with and w/o SGC, reverse surrogate for the SGC; analyze SGC if detections**

**RSK: Methane only; \$87DC53W5: report phenol + TICs; \$87DMEEW5: 2-MEE (LCS Spk 80ppb).**

**FR: HC to LDC, 2 labeled CDs to Margie Pascua.**

**EDD: AECOM EQUIS EDD 2.5.3 Red Hill 87DMEE->3535A to Margie.Pascua@aecom.com & jecklund@lab-data.com**



Sample Distribution:

**GC: 5-\$87DC53W5, 5-\$87DMEEW5, 5-\$DOC53W5LIQ, 5-\$DOC53W5LIQRX, 5-\$SIM53LIQ51, 2-\$DOC53SGCW5LIQ**  
**Extractions: 5- LIQ003, 5- LIQ005, 5- LIQ005SGC, 5- MWE2MEE**  
**VOA: 9-\$86BTOTXDOD5W, 9-\$GASBL, 9-\$GRO86BW, 8-\$RSKMETH**  
**Wetlab: 4-\$232W(HCO3,CO3,ALK), 4-\$300W(NO3,CL,SO4), 4-\$35FE, 4-\$35OF**

Charges:








Invoice To:

**ACCOUNTS PAYABLE**  
**1001 Bishop Street, Ste 1600**  
**USAPImaging@aecom.com**  
**mary.basano@aecom.com**

Client ID	APPL ID	Sampled	Analyses Requested
1. ERH690	AZ81636W LCSD 	10/22/18 14:25	\$232W(HCO3,CO3,ALK), \$300W(NO3,CL,SO4), \$35FE, \$35OF, \$86BTOTXDOD5W, \$87DC53W5, \$87DMEEW5, \$DOC53W5LIQ, \$DOC53W5LIQRX, \$GASBL, \$GRO86BW, \$RSKMETH, \$SIM53LIQ51 -- D&O-SGC analysis if detections
2. ERH689	AZ81637W LCSD 	10/22/18 13:50	\$86BTOTXDOD5W, \$GASBL, \$GRO86BW, \$RSKMETH

# APPL - Analysis Request Form

**87212**

3.	ERH684	LCSD	AZ81638W 	10/23/18 09:50	\$86BTOTXDOD5W, \$87DC53W5, \$87DMEEW5, \$DOC53SGCW5LIQ, \$DOC53W5LIQ, \$DOC53W5LIQRX, \$GASBL, \$GRO86BW, \$SIM53LIQ51 -- D&O-SGC analysis if detections
4.	ERH682	LCSD	AZ81639W 	10/23/18 09:20	\$86BTOTXDOD5W, \$GASBL, \$GRO86BW, \$RSKMETH
5.	ERH683	LCSD	AZ81640W 	10/23/18 09:50	\$232W(HCO3,CO3,ALK), \$300W(NO3,CL,SO4), \$35FE, \$35OF, \$86BTOTXDOD5W, \$87DC53W5, \$87DMEEW5, \$DOC53SGCW5LIQ, \$DOC53W5LIQ, \$DOC53W5LIQRX, \$GASBL, \$GRO86BW, \$RSKMETH, \$SIM53LIQ51 -- D&O-SGC analysis if detections
6.	ERH693	LCSD	AZ81641W 	10/23/18 07:45	\$86BTOTXDOD5W, \$GASBL, \$GRO86BW, \$RSKMETH
7.	ERH694	LCSD	AZ81642W 	10/23/18 08:30	\$232W(HCO3,CO3,ALK), \$300W(NO3,CL,SO4), \$35FE, \$35OF, \$86BTOTXDOD5W, \$87DC53W5, \$87DMEEW5, \$DOC53W5LIQ, \$DOC53W5LIQRX, \$GASBL, \$GRO86BW, \$RSKMETH, \$SIM53LIQ51 -- D&O-SGC analysis if detections
8.	ERH691	LCSD	AZ81643W 	10/23/18 10:45	\$86BTOTXDOD5W, \$GASBL, \$GRO86BW, \$RSKMETH
9.	ERH692	LCSD	AZ81644W 	10/23/18 11:50	\$232W(HCO3,CO3,ALK), \$300W(NO3,CL,SO4), \$35FE, \$35OF, \$86BTOTXDOD5W, \$87DC53W5, \$87DMEEW5, \$DOC53W5LIQ, \$DOC53W5LIQRX, \$GASBL, \$GRO86BW, \$RSKMETH, \$SIM53LIQ51 -- D&O-SGC analysis if detections

Note: All times, excluding sample collection times, are Pacific Time Zone unless noted otherwise. Collection times are in: -10 UTC

# APPL Sample Receipt Form

ARF# 87212

Sample	Container Type	Count	p
<b>AZ81636</b>	3 PL 250mL	1	NA
	10 PL 250mL - H2SO4	1	1.7
	13 VOAs - HCL	4	NA
	17 Amber Liter	5	NA
	38 250mL brn poly, HCl prsvd	1	1.7
	40 500mL Amber, unprsvd	2	NA
<b>AZ81637</b>	13 VOAs - HCL	4	NA
<b>AZ81638</b>	13 VOAs - HCL	4	NA
	17 Amber Liter	5	NA
	40 500mL Amber, unprsvd	2	NA
<b>AZ81639</b>	13 VOAs - HCL	4	NA
<b>AZ81640</b>	3 PL 250mL	1	NA
	10 PL 250mL - H2SO4	1	1.7
	13 VOAs - HCL	4	NA
	17 Amber Liter	5	NA
	38 250mL brn poly, HCl prsvd	1	1.7
	40 500mL Amber, unprsvd	2	NA
<b>AZ81641</b>	13 VOAs - HCL	4	NA
<b>AZ81642</b>	3 PL 250mL	1	NA
	10 PL 250mL - H2SO4	1	1.7
	13 VOAs - HCL	4	NA
	17 Amber Liter	5	NA
	38 250mL brn poly, HCl prsvd	1	1.7
	40 500mL Amber, unprsvd	2	NA
<b>AZ81643</b>	13 VOAs - HCL	4	NA
<b>AZ81644</b>	3 PL 250mL	1	NA
	10 PL 250mL - H2SO4	1	1.7
	13 VOAs - HCL	4	NA
	17 Amber Liter	5	NA
	38 250mL brn poly, HCl prsvd	1	1.7
	40 500mL Amber, unprsvd	2	NA

Sample    Container Type    Count    p



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

CHAIN OF CUSTODY RECORD

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

C.O.C. PH102318-1

Report to: <b>PLEASE PRINT</b> Company Name: <u>AECOM</u> Phone: <u>808-356-5373</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u> Attn: <u>Margie Pascua</u> Email: <u>margie.pascua@aecom.com</u>	Invoice to: <b>PLEASE PRINT</b> Company Name: <u>AECOM</u> Phone: <u>808-529-7249</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u> Attn: <u>Mary Basano</u> Email: <u>mary.basano@aecom.com; usapimaging@aecom.com</u>
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Project Name/Number <u>GIV 53 / 60481245</u> <u>CV 18FO126 / 60571032</u>		Sampler (Print) <u>KL, BM, MM</u>			Analysis Requested/Method Number												Date Shipped: <u>10/23/18</u>											
Purchase Order Number <u>77265</u> <u>102604</u>		Sampler (Signature) <i>Margie Pascua</i> for <u>KL, BM, MM</u>			No. of Containers	Matrix			8260C BTEX, TPH-g	8260C DCA	8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/SGT	8270DSIM PAHs short list	8270D Phenol, TICs	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity	300.0 Nitrate, Sulfate, Chloride	300.0 Bromide/Fluoride	8010 Total Ca, Mg, Mn, K, Na	SM4500 Total & Dissolved Silica	Carrier: <u>FedEx</u>			
Sample Identification		Location		Date Collected		Time Collected	Time Zone	Aq																	Sed.	Soil	Waybill No.:	
<u>ERH690</u>		<u>RHMMW05</u>		<u>10/22/18</u>	<u>1425</u>	<u>HST</u>	<u>14</u>	<u>X</u>																				
<u>ERH689</u>		<u>TRIP Blank</u>		<u>10/22/18</u>	<u>1350</u>	<u>HST</u>	<u>4</u>	<u>X</u>																				

Shuttle Temperature: <u>2.5, 3.0, 2.0, 2.0, 2.0</u>		Turnaround Requested: Check one <input type="checkbox"/> Standard 2-3 wk <input checked="" type="checkbox"/> One week <input type="checkbox"/> 3 days <input type="checkbox"/> 24/48 Hrs. <input type="checkbox"/> Other: _____										Sample Disposal: <input type="checkbox"/> Return to client <input checked="" type="checkbox"/> Disposal by Lab (30-day retention)			
Relinquished by sampler: <u>AECOM</u> <i>Margie</i>		Date <u>10/23/18</u>	Time <u>1125</u>	Received by:			Relinquished by:			Date	Time	Received by:			
Relinquished by:		Date	Time	Received by:			Relinquished by:			Date <u>10-24-18</u>	Time <u>1020</u>	Received at lab by: <i>Mary Basano</i>			





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

**CHAIN OF CUSTODY RECORD**

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

C.O.C. RH02318-2

Report to: <b>PLEASE PRINT</b> Company Name: <u>AECOM</u> Phone: <u>808-356-5373</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u> Attn: <u>Margie Pascua</u> Email: <u>margie.pascua@aecom.com</u>	Invoice to: <b>PLEASE PRINT</b> Company Name: <u>AECOM</u> Phone: <u>808-529-7249</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u> Attn: <u>Mary Basano</u> Email: <u>mary.basano@aecom.com; usapimaging@aecom.com</u>
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Project Name/Number <u>GIV 53 / 60481245</u> <u>CV 18FD126 / 60571032</u>	Sampler (Print) <u>GM, CE, MH</u>	Analysis Requested/Method Number										Date Shipped: <u>10/23/18</u>										
		Matrix			8260C BTEX,TPH-g	8260C DCA	8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/SGT	8270DSIM PAHs short list	8270D Phenol, TICs		8270D 2-(2-methoxyethoxy)-ethanol	RSK175M Methane	SM9500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity	300.0 Nitrate, Sulfate, Chloride	8010 Bromide/Fluoride	SM4500 Total & Dissolved Silica		
Purchase Order Number <u>77265</u> <u>102604</u>	Sampler (Signature) <u>Margie Pascua</u>	No. of Containers	Aq	Sed.	Soil																Carrier: <u>FedEx</u>	
Sample Identification	Location	Date Collected	Time Collected	Time Zone																	Waybill No.:	
<u>ERH 691</u>	<u>Trip Blank</u>	<u>10/23/18</u>	<u>1045</u>	<u>HST</u>	<u>4</u>	<u>X</u>																
<u>ERH 692</u>	<u>RHMW06</u>	<u>10/23/18</u>	<u>1150</u>	<u>HST</u>	<u>14</u>	<u>X</u>																
<div style="font-size: 2em; opacity: 0.5; transform: rotate(-15deg); position: absolute; top: 50%; left: 50%;">             [Large diagonal scribble/initials]           </div>																						
*Analyze TPH w/SGT only if TPH-d/o detected. TPH-d/o & PAHs need liquid-liquid extraction.																						

Shuttle Temperature:	Turnaround Requested: Check one <input type="checkbox"/> Standard 2-3 wk <input checked="" type="checkbox"/> One week <input type="checkbox"/> 3 days <input type="checkbox"/> 24/48 Hrs. <input type="checkbox"/> Other: _____						Sample Disposal: <input type="checkbox"/> Return to client <input checked="" type="checkbox"/> Disposal by Lab (30-day retention)					
Relinquished by sampler: <u>AECOM</u> <u>Margie Pascua</u>	Date <u>10/24/18</u>	Time <u>1320</u>	Received by:			Relinquished by:	Date	Time	Received by:			
Relinquished by:	Date	Time	Received by:			Relinquished by:	Date <u>10-24-18</u>	Time <u>1020</u>	Received at lab by: <u>[Signature]</u>			



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

CHAIN OF CUSTODY RECORD

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

C.O.C. PH102318-4

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

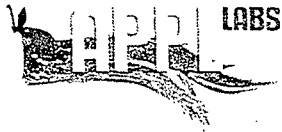
Invoice to: PLEASE PRINT  
Company Name: AECOM Phone: 808-529-7249  
Address: 1001 Bishop St, Suite 1600  
Honolulu, HI 96813 Fax: 808-523-8950  
Attn: Mary Basano  
Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number		Sampler (Print)				No. of Containers	Matrix			Analysis Requested/Method Number														Date Shipped: <u>10/23/18</u>			
Purchase Order Number		Sampler (Signature)					Aq	Sed.	Soil	8260C BTEX,TPH-g	8260C DCA	8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/SGT	8270DSIM PAHs short list	8270D Phenol, TICs	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity	300.0 Nitrate, Sulfate, Chloride	300.0 Bromide/Fluoride		300.0 Total Ca, Mg, Mn, K, Na	SM6500 Total & Dissolved Silica	
<u>61V-53 / 60481245</u>	<u>CV19F0126 / 60571032</u>	<u>KL, BM, MM</u>				<u>MCS for KL, BM, MM</u>																					Carrier: <u>FedEx</u>
<u>77265</u>	<u>102604</u>																										Waybill No.:
Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Aq	Sed.	Soil	8260C BTEX,TPH-g	8260C DCA	8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/SGT	8270DSIM PAHs short list	8270D Phenol, TICs	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity	300.0 Nitrate, Sulfate, Chloride	300.0 Bromide/Fluoride	300.0 Total Ca, Mg, Mn, K, Na	SM6500 Total & Dissolved Silica	Comments:		
<u>ER-H684</u>	<u>RHMWD2</u>	<u>10/23/18</u>	<u>0950</u>	<u>HST</u>	<u>7</u>	<u>X</u>						<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>										<u>See other cooler for VOAs</u>	
<u>MCS 10/23/18</u>																											
*Analyze TPH w/SGT only if TPH-d/o detected.																											
TPH-d/o & PAHs need liquid-liquid extraction.																											

Shuttle Temperature: \_\_\_\_\_ Turnaround Requested: Check one  
 Standard 2-3 wk  One week  3 days  24/48 Hrs.  Other: \_\_\_\_\_

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

Relinquished by sampler: <u>AECOM</u>	Date: <u>10/23/18</u>	Time: <u>1345</u>	Received by:	Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date: <u>10-24-18</u>	Time: <u>1020</u>	Received at lab by: <u>[Signature]</u>



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CHAIN OF CUSTODY RECORD

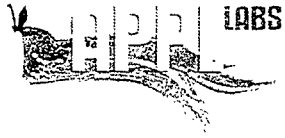
Phone: (559) 275-2175  
 Fax: (559) 275-4422  
 coc@applinc.com

C.O.C. PH102318-5

Report to: <b>PLEASE PRINT</b> Company Name: <u>AECOM</u> Phone: <u>808-356-5373</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u> Attn: <u>Margie Pascua</u> Email: <u>margie.pascua@aecom.com</u>	Invoice to: <b>PLEASE PRINT</b> Company Name: <u>AECOM</u> Phone: <u>808-529-7249</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u> Attn: <u>Mary Basano</u> Email: <u>mary.basano@aecom.com; usapimaging@aecom.com</u>
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Project Name/Number		Sampler (Print)			No. of Containers	Analysis Requested/Method Number												Date Shipped: <u>10/23/18</u>								
Purchase Order Number		Sampler (Signature)				Matrix			8260C BTEX, TPH-g	8260C DCA	8011 EOB	8015C TPH-d/o	3630/8015C TPH-d/o w/SGT	8270DSIM PAHs short list	8270D Phenol, TICs	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity	300.0 Nitrate, Sulfate, Chloride	300.0 Bromide/Fluoride	8070 Total Ca, Mg, Mn, K, Na	SM4500 Total & Dissolved Silica	Carrier: <u>FedEx</u>	
Sample Identification	Location	Date Collected	Time Collected	Time Zone	Aq	Sed.	Soil																		Waybill No.:	
<u>ERH693</u>	<u>Trip Blank</u>	<u>10/23/18</u>	<u>0745</u>	<u>HST</u>	<u>4</u>	<u>X</u>			<u>X</u>							<u>X</u>										Comments:
<u>ERH694</u>	<u>RHMW 07</u>	<u>10/23/18</u>	<u>0830</u>	<u>HST</u>	<u>14</u>	<u>X</u>			<u>X</u>	<u>X</u>	<u>X*</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>			
<del> <div style="display: flex; justify-content: space-between;"> <div> <p><u>Margie Pascua</u></p> <p><u>10/23/18</u></p> </div> <div> <p><u>10/23/18</u></p> </div> </div> </del>																										
<p>*Analyze TPH w/SGT only if TPH-d/o detected.</p> <p>TPH-d/o &amp; PAHs need liquid-liquid extraction.</p>																										

Shuttle Temperature:	Turnaround Requested: Check one <input type="checkbox"/> Standard 2-3 wk <input checked="" type="checkbox"/> One week <input type="checkbox"/> 3 days <input type="checkbox"/> 24/48 Hrs. <input type="checkbox"/> Other: _____						Sample Disposal: <input type="checkbox"/> Return to client <input checked="" type="checkbox"/> Disposal by Lab (30-day retention)					
Relinquished by sampler: <u>AECOM</u>	Date: <u>10/23/18</u>	Time: <u>1330</u>	Received by:			Relinquished by:	Date:	Time:	Received by:			
Relinquished by:	Date:	Time:	Received by:			Relinquished by:	Date: <u>10-24-18</u>	Time: <u>1020</u>	Received at lab by: <u>[Signature]</u>			



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CHAIN OF CUSTODY RECORD

C.O.C. PH02318-3

Report to: <u>PLEASE PRINT</u> Company Name: <u>AECOM</u> Phone: <u>808-356-5373</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u> Attn: <u>Margie Pascua</u> Email: <u>margie.pascua@aecom.com</u>	Invoice to: <u>PLEASE PRINT</u> Company Name: <u>AECOM</u> Phone: <u>808-529-7249</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u> Attn: <u>Mary Basano</u> Email: <u>mary.basano@aecom.com; usapimaging@aecom.com</u>
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Project Name/Number <u>CIV 53 / 60481245</u> <u>CV KPA26 / 60571032</u>	Sampler (Print) <u>KL, BM, MM</u>	Analysis Requested/Method Number										Date Shipped: <u>10/23/18</u>											
		Matrix				8260C BTEX, TPH-g	8260C DCA	8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/ SGT	8270D SIM PAHs short list		8270D Phenol, TICs	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity	300.0 Nitrate, Sulfate, Chloride	300.0 Bromide/Fluoride	8010 Total Ca Mg Mn K Na	814500 Total & Dissolved Silica	Carrier: <u>FedEx</u>
Purchase Order Number <u>77265 102604</u>	Sampler (Signature) <u>Margie for KL, BM, MM</u>	No. of Containers	Aq	Sed.	Soil																	Waybill No.:	Comments:
Sample Identification	Location	Date Collected	Time Collected	Time Zone																			
ERH 682	Trip Blank	10/23/18	0920	HST	4	X				X													
ERH 683	RHMWD2	10/23/18	0950	HST	14	X				X	X*	X	X	X	X	X	X	X					
ERH 684	RHMWD2	10/23/18	0950	HST	4	X				X	<del>X</del>	<del>X</del>			<del>X</del>	<del>X</del>							See other cooler for non-VDA's. 8260 <del>PH02318</del> only
<i>Margie</i>																							
*Analyze TPH w/SGT only if TPH-d/o detected.																							
TPH-d/o & PAHs need liquid-liquid extraction.																							

Shuttle Temperature:	Turnaround Requested: Check one <input type="checkbox"/> Standard 2-3 wk <input checked="" type="checkbox"/> One week <input type="checkbox"/> 3 days <input type="checkbox"/> 24/48 Hrs. <input type="checkbox"/> Other: _____										Sample Disposal: <input type="checkbox"/> Return to client <input checked="" type="checkbox"/> Disposal by Lab (30-day retention)		
Relinquished by sampler: <u>AECOM</u>	Date <u>10/23/18</u>	Time <u>1345</u>	Received by:							Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:							Relinquished by:	Date <u>10-24-18</u>	Time <u>1020</u>	Received at lab by: <u>[Signature]</u>

COOLER RECEIPT FORM

ARF: 87212

- 1) Project: 60571032 CV18F0126 Red Hill Fuel Storage Date Received: 10/24/18
- 2) Coolers: Number of Coolers: 5
- 3) YES Were custody seals present and intact?  
How many? 10 Name/Date on seal? see below
- 4) YES Was there a shipping slip? Carrier name: FEDEX
- 5) Type of packing in cooler:  bubble wrap  popcorn  foam  plastic bags  other  
 wet ice  dry ice  no ice  gel ice
- 6) YES Were cooler temperatures acceptable?
- 7) Serial number of certified NIST thermometer use M65283
- 8) Cooler temp(s): In °C  
1: 2.0°C x3 2: 3.5°C 3: 3.0°C 4: \_\_\_\_\_ 5: \_\_\_\_\_ 6: \_\_\_\_\_  
7: \_\_\_\_\_ 8: \_\_\_\_\_ 9: \_\_\_\_\_ 10: \_\_\_\_\_ 11: \_\_\_\_\_ 12: \_\_\_\_\_

Chain of custody:

- 9) YES Was a chain of custody received?
- 10) YES Were the custody papers complete/signed in the appropriate places?

Sample Labels:

- 11) YES Were all sample labels complete (sample ID, date/time of sampling, etc.)?
- 12) YES Did all container labels agree with custody papers?

Sample Containers:

- 13) YES Were all containers sealed in separate bags?
- 14) YES Did all containers arrive in good condition:(unbroken, no leakage, no cracked/broken lids)?
- 15) YES Were correct containers and preservatives used for the tests indicated?
- 16) YES Was a sufficient amount of sample sent for tests indicated?
- 17) Yes Were bubbles present in volatile samples?

If yes, the following were received with air bubbles:

Larger than a pea:

Smaller than a pea: AZ81637W01-4, AZ81639W01-2, AZ81642W01, AZ81643W01-4, AZ81644W01-4

Preservation Hold time:

- 18) Yes Was a sufficient amount of holding time remaining to analyze the samples?
- 19) Yes Was the pH taken of all non-VOA preserved samples and written on the sample container?
- 20) Yes Was the pH of acid preserved non-VOA samples < 2?
- 21) NA Was the pH of sodium hydroxide preserved samples for Cyanide > 12 and Sulfide >9?
- 22) NO Were unpreserved VOA Vials received?
- 23) NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?

pH strip lot number: 90b2031

Lab notified if pH was not adequate: \_\_\_\_\_

Notes/Deficiencies:

Personnel receiving samples: ZG Second reviewer: AA

Personnel labeling samples: ZG

Project manager notified: AA Date/Time of notification 10/24/18

Name of client notified: \_\_\_\_\_ Date/Time of notification \_\_\_\_\_

## **SAMPLE RESULTS**

## EPA 8015B TPH LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH690**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

**APPL ID: AZ81636**

QCG: #DOC53-181029A-234822

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	91 B ++	40.0	25.00	13.07	ug/L	10/29/18	10/31/18
EPA 8015B-eL	OIL (C24-C40)	120 B	40.0	40.00	5.54	ug/L	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	131	60-142			%	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	117	56-125			%	10/29/18	10/31/18

B = The analyte was found in a method blank, as well as in the sample.  
++(T3M) The analyst has noted that the chromatogram of this sample is mainly higher boiling hydrocarbons.

Quant Method: DOC0905.M
Run #: 1031009
Instrument: Apollo
Sequence: 181031
Dilution Factor: 1
Initials: DPO

*Printed: 11/02/18 2:14:56 PM*  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212  
APPL ID: **AZ81636**  
QCG: #DOC53-181105A-234971

**Sample ID: ERH690**

Sample Collection Date: 10/22/18

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	119	60-142			%	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	109	56-125			%	11/05/18	11/07/18

Quant Method: DOC0905.M
Run #: 1107012
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

Printed: 11/08/18 9:46:48 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD



# EPA 8015B TPH LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212  
APPL ID: **AZ81638**  
QCG: #DOC53-181029A-234822

**Sample ID: ERH684**

Sample Collection Date: 10/23/18

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	2200 B ++	40.0	25.00	13.07	ug/L	10/29/18	10/31/18
EPA 8015B-eL	OIL (C24-C40)	190 B	40.0	40.00	5.54	ug/L	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	131	60-142			%	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	108	56-125			%	10/29/18	10/31/18

B = The analyte was found in a method blank, as well as in the sample.  
++(T6) The analyst has noted that the chromatogram of this sample is mainly a match to hydrocarbons within the range of diesel fuel.

Quant Method: DOC0905.M
Run #: 1031010
Instrument: Apollo
Sequence: 181031
Dilution Factor: 1
Initials: DPO

Printed: 11/02/18 2:14:57 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212

**Sample ID: ERH684**

**APPL ID: AZ81638**

Sample Collection Date: 10/23/18

QCG: #DOC53-181105A-234971

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	2100 ++	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	118	60-142			%	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	87.7	56-125			%	11/05/18	11/07/18

++(T6) The analyst has noted that the chromatogram of this sample is mainly a match to hydrocarbons within the range of diesel fuel.

Quant Method: DOC0905.M  
Run #: 1107013  
Instrument: Apollo  
Sequence: 181107  
Dilution Factor: 1  
Initials: DPO

Printed: 11/08/18 9:46:48 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8015B TPH WATER L-L SGC

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212  
APPL ID: **AZ81638**  
QCG: #DOC53-181105A1-235019

**Sample ID: ERH684**

Sample Collection Date: 10/23/18

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	430 ++	40.0	25.00	13.07	ug/L	11/05/18	11/08/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/08/18
EPA 8015B-eL	SURROGATE: (R) DECANOIC ACID (S)	0.0	0-1			%	11/05/18	11/08/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	114	60-142			%	11/05/18	11/08/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	106	56-125			%	11/05/18	11/08/18

++(T6) The analyst has noted that the chromatogram of this sample is mainly a match to hydrocarbons within the range of diesel fuel.

Quant Method: DOC0905.M
Run #: 1107044
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

*Printed: 11/09/18 11:24:21 AM*  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8015B TPH LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH683**

Sample Collection Date: 10/23/18

ARF: 87212

**APPL ID: AZ81640**

QCG: #DOC53-181029A-234822

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	2100 B ++	40.0	25.00	13.07	ug/L	10/29/18	10/31/18
EPA 8015B-eL	OIL (C24-C40)	210 B	40.0	40.00	5.54	ug/L	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	131	60-142			%	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	112	56-125			%	10/29/18	10/31/18

B = The analyte was found in a method blank, as well as in the sample.  
++(T6) The analyst has noted that the chromatogram of this sample is mainly a match to hydrocarbons within the range of diesel fuel.

Quant Method: DOC0905.M
Run #: 1031011
Instrument: Apollo
Sequence: 181031
Dilution Factor: 1
Initials: DPO

Printed: 11/02/18 2:14:57 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212

**Sample ID: ERH683**

**APPL ID: AZ81640**

Sample Collection Date: 10/23/18

QCG: #DOC53-181105A-234971

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	2000 ++	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	112	60-142			%	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	90.7	56-125			%	11/05/18	11/07/18

++(T6) The analyst has noted that the chromatogram of this sample is mainly a match to hydrocarbons within the range of diesel fuel.

Quant Method: DOC0905.M
Run #: 1107014
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

Printed: 11/08/18 9:46:48 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH WATER L-L SGC

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212  
APPL ID: **AZ81640**  
QCG: #DOC53-181105A1-235019

**Sample ID: ERH683**

Sample Collection Date: 10/23/18

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	370 ++	40.0	25.00	13.07	ug/L	11/05/18	11/08/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/08/18
EPA 8015B-eL	SURROGATE: (R) DECANOIC ACID (S)	0.0	0-1			%	11/05/18	11/08/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	117	60-142			%	11/05/18	11/08/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	110	56-125			%	11/05/18	11/08/18

++(T6) The analyst has noted that the chromatogram of this sample is mainly a match to hydrocarbons within the range of diesel fuel.

Quant Method: DOC0905.M
Run #: 1107045
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

Printed: 11/09/18 11:24:22 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8015B TPH LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH694

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

APPL ID: AZ81642

QCG: #DOC53-181029A-234822

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	120 B ++	40.0	25.00	13.07	ug/L	10/29/18	10/31/18
EPA 8015B-eL	OIL (C24-C40)	140 B	40.0	40.00	5.54	ug/L	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	143 #	60-142			%	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	127 #	56-125			%	10/29/18	10/31/18

B = The analyte was found in a method blank, as well as in the sample.

# = Recovery (or RPD) is outside QC limits.

++(T3M) The analyst has noted that the chromatogram of this sample is mainly higher boiling hydrocarbons.

Quant Method: DOC0905.M
Run #: 1031012
Instrument: Apollo
Sequence: 181031
Dilution Factor: 1
Initials: DPO

Printed: 11/02/18 2:14:57 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212  
APPL ID: **AZ81642**  
QCG: #DOC53-181105A-234971

**Sample ID: ERH694**

Sample Collection Date: 10/23/18

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	116	60-142			%	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	105	56-125			%	11/05/18	11/07/18

Quant Method: DOC0905.M
Run #: 1107015
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

Printed: 11/08/18 9:46:48 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD



## EPA 8015B TPH LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH692**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

**APPL ID: AZ81644**

QCG: #DOC53-181029A-234822

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	84 B ++	40.0	25.00	13.07	ug/L	10/29/18	10/31/18
EPA 8015B-eL	OIL (C24-C40)	99 B	40.0	40.00	5.54	ug/L	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	134	60-142			%	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	120	56-125			%	10/29/18	10/31/18

B = The analyte was found in a method blank, as well as in the sample.  
++(T3M) The analyst has noted that the chromatogram of this sample is mainly higher boiling hydrocarbons.

Quant Method: DOC0905.M
Run #: 1031013
Instrument: Apollo
Sequence: 181031
Dilution Factor: 1
Initials: DPO

*Printed: 11/02/18 2:14:57 PM*  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212  
APPL ID: **AZ81644**  
QCG: #DOC53-181105A-234971

**Sample ID: ERH692**

Sample Collection Date: 10/23/18

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	124	60-142			%	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	109	56-125			%	11/05/18	11/07/18

Quant Method: DOC0905.M
Run #: 1107016
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

Printed: 11/08/18 9:46:48 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D SIM LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212

**Sample ID: ERH690**

**APPL ID: AZ81636**

Sample Collection Date: 10/22/18

QCG: #SIM53-181024A-234723

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALE	93.3	39-114			%	10/24/18	10/30/18
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (	104	58-120			%	10/24/18	10/30/18

Quant Method: L1026.M
Run #: 1026L059
Instrument: Linus
Sequence: L181026
Dilution Factor: 1
Initials: MA

Printed: 11/01/18 2:23:56 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D SIM LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH684**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

**APPL ID: AZ81638**

QCG: #SIM53-181024A-234723

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	20	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	2-METHYLNAPHTHALENE	18	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	NAPHTHALENE	49	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALE	98.2	39-114			%	10/24/18	10/30/18
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (	108	58-120			%	10/24/18	10/30/18

Quant Method: L1026.M  
Run #: 1026L060  
Instrument: Linus  
Sequence: L181026  
Dilution Factor: 1  
Initials: MA

Printed: 10/31/18 10:07:06 AM  
APPL-F1-SC-NoMC-REG MDI.s-DOD

# EPA 8270D SIM LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH683**

Sample Collection Date: 10/23/18

ARF: 87212

**APPL ID: AZ81640**

QCG: #SIM53-181024A-234723

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	21	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	2-METHYLNAPHTHALENE	20	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	NAPHTHALENE	51	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALE	96.2	39-114			%	10/24/18	10/30/18
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (	109	58-120			%	10/24/18	10/30/18

Quant Method: L1026.M
Run #: 1026L061
Instrument: Linus
Sequence: L181026
Dilution Factor: 1
Initials: MA

Printed: 10/31/18 10:07:06 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D SIM LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH694**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

**APPL ID: AZ81642**

QCG: #SIM53-181024A-234723

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALE	94.0	39-114			%	10/24/18	10/30/18
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (	107	58-120			%	10/24/18	10/30/18

Quant Method: L1026.M
Run #: 1026L062
Instrument: Linus
Sequence: L181026
Dilution Factor: 1
Initials: MA

Printed: 11/01/18 4:28:31 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D SIM LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212

**Sample ID: ERH692**

**APPL ID: AZ81644**

Sample Collection Date: 10/23/18

QCG: #SIM53-181024A-234723

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALE	88.8	39-114			%	10/24/18	10/30/18
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (	105	58-120			%	10/24/18	10/30/18

Quant Method: L1026.M  
Run #: 1026L063  
Instrument: Linus  
Sequence: L181026  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 2:23:57 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH690

Sample Collection Date: 10/22/18

ARF: 87212

APPL ID: AZ81636

QCG: #87DC5-181024A-234711

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-PENTANONE, 4-HYDROXY-4-METHY	49 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	BENZENE, 1,2,4-TRIMETHYL-	10.0 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	BENZENESULFONOTHIOIC ACID, S-P	7.4 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	70.1	43-140			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	68.4	44-119			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	104	19-119			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	96.2	44-120			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: PHENOL-D6 (S)	106	10-115			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	66.5	50-134			%	10/24/18	10/30/18

T = Tentatively identified compound.

Quant Method: Y1025NC.M
Run #: 1025Y091
Instrument: Yoda
Sequence: Y181025
Dilution Factor: 1
Initials: AAB

Printed: 11/06/18 8:23:38 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD



## EPA 8270D WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH684**

Sample Collection Date: 10/23/18

ARF: 87212

**APPL ID: AZ81638**

QCG: #87DC5-181024A-234711

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BENZENE, 1,1'-(1-ETHENYL-1,3-PROP	14 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	BENZENE, 1,3-DIETHYL-	11 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	BENZENE, 2-ETHENYL-1,4-DIMETHYL-	10 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	NAPHTHALENE, 1-METHYL-	13 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	66.5	43-140			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	68.5	44-119			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	60.2	19-119			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	70.2	44-120			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: PHENOL-D6 (S)	68.6	10-115			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	57.7	50-134			%	10/24/18	10/30/18

T = Tentatively identified compound.

Quant Method: Y1025NC.M
Run #: 1025Y092
Instrument: Yoda
Sequence: Y181025
Dilution Factor: 1
Initials: AAB

*Printed: 11/06/18 8:23:39 AM*  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8270D WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212

**Sample ID: ERH683**

**APPL ID: AZ81640**

Sample Collection Date: 10/23/18

QCG: #87DC5-181024A-234711

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	3-PENTEN-2-ONE, 4-METHYL-	22 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	BENZENE, 1,2-DIETHYL-	14 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	NAPHTHALENE, 1-METHYL-	24 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	78.0	43-140			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	79.4	44-119			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	85.5	19-119			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	85.1	44-120			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: PHENOL-D6 (S)	86.5	10-115			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	67.2	50-134			%	10/24/18	10/30/18

T = Tentatively identified compound.

Quant Method: Y1025NC.M
Run #: 1025Y093
Instrument: Yoda
Sequence: Y181025
Dilution Factor: 1
Initials: AAB

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

## EPA 8270D WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212

**Sample ID: ERH694**

**APPL ID: AZ81642**

Sample Collection Date: 10/23/18

QCG: #87DC5-181024A-234711

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-PENTANONE, 4-HYDROXY-4-METHY	49 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	BENZENE, 1,2,4-TRIMETHYL-	7.3 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	77.2	43-140			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	80.6	44-119			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	83.7	19-119			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	97.0	44-120			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: PHENOL-D6 (S)	78.0	10-115			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	83.0	50-134			%	10/24/18	10/30/18

T = Tentatively identified compound.

Quant Method: Y1025NC.M
Run #: 1025Y094
Instrument: Yoda
Sequence: Y181025
Dilution Factor: 1
Initials: AAB

*Printed: 11/06/18 8:23:39 AM*  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8270D WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212

**Sample ID: ERH692**

**APPL ID: AZ81644**

Sample Collection Date: 10/23/18

QCG: #87DC5-181024A-234711

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BENZENE, 1,2,3-TRIMETHYL-	6.9 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	HEXANEDIOIC ACID, DIOCTYL ESTER	17 T	TIC			ug/L	10/24/18	10/30/18
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	70.3	43-140			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	76.4	44-119			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	70.8	19-119			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	75.4	44-120			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: PHENOL-D6 (S)	73.4	10-115			%	10/24/18	10/30/18
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	58.9	50-134			%	10/24/18	10/30/18

T = Tentatively identified compound.

Quant Method: Y1025NC.M
Run #: 1025Y095
Instrument: Yoda
Sequence: Y181025
Dilution Factor: 1
Initials: AAB

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

# EPA 8270D MODIFIED WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH690**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

**APPL ID: AZ81636**

QCG: #87DME-181029A-234791

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method: YMEE0801.M  
Run #: 0801Y082  
Instrument: Yoda  
Sequence: Y180801M  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 3:47:32 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D MODIFIED WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH684**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

**APPL ID: AZ81638**

QCG: #87DME-181029A-234791

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method: YMEE0801.M  
Run #: 0801Y083  
Instrument: Yoda  
Sequence: Y180801M  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 3:47:33 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D MODIFIED WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH683**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

**APPL ID: AZ81640**

QCG: #87DME-181029A-234791

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method: YMEE0801.M  
Run #: 0801Y084  
Instrument: Yoda  
Sequence: Y180801M  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 3:47:33 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8270D MODIFIED WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH694**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

**APPL ID: AZ81642**

QCG: #87DME-181029A-234791

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method: YMEE0801.M  
Run #: 0801Y085  
Instrument: Yoda  
Sequence: Y180801M  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 3:47:33 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD



## EPA 8270D MODIFIED WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212  
APPL ID: **AZ81644**  
QCG: #87DME-181029A-234791

**Sample ID: ERH692**

Sample Collection Date: 10/23/18

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method: YMEE0801.M  
Run #: 0801Y086  
Instrument: Yoda  
Sequence: Y180801M  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 3:47:33 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH690**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

**APPL ID: AZ81636**

QCG: #86BTO-181025AL-234589

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/25/18	10/25/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	112	81-118			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	94.0	85-114			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	110	80-119			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	96.7	89-112			%	10/25/18	10/25/18

Quant Method: L1023W.M  
Run #: 1025L25  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/26/18 8:17:28 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212

**Sample ID: ERH689**

**APPL ID: AZ81637**

Sample Collection Date: 10/22/18

QCG: #86BTO-181025AL-234589

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/25/18	10/25/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	112	81-118			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	98.0	85-114			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	109	80-119			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	99.9	89-112			%	10/25/18	10/25/18

Quant Method: L1023W.M  
Run #: 1025L21  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/26/18 8:17:28 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH684

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

APPL ID: AZ81638

QCG: #86BTO-181025AL-234589

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/25/18	10/25/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	113	81-118			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	101	85-114			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	110	80-119			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	95.7	89-112			%	10/25/18	10/25/18

Quant Method: L1023W.M  
Run #: 1025L26  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/26/18 8:17:28 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH682**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

**APPL ID: AZ81639**

QCG: #86BTO-181025AL-234589

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/25/18	10/25/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	112	81-118			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	98.1	85-114			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	109	80-119			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	100.0	89-112			%	10/25/18	10/25/18

Quant Method: L1023W.M  
Run #: 1025L22  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/26/18 8:17:28 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212

**Sample ID: ERH683**

**APPL ID: AZ81640**

Sample Collection Date: 10/23/18

QCG: #86BTO-181025AL-234589

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/25/18	10/25/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	105	81-118			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	102	85-114			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	105	80-119			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	95.1	89-112			%	10/25/18	10/25/18

Quant Method: L1023W.M
Run #: 1025L27
Instrument: Loki
Sequence: 181023
Dilution Factor: 1
Initials: SV

Printed: 10/26/18 8:17:28 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH693

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

APPL ID: AZ81641

QCG: #86BTO-181025AL-234589

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/25/18	10/25/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	118	81-118			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	100.0	85-114			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	118	80-119			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	103	89-112			%	10/25/18	10/25/18

Quant Method: L1023W.M  
Run #: 1025L24  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/26/18 8:17:28 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH694

Sample Collection Date: 10/23/18

ARF: 87212

APPL ID: AZ81642

QCG: #86BTO-181025AL-234589

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/25/18	10/25/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	106	81-118			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	96.4	85-114			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	107	80-119			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	99.1	89-112			%	10/25/18	10/25/18

Quant Method: L1023W.M  
Run #: 1025L28  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/26/18 8:17:28 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD



# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212

**Sample ID: ERH691**

**APPL ID: AZ81643**

Sample Collection Date: 10/23/18

QCG: #86BTO-181025AL-234589

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/25/18	10/25/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	113	81-118			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	95.4	85-114			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	112	80-119			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	98.8	89-112			%	10/25/18	10/25/18

Quant Method: L1023W.M
Run #: 1025L23
Instrument: Loki
Sequence: 181023
Dilution Factor: 1
Initials: SV

Printed: 10/26/18 8:17:29 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH692

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

APPL ID: AZ81644

QCG: #86BTO-181025AL-234589

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/25/18	10/25/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	111	81-118			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	95.5	85-114			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	108	80-119			%	10/25/18	10/25/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	99.6	89-112			%	10/25/18	10/25/18

Quant Method: L1023W.M  
Run #: 1025L29  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/26/18 8:17:29 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH690**  
Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212  
**APPL ID: AZ81636**  
QCG: #GRO86-181025AL-234590

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	94.0	85-114			%	10/25/18	10/25/18

Quant Method: LGAS915.M  
Run #: 1025L25  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/26/18 8:23:50 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH689

Sample Collection Date: 10/22/18

ARF: 87212

APPL ID: AZ81637

QCG: #GRO86-181025AL-234590

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	98.0	85-114			%	10/25/18	10/25/18

Quant Method: LGAS915.M  
Run #: 1025L21  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/26/18 8:23:50 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH684**

Sample Collection Date: 10/23/18

ARF: 87212

**APPL ID: AZ81638**

QCG: #GRO86-181025AL-234590

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	92 ++	20	18.0	8.6	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	101	85-114			%	10/25/18	10/25/18

++(G3) The analyst has noted that the chromatogram of this sample includes higher boiling hydrocarbons.

Quant Method: LGAS915.M
Run #: 1025L26
Instrument: Loki
Sequence: 181023
Dilution Factor: 1
Initials: SV

Printed: 10/26/18 8:27:22 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH682**  
Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212  
**APPL ID: AZ81639**  
QCG: #GRO86-181025AL-234590

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	98.1	85-114			%	10/25/18	10/25/18

Quant Method: LGAS915.M  
Run #: 1025L22  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/26/18 8:23:50 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212

**Sample ID: ERH683**

**APPL ID: AZ81640**

Sample Collection Date: 10/23/18

QCG: #GRO86-181025AL-234590

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	81 ++	20	18.0	8.6	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	102	85-114			%	10/25/18	10/25/18

++(G3) The analyst has noted that the chromatogram of this sample includes higher boiling hydrocarbons.

Quant Method: LGAS915.M  
Run #: 1025L27  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/26/18 8:27:22 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212

**Sample ID: ERH693**

**APPL ID: AZ81641**

Sample Collection Date: 10/23/18

QCG: #GRO86-181025AL-234590

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	100.0	85-114			%	10/25/18	10/25/18

Quant Method: LGAS915.M  
Run #: 1025L24  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/26/18 8:23:50 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD



# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH694**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

**APPL ID: AZ81642**

QCG: #GRO86-181025AL-234590

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	96.4	85-114			%	10/25/18	10/25/18

Quant Method: LGAS915.M  
Run #: 1025L28  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/26/18 8:23:50 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH691**

Sample Collection Date: 10/23/18

ARF: 87212

**APPL ID: AZ81643**

QCG: #GRO86-181025AL-234590

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	95.4	85-114			%	10/25/18	10/25/18

Quant Method: LGAS915.M  
Run #: 1025L23  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/26/18 8:23:50 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH692**

Sample Collection Date: 10/23/18

ARF: 87212

**APPL ID: AZ81644**

QCG: #GRO86-181025AL-234590

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/25/18	10/25/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	95.5	85-114			%	10/25/18	10/25/18

Quant Method: LGAS915.M  
Run #: 1025L29  
Instrument: Loki  
Sequence: 181023  
Dilution Factor: 1  
Initials: SV

Printed: 10/26/18 8:23:50 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH690**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

**APPL ID: AZ81636**

QCG: #RSKME-181029A-234668

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102924  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:39:33 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH689**

Sample Collection Date: 10/22/18

ARF: 87212

**APPL ID: AZ81637**

QCG: #RSKME-181029A-234668

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102925  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:39:33 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH682**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

**APPL ID: AZ81639**

QCG: #RSKME-181029A-234668

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102926  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:39:33 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH683**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

**APPL ID: AZ81640**

QCG: #RSKME-181029A-234668

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	4000 E	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

E = The reported value exceeds linear range.

Quant Method: RSK1029.M  
Run #: 18102927  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:39:33 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## METHANE - Dilution

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH683**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

**APPL ID: AZ81640**

QCG: #RSKME-181029A-234668

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	6900	100.0	20.00	5.00	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M
Run #: 18102928
Instrument: Rocky
Sequence: 181029
Dilution Factor: 20
Initials: CMO

Printed: 10/30/18 11:39:33 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD



# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87212  
APPL ID: **AZ81641**  
QCG: #RSKME-181029A-234668

**Sample ID: ERH693**

Sample Collection Date: 10/23/18

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102929  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:39:33 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH694**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

**APPL ID: AZ81642**

QCG: #RSKME-181029A-234668

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102930  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:39:33 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH691**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87212

**APPL ID: AZ81643**

QCG: #RSKME-181029A-234668

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102931  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:39:33 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH692**

Sample Collection Date: 10/23/18

ARF: 87212

**APPL ID: AZ81644**

QCG: #RSKME-181029A-234668

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102932  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:39:33 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## Wet Lab Analysis

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH690**

Sample Collection Date: 10/22/18

**APPL ID: AZ81636**

ARF: 87212

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	NITRATE	3.3	0.5	0.18	0.04	mg/L	1	10/24/18	10/24/18
EPA 300.0	SULFATE	40.8	1.0	0.20	0.09	mg/L	1	10/24/18	10/24/18
EPA 300.0	CHLORIDE	148	5.0	1.00	0.40	mg/L	5	10/24/18	10/24/18
EPA 353.2	NITRATE-NITRITE-N	0.72	0.10	0.100	0.028	mg/L	1	10/30/18	10/30/18
SM 2320B	BICARBONATE AS CaCO <sub>3</sub>	88.1	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM 2320B	CARBONATE AS CaCO <sub>3</sub>	1.70 U	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM 2320B	TOTAL ALKALINITY AS CaCO <sub>3</sub>	88.1	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/24/18	10/24/18

Printed: 11/09/18 10:17:39 AM

APPL-F1-SC-NoMC-REG MDLs

## Wet Lab Analysis

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH683**

Sample Collection Date: 10/23/18

**APPL ID: AZ81640**

ARF: 87212

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	40.9	1.0	0.20	0.08	mg/L	1	10/24/18	10/24/18
EPA 300.0	NITRATE	0.20 J	0.5	0.18	0.04	mg/L	1	10/24/18	10/24/18
EPA 300.0	SULFATE	0.87 J	1.0	0.20	0.09	mg/L	1	10/24/18	10/24/18
EPA 353.2	NITRATE-NITRITE-N	0.100 U	0.10	0.100	0.028	mg/L	1	10/30/18	10/30/18
SM 2320B	BICARBONATE AS CaCO <sub>3</sub>	184	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM 2320B	CARBONATE AS CaCO <sub>3</sub>	1.70 U	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM 2320B	TOTAL ALKALINITY AS CaCO <sub>3</sub>	184	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM3500FeB	FERROUS IRON	2.6	1.0	0.32	0.16	mg/L	1	10/24/18	10/24/18

J = Estimated value.

Printed: 11/09/18 10:17:39 AM

APPL-F1-SC-NoMC-REG MDLs

## Wet Lab Analysis

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH694**

Sample Collection Date: 10/23/18

**APPL ID: AZ81642**

ARF: 87212

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	NITRATE	4.2	0.5	0.18	0.04	mg/L	1	10/24/18	10/24/18
EPA 300.0	CHLORIDE	448	10.0	2.00	0.80	mg/L	10	10/24/18	10/24/18
EPA 300.0	SULFATE	69.3	5.0	1.00	0.45	mg/L	5	10/24/18	10/24/18
EPA 353.2	NITRATE-NITRITE-N	0.93	0.10	0.100	0.028	mg/L	1	10/30/18	10/30/18
SM 2320B	BICARBONATE AS CaCO <sub>3</sub>	103	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM 2320B	CARBONATE AS CaCO <sub>3</sub>	1.70 U	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM 2320B	TOTAL ALKALINITY AS CaCO <sub>3</sub>	103	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/24/18	10/24/18

Printed: 11/09/18 10:17:39 AM

APPL-F1-SC-NoMC-REG MDLs

## Wet Lab Analysis

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH692**

Sample Collection Date: 10/23/18

**APPL ID: AZ81644**

ARF: 87212

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	NITRATE	2.4	0.5	0.18	0.04	mg/L	1	10/24/18	10/24/18
EPA 300.0	CHLORIDE	394	10.0	2.00	0.80	mg/L	10	10/24/18	10/24/18
EPA 300.0	SULFATE	74.9	5.0	1.00	0.45	mg/L	5	10/24/18	10/24/18
EPA 353.2	NITRATE-NITRITE-N	0.56	0.10	0.100	0.028	mg/L	1	10/30/18	10/30/18
SM 2320B	BICARBONATE AS CaCO <sub>3</sub>	103	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM 2320B	CARBONATE AS CaCO <sub>3</sub>	1.70 U	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM 2320B	TOTAL ALKALINITY AS CaCO <sub>3</sub>	103	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM3500FeB	FERROUS IRON	0.16 J	1.0	0.32	0.16	mg/L	1	10/24/18	10/24/18

J = Estimated value.

Printed: 11/09/18 10:17:39 AM

APPL-F1-SC-NoMC-REG MDLs



# QC FORMS

# EPA 8015B-eLL

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/31/18

Matrix: WATER

Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181029A-BLK	Blank	60-142	130		56-125	115	
181029A-LCS	Lab Control Spike	60-142	125		56-125	107	
181029A-LCSD	Lab Control SpikeD	60-142	127		56-125	112	
AZ81636	ERH690	60-142	131		56-125	117	
AZ81638	ERH684	60-142	131		56-125	108	
AZ81640	ERH683	60-142	131		56-125	112	
AZ81642	ERH694	60-142	143	#	56-125	127	#
AZ81644	ERH692	60-142	134		56-125	120	

Comments: Batch: #DOC53-181029A

# = Recovery outside of Control Limits on Sample.

Printed: 11/02/18 2:15:13 PM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8015B-eLL

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 11/07/18

Matrix: WATER

Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181105A-BLK	Blank	60-142	110		56-125	103	
181105A-LCS	Lab Control Spike	60-142	112		56-125	95.7	
181105A-LCSD	Lab Control SpikeD	60-142	115		56-125	98.3	
AZ81636	ERH690	60-142	119		56-125	109	
AZ81638	ERH684	60-142	118		56-125	87.7	
AZ81640	ERH683	60-142	112		56-125	90.7	
AZ81642	ERH694	60-142	116		56-125	105	
AZ81644	ERH692	60-142	124		56-125	109	

Comments: Batch: #DOC53-181105A

Printed: 11/08/18 9:46:55 AM  
Form 2 & 8, Surrogate Recovery Summary

**EPA 8015B-eLL**

Form 2 & 8

**Surrogate Recovery**

Lab Name: APPL, Inc.  
Case No: 87212  
Matrix: WATER

SDG No: 87212  
Date Analyzed: 11/08/18  
Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: ORTHO-TERPHENYL (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
181105A1-BLK	Blank	56-125	108				
181105A1-LCS	Lab Control Spike	56-125	104				
181105A1-LCSD	Lab Control SpikeD	56-125	100				
AZ81638	ERH684	56-125	106				
AZ81640	ERH683	56-125	110				

Comments: Batch: #DOC53-181105A1

# EPA 8015B-eLL

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 11/08/18

Matrix: WATER

Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: (R) DECANOIC ACID (S)			SURROGATE: OCTACOSANE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181105A1-BLK	Blank	0-1	0.0		60-142	116	
181105A1-LCS	Lab Control Spike	0-1	0.0		60-142	120	
181105A1-LCSD	Lab Control SpikeD	0-1	0.0		60-142	116	
AZ81638	ERH684	0-1	0.0		60-142	114	
AZ81640	ERH683	0-1	0.0		60-142	117	

Comments: Batch: #DOC53-181105A1

Printed: 11/09/18 11:24:30 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8015B-eL

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/31/18

Matrix: WATER

Instrument: Apollo

Blank ID: 181029A-BLK

Time Analyzed: 1307

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181029A-BLK	Blank	1031004	10/31/18 1307
181029A-LCS	Lab Control Spike	1031005	10/31/18 1327
181029A-LCSD	Lab Control SpikeD	1031007	10/31/18 1406
AZ81636	ERH690	1031009	10/31/18 1445
AZ81638	ERH684	1031010	10/31/18 1505
AZ81640	ERH683	1031011	10/31/18 1525
AZ81642	ERH694	1031012	10/31/18 1545
AZ81644	ERH692	1031013	10/31/18 1605

Comments: Batch: #DOC53-181029A

Printed: 11/02/18 2:15:03 PM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8015B TPH LIQ-LIQ**

Blank Name/QCG: **181029W-81636 - 234822**  
Batch ID: #DOC53-181029A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	110	40.0	25.00	13.07	ug/L	10/29/18	10/31/18
BLANK	OIL (C24-C40)	150	40.0	40.00	5.54	ug/L	10/29/18	10/31/18
BLANK	SURROGATE: OCTACOSANE (S)	130	60-142			%	10/29/18	10/31/18
BLANK	SURROGATE: ORTHO-TERPHEN	115	56-125			%	10/29/18	10/31/18

Quant Method: DOC0905.M  
Run #: 1031004  
Instrument: Apollo  
Sequence: 181031  
Initials: DPO

GC SC-Blank-REG MDLs-DOD  
Printed: 11/02/18 2:15:15 PM

# EPA 8015B-eL

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 11/07/18

Matrix: WATER

Instrument: Apollo

Blank ID: 181105A-BLK

Time Analyzed: 1424

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181105A-BLK	Blank	1107004	11/07/18 1424
181105A-LCS	Lab Control Spike	1107005	11/07/18 1445
181105A-LCSD	Lab Control SpikeD	1107007	11/07/18 1525
AZ81636	ERH690	1107012	11/07/18 1706
AZ81638	ERH684	1107013	11/07/18 1727
AZ81640	ERH683	1107014	11/07/18 1748
AZ81642	ERH694	1107015	11/07/18 1808
AZ81644	ERH692	1107016	11/07/18 1828

Comments: Batch: #DOC53-181105A

Printed: 11/08/18 9:46:52 AM  
Form 4, Blank Summary



**Method Blank**  
**EPA 8015B TPH LIQ-LIQ RE-EXTRACT**

Blank Name/QCG: **181105W-81584 - 234971**  
Batch ID: #DOC53-181105A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
BLANK	SURROGATE: OCTACOSANE (S)	110	60-142			%	11/05/18	11/07/18
BLANK	SURROGATE: ORTHO-TERPHEN	103	56-125			%	11/05/18	11/07/18

Quant Method:DOC0905.M  
Run #:1107004  
Instrument:Apollo  
Sequence:181107  
Initials:DPO

GC SC-Blank-REG MDLs-DOD  
Printed: 11/08/18 9:46:56 AM

# EPA 8015B-eL

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 11/08/18

Matrix: WATER

Instrument: Apollo

Blank ID: 181105A1-BLK

Time Analyzed: 1657

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181105A1-BLK	Blank	1107039	11/08/18 1657
181105A1-LCS	Lab Control Spike	1107040	11/08/18 1718
181105A1-LCSD	Lab Control SpikeD	1107042	11/08/18 1758
AZ81638	ERH684	1107044	11/08/18 1839
AZ81640	ERH683	1107045	11/08/18 1859

Comments: Batch: #DOC53-181105A1

Printed: 11/09/18 11:24:25 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8015B TPH WATER L-L SGC**

Blank Name/QCG: **181105W-81638 - 235019**  
Batch ID: #DOC53-181105A1

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/08/18
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/08/18
BLANK	SURROGATE: (R) DECANOIC AC	0.0	0-1			%	11/05/18	11/08/18
BLANK	SURROGATE: OCTACOSANE (S)	116	60-142			%	11/05/18	11/08/18
BLANK	SURROGATE: ORTHO-TERPHEN	108	56-125			%	11/05/18	11/08/18

Quant Method: DOC0905.M  
Run #: 1107039  
Instrument: Apollo  
Sequence: 181107  
Initials: DPO

GC SC-Blank-REG MDLs-DOD  
Printed: 11/09/18 11:24:32 AM

# EPA 8015B-eL

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/31/18

Matrix: WATER

Instrument: Apollo

LCS ID: 181029A-LCS

Time Analyzed: 1327

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181029A-BLK	Blank	1031004	10/31/18 1307
181029A-LCS	Lab Control Spike	1031005	10/31/18 1327
181029A-LCSD	Lab Control SpikeD	1031007	10/31/18 1406
AZ81636	ERH690	1031009	10/31/18 1445
AZ81638	ERH684	1031010	10/31/18 1505
AZ81640	ERH683	1031011	10/31/18 1525
AZ81642	ERH694	1031012	10/31/18 1545
AZ81644	ERH692	1031013	10/31/18 1605

Comments: Batch: #DOC53-181029A

Printed: 11/02/18 2:15:02 PM  
Form 4, LCS Summary

## Laboratory Control Spike Recoveries

### EPA 8015B TPH LIQ-LIQ

APPL ID: 181029W-81636 LCS - 234822  
 Batch ID: #DOC53-181029A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1250	1210	1310	96.8	105	36-132	7.9	30
OIL (C24-C40)	1250	1570	1600	126 #	128 #	41-113	1.9	30
SURROGATE: OCTACOSANE (S)	75.0	93.4	95.6	125	127	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	80.3	84.2	107	112	56-125		

# = Recovery is outside QC limits.

Comments: \_\_\_\_\_

Primary	SPK	DUP
Quant Method :	DOC0905.M	DOC0905.M
Extraction Date :	10/29/18	10/29/18
Analysis Date :	10/31/18	10/31/18
Instrument :	Apollo	Apollo
Run :	1031005	1031007
Initials :	DPO	

# EPA 8015B-eL

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 11/07/18

Matrix: WATER

Instrument: Apollo

LCS ID: 181105A-LCS

Time Analyzed: 1445

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181105A-BLK	Blank	1107004	11/07/18 1424
181105A-LCS	Lab Control Spike	1107005	11/07/18 1445
181105A-LCSD	Lab Control SpikeD	1107007	11/07/18 1525
AZ81636	ERH690	1107012	11/07/18 1706
AZ81638	ERH684	1107013	11/07/18 1727
AZ81640	ERH683	1107014	11/07/18 1748
AZ81642	ERH694	1107015	11/07/18 1808
AZ81644	ERH692	1107016	11/07/18 1828

Comments: Batch: #DOC53-181105A

Printed: 11/08/18 9:46:50 AM  
Form 4, LCS Summary

## Laboratory Control Spike Recoveries

### EPA 8015B TPH LIQ-LIQ RE-EXTRACT

APPL ID: 181105W-81584 LCS - 234971  
 Batch ID: #DOC53-181105A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1250	1270	1240	102	99.2	36-132	2.4	30
OIL (C24-C40)	1250	1170	1220	93.6	97.6	41-113	4.2	30
SURROGATE: OCTACOSANE (S)	75.0	84.2	85.9	112	115	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	71.8	73.7	95.7	98.3	56-125		

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	DOC0905.M	DOC0905.M
Extraction Date :	11/05/18	11/05/18
Analysis Date :	11/07/18	11/07/18
Instrument :	Apollo	Apollo
Run :	1107005	1107007
Initials :	DPO	

# EPA 8015B-eL

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 11/08/18

Matrix: WATER

Instrument: Apollo

LCS ID: 181105A1-LCS

Time Analyzed: 1718

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181105A1-BLK	Blank	1107039	11/08/18 1657
181105A1-LCS	Lab Control Spike	1107040	11/08/18 1718
181105A1-LCSD	Lab Control SpikeD	1107042	11/08/18 1758
AZ81638	ERH684	1107044	11/08/18 1839
AZ81640	ERH683	1107045	11/08/18 1859

Comments: Batch: #DOC53-181105A1

Printed: 11/09/18 11:24:24 AM  
Form 4, LCS Summary



# Laboratory Control Spike Recoveries

## EPA 8015B TPH WATER L-L SGC

APPL ID: 181105W-81638 LCS - 235019  
 Batch ID: #DOC53-181105A1

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1250	1170	1140	93.6	91.2	36-132	2.6	30
OIL (C24-C40)	1250	1220	1220	97.6	97.6	41-113	0.0	30
-----								
SURROGATE: (R) DECANOIC ACID (S)	10.00	0	0	0.0	0.0	0-1		
SURROGATE: OCTACOSANE (S)	75.0	90.2	87.3	120	116	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	78.3	75.3	104	100	56-125		
-----								

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	DOC0905.M	DOC0905.M
Extraction Date :	11/05/18	11/05/18
Analysis Date :	11/08/18	11/08/18
Instrument :	Apollo	Apollo
Run :	1107040	1107042
Initials :	DPO	

# 8270D-SIM

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-METHYLNAPHTHALENE-D10 (S)			SURROGATE: FLUORANTHENE-D10 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181024A-BLK	Blank	39-114	92.8		58-120	111	
181024A-LCS	Lab Control Spike	39-114	77.3		58-120	93.0	
181024A-LCSD	Lab Control Spiked	39-114	75.5		58-120	91.4	
AZ81636	ERH690	39-114	93.3		58-120	104	
AZ81638	ERH684	39-114	98.2		58-120	108	
AZ81640	ERH683	39-114	96.2		58-120	109	
AZ81642	ERH694	39-114	94.0		58-120	107	
AZ81644	ERH692	39-114	88.8		58-120	105	

Comments: Batch: #SIM53-181024A

Printed: 10/31/18 10:07:33 AM  
Form 2 & 8, Surrogate Recovery Summary

# 8270D-SIM

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Linus

Blank ID: 181024A-BLK

Time Analyzed: 1432

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181024A-BLK	Blank	1026L051	10/30/18 1432
181024A-LCS	Lab Control Spike	1026L052	10/30/18 1606
181024A-LCSD	Lab Control SpikeD	1026L053	10/30/18 1636
AZ81636	ERH690	1026L059	10/30/18 1931
AZ81638	ERH684	1026L060	10/30/18 2000
AZ81640	ERH683	1026L061	10/30/18 2029
AZ81642	ERH694	1026L062	10/30/18 2058
AZ81644	ERH692	1026L063	10/30/18 2127

Comments: Batch: #SIM53-181024A

Printed: 10/31/18 10:07:34 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8270D SIM LIQ-LIQ**

Blank Name/QCG: **181024W-81584 - 234723**  
Batch ID: #SIM53-181024A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/24/18	10/30/18
BLANK	SURROGATE: 2-METHYLNAPHT	92.8	39-114			%	10/24/18	10/30/18
BLANK	SURROGATE: FLUORANTHENE-	111	58-120			%	10/24/18	10/30/18

Quant Method: L1026.M  
Run #: 1026L051  
Instrument: Linus  
Sequence: L181026  
Initials: MA

GC SC-Blank-REG MDLs-DOD  
Printed: 10/31/18 10:07:04 AM

# 8270D-SIM

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Linus

LCS ID: 181024A-LCS

Time Analyzed: 1606

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181024A-BLK	Blank	1026L051	10/30/18 1432
181024A-LCS	Lab Control Spike	1026L052	10/30/18 1606
181024A-LCSD	Lab Control SpikeD	1026L053	10/30/18 1636
AZ81636	ERH690	1026L059	10/30/18 1931
AZ81638	ERH684	1026L060	10/30/18 2000
AZ81640	ERH683	1026L061	10/30/18 2029
AZ81642	ERH694	1026L062	10/30/18 2058
AZ81644	ERH692	1026L063	10/30/18 2127

Comments: Batch: #SIM53-181024A

Printed: 10/31/18 10:07:35 AM  
Form 4, LCS Summary

## Laboratory Control Spike Recoveries

### EPA 8270D SIM LIQ-LIQ

APPL ID: 181024W-81584 LCS - 234723  
 Batch ID: #SIM53-181024A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1-METHYLNAPHTHALENE	6.25	5.55	5.35	88.8	85.6	41-115	3.7	20
2-METHYLNAPHTHALENE	6.25	5.89	5.60	94.2	89.6	39-114	5.0	20
NAPHTHALENE	6.25	5.62	5.45	89.9	87.2	43-114	3.1	20
<hr/>								
SURROGATE: 2-METHYLNAPHTHALEN	6.25	4.83	4.72	77.3	75.5	39-114		
SURROGATE: FLUORANTHENE-D10 (S)	6.25	5.81	5.71	93.0	91.4	58-120		
<hr/>								

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	L1026.M	L1026.M
Extraction Date :	10/24/18	10/24/18
Analysis Date :	10/30/18	10/30/18
Instrument :	Linus	Linus
Run :	1026L052	1026L053
Initials :	MA	

Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: \_\_\_\_\_  
Matrix: Water  
ID: 1026L002.D

SDG No: \_\_\_\_\_  
Date Analyzed: 10/26/18  
Instrument: Linus  
Time Analyzed: 12:05

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5 SIM 10/26/18	1026L003.D	10/26/18 12:21
2		0.1 SIM 10/26/18	1026L004.D	10/26/18 12:50
3		0.2 SIM 10/26/18	1026L005.D	10/26/18 13:20
4		0.5 SIM 10/26/18	1026L006.D	10/26/18 13:49
5		1 SIM 10/26/18	1026L007.D	10/26/18 14:18
6		10 SIM 10/26/18	1026L008.D	10/26/18 14:47
7		50 SIM 10/26/18	1026L009.D	10/26/18 15:16
8		100 SIM 10/26/18	1026L010.D	10/26/18 15:46
9		SS SIM 10/26/18	1026L011.D	10/26/18 16:46
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e

51	10 - 80% of mass 198	44.4
68	0 - 2% of mass 69	0.0
69	100 - 100% of mass 69	100.0
70	0 - 2% of mass 69	0.3
127	10 - 80% of mass 198	55.0
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.5
275	10 - 60% of mass 198	21.8
365	1 - 100% of mass 198	2.6
441	0.01 - 24% of mass 442	18.1
442	50 - 150% of mass 198	59.1
443	15 - 24% of mass 442	20.7

Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 87212  
 Matrix: Water  
 ID: 1026L048.D

SDG No: 87212  
 Date Analyzed: 10/30/18  
 Instrument: Linus  
 Time Analyzed: 13:18

Client Sample No.	APPL ID.	File ID.	Date Analyzed	
1	5 SIM 10/26/18	1026L049.D	10/30/18 13:34	
2	Blank	181024A BLK 1/800	1026L051.D	10/30/18 14:32
3	Lab Control Spike	181024A LCS-2 1/800	1026L052.D	10/30/18 16:06
4	Lab Control SpikeD	181024A LCSD-2 1/800	1026L053.D	10/30/18 16:36
5	ERH690	AZ81636W12 1/800	1026L059.D	10/30/18 19:31
6	ERH684	AZ81638W09 1/800	1026L060.D	10/30/18 20:00
7	ERH683	AZ81640W10 1/800	1026L061.D	10/30/18 20:29
8	ERH694	AZ81642W11 1/800	1026L062.D	10/30/18 20:58
9	ERH692	AZ81644W12 1/800	1026L063.D	10/30/18 21:27
10	5 SIM 10/26/18	1026L064.D	10/30/18 21:56	
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e

51 9.95 - 80% of mass 198	<u>47.6</u>
68 0 - 2.05% of mass 69	<u>0.0</u>
70 0 - 2% of mass 69	<u>0.7</u>
127 10 - 80% of mass 198	<u>56.5</u>
197 0 - 2% of mass 198	<u>0.0</u>
198 100 - 100% of mass 198	<u>100.0</u>
199 5 - 9% of mass 198	<u>6.3</u>
275 10 - 60% of mass 198	<u>21.5</u>
365 1 - 100% of mass 198	<u>2.5</u>
441 0.01 - 24% of mass 442	<u>17.6</u>
442 50 - 150% of mass 198	<u>64.7</u>
443 15 - 24% of mass 442	<u>19.7</u>



8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87212  
 Lab File ID (Standard): 1026L049.D Date Analyzed: 10/30/18  
 Instrument ID: Linus Time Analyzed: 13:34  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)			
		AREA	#	RT	#	AREA	#	RT	#
12 HOUR STD		40959		4.18		18522		6.21	
UPPER LIMIT		81918		4.35		37044		6.38	
LOWER LIMIT		20480		4.01		9261		6.04	
SAMPLE NO.									
01	5 SIM 10/26/18	40959		4.18		18522		6.21	
02	181024A BLK 1/800	29869		4.18		13534		6.21	
03	181024A LCS-2 1/800	35876		4.18		16388		6.21	
04	181024A LCSD-2 1/800	35177		4.18		15896		6.20	
05	AZ81636W12 1/800	33248		4.18		15414		6.21	
06	AZ81638W09 1/800	31250		4.18		14911		6.21	
07	AZ81640W10 1/800	31619		4.18		14712		6.21	
08	AZ81642W11 1/800	32584		4.18		15027		6.21	
09	AZ81644W12 1/800	33240		4.18		15382		6.21	
10	5 SIM 10/26/18	41160		4.18		18890		6.21	
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87212  
 Lab File ID (Standard): 1026L049.D Date Analyzed: 10/30/18  
 Instrument ID: Linus Time Analyzed: 13:34  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	50362	14.38	48183	18.17		
	UPPER LIMIT	100724	14.55	96366	18.34		
	LOWER LIMIT	25181	14.21	24092	18.00		
	SAMPLE NO.						
01	5 SIM 10/26/18	50362	14.38	48183	18.17		
02	181024A BLK 1/800	34458	14.39	33072	18.20		
03	181024A LCS-2 1/800	42403	14.39	40476	18.18		
04	181024A LCSD-2 1/800	41298	14.38	40486	18.18		
05	AZ81636W12 1/800	40648	14.39	39879	18.18		
06	AZ81638W09 1/800	39768	14.39	39472	18.18		
07	AZ81640W10 1/800	39172	14.39	38655	18.17		
08	AZ81642W11 1/800	39313	14.38	38873	18.17		
09	AZ81644W12 1/800	40252	14.38	39259	18.17		
10	5 SIM 10/26/18	50955	14.37	48456	18.16		
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6- TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
AZ81636	ERH690	43-140	70.1		44-119	68.4	
AZ81638	ERH684	43-140	66.5		44-119	68.5	
AZ81640	ERH683	43-140	78.0		44-119	79.4	
AZ81642	ERH694	43-140	77.2		44-119	80.6	
AZ81644	ERH692	43-140	70.3		44-119	76.4	

Comments: Batch: #87DC5-181024A

Printed: 10/31/18 6:41:30 AM  
Form 2 & 8, Surrogate Recovery Summary

**EPA 8270D**

Form 2 & 8

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
AZ81636	ERH690	19-119	104		44-120	96.2	
AZ81638	ERH684	19-119	60.2		44-120	70.2	
AZ81640	ERH683	19-119	85.5		44-120	85.1	
AZ81642	ERH694	19-119	83.7		44-120	97.0	
AZ81644	ERH692	19-119	70.8		44-120	75.4	

Comments: Batch: #87DC5-181024A

Printed: 10/31/18 6:41:30 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL-D6 (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
AZ81636	ERH690	10-115	106		50-134	66.5	
AZ81638	ERH684	10-115	68.6		50-134	57.7	
AZ81640	ERH683	10-115	86.5		50-134	67.2	
AZ81642	ERH694	10-115	78.0		50-134	83.0	
AZ81644	ERH692	10-115	73.4		50-134	58.9	

Comments: Batch: #87DC5-181024A

Printed: 10/31/18 6:41:30 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8270D

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87198

Case No: 87198

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Yoda

Blank ID: 181024A-BLK

Time Analyzed: 1320

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181024A-BLK	Blank	1025Y083	10/30/18 1320
181024A-LCS	Lab Control Spike	1025Y084	10/30/18 1348
181024A-LCSD	Lab Control SpikeD	1025Y085	10/30/18 1416
181024A-MS	Matrix Spike	1025Y086	10/30/18 1443
181024A-MSD	Matrix SpikeD	1025Y087	10/30/18 1511
AZ81584	ERH678	1025Y088	10/30/18 1539
AZ81585	ERH679	1025Y089	10/30/18 1607
AZ81587	ERH704	1025Y090	10/30/18 1635

Comments: Batch: #87DC5-181024A

Printed: 10/31/18 6:41:31 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8270D WATER**

Blank Name/QCG: **181024W-81584 - 234711**  
Batch ID: #87DC5-181024A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/24/18	10/30/18
BLANK	SURROGATE: 2,4,6-TRIBROMOP	78.4	43-140			%	10/24/18	10/30/18
BLANK	SURROGATE: 2-FLUORBIPHENY	77.6	44-119			%	10/24/18	10/30/18
BLANK	SURROGATE: 2-FLUOROPHENO	82.2	19-119			%	10/24/18	10/30/18
BLANK	SURROGATE: NITROBENZENE-	91.1	44-120			%	10/24/18	10/30/18
BLANK	SURROGATE: PHENOL-D6 (S)	90.1	10-115			%	10/24/18	10/30/18
BLANK	SURROGATE: TERPHENYL-D14 (	60.8	50-134			%	10/24/18	10/30/18

Quant Method: Y1025NC.M  
Run #: 1025Y083  
Instrument: Yoda  
Sequence: Y181025  
Initials: AAB

GC SC-Blank-REG MDLs-DOD  
Printed: 10/31/18 6:39:12 AM

# EPA 8270D

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Yoda

LCS ID: 181024A-LCS

Time Analyzed: 1348

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
AZ81636	ERH690	1025Y091	10/30/18 1703
AZ81638	ERH684	1025Y092	10/30/18 1731
AZ81640	ERH683	1025Y093	10/30/18 1759
AZ81642	ERH694	1025Y094	10/30/18 1827
AZ81644	ERH692	1025Y095	10/30/18 1854

Comments: Batch: #87DC5-181024A

Printed: 10/31/18 6:41:31 AM  
Form 4, LCS Summary



## Laboratory Control Spike Recoveries

### EPA 8270D WATER

APPL ID: 181024W-81584 LCS - 234711  
 Batch ID: #87DC5-181024A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
PHENOL	62.5	73.1	62.3	117 #	99.7	10-115	16.0	20
SURROGATE: 2,4,6-TRIBROMOPHENOL	250	220	213	88.0	85.2	43-140		
SURROGATE: 2-FLUORBIPHENYL (S)	125	106	102	84.8	81.6	44-119		
SURROGATE: 2-FLUOROPHENOL (S)	250	303	253	121 #	101	19-119		
SURROGATE: NITROBENZENE-D5 (S)	125	170	130	136 #	104	44-120		
SURROGATE: PHENOL-D6 (S)	250	312	255	125 #	102	10-115		
SURROGATE: TERPHENYL-D14 (S)	125	94.7	91.3	75.8	73.0	50-134		

# = Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	Y1025NC.M	Y1025NC.M
Extraction Date :	10/24/18	10/24/18
Analysis Date :	10/30/18	10/30/18
Instrument :	Yoda	Yoda
Run :	1025Y084	1025Y085
Initials :	AAB	

Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: \_\_\_\_\_  
 Matrix: Soil  
 ID: 1025Y002.D

SDG No: \_\_\_\_\_  
 Date Analyzed: 10/25/18  
 Instrument: Yoda  
 Time Analyzed: 11:17

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		4ug/mL 8270 10/18/18	1025Y003.D	10/25/18 11:33
2		5ug/mL 8270 10/18/18	1025Y004.D	10/25/18 12:01
3		10ug/mL 8270 10/18/1	1025Y005.D	10/25/18 12:28
4		20ug/mL 8270 10/18/1	1025Y006.D	10/25/18 12:56
5		40ug/mL 8270 10/18/1	1025Y007.D	10/25/18 13:24
6		50ug/mL 8270 10/18/1	1025Y008.D	10/25/18 13:52
7		60ug/mL 8270 10/18/1	1025Y009.D	10/25/18 14:20
8		80ug/mL 8270 10/18/1	1025Y010.D	10/25/18 14:48
9		100ug/mL 8270 10/18/	1025Y011.D	10/25/18 15:16
10		SS- 8270 10/18/18	1025Y012.D	10/25/18 15:44
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e

51 9.95 - 80.04% of mass 198	<u>52.8</u>
68 0 - 2% of mass 69	<u>0.0</u>
70 0 - 2% of mass 69	<u>0.4</u>
127 10 - 80% of mass 198	<u>59.4</u>
197 0 - 2% of mass 198	<u>0.0</u>
198 100 - 100% of mass 198	<u>100.0</u>
199 5 - 9% of mass 198	<u>7.1</u>
275 10 - 60% of mass 198	<u>26.1</u>
365 1 - 100% of mass 198	<u>3.7</u>
441 0.01 - 24% of mass 442	<u>17.3</u>
442 50 - 150% of mass 198	<u>100.0</u>
443 15 - 24% of mass 442	<u>17.8</u>

Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 87212  
 Matrix: Water  
 ID: 1025Y077.D

SDG No: 87212  
 Date Analyzed: 10/30/18  
 Instrument: Yoda  
 Time Analyzed: 9:19

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	50ug/mL 8270 10/18/1	1025Y078.D	10/30/18 9:34
2	Blank	181024A BLK 1/800	1025Y083.D
3	Lab Control Spike	181024A LCS-1 1/800	1025Y084.D
4	Lab Control SpikeD	181024A LCSD-1 1/800	1025Y085.D
5	ERH690	AZ81636W12 1/800	1025Y091.D
6	ERH684	AZ81638W09 1/800	1025Y092.D
7	ERH683	AZ81640W10 1/800	1025Y093.D
8	ERH694	AZ81642W11 1/800	1025Y094.D
9	ERH692	AZ81644W12 1/800	1025Y095.D
10	50ug/mL 8270 10/18/1	1025Y096.D	10/30/18 19:22
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

51 10 - 80% of mass 198	<u>51.1</u>
68 0 - 2% of mass 69	<u>0.0</u>
70 0 - 2% of mass 69	<u>0.3</u>
127 10 - 80% of mass 198	<u>56.1</u>
197 0 - 2% of mass 198	<u>0.0</u>
198 100 - 100% of mass 198	<u>100.0</u>
199 5 - 9% of mass 198	<u>6.9</u>
275 10 - 60% of mass 198	<u>28.0</u>
365 1 - 100% of mass 198	<u>4.3</u>
441 0.01 - 24% of mass 442	<u>16.6</u>
442 50 - 150% of mass 198	<u>111.6</u>
443 17 - 23% of mass 442	<u>18.8</u>

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87212  
 Lab File ID (Standard): 1025Y078.D Date Analyzed: 10/30/18  
 Instrument ID: Yoda Time Analyzed: 9:34  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

	1,4-dichlorobenzene-D4(IS)	Napthalene-D8(IS)	Acenaphthene-D10(IS)				
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12 HOUR STD	340030	5.53	1373940	6.99	733668	9.01	
UPPER LIMIT	680060	5.70	2747880	7.16	1467336	9.18	
LOWER LIMIT	170015	5.36	686970	6.82	366834	8.84	
SAMPLE NO.							
01	181024A BLK 1/800	255115	5.53	1052100	6.98	576600	9.02
02	181024A LCS-1 1/800	187593	5.54	733115	6.98	482637	9.01
03	181024A LCSD-1 1/800	243855	5.54	1052350	6.99	609125	9.01
04	AZ81636W12 1/800	243351	5.54	1127080	6.98	659764	9.01
05	AZ81638W09 1/800	375158	5.54	1448840	6.98	692989	9.01
06	AZ81640W10 1/800	294682	5.54	1202470	6.98	580959	9.01
07	AZ81642W11 1/800	305713	5.53	1129700	6.98	608955	9.01
08	AZ81644W12 1/800	343515	5.54	1385920	6.98	637507	9.01
09	50ug/mL 8270 10/18/18	366683	5.54	1410700	6.99	831252	9.02
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87212  
 Lab File ID (Standard): 1025Y078.D Date Analyzed: 10/30/18  
 Instrument ID: Yoda Time Analyzed: 9:34  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

	Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12 HOUR STD	1363200	10.76	1272640	13.87	1426770	15.82	
UPPER LIMIT	2726400	10.93	2545280	14.04	2853540	15.99	
LOWER LIMIT	681600	10.59	636320	13.70	713385	15.65	
SAMPLE NO.							
01	181024A BLK 1/800	1164200	10.76	1223920	13.86	1093570	15.81
02	181024A LCS-1 1/800	981125	10.76	916139	13.87	987819	15.82
03	181024A LCSD-1 1/800	1131360	10.76	1010600	13.87	1100500	15.82
04	AZ81636W12 1/800	1180550	10.76	1152410	13.87	1116480	15.81
05	AZ81638W09 1/800	1301410	10.76	1401470	13.87	1359780	15.82
06	AZ81640W10 1/800	1191880	10.76	1188970	13.87	1140530	15.81
07	AZ81642W11 1/800	1187900	10.76	1007280	13.86	981662	15.81
08	AZ81644W12 1/800	1203220	10.76	1274640	13.86	1245480	15.81
09	50ug/mL 8270 10/18/18	1544430	10.77	1304930	13.88	1432590	15.82
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

# EPA 8270D

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/31/18

Matrix: WATER

Instrument: Yoda

Blank ID: 181029A-BLK

Time Analyzed: 1043

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181029A-BLK	Blank	0801Y079	10/31/18 1043
181029A-LCS	Lab Control Spike	0801Y080	10/31/18 1107
AZ81636	ERH690	0801Y082	10/31/18 1154
AZ81638	ERH684	0801Y083	10/31/18 1218
AZ81640	ERH683	0801Y084	10/31/18 1241
AZ81642	ERH694	0801Y085	10/31/18 1305
AZ81644	ERH692	0801Y086	10/31/18 1329
181029A-LCSD	Lab Control Spiked	0801Y097	10/31/18 1749

Comments: Batch: #87DME-181029A

Printed: 11/01/18 3:47:30 PM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8270D MODIFIED WATER**

Blank Name/QCG: **181029W-81584 - 234791**

Batch ID: #87DME-181029A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-(2-METHOXYETHOXY)-ETHAN	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method:YMEE0801.M  
Run #:0801Y079  
Instrument:Yoda  
Sequence:Y180801M  
Initials:MA

GC SC-Blank-REG MDLs-DOD  
Printed: 11/01/18 3:47:38 PM

# EPA 8270D

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/31/18

Matrix: WATER

Instrument: Yoda

LCS ID: 181029A-LCS

Time Analyzed: 1107

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181029A-BLK	Blank	0801Y079	10/31/18 1043
181029A-LCS	Lab Control Spike	0801Y080	10/31/18 1107
AZ81636	ERH690	0801Y082	10/31/18 1154
AZ81638	ERH684	0801Y083	10/31/18 1218
AZ81640	ERH683	0801Y084	10/31/18 1241
AZ81642	ERH694	0801Y085	10/31/18 1305
AZ81644	ERH692	0801Y086	10/31/18 1329
181029A-LCSD	Lab Control SpikeD	0801Y097	10/31/18 1749

Comments: Batch: #87DME-181029A

Printed: 11/01/18 3:47:31 PM  
Form 4, LCS Summary



# Laboratory Control Spike Recoveries

## EPA 8270D MODIFIED WATER

APPL ID: 181029W-81584 LCS - 234791  
 Batch ID: #87DME-181029A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2-(2-METHOXYETHOXY)-ETHANOL	80.0	73.0	89.9	91.3	112	30-130	20.7 #	20

# = Recovery is outside QC limits.

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	YMEE0801.M	YMEE0801.M
Extraction Date :	10/29/18	10/29/18
Analysis Date :	10/31/18	10/31/18
Instrument :	Yoda	Yoda
Run :	0801Y080	0801Y097
Initials :	MA	

Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: \_\_\_\_\_  
Matrix: Water  
ID: 0801Y002.D

SDG No: \_\_\_\_\_  
Date Analyzed: 08/01/18  
Instrument: Yoda  
Time Analyzed: 14:52

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	50ug/ml MEE 08/01/18	0801Y003.D	08/01/18 15:09
2	500ug/ml MEE 08/01/1	0801Y004.D	08/01/18 15:34
3	100ug/ml MEE 08/01/1	0801Y005.D	08/01/18 16:26
4	200ug/ml MEE 08/01/1	0801Y006.D	08/01/18 16:51
5	400ug/ml MEE 08/01/1	0801Y007.D	08/01/18 17:16
6	600ug/ml MEE 08/01/1	0801Y008.D	08/01/18 17:41
7	800ug/ml MEE 08/01/1	0801Y009.D	08/01/18 18:06
8	1000ug/ml MEE 08/01/1	0801Y010.D	08/01/18 18:31
9	SS ug/ml MEE 08/01/1	0801Y011.D	08/01/18 18:55
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

51 9.95 - 80.04% of mass 198	47.8
68 0 - 2.04% of mass 69	0.0
70 0 - 2.04% of mass 69	0.5
127 10 - 80% of mass 198	53.9
197 0 - 2% of mass 198	0.0
198 100 - 100% of mass 198	100.0
199 5 - 9% of mass 198	6.3
275 10 - 60% of mass 198	26.6
365 1 - 100% of mass 198	3.8
441 0.01 - 24% of mass 442	16.8
442 50 - 150% of mass 198	121.2
443 15 - 24% of mass 442	20.7

Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: 87212  
Matrix: Water  
ID: 0801Y069.D

SDG No: 87212  
Date Analyzed: 10/31/18  
Instrument: Yoda  
Time Analyzed: 6:36

Client Sample No.	APPL ID.	File ID.	Date Analyzed	
1		500ug/ml MEE 08/01/1	0801Y070.D	10/31/18 6:51
2	Blank	181029A Blk 2/500	0801Y079.D	10/31/18 10:43
3	Lab Control Spike	181029A LCS-1 2/500	0801Y080.D	10/31/18 11:07
4	ERH690	AZ81636W09 2/470	0801Y082.D	10/31/18 11:54
5	ERH684	AZ81638W05 2/490	0801Y083.D	10/31/18 12:18
6	ERH683	AZ81640W08 2/480	0801Y084.D	10/31/18 12:41
7	ERH694	AZ81642W09 2/500	0801Y085.D	10/31/18 13:05
8	ERH692	AZ81644W09 2/490	0801Y086.D	10/31/18 13:29
9	Lab Control SpikeD	181029A LCSD-1 2/500	0801Y097.D	10/31/18 17:49
10		500ug/ml MEE 08/01/1	0801Y098.D	10/31/18 18:12
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e

51	9.95 - 80.04% of mass 198	49.6
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.7
127	10 - 80% of mass 198	55.5
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 197.95	100.0
199	5 - 9% of mass 198	6.5
275	10 - 60% of mass 198	26.6
365	1 - 100% of mass 198	3.9
441	0.01 - 24% of mass 442	17.1
442	50 - 150% of mass 197.95	92.6
443	15 - 24% of mass 442	20.3

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87212  
 Lab File ID (Standard): 0801Y070.D Date Analyzed: 10/31/18  
 Instrument ID: Yoda Time Analyzed: 6:51  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		1,4-dichlorobenzene-D4(IS)		Naphthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		357281	5.30	1484910	6.73	759796	8.76
UPPER LIMIT		714562	5.47	2969820	6.90	1519592	8.93
LOWER LIMIT		178641	5.13	742455	6.56	379898	8.59
SAMPLE NO.							
01	500ug/ml MEE 08/01/18	357281	5.30	1484910	6.73	759796	8.76
02	181029A Bik 2/500	233584	5.31	1284270	6.73	664335	8.76
03	181029A LCS-1 2/500	392175	5.30	1594600	6.73	819390	8.76
04	AZ81636W09 2/470	377132	5.31	1472360	6.74	724350	8.76
05	AZ81638W05 2/490	215540	5.29	909969	6.73	475814	8.76
06	AZ81640W08 2/480	270346	5.30	1169070	6.73	713887	8.76
07	AZ81642W09 2/500	307652	5.29	1255690	6.73	705980	8.76
08	AZ81644W09 2/490	330969	5.30	1289810	6.73	642166	8.76
09	181029A LCSD-1 2/500	353234	5.31	1396890	6.73	700025	8.76
10	500ug/ml MEE 08/01/18	387693	5.31	1637390	6.73	845559	8.76
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits. Not associated with target compound.

## INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87212  
 Lab File ID (Standard): 0801Y070.D Date Analyzed: 10/31/18  
 Instrument ID: Yoda Time Analyzed: 6:51  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

	Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	1392260	10.50	1474560	13.60	2044920	15.43
UPPER LIMIT	2784520	10.67	2949120	13.77	4089840	15.60
LOWER LIMIT	696130	10.33	737280	13.43	1022460	15.26
SAMPLE NO.						
01 500ug/ml MEE 08/01/18	1392260	10.50	1474560	13.60	2044920	15.43
02 181029A Bik 2/500	1204750	10.50	1112330	13.60	1097800	15.42
03 181029A LCS-1 2/500	1395150	10.50	1241790	13.60	1311330	15.42
04 AZ81636W09 2/470	1358020	10.50	1239160	13.60	1197520	15.42
05 AZ81638W05 2/490	881903	10.50	812313	13.60	793555 *	15.42
06 AZ81640W08 2/480	1383480	10.50	1161760	13.60	1067180	15.42
07 AZ81642W09 2/500	1339370	10.50	1148370	13.60	1068490	15.42
08 AZ81644W09 2/490	1202770	10.50	1171760	13.60	1151470	15.42
09 181029A LCSD-1 2/500	1287860	10.50	1186080	13.60	1218320	15.42
10 500ug/ml MEE 08/01/18	1555870	10.50	1391750	13.60	1264020	15.42
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = +0.17 minutes of internal standard RT

RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits. Not associated with target compound.

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/25/18

Matrix: WATER

Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181025AL-LCS	Lab Control Spike	81-118	105		85-114	104	
181025AL-LCSD	Lab Control SpikeD	81-118	104		85-114	110	
181025AL-BLK	Blank	81-118	115		85-114	99.1	
AZ81637	ERH689	81-118	112		85-114	98.0	
AZ81639	ERH682	81-118	112		85-114	98.1	
AZ81643	ERH691	81-118	113		85-114	95.4	
AZ81641	ERH693	81-118	118		85-114	100.0	
AZ81636	ERH690	81-118	112		85-114	94.0	
AZ81638	ERH684	81-118	113		85-114	101	
AZ81640	ERH683	81-118	105		85-114	102	
AZ81642	ERH694	81-118	106		85-114	96.4	
AZ81644	ERH692	81-118	111		85-114	95.5	

Comments: Batch: #86BTO-181025AL

Printed: 10/26/18 8:17:53 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/25/18

Matrix: WATER

Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181025AL-LCS	Lab Control Spike	80-119	101		89-112	98.8	
181025AL-LCSD	Lab Control SpikeD	80-119	101		89-112	104	
181025AL-BLK	Blank	80-119	115		89-112	102	
AZ81637	ERH689	80-119	109		89-112	99.9	
AZ81639	ERH682	80-119	109		89-112	100.0	
AZ81643	ERH691	80-119	112		89-112	98.8	
AZ81641	ERH693	80-119	118		89-112	103	
AZ81636	ERH690	80-119	110		89-112	96.7	
AZ81638	ERH684	80-119	110		89-112	95.7	
AZ81640	ERH683	80-119	105		89-112	95.1	
AZ81642	ERH694	80-119	107		89-112	99.1	
AZ81644	ERH692	80-119	108		89-112	99.6	

Comments: Batch: #86BTO-181025AL

Printed: 10/26/18 8:17:53 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/25/18

Matrix: WATER

Instrument: Loki

Blank ID: 181025AL-BLK

Time Analyzed: 1652

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181025AL-LCS	Lab Control Spike	1025L06	10/25/18 1019
181025AL-LCSD	Lab Control SpikeD	1025L07	10/25/18 1048
181025AL-BLK	Blank	1025L20	10/25/18 1652
AZ81637	ERH689	1025L21	10/25/18 1720
AZ81639	ERH682	1025L22	10/25/18 1748
AZ81643	ERH691	1025L23	10/25/18 1816
AZ81641	ERH693	1025L24	10/25/18 1844
AZ81636	ERH690	1025L25	10/25/18 1912
AZ81638	ERH684	1025L26	10/25/18 1940
AZ81640	ERH683	1025L27	10/25/18 2008
AZ81642	ERH694	1025L28	10/25/18 2036
AZ81644	ERH692	1025L29	10/25/18 2104

Comments: Batch: #86BTO-181025AL

Printed: 10/26/18 8:17:57 AM  
Form 4, Blank Summary



**Method Blank**  
**EPA 8260B BTEX WATER**

Blank Name/QCG: **181025W-81636 - 234589**  
Batch ID: #86BTO-181025AL

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/25/18	10/25/18
BLANK	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/25/18	10/25/18
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/25/18	10/25/18
BLANK	SURROGATE: 1,2-DICHLOROET	115	81-118			%	10/25/18	10/25/18
BLANK	SURROGATE: 4-BROMOFLUORO	99.1	85-114			%	10/25/18	10/25/18
BLANK	SURROGATE: DIBROMOFLUOR	115	80-119			%	10/25/18	10/25/18
BLANK	SURROGATE: TOLUENE-D8 (S)	102	89-112			%	10/25/18	10/25/18

Quant Method: L1023W.M  
Run #: 1025L20  
Instrument: Loki  
Sequence: 181023  
Initials: SV

GC SC-Blank-REG MDLs-DOD  
Printed: 10/26/18 8:18:01 AM

# EPA 8260B

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/25/18

Matrix: WATER

Instrument: Loki

LCS ID: 181025AL-LCS

Time Analyzed: 1019

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181025AL-LCS	Lab Control Spike	1025L06	10/25/18 1019
181025AL-LCSD	Lab Control SpikeD	1025L07	10/25/18 1048
181025AL-BLK	Blank	1025L20	10/25/18 1652
AZ81637	ERH689	1025L21	10/25/18 1720
AZ81639	ERH682	1025L22	10/25/18 1748
AZ81643	ERH691	1025L23	10/25/18 1816
AZ81641	ERH693	1025L24	10/25/18 1844
AZ81636	ERH690	1025L25	10/25/18 1912
AZ81638	ERH684	1025L26	10/25/18 1940
AZ81640	ERH683	1025L27	10/25/18 2008
AZ81642	ERH694	1025L28	10/25/18 2036
AZ81644	ERH692	1025L29	10/25/18 2104

Comments: Batch: #86BTO-181025AL

Printed: 10/26/18 8:18:04 AM  
Form 4, LCS Summary

**Laboratory Control Spike Recoveries**  
**EPA 8260B BTEX WATER**

APPL ID: 181025W-81636 LCS - 234589  
 Batch ID: #86BTO-181025AL

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
BENZENE	10.00	9.49	10.1	94.9	101	79-120	6.2	20
ETHYLBENZENE	10.00	9.65	10.4	96.5	104	79-121	7.5	20
TOLUENE	10.00	9.60	10.1	96.0	101	80-121	5.1	20
XYLENES (TOTAL)	30.0	29.8	31.7	99.3	106	79-121	6.2	20
-----								
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	26.2	26.0	105	104	81-118		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	26.0	27.4	104	110	85-114		
SURROGATE: DIBROMOFLUOROMETH	25.0	25.2	25.3	101	101	80-119		
SURROGATE: TOLUENE-D8 (S)	25.0	24.7	26.1	98.8	104	89-112		
-----								

Comments: \_\_\_\_\_

Primary	SPK	DUP
Quant Method :	L1023W.M	L1023W.M
Extraction Date :	10/25/18	10/25/18
Analysis Date :	10/25/18	10/25/18
Instrument :	Loki	Loki
Run :	1025L06	1025L07
Initials :	SV	

Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: 87212  
Matrix: Water  
ID: 1023L01.D

SDG No: 87212  
Date Analyzed: 10/23/18  
Instrument: Loki  
Time Analyzed: 12:54

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	0.3ug/L VOC STD 10/2	1023L03.D	10/23/18 13:39
2	0.5ug/L VOC STD 10/2	1023L04.D	10/23/18 14:07
3	1.0ug/L VOC STD 10/2	1023L05.D	10/23/18 14:35
4	5.0ug/L VOC STD 10/2	1023L06.D	10/23/18 15:03
5	10ug/L VOC STD 10/23	1023L07.D	10/23/18 15:31
6	20ug/L VOC STD 10/23	1023L08.D	10/23/18 15:59
7	50ug/L VOC STD 10/23	1023L09.D	10/23/18 16:27
8	100ug/L VOC STD 10/2	1023L10.D	10/23/18 16:55
9	(SS) 10ug/L VOC STD	1023L14.D	10/23/18 18:47
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

50 15 - 40% of mass 95	<u>18.0</u>
75 30 - 60% of mass 95	<u>51.6</u>
95 100 - 100% of mass 95	<u>100.0</u>
96 5 - 9% of mass 95	<u>6.7</u>
173 0 - 2% of mass 174	<u>0.0</u>
174 50 - 100.05% of mass 95	<u>97.3</u>
175 5 - 9% of mass 174	<u>7.9</u>
176 95 - 101% of mass 174	<u>95.7</u>
177 5 - 9% of mass 176	<u>6.9</u>

Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 87212  
 Matrix: Water  
 ID: 1025L04.D

SDG No: 87212  
 Date Analyzed: 10/25/18  
 Instrument: Loki  
 Time Analyzed: 9:23

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		181025A CCV 10ug/L	1025L05.D
2	Lab Control Spike	181025A LCS 10ug/L	1025L06.D
3	Lab Control Spiked	181025A LCSD 10ug/L	1025L07.D
4	Blank	181025A Bik	1025L20.D
5	ERH689	AZ81637W01	1025L21.D
6	ERH682	AZ81639W01	1025L22.D
7	ERH691	AZ81643W01	1025L23.D
8	ERH693	AZ81641W01	1025L24.D
9	ERH690	AZ81636W01	1025L25.D
10	ERH684	AZ81638W01	1025L26.D
11	ERH683	AZ81640W01	1025L27.D
12	ERH694	AZ81642W01	1025L28.D
13	ERH692	AZ81644W01	1025L29.D
14		Ending CCV 10ug/L 10	1025L30.D
15			
16			
17			
18			
19			
20			
21			
22			

m/e

50	15 - 40% of mass 95	17.2
75	30 - 60% of mass 95	50.5
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	7.5
173	0 - 2% of mass 174	0.0
174	50 - 100.05% of mass 95	99.1
175	5 - 9% of mass 174	7.9
176	95 - 101% of mass 174	95.1
177	5 - 9% of mass 176	7.2

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87212  
 Lab File ID (Standard): 1023L07.D Date Analyzed: 10/23/18  
 Instrument ID: Loki Time Analyzed: 15:31  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

	Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	242688	4.88	261312	8.54	157376	11.08
UPPER LIMIT	485376	5.05	522624	8.71	314752	11.25
LOWER LIMIT	121344	4.71	130656	8.37	78688	10.91
SAMPLE NO.						
01 (SS) 10ug/L VOC STD 1	241856	4.88	260480	8.54	161920	11.08
02 181025A CCV 10ug/L	268928	4.88	288960	8.54	185664	11.08
03 181025A LCS 10ug/L	267456	4.88	301824	8.54	189632	11.08
04 181025A LCSD 10ug/L	267776	4.88	291392	8.54	180160	11.08
05 181025A Blk	213184	4.88	242368	8.54	138624	11.08
06 AZ81637W01	218560	4.88	242368	8.54	142208	11.08
07 AZ81639W01	211904	4.88	235008	8.54	136576	11.08
08 AZ81643W01	207936	4.88	237888	8.54	132672	11.08
09 AZ81641W01	207488	4.88	235904	8.53	127008	11.08
10 AZ81636W01	206912	4.88	234432	8.54	135168	11.08
11 AZ81638W01	204928	4.88	238272	8.54	154560	11.08
12 AZ81640W01	237312	4.88	262976	8.54	169280	11.08
13 AZ81642W01	239424	4.88	268288	8.54	149504	11.08
14 AZ81644W01	224640	4.88	250176	8.54	136384	11.08
15 Ending CCV 10ug/L 10/2	234048	4.88	260160	8.54	166784	11.08
16						
17						
18						
19						
20						
21						
22						

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/25/18

Matrix: WATER

Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: 4-BROMOFLUOROBENZENE (S)			Limits	Result	Qualifier
		Limits	Result	Qualifier			
181025AL-LCS	Lab Control Spike	85-114	103				
181025AL-LCSD	Lab Control SpikeD	85-114	98.4				
181025AL-BLK	Blank	85-114	99.1				
AZ81637	ERH689	85-114	98.0				
AZ81639	ERH682	85-114	98.1				
AZ81643	ERH691	85-114	95.4				
AZ81641	ERH693	85-114	100.0				
AZ81636	ERH690	85-114	94.0				
AZ81638	ERH684	85-114	101				
AZ81640	ERH683	85-114	102				
AZ81642	ERH694	85-114	96.4				
AZ81644	ERH692	85-114	95.5				

Comments: Batch: #GRO86-181025AL

Printed: 10/26/18 8:23:56 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/25/18

Matrix: WATER

Instrument: Loki

Blank ID: 181025AL-BLK

Time Analyzed: 1652

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181025AL-LCS	Lab Control Spike	1025L17	10/25/18 1528
181025AL-LCSD	Lab Control SpikeD	1025L18	10/25/18 1556
181025AL-BLK	Blank	1025L20	10/25/18 1652
AZ81637	ERH689	1025L21	10/25/18 1720
AZ81639	ERH682	1025L22	10/25/18 1748
AZ81643	ERH691	1025L23	10/25/18 1816
AZ81641	ERH693	1025L24	10/25/18 1844
AZ81636	ERH690	1025L25	10/25/18 1912
AZ81638	ERH684	1025L26	10/25/18 1940
AZ81640	ERH683	1025L27	10/25/18 2008
AZ81642	ERH694	1025L28	10/25/18 2036
AZ81644	ERH692	1025L29	10/25/18 2104

Comments: Batch: #GRO86-181025AL

Printed: 10/26/18 8:24:03 AM  
Form 4, Blank Summary



**Method Blank**  
**EPA 8260B GRO WATER**

Blank Name/QCG: **181025W-81636 - 234590**  
Batch ID: #GRO86-181025AL

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/25/18	10/25/18
BLANK	SURROGATE: 4-BROMOFLUORO	99.1	85-114			%	10/25/18	10/25/18

Quant Method: LGAS915.M  
Run #: 1025L20  
Instrument: Loki  
Sequence: 181023  
Initials: SV

GC SC-Blank-REG MDLs-DOD  
Printed: 10/26/18 8:24:07 AM

# EPA 8260B

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/25/18

Matrix: WATER

Instrument: Loki

LCS ID: 181025AL-LCS

Time Analyzed: 1528

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181025AL-LCS	Lab Control Spike	1025L17	10/25/18 1528
181025AL-LCSD	Lab Control Spiked	1025L18	10/25/18 1556
181025AL-BLK	Blank	1025L20	10/25/18 1652
AZ81637	ERH689	1025L21	10/25/18 1720
AZ81639	ERH682	1025L22	10/25/18 1748
AZ81643	ERH691	1025L23	10/25/18 1816
AZ81641	ERH693	1025L24	10/25/18 1844
AZ81636	ERH690	1025L25	10/25/18 1912
AZ81638	ERH684	1025L26	10/25/18 1940
AZ81640	ERH683	1025L27	10/25/18 2008
AZ81642	ERH694	1025L28	10/25/18 2036
AZ81644	ERH692	1025L29	10/25/18 2104

Comments: Batch: #GRO86-181025AL

Printed: 10/26/18 8:24:12 AM  
Form 4, LCS Summary

**Laboratory Control Spike Recoveries**  
**EPA 8260B GRO WATER**

APPL ID: 181025W-81636 LCS - 234590  
 Batch ID: #GRO86-181025AL

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
GASOLINE RANGE ORGANICS	300	297	299	99.0	99.7	78-122	0.67	20
SURROGATE: 4-BROMOFLUOROBENZE	25.0	25.8	24.6	103	98.4	85-114		

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	LGAS915.M	LGAS915.M
Extraction Date :	10/25/18	10/25/18
Analysis Date :	10/25/18	10/25/18
Instrument :	Loki	Loki
Run :	1025L17	1025L18
Initials :	SV	

# RSK 175

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Rocky

Blank ID: 181029A-BLK

Time Analyzed: 1134

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181029A-LCS	Lab Control Spike	18102910	10/29/18 1129
181029A-LCSD	Lab Control Spiked	18102911	10/29/18 1132
181029A-BLK	Blank	18102912	10/29/18 1134
AZ81636	ERH690	18102924	10/29/18 1350
AZ81637	ERH689	18102925	10/29/18 1352
AZ81639	ERH682	18102926	10/29/18 1354
AZ81640	ERH683	18102927	10/29/18 1356
AZ81640	ERH683	18102928	10/29/18 1400
AZ81641	ERH693	18102929	10/29/18 1402
AZ81642	ERH694	18102930	10/29/18 1404
AZ81643	ERH691	18102931	10/29/18 1406
AZ81644	ERH692	18102932	10/29/18 1408

Comments: Batch: #RSKME-181029A

Printed: 10/30/18 11:39:26 AM  
Form 4, Blank Summary

Method Blank  
METHANE

Blank Name/QCG: 181029W-81583 - 234668  
Batch ID: #RSKME-181029A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method:RSK1029.M  
Run #:18102912  
Instrument:Rocky  
Sequence:181029  
Initials:CMO

GC SC-Blank-REG MDLs-DOD  
Printed: 10/30/18 11:39:36 AM

# RSK 175

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Rocky

LCS ID: 181029A-LCS

Time Analyzed: 1129

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181029A-LCS	Lab Control Spike	18102910	10/29/18 1129
181029A-LCSD	Lab Control Spiked	18102911	10/29/18 1132
181029A-BLK	Blank	18102912	10/29/18 1134
AZ81636	ERH690	18102924	10/29/18 1350
AZ81637	ERH689	18102925	10/29/18 1352
AZ81639	ERH682	18102926	10/29/18 1354
AZ81640	ERH683	18102927	10/29/18 1356
AZ81640	ERH683	18102928	10/29/18 1400
AZ81641	ERH693	18102929	10/29/18 1402
AZ81642	ERH694	18102930	10/29/18 1404
AZ81643	ERH691	18102931	10/29/18 1406
AZ81644	ERH692	18102932	10/29/18 1408

Comments: Batch: #RSKME-181029A

Printed: 10/30/18 11:39:23 AM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## METHANE

APPL ID: 181029W-81583 LCS - 234668

Batch ID: #RSKME-181029A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
METHANE	83.4	73.5	97.4	88.1	117	72-125	28.0	30

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	RSK1029.M	RSK1029.M
Extraction Date :	10/29/18	10/29/18
Analysis Date :	10/29/18	10/29/18
Instrument :	Rocky	Rocky
Run :	18102910	18102911
Initials :	CMO	

# EPA 300.0

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/24/18

Matrix: WATER

Instrument: Charlie

Blank ID: 181024A-BLK

Time Analyzed: 1306

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ81640	ERH683	10	10/24/18 1208
AZ81642	ERH694	11	10/24/18 1215
AZ81644	ERH692	12	10/24/18 1221
AZ81636	ERH690	15	10/24/18 1240
AZ81642	ERH694	16	10/24/18 1247
AZ81644	ERH692	17	10/24/18 1253
181024A-BLK	Blank	19	10/24/18 1306
AZ81642	ERH694	20	10/24/18 1323
AZ81644	ERH692	21	10/24/18 1330
181024A-LCS	Lab Control Spike	22	10/24/18 1336
181024A-LCSD	Lab Control SpikeD	23	10/24/18 1342
AZ81636	ERH690	9	10/24/18 1202

Comments: Batch: #300W-181024A

Printed: 11/09/18 10:17:43 AM  
Form 4, Blank Summary



# WETLAB BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	10/24/18	10/24/18	#300W-181024A-AZ81640
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	10/24/18	10/24/18	#300W-181024A-AZ81640
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	10/24/18	10/24/18	#300W-181024A-AZ81640

Wetlab SC-Blank-REG MDLs  
Printed: 11/09/18 10:17:46 AM

# EPA 353.2

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: EVE

Blank ID: A181030-BLK

Time Analyzed: 1441

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
A181030-BLK	Blank	12	10/30/18 1441
A181030-LCS	Lab Control Spike	13	10/30/18 1443
A181030-LCSD	Lab Control SpikeD	14	10/30/18 1445
AZ81636	ERH690	19	10/30/18 1457
AZ81640	ERH683	20	10/30/18 1459
AZ81642	ERH694	21	10/30/18 1502
AZ81644	ERH692	24	10/30/18 1507

Comments: Batch: #35OF-A181030

# WETLAB BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 353.2	NITRATE-NITRITE-N	0.100 U	0.10	0.100	0.028	mg/L	10/30/18	10/30/18	#35OF-A181030-AZ81584

# SM3500FeB

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/24/18

Matrix: WATER

Instrument: Manual Spec

Blank ID: 181024A-BLK

Time Analyzed: 1138

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181024A-BLK	Blank	10	10/24/18 1138
181024A-LCS	Lab Control Spike	11	10/24/18 1138
AZ81640	ERH683	12	10/24/18 1139
181024A-LCSD	Lab Control SpikeD	13	10/24/18 1139
AZ81644	ERH692	14	10/24/18 1140
AZ81636	ERH690	15	10/24/18 1140
AZ81642	ERH694	16	10/24/18 1141

Comments: Batch: #35FE-181024A

Printed: 11/09/18 10:17:43 AM  
Form 4, Blank Summary

# WETLAB BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SM3500Fe	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	10/24/18	10/24/18	#35FE-181024A-AZ81640

Wetlab SC-Blank-REG MDLs  
Printed: 11/09/18 10:17:46 AM

# SM 2320B

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Tiamo

Blank ID: 181029A1-BLK

Time Analyzed: 1329

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181029A1-LCS	Lab Control Spike	1	10/29/18 1032
AZ81636	ERH690	15	10/29/18 1235
AZ81640	ERH683	16	10/29/18 1241
AZ81642	ERH694	17	10/29/18 1251
AZ81644	ERH692	18	10/29/18 1258
181029A1-LCSD	Lab Control SpikeD	2	10/29/18 1042
181029A1-BLK	Blank	22	10/29/18 1329

Comments: Batch: #232W-181029A1

Printed: 11/09/18 10:17:43 AM  
Form 4, Blank Summary

# WETLAB BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SM 2320B	BICARBONATE AS CA	2.2	2.0	1.70	0.85	mg/L	10/29/18	10/29/18	#232W-181029A1-AZ81584
SM 2320B	CARBONATE AS CACO	1.70 U	2.0	1.70	0.85	mg/L	10/29/18	10/29/18	#232W-181029A1-AZ81584
SM 2320B	TOTAL ALKALINITY AS	2.2	2.0	1.70	0.85	mg/L	10/29/18	10/29/18	#232W-181029A1-AZ81584

Wetlab SC-Blank-REG MDLs  
Printed: 11/09/18 10:17:46 AM

# EPA 300.0

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/24/18

Matrix: WATER

Instrument: Charlie

LCS ID: 181024A-LCS

Time Analyzed: 1336

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
AZ81640	ERH683	10	10/24/18 1208
AZ81642	ERH694	11	10/24/18 1215
AZ81644	ERH692	12	10/24/18 1221
AZ81636	ERH690	15	10/24/18 1240
AZ81642	ERH694	16	10/24/18 1247
AZ81644	ERH692	17	10/24/18 1253
181024A-BLK	Blank	19	10/24/18 1306
AZ81642	ERH694	20	10/24/18 1323
AZ81644	ERH692	21	10/24/18 1330
181024A-LCS	Lab Control Spike	22	10/24/18 1336
181024A-LCSD	Lab Control SpikeD	23	10/24/18 1342
AZ81636	ERH690	9	10/24/18 1202

Comments: Batch: #300W-181024A



# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 300.0	CHLORIDE	20	17.9	17.9	89.5	89.5	0.0	20	90-110	10/24/18	10/24/18	10/24/18	10/24/18	#300W-181024A-AZ81640
EPA 300.0	NITRATE	22.1	21.4	21.5	96.8	97.3	0.47	20	90-110	10/24/18	10/24/18	10/24/18	10/24/18	#300W-181024A-AZ81640
EPA 300.0	SULFATE	20.0	18.4	18.4	92.0	92.0	0.0	20	90-110	10/24/18	10/24/18	10/24/18	10/24/18	#300W-181024A-AZ81640

Comments: \_\_\_\_\_

# EPA 353.2

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: EVE

LCS ID: A181030-LCS

Time Analyzed: 1443

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
A181030-BLK	Blank	12	10/30/18 1441
A181030-LCS	Lab Control Spike	13	10/30/18 1443
A181030-LCSD	Lab Control SpikeD	14	10/30/18 1445
AZ81636	ERH690	19	10/30/18 1457
AZ81640	ERH683	20	10/30/18 1459
AZ81642	ERH694	21	10/30/18 1502
AZ81644	ERH692	24	10/30/18 1507

Comments: Batch: #35OF-A181030

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 353.2	NITRATE-NITRITE-N	3.00	2.98	2.96	99.3	98.7	0.67	20	90-110	10/30/18	10/30/18	10/30/18	10/30/18	#35OF-A181030-AZ81584

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

# SM 2320B

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87212

Case No: 87212

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Tiamo

LCS ID: 181029A1-LCS

Time Analyzed: 1032

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181029A1-LCS	Lab Control Spike	1	10/29/18 1032
AZ81636	ERH690	15	10/29/18 1235
AZ81640	ERH683	16	10/29/18 1241
AZ81642	ERH694	17	10/29/18 1251
AZ81644	ERH692	18	10/29/18 1258
181029A1-LCSD	Lab Control SpikeD	2	10/29/18 1042
181029A1-BLK	Blank	22	10/29/18 1329

Comments: Batch: #232W-181029A1

Printed: 11/09/18 10:17:50 AM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
SM 2320B	BICARBONATE AS CaCO3	250	235	232	94.0	92.8	1.3	20	90-110	10/29/18	10/29/18	10/29/18	10/29/18	#232W-181029A1-AZ8158
SM 2320B	TOTAL ALKALINITY AS CA	250	235	232	94.0	92.8	1.3	20	90-110	10/29/18	10/29/18	10/29/18	10/29/18	#232W-181029A1-AZ8158

Comments:

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# SM3500FeB

Form 4

## LCS Summary

Lab Name: APPL, Inc.  
Case No: 87212  
Matrix: WATER  
LCS ID: 181024A-LCS

SDG No: 87212  
Date Analyzed: 10/24/18  
Instrument: Manual Spec  
Time Analyzed: 1138

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181024A-BLK	Blank	10	10/24/18 1138
181024A-LCS	Lab Control Spike	11	10/24/18 1138
AZ81640	ERH683	12	10/24/18 1139
181024A-LCSD	Lab Control SpikeD	13	10/24/18 1139
AZ81644	ERH692	14	10/24/18 1140
AZ81636	ERH690	15	10/24/18 1140
AZ81642	ERH694	16	10/24/18 1141

Comments: Batch: #35FE-181024A

Printed: 11/09/18 10:17:50 AM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
SM3500Fe	FERROUS IRON	3.00	3.23	3.17	108	106	1.9	20	80-120	10/24/18	10/24/18	10/24/18	10/24/18	#35FE-181024A-AZ81640

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**ORGANICS  
Calibration Data**

**APPL, INC.**



TPH Extractables  
DOC0905

Form 6  
Initial Calibration

Lab Name: APPL, Inc. \_\_\_\_\_

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Initial Cal. Date: 09/05/18 \_\_\_\_\_

Matrix: \_\_\_\_\_

Instrument: Apollo \_\_\_\_\_

Initials: \_\_\_\_\_

Diesel: 905003.D 905004.D 905005.D 905008.D 905007.D 905008.D  
 Motor Oil: 905010.D 905011.D 905012.D 905013.D 905014.D 905015.D  
 Decanoic Acid: 814017.D 814018.D 814019.D 814020.D 814021.D 814022.D

	Compound	1	2	3	4	5	6					Avg	%RSD	Type	r <sup>2</sup>	Q
1	HATM Diesel (C10-C24)	1977954	1585759	1547772	1602850	1558536	1558715					1638598	10	HATM		
2	HBTM Motor Oil (C24-C40)	1632679	1442329	1281707	1335557	1305155	1329878					1387884	9.5	HBTM		
3	SC Decanoic Acid(S)	648675	1095549	1090928	1053315	1004335	1065935					993123	17	SC		
4	SA Ortho-Terphenyl(S)	2367841	1987512	1916740	1891892	1734307	1719637					1936322	12	SA		
5	SA Octacosane(S)	1652614	1674318	1605080	1646548	1560961	1550101					1614937	3.2	SA		
6																
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34																
35																

1.497611

Data File : G:\APOLLO\DATA\180814\814017.D Vial: 17  
 Acq On : 8-14-18 16:56:27 Operator: DP  
 Sample : Decanoic Acid - 1 8/13/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 11:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

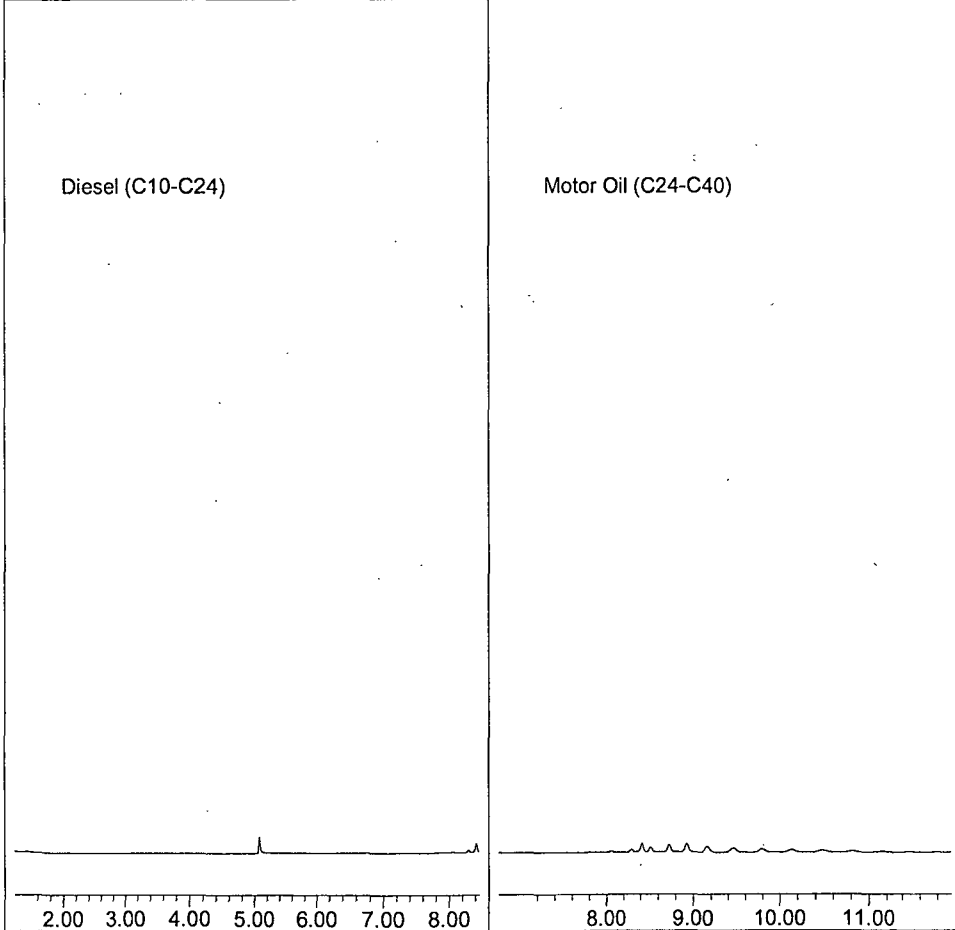
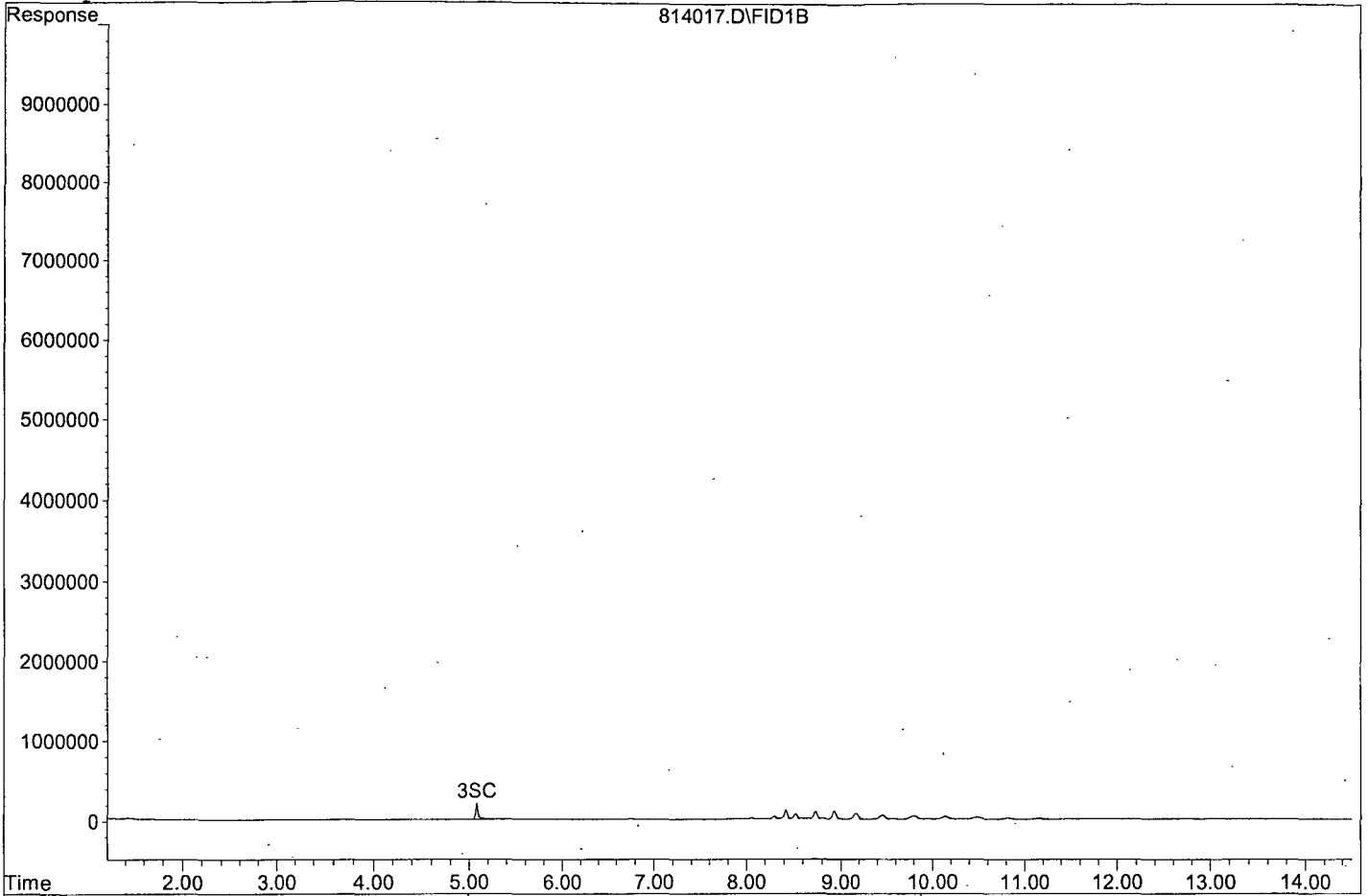
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.08f	3892047	1.959 ppb
Surrogate Spike 24.000	Recovery	=	8.16%
Target Compounds			

Quantitation Report

Data File: G:\APOLLO\DATA\180814\814017.D

Sample : Decanoic Acid - 1 8/13/18



Data File : G:\APOLLO\DATA\180814\814018.D Vial: 18  
 Acq On : 8-14-18 17:15:48 Operator: DP  
 Sample : Decanoic Acid - 2 8/13/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 11:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

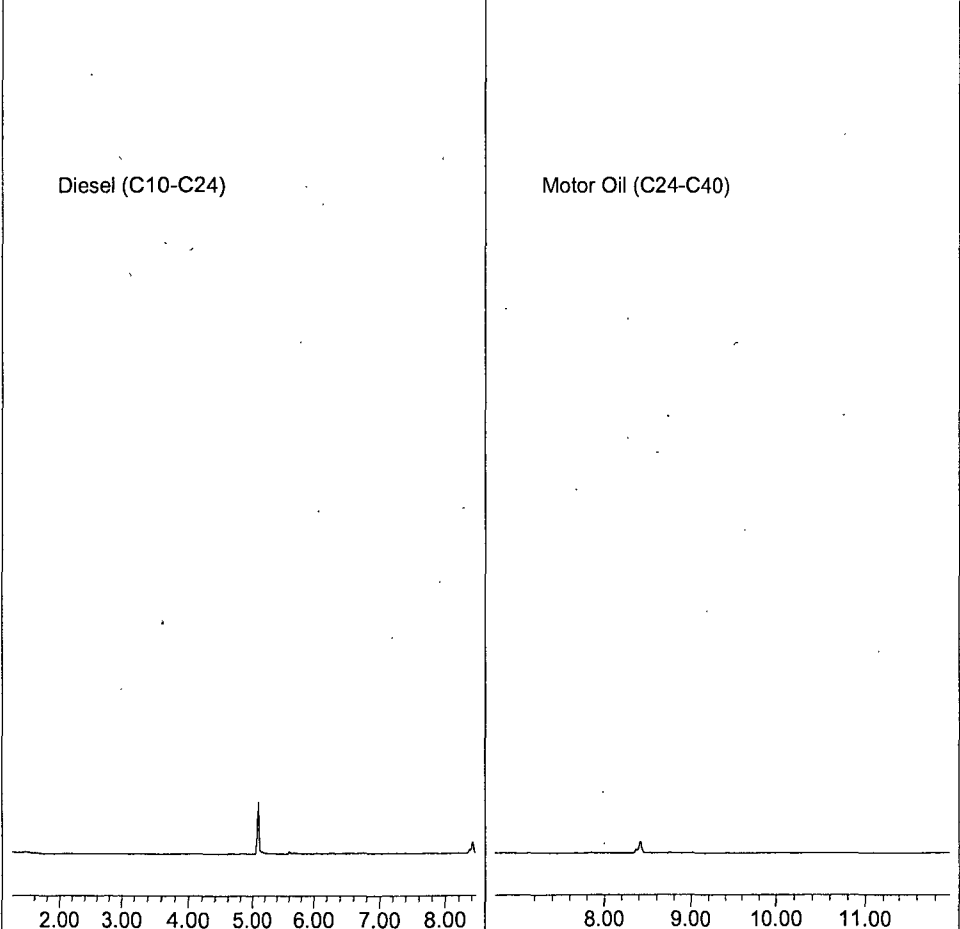
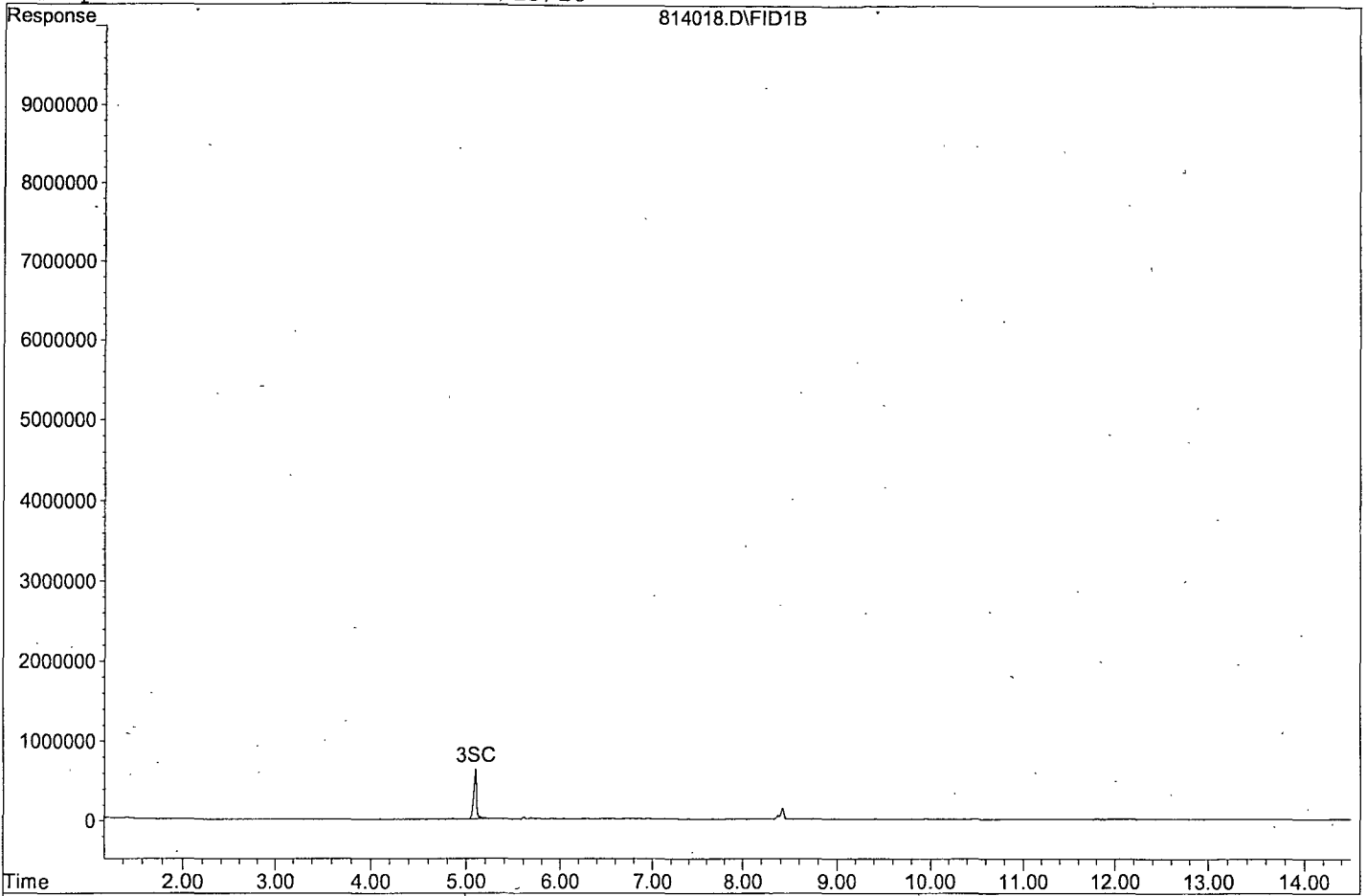
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.10	13146585	6.619 ppb
Surrogate Spike 24.000		Recovery =	27.58%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\180814\814018.D

Sample : Decanoic Acid - 2 8/13/18



Data File : G:\APOLLO\DATA\180814\814019.D Vial: 19  
 Acq On : 8-14-18 17:35:59 Operator: DP  
 Sample : Decanoic Acid - 3 8/13/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 11:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

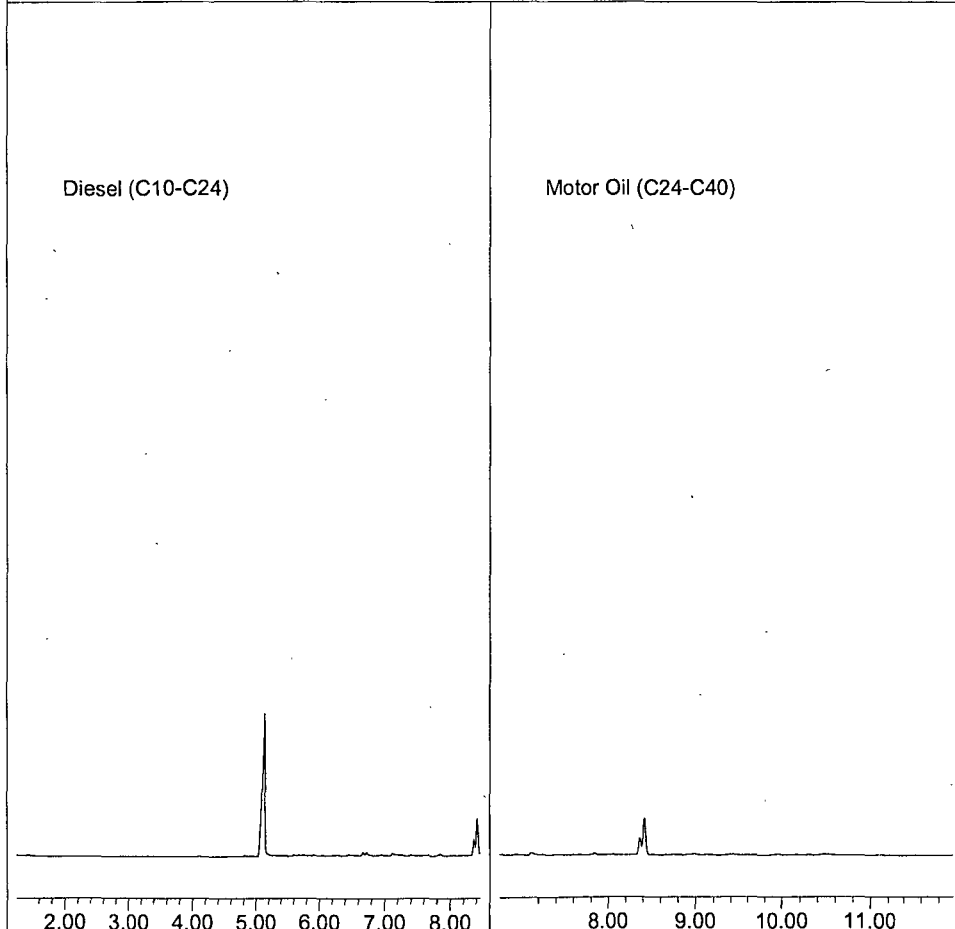
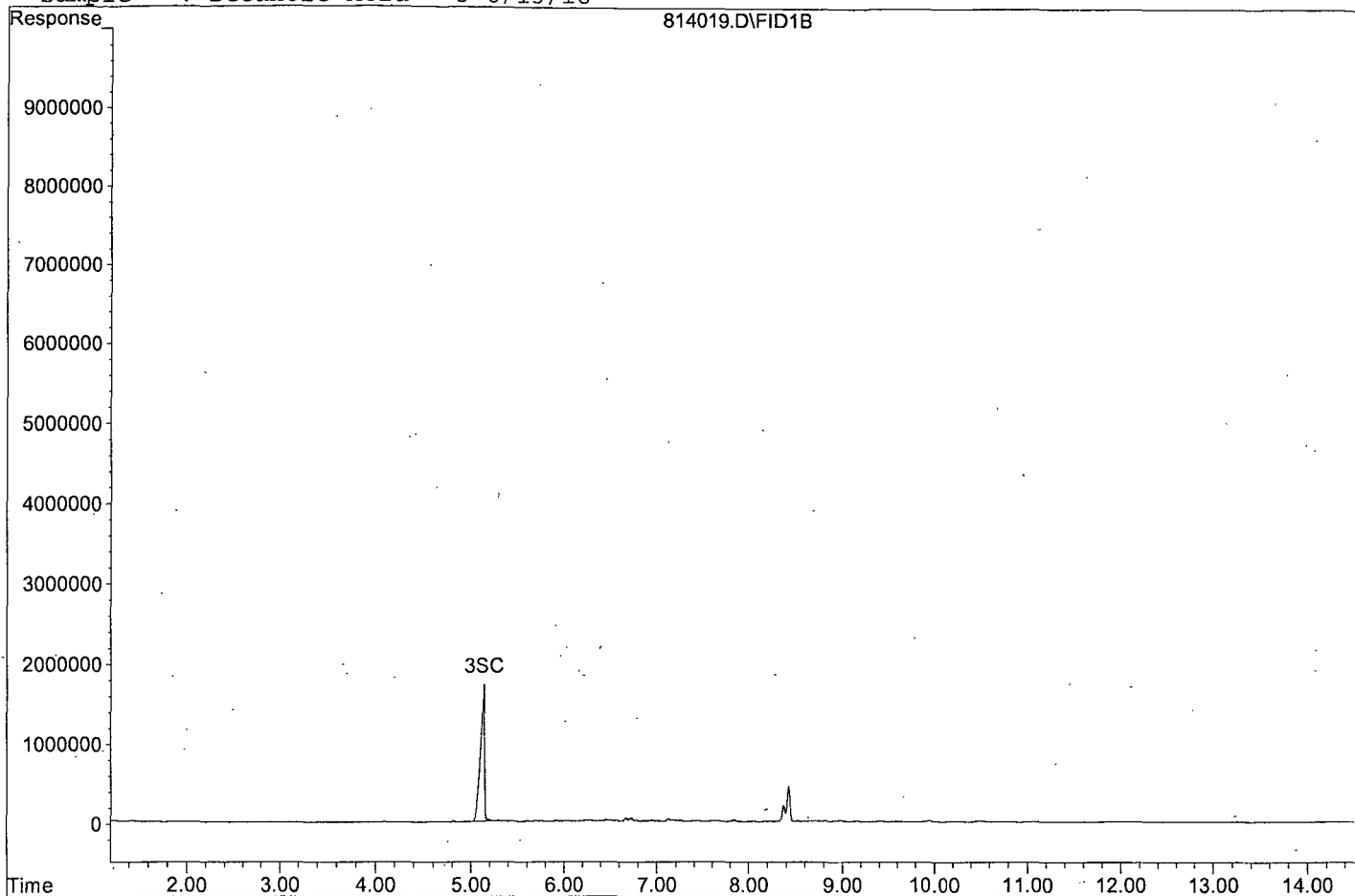
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.14	52364534	26.364 ppb
Surrogate Spike 24.000		Recovery =	109.85%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\180814\814019.D

Sample : Decanoic Acid - 3 8/13/18



Data File : G:\APOLLO\DATA\180814\814020.D Vial: 20  
 Acq On : 8-14-18 17:56:16 Operator: DP  
 Sample : Decanoic Acid - 4 8/13/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 11:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

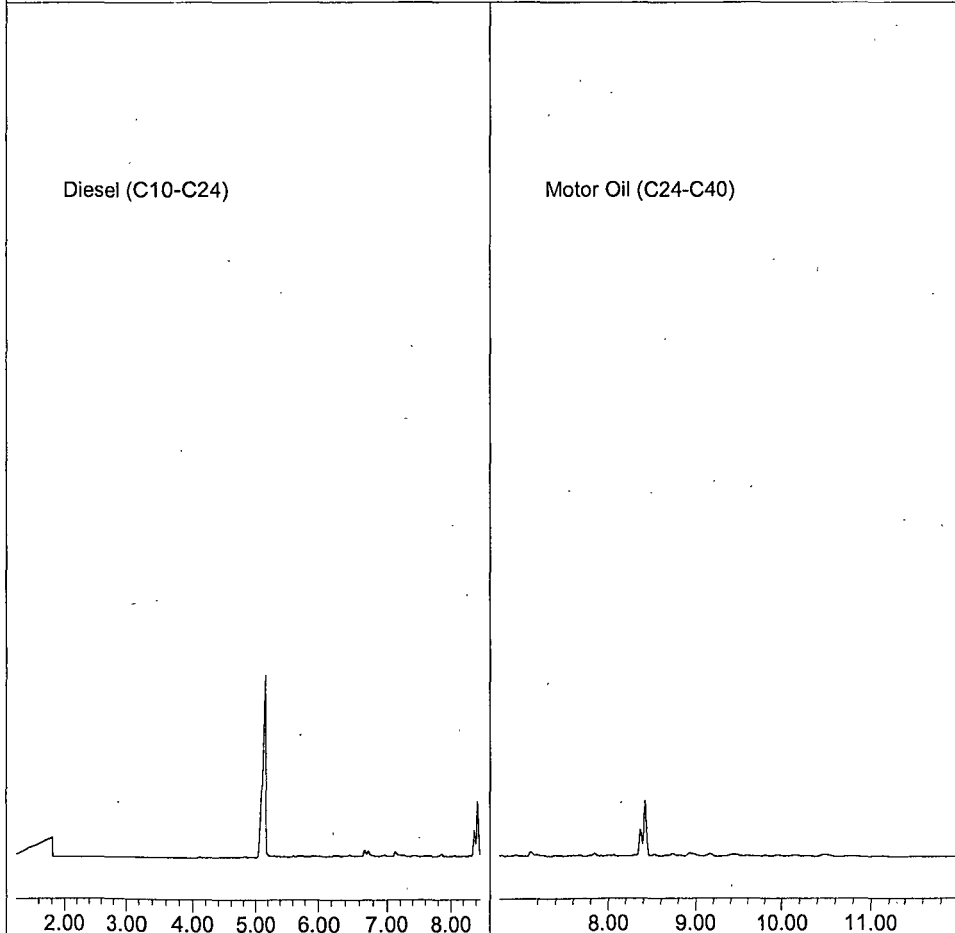
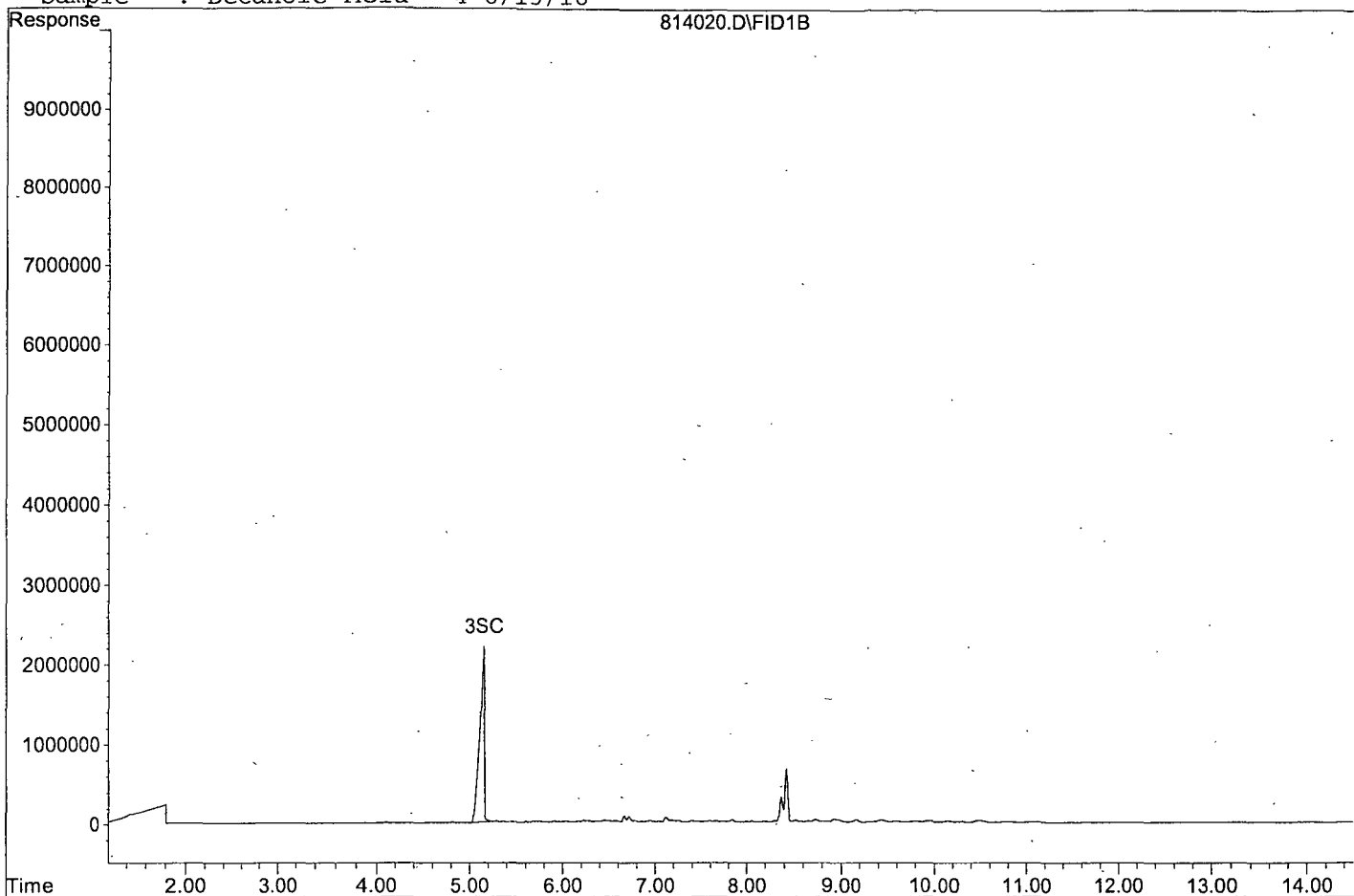
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.15	75838654	38.182 ppb
Surrogate Spike 24.000		Recovery =	159.09%
Target Compounds			



Quantitation Report

Data File: G:\APOLLO\DATA\180814\814020.D

Sample : Decanoic Acid - 4 8/13/18



Data File : G:\APOLLO\DATA\180814\814021.D Vial: 21  
 Acq On : 8-14-18 18:16:22 Operator: DP  
 Sample : Decanoic Acid - 5 8/13/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 11:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

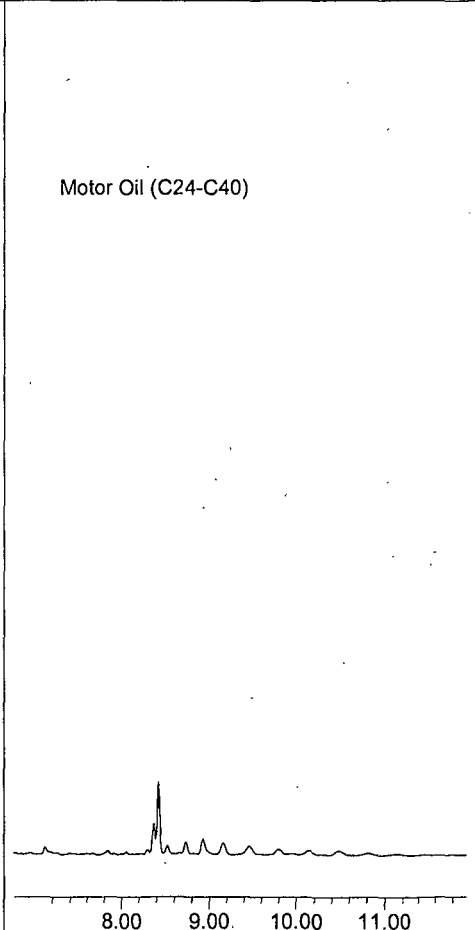
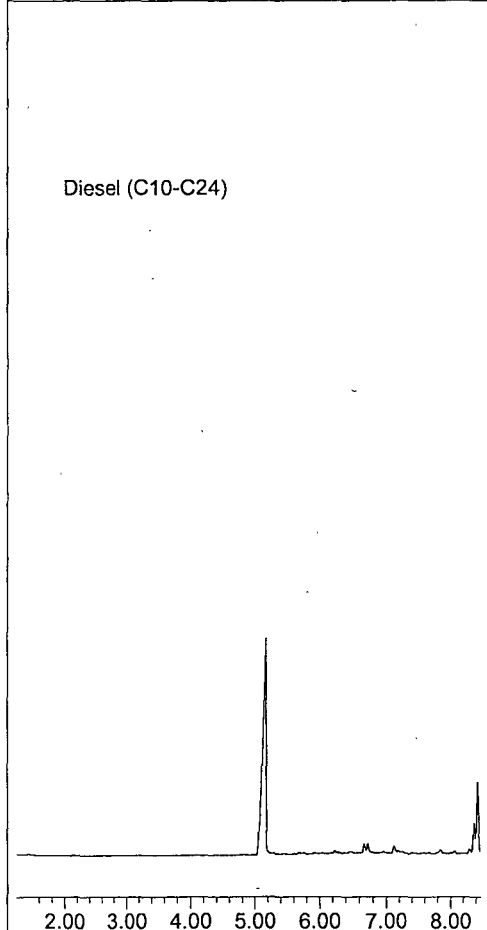
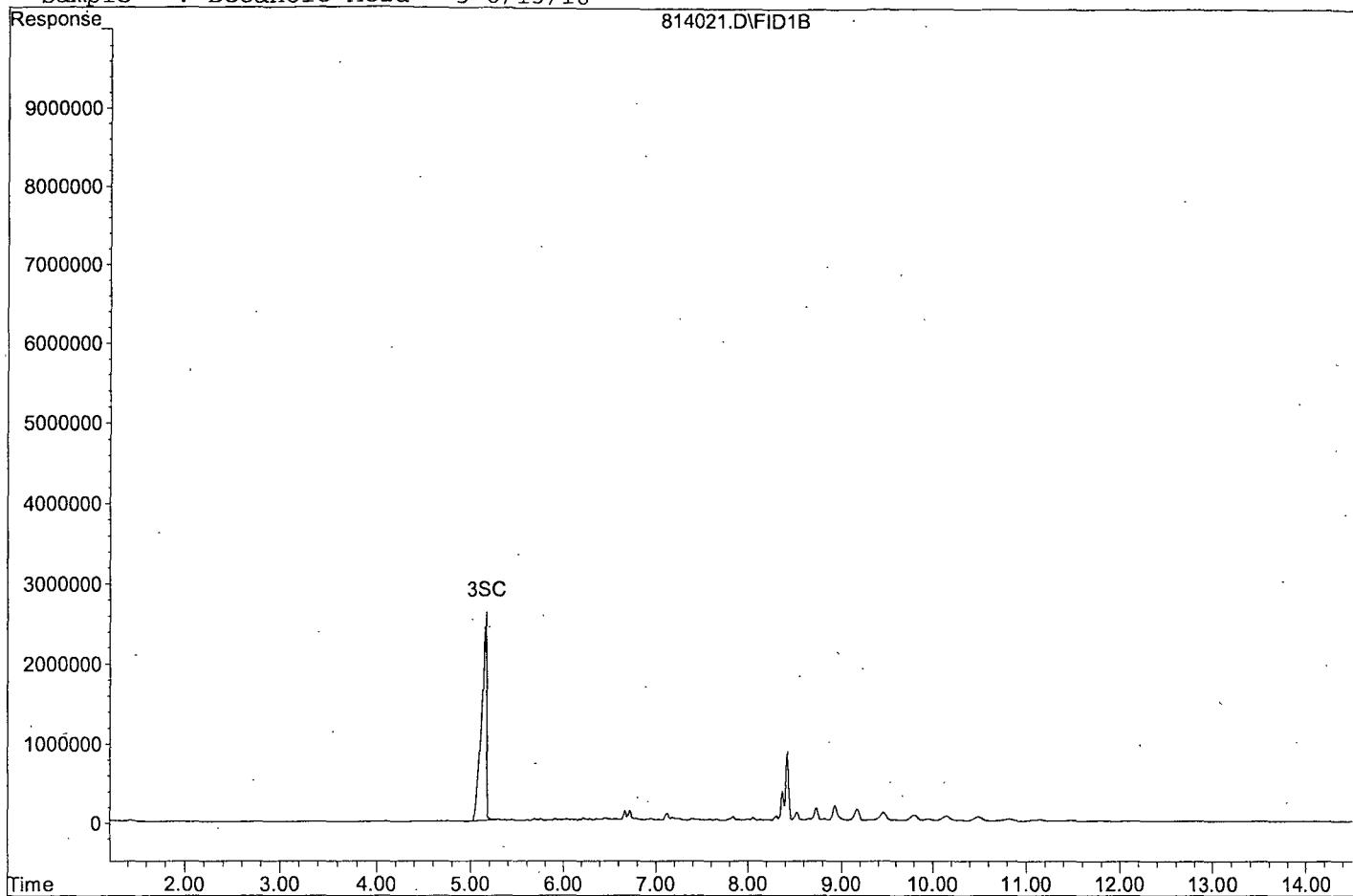
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.17	96416189	48.542 ppb
Surrogate Spike 24.000		Recovery =	202.26%
Target Compounds			

Quantitation Report

Data File: G:\APOLLO\DATA\180814\814021.D

Sample : Decanoic Acid - 5 8/13/18



Data File : G:\APOLLO\DATA\180814\814022.D Vial: 22  
 Acq On : 8-14-18 18:36:30 Operator: DP  
 Sample : Decanoic Acid - 6 8/13/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 11:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

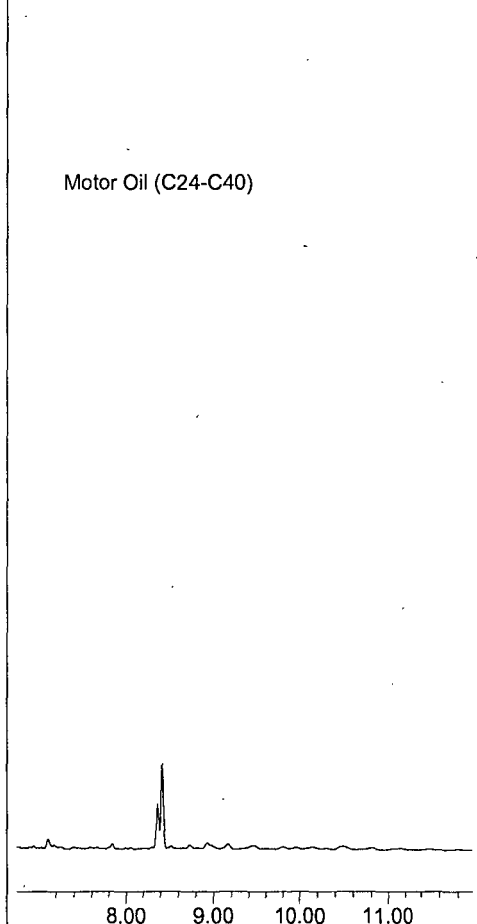
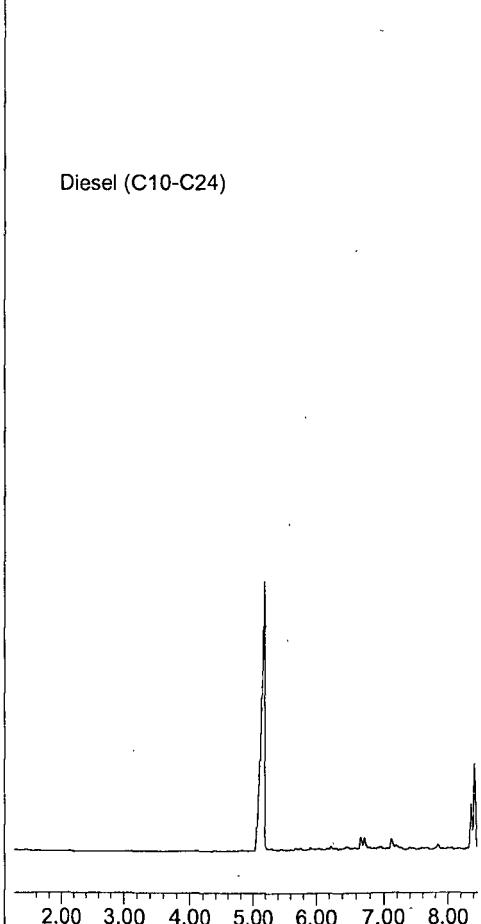
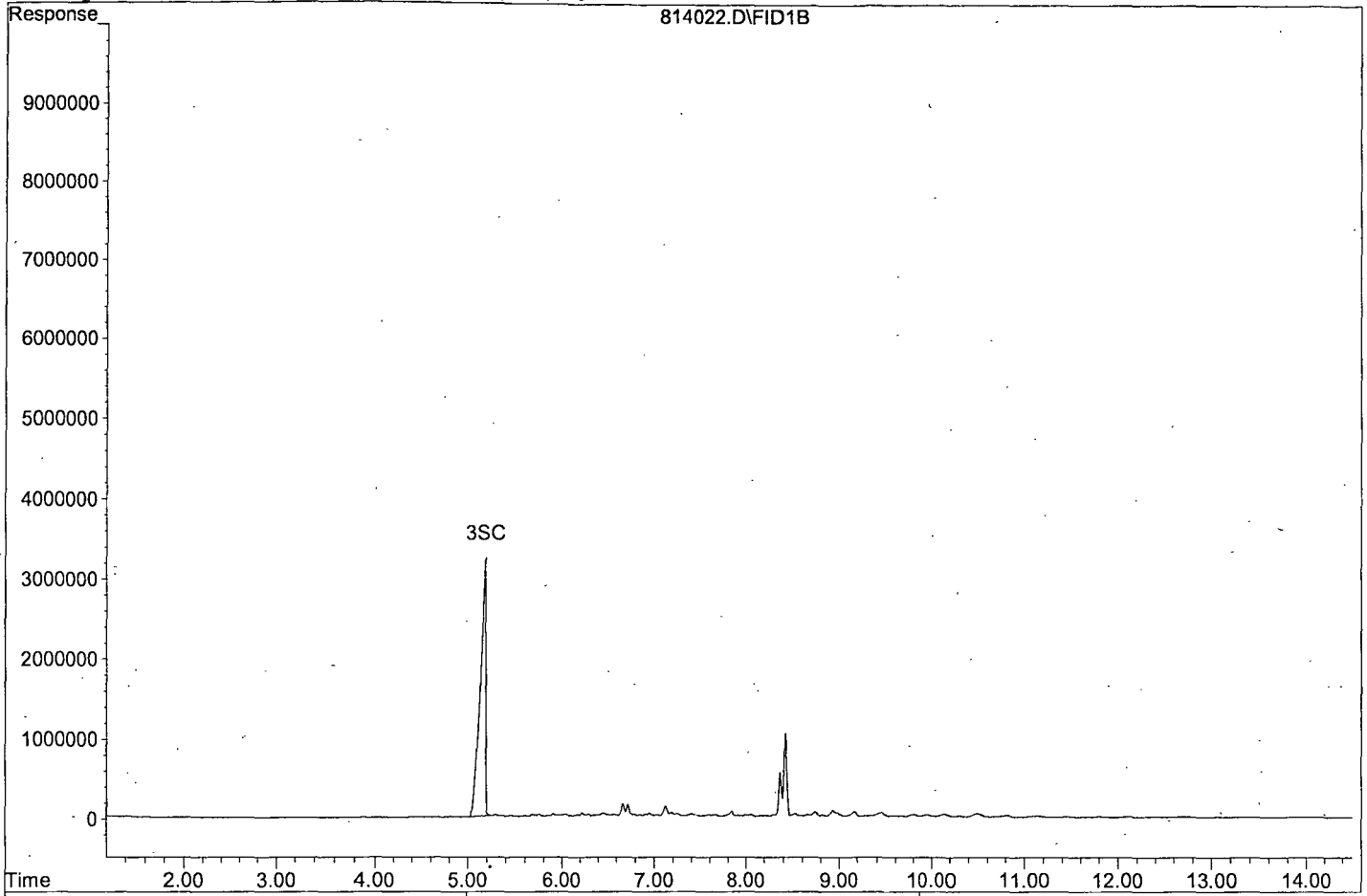
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.18	127912154	64.399 ppb
Surrogate Spike 24.000		Recovery =	268.33%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\180814\814022.D

Sample : Decanoic Acid - 6 8/13/18



Data File : G:\APOLLO\DATA\180905\905003.D Vial: 3  
 Acq On : 9-5-18 13:32:12 Operator: DP  
 Sample : Diesel - 1 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

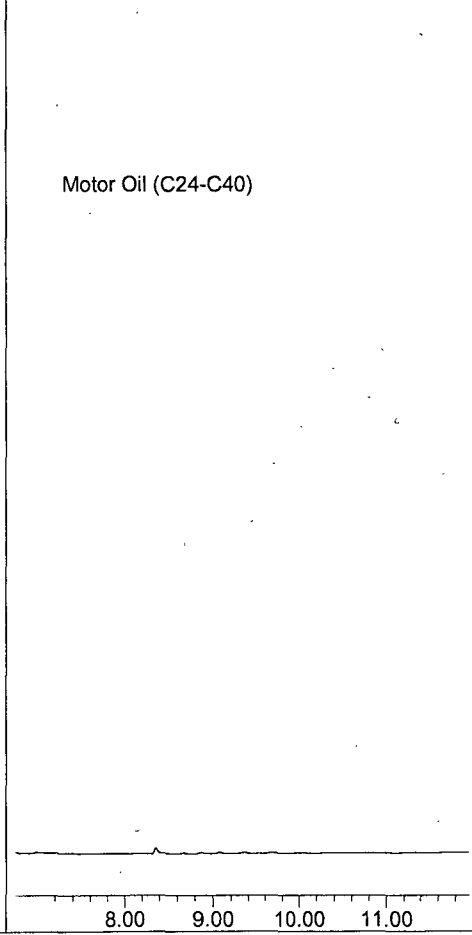
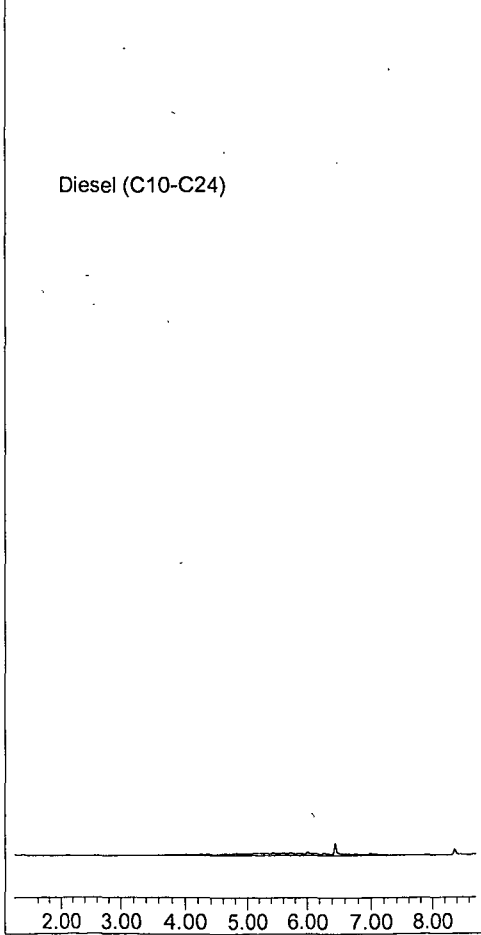
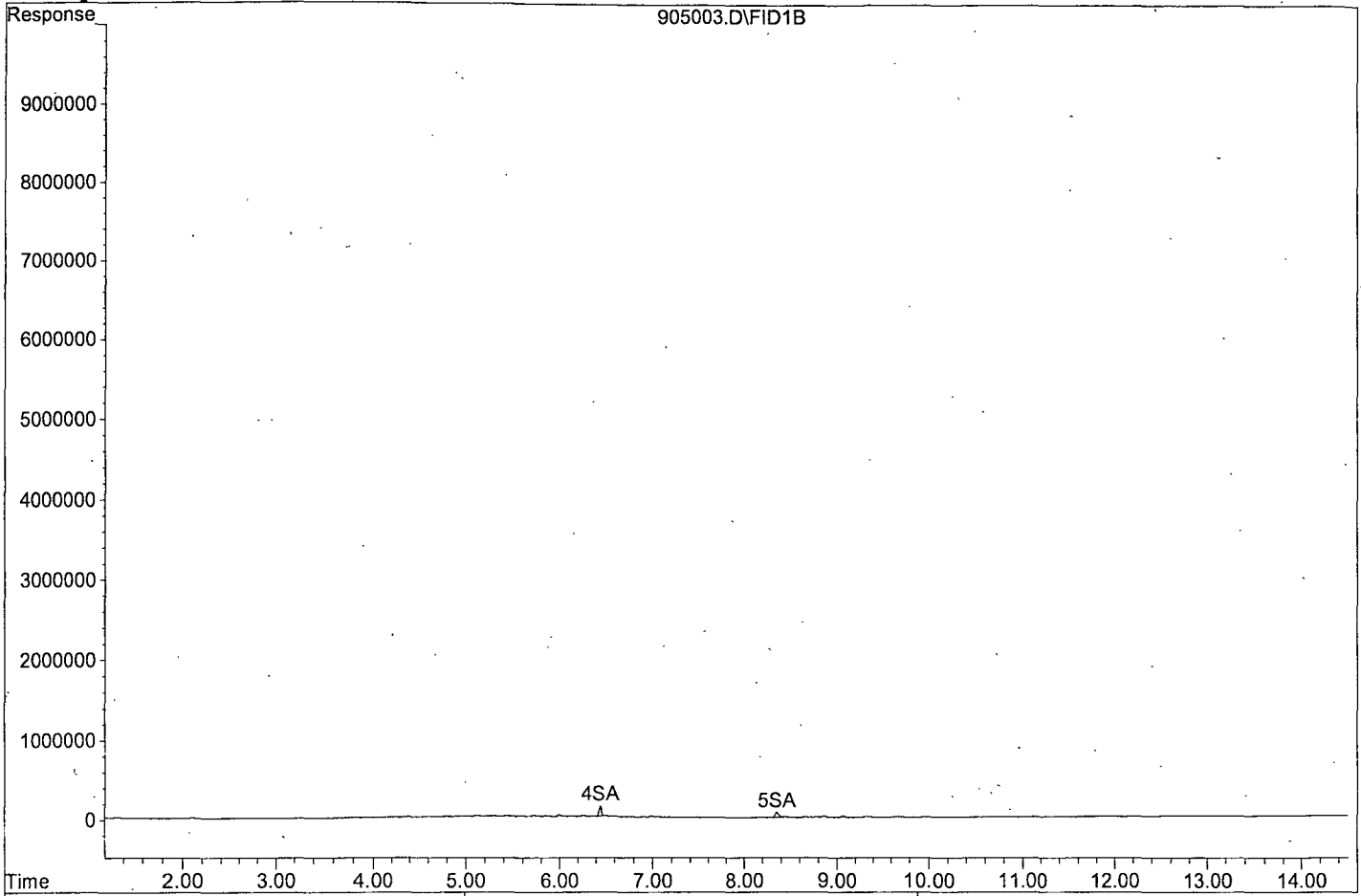
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	2367841	0.611 ppb
Surrogate Spike 30.000		Recovery =	2.04%
5) SA Octacosane(S)	8.35	1652614	0.512 ppb
Surrogate Spike 30.000		Recovery =	1.71%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	39559086	12.071 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905003.D

Sample : Diesel - 1 9/5/18



Data File : G:\APOLLO\DATA\180905\905004.D Vial: 4  
 Acq On : 9-5-18 13:51:56 Operator: DP  
 Sample : Diesel - 2 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

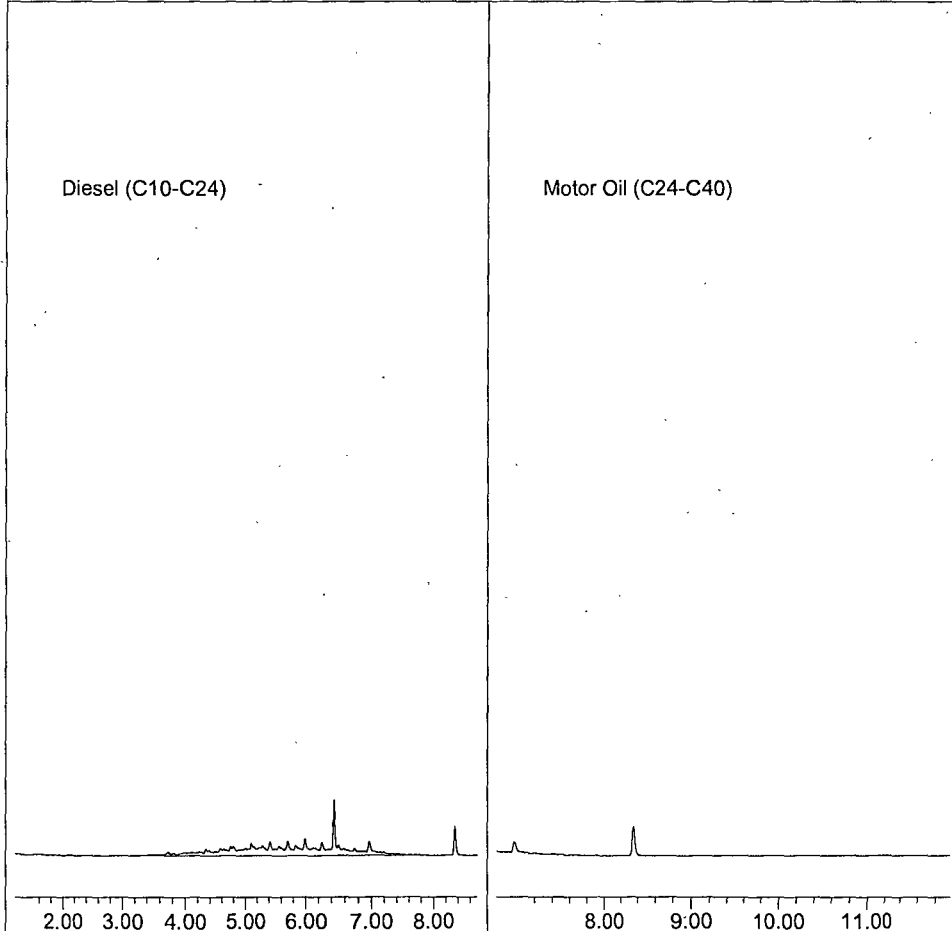
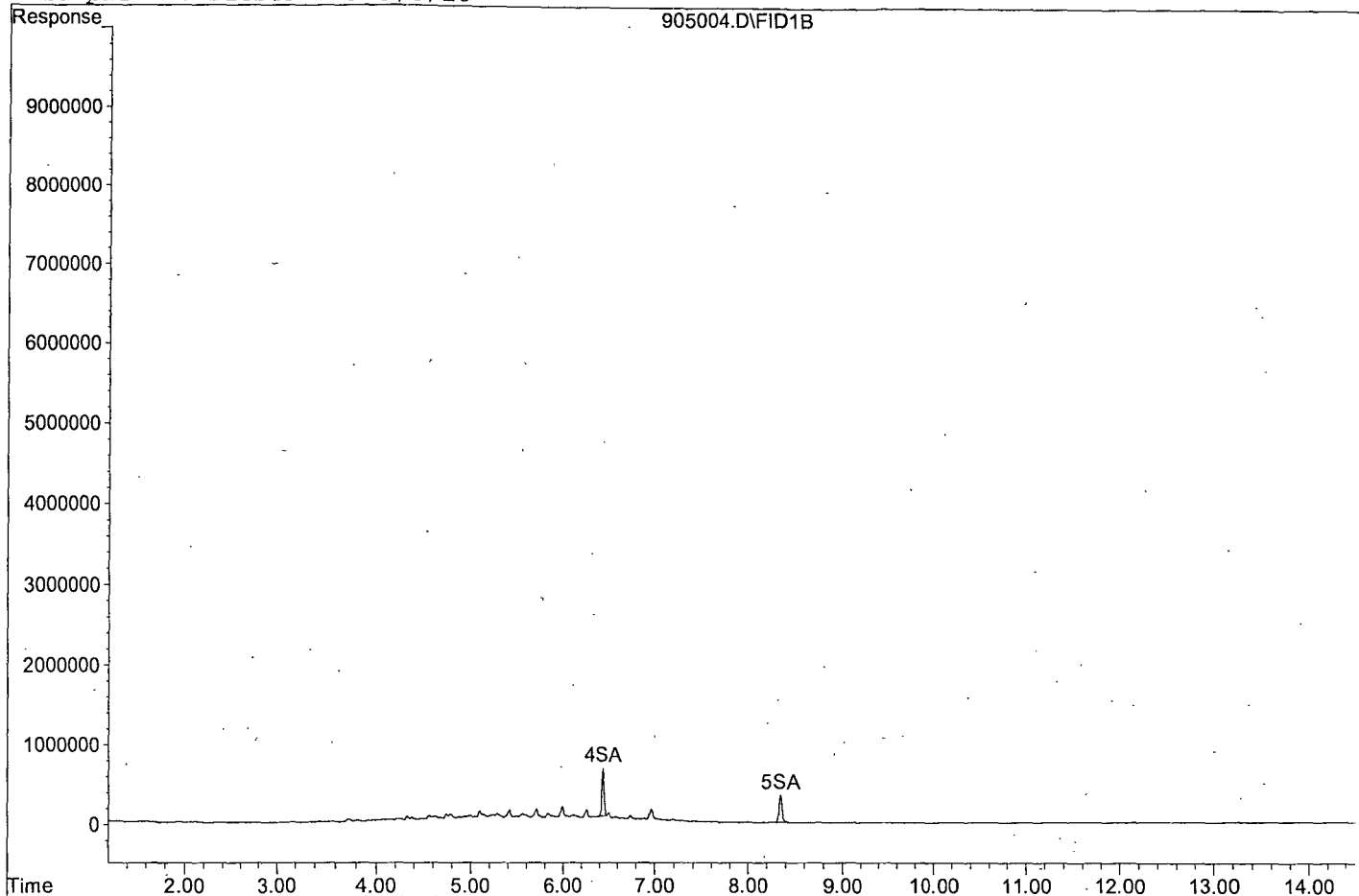
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	9937558	2.566 ppb
Surrogate Spike 30.000		Recovery =	8.55%
5) SA Octacosane(S)	8.35	8371591	2.592 ppb
Surrogate Spike 30.000		Recovery =	8.64%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	158575904	48.388 ppb



Quantitation Report

Data File: G:\APOLLO\DATA\180905\905004.D

Sample : Diesel - 2 9/5/18



Data File : G:\APOLLO\DATA\180905\905005.D Vial: 5  
 Acq On : 9-5-18 14:11:55 Operator: DP  
 Sample : Diesel - 3 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

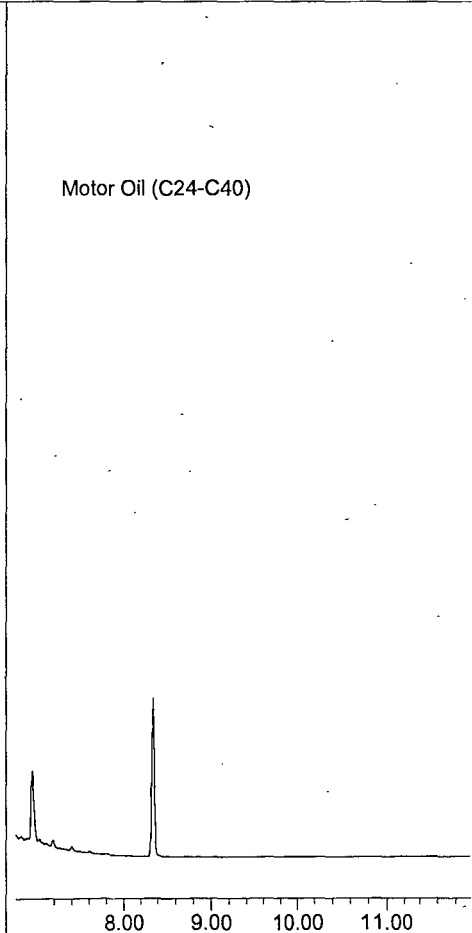
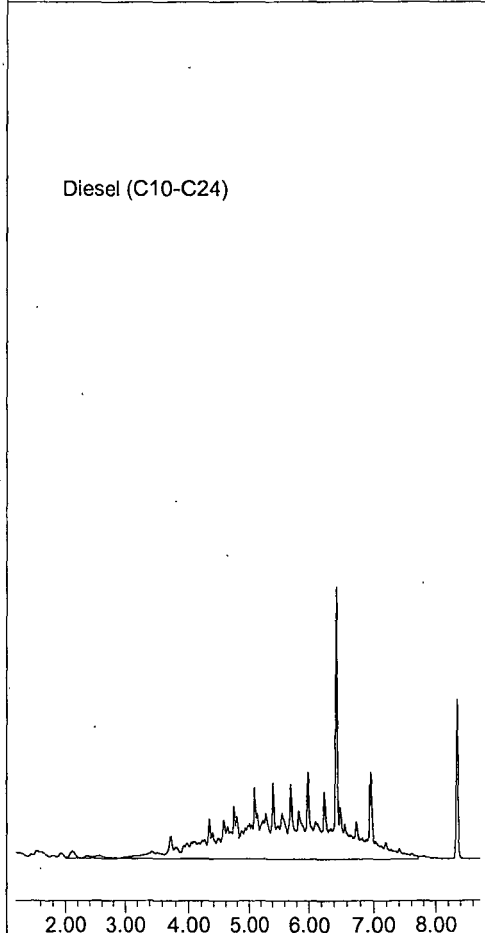
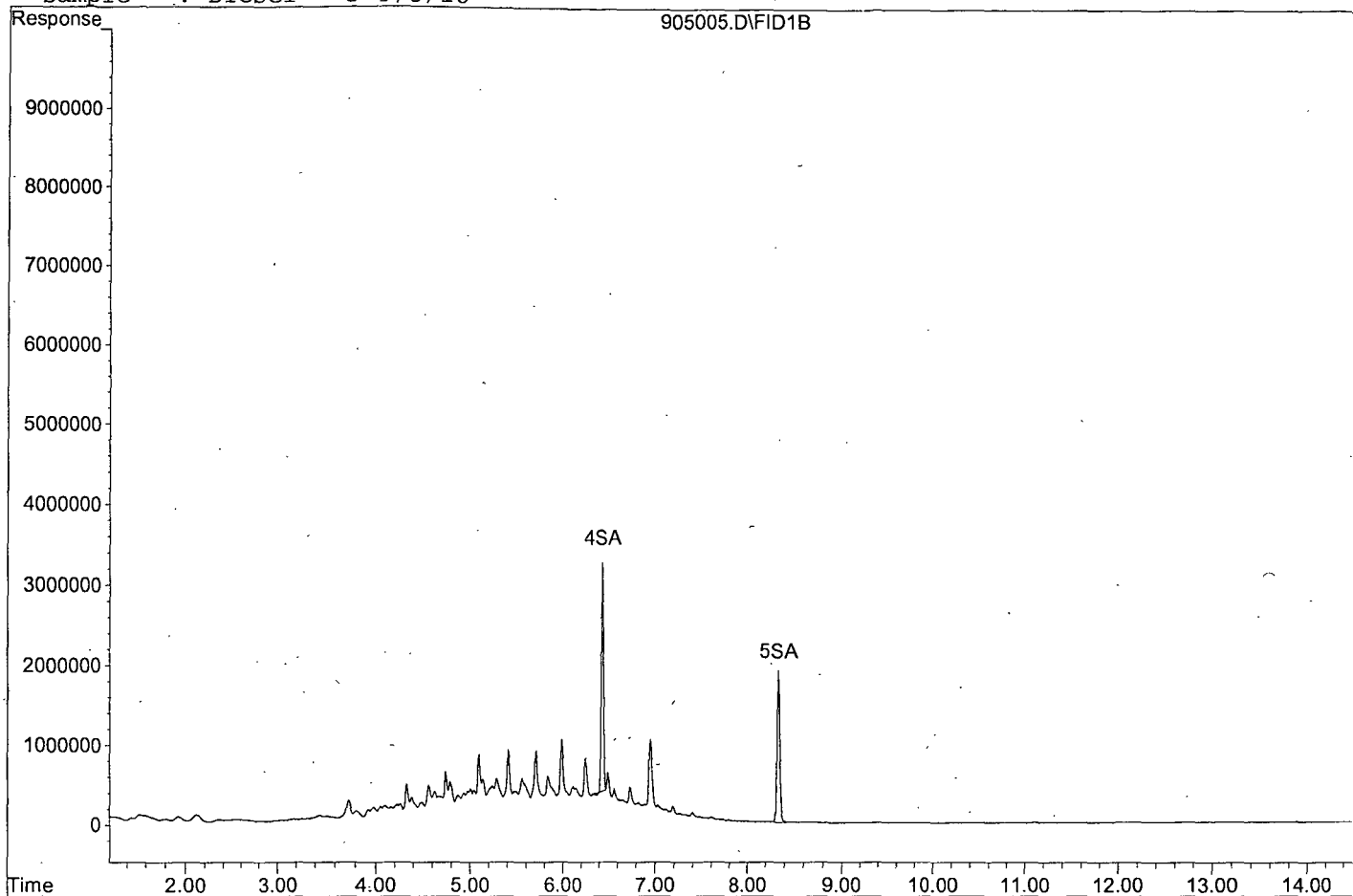
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl (S)	6.44	47918495	12.374 ppb
Surrogate Spike 30.000		Recovery =	41.25%
5) SA Octacosane(S)	8.34	40127010	12.424 ppb
Surrogate Spike 30.000		Recovery =	41.41%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	773886098	236.143 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905005.D

Sample : Diesel - 3 9/5/18



Data File : G:\APOLLO\DATA\180905\905006.D Vial: 6  
 Acq On : 9-5-18 14:31:55 Operator: DP  
 Sample : Diesel - 4 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

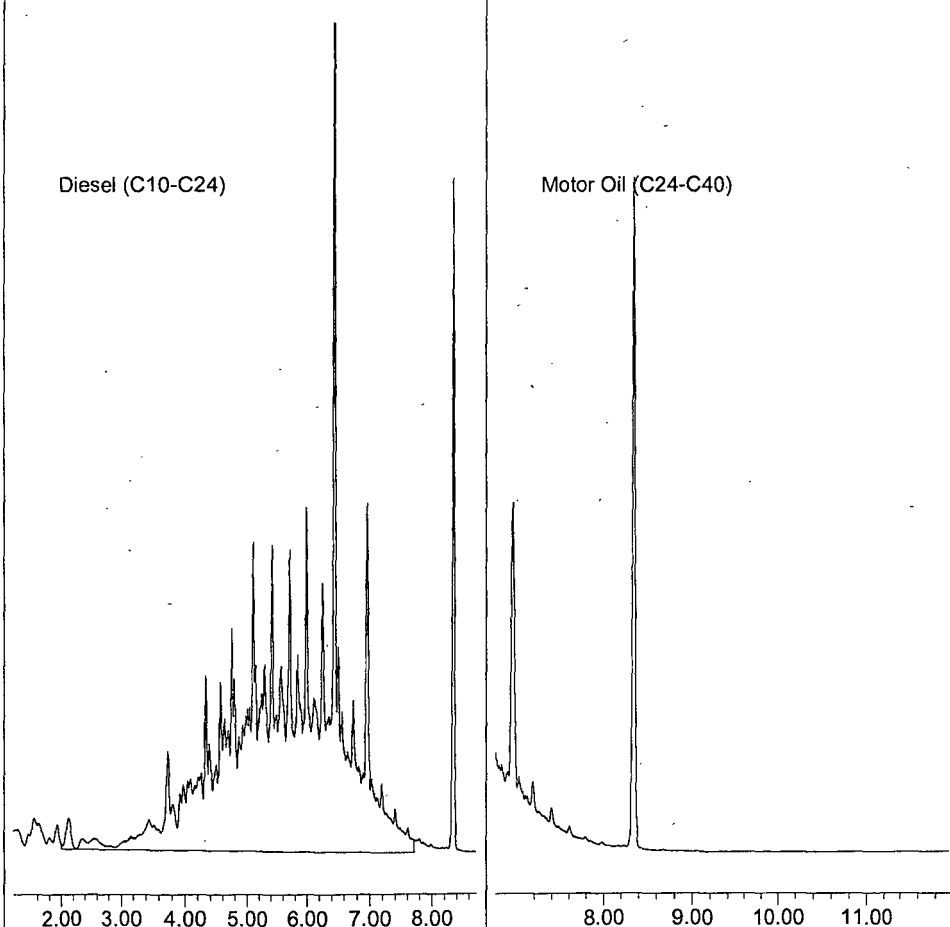
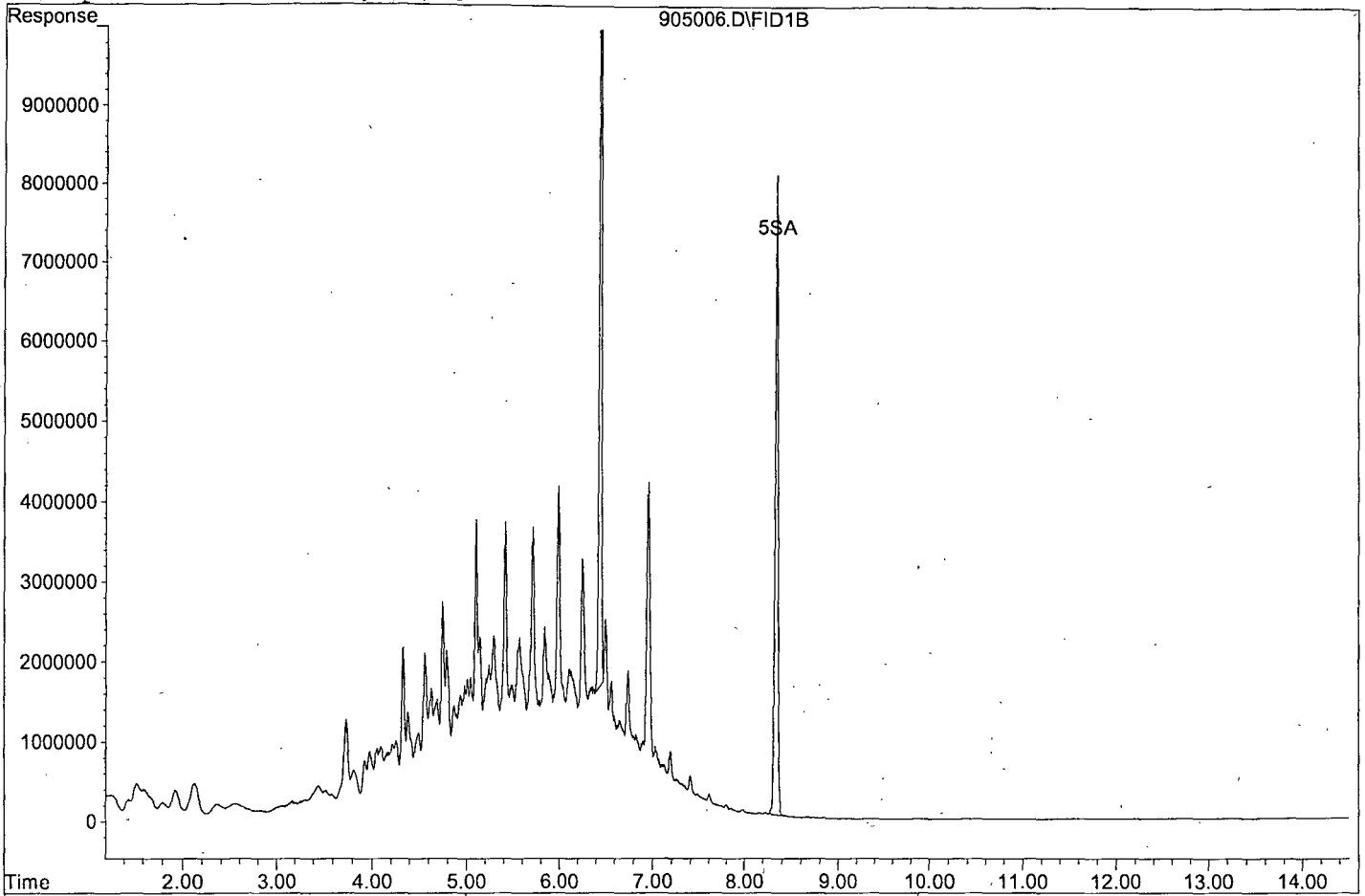
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	189189247	48.853 ppb
Surrogate Spike 30.000		Recovery =	162.84%
5) SA Octacosane(S)	8.34	164654773	50.979 ppb
Surrogate Spike 30.000		Recovery =	169.93%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	3205699857	978.184 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905006.D

Sample : Diesel - 4.9/5/18



Data File : G:\APOLLO\DATA\180905\905007.D Vial: 7  
 Acq On : 9-5-18 14:51:56 Operator: DP  
 Sample : Diesel - 5 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

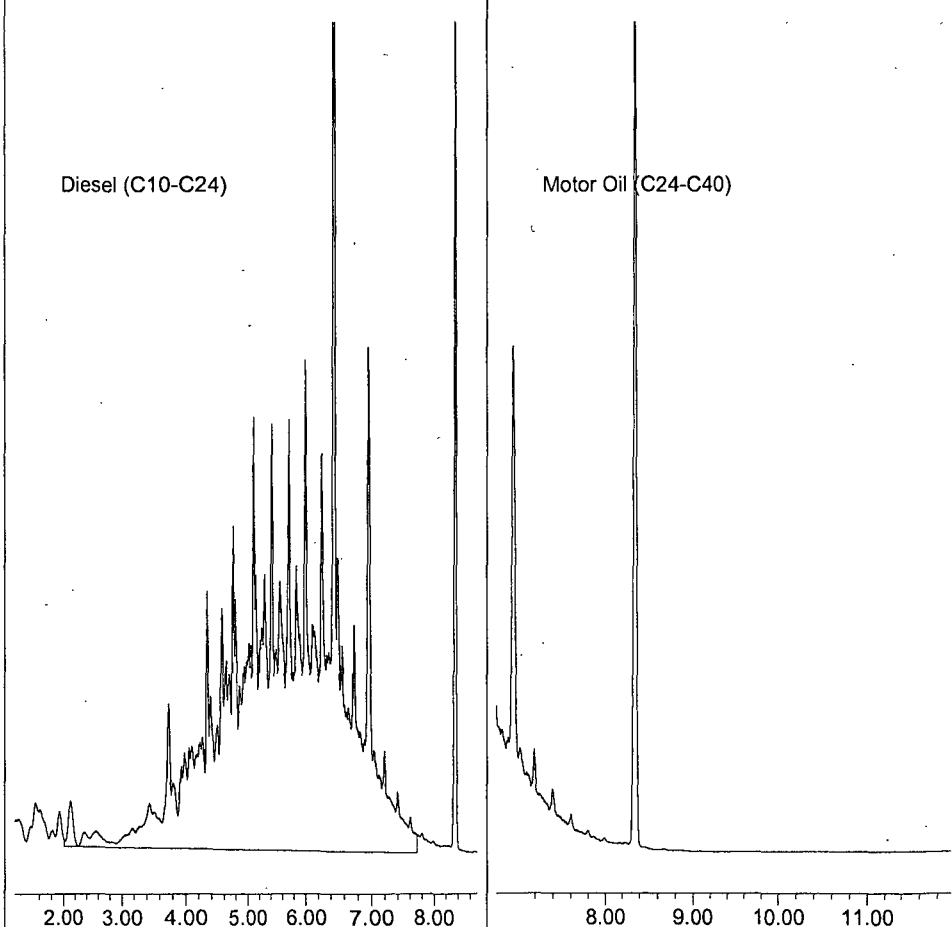
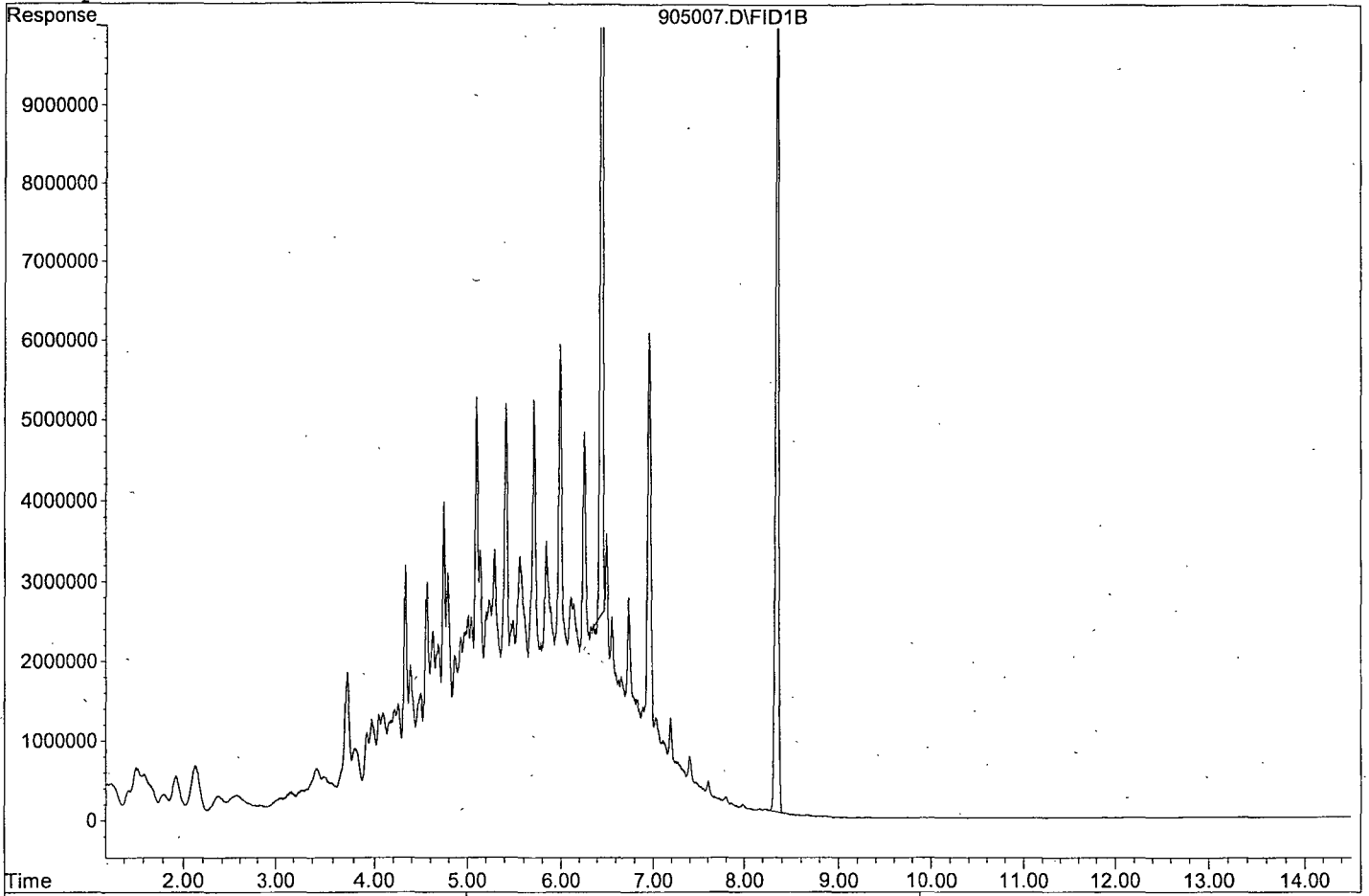
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.45	260146116	67.175 ppb
Surrogate Spike 30.000		Recovery =	223.92%
5) SA Octacosane(S)	8.35	234144102	72.493 ppb
Surrogate Spike 30.000		Recovery =	241.64%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	4675608367	1426.710 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905007.D

Sample : Diesel - 5 9/5/18



Data File : G:\APOLLO\DATA\180905\905008.D Vial: 8  
 Acq On : 9-5-18 15:11:58 Operator: DP  
 Sample : Diesel - 6 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

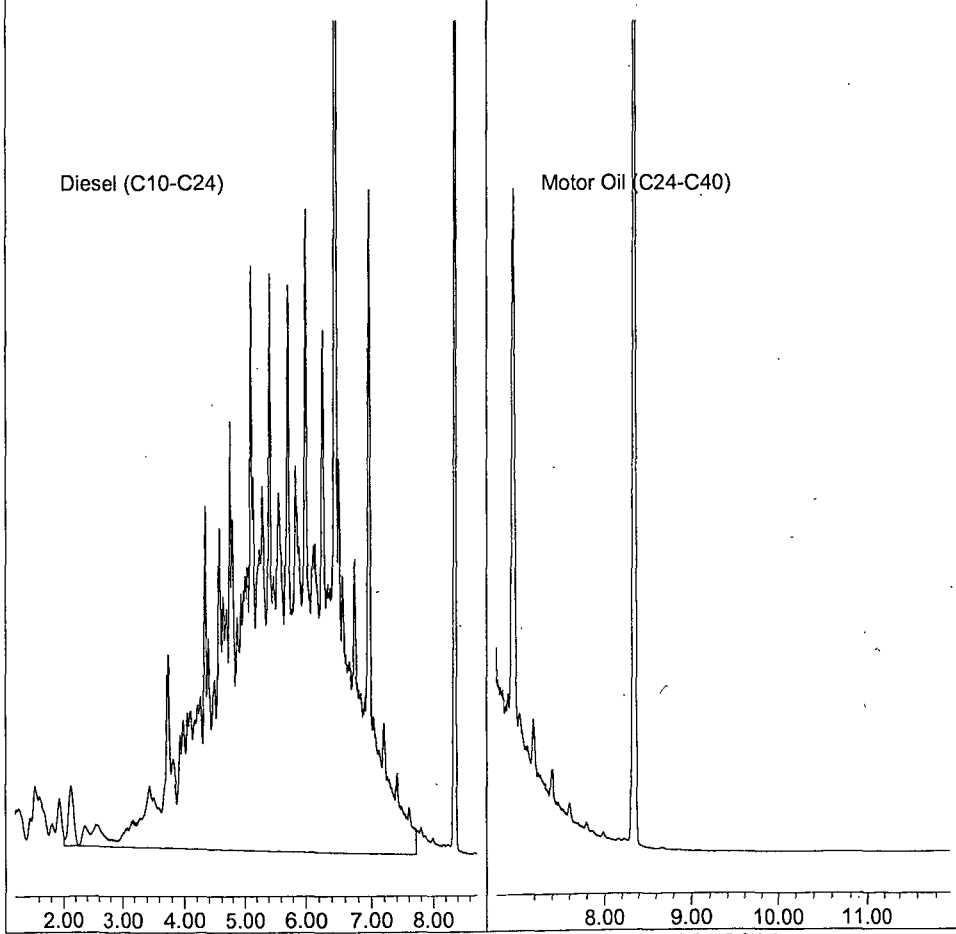
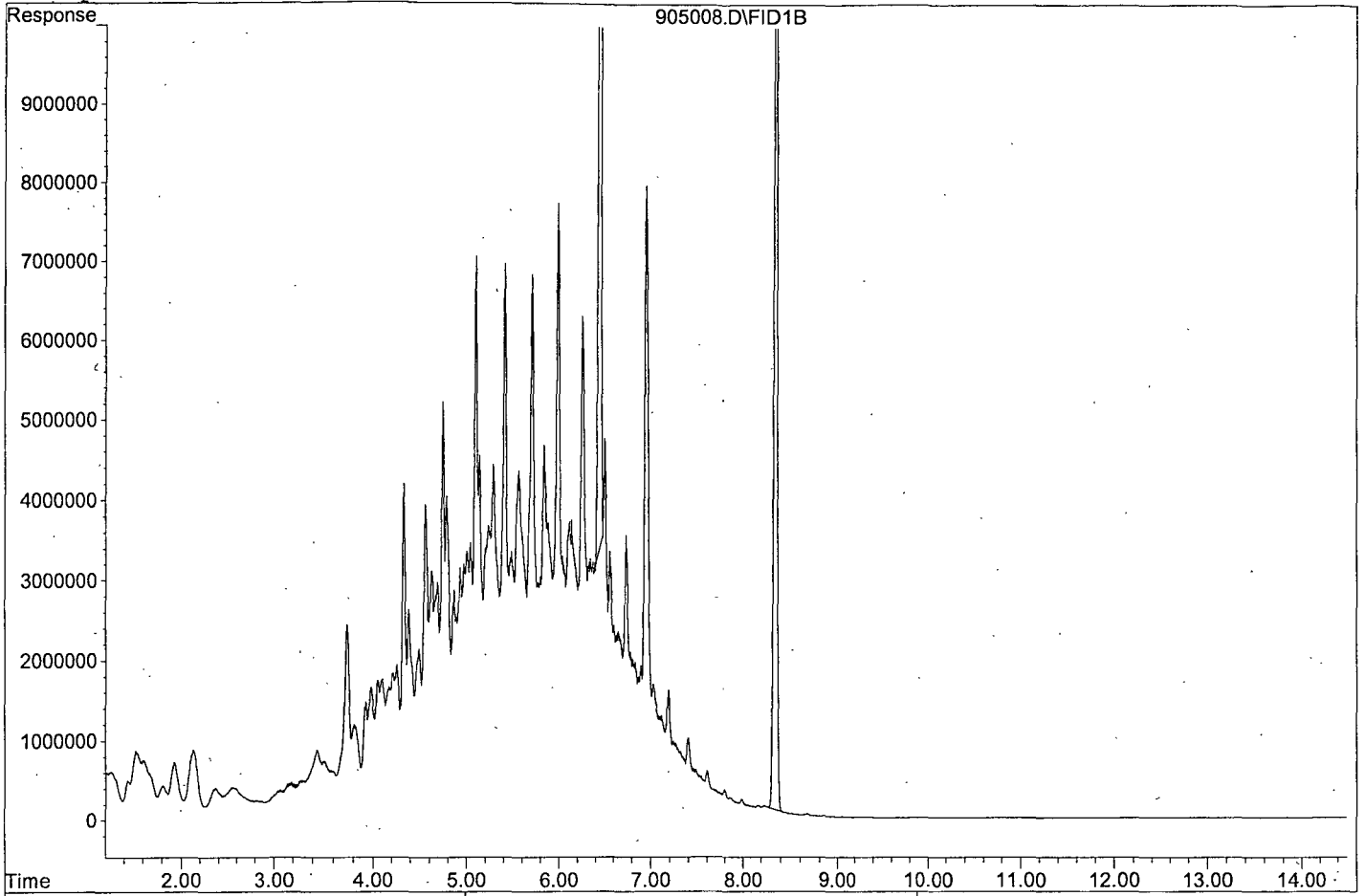
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.45	343927438	88.809 ppb
Surrogate Spike 30.000		Recovery =	296.03%
5) SA Octacosane(S)	8.35	310020200	95.985 ppb
Surrogate Spike 30.000		Recovery =	319.95%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	6234861442	1902.499 ppb



Quantitation Report

Data File: G:\APOLLO\DATA\180905\905008.D

Sample : Diesel - 6 9/5/18



Data File : G:\APOLLO\DATA\180905\905010.D Vial: 10  
 Acq On : 9-5-18 15:52:08 Operator: DP  
 Sample : Motor Oil - 1 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

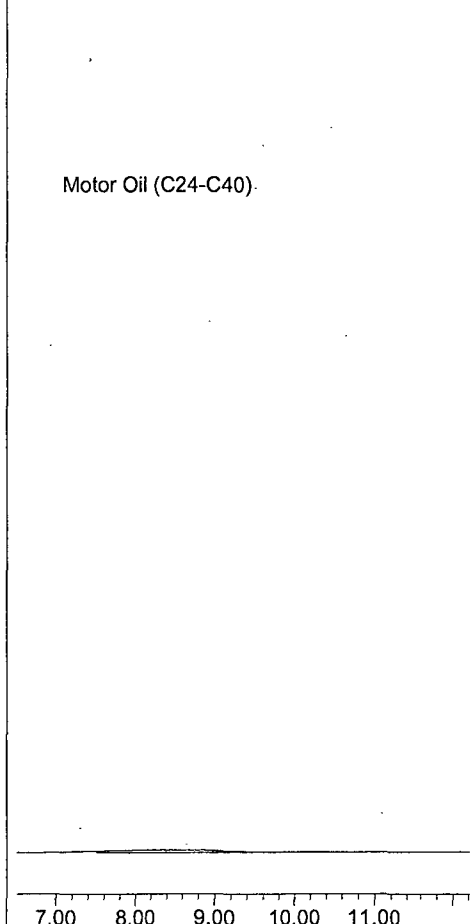
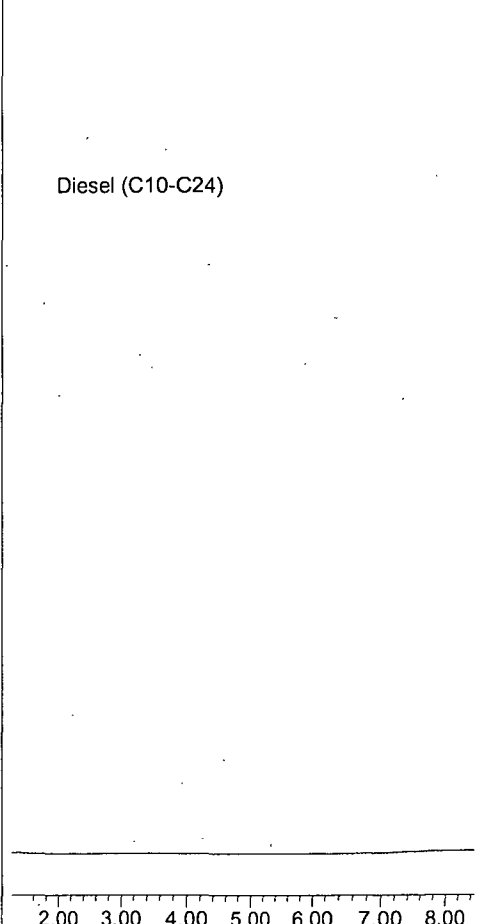
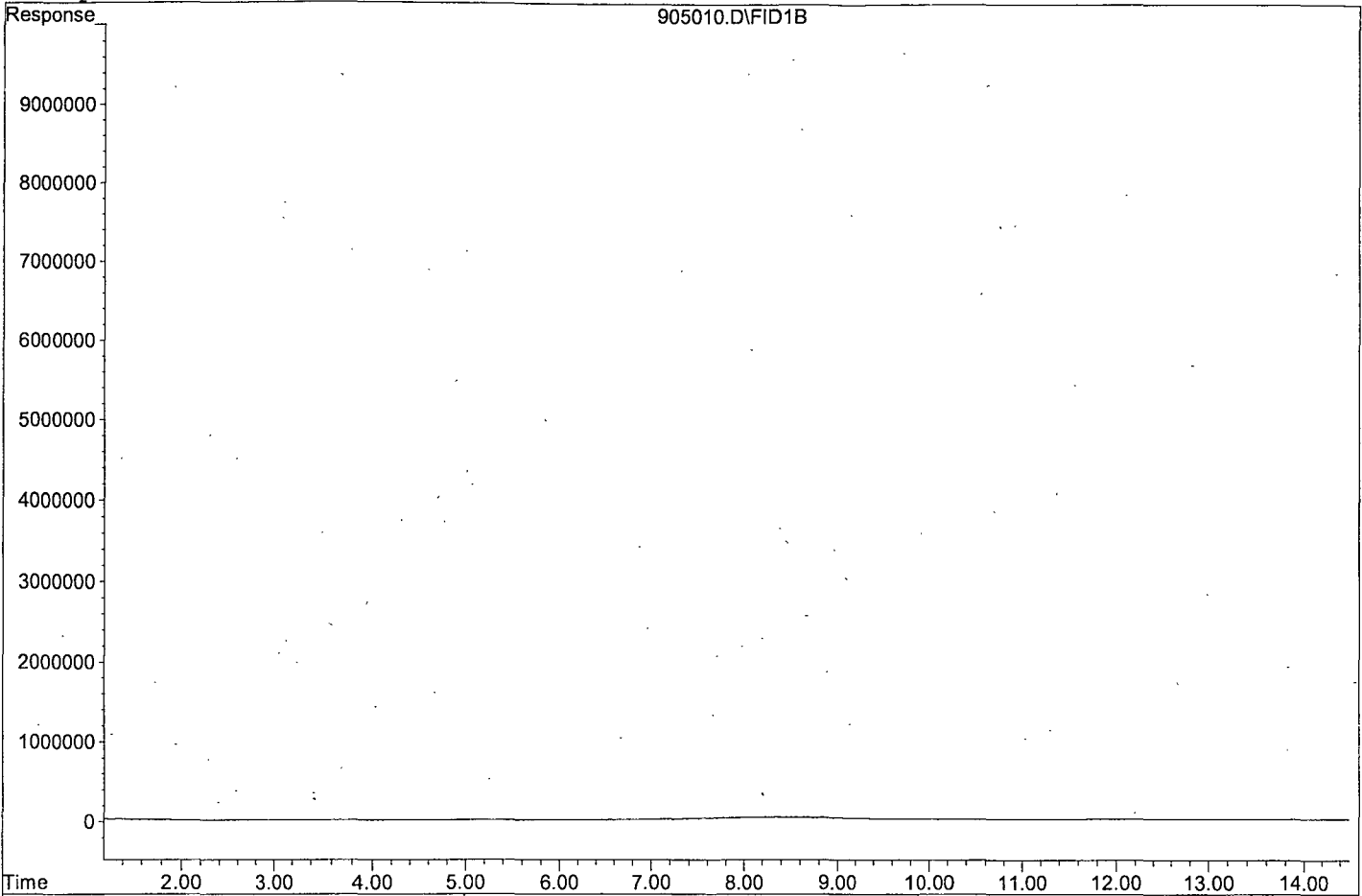
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	32653584	11.764 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905010.D

Sample : Motor Oil - 1 9/5/18



Data File : G:\APOLLO\DATA\180905\905011.D Vial: 11  
 Acq On : 9-5-18 16:12:11 Operator: DP  
 Sample : Motor Oil - 2 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

Target Compounds

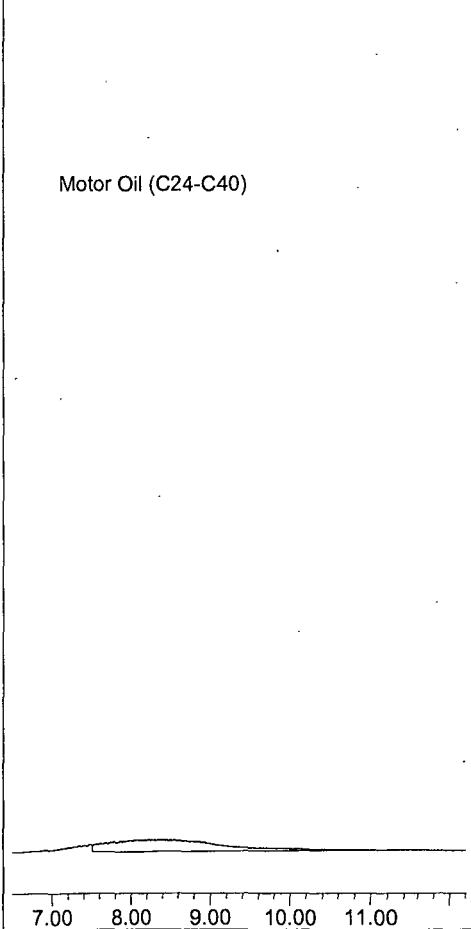
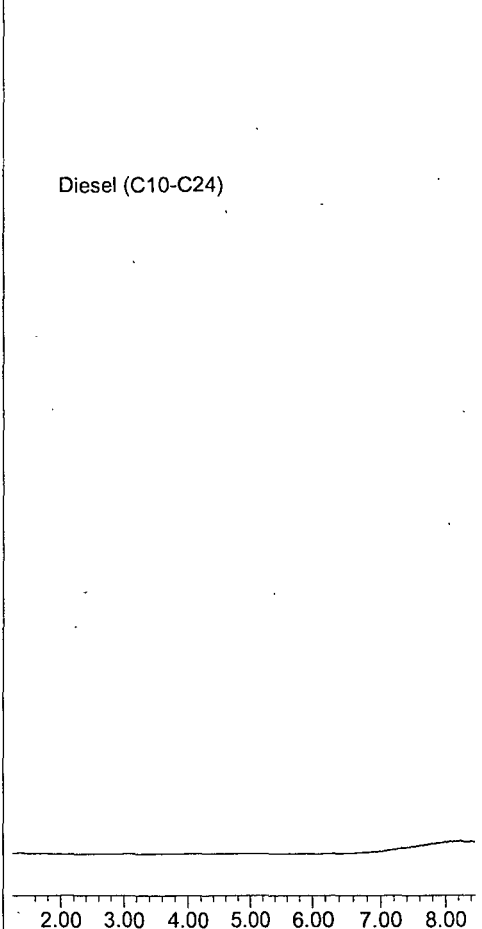
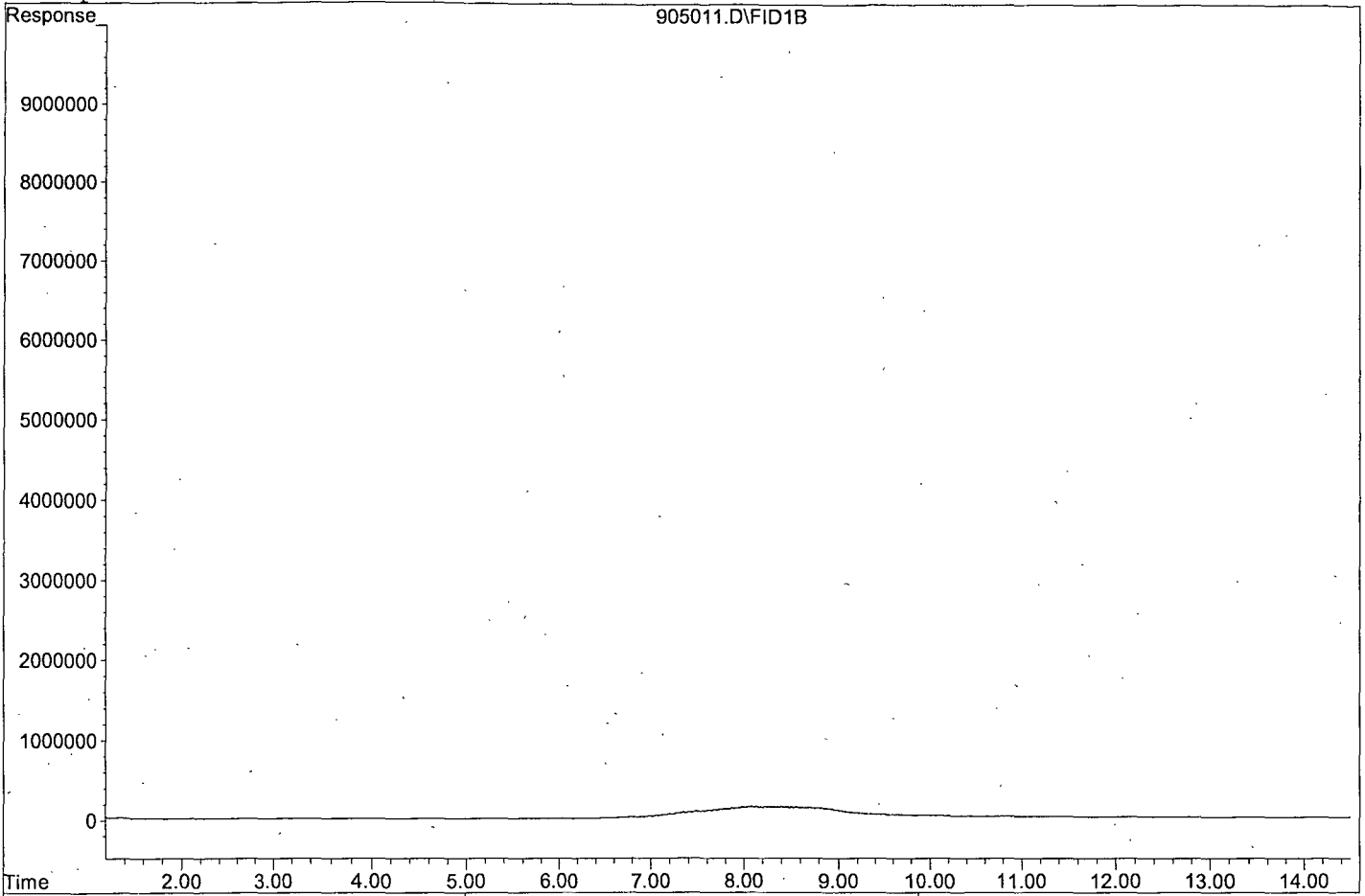
2) HBTM Motor Oil (C24-C40)	9.36	144232897	51.961 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905011.D

Sample : Motor Oil - 2 9/5/18

905011.D\FID1B



Data File : G:\APOLLO\DATA\180905\905012.D Vial: 12  
 Acq On : 9-5-18 16:32:11 Operator: DP  
 Sample : Motor Oil - 3 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

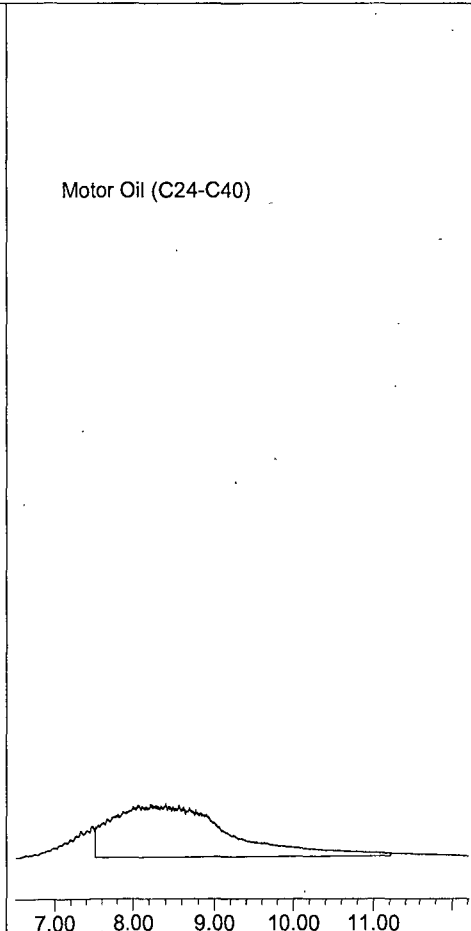
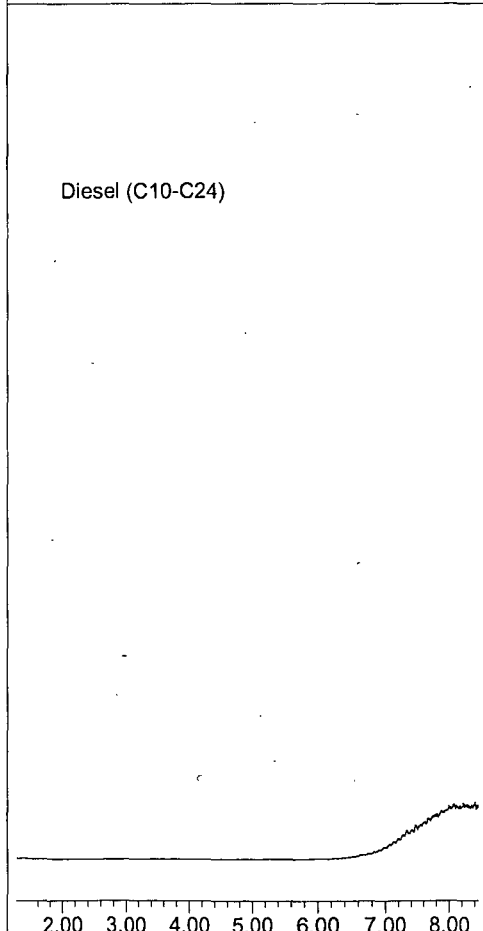
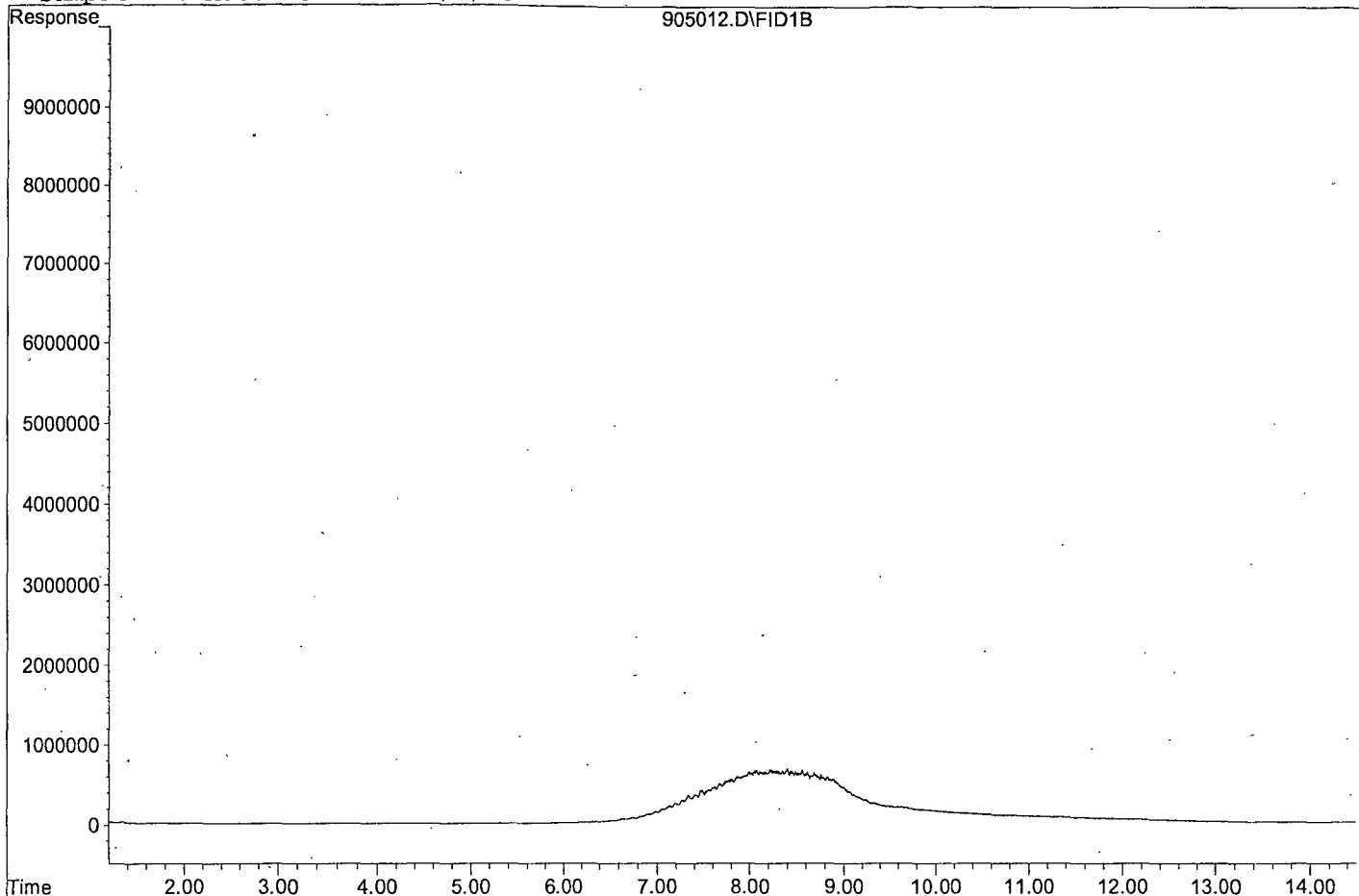
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	640853647	230.874 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905012.D

Sample : Motor Oil - 3 9/5/18



Data File : G:\APOLLO\DATA\180905\905013.D Vial: 13  
 Acq On : 9-5-18 16:52:14 Operator: DP  
 Sample : Motor Oil - 4 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

Target Compounds

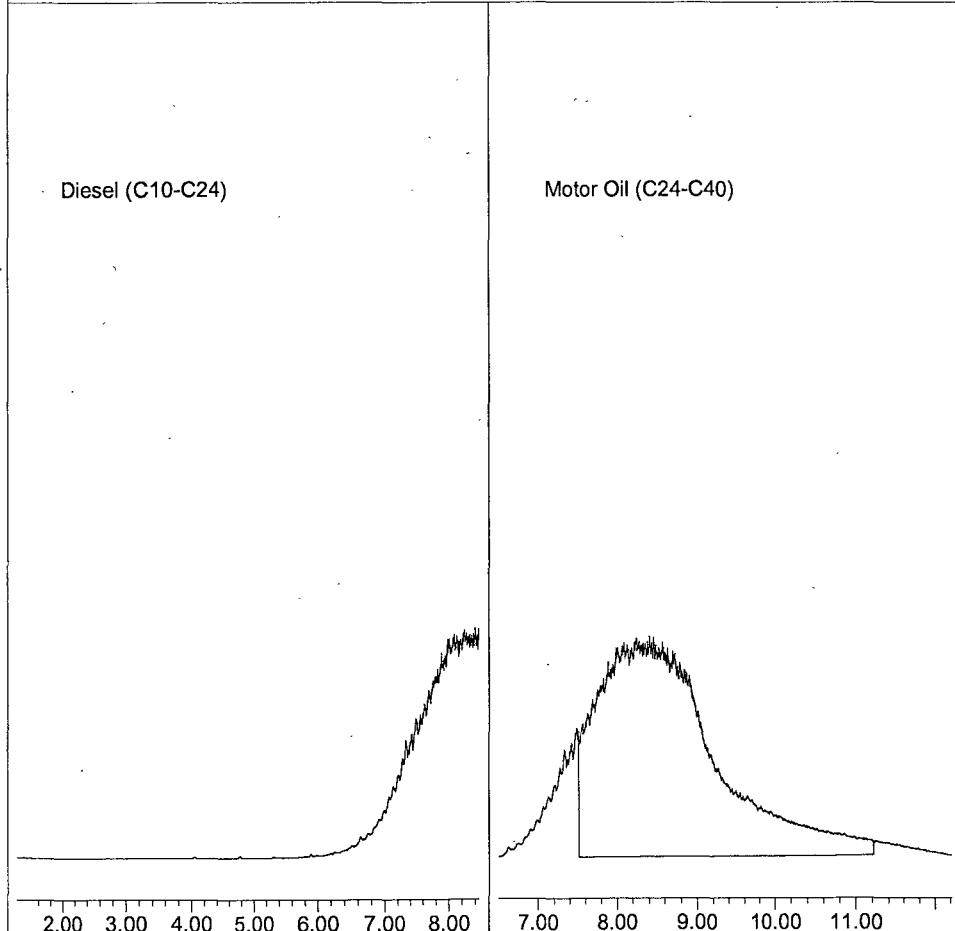
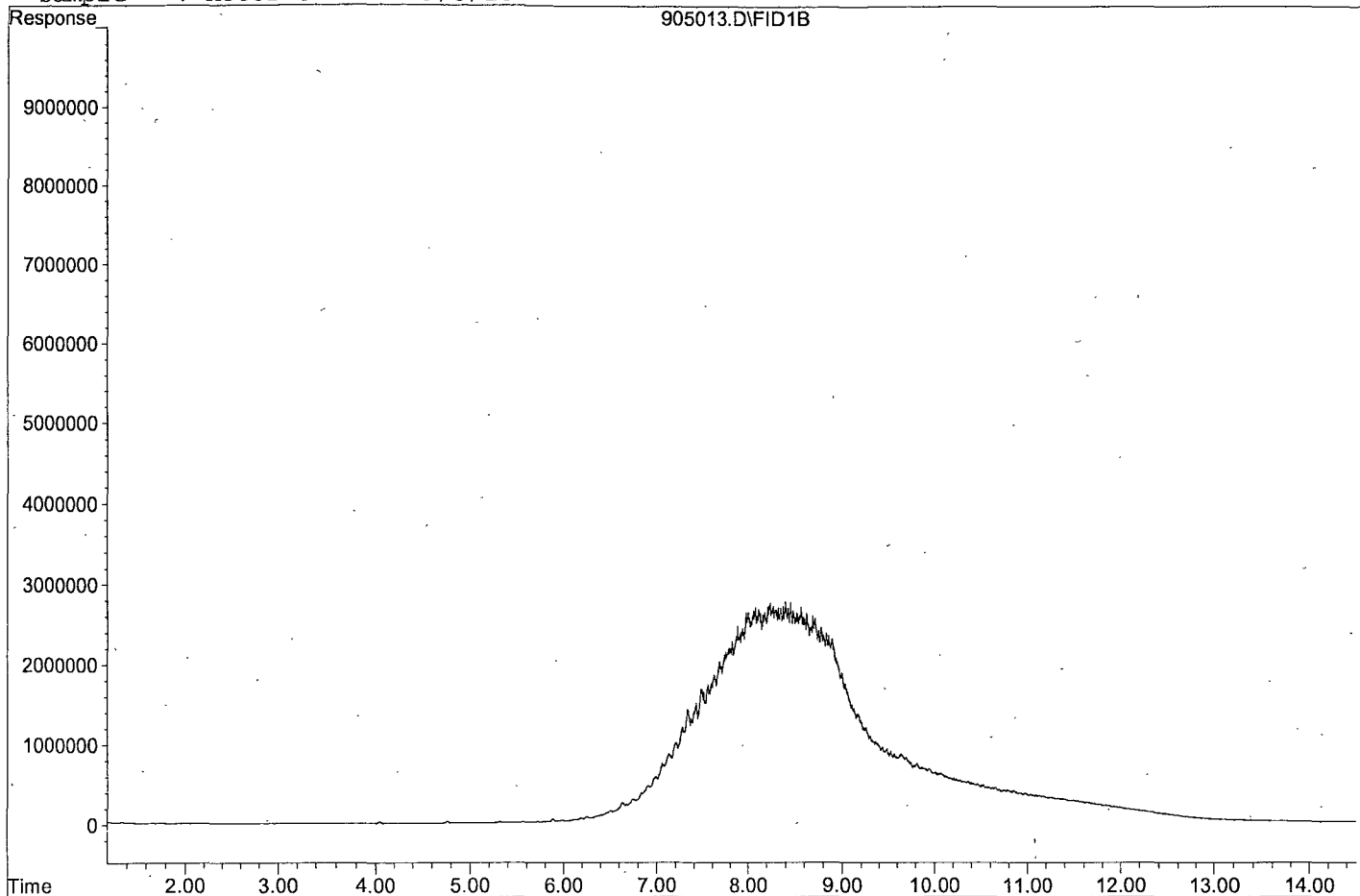
2) HBTM Motor Oil (C24-C40)	9.36	2671114888	962.297 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905013.D

Sample : Motor Oil - 4 9/5/18



Data File : G:\APOLLO\DATA\180905\905014.D Vial: 14  
 Acq On : 9-5-18 17:12:14 Operator: DP  
 Sample : Motor Oil - 5 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

Target Compounds

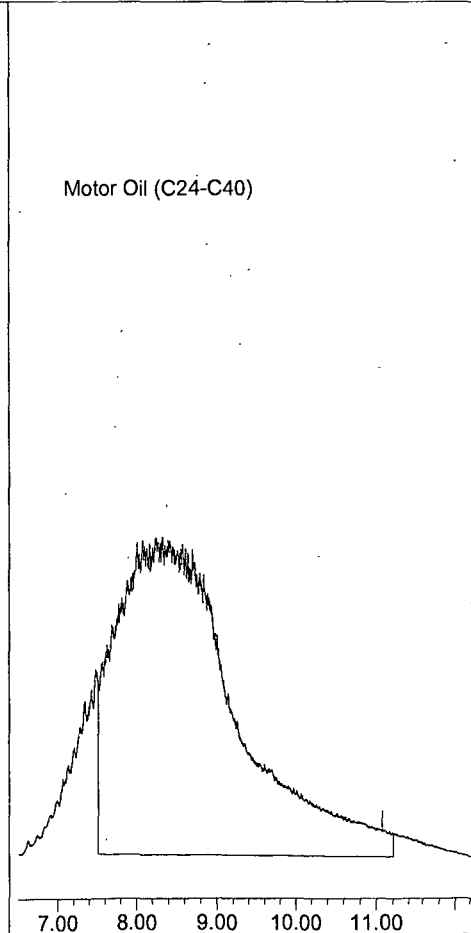
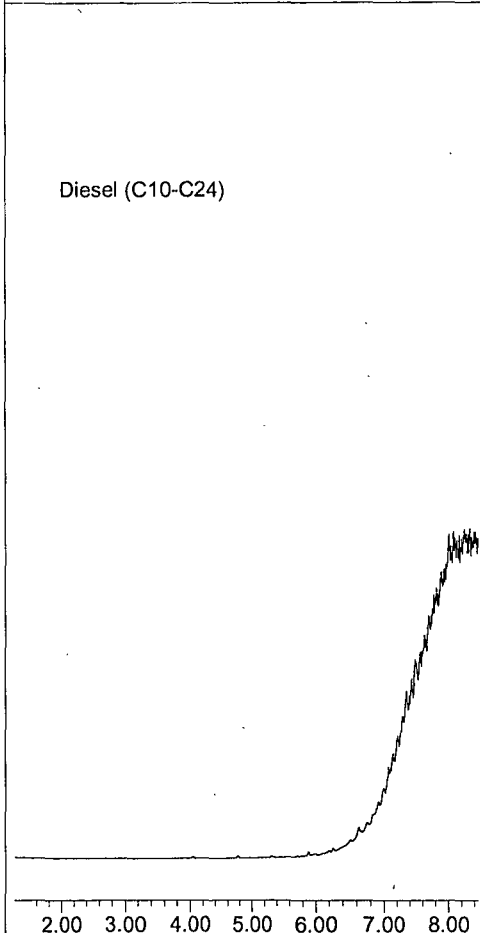
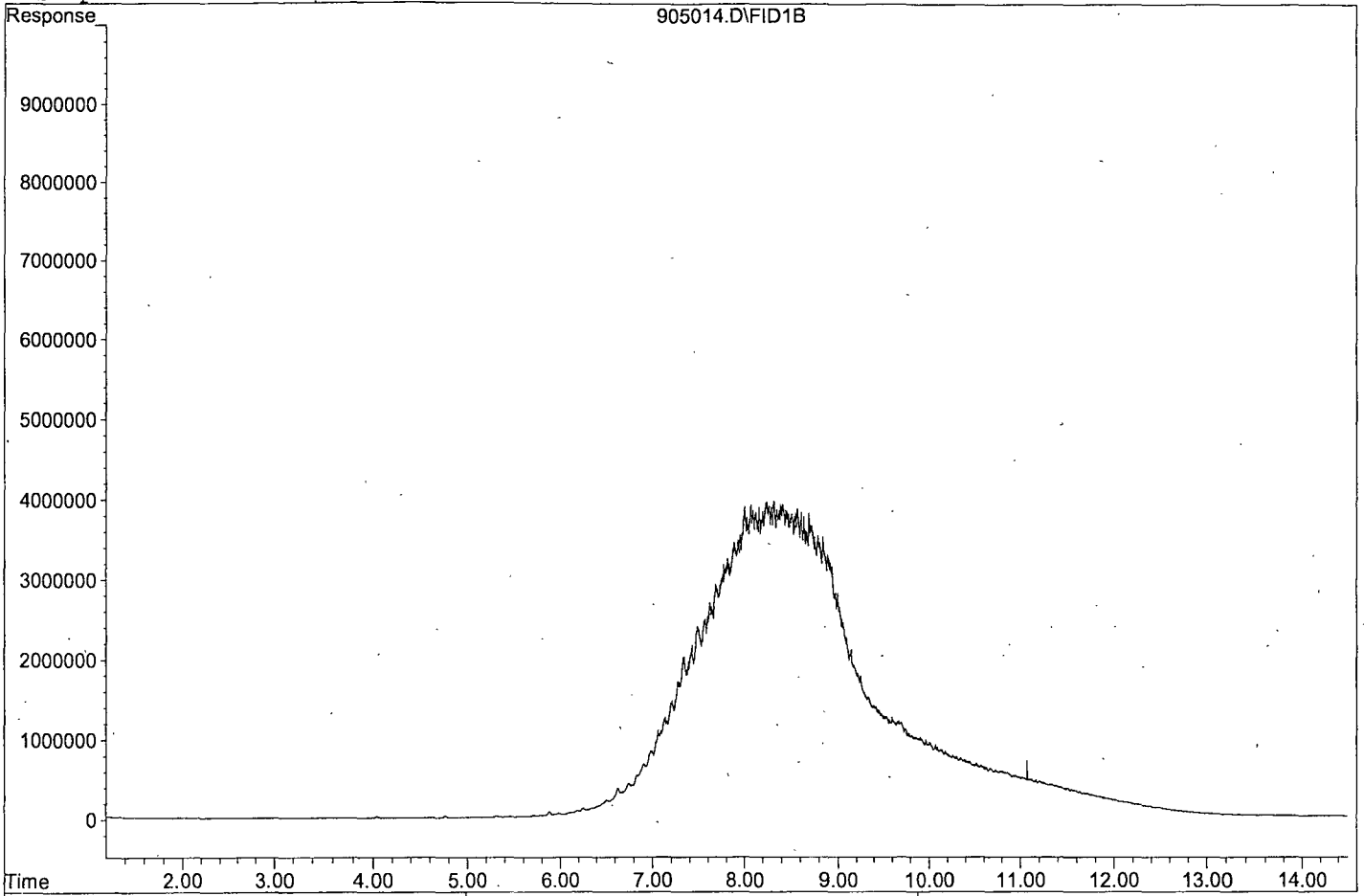
2) HBTM Motor Oil (C24-C40)	9.36	3915465455	1410.588 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905014.D

Sample : Motor Oil - 5 9/5/18

905014.D\FID1B



Data File : G:\APOLLO\DATA\180905\905015.D Vial: 15  
 Acq On : 9-5-18 17:31:25 Operator: DP  
 Sample : Motor Oil - 6 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

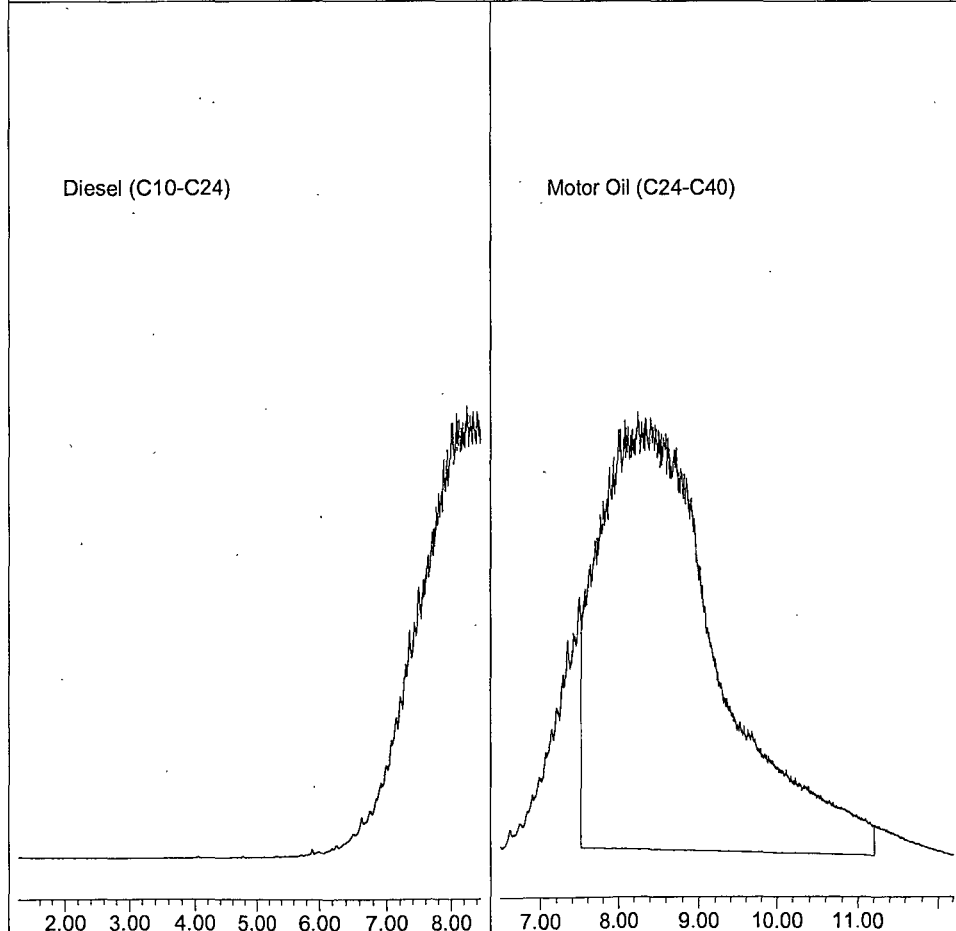
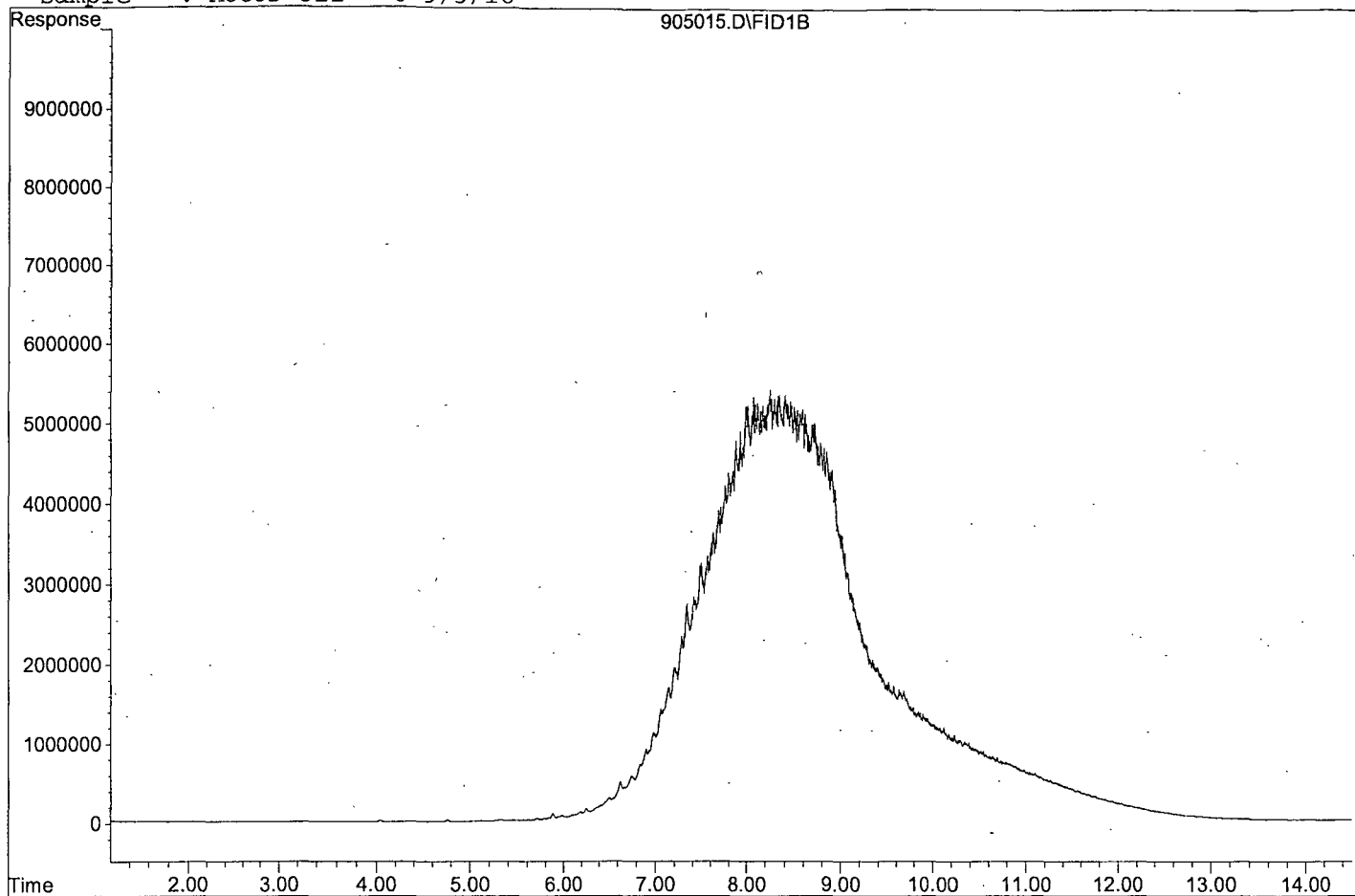
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	5319513396	1916.411 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905015.D

Sample : Motor Oil - 6 9/5/18



TPH Extractables  
DOC0905

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 09/05/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 905009.D 905016.D  
Diesel Motor Oil

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1644000	0.33	HATM
2	HBTM Motor Oil (C24-C40)	1387880	1237490	11	HBTM
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
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17					
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32					
33					
34					
35					
36					
37					
38					
39					
40	Average			5.7	

Data File : G:\APOLLO\DATA\180905\905009.D Vial: 9  
 Acq On : 9-5-18 15:32:03 Operator: DP  
 Sample : Diesel - SS 8/2/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

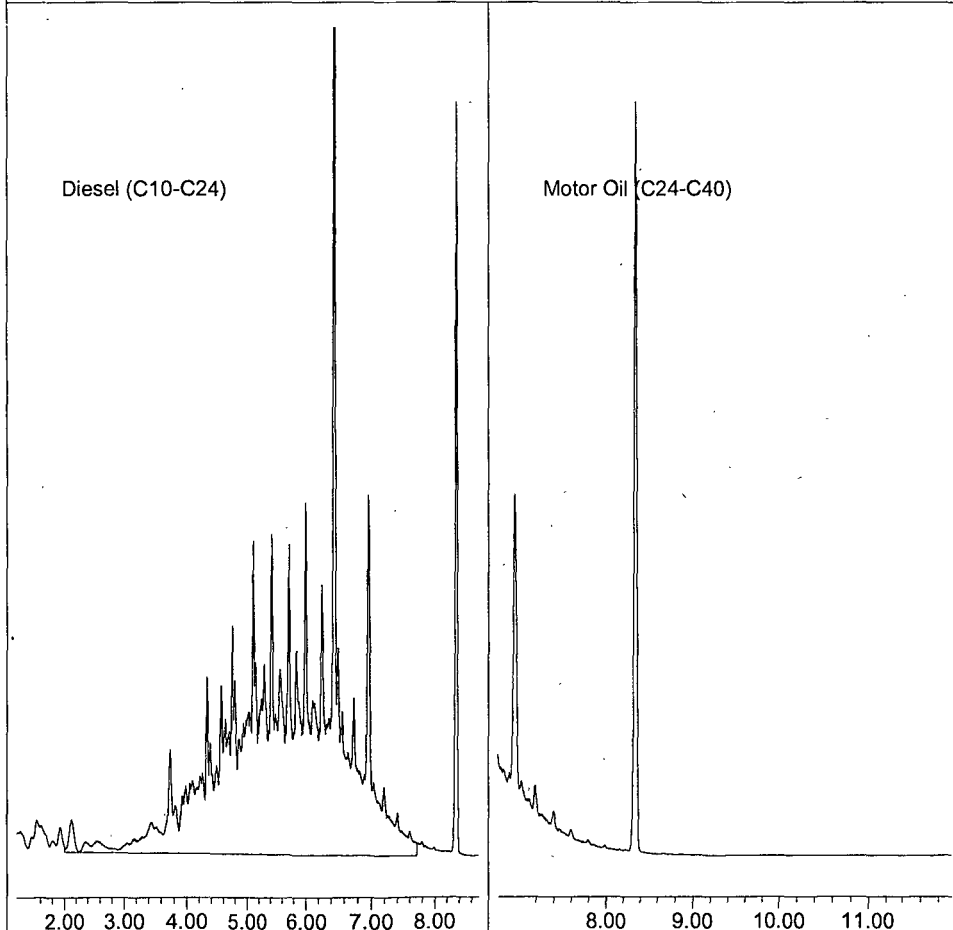
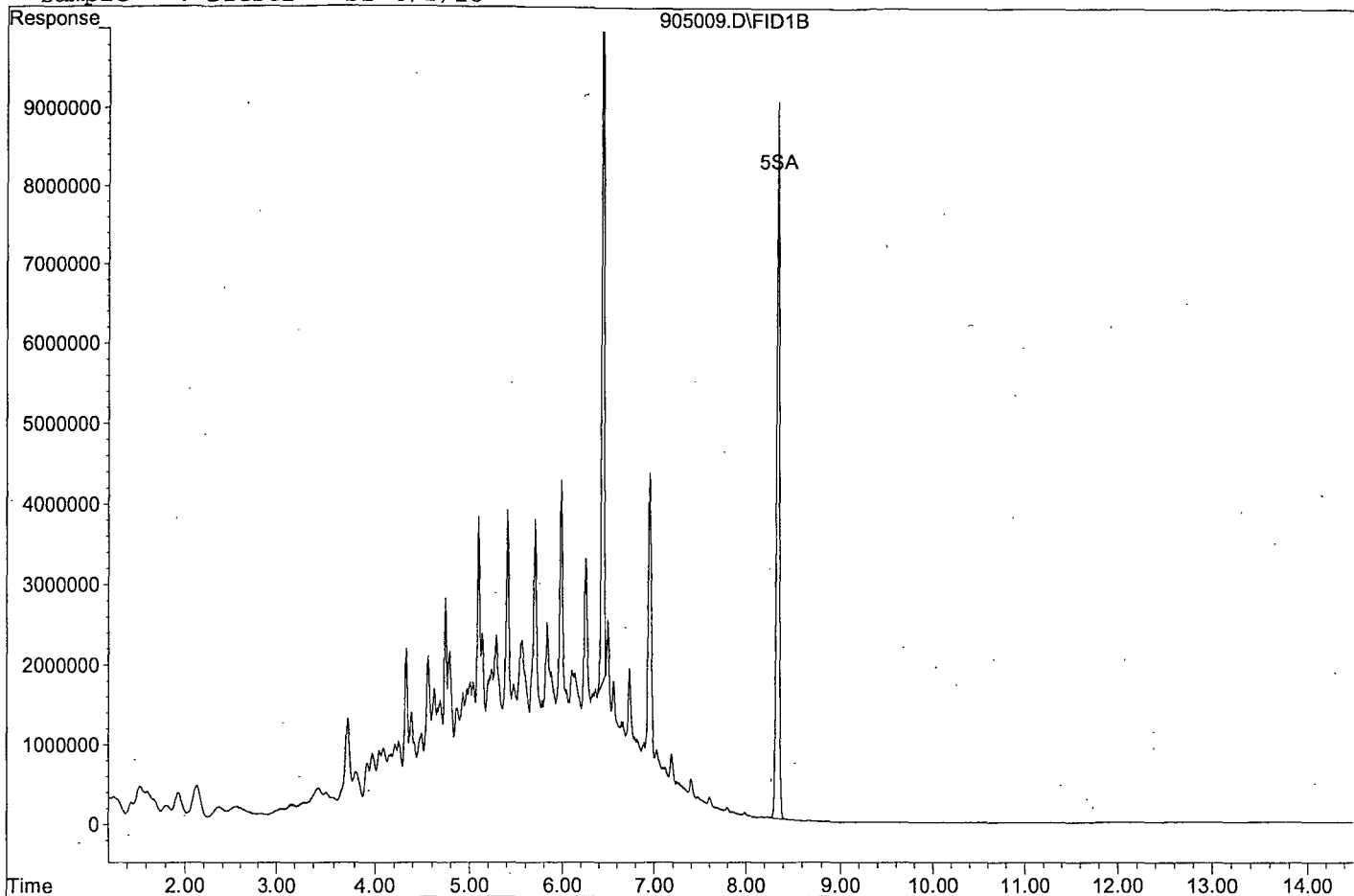
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	189576923	48.953 ppb
Surrogate Spike 30.000		Recovery =	163.18%
5) SA Octacosane(S)	8.35	191937049	59.426 ppb
Surrogate Spike 30.000		Recovery =	198.09%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	3287993103	1003.295 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905009.D

Sample : Diesel - SS 8/2/18





Data File : G:\APOLLO\DATA\180905\905016.D Vial: 16  
 Acq On : 9-5-18 17:51:24 Operator: DP  
 Sample : Motor Oil - SS 7/13/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

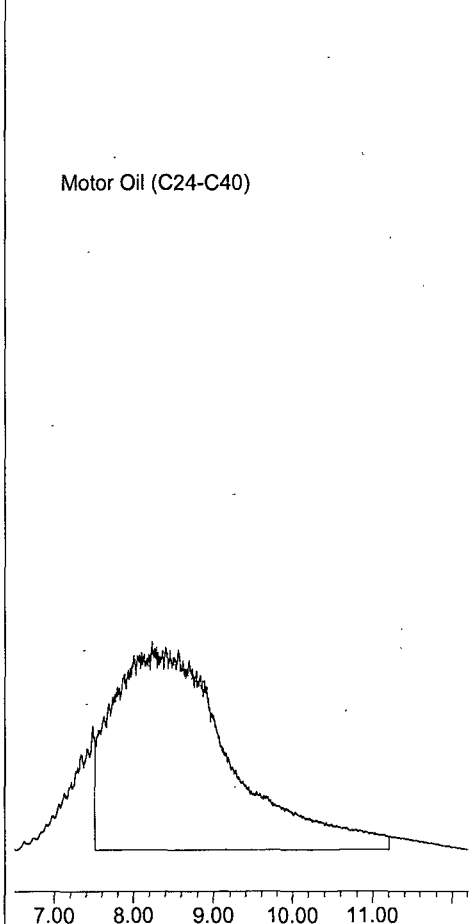
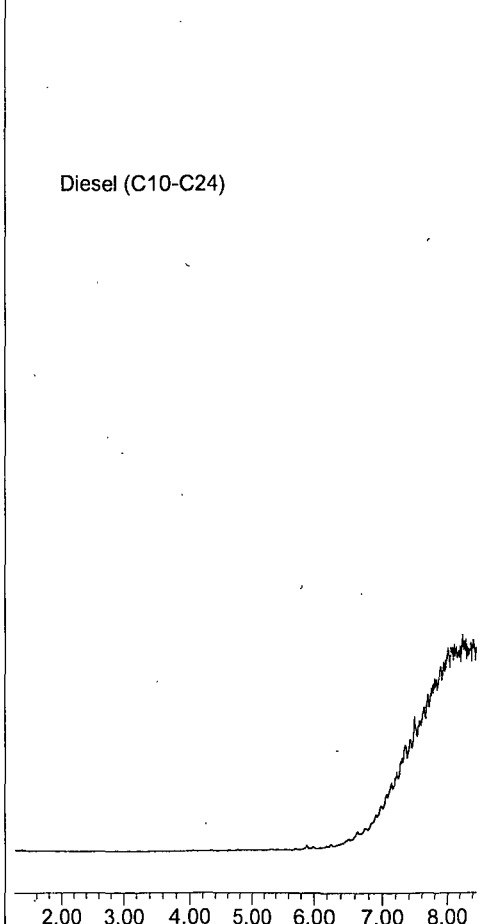
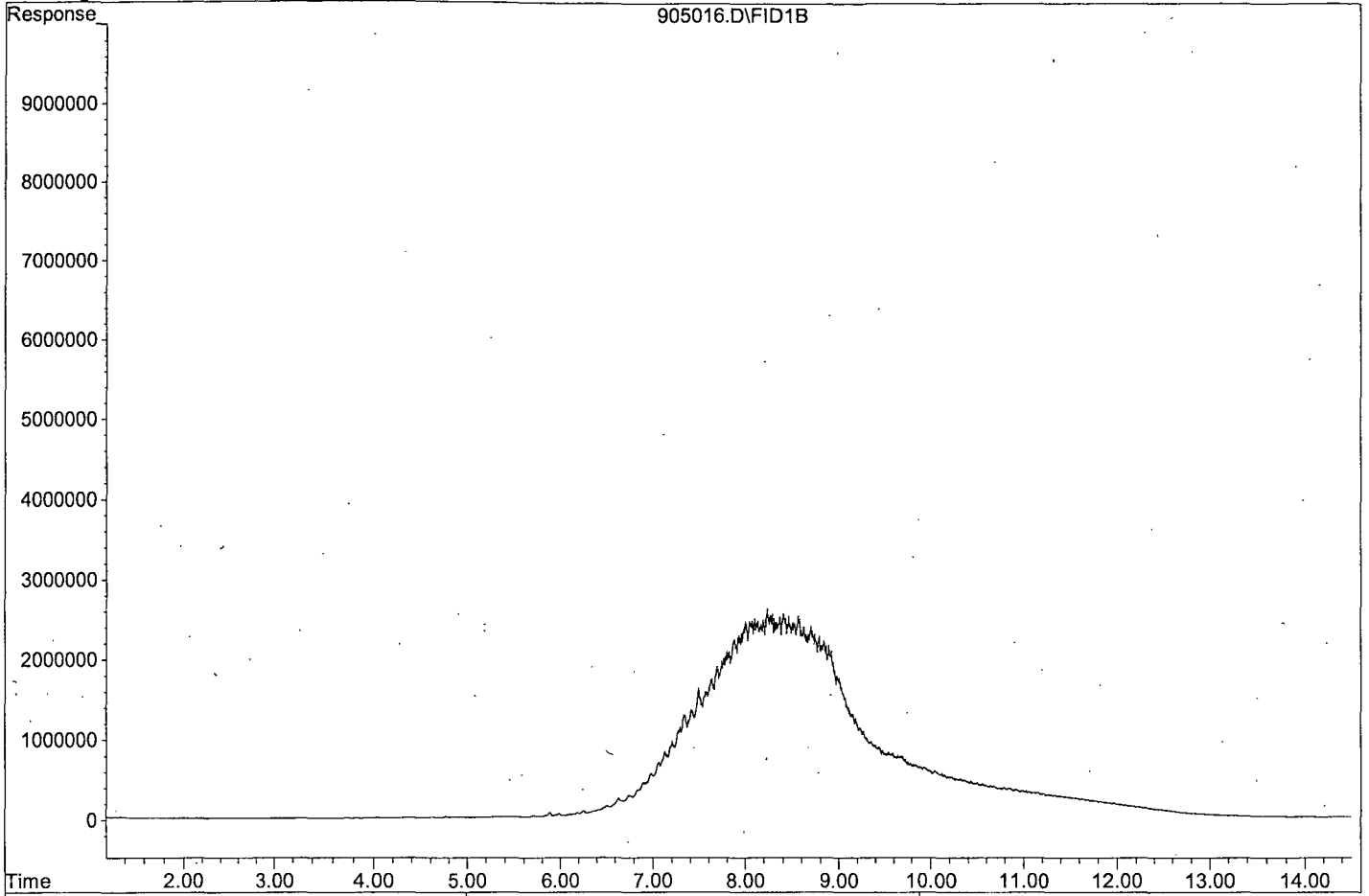
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	2474981428	891.638 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905016.D

Sample : Motor Oil - SS 7/13/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/31/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1031002-3.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1696100	3.5	HATM
2	SA Ortho-Terphenyl(S)	1936320	2050630	5.9	SA
3	SA Octacosane(S)	1614940	1660800	2.8	SA
4	HBTM Motor Oil (C24-C40)	1387880	1269490	8.5	HBTM
5					
6					
7					
8					
9					
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37					
38					
39					
40	Average			5.2	

Data File : G:\APOLLO\DATA\181031\1031002.D Vial: 2  
 Acq On : 10-31-18 12:27:03 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Oct 31 11:43 2018 Quant Results File: DOC0905.RES

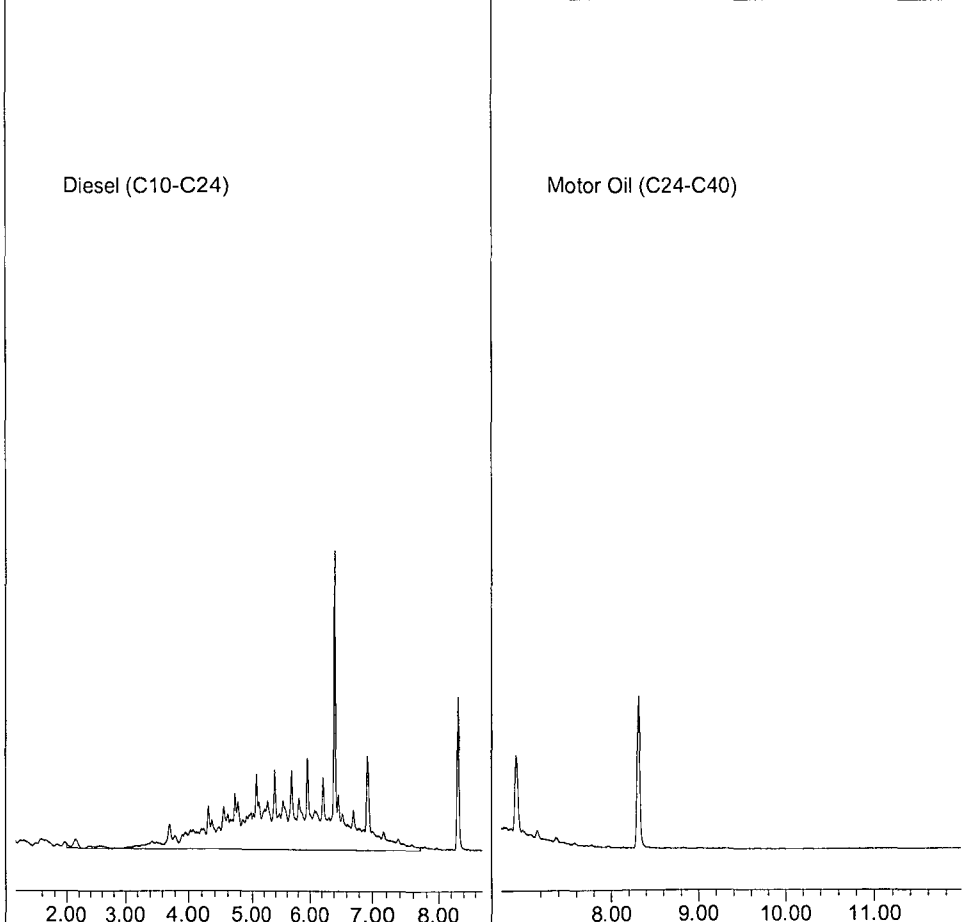
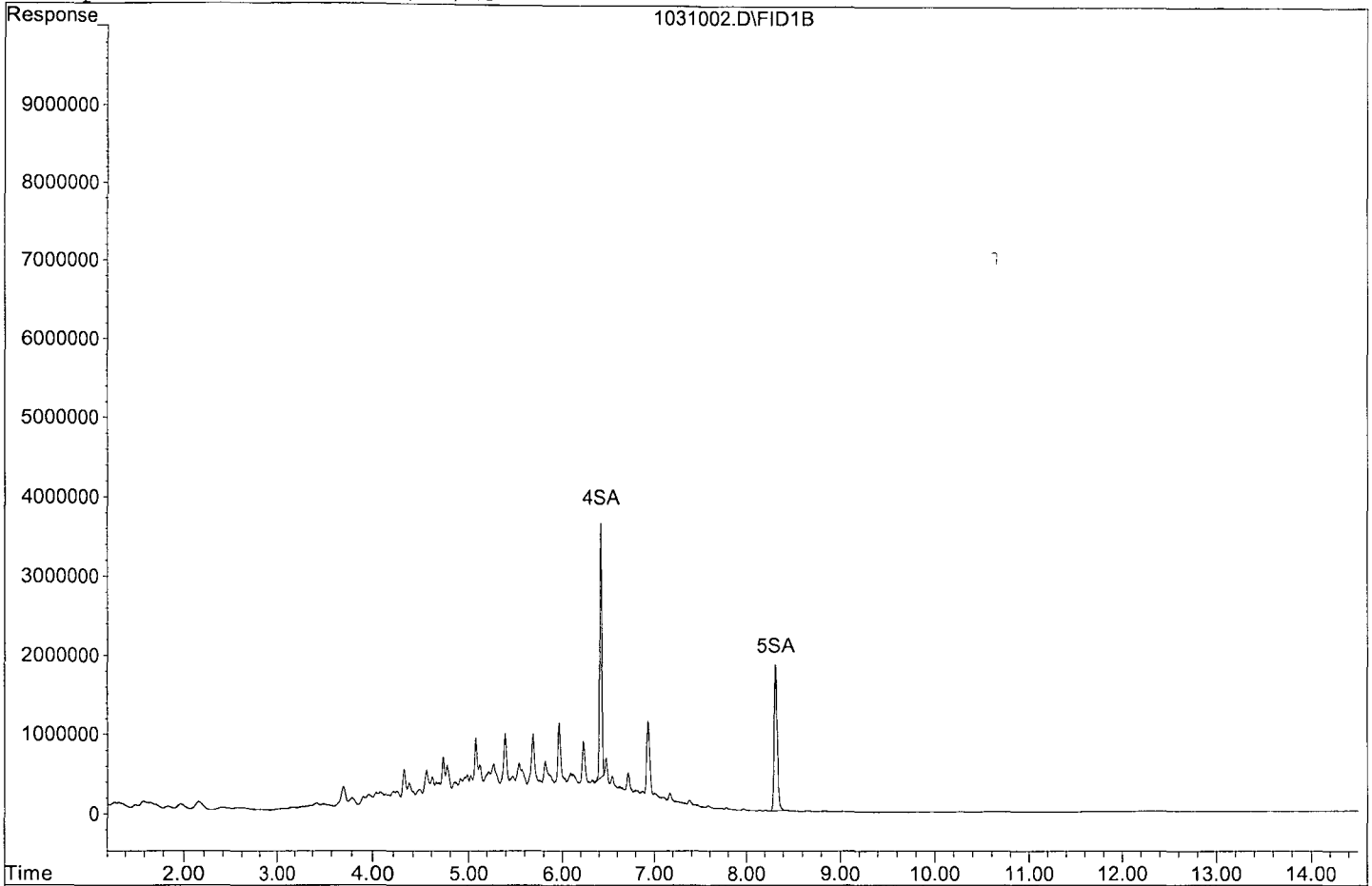
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	51265698	13.238 ppb
Surrogate Spike 30.000		Recovery =	44.13%
5) SA Octacosane(S)	8.32	41519886	12.855 ppb
Surrogate Spike 30.000		Recovery =	42.85%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	848049990	258.773 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031002.D  
Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181031\1031003.D Vial: 3  
 Acq On : 10-31-18 12:47:21 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Oct 31 12:02 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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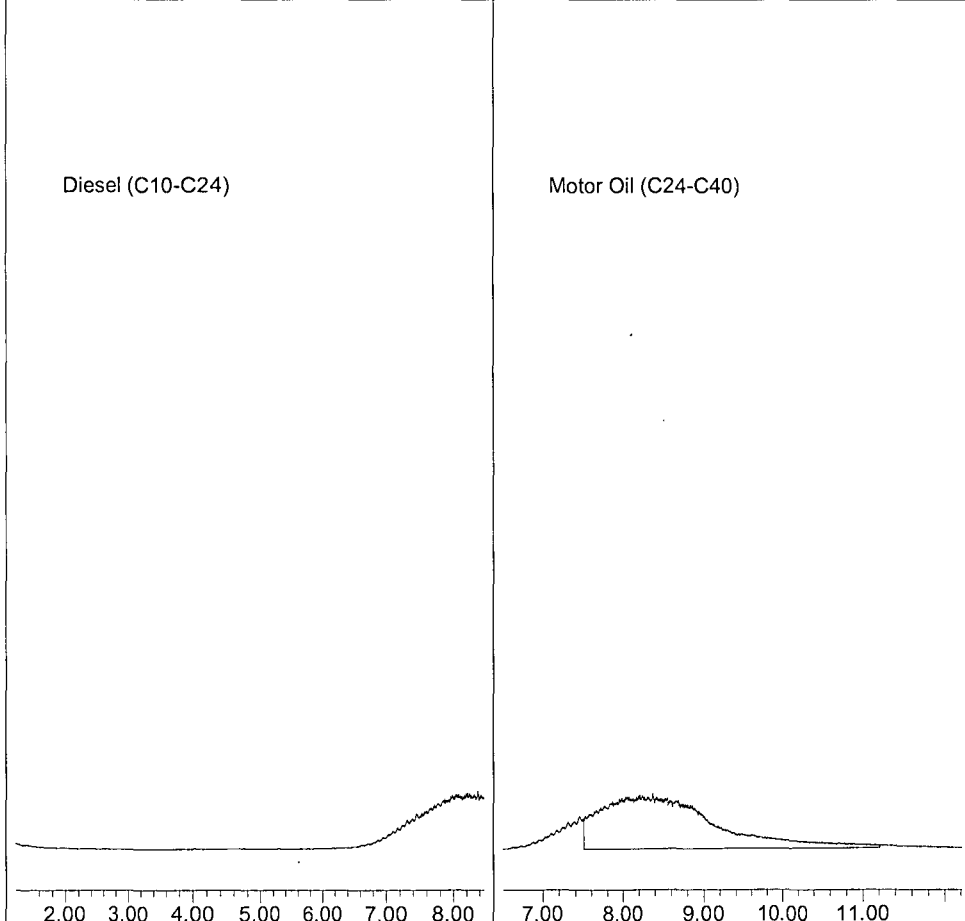
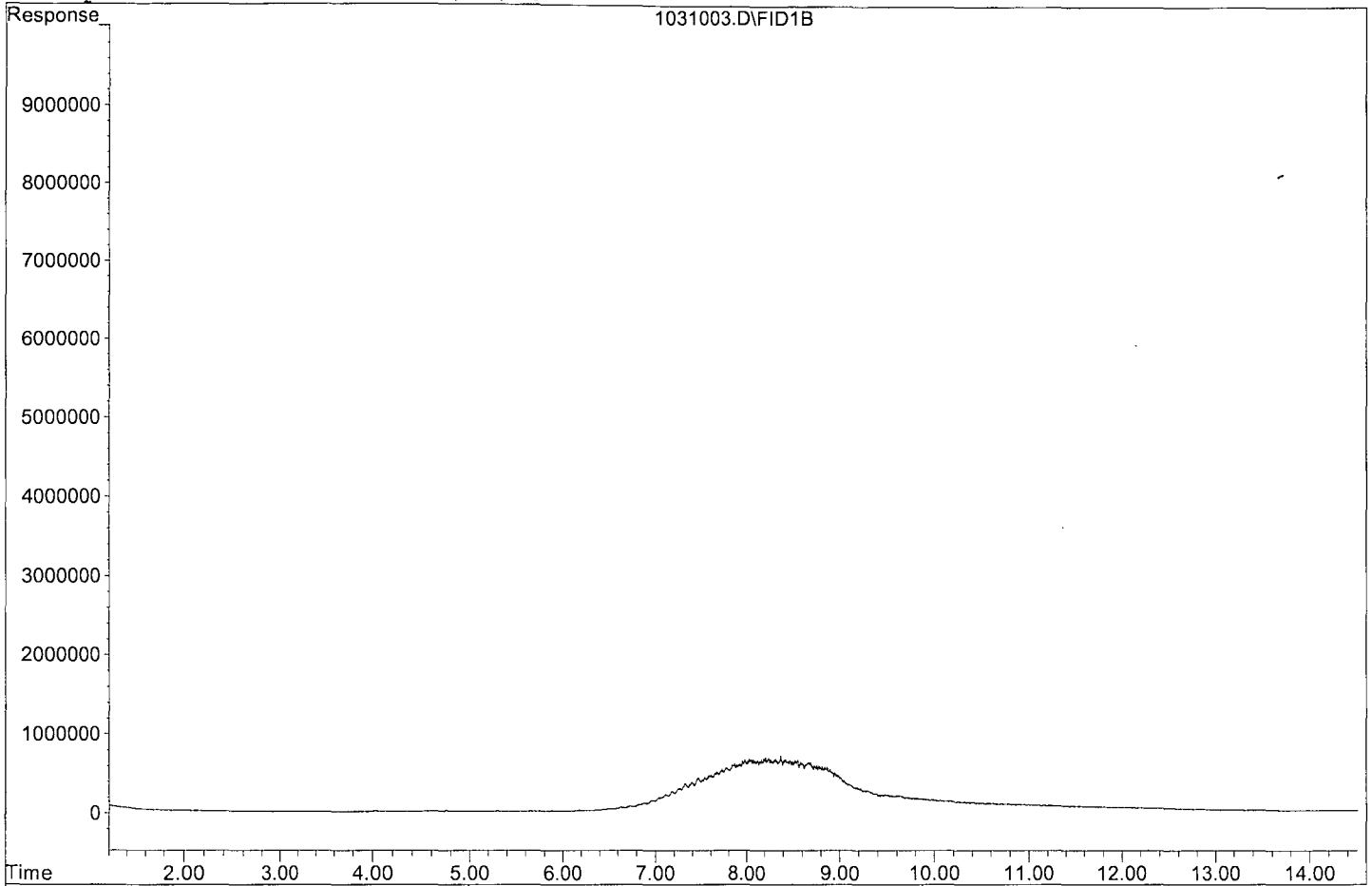
System Monitoring Compounds

Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	634742927	228.673 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031003.D  
Sample : Motor Oil - 3 10/15/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/31/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1031014-15.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1723880	5.2	HATM
2	SA Ortho-Terphenyl(S)	1936320	2055650	6.2	SA
3	SA Octacosane(S)	1614940	1694270	4.9	SA
4	HBTM Motor Oil (C24-C40)	1387880	1342280	3.3	HBTM
5					
6					
7					
8					
9					
10					
11					
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38					
39					
40	Average			4.9	



Data File : G:\APOLLO\DATA\181031\1031014.D Vial: 14  
 Acq On : 10-31-18 16:24:34 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Oct 31 15:42 2018 Quant Results File: DOC0905.RES

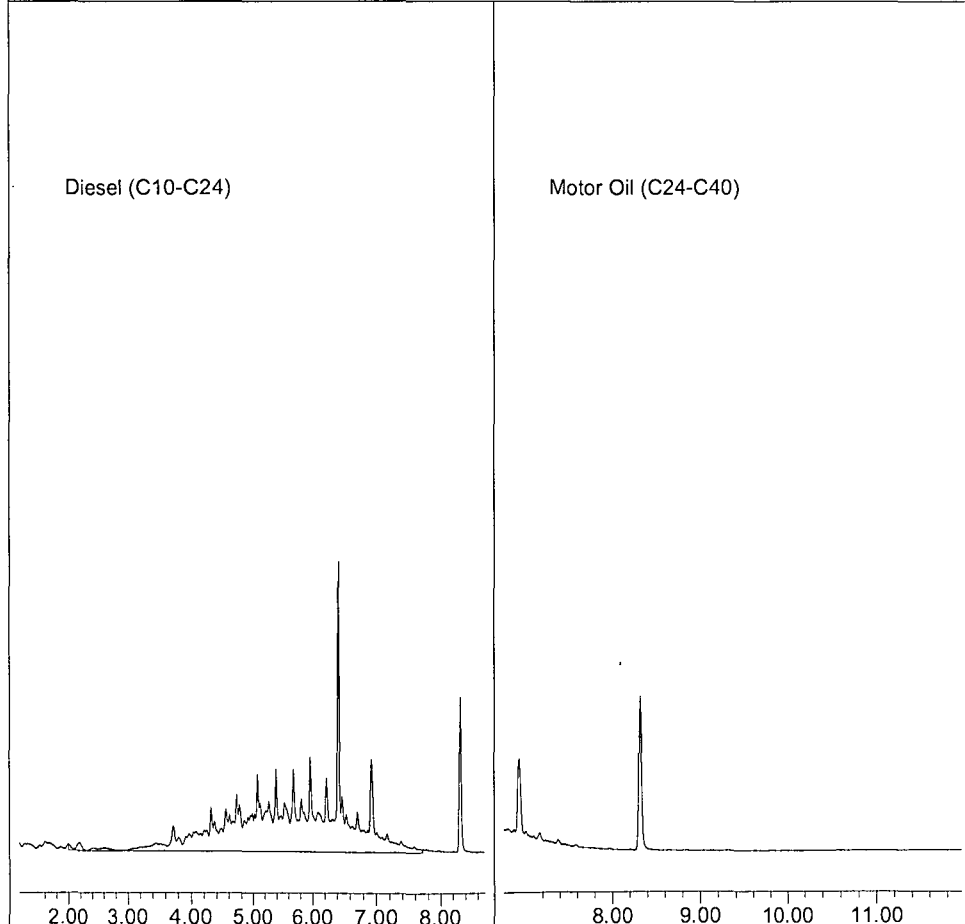
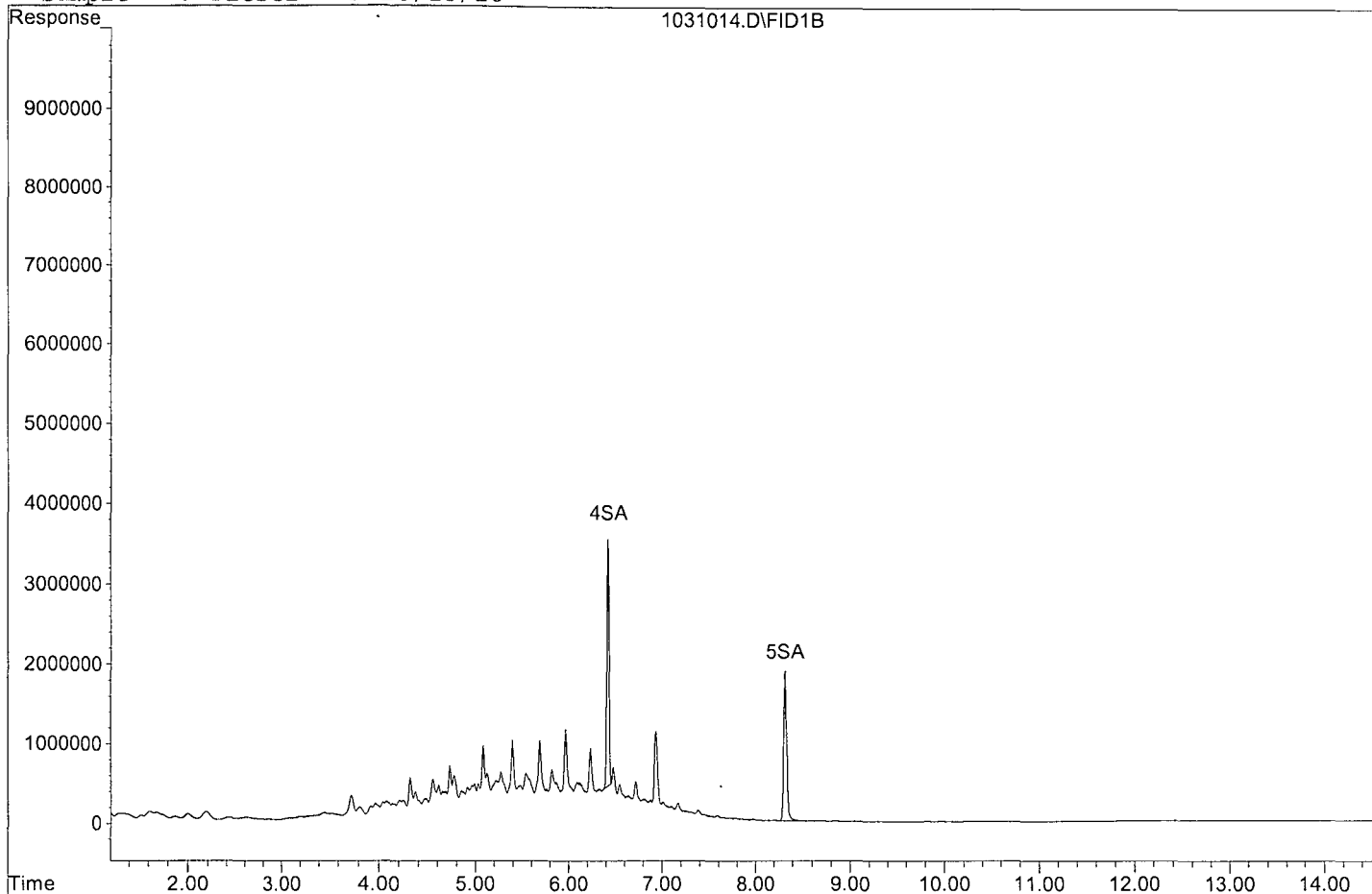
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	51391263	13.270 ppb
Surrogate Spike 30.000		Recovery =	44.23%
5) SA Octacosane(S)	8.32	42356741	13.114 ppb
Surrogate Spike 30.000		Recovery =	43.71%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	861939931	263.011 ppb

Data File: G:\APOLLO\DATA\181031\1031014.D

Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181031\1031015.D Vial: 15  
 Acq On : 10-31-18 16:44:47 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Oct 31 16:09 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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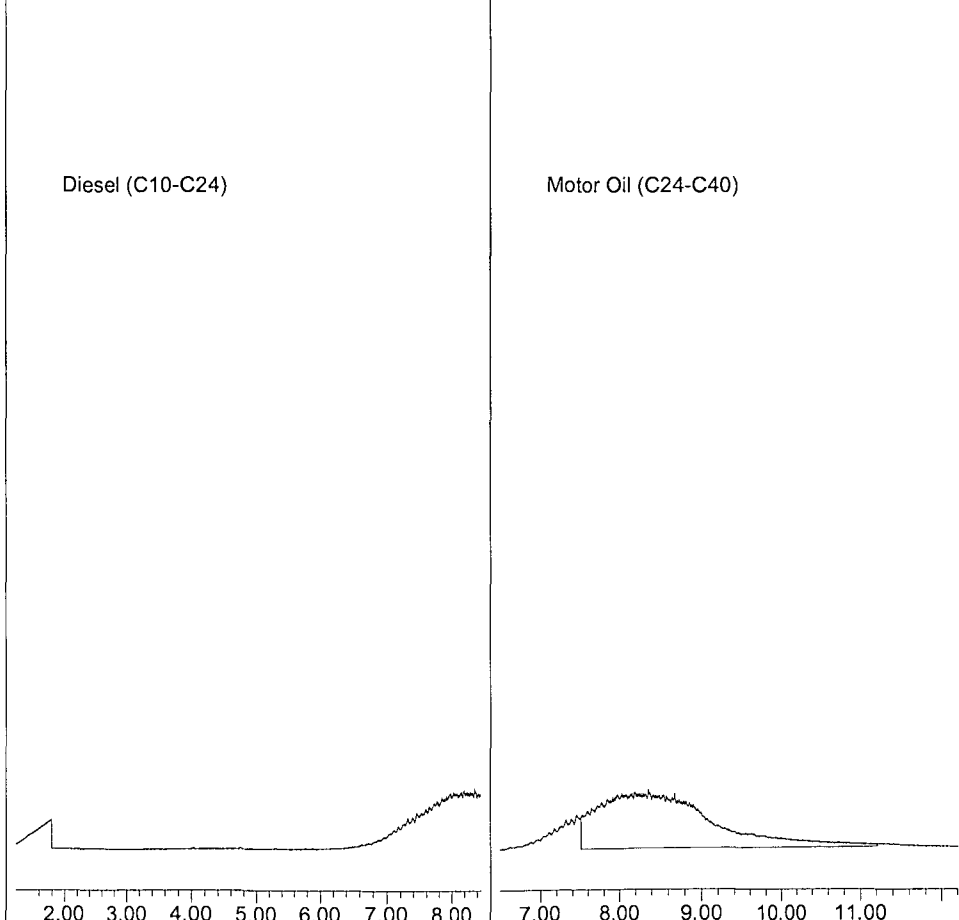
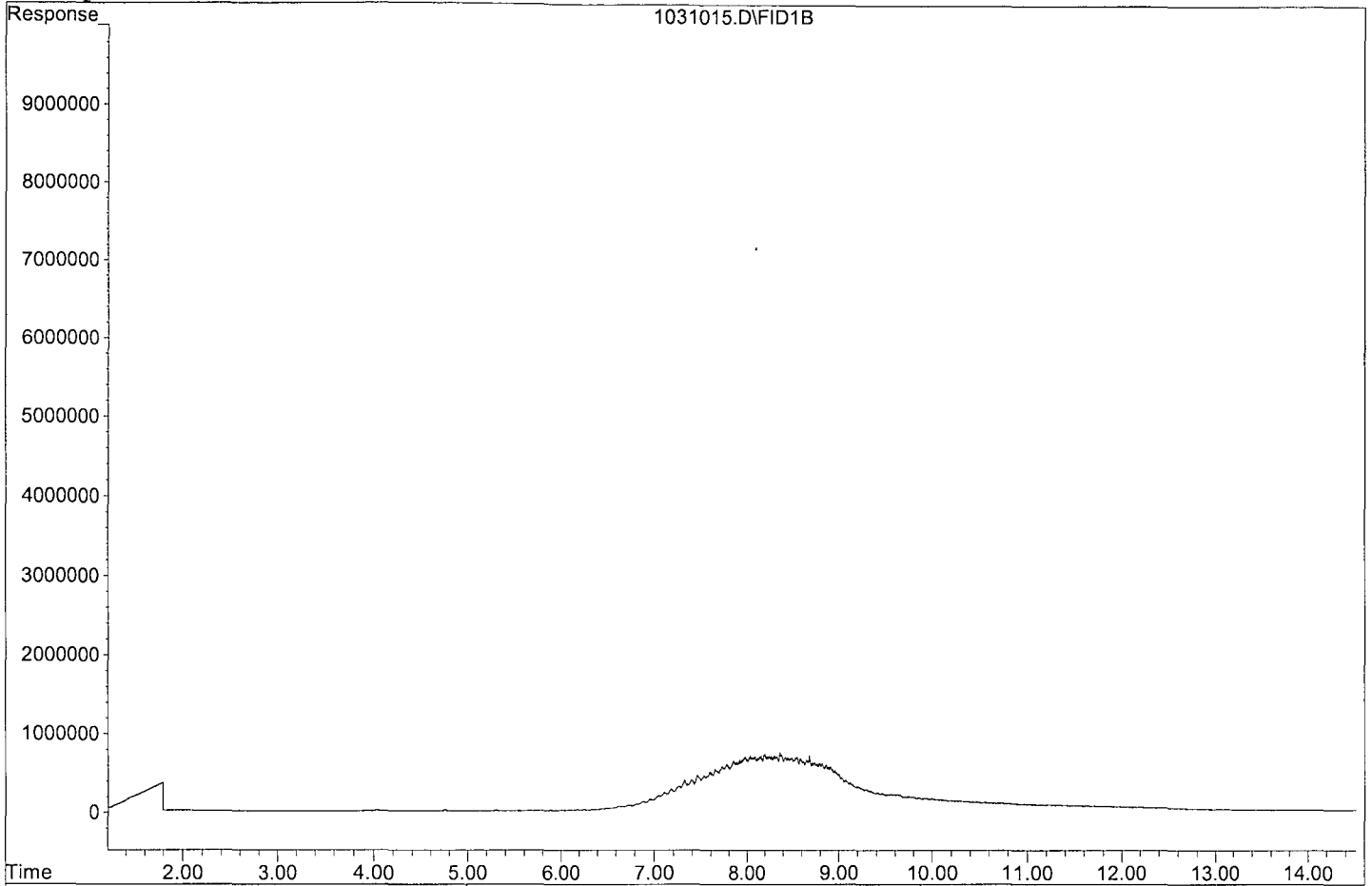
System Monitoring Compounds

Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	671139762	241.785 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031015.D  
Sample : Motor Oil - 3 10/15/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 11/07/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1107002-3.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1637300	0.08	HATM
2	SA Ortho-Terphenyl(S)	1936320	1996750	3.1	SA
3	SA Octacosane(S)	1614940	1603460	0.71	SA
4	HBTM Motor Oil (C24-C40)	1387880	1272680	8.3	HBTM
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40	Average			3.0	

Data File : G:\APOLLO\DATA\181107\1107002.D Vial: 2  
 Acq On : 11-7-18 13:44:44 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 7 14:00 2018 Quant Results File: DOC0905.RES

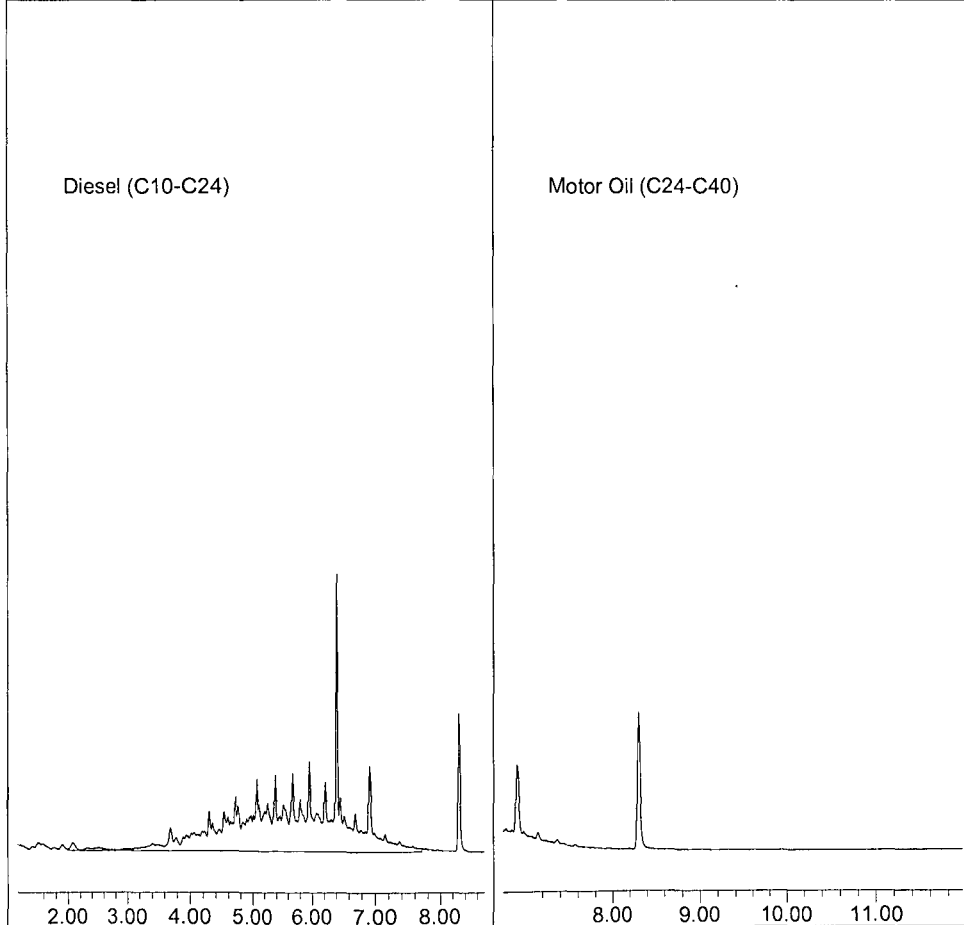
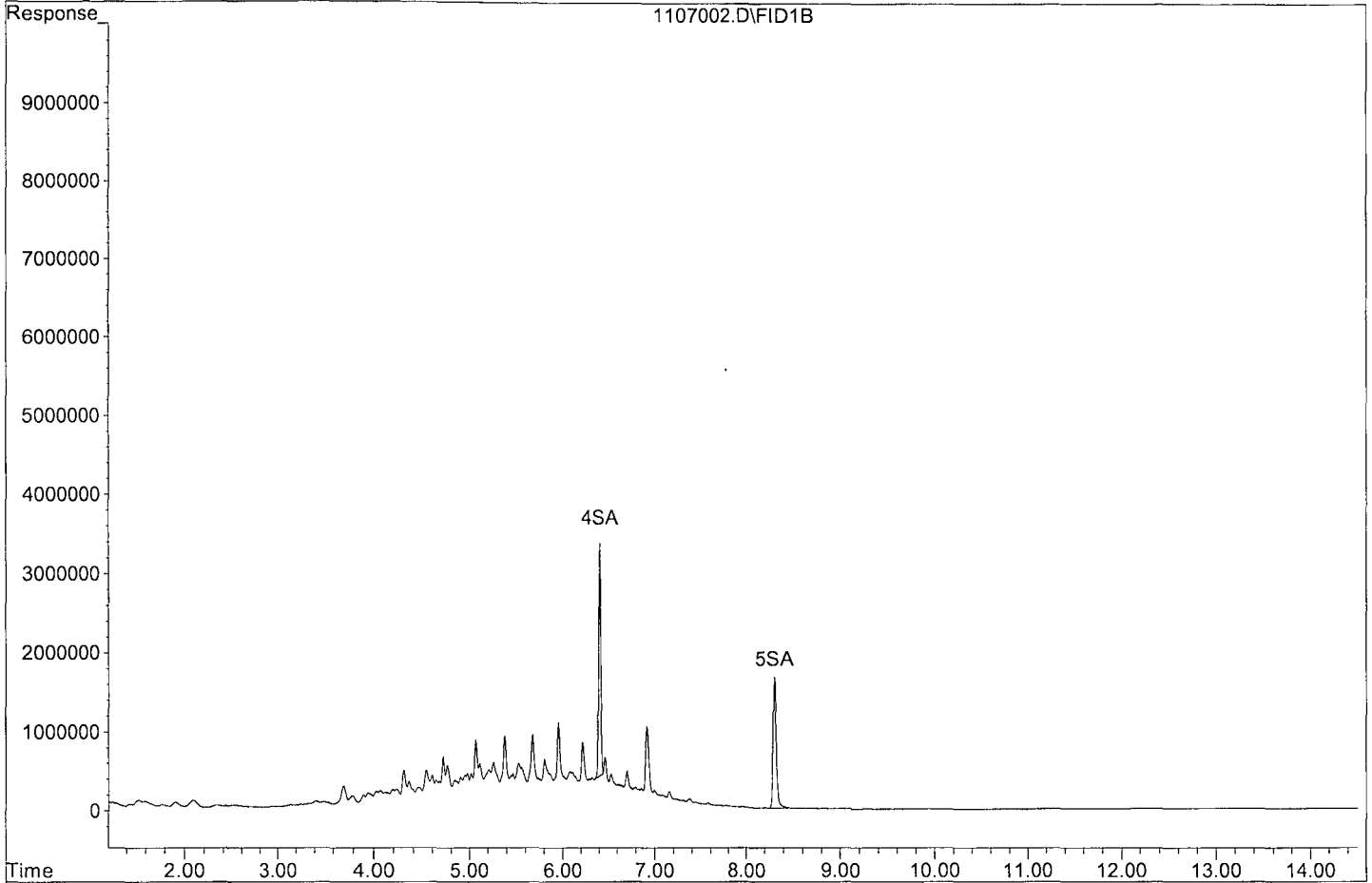
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	49918690	12.890 ppb
Surrogate Spike 30.000		Recovery =	42.97%
5) SA Octacosane(S)	8.31	40086512	12.411 ppb
Surrogate Spike 30.000		Recovery =	41.37%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	818648452	249.802 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107002.D  
Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107003.D Vial: 3  
 Acq On : 11-7-18 14:04:52 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 7 14:24 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
----------	------	----------	------------

System Monitoring Compounds

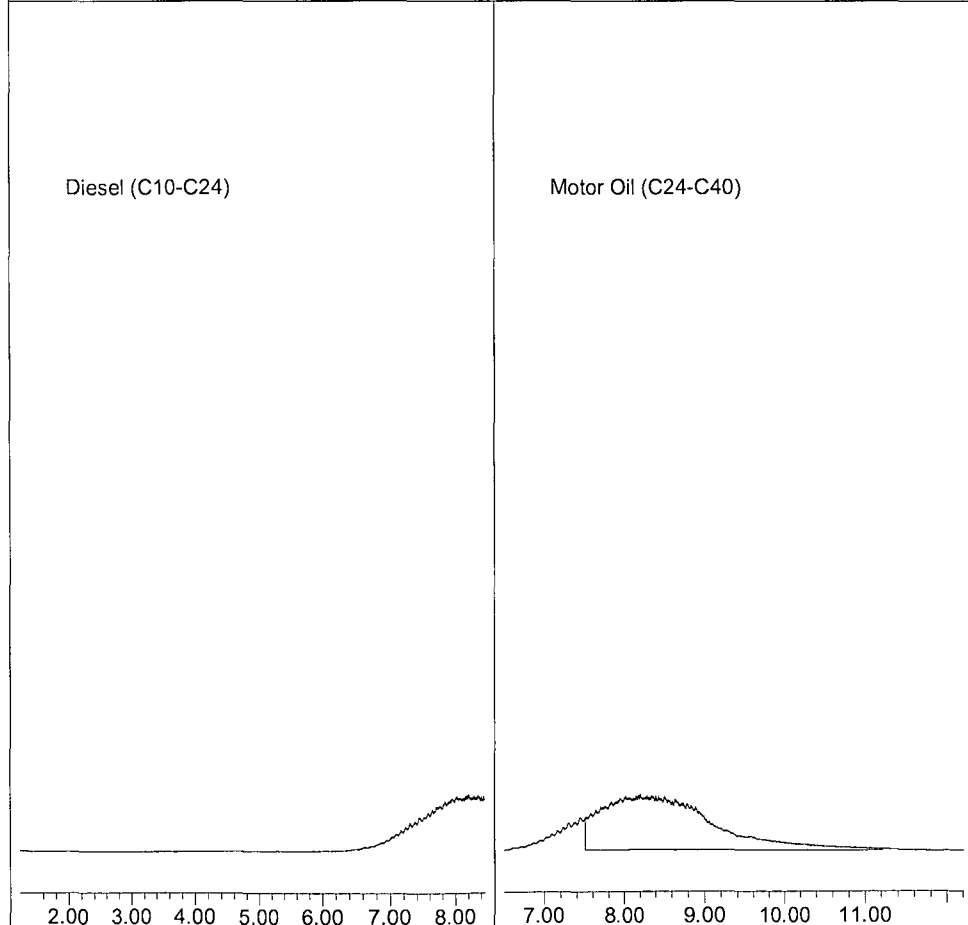
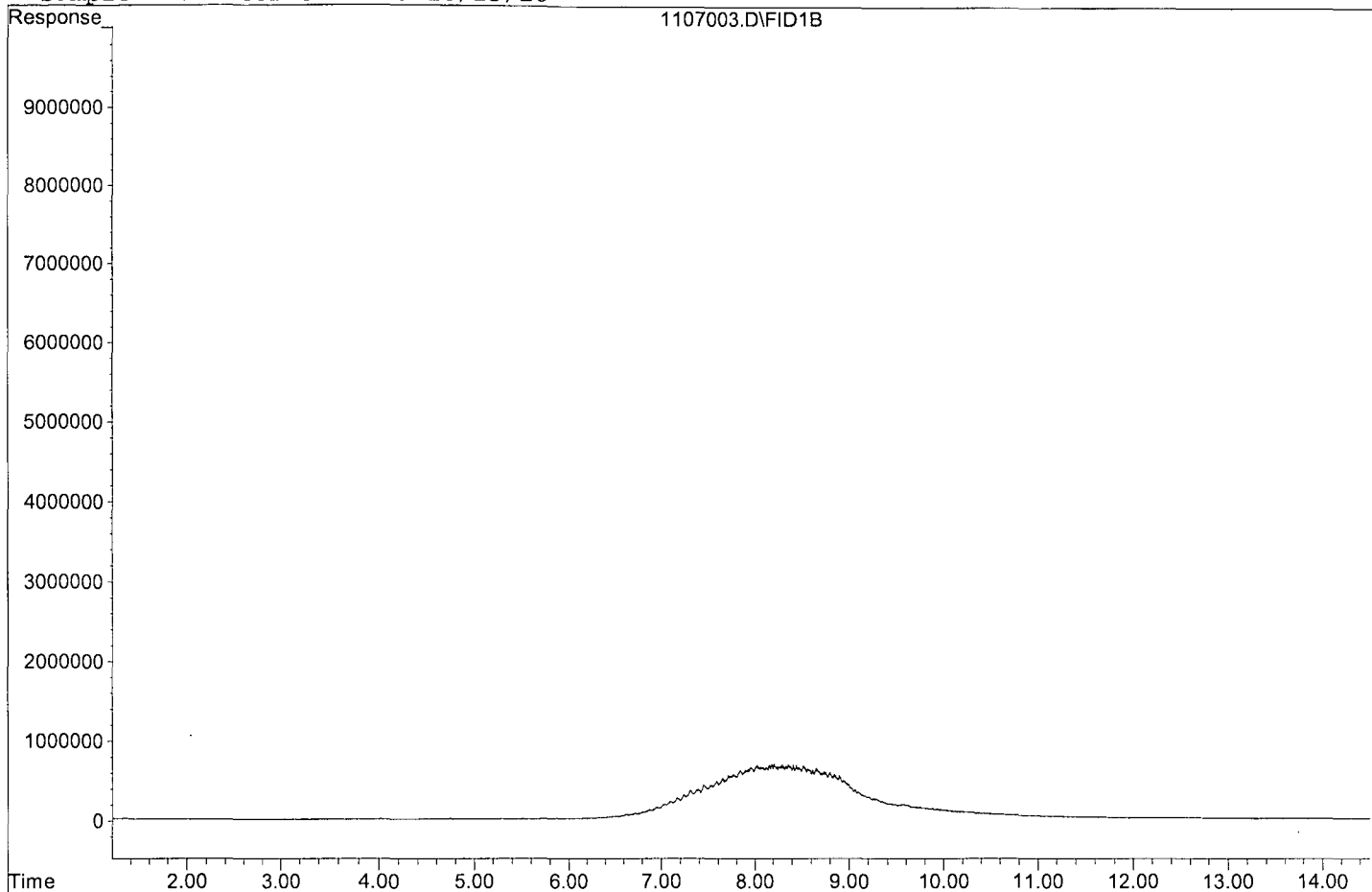
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	636338949	229.248 ppb
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Data File: G:\APOLLO\DATA\181107\1107003.D

Sample : Motor Oil - 3 10/15/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 11/07/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1107019-20.D

		Compound	MEAN	CCRF	%D	%Drift
1	HATM	Diesel (C10-C24)	1638600	1666450	1.7	HATM
2	SA	Ortho-Terphenyl(S)	1936320	2039030	5.3	SA
3	SA	Octacosane(S)	1614940	1660830	2.8	SA
4	HBTM	Motor Oil (C24-C40)	1387880	1317870	5.0	HBTM
5						
6						
7						
8						
9						
10						
11						
12						
13						
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24						
25						
26						
27						
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29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40		Average			3.7	

Data File : G:\APOLLO\DATA\181107\1107019.D Vial: 19  
 Acq On : 11-7-18 19:30:00 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 9:16 2018 Quant Results File: DOC0905.RES

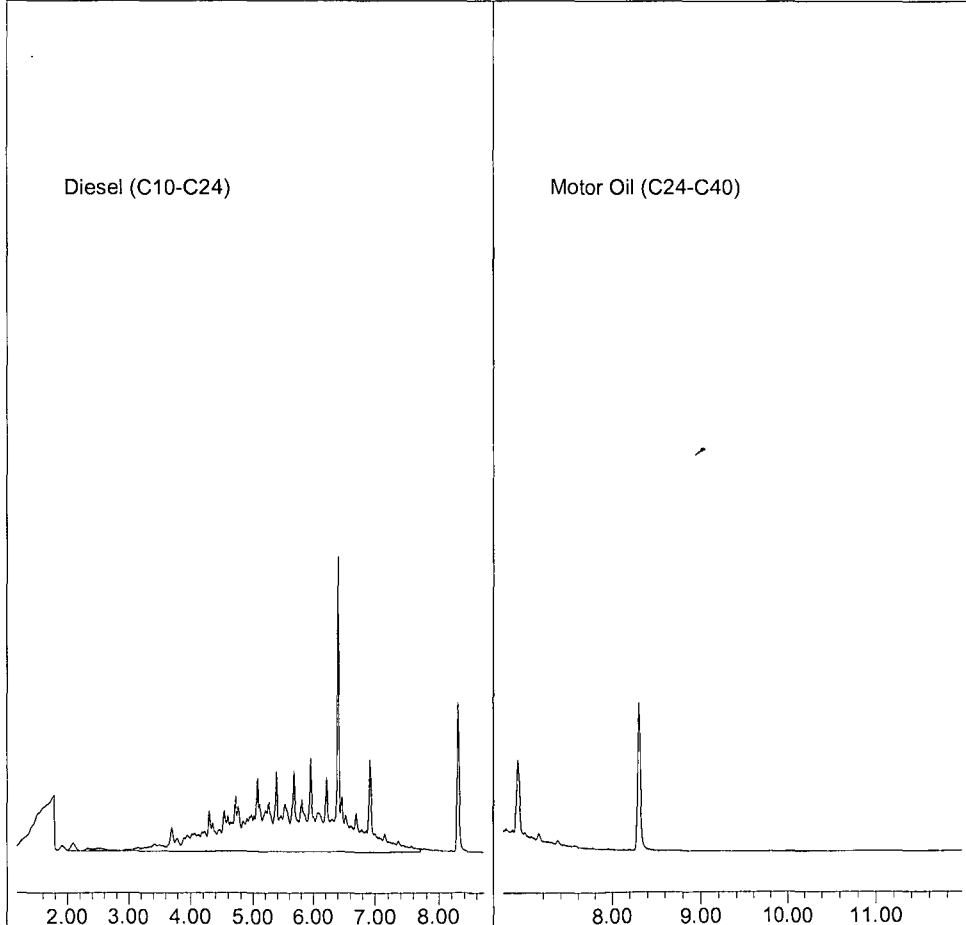
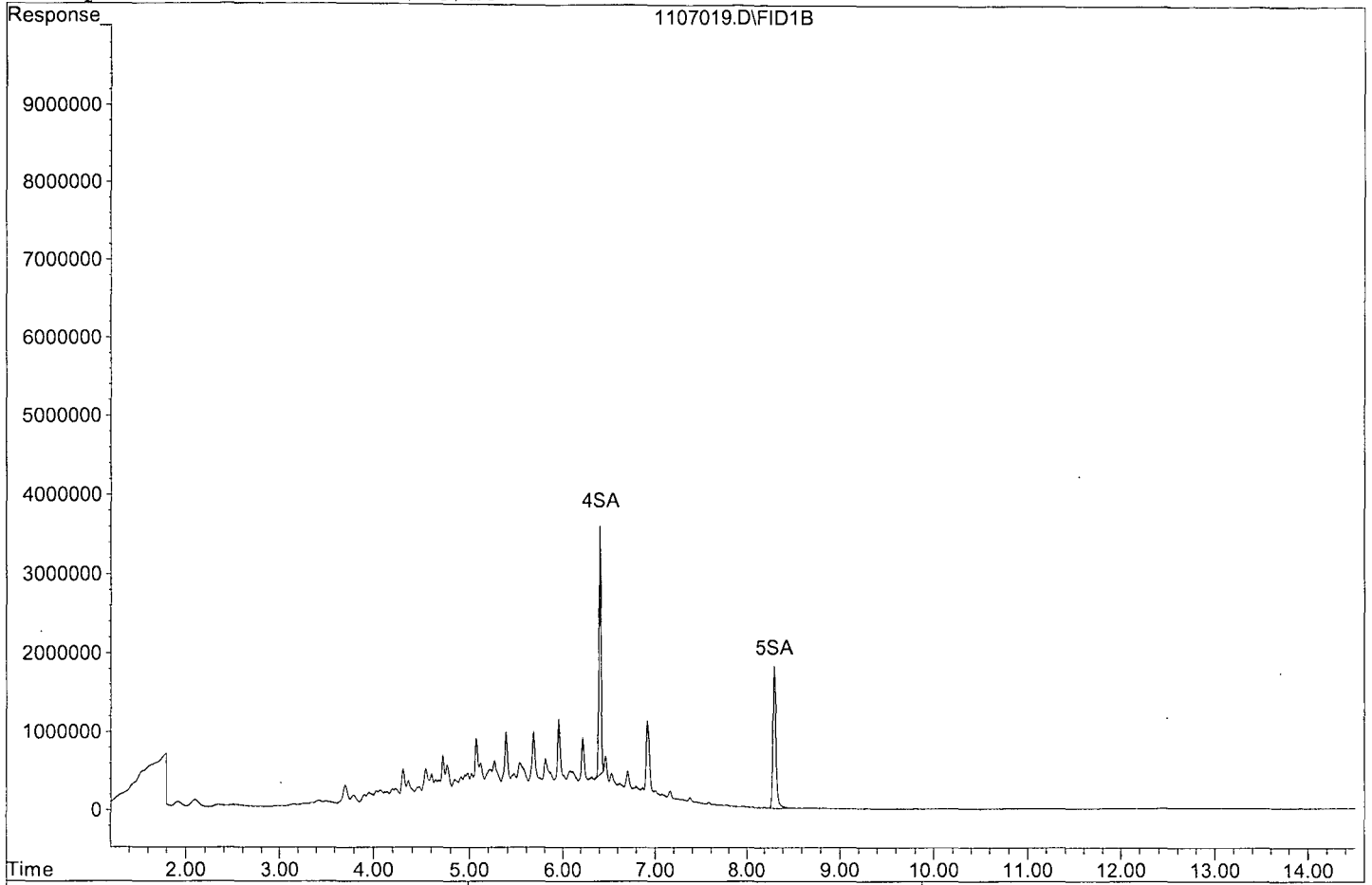
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	50975648	13.163 ppb
Surrogate Spike 30.000		Recovery =	43.88%
5) SA Octacosane(S)	8.31	41520747	12.855 ppb
Surrogate Spike 30.000		Recovery =	42.85%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	833224325	254.249 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107019.D  
Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107020.D Vial: 20  
 Acq On : 11-7-18 19:50:19 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 9:16 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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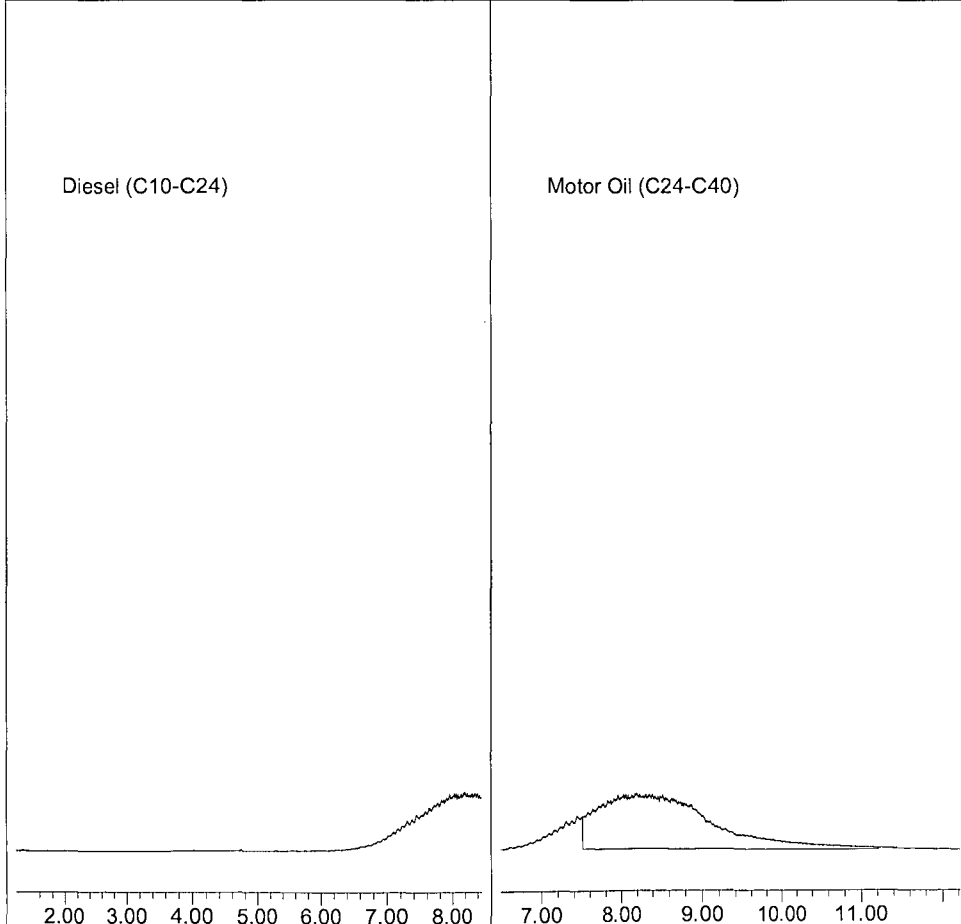
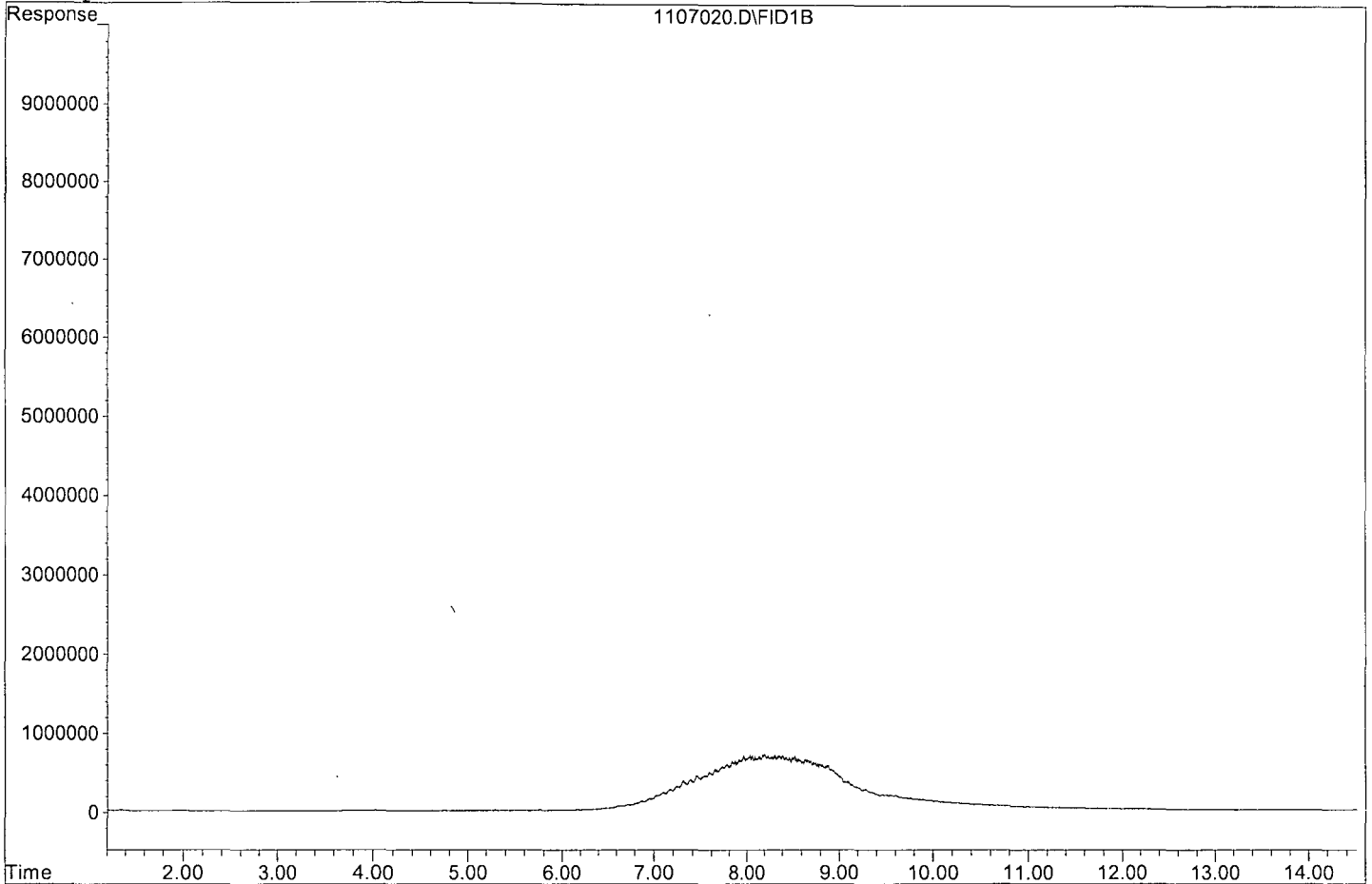
System Monitoring Compounds

Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	658935006	237.388 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107020.D  
Sample : Motor Oil - 3 10/15/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 11/08/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1107030-31.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1592010	2.8	HATM
2	SA Ortho-Terphenyl(S)	1936320	1978180	2.2	SA
3	SA Octacosane(S)	1614940	1622920	0.49	SA
4	HBTM Motor Oil (C24-C40)	1387880	1288240	7.2	HBTM
5					
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34					
35					
36					
37					
38					
39					
40	Average			3.2	

Data File : G:\APOLLO\DATA\181107\1107030.D Vial: 30  
 Acq On : 11-8-18 13:54:55 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 14:45 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

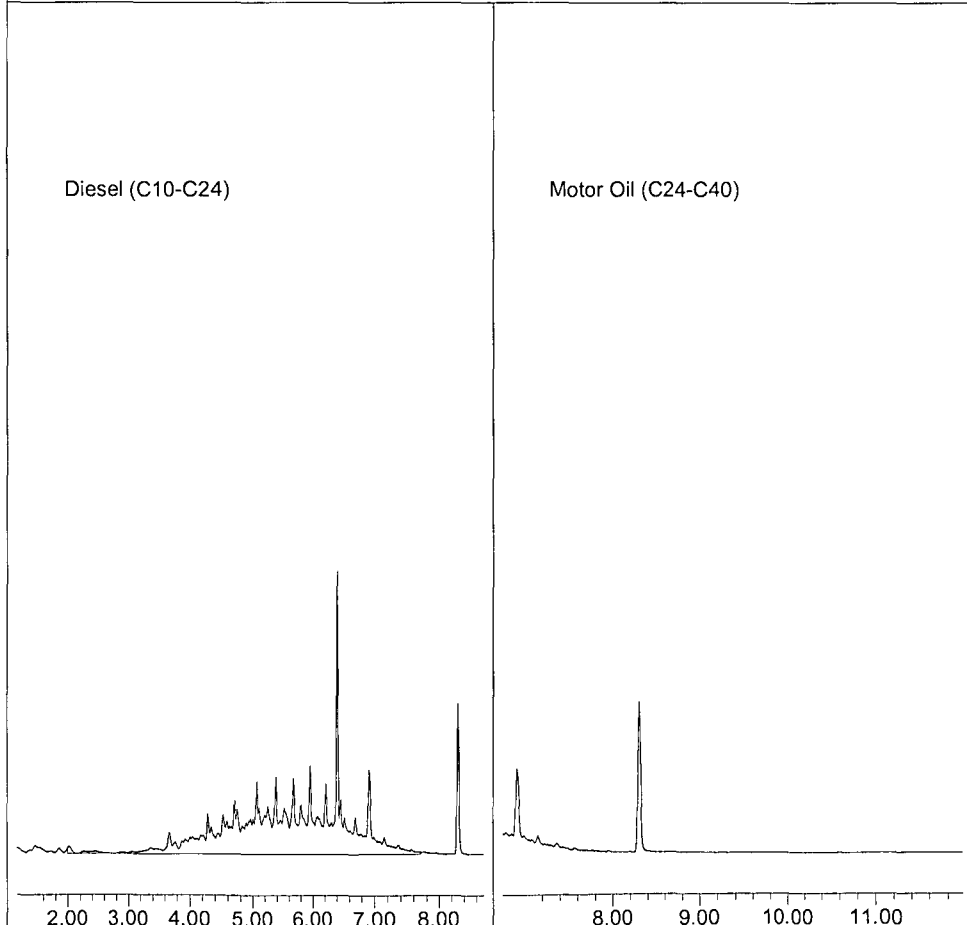
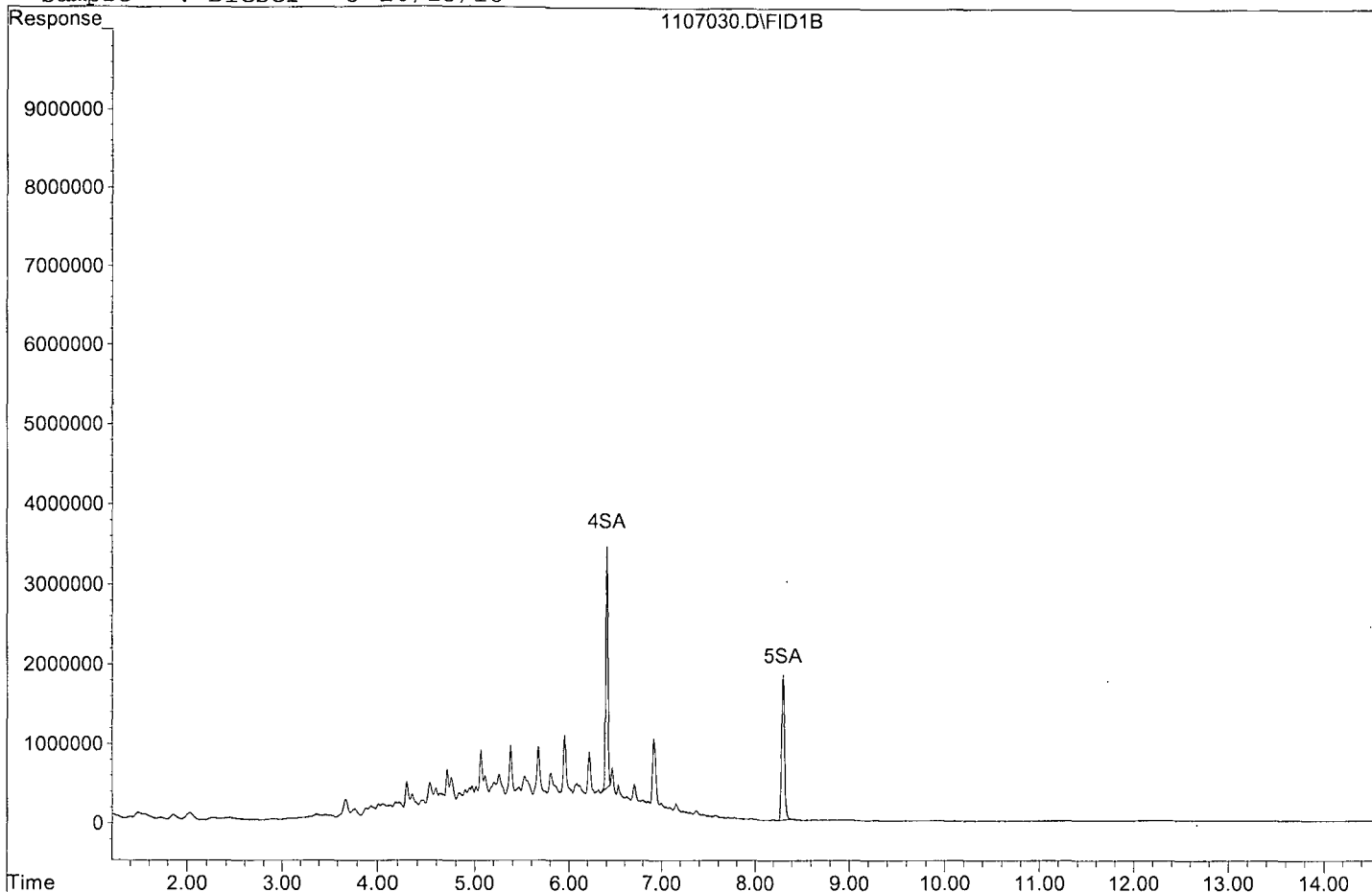
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	49454517	12.770 ppb
Surrogate Spike 30.000		Recovery =	42.57%
5) SA Octacosane(S)	8.30	40572908	12.562 ppb
Surrogate Spike 30.000		Recovery =	41.87%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	796005616	242.892 ppb



Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107030.D  
Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107031.D Vial: 31  
 Acq On : 11-8-18 14:15:05 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 14:45 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

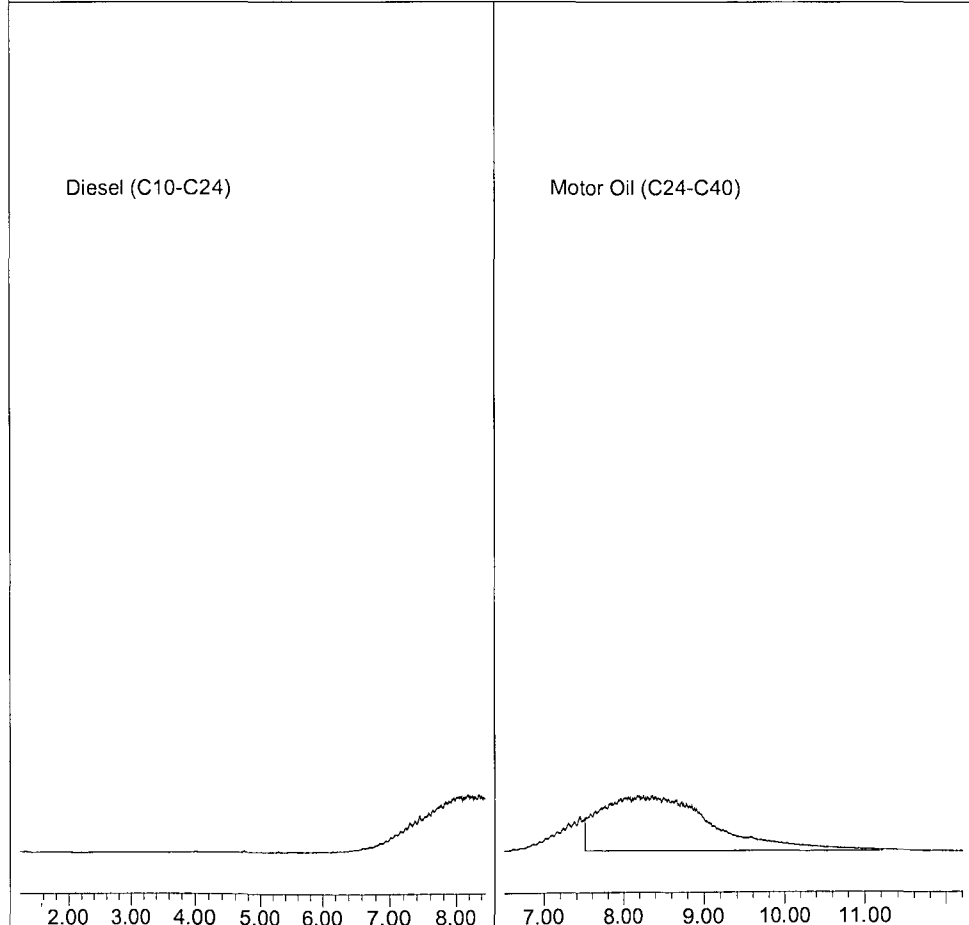
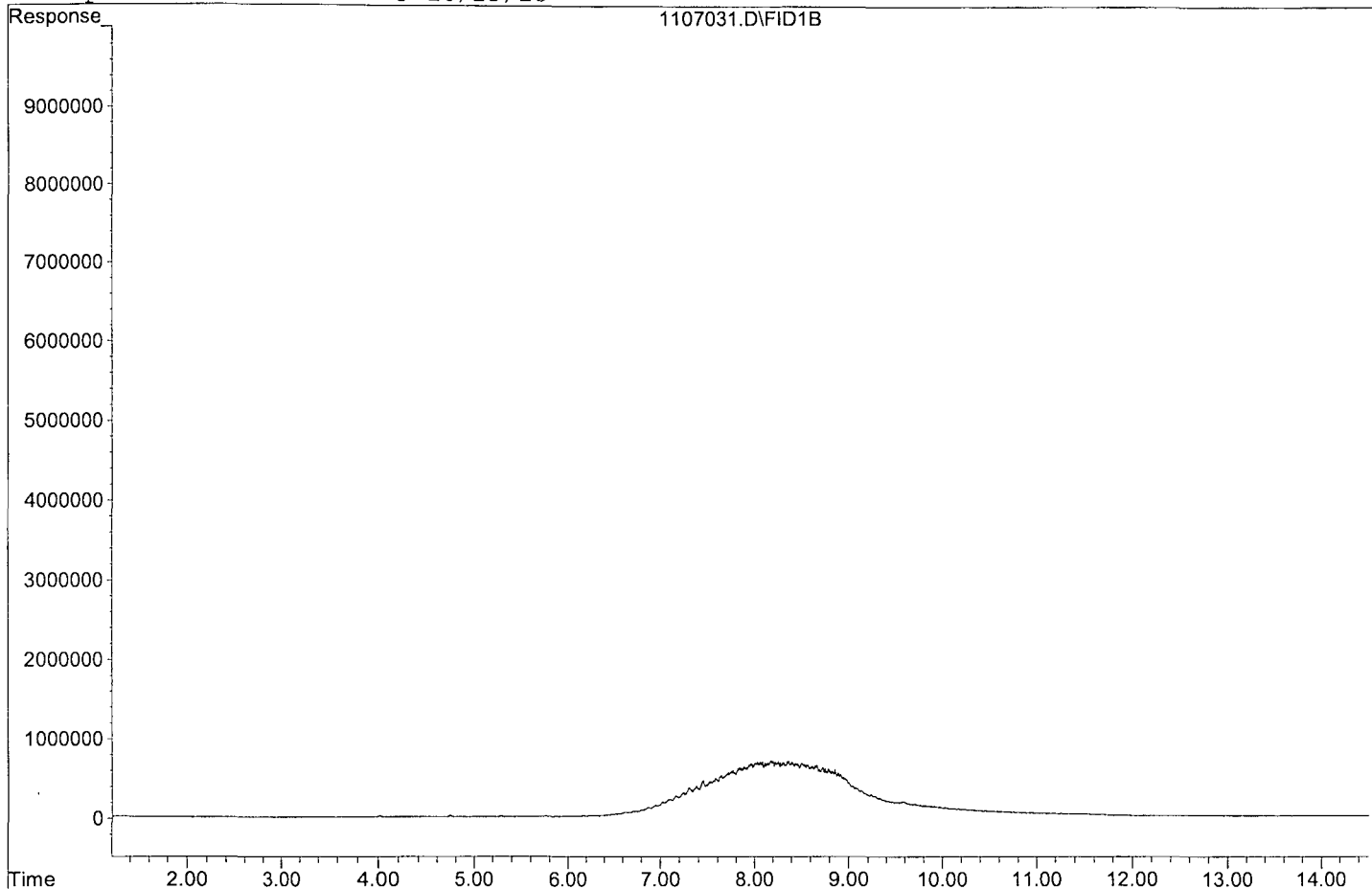
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	644118064	232.050 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107031.D

Sample : Motor Oil - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107032.D Vial: 32  
 Acq On : 11-8-18 14:35:27 Operator: DP  
 Sample : Decanoic Acid - 3 8/23/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 15:40 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

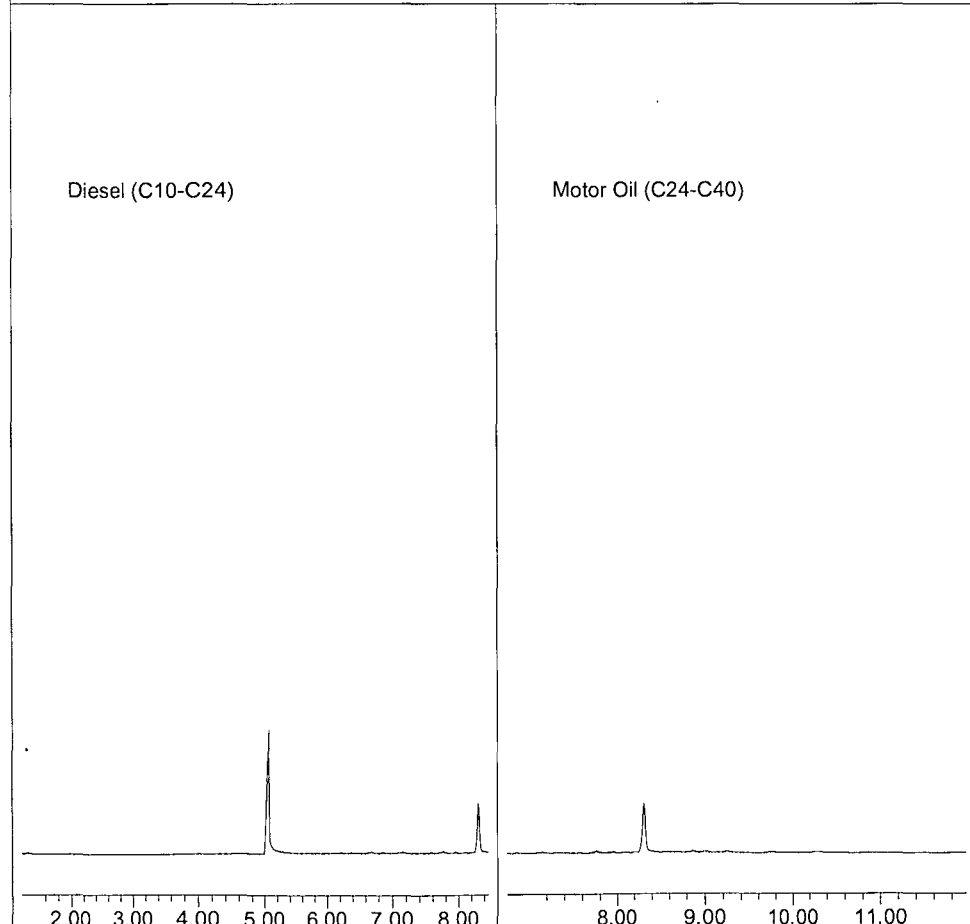
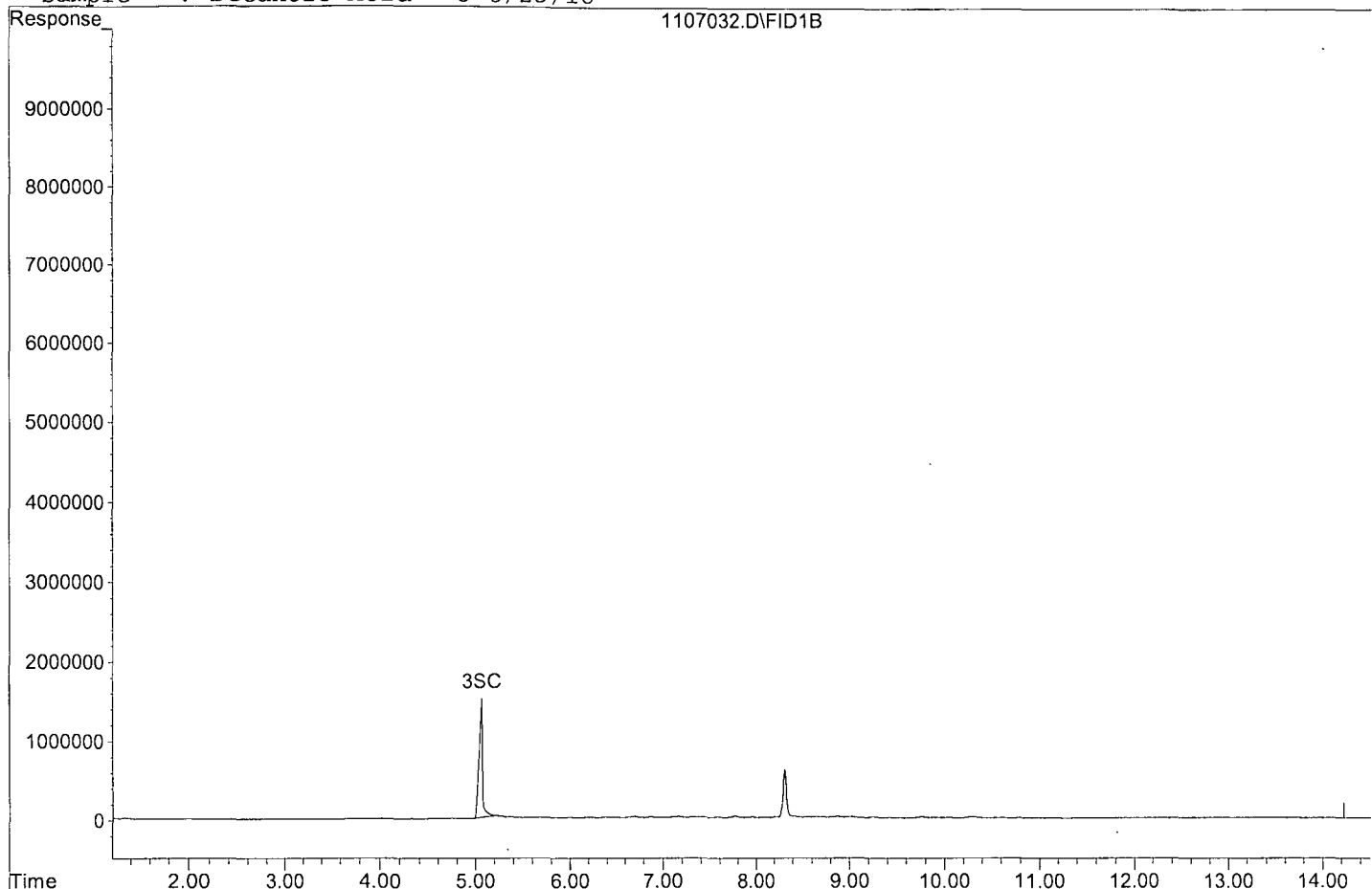
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.07	38744112	19.506 ppb
Surrogate Spike 24.000	Recovery	=	81.27%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107032.D  
Sample : Decanoic Acid - 3 8/23/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 11/08/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1107056-57.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1690390	3.2	HATM
2	SA Ortho-Terphenyl(S)	1936320	2051610	6.0	SA
3	SA Octacosane(S)	1614940	1646080	1.9	SA
4	HBTM Motor Oil (C24-C40)	1387880	1384240	0.26	HBTM
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40	Average			2.8	

Data File : G:\APOLLO\DATA\181107\1107056.D Vial: 56  
 Acq On : 11-8-18 22:40:31 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 9:11 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

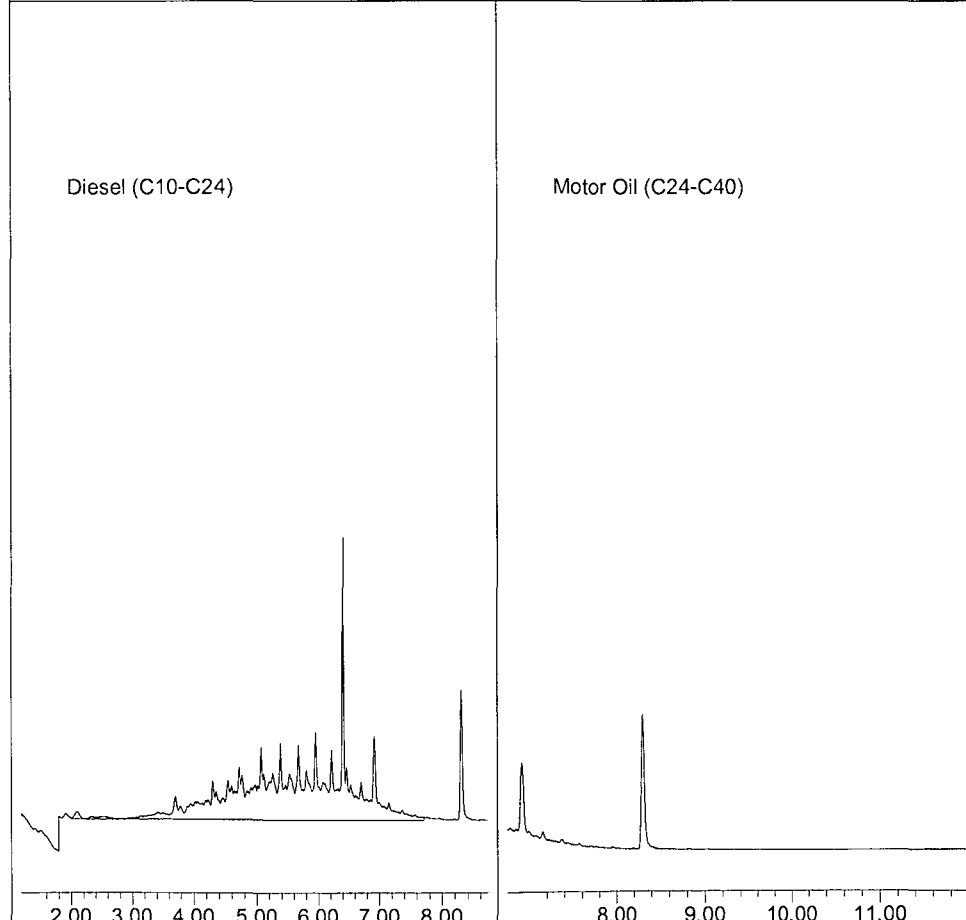
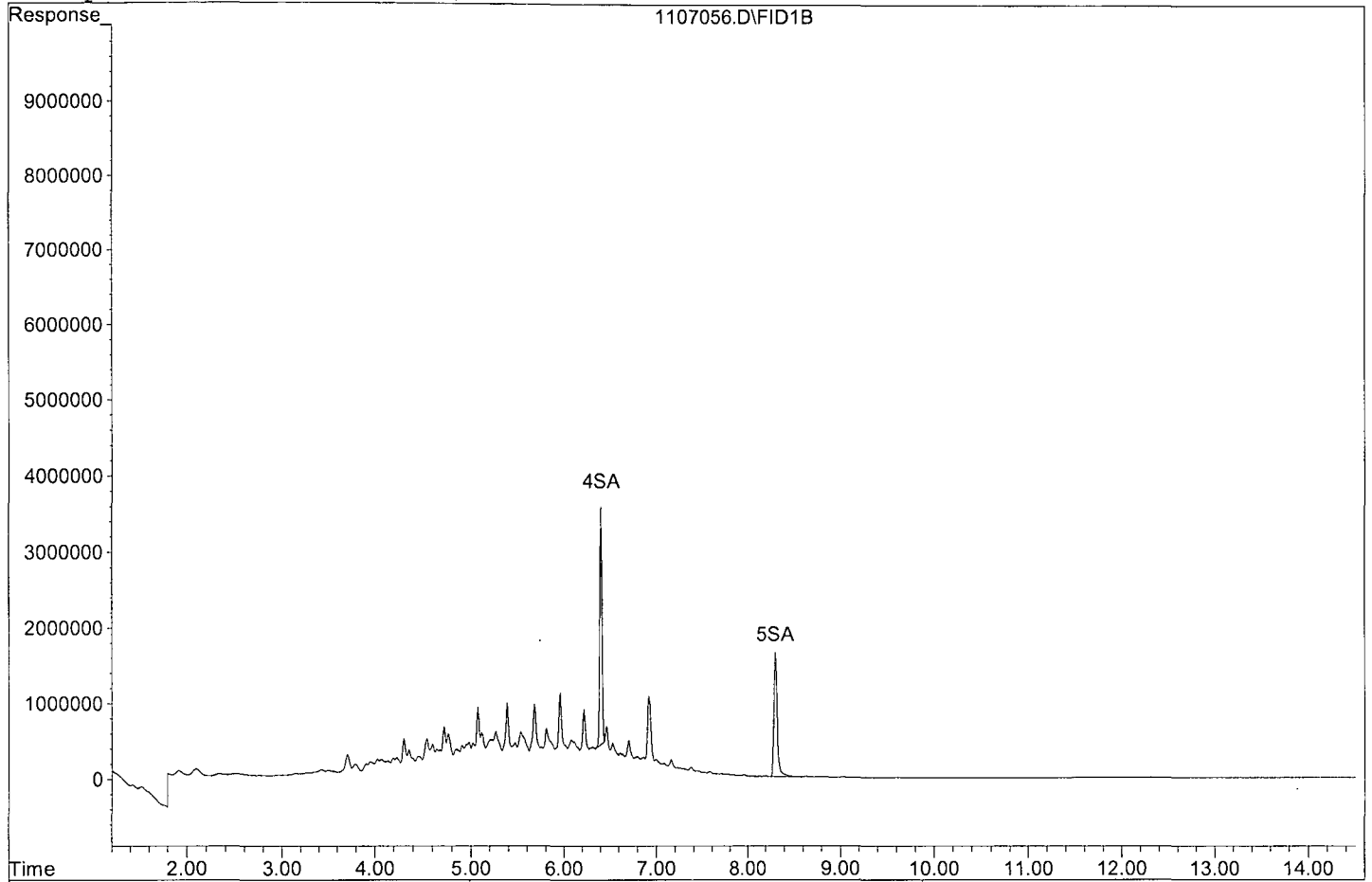
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	51290355	13.244 ppb
Surrogate Spike 30.000		Recovery =	44.15%
5) SA Octacosane(S)	8.30	41151998	12.741 ppb
Surrogate Spike 30.000		Recovery =	42.47%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	845195891	257.902 ppb

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Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107056.D  
Sample : Diesel - 3 10/15/18





Data File : G:\APOLLO\DATA\181107\1107057.D Vial: 57  
 Acq On : 11-8-18 22:59:46 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 9:11 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

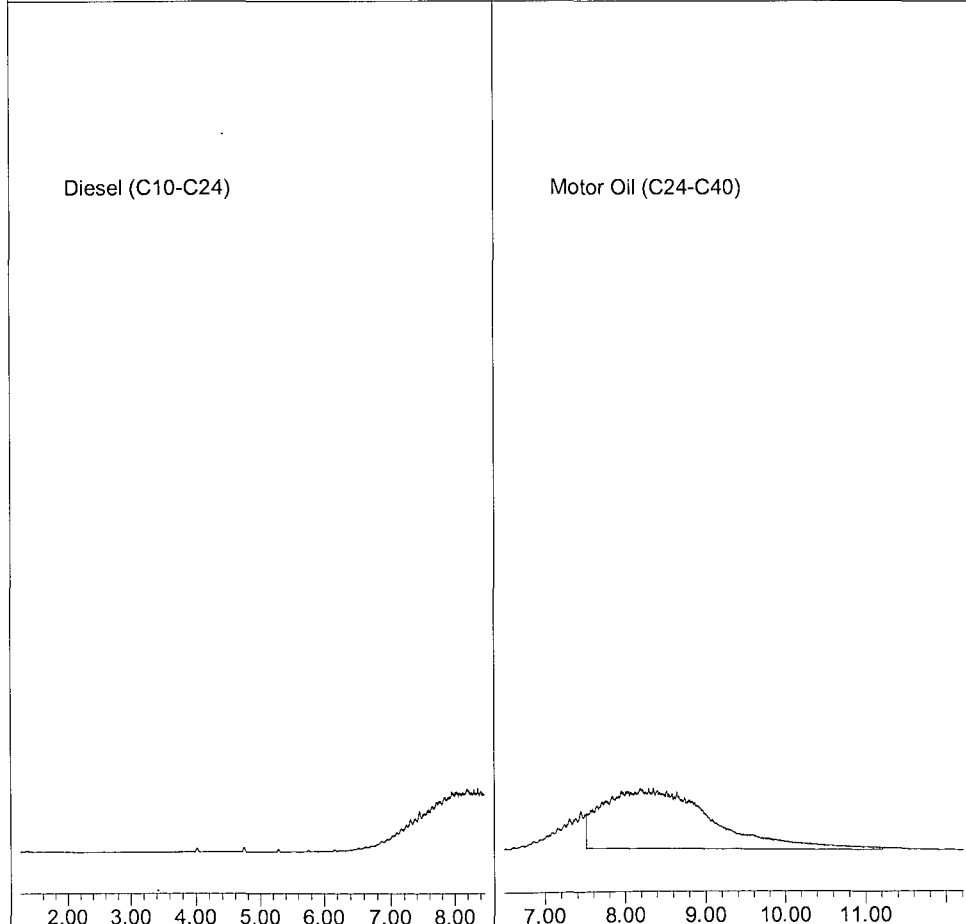
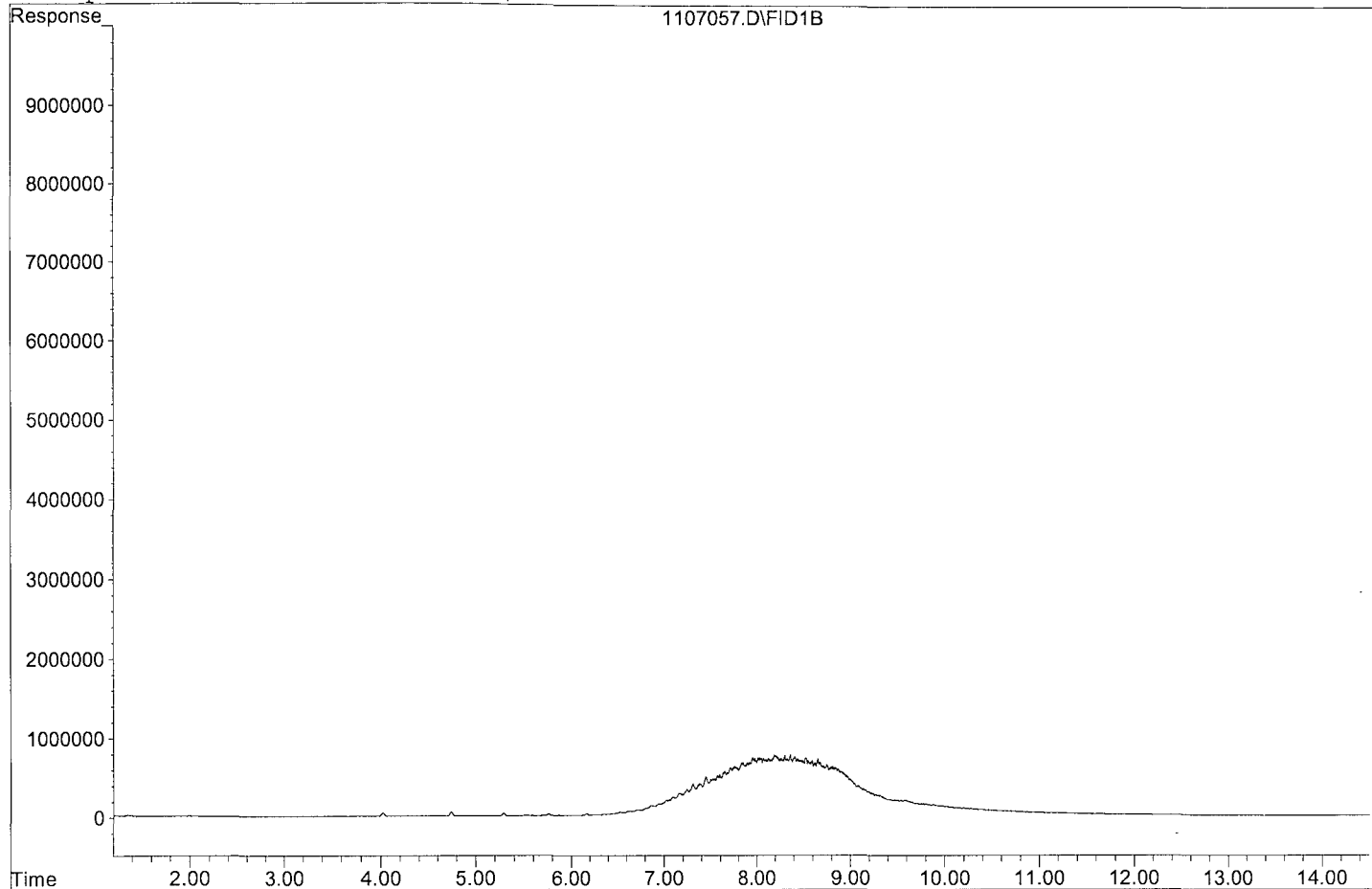
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	692119808	249.343 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107057.D

Sample : Motor Oil - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107058.D Vial: 58  
 Acq On : 11-8-18 23:19:51 Operator: DP  
 Sample : Decanoic Acid - 3 8/23/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 9:11 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

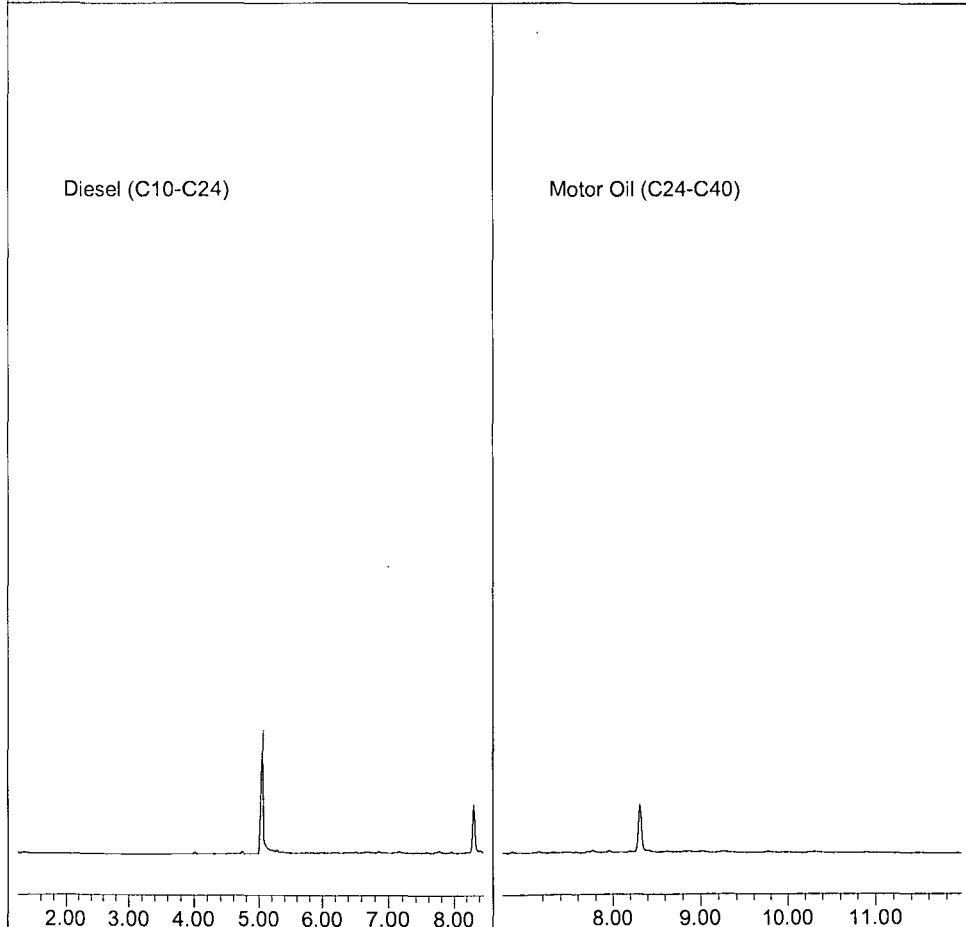
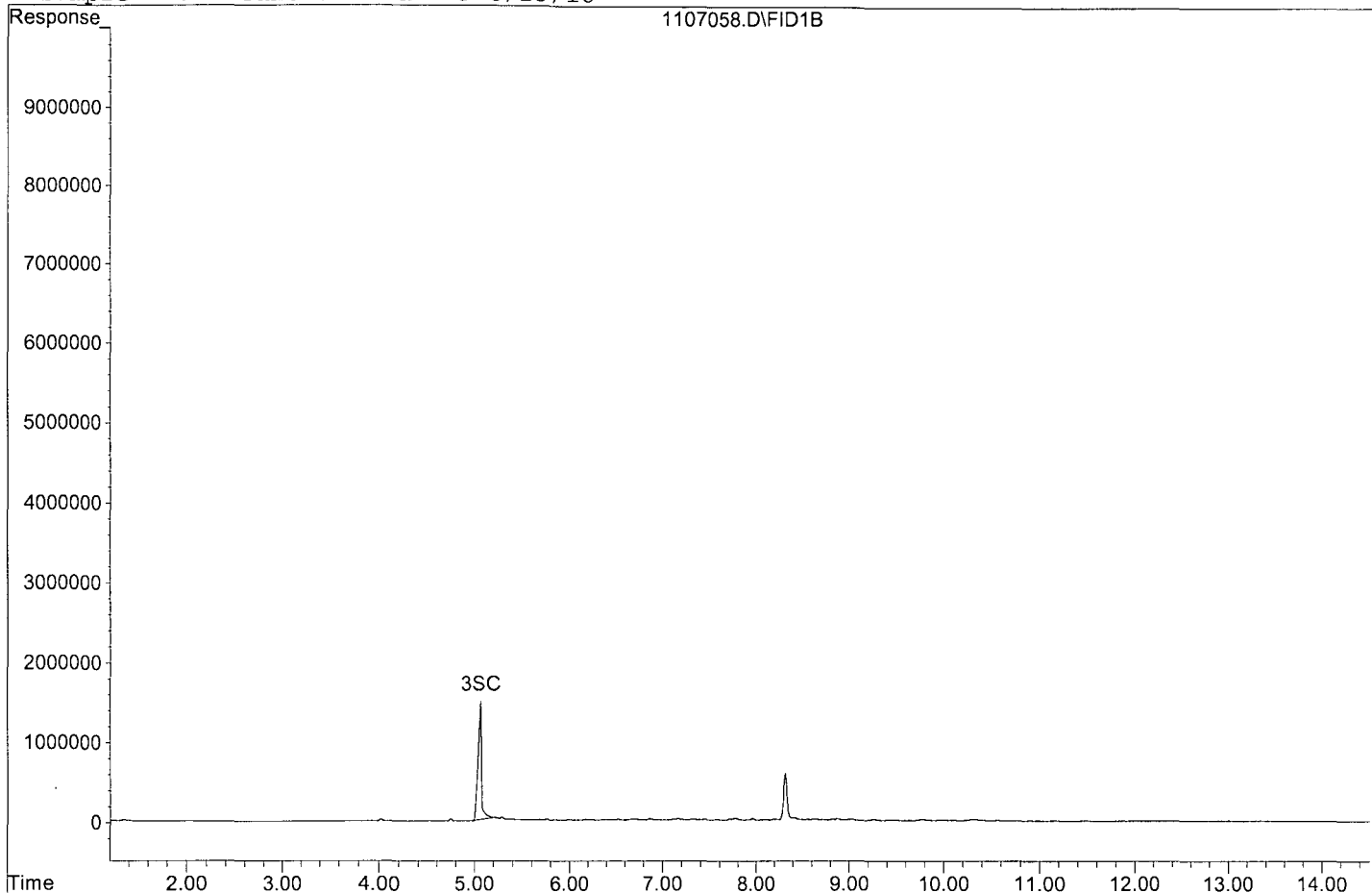
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.06	37861185	19.062 ppb
Surrogate Spike 24.000	Recovery	=	79.43%
Target Compounds			

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107058.D

Sample : Decanoic Acid - 3 8/23/18



**ORGANICS**  
**Raw Data**

**APPL, INC.**

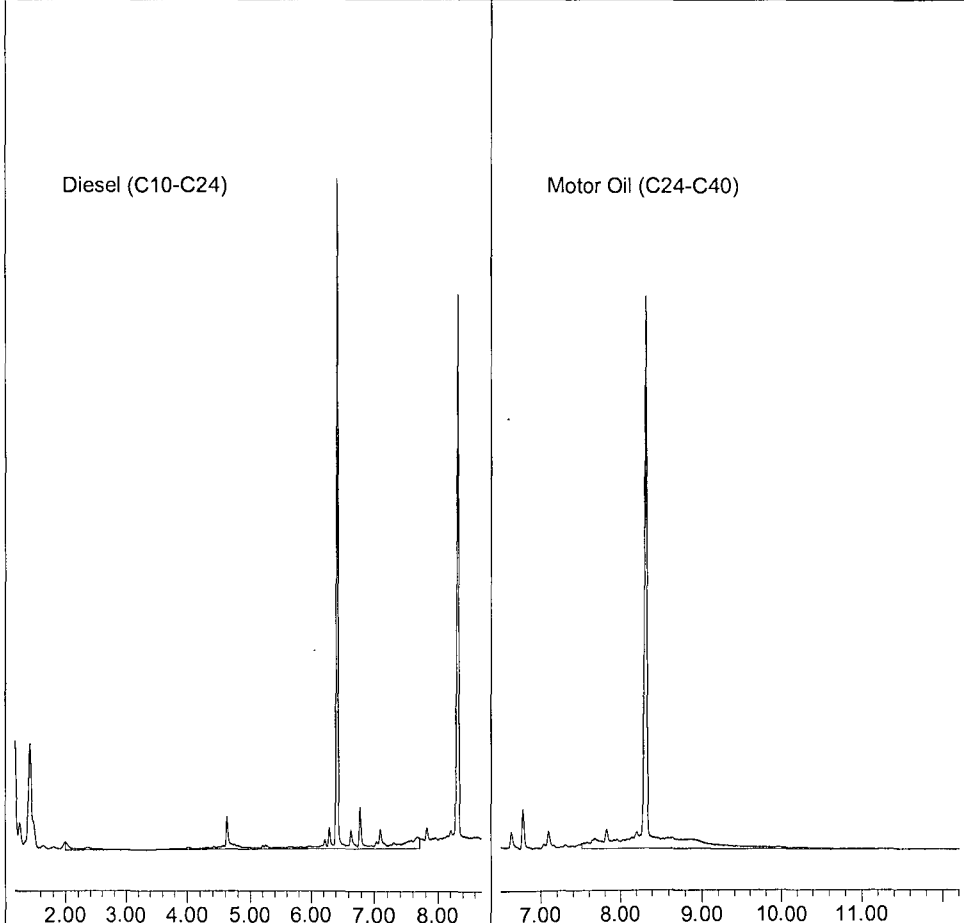
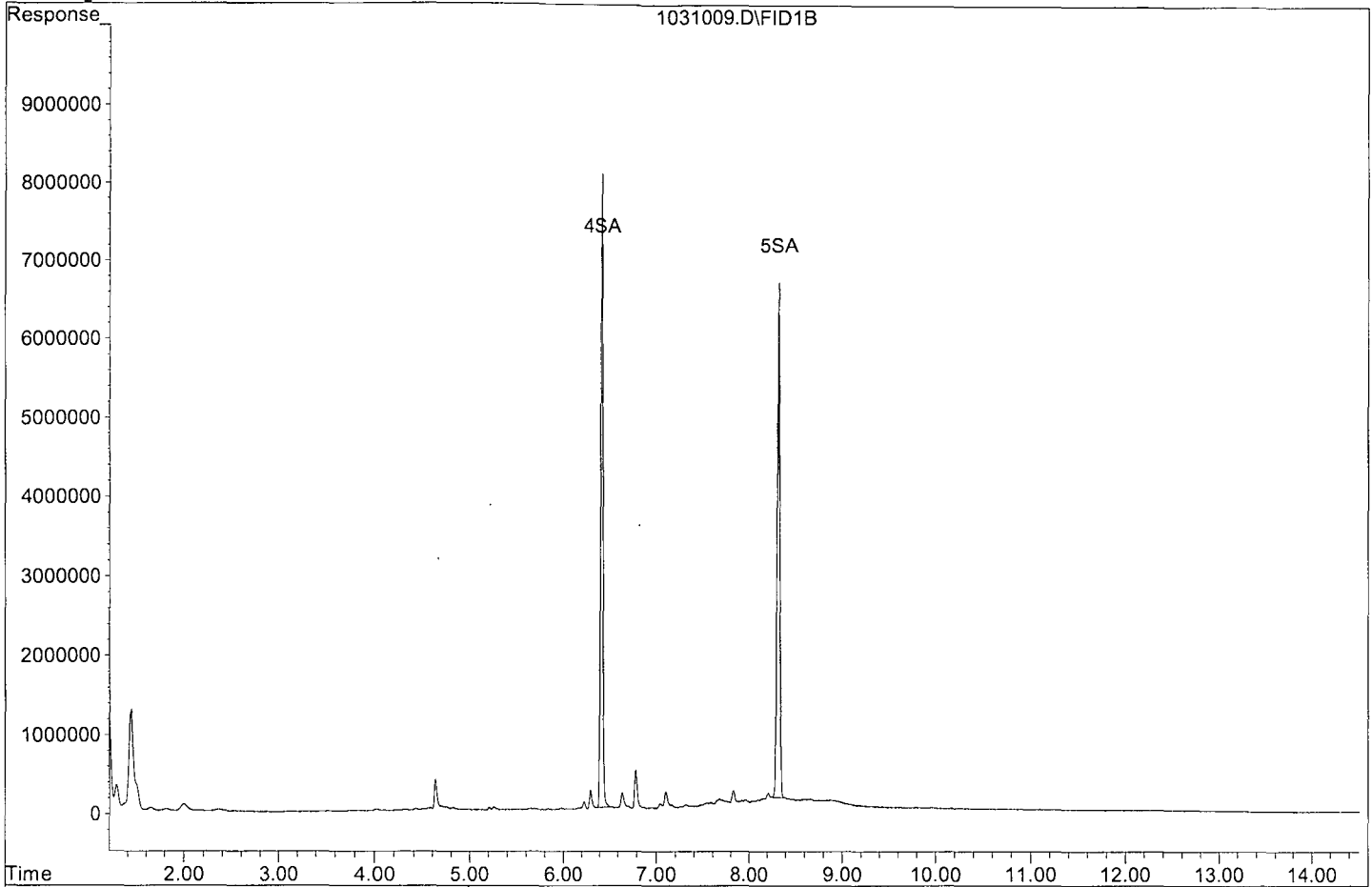
Data File : G:\APOLLO\DATA\181031\1031009.D Vial: 9  
 Acq On : 10-31-18 14:45:17 Operator: DP  
 Sample : AZ81636W14 2/810 Inst : Apollo  
 Misc : water Multiplr: 2.47  
 IntFile : events.e  
 Quant Time: Oct 31 15:09 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	135427092	86.346 ppb
Surrogate Spike 74.074		Recovery =	116.57%
5) SA Octacosane(S)	8.32	126916917	97.024 ppb
Surrogate Spike 74.074		Recovery =	130.98%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	120430329	90.736 ppb
2) HBTM Motor Oil (C24-C40)	9.36	131114386	116.631 ppb

Data File: G:\APOLLO\DATA\181031\1031009.D  
Sample : AZ81636W14 2/810



Data File : G:\APOLLO\DATA\181107\1107012.D Vial: 12  
 Acq On : 11-7-18 17:06:54 Operator: DP  
 Sample : AZ81636W13 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 8 9:15 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

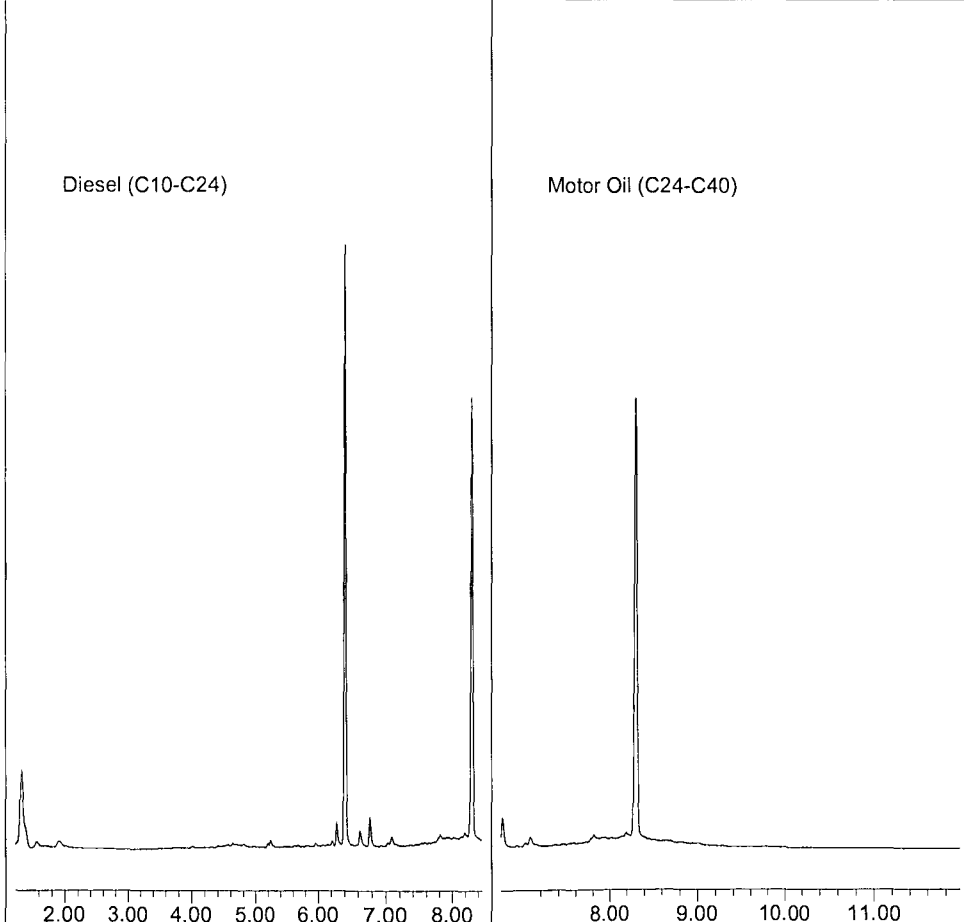
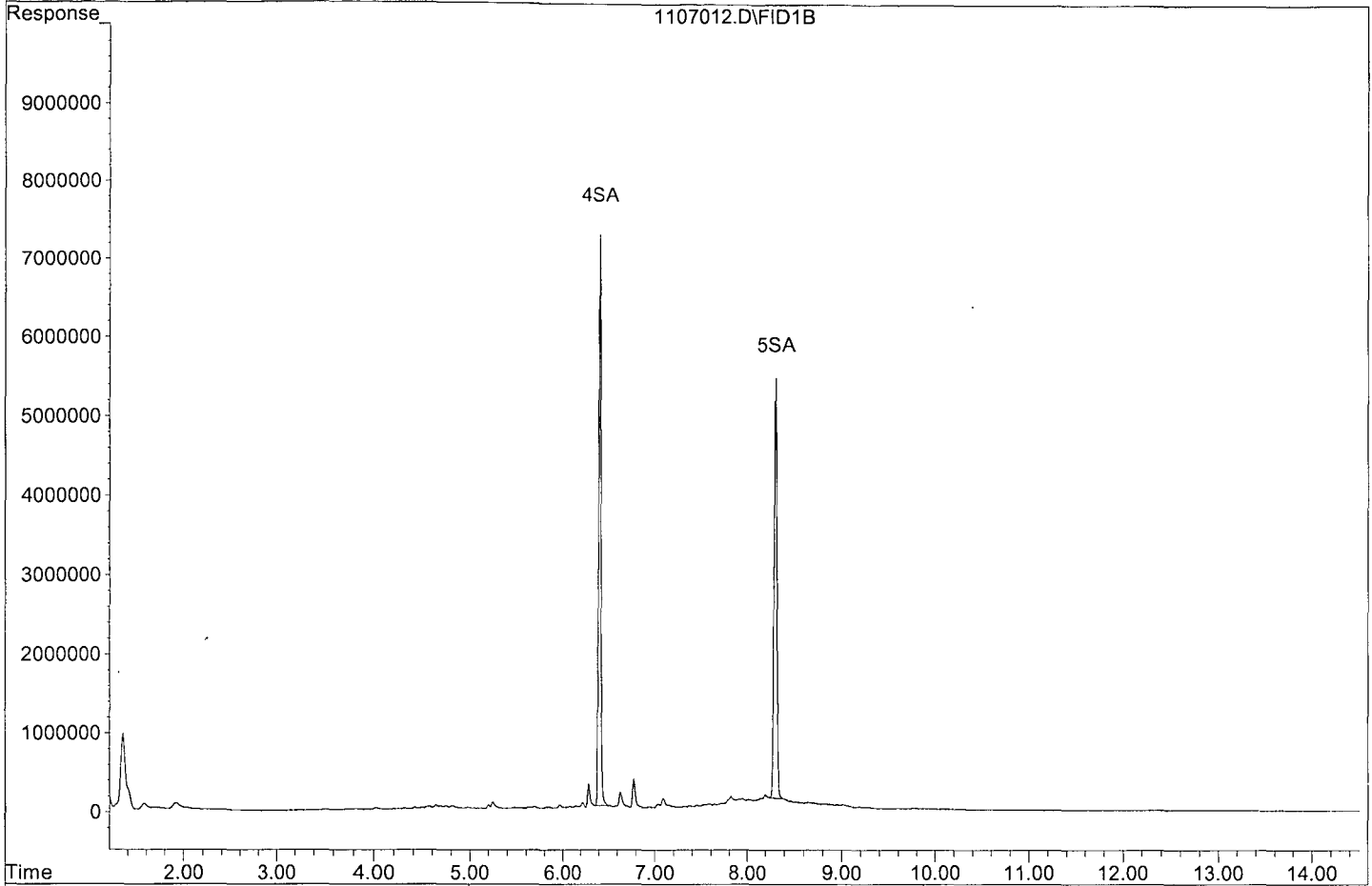
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	126201522	81.470 ppb
Surrogate Spike 75.000		Recovery =	108.63%
5) SA Octacosane(S)	8.31	115097821	89.088 ppb
Surrogate Spike 75.000		Recovery =	118.78%

Target Compounds



Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107012.D  
Sample : AZ81636W13 2/800



Data File : G:\APOLLO\DATA\181031\1031010.D Vial: 10  
 Acq On : 10-31-18 15:05:17 Operator: DP  
 Sample : AZ81638W08 2/810 Inst : Apollo  
 Misc : water Multiplr: 2.47  
 IntFile : events.e  
 Quant Time: Oct 31 15:09 2018 Quant Results File: DOC0905.RES

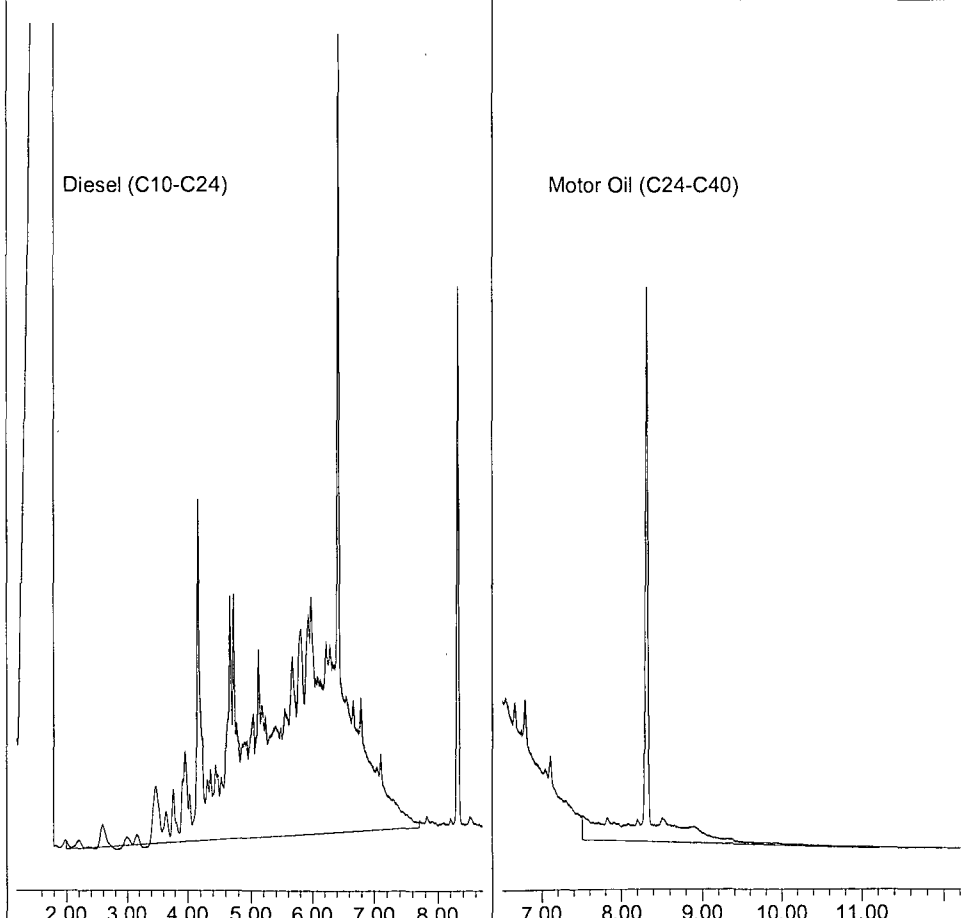
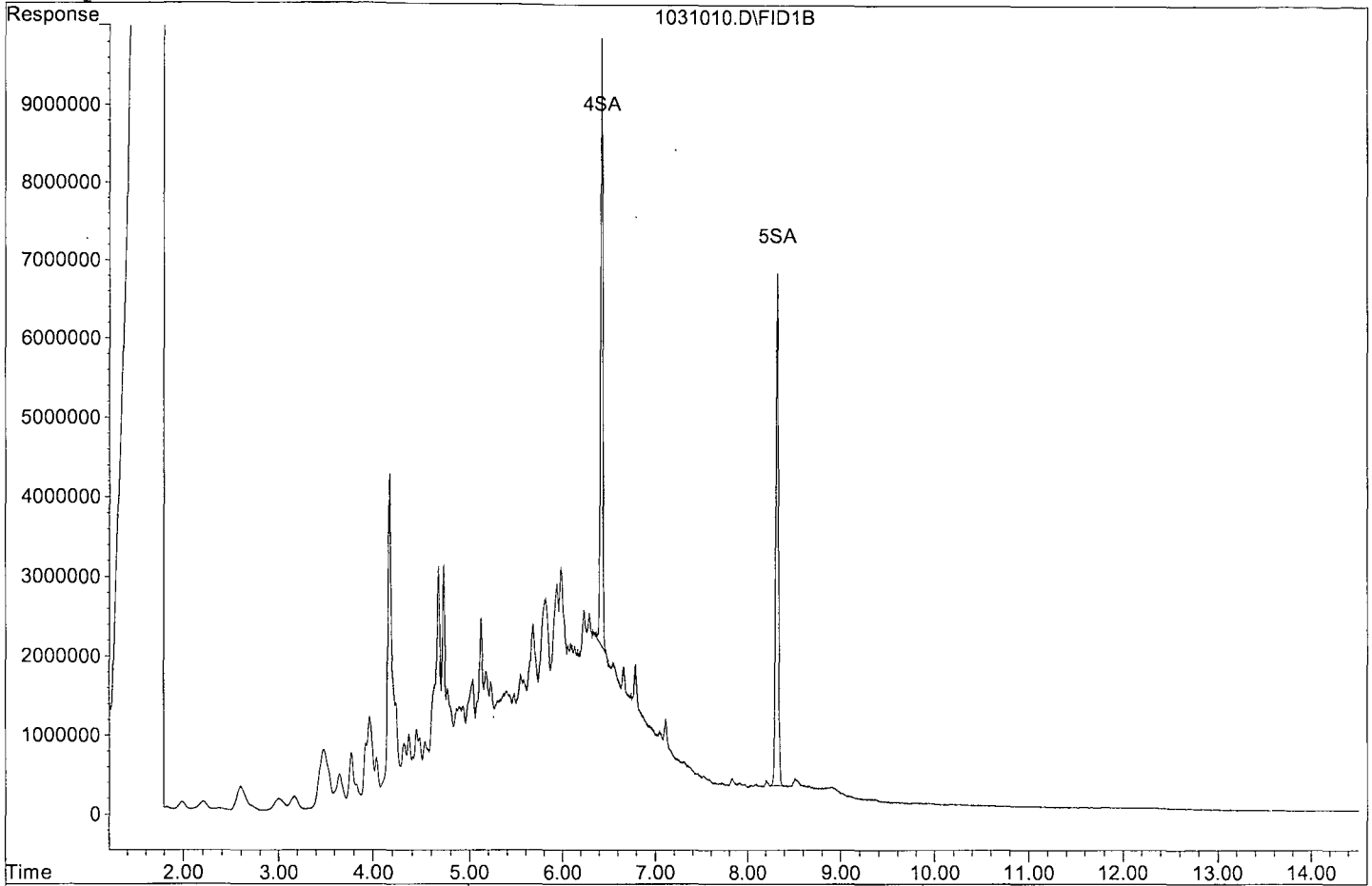
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.43	124975905	79.683 ppb
Surrogate Spike 74.074		Recovery =	107.57%
5) SA Octacosane(S)	8.32	126751415	96.898 ppb
Surrogate Spike 74.074		Recovery =	130.81%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	2873648549	2165.095 ppb
2) HBTM Motor Oil (C24-C40)	9.36	218641282	194.489 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031010.D  
Sample : AZ81638W08 2/810



Data File : G:\APOLLO\DATA\181107\1107013.D Vial: 13  
 Acq On : 11-7-18 17:27:28 Operator: DP  
 Sample : AZ81638W11 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 8 9:15 2018 Quant Results File: DOC0905.RES

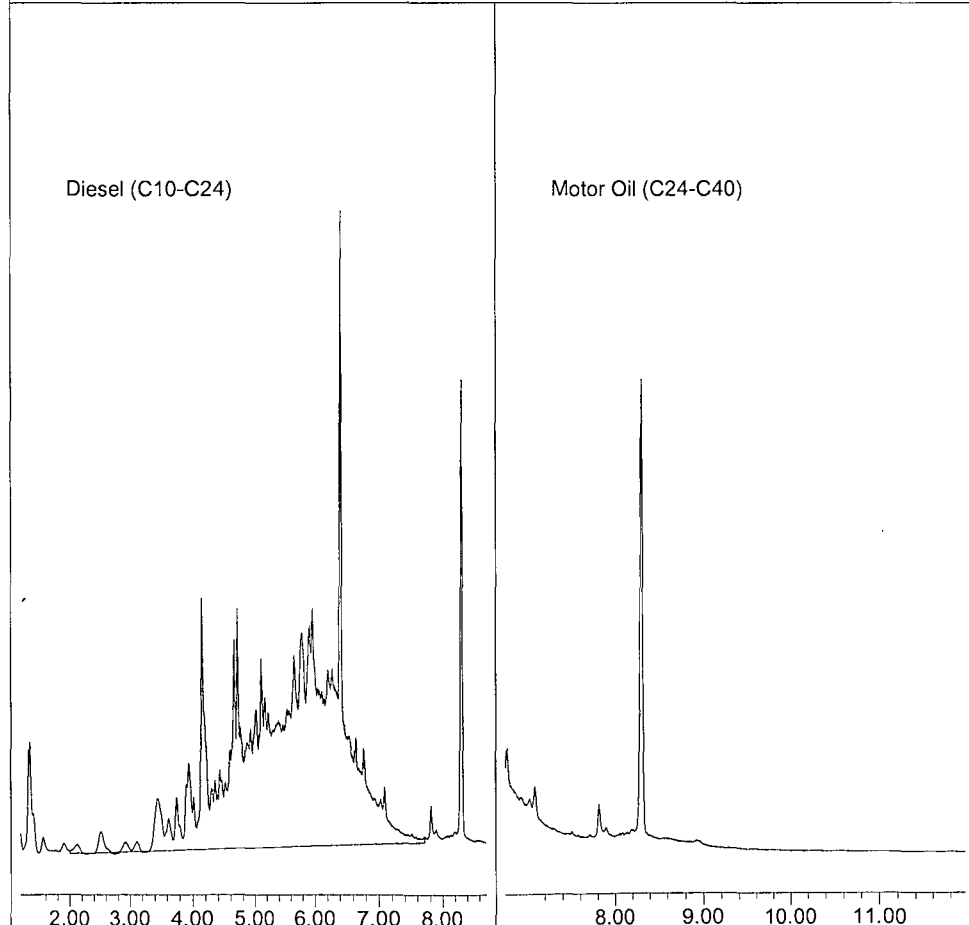
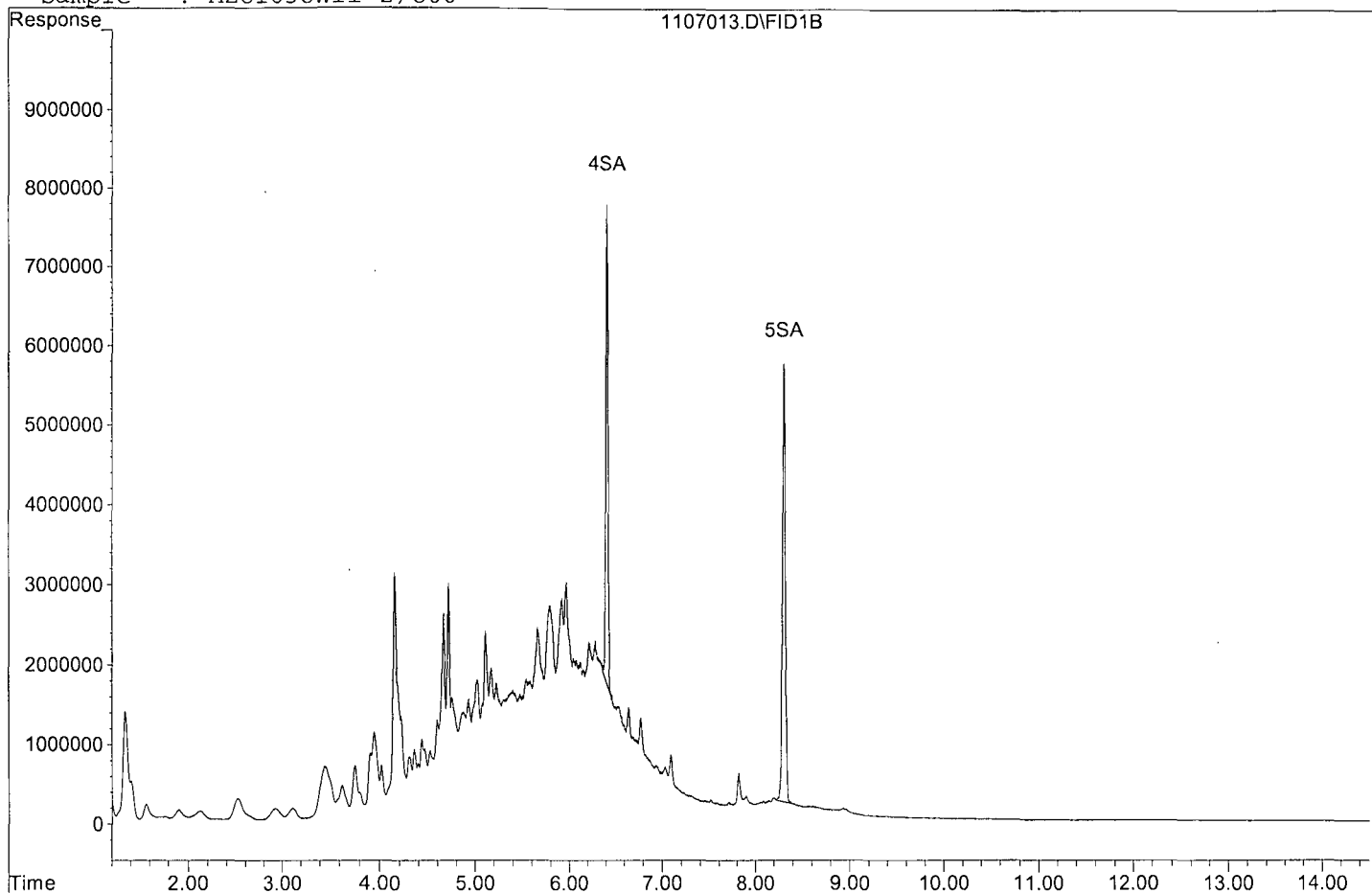
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	101898903	65.781 ppb
Surrogate Spike 75.000		Recovery =	87.71%
5) SA Octacosane(S)	8.31	114533222	88.651 ppb
Surrogate Spike 75.000		Recovery =	118.20%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	2781357619	2121.751 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107013.D  
Sample : AZ81638W11 2/800



Data File : G:\APOLLO\DATA\181107\1107044.D Vial: 44  
 Acq On : 11-8-18 18:39:28 Operator: DP  
 Sample : AZ81638W11 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:13 2018 Quant Results File: DOC0905.RES

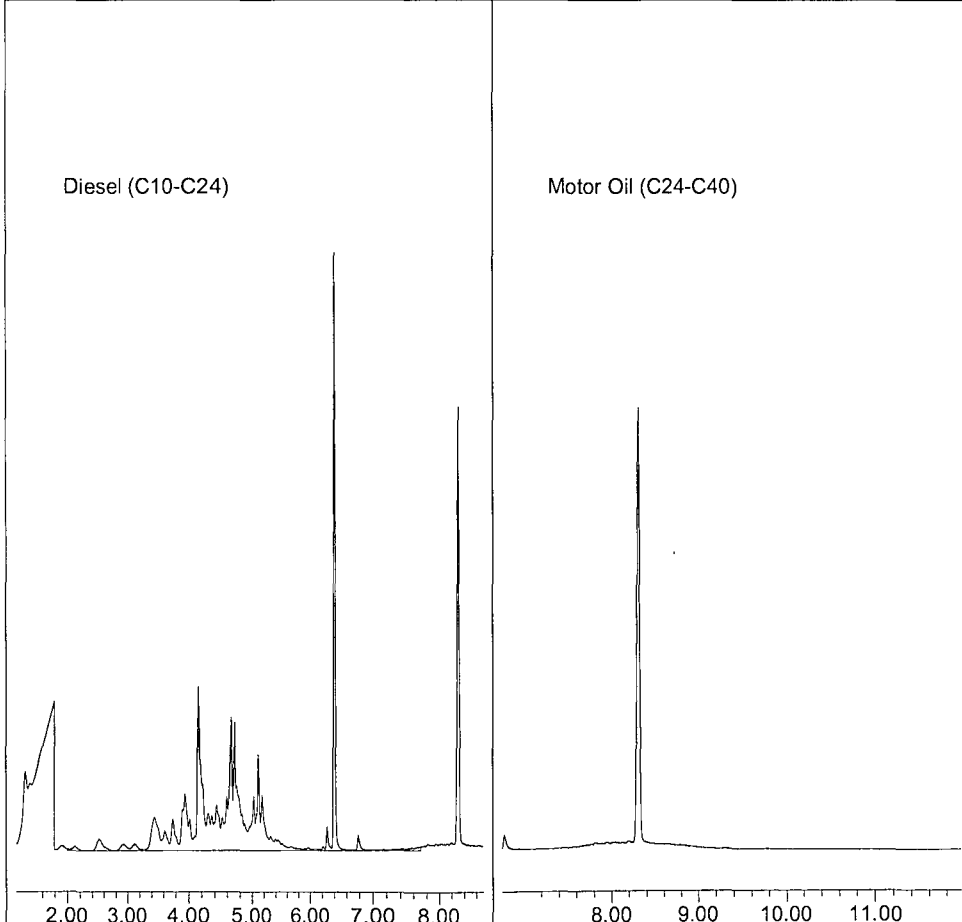
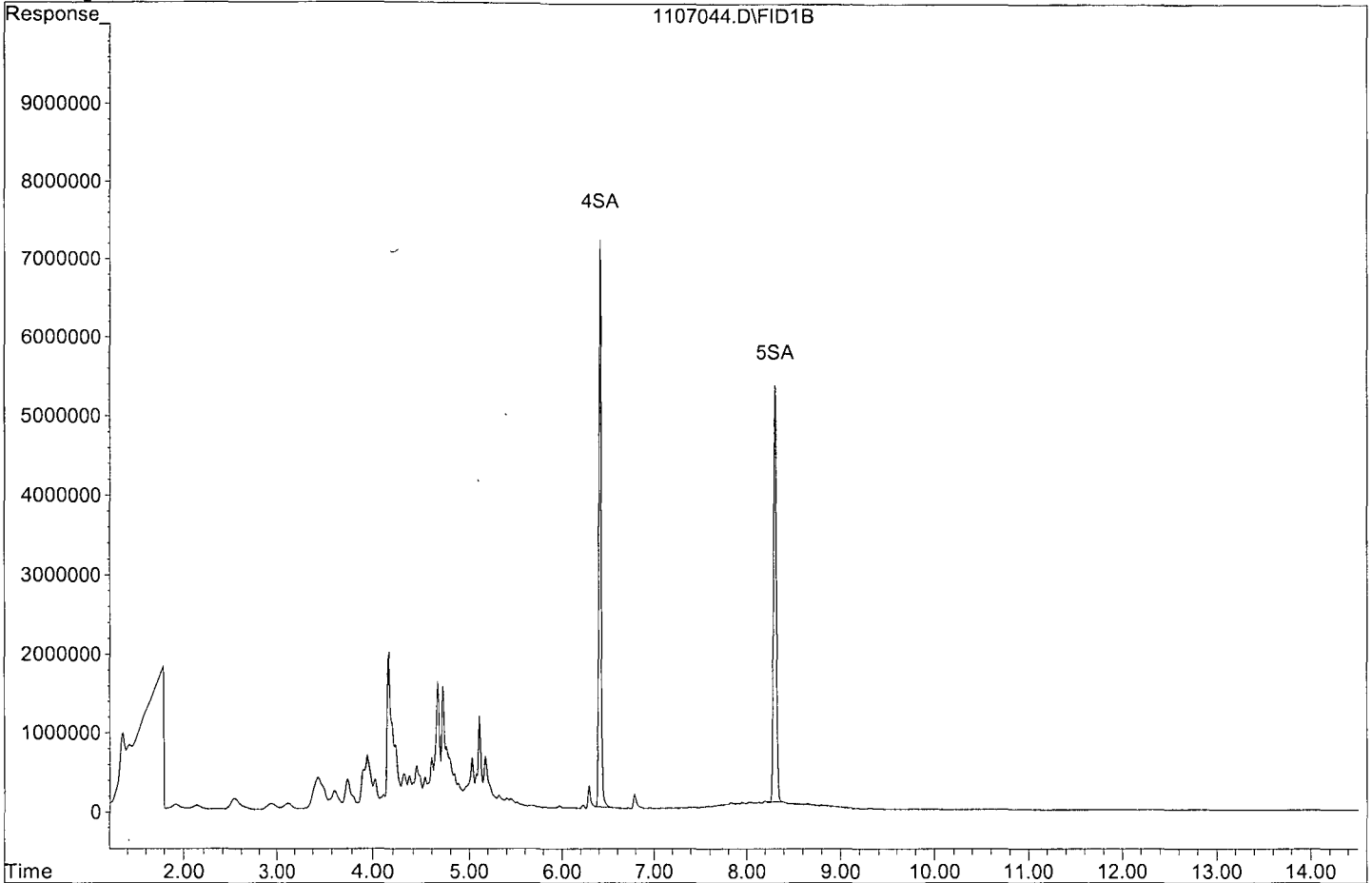
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 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	123307136	79.601 ppb
Surrogate Spike 75.000		Recovery =	106.13%
5) SA Octacosane(S)	8.31	110168465	85.273 ppb
Surrogate Spike 75.000		Recovery =	113.70%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	565806874	431.624 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107044.D  
Sample : AZ81638W11 2/800 SGC



Data File : G:\APOLLO\DATA\181031\1031011.D Vial: 11  
 Acq On : 10-31-18 15:25:18 Operator: DP  
 Sample : AZ81640W13 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 31 15:09 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

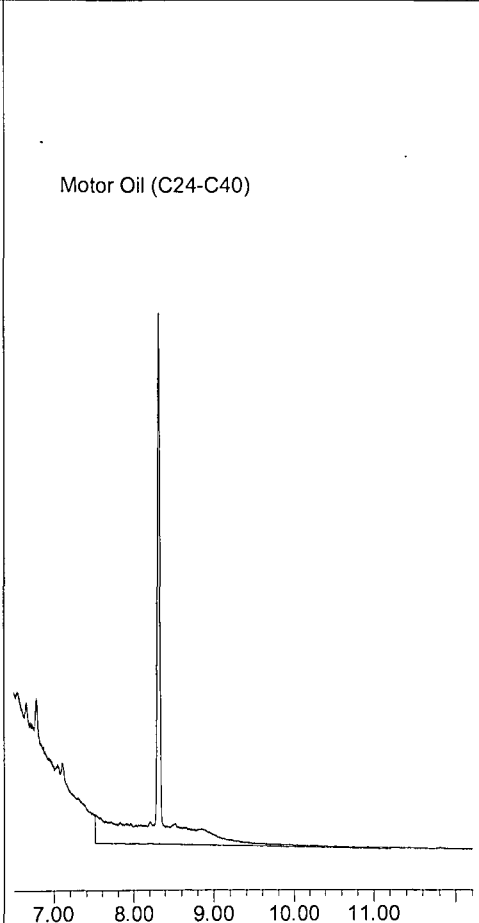
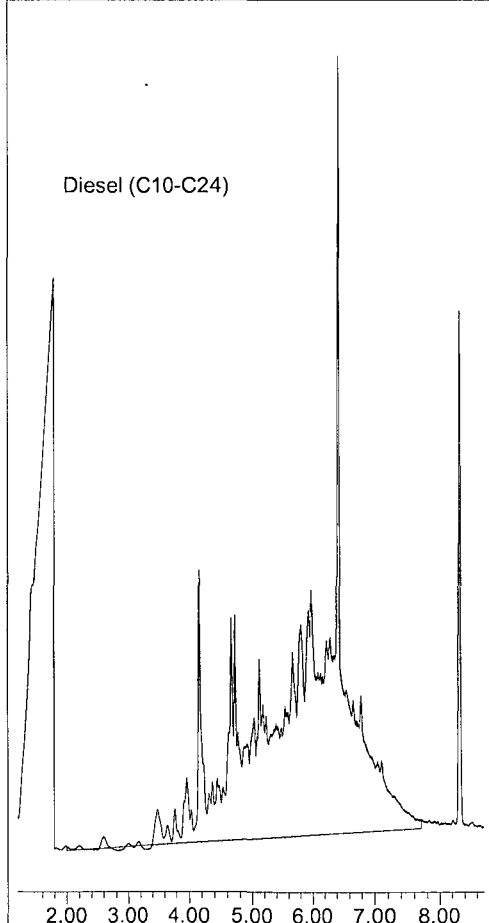
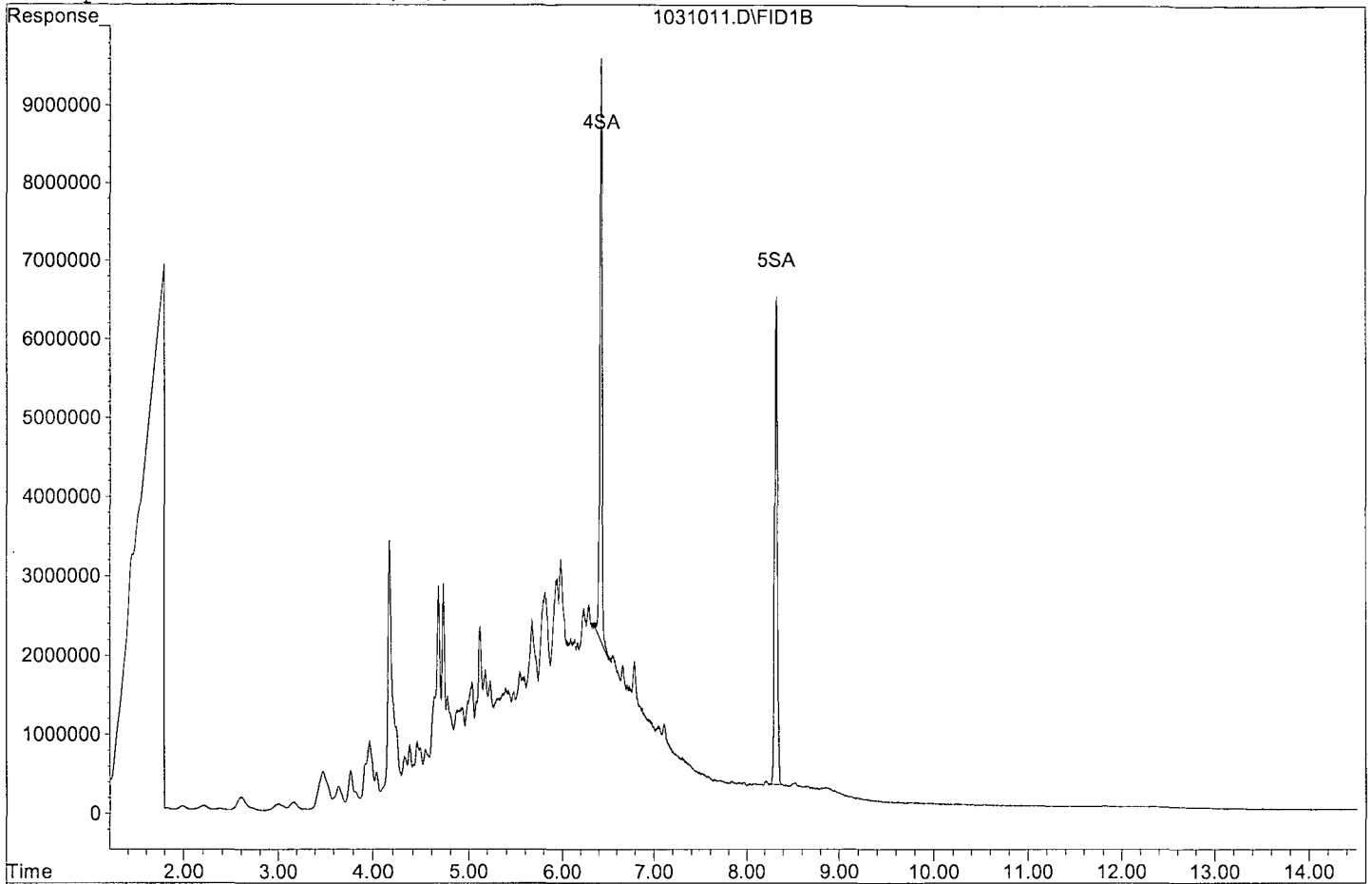
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.43	130019021	83.934 ppb
Surrogate Spike 75.000		Recovery =	111.91%
5) SA Octacosane(S)	8.32	126743415	98.102 ppb
Surrogate Spike 75.000		Recovery =	130.80%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	2797702028	2134.220 ppb
2) HBTM Motor Oil (C24-C40)	9.36	231481453	208.484 ppb



Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031011.D  
Sample : AZ81640W13 2/800



Data File : G:\APOLLO\DATA\181107\1107014.D Vial: 14  
 Acq On : 11-7-18 17:48:03 Operator: DP  
 Sample : AZ81640W14 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 8 9:15 2018 Quant Results File: DOC0905.RES

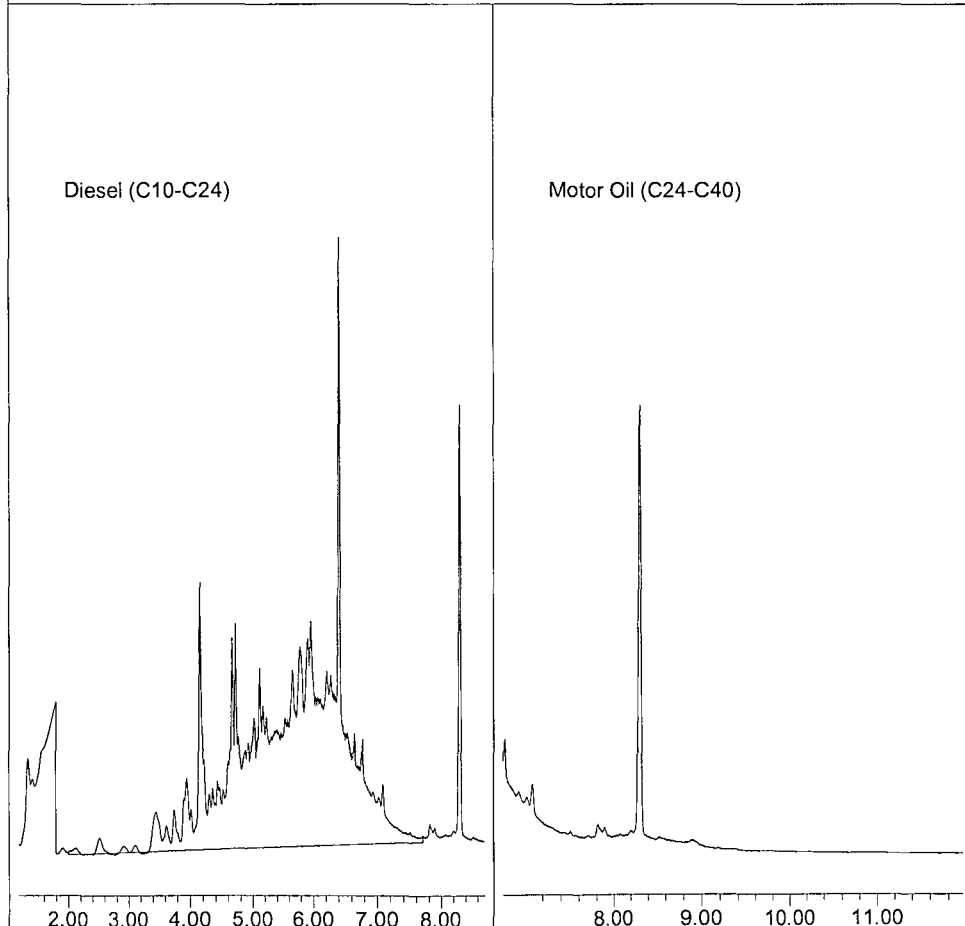
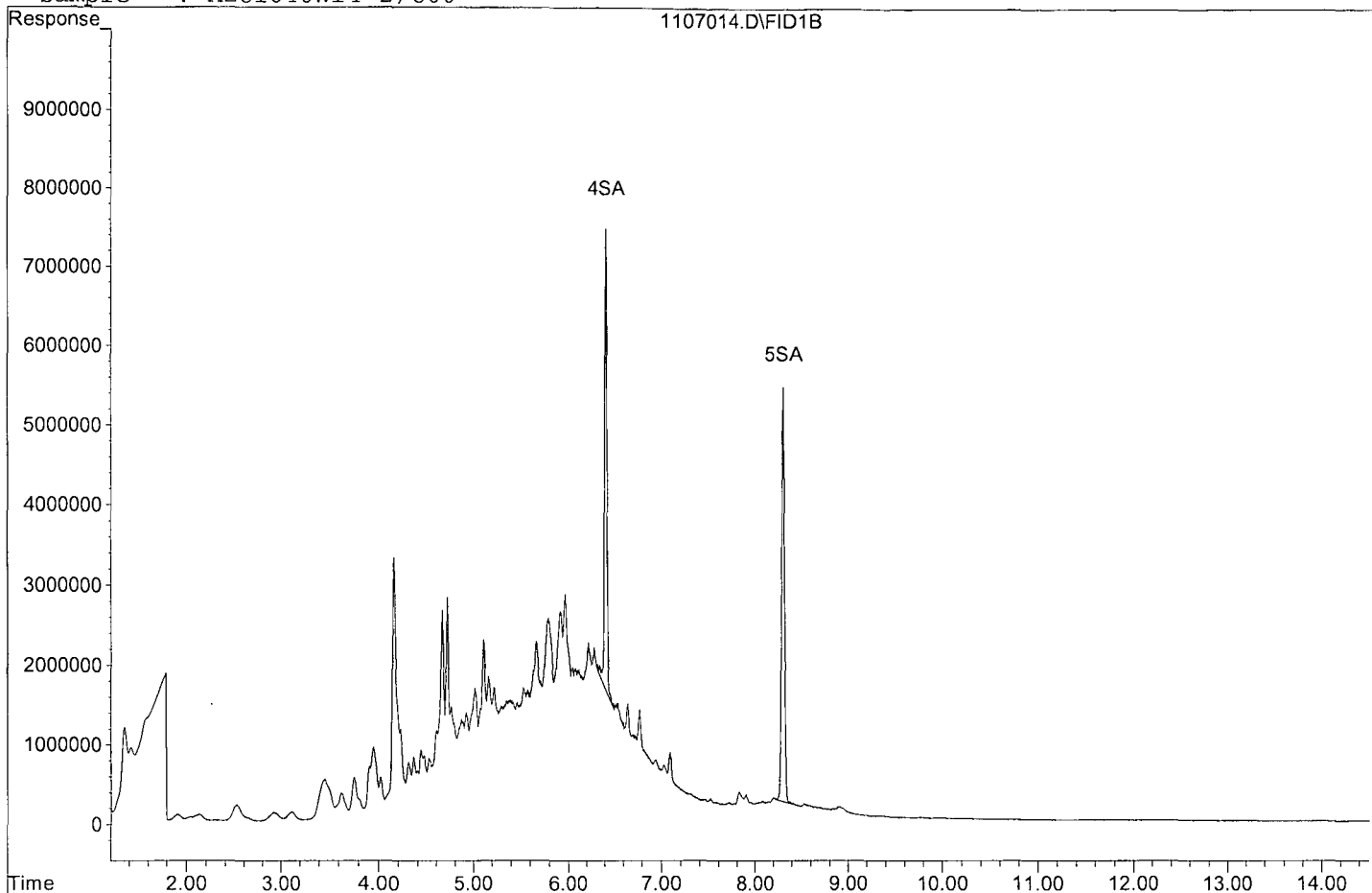
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	105406627	68.046 ppb
Surrogate Spike 75.000		Recovery =	90.73%
5) SA Octacosane(S)	8.31	108652031	84.099 ppb
Surrogate Spike 75.000		Recovery =	112.13%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	2630411429	2006.602 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107014.D  
Sample : AZ81640W14 2/800



Data File : G:\APOLLO\DATA\181107\1107045.D Vial: 45  
 Acq On : 11-8-18 18:59:41 Operator: DP  
 Sample : AZ81640W14 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:13 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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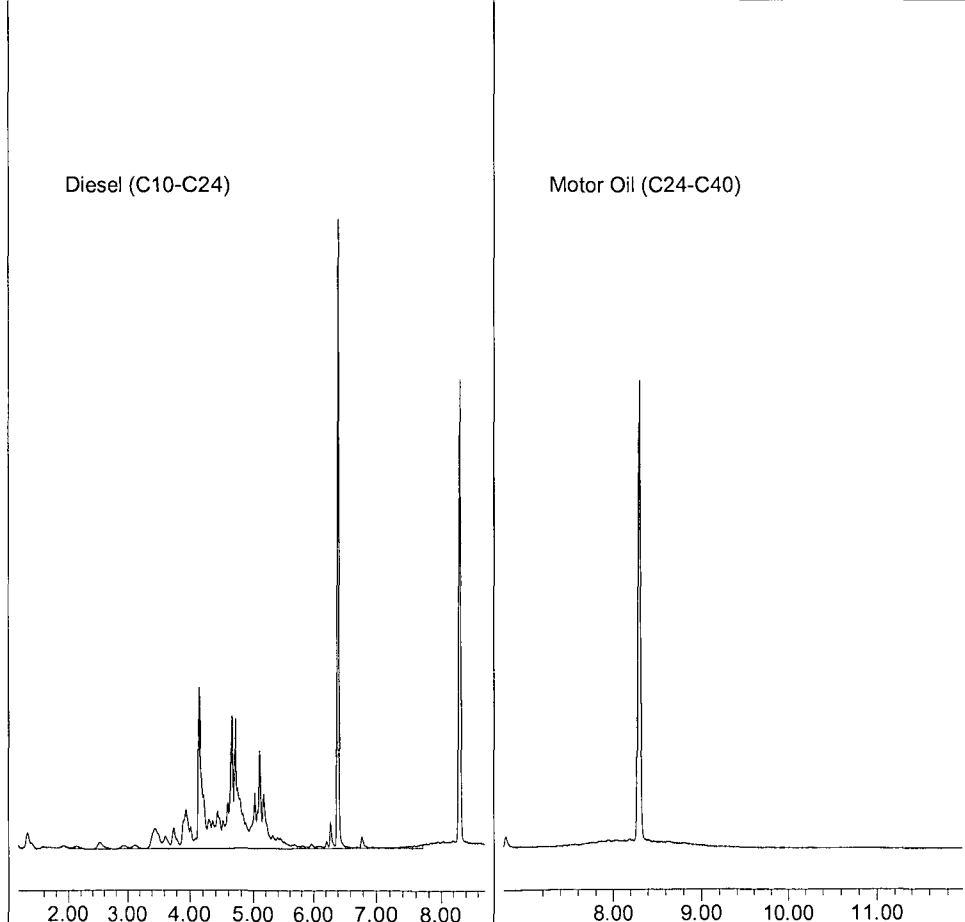
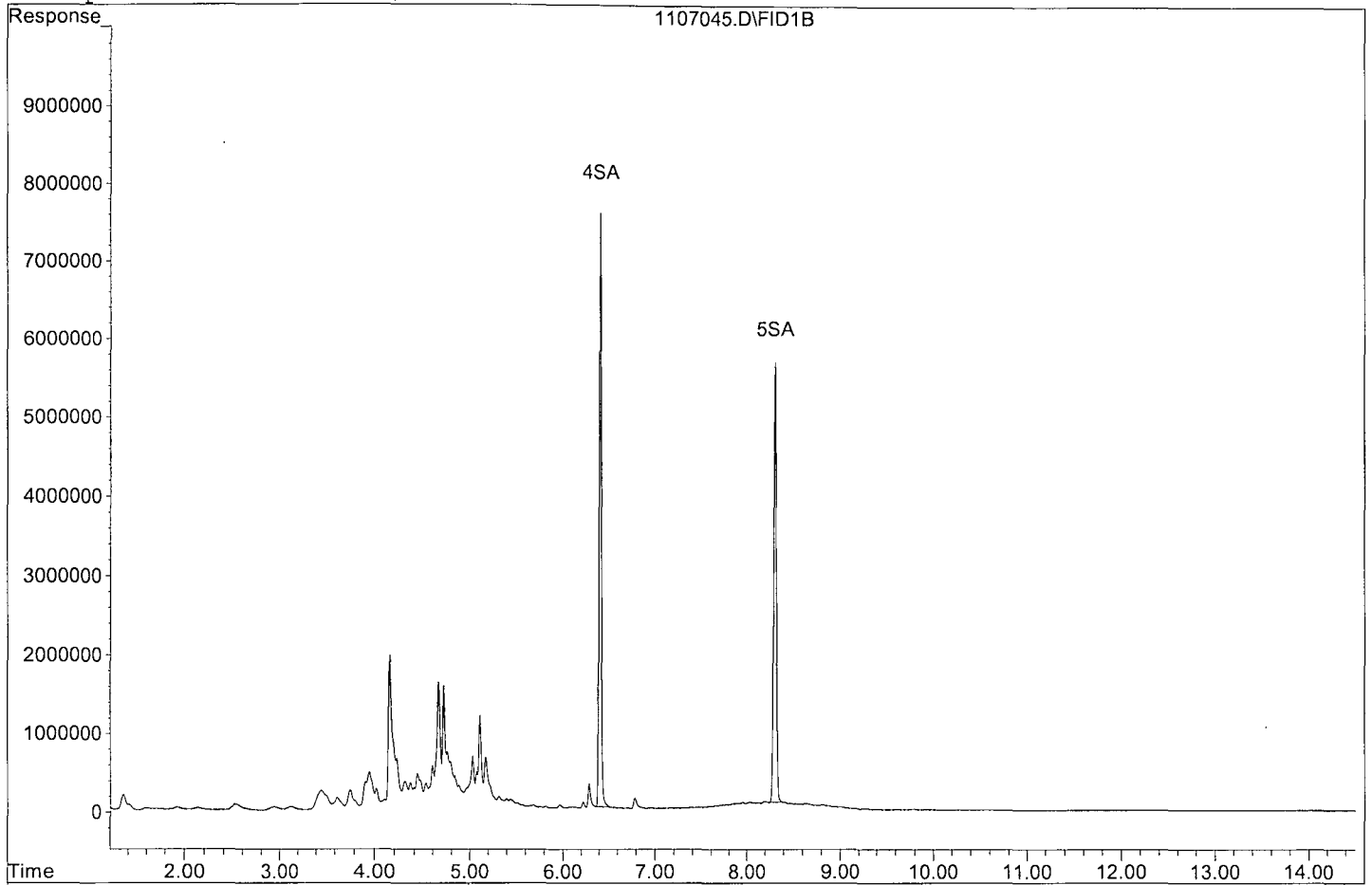
-----  
 System Monitoring Compounds

4) SA Ortho-Terphenyl(S)	6.41	127298074	82.178 ppb
Surrogate Spike 75.000		Recovery =	109.57%
5) SA Octacosane(S)	8.31	113527406	87.873 ppb
Surrogate Spike 75.000		Recovery =	117.16%

Target Compounds

1) HATM Diesel (C10-C24)	4.86	488990991	373.025 ppb
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Data File: G:\APOLLO\DATA\181107\1107045.D  
Sample : AZ81640W14 2/800 SGC



Data File : G:\APOLLO\DATA\181031\1031012.D Vial: 12  
 Acq On : 10-31-18 15:45:18 Operator: DP  
 Sample : AZ81642W13 2/840 Inst : Apollo  
 Misc : water Multiplr: 2.38  
 IntFile : events.e  
 Quant Time: Oct 31 15:09 2018 Quant Results File: DOC0905.RES

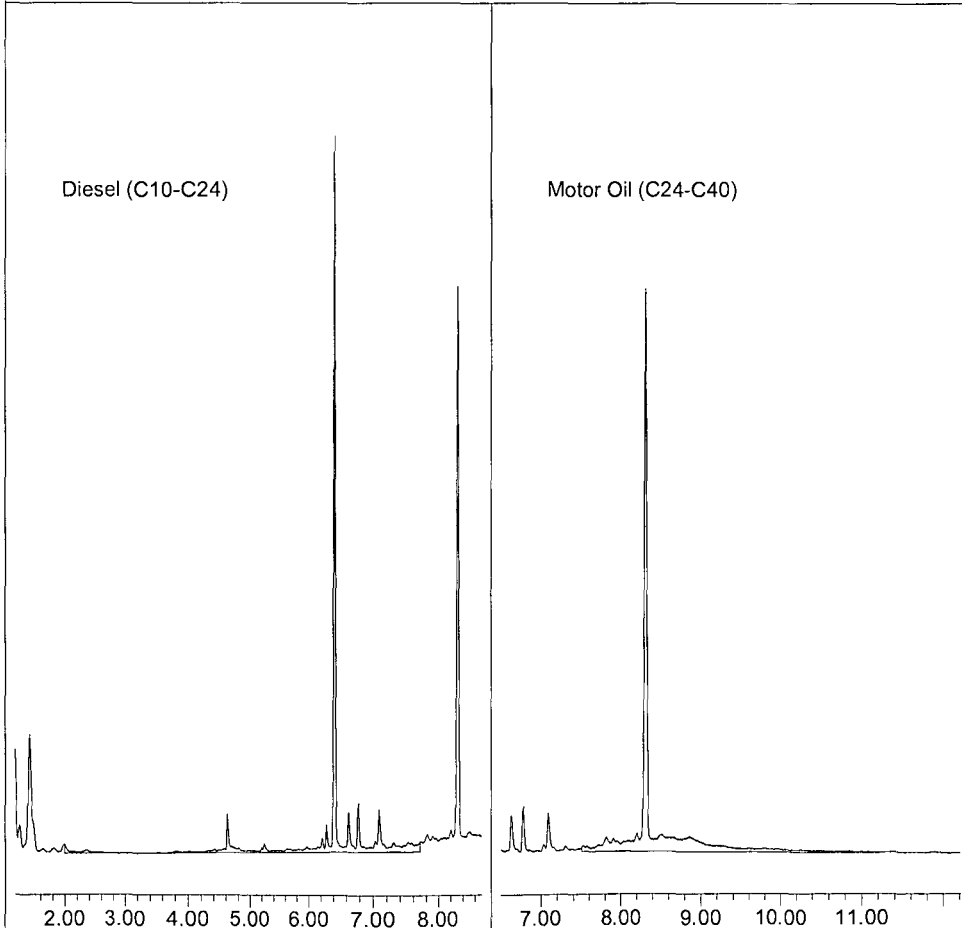
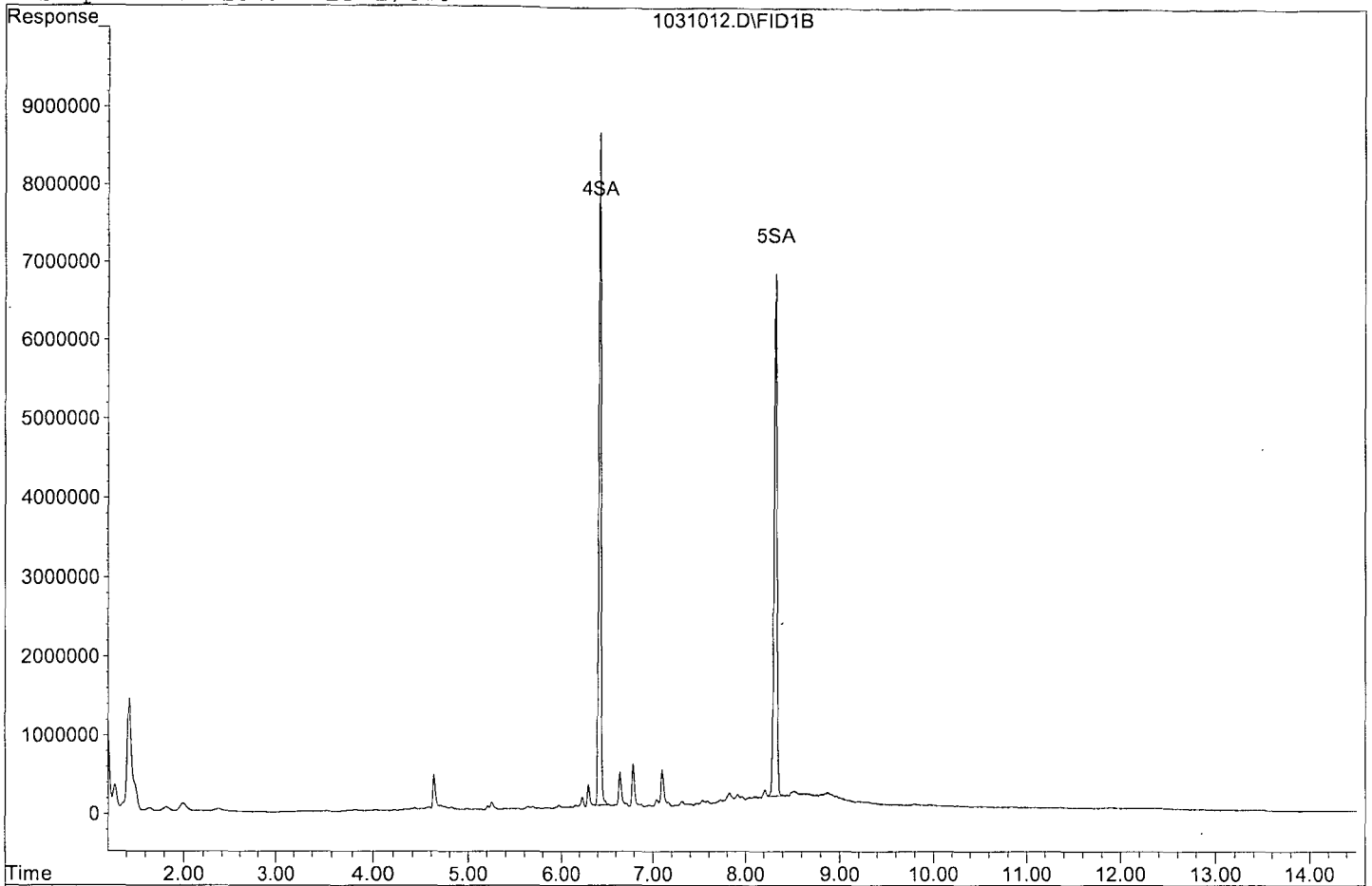
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	147313935	90.570 ppb
Surrogate Spike 71.429		Recovery =	126.80%
5) SA Octacosane(S)	8.32	138649546	102.208 ppb
Surrogate Spike 71.429		Recovery =	143.09%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	163488400	118.778 ppb
2) HBTM Motor Oil (C24-C40)	9.36	164940067	141.479 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031012.D  
Sample : AZ81642W13 2/840



Data File : G:\APOLLO\DATA\181107\1107015.D Vial: 15  
 Acq On : 11-7-18 18:08:30 Operator: DP  
 Sample : AZ81642W12 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 8 9:15 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

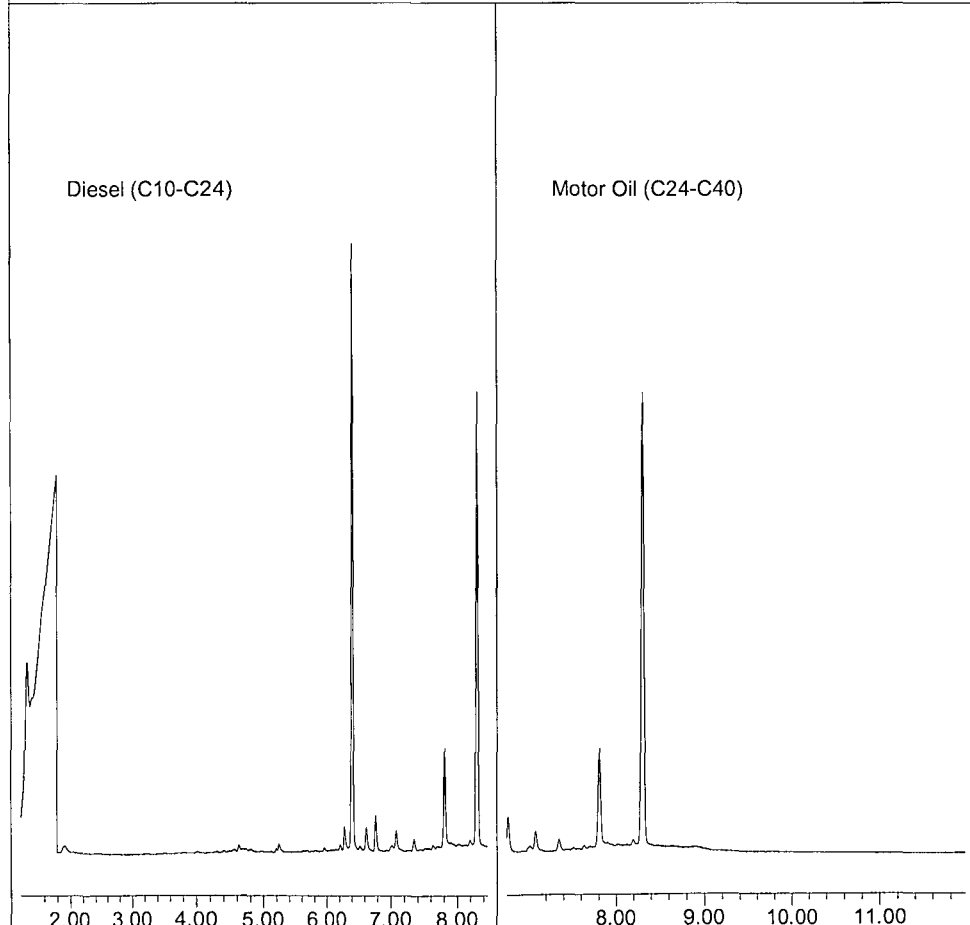
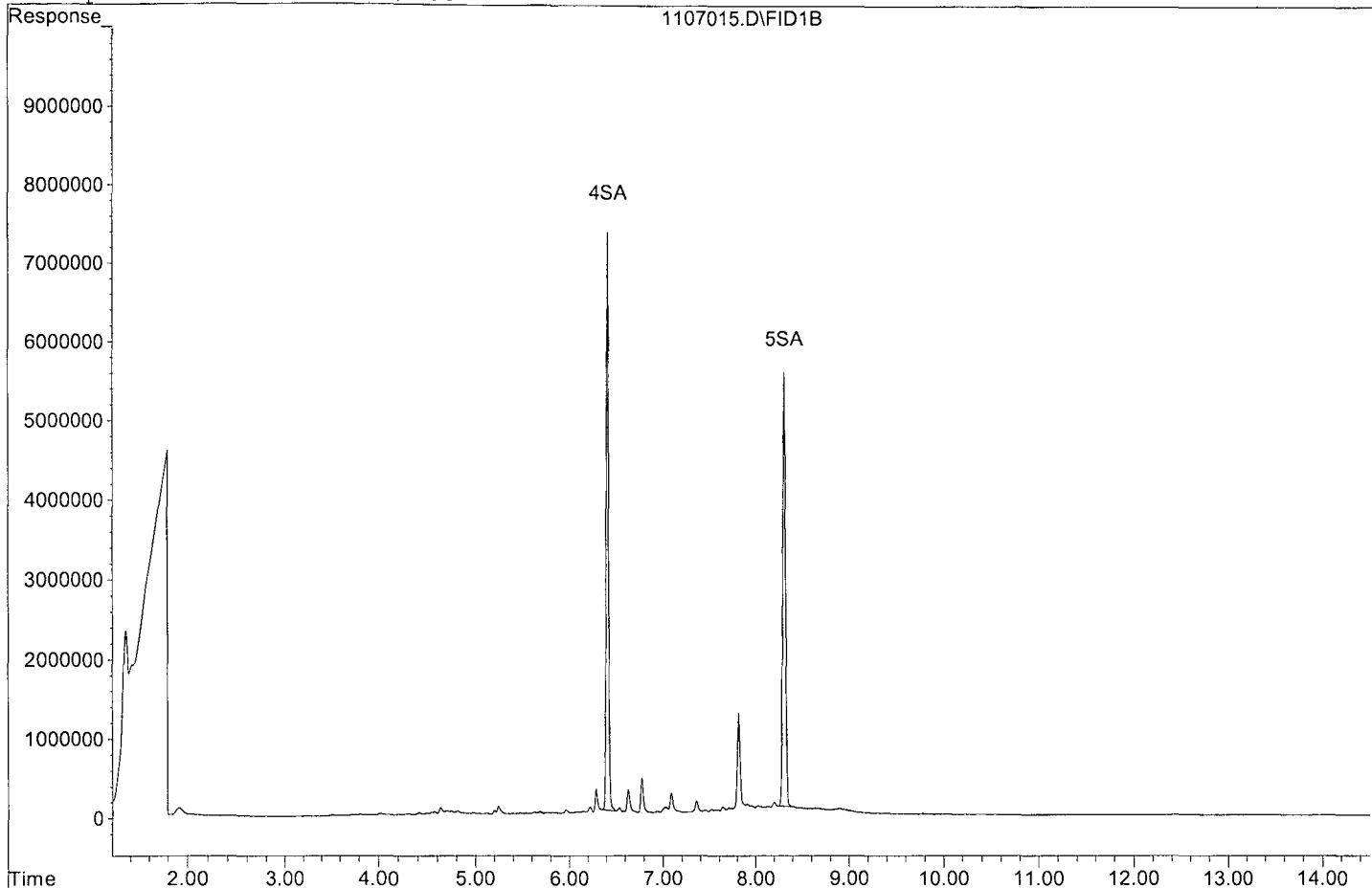
4) SA Ortho-Terphenyl(S)	6.41	122051324	78.791 ppb
Surrogate Spike 75.000		Recovery =	105.05%
5) SA Octacosane(S)	8.31	112652242	87.196 ppb
Surrogate Spike 75.000		Recovery =	116.26%

Target Compounds



Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107015.D  
Sample : AZ81642W12 2/800



Data File : G:\APOLLO\DATA\181031\1031013.D Vial: 13  
 Acq On : 10-31-18 16:05:24 Operator: DP  
 Sample : AZ81644W11 2/810 Inst : Apollo  
 Misc : water Multiplr: 2.47  
 IntFile : events.e  
 Quant Time: Oct 31 15:32 2018 Quant Results File: DOC0905.RES

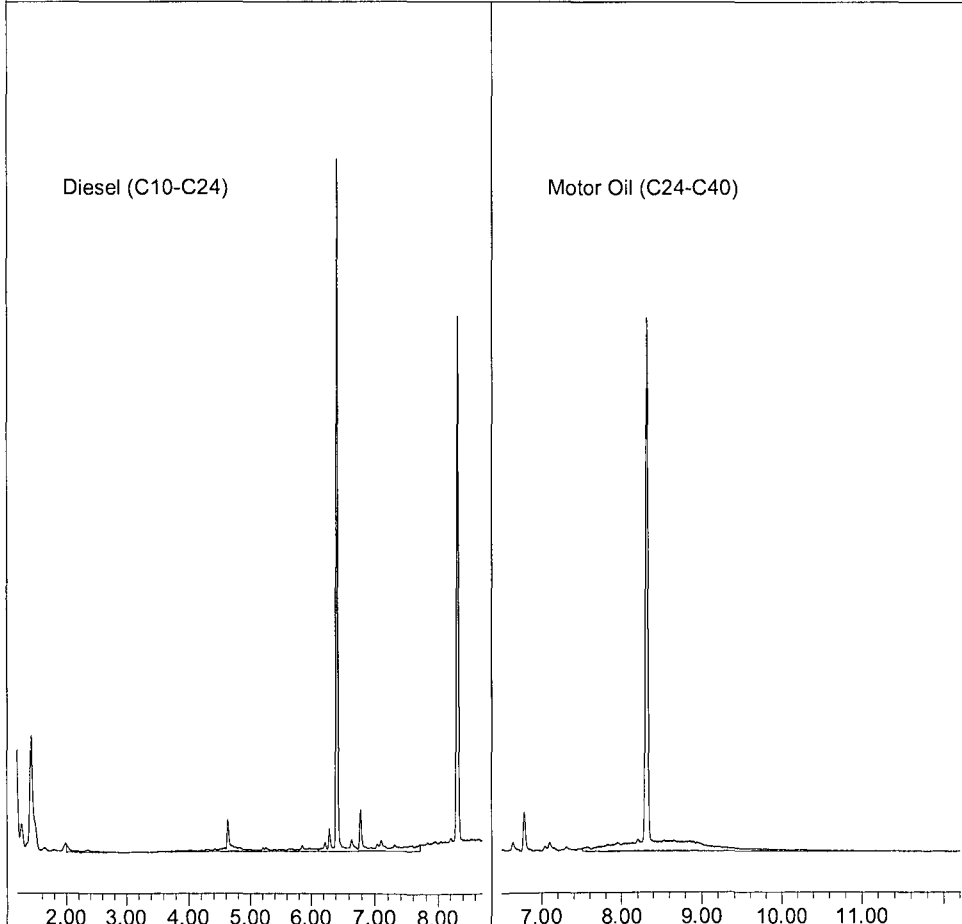
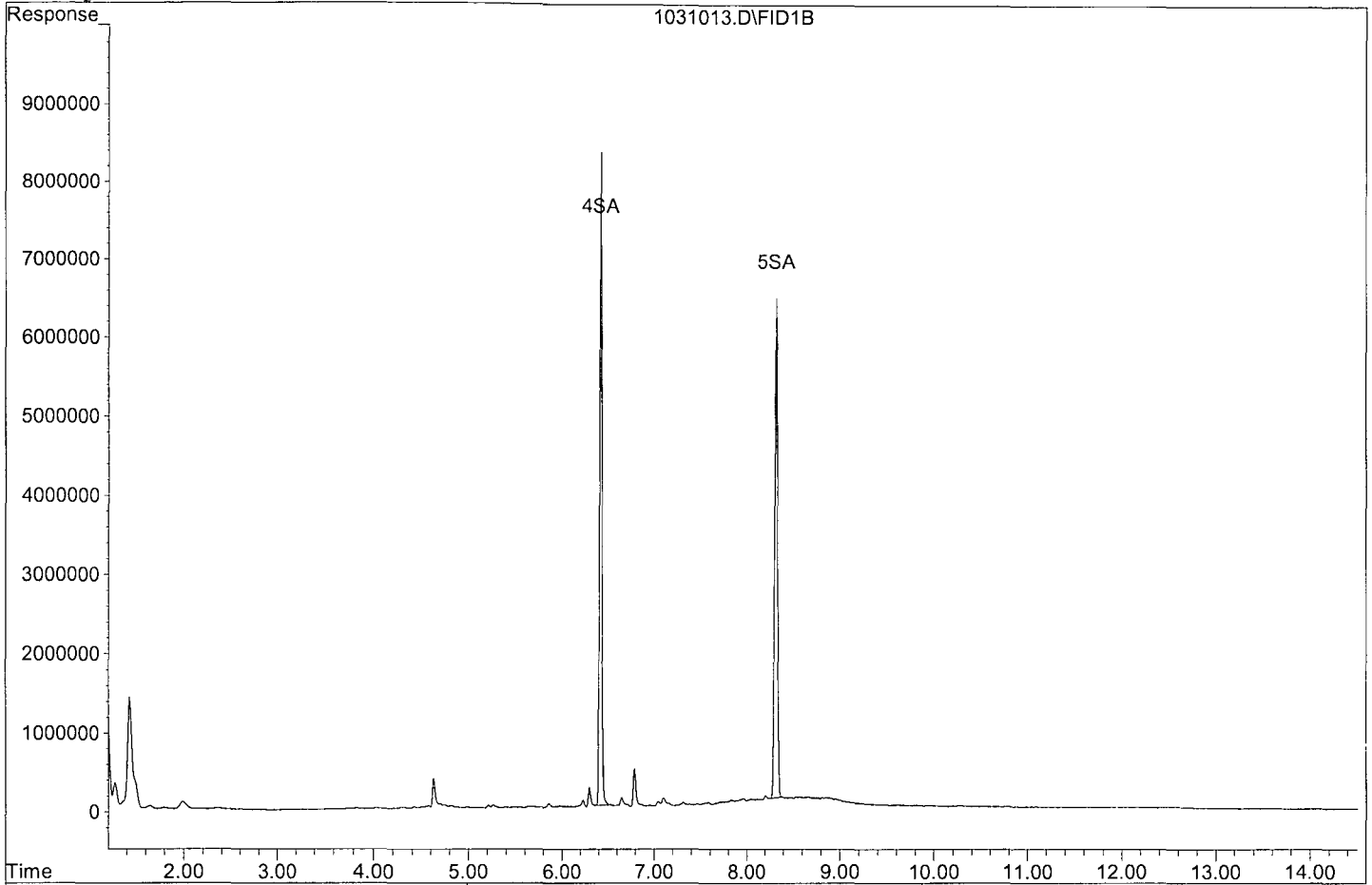
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	139892994	89.194 ppb
Surrogate Spike 74.074		Recovery =	120.41%
5) SA Octacosane(S)	8.32	129793433	99.223 ppb
Surrogate Spike 74.074		Recovery =	133.95%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	111350408	83.895 ppb
2) HBTM Motor Oil (C24-C40)	9.36	111563217	99.239 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031013.D  
Sample : AZ81644W11 2/810



Data File : G:\APOLLO\DATA\181107\1107016.D Vial: 16  
 Acq On : 11-7-18 18:28:58 Operator: DP  
 Sample : AZ81644W14 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 8 9:16 2018 Quant Results File: DOC0905.RES

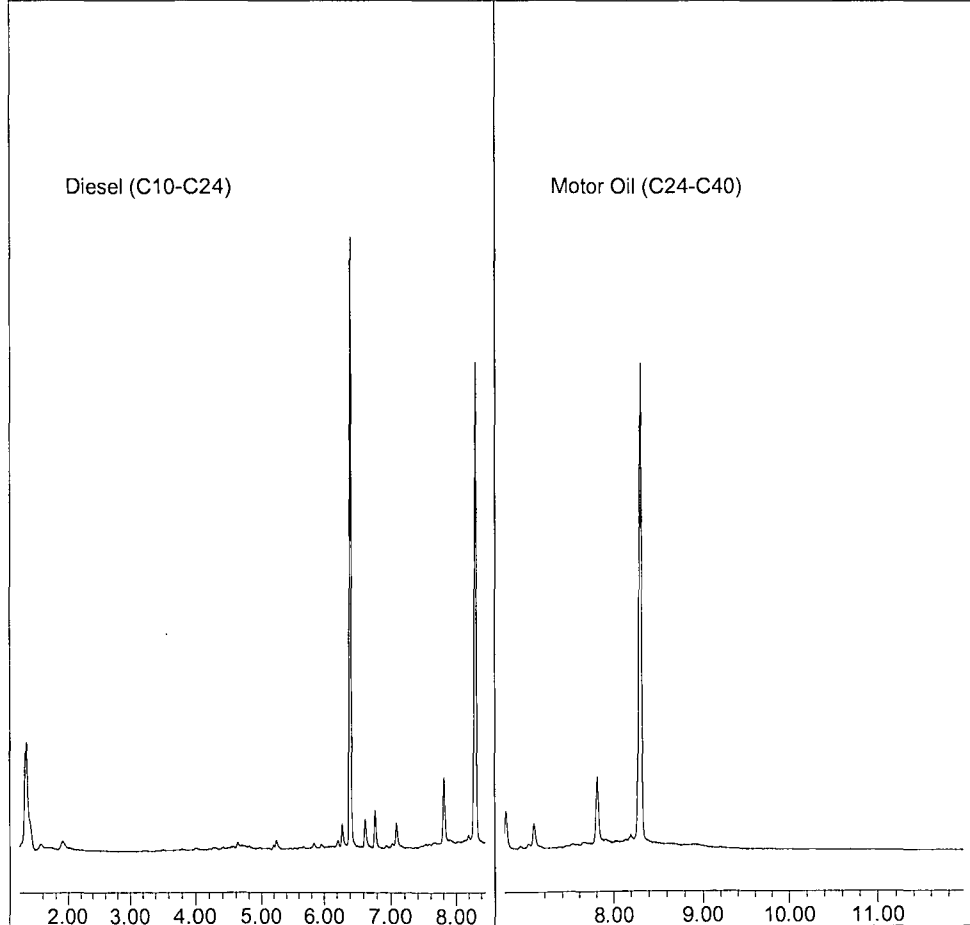
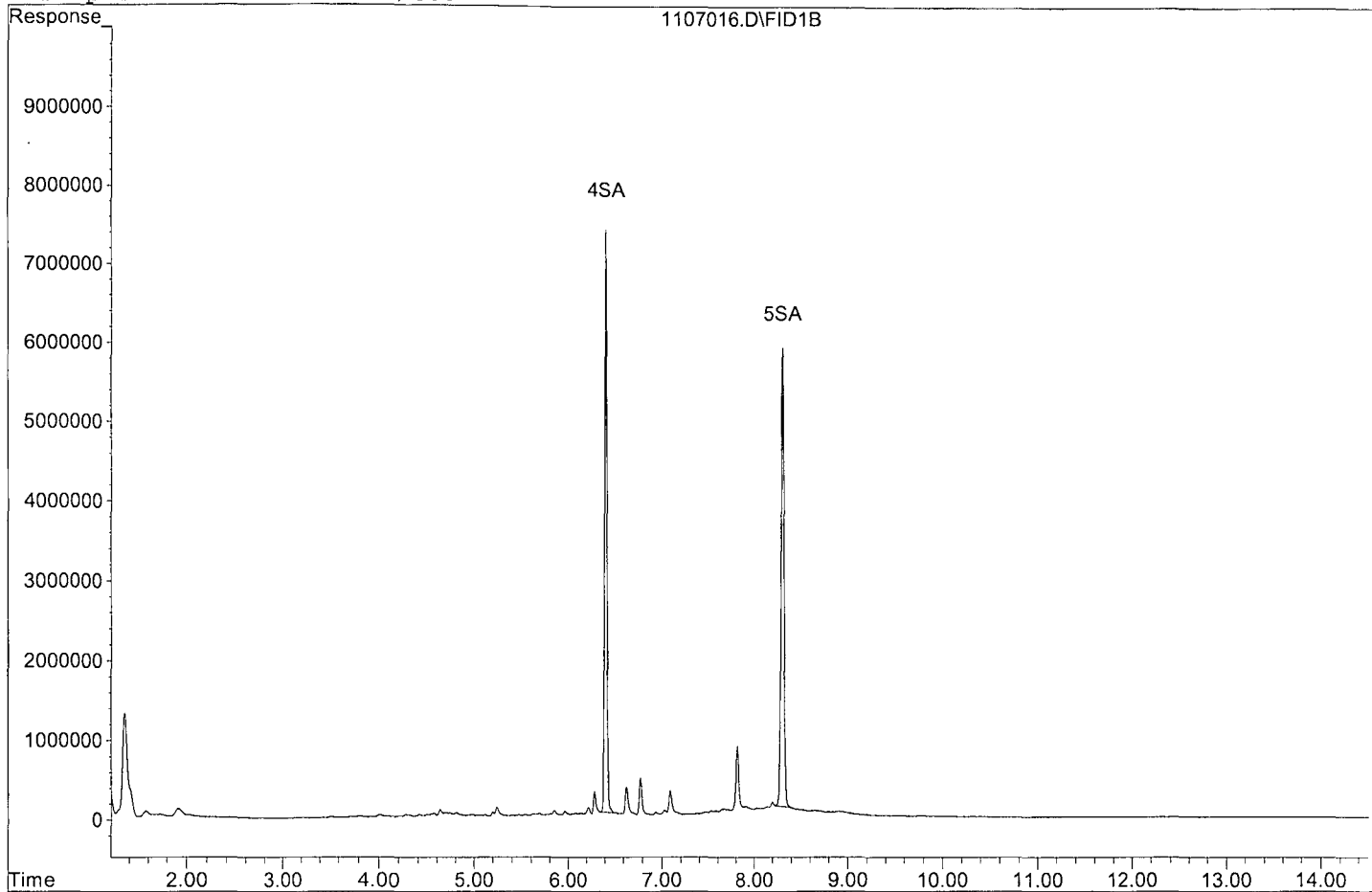
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	126570399	81.708 ppb
Surrogate Spike 75.000		Recovery =	108.94%
5) SA Octacosane(S)	8.31	120046630	92.919 ppb
Surrogate Spike 75.000		Recovery =	123.89%
Target Compounds			

Data File: G:\APOLLO\DATA\181107\1107016.D

Sample : AZ81644W14 2/800



Data File : G:\APOLLO\DATA\181031\1031004.D Vial: 4  
 Acq On : 10-31-18 13:07:10 Operator: DP  
 Sample : 181029A BLK 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 31 12:34 2018 Quant Results File: DOC0905.RES

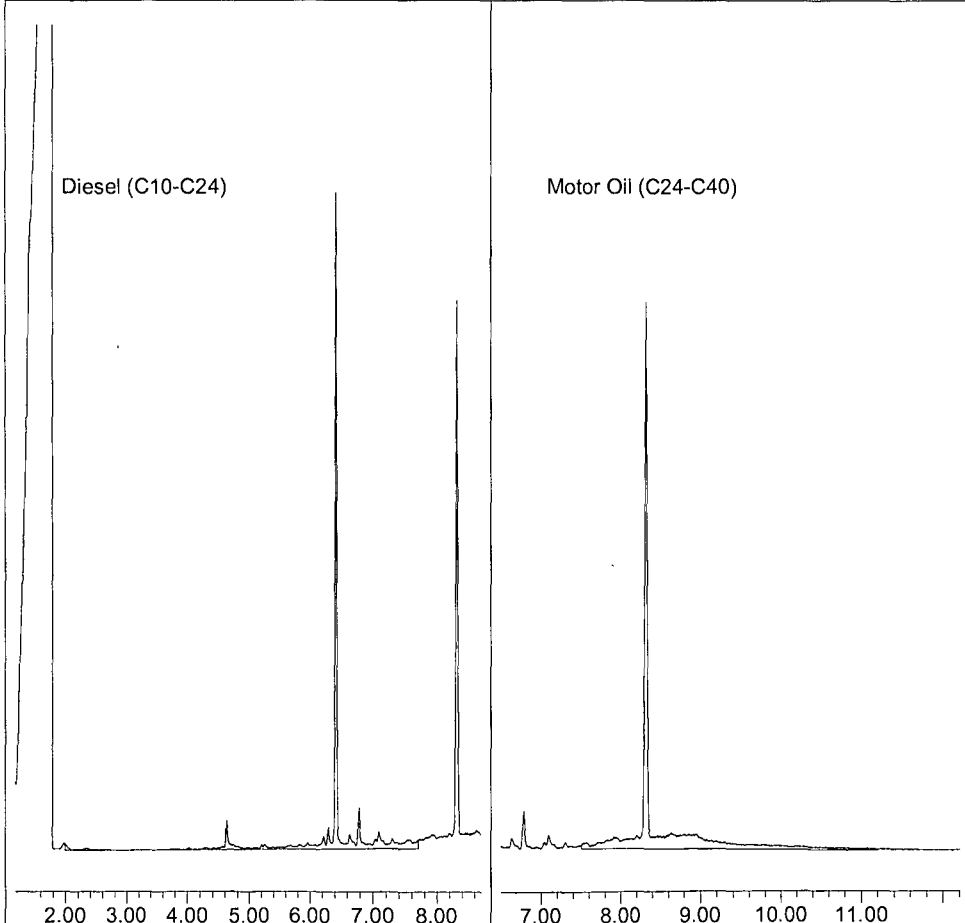
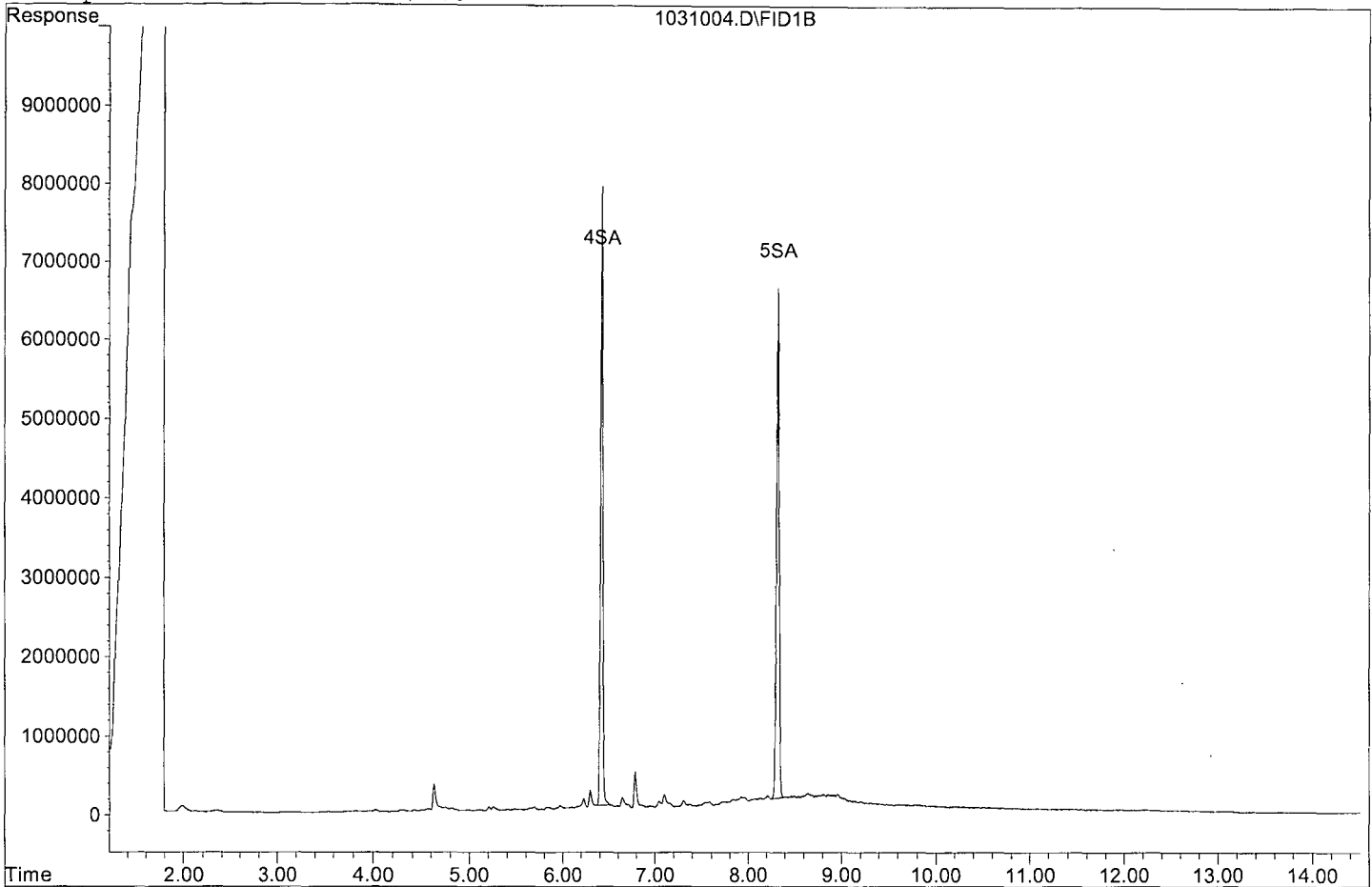
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	133485549	86.172 ppb
Surrogate Spike 75.000		Recovery =	114.90%
5) SA Octacosane(S)	8.32	126068736	97.580 ppb
Surrogate Spike 75.000		Recovery =	130.11%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	139543936	106.451 ppb
2) HBTM Motor Oil (C24-C40)	9.36	169088208	152.290 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031004.D  
Sample : 181029A BLK 2/800



Data File : G:\APOLLO\DATA\181107\1107004.D Vial: 4  
 Acq On : 11-7-18 14:24:57 Operator: DP  
 Sample : 181105A BLK 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 15:05 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

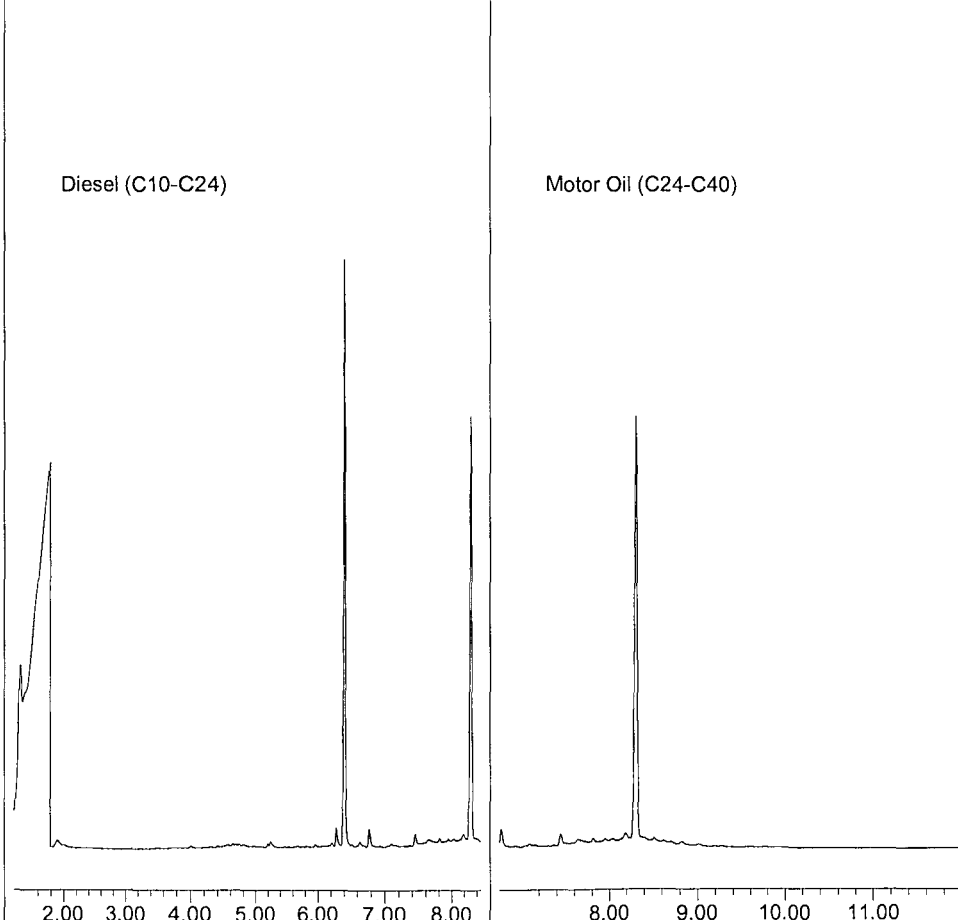
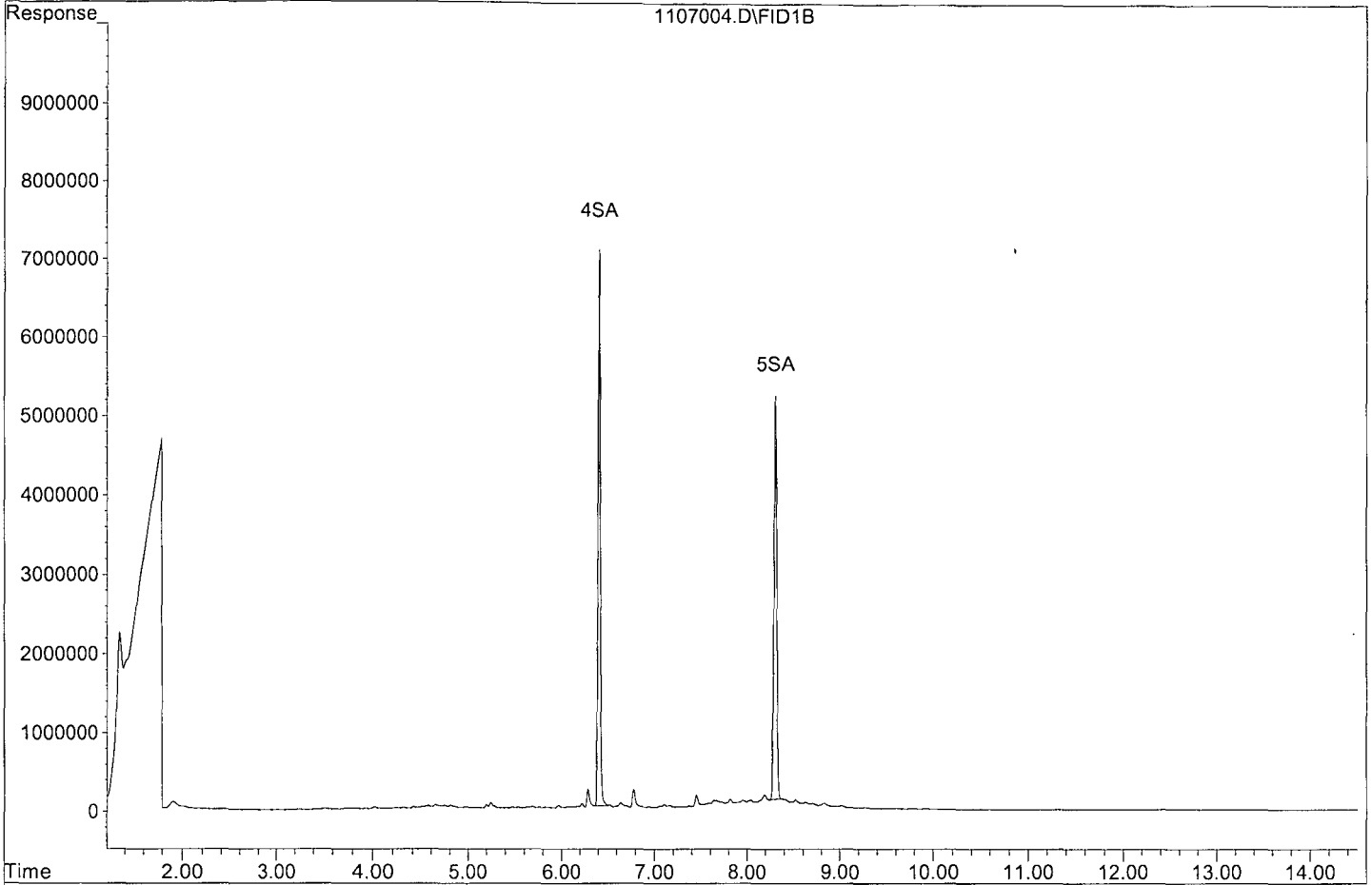
4) SA Ortho-Terphenyl(S)	6.41	120181049	77.583 ppb
Surrogate Spike 75.000		Recovery =	103.44%
5) SA Octacosane(S)	8.31	106752854	82.629 ppb
Surrogate Spike 75.000		Recovery =	110.17%

Target Compounds



Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107004.D  
Sample : 181105A BLK 2/800



Data File : G:\APOLLO\DATA\181107\1107039.D Vial: 39  
 Acq On : 11-8-18 16:57:41 Operator: DP  
 Sample : 181105A BLK 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:12 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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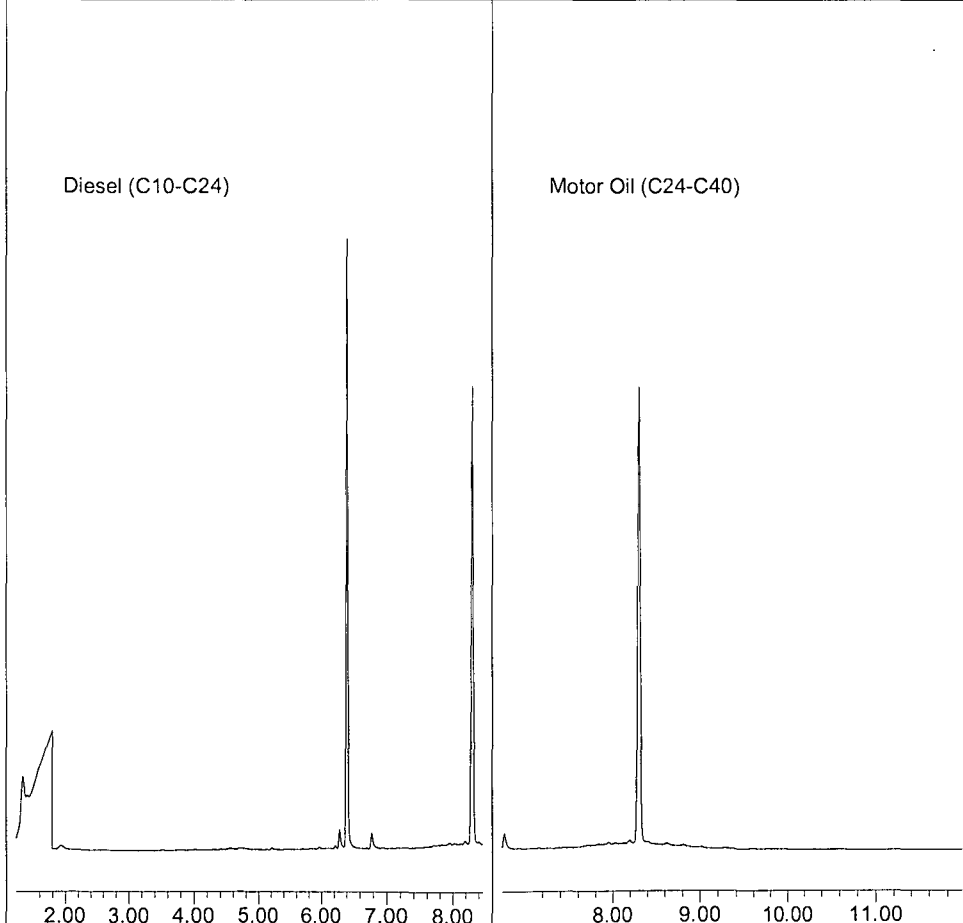
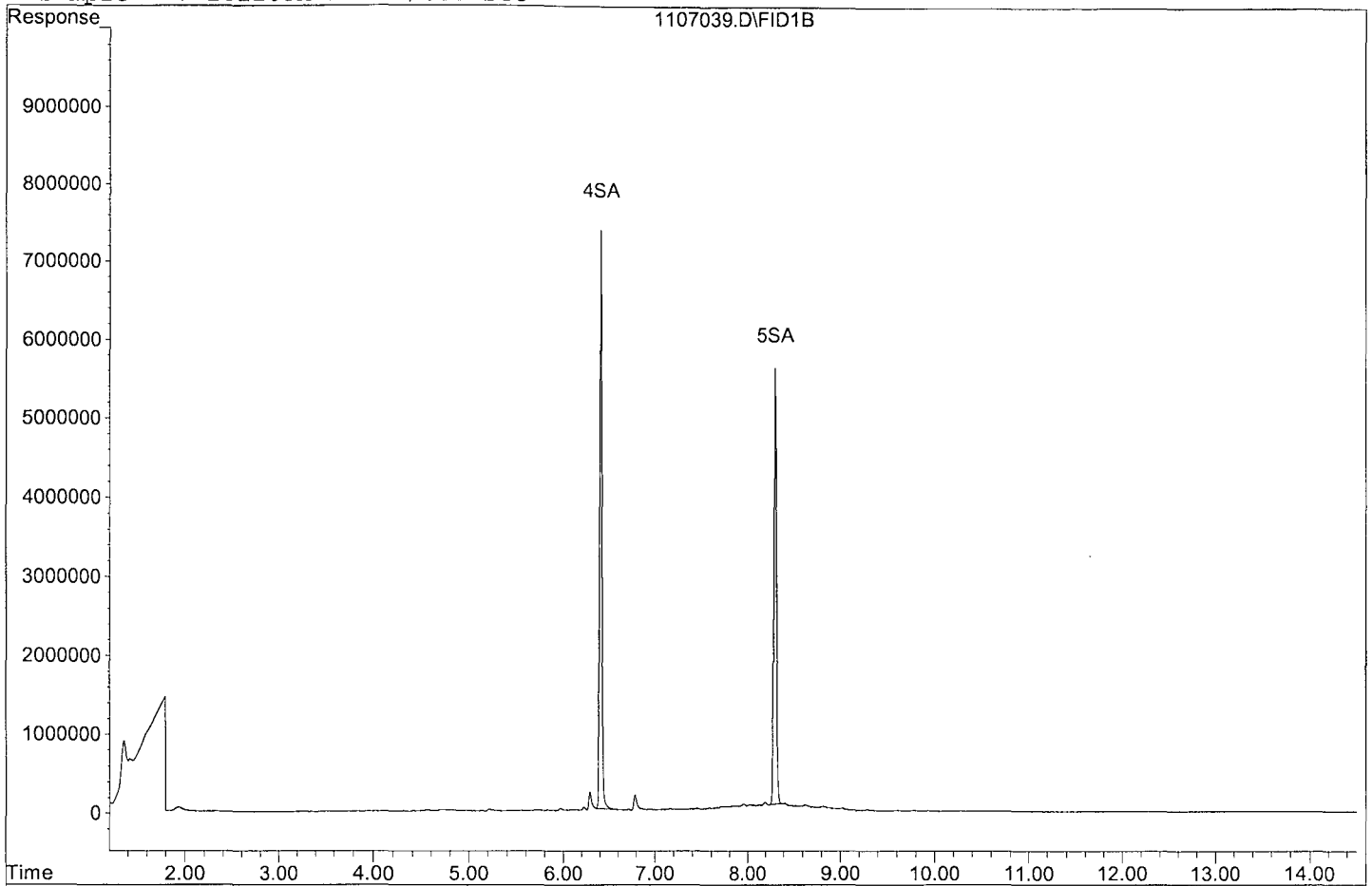
System Monitoring Compounds

4) SA Ortho-Terphenyl(S)	6.41	125097962	80.757 ppb
Surrogate Spike 75.000		Recovery =	107.68%
5) SA Octacosane(S)	8.30	112214296	86.857 ppb
Surrogate Spike 75.000		Recovery =	115.81%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107039.D  
Sample : 181105A BLK 2/800 SGC



Data File : G:\APOLLO\DATA\181031\1031005.D Vial: 5  
 Acq On : 10-31-18 13:27:09 Operator: DP  
 Sample : 181029A LCS-1 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 31 13:11 2018 Quant Results File: DOC0905.RES

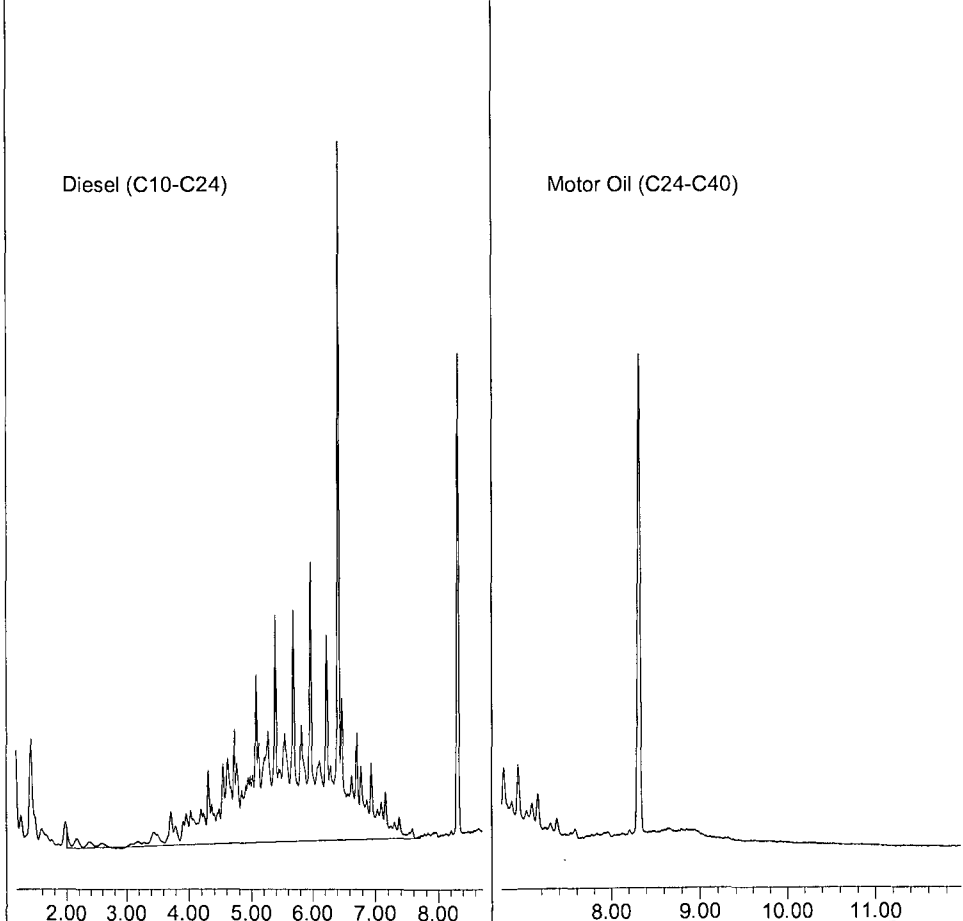
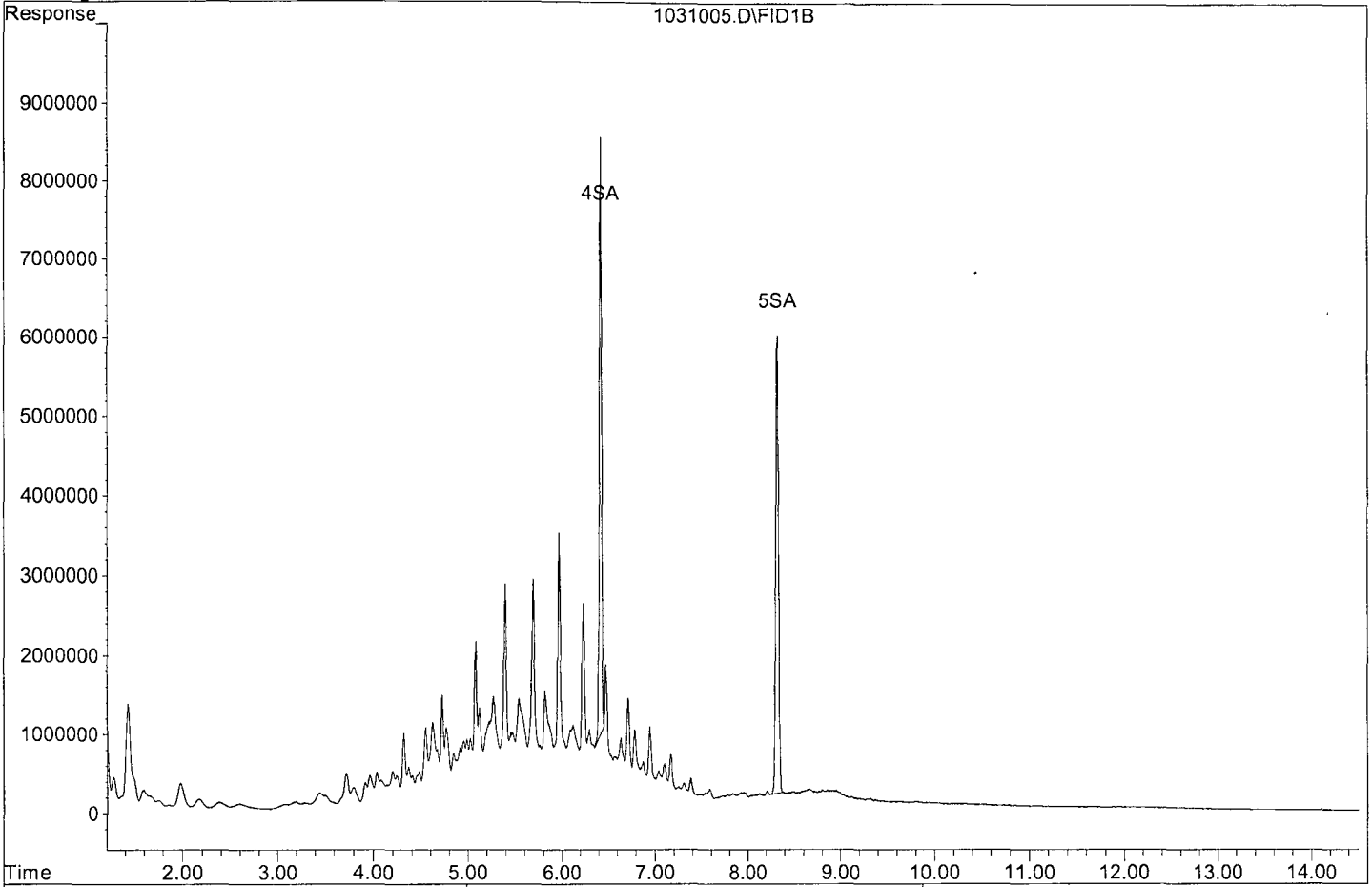
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	124326623	80.260 ppb
Surrogate Spike 75.000		Recovery =	107.01%
5) SA Octacosane(S)	8.32	122965950	95.179 ppb
Surrogate Spike 75.000		Recovery =	126.91%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1587811018	1211.257 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031005.D  
Sample : 181029A LCS-1 2/800



Data File : G:\APOLLO\DATA\181031\1031006.D Vial: 6  
 Acq On : 10-31-18 13:47:04 Operator: DP  
 Sample : 181029A LCS-2 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 31 13:11 2018 Quant Results File: DOC0905.RES

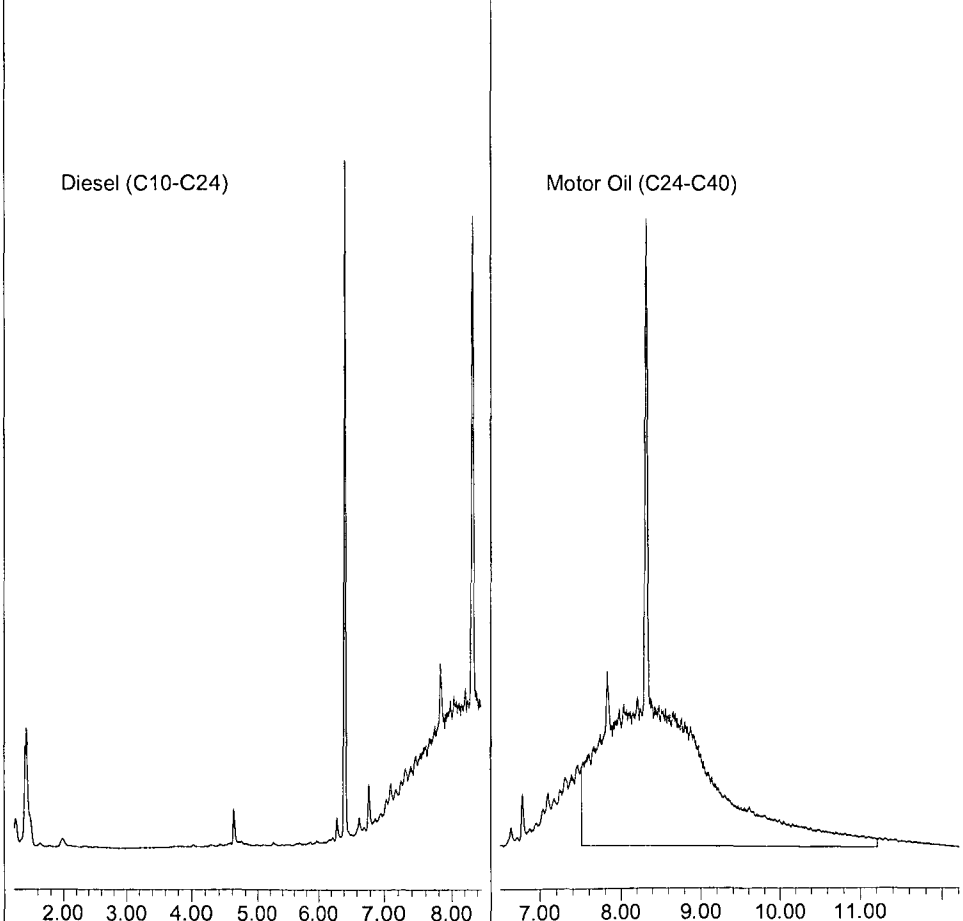
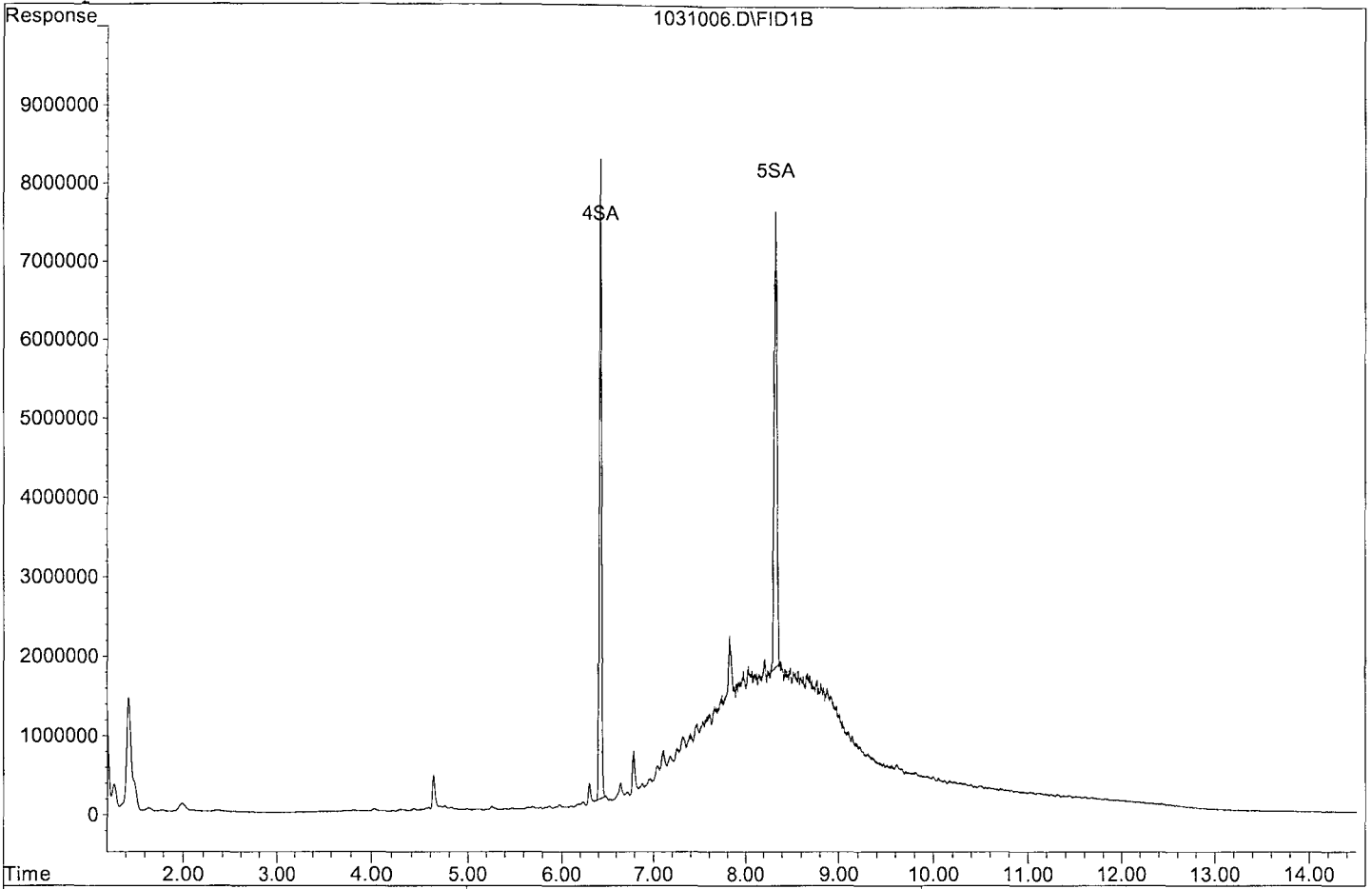
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	131538659	84.915 ppb
Surrogate Spike 75.000		Recovery =	113.22%
5) SA Octacosane(S)	8.33	120728819	93.447 ppb
Surrogate Spike 75.000		Recovery =	124.60%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1738408382	1565.700 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031006.D  
Sample : 181029A LCS-2 2/800



Data File : G:\APOLLO\DATA\181031\1031007.D Vial: 7  
 Acq On : 10-31-18 14:06:12 Operator: DP  
 Sample : 181029A LCSD-1 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 31 15:08 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

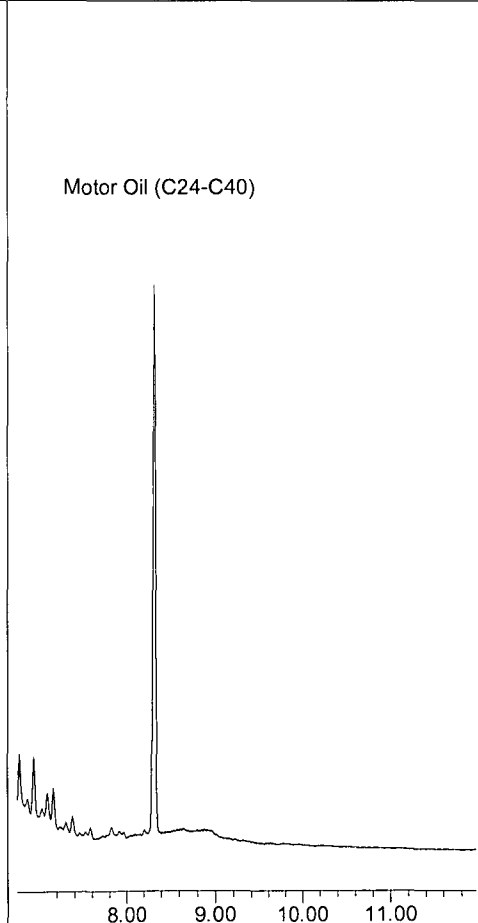
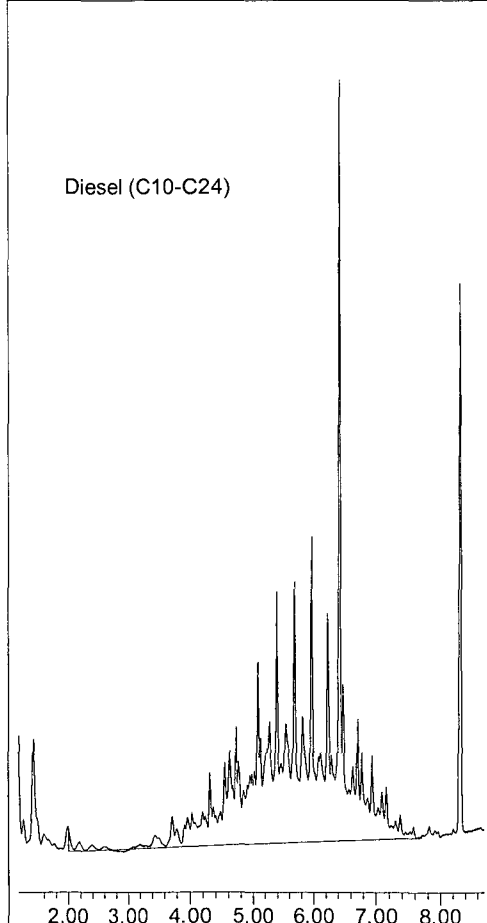
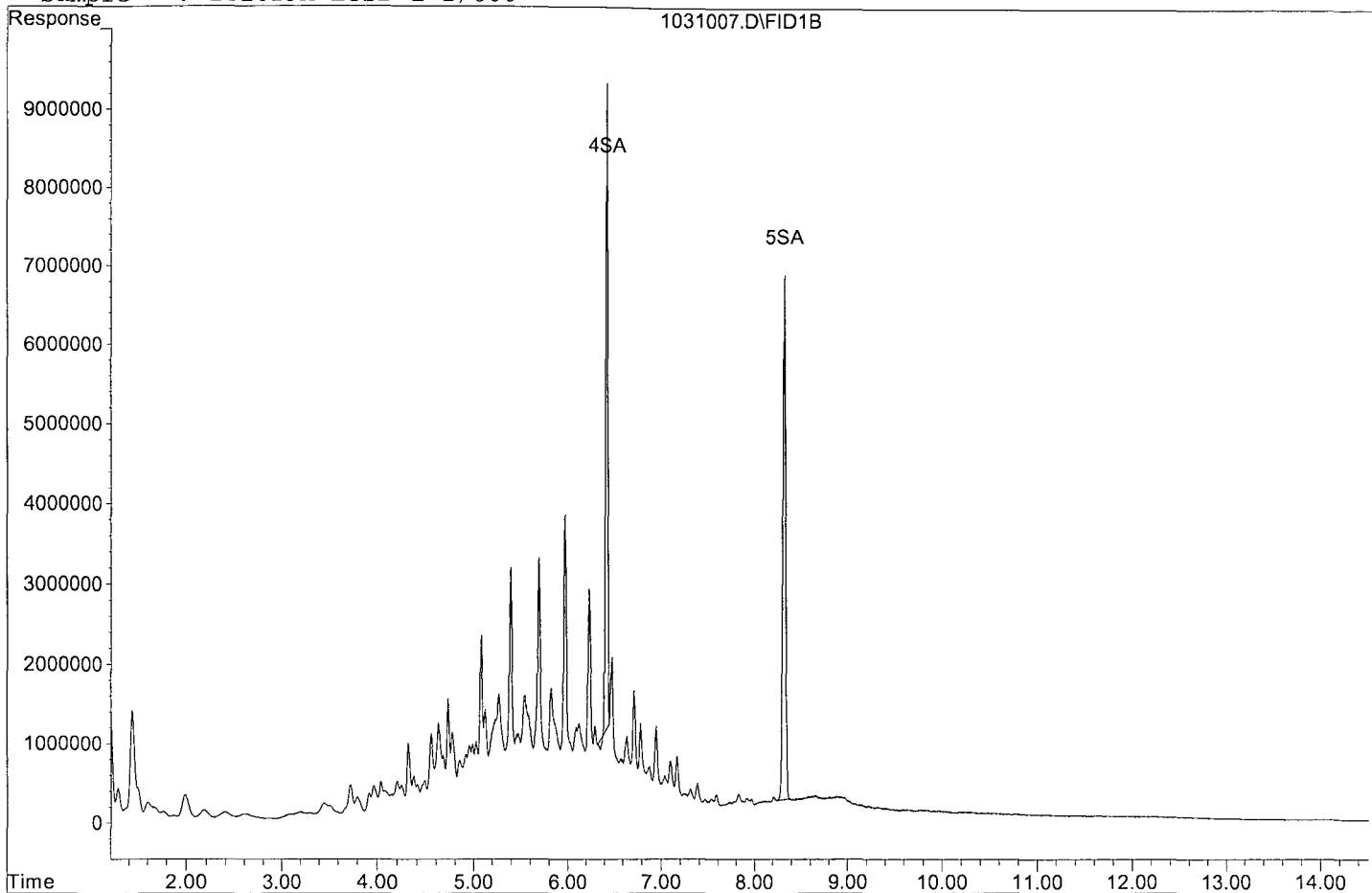
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	130380912	84.168 ppb
Surrogate Spike 75.000		Recovery =	112.22%
5) SA Octacosane(S)	8.32	134459291	104.075 ppb
Surrogate Spike 75.000		Recovery =	138.77%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1712638199	1306.482 ppb



Data File: G:\APOLLO\DATA\181031\1031007.D

Sample : 181029A LCSD-1 2/800



Data File : G:\APOLLO\DATA\181031\1031008.D Vial: 8  
 Acq On : 10-31-18 14:26:08 Operator: DP  
 Sample : 181029A LCSD-2 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 31 15:08 2018 Quant Results File: DOC0905.RES

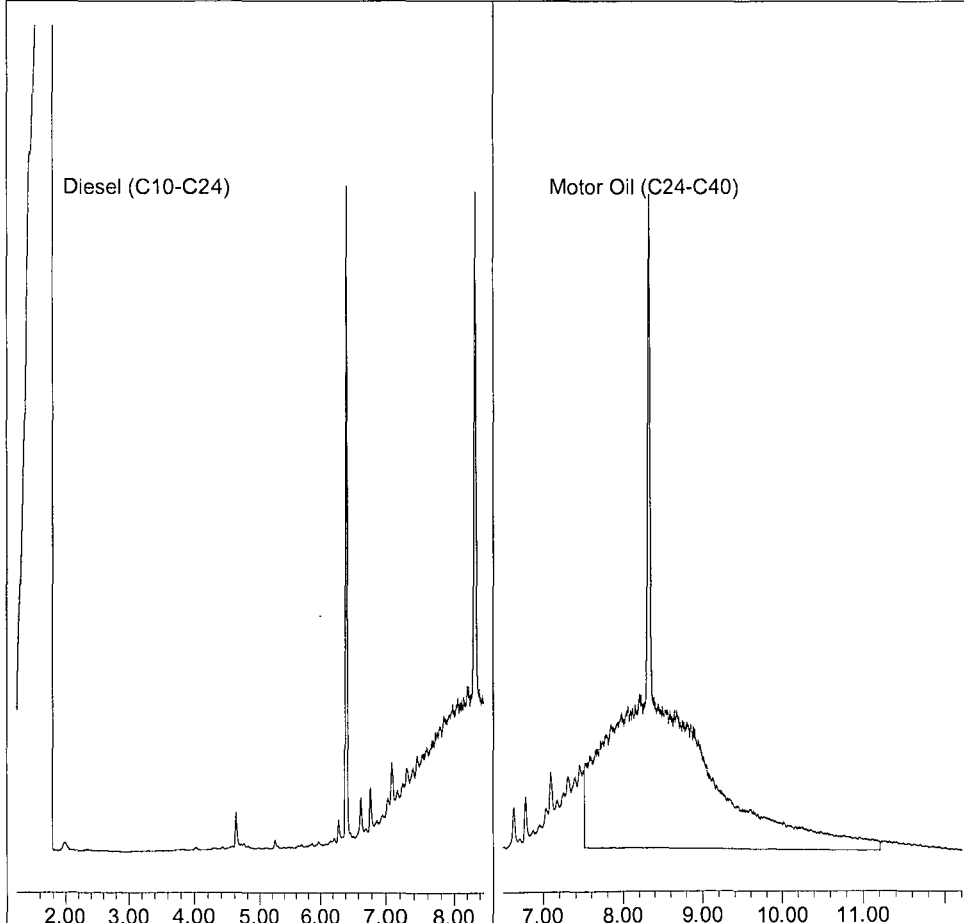
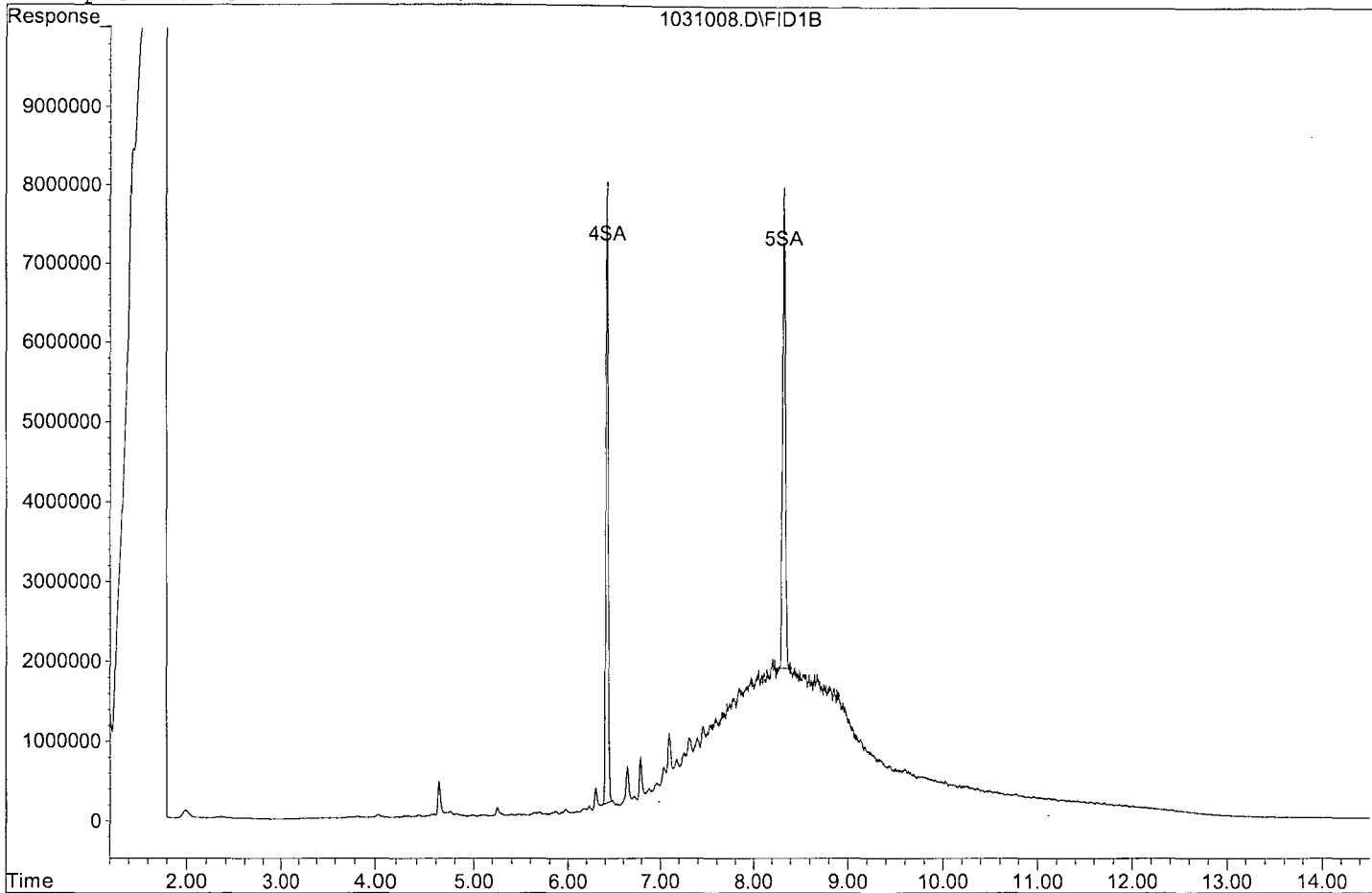
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 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	131342297	84.789 ppb
Surrogate Spike 75.000		Recovery =	113.05%
5) SA Octacosane(S)	8.33	123563443	95.641 ppb
Surrogate Spike 75.000		Recovery =	127.52%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1771379152	1595.395 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031008.D  
Sample : 181029A LCSD-2 2/800



Data File : G:\APOLLO\DATA\181107\1107005.D Vial: 5  
 Acq On : 11-7-18 14:45:01 Operator: DP  
 Sample : 181105A LCS-1 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 15:05 2018 Quant Results File: DOC0905.RES

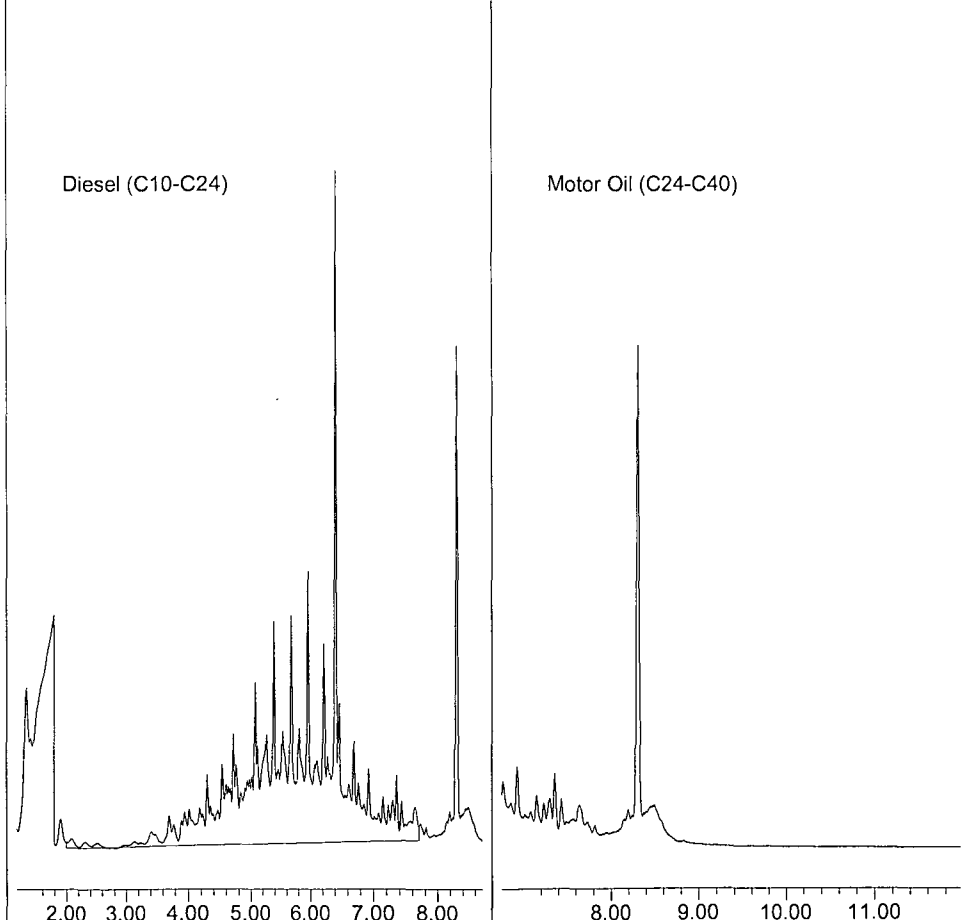
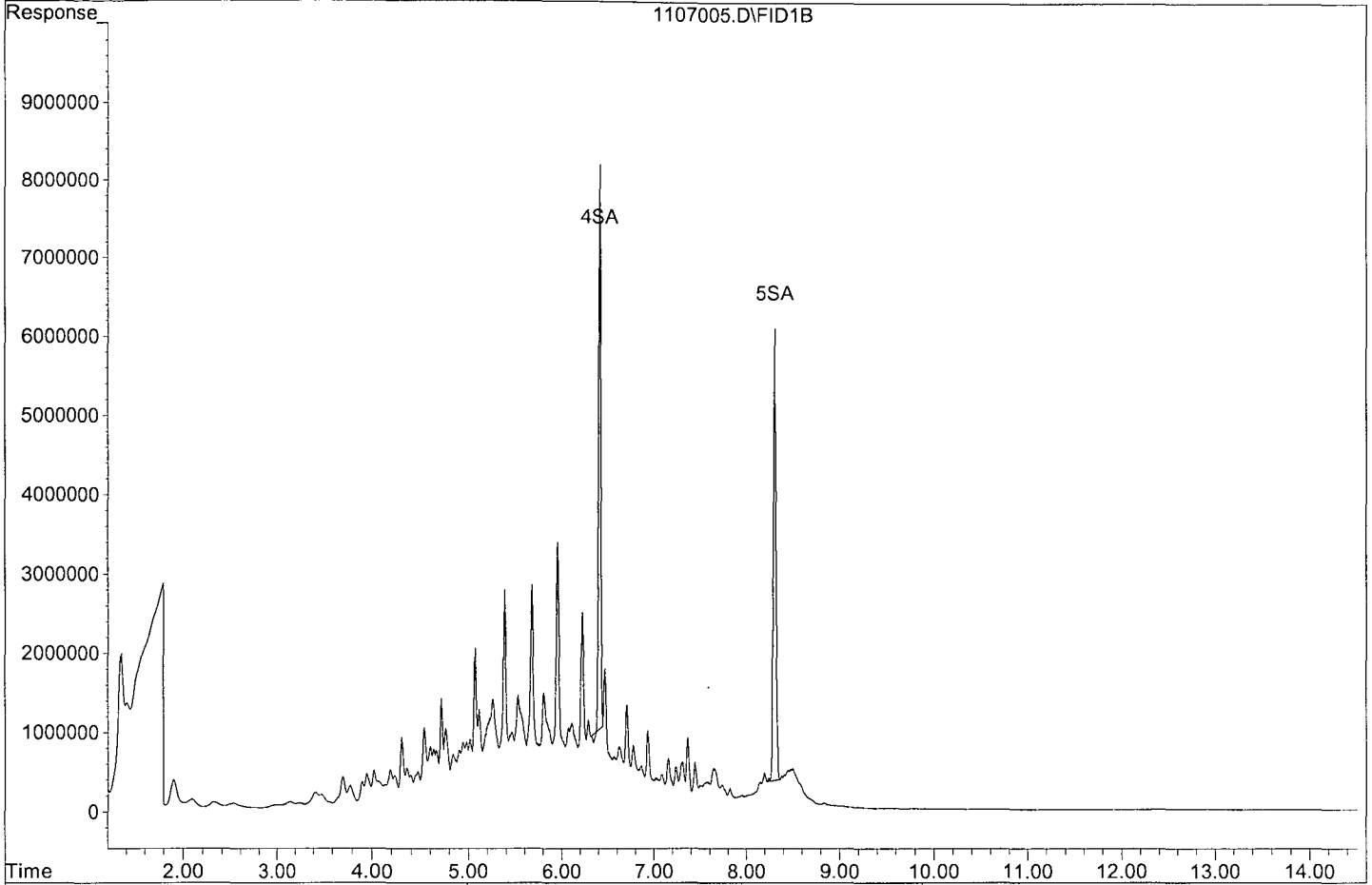
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 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	111223308	71.801 ppb
Surrogate Spike 75.000		Recovery =	95.73%
5) SA Octacosane(S)	8.31	113189424	87.611 ppb
Surrogate Spike 75.000		Recovery =	116.81%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1661661781	1267.594 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107005.D  
Sample : 181105A LCS-1 2/800



Data File : G:\APOLLO\DATA\181107\1107006.D Vial: 6  
 Acq On : 11-7-18 15:05:06 Operator: DP  
 Sample : 181105A LCS-2 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 15:23 2018 Quant Results File: DOC0905.RES

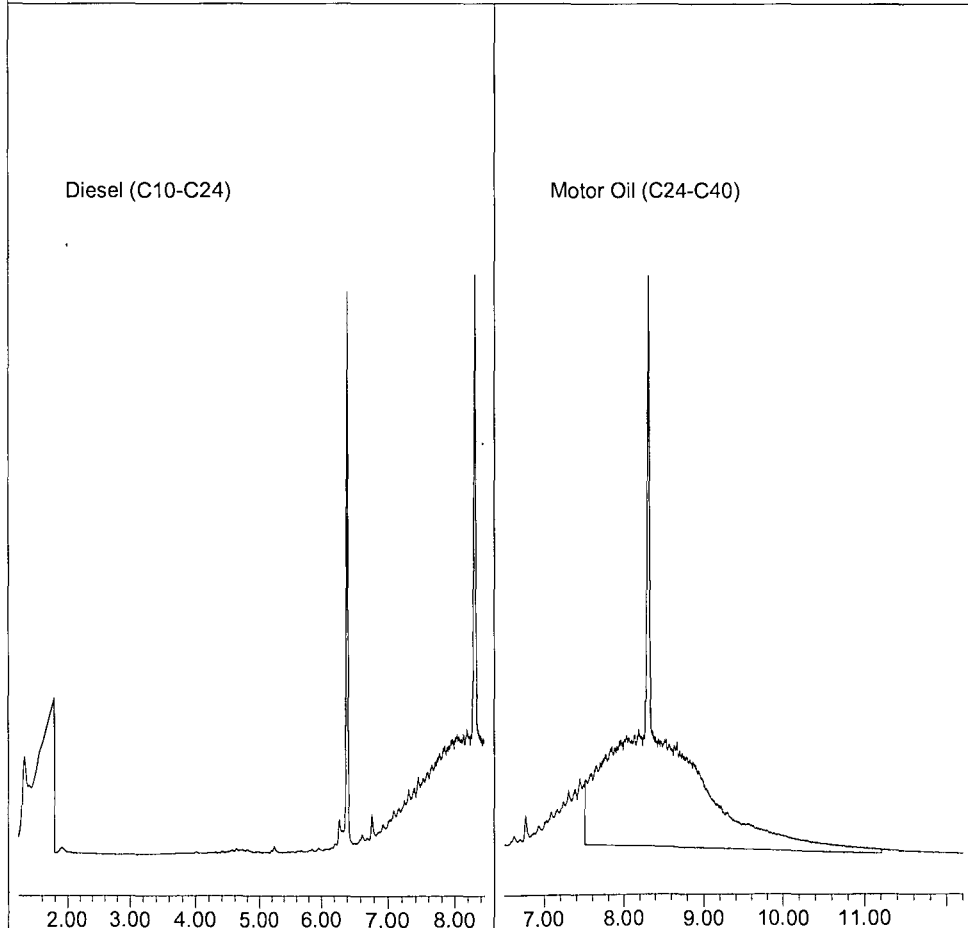
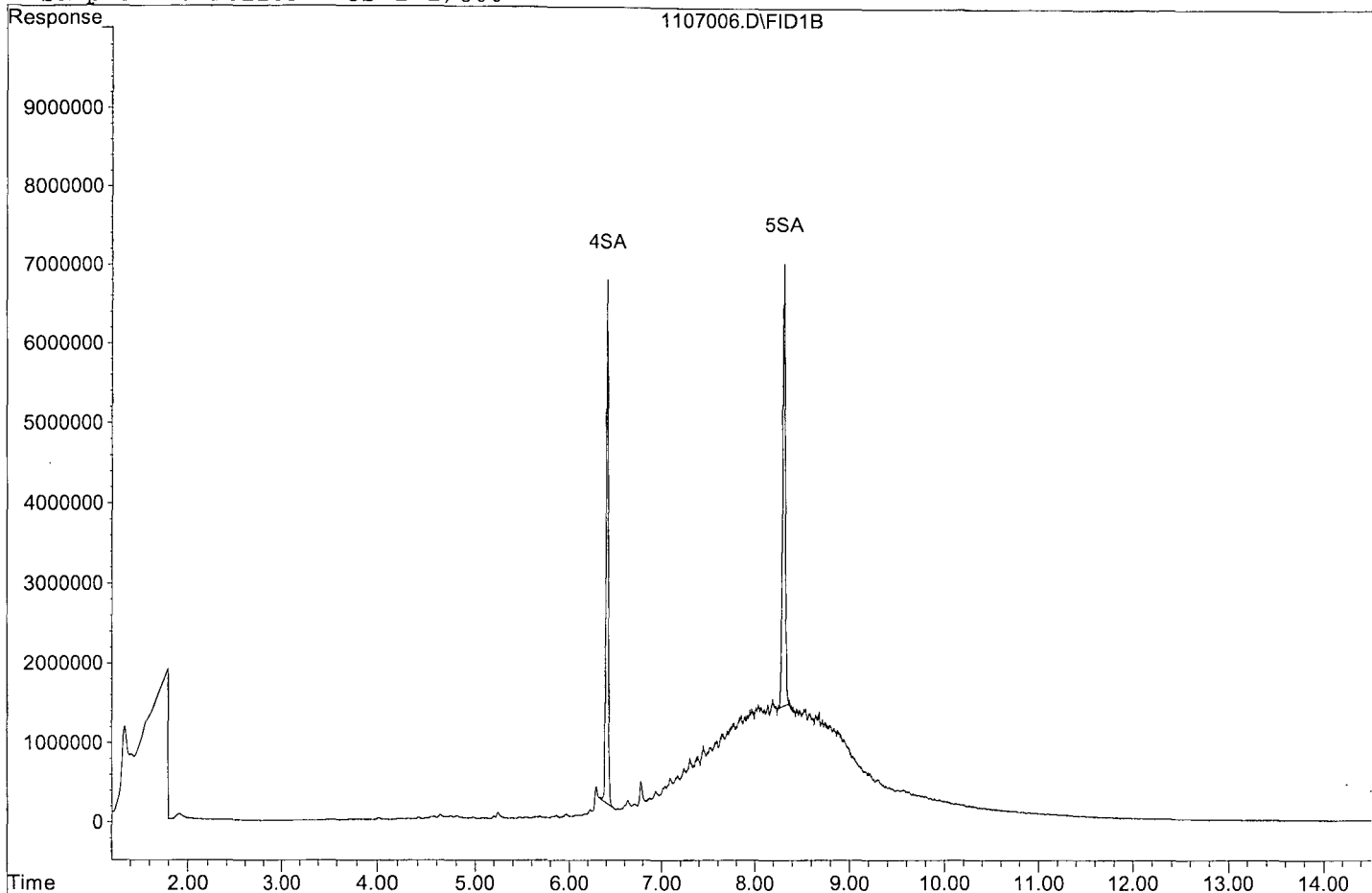
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	109672489	70.800 ppb
Surrogate Spike 75.000		Recovery =	94.40%
5) SA Octacosane(S)	8.31	108757242	84.181 ppb
Surrogate Spike 75.000		Recovery =	112.24%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1301672640	1172.353 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107006.D  
Sample : 181105A LCS-2 2/800



Data File : G:\APOLLO\DATA\181107\1107007.D Vial: 7  
 Acq On : 11-7-18 15:25:09 Operator: DP  
 Sample : 181105A LCSD-1 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 16:22 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

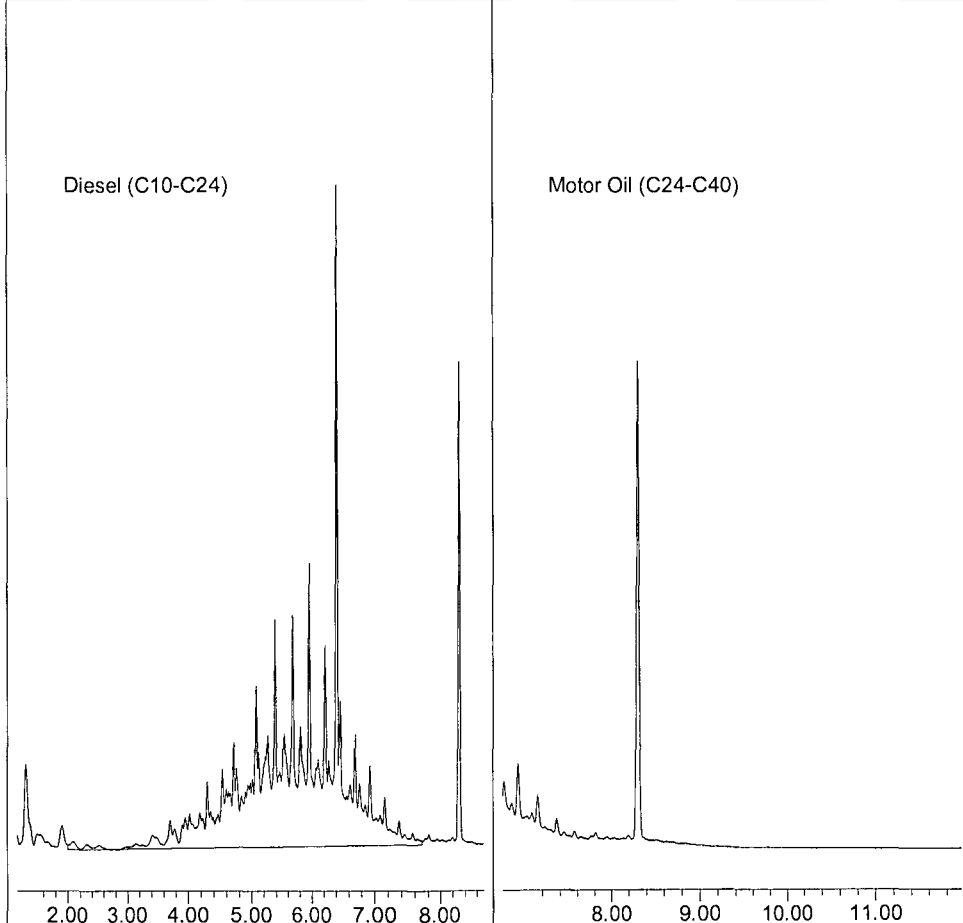
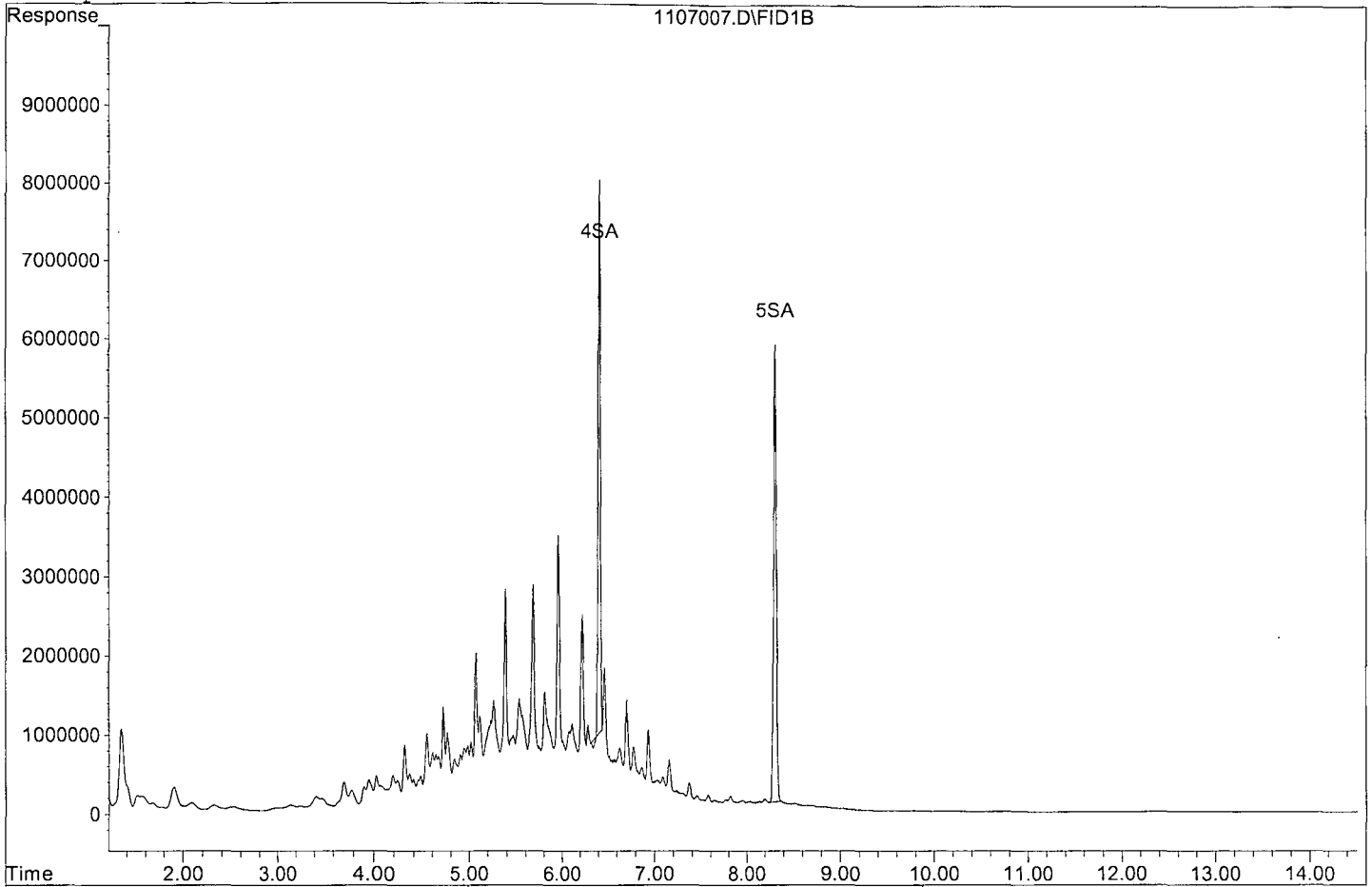
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	114158680	73.696 ppb
Surrogate Spike 75.000		Recovery =	98.26%
5) SA Octacosane(S)	8.31	113691490	88.000 ppb
Surrogate Spike 75.000		Recovery =	117.33%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1620538315	1236.223 ppb



Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107007.D  
Sample : 181105A LCSD-1 2/800



Data File : G:\APOLLO\DATA\181107\1107008.D Vial: 8  
 Acq On : 11-7-18 15:45:12 Operator: DP  
 Sample : 181105A LCSD-2 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 16:22 2018 Quant Results File: DOC0905.RES

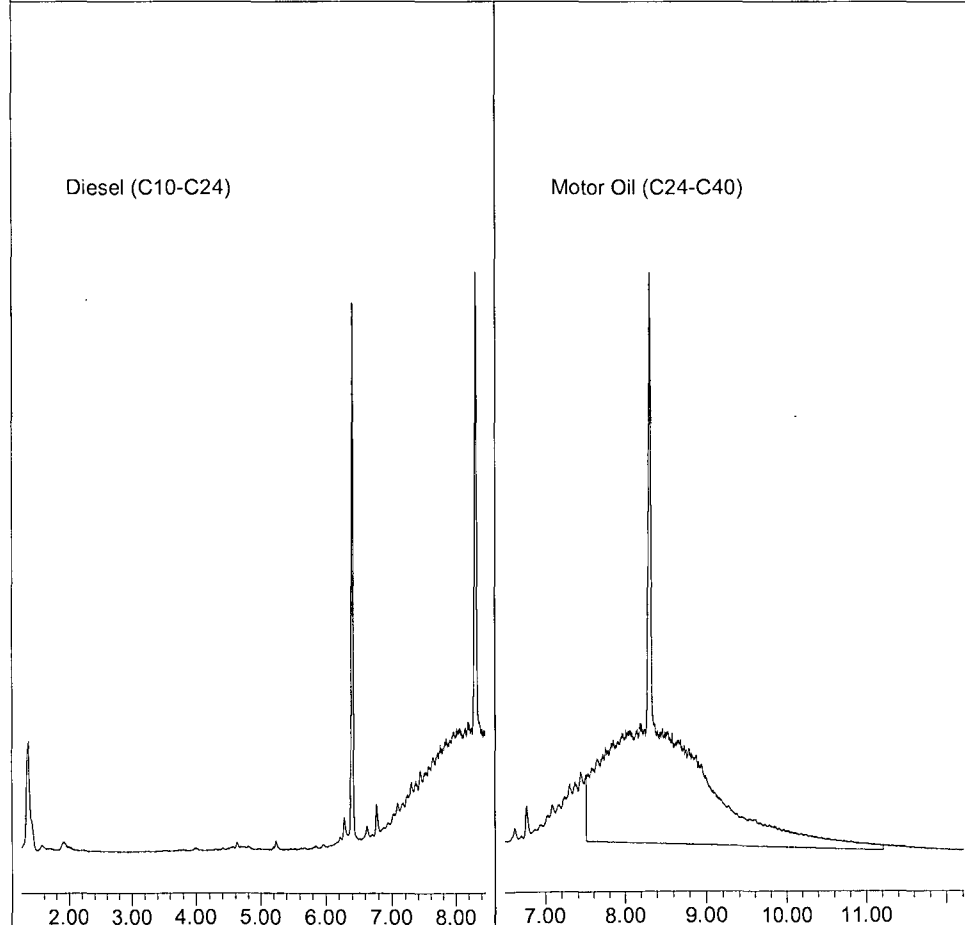
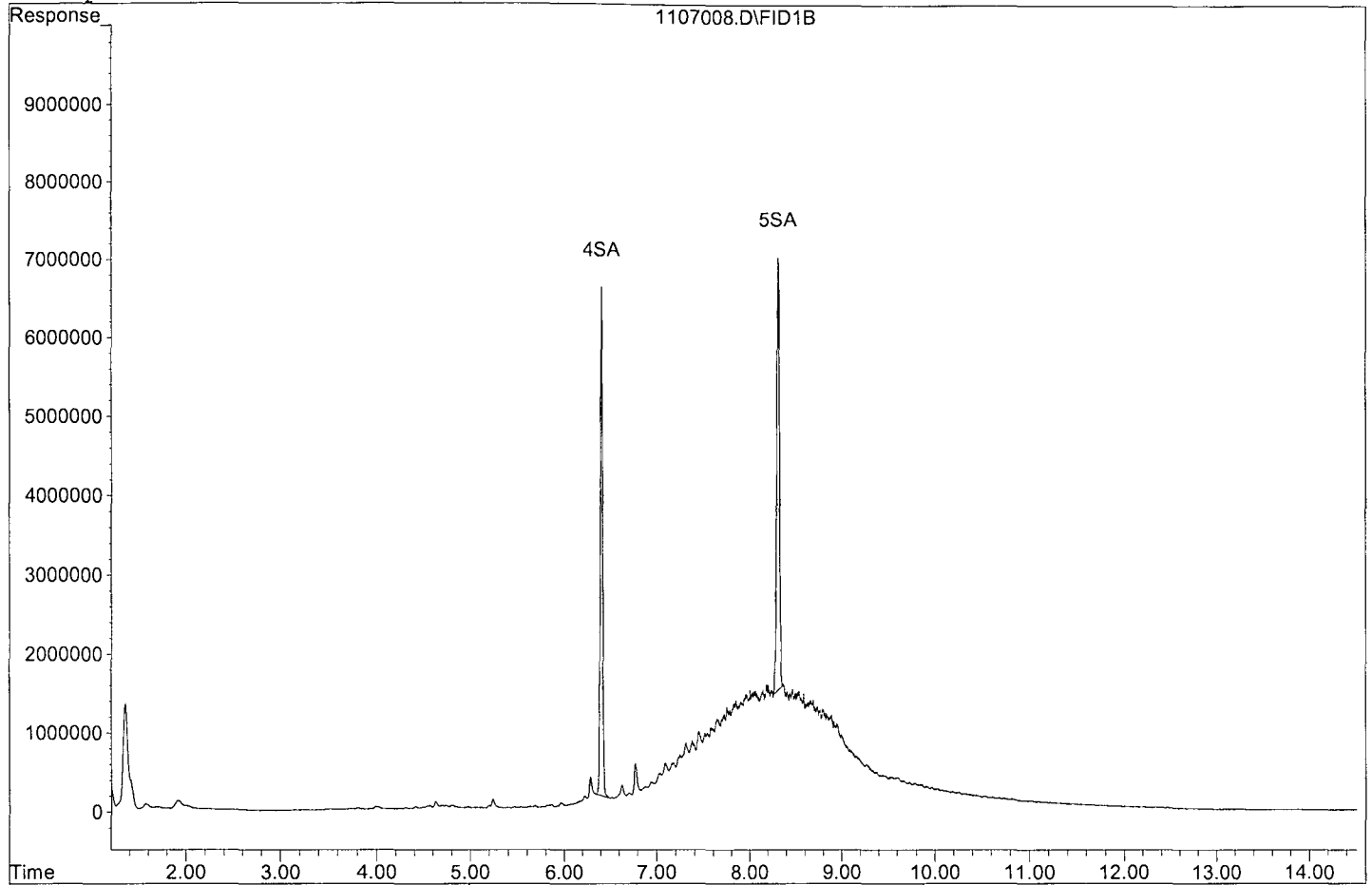
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 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	114394936	73.848 ppb
Surrogate Spike 75.000		Recovery =	98.46%
5) SA Octacosane(S)	8.31	110962591	85.888 ppb
Surrogate Spike 75.000		Recovery =	114.52%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1358881145	1223.878 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107008.D  
Sample : 181105A LCSD-2 2/800



Data File : G:\APOLLO\DATA\181107\1107040.D Vial: 40  
 Acq On : 11-8-18 17:18:11 Operator: DP  
 Sample : 181105A LCS-1 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:12 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

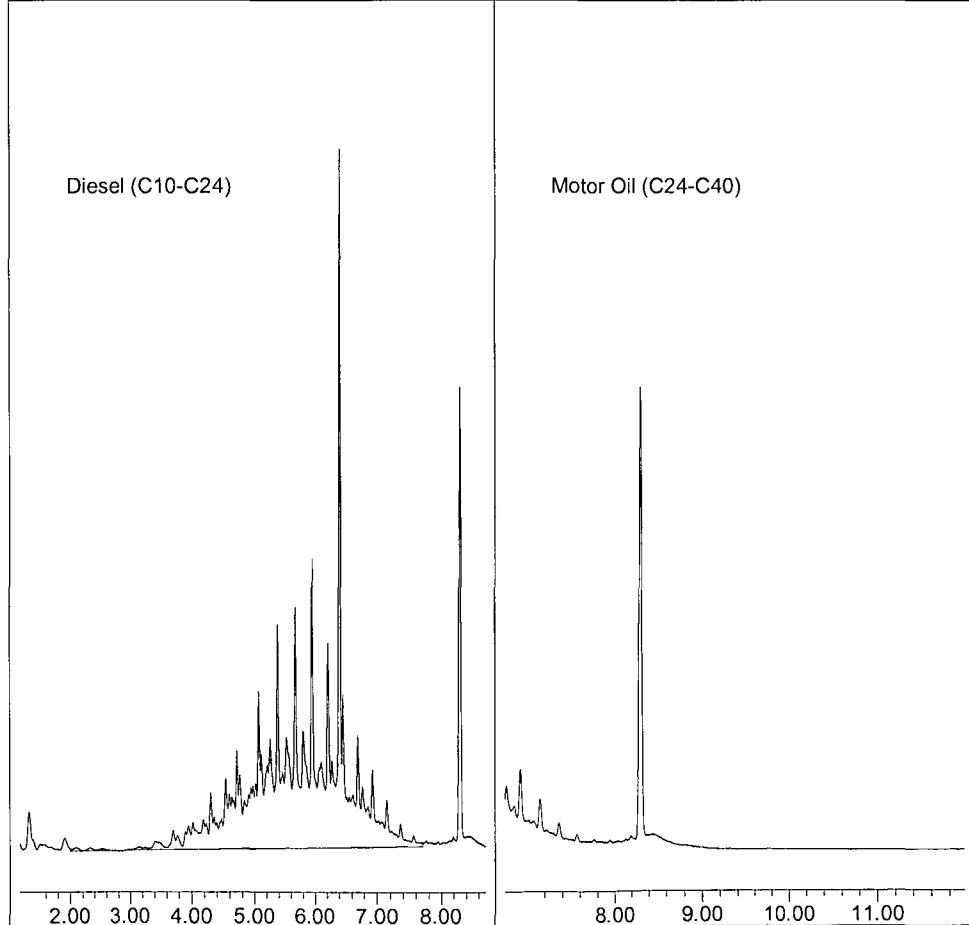
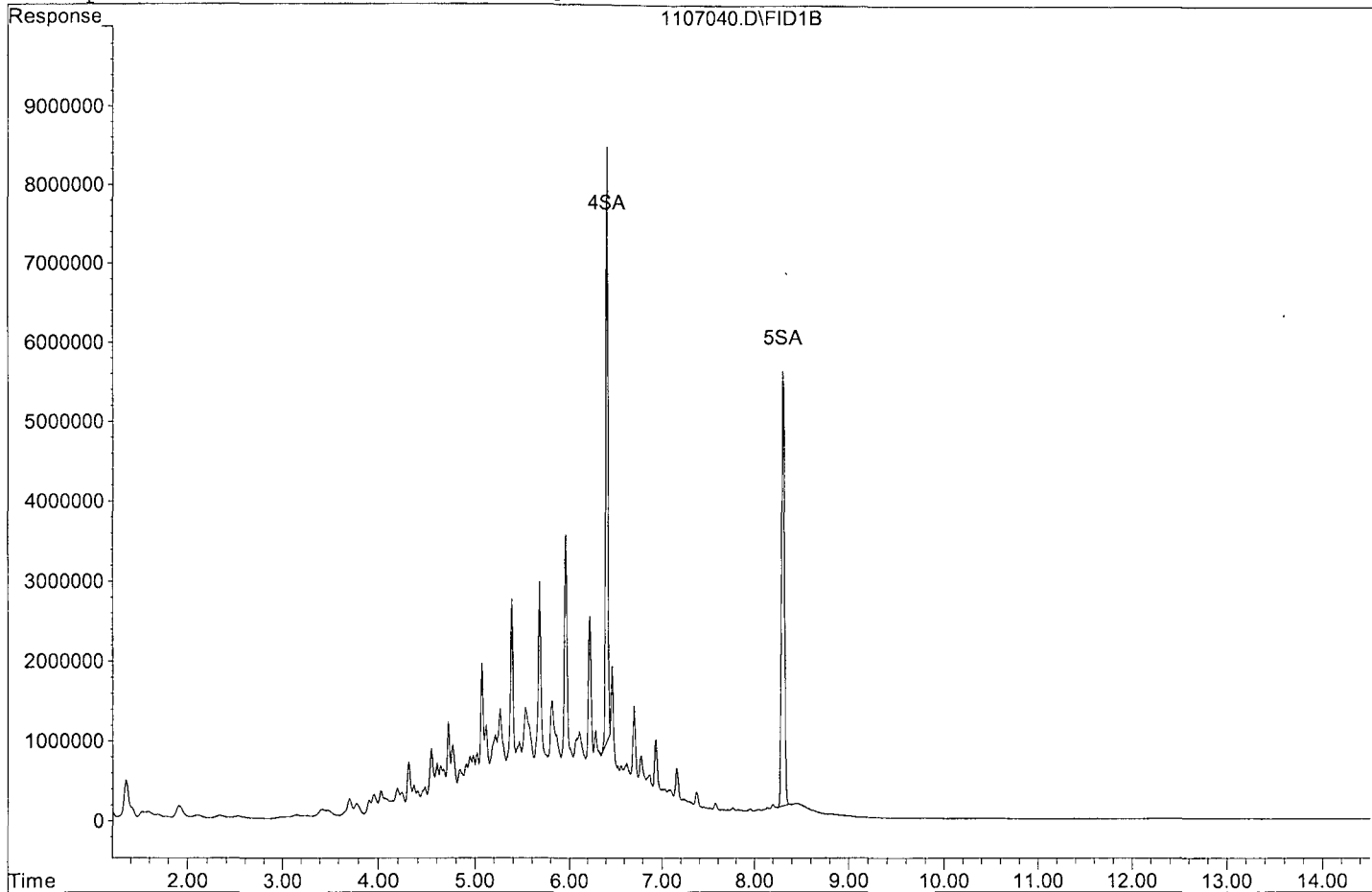
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	121227891	78.259 ppb
Surrogate Spike 75.000		Recovery =	104.35%
5) SA Octacosane(S)	8.31	115243390	89.201 ppb
Surrogate Spike 75.000		Recovery =	118.93%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1528067346	1165.682 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107040.D

Sample : 181105A LCS-1 2/800 SGC



Data File : G:\APOLLO\DATA\181107\1107041.D Vial: 41  
 Acq On : 11-8-18 17:38:32 Operator: DP  
 Sample : 181105A LCS-2 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:12 2018 Quant Results File: DOC0905.RES

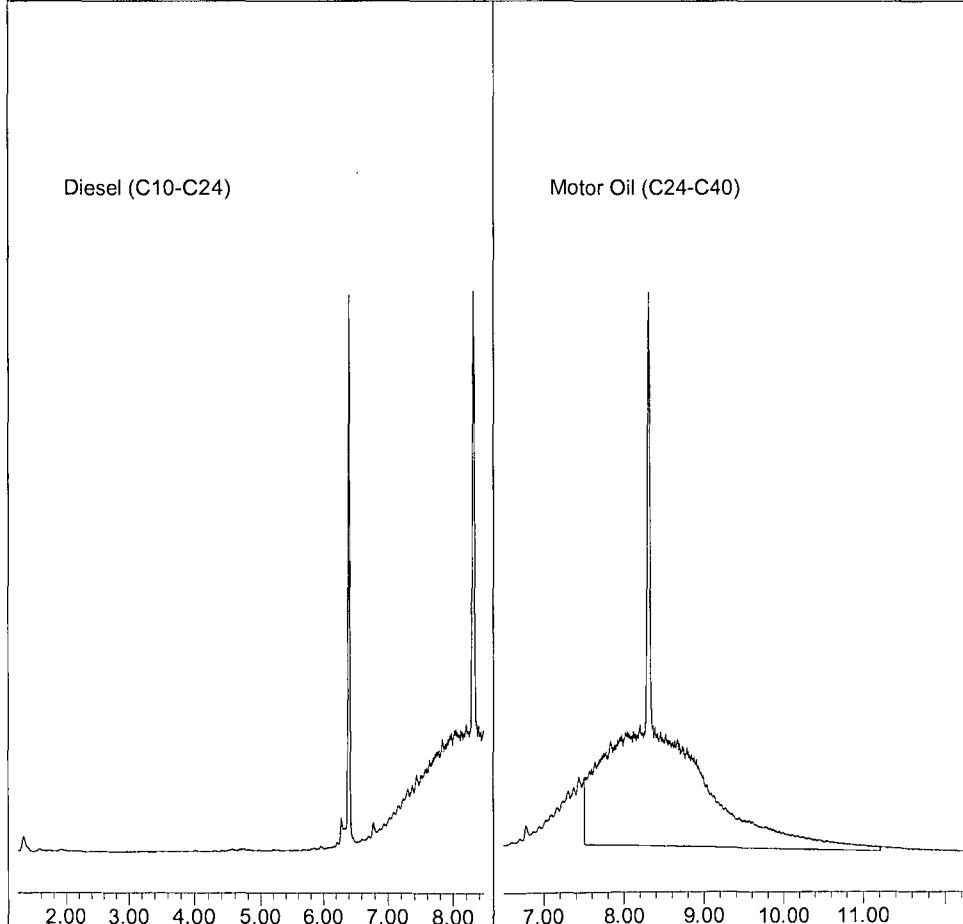
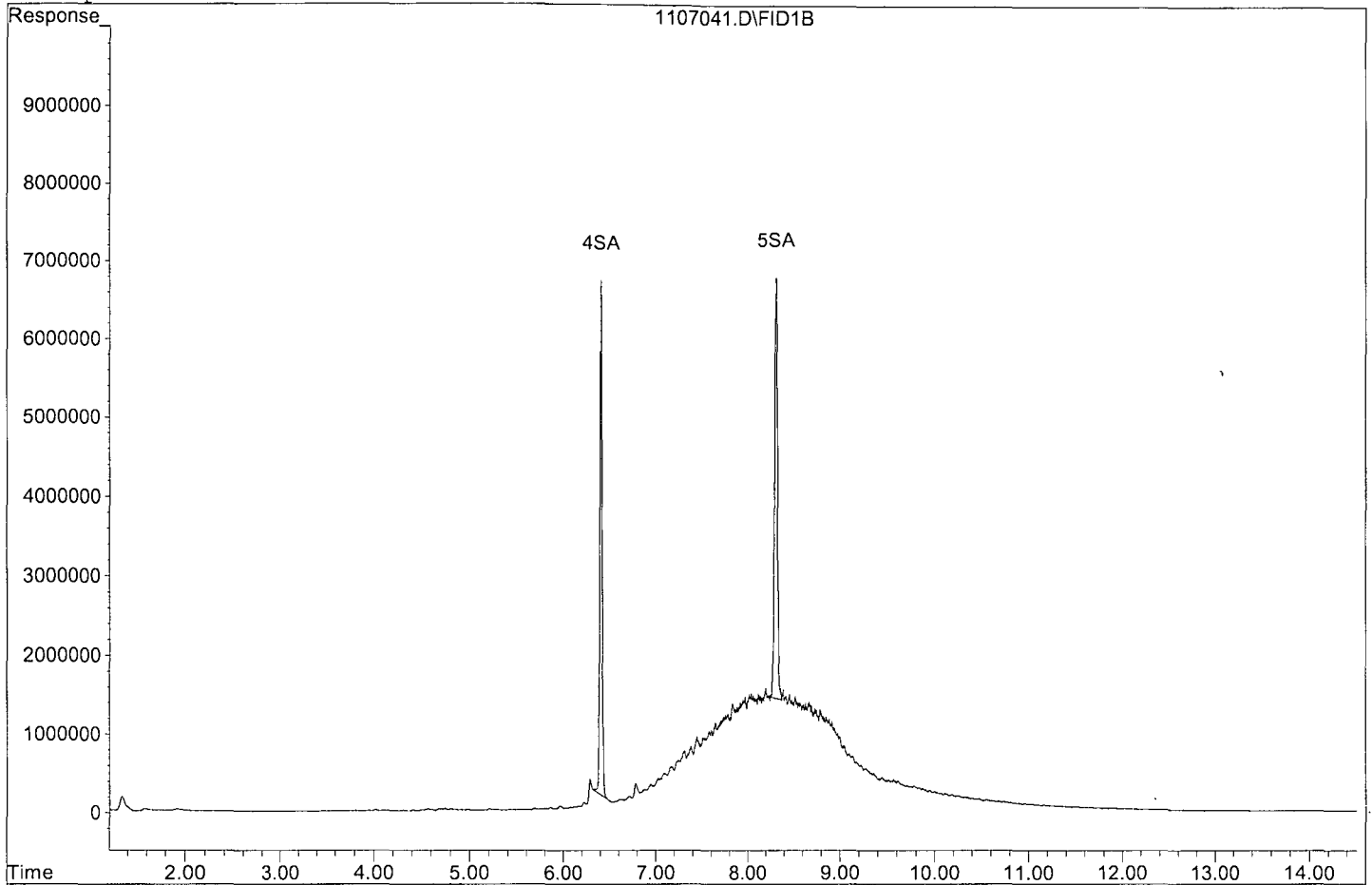
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	111601685	72.045 ppb
Surrogate Spike 75.000		Recovery =	96.06%
5) SA Octacosane(S)	8.31	116564683	90.224 ppb
Surrogate Spike 75.000		Recovery =	120.30%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1353843261	1219.341 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107041.D  
Sample : 181105A LCS-2 2/800 SGC



Data File : G:\APOLLO\DATA\181107\1107042.D Vial: 42  
 Acq On : 11-8-18 17:58:56 Operator: DP  
 Sample : 181105A LCSD-1 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:12 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

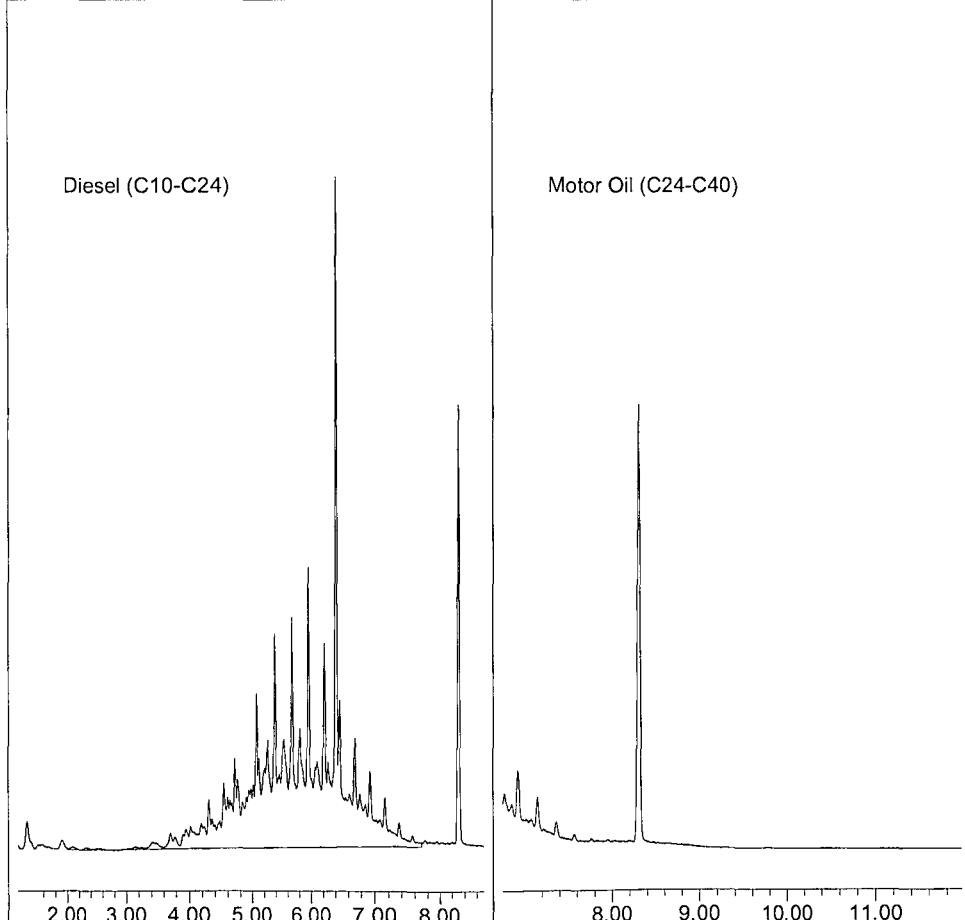
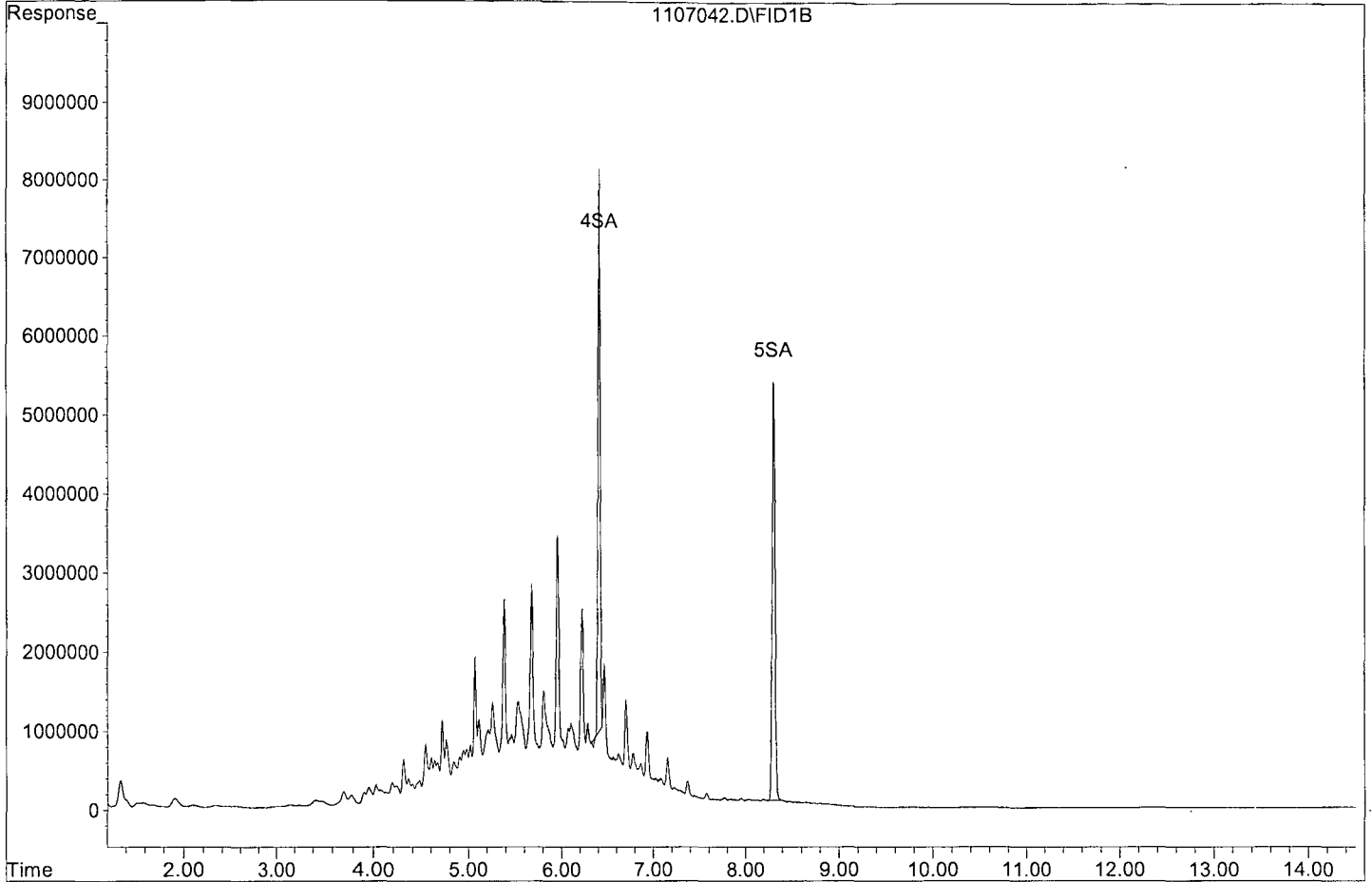
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	116654980	75.307 ppb
Surrogate Spike 75.000		Recovery =	100.41%
5) SA Octacosane(S)	8.31	113802608	88.086 ppb
Surrogate Spike 75.000		Recovery =	117.45%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1492724196	1138.721 ppb



Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107042.D  
Sample : 181105A LCSD-1 2/800 SGC



Data File : G:\APOLLO\DATA\181107\1107043.D Vial: 43  
 Acq On : 11-8-18 18:19:13 Operator: DP  
 Sample : 181105A LCSD-2 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:12 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

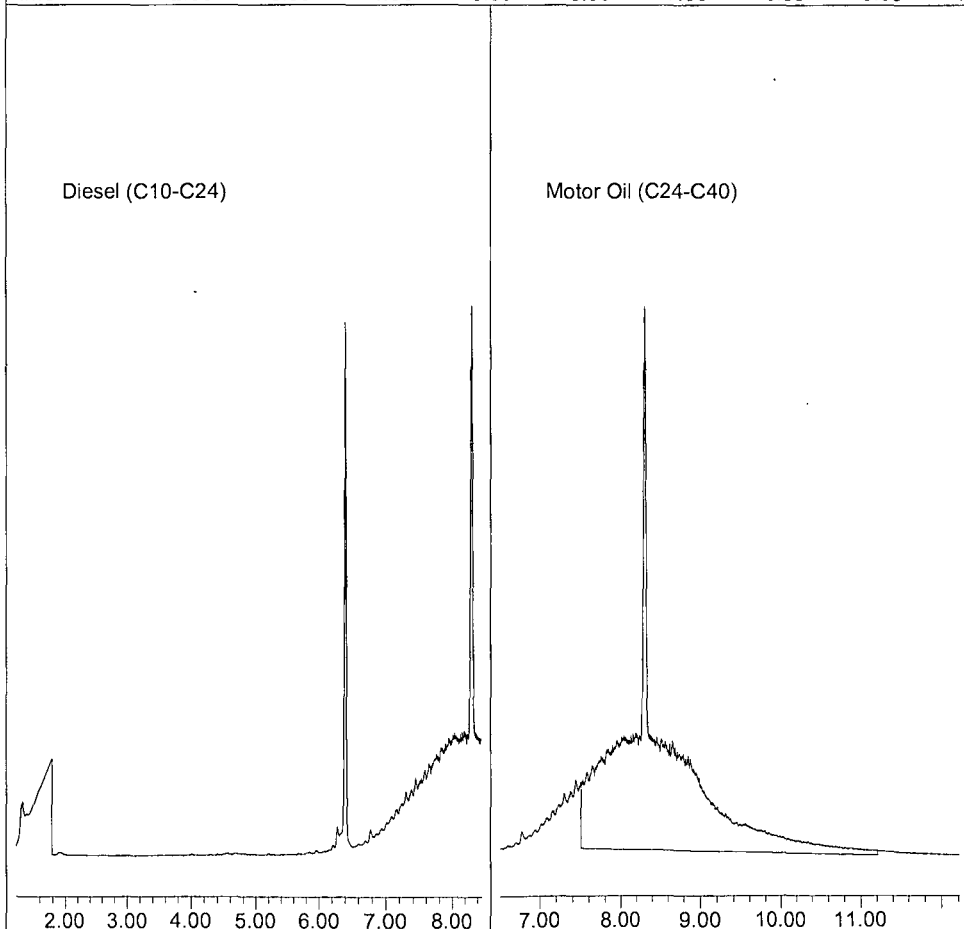
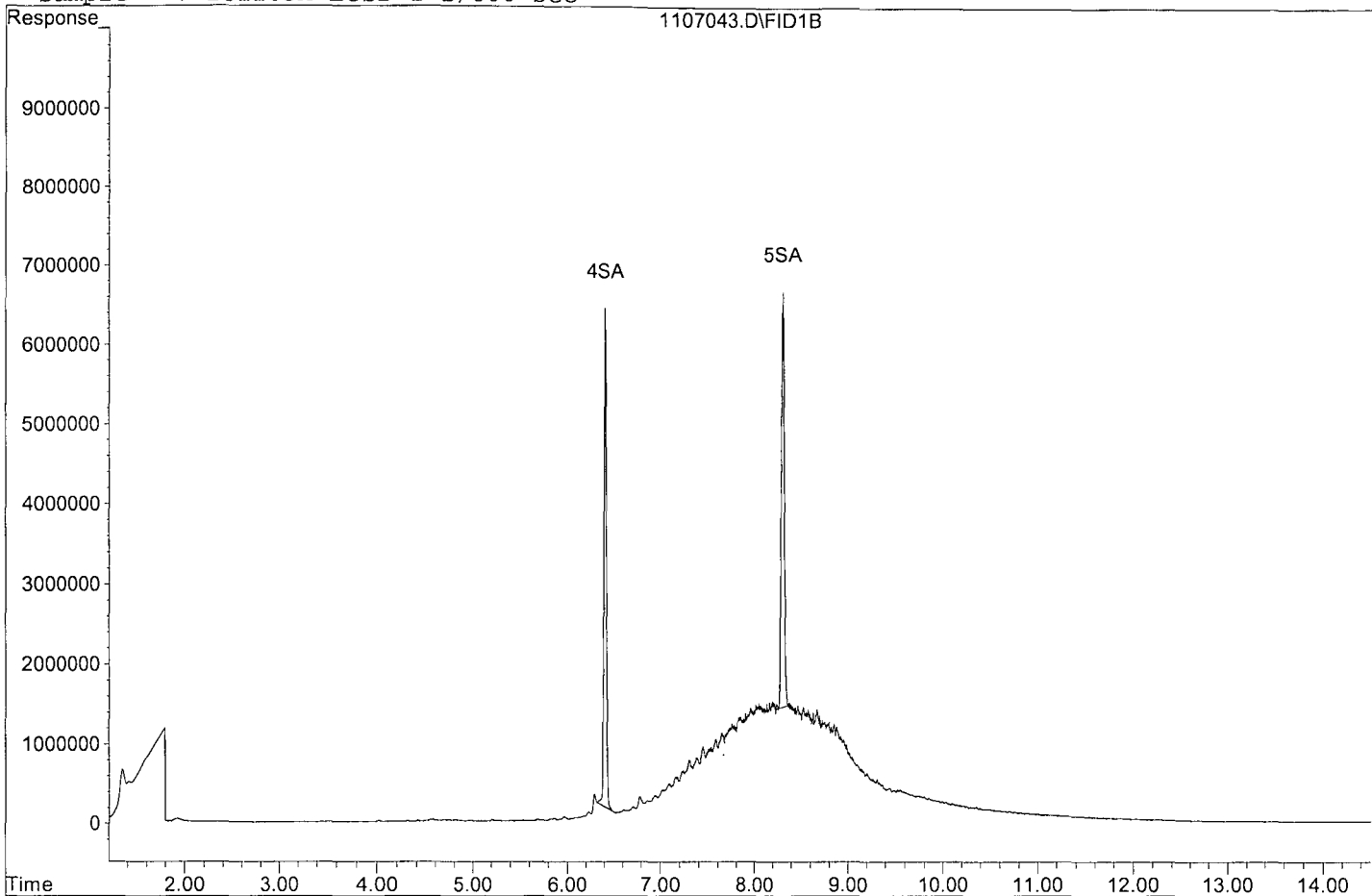
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	110812417	71.535 ppb
Surrogate Spike 75.000		Recovery =	95.38%
5) SA Octacosane(S)	8.31	112819352	87.325 ppb
Surrogate Spike 75.000		Recovery =	116.43%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1349434309	1215.370 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107043.D

Sample : 181105A LCSD-2 2/800 SGC



### 8015 Standard Prep

THC Surrogate										
Prepared: 11/02/18						Prepared By (Initials): DP				
Expires: 10/18/19										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
O-terphenyl / Octacosane Mix	Phenova	ALO-130161	600	CL12572-39692	10/18/19	06/30/23	N/A	N/A	N/A	600

Diesel Calibration Standard										
Prepared: 08/13/18						Prepared By (Initials): DP				
Expires: 08/13/19										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Fuel #2	Restek	31258	50,000	A0121108	08/13/19		1000uL			2000
THC Surrogate	Phenova	ALO-130161	600	CL12238-39244	08/13/19		4165	25mL	MC	100

Diesel Calibration Curve										
Prepared: 09/05/18						Prepared By (Initials): DP				
Expires: 03/06/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Calibration STD	Restek	Diesel STD (Level 1)	2,000	Prepared 08/13/18	08/13/19	N/A	5uL	1000uL	MC	10
Diesel Calibration STD	Restek	Diesel STD (Level 2)	2,000	Prepared 08/13/18	08/13/19	N/A	25uL	1000uL	MC	50
Diesel Calibration STD	Restek	Diesel STD (Level 3)	2,000	Prepared 08/13/18	08/13/19	N/A	125uL	1000uL	MC	250
Diesel Calibration STD	Restek	Diesel STD (Level 4)	2,000	Prepared 08/13/18	08/13/19	N/A	50uL	100uL	MC	1000
Diesel Calibration STD	Restek	Diesel STD (Level 5)	2,000	Prepared 08/13/18	08/13/19	N/A	75uL	100uL	MC	1500
Diesel Calibration STD	Restek	Diesel STD (Level 6)	2,000	Prepared 08/13/18	08/13/19	N/A	100uL	100uL	N/A	2,000

Diesel Second Source (SS)										
Prepared: 08/02/18						Prepared By (Initials): DP				
Expires: 08/02/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Fuel #2	O2SI	G34-011598-03	50,000	G34-319187-38958	08/02/19		100uL	5mL	MC	1,000

Diesel CCV										
Prepared: 10/15/18						Prepared By (Initials): DP				
Expires: 04/15/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Calibration STD	Restek	Diesel CCV	2,000	Prepared 08/13/18	08/13/19	N/A	1250uL	10mL	MC	250

Diesel Spike										
Prepared: 10/24/18						Prepared By (Initials): DP				
Expires: 10/24/19										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Fuel #2	Absolute	51046	50,000	111715-39358	10/24/19	11/17/20	N/A	N/A	N/A	50,000

Motor Oil Standard										
Prepared: 03/02/18						Prepared By (Initials): DP				
Expires: 03/02/19										
Methylene Chloride Lot No. 56258										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil	O2SI	116390-01	50,000	334223-38795	03/02/19		1mL	25mL	MC	2,000
Motor Oil Calibration Curve										
Prepared: 09/05/18						Prepared By (Initials): DP				
Expires: 03/02/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil STD	O2SI	Motor Oil (Level 1)	2,000	Prepared 03/02/18	03/02/19	N/A	5uL	1000uL	MC	10
Motor Oil STD	O2SI	Motor Oil (Level 2)	2,000	Prepared 03/02/18	03/02/19	N/A	25uL	1000uL	MC	50
Motor Oil STD	O2SI	Motor Oil (Level 3)	2,000	Prepared 03/02/18	03/02/19	N/A	125uL	1000uL	MC	250
Motor Oil STD	O2SI	Motor Oil (Level 4)	2,000	Prepared 03/02/18	03/02/19	N/A	50uL	100uL	MC	1,000
Motor Oil STD	O2SI	Motor Oil (Level 5)	2,000	Prepared 03/02/18	03/02/19	N/A	75uL	100uL	MC	1,500
Motor Oil STD	O2SI	Motor Oil (Level 6)	2,000	Prepared 03/02/18	03/02/19	N/A	100uL	100uL	N/A	2,000
Motor Oil Second Source (SS)										
Prepared: 07/13/18						Prepared By (Initials): DP				
Expires: 03/02/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil Second Source	O2SI	116390-02-SS	50,000	301142-37652	03/02/19		100uL	5mL	MC	1,000
Motor Oil CCV										
Prepared: 10/15/18						Prepared By (Initials): DP				
Expires: 03/02/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil STD	O2SI	Motor Oil CCV	2,000	Prepared 03/02/18	03/02/19	N/A	1250uL	10mL	MC	250
Motor Oil Spike										
Prepared: 10/31/18						Prepared By (Initials): DP				
Expires: 10/31/19										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil Composite	O2SI	116390-02	50,000	343132-39108	10/31/19	03/02/22	N/A	N/A	N/A	50,000

# Organic Extraction Worksheet

<b>Method</b>	Continuous Liq/Liq TPH-Diesel/MO 3520C	<b>Extraction Set</b>	181029A	<b>Extraction Method</b>	LIQ005	<b>Units</b>	mL
Spiked ID 1	Diesel Spike 10-24-18 EXP 10-24-19	Surrogate ID 1	THC Surrogate 10-18-18 EXP 10-18-19				
Spiked ID 2	Motor Oil Spike 7-9-18 EXP 7-9-19	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		YES			
Spiked ID 7		Ext. Start Time:	10/29/18 13:00				
Spiked ID 8		Ext. End Time:	10/30/18 8:10 , 10/31/18 11:45 , 1500				
		GC Requires Extract By:	10/30/18 0:00				
		pH1	2	0/29/18 12:45:00 PM	Water Bath Temp Criteria	35,35,35 °	
		pH2					
		pH3					

Spiked By: KY

Date 10/29/18

Witnessed By: DL

Date 10/29/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1 181029A Blk				0.100	1	800	2	2	10/29/18 13:00	
					equip	E-HP3 E-WB1				
2 181029A LCS-1		0.020	1	0.100	1	800	2	2	10/29/18 13:00	
					equip	E-HP4 E-WB2				
3 181029A LCS-2		0.020	2	0.100	1	800	2	2	10/29/18 13:00	
					equip	E-HP6 E-WB1				
4 181029A LCSD-1		0.020	1	0.100	1	800	2	2	10/29/18 13:00	
					equip	E-HP7 E-WB2				
5 181029A LCSD-2		0.020	2	0.100	1	800	2	2	10/29/18 13:00	
					equip	E-HP9 E-WB2				
6 AZ81584 MS-1	AZ81584W28	0.020	1	0.100	1	800	2	2	10/29/18 13:00	87198
					equip	E-HP10 E-WB1				
7 AZ81584 MSD-1	AZ81584W32	0.020	1	0.100	1	800	2	2	10/29/18 13:00	87198
					equip	E-HP12 E-WB3				
8 AZ81584 MS-2	AZ81584W27	0.020	2	0.100	1	800	2	2	10/29/18 13:00	87198
					equip	E-HP11 E-WB2				
9 AZ81584 MSD-2	AZ81584W31	0.020	2	0.100	1	800	2	2	10/29/18 13:00	87198
					equip	E-HP13 E-WB1				
10 AZ81584	AZ81584W29			0.100	1	800	2	2	10/29/18 13:00	87198
					equip	E-HP51 E-WB2				
11 AZ81585	AZ81585W11			0.100	1	810	2	2	10/29/18 13:00	87198
					equip	E-HP14 E-WB2				
12 AZ81587	AZ81587W12			0.100	1	800	2	2	10/29/18 13:00	87198
					equip	E-HP15 E-WB3				
13 AZ81636	AZ81636W14			0.100	1	810	2	2	10/29/18 13:00	87212
					equip	E-HP16 E-WB2				
14 AZ81638	AZ81638W08			0.100	1	810	2	2	10/29/18 13:00	87212
					equip	E-HP17 E-WB1				
15 AZ81640	AZ81640W13			0.100	1	800	2	2	10/29/18 13:00	87212
					equip	E-HP19 E-WB2				
16 AZ81642	AZ81642W13			0.100	1	840	2	2	10/29/18 13:00	87212
					equip	E-HP25 E-WB1				

Solvent and Lot#	
1+1 HCL (5mL)	9-19-18
PH Strips	HC 727135
Dichloromethane (DCM)	58059
Filter Paper	400147
B. Sodium Sulfate	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	DL
Date	10/31/18
Time	12:00
Refrigerator	Hobart

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	11/02/18 11:57:26 AM

Reviewed By: *[Signature]*

Date 11/02/18

# Organic Extraction Worksheet

<b>Method</b>	Continuous Liq/Liq TPH-Diesel/MO 3520C	<b>Extraction Set</b>	181029A	<b>Extraction Method</b>	LIQ005	<b>Units</b>	ml
Spiked ID 1	Diesel Spike 10-24-18 EXP 10-24-19	Surrogate ID 1	THC Surrogate 10-18-18 EXP 10-18-19				
Spiked ID 2	Motor Oil Spike 7-9-18 EXP 7-9-19	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		YES			
Spiked ID 7		Ext. Start Time:		10/29/18 13:00			
Spiked ID 8		Ext. End Time:		10/30/18 8:10, 10/31/18 11:45, 10/30			
		GC Requires Extract By:		10/30/18 0:00			
		pH1	2	0/29/18 12:45:00 PM	Water Bath Temp Criteria		35,35,35 °
		pH2					
		pH3					

Spiked By: KY

Date 10/29/18

Witnessed By: DL

Date 10/29/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17 AZ81644	AZ81644W11			0.100	1	810	2	2	10/29/18 13:00	87212
					equip	E-HP26 E-WB2				
18 AZ81676	AZ81676W14			0.100	1	800	2	2	10/29/18 13:00	87219
					equip	E-HP27 E-WB3				
19 AZ81677	AZ81677W14			0.100	1	800	2	2	10/29/18 13:00	87219
					equip	E-HP28 E-WB1				
20 AZ81678	AZ81678W10			0.100	1	800	2	2	10/29/18 13:00	87219
					equip	E-HP29 E-WB2				
21 AZ81840	AZ81840W14			0.100	1	820	2	2	10/29/18 13:00	87238
					equip	E-HP48 E-WB2				
22 AZ81841	AZ81841W10			0.100	1	810	2	2	10/29/18 13:00	87238
					equip	E-HP30 E-WB3				
23 AZ81842	AZ81842W10			0.100	1	800	2	2	10/29/18 13:00	87238
					equip	E-HP47 E-WB1				
24 AZ81901	AZ81901W10			0.100	1	800	2	2	10/29/18 13:00	87248
					equip	E-HP50 E-WB1				
25 AZ81903	AZ81903W09			0.100	1	810	2	2	10/29/18 13:00	87248
					equip	E-HP49 E-WB3				

*Kes 11/02/18*

Solvent and Lot#	
1+1 HCL (5mL)	9-19-18
PH Strips	HC 727135
Dichloromethane (DCM)	58059
Filter Paper	400147
B. Sodium Sulfate	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	11/02/18 11:57:26 AM

Reviewed By: *Kes*

Date 11/02/18

Ext\_ID 291 60762

# Organic Extraction Worksheet

<b>Method</b>	Continuous Liq/Liq TPH-Diesel/MO 3520C	<b>Extraction Set</b>	181105A	<b>Extraction Method</b>	LIQ005	<b>Units</b>	mL
Spiked ID 1	Diesel Spike 10-24-18 EXP 10-24-19	Surrogate ID 1	THC	Surrogate 11-2-18 EXP 11-2-19			
Spiked ID 2	Motor Oil Spike 10-31-18 EXP 10-31-19	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		NO			
Spiked ID 7		Ext. Start Time:		11/05/18 14:25			
Spiked ID 8		Ext. End Time:		11/06/18 9:25 <i>11/07/18 11:30</i>			
GC Requires Extract By:				10/30/18 0:00			
pH1	2	1/05/18 12:40:00 PM		Water Bath Temp Criteria		35,35,35 °	
pH2							
pH3							

Spiked By: DL

Date 11/05/18

Witnessed By: CFM

Date 11/05/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1 181105A Blk				0.100	1	800	2	2	11/05/18 12:50	RX
					equip	e-hp51 E-WB1				
2 181105A LCS-1		0.020	1	0.100	1	800	2	2	11/05/18 12:50	RX
					equip	E-HP50 E-WB2				
3 181105A LCS-2		0.020	2	0.100	1	800	2	2	11/05/18 12:50	RX
					equip	E-HP49 E-WB1				
4 181105A LCSD-1		0.020	1	0.100	1	800	2	2	11/05/18 12:50	RX
					equip	E-HP48 E-WB3				
5 181105A LCSD-2		0.020	2	0.100	1	800	2	2	11/05/18 12:50	RX
					equip	E-HP47 E-WB2				
6 AZ81584	AZ81584W13			0.100	1	800	2	2	11/05/18 12:50	87198 RX
					equip	E-HP30 E-WB3				
7 AZ81585	AZ81585W07			0.100	1	800	2	2	11/05/18 12:50	87198 RX
					equip	E-HP29 E-WB1				
8 AZ81587	AZ81587W11			0.100	1	800	2	2	11/05/18 12:50	87198 RX
					equip	E-HP28 E-WB2				
9 AZ81636	AZ81636W13			0.100	1	800	2	2	11/05/18 12:50	87212 RX
					equip	E-HP27 E-WB3				
10 AZ81638	AZ81638W11			0.100	1	800	2	2	11/05/18 12:50	87212 RX
					equip	E-HP26 E-WB1				
11 AZ81640	AZ81640W14			0.100	1	800	2	2	11/05/18 12:50	87212 RX
					equip	E-HP25 E-WB2				
12 AZ81642	AZ81642W12			0.100	1	800	2	2	11/05/18 12:50	87212 RX
					equip	E-HP17 E-WB3				
13 AZ81644	AZ81644W14			0.100	1	800	2	2	11/05/18 12:50	87212 RX
					equip	E-HP16 E-WB1				
14 AZ81676	AZ81676W11			0.100	1	800	2	2	11/05/18 12:50	87219 RX
					equip	E-HP15 E-WB2				
15 AZ81677	AZ81677W12			0.100	1	800	2	2	11/05/18 12:50	87219 RX
					equip	E-HP14 E-WB3				
16 AZ81678	AZ81678W13			0.100	1	800	2	2	11/05/18 12:50	87219 RX
					equip	E-HP13 E-WB1				

Solvent and Lot#	
1+1 HCL (5mL)	9-19-18
PH Strips	HC 849161
Dichloromethane (DCM)	58059
Filter Paper	400147
B. Sodium Sulfate	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	OP
Date	11/7/18
Time	11:30
Refrigerator	Hobart

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	11/07/18 12:10:36 PM

Reviewed By: *KY* 292 Date *11/07/18*



# Organic Extraction Worksheet






<b>Method</b>	Continuous Liq/Liq TPH-Diesel/MO,3520C	<b>Extraction Set</b>	181105A	<b>Extraction Method</b>	LIQ005	<b>Units</b>	mL
Spiked ID 1	Diesel Spike 10-24-18 EXP 10-24-19	Surrogate ID 1	THC Surrogate 11-2-18 EXP 11-2-19				
Spiked ID 2	Motor Oil Spike 10-31-18 EXP 10-31-19	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		NO			
Spiked ID 7		Ext. Start Time:		11/05/18 14:25			
Spiked ID 8		Ext. End Time:		11/06/18 9:25, 11/07/18 11:30			
		GC Requires Extract By:		10/30/18 0:00			
pH1	2	1/05/18 12:40:00 PM		Water Bath Temp Criteria		35,35,35 °	
pH2							
pH3							

Spiked By: DL

Date 11/05/18

Witnessed By: CFM

Date 11/05/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ81840 	AZ81840W10		0.100	1	800	2	2	11/05/18 12:50	87238 RX
					equip	E-HP12 E-WB2				
18	AZ81841 	AZ81841W13		0.100	1	800	2	2	11/05/18 12:50	87238 RX
					equip	E-HP11 E-WB3				
19	AZ81842 	AZ81842W11		0.100	1	800	2	2	11/05/18 12:50	87238 RX
					equip	E-HP10 E-WB1				
20	AZ81901 	AZ81901W09		0.100	1	800	2	2	11/05/18 12:50	87248 RX
					equip	E-HP9 E-WB2				
21	AZ81903 	AZ81903W10		0.100	1	800	2	2	11/05/18 12:50	87248 RX
					equip	E-HP7 E-WB3				

Key 11/07/18

Solvent and Lot#	
1+1 HCL (5mL)	9-19-18
PH Strips	HC-849161
Dichloromethane (DCM)	58059
Filter Paper	400147
B. Sodium Sulfate	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	11/07/18 12:10:36 PM

Reviewed By: Key 293 Date 11/07/18

## Injection Log

Directory: G:\APOLLO\DATA\180814\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
17	814017.D	1	Decanoic Acid - 1 8/13/18	Mix(C)	8-14-18 16:56:27
18	814018.D	1	Decanoic Acid - 2 8/13/18	Mix(C)	8-14-18 17:15:48
19	814019.D	1	Decanoic Acid - 3 8/13/18	Mix(C)	8-14-18 17:35:59
20	814020.D	1	Decanoic Acid - 4 8/13/18	Mix(C)	8-14-18 17:56:16
21	814021.D	1	Decanoic Acid - 5 8/13/18	Mix(C)	8-14-18 18:16:22
22	814022.D	1	Decanoic Acid - 6 8/13/18	Mix(C)	8-14-18 18:36:30
3	905003.D	1	Diesel - 1 9/5/18	Mix(A)	9-5-18 13:32:12
4	905004.D	1	Diesel - 2 9/5/18	Mix(A)	9-5-18 13:51:56
5	905005.D	1	Diesel - 3 9/5/18	Mix(A)	9-5-18 14:11:55
6	905006.D	1	Diesel - 4 9/5/18	Mix(A)	9-5-18 14:31:55
7	905007.D	1	Diesel - 5 9/5/18	Mix(A)	9-5-18 14:51:56
8	905008.D	1	Diesel - 6 9/5/18	Mix(A)	9-5-18 15:11:58
9	905009.D	1	Diesel - SS 8/2/18	Mix(A)	9-5-18 15:32:03
10	905010.D	1	Motor Oil - 1 9/5/18	Mix(B)	9-5-18 15:52:08
11	905011.D	1	Motor Oil - 2 9/5/18	Mix(B)	9-5-18 16:12:11
12	905012.D	1	Motor Oil - 3 9/5/18	Mix(B)	9-5-18 16:32:11
13	905013.D	1	Motor Oil - 4 9/5/18	Mix(B)	9-5-18 16:52:14
14	905014.D	1	Motor Oil - 5 9/5/18	Mix(B)	9-5-18 17:12:14
15	905015.D	1	Motor Oil - 6 9/5/18	Mix(B)	9-5-18 17:31:25
16	905016.D	1	Motor Oil - SS 7/13/18	Mix(B)	9-5-18 17:51:24
2	1031002.D	1	Diesel - 3 10/15/18	Mix(A)	10-31-18 12:27:03
3	1031003.D	1	Motor Oil - 3 10/15/18	Mix(B)	10-31-18 12:47:21
4	1031004.D	2.5	181029A BLK 2/800	water	10-31-18 13:07:10
5	1031005.D	2.5	181029A LCS-1 2/800	water	10-31-18 13:27:09
6	1031006.D	2.5	181029A LCS-2 2/800	water	10-31-18 13:47:04
7	1031007.D	2.5	181029A LCSD-1 2/800	water	10-31-18 14:06:12
8	1031008.D	2.5	181029A LCSD-2 2/800	water	10-31-18 14:26:08
9	1031009.D	2.46914	AZ81636W14 2/810	water	10-31-18 14:45:17
10	1031010.D	2.46914	AZ81638W08 2/810	water	10-31-18 15:05:17
11	1031011.D	2.5	AZ81640W13 2/800	water	10-31-18 15:25:18
12	1031012.D	2.38095	AZ81642W13 2/840	water	10-31-18 15:45:18
13	1031013.D	2.46914	AZ81644W11 2/810	water	10-31-18 16:05:24
14	1031014.D	1	Diesel - 3 10/15/18	Mix(A)	10-31-18 16:24:34
15	1031015.D	1	Motor Oil - 3 10/15/18	Mix(B)	10-31-18 16:44:47
2	1107002.D	1	Diesel - 3 10/15/18	Mix(A)	11-7-18 13:44:44
3	1107003.D	1	Motor Oil - 3 10/15/18	Mix(B)	11-7-18 14:04:52
4	1107004.D	2.5	181105A BLK 2/800	water	11-7-18 14:24:57
5	1107005.D	2.5	181105A LCS-1 2/800	water	11-7-18 14:45:01
6	1107006.D	2.5	181105A LCS-2 2/800	water	11-7-18 15:05:06
7	1107007.D	2.5	181105A LCSD-1 2/800	water	11-7-18 15:25:09
8	1107008.D	2.5	181105A LCSD-2 2/800	water	11-7-18 15:45:12
12	1107012.D	2.5	AZ81636W13 2/800	water	11-7-18 17:06:54
13	1107013.D	2.5	AZ81638W11 2/800	water	11-7-18 17:27:28
14	1107014.D	2.5	AZ81640W14 2/800	water	11-7-18 17:48:03
15	1107015.D	2.5	AZ81642W12 2/800	water	11-7-18 18:08:30
16	1107016.D	2.5	AZ81644W14 2/800	water	11-7-18 18:28:58
19	1107019.D	1	Diesel - 3 10/15/18	Mix(A)	11-7-18 19:30:00
20	1107020.D	1	Motor Oil - 3 10/15/18	Mix(B)	11-7-18 19:50:19
30	1107030.D	1	Diesel - 3 10/15/18	Mix(A)	11-8-18 13:54:55
31	1107031.D	1	Motor Oil - 3 10/15/18	Mix(B)	11-8-18 14:15:05
32	1107032.D	1	Decanoic Acid - 3 8/23/18	Mix(C)	11-8-18 14:35:27

39	1107039.D	2.5	181105A BLK 2/800 SGC	water	11-8-18 16:57:41
40	1107040.D	2.5	181105A LCS-1 2/800 SGC	water	11-8-18 17:18:11
41	1107041.D	2.5	181105A LCS-2 2/800 SGC	water	11-8-18 17:38:32
42	1107042.D	2.5	181105A LCSD-1 2/800 SGC	water	11-8-18 17:58:56
43	1107043.D	2.5	181105A LCSD-2 2/800 SGC	water	11-8-18 18:19:13
44	1107044.D	2.5	AZ81638W11 2/800 SGC	water	11-8-18 18:39:28
45	1107045.D	2.5	AZ81640W14 2/800 SGC	water	11-8-18 18:59:41
56	1107056.D	1	Diesel - 3 10/15/18	Mix(A)	11-8-18 22:40:31
57	1107057.D	1	Motor Oil - 3 10/15/18	Mix(B)	11-8-18 22:59:46
58	1107058.D	1	Decanoic Acid - 3 8/23/18	Mix(C)	11-8-18 23:19:51

**ORGANICS**  
**Calibration Data**

**APPL, INC.**

PAH by GCMS SIM  
EPA 8270 SIM

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/26/18  
Instrument: Linus

Initials: \_\_\_\_\_

1026L004.D 1026L005.D 1026L006.D 1026L007.D 1026L008.D 1026L009.D 1026L010.D

	Compound	0.1	0.2	0.5	1	5	10	50	100			Avg	%RSD	Type	r <sup>2</sup>	Q	MRF
1	I Naphthalene-D8(IS)																
2	S Surrogate Recovery (NBZ)		0.4490	0.3905	0.3381	0.3544	0.3895	0.3629	0.3647			0.38	9.6	S			
3	TM Naphthalene	1.071	1.109	1.094	1.040	0.9826	1.064	0.9678	0.9409			1.0	6.0	TM			0.700
4	S 2-Methylnaphthalene-D10 (2M)	1.204	1.170	1.283	1.182	1.115	1.207	1.054	1.014			1.2	7.6	S			
5	TM 2-Methylnaphthalene	0.6342	0.6457	0.6760	0.6427	0.6407	0.6856	0.6079	0.5737			0.64	5.6	TM			0.400
6	TM 1-Methylnaphthalene	0.6941	0.6784	0.7038	0.6570	0.6224	0.6581	0.5807	0.5502			0.64	8.5	TM			
7	I Acenaphthene-D10(IS)																
8	S Surrogate Recovery (FBP)	1.668	1.668	1.756	1.634	1.614	1.756	1.472	1.448			1.6	7.1	S			
9	TM Acenaphthylene	4.411	4.374	4.576	4.233	4.273	4.605	4.004	3.832			4.3	6.2	TM			0.900
10	*TM Acenaphthene	1.471	1.421	1.404	1.292	1.236	1.347	1.147	1.130			1.3	9.7	*TM			0.900
11	TM Fluorene	1.527	1.526	1.612	1.554	1.494	1.607	1.380	1.349			1.5	6.4	TM			0.900
12	I Phenanthrene-D10(IS)																
13	TM Phenanthrene	1.224	1.258	1.233	1.198	1.099	1.227	1.071	0.9849			1.2	8.4	TM			0.700
14	TM Anthracene	1.101	1.107	1.146	1.108	1.076	1.204	1.040	0.9417			1.1	7.1	TM			0.700
15	S Fluoranthene-D10 (FRT)	1.512	1.533	1.628	1.543	1.527	1.738	1.504	1.474			1.6	5.5	S			
16	*TM Fluoranthene	1.639	1.693	1.766	1.728	1.661	1.857	1.631	1.559			1.7	5.4	*TM			0.600
17	I Chrysene-D12(IS)																
18	TM Pyrene	1.239	1.278	1.319	1.266	1.226	1.359	1.271	1.238			1.3	3.5	TM			0.600
19	S Surrogate Recovery (TPH)	0.9654	0.8333	0.8383	0.7662	0.7250	0.8033	0.7421	0.7345			0.80	9.9	S			
20	TM Benz (a) anthracene	1.135	1.030	1.075	0.9966	1.038	1.151	1.122	1.044			1.1	5.2	TM			0.800
21	TM Chrysene	1.267	1.224	1.220	1.123	1.071	1.175	1.069	1.061			1.2	7.0	TM			0.700
22	TML Indeno (1,2,3-cd) pyrene	0.5269	0.5639	0.6808	0.6912	0.7735	0.8537	0.9032	0.9238			0.74	20	TML	1.000		0.500
23	I Perylene-D12(IS)																
24	TM Benzo (b) fluoranthene	1.025	1.065	1.071	1.012	1.056	1.169	1.109	1.091			1.1	4.6	TM			0.700
25	TM Benzo (k) fluoranthene	1.385	1.237	1.205	1.145	1.158	1.283	1.115	1.070			1.2	8.4	TM			0.700
26	*TM Benzo (a) pyrene	0.8478	0.8472	0.9054	0.8976	0.9593	1.090	1.004	0.9603			0.94	8.8	*TM			0.700
27	TM Dibenz (a,h) anthracene	0.9632	0.8830	0.9203	0.8970	0.8805	0.9763	0.9194	0.8807			0.92	4.1	TM			0.400
28	TM Benzo (g,h,i) perylene	0.9218	0.9218	0.9490	0.8944	0.9068	1.008	0.9146	0.8895			0.93	4.1	TM			0.500
29																	
30																	
31																	
32																	
33																	
34																	
35																	

Data File : M:\LINUS\DATA\L181026\1026L003.D  
 Acq On : 26 Oct 18 12:21  
 Sample : 5 SIM 10/26/18  
 Misc :

Vial: 3  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 15:34 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	34683	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.20	164	15809	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.94	188	31498	2.50000	ppb	0.00
17) Chrysene-D12 (IS)	14.38	240	43804	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	42589	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.36	82	12292	1.97005	ppb	0.00
Spiked Amount	5.000		Recovery	=	39.400%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	38674	2.07165	ppb	0.00
Spiked Amount	5.000		Recovery	=	41.440%	
8) Surrogate Recovery (FBP)	5.43	172	25518	2.08947	ppb	0.00
Spiked Amount	5.000		Recovery	=	41.780%	
15) Fluoranthene-D10 (FRT)	10.10	212	48093	2.01683	ppb	0.00
Spiked Amount	5.000		Recovery	=	40.340%	
19) Surrogate Recovery (TPH)	11.37	244	31756	1.90290	ppb	0.00
Spiked Amount	5.000		Recovery	=	38.060%	
Target Compounds						
3) Naphthalene	4.20	128	68158	4.39564	ppb	100
5) 2-Methylnaphthalene	5.00	142	44443	4.68460	ppb	100
6) 1-Methylnaphthalene	5.11	142	43171	4.63382	ppb	100
9) Acenaphthylene	6.04	152	135113	4.62142	ppb	100
10) Acenaphthene	6.24	154	39083	4.31457	ppb	100
11) Fluorene	6.84	166	47222	4.67548	ppb	100
13) Phenanthrene	7.98	178	69245	4.31309	ppb	100
14) Anthracene	8.05	178	67774	4.69700	ppb	100
16) Fluoranthene	10.14	202	104660	4.52909	ppb	100
18) Pyrene	10.76	202	107443	4.23342	ppb	100
20) Benz (a) anthracene	14.36	228	90932	4.13406	ppb	100
21) Chrysene	14.46	228	93849	4.26898	ppb	100
22) Indeno (1,2,3-cd) pyrene	20.47	276	67761	3.61003	ppb	100
24) Benzo (b) fluoranthene	17.27	252	89977	4.21504	ppb	100
25) Benzo (k) fluoranthene	17.34	252	98605	4.42343	ppb	100
26) Benzo (a) pyrene	18.03	252	81715	4.30156	ppb	100
27) Dibenz (a,h) anthracene	20.54	278	74995	3.92549	ppb	100
28) Benzo (g,h,i) perylene	20.96	276	77243	3.90791	ppb	100

Quantitation Report

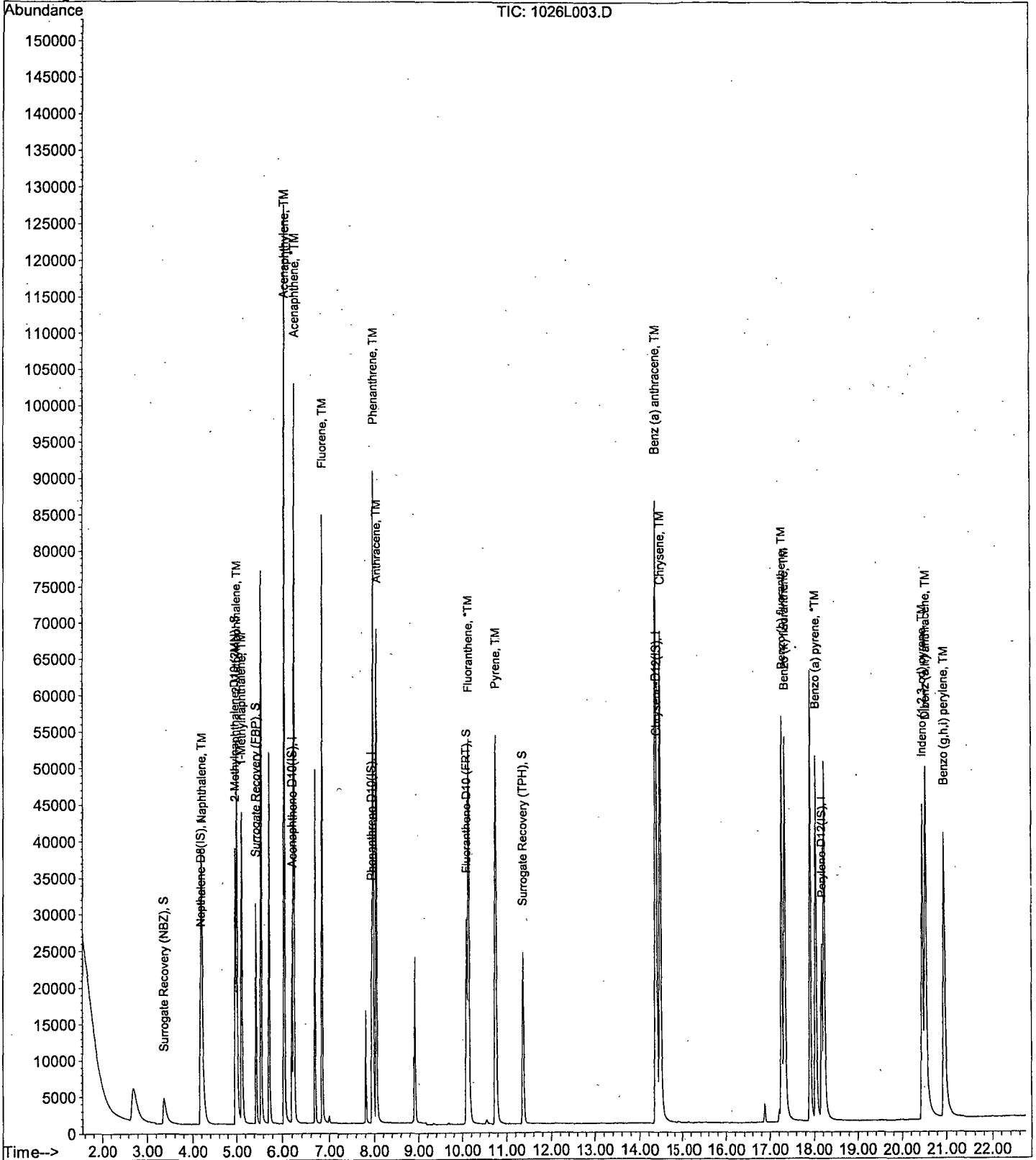
Data File : M:\LINUS\DATA\L181026\1026L003.D  
 Acq On : 26 Oct 18 12:21  
 Sample : 5 SIM 10/26/18  
 Misc :

Vial: 3  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 15:34 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L004.D Vial: 4  
 Acq On : 26 Oct 18 12:50 Operator: MA  
 Sample : 0.1 SIM 10/26/18 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Oct 26 16:19 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	4.18	136	33859	2.50000	ppb	0.00
7) Acenaphthene-D10(IS)	6.20	164	15943	2.50000	ppb	0.00
12) Phenanthrene-D10(IS)	7.95	188	30089	2.50000	ppb	0.01
17) Chrysene-D12(IS)	14.39	240	40761	2.50000	ppb	0.01
23) Perylene-D12(IS)	18.17	264	40517	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.38	82	331	0.05434	ppb	0.02
Spiked Amount	5.000		Recovery	=	1.080%	
4) 2-Methylnaphthalene-D10 (2)	4.99	152	815	0.04472	ppb	0.02
Spiked Amount	5.000		Recovery	=	0.900%	
8) Surrogate Recovery (FBP)	5.44	172	532	0.04320	ppb	0.01
Spiked Amount	5.000		Recovery	=	0.860%	
15) Fluoranthene-D10 (FRT)	10.13	212	910	0.03995	ppb	0.03
Spiked Amount	5.000		Recovery	=	0.800%	
19) Surrogate Recovery (TPH)	11.39	244	787	0.05068	ppb	0.02
Spiked Amount	5.000		Recovery	=	1.020%	
Target Compounds						
3) Naphthalene	4.20	128	1450	0.09579	ppb	98
5) 2-Methylnaphthalene	5.01	142	859	0.09275	ppb	97
6) 1-Methylnaphthalene	5.12	142	940	0.10335	ppb	94
9) Acenaphthylene	6.05	152	2813	0.09541	ppb	99
10) Acenaphthene	6.24	154	938	0.10268	ppb	96
11) Fluorene	6.86	166	974	0.09563	ppb	95
13) Phenanthrene	7.98	178	1473	0.09605	ppb	99
14) Anthracene	8.06	178	1325	0.09613	ppb	97
16) Fluoranthene	10.18	202	1973	0.08938	ppb	97
18) Pyrene	10.79	202	2020	0.08553	ppb	97
20) Benz (a) anthracene	14.37	228	1851	0.09043	ppb	99
21) Chrysene	14.47	228	2065	0.10094	ppb	98
22) Indeno (1,2,3-cd) pyrene	20.55	276	859m	0.04918	ppb	100
24) Benzo (b) fluoranthene	17.31	252	1661	0.08179	ppb	99
25) Benzo (k) fluoranthene	17.38	252	2245m	0.10586	ppb	97
26) Benzo (a) pyrene	18.06	252	1374	0.07603	ppb	98
27) Dibenz (a,h) anthracene	20.61	278	1561	0.08589	ppb	# 93
28) Benzo (g,h,i) perylene	21.03	276	1494	0.07945	ppb	95



Quantitation Report

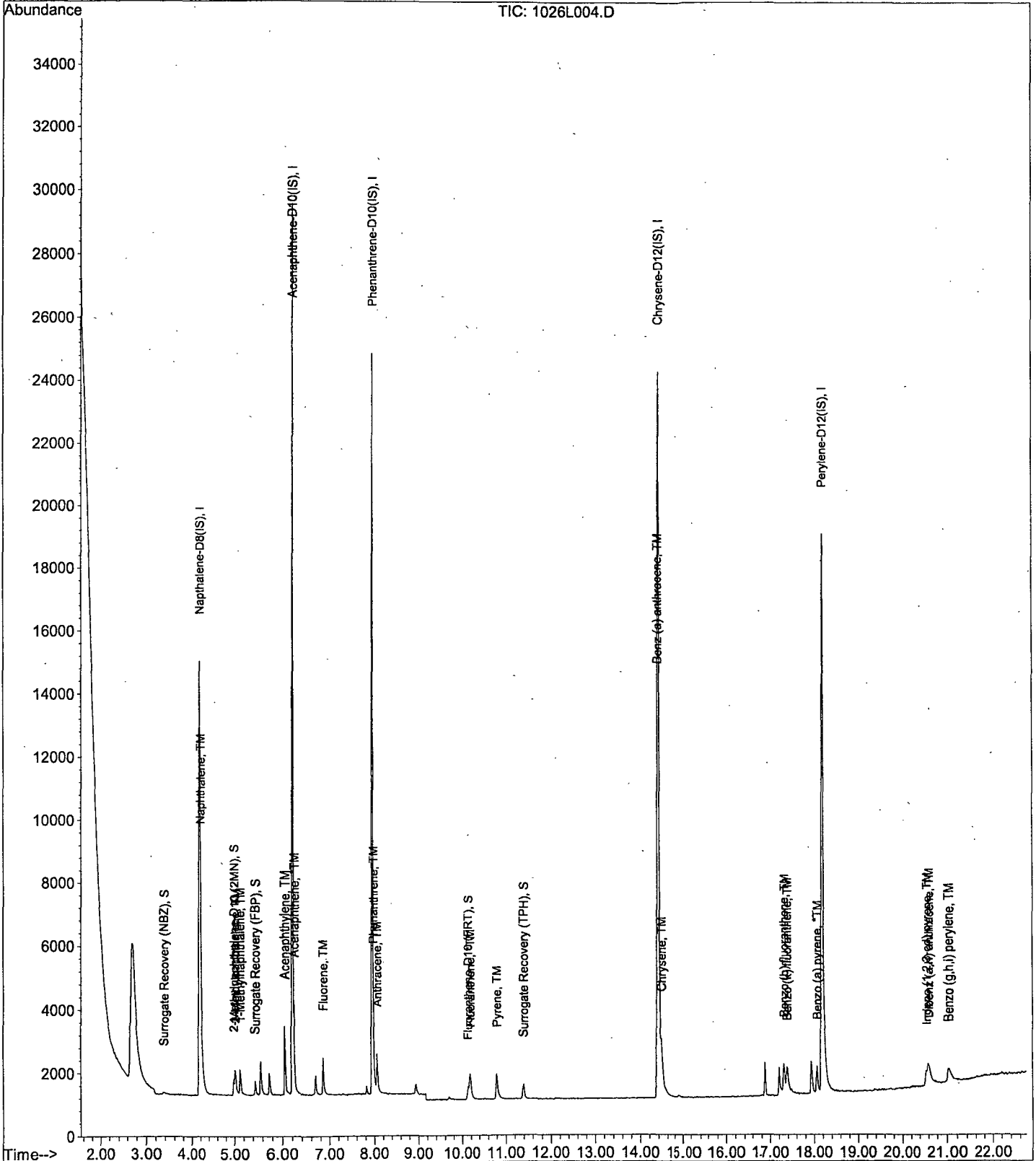
Data File : M:\LINUS\DATA\L181026\1026L004.D  
Acq On : 26 Oct 18 12:50  
Sample : 0.1 SIM 10/26/18  
Misc :

Vial: 4  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 16:19 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration

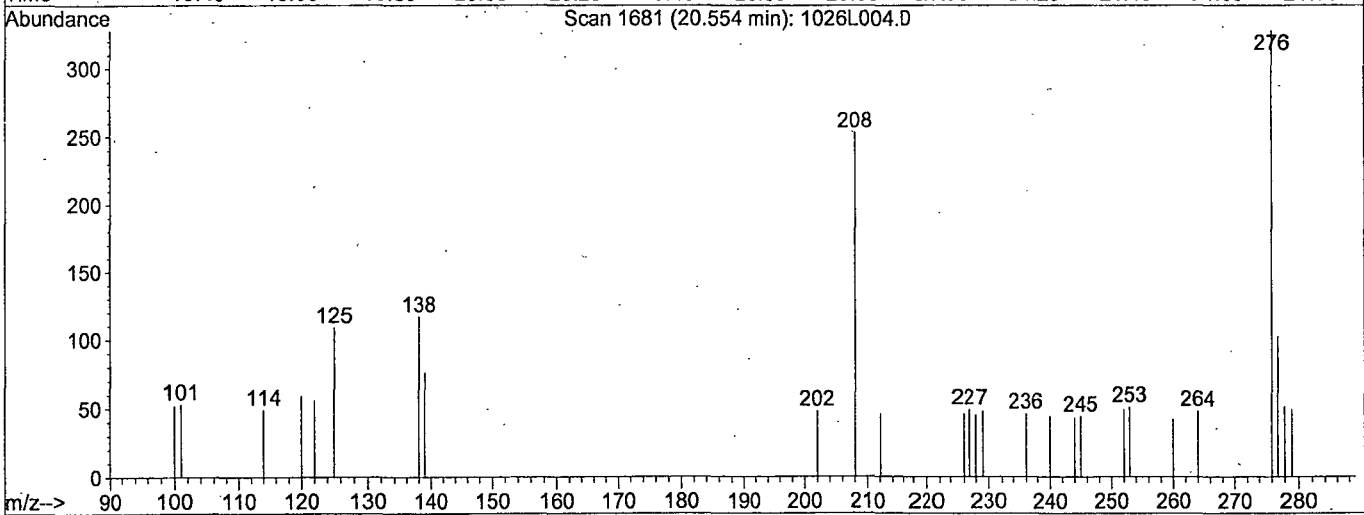
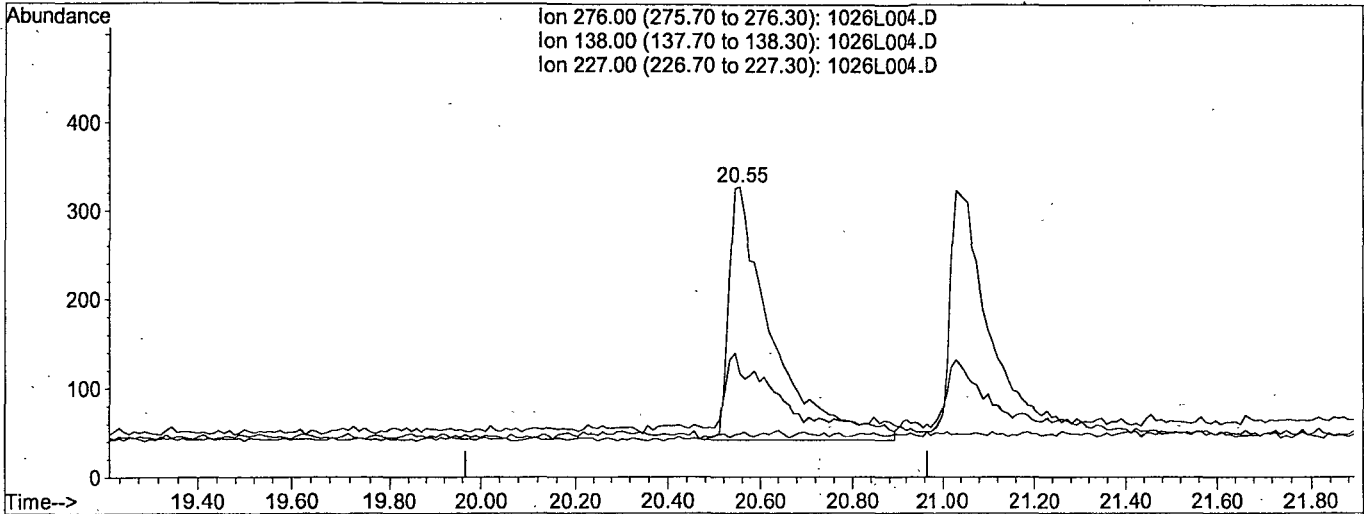


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 15:34 2018

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L004.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.55min 0.1080ppb

response 1887

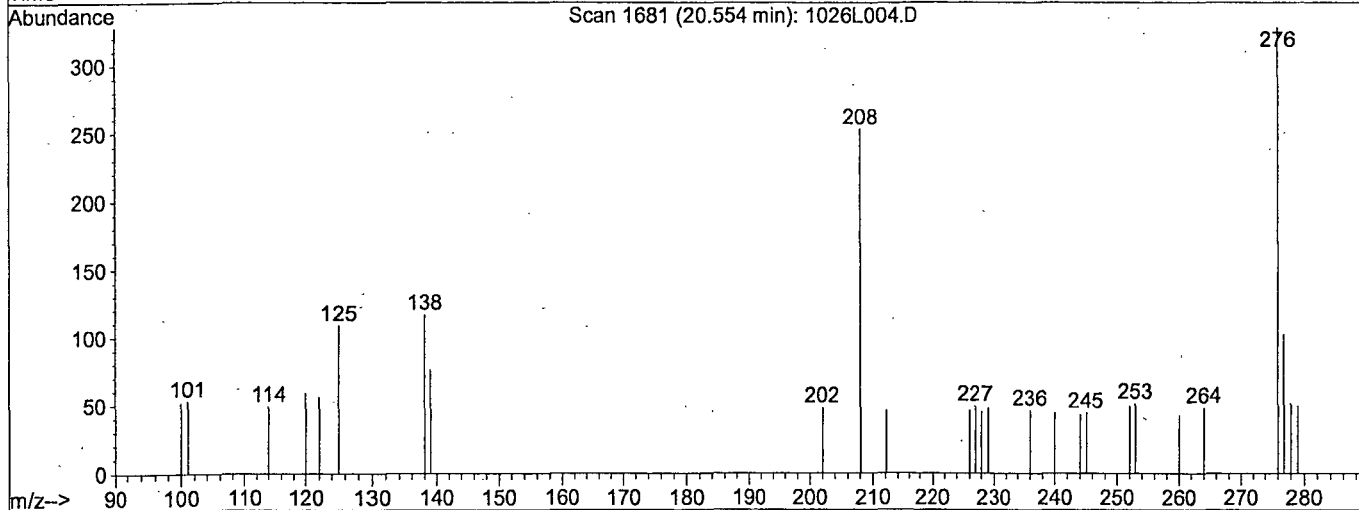
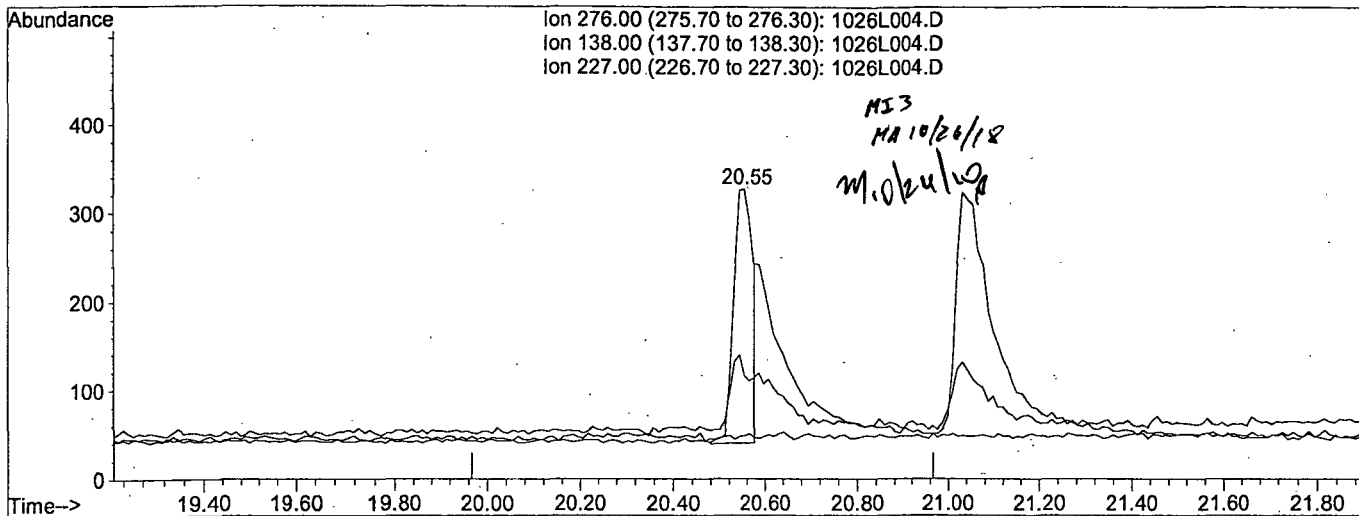
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	21.68
227.00	0.10	1.05#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:14 2018

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L004.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.55min 0.0492ppb m

response 859

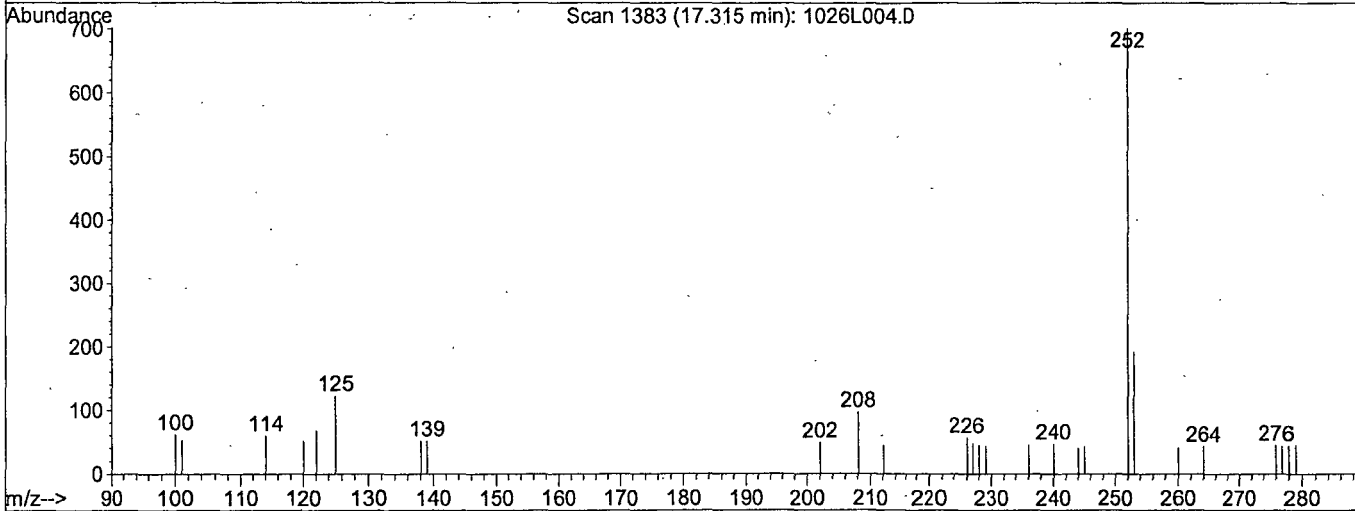
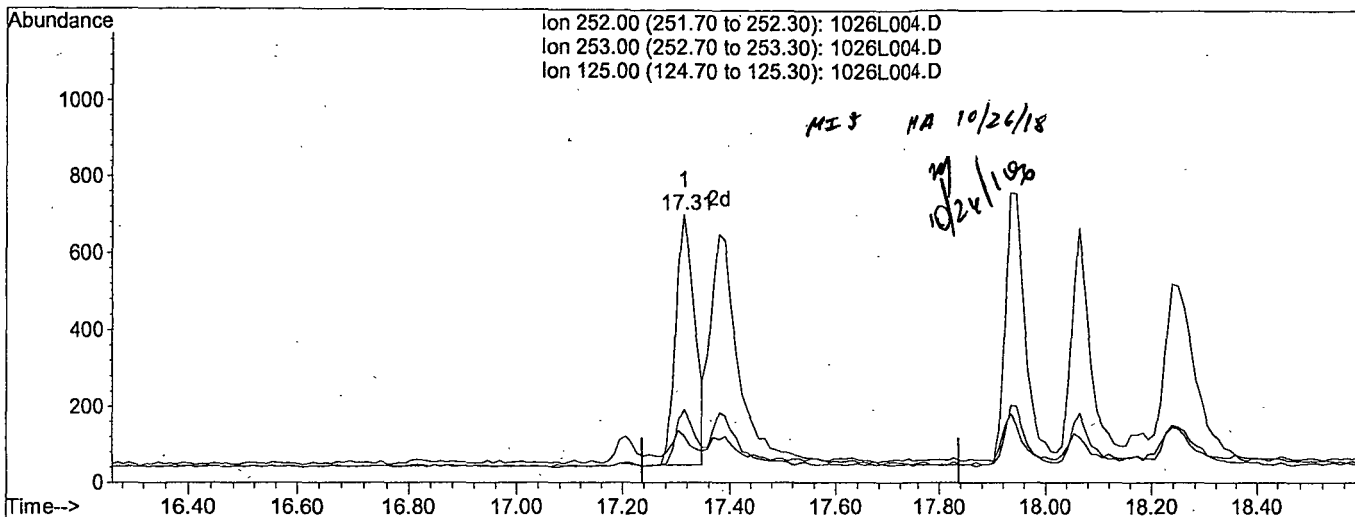
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	35.67#
227.00	0.10	14.94#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:14 2018

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:17:28 2018  
 Response via : Multiple Level Calibration



TIC: 1026L004.D

(25) Benzo (k) fluoranthene (TM)

17.31min 0.0773ppb

response 1640

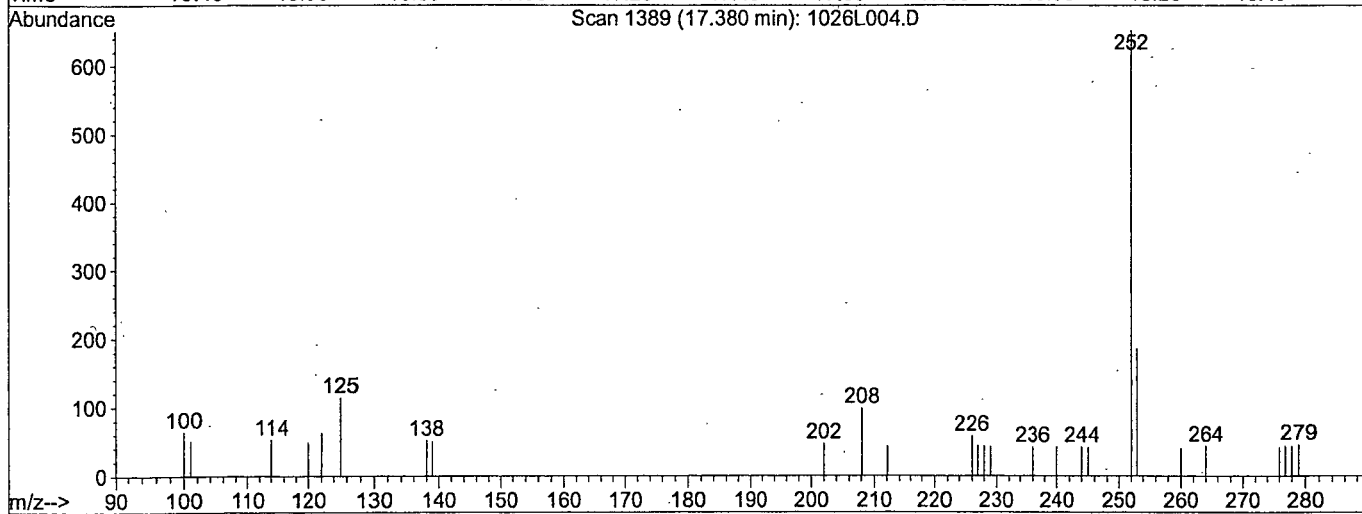
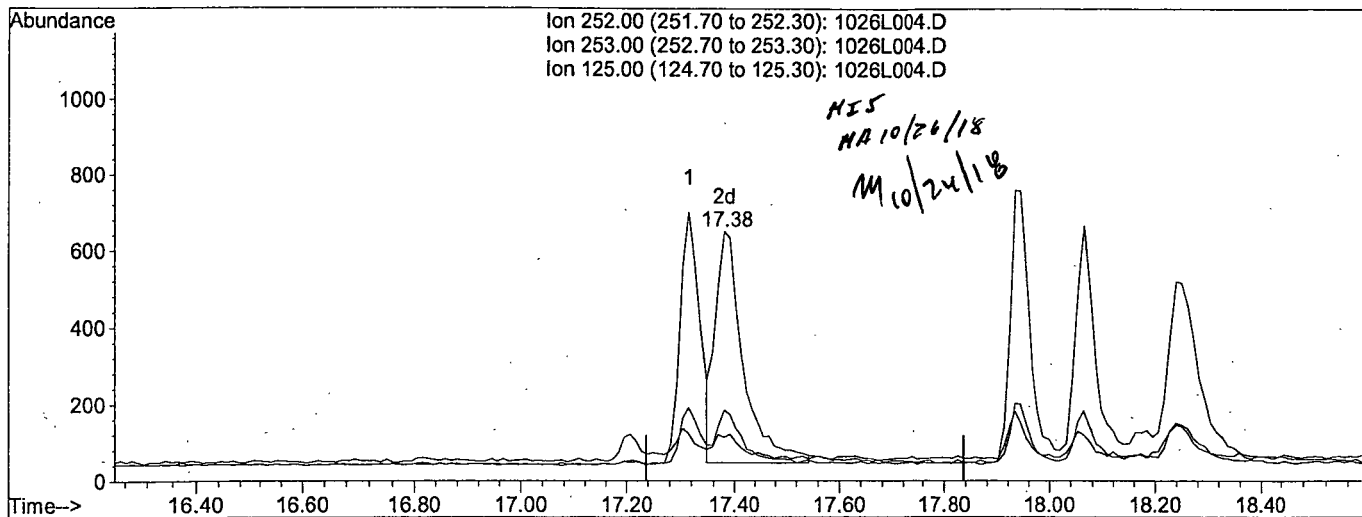
Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.41
125.00	9.90	7.93
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:19 2018

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:17:28 2018  
 Response via : Multiple Level Calibration



TIC: 1026L004.D

(25) Benzo (k) fluoranthene (TM)

17.38min 0.1059ppb m

response 2245

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	28.37#
125.00	9.90	17.48#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 16:15 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)

Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8(IS)	4.18	136	32908	2.50000	ppb	0.00
7) Acenaphthene-D10(IS)	6.21	164	15199	2.50000	ppb	0.00
12) Phenanthrene-D10(IS)	7.95	188	28536	2.50000	ppb	0.01
17) Chrysene-D12(IS)	14.38	240	38282	2.50000	ppb	0.00
23) Perylene-D12(IS)	18.17	264	37740	2.50000	ppb	0.00

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	3.38	82	591	0.09983	ppb	0.02
Spiked Amount	5.000					
Recovery				=	2.000%	
4) 2-Methylnaphthalene-D10 (2)	4.97	152	1540	0.08694	ppb	0.01
Spiked Amount	5.000					
Recovery				=	1.740%	
8) Surrogate Recovery (FBP)	5.44	172	1014	0.08636	ppb	0.01
Spiked Amount	5.000					
Recovery				=	1.720%	
15) Fluoranthene-D10 (FRT)	10.13	212	1750	0.08101	ppb	0.03
Spiked Amount	5.000					
Recovery				=	1.620%	
19) Surrogate Recovery (TPH)	11.39	244	1276	0.08749	ppb	0.02
Spiked Amount	5.000					
Recovery				=	1.740%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	4.20	128	2920	0.19847	ppb	98
5) 2-Methylnaphthalene	5.01	142	1700	0.18886	ppb	93
6) 1-Methylnaphthalene	5.12	142	1786	0.20204	ppb	97
9) Acenaphthylene	6.05	152	5319	0.18923	ppb	100
10) Acenaphthene	6.24	154	1728	0.19842	ppb	93
11) Fluorene	6.86	166	1855	0.19104	ppb	96
13) Phenanthrene	7.98	178	2873	0.19753	ppb	99
14) Anthracene	8.06	178	2528	0.19339	ppb	99
16) Fluoranthene	10.17	202	3865	0.18462	ppb	98
18) Pyrene	10.79	202	3914	0.17646	ppb	97
20) Benz (a) anthracene	14.37	228	3153	0.16402	ppb	98
21) Chrysene	14.47	228	3749	0.19513	ppb	98
22) Indeno (1,2,3-cd) pyrene	20.53	276	1727m	0.10528	ppb	97
24) Benzo (b) fluoranthene	17.30	252	3214	0.16991	ppb	98
25) Benzo (k) fluoranthene	17.38	252	3734m	0.18903	ppb	98
26) Benzo (a) pyrene	18.06	252	2558	0.15196	ppb	100
27) Dibenz (a,h) anthracene	20.60	278	2666	0.15748	ppb	94
28) Benzo (g,h,i) perylene	21.02	276	2783	0.15889	ppb	97

Quantitation Report

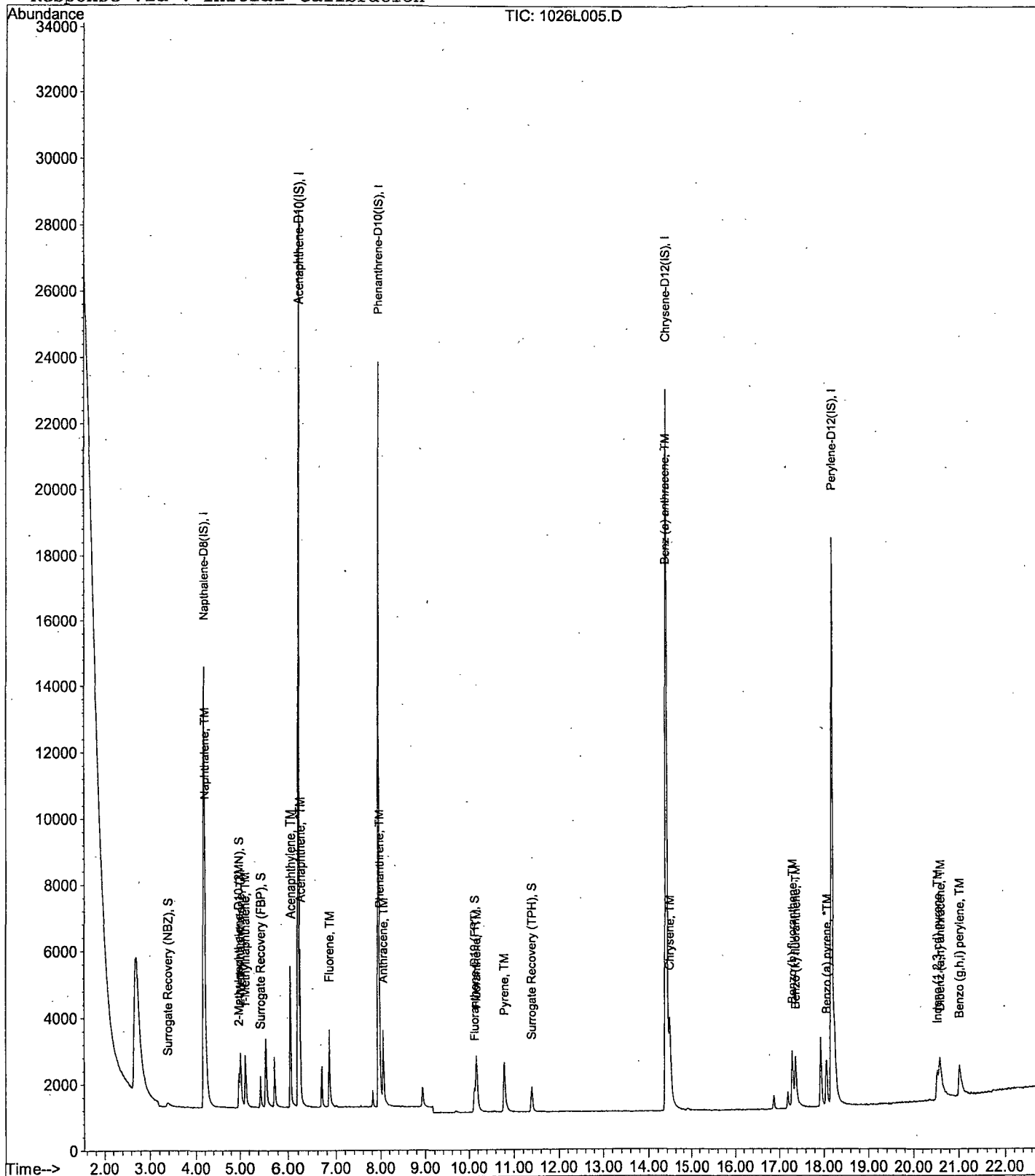
Data File : M:\LINUS\DATA\L181026\1026L005.D  
Acq On : 26 Oct 18 13:20  
Sample : 0.2 SIM 10/26/18  
Misc :

Vial: 5  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 16:15 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration

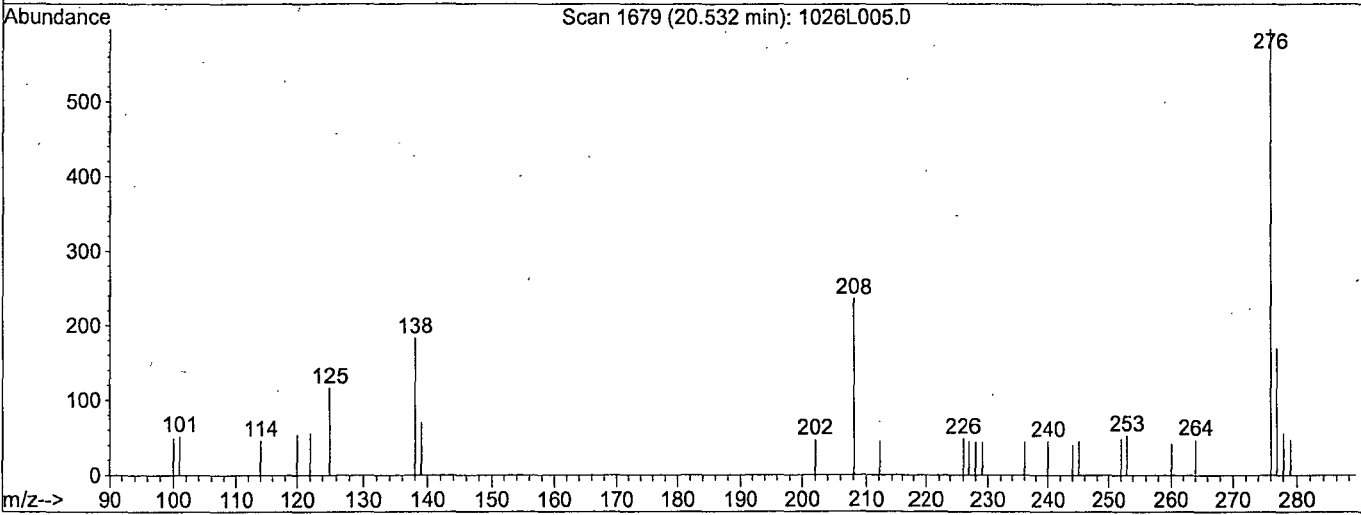
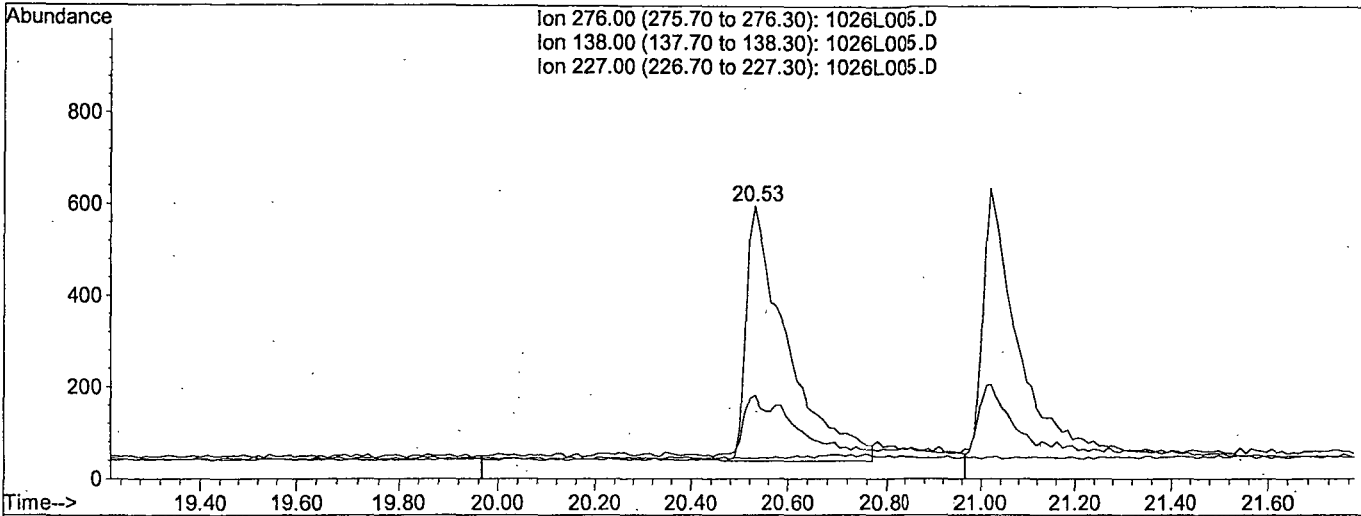


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 15:34 2018

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L005.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.53min 0.2008ppb

response 3294

Ion	Exp%	Act%
276.00	100	100
138.00	21.50	22.90
227.00	0.10	0.00#
0.00	0.00	0.00

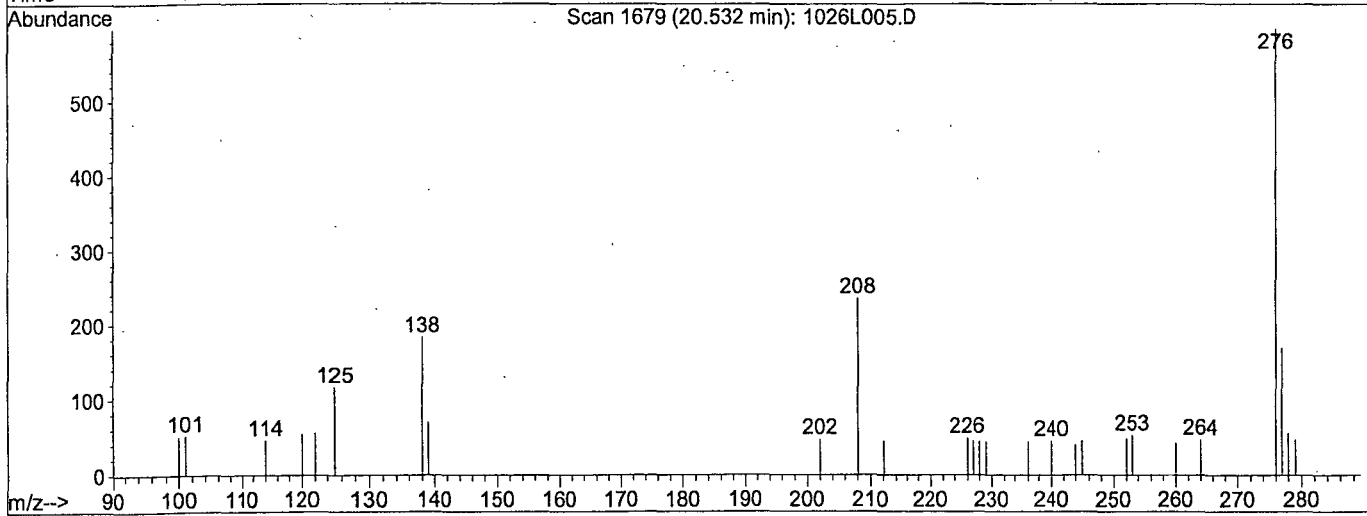
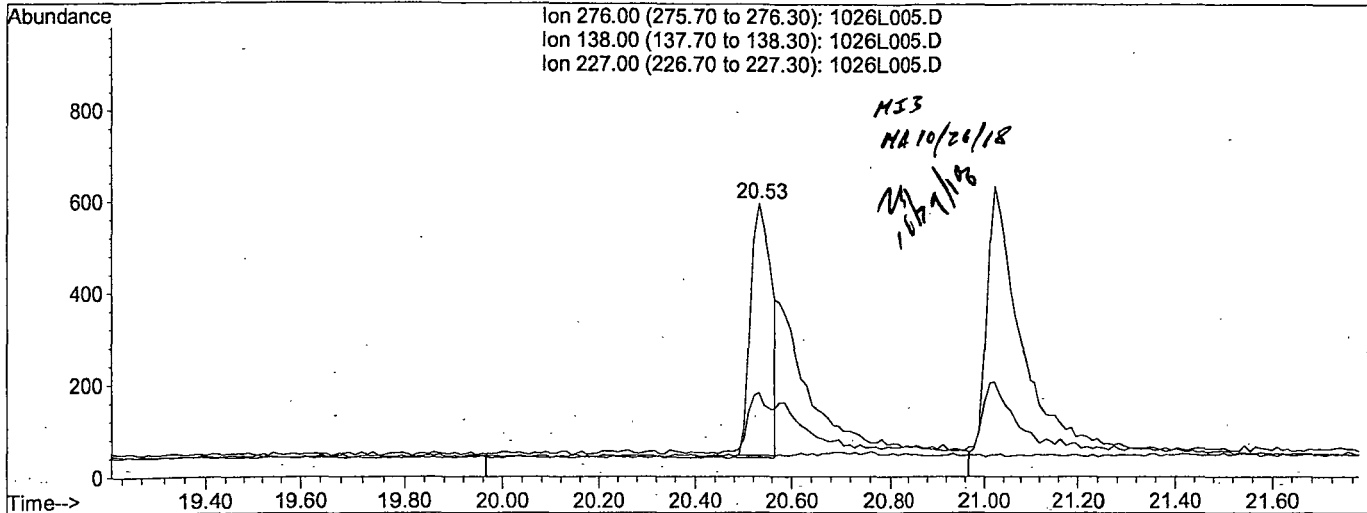


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:14 2018

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L005.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.53min 0.1053ppb m

response 1727

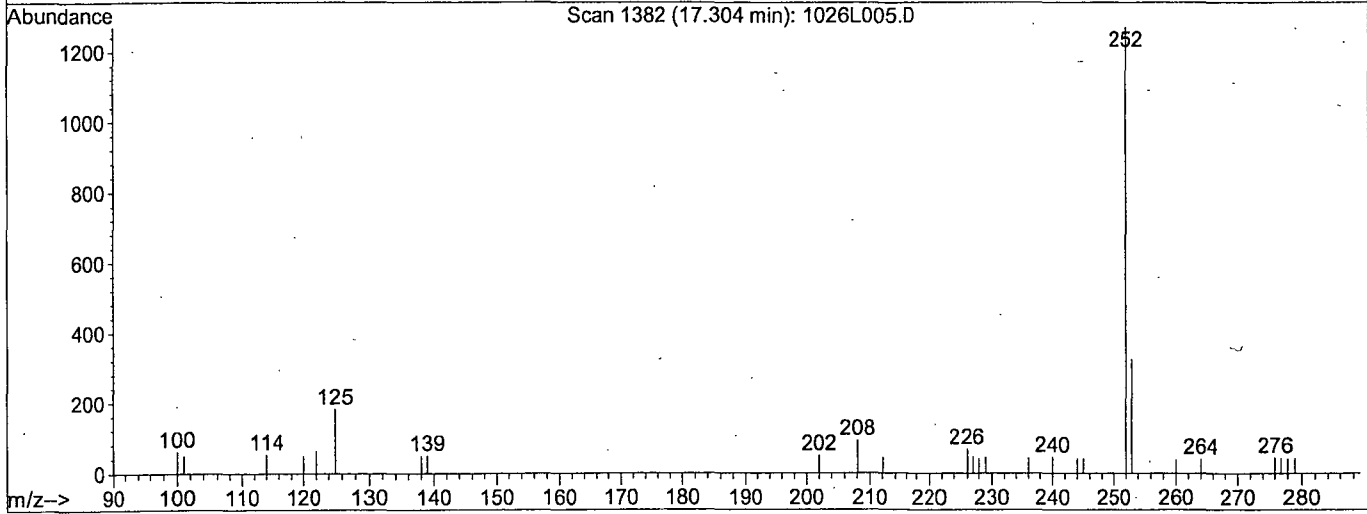
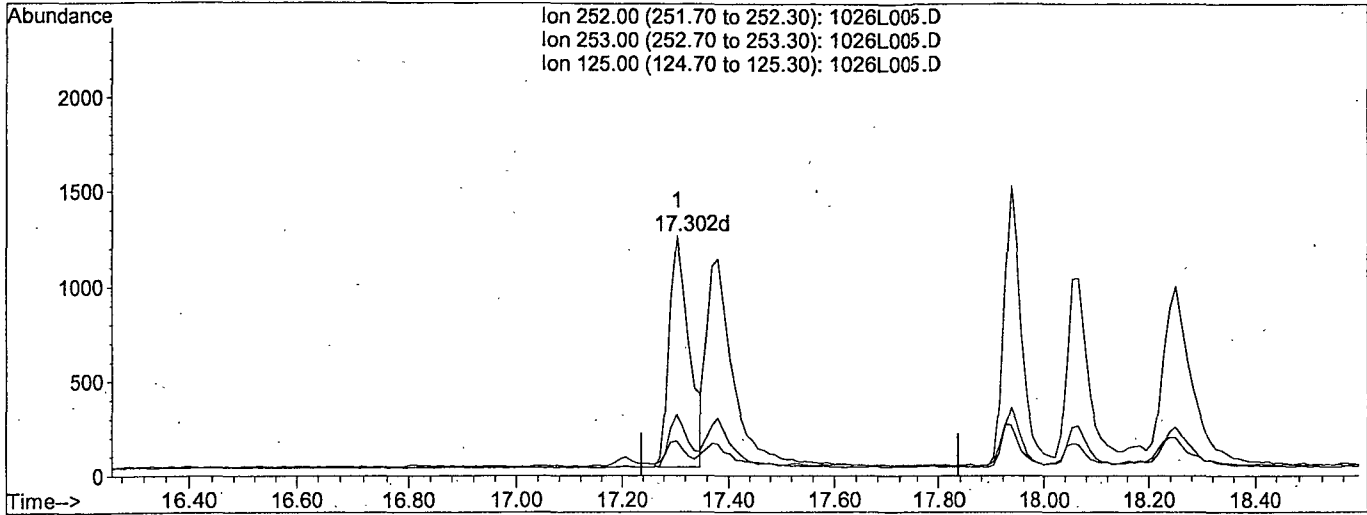
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	30.60#
227.00	0.10	7.53#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:14 2018

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L005.D

(25) Benzo (k) fluoranthene (TM)

17.30min 0.1624ppb

response 3208

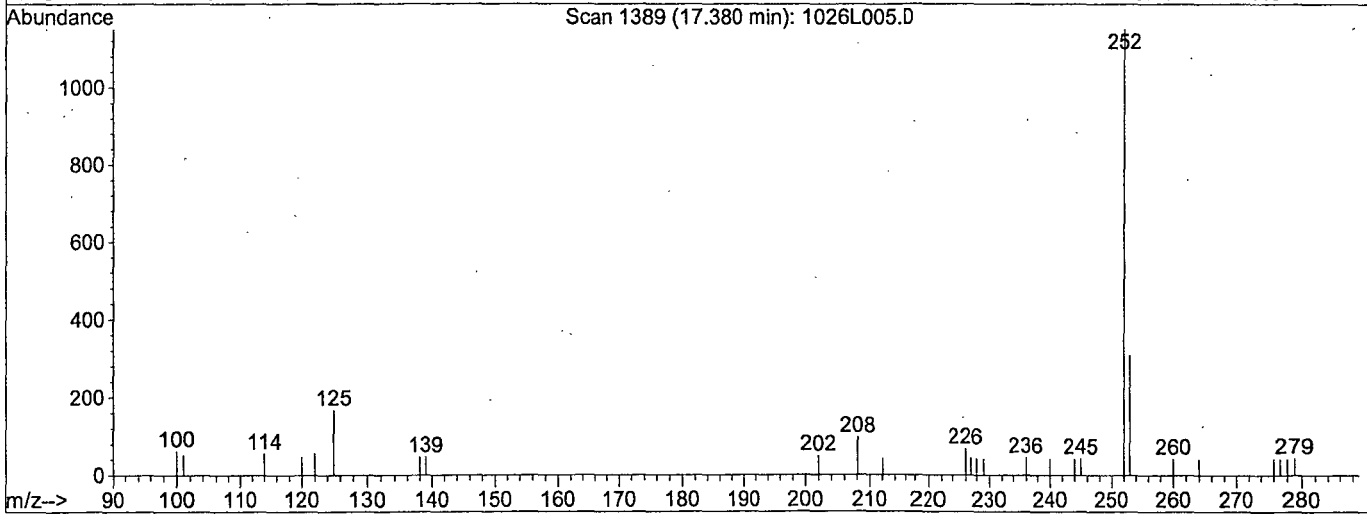
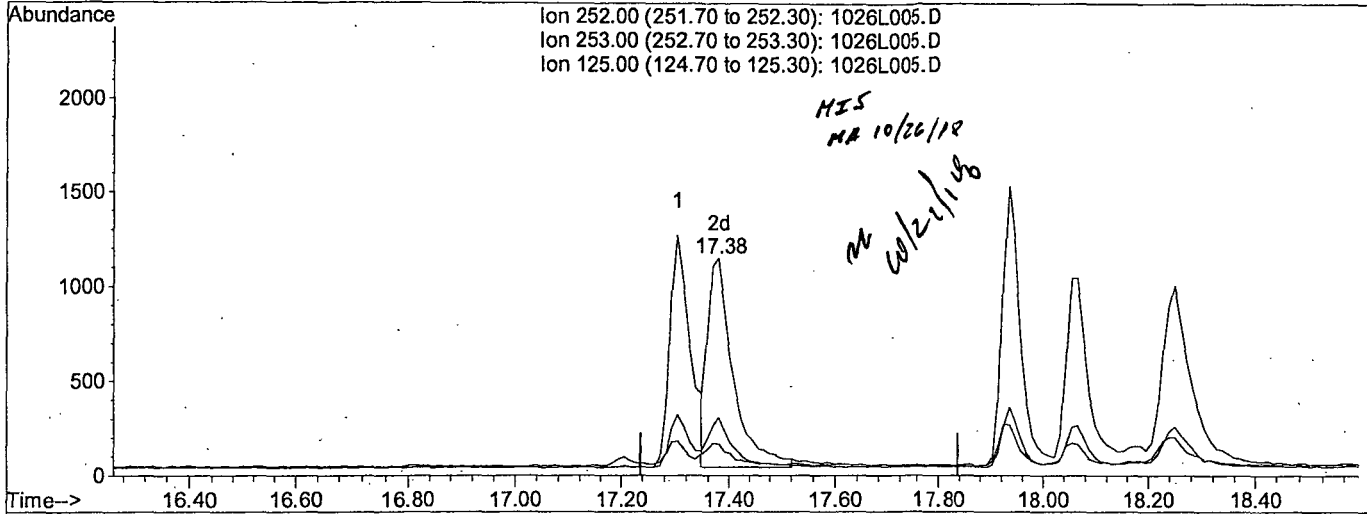
Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.68
125.00	9.90	9.95
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:15 2018

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L005.D

(25) Benzo (k) fluoranthene (TM)

17.38min 0.1890ppb m

response 3734

Ion	Exp%	Act%
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252.00	100	100
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253.00	21.50	26.78
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125.00	9.90	14.61#
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0.00	0.00	0.00
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Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L006.D Vial: 6  
 Acq On : 26 Oct 18 13:49 Operator: MA  
 Sample : 0.5 SIM 10/26/18 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Oct 26 16:11 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	4.18	136	32750	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.20	164	14930	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	28628	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.39	240	38484	2.50000	ppb	0.01
23) Perylene-D12 (IS)	18.17	264	37609	2.50000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	3.38	82	1279	0.21709	ppb	0.02
Spiked Amount	5.000					
Recovery				=	4.340%	
4) 2-Methylnaphthalene-D10 (2)	4.97	152	4203	0.23843	ppb	0.01
Spiked Amount	5.000					
Recovery				=	4.760%	
8) Surrogate Recovery (FBP)	5.44	172	2622	0.22734	ppb	0.01
Spiked Amount	5.000					
Recovery				=	4.540%	
15) Fluoranthene-D10 (FRT)	10.12	212	4660	0.21501	ppb	0.02
Spiked Amount	5.000					
Recovery				=	4.300%	
19) Surrogate Recovery (TPH)	11.39	244	3226	0.22003	ppb	0.02
Spiked Amount	5.000					
Recovery				=	4.400%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	4.20	128	7168	0.48956	ppb	98
5) 2-Methylnaphthalene	5.01	142	4428	0.49429	ppb	99
6) 1-Methylnaphthalene	5.12	142	4610	0.52403	ppb	100
9) Acenaphthylene	6.05	152	13663	0.49485	ppb	98
10) Acenaphthene	6.24	154	4192	0.49002	ppb	93
11) Fluorene	6.86	166	4814	0.50470	ppb	99
13) Phenanthrene	7.98	178	7057	0.48363	ppb	98
14) Anthracene	8.06	178	6562	0.50036	ppb	99
16) Fluoranthene	10.16	202	10110	0.48136	ppb	99
18) Pyrene	10.78	202	10151	0.45526	ppb	99
20) Benz (a) anthracene	14.37	228	8271	0.42801	ppb	99
21) Chrysene	14.47	228	9389	0.48612	ppb	97
22) Indeno (1,2,3-cd) pyrene	20.51	276	5240m	0.31776	ppb	99
24) Benzo (b) fluoranthene	17.29	252	8054	0.42726	ppb	97
25) Benzo (k) fluoranthene	17.37	252	9064	0.46045	ppb	100
26) Benzo (a) pyrene	18.05	252	6810	0.40595	ppb	99
27) Dibenz (a,h) anthracene	20.58	278	6922	0.41030	ppb	96
28) Benzo (g,h,i) perylene	21.00	276	7138	0.40895	ppb	96

Quantitation Report

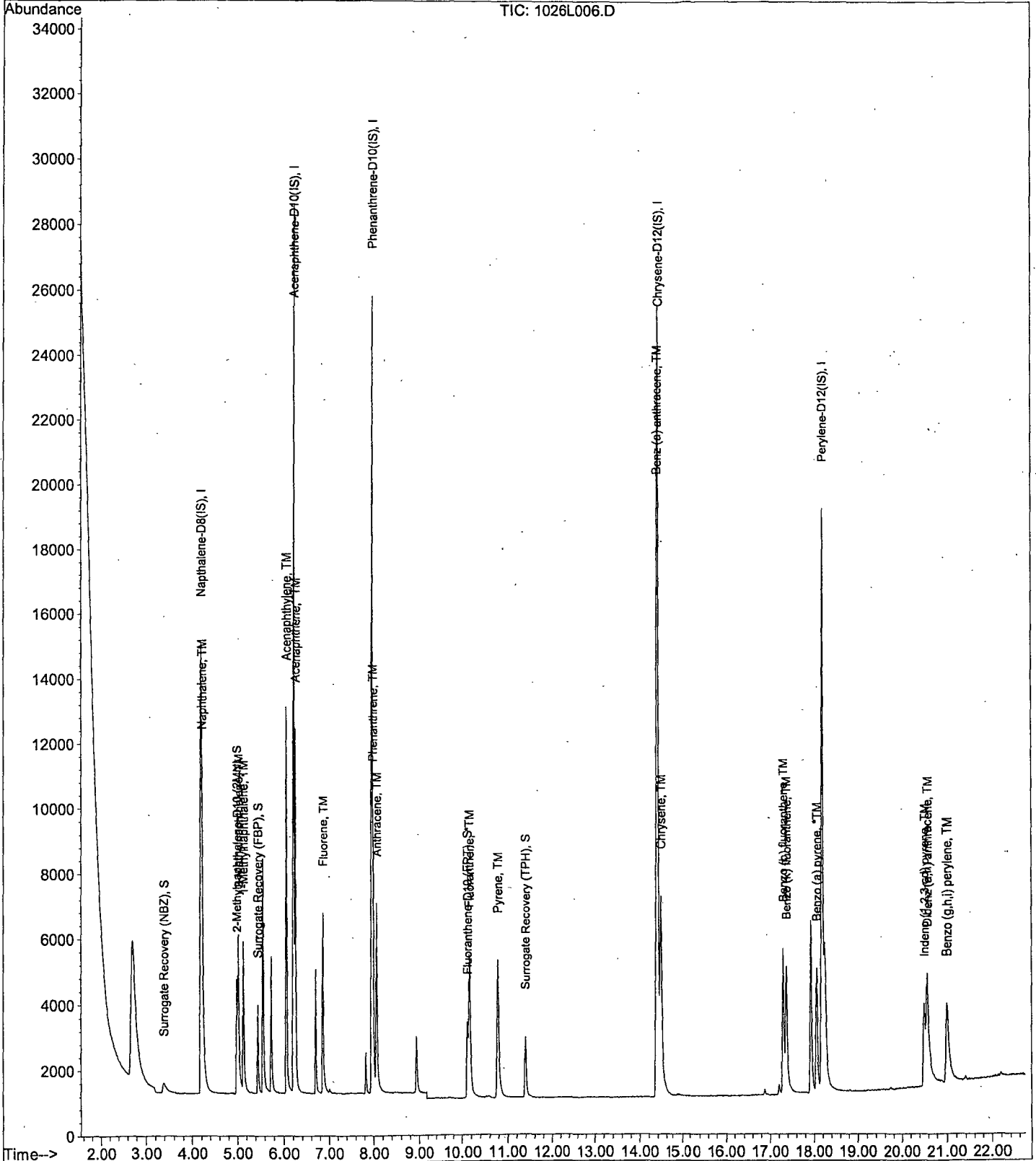
Data File : M:\LINUS\DATA\L181026\1026L006.D  
Acq On : 26 Oct 18 13:49  
Sample : 0.5 SIM 10/26/18  
Misc :

Vial: 6  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 16:11 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration

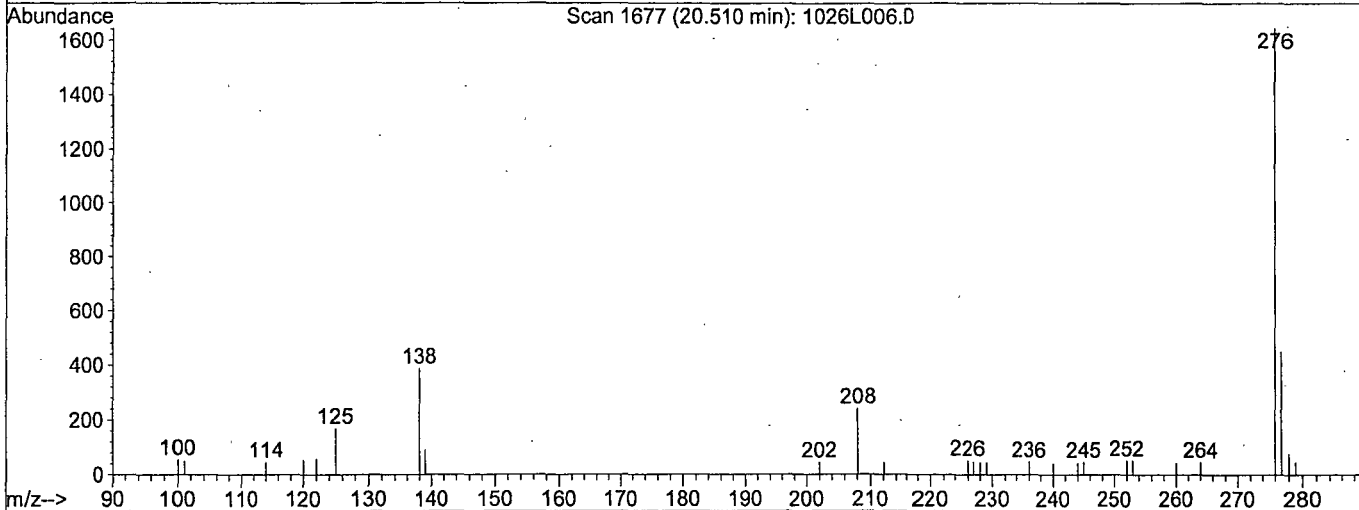
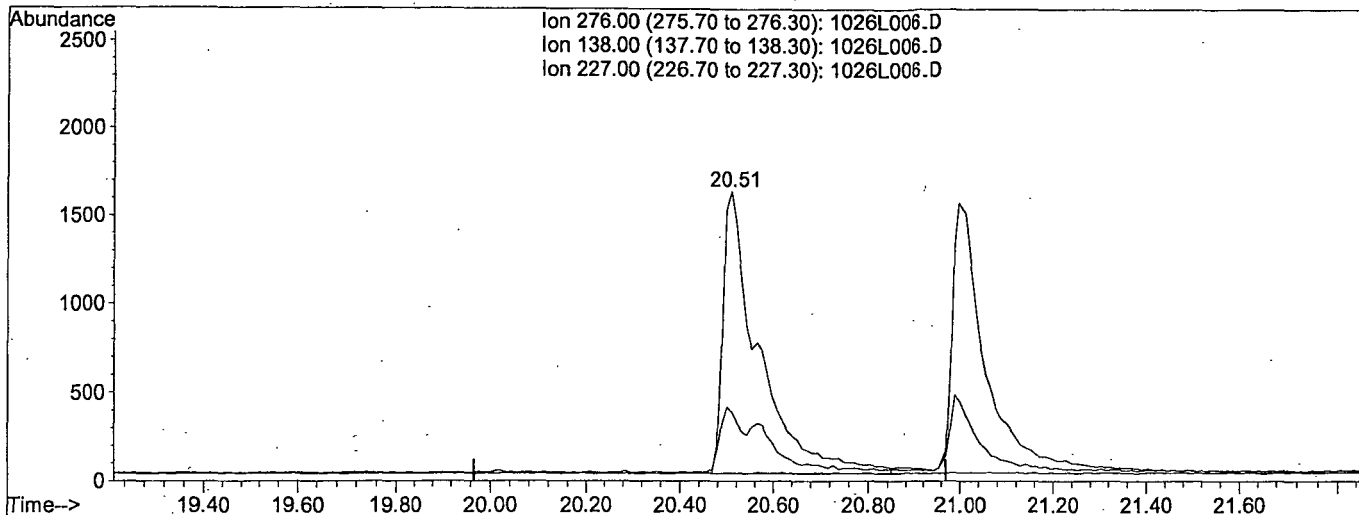


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L006.D  
 Acq On : 26 Oct 18 13:49  
 Sample : 0.5 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 15:34 2018

Vial: 6  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L006.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.51min 0.5224ppb

response 8614

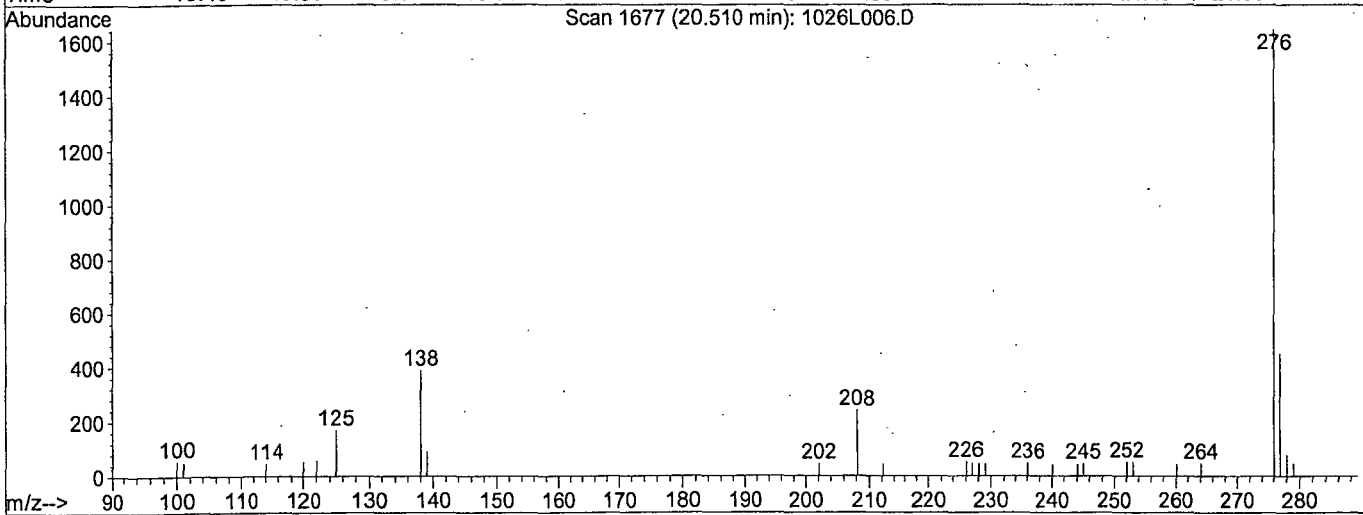
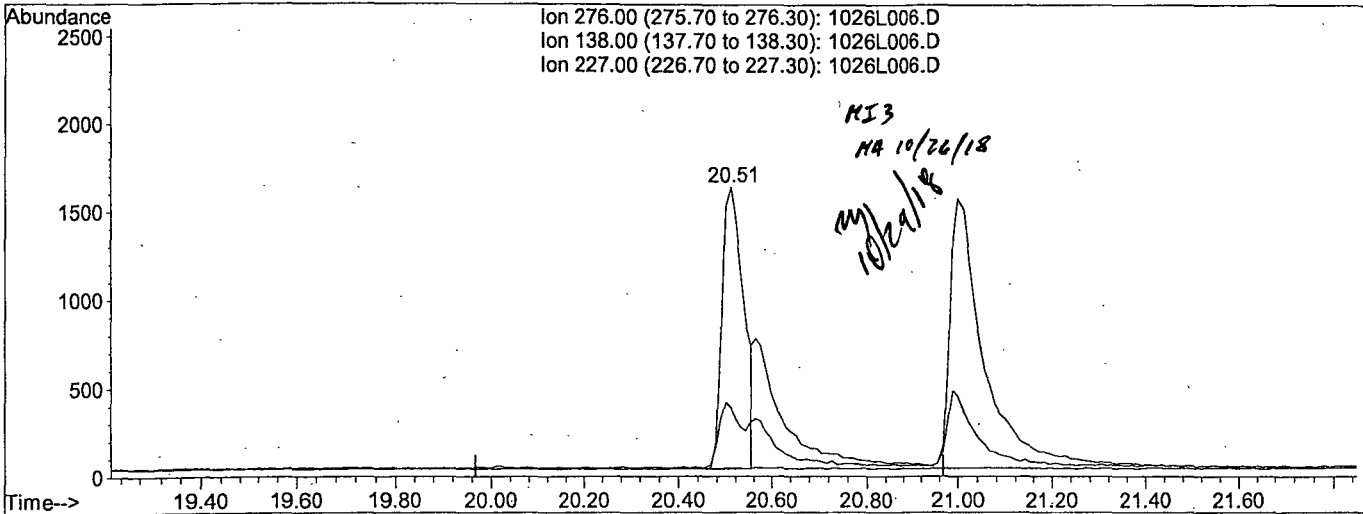
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	20.97
227.00	0.10	0.25#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L006.D  
 Acq On : 26 Oct 18 13:49  
 Sample : 0.5 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:11 2018

Vial: 6  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L006.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.51min 0.3178ppb m

response 5240

Ion	Exp%	Act%
276.00	100	100
138.00	21.50	23.62
227.00	0.10	2.86#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L007.D  
 Acq On : 26 Oct 18 14:18  
 Sample : 1 SIM 10/26/18  
 Misc :

Vial: 7  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 16:11 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	4.18	136	33971	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	15608	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	29272	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.38	240	39857	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	39069	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.37	82	2297	0.37586	ppb	0.01
Spiked Amount	5.000		Recovery	=	7.520%	
4) 2-Methylnaphthalene-D10 (2)	4.97	152	8029	0.43910	ppb	0.01
Spiked Amount	5.000		Recovery	=	8.780%	
8) Surrogate Recovery (FBP)	5.44	172	5100	0.42298	ppb	0.01
Spiked Amount	5.000		Recovery	=	8.460%	
15) Fluoranthene-D10 (FRT)	10.11	212	9033	0.40761	ppb	0.01
Spiked Amount	5.000		Recovery	=	8.160%	
19) Surrogate Recovery (TPH)	11.38	244	6108	0.40225	ppb	0.01
Spiked Amount	5.000		Recovery	=	8.040%	
Target Compounds						
3) Naphthalene	4.20	128	14128	0.93024	ppb	100
5) 2-Methylnaphthalene	5.01	142	8733	0.93981	ppb	98
6) 1-Methylnaphthalene	5.12	142	8928	0.97838	ppb	98
9) Acenaphthylene	6.05	152	26429	0.91562	ppb	99
10) Acenaphthene	6.24	154	8065	0.90180	ppb	92
11) Fluorene	6.84	166	9703	0.97307	ppb	97
13) Phenanthrene	7.98	178	14031	0.94041	ppb	99
14) Anthracene	8.06	178	12971	0.96730	ppb	99
16) Fluoranthene	10.16	202	20236	0.94229	ppb	98
18) Pyrene	10.77	202	20187	0.87417	ppb	97
20) Benz (a) anthracene	14.36	228	15888	0.79385	ppb	99
21) Chrysene	14.47	228	17899	0.89481	ppb	99
22) Indeno (1,2,3-cd) pyrene	20.50	276	11020m	0.64524	ppb	95
24) Benzo (b) fluoranthene	17.28	252	15809	0.80731	ppb	98
25) Benzo (k) fluoranthene	17.36	252	17901	0.87539	ppb	99
26) Benzo (a) pyrene	18.04	252	14027	0.80492	ppb	97
27) Dibenz (a,h) anthracene	20.56	278	14018	0.79986	ppb	95
28) Benzo (g,h,i) perylene	20.99	276	13977	0.77084	ppb	98



Quantitation Report

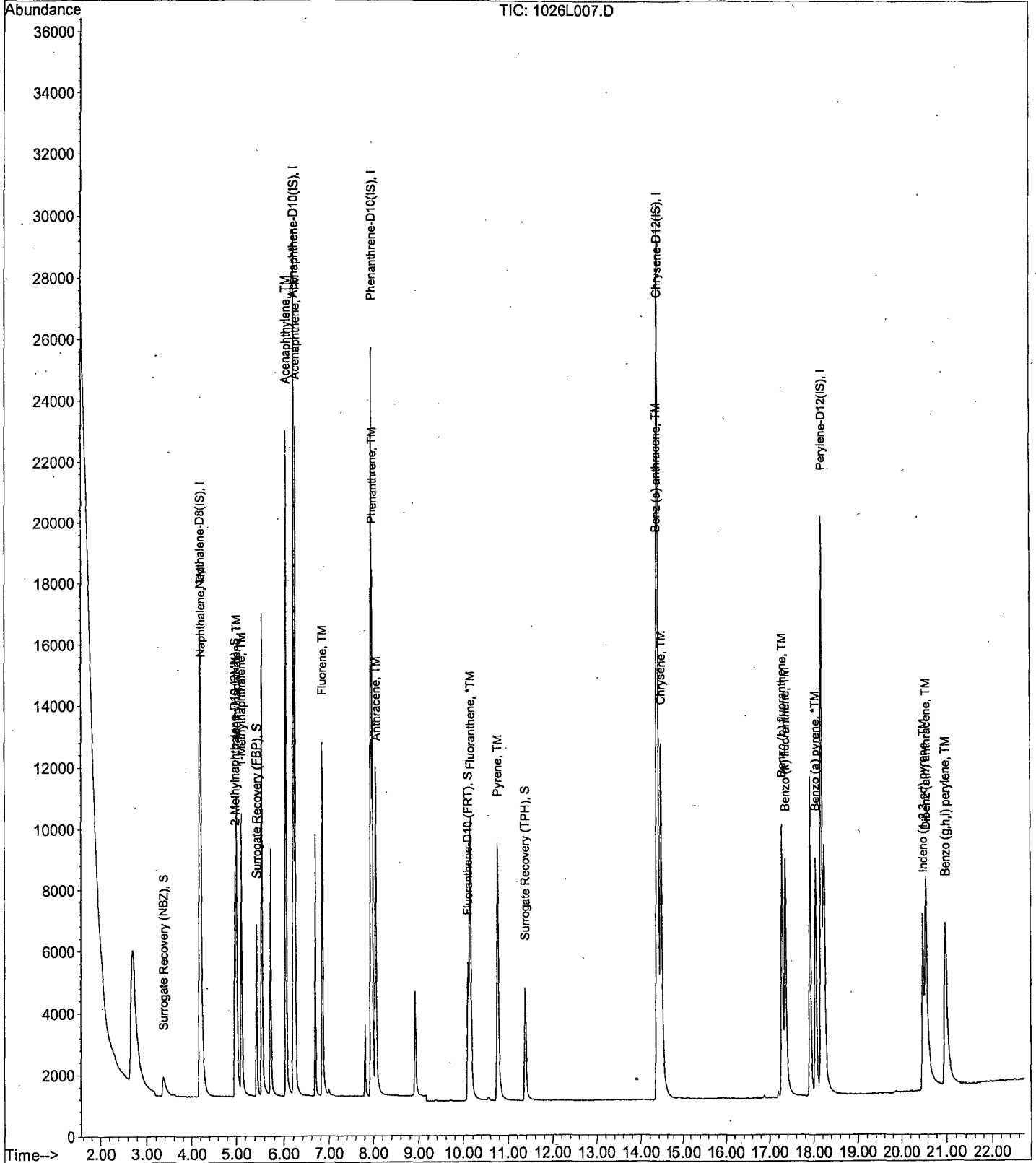
Data File : M:\LINUS\DATA\L181026\1026L007.D  
Acq On : 26 Oct 18 14:18  
Sample : 1 SIM 10/26/18  
Misc :

Vial: 7  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 16:11 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration

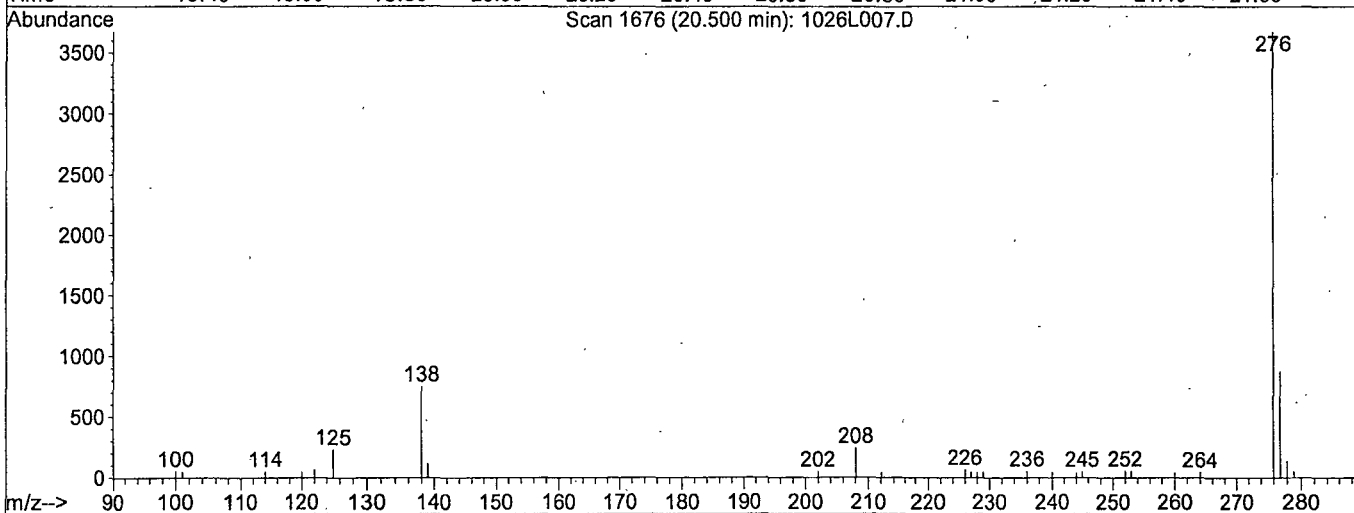
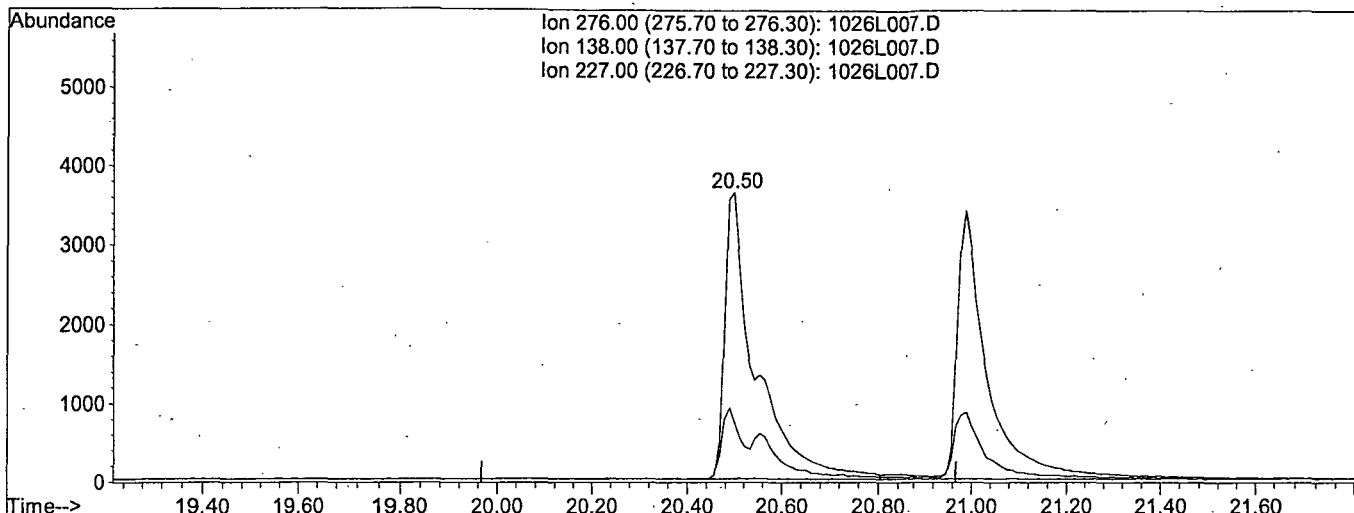


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L007.D  
 Acq On : 26 Oct 18 14:18  
 Sample : 1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 15:34 2018

Vial: 7  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L007.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.50min 0.9777ppb

response 16698

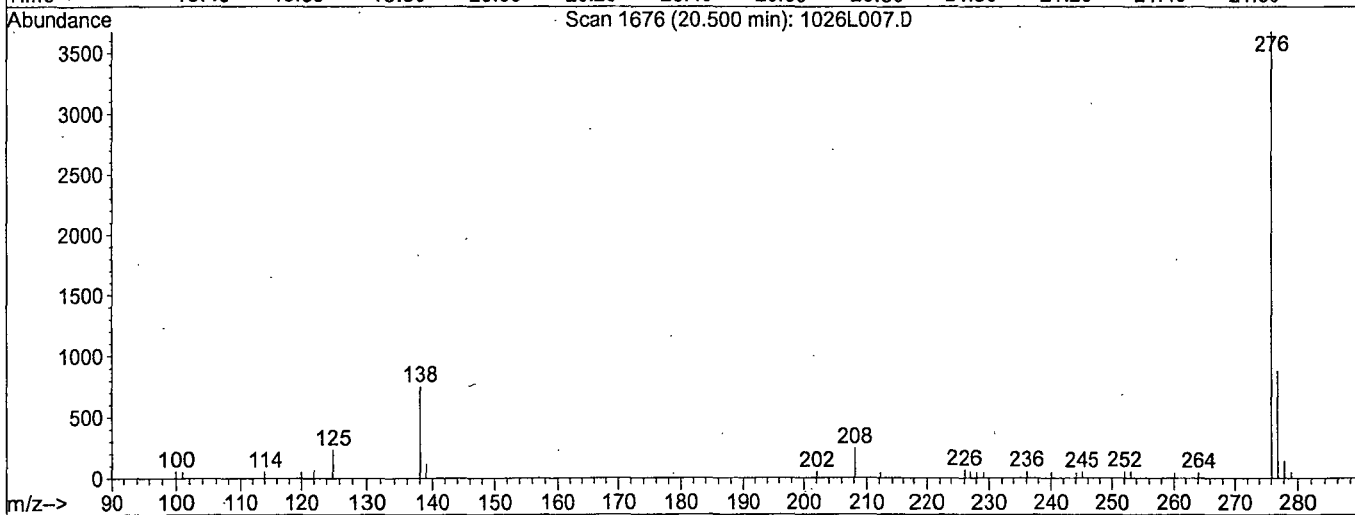
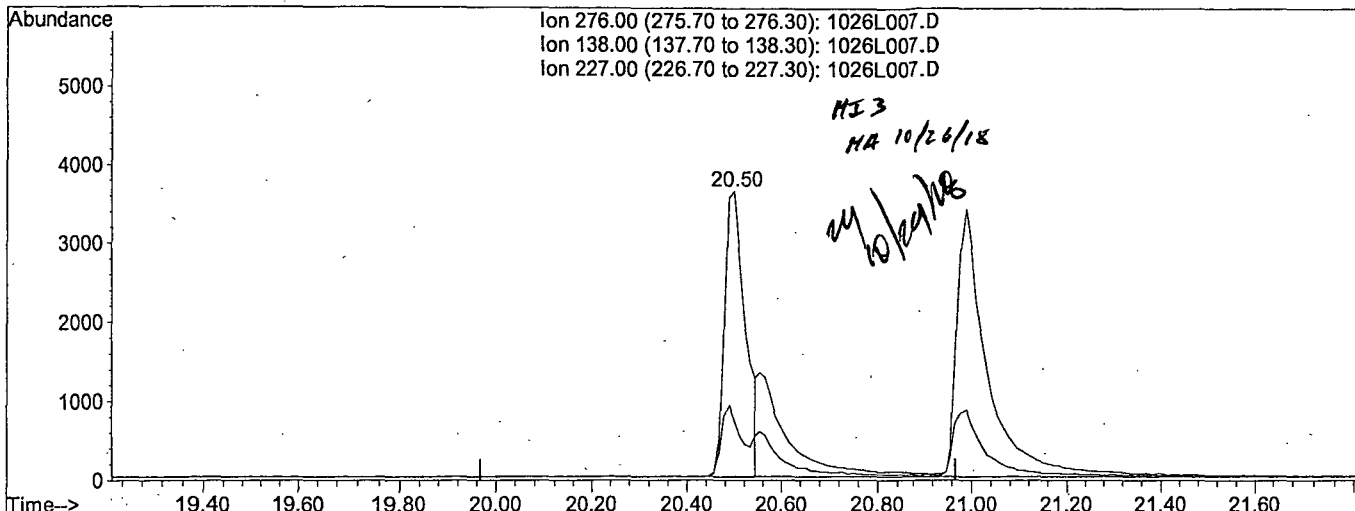
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	19.31
227.00	0.10	0.17#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L007.D  
 Acq On : 26 Oct 18 14:18  
 Sample : 1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:11 2018

Vial: 7  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L007.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.50min 0.6452ppb m

response 11020

Ion	Exp%	Act%
276.00	100	100
138.00	21.50	20.41
227.00	0.10	1.36#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L008.D  
 Acq On : 26 Oct 18 14:47  
 Sample : 10 SIM 10/26/18  
 Misc :

Vial: 8  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 15:34 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)

Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	32570	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	14513	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	27797	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.38	240	38774	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	36501	2.50000	ppb	0.00

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	3.36	82	25371	4.33004	ppb	0.00
Spiked Amount 5.000			Recovery =	86.600%		
4) 2-Methylnaphthalene-D10 (2)	4.96	152	78619	4.48459	ppb	0.00
Spiked Amount 5.000			Recovery =	89.700%		
8) Surrogate Recovery (FBP)	5.43	172	50972	4.54640	ppb	0.00
Spiked Amount 5.000			Recovery =	90.920%		
15) Fluoranthene-D10 (FRT)	10.10	212	96613	4.59101	ppb	0.00
Spiked Amount 5.000			Recovery =	91.820%		
19) Surrogate Recovery (TPH)	11.37	244	62297	4.21726	ppb	0.00
Spiked Amount 5.000			Recovery =	84.340%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	4.20	128	138573	9.51662	ppb	100
5) 2-Methylnaphthalene	5.00	142	89316	10.02530	ppb	99
6) 1-Methylnaphthalene	5.12	142	85742	9.80030	ppb	97
9) Acenaphthylene	6.04	152	267328	9.96025	ppb	100
10) Acenaphthene	6.24	154	78196	9.40333	ppb	98
11) Fluorene	6.84	166	93296	10.06218	ppb	100
13) Phenanthrene	7.98	178	136446	9.63044	ppb	99
14) Anthracene	8.05	178	133826	10.50953	ppb	100
16) Fluoranthene	10.15	202	206441	10.12305	ppb	96
18) Pyrene	10.76	202	210764	9.38172	ppb	98
20) Benz (a) anthracene	14.36	228	178514	9.16865	ppb	100
21) Chrysene	14.46	228	182173	9.36164	ppb	100
22) Indeno (1,2,3-cd) pyrene	20.47	276	132404	7.96902	ppb	98
24) Benzo (b) fluoranthene	17.27	252	170669	9.32862	ppb	99
25) Benzo (k) fluoranthene	17.34	252	187357	9.80670	ppb	99
26) Benzo (a) pyrene	18.03	252	159123	9.77348	ppb	99
27) Dibenz (a,h) anthracene	20.54	278	142540	8.70545	ppb	99
28) Benzo (g,h,i) perylene	20.96	276	147120	8.68460	ppb	99

Quantitation Report

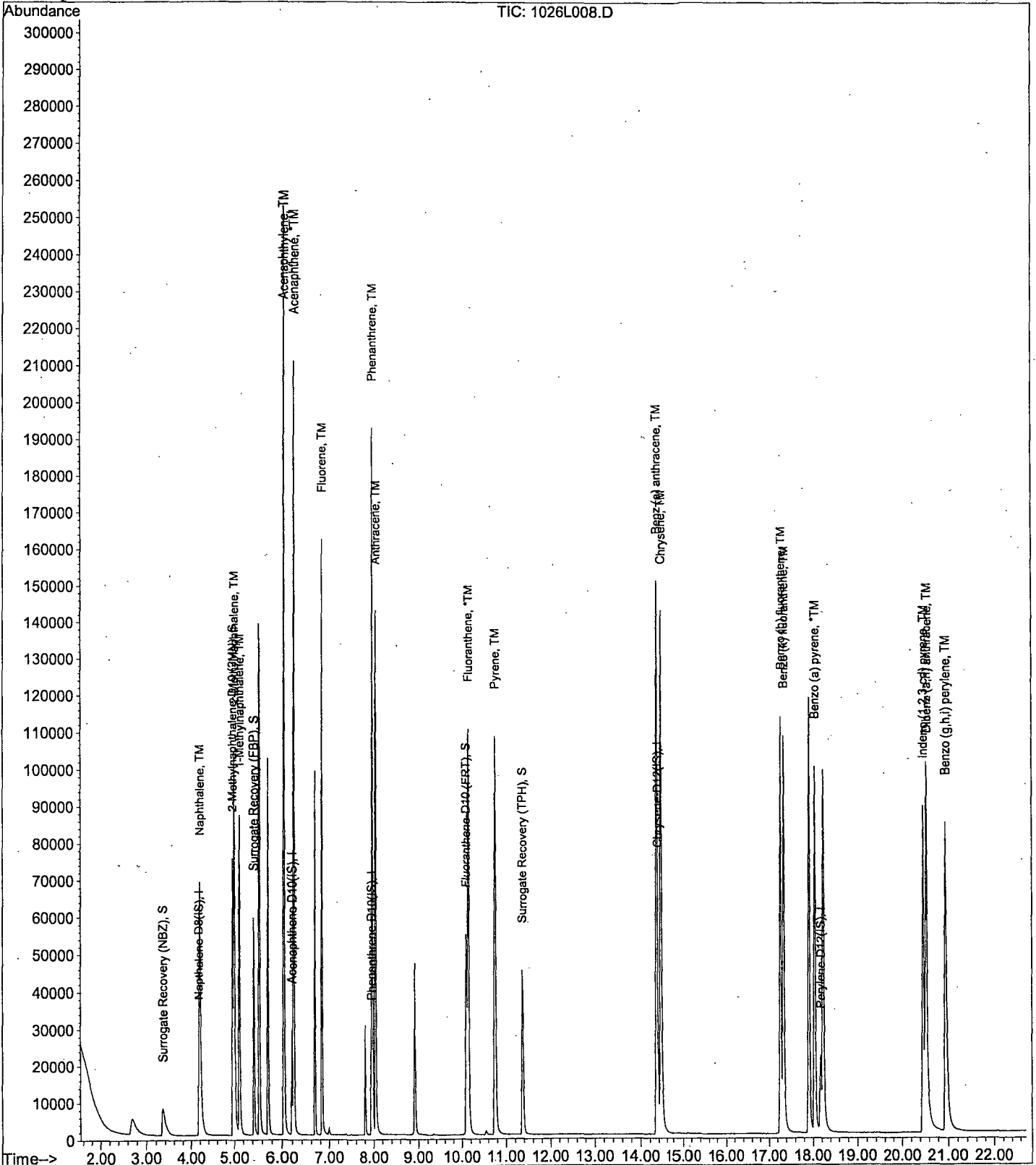
Data File : M:\LINUS\DATA\L181026\1026L008.D  
Acq On : 26 Oct 18 14:47  
Sample : 10 SIM 10/26/18  
Misc :

Vial: 8  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 15:34 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L009.D Vial: 9  
 Acq On : 26 Oct 18 15:16 Operator: MA  
 Sample : 50 SIM 10/26/18 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Oct 26 15:56 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	4.17	136	33697	2.50000	ppb	-0.01
7) Acenaphthene-D10 (IS)	6.20	164	14973	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	28689	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.40	240	38392	2.50000	ppb	0.02
23) Perylene-D12 (IS)	18.18	264	37588	2.50000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.35	82	122273	21.73245	ppb	-0.01
Spiked Amount	5.000		Recovery	=	434.640%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	355045	22.10239	ppb	0.00
Spiked Amount	5.000		Recovery	=	442.040%	
8) Surrogate Recovery (FBP)	5.43	172	220430	21.82249	ppb	0.00
Spiked Amount	5.000		Recovery	=	436.440%	
15) Fluoranthene-D10 (FRT)	10.11	212	431396	22.92845	ppb	0.01
Spiked Amount	5.000		Recovery	=	458.560%	
19) Surrogate Recovery (TPH)	11.38	244	284921	21.83788	ppb	0.01
Spiked Amount	5.000		Recovery	=	436.760%	
Target Compounds						
3) Naphthalene	4.20	128	652242	46.00597	ppb	100
5) 2-Methylnaphthalene	5.00	142	409700	47.62530	ppb	99
6) 1-Methylnaphthalene	5.12	142	391332	45.14684	ppb	96
9) Acenaphthylene	6.04	152	1199003	46.39626	ppb	100
10) Acenaphthene	6.24	154	343423	43.41979	ppb	94
11) Fluorene	6.84	166	413269	45.87248	ppb	98
13) Phenanthrene	7.98	178	614637	45.60337	ppb	99
14) Anthracene	8.05	178	596928	47.86908	ppb	99
16) Fluoranthene	10.17	202	935853	47.50242	ppb	97
18) Pyrene	10.78	202	976032	48.05263	ppb	98
20) Benz (a) anthracene	14.38	228	861770	50.73337	ppb	99
21) Chrysene	14.49	228	821012	45.08714	ppb	99
22) Indeno (1,2,3-cd) pyrene	20.50	276	693522	42.54313	ppb	95
24) Benzo (b) fluoranthene	17.29	252	833397	49.82667	ppb	# 98
25) Benzo (k) fluoranthene	17.38	252	837921	48.85260	ppb	97
26) Benzo (a) pyrene	18.08	252	754977	52.03384	ppb	97
27) Dibenz (a,h) anthracene	20.58	278	691170	48.13785	ppb	97
28) Benzo (g,h,i) perylene	21.00	276	687548	47.00469	ppb	96

Quantitation Report

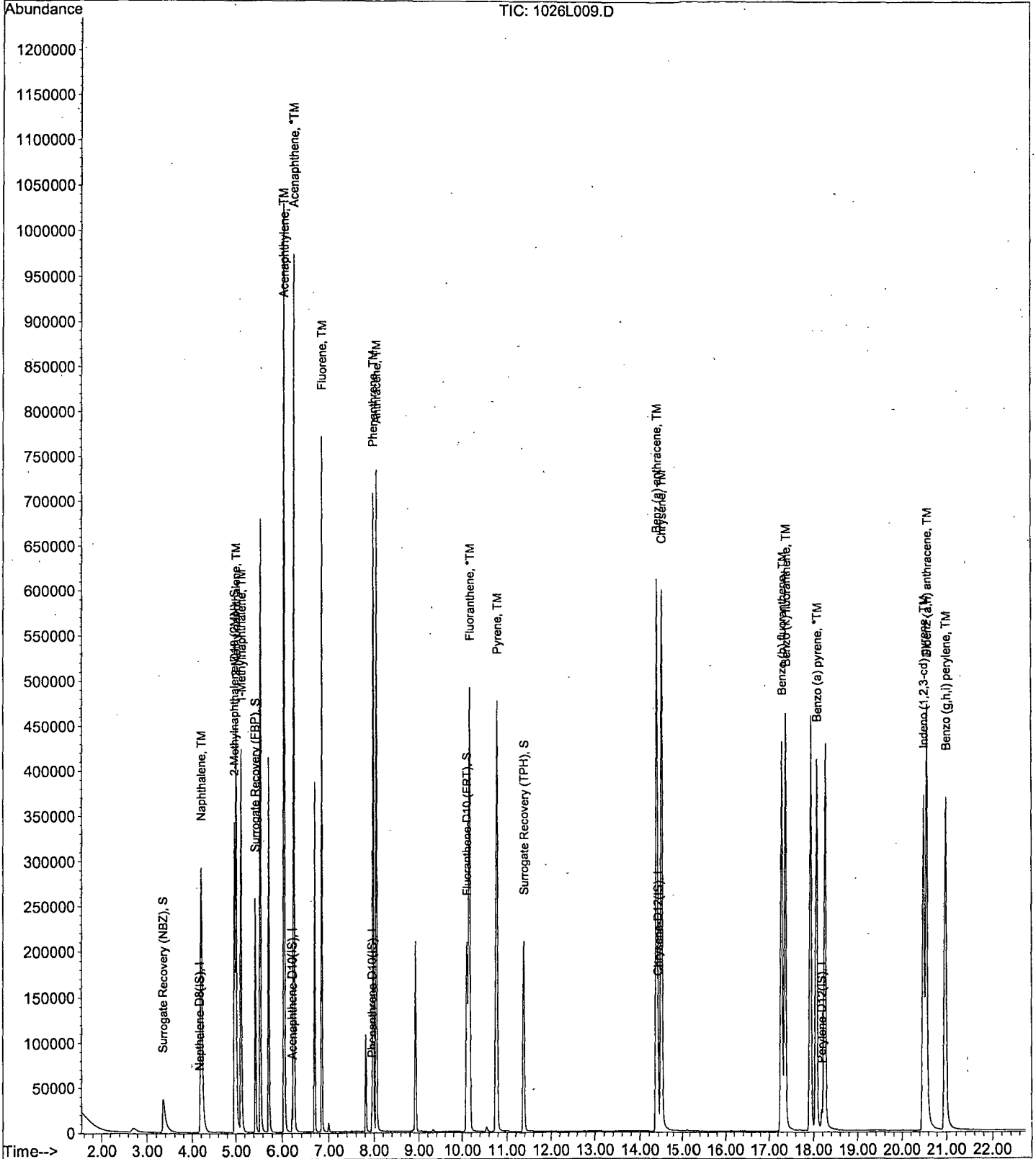
Data File : M:\LINUS\DATA\L181026\1026L009.D  
Acq On : 26 Oct 18 15:16  
Sample : 50 SIM 10/26/18  
Misc :

Vial: 9  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 15:56 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L010.D	Vial: 10
Acq On : 26 Oct 18 15:46	Operator: MA
Sample : 100 SIM 10/26/18	Inst : Linus
Misc :	Multiplr: 1.00

Quant Time: Oct 26 16:12 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
<hr/>						
1) Napthalene-D8 (IS)	4.17	136	31633	2.50000	ppb	-0.01
7) Acenaphthene-D10 (IS)	6.20	164	14067	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	26871	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.42	240	35782	2.50000	ppb	0.04
23) Perylene-D12 (IS)	18.20	264	35404	2.50000	ppb	0.02
<hr/>						
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.35	82	230737	45.09256	ppb	-0.01
Spiked Amount 5.000			Recovery =	901.860%		
4) 2-Methylnaphthalene-D10 (2)	4.96	152	641392	43.26523	ppb	0.00
Spiked Amount 5.000			Recovery =	865.300%		
8) Surrogate Recovery (FBP)	5.43	172	407321	43.93229	ppb	0.00
Spiked Amount 5.000			Recovery =	878.640%		
15) Fluoranthene-D10 (FRT)	10.12	212	792092	46.17898	ppb	0.02
Spiked Amount 5.000			Recovery =	923.580%		
19) Surrogate Recovery (TPH)	11.39	244	525605	44.69973	ppb	0.02
Spiked Amount 5.000			Recovery =	894.000%		
<hr/>						
Target Compounds						Qvalue
3) Naphthalene	4.19	128	1190602	90.34580	ppb	100
5) 2-Methylnaphthalene	5.01	142	725937	89.84741	ppb	96
6) 1-Methylnaphthalene	5.12	142	696199	85.61444	ppb	97
9) Acenaphthylene	6.05	152	2156100	89.29356	ppb	99
10) Acenaphthene	6.25	154	635563	86.08448	ppb	95
11) Fluorene	6.86	166	758985	89.77625	ppb	99
13) Phenanthrene	7.99	178	1058586	83.98357	ppb	98
14) Anthracene	8.06	178	1012170	86.44068	ppb	98
16) Fluoranthene	10.19	202	1675844	91.44665	ppb	98
18) Pyrene	10.80	202	1771989	95.58281	ppb	96
20) Benz (a) anthracene	14.40	228	1494777	96.18039	ppb	99
21) Chrysene	14.51	228	1518028	91.13060	ppb	98
22) Indeno (1,2,3-cd) pyrene	20.53	276	1322256m	89.75981	ppb	95
24) Benzo (b) fluoranthene	17.31	252	1544889	98.73724	ppb	# 97
25) Benzo (k) fluoranthene	17.41	252	1515838m	94.40721	ppb	98
26) Benzo (a) pyrene	18.11	252	1359978	100.87684	ppb	98
27) Dibenz (a,h) anthracene	20.61	278	1247200	94.24990	ppb	98
28) Benzo (g,h,i) perylene	21.03	276	1259732	93.82010	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1026L010.D L1026.M Fri Oct 26 16:22:40 2018



Quantitation Report

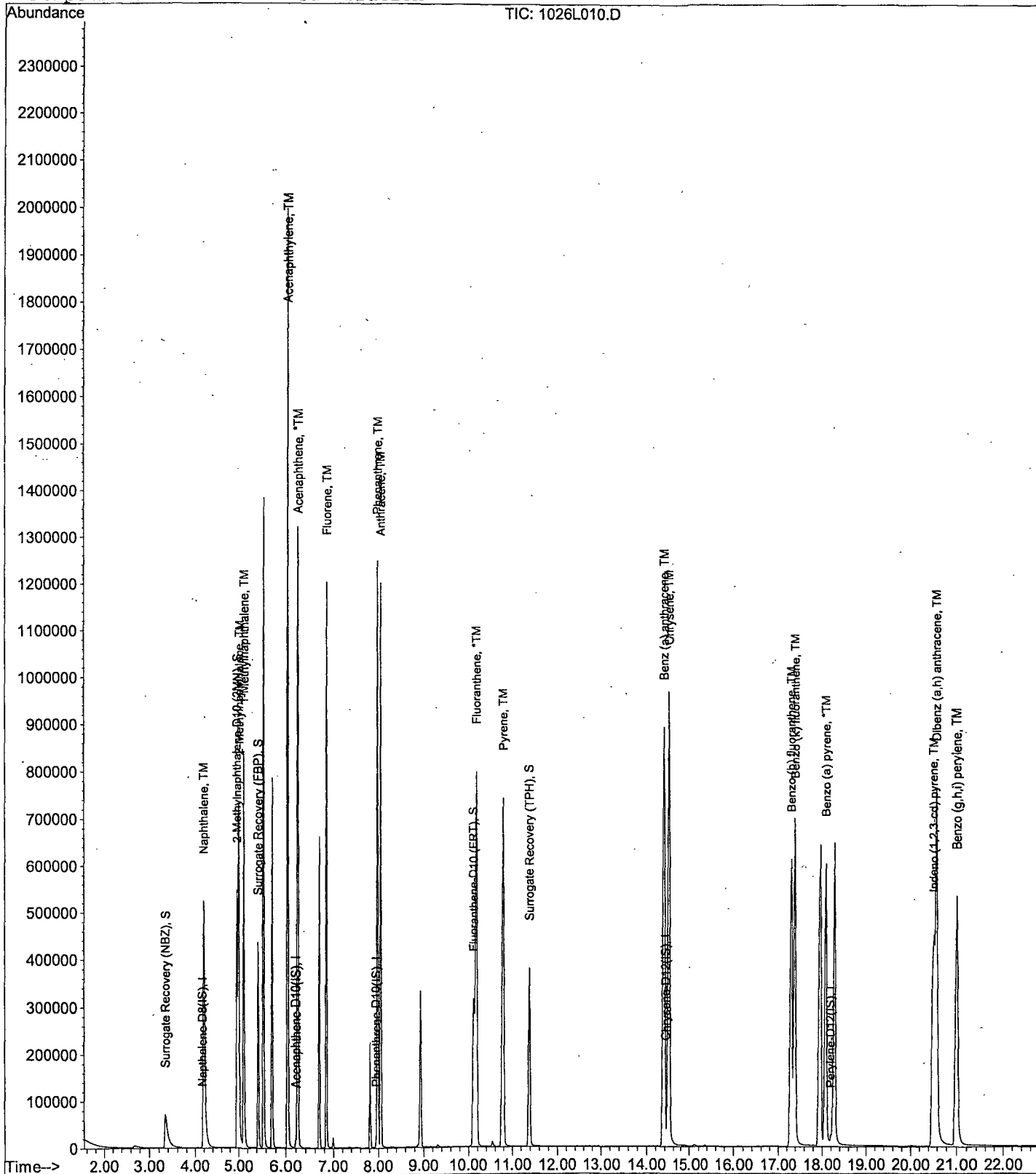
Data File : M:\LINUS\DATA\L181026\1026L010.D  
Acq On : 26 Oct 18 15:46  
Sample : 100 SIM 10/26/18  
Misc :

Vial: 10  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 16:12 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration

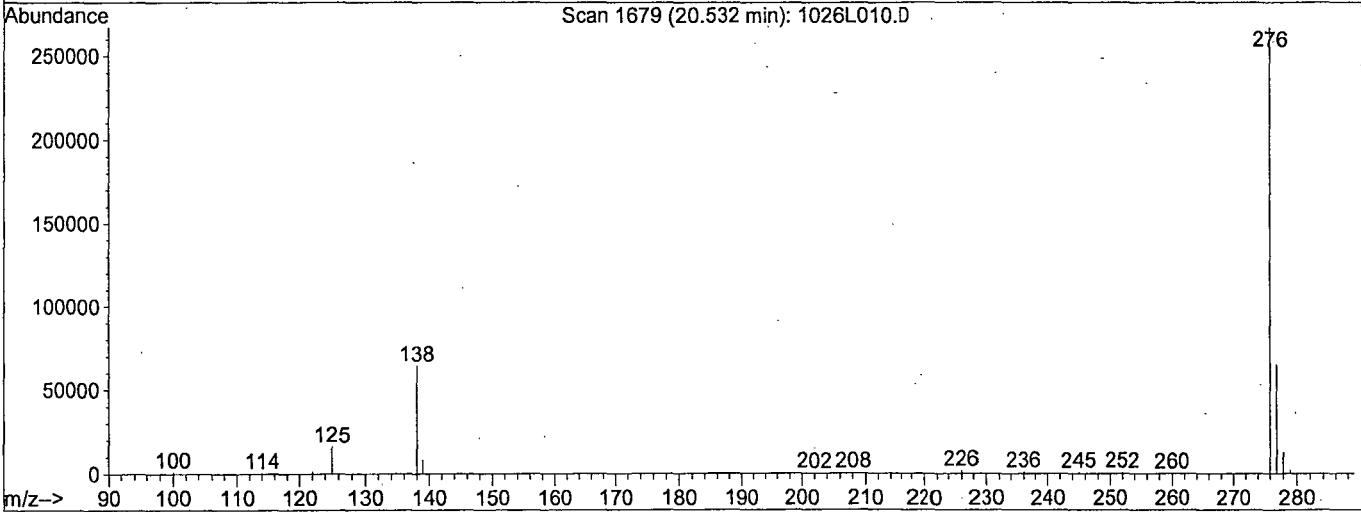
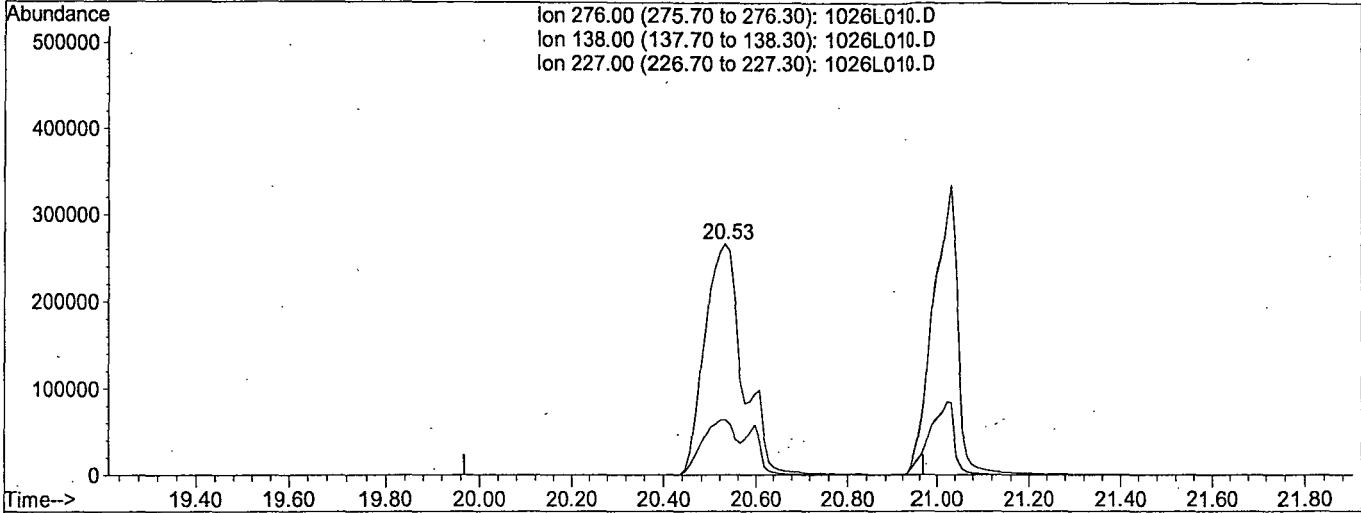


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:09 2018

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L010.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.53min 107.1725ppb  
 response 1578763

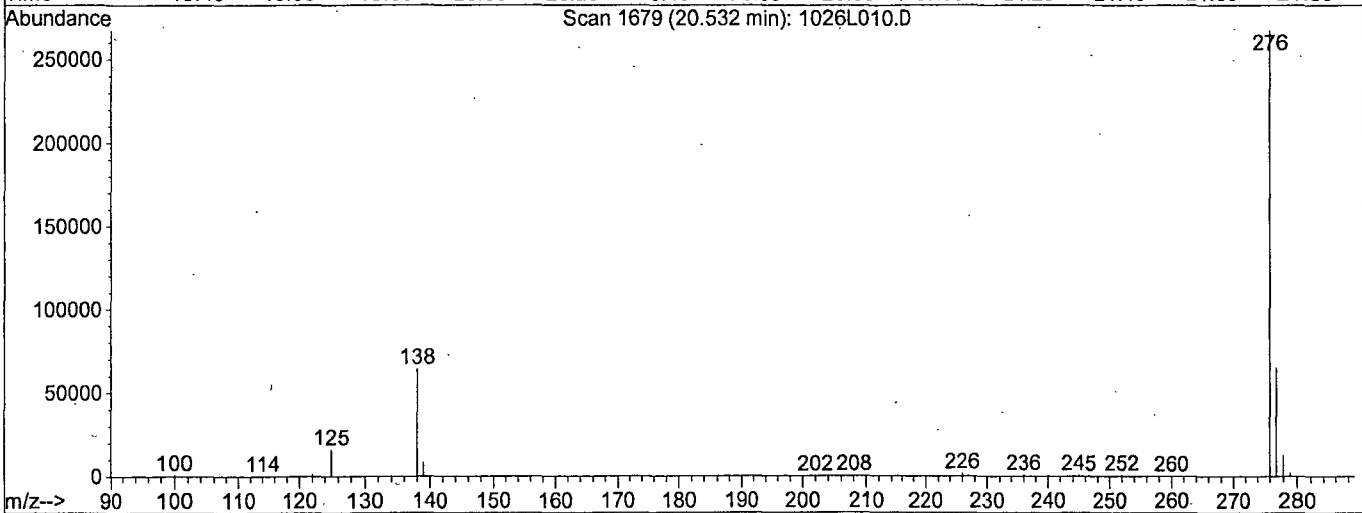
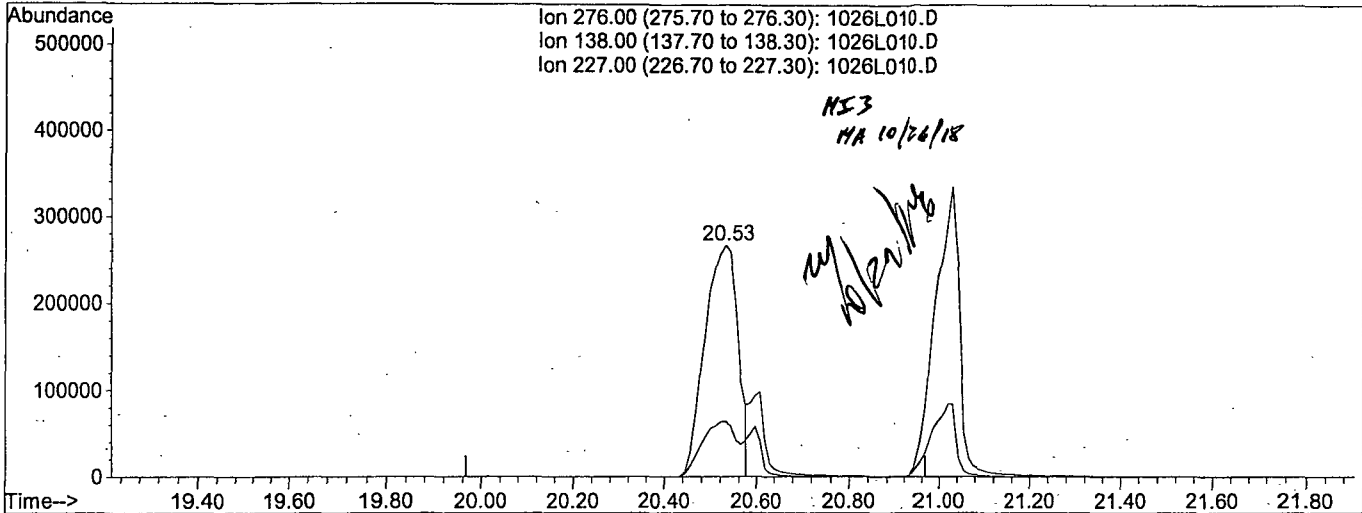
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	24.02
227.00	0.10	0.11
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:12 2018

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L010.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.53min 89.7598ppb m

response 1322256

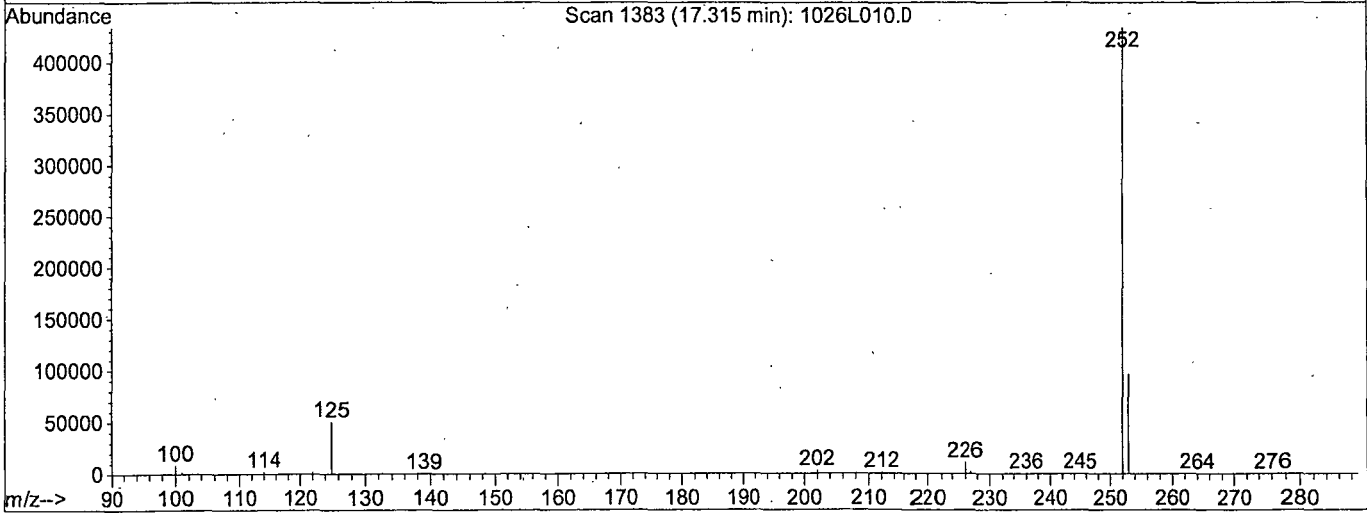
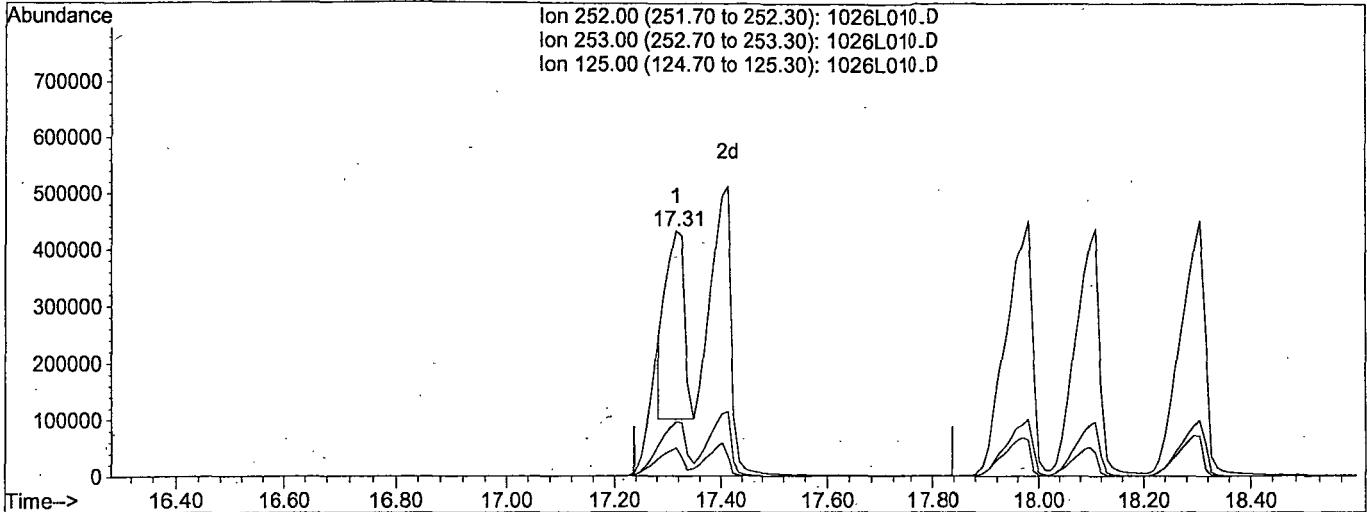
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	24.04
227.00	0.10	0.13#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:12 2018

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L010.D

(25) Benzo (k) fluoranthene (TM)

17.31min 49.4605ppb

response 794156

Ion Exp% Act%

252.00 100 100

253.00 21.50 22.27

125.00 9.90 11.17

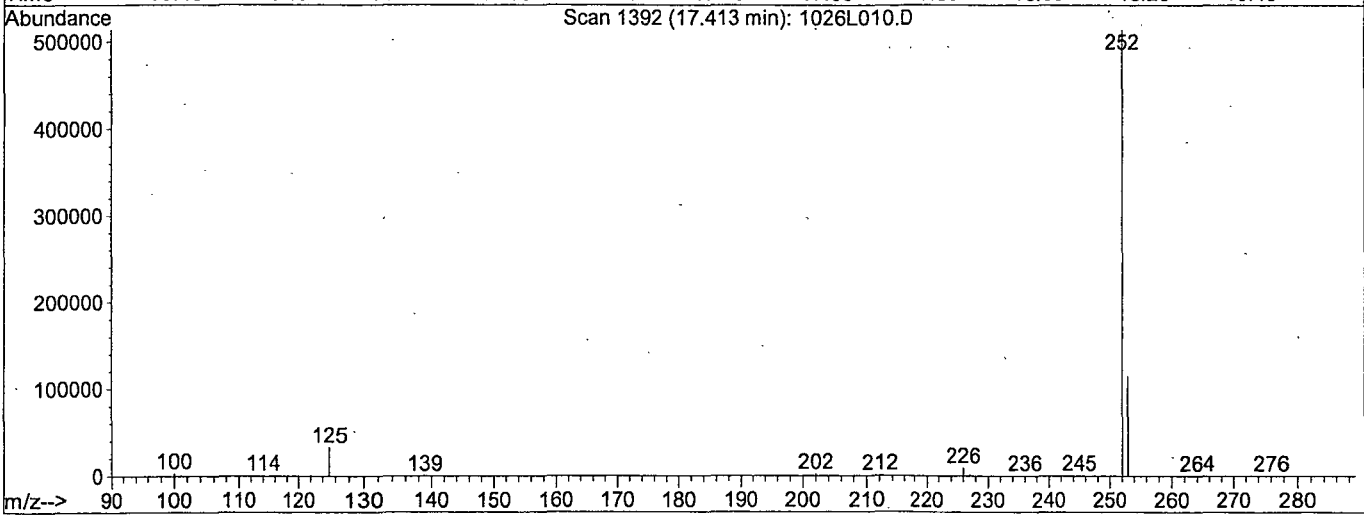
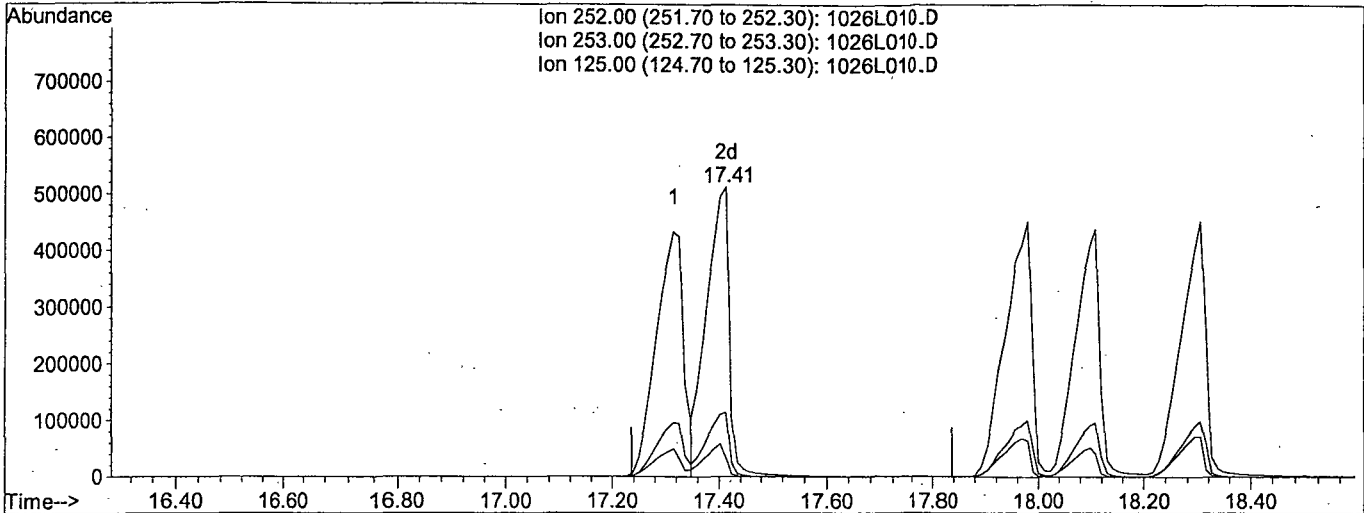
0.00 0.00 0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:12 2018

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L010.D

(25) Benzo (k) fluoranthene (TM)

17.41min 94.4072ppb m

response 1515838

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.26
125.00	9.90	6.39#
0.00	0.00	0.00

PAH by GCMS SIM  
EPA 8270 SIM

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/26/18  
Instrument: Linus  
Initial Cal. Date: 10/26/18  
Data File: 1026L011.D

		Compound	MEAN	CCRF	%D	%Drift
1	TM	Naphthalene	1.034	0.9993	3.3	TM
2	TM	2-Methylnaphthalene	0.6383	0.6413	0.46	TM
3	TM	1-Methylnaphthalene	0.6431	0.6161	4.2	TM
4	TM	Acenaphthylene	4.289	4.407	2.8	TM
5	*TM	Acenaphthene	1.306	1.332	2.0	*TM
6	TM	Fluorene	1.506	1.561	3.6	TM
7	TM	Phenanthrene	1.162	1.168	0.56	TM
8	TM	Anthracene	1.090	1.139	4.5	TM
9	*TM	Fluoranthene	1.692	1.720	1.7	*TM
10	TM	Pyrene	1.275	1.256	1.4	TM
11	TM	Benz (a) anthracene	1.074	1.063	1.0	TM
12	TM	Chrysene	1.151	1.121	2.6	TM
13	TML	Indeno (1,2,3-cd) pyrene	0.7396	0.7805	5.5	TML 7.6
14	TM	Benzo (b) fluoranthene	1.075	1.067	0.71	TM
15	TM	Benzo (k) fluoranthene	1.200	1.235	3.0	TM
16	*TM	Benzo (a) pyrene	0.9390	1.033	10.0	*TM
17	TM	Dibenz (a,h) anthracene	0.9150	0.9194	0.47	TM
18	TM	Benzo (g,h,i) perylene	0.9257	0.9786	5.7	TM
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
Average					3.0	

PAH by GCMS SIM  
EPA 8270 SIM

Form 7

Second Source Calibration

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L011.D Vial: 11  
 Acq On : 26 Oct 18 16:46 Operator: MA  
 Sample : SS SIM 10/26/18 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Oct 29 8:35 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	4.18	136	35068	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	15606	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	29941	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.38	240	41767	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	39215	2.50000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	3.37	82	17	0.00320	ppb	0.01
Spiked Amount	5.000					
Recovery				=	0.060%	
4) 2-Methylnaphthalene-D10 (2)	4.97	152	29	0.00179	ppb	0.01
Spiked Amount	5.000					
Recovery				=	0.040%	
8) Surrogate Recovery (FBP)	5.46	172	33	0.00325	ppb	0.02
Spiked Amount	5.000					
Recovery				=	0.060%	
15) Fluoranthene-D10 (FRT)	10.11	212	117	0.00627	ppb	0.01
Spiked Amount	5.000					
Recovery				=	0.120%	
19) Surrogate Recovery (TPH)	11.42	244	200	0.01495	ppb	0.05
Spiked Amount	5.000					
Recovery				=	0.300%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	4.20	128	70085	4.83393	ppb	99
5) 2-Methylnaphthalene	5.01	142	44975	5.02294	ppb	97
6) 1-Methylnaphthalene	5.12	142	43210	4.79009	ppb	96
9) Acenaphthylene	6.04	152	137556	5.13827	ppb	99
10) Acenaphthene	6.24	154	41566	5.09893	ppb	97
11) Fluorene	6.84	166	48722	5.18226	ppb	98
13) Phenanthrene	7.98	178	69971	5.02806	ppb	99
14) Anthracene	8.05	178	68217	5.22347	ppb	99
16) Fluoranthene	10.15	202	103017	5.08425	ppb	99
18) Pyrene	10.76	202	104952	4.92873	ppb	96
20) Benz (a) anthracene	14.36	228	88798	4.94910	ppb	99
21) Chrysene	14.46	228	93681	4.87125	ppb	99
22) Indeno (1,2,3-cd) pyrene	20.47	276	65202	4.62149	ppb	96
24) Benzo (b) fluoranthene	17.27	252	83679	4.96445	ppb	98
25) Benzo (k) fluoranthene	17.34	252	96884	5.14794	ppb	98
26) Benzo (a) pyrene	18.03	252	80997	5.49925	ppb	99
27) Dibenz (a,h) anthracene	20.54	278	72107	5.02375	ppb	97
28) Benzo (g,h,i) perylene	20.96	276	76750	5.28564	ppb	97

Quantitation Report

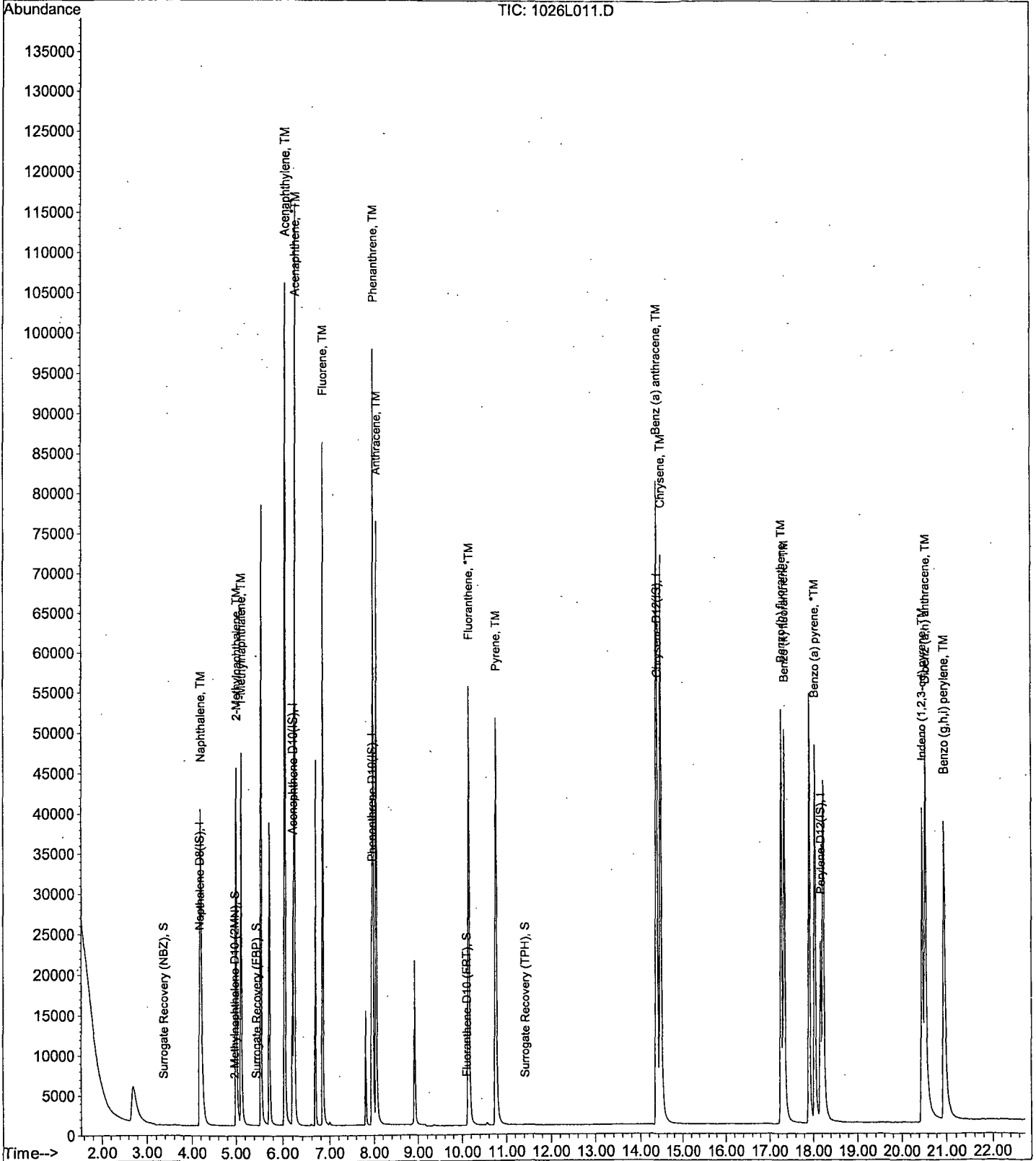
Data File : M:\LINUS\DATA\L181026\1026L011.D  
 Acq On : 26 Oct 18 16:46  
 Sample : SS SIM 10/26/18  
 Misc :

Vial: 11  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 29 8:35 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration





PAH by GCMS SIM  
EPA 8270 SIM

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Linus  
Initial Cal. Date: 10/26/18  
Data File: 1026L049.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Napthalene-D8(IS)	ISTD			I
2	S	Surrogate Recovery (NBZ)	0.3784	0.3902	3.1	S
3	TM	Napthalene	1.034	1.050	1.6	TM
4	S	2-Methylnapthalene-D10 (2MN)	1.154	1.202	4.2	S
5	TM	2-Methylnapthalene	0.6383	0.6739	5.6	TM
6	TM	1-Methylnapthalene	0.6431	0.6544	1.8	TM
7	I	Acenaphthene-D10(IS)	ISTD			I
8	S	Surrogate Recovery (FBP)	1.627	1.752	7.7	S
9	TM	Acenaphthylene	4.289	4.500	4.9	TM
10	*TM	Acenaphthene	1.306	1.322	1.2	*TM
11	TM	Fluorene	1.506	1.587	5.4	TM
12	I	Phenanthrene-D10(IS)	ISTD			I
13	TM	Phenanthrene	1.162	1.227	5.6	TM
14	TM	Anthracene	1.090	1.209	11	TM
15	S	Fluoranthene-D10 (FRT)	1.557	1.736	11	S
16	*TM	Fluoranthene	1.692	1.878	11	*TM
17	I	Chrysene-D12(IS)	ISTD			I
18	TM	Pyrene	1.275	1.334	4.6	TM
19	S	Surrogate Recovery (TPH)	0.8010	0.8043	0.41	S
20	TM	Benz (a) anthracene	1.074	1.132	5.4	TM
21	TM	Chrysene	1.151	1.165	1.2	TM
22	TML	Indeno (1,2,3-cd) pyrene	0.7396	0.8209	11	TML 3.2
23	I	Perylene-D12(IS)	ISTD			I
24	TM	Benzo (b) fluoranthene	1.075	1.138	5.9	TM
25	TM	Benzo (k) fluoranthene	1.200	1.247	3.9	TM
26	*TM	Benzo (a) pyrene	0.9390	1.057	13	*TM
27	TM	Dibenz (a,h) anthracene	0.9150	0.9319	1.8	TM
28	TM	Benzo (g,h,i) perylene	0.9257	0.9583	3.5	TM
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						

Average

5.4

Data File : M:\LINUS\DATA\L181026\1026L049.D Vial: 49  
 Acq On : 30 Oct 18 13:34 Operator: MA  
 Sample : 5 SIM 10/26/18 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Oct 30 13:01 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	4.18	136	40959	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	18522	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.94	188	35342	2.50000	ppb	0.00
17) Chrysene-D12 (IS)	14.38	240	50362	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	48183	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.36	82	15983	2.57784	ppb	0.00
Spiked Amount	5.000		Recovery	=	51.560%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	49220	2.60445	ppb	0.00
Spiked Amount	5.000		Recovery	=	52.080%	
8) Surrogate Recovery (FBP)	5.43	172	32458	2.69259	ppb	0.00
Spiked Amount	5.000		Recovery	=	53.860%	
15) Fluoranthene-D10 (FRT)	10.10	212	61339	2.78622	ppb	0.00
Spiked Amount	5.000		Recovery	=	55.720%	
19) Surrogate Recovery (TPH)	11.37	244	40505	2.51020	ppb	0.00
Spiked Amount	5.000		Recovery	=	50.200%	
Target Compounds						
3) Napthalene	4.20	128	85996	5.07826	ppb	99
5) 2-Methylnaphthalene	5.00	142	55201	5.27831	ppb	99
6) 1-Methylnaphthalene	5.11	142	53609	5.08814	ppb	100
9) Acenaphthylene	6.04	152	166699	5.24656	ppb	100
10) Acenaphthene	6.24	154	48963	5.06073	ppb	100
11) Fluorene	6.84	166	58784	5.26813	ppb	100
13) Phenanthrene	7.98	178	86719	5.27925	ppb	100
14) Anthracene	8.05	178	85476	5.54479	ppb	100
16) Fluoranthene	10.15	202	132757	5.55073	ppb	95
18) Pyrene	10.76	202	134327	5.23164	ppb	100
20) Benz (a) anthracene	14.36	228	114041	5.27126	ppb	99
21) Chrysene	14.46	228	117381	5.06194	ppb	100
22) Indeno (1,2,3-cd) pyrene	20.47	276	82689	4.84019	ppb	95
24) Benzo (b) fluoranthene	17.27	252	109711	5.29740	ppb	99
25) Benzo (k) fluoranthene	17.34	252	120139	5.19546	ppb	100
26) Benzo (a) pyrene	18.03	252	101883	5.62982	ppb	100
27) Dibenz (a,h) anthracene	20.54	278	89804	5.09219	ppb	98
28) Benzo (g,h,i) perylene	20.96	276	92344	5.17591	ppb	99

Quantitation Report

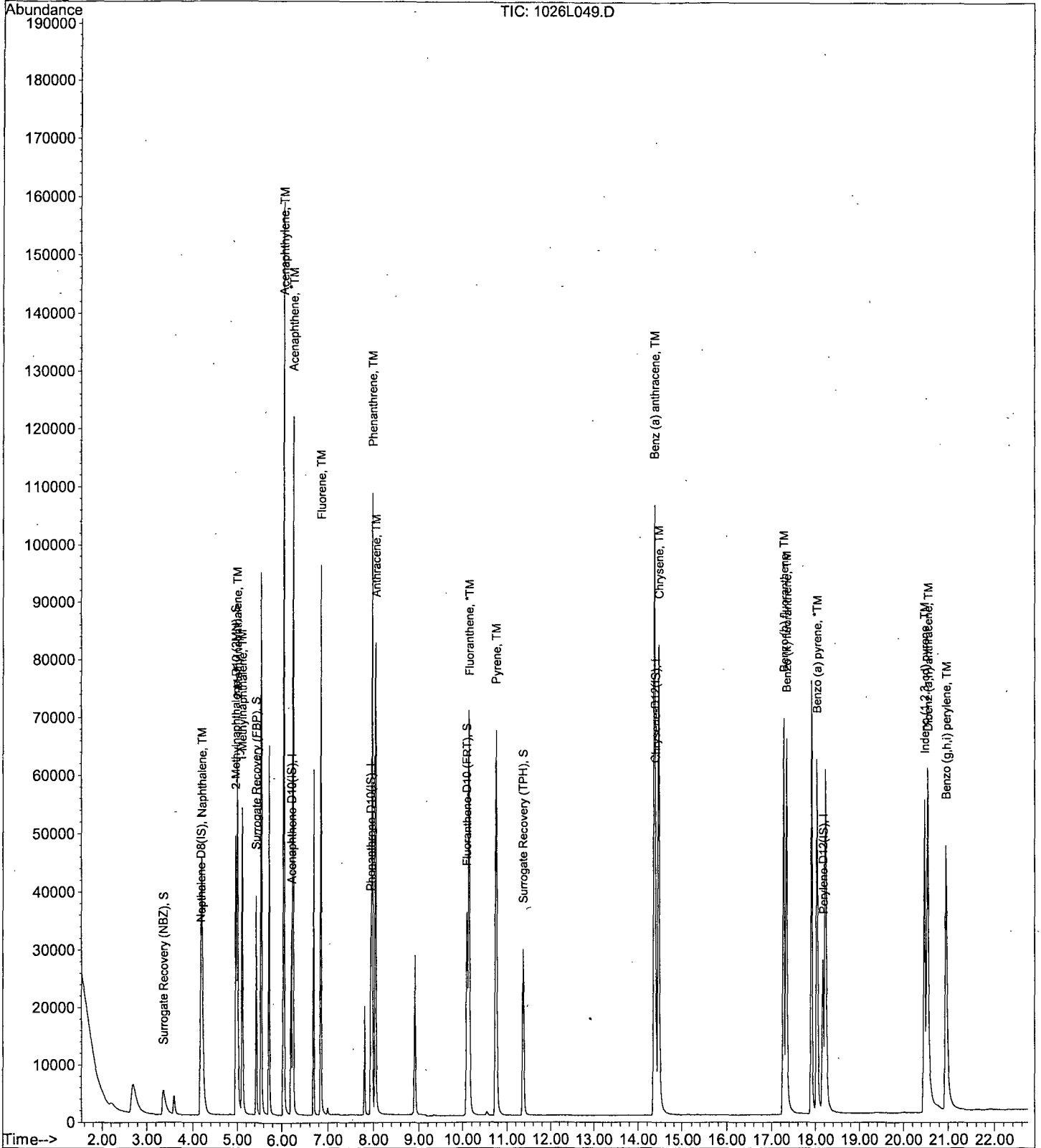
Data File : M:\LINUS\DATA\L181026\1026L049.D  
Acq On : 30 Oct 18 13:34  
Sample : 5 SIM 10/26/18  
Misc :

Vial: 49  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 30 13:01 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



PAH by GCMS SIM  
EPA 8270 SIM

Form 7

Ending Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Linus  
Initial Cal. Date: 10/26/18  
Data File: 1026L064.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Napthalene-D8(IS)	ISTD			I
2	S	Surrogate Recovery (NBZ)	0.3784	0.3956	4.5	S
3	TM	Naphthalene	1.034	1.053	1.8	TM
4	S	2-Methylnaphthalene-D10 (2MN)	1.154	1.215	5.3	S
5	TM	2-Methylnaphthalene	0.6383	0.6802	6.6	TM
6	TM	1-Methylnaphthalene	0.6431	0.6653	3.5	TM
7	I	Acenaphthene-D10(IS)	ISTD			I
8	S	Surrogate Recovery (FBP)	1.627	1.719	5.7	S
9	TM	Acenaphthylene	4.289	4.550	6.1	TM
10	*TM	Acenaphthene	1.306	1.329	1.8	*TM
11	TM	Fluorene	1.506	1.610	6.9	TM
12	I	Phenanthrene-D10(IS)	ISTD			I
13	TM	Phenanthrene	1.162	1.212	4.3	TM
14	TM	Anthracene	1.090	1.197	9.8	TM
15	S	Fluoranthene-D10 (FRT)	1.557	1.743	12	S
16	*TM	Fluoranthene	1.692	1.847	9.2	*TM
17	I	Chrysene-D12(IS)	ISTD			I
18	TM	Pyrene	1.275	1.348	5.7	TM
19	S	Surrogate Recovery (TPH)	0.8010	0.8280	3.4	S
20	TM	Benz (a) anthracene	1.074	1.157	7.7	TM
21	TM	Chrysene	1.151	1.167	1.4	TM
22	TML	Indeno (1,2,3-cd) pyrene	0.7396	0.8423	14	TML 0.89
23	I	Perylene-D12(IS)	ISTD			I
24	TM	Benzo (b) fluoranthene	1.075	1.177	9.5	TM
25	TM	Benzo (k) fluoranthene	1.200	1.222	1.8	TM
26	*TM	Benzo (a) pyrene	0.9390	1.069	14	*TM
27	TM	Dibenz (a,h) anthracene	0.9150	0.9386	2.6	TM
28	TM	Benzo (g,h,i) perylene	0.9257	0.9481	2.4	TM
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						

Average

6.1

Data File : M:\LINUS\DATA\L181026\1026L064.D  
 Acq On : 30 Oct 18 21:56  
 Sample : 5 SIM 10/26/18  
 Misc :

Vial: 64  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 31 8:18 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	41160	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	18890	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.94	188	36421	2.50000	ppb	0.00
17) Chrysene-D12 (IS)	14.37	240	50955	2.50000	ppb	-0.01
23) Perylene-D12 (IS)	18.16	264	48456	2.50000	ppb	-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.36	82	16284	2.61356	ppb	0.00
Spiked Amount	5.000		Recovery	=	52.280%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	49995	2.63254	ppb	0.00
Spiked Amount	5.000		Recovery	=	52.660%	
8) Surrogate Recovery (FBP)	5.43	172	32475	2.64152	ppb	0.00
Spiked Amount	5.000		Recovery	=	52.840%	
15) Fluoranthene-D10 (FRT)	10.10	212	63466	2.79743	ppb	0.00
Spiked Amount	5.000		Recovery	=	55.940%	
19) Surrogate Recovery (TPH)	11.37	244	42189	2.58414	ppb	0.00
Spiked Amount	5.000		Recovery	=	51.680%	
Target Compounds						
3) Naphthalene	4.20	128	86658	5.09236	ppb	100
5) 2-Methylnaphthalene	5.00	142	55991	5.32771	ppb	99
6) 1-Methylnaphthalene	5.11	142	54766	5.17257	ppb	100
9) Acenaphthylene	6.04	152	171899	5.30482	ppb	100
10) Acenaphthene	6.24	154	50224	5.08993	ppb	100
11) Fluorene	6.84	166	60829	5.34520	ppb	99
13) Phenanthrene	7.98	178	88302	5.21636	ppb	100
14) Anthracene	8.04	178	87225	5.49062	ppb	98
16) Fluoranthene	10.14	202	134575	5.46005	ppb	99
18) Pyrene	10.76	202	137325	5.28616	ppb	100
20) Benz (a) anthracene	14.36	228	117924	5.38730	ppb	100
21) Chrysene	14.45	228	118915	5.06841	ppb	98
22) Indeno (1,2,3-cd) pyrene	20.47	276	85836	4.95563	ppb	96
24) Benzo (b) fluoranthene	17.26	252	114048	5.47579	ppb	# 98
25) Benzo (k) fluoranthene	17.34	252	118418	5.09218	ppb	99
26) Benzo (a) pyrene	18.03	252	103583	5.69151	ppb	99
27) Dibenz (a,h) anthracene	20.53	278	90960	5.12868	ppb	96
28) Benzo (g,h,i) perylene	20.96	276	91879	5.12083	ppb	99

Quantitation Report

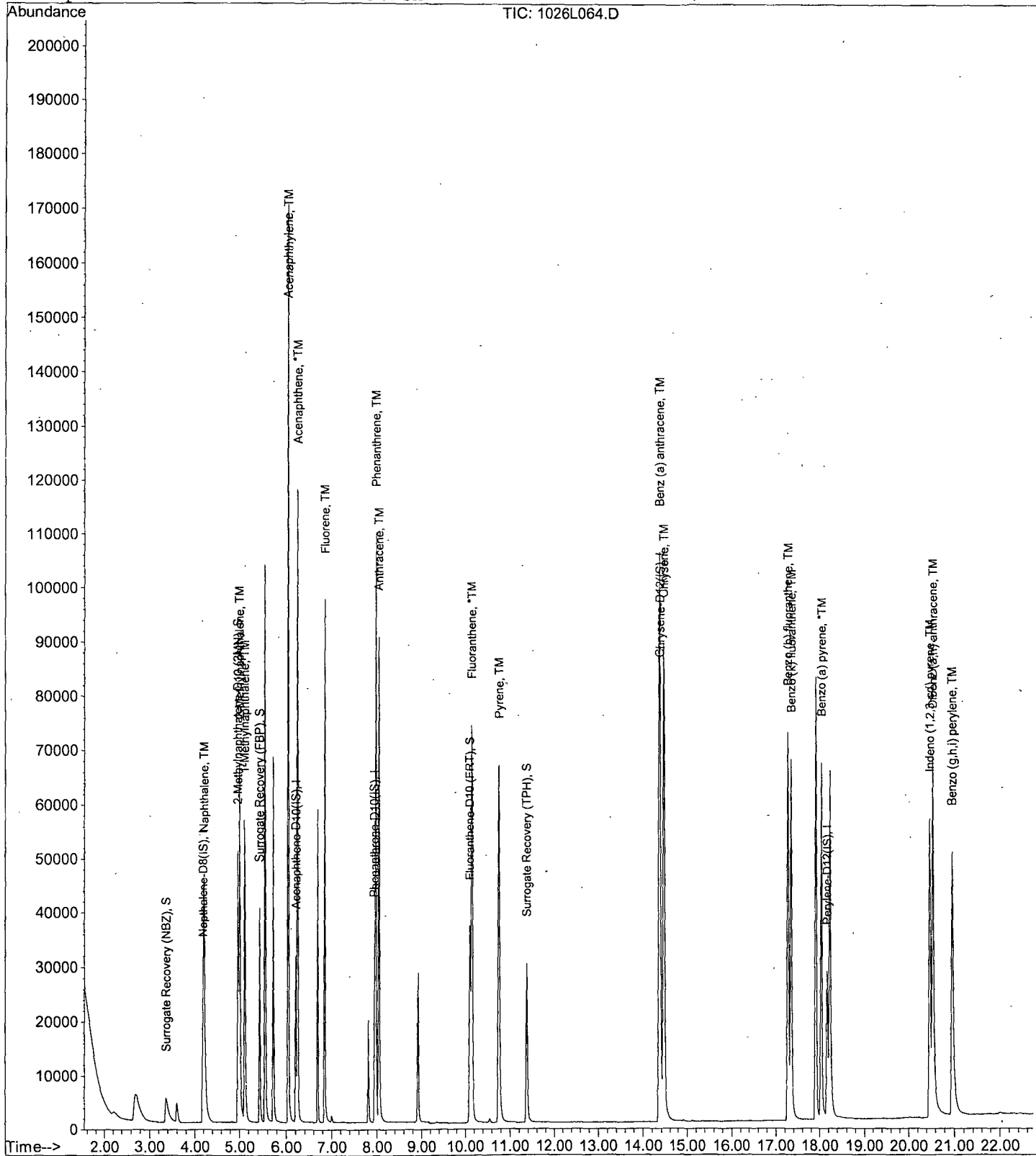
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Acq On : 30 Oct 18 21:56  
Sample : 5 SIM 10/26/18  
Misc :

Vial: 64  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 31 8:18 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : M:\LINUS\DATA\L181026\1026L059.D Vial: 59  
 Acq On : 30 Oct 18 19:31 Operator: MA  
 Sample : AZ81636W12 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 1 13:28 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	4.18	136	33248	2.5000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	15414	2.5000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	29484	2.5000	ppb	0.01
17) Chrysene-D12 (IS)	14.39	240	40648	2.5000	ppb	0.01
23) Perylene-D12 (IS)	18.18	264	39879	2.5000	ppb	0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	3.35	82	469414	116.5861	ppb	-0.01
Spiked Amount	6.250					
					Recovery = 1865.376%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	71591	5.8335	ppb	0.00
Spiked Amount	6.250					
					Recovery = 93.328%	
8) Surrogate Recovery (FBP)	5.44	172	756952	94.3190	ppb	0.01
Spiked Amount	6.250					
					Recovery = 1509.104%	
15) Fluoranthene-D10 (FRT)	10.10	212	95128	6.4744	ppb	0.00
Spiked Amount	6.250					
					Recovery = 103.584%	
19) Surrogate Recovery (TPH)	11.41	244	1040205	99.8373	ppb	0.04
Spiked Amount	6.250					
					Recovery = 1597.392%	

Target Compounds Qvalue



Quantitation Report

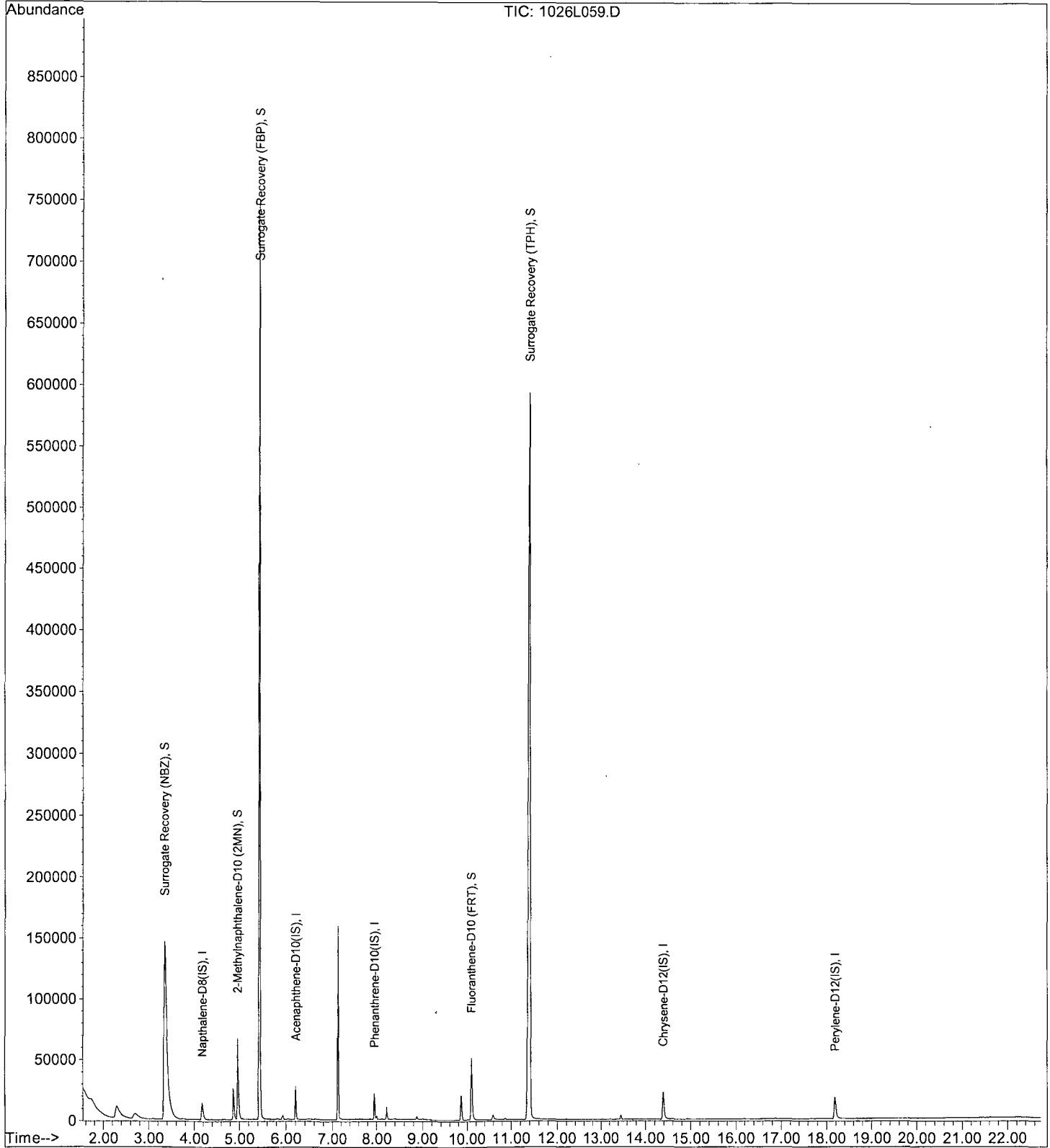
Data File : M:\LINUS\DATA\L181026\1026L059.D  
Acq On : 30 Oct 18 19:31  
Sample : AZ81636W12 1/800  
Misc :

Vial: 59  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 1 13:28 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L060.D Vial: 60  
 Acq On : 30 Oct 18 20:00 Operator: MA  
 Sample : AZ81638W09 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 2 11:37 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	31250	2.5000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	14911	2.5000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	26796	2.5000	ppb	0.01
17) Chrysene-D12 (IS)	14.39	240	39768	2.5000	ppb	0.01
23) Perylene-D12 (IS)	18.18	264	39472	2.5000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.36	82	459479	121.4149	ppb	0.00
Spiked Amount	6.250		Recovery	=	1942.640%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	70798	6.1377	ppb	0.00
Spiked Amount	6.250		Recovery	=	98.208%	
8) Surrogate Recovery (FBP)	5.44	172	715842	92.2055	ppb	0.01
Spiked Amount	6.250		Recovery	=	1475.280%	
15) Fluoranthene-D10 (FRT)	10.11	212	90152	6.7513	ppb	0.01
Spiked Amount	6.250		Recovery	=	108.016%	
19) Surrogate Recovery (TPH)	11.41	244	989180	97.0409	ppb	0.04
Spiked Amount	6.250		Recovery	=	1552.656%	
Target Compounds						
3) Naphthalene	4.20	128	508528	49.1995	ppb	97
5) 2-Methylnaphthalene	5.00	142	117563	18.4174	ppb	99
6) 1-Methylnaphthalene	5.12	142	127866	19.8832	ppb	97

Quantitation Report

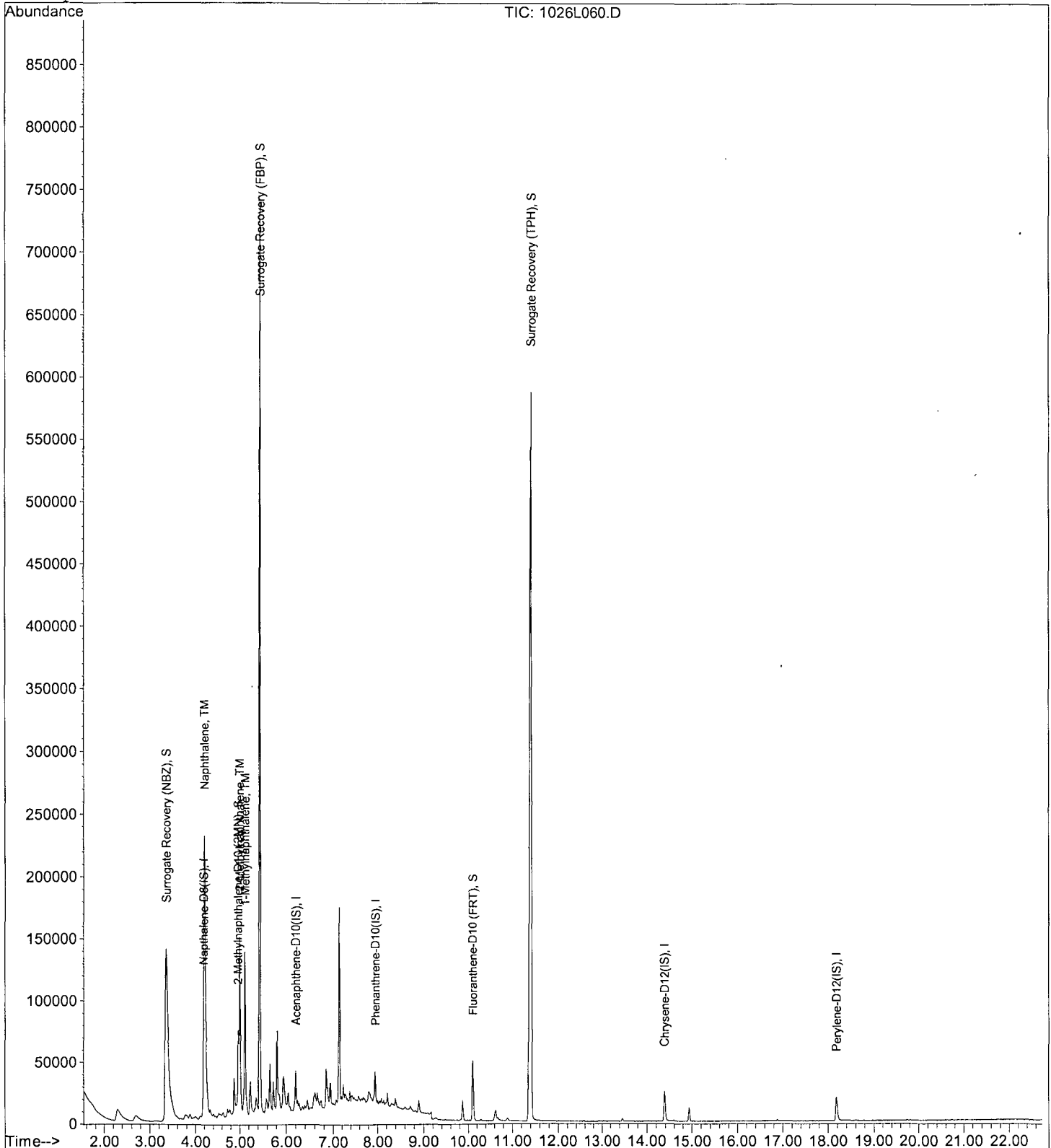
Data File : M:\LINUS\DATA\L181026\1026L060.D  
Acq On : 30 Oct 18 20:00  
Sample : AZ81638W09 1/800  
Misc :

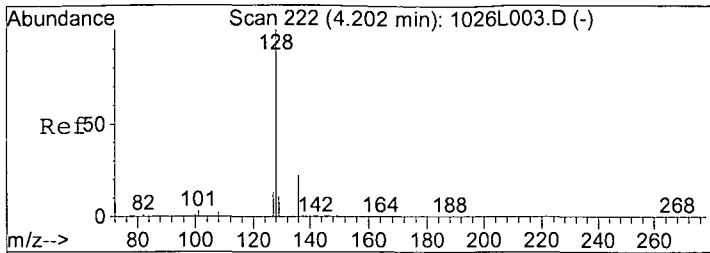
Vial: 60  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 2 11:37 2018

Quant Results File: L1026.RES

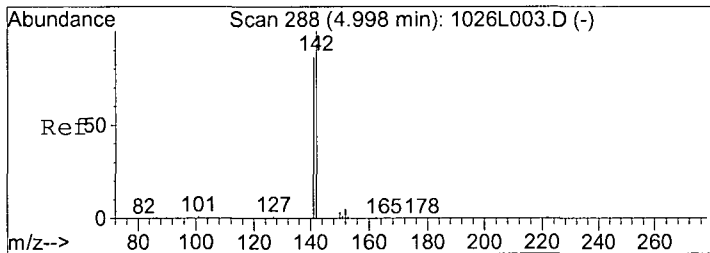
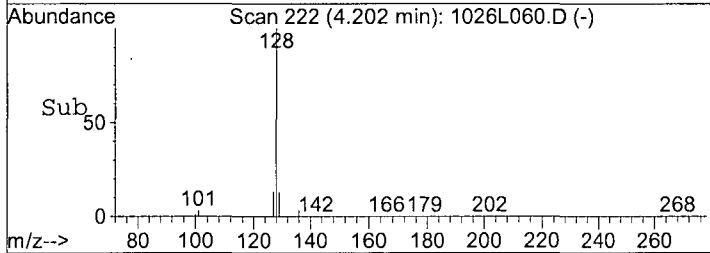
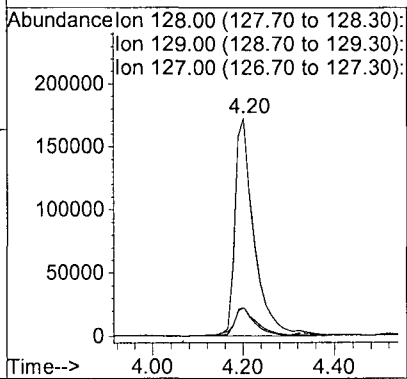
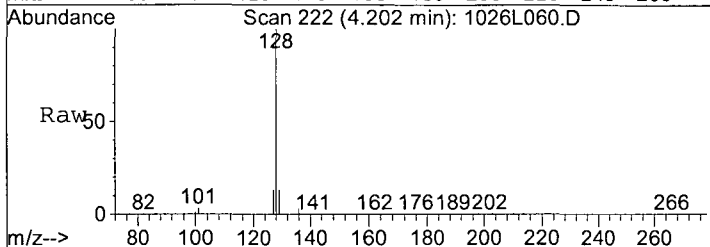
Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration





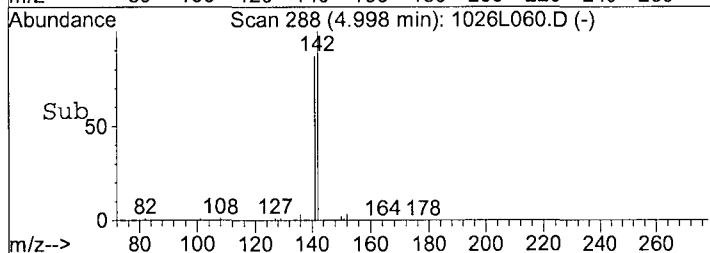
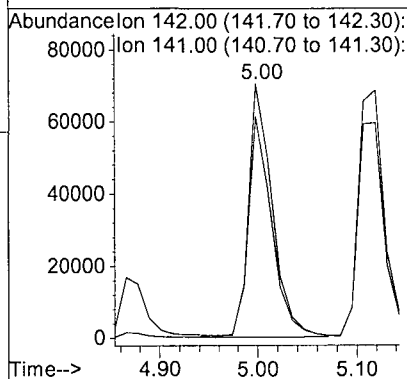
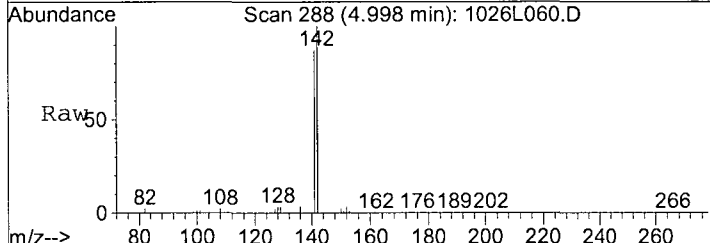
#3  
 Naphthalene  
 Concen: 49.1995 ppb  
 RT: 4.20 min Scan# 222  
 Delta R.T. 0.00 min  
 Lab File: 1026L060.D  
 Acq: 30 Oct 18 20:00

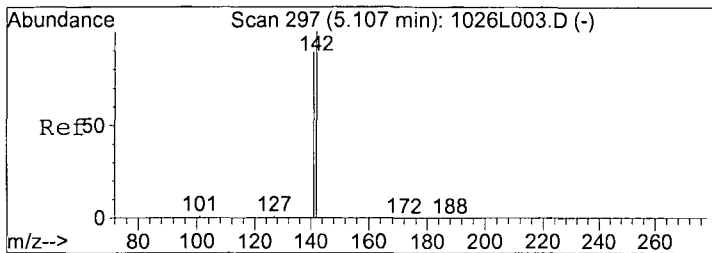
Tgt Ion	Resp	Lower	Upper
128	508528		
128	100		
129	13.0	7.8	14.6
127	13.1	8.8	16.4



#5  
 2-Methylnaphthalene  
 Concen: 18.4174 ppb  
 RT: 5.00 min Scan# 288  
 Delta R.T. 0.00 min  
 Lab File: 1026L060.D  
 Acq: 30 Oct 18 20:00

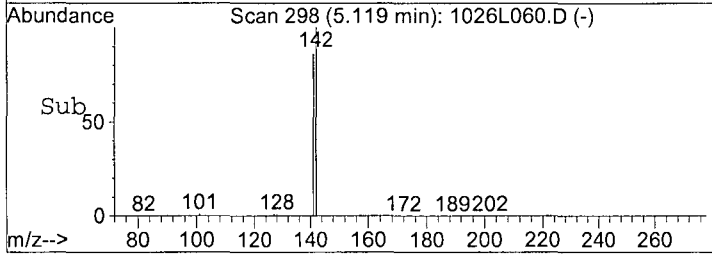
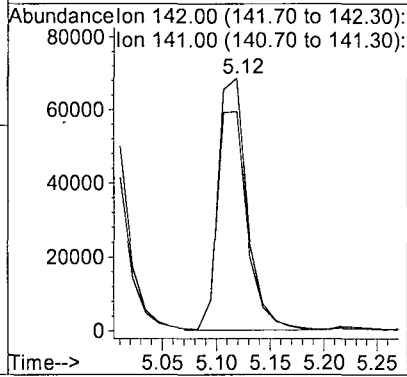
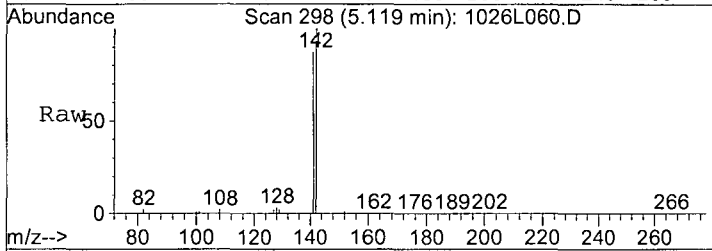
Tgt Ion	Resp	Lower	Upper
142	117563		
142	100		
141	86.3	59.9	111.2





#6  
 1-Methylnaphthalene  
 Concen: 19.8832 ppb  
 RT: 5.12 min Scan# 298  
 Delta R.T. 0.01 min  
 Lab File: 1026L060.D  
 Acq: 30 Oct 18 20:00

Tgt Ion: 142 Resp: 127866  
 Ion Ratio Lower Upper  
 142 100  
 141 86.4 62.6 116.2



Data File : M:\LINUS\DATA\L181026\1026L061.D Vial: 61  
 Acq On : 30 Oct 18 20:29 Operator: MA  
 Sample : AZ81640W10 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 2 11:36 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	31619	2.5000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	14712	2.5000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	26231	2.5000	ppb	0.01
17) Chrysene-D12 (IS)	14.39	240	39172	2.5000	ppb	0.01
23) Perylene-D12 (IS)	18.17	264	38655	2.5000	ppb	0.00
<b>System Monitoring Compounds</b>						
2) Surrogate Recovery (NBZ)	3.35	82	467260	122.0301	ppb	-0.01
Spiked Amount	6.250		Recovery	= 1952.480%		
4) 2-Methylnaphthalene-D10 (2)	4.96	152	70169	6.0122	ppb	0.00
Spiked Amount	6.250		Recovery	= 96.192%		
8) Surrogate Recovery (FBP)	5.44	172	724127	94.5343	ppb	0.01
Spiked Amount	6.250		Recovery	= 1512.544%		
15) Fluoranthene-D10 (FRT)	10.11	212	89344	6.8349	ppb	0.01
Spiked Amount	6.250		Recovery	= 109.360%		
19) Surrogate Recovery (TPH)	11.41	244	993593	98.9568	ppb	0.04
Spiked Amount	6.250		Recovery	= 1583.312%		
<b>Target Compounds</b>						
3) Naphthalene	4.20	128	532897	50.9555	ppb	97
5) 2-Methylnaphthalene	5.00	142	128776	19.9386	ppb	100
6) 1-Methylnaphthalene	5.11	142	136891	21.0382	ppb	100

Quantitation Report

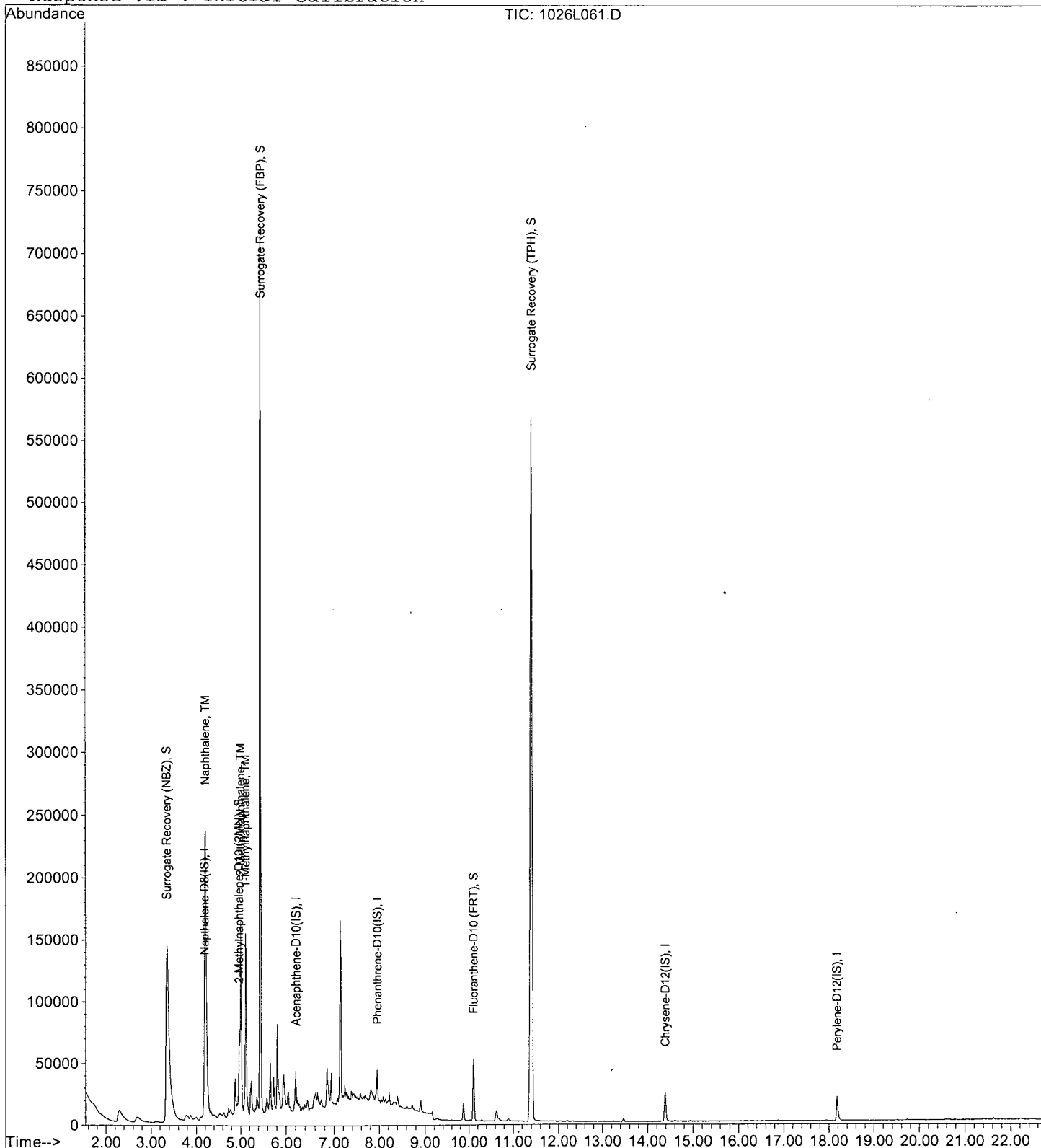
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Acq On : 30 Oct 18 20:29  
Sample : AZ81640W10 1/800  
Misc :

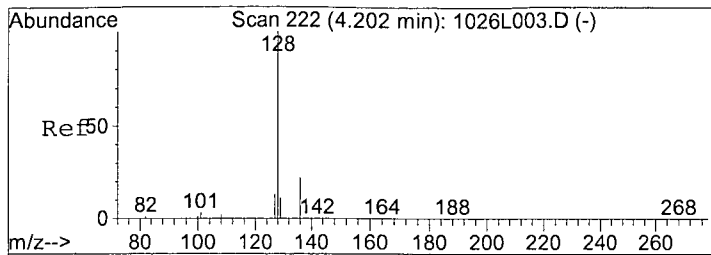
Vial: 61  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 2 11:36 2018

Quant Results File: L1026.RES

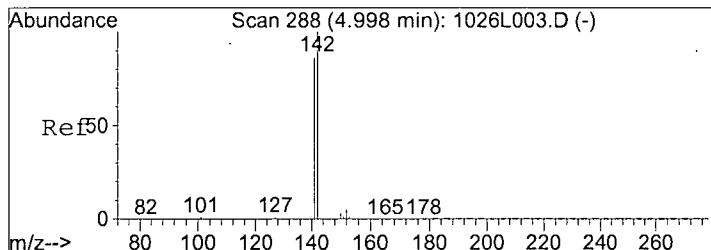
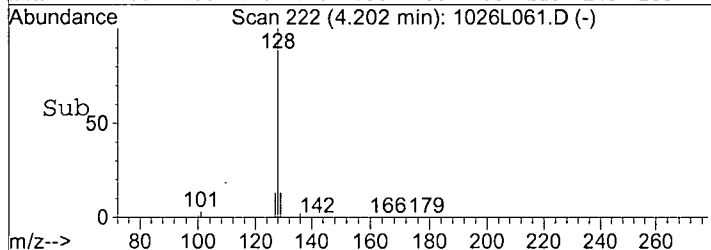
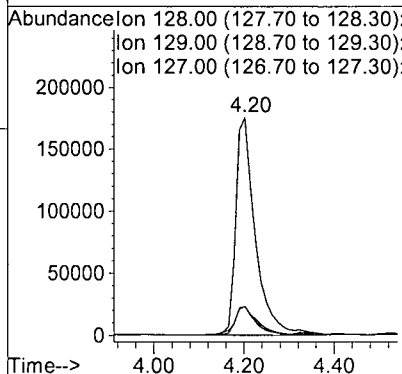
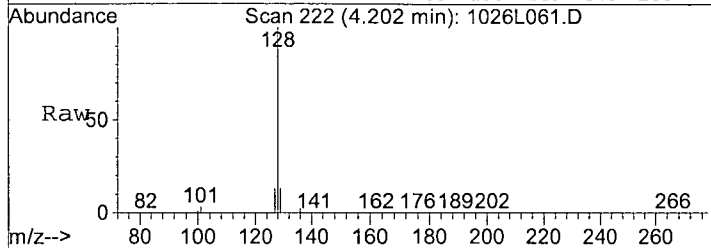
Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration





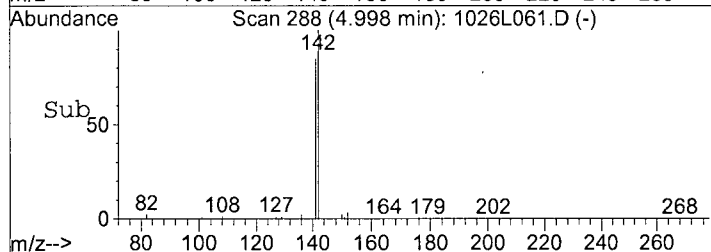
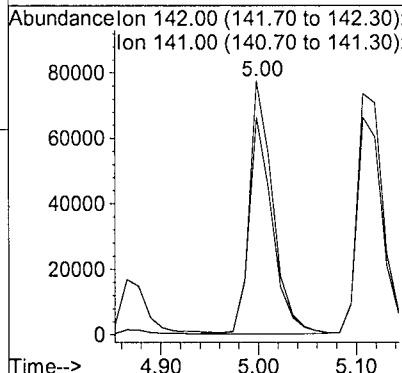
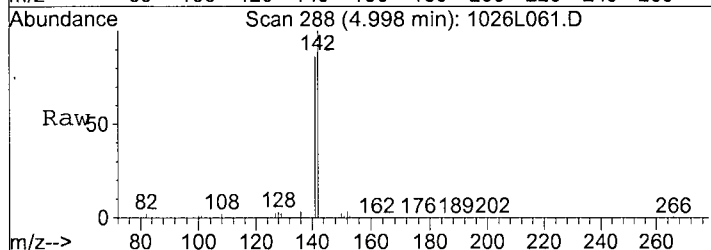
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 Naphthalene  
 Concen: 50.9555 ppb  
 RT: 4.20 min Scan# 222  
 Delta R.T. 0.00 min  
 Lab File: 1026L061.D  
 Acq: 30 Oct 18 20:29

Tgt Ion	Resp	Lower	Upper
128	532897		
129	13.1	7.8	14.6
127	13.1	8.8	16.4

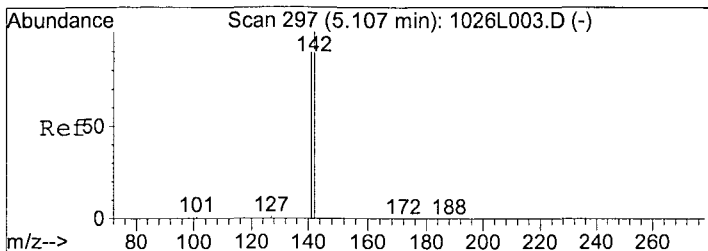


#5  
 2-Methylnaphthalene  
 Concen: 19.9386 ppb  
 RT: 5.00 min Scan# 288  
 Delta R.T. 0.00 min  
 Lab File: 1026L061.D  
 Acq: 30 Oct 18 20:29

Tgt Ion	Resp	Lower	Upper
142	128776		
141	85.1	59.9	111.2

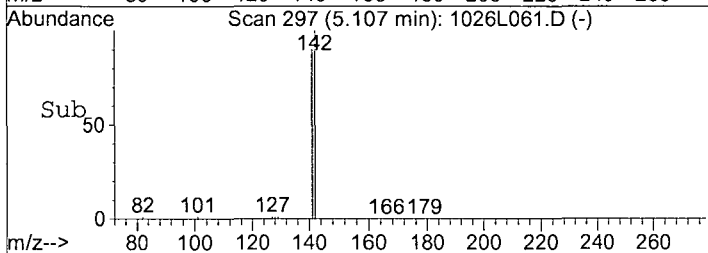
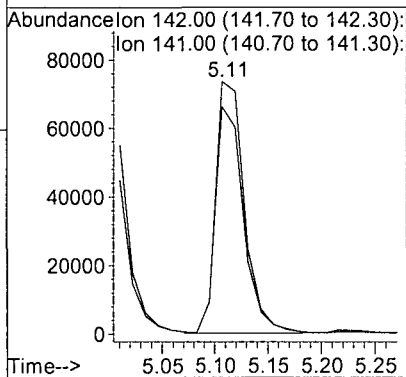
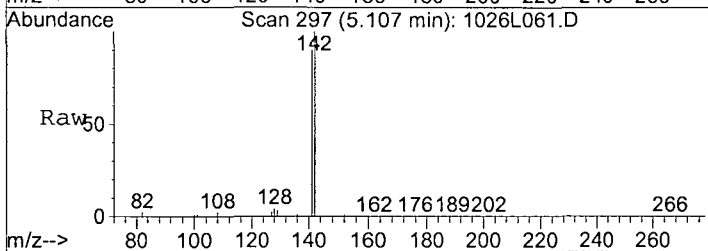






#6  
 1-Methylnaphthalene  
 Concen: 21.0382 ppb  
 RT: 5.11 min Scan# 297  
 Delta R.T. 0.00 min  
 Lab File: 1026L061.D  
 Acq: 30 Oct 18 20:29

Tgt Ion: 142 Resp: 136891  
 Ion Ratio Lower Upper  
 142 100  
 141 89.7 62.6 116.2



Data File : M:\LINUS\DATA\L181026\1026L062.D Vial: 62  
 Acq On : 30 Oct 18 20:58 Operator: MA  
 Sample : AZ81642W11 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 1 13:30 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	4.18	136	32584	2.5000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	15027	2.5000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	28179	2.5000	ppb	0.01
17) Chrysene-D12 (IS)	14.38	240	39313	2.5000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	38873	2.5000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	3.35	82	466276	118.1667	ppb	-0.01
Spiked Amount	6.250					
Recovery					= 1890.672%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	70689	5.8773	ppb	0.00
Spiked Amount	6.250					
Recovery					= 94.032%	
8) Surrogate Recovery (FBP)	5.43	172	747564	95.5482	ppb	0.00
Spiked Amount	6.250					
Recovery					= 1528.768%	
15) Fluoranthene-D10 (FRT)	10.10	212	93805	6.6801	ppb	0.00
Spiked Amount	6.250					
Recovery					= 106.880%	
19) Surrogate Recovery (TPH)	11.41	244	1032534	102.4663	ppb	0.04
Spiked Amount	6.250					
Recovery					= 1639.456%	

Target Compounds Qvalue

Quantitation Report

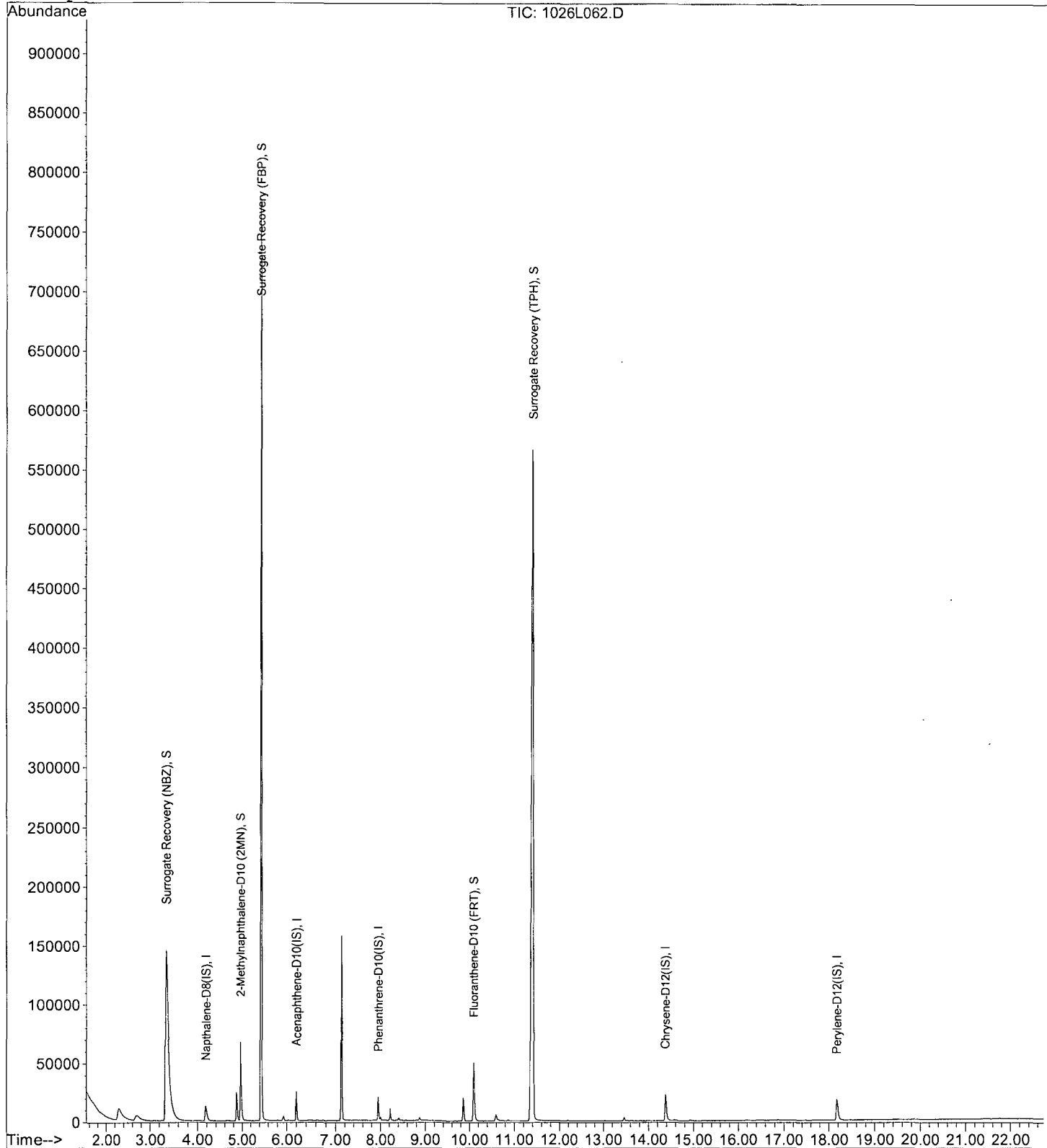
Data File : M:\LINUS\DATA\L181026\1026L062.D  
Acq On : 30 Oct 18 20:58  
Sample : AZ81642W11 1/800  
Misc :

Vial: 62  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 1 13:30 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L063.D Vial: 63  
 Acq On : 30 Oct 18 21:27 Operator: MA  
 Sample : AZ81644W12 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 1 13:30 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	4.18	136	33240	2.5000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	15382	2.5000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.94	188	28999	2.5000	ppb	0.00
17) Chrysene-D12 (IS)	14.38	240	40252	2.5000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	39259	2.5000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	3.35	82	471021	117.0134	ppb	-0.01
Spiked Amount	6.250					
			Recovery	= 1872.208%		
4) 2-Methylnaphthalene-D10 (2)	4.96	152	68112	5.5513	ppb	0.00
Spiked Amount	6.250					
			Recovery	= 88.816%		
8) Surrogate Recovery (FBP)	5.43	172	760119	94.9107	ppb	0.00
Spiked Amount	6.250					
			Recovery	= 1518.576%		
15) Fluoranthene-D10 (FRT)	10.10	212	94426	6.5342	ppb	0.00
Spiked Amount	6.250					
			Recovery	= 104.544%		
19) Surrogate Recovery (TPH)	11.40	244	1033013	100.1224	ppb	0.03
Spiked Amount	6.250					
			Recovery	= 1601.952%		

Target Compounds Qvalue

Quantitation Report

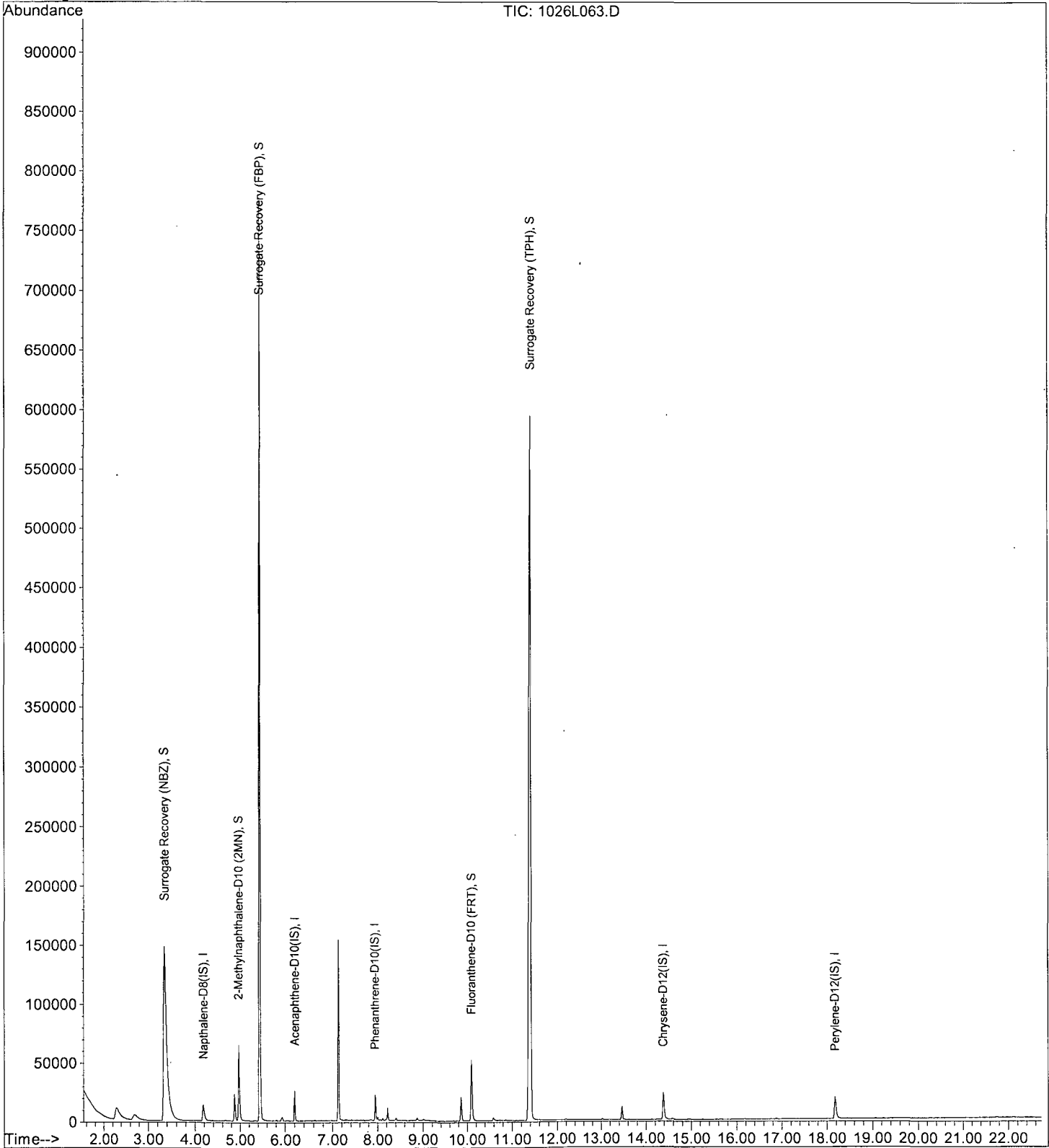
Data File : M:\LINUS\DATA\L181026\1026L063.D  
Acq On : 30 Oct 18 21:27  
Sample : AZ81644W12 1/800  
Misc :

Vial: 63  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 1 13:30 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L051.D Vial: 51  
 Acq On : 30 Oct 18 14:32 Operator: MA  
 Sample : 181024A BLK 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 1 13:03 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	4.18	136	29869	2.5000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	13534	2.5000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	24672	2.5000	ppb	0.01
17) Chrysene-D12 (IS)	14.39	240	34458	2.5000	ppb	0.01
23) Perylene-D12 (IS)	18.20	264	33072	2.5000	ppb	0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	3.35	82	439103	121.3954	ppb	-0.01
Spiked Amount	6.250					
					Recovery = 1942.320%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	63949	5.8002	ppb	0.00
Spiked Amount	6.250					
					Recovery = 92.800%	
8) Surrogate Recovery (FBP)	5.43	172	710716	100.8593	ppb	0.00
Spiked Amount	6.250					
					Recovery = 1613.744%	
15) Fluoranthene-D10 (FRT)	10.11	212	85360	6.9427	ppb	0.01
Spiked Amount	6.250					
					Recovery = 111.088%	
19) Surrogate Recovery (TPH)	11.41	244	924554	104.6780	ppb	0.04
Spiked Amount	6.250					
					Recovery = 1674.848%	

Target Compounds Qvalue

Quantitation Report

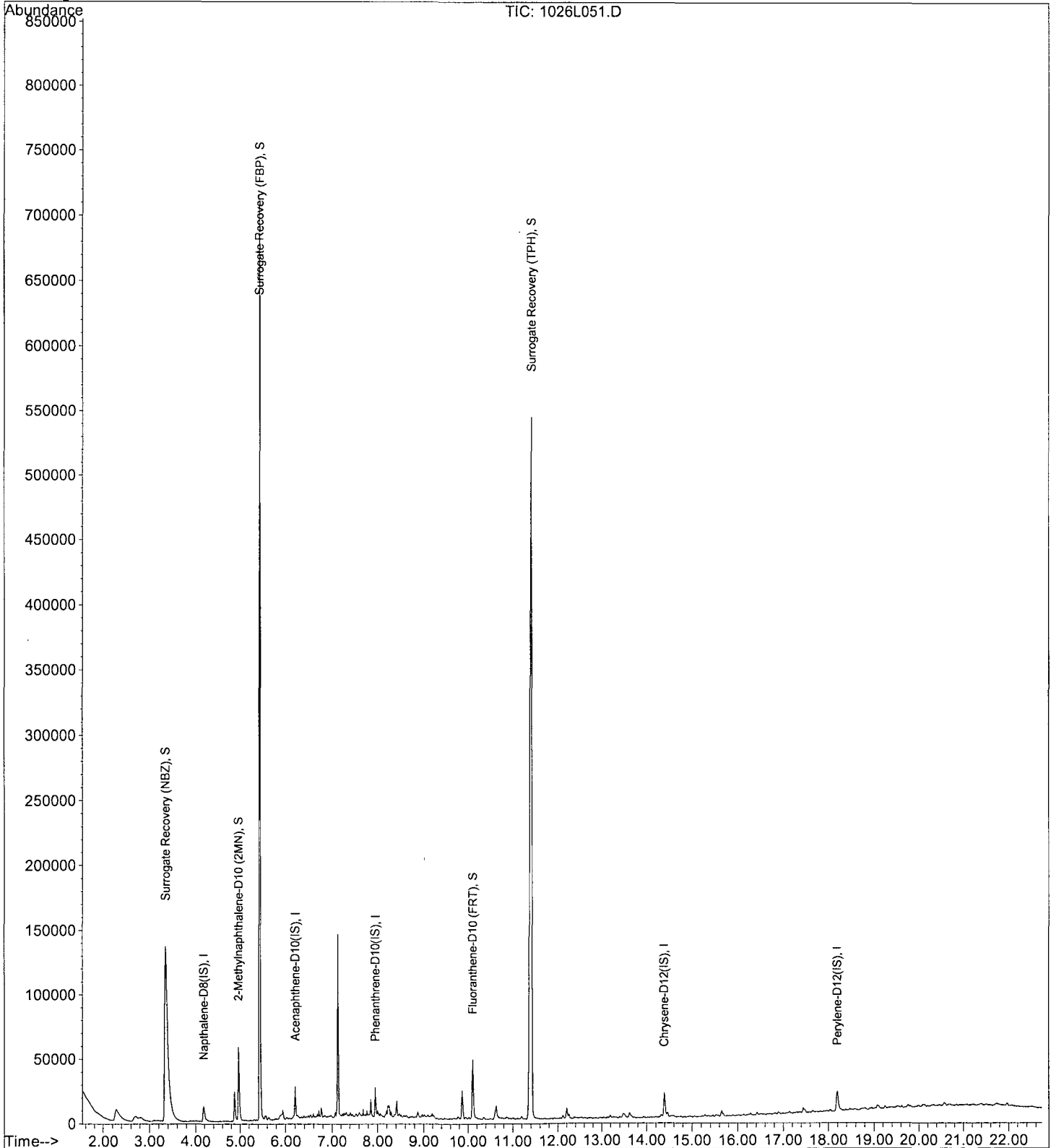
Data File : M:\LINUS\DATA\L181026\1026L051.D  
Acq On : 30 Oct 18 14:32  
Sample : 181024A BLK 1/800  
Misc :

Vial: 51  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 1 13:03 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L052.D Vial: 52  
 Acq On : 30 Oct 18 16:06 Operator: MA  
 Sample : 181024A LCS-2 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Oct 30 15:42 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	35876	2.5000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	16388	2.5000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	30672	2.5000	ppb	0.01
17) Chrysene-D12 (IS)	14.39	240	42403	2.5000	ppb	0.01
23) Perylene-D12 (IS)	18.18	264	40476	2.5000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.36	82	85	0.0196	ppb	0.00
Spiked Amount	6.250		Recovery	=	0.320%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	63912	4.8263	ppb	0.00
Spiked Amount	6.250		Recovery	=	77.216%	
8) Surrogate Recovery (FBP)	5.44	172	38	0.0045	ppb	0.01
Spiked Amount	6.250		Recovery	=	0.064%	
15) Fluoranthene-D10 (FRT)	10.11	212	88872	5.8144	ppb	0.01
Spiked Amount	6.250		Recovery	=	93.024%	
19) Surrogate Recovery (TPH)	11.40	244	299	0.0275	ppb	0.03
Spiked Amount	6.250		Recovery	=	0.448%	
Target Compounds						
3) Naphthalene	4.20	128	66680	5.6194	ppb	99
5) 2-Methylnaphthalene	5.01	142	43196	5.8945	ppb	95
6) 1-Methylnaphthalene	5.12	142	40997	5.5530	ppb	97
9) Acenaphthylene	6.05	152	135865	6.0412	ppb	98
10) Acenaphthene	6.24	154	42159	6.1561	ppb	97
11) Fluorene	6.84	166	50104	6.3437	ppb	98
13) Phenanthrene	7.98	178	70503	6.1819	ppb	99
14) Anthracene	8.05	178	64942	6.0677	ppb	99
16) Fluoranthene	10.15	202	106606	6.4200	ppb	99
18) Pyrene	10.77	202	108039	6.2470	ppb	99
20) Benz (a) anthracene	14.37	228	94273	6.4693	ppb	100
21) Chrysene	14.46	228	95202	6.0951	ppb	98
22) Indeno (1,2,3-cd) pyrene	20.48	276	67658	5.8936	ppb	# 100
24) Benzo (b) fluoranthene	17.28	252	89027	6.3965	ppb	99
25) Benzo (k) fluoranthene	17.35	252	94418	6.0758	ppb	100
26) Benzo (a) pyrene	18.04	252	80872	6.6496	ppb	99
27) Dibenz (a,h) anthracene	20.55	278	73405	6.1936	ppb	99
28) Benzo (g,h,i) perylene	20.97	276	75452	6.2930	ppb	98



Quantitation Report

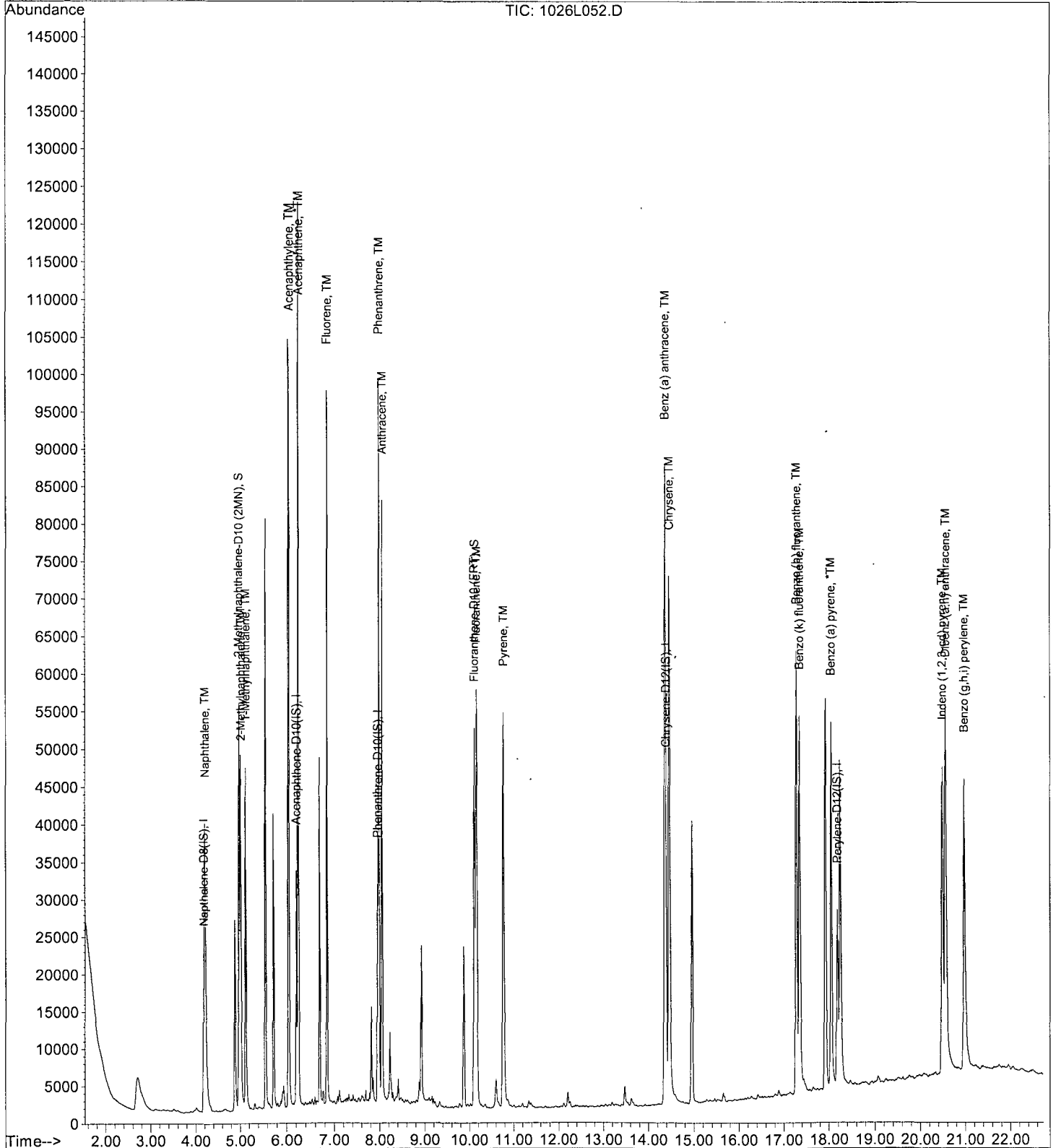
Data File : M:\LINUS\DATA\L181026\1026L052.D  
Acq On : 30 Oct 18 16:06  
Sample : 181024A LCS-2 1/800  
Misc :

Vial: 52  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Oct 30 15:42 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L053.D Vial: 53  
 Acq On : 30 Oct 18 16:36 Operator: MA  
 Sample : 181024A LCSD-2 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Oct 30 16:14 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	35177	2.5000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.20	164	15896	2.5000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	30177	2.5000	ppb	0.01
17) Chrysene-D12 (IS)	14.38	240	41298	2.5000	ppb	0.00
23) Perylene-D12 (IS)	18.18	264	40486	2.5000	ppb	0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	3.33	82	152	0.0357	ppb	-0.02
Spiked Amount	6.250		Recovery	=	0.576%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	61322	4.7227	ppb	0.00
Spiked Amount	6.250		Recovery	=	75.568%	
8) Surrogate Recovery (FBP)	5.37	172	31	0.0037	ppb	-0.06
Spiked Amount	6.250		Recovery	=	0.064%	
15) Fluoranthene-D10 (FRT)	10.10	212	85809	5.7061	ppb	0.00
Spiked Amount	6.250		Recovery	=	91.296%	
19) Surrogate Recovery (TPH)	11.39	244	227	0.0214	ppb	0.02
Spiked Amount	6.250		Recovery	=	0.336%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	4.20	128	63406	5.4496	ppb	100
5) 2-Methylnaphthalene	5.00	142	40244	5.6008	ppb	100
6) 1-Methylnaphthalene	5.12	142	38730	5.3502	ppb	96
9) Acenaphthylene	6.04	152	116848	5.3564	ppb	100
10) Acenaphthene	6.24	154	39492	5.9452	ppb	98
11) Fluorene	6.84	166	47682	6.2239	ppb	100
13) Phenanthrene	7.98	178	66882	5.9606	ppb	99
14) Anthracene	8.05	178	58741	5.5784	ppb	99
16) Fluoranthene	10.15	202	102577	6.2787	ppb	98
18) Pyrene	10.76	202	103077	6.1196	ppb	97
20) Benz (a) anthracene	14.36	228	88856	6.2607	ppb	99
21) Chrysene	14.46	228	91243	5.9979	ppb	99
22) Indeno (1,2,3-cd) pyrene	20.48	276	62462	5.6124	ppb	# 97
24) Benzo (b) fluoranthene	17.28	252	84579	6.0754	ppb	99
25) Benzo (k) fluoranthene	17.35	252	92137	5.9275	ppb	100
26) Benzo (a) pyrene	18.05	252	71995	5.9183	ppb	98
27) Dibenz (a,h) anthracene	20.55	278	71203	6.0063	ppb	99
28) Benzo (g,h,i) perylene	20.97	276	73311	6.1129	ppb	98

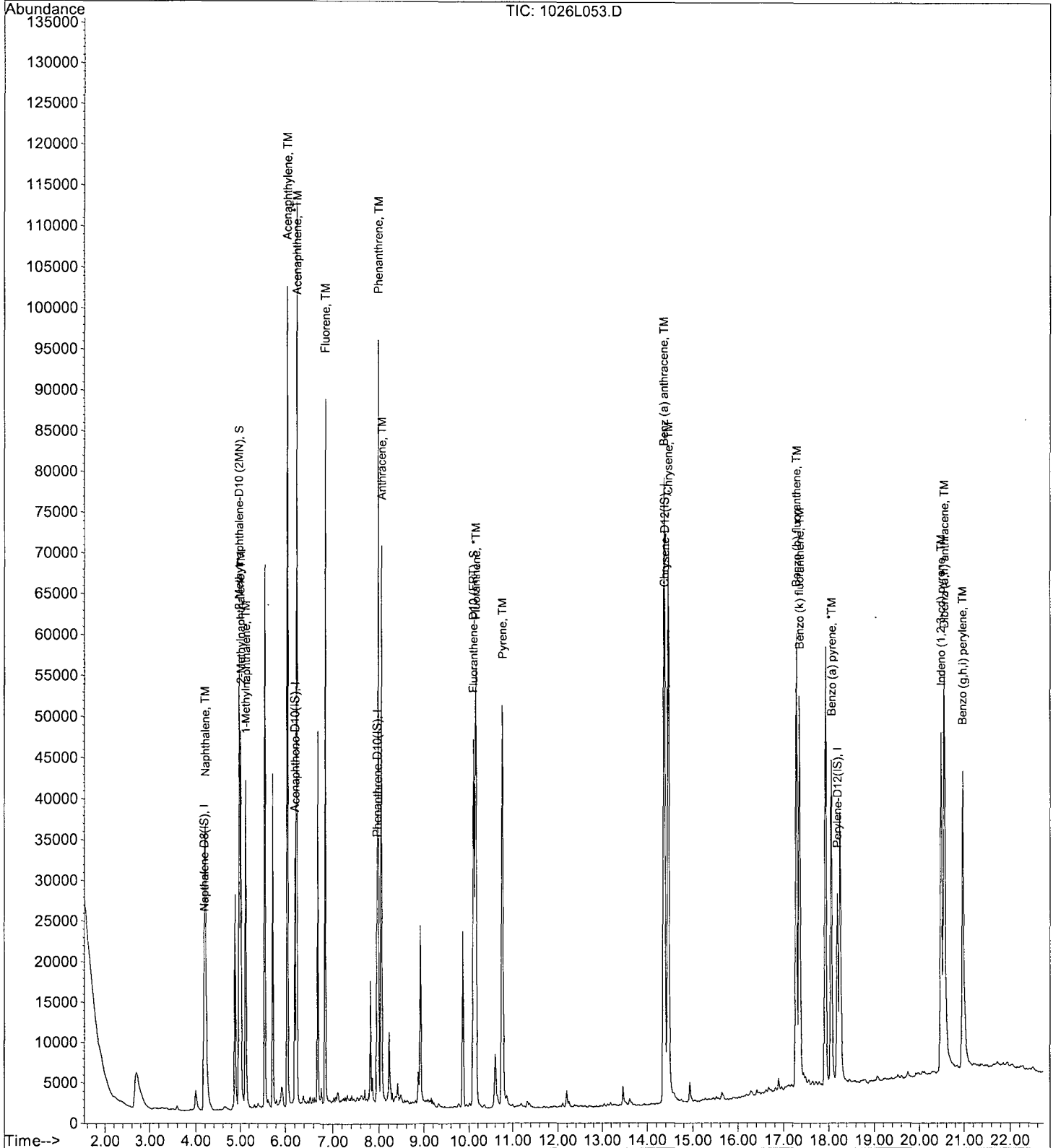
Data File : M:\LINUS\DATA\L181026\1026L053.D  
Acq On : 30 Oct 18 16:36  
Sample : 181024A LCSD-2 1/800  
Misc :

Vial: 53  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Oct 30 16:14 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration

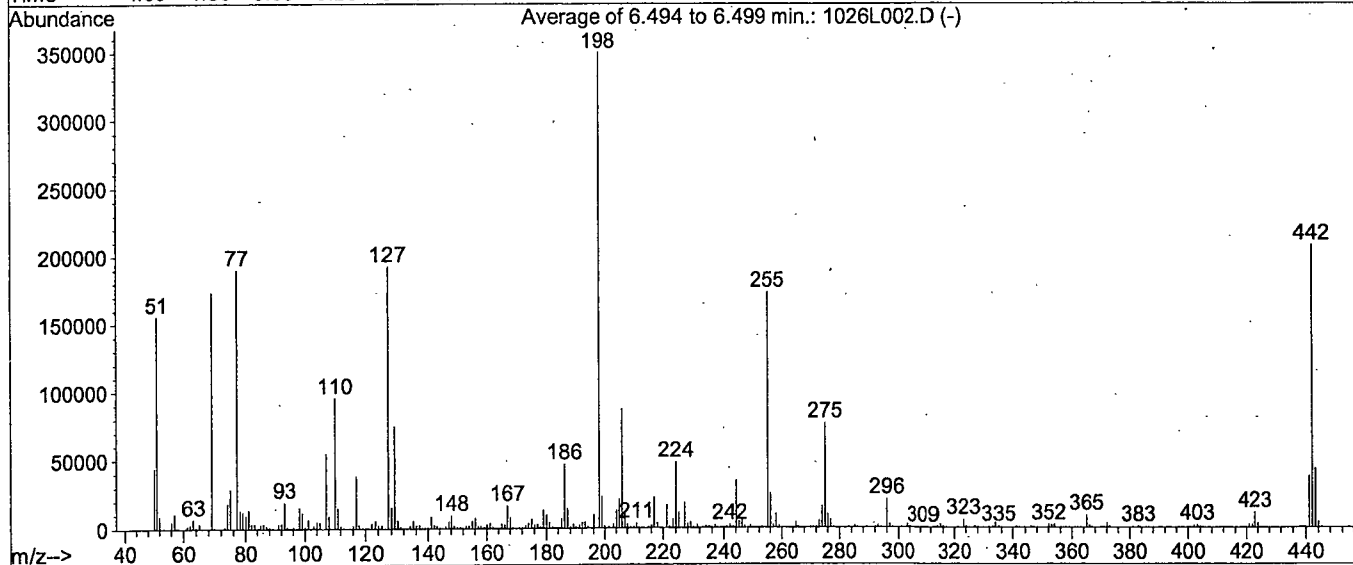
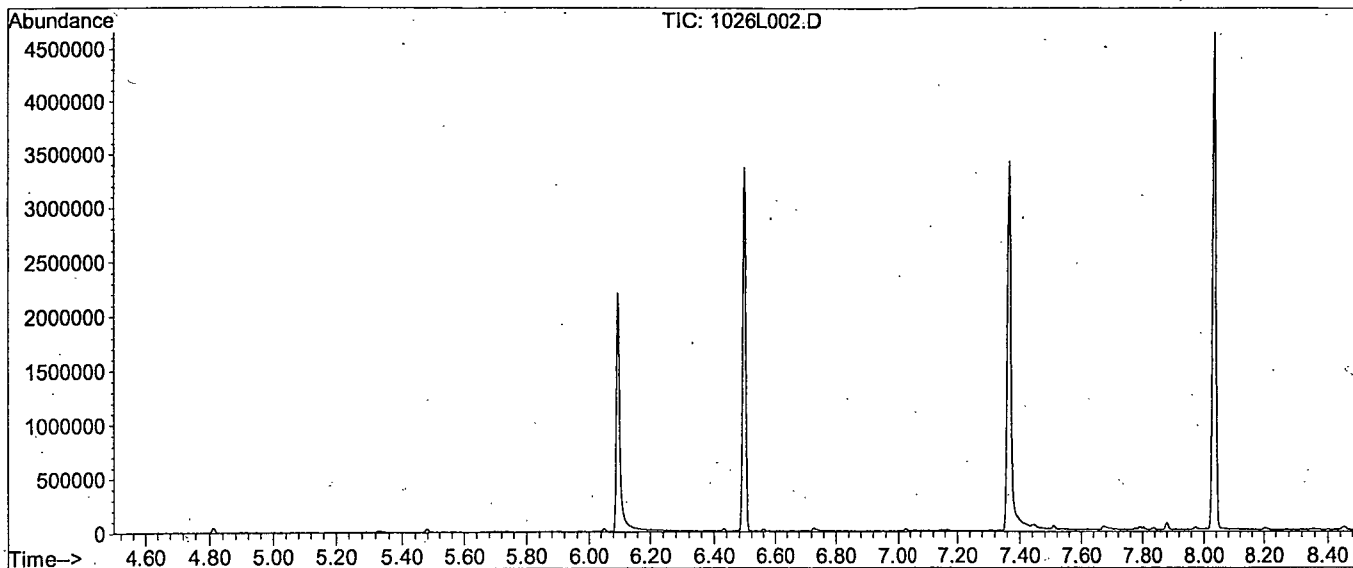


DFTPP

Data File : M:\LINUS\DATA\L181026\1026L002.D  
 Acq On : 26 Oct 18 12:05  
 Sample : SV Tune 03/07/18  
 Misc :

Vial: 2  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270



AutoFind: Scans 1570, 1571, 1572; Background Corrected with Scan 1561

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	44.4	155594	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.3	527	PASS
127	198	10	80	55.0	192576	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	350165	PASS
199	198	5	9	6.5	22893	PASS
275	198	10	60	21.8	76453	PASS
365	198	1	100	2.6	9171	PASS
441	442	0.01	24	18.1	37424	PASS
442	198	50	150	59.1	206955	PASS
443	442	15	24	20.7	42821	PASS

Data File Name: 1026L002.D  
Data File Path: M:\LINUS\DATA\181026\  
Operator: MA  
Date Acquired: 26 Oct 2018 12:05  
Method File: DFTPP2.M  
Sample Name: SV Tune 03/07/18  
Vial Number: 2  
Instrument Name: Linus

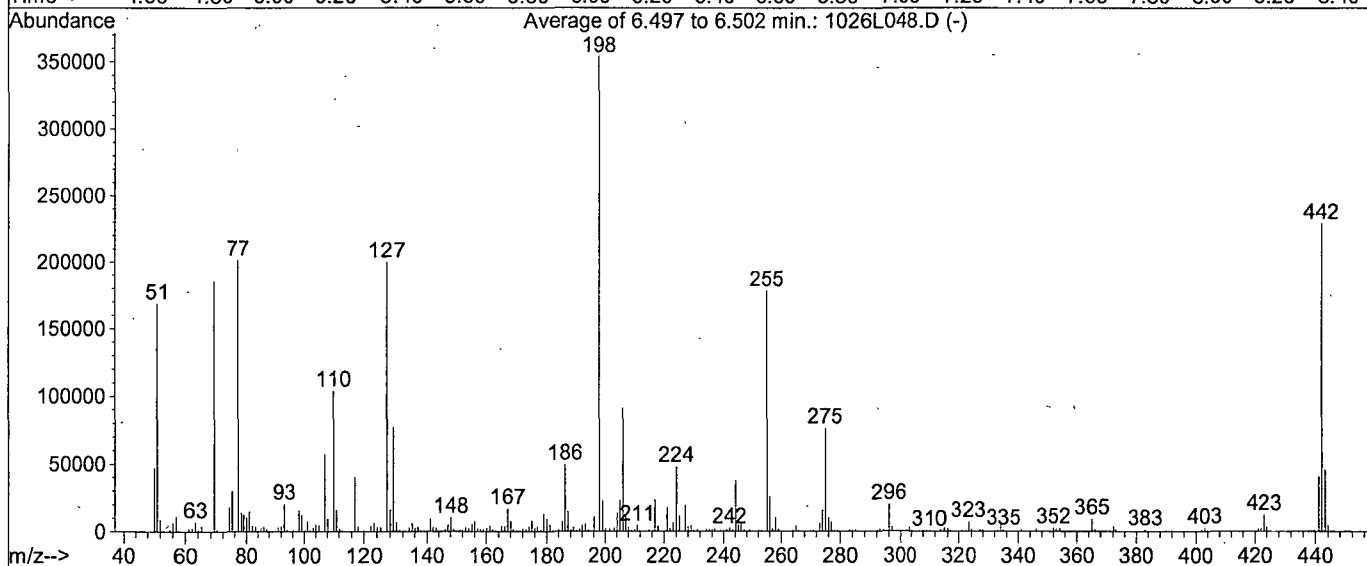
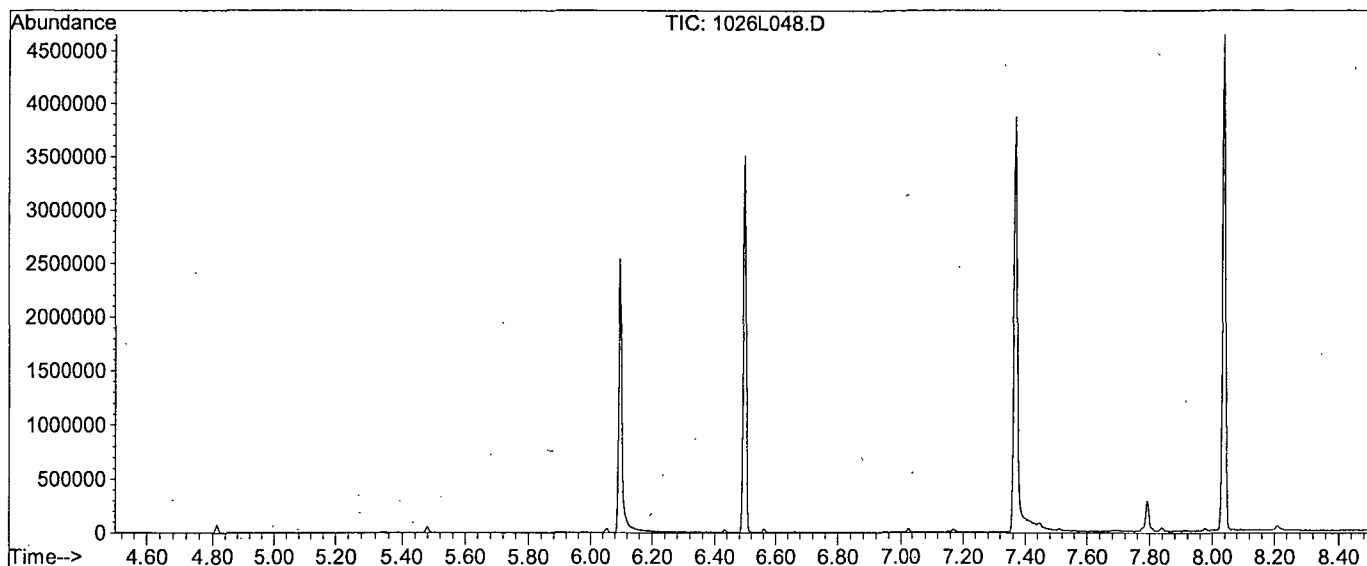
#	Name	Ret Time	Target Response
1)	DDT	8.04	32874800
2)	DDD	7.79	219957
3)	DDE	7.91	378113

Breakdown 1.79

Data File : M:\LINUS\DATA\L181026\1026L048.D  
 Acq On : 30 Oct 18 13:18  
 Sample : SV TUNE 03/07/18  
 Misc :

Vial: 48  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270



AutoFind: Scans 1571, 1572, 1573; Background Corrected with Scan 1562

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	47.6	168591	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	1229	PASS
127	198	10	80	56.5	199829	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	353899	PASS
199	198	5	9	6.3	22400	PASS
275	198	10	60	21.5	76088	PASS
365	198	1	100	2.5	8914	PASS
441	442	0.01	24	17.6	40261	PASS
442	198	50	150	64.7	228907	PASS
443	442	15	24	19.7	45037	PASS

Data File Name: 1026L048.D  
Data File Path: M:\LINUS\DATA\181026\  
Operator: MA  
Date Acquired: 30 Oct 2018 13:18  
Method File: DFTPP2.M  
Sample Name: SV TUNE 03/07/18  
Vial Number: 48  
Instrument Name: Linus

#	Name	Ret Time	Target Response
1)	DDT	8.04	31568000
2)	DDD	7.79	2406000
3)	DDE	7.92	0

Breakdown 7.08

Name of  
Final  
Standard PAH SIM Stock (Ampule)

Prep'd By (Initials) GA

Prep Date 10/26/18  
Exp Date 10/26/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270D PAH SIM	OZSI	110780-01	200 ug/mL	353450-39732	08/12/20	1000 uL	1mL	NA	200ug/mL

Name of  
Final  
Standard SIM Curve

Prep'd By (Initials) GA

Prep Date 10/26/18  
Exp Date 06/01/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1.0 ug/mL SIM	APPL	SIM 1.0	1.0 ug/mL	10/26/18	06/01/19	10 uL	100uL	MC 56258 90uL	0.1 ug/mL
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
1.0 ug/mL SIM	APPL	SIM 1.0	1.0 ug/mL	10/26/18	06/01/19	20 uL	100uL	MC 56258 80uL	0.2 ug/mL
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
5.0 ug/mL SIM	APPL	SIM 5.0	5.0 ug/mL	10/26/18	06/01/19	10 uL	100uL	MC 56258 90uL	0.5 ug/mL



SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
5.0 ug/mL SIM	APPL	SIM 5.0	5.0 ug/mL	10/26/18	06/01/19	20 uL	100uL	MC 56258 80 uL	1.0 ug/mL
SV Internal Standard	APPL	SIM IS	100 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
PAH SIM	APPL	SIM STOCK	100 ug/mL	10/26/18	10/26/19	5 uL	200uL	MC 56258 190 uL	5.0 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	06/07/18	06/01/19	5 uL	*	*	*
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	4 uL	*	*	*
PAH SIM	APPL	SIM STOCK	200 ug/mL	10/26/18	10/26/19	5 uL	100 uL	MC 56258 90 uL	10 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	06/07/18	06/01/19	5 uL	*	*	*
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
PAH SIM	APPL	SIM STOCK	200	10/26/18	10/26/19	25 uL	100uL	MC 56258 50 uL	50 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	06/07/18	06/01/19	25 uL	*	*	*
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
PAH SIM	APPL	SIM STOCK	200 ug/mL	10/26/18	10/26/19	50 uL	100uL	na	100 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	06/07/18	06/01/19	50 uL	*	*	*
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*

Name of Final Standard 8270 PAH SIM Second Source

Prep'd By (Initials) GA

Prep Date 10/26/18  
Exp Date 10/26/19

Initial Standard Information	Final Standard Information
------------------------------	----------------------------

Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with	Exp Date	Aliquot from Stock	Final Volume	Final Solvent +	Final Standard Conc (range)
				QA #				Lot# (or APPL Prep Date)	
PAH SIMPCP	o2si	110780-01 SS	200 ug/mL	06/25/18	03/24/19	5 uL	200uL	MC 56258 195uL	5 ug/mL
SV Internal Standard	APPL		2000 ug/mL	06/25/18	06/25/19	4 uL	*	*	*

Name of

Final

Standard

**SIM 2S Surrogate**

Prep'd By (Initials)

**GA**

Prep Date **06/07/18**

Exp Date **06/01/19**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with	Exp Date	Aliquot from Stock	Final Volume	Final Solvent +	Final Standard Conc (range)
				QA #				Lot# (or APPL Prep Date)	
SIM Surrogate Mix	Restek	33913	2000 ug/mL	A0131716-38553 & 38554	06/01/19 06/07/19	250 uL	5 mL	Acetone #030817A	100 ug/mL
8270 B/N surrog mix	Restek	31086	5000 ug/mL	A0135243-39162	06/04/19	100 uL	*	*	*

Name of

Final

Standard SIM 2nd Source Ampule

Prep'd By (Initials)

GA

Prep Date 06/25/18

Exp Date 03/24/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270D PAH SIM	O2SI	110780-02 SS	200 ug/mL	G34-327639-38583	03/24/19	1 mL	na	na	200 ug/mL

Name of

Final

Standard 8270 SIM PAH Internal Standard

Prep'd By (Initials)

GA

Prep Date 06/25/18

Exp Date 06/25/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
SV Internal Standard	Restek	31206	2000 ug/mL	A0130603-38561	06/25/19	350 uL	5,600 uL	MC 56258 5,250 uL	125 ug/mL

Name of  
Final  
Standard

SIM Surrogate

Prep'd By (Initials)

MA

Prep Date 09/27/18

Exp Date 09/27/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Sim Surrogate Deuterated	Restek	33913	2000 ug/mL	A0131718-39321	09/27/19	1250 uL	25 mL	Acetone #030817A	100 ug/mL

Name of  
Final  
Standard

PAH SIM Spike (Ampules)

Prep'd By (Initials)

MA

Prep Date 09/27/19

Exp Date 03/24/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270D PAH SIM	O2SI	110780-01 SS	200 ug/mL	G34-327639-38585	03/24/19	2 mL	2 mL	NA	200ug/mL

Name of Final Standard Semivolatile (SV) Tuning Solution  
 Prep Date 03/07/18  
 Exp Date 03/07/19

Prep'd By (Initials)

GA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38878	03/07/19	1,250 uL	25 mL	MC #56258	50 ug/mL

# Organic Extraction Worksheet

<b>Method</b>	Continuous Liquid/Liquid SVOC 3520C	<b>Extraction Set</b>	181024A	<b>Extraction Method</b>	LIQ003	<b>Units</b>	mL
Spiked ID 1	8270T Spike 10-9-18 EXP 10-9-19	Surrogate ID 1	8270 Surrogate 9-27-18 EXP 3-27-19				
Spiked ID 2	Sim Spike 9-27-18 EXP 3-24-19	Surrogate ID 2	SIM Surrogate 9-27-18 EXP 9-27-19				
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC: YES					
Spiked ID 7		Ext. Start Time:	10/24/18 14:00, 10/25/18 14:30				
Spiked ID 8		Ext. End Time:	10/25/18 9:30, 10/26/18 10:05, 10/30/18 11:45				
		GC Requires Extract By:	10/30/18 0:00				
		pH1	2	10/24/18 2:09:00 PM	Water Bath Temp Criteria	73,75 °C	
		pH2	14	10/25/18 2:00:00 PM			
		pH3					

Spiked By: KY

Date 10/24/18

Witnessed By: DL

Date 10/24/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1 181024A Bk				1,0.050	1,2	800	1	2/1	10/24/18 14:00	
					equip	e-hp51 E-WB5				
2 181024A LCS-1		0.250	1	1	1	800	1	2/1	10/24/18 14:00	
					equip	E-HP50 E-WB5				
3 181024A LCS-2		0.0250	2	0.050	2	800	1	2/1	10/24/18 14:00	
					equip	E-HP30 E-WB5				
4 181024A LCSD-1		0.250	1	1	1	800	1	2/1	10/24/18 14:00	
					equip	E-HP49 E-WB5				
5 181024A LCSD-2		0.0250	2	0.050	2	800	1	2/1	10/24/18 14:00	
					equip	E-HP29 E-WB5				
6 AZ81584 MS-1	AZ81584W24	0.250	1	1	1	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP48 E-WB5				
7 AZ81584 MSD-1	AZ81584W20	0.250	1	1	1	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP47 E-WB5				
8 AZ81584 MS-2	AZ81584W22	0.0250	2	0.050	2	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP28 e-wb5				
9 AZ81584 MSD-2	AZ81584W26	0.0250	2	0.050	2	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP27 E-WB5				
10 AZ81584	AZ81584W18			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP26 E-WB5				
11 AZ81585	AZ81585W08			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP25 E-WB5				
12 AZ81587	AZ81587W10			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87198
					equip	E-HP17 E-WB5				
13 AZ81636	AZ81636W12			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
					equip	E-HP16 E-WB5				
14 AZ81638	AZ81638W09			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
					equip	E-HP15 E-WB6				
15 AZ81640	AZ81640W10			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
					equip	E-HP14 E-WB6				
16 AZ81642	AZ81642W11			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
					equip	E-HP13 E-WB6				

Solvent and Lot#	
PH Strips	HC 727135
Dichloromethane (DCM)	58059
1+1 H2SO4	7-3-18
10N NaOH	10-17-18
Filter Paper	400147
Acidified Na2SO4	10-2-18
B. Na2SO4	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	MP
Date	10/30/18
Time	12:00
Refrigerator	66-C

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	10/31/18 10:39:53 AM

Reviewed By: *KY* 371 Date 10/31/18

# Organic Extraction Worksheet

<b>Method</b>	Continuous Liquid/Liquid SVOC 3520C	<b>Extraction Set</b>	181024A	<b>Extraction Method</b>	LIQ003	<b>Units</b>	mL
Spiked ID 1	8270T Spike 10-9-18 EXP 10-9-19	Surrogate ID 1	8270	Surrogate 9-27-18 EXP 3-27-19			
Spiked ID 2	Sim Spike 9-27-18 EXP 3-24-19	Surrogate ID 2	SIM	Surrogate 9-27-18 EXP 9-27-19			
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		YES			
Spiked ID 7		Ext. Start Time:		10/24/18 14:00, 10/25/18 14:30			
Spiked ID 8		Ext. End Time:		10/25/18 9:30, 10/26/18 10:05, 10/26/18 11:45			
		GC Requires Extract By:		10/30/18 0:00			
		pH1	2	10/24/18 2:09:00 PM	Water Bath Temp Criteria/73,75 °C		
		pH2	14	10/25/18 2:00:00 PM			
		pH3					

Spiked By: KY

Date 10/24/18

Witnessed By: DL

Date 10/24/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17/AZ81644	AZ81644W12			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
						equip				
						E-HP12 E-WB6				

Solvent and Lot#	
PH Strips	HC 727135
Dichloromethane (DCM)	58059
1+1 H2SO4	7-3-18
10N NaOH	10-17-18
Filter Paper	400147
Acidified Na2SO4	10-2-18
B. Na2SO4	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	10/31/18 10:39:53 AM

Reviewed By: *Key 372* Date *10/31/18*



## Injection Log

Directory: M:\LINUS\DATA\181026\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	1026L002.D	1	SV Tune 03/07/18		26 Oct 18 12:05
3	1026L003.D	1	5 SIM 10/26/18		26 Oct 18 12:21
4	1026L004.D	1	0.1 SIM 10/26/18		26 Oct 18 12:50
5	1026L005.D	1	0.2 SIM 10/26/18		26 Oct 18 13:20
6	1026L006.D	1	0.5 SIM 10/26/18		26 Oct 18 13:49
7	1026L007.D	1	1 SIM 10/26/18		26 Oct 18 14:18
8	1026L008.D	1	10 SIM 10/26/18		26 Oct 18 14:47
9	1026L009.D	1	50 SIM 10/26/18		26 Oct 18 15:16
10	1026L010.D	1	100 SIM 10/26/18		26 Oct 18 15:46
11	1026L011.D	1	SS SIM 10/26/18		26 Oct 18 16:46
48	1026L048.D	1	SV TUNE 03/07/18		30 Oct 18 13:18
49	1026L049.D	1	5 SIM 10/26/18		30 Oct 18 13:34
51	1026L051.D	1.25	181024A BLK 1/800		30 Oct 18 14:32
52	1026L052.D	1.25	181024A LCS-2 1/800		30 Oct 18 16:06
53	1026L053.D	1.25	181024A LCSD-2 1/800		30 Oct 18 16:36
59	1026L059.D	1.25	AZ81636W12 1/800		30 Oct 18 19:31
60	1026L060.D	1.25	AZ81638W09 1/800		30 Oct 18 20:00
61	1026L061.D	1.25	AZ81640W10 1/800		30 Oct 18 20:29
62	1026L062.D	1.25	AZ81642W11 1/800		30 Oct 18 20:58
63	1026L063.D	1.25	AZ81644W12 1/800		30 Oct 18 21:27
64	1026L064.D	1	5 SIM 10/26/18		30 Oct 18 21:56

**ORGANICS**  
**Calibration Data**

**APPL, INC.**

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/25/18  
Instrument: Yoda

Initials: \_\_\_\_\_

1025Y003.D 1025Y004.D 1025Y005.D 1025Y006.D 1025Y007.D 1025Y008.D 1025Y009.D 1025Y010.D 1025Y011.D

	Compound	4	5	10	20	40	50	60	80	100		Avg	%RSD	Type	r	Q	MRF
1	I 1,4-dichlorobenzene-D4(ISTD)	ISTD															
2	1,4-Dioxane		0.0822	0.1238	0.1391	0.1156	0.1243	0.1314	0.1253	0.1327		0.12	14				
3	TM n-Nitrosodimethylamine		0.3198	0.2893	0.2895	0.3170	0.3428	0.3386	0.3157	0.3599		0.32	7.7	TM			
4	TM Pyridine		0.3797	0.5088	0.4370	0.4560	0.5069	0.5219	0.5126	0.5246		0.48	11	TM			
5	S 2-Fluorophenol (S)		1.447	1.474	1.688	1.589	1.666	1.585	1.555	1.571		1.6	5.3	S			
6	S Phenol-D6 (S)		1.848	1.901	2.093	1.850	1.941	1.809	1.755	1.750		1.9	6.0	S			
7	*TM Phenol		2.649	2.757	2.820	2.486	2.402	2.436	2.265	2.182		2.5	9.1	*TM			0.800
8	TM Aniline		1.872	2.001	2.114	1.977	2.005	2.023	1.975	2.017		2.0	3.4	TM			
9	TM Bis (2-chloroethyl) ether		1.334	1.348	1.369	1.245	1.271	1.275	1.240	1.376		1.3	4.3	TM			0.700
10	TM 2-Chlorophenol		1.995	2.029	2.057	1.877	1.897	1.907	1.873	1.933		1.9	3.7	TM			0.800
11	TM 1,3-DCB		2.064	2.156	2.189	1.949	1.933	1.958	1.933	1.942		2.0	5.3	TM			
12	*TM 1,4-DCB		2.127	2.156	2.182	2.007	1.906	1.971	1.865	1.938		2.0	6.0	*TM			
13	TM Benzyl alcohol		1.244	1.292	1.329	1.211	1.238	1.259	1.212	1.289		1.3	3.3	TM			
14	TM 1,2-DCB		2.064	2.054	2.067	1.841	1.835	1.876	1.767	1.846		1.9	6.4	TM			
15	TM 2-Methylphenol		1.555	1.604	1.632	1.546	1.494	1.520	1.483	1.561		1.5	3.3	TM			0.700
16	TM Bis (2-chloroisopropyl) ether		2.542	2.584	2.616	2.402	2.400	2.441	2.390	2.420		2.5	3.7	TM			0.010
17	TML Acetophenone		2.636	2.769	2.633	2.030	1.890	1.910	1.779	1.861		2.2	19	TML	0.996		0.010
18	TML 3&4-Methylphenol		2.070	2.176	-2.020	1.546	1.435	1.452	1.356	1.396		1.7	20	TML	0.996		0.600
19	**TM n-Nitrosodi-n-propylamine		1.400	1.477	1.415	1.143	1.166	1.186	1.188	1.329		1.3	10	**TM			0.500
20	TM Hexachloroethane		0.7574	0.7950	0.8050	0.7314	0.7379	0.7578	0.7366	0.7504		0.76	3.6	TM			0.300
21	I Napthalene-D8(ISTD)	ISTD															
22	S Nitrobenzene-D5(S)		0.4083	0.4328	0.4683	0.4505	0.5001	0.4407	0.4451	0.4657		0.45	6.0	S			
23	TM Nitrobenzene		0.5001	0.5181	0.5139	0.4909	0.4970	0.4779	0.4713	0.4888		0.49	3.3	TM			0.200
24	TM Isophorone		0.8652	0.9168	0.9152	0.8551	0.8760	0.8490	0.8400	0.8786		0.87	3.3	TM			0.400
25	*TM 2-Nitrophenol		0.2370	0.2591	0.2642	0.2517	0.2554	0.2460	0.2442	0.2519		0.25	3.5	*TM			0.100
26	TM 2,4-Dimethylphenol		0.4374	0.4462	0.4431	0.4177	0.4120	0.4072	0.3948	0.4061		0.42	4.6	TM			0.200
27	TML Benzoic acid		0.2022	0.2740	0.3308	0.3563	0.3897	0.3820	0.3935	0.4031		0.34	21	TML	0.999		
28	TM Bis (2-chloroethoxy) methane		0.5234	0.5360	0.5173	0.4794	0.4853	0.4705	0.4613	0.4659		0.49	5.9	TM			0.300
29	*TM 2,4-Dichlorophenol		0.3791	0.3980	0.3911	0.3686	0.3717	0.3607	0.3482	0.3483		0.37	4.9	*TM			0.200
30	TM 1,2,4-Trichlorobenzene		0.4195	0.4275	0.4109	0.3795	0.3707	0.3651	0.3531	0.3536		0.38	7.8	TM			
31	TM 3,4-Dimethylphenol		0.5794	0.6067	0.6052	0.5594	0.5653	0.5568	0.5402	0.5433		0.57	4.5	TM			
32	TM Naphthalene		1.432	1.426	1.383	1.288	1.252	1.247	1.168	1.168		1.3	8.2	TM			0.700
33	TM 4-Chloroaniline		0.5582	0.5734	0.5561	0.4843	0.4698	0.4632	0.4030	0.3734		0.49	15	TM			0.010
34	TM 2,6-Dichlorophenol		0.3835	0.3879	0.3836	0.3390	0.3259	0.3250	0.2935	0.2753		0.34	13	TM			
35	TM Hexachloropropene		0.2398	0.2604	0.2721	0.2579	0.2649	0.2671	0.2525	0.2433		0.26	4.4	TM			

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/25/18  
Instrument: Yoda

Initials: \_\_\_\_\_

	Compound	4	5	10	20	40	50	60	80	100		Avg	%RSD	Type		Q
36	*TM Hexachlorobutadiene		0.2194	0.2297	0.2245	0.2132	0.2082	0.2127	0.1994	0.1969		0.21	5.4	*TM		0.010
37	TM Caprolactum		0.2182	0.2291	0.2384	0.2265	0.2344	0.2268	0.2261	0.2162		0.23	3.3	TM		0.010
38	*TM 4-Chloro-3-methylphenol		0.3843	0.4096	0.4194	0.3872	0.4022	0.4004	0.3860	0.3952		0.40	3.1	*TM		0.200
39	TM 2-Methylnaphthalene		0.8747	0.8997	0.8766	0.8068	0.7983	0.7982	0.7535	0.7265		0.82	7.6	TM		0.400
40	TM 1-Methylnaphthalene		0.8803	0.9151	0.8942	0.8003	0.7852	0.7648	0.7475	0.7263		0.81	8.9	TM		
41	I Acenaphthene-D10(IS)	ISTD														
42	**TML Hexachlorocyclopentadiene		0.2159	0.3254	0.3835	0.4140	0.4334	0.4200	0.4194	0.4411		0.38	20	**TML	0.999	0.050
43	TM 1,2,4,5-Tetrachlorobenzene		0.8104	0.8379	0.8315	0.7526	0.7314	0.7034	0.6664	0.6536		0.75	9.7	TM		0.010
44	*TM 2,4,6-Trichlorophenol		0.5013	0.5549	0.5603	0.5238	0.5316	0.5292	0.4979	0.5107		0.53	4.4	*TM		0.200
45	TM 2,4,5-Trichlorophenol		0.5702	0.5761	0.5952	0.5475	0.5488	0.5482	0.5295	0.5413		0.56	3.9	TM		0.200
46	S 2-Fluorobiphenyl(S)		1.730	1.770	1.821	1.654	1.746	1.617	1.492	1.508		1.7	7.3	S		
47	TM 1,1'-Biphenyl		2.164	2.234	2.170	1.970	1.876	1.856	1.726	1.715		2.0	10	TM		0.010
48	TM 2-Chloronaphthalene		1.645	1.734	1.725	1.553	1.541	1.482	1.409	1.423		1.6	8.1	TM		0.800
49	TM 2-Nitroaniline		0.4862	0.5502	0.5567	0.5429	0.5556	0.5517	0.5173	0.5586		0.54	4.7	TM		0.010
50	TM Dimethyl phthalate		1.834	1.964	1.919	1.801	1.797	1.794	1.657	1.744		1.8	5.3	TM		0.010
51	TM 2,6-DNT		0.3555	0.4320	0.4418	0.4252	0.4354	0.4318	0.3994	0.4280		0.42	6.8	TM		0.200
52	TM Acenaphthylene		2.628	2.725	2.759	2.574	2.482	2.505	2.231	2.278		2.5	7.6	TM		0.900
53	TM 3-Nitroaniline		0.4276	0.4910	0.5106	0.4724	0.4809	0.4713	0.4422	0.4489		0.47	5.8	TM		0.010
54	*TM Acenaphthene		1.672	1.755	1.670	1.499	1.475	1.481	1.337	1.337		1.5	10	*TM		0.900
55	**TML 2,4-Dinitrophenol		0.0575	0.1232	0.2043	0.2314	0.2592	0.2656	0.2764	0.3061		0.22	39	**TML	0.996	0.010
56	**TM 4-Nitrophenol		0.2721	0.3257	0.3588	0.3653	0.3883	0.3983	0.3717	0.4143		0.36	12	**TM		0.010
57	TM Dibenzofuran		2.464	2.496	2.382	2.140	2.009	1.938	1.732	1.711		2.1	15	TM		0.800
58	TM 2,4-DNT		0.5229	0.5883	0.6057	0.5566	0.5362	0.5170	0.4678	0.4705		0.53	9.4	TM		0.200
59	TM 2,3,4,6-Tetrachlorophenol		0.4433	0.4757	0.4924	0.4726	0.4709	0.4494	0.4249	0.4491		0.46	4.7	TM		0.010
60	TM Diethyl phthalate		1.848	1.924	1.892	1.742	1.716	1.664	1.554	1.624		1.7	7.6	TM		0.010
61	TML 4-Chlorophenyl phenyl ether			0.9404	0.8997	0.7607	0.7053	0.6720	0.6051	0.6241		0.74	18	TML	0.995	0.400
62	TML Fluorene			2.000	1.919	1.630	1.529	1.450	1.327	1.370		1.6	16	TML	0.996	0.900
63	TM 4-Nitroaniline		0.4708	0.5200	0.5209	0.4799	0.4968	0.4725	0.4585	0.4920		0.49	4.7	TM		0.010
64	S 2,4,6-Tribromophenol(S)		0.1910	0.2126	0.2272	0.2105	0.2163	0.1901	0.1828	0.1843		0.20	8.3	S		
65	I Phenanthrene-D10(IS)	ISTD														
66	TML 4,6-Dinitro-2-methylphenol		0.1094	0.1601	0.1895	0.1922	0.2012	0.1993	0.1924	0.2094		0.18	18	TML	0.998	0.010
67	TM Diphenyl amine			0.8355	0.7939	0.6850	0.6482	0.6583	0.5640	0.5753		0.68	15	TM		
68	*TM n-Nitrosodiphenylamine			0.8355	0.7939	0.6850	0.6482	0.6583	0.5640	0.5753		0.68	15	*TM		0.010
69	TM 1,2-Diphenylhydrazine		1.082	1.106	1.079	1.022	1.024	1.028	1.102	1.154		1.1	4.4	TM		
70	TM 4-Bromophenyl phenyl ether		0.2805	0.2921	0.2891	0.2738	0.2714	0.2723	0.2524	0.2464		0.27	5.9	TM		0.100

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/25/18  
Instrument: Yoda

Initials: \_\_\_\_\_

	Compound	4	5	10	20	40	50	60	80	100		Avg	%RSD	Type	Q
71	TM Hexachlorobenzene		0.2989	0.3163	0.3096	0.2849	0.2823	0.2843	0.2563	0.2582		0.29	7.6	TM	0.100
72	TM Atrazine		0.2274	0.2463	0.2447	0.2494	0.2533	0.2614	0.2438	0.2652		0.25	4.7	TM	0.010
73	*TM Pentachlorophenol		0.1194	0.1595	0.1803	0.1856	0.1959	0.1970	0.1843	0.1954		0.18	15	*TM	0.050
74	TM Phenanthrene		1.535	1.556	1.520	1.405	1.341	1.354	1.219	1.247		1.4	9.3	TM	0.700
75	TM Anthracene		1.534	1.630	1.567	1.432	1.388	1.397	1.243	1.306		1.4	9.2	TM	0.700
76	TM Carbazol		1.404	1.474	1.412	1.345	1.333	1.342	1.200	1.232		1.3	6.8	TM	0.010
77	TM Di-n-butylphthalate		1.532	1.684	1.676	1.561	1.557	1.587	1.423	1.418		1.6	6.4	TM	0.010
78	*TM Fluoranthene		1.599	1.650	1.618	1.482	1.469	1.488	1.311	1.376		1.5	7.9	*TM	0.600
79	I Chrysene-D12(ISTD)	ISTD													
80	TM Benzidine		0.5023	0.5729	0.5988	0.5688	0.5785	0.5804	0.5559	0.5905		0.57	5.2	TM	
81	TM Pyrene		1.683	1.748	1.756	1.652	1.621	1.636	1.522	1.607		1.7	4.6	TM	0.600
82	S Terphenyl-D14(S)		1.048	1.090	1.144	1.063	1.110	1.026	0.9763	1.014		1.1	5.2	S	
83	TM Butyl benzylphthalate		0.6875	0.7381	0.7719	0.7507	0.7445	0.7677	0.7085	0.7378		0.74	3.9	TM	0.010
84	TM 3,3'-Dichlorobenzidine		0.5153	0.5780	0.6107	0.5565	0.5493	0.5524	0.4833	0.4652		0.54	9.0	TM	0.010
85	TM Benz (a) anthracene		1.567	1.601	1.607	1.369	1.289	1.333	1.201	1.269		1.4	12	TM	0.800
86	TM Bis (2-ethylhexyl) phthalate		0.9717	1.060	1.058	0.9322	0.8742	0.8932	0.7888	0.8442		0.93	11	TM	0.010
87	TM Chrysene		1.555	1.591	1.559	1.488	1.422	1.434	1.363	1.407		1.5	5.6	TM	0.700
88	*TM Di-n-octylphthalate		1.513	1.697	1.766	1.768	1.785	1.794	1.743	1.735		1.7	5.3	*TM	0.010
89	I Perylene-D12(ISTD)	ISTD													
90	TM Benzo (b) fluoranthene		1.425	1.508	1.620	1.418	1.596	1.597	1.382	1.444		1.5	6.3	TM	0.700
91	TM Benzo (k) fluoranthene		1.477	1.531	1.459	1.477	1.380	1.372	1.365	1.366		1.4	4.6	TM	0.700
92	*TM Benzo (a) pyrene	1.218	1.317	1.395	1.423	1.374	1.394	1.417	1.346	1.389		1.4	4.7	*TM	0.700
93	TM Indeno (1,2,3-cd) pyrene		1.504	1.545	1.624	1.566	1.626	1.628	1.542	1.602		1.6	3.0	TM	0.500
94	TM Dibenz (a,h) anthracene	1.180	1.287	1.350	1.426	1.364	1.388	1.416	1.318	1.348		1.3	5.6	TM	0.400
95	TM Benzo (g,h,i) perylene		1.187	1.277	1.320	1.302	1.267	1.324	1.228	1.334		1.3	4.0	TM	0.500
96															
97															
98															
99															
100															
101															
102															
103															
104															
105															

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y003.D Vial: 3  
 Acq On : 25 Oct 18 11:33 Operator: MA  
 Sample : 4ug/mL 8270.10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 25 14:51 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	299628	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1229134	40.00000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	646866	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1199000	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1206033	40.00000	ppb	-0.01
89) Perylene-D12 (IS)	15.81	264	1213261	40.00000	ppb	-0.01
<b>System Monitoring Compounds</b>						
5) 2-Fluorophenol (S)	0.00	112	0d	0.00000	ppb	
Spiked Amount	200.000		Recovery	=	0.000%	
6) Phenol-D6 (S)	0.00	99	0d	0.00000	ppb	
Spiked Amount	200.000		Recovery	=	0.000%	
22) Nitrobenzene-D5 (S)	0.00	82	0d	0.00000	ppb	
Spiked Amount	100.000		Recovery	=	0.000%	
46) 2-Fluorobiphenyl (S)	0.00	172	0d	0.00000	ppb	
Spiked Amount	100.000		Recovery	=	0.000%	
64) 2,4,6-Tribromophenol (S)	0.00	330	0d	0.00000	ppb	
Spiked Amount	200.000		Recovery	=	0.000%	
82) Terphenyl-D14 (S)	0.00	244	0d	0.00000	ppb	
Spiked Amount	100.000		Recovery	=	0.000%	
<b>Target Compounds</b>						
92) Benzo (a) pyrene	15.72	252	147763	3.60635	ppb	99
94) Dibenz (a,h) anthracene	17.86	278	143132	3.53686	ppb	97

Quantitation Report

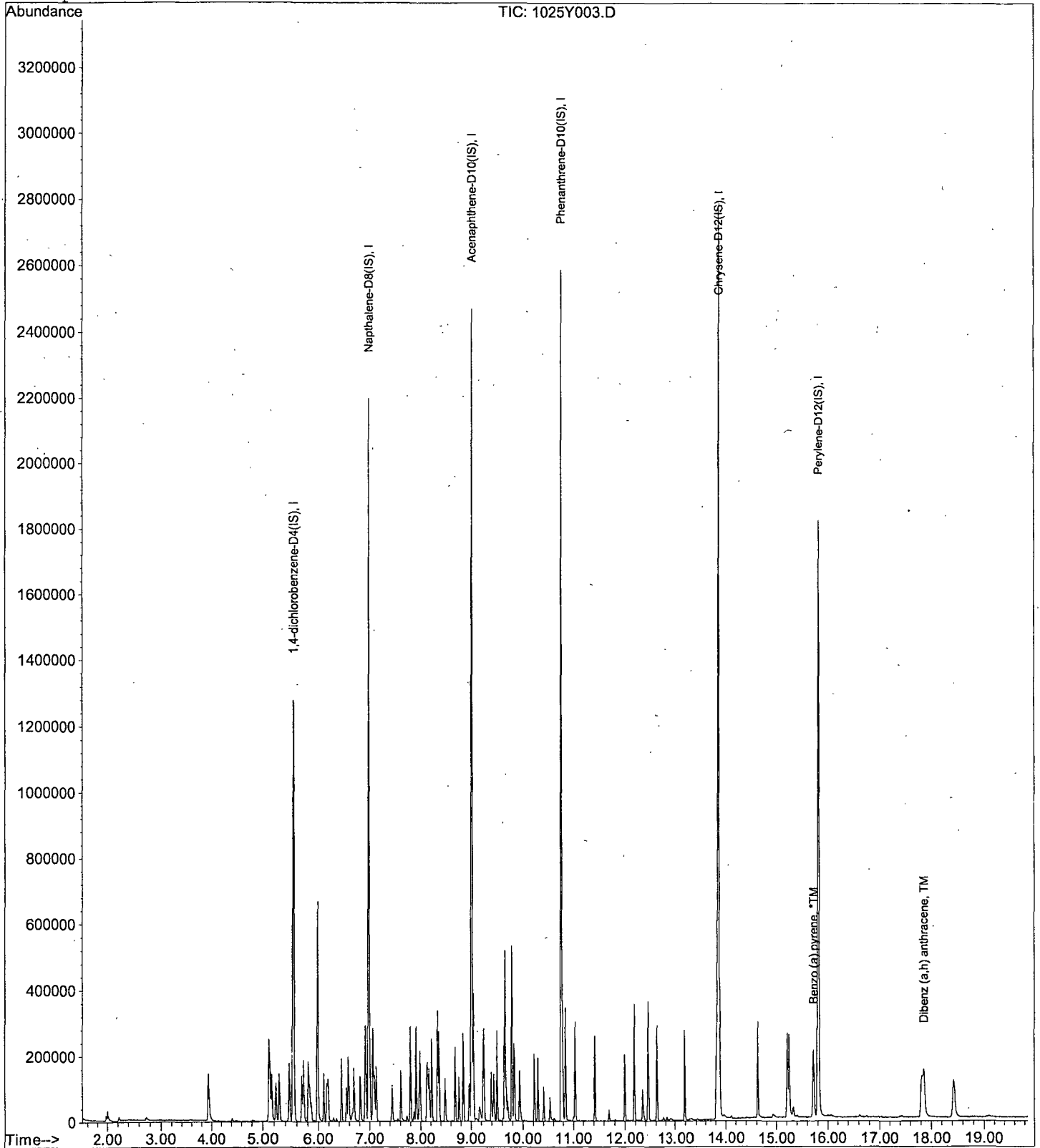
Data File : M:\YODA\DATA\Y181025\1025Y003.D  
Acq On : 25 Oct 18 11:33  
Sample : 4ug/mL 8270 10/18/18  
Misc :

Vial: 3  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 14:51 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y004.D  
 Acq On : 25 Oct 18 12:01  
 Sample : 5ug/mL 8270 10/18/18  
 Misc :

Vial: 4  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:18:52 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	278188	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1122051	40.00000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	578178	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1088043	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1091993	40.00000	ppb	-0.01
89) Perylene-D12 (IS)	15.81	264	1129669	40.00000	ppb	-0.01

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.94	112	100605	9.16892	ppb	0.00
Spiked Amount 200.000			Recovery =	4.585%		
6) Phenol-D6 (S)	5.11	99	128510	9.87603	ppb	-0.01
Spiked Amount 200.000			Recovery =	4.938%		
22) Nitrobenzene-D5 (S)	6.16	82	57273	4.46786	ppb	-0.01
Spiked Amount 100.000			Recovery =	4.468%		
46) 2-Fluorobiphenyl (S)	8.22	172	125033	5.15520	ppb	0.00
Spiked Amount 100.000			Recovery =	5.155%		
64) 2,4,6-Tribromophenol (S)	9.94	330	27611	9.22660	ppb	-0.01
Spiked Amount 200.000			Recovery =	4.614%		
82) Terphenyl-D14 (S)	12.62	244	143015	4.87537	ppb	0.00
Spiked Amount 100.000			Recovery =	4.875%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	286	0.32856		# 1
3) n-Nitrosodimethylamine	1.98	42	11122	5.29803	ppb	88
4) Pyridine	2.00	79	13205	4.04187	ppb	93
7) Phenol	5.13	94	92128	5.29994	ppb	90
8) Aniline	5.16	66	65079m	4.91096	ppb	90
9) Bis (2-chloroethyl) ether	5.23	63	46381	5.10745	ppb	99
10) 2-Chlorophenol	5.29	128	69377	5.18850	ppb	95
11) 1,3-DCB	5.47	146	71761	5.08967	ppb	99
12) 1,4-DCB	5.56	146	73967	5.25936	ppb	94
13) Benzyl alcohol	5.69	108	43273	5.00475	ppb	93
14) 1,2-DCB	5.73	146	71757	5.38435	ppb	97
15) 2-Methylphenol	5.81	107	54087	5.07631	ppb	98
16) Bis (2-chloroisopropyl) et	5.84	45	88410	5.18241	ppb	94
17) Acetophenone	6.00	105	91662	1.39902	ppb	# 70
18) 3&4-Methylphenol	5.99	107	143966	-0.94497	ppb	95
19) n-Nitrosodi-n-propylamine	5.99	70	48666	5.49385	ppb	84
20) Hexachloroethane	6.11	117	26338	4.96713	ppb	95
23) Nitrobenzene	6.19	77	70137	4.98866	ppb	98
24) Isophorone	6.45	82	121351	4.91369	ppb	98
25) 2-Nitrophenol	6.54	139	33236	4.72719	ppb	92
26) 2,4-Dimethylphenol	6.58	122	61342	5.19136	ppb	91
27) Benzoic acid	6.67	105	28356	8.65338	ppb	97
28) Bis (2-chloroethoxy) metha	6.69	93	73409	5.27571	ppb	98
29) 2,4-Dichlorophenol	6.82	162	53167	5.07562	ppb	96
30) 1,2,4-Trichlorobenzene	6.91	180	58841	5.40711	ppb	97
31) 3,4-Dimethylphenol	6.92	107	81264	5.08114	ppb	95
32) Naphthalene	7.01	128	200847	5.51654	ppb	99
33) 4-Chloroaniline	7.06	127	78291	6.25637	ppb	97
34) 2,6-Dichlorophenol	7.07	162	53793	5.59344	ppb	98
35) Hexachloropropene	7.10	213	33627	4.60585	ppb	99
36) Hexachlorobutadiene	7.14	225	30779	5.08021	ppb	98
37) Caprolactum	7.44	55	30607	4.78098	ppb	92



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y004.D  
 Acq On : 25 Oct 18 12:01  
 Sample : 5ug/mL 8270 10/18/18  
 Misc :

Vial: 4  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:18:52 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.62	107	53898	4.81193	ppb	98
39) 2-Methylnaphthalene	7.80	142	122686	5.30010	ppb	97
40) 1-Methylnaphthalene	7.92	142	123467	5.36805	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	15604	2.63514	ppb	97
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	58570	5.36480	ppb	98
44) 2,4,6-Trichlorophenol	8.12	196	36228	4.75527	ppb	99
45) 2,4,5-Trichlorophenol	8.17	196	41210	5.05470	ppb	96
47) 1,1'-Biphenyl	8.34	154	156378	5.47366	ppb	98
48) 2-Chloronaphthalene	8.36	162	118878	5.19543	ppb	98
49) 2-Nitroaniline	8.48	65	35139	4.54088	ppb	92
50) Dimethyl phthalate	8.69	163	132551	5.03002	ppb	100
51) 2,6-DNT	8.77	165	25692	4.26612	ppb	96
52) Acenaphthylene	8.85	152	189919	5.22472	ppb	99
53) 3-Nitroaniline	8.97	138	30903	4.67170	ppb	99
54) Acenaphthene	9.05	154	120819	5.48632	ppb	99
55) 2,4-Dinitrophenol	9.10	184	4155	10.81735	ppb	89
56) 4-Nitrophenol	9.17	65	19665	3.80378	ppb	94
57) Dibenzofuran	9.25	168	178096	5.81314	ppb	92
58) 2,4-DNT	9.24	165	37792	4.90083	ppb	96
59) 2,3,4,6-Tetrachlorophenol	9.39	232	32036	4.80719	ppb	98
60) Diethyl phthalate	9.50	149	133569	5.26630	ppb	98
61) 4-Chlorophenyl phenyl ethe	9.65	204	66152	5.51360	ppb	87
62) Fluorene	9.65	166	140557	5.50594	ppb	99
63) 4-Nitroaniline	9.68	138	34026	4.92384	ppb	89
66) 4,6-Dinitro-2-methylphenol	9.71	198	14879	2.87402	ppb	91
67) Diphenyl amine	9.79	169	225337	0.75658	ppb	98
68) n-Nitrosodiphenylamine	9.79	169	225337	0.75658	ppb	98
69) 1,2-Diphenylhydrazine	9.84	77	147118	5.01547	ppb #	87
70) 4-Bromophenyl phenyl ether	10.23	248	38148	5.05604	ppb	92
71) Hexachlorobenzene	10.29	284	40649	5.12754	ppb	87
72) Atrazine	10.41	200	15461	2.26716	ppb	96
73) Pentachlorophenol	10.54	266	16240	3.32294	ppb	98
74) Phenanthrene	10.79	178	208757	5.42894	ppb	99
75) Anthracene	10.84	178	208619	5.28612	ppb	99
76) Carbazol	11.04	167	190968	5.17629	ppb	99
77) Di-n-butylphthalate	11.43	149	208356	4.90798	ppb	98
78) Fluoranthene	12.18	202	217445	5.29783	ppb	98
80) Benzidine	12.35	184	68565	9.38814	ppb	95
81) Pyrene	12.45	202	229771	5.09317	ppb	99
83) Butyl benzylphthalate	13.19	149	93840	4.68621	ppb	88
84) 3,3'-Dichlorobenzidine	13.81	252	70332	5.31300	ppb	96
85) Benzo (a) anthracene	13.85	228	213920	5.55631	ppb	99
86) Bis (2-ethylhexyl) phthala	13.84	149	132632	5.17822	ppb	98
87) Chrysene	13.89	228	212313	5.22319	ppb	98
88) Di-n-octylphthalate	14.62	149	206541	4.38443	ppb	97
90) Benzo (b) fluoranthene	15.21	252	201251	4.74884	ppb	98
91) Benzo (k) fluoranthene	15.25	252	208523	5.23139	ppb	98
92) Benzo (a) pyrene	15.72	252	185959	4.84407	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.81	276	212368	4.76071	ppb	97
94) Dibenz (a,h) anthracene	17.85	278	181728	4.79755	ppb	97
95) Benzo (g,h,i) perylene	18.44	276	167646	4.61279	ppb	95

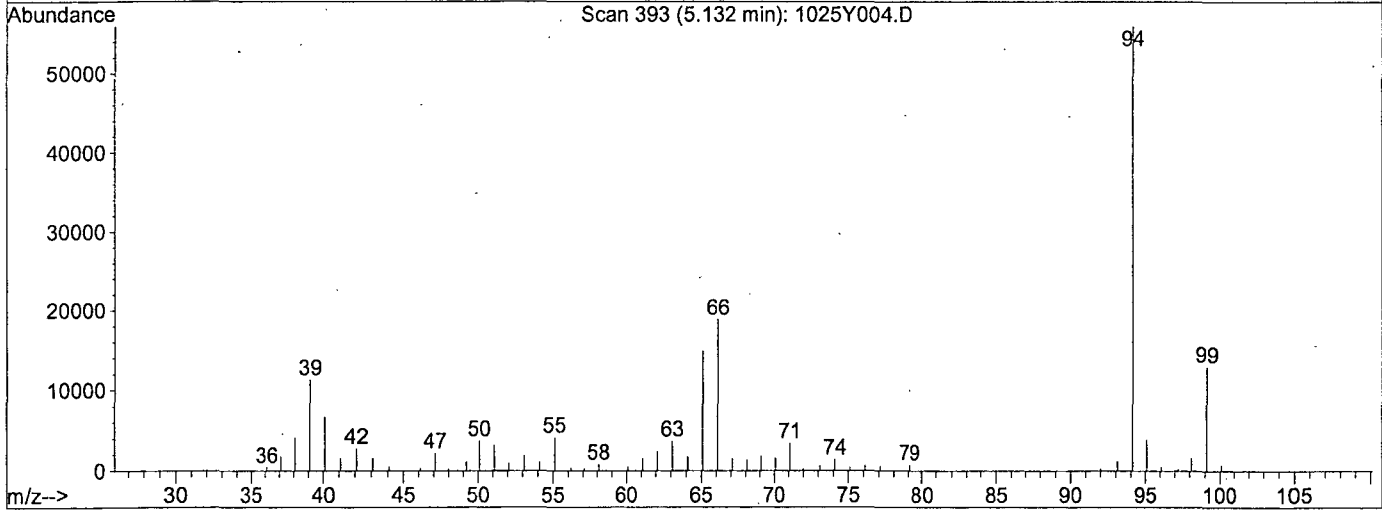
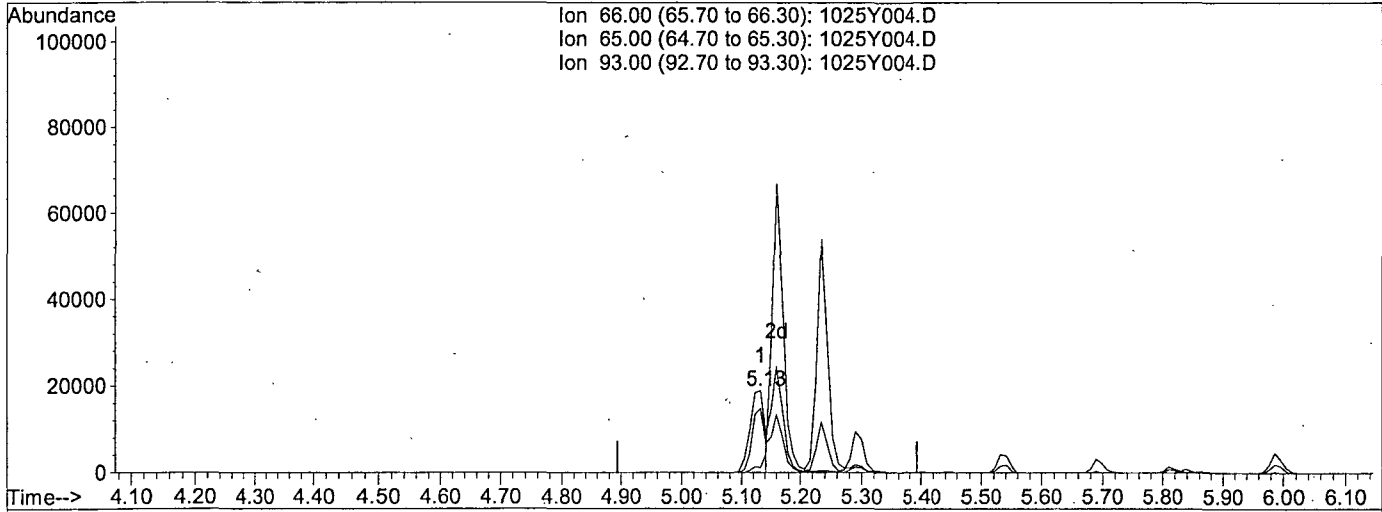


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y004.D  
 Acq On : 25 Oct 18 12:01  
 Sample : 5ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:22 2018

Vial: 4  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y004.D

(8) Aniline (TM)  
 5.13min 2.4771ppb  
 response 32826

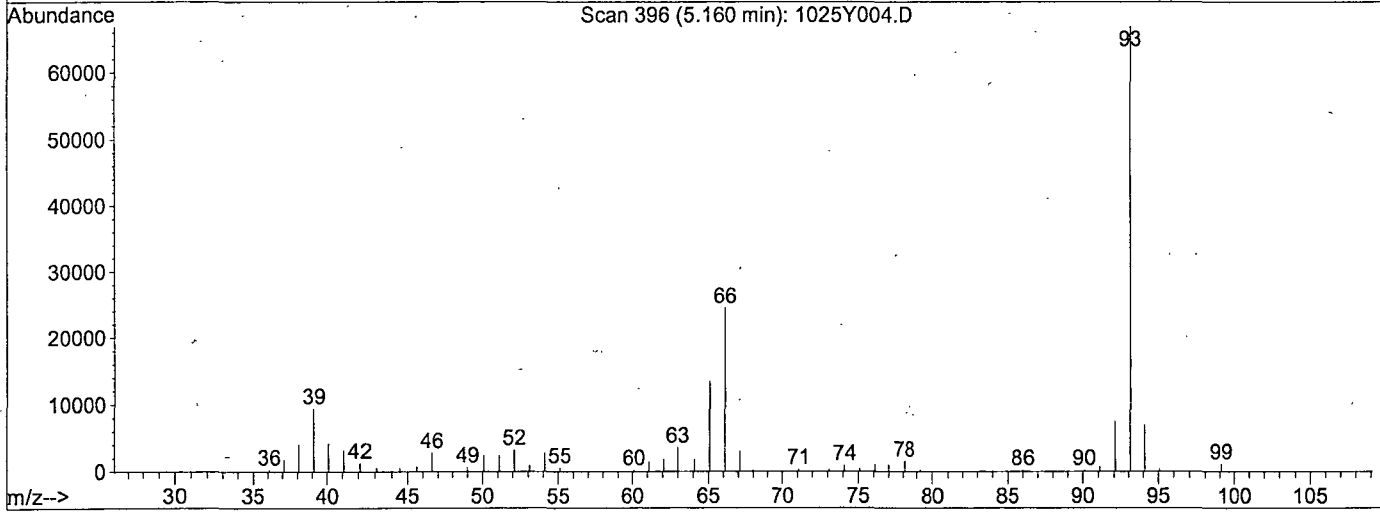
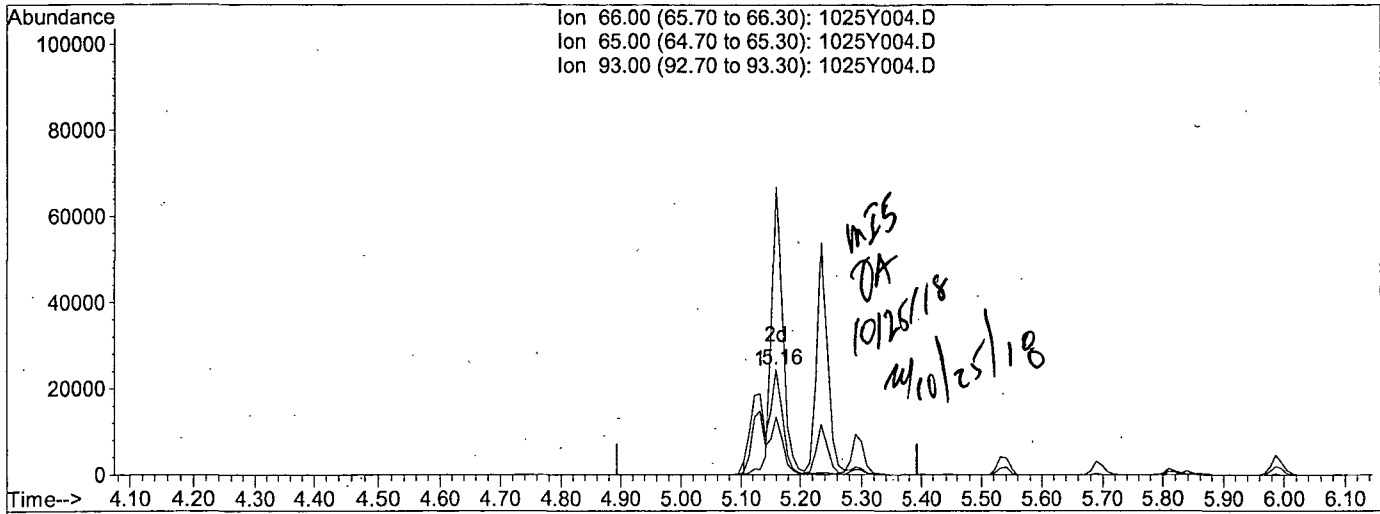
Ion	Exp%	Act%
66.00	100	100
65.00	73.00	78.83
93.00	16.80	6.35#
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y004.D  
 Acq On : 25 Oct 18 12:01  
 Sample : 5ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:40 2018

Vial: 4  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y004.D

(8) Aniline (TM)

5.16min 4.9110ppb m

response 65079

Ion	Exp%	Act%
66.00	100	100
65.00	73.00	54.86
93.00	16.80	272.63#
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y181025\1025Y005.D Vial: 5  
 Acq On : 25 Oct 18 12:28 Operator: MA  
 Sample : 10ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 25 16:40 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	300232	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1230861	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.01	164	631811	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1201882	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1205751	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	1240435	40.00000	ppb	0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.95	112	221221	18.94214	ppb	0.00
Spiked Amount 200.000			Recovery =	9.471%		
6) Phenol-D6 (S)	5.12	99	285328	20.43888	ppb	0.00
Spiked Amount 200.000			Recovery =	10.220%		
22) Nitrobenzene-D5 (S)	6.16	82	133193	9.62807	ppb	0.00
Spiked Amount 100.000			Recovery =	9.628%		
46) 2-Fluorobiphenyl (S)	8.22	172	279602	10.54906	ppb	0.00
Spiked Amount 100.000			Recovery =	10.549%		
64) 2,4,6-Tribromophenol (S)	9.94	330	67164	20.84527	ppb	0.00
Spiked Amount 200.000			Recovery =	10.423%		
82) Terphenyl-D14 (S)	12.63	244	328589	10.22856	ppb	0.00
Spiked Amount 100.000			Recovery =	10.229%		
Target Compounds						
2) 1,4-Dioxane	1.75	58	929	1.00388		Qvalue # 28
3) n-Nitrosodimethylamine	1.98	42	21711	9.58170	ppb	99
4) Pyridine	2.00	79	38193	11.37249	ppb	91
7) Phenol	5.13	94	206906	11.03338	ppb	94
8) Aniline	5.16	66	150183m	11.67874	ppb	1
9) Bis (2-chloroethyl) ether	5.24	63	101174	10.45077	ppb	98
10) 2-Chlorophenol	5.29	128	152294	10.56163	ppb	96
11) 1,3-DCB	5.47	146	161803	10.67379	ppb	98
12) 1,4-DCB	5.56	146	161804	10.65348	ppb	98
13) Benzyl alcohol	5.69	108	96968	10.53145	ppb	98
14) 1,2-DCB	5.73	146	154175	10.69843	ppb	97
15) 2-Methylphenol	5.81	107	120382	10.45634	ppb	97
16) Bis (2-chloroisopropyl) et	5.84	45	193925	10.62578	ppb	95
17) Acetophenone	6.00	105	207799	11.04127	ppb	# 65
18) 3&4-Methylphenol	5.99	107	326662	21.50272	ppb	93
19) n-Nitrosodi-n-propylamine	5.99	70	110886	11.82806	ppb	86
20) Hexachloroethane	6.11	117	59671	10.51312	ppb	97
23) Nitrobenzene	6.19	77	159416	10.46426	ppb	99
24) Isophorone	6.45	82	282118	10.56547	ppb	99
25) 2-Nitrophenol	6.55	139	79727	10.50448	ppb	95
26) 2,4-Dimethylphenol	6.58	122	137297	10.66244	ppb	96
27) Benzoic acid	6.66	105	84326	10.81134	ppb	98
28) Bis (2-chloroethoxy) metha	6.69	93	164934	10.84663	ppb	99
29) 2,4-Dichlorophenol	6.81	162	122464	10.68123	ppb	99
30) 1,2,4-Trichlorobenzene	6.92	180	131536	11.07691	ppb	96
31) 3,4-Dimethylphenol	6.93	107	186695	10.80192	ppb	99
32) Naphthalene	7.01	128	438668	10.94097	ppb	99
33) 4-Chloroaniline	7.07	127	176444	12.30075	ppb	96
34) 2,6-Dichlorophenol	7.07	162	119365	11.19004	ppb	99
35) Hexachloropropene	7.10	213	80130	10.15063	ppb	99
36) Hexachlorobutadiene	7.13	225	70672	10.70159	ppb	98
37) Caprolactum	7.46	55	70487	10.16881	ppb	93

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y005.D  
 Acq On : 25 Oct 18 12:28  
 Sample : 10ug/mL 8270 10/18/18  
 Misc :

Vial: 5  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.61	107	126043	10.41989	ppb	93
39) 2-Methylnaphthalene	7.80	142	276842	10.92661	ppb	99
40) 1-Methylnaphthalene	7.92	142	281584	11.16023	ppb	99
42) Hexachlorocyclopentadiene	7.98	237	51397	8.90604	ppb	96
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	132348	11.12180	ppb	97
44) 2,4,6-Trichlorophenol	8.12	196	87652	10.65793	ppb	97
45) 2,4,5-Trichlorophenol	8.17	196	90992	10.31238	ppb	99
47) 1,1'-Biphenyl	8.34	154	352803	11.35842	ppb	98
48) 2-Chloronaphthalene	8.36	162	273861	10.99149	ppb	100
49) 2-Nitroaniline	8.49	65	86904	10.47296	ppb	98
50) Dimethyl phthalate	8.69	163	310155	10.89603	ppb	99
51) 2,6-DNT	8.76	165	68241	10.69622	ppb	# 76
52) Acenaphthylene	8.85	152	430423	10.88350	ppb	99
53) 3-Nitroaniline	8.97	138	77548	10.73814	ppb	98
54) Acenaphthene	9.05	154	277166	11.51060	ppb	99
55) 2,4-Dinitrophenol	9.10	184	19452	9.77773	ppb	89
56) 4-Nitrophenol	9.16	65	51446	9.82417	ppb	99
57) Dibenzofuran	9.26	168	394310	11.63004	ppb	90
58) 2,4-DNT	9.24	165	92929	11.08363	ppb	89
59) 2,3,4,6-Tetrachlorophenol	9.40	232	75143	10.45294	ppb	98
60) Diethyl phthalate	9.51	149	303842	10.93776	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.66	204	148543	11.35154	ppb	85
62) Fluorene	9.66	166	315913	11.62498	ppb	99
63) 4-Nitroaniline	9.68	138	82137	10.94297	ppb	88
66) 4,6-Dinitro-2-methylphenol	9.71	198	48093	9.38585	ppb	93
67) Diphenyl amine	9.79	169	502110	20.34500	ppb	99
68) n-Nitrosodiphenylamine	9.79	169	502110	20.34500	ppb	99
69) 1,2-Diphenylhydrazine	9.83	77	332208	10.55674	ppb	96
70) 4-Bromophenyl phenyl ether	10.23	248	87774	10.64034	ppb	# 88
71) Hexachlorobenzene	10.30	284	95045	10.83471	ppb	# 86
72) Atrazine	10.41	200	36997	5.22448	ppb	98
73) Pentachlorophenol	10.53	266	47918	9.18154	ppb	95
74) Phenanthrene	10.79	178	467458	10.98724	ppb	99
75) Anthracene	10.84	178	489721	11.24781	ppb	99
76) Carbazol	11.04	167	442898	10.88274	ppb	99
77) Di-n-butylphthalate	11.43	149	506128	10.95897	ppb	99
78) Fluoranthene	12.18	202	495904	10.93795	ppb	97
80) Benzidine	12.34	184	172692	13.26912	ppb	# 97
81) Pyrene	12.45	202	527058	10.66163	ppb	99
83) Butyl benzylphthalate	13.18	149	222487	10.19998	ppb	93
84) 3,3'-Dichlorobenzidine	13.81	252	174217	11.76697	ppb	98
85) Benz (a) anthracene	13.85	228	482577	11.32071	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	319582	11.52940	ppb	97
87) Chrysene	13.89	228	479657	10.67126	ppb	99
88) Di-n-octylphthalate	14.62	149	511451	10.09760	ppb	100
90) Benzo (b) fluoranthene	15.22	252	467753	10.21786	ppb	98
91) Benzo (k) fluoranthene	15.25	252	474686	10.98227	ppb	98
92) Benzo (a) pyrene	15.72	252	432472	10.35493	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.82	276	479114	9.97285	ppb	96
94) Dibenz (a,h) anthracene	17.85	278	418696	10.15110	ppb	97
95) Benzo (g,h,i) perylene	18.43	276	396150	10.06399	ppb	96

Quantitation Report

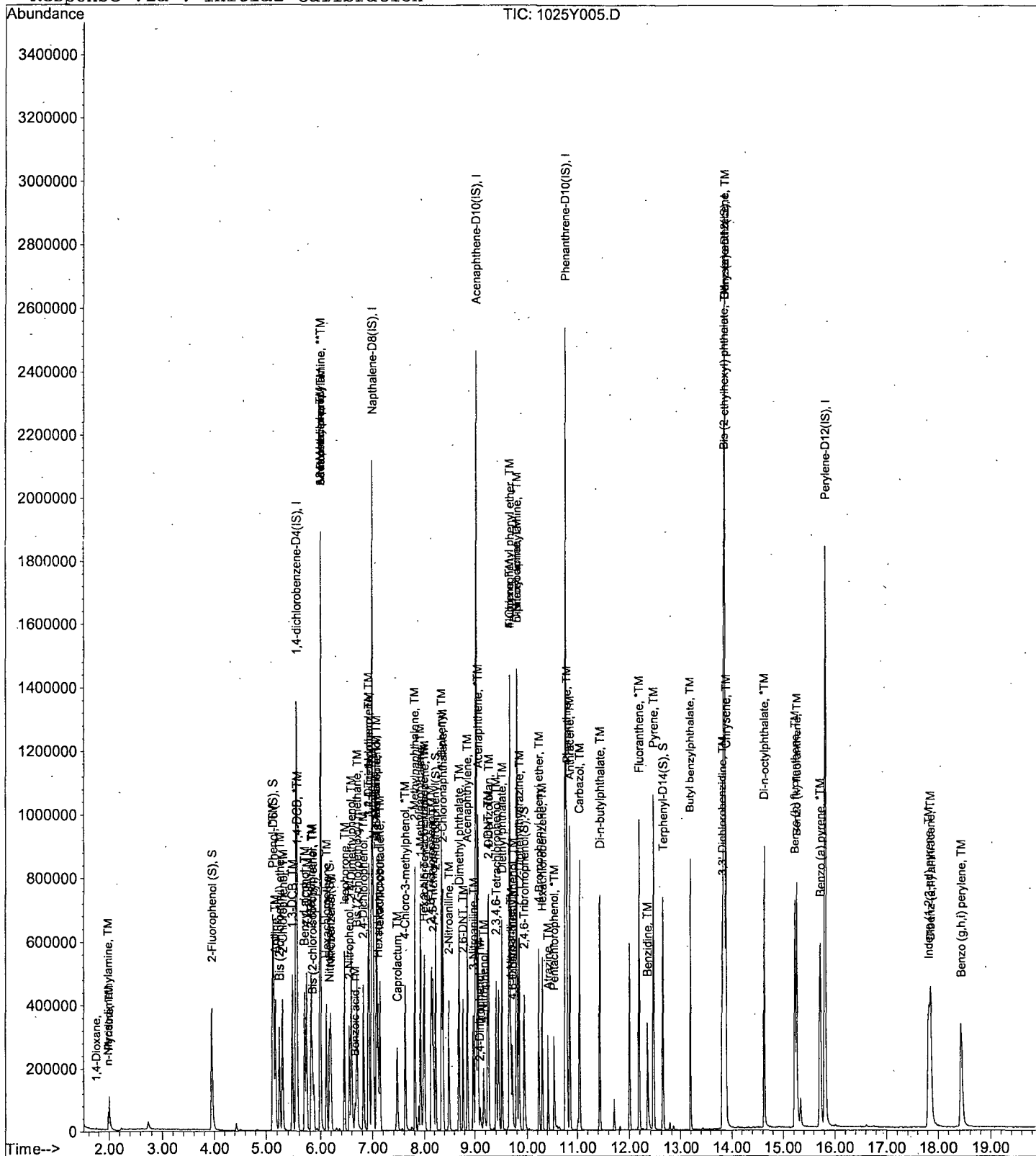
Data File : M:\YODA\DATA\Y181025\1025Y005.D  
Acq On : 25 Oct 18 12:28  
Sample : 10ug/mL 8270 10/18/18  
Misc :

Vial: 5  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

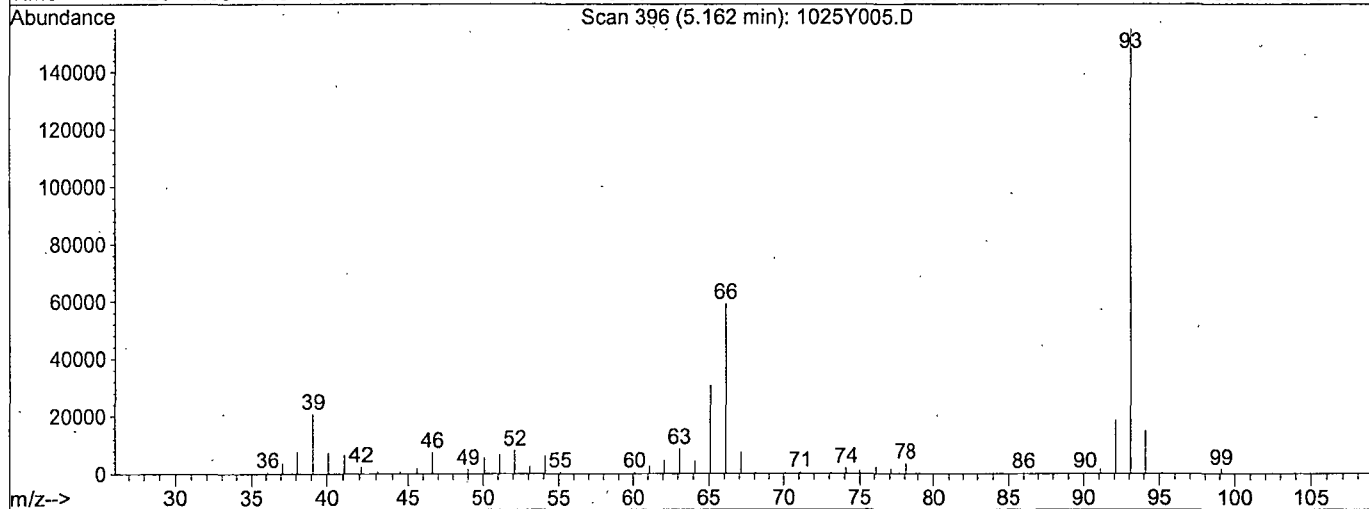
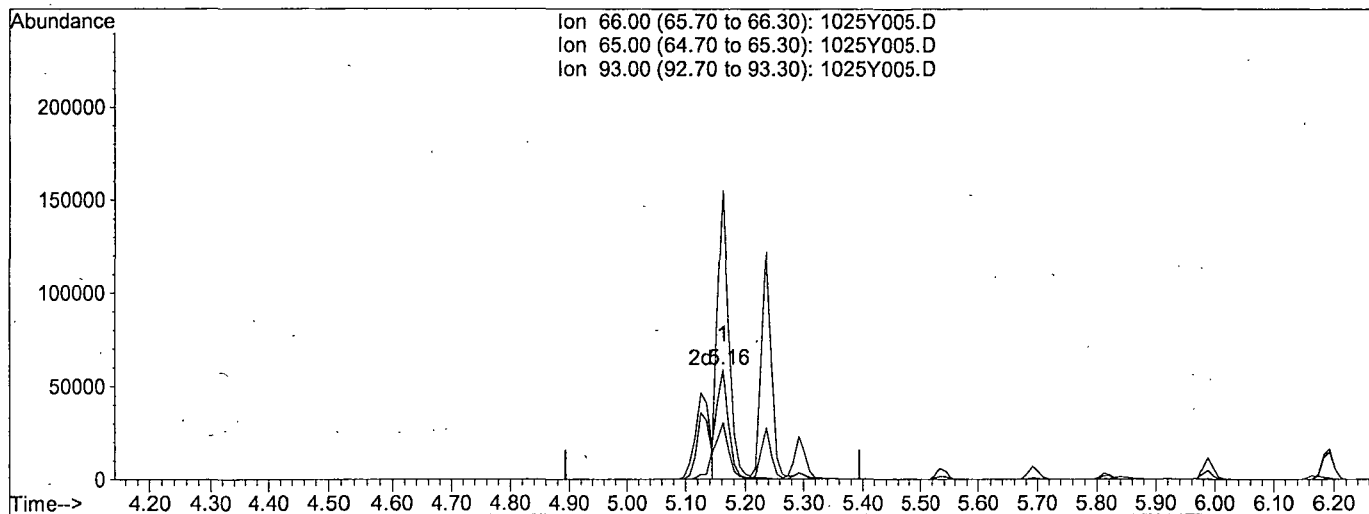
Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y005.D Vial: 5  
 Acq On : 25 Oct 18 12:28 Operator: MA  
 Sample : 10ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Oct 25 14:36 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y005.D

(8) Aniline (TM)

5.16min 6.2649ppb

response 80563

Ion	Exp%	Act%
66.00	100	100
65.00	73.00	50.79#
93.00	16.80	258.44#
0.00	0.00	0.00

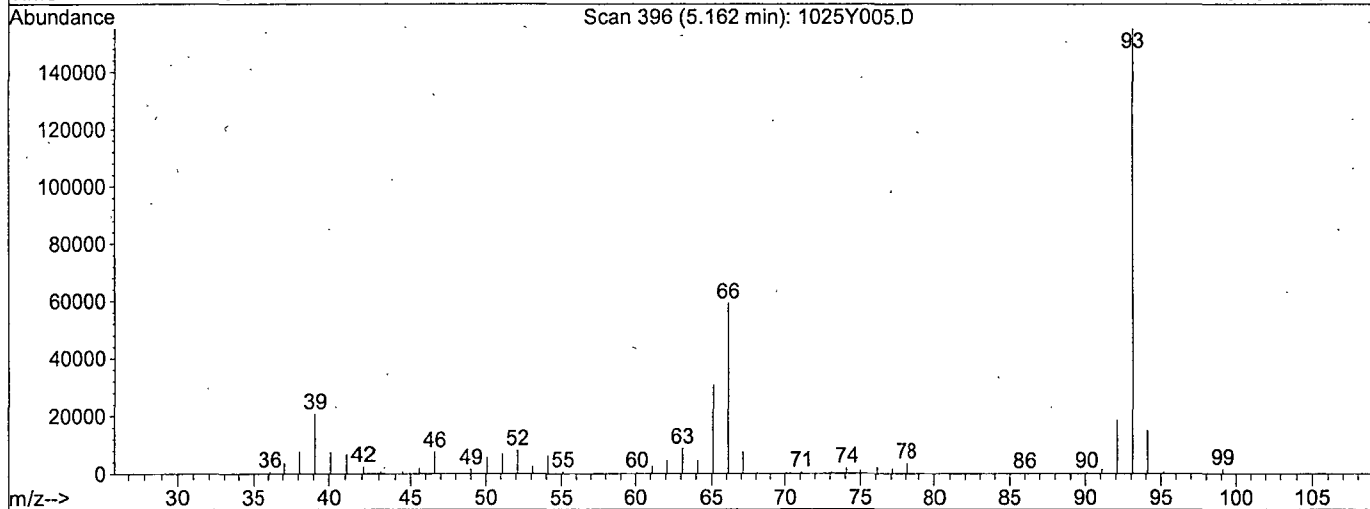
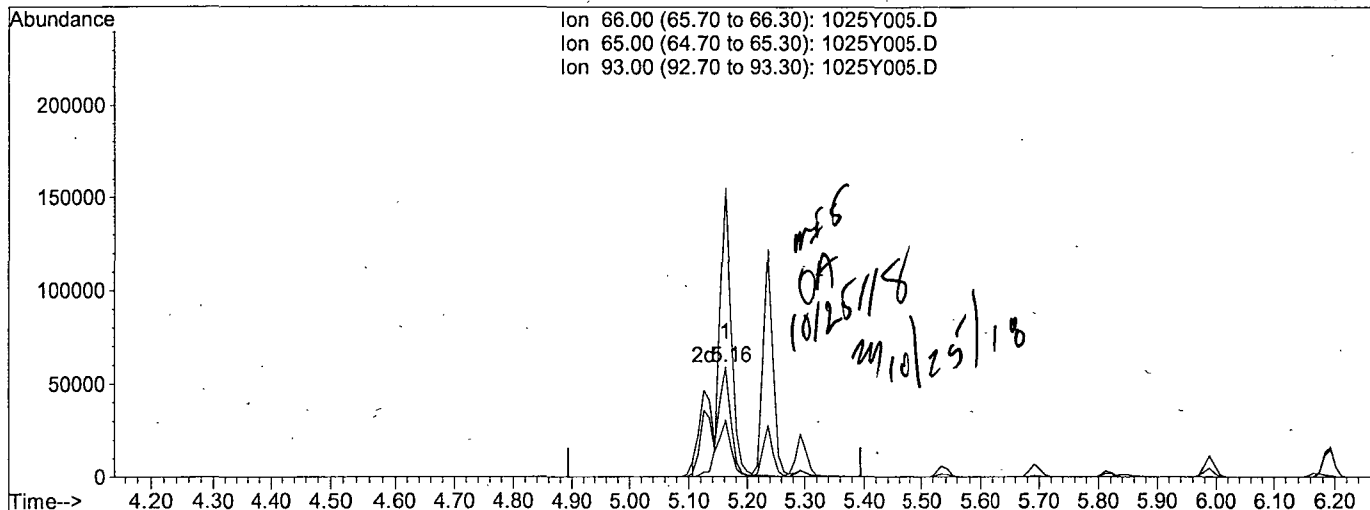


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y005.D  
 Acq On : 25 Oct 18 12:28  
 Sample : 10ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:40 2018

Vial: 5  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y005.D

(8) Aniline (TM)

5.16min 11.6787ppb m

response 150183

Ion	Exp%	Act%
66.00	100	100
65.00	73.00	51.84
93.00	16.80	262.84#
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y181025\1025Y006.D  
 Acq On : 25 Oct 18 12:56  
 Sample : 20ug/mL 8270 10/18/18  
 Misc :

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:41 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	290382	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1223444	40.00000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	629900	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1204770	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1181082	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	1220701	40.00000	ppb	-0.01

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.94	112	490073	43.37727	ppb	0.00
Spiked Amount 200.000			Recovery =	21.689%		
6) Phenol-D6 (S)	5.11	99	607802	45.05458	ppb	-0.01
Spiked Amount 200.000			Recovery =	22.528%		
22) Nitrobenzene-D5 (S)	6.17	82	286469	20.83144	ppb	0.00
Spiked Amount 100.000			Recovery =	20.831%		
46) 2-Fluorobiphenyl (S)	8.22	172	573636	21.68875	ppb	0.00
Spiked Amount 100.000			Recovery =	21.689%		
64) 2,4,6-Tribromophenol (S)	9.94	330	143138	44.65770	ppb	-0.01
Spiked Amount 200.000			Recovery =	22.329%		
82) Terphenyl-D14 (S)	12.62	244	675637	21.47388	ppb	0.00
Spiked Amount 100.000			Recovery =	21.474%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	2020	2.21754		95
3) n-Nitrosodimethylamine	1.98	42	42026	19.06529	ppb	96
4) Pyridine	1.99	79	63452	19.10237	ppb	92
7) Phenol	5.13	94	409389	22.56257	ppb	91
8) Aniline	5.16	66	306972m	25.94663	ppb	92
9) Bis (2-chloroethyl) ether	5.23	63	198837	21.22817	ppb	99
10) 2-Chlorophenol	5.29	128	298595	21.37682	ppb	95
11) 1,3-DCB	5.47	146	317791	21.68657	ppb	99
12) 1,4-DCB	5.56	146	316843	21.58129	ppb	99
13) Benzyl alcohol	5.70	108	192921	21.56642	ppb	94
14) 1,2-DCB	5.73	146	300114	21.53440	ppb	99
15) 2-Methylphenol	5.82	107	237023	21.28708	ppb	97
16) Bis (2-chloroisopropyl) et	5.84	45	379752	21.51483	ppb	95
17) Acetophenone	6.00	105	382272	24.76023	ppb	80
18) 3&4-Methylphenol	5.99	107	586631	50.98185	ppb	95
19) n-Nitrosodi-n-propylamine	6.00	70	205387	22.64950	ppb	86
20) Hexachloroethane	6.11	117	116876	21.29903	ppb	97
23) Nitrobenzene	6.19	77	314344	20.77440	ppb	97
24) Isophorone	6.45	82	559872	21.08450	ppb	96
25) 2-Nitrophenol	6.54	139	161628	21.33251	ppb	94
26) 2,4-Dimethylphenol	6.59	122	271081	21.19767	ppb	96
27) Benzoic acid	6.69	105	202378	20.35540	ppb	97
28) Bis (2-chloroethoxy) metha	6.69	93	316442	20.92408	ppb	100
29) 2,4-Dichlorophenol	6.82	162	239229	21.04386	ppb	95
30) 1,2,4-Trichlorobenzene	6.91	180	251353	21.31809	ppb	98
31) 3,4-Dimethylphenol	6.92	107	370196	21.57853	ppb	99
32) Napthalene	7.01	128	845753	21.25336	ppb	100
33) 4-Chloroaniline	7.07	127	340170	23.24506	ppb	94
34) 2,6-Dichlorophenol	7.07	162	234656	22.23655	ppb	97
35) Hexachloropropene	7.10	213	166441	21.28804	ppb	98
36) Hexachlorobutadiene	7.14	225	137304	20.94525	ppb	100
37) Caprolactum	7.47	55	145853	21.26970	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1025Y006.D Y1025NC.M Thu Oct 25 17:29:30 2018

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y006.D  
 Acq On : 25 Oct 18 12:56  
 Sample : 20ug/mL 8270 10/18/18  
 Misc :

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:41 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.62	107	256526	21.38628	ppb	99
39) 2-Methylnaphthalene	7.80	142	536219	21.36229	ppb	98
40) 1-Methylnaphthalene	7.92	142	547012	21.77716	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	120772	21.00856	ppb	98
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	261867	22.08838	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	176463	21.55275	ppb	98
45) 2,4,5-Trichlorophenol	8.18	196	187473	21.41641	ppb	98
47) 1,1'-Biphenyl	8.34	154	683309	22.07949	ppb	98
48) 2-Chloronaphthalene	8.37	162	543325	21.89555	ppb	96
49) 2-Nitroaniline	8.48	65	175336	21.17902	ppb	96
50) Dimethyl phthalate	8.69	163	604425	21.31030	ppb	99
51) 2,6-DNT	8.77	165	139132	21.81691	ppb	94
52) Acenaphthylene	8.86	152	869059	22.09946	ppb	99
53) 3-Nitroaniline	8.97	138	160814	22.21857	ppb	98
54) Acenaphthene	9.05	154	525829	21.82990	ppb	99
55) 2,4-Dinitrophenol	9.10	184	64350	20.18899	ppb	90
56) 4-Nitrophenol	9.16	65	113018	21.37567	ppb	98
57) Dibenzofuran	9.25	168	750248	22.14745	ppb	93
58) 2,4-DNT	9.24	165	190755	22.75923	ppb	95
59) 2,3,4,6-Tetrachlorophenol	9.39	232	155081	21.62025	ppb	96
60) Diethyl phthalate	9.51	149	595935	21.52627	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.65	204	283357	21.76006	ppb	90
62) Fluorene	9.65	166	604520	22.33864	ppb	99
63) 4-Nitroaniline	9.68	138	164058	21.74134	ppb	96
66) 4,6-Dinitro-2-methylphenol	9.72	198	114155	22.13697	ppb	# 81
67) Diphenyl amine	9.79	169	956412	38.77147	ppb	99
68) n-Nitrosodiphenylamine	9.79	169	956412	38.77147	ppb	99
69) 1,2-Diphenylhydrazine	9.84	77	649971	20.60106	ppb	92
70) 4-Bromophenyl phenyl ether	10.23	248	174149	21.07741	ppb	93
71) Hexachlorobenzene	10.29	284	186511	21.24507	ppb	91
72) Atrazine	10.41	200	73704	10.39108	ppb	96
73) Pentachlorophenol	10.54	266	108637	20.77287	ppb	98
74) Phenanthrene	10.79	178	915505	21.55342	ppb	99
75) Anthracene	10.85	178	943897	21.63629	ppb	99
76) Carbazol	11.04	167	850675	20.89859	ppb	100
77) Di-n-butylphthalate	11.43	149	1009471	21.85094	ppb	99
78) Fluoranthene	12.19	202	974932	21.45718	ppb	98
80) Benzidine	12.35	184	353619	23.38081	ppb	99
81) Pyrene	12.46	202	1037225	21.42193	ppb	99
83) Butyl benzylphthalate	13.19	149	455845	21.34257	ppb	93
84) 3,3'-Dichlorobenzidine	13.82	252	360616	24.23295	ppb	98
85) Benz (a) anthracene	13.85	228	948804	22.72143	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	624664	23.08335	ppb	99
87) Chrysene	13.90	228	920508	20.92565	ppb	100
88) Di-n-octylphthalate	14.62	149	1042686	21.03047	ppb	94
90) Benzo (b) fluoranthene	15.22	252	988569	21.92385	ppb	99
91) Benzo (k) fluoranthene	15.26	252	890455	20.93840	ppb	99
92) Benzo (a) pyrene	15.72	252	868827	21.10545	ppb	98
93) Indeno (1,2,3-cd) pyrene	17.82	276	991343	21.01223	ppb	98
94) Dibenz (a,h) anthracene	17.87	278	870568	21.47174	ppb	99
95) Benzo (g,h,i) perylene	18.44	276	805511	20.82183	ppb	99

Quantitation Report

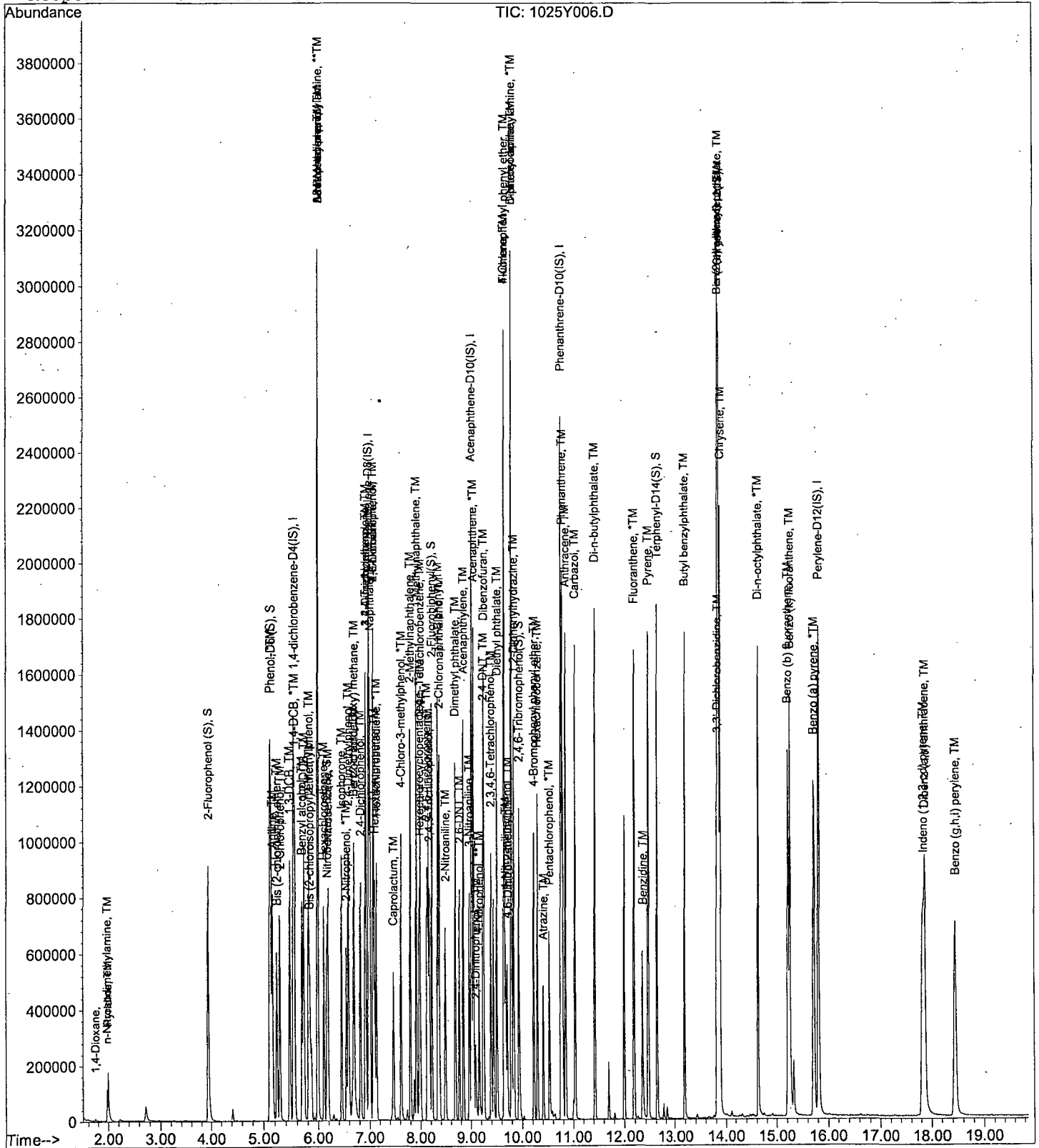
Data File : M:\YODA\DATA\Y181025\1025Y006.D  
 Acq On : 25 Oct 18 12:56  
 Sample : 20ug/mL 8270 10/18/18  
 Misc :

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:41 2018

Quant Results File: Y1025NC.RES

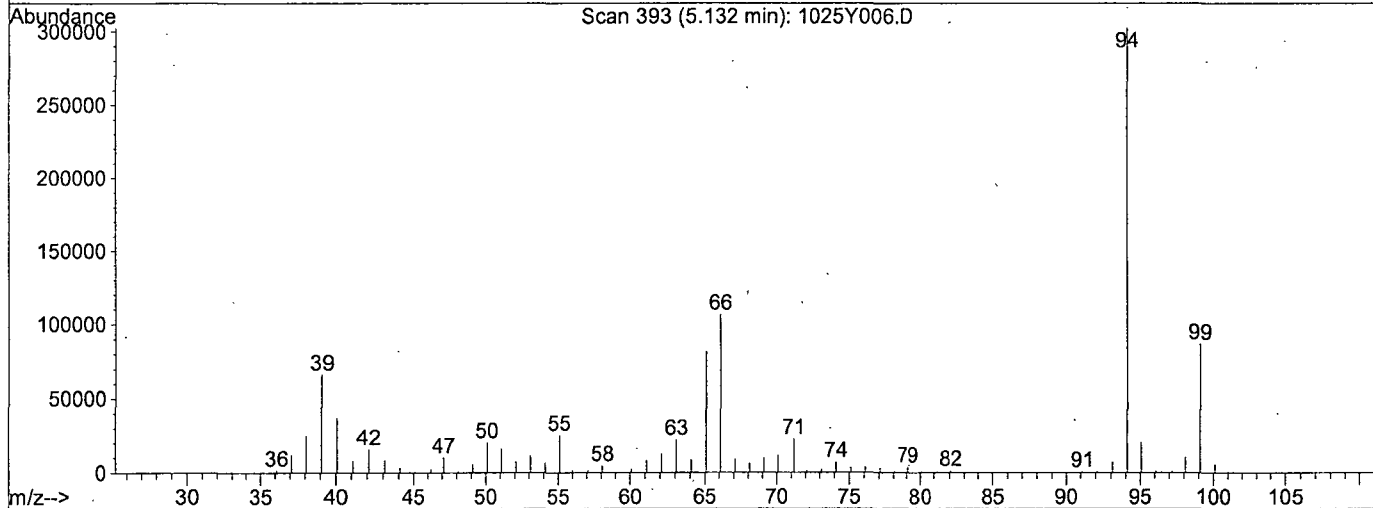
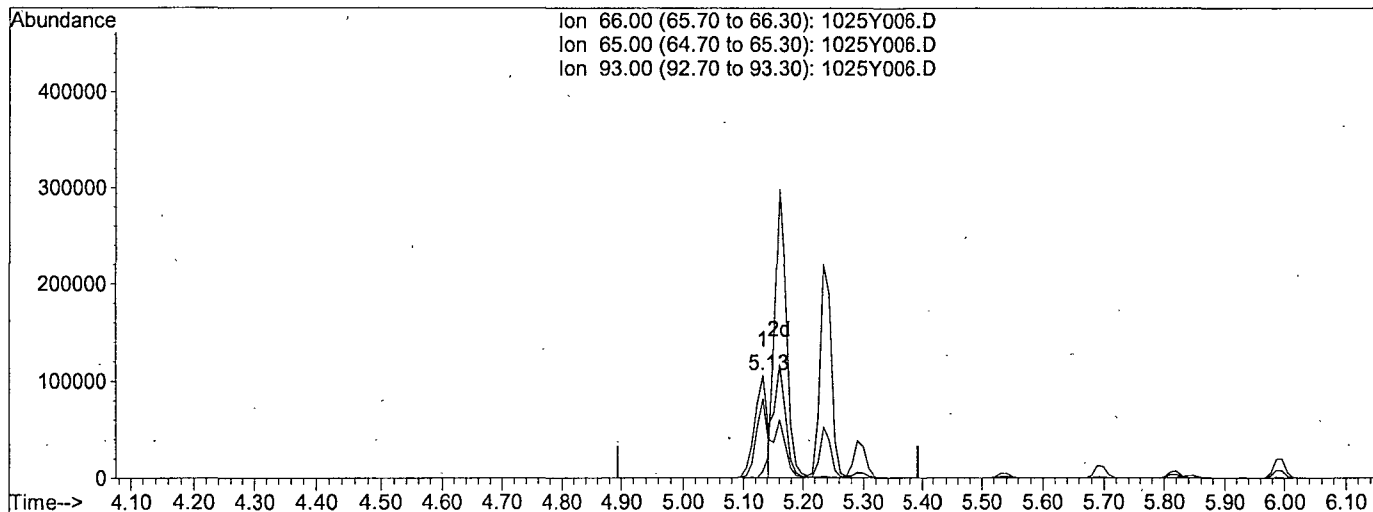
Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration



Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y006.D Vial: 6  
 Acq On : 25 Oct 18 12:56 Operator: MA  
 Sample : 20ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Oct 25 14:36 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y006.D

(8) Aniline (TM)

5.13min 13.2238ppb

response 156450

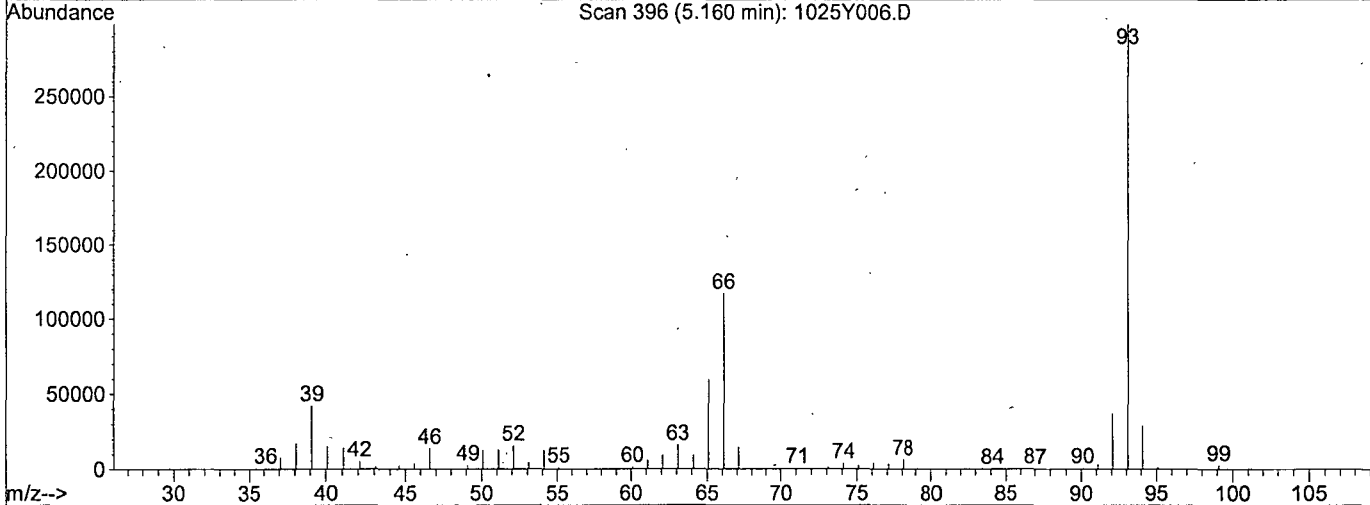
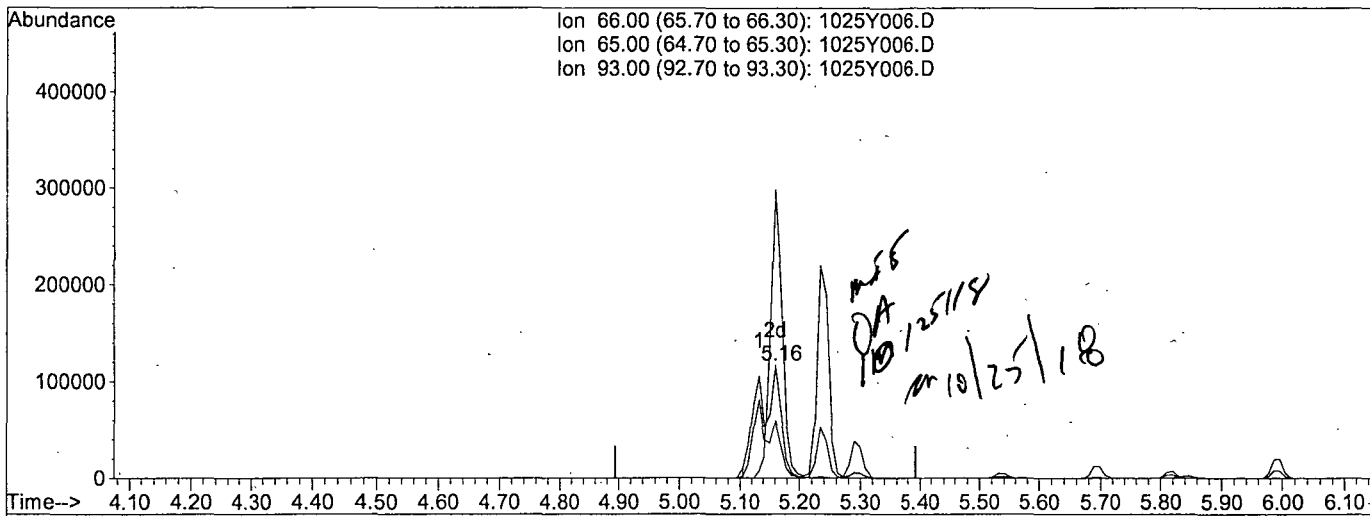
Ion	Exp%	Act%
66.00	100	100
65.00	73.00	76.89
93.00	16.80	6.73#
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y006.D  
 Acq On : 25 Oct 18 12:56  
 Sample : 20ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:41 2018

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y006.D

(8) Aniline (TM)

5.16min 25.9466ppb m

response 306972

Ion	Exp%	Act%
66.00	100	100
65.00	73.00	50.95#
93.00	16.80	255.04#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y007.D  
 Acq On : 25 Oct 18 13:24  
 Sample : 40ug/mL 8270 10/18/18  
 Misc :

Vial: 7  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 14:36 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	318018	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1294060	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	666705	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1245079	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1191788	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1280764	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.94	112	1010384	81.59307	ppb	0.00
Spiked Amount 200.000			Recovery =	40.797%		
6) Phenol-D6 (S)	5.12	99	1176481	79.46738	ppb	0.00
Spiked Amount 200.000			Recovery =	39.734%		
22) Nitrobenzene-D5 (S)	6.17	82	582928	40.21356	ppb	0.00
Spiked Amount 100.000			Recovery =	40.214%		
46) 2-Fluorobiphenyl (S)	8.22	172	1102793	39.41556	ppb	0.00
Spiked Amount 100.000			Recovery =	39.416%		
64) 2,4,6-Tribromophenol (S)	9.95	330	280665	82.93676	ppb	0.00
Spiked Amount 200.000			Recovery =	41.469%		
82) Terphenyl-D14 (S)	12.62	244	1266713	39.94442	ppb	0.00
Spiked Amount 100.000			Recovery =	39.944%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	3677	3.67592		97
3) n-Nitrosodimethylamine	1.98	42	100802	41.95571	ppb	100
4) Pyridine	1.99	79	145029	40.25904	ppb	93
7) Phenol	5.14	94	790588	39.71079	ppb	95
8) Aniline	5.14	66	628810	51.73854	ppb	97
9) Bis (2-chloroethyl) ether	5.24	63	395928	38.56012	ppb	97
10) 2-Chlorophenol	5.30	128	596775	38.87640	ppb	99
11) 1,3-DCB	5.48	146	619939	38.52312	ppb	100
12) 1,4-DCB	5.56	146	638372	39.61299	ppb	98
13) Benzyl alcohol	5.70	108	385142	39.26432	ppb	99
14) 1,2-DCB	5.73	146	585503	38.26801	ppb	99
15) 2-Methylphenol	5.82	107	491626	40.21265	ppb	98
16) Bis (2-chloroisopropyl) et	5.85	45	763870	39.43313	ppb	93
17) Acetophenone	6.01	105	645527	40.38143	ppb	81
18) 3&4-Methylphenol	6.00	107	983419	85.13996	ppb	98
19) n-Nitrosodi-n-propylamine	6.01	70	363553	36.40816	ppb	88
20) Hexachloroethane	6.11	117	232599	38.58005	ppb	97
23) Nitrobenzene	6.19	77	635205	39.86102	ppb	93
24) Isophorone	6.46	82	1106500	39.50287	ppb	98
25) 2-Nitrophenol	6.55	139	325742	40.65749	ppb	99
26) 2,4-Dimethylphenol	6.59	122	540521	40.09089	ppb	97
27) Benzoic acid	6.72	105	461041	39.47378	ppb	97
28) Bis (2-chloroethoxy) metha	6.70	93	620310	38.99171	ppb	99
29) 2,4-Dichlorophenol	6.82	162	476984	39.83231	ppb	98
30) 1,2,4-Trichlorobenzene	6.92	180	491077	39.55043	ppb	98
31) 3,4-Dimethylphenol	6.93	107	723882	39.94000	ppb	97
32) Naphthalene	7.01	128	1667378	39.74317	ppb	100
33) 4-Chloroaniline	7.07	127	626753	39.96712	ppb	98
34) 2,6-Dichlorophenol	7.08	162	438666	39.45736	ppb	98
35) Hexachloropropene	7.10	213	333703	40.48736	ppb	99
36) Hexachlorobutadiene	7.14	225	275831	39.98878	ppb	96
37) Caprolactum	7.49	55	293160	40.49900	ppb	99

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y007.D  
 Acq On : 25 Oct 18 13:24  
 Sample : 40ug/mL 8270 10/18/18  
 Misc :

Vial: 7  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 14:36 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.62	107	501052	39.54708	ppb	94
39) 2-Methylnaphthalene	7.81	142	1044016	39.57169	ppb	100
40) 1-Methylnaphthalene	7.92	142	1035684	39.08276	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	276017	45.51106	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	501748	39.97453	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	349193	40.28802	ppb	97
45) 2,4,5-Trichlorophenol	8.18	196	365033	39.44211	ppb	96
47) 1,1'-Biphenyl	8.34	154	1313687	40.19664	ppb	99
48) 2-Chloronaphthalene	8.37	162	1035114	39.42092	ppb	99
49) 2-Nitroaniline	8.49	65	361980	41.26398	ppb	95
50) Dimethyl phthalate	8.70	163	1200934	40.05736	ppb	100
51) 2,6-DNT	8.77	165	283467	41.88994	ppb #	77
52) Acenaphthylene	8.86	152	1716029	41.20615	ppb	99
53) 3-Nitroaniline	8.98	138	314968	40.87729	ppb	96
54) Acenaphthene	9.06	154	999581	39.22237	ppb	100
55) 2,4-Dinitrophenol	9.10	184	154249	39.02320	ppb	98
56) 4-Nitrophenol	9.17	65	243516	43.12342	ppb	99
57) Dibenzofuran	9.25	168	1426743	39.85636	ppb	98
58) 2,4-DNT	9.25	165	371114	41.78144	ppb	96
59) 2,3,4,6-Tetrachlorophenol	9.40	232	315102	41.51349	ppb	97
60) Diethyl phthalate	9.51	149	1161119	39.70067	ppb	98
61) 4-Chlorophenyl phenyl ethe	9.65	204	507141	36.80762	ppb	96
62) Fluorene	9.66	166	1086613	37.92570	ppb	99
63) 4-Nitroaniline	9.70	138	319922	39.79147	ppb	89
66) 4,6-Dinitro-2-methylphenol	9.73	198	239355	44.72343	ppb #	79
67) Diphenyl amine	9.80	169	1705706	67.00904	ppb	98
68) n-Nitrosodiphenylamine	9.80	169	1705706	67.00904	ppb	98
69) 1,2-Diphenylhydrazine	9.84	77	1272463	39.16968	ppb	99
70) 4-Bromophenyl phenyl ether	10.23	248	340841	40.13013	ppb	97
71) Hexachlorobenzene	10.29	284	354740	39.28942	ppb	98
72) Atrazine	10.41	200	155235	21.33653	ppb	97
73) Pentachlorophenol	10.54	266	231100	42.95095	ppb	99
74) Phenanthrene	10.79	178	1749355	40.00535	ppb	100
75) Anthracene	10.85	178	1782539	39.68801	ppb	99
76) Carbazol	11.05	167	1675104	40.06149	ppb	99
77) Di-n-butylphthalate	11.43	149	1943518	40.76549	ppb	100
78) Fluoranthene	12.19	202	1845733	39.45176	ppb	99
80) Benzidine	12.35	184	677888	41.42354	ppb	100
81) Pyrene	12.46	202	1968970	40.26998	ppb	100
83) Butyl benzylphthalate	13.19	149	894703	41.54886	ppb	98
84) 3,3'-Dichlorobenzidine	13.82	252	663209	42.95692	ppb	99
85) Benz (a) anthracene	13.86	228	1631151	38.51858	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1111031	40.66159	ppb	99
87) Chrysene	13.90	228	1773653	40.13804	ppb	99
88) Di-n-octylphthalate	14.63	149	2107342	42.13889	ppb	98
90) Benzo (b) fluoranthene	15.22	252	1816648	37.99937	ppb	99
91) Benzo (k) fluoranthene	15.27	252	1891672	42.87610	ppb	99
92) Benzo (a) pyrene	15.73	252	1759365	40.70527	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.83	276	2006266	40.51838	ppb	98
94) Dibenz (a,h) anthracene	17.88	278	1746636	40.99599	ppb	98
95) Benzo (g,h,i) perylene	18.46	276	1666927	41.10992	ppb	99



Quantitation Report

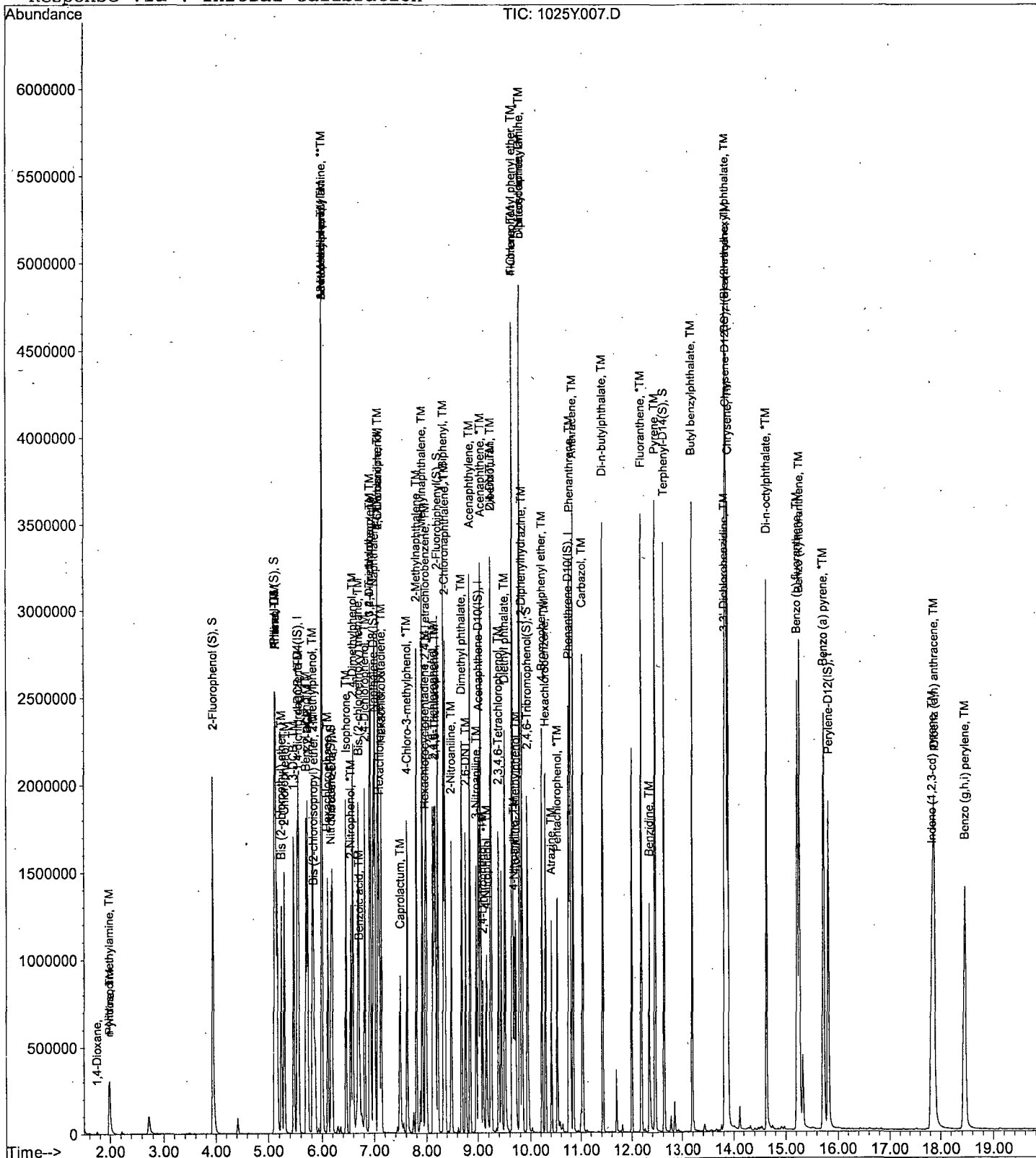
Data File : M:\YODA\DATA\Y181025\1025Y007.D  
 Acq On : 25 Oct 18 13:24  
 Sample : 40ug/mL 8270 10/18/18  
 Misc :

Vial: 7  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 14:36 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y008.D  
 Acq On : 25 Oct 18 13:52  
 Sample : 50ug/mL 8270 10/18/18  
 Misc :

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:06 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)

Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	354562	40.00000	ppb	0.00
21) Naphthalene-D8 (IS)	6.99	136	1447172	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	756305	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1417504	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1348063	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1457106	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	1476673	105.59151	ppb	0.00
Spiked Amount 200.000			Recovery =	52.796%		
6) Phenol-D6 (S)	5.13	99	1720681	103.75090	ppb	0.00
Spiked Amount 200.000			Recovery =	51.876%		
22) Nitrobenzene-D5 (S)	6.17	82	904668	54.71817	ppb	0.00
Spiked Amount 100.000			Recovery =	54.718%		
46) 2-Fluorobiphenyl (S)	8.23	172	1650975	52.03860	ppb	0.00
Spiked Amount 100.000			Recovery =	52.039%		
64) 2,4,6-Tribromophenol (S)	9.95	330	409016	104.48747	ppb	0.00
Spiked Amount 200.000			Recovery =	52.244%		
82) Terphenyl-D14 (S)	12.63	244	1869638	51.62897	ppb	0.00
Spiked Amount 100.000			Recovery =	51.629%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	5509	4.96554		100
3) n-Nitrosodimethylamine	1.98	42	151913	56.77704	ppb	100
4) Pyridine	1.99	79	224654	53.95160	ppb	100
7) Phenol	5.14	94	1064541	48.04938	ppb	100
8) Aniline	5.14	66	888774	52.62143	ppb	100
9) Bis (2-chloroethyl) ether	5.25	63	563104	48.65181	ppb	100
10) 2-Chlorophenol	5.30	128	840944	49.34459	ppb	100
11) 1,3-DCB	5.48	146	856664	47.67136	ppb	100
12) 1,4-DCB	5.56	146	844788	47.12906	ppb	100
13) Benzyl alcohol	5.70	108	548899	49.80860	ppb	100
14) 1,2-DCB	5.73	146	813072	47.86788	ppb	100
15) 2-Methylphenol	5.82	107	662132	48.75806	ppb	100
16) Bis (2-chloroisopropyl) et	5.84	45	1063565	48.91484	ppb	100
17) Acetophenone	6.01	105	837712	48.57460	ppb	100
18) 3&4-Methylphenol	6.01	107	1271955	96.38878	ppb	100
19) n-Nitrosodi-n-propylamine	6.01	70	516912	45.78402	ppb	100
20) Hexachloroethane	6.11	117	327022	48.38896	ppb	100
23) Nitrobenzene	6.20	77	899117	49.58439	ppb	100
24) Isophorone	6.47	82	1584593	49.74787	ppb	100
25) 2-Nitrophenol	6.56	139	461968	50.94462	ppb	100
26) 2,4-Dimethylphenol	6.59	122	745372	48.90901	ppb	100
27) Benzoic acid	6.74	105	705002	52.14223	ppb	100
28) Bis (2-chloroethoxy) metha	6.70	93	877816	48.91333	ppb	100
29) 2,4-Dichlorophenol	6.82	162	672319	49.76393	ppb	100
30) 1,2,4-Trichlorobenzene	6.92	180	670646	47.78272	ppb	100
31) 3,4-Dimethylphenol	6.94	107	1022611	49.57535	ppb	100
32) Naphthalene	7.01	128	2265416	48.24380	ppb	100
33) 4-Chloroaniline	7.08	127	849844	52.65530	ppb	100
34) 2,6-Dichlorophenol	7.08	162	589534	47.52855	ppb	100
35) Hexachloropropene	7.10	213	479179	50.88754	ppb	100
36) Hexachlorobutadiene	7.14	225	376623	48.19772	ppb	100
37) Caprolactum	7.51	55	424032	51.35549	ppb	100

(#) = qualifier out of range (m) = manual integration  
 1025Y008.D Y1025NC.M Thu Oct 25 17:29:39 2018

## Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y008.D Vial: 8  
 Acq On : 25 Oct 18 13:52 Operator: MA  
 Sample : 50ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 25 16:06 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	727515	50.35943	ppb	100
39) 2-Methylnaphthalene	7.81	142	1444015	48.36749	ppb	100
40) 1-Methylnaphthalene	7.92	142	1420373	47.88072	ppb	100
42) Hexachlorocyclopentadiene	7.98	237	409755	52.90002	ppb	100
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	691484	48.42004	ppb	100
44) 2,4,6-Trichlorophenol	8.13	196	502528	50.42615	ppb	100
45) 2,4,5-Trichlorophenol	8.19	196	518787	48.64596	ppb	100
47) 1,1'-Biphenyl	8.35	154	1773411	47.45435	ppb	100
48) 2-Chloronaphthalene	8.37	162	1456928	48.67684	ppb	100
49) 2-Nitroaniline	8.50	65	525275	51.89217	ppb	100
50) Dimethyl phthalate	8.70	163	1698457	49.27260	ppb	100
51) 2,6-DNT	8.78	165	411620	52.25122	ppb	100
52) Acenaphthylene	8.86	152	2346114	49.34103	ppb	100
53) 3-Nitroaniline	8.98	138	454608	52.53829	ppb	100
54) Acenaphthene	9.06	154	1394818	48.42040	ppb	100
55) 2,4-Dinitrophenol	9.10	184	245054m	50.15466	ppb	100
56) 4-Nitrophenol	9.17	65	367119	54.28665	ppb	100
57) Dibenzofuran	9.26	168	1899351	47.39435	ppb	100
58) 2,4-DNT	9.25	165	506947	50.25700	ppb	100
59) 2,3,4,6-Tetrachlorophenol	9.41	232	445166	51.06694	ppb	100
60) Diethyl phthalate	9.53	149	1622457	48.90323	ppb	100
61) 4-Chlorophenyl phenyl ethe	9.66	204	666818	42.48780	ppb	100
62) Fluorene	9.67	166	1445397	43.28437	ppb	100
63) 4-Nitroaniline	9.70	138	469650	51.95553	ppb	100
66) 4,6-Dinitro-2-methylphenol	9.73	198	356560	52.86526	ppb	100
67) Diphenyl amine	9.80	169	2296953	87.01306	ppb	100
68) n-Nitrosodiphenylamine	9.80	169	2296953	87.01306	ppb	100
69) 1,2-Diphenylhydrazine	9.84	77	1815288	47.50217	ppb	100
70) 4-Bromophenyl phenyl ether	10.23	248	480817	48.91480	ppb	100
71) Hexachlorobenzene	10.30	284	500118	48.42322	ppb	100
72) Atrazine	10.42	200	224418	25.25951	ppb	100
73) Pentachlorophenol	10.54	266	347169	54.52541	ppb	100
74) Phenanthrene	10.80	178	2376811	47.44496	ppb	100
75) Anthracene	10.85	178	2459721	47.83999	ppb	100
76) Carbazol	11.05	167	2362634	49.15594	ppb	100
77) Di-n-butylphthalate	11.43	149	2759688	49.89746	ppb	100
78) Fluoranthene	12.19	202	2602957	48.67849	ppb	100
80) Benzidine	12.35	184	974885	52.83900	ppb	100
81) Pyrene	12.46	202	2732069	49.05629	ppb	100
83) Butyl benzylphthalate	13.19	149	1254571	50.75033	ppb	100
84) 3,3'-Dichlorobenzidine	13.82	252	925602	56.63971	ppb	100
85) Bis (a) anthracene	13.86	228	2171520	45.68871	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1473034	46.58588	ppb	100
87) Chrysene	13.91	228	2396929	47.76659	ppb	100
88) Di-n-octylphthalate	14.63	149	3007984	51.72394	ppb	100
90) Benzo (b) fluoranthene	15.24	252	2907202	53.18449	ppb	100
91) Benzo (k) fluoranthene	15.27	252	2512664	48.86356	ppb	100
92) Benzo (a) pyrene	15.74	252	2538131	51.25869	ppb	100
93) Indeno (1,2,3-cd) pyrene	17.85	276	2961769	51.47471	ppb	100
94) Dibenz (a,h) anthracene	17.90	278	2528524	51.75953	ppb	100
95) Benzo (g,h,i) perylene	18.48	276	2308238	49.24625	ppb	100

(#) = qualifier out of range (m) = manual integration  
 1025Y008.D Y1025NC.M Thu Oct 25 17:29:39 2018

Quantitation Report

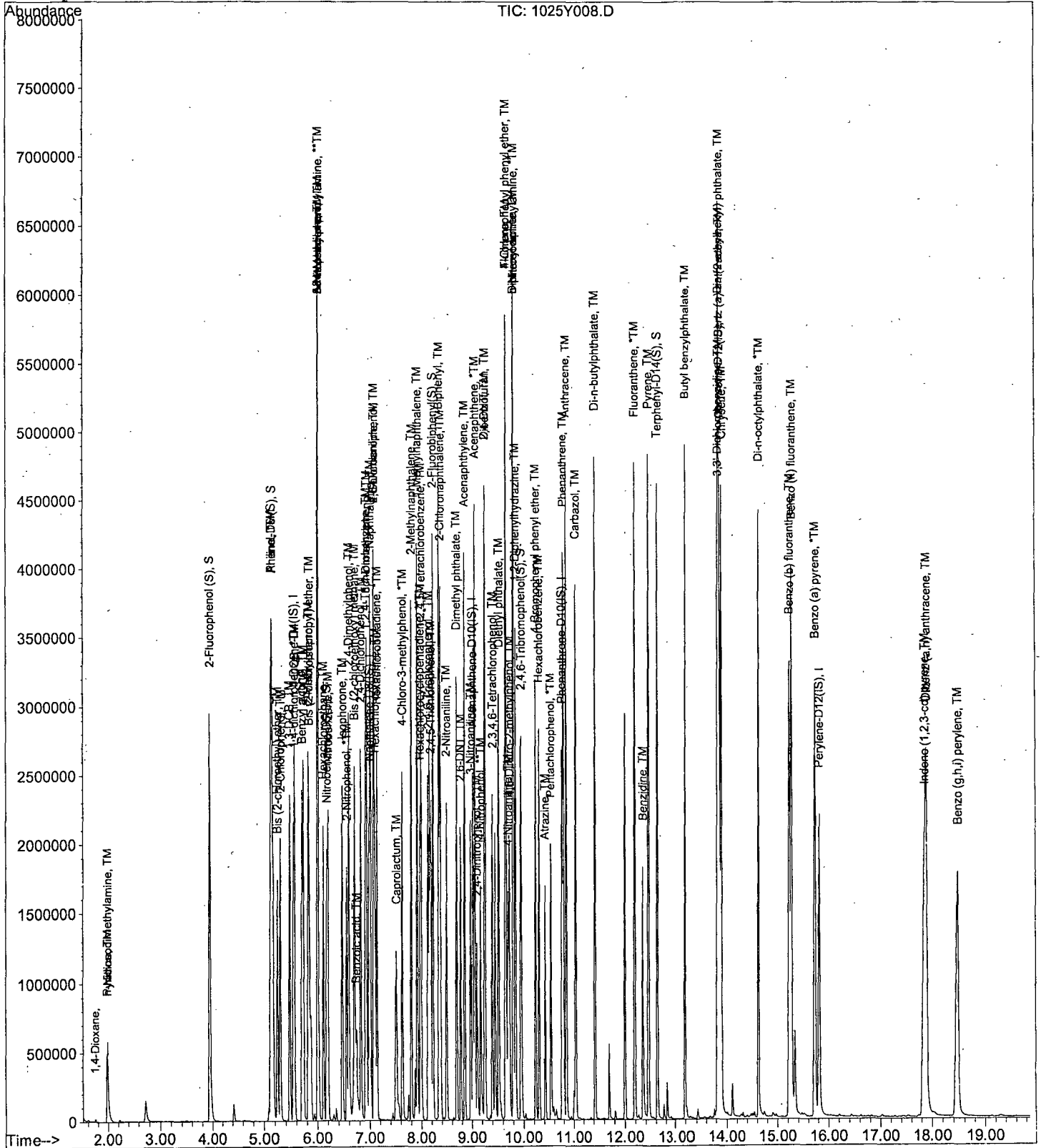
Data File : M:\YODA\DATA\Y181025\1025Y008.D  
Acq On : 25 Oct 18 13:52  
Sample : 50ug/mL 8270 10/18/18  
Misc :

Vial: 8  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:06 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration

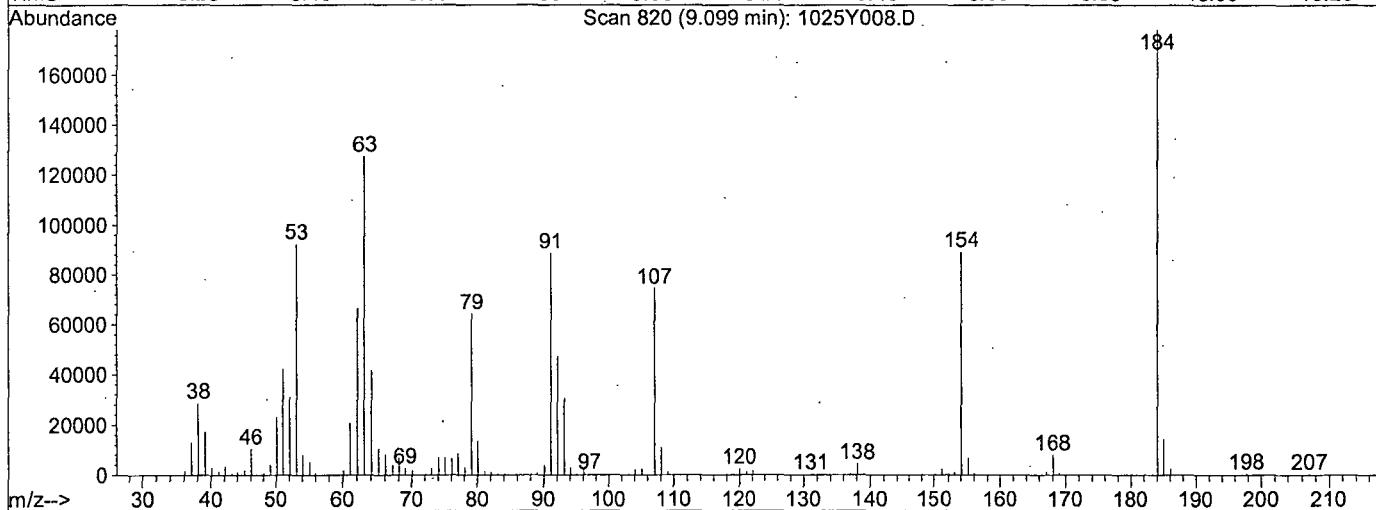
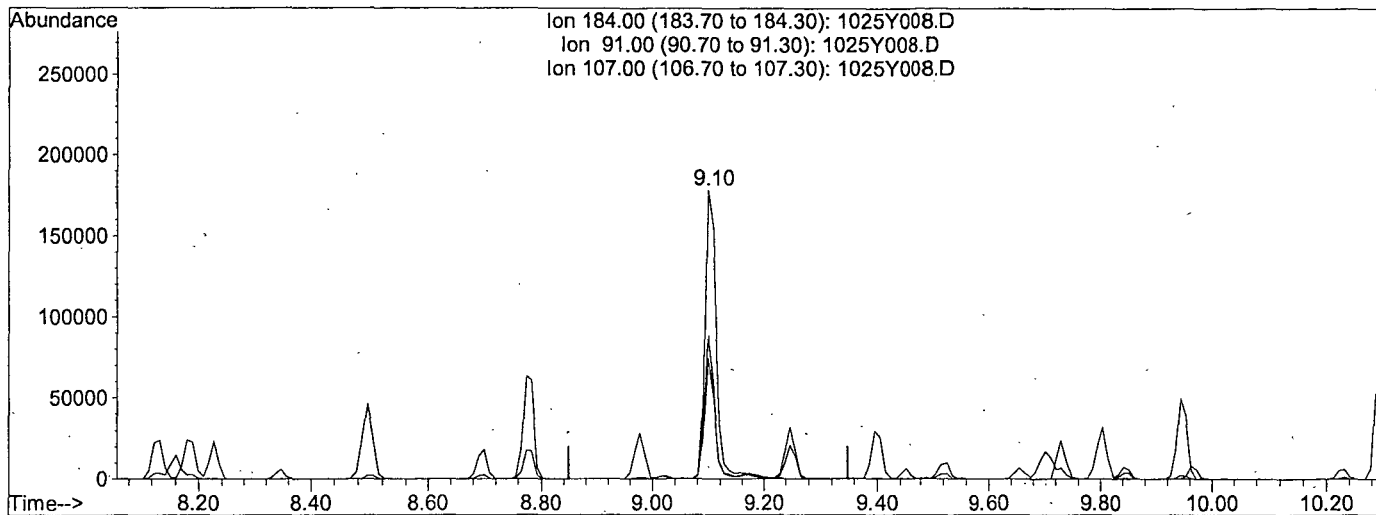


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y008.D  
 Acq On : 25 Oct 18 13:52  
 Sample : 50ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:05 2018

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y008.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.10min 51.9258ppb

response 255966

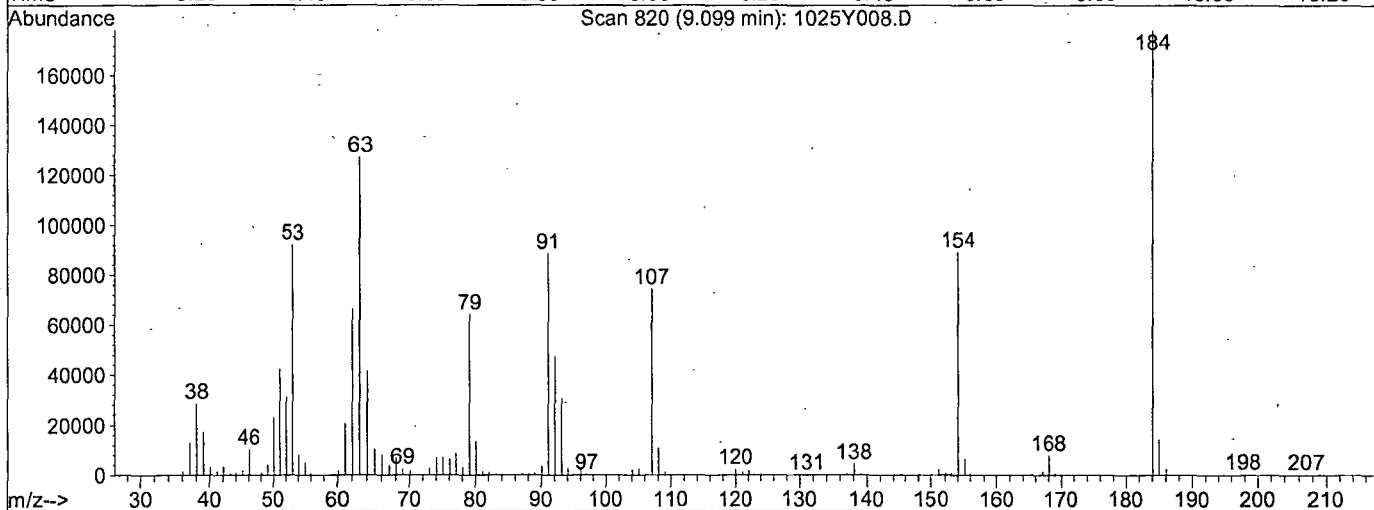
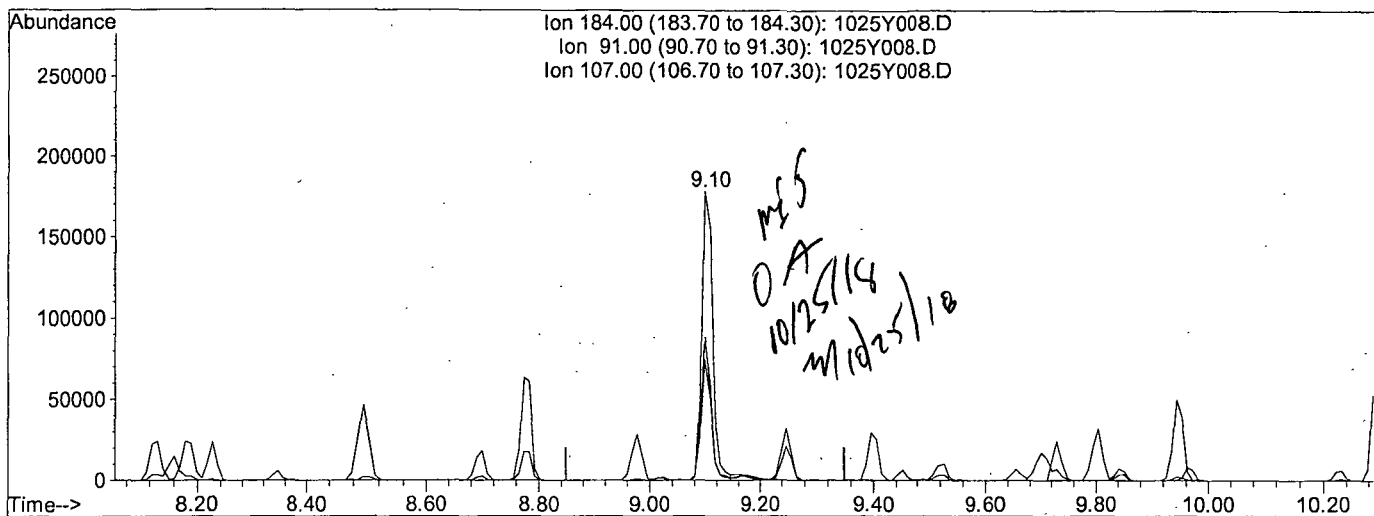
Ion	Exp%	Act%
184.00	100	100
91.00	49.60	49.43
107.00	41.70	41.63
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y008.D  
 Acq On : 25 Oct 18 13:52  
 Sample : 50ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:06 2018

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y008.D

(55) 2,4-Dinitrophenol (**TM)		
9.10min	50.1547ppb m	
response	245054	
Ion	Exp%	Act%
184.00	100	100
91.00	49.60	49.62
107.00	41.70	41.66
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y009.D  
 Acq On : 25 Oct 18 14:20  
 Sample : 60ug/mL 8270 10/18/18  
 Misc :

Vial: 9  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 14:37 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	293806	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1248682	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	652245	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1164642	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1106655	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1177661	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	1396667	122.48622	ppb	0.00
Spiked Amount	200.000		Recovery	=	61.243%	
6) Phenol-D6 (S)	5.13	99	1594801	116.90180	ppb	0.00
Spiked Amount	200.000		Recovery	=	58.451%	
22) Nitrobenzene-D5 (S)	6.17	82	825428	59.27506	ppb	0.00
Spiked Amount	100.000		Recovery	=	59.275%	
46) 2-Fluorobiphenyl (S)	8.23	172	1582354	58.14903	ppb	0.00
Spiked Amount	100.000		Recovery	=	58.149%	
64) 2,4,6-Tribromophenol (S)	9.95	330	371964	113.05507	ppb	0.00
Spiked Amount	200.000		Recovery	=	56.528%	
82) Terphenyl-D14 (S)	12.63	244	1703605	58.20318	ppb	0.00
Spiked Amount	100.000		Recovery	=	58.203%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	5793	6.28250		100
3) n-Nitrosodimethylamine	1.98	42	149211	66.20974	ppb	97
4) Pyridine	1.99	79	230010	68.76896	ppb	97
7) Phenol	5.14	94	1073485	58.39068	ppb	100
8) Aniline	5.14	66	891646	78.33248	ppb	98
9) Bis (2-chloroethyl) ether	5.25	63	561785	59.31722	ppb	99
10) 2-Chlorophenol	5.30	128	840318	59.22259	ppb	99
11) 1,3-DCB	5.47	146	862977	58.23576	ppb	97
12) 1,4-DCB	5.56	146	868709	58.41076	ppb	99
13) Benzyl alcohol	5.70	108	554988	61.26081	ppb	98
14) 1,2-DCB	5.73	146	826738	58.75003	ppb	99
15) 2-Methylphenol	5.82	107	669956	59.07720	ppb	100
16) Bis (2-chloroisopropyl) et	5.84	45	1075872	60.01871	ppb	98
17) Acetophenone	6.01	105	841702	59.44702	ppb	99
18) 3&4-Methylphenol	6.00	107	1279902	126.01420	ppb	95
19) n-Nitrosodi-n-propylamine	6.01	70	522780	56.69937	ppb	100
20) Hexachloroethane	6.11	117	333986	60.18057	ppb	98
23) Nitrobenzene	6.20	77	895128	58.18511	ppb	97
24) Isophorone	6.47	82	1590281	58.83296	ppb	99
25) 2-Nitrophenol	6.56	139	460698	59.50766	ppb	99
26) 2,4-Dimethylphenol	6.59	122	762771	58.45886	ppb	98
27) Benzoic acid	6.74	105	715553	60.93105	ppb	99
28) Bis (2-chloroethoxy) metha	6.70	93	881224	57.41215	ppb	100
29) 2,4-Dichlorophenol	6.82	162	675506	58.35074	ppb	97
30) 1,2,4-Trichlorobenzene	6.92	180	683818	57.06262	ppb	100
31) 3,4-Dimethylphenol	6.94	107	1042901	59.54141	ppb	97
32) Napthalene	7.01	128	2334914	57.66174	ppb	100
33) 4-Chloroaniline	7.08	127	867604	57.11266	ppb	99
34) 2,6-Dichlorophenol	7.08	162	608644	56.88494	ppb	98
35) Hexachloropropene	7.10	213	500316	63.00156	ppb	99
36) Hexachlorobutadiene	7.14	225	398396	59.86365	ppb	98
37) Caprolactum	7.51	55	424783	60.68288	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y009.D Y1025NC.M Thu Oct 25 17:29:49 2018

Data File : M:\YODA\DATA\Y181025\1025Y009.D  
 Acq On : 25 Oct 18 14:20  
 Sample : 60ug/mL 8270 10/18/18  
 Misc :

Vial: 9  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 14:37 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	750028	61.30869	ppb	99
39) 2-Methylnaphthalene	7.81	142	1495064	58.81028	ppb	98
40) 1-Methylnaphthalene	7.92	142	1432507	56.10503	ppb	100
42) Hexachlorocyclopentadiene	7.98	237	410897	69.33167	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	688197	56.07063	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	517705	61.08937	ppb	98
45) 2,4,5-Trichlorophenol	8.19	196	536388	59.30011	ppb	96
47) 1,1'-Biphenyl	8.35	154	1815555	56.74467	ppb	98
48) 2-Chloronaphthalene	8.38	162	1449816	56.58564	ppb	99
49) 2-Nitroaniline	8.50	65	539736	62.69933	ppb	100
50) Dimethyl phthalate	8.70	163	1754748	59.83504	ppb	100
51) 2,6-DNT	8.77	165	422472	63.65250	ppb #	75
52) Acenaphthylene	8.86	152	2451242	59.95919	ppb	100
53) 3-Nitroaniline	8.98	138	461146	61.05255	ppb	100
54) Acenaphthene	9.06	154	1448610	58.25587	ppb	99
55) 2,4-Dinitrophenol	9.10	184	259866	63.34565	ppb	98
56) 4-Nitrophenol	9.17	65	389637	70.06067	ppb	98
57) Dibenzofuran	9.26	168	1896443	54.21534	ppb	100
58) 2,4-DNT	9.25	165	505838	58.23970	ppb	100
59) 2,3,4,6-Tetrachlorophenol	9.41	232	439665	59.01996	ppb	99
60) Diethyl phthalate	9.53	149	1628330	56.91407	ppb	100
61) 4-Chlorophenyl phenyl ethe	9.66	204	657494	49.02602	ppb	99
62) Fluorene	9.67	166	1418764	50.80577	ppb	97
63) 4-Nitroaniline	9.70	138	462291	58.53451	ppb	99
66) 4,6-Dinitro-2-methylphenol	9.73	198	348204	69.36668	ppb	97
67) Diphenyl amine	9.80	169	2300014	96.66443	ppb	99
68) n-Nitrosodiphenylamine	9.80	169	2300014	96.66443	ppb	99
69) 1,2-Diphenylhydrazine	9.84	77	1795234	59.03507	ppb	97
70) 4-Bromophenyl phenyl ether	10.23	248	475767	59.90641	ppb	99
71) Hexachlorobenzene	10.30	284	496642	58.87254	ppb	98
72) Atrazine	10.42	200	228362	33.43771	ppb	99
73) Pentachlorophenol	10.54	266	344131	68.32703	ppb	98
74) Phenanthrene	10.79	178	2365130	57.80814	ppb	99
75) Anthracene	10.85	178	2441122	58.20836	ppb	99
76) Carbazol	11.05	167	2344070	59.83596	ppb	99
77) Di-n-butylphthalate	11.43	149	2772662	62.10556	ppb	100
78) Fluoranthene	12.19	202	2600184	59.54929	ppb	99
80) Benzidine	12.35	184	963474	61.92708	ppb	100
81) Pyrene	12.46	202	2715143	59.80369	ppb	99
83) Butyl benzylphthalate	13.19	149	1274449	63.53586	ppb	97
84) 3,3'-Dichlorobenzidine	13.82	252	917019	63.04532	ppb	98
85) Benz (a) anthracene	13.86	228	2213433	56.50387	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1482746	58.54499	ppb	99
87) Chrysene	13.91	228	2380062	58.01700	ppb	99
88) Di-n-octylphthalate	14.63	149	2977998	63.97074	ppb	99
90) Benzo (b) fluoranthene	15.24	252	2821204	64.75998	ppb	99
91) Benzo (k) fluoranthene	15.27	252	2422949	59.15190	ppb	99
92) Benzo (a) pyrene	15.74	252	2503225	63.04372	ppb	100
93) Indeno (1,2,3-cd) pyrene	17.85	276	2876167	63.21338	ppb	98
94) Dibenz (a,h) anthracene	17.90	278	2501158	63.84752	ppb	98
95) Benzo (g,h,i) perylene	18.48	276	2339552	62.64681	ppb	100



Quantitation Report

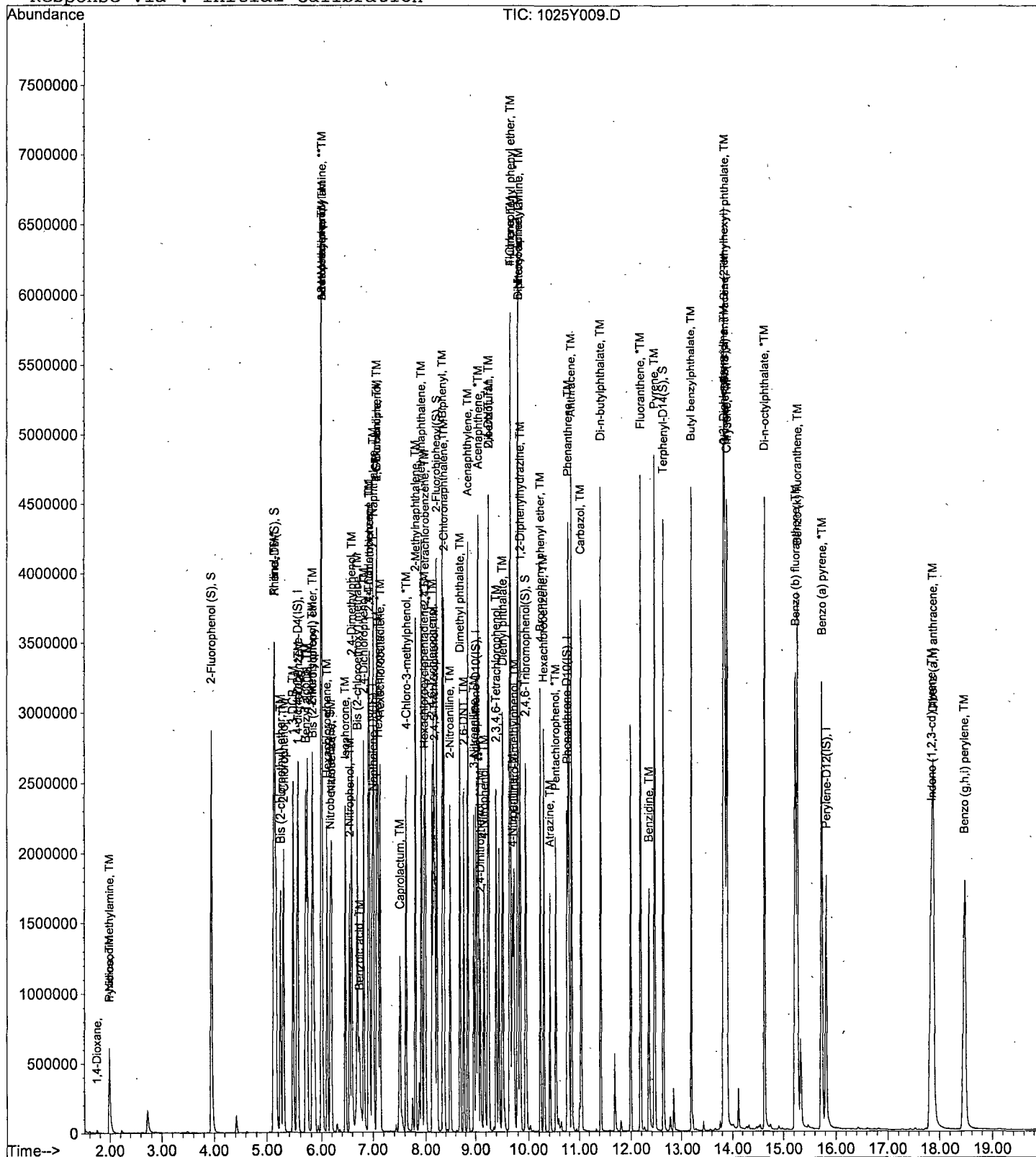
Data File : M:\YODA\DATA\Y181025\1025Y009.D  
Acq On : 25 Oct 18 14:20  
Sample : 60ug/mL 8270 10/18/18  
Misc :

Vial: 9  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 14:37 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y010.D Vial: 10  
 Acq On : 25 Oct 18 14:48 Operator: MA  
 Sample : 80ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 25 16:52 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:49:58 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	298120	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1239535	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	679471	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.77	188	1264268	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.88	240	1132125	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1266945	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.96	112	1854398	158.30900	ppb	0.00
Spiked Amount	200.000		Recovery	=	79.155%	
6) Phenol-D6 (S)	5.13	99	2092472	150.26876	ppb	0.00
Spiked Amount	200.000		Recovery	=	75.135%	
22) Nitrobenzene-D5 (S)	6.18	82	1103339	78.87091	ppb	0.00
Spiked Amount	100.000		Recovery	=	78.871%	
46) 2-Fluorobiphenyl (S)	8.23	172	2027051	71.56952	ppb	0.00
Spiked Amount	100.000		Recovery	=	71.570%	
64) 2,4,6-Tribromophenol (S)	9.95	330	496953	144.92168	ppb	0.00
Spiked Amount	200.000		Recovery	=	72.461%	
82) Terphenyl-D14 (S)	12.63	244	2210595	73.76127	ppb	0.00
Spiked Amount	100.000		Recovery	=	73.761%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.75	58	7469	8.22729		100
3) n-Nitrosodimethylamine	1.98	42	188228	78.54209	ppb	93
4) Pyridine	1.99	79	305613	85.25855	ppb	97
7) Phenol	5.15	94	1350491	72.49504	ppb	90
8) Aniline	5.15	66	1177499	78.82457	ppb	# 79
9) Bis (2-chloroethyl) ether	5.25	63	739454	75.89814	ppb	97
10) 2-Chlorophenol	5.30	128	1116753	77.00027	ppb	98
11) 1,3-DCB	5.48	146	1152459	76.72072	ppb	99
12) 1,4-DCB	5.56	146	1112078	73.89992	ppb	99
13) Benzyl alcohol	5.71	108	722446	76.97596	ppb	97
14) 1,2-DCB	5.73	146	1053574	73.67599	ppb	99
15) 2-Methylphenol	5.83	107	884052	76.55747	ppb	98
16) Bis (2-chloroisopropyl) et	5.85	45	1425097	77.27618	ppb	94
17) Acetophenone	6.01	105	1060989	76.55394	ppb	95
18) 3&4-Methylphenol	6.01	107	1616444	154.33994	ppb	97
19) n-Nitrosodi-n-propylamine	6.04	70	708491	73.80154	ppb	84
20) Hexachloroethane	6.11	117	439196	77.64569	ppb	98
23) Nitrobenzene	6.20	77	1168448	76.21313	ppb	95
24) Isophorone	6.47	82	2082503	76.84727	ppb	97
25) 2-Nitrophenol	6.56	139	605413	77.77800	ppb	94
26) 2,4-Dimethylphenol	6.60	122	978659	75.09293	ppb	97
27) Benzoic acid	6.77	105	975401	79.71615	ppb	98
28) Bis (2-chloroethoxy) metha	6.70	93	1143577	74.95029	ppb	99
29) 2,4-Dichlorophenol	6.83	162	863229	75.14672	ppb	96
30) 1,2,4-Trichlorobenzene	6.92	180	875412	73.37796	ppb	98
31) 3,4-Dimethylphenol	6.94	107	1339179	75.87829	ppb	97
32) Naphthalene	7.02	128	2895411	72.12380	ppb	100
33) 4-Chloroaniline	7.08	127	998989	64.32820	ppb	99
34) 2,6-Dichlorophenol	7.08	162	727703	69.22702	ppb	97
35) Hexachloropropene	7.10	213	625852	78.51222	ppb	99
36) Hexachlorobutadiene	7.14	225	494379	74.90339	ppb	98
37) Caprolactum	7.53	55	560419	79.68248	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1025Y010.D Y1025NC.M Thu Oct 25 17:30:40 2018

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y010.D  
 Acq On : 25 Oct 18 14:48  
 Sample : 80ug/mL 8270 10/18/18  
 Misc :

Vial: 10  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:52 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:49:58 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	956899	77.58053	ppb	94
39) 2-Methylnaphthalene	7.81	142	1868075	73.80573	ppb	100
40) 1-Methylnaphthalene	7.92	142	1853126	73.44569	ppb	99
42) Hexachlorocyclopentadiene	7.98	237	570005	77.91883	ppb	100
43) 1,2,4,5-Tetrachlorobenzene	8.00	216	905579	71.23286	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	676658	75.70139	ppb	99
45) 2,4,5-Trichlorophenol	8.19	196	719566	76.03629	ppb	95
47) 1,1'-Biphenyl	8.35	154	2344956	70.29834	ppb	98
48) 2-Chloronaphthalene	8.37	162	1914231	72.05630	ppb	98
49) 2-Nitroaniline	8.50	65	702929	76.64566	ppb	97
50) Dimethyl phthalate	8.70	163	2251234	73.07697	ppb	99
51) 2,6-DNTF	8.78	165	542814	76.33175	ppb	84
52) Acenaphthylene	8.86	152	3031289	70.73584	ppb	99
53) 3-Nitroaniline	8.99	138	600894	75.56813	ppb	94
54) Acenaphthene	9.06	154	1816835	69.98732	ppb	99
55) 2,4-Dinitrophenol	9.11	184	375675	79.60657	ppb	90
56) 4-Nitrophenol	9.18	65	505067	82.17869	ppb	99
57) Dibenzofuran	9.27	168	2353797	65.69856	ppb	98
58) 2,4-DNTF	9.26	165	635665	70.19014	ppb	85
59) 2,3,4,6-Tetrachlorophenol	9.41	232	577445	73.93248	ppb	95
60) Diethyl phthalate	9.53	149	2112448	71.24348	ppb	98
61) 4-Chlorophenyl phenyl ethe	9.66	204	822358	58.29531	ppb	96
62) Fluorene	9.67	166	1803473	60.82365	ppb	98
63) 4-Nitroaniline	9.71	138	623093	75.02411	ppb	98
66) 4,6-Dinitro-2-methylphenol	9.74	198	486468	76.25103	ppb	94
67) Diphenyl amine	9.81	169	2851981	129.17108	ppb	99
68) n-Nitrosodiphenylamine	9.81	169	2851981	129.17108	ppb	99
69) 1,2-Diphenylhydrazine	9.85	77	2787284	82.06122	ppb	92
70) 4-Bromophenyl phenyl ether	10.23	248	638296	74.17645	ppb	94
71) Hexachlorobenzene	10.31	284	648074	71.60657	ppb	91
72) Atrazine	10.43	200	308193	39.17258	ppb	97
73) Pentachlorophenol	10.54	266	466031	83.21870	ppb	99
74) Phenanthrene	10.80	178	3082481	69.80685	ppb	99
75) Anthracene	10.85	178	3141722	69.16738	ppb	100
76) Carbazol	11.05	167	3035131	71.50811	ppb	98
77) Di-n-butylphthalate	11.43	149	3598995	73.23157	ppb	99
78) Fluoranthene	12.19	202	3315365	69.96256	ppb	99
80) Benzidine	12.35	184	1258627	78.22096	ppb	99
81) Pyrene	12.46	202	3445765	73.63892	ppb	100
83) Butyl benzylphthalate	13.19	149	1604258	76.76735	ppb	94
84) 3,3'-Dichlorobenzidine	13.83	252	1094222	71.75135	ppb	96
85) Benz (a) anthracene	13.86	228	2719656	68.42029	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1785958	68.01314	ppb	99
87) Chrysene	13.91	228	3086091	73.80016	ppb	99
88) Di-n-octylphthalate	14.63	149	3946319	80.82281	ppb	96
90) Benzo (b) fluoranthene	15.24	252	3501392	73.75617	ppb	99
91) Benzo (k) fluoranthene	15.28	252	3457887	76.44268	ppb	99
92) Benzo (a) pyrene	15.75	252	3410020	78.95777	ppb	98
93) Indeno (1,2,3-cd) pyrene	17.86	276	3907142	78.08684	ppb	98
94) Dibenz (a,h) anthracene	17.91	278	3338407	78.55102	ppb	99
95) Benzo (g,h,i) perylene	18.49	276	3111904	76.75911	ppb	99

Quantitation Report

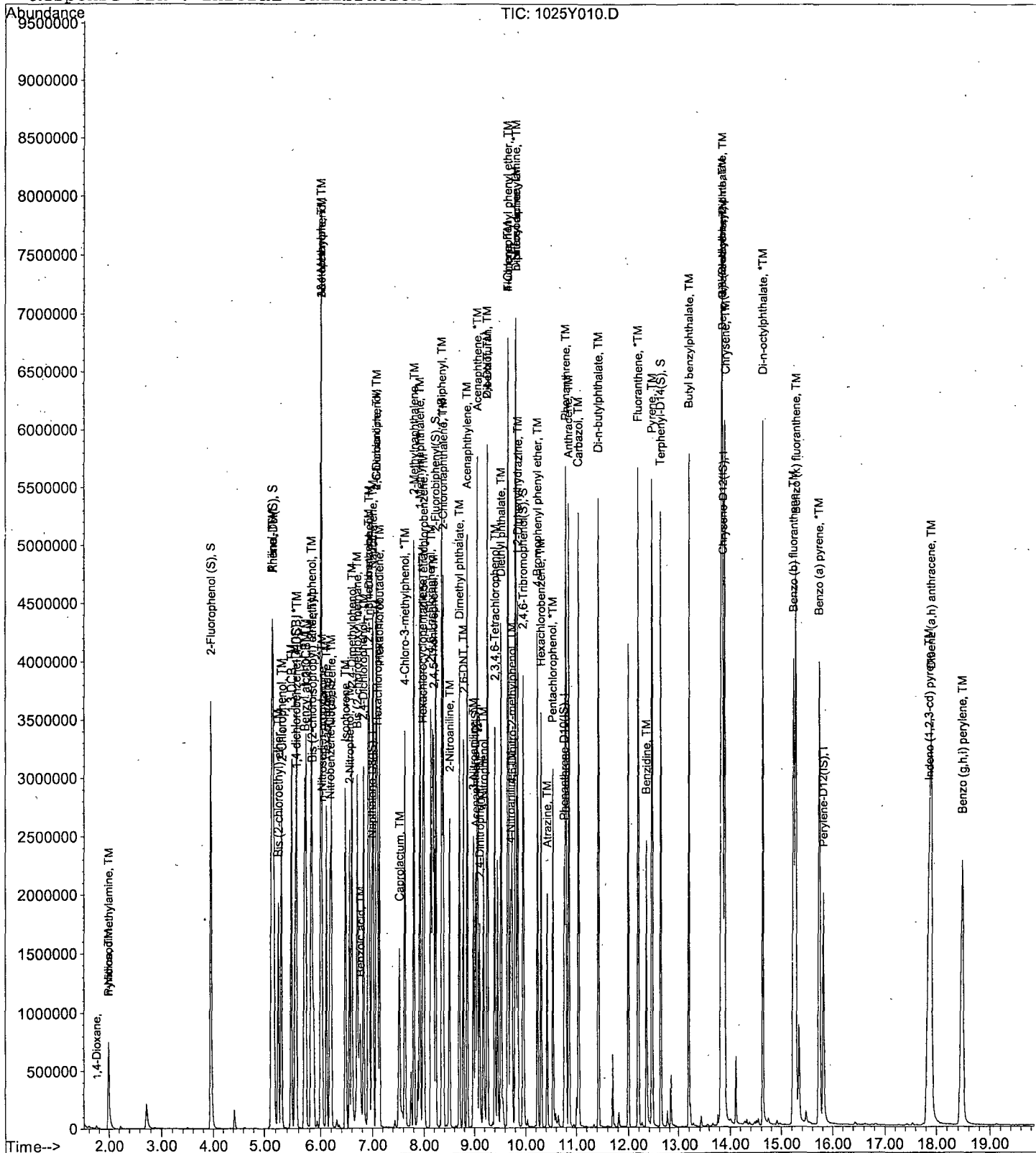
Data File : M:\YODA\DATA\Y181025\1025Y010.D  
Acq On : 25 Oct 18 14:48  
Sample : 80ug/mL 8270 10/18/18  
Misc :

Vial: 10  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:52 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration

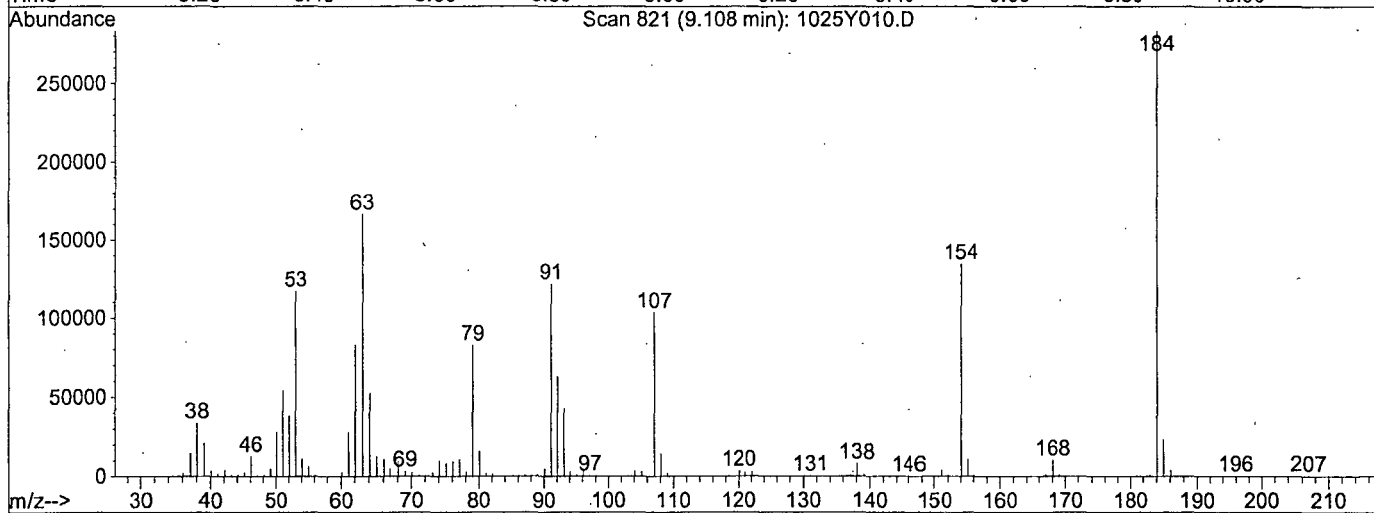
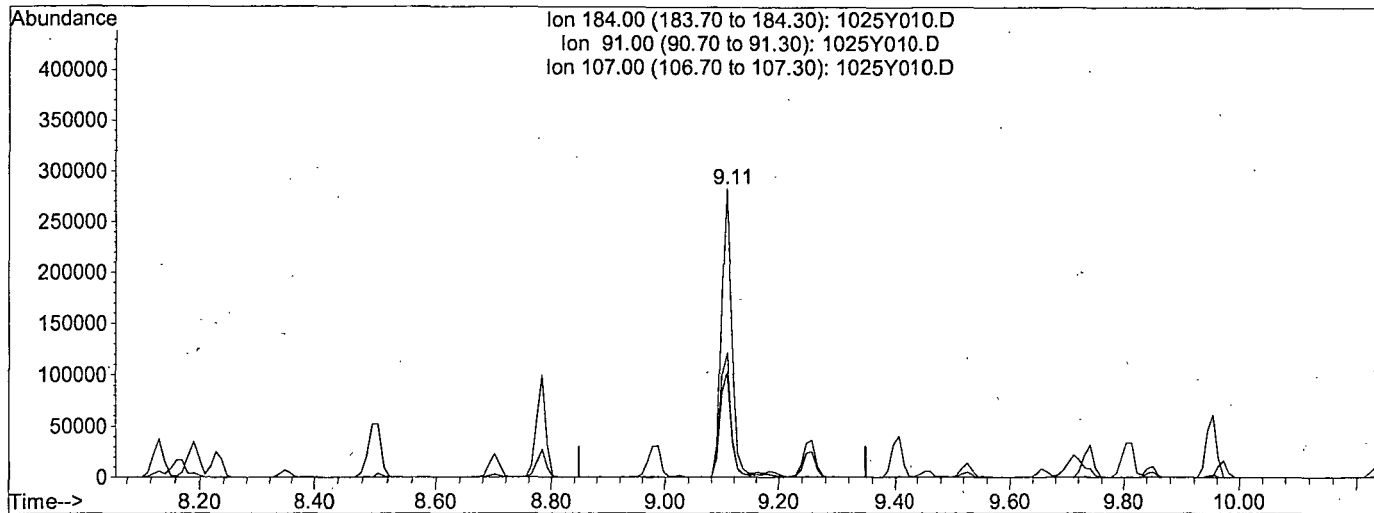


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y010.D  
 Acq On : 25 Oct 18 14:48  
 Sample : 80ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 14:57 2018

Vial: 10  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y010.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.11min 85.8731ppb

response 375675

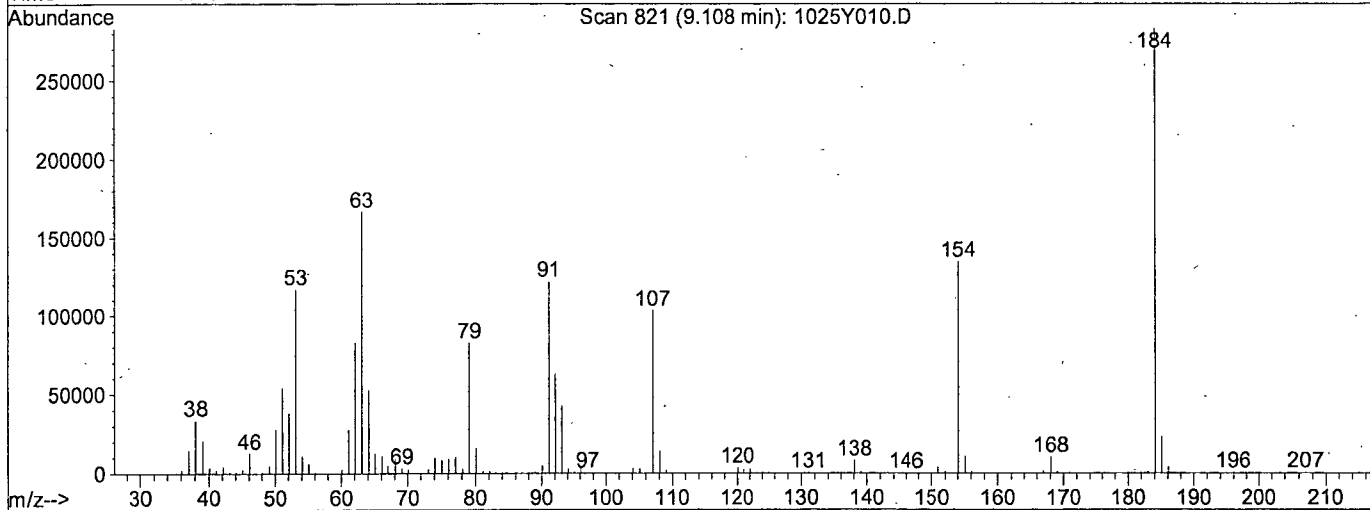
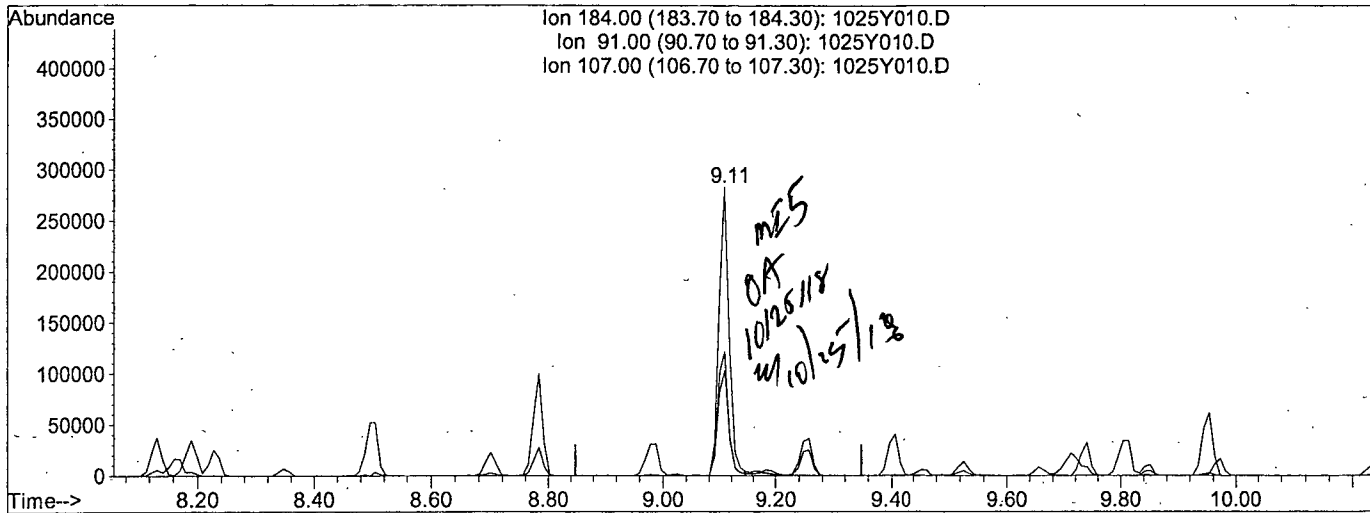
Ion	Exp%	Act%
184.00	100	100
91.00	49.40	42.52
107.00	41.60	36.24
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y010.D  
 Acq On : 25 Oct 18 14:48  
 Sample : 80ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:07 2018

Vial: 10  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y010.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.11min 83.1604ppb m

response 362746

Ion	Exp%	Act%
184.00	100	100
91.00	49.40	43.01
107.00	41.60	36.48
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y011.D Vial: 11  
 Acq On : 25 Oct 18 15:16 Operator: MA  
 Sample : 100ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 25 16:53 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:49:58 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	284116	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1206900	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	630021	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.77	188	1170815	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.88	240	1050283	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.83	264	1174261	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	2232374	199.97009	ppb	0.00
Spiked Amount 200.000			Recovery =	99.985%		
6) Phenol-D6 (S)	5.14	99	2486343	187.35510	ppb	0.02
Spiked Amount 200.000			Recovery =	93.677%		
22) Nitrobenzene-D5 (S)	6.18	82	1404992	103.15000	ppb	0.00
Spiked Amount 100.000			Recovery =	103.150%		
46) 2-Fluorobiphenyl (S)	8.23	172	2374842	90.43031	ppb	0.00
Spiked Amount 100.000			Recovery =	90.430%		
64) 2,4,6-Tribromophenol (S)	9.96	330	580689	182.63228	ppb	0.00
Spiked Amount 200.000			Recovery =	91.316%		
82) Terphenyl-D14 (S)	12.63	244	2662866	95.77596	ppb	0.00
Spiked Amount 100.000			Recovery =	95.776%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	9424	10.89244		97
3) n-Nitrosodimethylamine	1.99	42	255611	111.91625	ppb	89
4) Pyridine	1.99	79	372623	109.07650	ppb	94
7) Phenol	5.16	94	1549550	87.28058	ppb #	76
8) Aniline	5.16	66	1432837	100.66741	ppb #	64
9) Bis (2-chloroethyl) ether	5.25	63	977421	105.26816	ppb	99
10) 2-Chlorophenol	5.31	128	1373185	99.34811	ppb	99
11) 1,3-DCB	5.48	146	1379732	96.37788	ppb	96
12) 1,4-DCB	5.56	146	1376578	95.98535	ppb	98
13) Benzyl alcohol	5.71	108	915255	102.32629	ppb	98
14) 1,2-DCB	5.74	146	1311460	96.23021	ppb	100
15) 2-Methylphenol	5.83	107	1108446	100.72092	ppb	99
16) Bis (2-chloroisopropyl) et	5.85	45	1719168	97.81714	ppb	98
17) Acetophenone	6.01	105	1321707	101.91311	ppb	98
18) 3&4-Methylphenol	6.01	107	1983222	202.55082	ppb	97
19) n-Nitrosodi-n-propylamine	6.04	70	944036	103.18464	ppb	84
20) Hexachloroethane	6.12	117	533036	98.88056	ppb	90
23) Nitrobenzene	6.21	77	1474935	98.80542	ppb	97
24) Isophorone	6.48	82	2650980	100.47008	ppb	97
25) 2-Nitrophenol	6.56	139	760170	100.30054	ppb	98
26) 2,4-Dimethylphenol	6.60	122	1225289	96.55920	ppb	98
27) Benzoic acid	6.78	105	1216248	101.08222	ppb	99
28) Bis (2-chloroethoxy) metha	6.71	93	1405755	94.62481	ppb	99
29) 2,4-Dichlorophenol	6.83	162	1050994	93.96622	ppb	98
30) 1,2,4-Trichlorobenzene	6.92	180	1066906	91.84739	ppb	98
31) 3,4-Dimethylphenol	6.94	107	1639376	95.39926	ppb	97
32) Napthalene	7.02	128	3525329	90.18941	ppb	100
33) 4-Chloroaniline	7.08	127	1126570	74.50516	ppb	95
34) 2,6-Dichlorophenol	7.09	162	830763	81.16824	ppb	97
35) Hexachloropropene	7.11	213	734181	94.59241	ppb	99
36) Hexachlorobutadiene	7.14	225	594034	92.43581	ppb	99
37) Caprolactum	7.55	55	652243	95.24604	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y011.D Y1025NC.M Thu Oct 25 17:30:47 2018

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y011.D  
 Acq On : 25 Oct 18 15:16  
 Sample : 100ug/mL 8270 10/18/18  
 Misc :

Vial: 11  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:53 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:49:58 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.64	107	1192402	99.28802	ppb	93
39) 2-Methylnaphthalene	7.81	142	2192026	88.94652	ppb	99
40) 1-Methylnaphthalene	7.93	142	2191424	89.20214	ppb	100
42) Hexachlorocyclopentadiene	7.98	237	694700	101.54904	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	8.00	216	1029526	87.33881	ppb	99
44) 2,4,6-Trichlorophenol	8.14	196	804453	97.06244	ppb	99
45) 2,4,5-Trichlorophenol	8.20	196	852583	97.16344	ppb	94
47) 1,1'-Biphenyl	8.35	154	2701619	87.34748	ppb	98
48) 2-Chloronaphthalene	8.38	162	2241776	91.00929	ppb	97
49) 2-Nitroaniline	8.50	65	879824	103.46365	ppb	99
50) Dimethyl phthalate	8.71	163	2746250	96.14260	ppb	99
51) 2,6-DNT	8.79	165	674065	102.22847	ppb	92
52) Acenaphthylene	8.86	152	3588460	90.31007	ppb	100
53) 3-Nitroaniline	8.98	138	707065	95.89943	ppb	96
54) Acenaphthene	9.07	154	2106539	87.51637	ppb	99
55) 2,4-Dinitrophenol	9.11	184	482121	106.69190	ppb	91
56) 4-Nitrophenol	9.19	65	652587	114.51556	ppb	98
57) Dibenzofuran	9.26	168	2694490	81.11092	ppb	92
58) 2,4-DNT	9.25	165	741133	88.25917	ppb	85
59) 2,3,4,6-Tetrachlorophenol	9.41	232	707425	97.68344	ppb	99
60) Diethyl phthalate	9.53	149	2557601	93.02674	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.66	204	983024	75.15410	ppb	99
62) Fluorene	9.67	166	2158535	81.29619	ppb	99
63) 4-Nitroaniline	9.73	138	774941	100.63117	ppb	96
66) 4,6-Dinitro-2-methylphenol	9.75	198	613024	102.84739	ppb	98
67) Diphenyl amine	9.81	169	3367607	164.69899	ppb	99
68) n-Nitrosodiphenylamine	9.81	169	3367607	164.69899	ppb	99
69) 1,2-Diphenylhydrazine	9.85	77	3378849	107.41783	ppb	97
70) 4-Bromophenyl phenyl ether	10.24	248	721364	90.52099	ppb	96
71) Hexachlorobenzene	10.30	284	755752	90.16925	ppb	97
72) Atrazine	10.43	200	388070	53.26235	ppb	97
73) Pentachlorophenol	10.54	266	571860	110.26730	ppb	100
74) Phenanthrene	10.80	178	3649628	89.24771	ppb	100
75) Anthracene	10.86	178	3823882	90.90525	ppb	99
76) Carbazol	11.06	167	3605924	91.73716	ppb	98
77) Di-n-butylphthalate	11.44	149	4150806	91.20117	ppb	99
78) Fluoranthene	12.20	202	4026512	91.75172	ppb	99
80) Benzidine	12.35	184	1550386	103.86135	ppb	99
81) Pyrene	12.47	202	4219684	97.20526	ppb	100
83) Butyl benzylphthalate	13.20	149	1937337	99.92992	ppb	97
84) 3,3'-Dichlorobenzidine	13.83	252	1221498	86.33869	ppb	99
85) Benz (a) anthracene	13.87	228	3331112	90.33337	ppb	99
86) Bis (2-ethylhexyl) phthala	13.85	149	2216578	90.98979	ppb	100
87) Chrysene	13.91	228	3694086	95.22338	ppb	100
88) Di-n-octylphthalate	14.64	149	4556807	100.59826	ppb	96
90) Benzo (b) fluoranthene	15.25	252	4238332	96.32649	ppb	100
91) Benzo (k) fluoranthene	15.29	252	4010562	95.65848	ppb	99
92) Benzo (a) pyrene	15.75	252	4077181	101.85705	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.88	276	4702968	101.41071	ppb	98
94) Dibenz (a,h) anthracene	17.92	278	3956359	100.43877	ppb	99
95) Benzo (g,h,i) perylene	18.51	276	3916077	104.21928	ppb	99



Quantitation Report

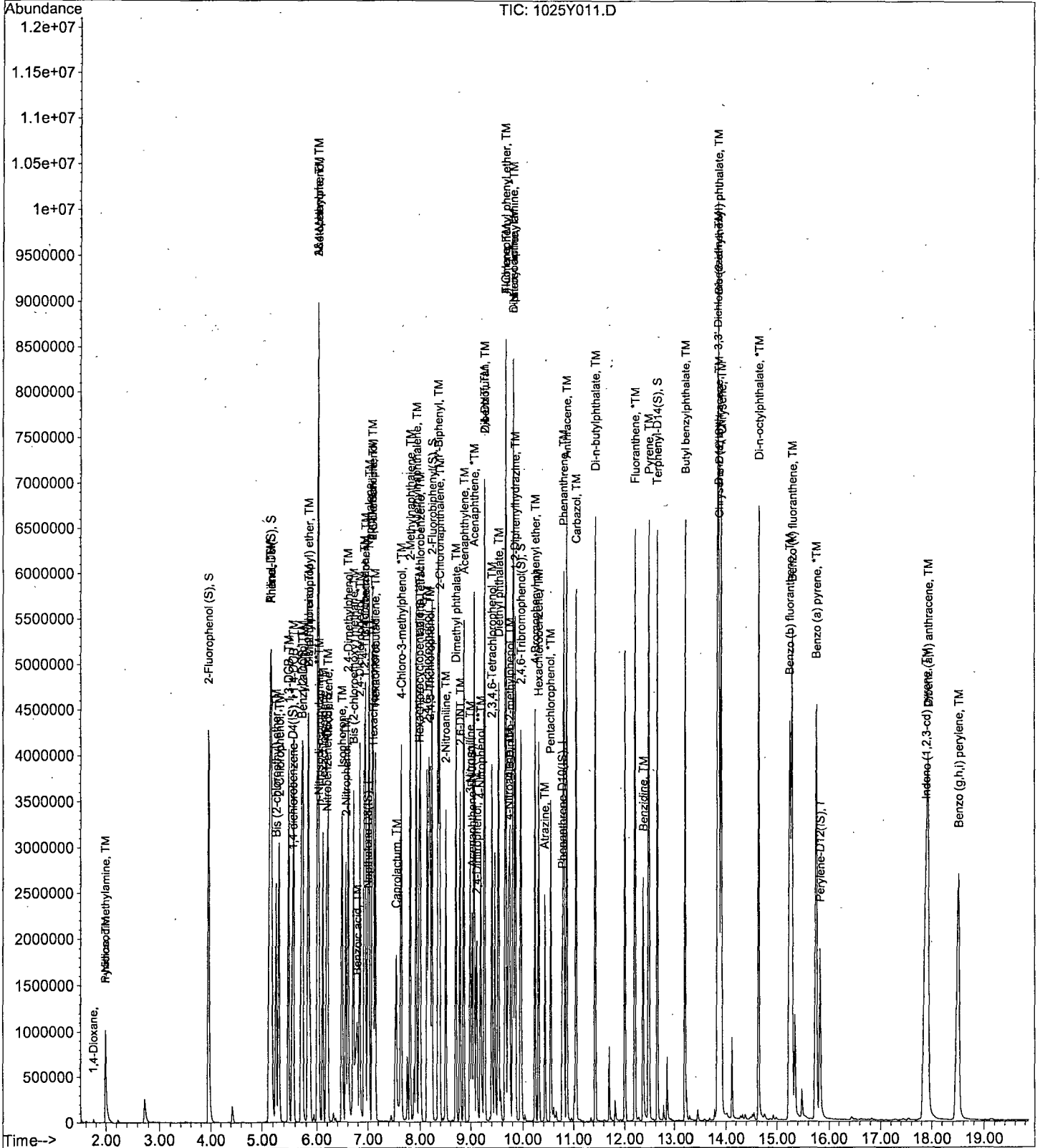
Data File : M:\YODA\DATA\Y181025\1025Y011.D  
Acq On : 25 Oct 18 15:16  
Sample : 100ug/mL 8270 10/18/18  
Misc :

Vial: 11  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:53 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration

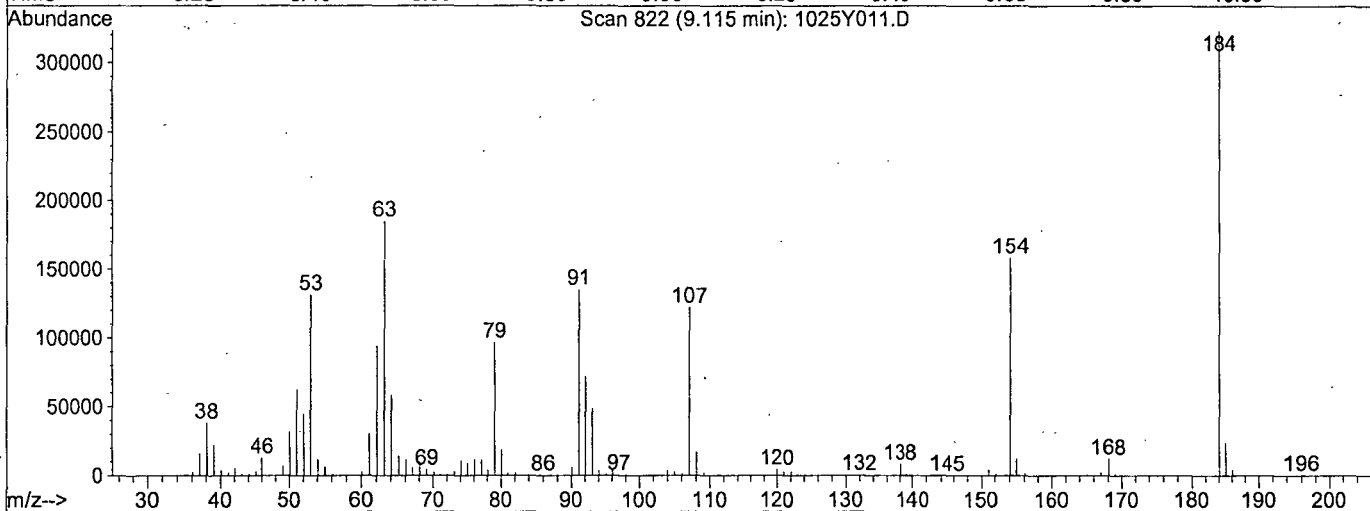
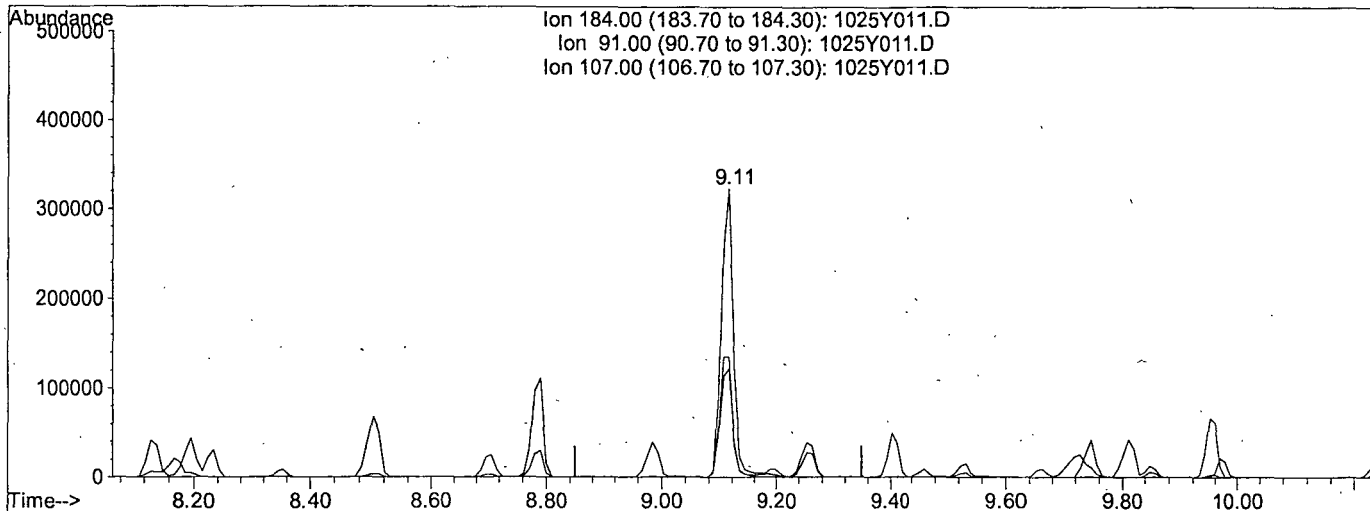


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y011.D  
 Acq On : 25 Oct 18 15:16  
 Sample : 100ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 15:40 2018

Vial: 11  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y011.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.11min 109.9277ppb

response 482121

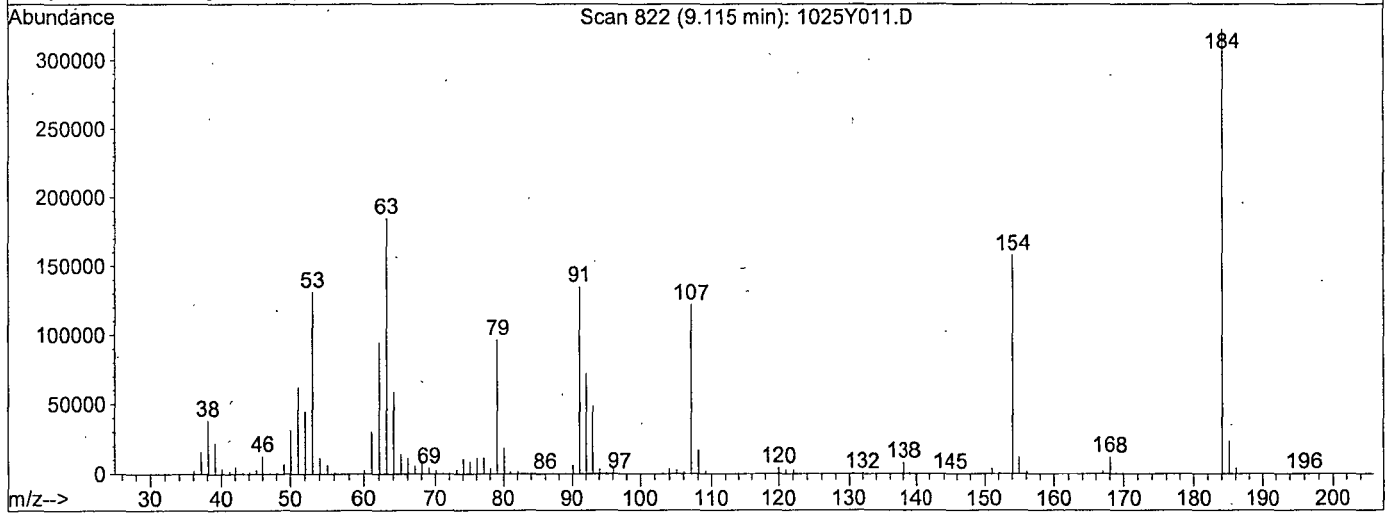
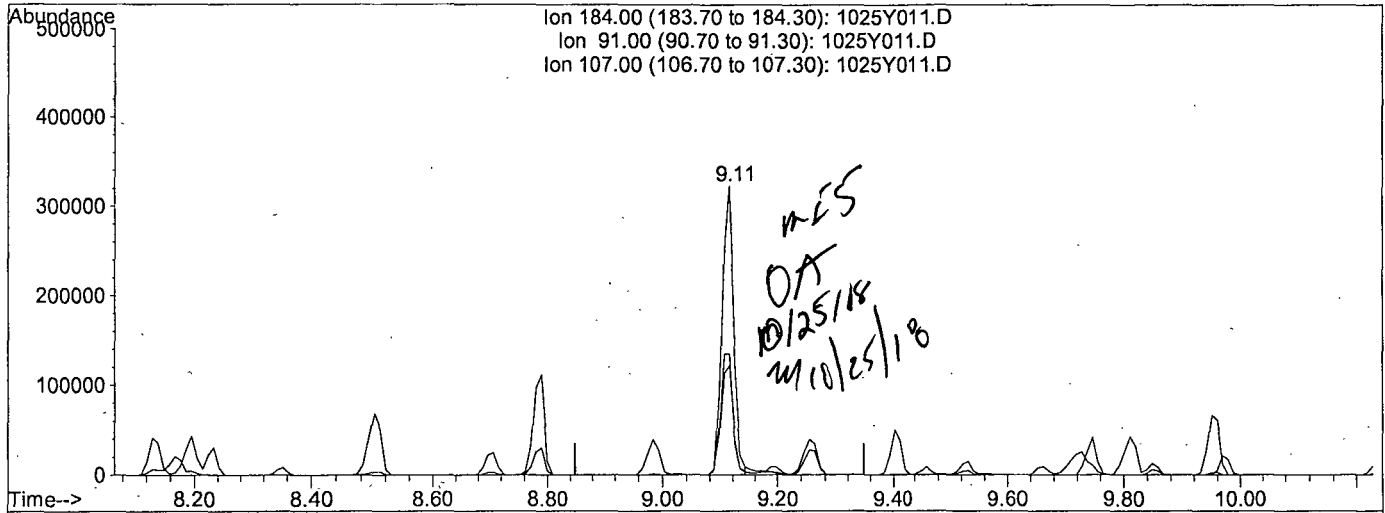
Ion	Exp%	Act%
184.00	100	100
91.00	49.40	41.47
107.00	41.60	37.69
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y011.D  
 Acq On : 25 Oct 18 15:16  
 Sample : 100ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:09 2018

Vial: 11  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y011.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.11min 106.3390ppb m

response 465055

Ion	Exp%	Act%
184.00	100	100
91.00	49.40	41.76
107.00	41.60	37.76
0.00	0.00	0.00

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Yoda  
Initial Cal. Date: 10/25/18  
Data File: 1025Y012.D

	Compound	MEAN	CCRF	%D	%Drift	
1	1,4-Dioxane	0.1218	0.1244	2.1		
2	TM n-Nitrosodimethylamine	0.3216	0.2589	19	TM	
3	TM Pyridine	0.4810	0.4013	17	TM	
4	*TM Phenol	2.499	2.403	3.8	*TM	
5	TM Aniline	1.998	1.731	13	TM	
6	TM Bis (2-chloroethyl) ether	1.307	1.201	8.1	TM	
7	TM 2-Chlorophenol	1.946	1.718	12	TM	
8	TM 1,3-DCB	2.015	1.784	11	TM	
9	*TM 1,4-DCB	2.019	1.787	12	*TM	
10	TM Benzyl alcohol	1.259	1.076	15	TM	
11	TM 1,2-DCB	1.919	1.715	11	TM	
12	TM 2-Methylphenol	1.549	1.367	12	TM	
13	TM Bis (2-chloroisopropyl) ether	2.474	2.177	12	TM	
14	TML Acetophenone	2.188	1.706	22	TML	13
15	TML 3&4-Methylphenol	1.681	1.327	21	TML	11
16	**TM n-Nitrosodi-n-propylamine	1.288	1.064	17	**TM	
17	TM Hexachloroethane	0.7589	0.6864	9.6	TM	
18	TM Nitrobenzene	0.4947	0.4496	9.1	TM	
19	TM Isophorone	0.8745	0.7852	10	TM	
20	*TM 2-Nitrophenol	0.2512	0.2231	11	*TM	
21	TM 2,4-Dimethylphenol	0.4206	0.3656	13	TM	
22	TML Benzoic acid	0.3415	0.3452	1.1	TML	9.2
23	TM Bis (2-chloroethoxy) methane	0.4924	0.4719	4.2	TM	
24	*TM 2,4-Dichlorophenol	0.3707	0.3294	11	*TM	
25	TM 1,2,4-Trichlorobenzene	0.3850	0.3326	14	TM	
26	TM 3,4-Dimethylphenol	0.5695	0.4899	14	TM	
27	TM Naphthalene	1.295	1.098	15	TM	
28	TM 4-Chloroaniline	0.4852	0.4064	16	TM	
29	TM 2,6-Dichlorophenol	0.3392	0.2872	15	TM	
30	TM Hexachloropropene	0.2572	0.2341	9.0	TM	
31	*TM Hexachlorobutadiene	0.2130	0.1890	11	*TM	
32	TM Caprolactum	0.2270	0.2016	11	TM	
33	*TM 4-Chloro-3-methylphenol	0.3980	0.3571	10	*TM	
34	TM 2-Methylnaphthalene	0.8168	0.6740	17	TM	
35	TM 1-Methylnaphthalene	0.8142	0.6890	15	TM	
36	**TML Hexachlorocyclopentadiene	0.3816	0.4093	7.3	**TML	2.8
37	TM 1,2,4,5-Tetrachlorobenzene	0.7484	0.6277	16	TM	
38	*TM 2,4,6-Trichlorophenol	0.5262	0.4695	11	*TM	
39	TM 2,4,5-Trichlorophenol	0.5571	0.4836	13	TM	
40	TM 1,1'-Biphenyl	1.964	1.652	16	TM	

Average

12.2

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y012.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM	2-Chloronaphthalene	1.564	1.389	11	TM	
42	TM	2-Nitroaniline	0.5399	0.4821	11	TM	
43	TM	Dimethyl phthalate	1.814	1.613	11	TM	
44	TM	2,6-DNT	0.4186	0.3880	7.3	TM	
45	TM	Acenaphthylene	2.523	2.168	14	TM	
46	TM	3-Nitroaniline	0.4681	0.4202	10	TM	
47	*TM	Acenaphthene	1.528	1.272	17	*TM	
48	**TML	2,4-Dinitrophenol	0.2155	0.2397	11	**TML	9.2
49	**TM	4-Nitrophenol	0.3618	0.3499	3.3	**TM	
50	TM	Dibenzofuran	2.109	1.730	18	TM	
51	TM	2,4-DNT	0.5331	0.4841	9.2	TM	
52	TM	2,3,4,6-Tetrachlorophenol	0.4598	0.4180	9.1	TM	
53	TM	Diethyl phthalate	1.746	1.531	12	TM	
54	TML	4-Chlorophenyl phenyl ether	0.7439	0.6243	16	TML	10
55	TML	Fluorene	1.604	1.340	16	TML	11
56	TM	4-Nitroaniline	0.4889	0.4338	11	TM	
57	TML	4,6-Dinitro-2-methylphenol	0.1817	0.1817	0.00	TML	7.9
58	TM	Diphenyl amine	0.6800	0.5607	18	TM	
59	*TM	n-Nitrosodiphenylamine	0.6800	0.5607	18	*TM	
60	TM	1,2-Diphenylhydrazine	1.075	0.9477	12	TM	
61	TM	4-Bromophenyl phenyl ether	0.2723	0.2417	11	TM	
62	TM	Hexachlorobenzene	0.2863	0.2508	12	TM	
63	TM	Atrazine	0.2489	0.2399	3.6	TM	
64	*TM	Pentachlorophenol	0.1772	0.1717	3.1	*TM	
65	TM	Phenanthrene	1.397	1.162	17	TM	
66	TM	Anthracene	1.437	1.228	15	TM	
67	TM	Carbazol	1.343	1.179	12	TM	
68	TM	Di-n-butylphthalate	1.555	1.410	9.3	TM	
69	*TM	Fluoranthene	1.499	1.316	12	*TM	
70	TM	Benzidine	0.5685	0.5475	3.7	TM	
71	TM	Pyrene	1.653	1.493	9.7	TM	
72	TM	Butyl benzylphthalate	0.7384	0.7010	5.1	TM	
73	TM	3,3'-Dichlorobenzidine	0.5388	0.5024	6.8	TM	
74	TM	Benz (a) anthracene	1.404	1.159	18	TM	
75	TM	Bis (2-ethylhexyl) phthalate	0.9278	0.8150	12	TM	
76	TM	Chrysene	1.477	1.320	11	TM	
77	*TM	Di-n-octylphthalate	1.725	1.640	4.9	*TM	
78	TM	Benzo (b) fluoranthene	1.499	1.283	14	TM	
79	TM	Benzo (k) fluoranthene	1.428	1.271	11	TM	
80	*TM	Benzo (a) pyrene	1.364	1.231	9.7	*TM	

Average

10.9

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y012.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	Indeno (1,2,3-cd) pyrene	1.580	1.378	13	TM
82	TM	Dibenz (a,h) anthracene	1.342	1.207	10	TM
83	TM	Benzo (g,h,i) perylene	1.280	1.124	12	TM
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120						

Average

11.7

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y012.D  
 Acq On : 25 Oct 18 15:44  
 Sample : SS- 8270 10/18/18  
 Misc :

Vial: 12  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:58 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth: SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	386868	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1656168	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	862976	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.77	188	1603520	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.88	240	1476646	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.83	264	1648401	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	0.00	112	0	0.00000	ppb	
Spiked Amount	200.000		Recovery	=	0.000%	
6) Phenol-D6 (S)	0.00	99	0	0.00000	ppb	
Spiked Amount	200.000		Recovery	=	0.000%	
22) Nitrobenzene-D5 (S)	6.11	82	83944	4.49109	ppb	-0.07
Spiked Amount	100.000		Recovery	=	4.491%	
46) 2-Fluorobiphenyl (S)	8.22	172	136	0.00378	ppb	0.00
Spiked Amount	100.000		Recovery	=	0.004%	
64) 2,4,6-Tribromophenol (S)	0.00	330	0	0.00000	ppb	
Spiked Amount	200.000		Recovery	=	0.000%	
82) Terphenyl-D14 (S)	12.62	244	747	0.01911	ppb	0.00
Spiked Amount	100.000		Recovery	=	0.019%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	6016	5.10659		95
3) n-Nitrosodimethylamine	1.98	42	125217	40.26334	ppb	92
4) Pyridine	1.99	79	194063	41.71931	ppb	92
7) Phenol	5.14	94	1162248	48.07770	ppb	94
8) Aniline	5.17	66	837054m	43.31498	ppb	94
9) Bis (2-chloroethyl) ether	5.24	63	580808	45.93893	ppb	99
10) 2-Chlorophenol	5.30	128	830627	44.13361	ppb	97
11) 1,3-DCB	5.47	146	862923	44.26776	ppb	98
12) 1,4-DCB	5.56	146	864003	44.24378	ppb	99
13) Benzyl alcohol	5.70	108	520550	42.74059	ppb	100
14) 1,2-DCB	5.73	146	829434	44.69625	ppb	98
15) 2-Methylphenol	5.83	107	660841	44.09964	ppb	100
16) Bis (2-chloroisopropyl) et	5.85	45	1052745	43.98987	ppb	94
17) Acetophenone	6.00	105	824838	43.45115	ppb	95
18) 3&4-Methylphenol	6.00	107	1283819	89.25332	ppb	98
19) n-Nitrosodi-n-propylamine	6.00	70	514399	41.29139	ppb	98
20) Hexachloroethane	6.12	117	331921	45.21911	ppb	87
23) Nitrobenzene	6.20	77	930745	45.43657	ppb	99
24) Isophorone	6.47	82	1625471	44.89277	ppb	98
25) 2-Nitrophenol	6.55	139	461761	44.39936	ppb	92
26) 2,4-Dimethylphenol	6.60	122	756913	43.46783	ppb	96
27) Benzoic acid	6.75	105	714663	45.40513	ppb	99
28) Bis (2-chloroethoxy) metha	6.70	93	976896	47.91932	ppb	99
29) 2,4-Dichlorophenol	6.83	162	682004	44.43502	ppb	96
30) 1,2,4-Trichlorobenzene	6.92	180	688647	43.20203	ppb	99
31) 3,4-Dimethylphenol	6.93	107	1014136	43.00605	ppb	99
32) Naphthalene	7.02	128	2272459	42.36614	ppb	100
33) 4-Chloroaniline	7.08	127	841244	41.87769	ppb	97
34) 2,6-Dichlorophenol	7.08	162	594483	42.32679	ppb	98
35) Hexachloropropene	7.11	213	484652	45.50405	ppb	97
36) Hexachlorobutadiene	7.14	225	391221	44.36270	ppb	99
37) Caprolactum	7.52	55	417379	44.41554	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1025Y012.D Y1025NC.M Thu Oct 25 17:30:40 2018

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y012.D Vial: 12  
 Acq On : 25 Oct 18 15:44 Operator: MA  
 Sample : SS- 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 25 16:58 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	739202	44.85431	ppb	97
39) 2-Methylnaphthalene	7.81	142	1395302	41.25897	ppb	99
40) 1-Methylnaphthalene	7.92	142	1426411	42.31170	ppb	99
42) Hexachlorocyclopentadiene	7.98	237	441562	48.60381	ppb	98
43) 1,2,4,5-Tetrachlorobenzene	8.00	216	677153	41.93852	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	506412	44.60780	ppb	97
45) 2,4,5-Trichlorophenol	8.19	196	521633	43.39978	ppb	98
47) 1,1'-Biphenyl	8.34	154	1782334	42.06992	ppb	98
48) 2-Chloronaphthalene	8.37	162	1498212	44.40410	ppb	98
49) 2-Nitroaniline	8.49	65	520087	44.65029	ppb	96
50) Dimethyl phthalate	8.70	163	1740390	44.48142	ppb	99
51) 2,6-DNT	8.78	165	418526	46.33923	ppb	88
52) Acenaphthylene	8.85	152	2338312	42.96223	ppb	99
53) 3-Nitroaniline	8.98	138	453228	44.87761	ppb	94
54) Acenaphthene	9.06	154	1371833	41.60805	ppb	100
55) 2,4-Dinitrophenol	9.10	184	258568	45.38445	ppb	89
56) 4-Nitrophenol	9.17	65	377398	48.34839	ppb	94
57) Dibenzofuran	9.26	168	1866460	41.01831	ppb	98
58) 2,4-DNT	9.25	165	522235	45.40315	ppb	98
59) 2,3,4,6-Tetrachlorophenol	9.40	232	450896	45.45412	ppb	95
60) Diethyl phthalate	9.52	149	1651997	43.86727	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.65	204	673453	44.86290	ppb	97
62) Fluorene	9.66	166	1445945	44.38941	ppb	99
63) 4-Nitroaniline	9.71	138	467969	44.36467	ppb	91
66) 4,6-Dinitro-2-methylphenol	9.73	198	364179	46.03995	ppb	95
67) Diphenyl amine	9.80	169	2247708	82.45409	ppb	99
68) n-Nitrosodiphenylamine	9.80	169	2247708	82.45409	ppb	99
69) 1,2-Diphenylhydrazine	9.85	77	1899544	44.09312	ppb	94
70) 4-Bromophenyl phenyl ether	10.23	248	484488	44.39067	ppb	92
71) Hexachlorobenzene	10.30	284	502790	43.80056	ppb	92
72) Atrazine	10.42	200	240392	24.09041	ppb	98
73) Pentachlorophenol	10.53	266	344170	48.45559	ppb	98
74) Phenanthrene	10.79	178	2328547	41.57645	ppb	100
75) Anthracene	10.86	178	2461509	42.72674	ppb	99
76) Carbazol	11.05	167	2363833	43.90959	ppb	98
77) Di-n-butylphthalate	11.43	149	2826248	45.34111	ppb	99
78) Fluoranthene	12.19	202	2638457	43.89844	ppb	98
80) Benzidine	12.34	184	1010610	48.15348	ppb	99
81) Pyrene	12.47	202	2755960	45.15571	ppb	99
83) Butyl benzylphthalate	13.19	149	1293875	47.46928	ppb	93
84) 3,3'-Dichlorobenzidine	13.83	252	927314	46.61970	ppb	98
85) Benz (a) anthracene	13.86	228	2138564	41.24879	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1504349	43.92262	ppb	99
87) Chrysene	13.90	228	2436471	44.67122	ppb	100
88) Di-n-octylphthalate	14.63	149	3027268	47.53469	ppb	96
90) Benzo (b) fluoranthene	15.23	252	2644578	42.81628	ppb	99
91) Benzo (k) fluoranthene	15.28	252	2618826	44.49658	ppb	100
92) Benzo (a) pyrene	15.73	252	2536913	45.14799	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.85	276	2840172	43.62729	ppb	97
94) Dibenz (a,h) anthracene	17.90	278	2486583	44.96871	ppb	98
95) Benzo (g,h,i) perylene	18.48	276	2316893	43.92428	ppb	99



Quantitation Report

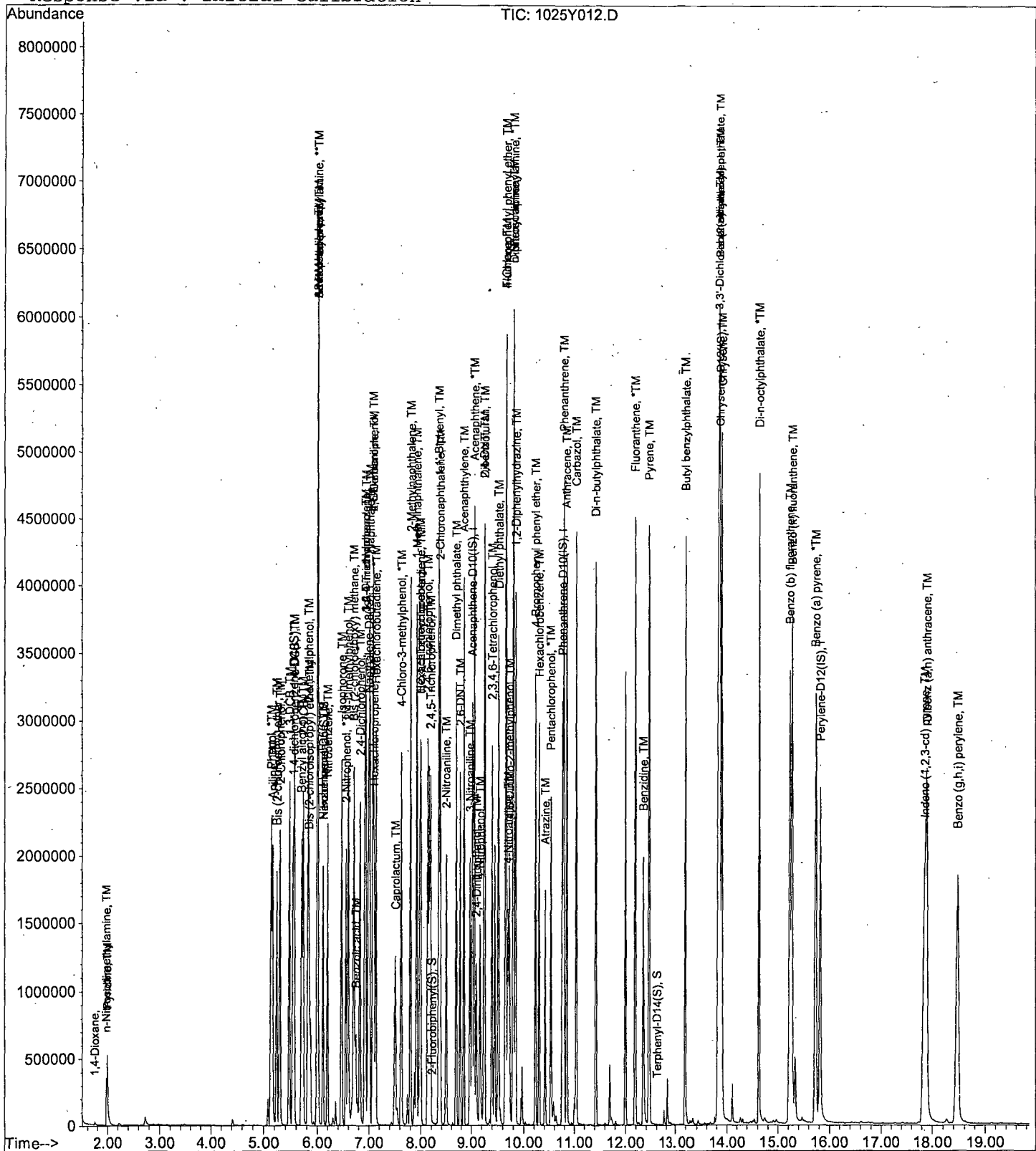
Data File : M:\YODA\DATA\Y181025\1025Y012.D  
Acq On : 25 Oct 18 15:44  
Sample : SS- 8270 10/18/18  
Misc :

Vial: 12  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:58 2018

Quant Results File: Y1025NC.RES

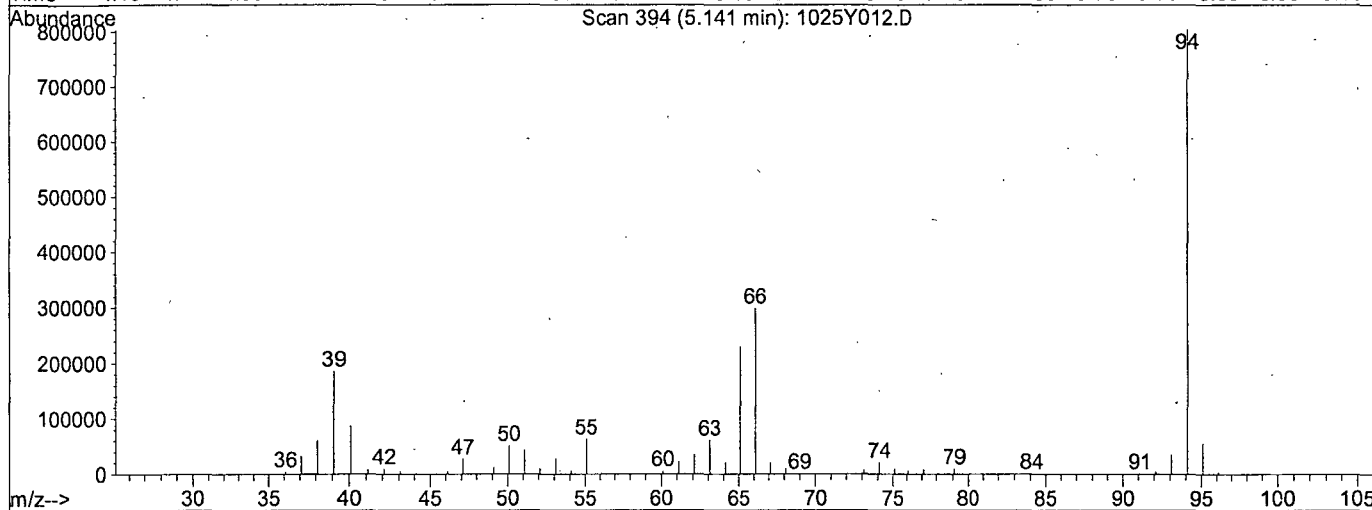
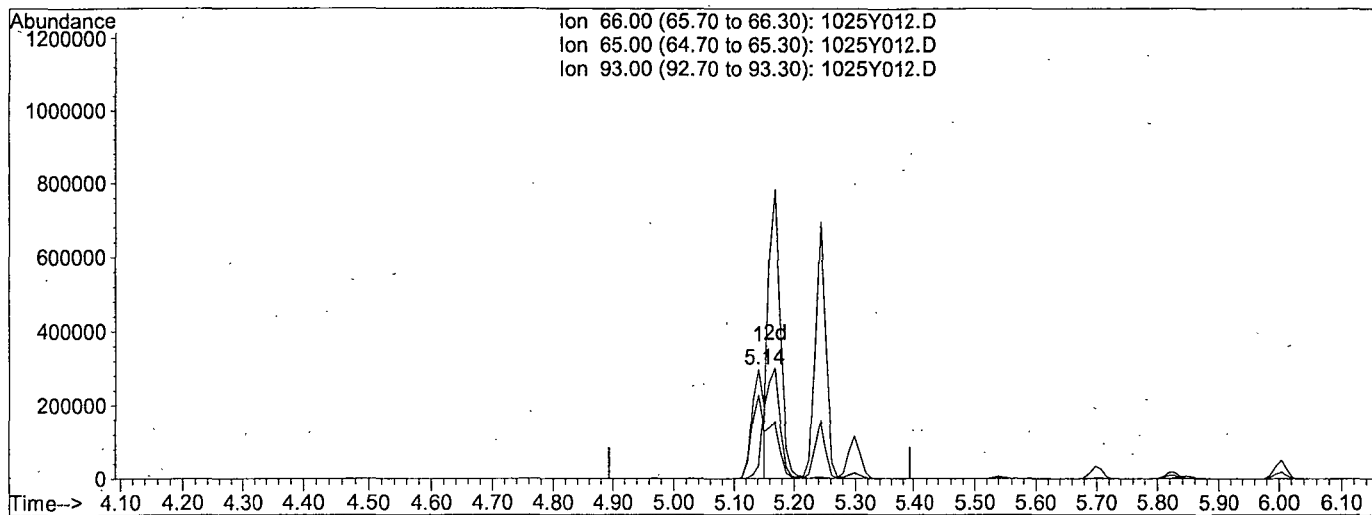
Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y012.D Vial: 12  
 Acq On : 25 Oct 18 15:44 Operator: MA  
 Sample : SS- 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Oct 25 16:57 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y012.D

(8) Aniline (TM)

5.14min 22.0314ppb

response 425752

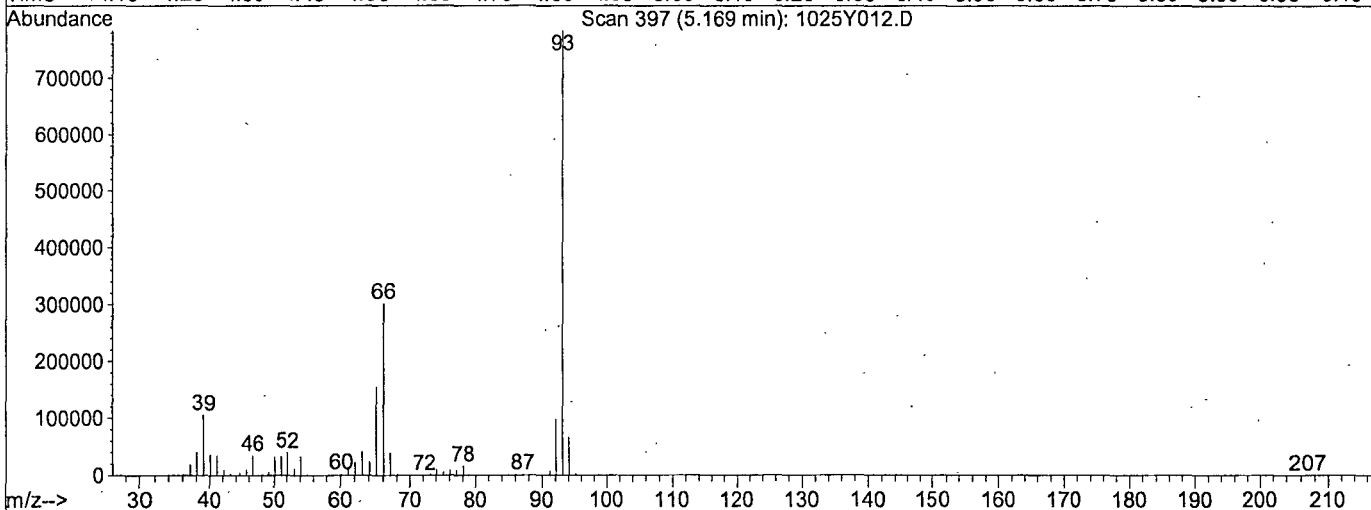
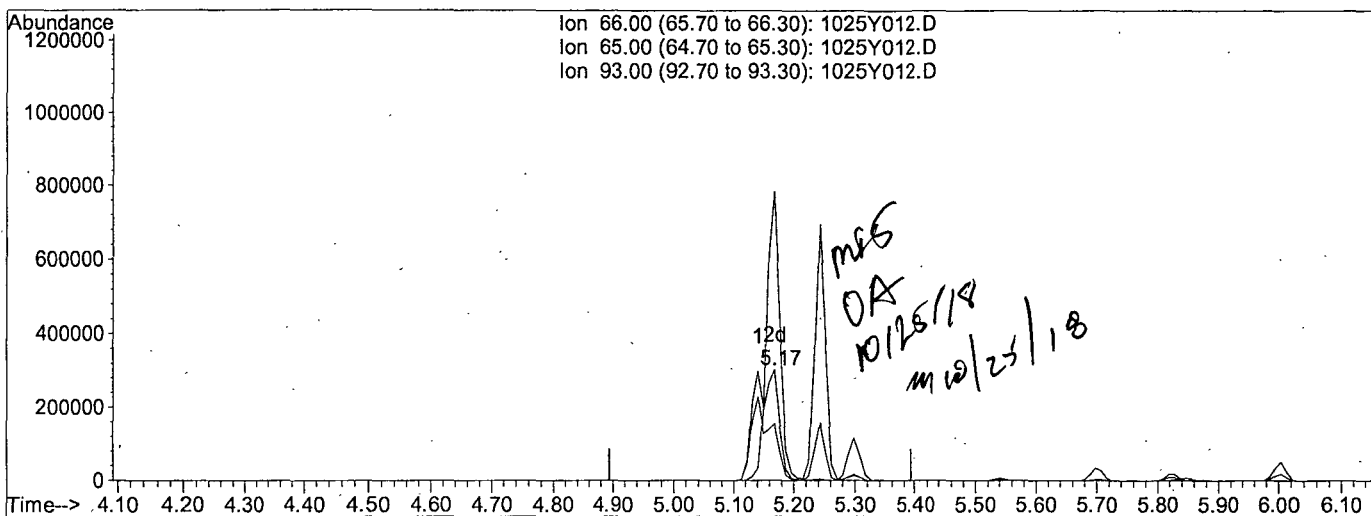
Ion	Exp%	Act%
66.00	100	100
65.00	73.00	76.70
93.00	16.80	11.42#
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y012.D  
 Acq On : 25 Oct 18 15:44  
 Sample : SS- 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:58 2018

Vial: 12  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y012.D

(8) Aniline (TM)

5.17min 43.3150ppb m

response 837054

Ion	Exp%	Act%
66.00	100	100
65.00	73.00	51.40
93.00	16.80	259.64#
0.00	0.00	0.00

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Yoda  
Initial Cal. Date: 10/25/18  
Data File: 1025Y078.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I
2		1,4-Dioxane	0.1218	0.1591	31	
3	TM	n-Nitrosodimethylamine	0.3216	0.3958	23	TM
4	TM	Pyridine	0.4810	0.5613	17	TM
5	S	2-Fluorophenol (S)	1.572	1.575	0.23	S
6	S	Phenol-D6 (S)	1.868	1.859	0.52	S
7	*TM	Phenol	2.499	2.820	13	*TM
8	TM	Aniline	1.998	2.274	14	TM
9	TM	Bis (2-chloroethyl) ether	1.307	1.482	13	TM
10	TM	2-Chlorophenol	1.946	2.173	12	TM
11	TM	1,3-DCB	2.015	2.224	10	TM
12	*TM	1,4-DCB	2.019	2.207	9.3	*TM
13	TM	Benzyl alcohol	1.259	1.420	13	TM
14	TM	1,2-DCB	1.919	2.028	5.7	TM
15	TM	2-Methylphenol	1.549	1.748	13	TM
16	TM	Bis (2-chloroisopropyl) ether	2.474	2.778	12	TM
17	TML	Acetophenone	2.188	1.988	9.2	TML 3.3
18	TML	3&4-Methylphenol	1.681	1.487	12	TML 1.6
19	**TM	n-Nitrosodi-n-propylamine	1.288	1.252	2.8	**TM
20	TM	Hexachloroethane	0.7589	0.7701	1.5	TM
21	I	Napthalene-D8(IS)	ISTD			I
22	S	Nitrobenzene-D5(S)	0.4514	0.4328	4.1	S
23	TM	Nitrobenzene	0.4947	0.5305	7.2	TM
24	TM	Isophorone	0.8745	0.9232	5.6	TM
25	*TM	2-Nitrophenol	0.2512	0.2678	6.6	*TM
26	TM	2,4-Dimethylphenol	0.4206	0.4414	5.0	TM
27	TML	Benzoic acid	0.3415	0.4217	24	TML 9.3
28	TM	Bis (2-chloroethoxy) methane	0.4924	0.5139	4.4	TM
29	*TM	2,4-Dichlorophenol	0.3707	0.3885	4.8	*TM
30	TM	1,2,4-Trichlorobenzene	0.3850	0.3940	2.3	TM
31	TM	3,4-Dimethylphenol	0.5695	0.6073	6.6	TM
32	TM	Napthalene	1.295	1.322	2.0	TM
33	TM	4-Chloroaniline	0.4852	0.4744	2.2	TM
34	TM	2,6-Dichlorophenol	0.3392	0.3382	0.31	TM
35	TM	Hexachloropropene	0.2572	0.2811	9.3	TM
36	*TM	Hexachlorobutadiene	0.2130	0.2224	4.4	*TM
37	TM	Caprolactum	0.2270	0.2516	11	TM
38	*TM	4-Chloro-3-methylphenol	0.3980	0.4322	8.6	*TM
39	TM	2-Methylnapthalene	0.8168	0.8466	3.7	TM
40	TM	1-Methylnapthalene	0.8142	0.8389	3.0	TM

Average

8.6

\*NT  
\*NT

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y078.D

		Compound	MEAN	CCRF	%D	%Drift	
41	I	Acenaphthene-D10(IS)	ISTD			I	
42	**TML	Hexachlorocyclopentadiene	0.3816	0.4403	15	**TML	4.1
43	TM	1,2,4,5-Tetrachlorobenzene	0.7484	0.7380	1.4	TM	
44	*TM	2,4,6-Trichlorophenol	0.5262	0.5500	4.5	*TM	
45	TM	2,4,5-Trichlorophenol	0.5571	0.5805	4.2	TM	
46	S	2-Fluorobiphenyl(S)	1.667	1.523	8.7	S	
47	TM	1,1'-Biphenyl	1.964	1.940	1.2	TM	
48	TM	2-Chloronaphthalene	1.564	1.574	0.65	TM	
49	TM	2-Nitroaniline	0.5399	0.5895	9.2	TM	
50	TM	Dimethyl phthalate	1.814	1.878	3.6	TM	
51	TM	2,6-DNT	0.4186	0.4480	7.0	TM	
52	TM	Acenaphthylene	2.523	2.578	2.2	TM	
53	TM	3-Nitroaniline	0.4681	0.5042	7.7	TM	
54	*TM	Acenaphthene	1.528	1.504	1.6	*TM	
55	**TML	2,4-Dinitrophenol	0.2155	0.2679	24	**TML	0.23
56	**TM	4-Nitrophenol	0.3618	0.4147	15	**TM	
57	TM	Dibenzofuran	2.109	2.082	1.3	TM	
58	TM	2,4-DNT	0.5331	0.5601	5.1	TM	
59	TM	2,3,4,6-Tetrachlorophenol	0.4598	0.4946	7.6	TM	
60	TM	Diethyl phthalate	1.746	1.817	4.1	TM	
61	TML	4-Chlorophenyl phenyl ether	0.7439	0.7158	3.8	TML	6.1
62	TML	Fluorene	1.604	1.573	1.9	TML	7.6
63	TM	4-Nitroaniline	0.4889	0.5272	7.8	TM	
64	S	2,4,6-Tribromophenol(S)	0.2019	0.1876	7.1	S	
65	I	Phenanthrene-D10(IS)	ISTD			I	
66	TML	4,6-Dinitro-2-methylphenol	0.1817	0.2148	18	TML	8.0
67	TM	Diphenyl amine	0.6800	0.6759	0.60	TM	
68	*TM	n-Nitrosodiphenylamine	0.6800	0.6759	0.60	*TM	
69	TM	1,2-Diphenylhydrazine	1.075	1.100	2.4	TM	
70	TM	4-Bromophenyl phenyl ether	0.2723	0.2789	2.4	TM	
71	TM	Hexachlorobenzene	0.2863	0.2950	3.0	TM	
72	TM	Atrazine	0.2489	0.2703	8.6	TM	
73	*TM	Pentachlorophenol	0.1772	0.2090	18	*TM	
74	TM	Phenanthrene	1.397	1.401	0.25	TM	
75	TM	Anthracene	1.437	1.451	0.98	TM	
76	TM	Carbazol	1.343	1.393	3.7	TM	
77	TM	Di-n-butylphthalate	1.555	1.648	6.0	TM	
78	*TM	Fluoranthene	1.499	1.544	3.0	*TM	
79	I	Chrysene-D12(IS)	ISTD			I	
80	TM	Benzidine	0.5685	0.5780	1.7	TM	

Average

5.8

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y078.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	Pyrene	1.653	1.751	5.9	TM
82	S	Terphenyl-D14(S)	1.059	1.027	3.0	S
83	TM	Butyl benzylphthalate	0.7384	0.8064	9.2	TM
84	TM	3,3'-Dichlorobenzidine	0.5388	0.5828	8.2	TM
85	TM	Benz (a) anthracene	1.404	1.369	2.5	TM
86	TM	Bis (2-ethylhexyl) phthalate	0.9278	0.9301	0.26	TM
87	TM	Chrysene	1.477	1.536	4.0	TM
88	*TM	Di-n-octylphthalate	1.725	1.937	12	*TM
89	I	Perylene-D12(IS)	ISTD			I
90	TM	Benzo (b) fluoranthene	1.499	1.572	4.9	TM
91	TM	Benzo (k) fluoranthene	1.428	1.434	0.39	TM
92	*TM	Benzo (a) pyrene	1.364	1.469	7.7	*TM
93	TM	Indeno (1,2,3-cd) pyrene	1.580	1.701	7.7	TM
94	TM	Dibenz (a,h) anthracene	1.342	1.458	8.7	TM
95	TM	Benzo (g,h,i) perylene	1.280	1.408	10.0	TM
96						
97						
98						
99						
100						
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108						
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110						
111						
112						
113						
114						
115						
116						
117						
118						
119						
120						

Average

6.0

Data File : M:\YODA\DATA\Y181025\1025Y078.D  
 Acq On : 30 Oct 18 9:34  
 Sample : 50ug/mL 8270 10/18/18 (2)  
 Misc :

Vial: 78  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 30 10:04 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.53	152	340030	40.00000	ppb	-0.01
21) Napthalene-D8 (IS)	6.99	136	1373939	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.01	164	733668	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1363202	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1272643	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1426774	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.94	112	1339170	100.23335	ppb	0.00
Spiked Amount 200.000			Recovery =	50.116%		
6) Phenol-D6 (S)	5.12	99	1580021	99.48229	ppb	0.00
Spiked Amount 200.000			Recovery =	49.741%		
22) Nitrobenzene-D5 (S)	6.17	82	743247	47.93275	ppb	0.00
Spiked Amount 100.000			Recovery =	47.933%		
46) 2-Fluorobiphenyl (S)	8.22	172	1396480	45.66353	ppb	0.00
Spiked Amount 100.000			Recovery =	45.664%		
64) 2,4,6-Tribromophenol (S)	9.95	330	344098	92.93334	ppb	0.00
Spiked Amount 200.000			Recovery =	46.467%		
82) Terphenyl-D14 (S)	12.62	244	1633342	48.48240	ppb	0.00
Spiked Amount 100.000			Recovery =	48.482%		

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.74	58	6763m	6.53142		72
3) n-Nitrosodimethylamine	1.98	42	168229	61.54502	ppb	100
4) Pyridine	1.99	79	238575	58.35323	ppb	100
7) Phenol	5.14	94	1198774	56.41931	ppb	99
8) Aniline	5.14	66	966647	56.91125	ppb	# 96
9) Bis (2-chloroethyl) ether	5.24	63	629824	56.67781	ppb	98
10) 2-Chlorophenol	5.30	128	923500	55.82721	ppb	99
11) 1,3-DCB	5.47	146	945360	55.17703	ppb	98
12) 1,4-DCB	5.56	146	938188	54.66036	ppb	98
13) Benzyl alcohol	5.70	108	603579	56.38424	ppb	99
14) 1,2-DCB	5.73	146	861853	52.84064	ppb	99
15) 2-Methylphenol	5.82	107	742969	56.40977	ppb	99
16) Bis (2-chloroisopropyl) et	5.84	45	1180688	56.13196	ppb	99
17) Acetophenone	6.01	105	844896	51.63329	ppb	96
18) 3&4-Methylphenol	6.01	107	1264249	101.61569	ppb	100
19) n-Nitrosodi-n-propylamine	6.01	70	532088	48.59465	ppb	96
20) Hexachloroethane	6.11	117	327305	50.73241	ppb	96
23) Nitrobenzene	6.20	77	911013	53.60883	ppb	100
24) Isophorone	6.47	82	1585485	52.78327	ppb	99
25) 2-Nitrophenol	6.55	139	460011	53.31686	ppb	97
26) 2,4-Dimethylphenol	6.59	122	758112	52.47982	ppb	98
27) Benzoic acid	6.75	105	724279	54.64608	ppb	98
28) Bis (2-chloroethoxy) metha	6.70	93	882668	52.19112	ppb	100
29) 2,4-Dichlorophenol	6.82	162	667160	52.39687	ppb	99
30) 1,2,4-Trichlorobenzene	6.92	180	676673	51.17093	ppb	99
31) 3,4-Dimethylphenol	6.93	107	1042976	53.31441	ppb	99
32) Naphthalene	7.01	128	2269666	51.00605	ppb	100
33) 4-Chloroaniline	7.07	127	814747	48.89005	ppb	98
34) 2,6-Dichlorophenol	7.08	162	580798	49.84688	ppb	98
35) Hexachloropropene	7.10	213	482759	54.63706	ppb	98
36) Hexachlorobutadiene	7.14	225	381969	52.21087	ppb	99
37) Caprolactum	7.52	55	432163	55.43562	ppb	98

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

Data File : M:\YODA\DATA\Y181025\1025Y078.D  
 Acq On : 30 Oct 18 9:34  
 Sample : 50ug/mL 8270 10/18/18 (2)  
 Misc :

Vial: 78  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 30 10:04 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	742353	54.29858	ppb	98
39) 2-Methylnaphthalene	7.81	142	1453984	51.82588	ppb	99
40) 1-Methylnaphthalene	7.92	142	1440717	51.51472	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	403809	52.07300	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	676826	49.30630	ppb	98
44) 2,4,6-Trichlorophenol	8.13	196	504436	52.26513	ppb	100
45) 2,4,5-Trichlorophenol	8.19	196	532385	52.10117	ppb	99
47) 1,1'-Biphenyl	8.35	154	1779235	49.39865	ppb	98
48) 2-Chloronaphthalene	8.37	162	1443549	50.32462	ppb	99
49) 2-Nitroaniline	8.49	65	540621	54.59343	ppb	98
50) Dimethyl phthalate	8.70	163	1722725	51.79015	ppb	99
51) 2,6-DNT	8.78	165	410855	53.50743	ppb	94
52) Acenaphthylene	8.86	152	2364502	51.10027	ppb	100
53) 3-Nitroaniline	8.98	138	462421	53.85794	ppb	96
54) Acenaphthene	9.06	154	1379526	49.21586	ppb	99
55) 2,4-Dinitrophenol	9.10	184	245687	49.88415	ppb	95
56) 4-Nitrophenol	9.17	65	380356	57.31546	ppb	95
57) Dibenzofuran	9.26	168	1909427	49.35842	ppb	93
58) 2,4-DNT	9.25	165	513701	52.53268	ppb	95
59) 2,3,4,6-Tetrachlorophenol	9.40	232	453634	53.79000	ppb	99
60) Diethyl phthalate	9.52	149	1666690	52.05774	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.65	204	656430	53.03234	ppb	98
62) Fluorene	9.66	166	1442953	53.78395	ppb	98
63) 4-Nitroaniline	9.71	138	483465	53.91187	ppb	94
66) 4,6-Dinitro-2-methylphenol	9.73	198	366062	53.97618	ppb	97
67) Diphenyl amine	9.80	169	2303563	99.40004	ppb	99
68) n-Nitrosodiphenylamine	9.80	169	2303563	99.40004	ppb	99
69) 1,2-Diphenylhydrazine	9.84	77	1875061	51.19777	ppb	99
70) 4-Bromophenyl phenyl ether	10.23	248	475186	51.21374	ppb	96
71) Hexachlorobenzene	10.30	284	502685	51.51138	ppb	# 85
72) Atrazine	10.42	200	230308	27.14859	ppb	98
73) Pentachlorophenol	10.54	266	356064	58.96756	ppb	98
74) Phenanthrene	10.80	178	2386705	50.12741	ppb	100
75) Anthracene	10.85	178	2472739	50.48831	ppb	100
76) Carbazol	11.05	167	2372858	51.84758	ppb	99
77) Di-n-butylphthalate	11.43	149	2807906	52.98813	ppb	100
78) Fluoranthene	12.19	202	2631775	51.50650	ppb	99
80) Benzidine	12.35	184	919510	50.83588	ppb	100
81) Pyrene	12.46	202	2785700	52.95950	ppb	100
83) Butyl benzylphthalate	13.19	149	1282893	54.61105	ppb	97
84) 3,3'-Dichlorobenzidine	13.82	252	927171	54.08443	ppb	99
85) Benz (a) anthracene	13.86	228	2177512	48.73256	ppb	99
86) Bis (2-ethylhexyl) phthala	13.84	149	1479683	50.12773	ppb	99
87) Chrysene	13.91	228	2444116	51.99459	ppb	100
88) Di-n-octylphthalate	14.63	149	3081385	56.14040	ppb	99
90) Benzo (b) fluoranthene	15.23	252	2804303	52.45479	ppb	99
91) Benzo (k) fluoranthene	15.27	252	2557013	50.19502	ppb	99
92) Benzo (a) pyrene	15.73	252	2619230	53.85353	ppb	98
93) Indeno (1,2,3-cd) pyrene	17.85	276	3033027	53.82667	ppb	98
94) Dibenz (a,h) anthracene	17.90	278	2601194	54.34854	ppb	99
95) Benzo (g,h,i) perylene	18.48	276	2510629	54.99065	ppb	100



Quantitation Report

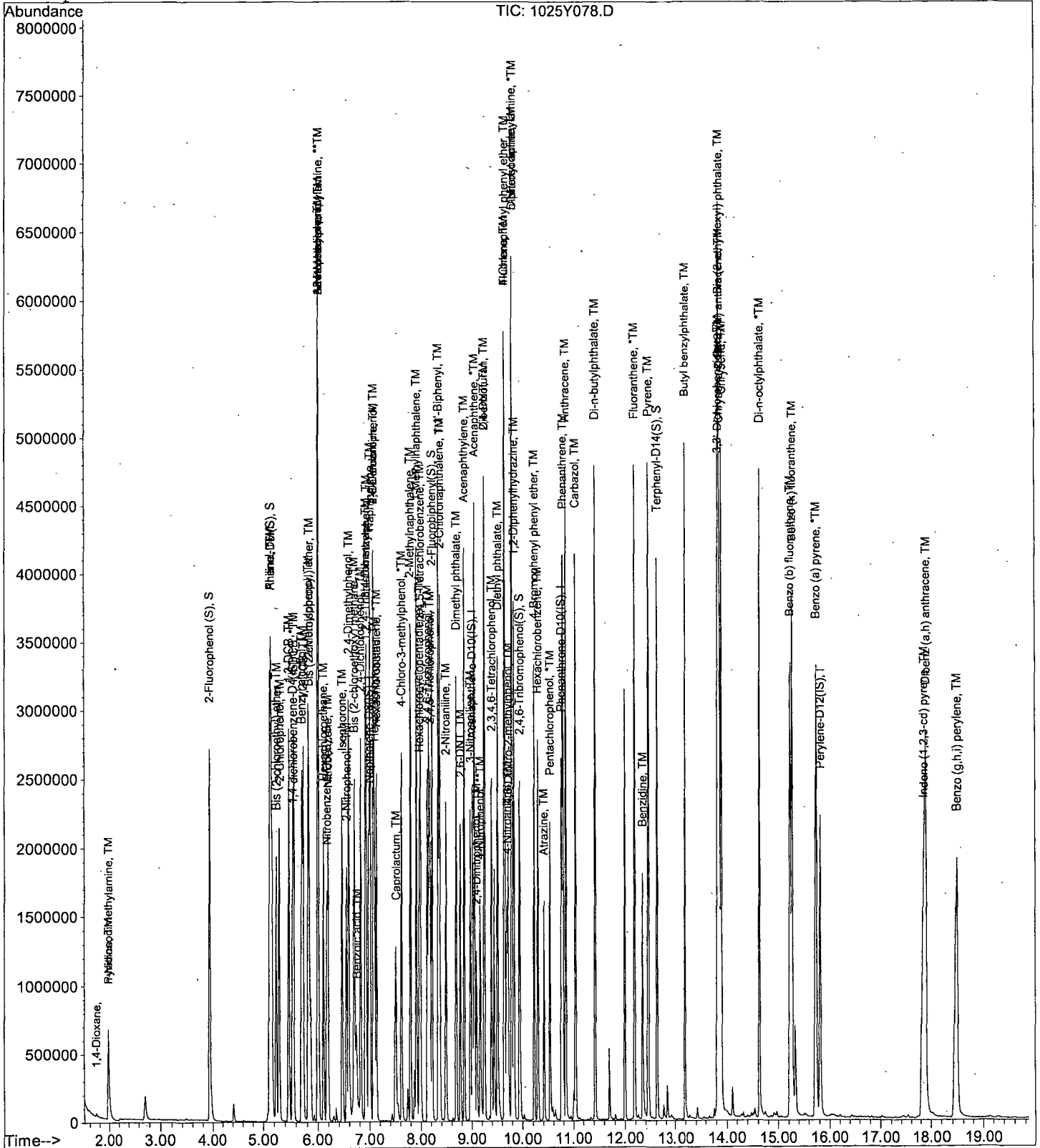
Data File : M:\YODA\DATA\Y181025\1025Y078.D  
 Acq On : 30 Oct 18 9:34  
 Sample : 50ug/mL 8270 10/18/18 (2)  
 Misc :

Vial: 78  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 30 10:04 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration

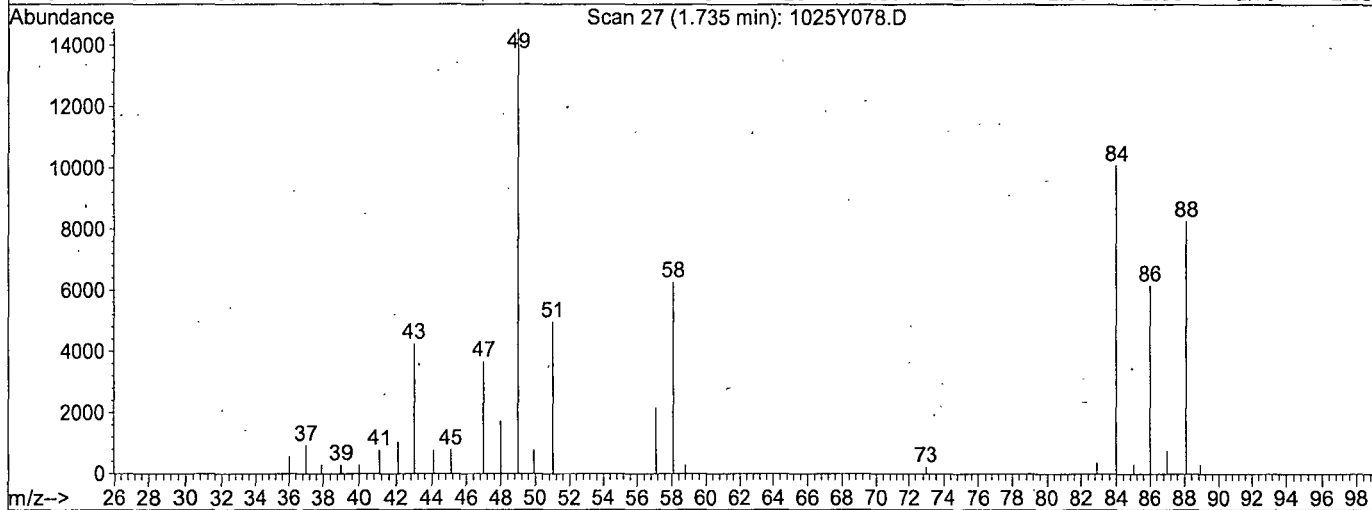
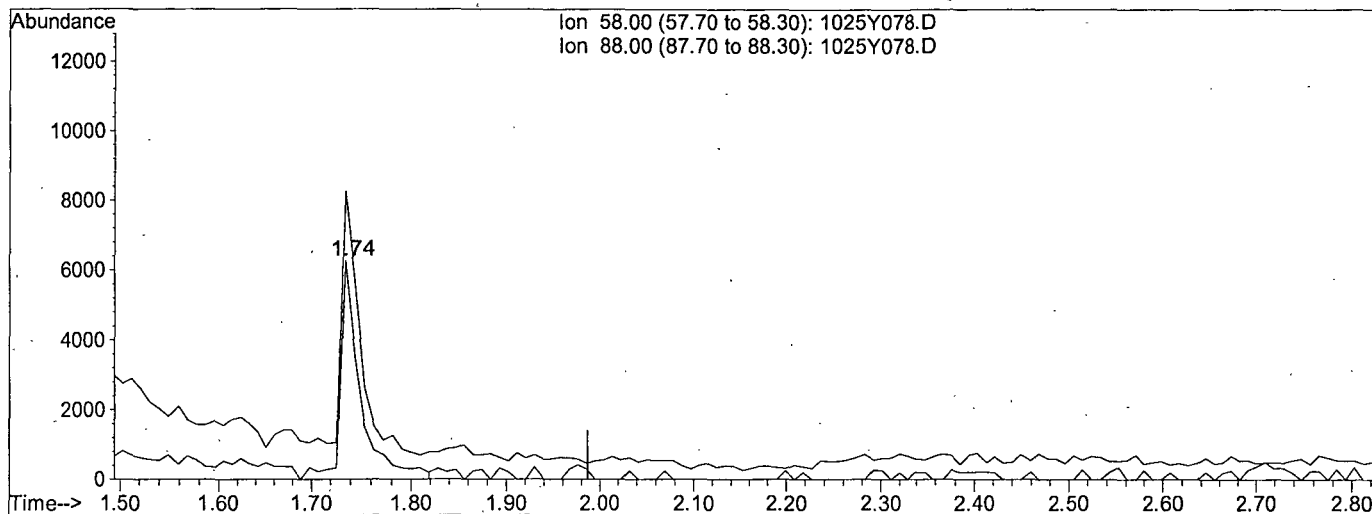


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y078.D  
 Acq On : 30 Oct 18 9:34  
 Sample : 50ug/mL 8270 10/18/18 (2)  
 Misc :  
 Quant Time: Oct 30 10:03 2018

Vial: 78  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y078.D

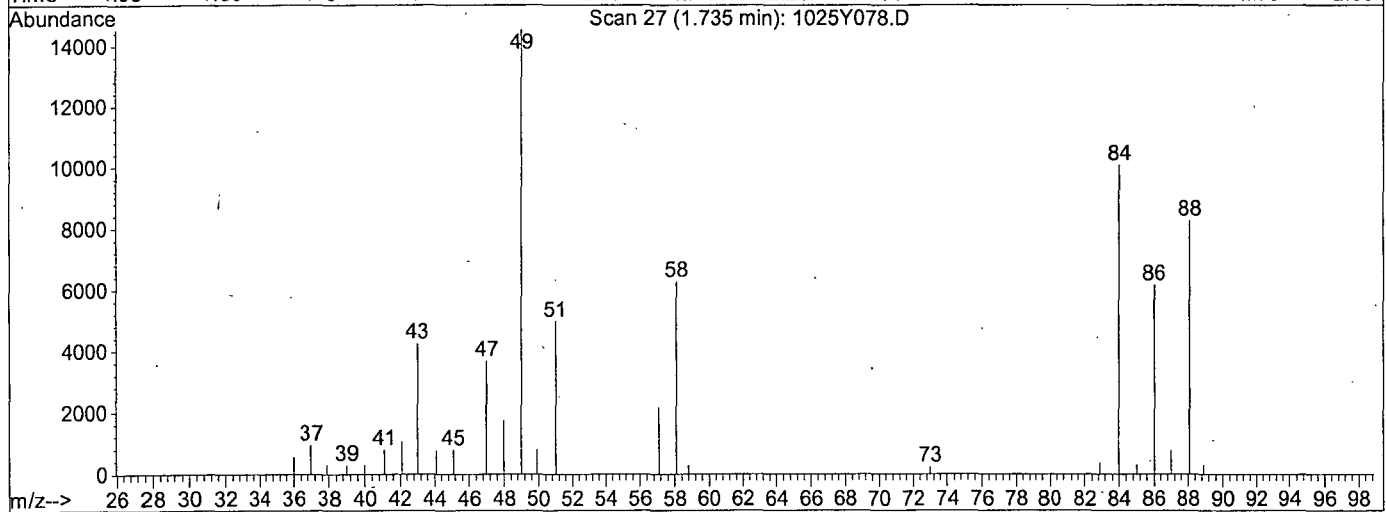
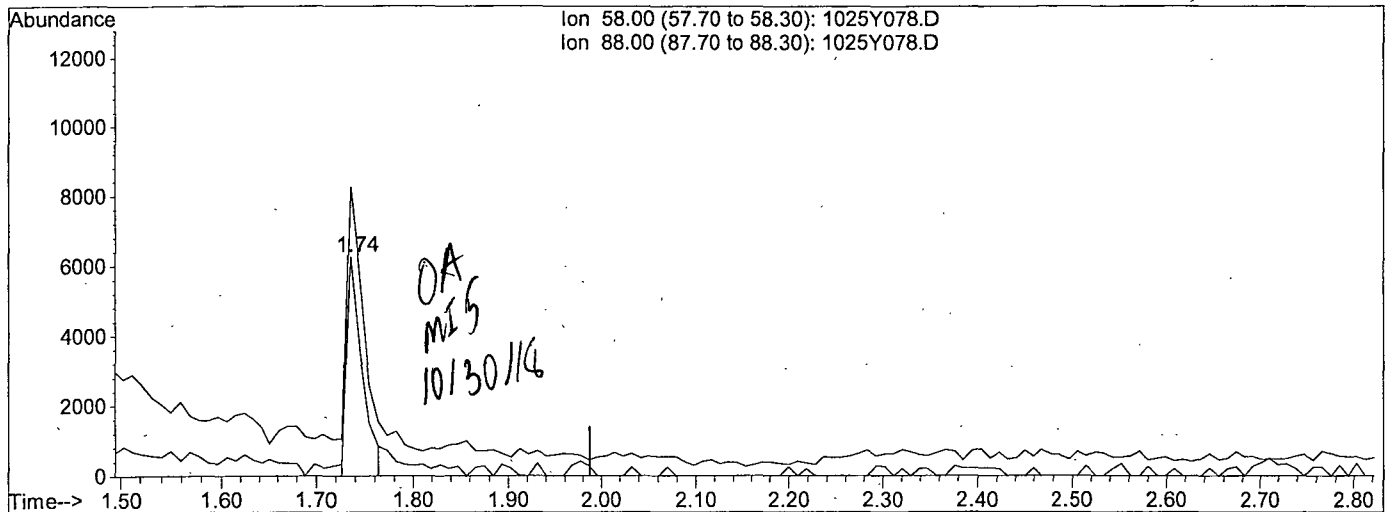
(2) 1,4-Dioxane		
1.74min	8.4127	
response	8711	
Ion	Exp%	Act%
58.00	100	100
88.00	148.00	113.14
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y078.D  
 Acq On : 30 Oct 18 9:34  
 Sample : 50ug/mL 8270 10/18/18 (2)  
 Misc :  
 Quant Time: Oct 30 10:04 2018

Vial: 78  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y078.D

(2) 1,4-Dioxane

1.74min 6.5314 m

response 6763

Ion	Exp%	Act%
58.00	100	100
88.00	148.00	145.73
0.00	0.00	0.00
0.00	0.00	0.00

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/30/18

Matrix: \_\_\_\_\_

Instrument: Yoda

Initial Cal. Date: 10/25/18

Data File: 1025Y096.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I
2		1,4-Dioxane	0.1218	0.1847	52	
3	TM	n-Nitrosodimethylamine	0.3216	0.3686	15	TM
4	TM	Pyridine	0.4810	0.4989	3.7	TM
5	S	2-Fluorophenol (S)	1.572	1.545	1.7	S
6	S	Phenol-D6 (S)	1.868	1.795	3.9	S
7	*TM	Phenol	2.499	2.697	7.9	*TM
8	TM	Aniline	1.998	2.178	9.0	TM
9	TM	Bis (2-chloroethyl) ether	1.307	1.426	9.0	TM
10	TM	2-Chlorophenol	1.946	2.113	8.6	TM
11	TM	1,3-DCB	2.015	2.106	4.5	TM
12	*TM	1,4-DCB	2.019	2.131	5.5	*TM
13	TM	Benzyl alcohol	1.259	1.390	10	TM
14	TM	1,2-DCB	1.919	2.019	5.2	TM
15	TM	2-Methylphenol	1.549	1.674	8.0	TM
16	TM	Bis (2-chloroisopropyl) ether	2.474	2.632	6.4	TM
17	TML	Acetophenone	2.188	1.977	9.7	TML 2.6
18	TML	3&4-Methylphenol	1.681	1.490	11	TML 1.8
19	**TM	n-Nitrosodi-n-propylamine	1.288	1.267	1.7	**TM
20	TM	Hexachloroethane	0.7589	0.8109	6.8	TM
21	I	Napthalene-D8(IS)	ISTD			I
22	S	Nitrobenzene-D5(S)	0.4514	0.4933	9.3	S
23	TM	Nitrobenzene	0.4947	0.5863	18	TM
24	TM	Isophorone	0.8745	1.028	18	TM
25	*TM	2-Nitrophenol	0.2512	0.3042	21	*TM
26	TM	2,4-Dimethylphenol	0.4206	0.4928	17	TM
27	TML	Benzoic acid	0.3415	0.4862	42	TML 25
28	TM	Bis (2-chloroethoxy) methane	0.4924	0.5624	14	TM
29	*TM	2,4-Dichlorophenol	0.3707	0.4346	17	*TM
30	TM	1,2,4-Trichlorobenzene	0.3850	0.3845	0.13	TM
31	TM	3,4-Dimethylphenol	0.5695	0.5917	3.9	TM
32	TM	Napthalene	1.295	1.295	0.00	TM
33	TM	4-Chloroaniline	0.4852	0.4646	4.2	TM
34	TM	2,6-Dichlorophenol	0.3392	0.3318	2.2	TM
35	TM	Hexachloropropene	0.2572	0.2770	7.7	TM
36	*TM	Hexachlorobutadiene	0.2130	0.2201	3.4	*TM
37	TM	Caprolactum	0.2270	0.2526	11	TM
38	*TM	4-Chloro-3-methylphenol	0.3980	0.4320	8.5	*TM
39	TM	2-Methylnapthalene	0.8168	0.8489	3.9	TM
40	TM	1-Methylnapthalene	0.8142	0.8446	3.7	TM

\*NT

Average

10.1

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y096.D

		Compound	MEAN	CCRF	%D	%Drift	
41	I	Acenaphthene-D10(IS)	ISTD			I	
42	**TML	Hexachlorocyclopentadiene	0.3816	0.3918	2.7	**TML	6.7
43	TM	1,2,4,5-Tetrachlorobenzene	0.7484	0.6756	9.7	TM	
44	*TM	2,4,6-Trichlorophenol	0.5262	0.5085	3.4	*TM	
45	TM	2,4,5-Trichlorophenol	0.5571	0.5498	1.3	TM	
46	S	2-Fluorobiphenyl(S)	1.667	1.506	9.7	S	
47	TM	1,1'-Biphenyl	1.964	1.910	2.7	TM	
48	TM	2-Chloronaphthalene	1.564	1.560	0.24	TM	
49	TM	2-Nitroaniline	0.5399	0.5746	6.4	TM	
50	TM	Dimethyl phthalate	1.814	1.835	1.2	TM	
51	TM	2,6-DNT	0.4186	0.4506	7.6	TM	
52	TM	Acenaphthylene	2.523	2.524	0.06	TM	
53	TM	3-Nitroaniline	0.4681	0.5044	7.7	TM	
54	*TM	Acenaphthene	1.528	1.488	2.6	*TM	
55	**TML	2,4-Dinitrophenol	0.2155	0.2855	33	**TML	5.4
56	**TM	4-Nitrophenol	0.3618	0.4117	14	**TM	
57	TM	Dibenzofuran	2.109	1.966	6.8	TM	
58	TM	2,4-DNT	0.5331	0.5385	1.00	TM	
59	TM	2,3,4,6-Tetrachlorophenol	0.4598	0.4759	3.5	TM	
60	TM	Diethyl phthalate	1.746	1.765	1.1	TM	
61	TML	4-Chlorophenyl phenyl ether	0.7439	0.6871	7.6	TML	0.94
62	TML	Fluorene	1.604	1.508	6.0	TML	2.3
63	TM	4-Nitroaniline	0.4889	0.5250	7.4	TM	
64	S	2,4,6-Tribromophenol(S)	0.2019	0.1860	7.8	S	
65	I	Phenanthrene-D10(IS)	ISTD			I	
66	TML	4,6-Dinitro-2-methylphenol	0.1817	0.2112	16	TML	6.2
67	TM	Diphenyl amine	0.6800	0.6259	8.0	TM	
68	*TM	n-Nitrosodiphenylamine	0.6800	0.6259	8.0	*TM	
69	TM	1,2-Diphenylhydrazine	1.075	1.072	0.24	TM	
70	TM	4-Bromophenyl phenyl ether	0.2723	0.2508	7.9	TM	
71	TM	Hexachlorobenzene	0.2863	0.2757	3.7	TM	
72	TM	Atrazine	0.2489	0.2670	7.3	TM	
73	*TM	Pentachlorophenol	0.1772	0.2099	18	*TM	
74	TM	Phenanthrene	1.397	1.368	2.1	TM	
75	TM	Anthracene	1.437	1.430	0.51	TM	
76	TM	Carbazol	1.343	1.380	2.7	TM	
77	TM	Di-n-butylphthalate	1.555	1.467	5.7	TM	
78	*TM	Fluoranthene	1.499	1.527	1.9	*TM	
79	I	Chrysene-D12(IS)	ISTD			I	
80	TM	Benzidine	0.5685	0.6097	7.3	TM	

Average

6.3

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y096.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	Pyrene	1.653	1.852	12	TM
82	S	Terphenyl-D14(S)	1.059	1.099	3.8	S
83	TM	Butyl benzylphthalate	0.7384	0.8800	19	TM
84	TM	3,3'-Dichlorobenzidine	0.5388	0.5781	7.3	TM
85	TM	Benz (a) anthracene	1.404	1.347	4.1	TM
86	TM	Bis (2-ethylhexyl) phthalate	0.9278	0.9121	1.7	TM
87	TM	Chrysene	1.477	1.507	2.0	TM
88	*TM	Di-n-octylphthalate	1.725	2.029	18	*TM
89	I	Perylene-D12(IS)	ISTD			I
90	TM	Benzo (b) fluoranthene	1.499	1.521	1.5	TM
91	TM	Benzo (k) fluoranthene	1.428	1.415	0.91	TM
92	*TM	Benzo (a) pyrene	1.364	1.451	6.4	*TM
93	TM	Indeno (1,2,3-cd) pyrene	1.580	1.640	3.8	TM
94	TM	Dibenz (a,h) anthracene	1.342	1.421	5.9	TM
95	TM	Benzo (g,h,i) perylene	1.280	1.462	14	TM
96						
97						
98						
99						
100						
101						
102						
103						
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107						
108						
109						
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111						
112						
113						
114						
115						
116						
117						
118						
119						
120						

Average

7.2

Data File : M:\YODA\DATA\Y181025\1025Y096.D  
 Acq On : 30 Oct 18 19:22  
 Sample : 50ug/mL 8270 10/18/18 (2)  
 Misc :

Vial: 96  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 31 5:39 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	366683	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1410697	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	831252	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.77	188	1544430	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.88	240	1304930	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1432591	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.94	112	1415907	98.27379	ppb	0.00
Spiked Amount 200.000			Recovery =	49.137%		
6) Phenol-D6 (S)	5.13	99	1645895	96.09737	ppb	0.00
Spiked Amount 200.000			Recovery =	48.049%		
22) Nitrobenzene-D5 (S)	6.17	82	869851	54.63586	ppb	0.00
Spiked Amount 100.000			Recovery =	54.636%		
46) 2-Fluorobiphenyl (S)	8.22	172	1564885	45.16313	ppb	0.00
Spiked Amount 100.000			Recovery =	45.163%		
64) 2,4,6-Tribromophenol (S)	9.95	330	386615	92.15841	ppb	0.00
Spiked Amount 200.000			Recovery =	46.079%		
82) Terphenyl-D14 (S)	12.62	244	1793371	51.91543	ppb	0.00
Spiked Amount 100.000			Recovery =	51.915%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.73	58	8468	7.58361		78
3) n-Nitrosodimethylamine	1.98	42	168946	57.31476	ppb	99
4) Pyridine	1.99	79	228686	51.86878	ppb	98
7) Phenol	5.15	94	1236267	53.95469	ppb	93
8) Aniline	5.15	66	998099	54.49169	ppb	# 67
9) Bis (2-chloroethyl) ether	5.24	63	653384	54.52413	ppb	99
10) 2-Chlorophenol	5.30	128	968276	54.27935	ppb	97
11) 1,3-DCB	5.47	146	965083	52.23387	ppb	98
12) 1,4-DCB	5.56	146	976824	52.77465	ppb	98
13) Benzyl alcohol	5.70	108	637189	55.19736	ppb	99
14) 1,2-DCB	5.73	146	925565	52.62211	ppb	99
15) 2-Methylphenol	5.83	107	767201	54.01560	ppb	99
16) Bis (2-chloroisopropyl) et	5.85	45	1206187	53.17606	ppb	95
17) Acetophenone	6.01	105	906182	51.32070	ppb	91
18) 3&4-Methylphenol	6.01	107	1365538	101.80062	ppb	98
19) n-Nitrosodi-n-propylamine	6.01	70	580627	49.17322	ppb	94
20) Hexachloroethane	6.11	117	371692	53.42475	ppb	99
23) Nitrobenzene	6.20	77	1033795	59.24884	ppb	99
24) Isophorone	6.47	82	1813406	58.79805	ppb	99
25) 2-Nitrophenol	6.55	139	536378	60.54817	ppb	98
26) 2,4-Dimethylphenol	6.59	122	869038	58.59107	ppb	99
27) Benzoic acid	6.76	105	857406	62.43717	ppb	99
28) Bis (2-chloroethoxy) metha	6.70	93	991656	57.10761	ppb	99
29) 2,4-Dichlorophenol	6.82	162	766284	58.61366	ppb	98
30) 1,2,4-Trichlorobenzene	6.92	180	677979	49.93378	ppb	99
31) 3,4-Dimethylphenol	6.93	107	1043428	51.94772	ppb	99
32) Naphthalene	7.02	128	2284416	49.99984	ppb	100
33) 4-Chloroaniline	7.07	127	819246	47.87907	ppb	98
34) 2,6-Dichlorophenol	7.08	162	585069	48.90504	ppb	99
35) Hexachloropropene	7.10	213	488426	53.83807	ppb	99
36) Hexachlorobutadiene	7.14	225	388198	51.67968	ppb	99
37) Caprolactum	7.52	55	445514	55.65913	ppb	99

Data File : M:\YODA\DATA\Y181025\1025Y096.D  
 Acq On : 30 Oct 18 19:22  
 Sample : 50ug/mL 8270 10/18/18 (2)  
 Misc :

Vial: 96  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 31 5:39 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	761756	54.26597	ppb	93
39) 2-Methylnaphthalene	7.81	142	1496989	51.96841	ppb	100
40) 1-Methylnaphthalene	7.92	142	1489329	51.86532	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	407145	46.64397	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	702027	45.13839	ppb	98
44) 2,4,6-Trichlorophenol	8.13	196	528352	48.31658	ppb	99
45) 2,4,5-Trichlorophenol	8.19	196	571274	49.34384	ppb	96
47) 1,1'-Biphenyl	8.34	154	1984559	48.63094	ppb	99
48) 2-Chloronaphthalene	8.37	162	1621088	49.87954	ppb	98
49) 2-Nitroaniline	8.49	65	597047	53.21362	ppb	96
50) Dimethyl phthalate	8.70	163	1906969	50.59898	ppb	100
51) 2,6-DNT	8.78	165	468166	53.81363	ppb	91
52) Acenaphthylene	8.86	152	2622881	50.02982	ppb	99
53) 3-Nitroaniline	8.98	138	524054	53.87100	ppb	94
54) Acenaphthene	9.06	154	1545931	48.67794	ppb	99
55) 2,4-Dinitrophenol	9.11	184	296657	52.69299	ppb	88
56) 4-Nitrophenol	9.18	65	427748	56.89006	ppb	99
57) Dibenzofuran	9.26	168	2042336	46.59639	ppb	95
58) 2,4-DNT	9.25	165	559498	50.49921	ppb	96
59) 2,3,4,6-Tetrachlorophenol	9.40	232	494539	51.75632	ppb	95
60) Diethyl phthalate	9.52	149	1833702	50.55057	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.65	204	713954	50.47207	ppb	96
62) Fluorene	9.66	166	1567023	51.15075	ppb	99
63) 4-Nitroaniline	9.71	138	545547	53.69309	ppb	96
66) 4,6-Dinitro-2-methylphenol	9.74	198	407754	53.11103	ppb	83
67) Diphenyl amine	9.80	169	2416509	92.03794	ppb	99
68) n-Nitrosodiphenylamine	9.80	169	2416509	92.03794	ppb	99
69) 1,2-Diphenylhydrazine	9.84	77	2069747	49.88212	ppb	98
70) 4-Bromophenyl phenyl ether	10.23	248	484105	46.05263	ppb	94
71) Hexachlorobenzene	10.30	284	532294	48.14496	ppb	87
72) Atrazine	10.42	200	257770	26.82024	ppb	98
73) Pentachlorophenol	10.54	266	405188	59.22889	ppb	98
74) Phenanthrene	10.80	178	2640644	48.95290	ppb	100
75) Anthracene	10.85	178	2760332	49.74688	ppb	99
76) Carbazol	11.05	167	2663275	51.36470	ppb	98
77) Di-n-butylphthalate	11.43	149	2831765	47.16776	ppb	99
78) Fluoranthene	12.19	202	2948573	50.93510	ppb	100
80) Benzidine	12.35	184	994590	53.62624	ppb	99
81) Pyrene	12.46	202	3020720	56.00663	ppb	99
83) Butyl benzylphthalate	13.19	149	1435468	59.59406	ppb	98
84) 3,3'-Dichlorobenzidine	13.83	252	942926	53.64255	ppb	# 97
85) Benz (a) anthracene	13.86	228	2197988	47.97372	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1487763	49.15441	ppb	99
87) Chrysene	13.91	228	2457792	50.99186	ppb	99
88) Di-n-octylphthalate	14.63	149	3310343	58.81958	ppb	98
90) Benzo (b) fluoranthene	15.23	252	2723527	50.73701	ppb	99
91) Benzo (k) fluoranthene	15.28	252	2534139	49.54400	ppb	99
92) Benzo (a) pyrene	15.73	252	2599055	53.22173	ppb	98
93) Indeno (1,2,3-cd) pyrene	17.85	276	2936197	51.89666	ppb	98
94) Dibenz (a,h) anthracene	17.90	278	2544615	52.95052	ppb	99
95) Benzo (g,h,i) perylene	18.48	276	2617410	57.09670	ppb	97

(#) = qualifier out of range (m) = manual integration  
 1025Y096.D Y1025NC.M Wed Oct 31 05:39:43 2018



Quantitation Report

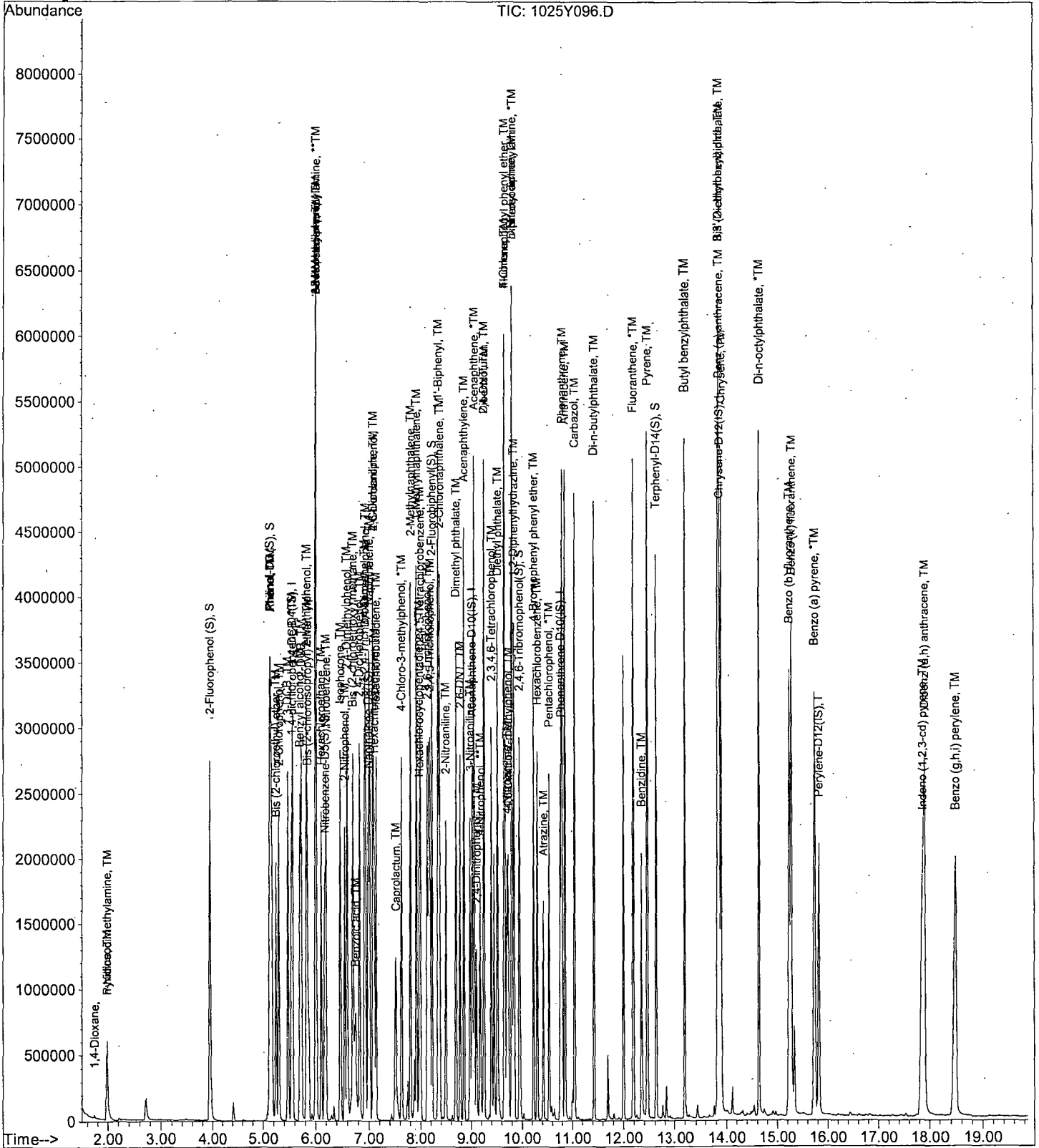
Data File : M:\YODA\DATA\Y181025\1025Y096.D  
Acq On : 30 Oct 18 19:22  
Sample : 50ug/mL 8270 10/18/18 (2)  
Misc :

Vial: 96  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 31 5:39 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : M:\YODA\DATA\Y181025\1025Y091.D  
 Acq On : 30 Oct 18 17:03  
 Sample : AZ81636W12 1/800  
 Misc :

Vial: 91  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Oct 31 6:06 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	243351	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1127084	40.0000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	659764	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1180546	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1152413	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	1116478	40.0000	ppb	-0.01

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.96	112	1982287	259.1416	ppb	0.02
Spiked Amount	250.000					
						Recovery = 103.657%
6) Phenol-D6 (S)	5.13	99	2406804	264.6780	ppb	0.00
Spiked Amount	250.000					
						Recovery = 105.871%
22) Nitrobenzene-D5 (S)	6.17	82	1223368	120.2202	ppb	0.00
Spiked Amount	125.000					
						Recovery = 96.176%
46) 2-Fluorobiphenyl (S)	8.22	172	1880475	85.4719	ppb	0.00
Spiked Amount	125.000					
						Recovery = 68.378%
64) 2,4,6-Tribromophenol (S)	9.95	330	466821	175.2511	ppb	0.00
Spiked Amount	250.000					
						Recovery = 70.100%
82) Terphenyl-D14 (S)	12.63	244	2027357	83.0703	ppb	0.00
Spiked Amount	125.000					
						Recovery = 66.456%

Target Compounds

Qvalue

Quantitation Report

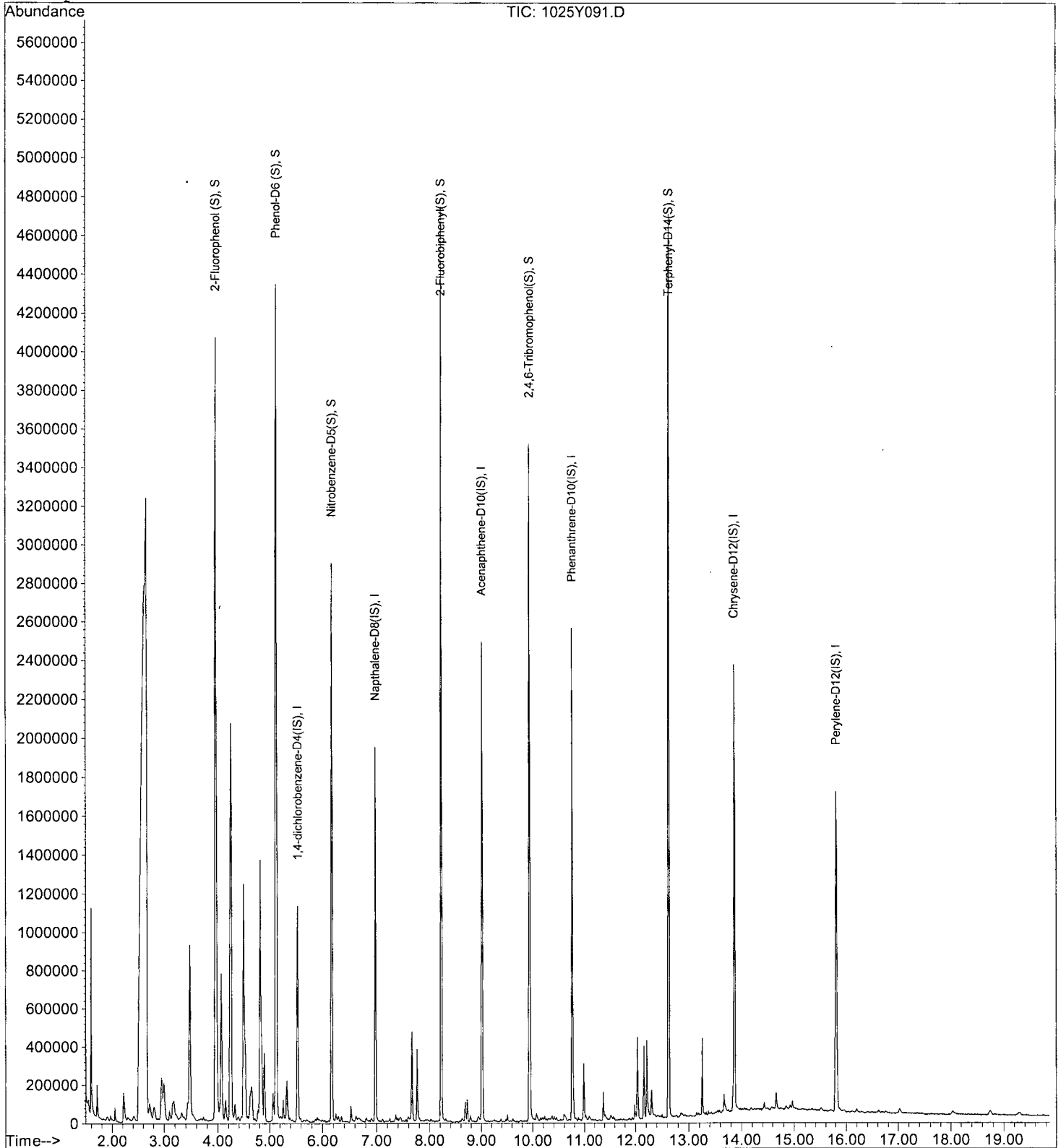
Data File : M:\YODA\DATA\Y181025\1025Y091.D  
Acq On : 30 Oct 18 17:03  
Sample : AZ81636W12 1/800  
Misc :

Vial: 91  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Oct 31 6:06 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



LSC Area Percent Report

Data File : M:\YODA\DATA\Y181025\1025Y091.D  
 Acq On : 30 Oct 18 17:03  
 Sample : AZ81636W12 1/800  
 Misc :  
 MS Integration Params: LSCINT.P

Vial: 91  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25000

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.002  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

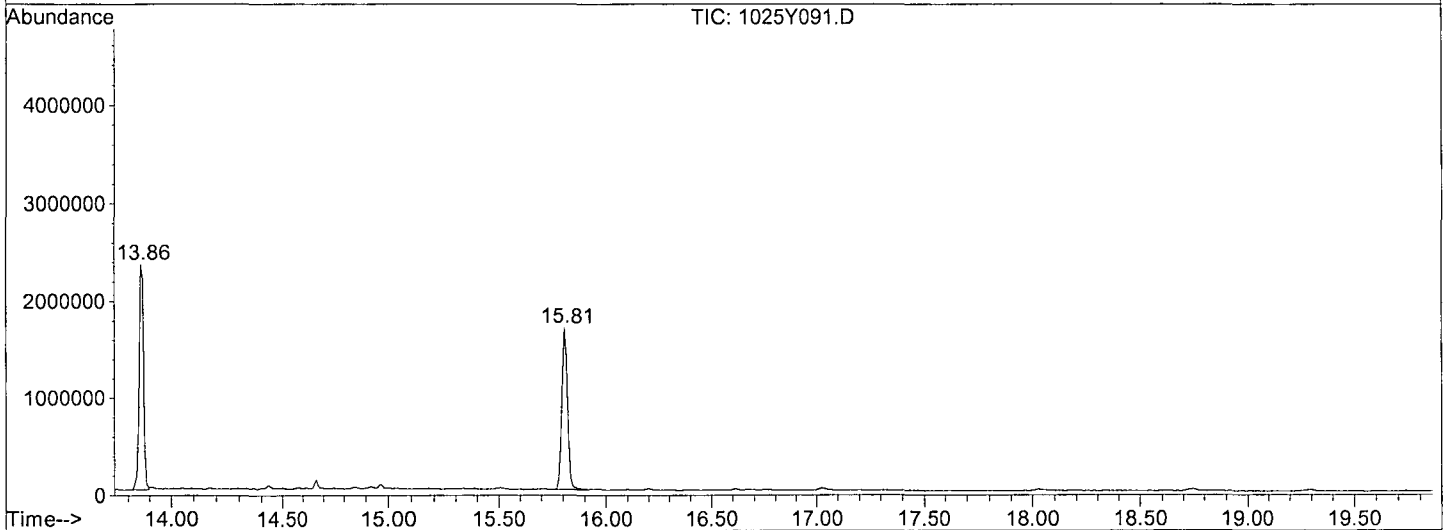
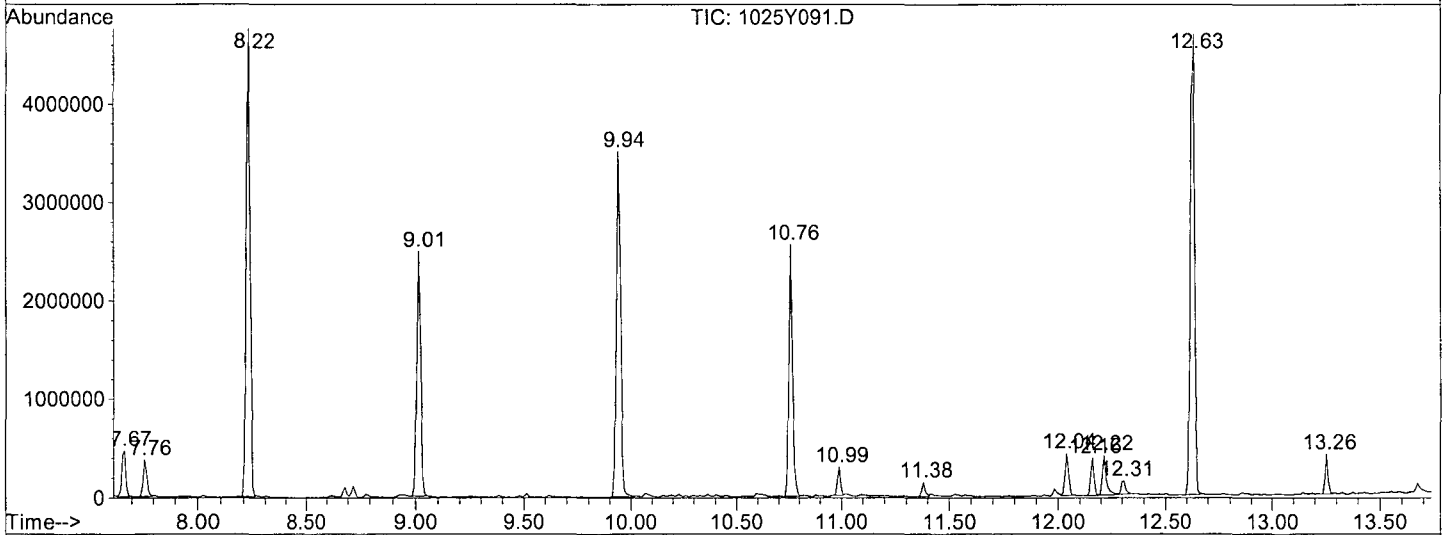
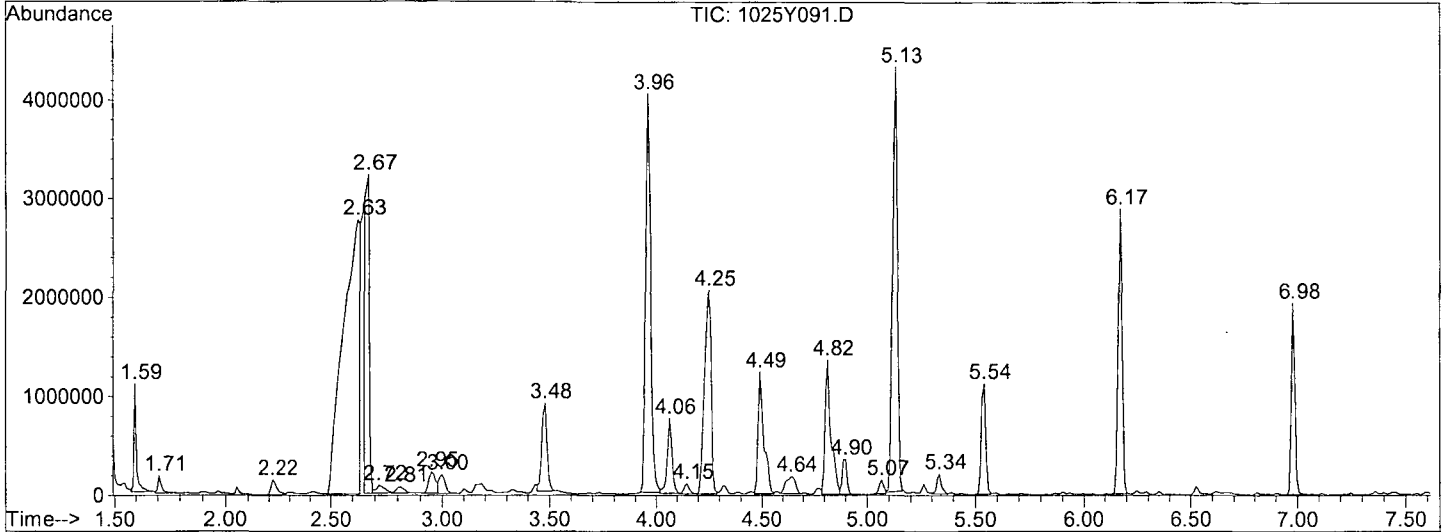
peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	1.595	10	12	22	rVV	1088519	3064820	887367	5.94%	0.998%
2	1.706	22	24	35	rVB2	177053	2416479	218263	1.46%	0.246%
3	2.217	76	79	86	rBV2	152754	1903992	311688	2.09%	0.351%
4	2.625	108	123	124	rBV	2769892	18015665	14937906	100.00%	16.807%
5	2.672	126	128	130	rVV	3219719	7805360	3719673	24.90%	4.185%
6	2.718	130	133	139	rVV3	81665	1751533	218297	1.46%	0.246%
7	2.811	139	143	148	rVB2	64160	1631597	153251	1.03%	0.172%
8	2.950	154	158	161	rBV2	216509	1658064	495250	3.32%	0.557%
9	2.997	161	163	172	rVB	192707	2614493	367609	2.46%	0.414%
10	3.480	211	215	220	rVB	889059	3174392	1487820	9.96%	1.674%
11	3.962	263	267	273	rBV	4036325	8656907	6766299	45.30%	7.613%
12	4.064	273	278	283	rVB	759859	2929743	1189862	7.97%	1.339%
13	4.148	283	287	292	rVB2	104848	1654044	192033	1.29%	0.216%
14	4.250	292	298	302	rBV	2060490	6126953	4468694	29.92%	5.028%
15	4.491	321	324	331	rVV2	1232872	4320819	2359653	15.80%	2.655%
16	4.640	334	340	345	rVB5	172856	2363353	570449	3.82%	0.642%
17	4.816	356	359	365	rVV2	1357971	4609366	2578600	17.26%	2.901%
18	4.900	365	368	371	rVB	350764	1648037	518784	3.47%	0.584%
19	5.067	382	386	388	rBV3	140848	1170466	212838	1.42%	0.239%
20	5.132	388	393	396	rVV	4302802	8009149	6650675	44.52%	7.483%
21	5.336	411	415	419	rVB	202486	1613044	304720	2.04%	0.343%
22	5.540	433	437	440	rBV	1118454	2664225	1525245	10.21%	1.716%
23	6.172	501	505	508	rBV	2887291	4738073	3589474	24.03%	4.039%
24	6.979	589	592	596	rBV	1939961	3520113	2308231	15.45%	2.597%
25	7.666	662	666	669	rVV	462175	1749718	611357	4.09%	0.688%
26	7.759	673	676	680	rBV	369067	1572533	450111	3.01%	0.506%
27	8.223	722	726	729	rBV	4750096	6799575	5667785	37.94%	6.377%
28	9.012	808	811	815	rVV	2476172	4266406	2959221	19.81%	3.330%
29	9.941	907	911	919	rBV	3509055	6721053	4777175	31.98%	5.375%
30	10.758	996	999	1004	rBV	2550849	4774833	3159337	21.15%	3.555%
31	10.990	1021	1024	1026	rBV	282567	1108532	289745	1.94%	0.326%
32	11.380	1063	1066	1069	rBV	144622	1132615	170985	1.14%	0.192%
33	12.039	1134	1137	1140	rVB	421185	1466599	464502	3.11%	0.523%
34	12.160	1147	1150	1153	rBV	377815	1441444	438846	2.94%	0.494%
35	12.215	1153	1156	1163	rVV	400409	2201354	530844	3.55%	0.597%
36	12.308	1163	1166	1171	rVB	128071	1545292	192370	1.29%	0.216%
37	12.633	1197	1201	1204	rBV	4678237	7760373	6354629	42.54%	7.150%
38	13.255	1265	1268	1271	rBV	399591	1382072	375410	2.51%	0.422%
39	13.858	1328	1333	1337	rBV	2317405	4843163	3285579	21.99%	3.697%
40	15.808	1538	1543	1555	rBV	1667986	6095910	3116944	20.87%	3.507%

Sum of corrected areas: 88877521

441

LSC Report - Integrated Chromatogram

File : M:\YODA\DATA\Y181025\1025Y091.D  
Operator : MA  
Acquired : 30 Oct 18 17:03 using AcqMethod SVOC416  
Instrument : Yoda  
Sample Name: AZ81636W12 1/800  
Misc Info :  
Vial Number: 91  
Quant File : Y1025NC.RES (RTE Integrator)



Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y091.D Vial: 91  
 Acq On : 30 Oct 18 17:03 Operator: MA  
 Sample : AZ81636W12 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 1 2-Pentanone, 4-hydroxy-4-methyl Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.48	48.77 ppb	1487820	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	50
2		2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	50
3		2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	50
4		2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	40
5		2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	40

\*\*\*\*\*  
 Peak Number 2 Benzene, 1,2,4-trimethyl- Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.34	9.99 ppb	304720	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	97
2		Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	97
3		Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	97
4		Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	97
5		Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	97

\*\*\*\*\*  
 Peak Number 3 Benzenesulfonothioic acid, S-p Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.04	7.35 ppb	464502	Phenanthrene-D10 (IS)	10.76

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzenesulfonothioic acid, S-phenyl	250	C12H10O2S2	001212-08-4	91
2		Benzenesulfonamide, N-hydroxy-	173	C6H7NO3S	000599-71-3	38
3		2-PHENYL-2-OXO-2-PHOSPHA-3-OXA-8,9.	250	C13H15O3P	055816-83-6	38
4		ACRYLONITRILE, 2-PHENYLSULFONE-	193	C9H7NO2S	000000-00-0	38
5		2-PROPENOIC ACID, 3-PHENYLSULFON-,	226	C10H10O4S	000000-00-0	38

Tentatively Identified Compound (LSC) summary

Operator ID: MA      Date Acquired: 30 Oct 18 17:03  
Data File: M:\YODA\DATA\Y181025\1025Y091.D  
Name: AZ81636W12 1/800  
Misc:  
Method: M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title: EPA 8270C  
Library Searched: M:\DATABASE\WILEY138.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
2-Pentanone, 4-hydro	3.48	48.8	ppb	1487820	ISTD01	5.54	1525250	40.0
Benzene, 1,2,4-trime	5.34	10.0	ppb	304720	ISTD01	5.54	1525250	40.0
Benzenesulfonothioic	12.04	7.4	ppb	464502	ISTD04	10.76	3159340	40.0

1025Y091.D Y1025NC.M      Tue Nov 06 11:07:21 2018



Data File : M:\YODA\DATA\Y181025\1025Y092.D  
 Acq On : 30 Oct 18 17:31  
 Sample : AZ81638W09 1/800  
 Misc :

Vial: 92  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Oct 31 6:05 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	375158	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1448839	40.0000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	692989	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1301414	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1401473	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1359783	40.0000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	1774815	150.5021	ppb	0.00
Spiked Amount 250.000			Recovery =	60.201%		
6) Phenol-D6 (S)	5.13	99	2403453	171.4477	ppb	0.00
Spiked Amount 250.000			Recovery =	68.579%		
22) Nitrobenzene-D5 (S)	6.17	82	1148525	87.8005	ppb	0.00
Spiked Amount 125.000			Recovery =	70.241%		
46) 2-Fluorobiphenyl (S)	8.22	172	1979383	85.6540	ppb	0.00
Spiked Amount 125.000			Recovery =	68.523%		
64) 2,4,6-Tribromophenol (S)	9.95	330	465184	166.2637	ppb	0.00
Spiked Amount 250.000			Recovery =	66.506%		
82) Terphenyl-D14 (S)	12.63	244	2142094	72.1734	ppb	0.00
Spiked Amount 125.000			Recovery =	57.738%		

Target Compounds

Qvalue

Quantitation Report

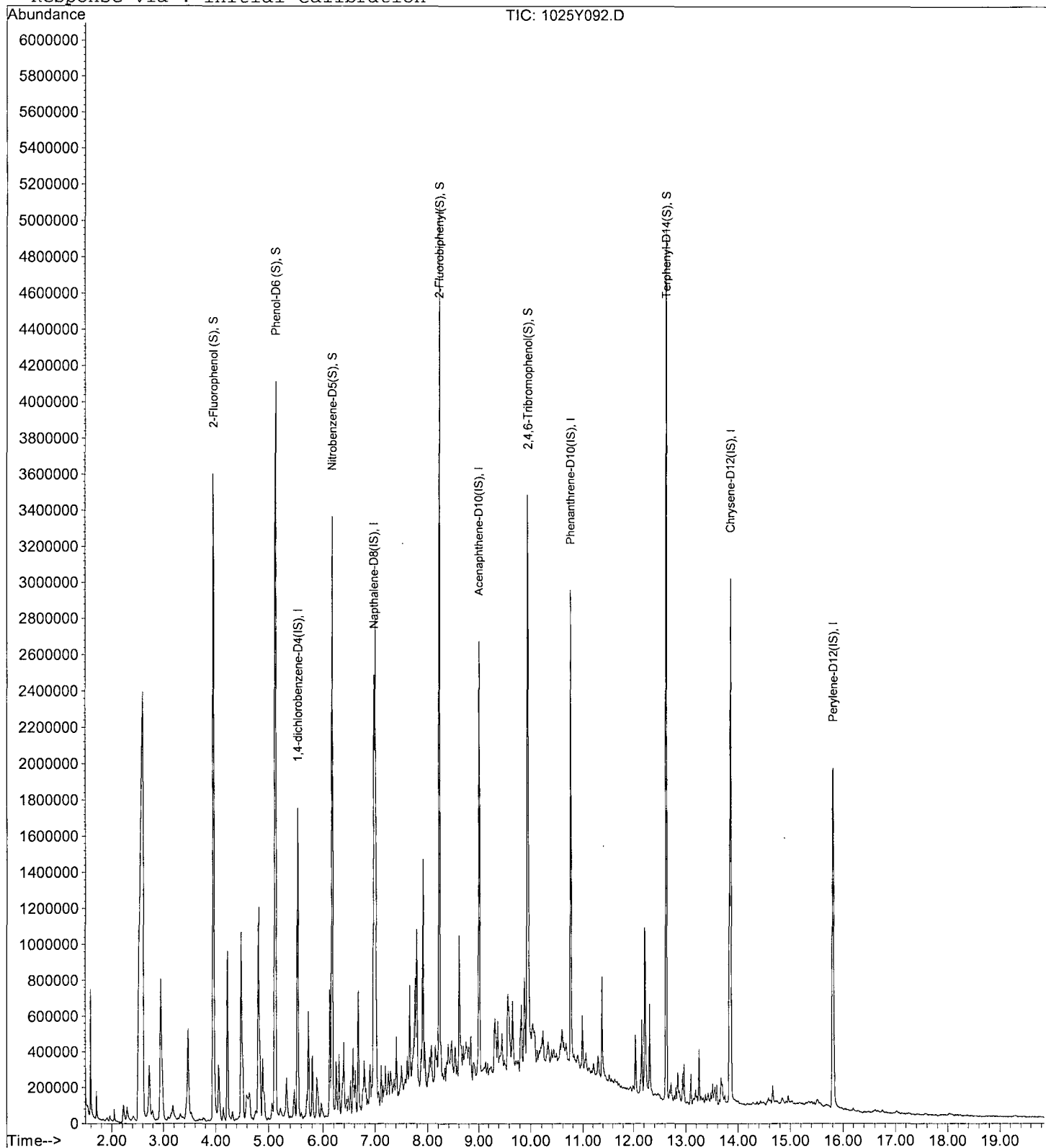
Data File : M:\YODA\DATA\Y181025\1025Y092.D  
Acq On : 30 Oct 18 17:31  
Sample : AZ81638W09 1/800  
Misc :

Vial: 92  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Oct 31 6:05 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



LSC Area Percent Report

Data File : M:\YODA\DATA\Y181025\1025Y092.D  
 Acq On : 30 Oct 18 17:31  
 Sample : AZ81638W09 1/800  
 Misc :  
 MS Integration Params: LSCINT.P

Vial: 92  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25000

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.002  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

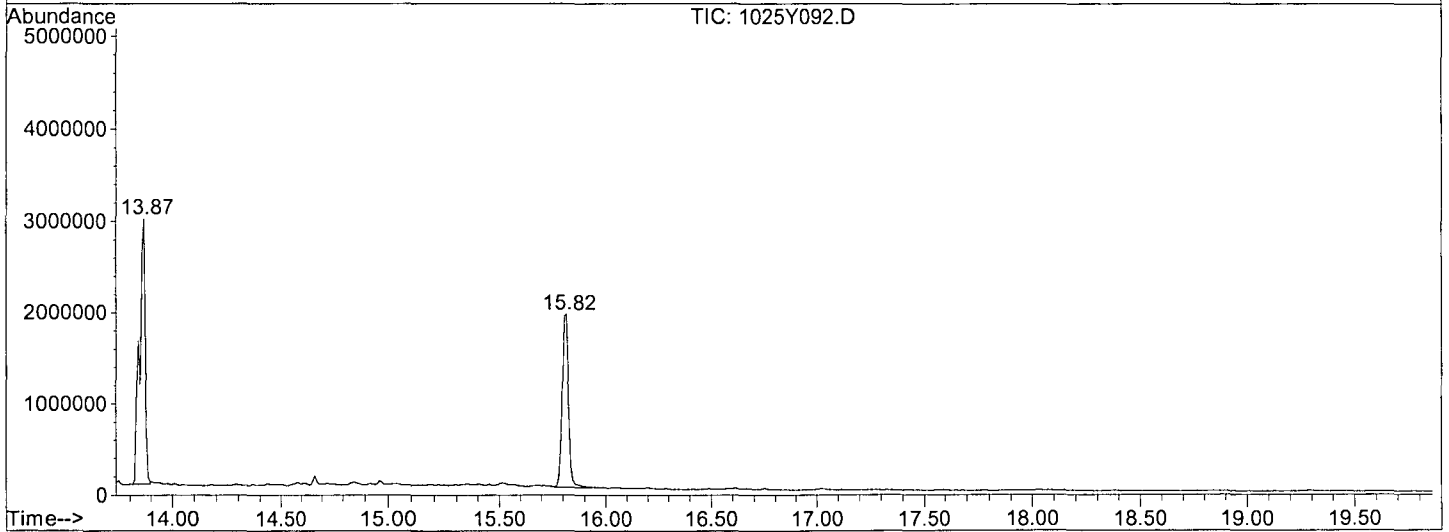
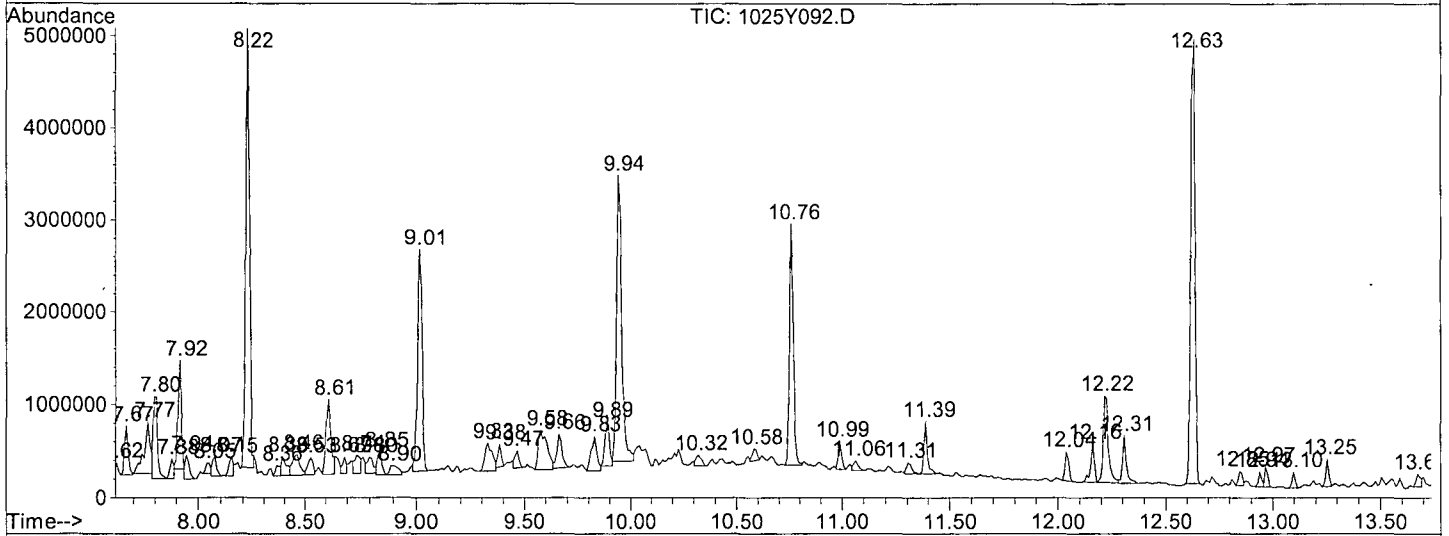
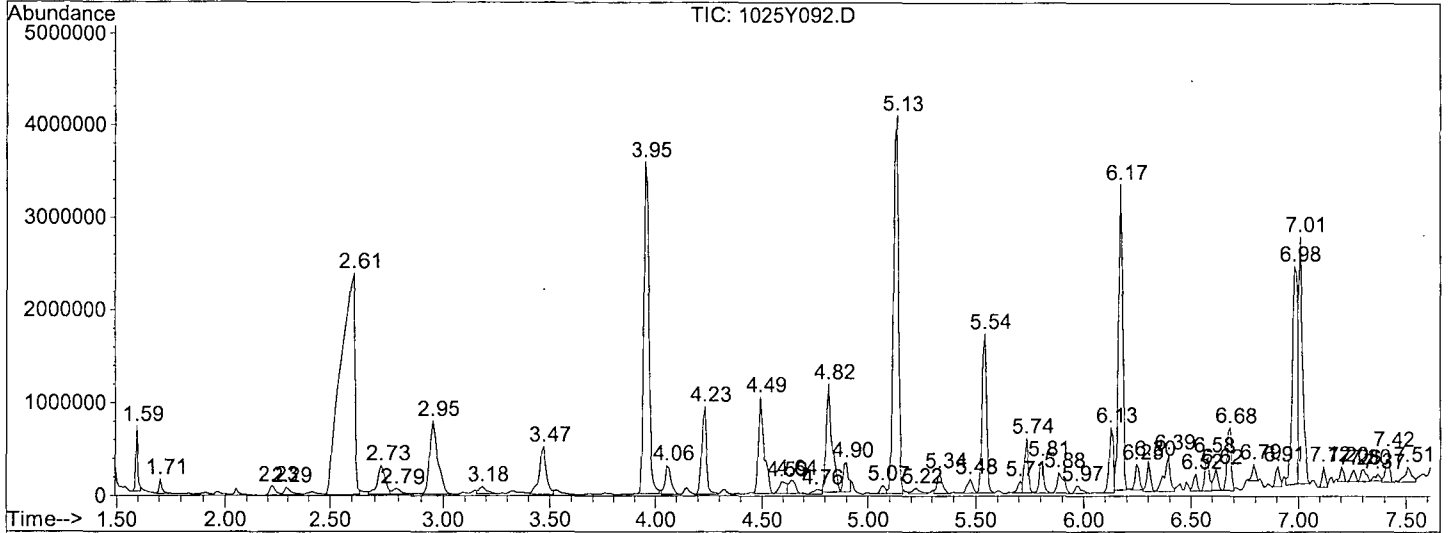
If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	1.595	10	12	14	rBV	699449	1001109	495135	4.74%	0.434%
2	1.706	22	24	35	rVB2	158894	1658417	175996	1.68%	0.154%
3	2.226	76	80	84	rBV2	94907	1046738	210772	2.02%	0.185%
4	2.291	84	87	96	rVV	83780	1490427	202549	1.94%	0.178%
5	2.607	107	121	124	rVV	2385805	12249054	10444869	100.00%	9.157%
6	2.727	128	134	138	rVV	308794	1847560	713909	6.84%	0.626%
7	2.792	138	141	148	rVV	59676	1293134	146920	1.41%	0.129%
8	2.950	152	158	171	rVB2	789059	4078331	2036505	19.50%	1.785%
9	3.182	180	183	191	rVB	79138	1484851	194578	1.86%	0.171%
10	3.470	207	214	219	rVV	511351	2501658	1157836	11.09%	1.015%
11	3.953	262	266	273	rBV	3576998	7427661	6160674	58.98%	5.401%
12	4.055	274	277	284	rVB2	310266	1795746	584485	5.60%	0.512%
13	4.231	292	296	303	rBV	945215	2816138	1479692	14.17%	1.297%
14	4.491	321	324	331	rVB2	1038517	3401965	1979961	18.96%	1.736%
15	4.593	331	335	338	rBV3	130510	1131952	335980	3.22%	0.295%
16	4.640	338	340	345	rVB2	142496	1281916	306942	2.94%	0.269%
17	4.761	348	353	356	rBV5	50897	999931	141870	1.36%	0.124%
18	4.816	356	359	365	rVB2	1163656	3691583	2183450	20.90%	1.914%
19	4.900	365	368	370	rBV	317760	1199396	529860	5.07%	0.465%
20	5.067	382	386	388	rBV3	90047	799629	150648	1.44%	0.132%
21	5.132	388	393	396	rVV	4084985	7669720	6692089	64.07%	5.867%
22	5.225	399	403	409	rVV5	60016	1307540	166414	1.59%	0.146%
23	5.336	412	415	420	rVB	223892	1343768	369546	3.54%	0.324%
24	5.475	426	430	433	rBV2	153498	1079371	271042	2.59%	0.238%
25	5.540	433	437	442	rVV	1720347	3434727	2376746	22.76%	2.084%
26	5.707	451	455	456	rVV	127916	767862	195567	1.87%	0.171%
27	5.735	456	458	461	rVV	589971	1672387	684983	6.56%	0.601%
28	5.810	462	466	470	rVB	347341	1429658	518481	4.96%	0.455%
29	5.884	470	474	480	rBV2	227478	1601329	488396	4.68%	0.428%
30	5.967	480	483	490	rVB5	79307	1272408	154409	1.48%	0.135%
31	6.125	495	500	502	rBV	706474	1754406	974464	9.33%	0.854%
32	6.172	502	505	508	rVV	3297163	5624251	4292337	41.10%	3.763%
33	6.246	510	513	516	rVV2	272828	1115538	371861	3.56%	0.326%
34	6.302	516	519	522	rVB	331967	1140888	385564	3.69%	0.338%
35	6.394	522	529	532	rBV3	398447	1954480	774024	7.41%	0.679%
36	6.524	540	543	545	rVB2	181989	866005	229000	2.19%	0.201%
37	6.580	545	549	551	rBV	363478	1256288	547550	5.24%	0.480%
38	6.617	551	553	556	rVB3	232582	1090548	298775	2.86%	0.262%
39	6.682	556	560	562	rBV	676901	1667235	938282	8.98%	0.823%
40	6.794	569	572	574	rVB2	177891	967763	196304	1.88%	0.172%
41	6.905	581	584	586	rBV2	219886	980388	300702	2.88%	0.264%
42	6.979	588	592	594	rVV	2363436	5444679	4490557	42.99%	3.937%
43	7.007	594	595	600	rVB	2665217	8142335	2853329	27.32%	2.502%
44	7.119	604	607	609	rBV	223386	899847	249195	2.39%	0.218%
45	7.202	614	616	618	rVB2	163747	795288	172398	1.65%	0.151%

LSC Report - Integrated Chromatogram

File : M:\YODA\DATA\Y181025\1025Y092.D  
 Operator : MA  
 Acquired : 30 Oct 18 17:31 using AcqMethod SVOC416  
 Instrument : Yoda  
 Sample Name: AZ81638W09 1/800  
 Misc Info :  
 Vial Number: 92  
 Quant File : Y1025NC.RES (RTE Integrator)



## Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y092.D Vial: 92  
Acq On : 30 Oct 18 17:31 Operator: MA  
Sample : AZ81638W09 1/800 Inst : Yoda  
Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
Peak Number 1 3-Penten-2-one, 4-methyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.73	15.02 ppb	713909	1,4-dichlorobenzene-D4 (IS)	5.54

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	94
2			3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3			3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
4			3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
5			tert-Butylketene	98	C6H10O	059005-31-1	80

\*\*\*\*\*  
Peak Number 2 Benzene, 1,1'-(1-ethenyl-1,3-p Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.74	14.41 ppb	684983	1,4-dichlorobenzene-D4 (IS)	5.54

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Benzene, 1,1'-(1-ethenyl-1,3-propan	222	C17H18	061141-97-7	74
2			Benzene, 2-propenyl-	118	C9H10	000300-57-2	64
3			Benzene, 2-propenyl-	118	C9H10	000300-57-2	64
4			1H-Indene, 2,3-dihydro-	118	C9H10	000496-11-7	64
5			1H-Indene, 2,3-dihydro-	118	C9H10	000496-11-7	60

\*\*\*\*\*  
Peak Number 3 Benzene, 1,3-diethyl- Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.81	10.91 ppb	518481	1,4-dichlorobenzene-D4 (IS)	5.54

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Benzene, 1,3-diethyl-	134	C10H14	000141-93-5	97
2			Benzene, 1,3-diethyl-	134	C10H14	000141-93-5	97
3			Benzene, 1,4-diethyl-	134	C10H14	000105-05-5	97
4			Benzene, 1,2-diethyl-	134	C10H14	000135-01-3	95
5			Benzene, 1,2-diethyl-	134	C10H14	000135-01-3	95

Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y092.D Vial: 92  
 Acq On : 30 Oct 18 17:31 Operator: MA  
 Sample : AZ81638W09 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 4 Benzene, 2-ethenyl-1,4-dimethy Concentration Rank 20

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.68	10.45 ppb	938282	Napthalene-D8(IS)	6.98

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzene, 2-ethenyl-1,4-dimethyl-	132	C10H12	002039-89-6	89
2		Benzene, 2-ethenyl-1,3-dimethyl-	132	C10H12	002039-90-9	60
3		1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	55
4		1H-Indene, 2,3-dihydro-4-methyl-	132	C10H12	000824-22-6	55
5		1H-Indene, 2,3-dihydro-5-methyl-	132	C10H12	000874-35-1	55

\*\*\*\*\*  
 Peak Number 5 Naphthalene, 1-methyl- Concentration Rank 14

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.80	12.84 ppb	1153320	Napthalene-D8(IS)	6.98

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Naphthalene, 1-methyl-	142	C11H10	000090-12-0	95
2		Naphthalene, 1-methyl-	142	C11H10	000090-12-0	94
3		Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91
4		Naphthalene, 1-methyl-	142	C11H10	000090-12-0	91
5		Naphthalene, 2-methyl-	142	C11H10	000091-57-6	91

Tentatively Identified Compound (LSC) summary

Operator ID: MA Date Acquired: 30 Oct 18 17:31  
 Data File: M:\YODA\DATA\Y181025\1025Y092.D  
 Name: AZ81638W09 1/800  
 Misc:  
 Method: M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title: EPA 8270C  
 Library Searched: M:\DATABASE\WILEY138.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
3-Penten-2-one, 4-me	2.73	15.0	ppb	713909	ISTD01	5.54	2376750	40.0
Benzene, 1,1'-(1-eth	5.74	14.4	ppb	684983	ISTD01	5.54	2376750	40.0
Benzene, 1,3-diethyl	5.81	10.9	ppb	518481	ISTD01	5.54	2376750	40.0
Benzene, 2-ethenyl-1	6.68	10.4	ppb	938282	ISTD02	6.98	4490560	40.0
Naphthalene, 1-methy	7.80	12.8	ppb	1153320	ISTD02	6.98	4490560	40.0

1025Y092.D Y1025NC.M Tue Nov 06 11:07:39 2018

Data File : M:\YODA\DATA\Y181025\1025Y093.D  
 Acq On : 30 Oct 18 17:59  
 Sample : AZ81640W10 1/800  
 Misc :

Vial: 93  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Oct 31 6:04 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	294682	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1202466	40.0000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	580959	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1191880	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1188972	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	1140528	40.0000	ppb	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.96	112	1980099	213.7652	ppb	0.02
Spiked Amount 250.000			Recovery =	85.506%		
6) Phenol-D6 (S)	5.13	99	2380112	216.1494	ppb	0.00
Spiked Amount 250.000			Recovery =	86.460%		
22) Nitrobenzene-D5 (S)	6.17	82	1155070	106.3928	ppb	0.00
Spiked Amount 125.000			Recovery =	85.114%		
46) 2-Fluorobiphenyl (S)	8.22	172	1921997	99.2091	ppb	0.00
Spiked Amount 125.000			Recovery =	79.367%		
64) 2,4,6-Tribromophenol (S)	9.95	330	457374	194.9957	ppb	0.00
Spiked Amount 250.000			Recovery =	77.998%		
82) Terphenyl-D14 (S)	12.63	244	2113789	83.9486	ppb	0.00
Spiked Amount 125.000			Recovery =	67.159%		

Target Compounds Qvalue



Quantitation Report

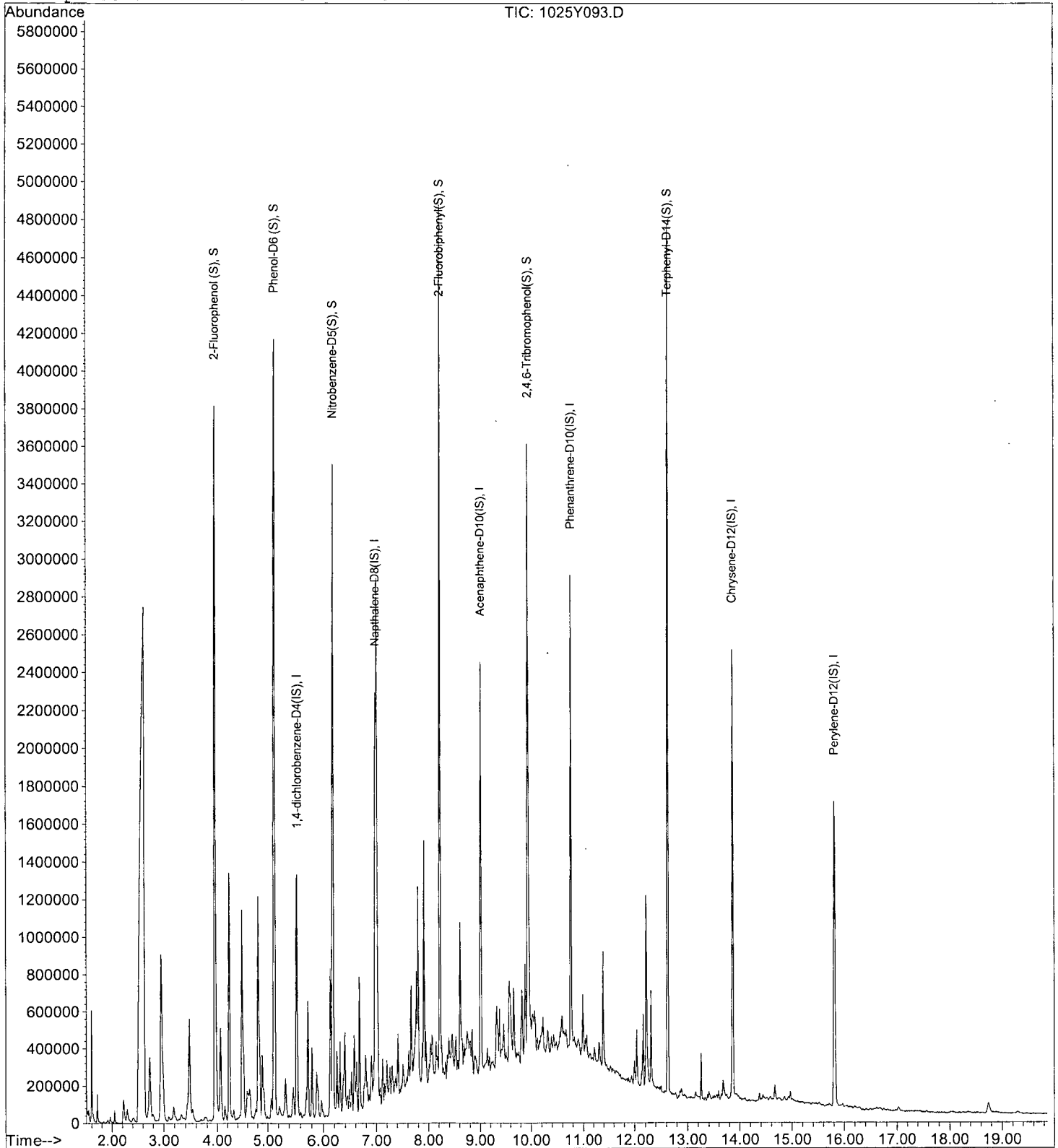
Data File : M:\YODA\DATA\Y181025\1025Y093.D  
Acq On : 30 Oct 18 17:59  
Sample : AZ81640W10 1/800  
Misc :

Vial: 93  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Oct 31 6:04 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



## LSC Area Percent Report

Data File : M:\YODA\DATA\Y181025\1025Y093.D  
 Acq On : 30 Oct 18 17:59  
 Sample : AZ81640W10 1/800  
 Misc :  
 MS Integration Params: LSCINT.P

Vial: 93  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25000

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.002  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

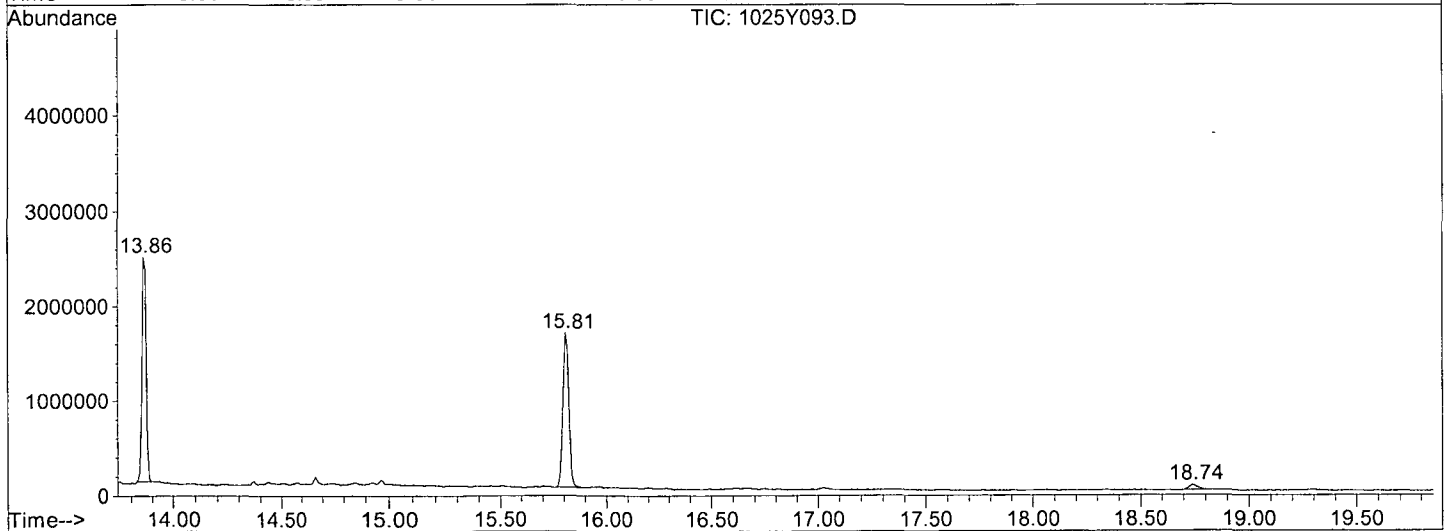
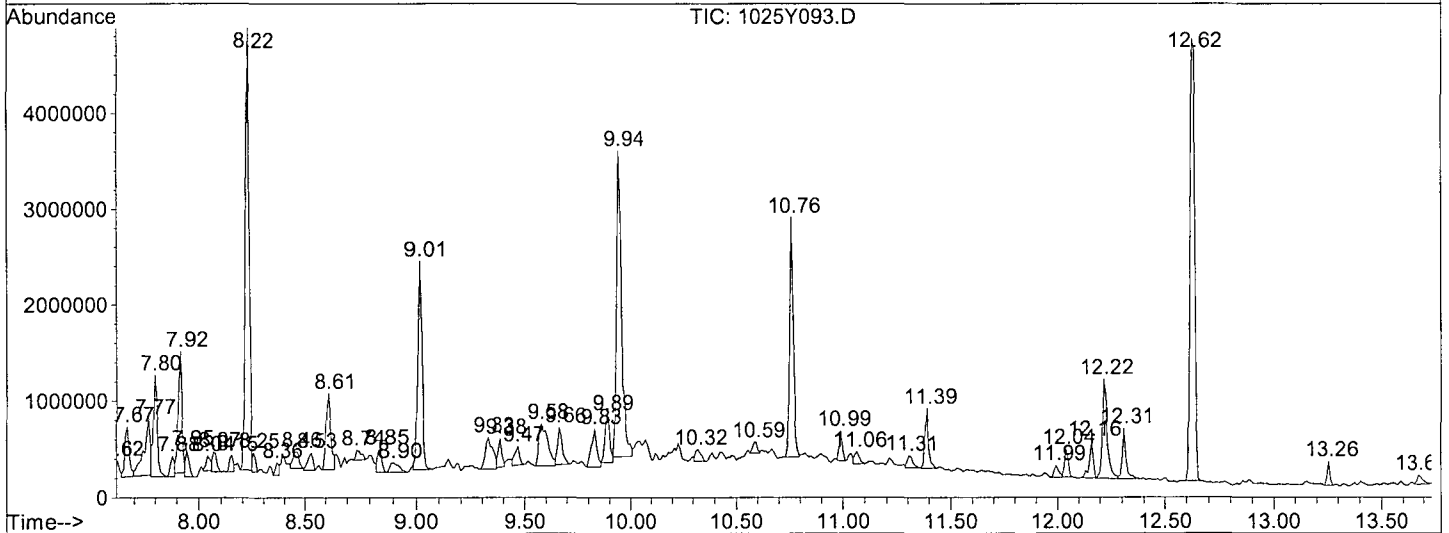
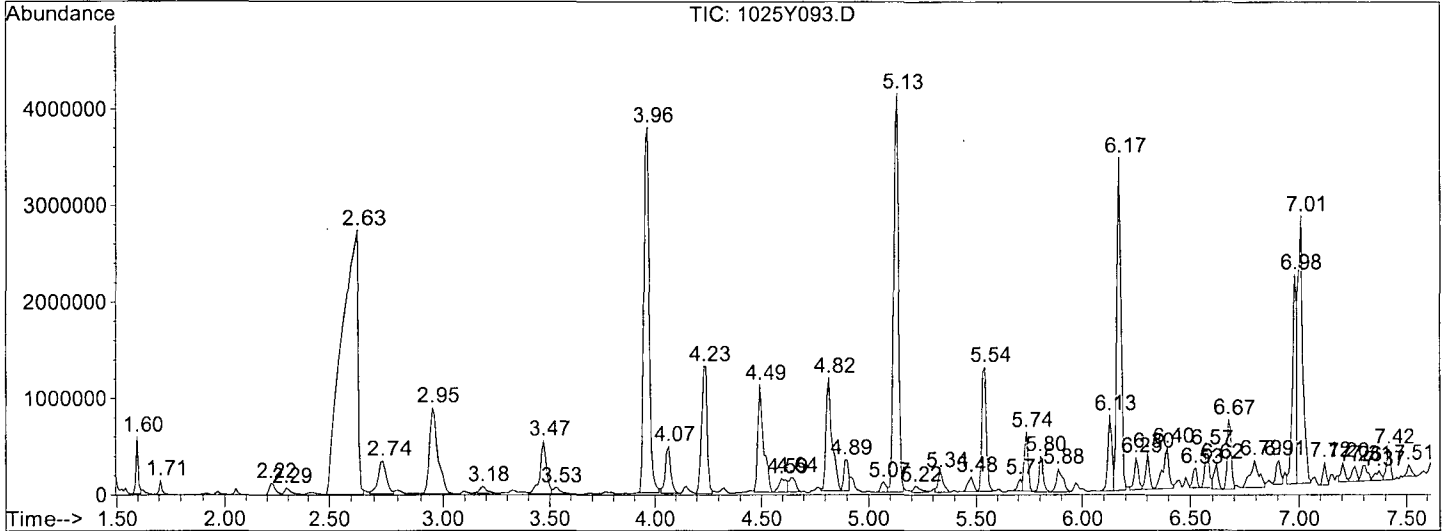
If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	1.596	9	12	14	rBV	592760	783026	460771	3.31%	0.397%
2	1.707	21	24	34	rVB2	150525	972864	154483	1.11%	0.133%
3	2.218	76	79	85	rBV2	124451	845941	271113	1.95%	0.234%
4	2.292	85	87	96	rVV	73048	950990	159388	1.14%	0.137%
5	2.626	108	123	126	rVV	2736563	15622504	13927955	100.00%	12.003%
6	2.738	129	135	140	rVV	342432	1654380	847672	6.09%	0.731%
7	2.951	153	158	170	rVB2	895151	3478954	2317269	16.64%	1.997%
8	3.183	177	183	190	rVB2	73066	1057163	185220	1.33%	0.160%
9	3.471	206	214	218	rVV	550826	1962662	1159456	8.32%	0.999%
10	3.527	218	220	229	rVB	65711	996732	152131	1.09%	0.131%
11	3.963	262	267	273	rBV	3790490	7583953	6783133	48.70%	5.846%
12	4.065	274	278	284	rVB	490110	1680834	846654	6.08%	0.730%
13	4.232	292	296	300	rBV	1324307	3057090	2419363	17.37%	2.085%
14	4.492	321	324	331	rVB2	1114287	3195101	2115607	15.19%	1.823%
15	4.594	331	335	338	rBV2	142377	903581	373139	2.68%	0.322%
16	4.641	338	340	345	rVB2	151655	1036481	320823	2.30%	0.276%
17	4.817	355	359	365	rVB2	1173468	3042265	2256647	16.20%	1.945%
18	4.891	365	367	369	rBV	322661	872393	480320	3.45%	0.414%
19	5.068	383	386	388	rBV3	108238	564487	192655	1.38%	0.166%
20	5.133	388	393	396	rVV	4141700	7323194	6666406	47.86%	5.745%
21	5.216	400	402	409	rVV4	62792	858717	161514	1.16%	0.139%
22	5.337	412	415	420	rVB	209354	1007648	346286	2.49%	0.298%
23	5.476	426	430	433	rBV2	157521	830748	291033	2.09%	0.251%
24	5.541	433	437	442	rVB	1293081	2618807	1906781	13.69%	1.643%
25	5.708	451	455	456	rBV	123354	560781	185932	1.33%	0.160%
26	5.736	456	458	461	rVB	615825	1555908	701318	5.04%	0.604%
27	5.801	462	465	470	rVB	372879	1126975	537968	3.86%	0.464%
28	5.885	470	474	480	rBV2	243720	1257697	528977	3.80%	0.456%
29	6.126	495	500	502	rBV	790503	1540878	1028257	7.38%	0.886%
30	6.173	502	505	508	rVV	3456607	5800778	4485405	32.20%	3.866%
31	6.247	510	513	516	rVV2	333610	973259	465644	3.34%	0.401%
32	6.302	516	519	522	rVV	378242	986567	445263	3.20%	0.384%
33	6.395	522	529	532	rVV3	423702	1684905	875158	6.28%	0.754%
34	6.525	540	543	545	rVB2	207707	742134	276077	1.98%	0.238%
35	6.572	545	548	551	rBV2	402170	1118040	620455	4.45%	0.535%
36	6.618	551	553	556	rVB3	264915	963558	319414	2.29%	0.275%
37	6.674	556	559	562	rBV	722615	1457700	964459	6.92%	0.831%
38	6.795	565	572	577	rBV4	286333	1800531	805820	5.79%	0.694%
39	6.906	581	584	586	rVV2	248800	876334	366733	2.63%	0.316%
40	6.980	588	592	593	rVV2	2175930	3813503	3176847	22.81%	2.738%
41	7.008	593	595	600	rVV	2772181	8944546	4058644	29.14%	3.498%
42	7.119	604	607	609	rBV	241513	724632	267143	1.92%	0.230%
43	7.203	614	616	619	rVV2	197417	854573	248752	1.79%	0.214%
44	7.259	619	622	624	rVV4	154889	803454	239591	1.72%	0.206%
45	7.305	624	627	630	rVV5	159778	1008817	309124	2.22%	0.266%

LSC Report - Integrated Chromatogram

File : M:\YODA\DATA\Y181025\1025Y093.D  
 Operator : MA  
 Acquired : 30 Oct 18 17:59 using AcqMethod SVOC416  
 Instrument : Yoda  
 Sample Name: AZ81640W10 1/800  
 Misc Info :  
 Vial Number: 93  
 Quant File : Y1025NC.RES (RTE Integrator)



Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y093.D Vial: 93  
 Acq On : 30 Oct 18 17:59 Operator: MA  
 Sample : AZ81640W10 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 1 3-Penten-2-one, 4-methyl- Concentration Rank 11

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.74	22.23 ppb	847672	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
2		3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	91
3		3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
4		3-Penten-2-one, 4-methyl-	98	C6H10O	000141-79-7	90
5		3-Hexen-2-one	98	C6H10O	000763-93-9	90

\*\*\*\*\*  
 Peak Number 2 Benzene, 1,2-diethyl- Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.80	14.11 ppb	537968	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzene, 1,2-diethyl-	134	C10H14	000135-01-3	97
2		Benzene, 1,2-diethyl-	134	C10H14	000135-01-3	97
3		Benzene, 1,2-diethyl-	134	C10H14	000135-01-3	97
4		Benzene, 1,3-diethyl-	134	C10H14	000141-93-5	95
5		Benzene, 1,3-diethyl-	134	C10H14	000141-93-5	95

\*\*\*\*\*  
 Peak Number 3 Naphthalene, 1-methyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.92	24.33 ppb	1546060	Naphthalene-D8 (IS)	6.98

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Naphthalene, 1-methyl-	142	C11H10	000090-12-0	93
2		Naphthalene, 1-methyl-	142	C11H10	000090-12-0	93
3		Naphthalene, 1-methyl-	142	C11H10	000090-12-0	93
4		Naphthalene, 1-methyl-	142	C11H10	000090-12-0	93
5		BENZOCYCLOHEPTATRIENE	142	C11H10	000264-09-5	90

Tentatively Identified Compound (LSC) summary

Operator ID: MA Date Acquired: 30 Oct 18 17:59  
Data File: M:\YODA\DATA\Y181025\1025Y093.D  
Name: AZ81640W10 1/800  
Misc:  
Method: M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title: EPA 8270C  
Library Searched: M:\DATABASE\WILEY138.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
3-Penten-2-one, 4-me	2.74	22.2	ppb	847672	ISTD01	5.54	1906780	40.0
Benzene, 1,2-diethyl	5.80	14.1	ppb	537968	ISTD01	5.54	1906780	40.0
Naphthalene, 1-methy	7.92	24.3	ppb	1546060	ISTD02	6.98	3176850	40.0

1025Y093.D Y1025NC.M Tue Nov 06 11:07:50 2018

Data File : M:\YODA\DATA\Y181025\1025Y094.D Vial: 94  
 Acq On : 30 Oct 18 18:27 Operator: MA  
 Sample : AZ81642W11 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Time: Oct 31 6:03 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.53	152	305713	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1129695	40.0000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.01	164	608955	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1187904	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1007279	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	981662	40.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol (S)	3.96	112	2011186	209.2869	ppb	0.00
Spiked Amount 250.000			Recovery =	83.715%		
6) Phenol-D6 (S)	5.12	99	2227154	194.9605	ppb	0.00
Spiked Amount 250.000			Recovery =	77.984%		
22) Nitrobenzene-D5 (S)	6.17	82	1237013	121.2802	ppb	0.00
Spiked Amount 125.000			Recovery =	97.024%		
46) 2-Fluorobiphenyl (S)	8.23	172	2045352	100.7227	ppb	0.00
Spiked Amount 125.000			Recovery =	80.578%		
64) 2,4,6-Tribromophenol (S)	9.94	330	474728	193.0895	ppb	0.00
Spiked Amount 250.000			Recovery =	77.236%		
82) Terphenyl-D14 (S)	12.63	244	2213553	103.7681	ppb	0.00
Spiked Amount 125.000			Recovery =	83.014%		

Target Compounds Qvalue

Quantitation Report

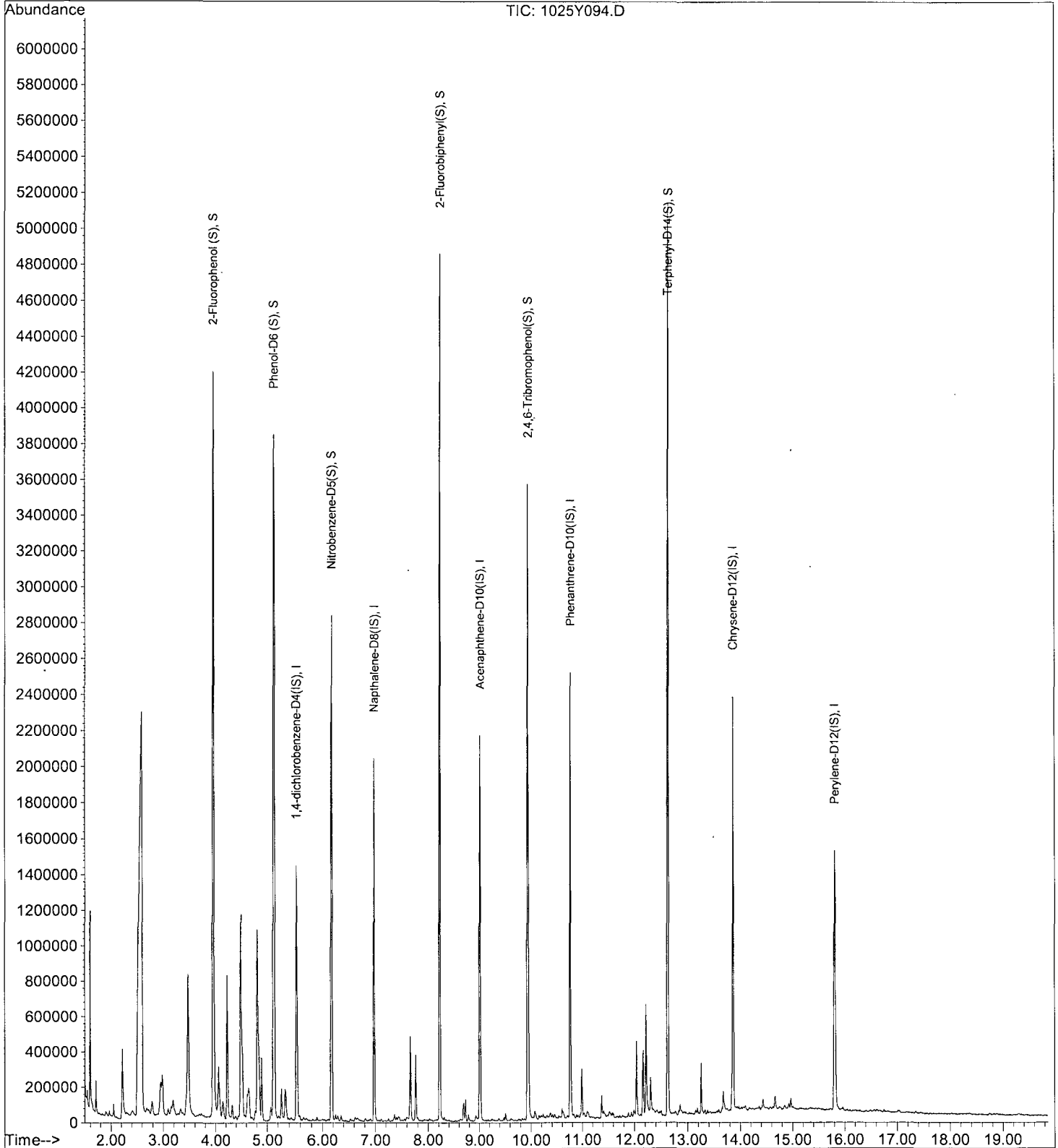
Data File : M:\YODA\DATA\Y181025\1025Y094.D  
Acq On : 30 Oct 18 18:27  
Sample : AZ81642W11 1/800  
Misc :

Vial: 94  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Oct 31 6:03 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



LSC Area Percent Report

Data File : M:\YODA\DATA\Y181025\1025Y094.D  
 Acq On : 30 Oct 18 18:27  
 Sample : AZ81642W11 1/800  
 Misc :  
 MS Integration Params: LSCINT.P

Vial: 94  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25000

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs : 0.002  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

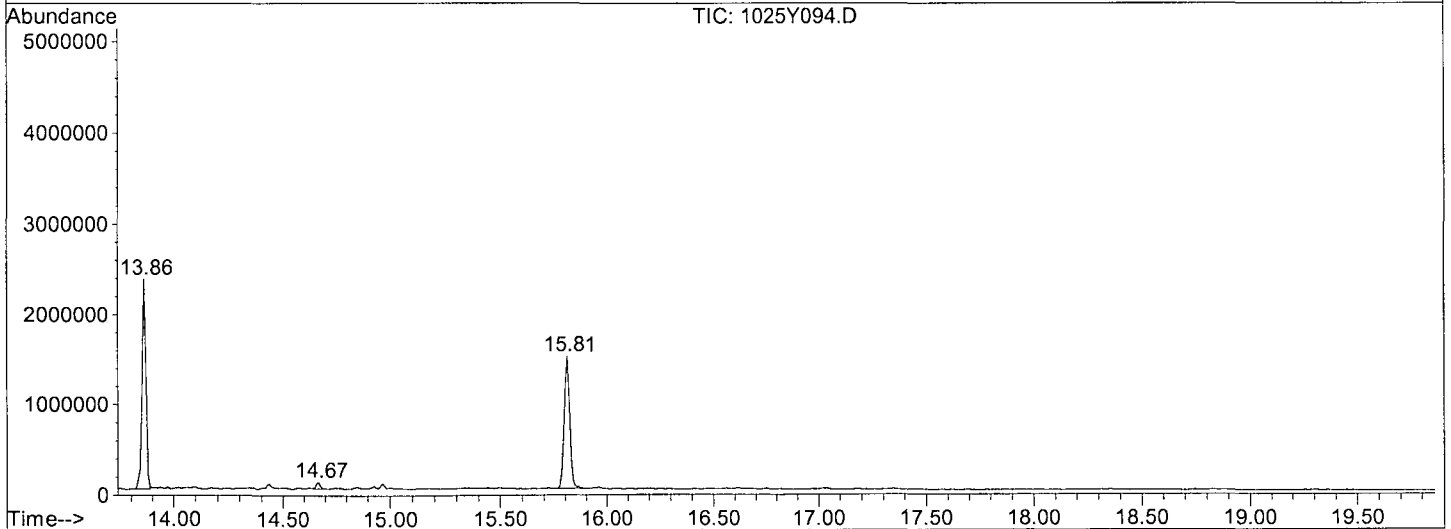
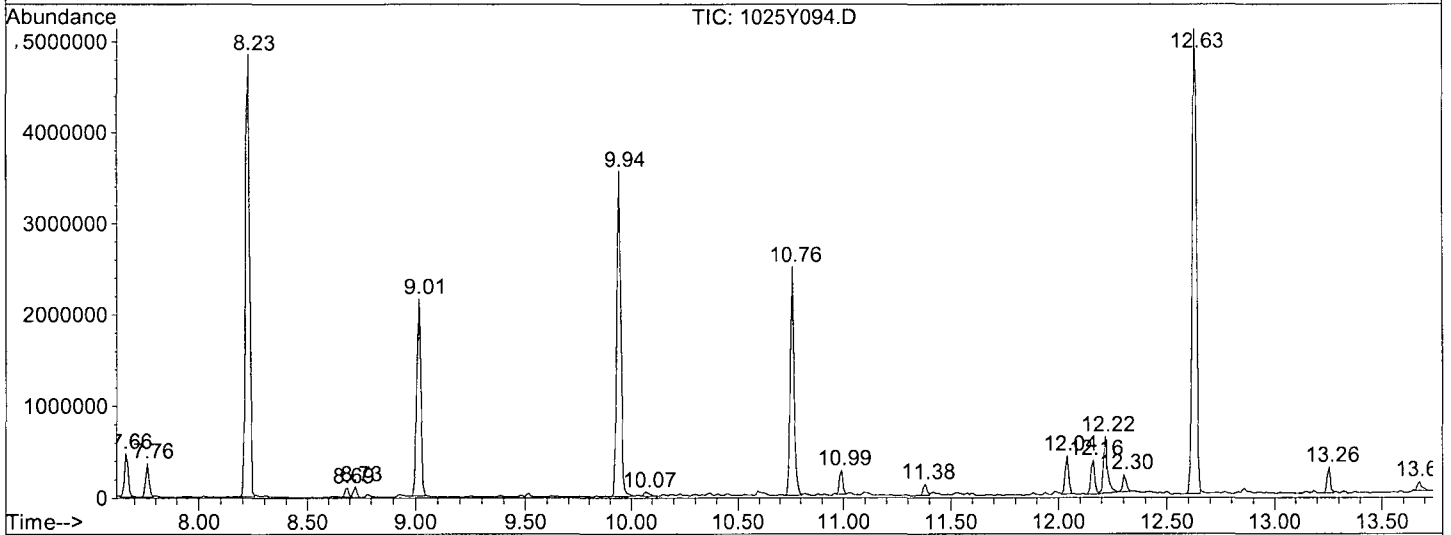
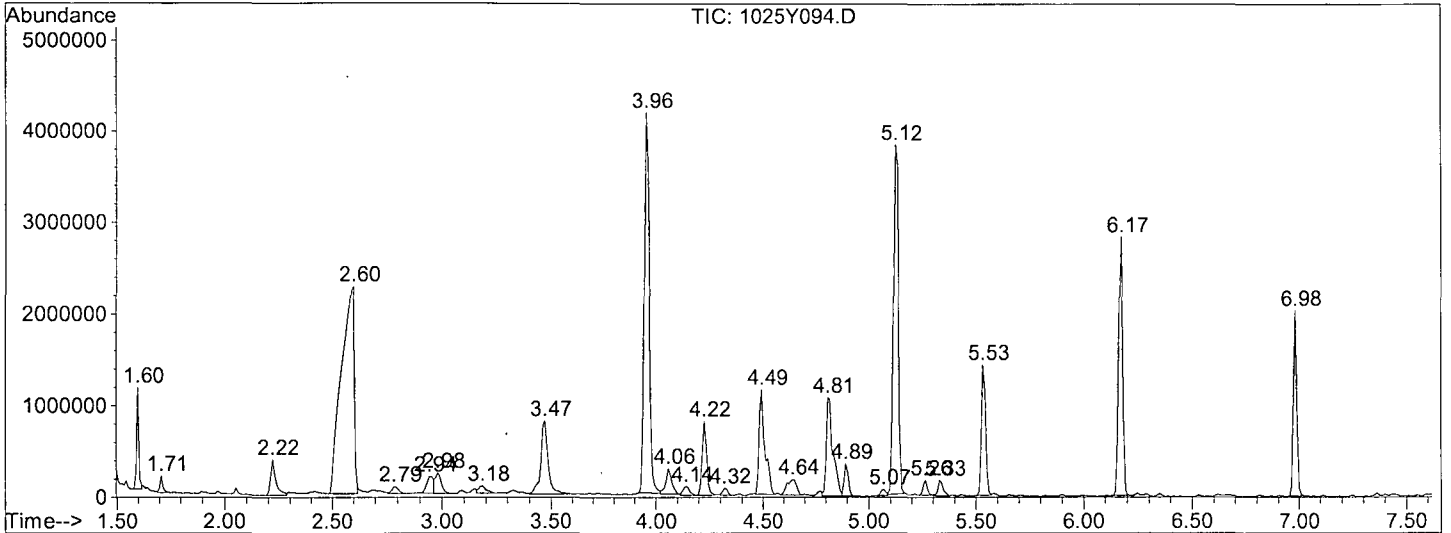
Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	1.597	10	12	14	rBV	1106421	1456518	804760	8.42%	1.044%
2	1.709	22	24	29	rVB2	183303	972077	171545	1.79%	0.222%
3	2.219	75	79	86	rBV	391477	1713904	673824	7.05%	0.874%
4	2.600	107	120	122	rBV	2260013	11080964	9562858	100.00%	12.400%
5	2.785	137	140	146	rVB	76599	1094381	155625	1.63%	0.202%
6	2.943	153	157	159	rBV2	180625	1019352	387410	4.05%	0.502%
7	2.980	159	161	170	rVB	225811	2030821	418363	4.37%	0.542%
8	3.185	180	183	190	rVB	82660	1322788	193613	2.02%	0.251%
9	3.472	206	214	229	rVB	800889	4188679	1864181	19.49%	2.417%
10	3.955	262	266	273	rBV	4150464	8121422	6848997	71.62%	8.881%
11	4.057	273	277	283	rVB3	278065	1626950	519737	5.43%	0.674%
12	4.141	283	286	292	rVB2	98229	1174528	209924	2.20%	0.272%
13	4.224	292	295	300	rBV	810461	2133642	1174435	12.28%	1.523%
14	4.317	303	305	309	rVB	75787	748822	121453	1.27%	0.157%
15	4.494	320	324	331	rVV2	1139618	3332292	2216066	23.17%	2.874%
16	4.642	334	340	345	rVB3	171169	1659455	552907	5.78%	0.717%
17	4.809	355	358	365	rVV3	1074700	3327005	2274069	23.78%	2.949%
18	4.893	365	367	371	rVB	350831	1236888	450310	4.71%	0.584%
19	5.069	382	386	388	rBV3	71526	678927	122476	1.28%	0.159%
20	5.125	388	392	396	rVV	3812906	7146854	6249148	65.35%	8.103%
21	5.264	404	407	411	rBV	164085	943859	230590	2.41%	0.299%
22	5.329	411	414	419	rVB	169017	1048530	278110	2.91%	0.361%
23	5.533	433	436	440	rBV	1426382	2642032	1898703	19.85%	2.462%
24	6.174	501	505	508	rBV	2820728	4371577	3629621	37.96%	4.706%
25	6.982	589	592	595	rBV	2028688	3070762	2321845	24.28%	3.011%
26	7.659	662	665	671	rVB	470090	1459080	592994	6.20%	0.769%
27	7.761	673	676	679	rBV	363394	993569	420013	4.39%	0.545%
28	8.226	722	726	729	rBV	4842827	6822781	6112636	63.92%	7.926%
29	8.690	773	776	778	rBV	97001	603796	127852	1.34%	0.166%
30	8.727	778	780	783	rVB	118947	678749	126723	1.33%	0.164%
31	9.015	807	811	814	rBV	2148940	3384845	2719024	28.43%	3.526%
32	9.943	907	911	919	rBV	3556270	6026278	4821664	50.42%	6.252%
33	10.073	922	925	931	rVB2	46685	962716	98738	1.03%	0.128%
34	10.760	995	999	1004	rBV	2493755	4085311	3204988	33.51%	4.156%
35	10.992	1021	1024	1026	rVB	260682	824332	302745	3.17%	0.393%
36	11.382	1063	1066	1068	rBV	122843	643109	162772	1.70%	0.211%
37	12.041	1134	1137	1140	rVV	414103	1107676	462128	4.83%	0.599%
38	12.162	1147	1150	1153	rBV	368752	1162203	483454	5.06%	0.627%
39	12.217	1153	1156	1162	rVV	616927	1831353	834806	8.73%	1.082%
40	12.301	1163	1165	1169	rVV2	184484	897928	221252	2.31%	0.287%
41	12.626	1196	1200	1203	rBV	5103472	7633502	6894443	72.10%	8.940%
42	13.257	1265	1268	1270	rBV	283886	839406	306933	3.21%	0.398%
43	13.675	1311	1313	1319	rBV	101576	1170596	150800	1.58%	0.196%
44	13.861	1328	1333	1336	rBV	2321816	38185460	2933887	30.68%	3.804%
45	14.668	1417	1420	1425	rVB	69313	1002295	98429	1.03%	0.128%



LSC Report - Integrated Chromatogram

File : M:\YODA\DATA\Y181025\1025Y094.D  
 Operator : MA  
 Acquired : 30 Oct 18 18:27 using AcqMethod SVOC416  
 Instrument : Yoda  
 Sample Name: AZ81642W11 1/800  
 Misc Info :  
 Vial Number: 94  
 Quant File :Y1025NC.RES (RTE Integrator)



## Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y094.D Vial: 94  
Acq On : 30 Oct 18 18:27 Operator: MA  
Sample : AZ81642W11 1/800 Inst : Yoda  
Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
Peak Number 1 2-Pentanone, 4-hydroxy-4-methy Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.47	49.09 ppb	1864180	1,4-dichlorobenzene-D4 (IS)	5.53

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	50
2			2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	50
3			2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	50
4			2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	40
5			2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	38

\*\*\*\*\*  
Peak Number 2 Benzene, 1,2,4-trimethyl- Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.33	7.32 ppb	278110	1,4-dichlorobenzene-D4 (IS)	5.53

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	97
2			Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	95
3			Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	95
4			Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	95
5			Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	95

Tentatively Identified Compound (LSC) summary

Operator ID: MA      Date Acquired: 30 Oct 18 18:27  
 Data File: M:\YODA\DATA\Y181025\1025Y094.D  
 Name: AZ81642W11 1/800  
 Misc:  
 Method: M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title: EPA 8270C  
 Library Searched: M:\DATABASE\WILEY138.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
2-Pentanone, 4-hydro	3.47	49.1	ppb	1864180	ISTD01	5.53	1898700	40.0
Benzene, 1,2,4-trime	5.33	7.3	ppb	278110	ISTD01	5.53	1898700	40.0

1025Y094.D Y1025NC.M      Tue Nov 06 11:08:01 2018

Data File : M:\YODA\DATA\Y181025\1025Y095.D  
 Acq On : 30 Oct 18 18:54  
 Sample : AZ81644W12 1/800  
 Misc :

Vial: 95  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Oct 31 6:03 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	343515	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1385921	40.0000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	637507	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1203219	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1274639	40.0000	ppb	-0.01
89) Perylene-D12 (IS)	15.81	264	1245481	40.0000	ppb	-0.01

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	1912207	177.0896	ppb	0.00
Spiked Amount	250.000					
				Recovery	=	70.836%
6) Phenol-D6 (S)	5.12	99	2354859	183.4549	ppb	0.00
Spiked Amount	250.000					
				Recovery	=	73.382%
22) Nitrobenzene-D5 (S)	6.17	82	1178653	94.1942	ppb	0.00
Spiked Amount	125.000					
				Recovery	=	75.355%
46) 2-Fluorobiphenyl (S)	8.22	172	2029587	95.4700	ppb	0.00
Spiked Amount	125.000					
				Recovery	=	76.376%
64) 2,4,6-Tribromophenol (S)	9.94	330	452366	175.7535	ppb	-0.01
Spiked Amount	250.000					
				Recovery	=	70.301%
82) Terphenyl-D14 (S)	12.63	244	1986913	73.6063	ppb	0.00
Spiked Amount	125.000					
				Recovery	=	58.885%

Target Compounds

Qvalue

Quantitation Report

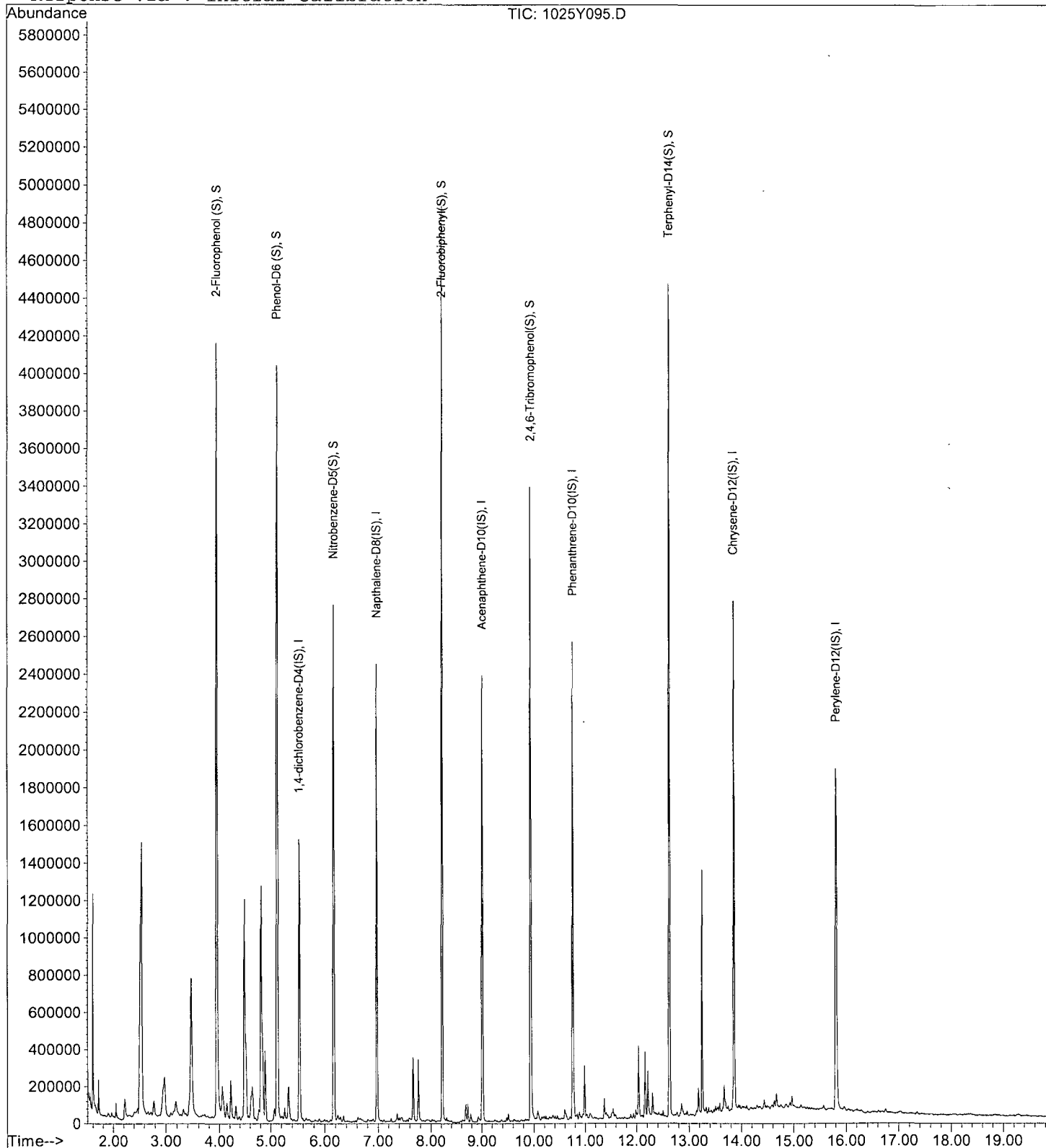
Data File : M:\YODA\DATA\Y181025\1025Y095.D  
Acq On : 30 Oct 18 18:54  
Sample : AZ81644W12 1/800  
Misc :

Vial: 95  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Oct 31 6:03 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



LSC Area Percent Report

Data File : M:\YODA\DATA\Y181025\1025Y095.D  
 Acq On : 30 Oct 18 18:54  
 Sample : AZ81644W12 1/800  
 Misc :  
 MS Integration Params: LSCINT.P

Vial: 95  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25000

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.002  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

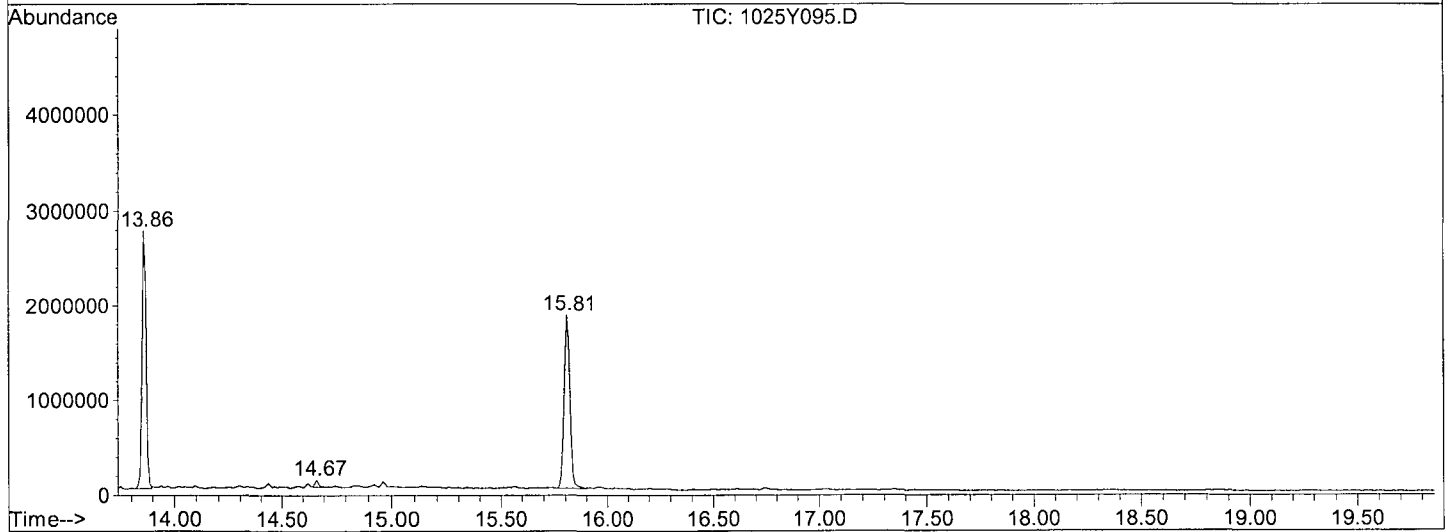
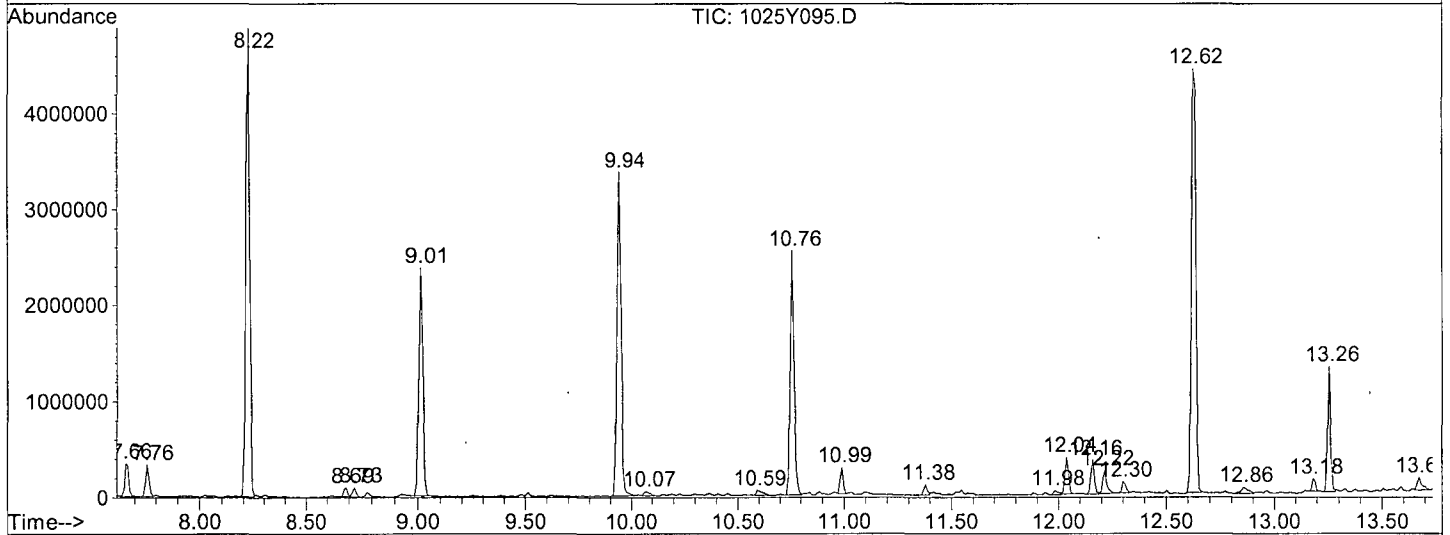
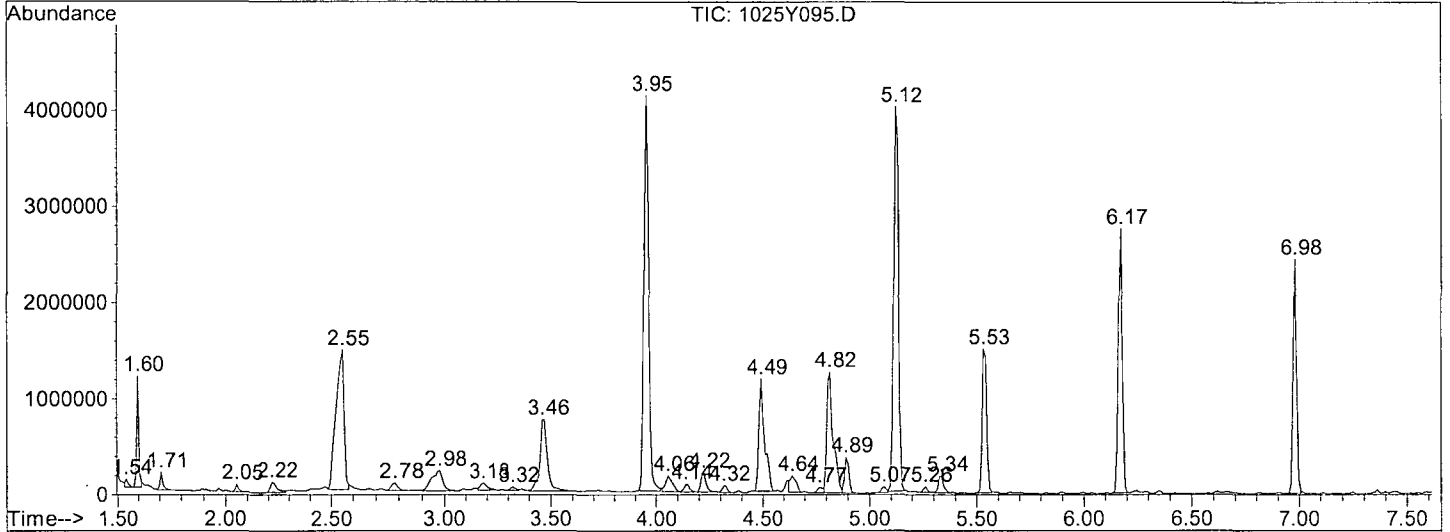
If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	1.540	5	6	10	rVB	85359	772686	79438	1.21%	0.111%
2	1.595	10	12	14	rBV	1156123	1439046	829294	12.64%	1.158%
3	1.707	22	24	31	rVB2	187844	1225029	181643	2.77%	0.254%
4	2.050	59	61	65	rVB	78965	706070	74744	1.14%	0.104%
5	2.217	76	79	86	rBV2	108839	1264621	252608	3.85%	0.353%
6	2.552	108	115	118	rBV	1454111	5023038	3708259	56.52%	5.176%
7	2.784	136	140	146	rVB	81419	1241668	162973	2.48%	0.227%
8	2.979	152	161	170	rVB3	212810	2664644	741597	11.30%	1.035%
9	3.183	180	183	190	rVB2	77548	1334353	180912	2.76%	0.253%
10	3.322	194	198	201	rBV2	37471	802425	69546	1.06%	0.097%
11	3.461	206	213	229	rVB	745766	4248752	1811408	27.61%	2.528%
12	3.953	262	266	273	rBV	4117892	7976934	6560810	100.00%	9.158%
13	4.055	274	277	283	rVB3	166319	1417293	366358	5.58%	0.511%
14	4.139	283	286	292	rVB3	84295	1106582	156601	2.39%	0.219%
15	4.223	292	295	300	rBV2	204494	1271564	350261	5.34%	0.489%
16	4.315	303	305	309	rVB	73878	764649	116677	1.78%	0.163%
17	4.492	320	324	331	rVB2	1172382	3406302	2241299	34.16%	3.129%
18	4.640	338	340	345	rVB3	172333	1299472	335589	5.12%	0.468%
19	4.770	350	354	356	rBV	60517	711874	121446	1.85%	0.170%
20	4.817	356	359	365	rVV2	1258237	4275805	2552351	38.90%	3.563%
21	4.891	365	367	371	rVB	372882	1332476	510887	7.79%	0.713%
22	5.067	382	386	388	rBV3	64057	695681	105865	1.61%	0.148%
23	5.123	388	392	396	rVV	4004402	7431930	6487401	98.88%	9.055%
24	5.262	404	407	410	rBV	59231	694747	77483	1.18%	0.108%
25	5.337	411	415	419	rVB	177035	1107295	295655	4.51%	0.413%
26	5.532	433	436	440	rBV	1501940	2882388	2129310	32.45%	2.972%
27	6.172	501	505	508	rBV	2746237	4213665	3473687	52.95%	4.849%
28	6.980	589	592	595	rBV	2436083	3593341	2842651	43.33%	3.968%
29	7.657	662	665	671	rVB	342638	1363842	462091	7.04%	0.645%
30	7.760	673	676	679	rBV	326532	977432	381914	5.82%	0.533%
31	8.224	722	726	729	rBV	4880376	6697665	5975970	91.09%	8.342%
32	8.688	773	776	778	rBV	90913	605081	111954	1.71%	0.156%
33	8.725	778	780	783	rVB	96265	651610	102703	1.57%	0.143%
34	9.013	808	811	815	rVV	2372499	3812653	2870828	43.76%	4.007%
35	9.941	907	911	919	rBV	3375865	5825205	4597635	70.08%	6.418%
36	10.071	923	925	931	rVB2	49203	962689	95993	1.46%	0.134%
37	10.591	979	981	989	rVB3	53780	1132115	120959	1.84%	0.169%
38	10.758	995	999	1004	rBV	2543928	4142931	3237495	49.35%	4.519%
39	10.990	1022	1024	1026	rVB	273930	861675	280268	4.27%	0.391%
40	11.380	1063	1066	1068	rBV	107679	634459	133401	2.03%	0.186%
41	11.984	1129	1131	1134	rBV3	46109	598301	73791	1.12%	0.103%
42	12.039	1134	1137	1140	rVB	377684	1064494	417448	6.36%	0.583%
43	12.160	1147	1150	1153	rBV	352722	1086057	423318	6.45%	0.591%
44	12.216	1153	1156	1163	rVB	237764	13936466	320341	4.88%	0.447%
45	12.299	1163	1165	1169	rBV2	115523	812585	153920	2.35%	0.215%

LSC Report - Integrated Chromatogram

File : M:\YODA\DATA\Y181025\1025Y095.D  
 Operator : MA  
 Acquired : 30 Oct 18 18:54 using AcqMethod SVOC416  
 Instrument : Yoda  
 Sample Name: AZ81644W12 1/800  
 Misc Info :  
 Vial Number: 95  
 Quant File : Y1025NC.RES (RTE Integrator)



Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y095.D Vial: 95  
 Acq On : 30 Oct 18 18:54 Operator: MA  
 Sample : AZ81644W12 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 1 Benzene, 1,2,3-trimethyl- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.34	6.94 ppb	295655	1,4-dichlorobenzene-D4 (IS)	5.54

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	97
2			Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	97
3			Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	97
4			Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	97
5			Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	97

\*\*\*\*\*  
 Peak Number 2 Hexanedioic acid, dioctyl este Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.26	16.97 ppb	1217550	Chrysene-D12 (IS)	13.86

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	80
2			DI-(2-ETHYLHEXYL) ESTER OF ADIPIC A	370	C22H42O4	000000-00-0	78
3			Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	53
4			DI-(2-ETHYLHEXYL) ESTER OF ADIPIC A	370	C22H42O4	000000-00-0	50
5			Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	50



Tentatively Identified Compound (LSC) summary

Operator ID: MA Date Acquired: 30 Oct 18 18:54  
Data File: M:\YODA\DATA\Y181025\1025Y095.D  
Name: AZ81644W12 1/800  
Misc:  
Method: M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title: EPA 8270C  
Library Searched: M:\DATABASE\WILEY138.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Benzene, 1,2,3-trime	5.34	6.9	ppb	295655	ISTD01	5.54	2129310	40.0
Hexanedioic acid, di	13.26	17.0	ppb	1217550	ISTD05	13.86	3587380	40.0

1025Y095.D Y1025NC.M Tue Nov 06 11:08:12 2018

Data File : M:\YODA\DATA\Y181025\1025Y083.D Vial: 83  
 Acq On : 30 Oct 18 13:20 Operator: MA  
 Sample : 181024A BLK 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Time: Oct 30 14:22 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.53	152	255115	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1052103	40.0000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	576600	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1164199	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1223922	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	1093573	40.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol (S)	3.96	112	1647290	205.4177	ppb	0.00
Spiked Amount				250.000		
			Recovery	=	82.167%	
6) Phenol-D6 (S)	5.13	99	2146824	225.2012	ppb	0.00
Spiked Amount				250.000		
			Recovery	=	90.080%	
22) Nitrobenzene-D5 (S)	6.17	82	1081739	113.8783	ppb	0.00
Spiked Amount				125.000		
			Recovery	=	91.102%	
46) 2-Fluorobiphenyl (S)	8.23	172	1866030	97.0484	ppb	0.00
Spiked Amount				125.000		
			Recovery	=	77.638%	
64) 2,4,6-Tribromophenol (S)	9.94	330	456118	195.9303	ppb	0.00
Spiked Amount				250.000		
			Recovery	=	78.372%	
82) Terphenyl-D14 (S)	12.63	244	1970979	76.0417	ppb	0.00
Spiked Amount				125.000		
			Recovery	=	60.834%	

Target Compounds Qvalue

Quantitation Report

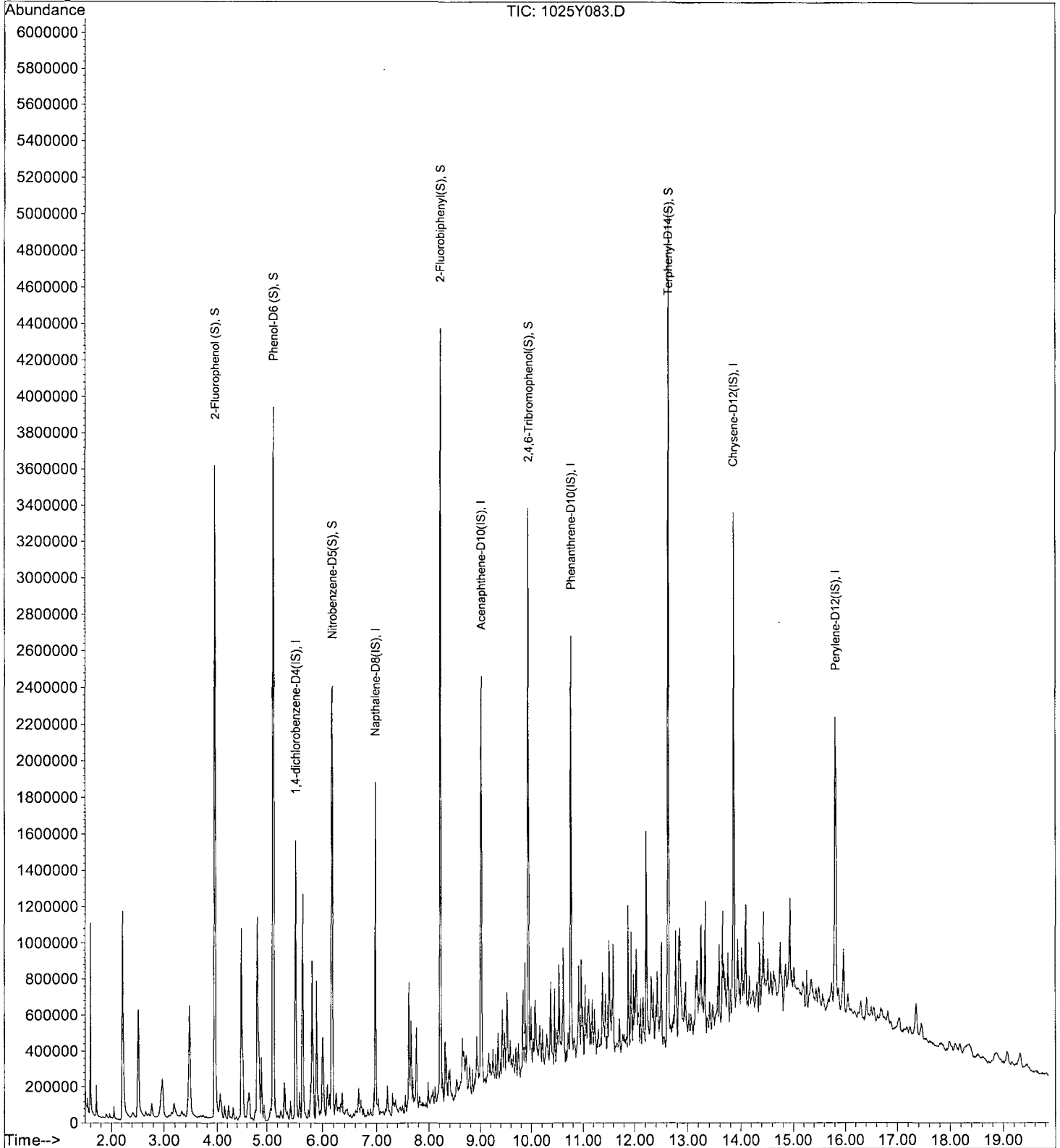
Data File : M:\YODA\DATA\Y181025\1025Y083.D  
Acq On : 30 Oct 18 13:20  
Sample : 181024A BLK 1/800  
Misc :

Vial: 83  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Oct 30 14:22 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Tentatively Identified Compound (LSC) summary

Operator ID: MA Date Acquired: 30 Oct 18 13:20  
 Data File: M:\YODA\DATA\Y181025\1025Y083.D  
 Name: 181024A BLK 1/800  
 Misc:  
 Method: M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title: EPA 8270C  
 Library Searched: M:\DATABASE\WILEY138.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Furan, tetrahydro-2-	1.60	18.4	ppb	756198	ISTD01	5.53	2051360	40.0
Benzene, methyl-	2.22	51.4	ppb	2108190	ISTD01	5.53	2051360	40.0
Acetic acid, ethyl e	2.53	29.7	ppb	1218990	ISTD01	5.53	2051360	40.0
Nonane, 3-methyl-5-p	5.65	38.6	ppb	1583470	ISTD01	5.53	2051360	40.0
Heptane, 4-ethyl-2,2	5.90	21.2	ppb	871567	ISTD01	5.53	2051360	40.0
SULFONE, CHLORO PHEN	7.66	14.3	ppb	620508	ISTD02	6.98	2165140	40.0
Hexadecane	9.53	13.7	ppb	816585	ISTD03	9.02	2969640	40.0
unknown hydrocarbon	12.22	26.4	ppb	1731350	ISTD04	10.76	3278860	40.0

1025Y083.D Y1025NC.M Tue Nov 06 14:22:40 2018

LSC Area Percent Report

Data File : M:\YODA\DATA\Y181025\1025Y083.D  
 Acq On : 30 Oct 18 13:20  
 Sample : 181024A BLK 1/800  
 Misc :  
 MS Integration Params: LSCINT.P

Vial: 83  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25000

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs : 0.002  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

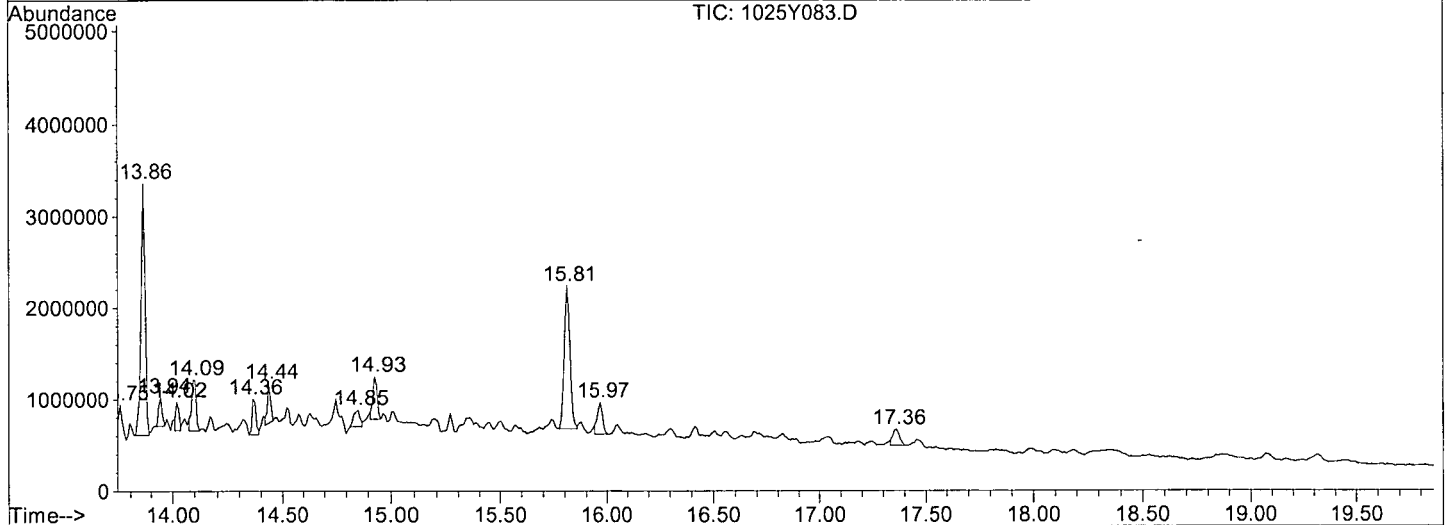
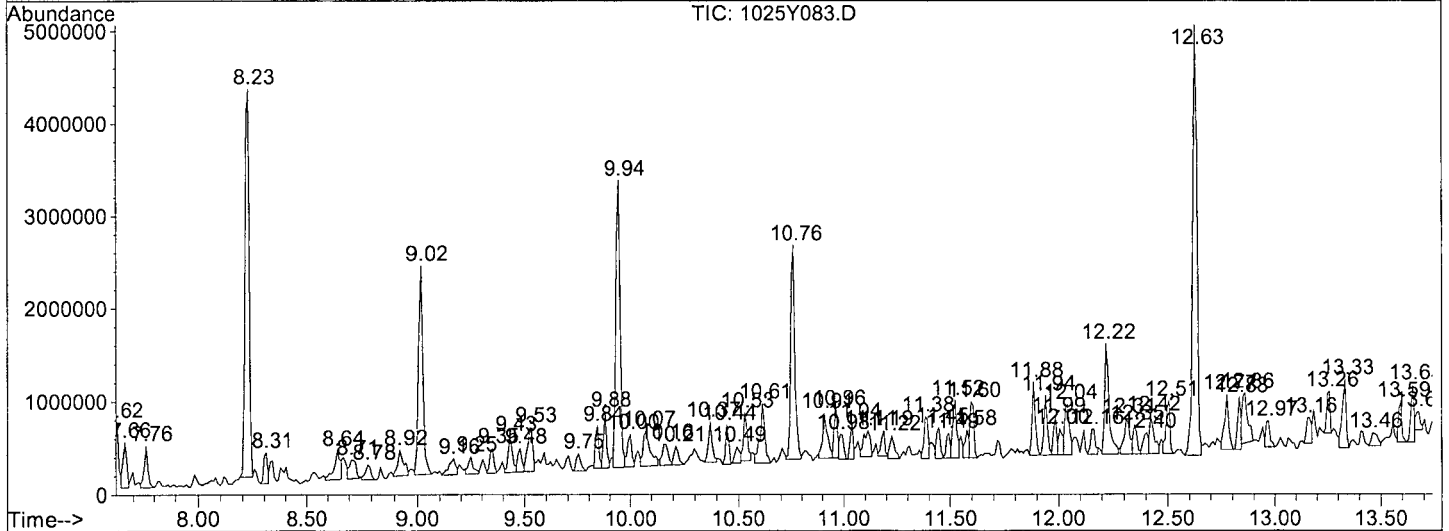
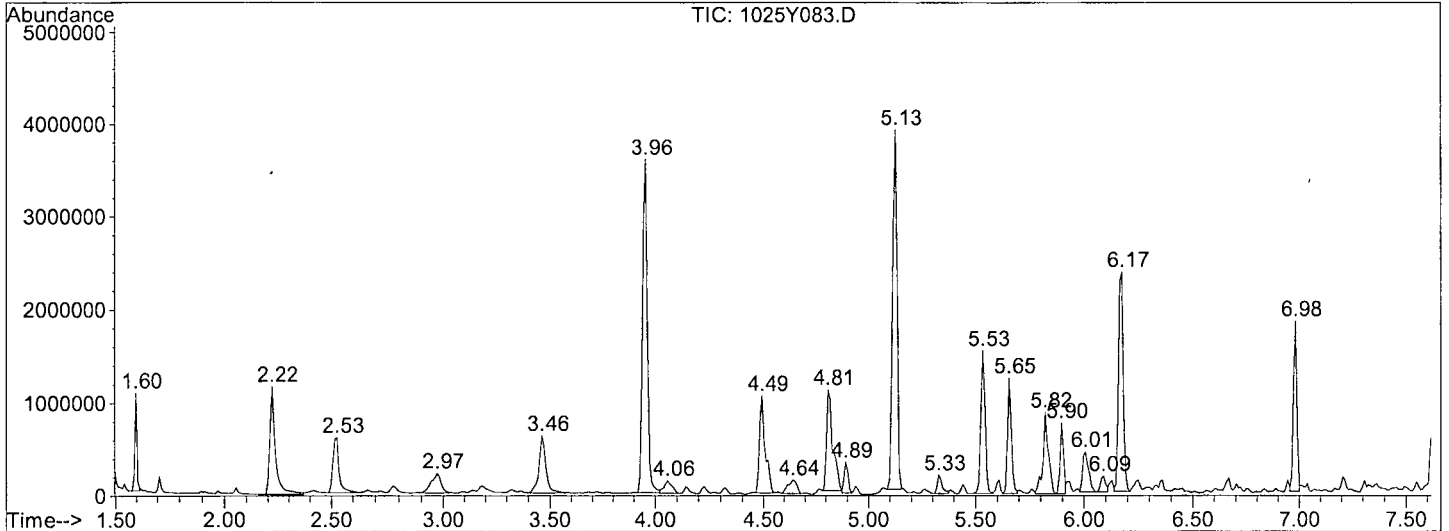
If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	1.598	10	12	14	rBV	1052045	1319854	756198	11.84%	0.721%
2	2.220	75	79	95	rBV	1157866	3819423	2108191	33.02%	2.011%
3	2.526	107	112	124	rBV	595392	2703307	1218989	19.09%	1.163%
4	2.972	151	160	169	rVB3	214711	2273695	682433	10.69%	0.651%
5	3.464	206	213	228	rVB	618394	3320151	1381531	21.64%	1.318%
6	3.956	261	266	273	rBV	3583664	6791835	5723829	89.65%	5.459%
7	4.058	273	277	284	rVB4	138945	1432763	348526	5.46%	0.332%
8	4.494	320	324	330	rVV2	1047743	2920045	2006442	31.43%	1.914%
9	4.643	334	340	345	rVB4	146912	1421355	441207	6.91%	0.421%
10	4.810	355	358	365	rVB3	1089665	3187799	2198873	34.44%	2.097%
11	4.893	365	367	370	rVB	334496	1057067	420327	6.58%	0.401%
12	5.125	388	392	395	rBV	3872673	6672529	5786565	90.63%	5.519%
13	5.330	411	414	419	rBV	201371	1001673	318134	4.98%	0.303%
14	5.534	431	436	441	rBV2	1541108	2922582	2051359	32.13%	1.957%
15	5.654	446	449	453	rBV	1243959	2249854	1583468	24.80%	1.510%
16	5.822	462	467	472	rVB	876796	2578343	1543267	24.17%	1.472%
17	5.896	472	475	477	rBV	765140	1308012	871567	13.65%	0.831%
18	6.007	484	487	492	rVB2	435858	1790122	857245	13.43%	0.818%
19	6.091	492	496	498	rBV	173043	815157	279951	4.38%	0.267%
20	6.174	501	505	509	rVB	2363317	4413245	3522442	55.17%	3.360%
21	6.982	589	592	594	rVV	1836389	2872165	2165135	33.91%	2.065%
22	7.623	658	661	663	rVV	700874	1438739	857001	13.42%	0.817%
23	7.660	663	665	667	rVV2	482430	1366207	620508	9.72%	0.592%
24	7.762	673	676	680	rVB	443617	1391587	547576	8.58%	0.522%
25	8.226	722	726	728	rVV	4181823	6357708	5490294	85.99%	5.236%
26	8.310	732	735	736	rBV	331599	909950	425192	6.66%	0.406%
27	8.644	765	771	773	rVV	311183	1706274	643309	10.08%	0.614%
28	8.709	776	778	782	rVV2	200729	1370724	409028	6.41%	0.390%
29	8.783	783	786	790	rVB2	161594	1219615	271741	4.26%	0.259%
30	8.922	798	801	805	rVV3	273000	1561034	505333	7.91%	0.482%
31	9.015	808	811	816	rVB	2239508	4679105	2969639	46.51%	2.832%
32	9.164	821	827	829	rVV2	176801	1548105	407416	6.38%	0.389%
33	9.247	833	836	840	rVV	188139	1421088	318702	4.99%	0.304%
34	9.349	844	847	849	rVV	266634	1133452	352095	5.51%	0.336%
35	9.433	853	856	859	rVV3	387755	1489985	563162	8.82%	0.537%
36	9.479	859	861	863	rVV	252344	1152824	341317	5.35%	0.326%
37	9.526	863	866	868	rVV2	472804	1835786	816585	12.79%	0.779%
38	9.748	887	890	894	rVB	188184	1347922	280294	4.39%	0.267%
39	9.841	898	900	902	rVV	452214	1553892	534527	8.37%	0.510%
40	9.878	902	904	906	rVV	602072	1543147	609103	9.54%	0.581%
41	9.943	908	911	914	rVV	3090085	6455372	4401686	68.94%	4.198%
42	9.999	914	917	919	rVV	347524	1450949	491770	7.70%	0.469%
43	10.073	922	925	931	rVV2	370234	2628527	904977	14.17%	0.863%
44	10.157	932	934	938	rVV	222223	15897473	429360	6.72%	0.410%
45	10.213	938	940	944	rVB	194651	1486135	286780	4.49%	0.274%

LSC Report - Integrated Chromatogram

File : M:\YODA\DATA\Y181025\1025Y083.D  
 Operator : MA  
 Acquired : 30 Oct 18 13:20 using AcqMethod SVOC416  
 Instrument : Yoda  
 Sample Name: 181024A BLK 1/800  
 Misc Info :  
 Vial Number: 83  
 Quant File : Y1025NC.RES (RTE Integrator)



Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y083.D Vial: 83  
 Acq On : 30 Oct 18 13:20 Operator: MA  
 Sample : 181024A BLK 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 1 Furan, tetrahydro-2-(methoxyme Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.60	18.43 ppb	756198	1,4-dichlorobenzene-D4 (IS)	5.53

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Furan, tetrahydro-2-(methoxymethyl)	116	C6H12O2	019354-27-9	72
2		3-Penten-2-ol	86	C5H10O	001569-50-2	58
3		3-Buten-2-ol, 2-methyl-	86	C5H10O	000115-18-4	52
4		Furan, tetrahydro-2-methyl-	86	C5H10O	000096-47-9	47
5		CIS-1-METHOXY-2-BUTENE	86	C5H10O	010034-14-7	45

\*\*\*\*\*  
 Peak Number 2 Benzene, methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.22	51.39 ppb	2108190	1,4-dichlorobenzene-D4 (IS)	5.53

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzene, methyl-	92	C7H8	000108-88-3	94
2		Benzene, methyl-	92	C7H8	000108-88-3	91
3		Benzene, methyl-	92	C7H8	000108-88-3	91
4		Benzene, methyl-	92	C7H8	000108-88-3	91
5		Benzene, methyl-	92	C7H8	000108-88-3	91

\*\*\*\*\*  
 Peak Number 3 Acetic acid, ethyl ester Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.53	29.71 ppb	1218990	1,4-dichlorobenzene-D4 (IS)	5.53

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Acetic acid, ethyl ester	88	C4H8O2	000141-78-6	50
2		Acetic acid, ethyl ester	88	C4H8O2	000141-78-6	43
3		Acetic acid, pentyl ester	130	C7H14O2	000628-63-7	28
4		1-Butanol, 3-methyl-, acetate	130	C7H14O2	000123-92-2	25
5		Acetic acid, pentyl ester	130	C7H14O2	000628-63-7	25

## Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y083.D Vial: 83  
 Acq On : 30 Oct 18 13:20 Operator: MA  
 Sample : 181024A BLK 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 4 Nonane, 3-methyl-5-propyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.65	38.60 ppb	1583470	1,4-dichlorobenzene-D4 (IS)	5.53

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Nonane, 3-methyl-5-propyl-	184	C13H28	031081-18-2	78
2		Nonane, 3,7-dimethyl-	156	C11H24	017302-32-8	59
3		Decane, 2-methyl-	156	C11H24	006975-98-0	59
4		Nonane, 5-butyl-	184	C13H28	017312-63-9	59
5		Hexadecane	226	C16H34	000544-76-3	53

\*\*\*\*\*  
 Peak Number 5 Heptane, 4-ethyl-2,2,6,6-tetra Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.90	21.24 ppb	871567	1,4-dichlorobenzene-D4 (IS)	5.53

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Heptane, 4-ethyl-2,2,6,6-tetramethy	184	C13H28	062108-31-0	78
2		Hexane, 2,2,5-trimethyl-	128	C9H20	003522-94-9	64
3		Hexane, 2,2,5-trimethyl-	128	C9H20	003522-94-9	64
4		Hexane, 2,2,5-trimethyl-	128	C9H20	003522-94-9	64
5		Hexane, 2,2,5,5-tetramethyl-	142	C10H22	001071-81-4	59

\*\*\*\*\*  
 Peak Number 6 SULFONE, CHLORO PHENYL Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.66	14.33 ppb	620508	Napthalene-D8 (IS)	6.98

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		SULFONE, CHLORO PHENYL	176	C6H5ClO2S	000000-00-0	96
2		Phenol, 4-hexyl-	178	C12H18O	002446-69-7	70
3		N,N-DICHLOROBENZENESULFONAMIDE	225	C6H5Cl2NO2S	000473-29-0	64
4		Benzenesulfonyl chloride	176	C6H5ClO2S	000098-09-9	43
5		Benzenesulfonyl chloride	176	C6H5ClO2S	000098-09-9	37



Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y083.D Vial: 83  
 Acq On : 30 Oct 18 13:20 Operator: MA  
 Sample : 181024A BLK 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 7 Hexadecane Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
9.53	13.75 ppb	816585	Acenaphthene-D10 (IS)	9.02

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Hexadecane	226	C16H34	000544-76-3	80
2		Hexadecane	226	C16H34	000544-76-3	72
3		Decane, 2,3,7-trimethyl-	184	C13H28	062238-13-5	72
4		Nonane, 5-butyl-	184	C13H28	017312-63-9	72
5		Dodecane	170	C12H26	000112-40-3	72

\*\*\*\*\*  
 Peak Number 8 unknown hydrocarbon Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.22	26.40 ppb	1731350	Phenanthrene-D10 (IS)	10.76

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		HEPTADECENE-(8)-CARBONIC ACID-(1)	282	C18H34O2	000000-00-0	99
2		9-Octadecenoic acid (Z)-	282	C18H34O2	000112-80-1	95
3		9-Hexadecenoic acid	254	C16H30O2	002091-29-4	83
4		15-Tetracosenoic acid, methyl ester	380	C25H48O2	002733-88-2	83
5		9-Octadecenoic acid (Z)-	282	C18H34O2	000112-80-1	68

Data File : M:\YODA\DATA\Y181025\1025Y084.D  
 Acq On : 30 Oct 18 13:48  
 Sample : 181024A LCS-1 1/800  
 Misc :

Vial: 84  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Oct 30 14:22 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	187593	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	733115	40.0000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	482637	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	981125	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	916139	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	987819	40.0000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	1787111	303.0670	ppb	0.00
Spiked Amount	250.000					
				Recovery	=	121.227%
6) Phenol-D6 (S)	5.13	99	2186785	311.9605	ppb	0.00
Spiked Amount	250.000					
				Recovery	=	124.784%
22) Nitrobenzene-D5 (S)	6.17	82	1124102	169.8284	ppb	0.00
Spiked Amount	125.000					
				Recovery	=	135.862%
46) 2-Fluorobiphenyl (S)	8.22	172	1706370	106.0222	ppb	0.00
Spiked Amount	125.000					
				Recovery	=	84.818%
64) 2,4,6-Tribromophenol (S)	9.95	330	428310	219.8045	ppb	0.00
Spiked Amount	250.000					
				Recovery	=	87.922%
82) Terphenyl-D14 (S)	12.62	244	1838052	94.7371	ppb	0.00
Spiked Amount	125.000					
				Recovery	=	75.790%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	3560	7.7898		81
3) n-Nitrosodimethylamine	1.97	42	86932	72.0580	ppb	79
4) Pyridine	1.99	79	99973	55.4030	ppb	98
7) Phenol	5.14	94	685216	73.0682	ppb	97
8) Aniline	5.14	66	588855	78.5505	ppb	94
9) Bis (2-chloroethyl) ether	5.24	63	398727	81.2980	ppb	98
10) 2-Chlorophenol	5.30	128	541998	74.2365	ppb	99
11) 1,3-DCB	5.47	146	459611	60.7802	ppb	98
12) 1,4-DCB	5.56	146	470213	62.0709	ppb	96
13) Benzyl alcohol	5.70	108	360616	76.3272	ppb	95
14) 1,2-DCB	5.73	146	442372	61.4516	ppb	98
15) 2-Methylphenol	5.82	107	432923	74.4740	ppb	99
16) Bis (2-chloroisopropyl) et	5.84	45	709956	76.4746	ppb	97
17) Acetophenone	6.00	105	614264	87.4424	ppb	99
18) 3&4-Methylphenol	6.00	107	918024	172.4880	ppb	98
19) n-Nitrosodi-n-propylamine	6.00	70	377411	78.0962	ppb	93
20) Hexachloroethane	6.11	117	159472	56.0051	ppb	97
23) Nitrobenzene	6.19	77	610087	84.1025	ppb	94
24) Isophorone	6.46	82	939819	73.2966	ppb	99
25) 2-Nitrophenol	6.55	139	273771	74.3343	ppb	96
26) 2,4-Dimethylphenol	6.59	122	341365	55.3584	ppb	95
27) Benzoic acid	6.76	105	25292	8.8052	ppb	91
28) Bis (2-chloroethoxy) metha	6.69	93	579750	80.3055	ppb	99
29) 2,4-Dichlorophenol	6.82	162	397129	73.0655	ppb	99
30) 1,2,4-Trichlorobenzene	6.92	180	350557	62.1024	ppb	98
31) 3,4-Dimethylphenol	6.92	107	567670	67.9785	ppb	99
32) Napthalene	7.01	128	1302469	68.5697	ppb	100
33) 4-Chloroaniline	7.07	127	381280	53.5978	ppb	97
34) 2,6-Dichlorophenol	7.07	162	376298	75.6572	ppb	98
35) Hexachloropropene	7.10	213	217801	57.7460	ppb	98
36) Hexachlorobutadiene	7.14	225	183520	58.7654	ppb	99
37) Caprolactum	7.49	55	241398	72.5405	ppb	97

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

Data File : M:\YODA\DATA\Y181025\1025Y084.D  
 Acq On : 30 Oct 18 13:48  
 Sample : 181024A LCS-1 1/800  
 Misc :

Vial: 84  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Oct 30 14:22 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.62	107	431848	73.9970	ppb	91
39) 2-Methylnaphthalene	7.80	142	829342	69.2510	ppb	100
40) 1-Methylnaphthalene	7.92	142	838373	70.2256	ppb	98
42) Hexachlorocyclopentadiene	7.97	237	78359	21.6366	ppb	98
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	395734	54.7795	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	290447	57.1823	ppb	98
45) 2,4,5-Trichlorophenol	8.18	196	315043	58.5842	ppb	96
47) 1,1'-Biphenyl	8.35	154	1071897	56.5488	ppb	98
48) 2-Chloronaphthalene	8.37	162	852824	56.4934	ppb	100
49) 2-Nitroaniline	8.49	65	313271	60.1114	ppb	93
50) Dimethyl phthalate	8.69	163	1089993	62.2650	ppb	99
51) 2,6-DNT	8.77	165	240535	59.5241	ppb	86
52) Acenaphthylene	8.86	152	1371252	56.3105	ppb	100
53) 3-Nitroaniline	8.98	138	258119	57.1243	ppb	92
54) Acenaphthene	9.05	154	850689	57.6680	ppb	99
55) 2,4-Dinitrophenol	9.10	184	129788	51.8306	ppb	87
56) 4-Nitrophenol	9.17	65	210045	60.1427	ppb	99
57) Dibenzofuran	9.26	168	1220303	59.9397	ppb	95
58) 2,4-DNT	9.25	165	311939	60.6147	ppb	92
59) 2,3,4,6-Tetrachlorophenol	9.39	232	244969	55.1945	ppb	# 93
60) Diethyl phthalate	9.52	149	994900	59.0471	ppb	98
61) 4-Chlorophenyl phenyl ethe	9.65	204	429792	65.9139	ppb	96
62) Fluorene	9.66	166	903194	63.3835	ppb	98
63) 4-Nitroaniline	9.69	138	261988	55.5124	ppb	98
66) 4,6-Dinitro-2-methylphenol	9.72	198	193468	50.3832	ppb	97
67) Diphenyl amine	9.80	169	1429844	107.1571	ppb	99
68) n-Nitrosodiphenylamine	9.80	169	1429844	107.1571	ppb	99
69) 1,2-Diphenylhydrazine	9.84	77	1083366	51.3756	ppb	97
70) 4-Bromophenyl phenyl ether	10.23	248	289018	54.0995	ppb	98
71) Hexachlorobenzene	10.29	284	286925	51.0648	ppb	100
72) Atrazine	10.42	200	138525	28.3604	ppb	99
73) Pentachlorophenol	10.54	266	194019	55.8053	ppb	99
74) Phenanthrene	10.79	178	1455906	53.1075	ppb	99
75) Anthracene	10.85	178	1506491	53.4226	ppb	99
76) Carbazol	11.04	167	1391720	52.8147	ppb	99
77) Di-n-butylphthalate	11.43	149	1708349	55.9910	ppb	99
78) Fluoranthene	12.19	202	1532397	52.0871	ppb	100
80) Benzidine	12.35	184	109281	10.4909	ppb	99
81) Pyrene	12.46	202	1638667	54.0948	ppb	100
83) Butyl benzylphthalate	13.19	149	761541	56.2910	ppb	98
84) 3,3'-Dichlorobenzidine	13.82	252	428515	43.4044	ppb	98
85) Benz (a) anthracene	13.86	228	1306612	50.7762	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	984843	57.9337	ppb	99
87) Chrysene	13.90	228	1482373	54.7582	ppb	100
88) Di-n-octylphthalate	14.63	149	1870813	59.1855	ppb	99
90) Benzo (b) fluoranthene	15.23	252	1643846	55.5148	ppb	100
91) Benzo (k) fluoranthene	15.27	252	1392655	49.3582	ppb	100
92) Benzo (a) pyrene	15.73	252	1418225	52.6470	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.85	276	1552199	49.7344	ppb	99
94) Dibenz (a,h) anthracene	17.89	278	1443598	54.4564	ppb	97
95) Benzo (g,h,i) perylene	18.47	276	1383241	54.7006	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1025Y084.D Y1025NC.M Fri Nov 02 14:50:40 2018

Quantitation Report

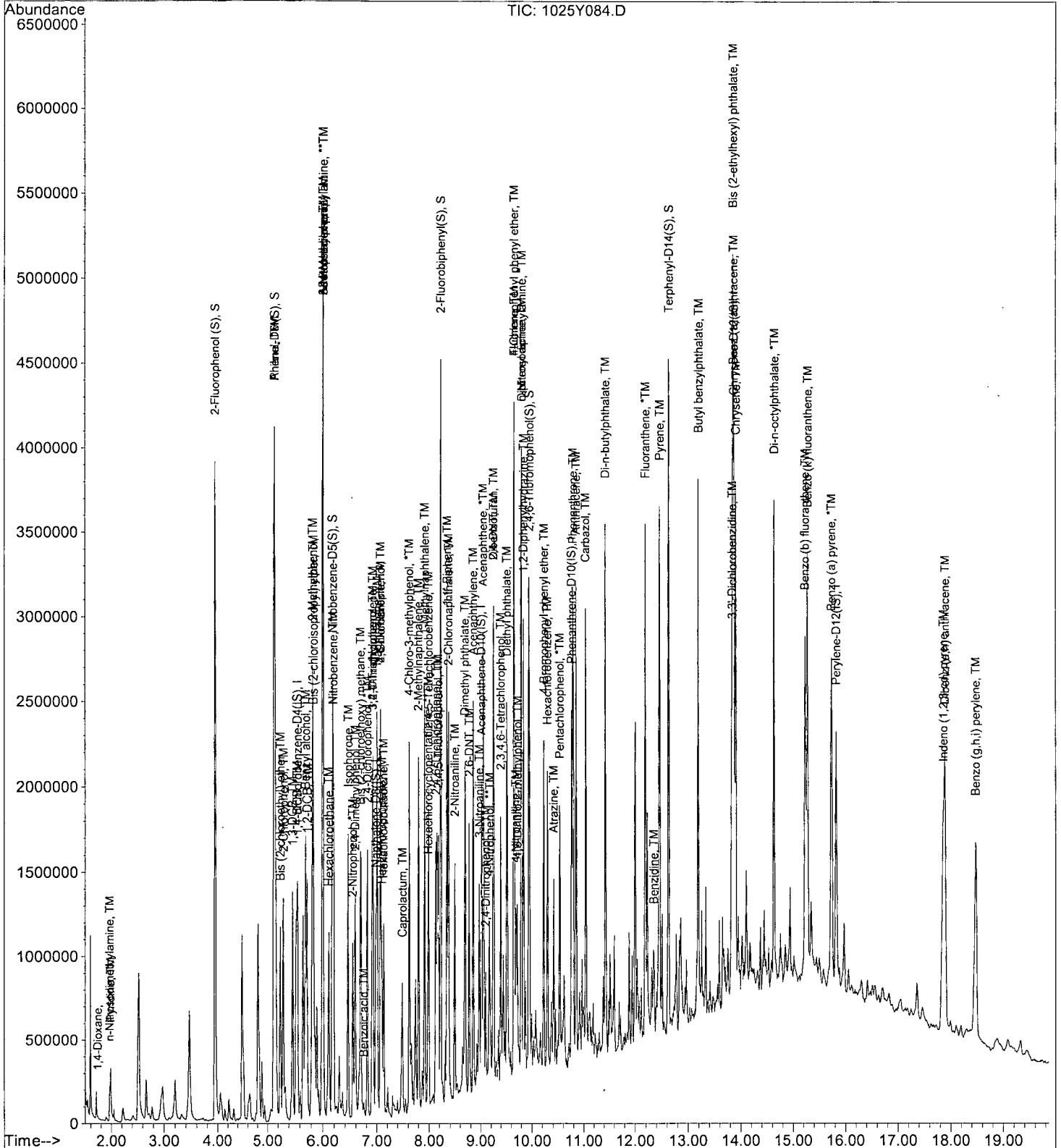
Data File : M:\YODA\DATA\Y181025\1025Y084.D  
Acq On : 30 Oct 18 13:48  
Sample : 181024A LCS-1 1/800  
Misc :

Vial: 84  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Oct 30 14:22 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y181025\1025Y085.D  
 Acq On : 30 Oct 18 14:16  
 Sample : 181024A LCSD-1 1/800  
 Misc :

Vial: 85  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Oct 30 14:23 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	243855	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1052353	40.0000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.01	164	609125	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1131357	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1010602	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1100500	40.0000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	1940199	253.1153	ppb	0.00
Spiked Amount	250.000		Recovery	=	101.246%	
6) Phenol-D6 (S)	5.13	99	2324168	255.0622	ppb	0.00
Spiked Amount	250.000		Recovery	=	102.025%	
22) Nitrobenzene-D5 (S)	6.17	82	1236171	130.1049	ppb	0.00
Spiked Amount	125.000		Recovery	=	104.084%	
46) 2-Fluorobiphenyl (S)	8.22	172	2069953	101.9057	ppb	0.00
Spiked Amount	125.000		Recovery	=	81.525%	
64) 2,4,6-Tribromophenol (S)	9.95	330	524450	213.2537	ppb	0.00
Spiked Amount	250.000		Recovery	=	85.302%	
82) Terphenyl-D14 (S)	12.63	244	1954578	91.3264	ppb	0.00
Spiked Amount	125.000		Recovery	=	73.061%	

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.74	58	3700	6.2282		79
3) n-Nitrosodimethylamine	1.98	42	105947	67.5579	ppb	96
4) Pyridine	1.99	79	100152	42.6968	ppb	90
7) Phenol	5.15	94	759486	62.3025	ppb	92
8) Aniline	5.15	66	681646	69.9495	ppb	# 70
9) Bis (2-chloroethyl) ether	5.24	63	455367	71.4251	ppb	99
10) 2-Chlorophenol	5.30	128	594151	62.6039	ppb	98
11) 1,3-DCB	5.47	146	539200	54.8538	ppb	98
12) 1,4-DCB	5.56	146	548998	55.7505	ppb	98
13) Benzyl alcohol	5.70	108	412575	67.1772	ppb	99
14) 1,2-DCB	5.73	146	532642	56.9201	ppb	98
15) 2-Methylphenol	5.82	107	501628	66.3836	ppb	99
16) Bis (2-chloroisopropyl) et	5.84	45	814508	67.4941	ppb	99
17) Acetophenone	6.01	105	675560	72.8230	ppb	90
18) 3&4-Methylphenol	6.00	107	1012652	143.8290	ppb	94
19) n-Nitrosodi-n-propylamine	6.01	70	389179	61.9512	ppb	91
20) Hexachloroethane	6.11	117	191878	51.8386	ppb	99
23) Nitrobenzene	6.20	77	695381	66.7806	ppb	99
24) Isophorone	6.46	82	1105573	60.0672	ppb	99
25) 2-Nitrophenol	6.55	139	320032	60.5349	ppb	98
26) 2,4-Dimethylphenol	6.59	122	454417	51.3369	ppb	96
27) Benzoic acid	6.77	105	26465	7.6758	ppb	97
28) Bis (2-chloroethoxy) metha	6.70	93	698568	67.4099	ppb	99
29) 2,4-Dichlorophenol	6.82	162	502273	64.3771	ppb	97
30) 1,2,4-Trichlorobenzene	6.92	180	459614	56.7223	ppb	99
31) 3,4-Dimethylphenol	6.93	107	752726	62.7947	ppb	96
32) Napthalene	7.01	128	1692631	62.0780	ppb	100
33) 4-Chloroaniline	7.07	127	540317	52.9130	ppb	97
34) 2,6-Dichlorophenol	7.08	162	474892	66.5156	ppb	96
35) Hexachloropropene	7.10	213	300510	55.5050	ppb	97
36) Hexachlorobutadiene	7.14	225	251653	56.1372	ppb	98
37) Caprolactum	7.49	55	317257	66.4154	ppb	99

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

Data File : M:\YODA\DATA\Y181025\1025Y085.D  
 Acq On : 30 Oct 18 14:16  
 Sample : 181024A LCSD-1 1/800  
 Misc :

Vial: 85  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Oct 30 14:23 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	551808	65.8691	ppb	99
39) 2-Methylnaphthalene	7.81	142	1080328	62.8433	ppb	99
40) 1-Methylnaphthalene	7.92	142	1096169	63.9656	ppb	100
42) Hexachlorocyclopentadiene	7.97	237	113222	24.2705	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	523699	57.4395	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	377185	58.8388	ppb	100
45) 2,4,5-Trichlorophenol	8.19	196	403441	59.4436	ppb	96
47) 1,1'-Biphenyl	8.34	154	1393932	58.2675	ppb	99
48) 2-Chloronaphthalene	8.37	162	1118426	58.7029	ppb	100
49) 2-Nitroaniline	8.49	65	404589	61.5127	ppb	96
50) Dimethyl phthalate	8.70	163	1276298	57.7679	ppb	100
51) 2,6-DNT	8.77	165	311056	60.9912	ppb	# 79
52) Acenaphthylene	8.86	152	1799609	58.5551	ppb	100
53) 3-Nitroaniline	8.98	138	340271	59.6678	ppb	94
54) Acenaphthene	9.06	154	1088509	58.4669	ppb	100
55) 2,4-Dinitrophenol	9.10	184	174829	54.7190	ppb	94
56) 4-Nitrophenol	9.17	65	260315	59.0587	ppb	95
57) Dibenzofuran	9.25	168	1563170	60.8370	ppb	97
58) 2,4-DNT	9.25	165	404270	62.2435	ppb	95
59) 2,3,4,6-Tetrachlorophenol	9.40	232	317980	56.7674	ppb	98
60) Diethyl phthalate	9.52	149	1295322	60.9132	ppb	100
61) 4-Chlorophenyl phenyl ethe	9.65	204	514544	61.8251	ppb	96
62) Fluorene	9.66	166	1060751	58.1440	ppb	99
63) 4-Nitroaniline	9.70	138	314491	52.7996	ppb	95
66) 4,6-Dinitro-2-methylphenol	9.73	198	238564	53.6586	ppb	86
67) Diphenyl amine	9.80	169	1753450	113.9595	ppb	99
68) n-Nitrosodiphenylamine	9.80	169	1753450	113.9595	ppb	99
69) 1,2-Diphenylhydrazine	9.84	77	1399986	57.5745	ppb	96
70) 4-Bromophenyl phenyl ether	10.23	248	378439	61.4312	ppb	98
71) Hexachlorobenzene	10.29	284	331051	51.0943	ppb	100
72) Atrazine	10.42	200	155762	27.6548	ppb	97
73) Pentachlorophenol	10.54	266	221189	55.1721	ppb	99
74) Phenanthrene	10.79	178	1643919	52.0029	ppb	99
75) Anthracene	10.85	178	1678093	51.6059	ppb	100
76) Carbazol	11.05	167	1569014	51.6362	ppb	99
77) Di-n-butylphthalate	11.43	149	1914265	54.4087	ppb	100
78) Fluoranthene	12.19	202	1746515	51.4821	ppb	99
80) Benzidine	12.35	184	38925	3.3875	ppb	# 85
81) Pyrene	12.46	202	1799427	53.8493	ppb	100
83) Butyl benzylphthalate	13.19	149	880139	58.9763	ppb	99
84) 3,3'-Dichlorobenzidine	13.82	252	508502	46.6919	ppb	98
85) Benz (a) anthracene	13.86	228	1291159	45.4857	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1868812	99.6578	ppb	99
87) Chrysene	13.91	228	1602208	53.6527	ppb	100
88) Di-n-octylphthalate	14.63	149	2122357	60.8674	ppb	99
90) Benzo (b) fluoranthene	15.23	252	1854635	56.2204	ppb	99
91) Benzo (k) fluoranthene	15.27	252	1523626	48.4709	ppb	100
92) Benzo (a) pyrene	15.73	252	1551639	51.7019	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.84	276	1701800	48.9446	ppb	97
94) Dibenz (a,h) anthracene	17.89	278	1580036	53.5004	ppb	99
95) Benzo (g,h,i) perylene	18.47	276	1510129	53.6038	ppb	97

(#) = qualifier out of range (m) = manual integration  
 1025Y085.D Y1025NC.M Fri Nov 02 14:50:44 2018

Quantitation Report

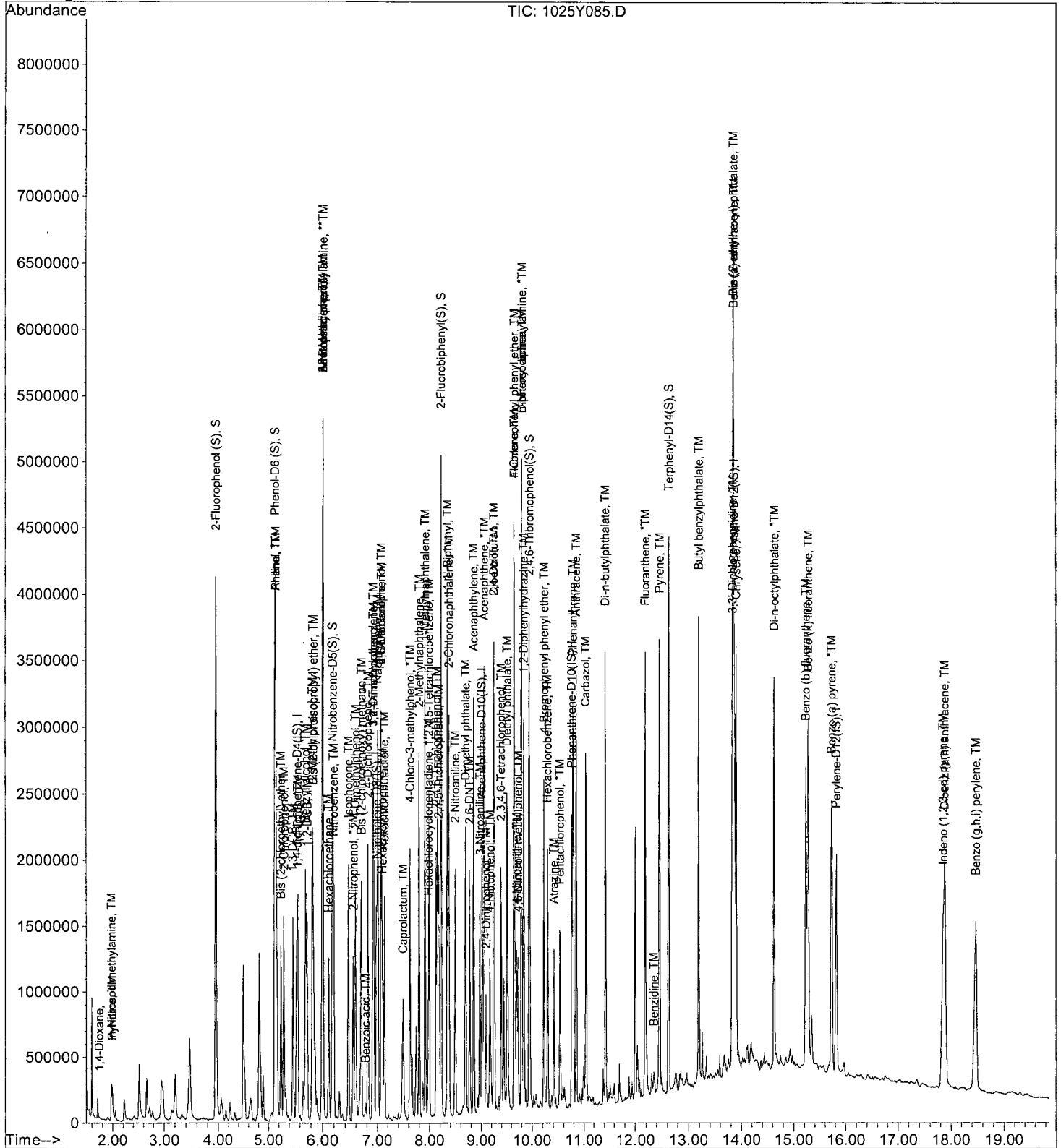
Data File : M:\YODA\DATA\Y181025\1025Y085.D  
Acq On : 30 Oct 18 14:16  
Sample : 181024A LCSD-1 1/800  
Misc :

Vial: 85  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

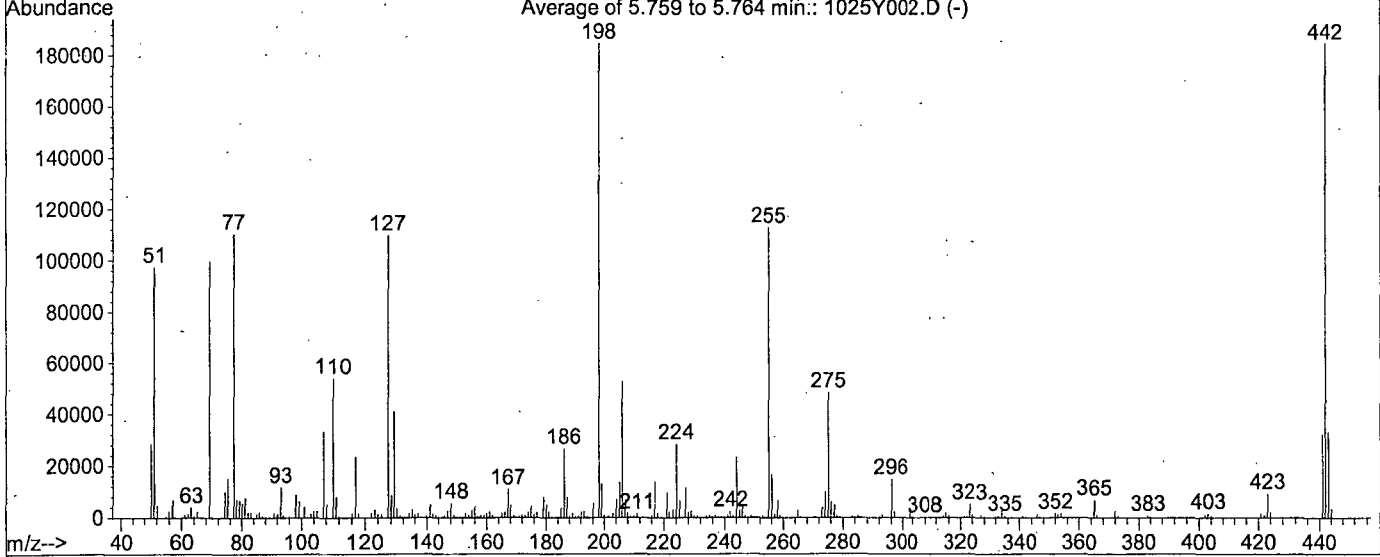
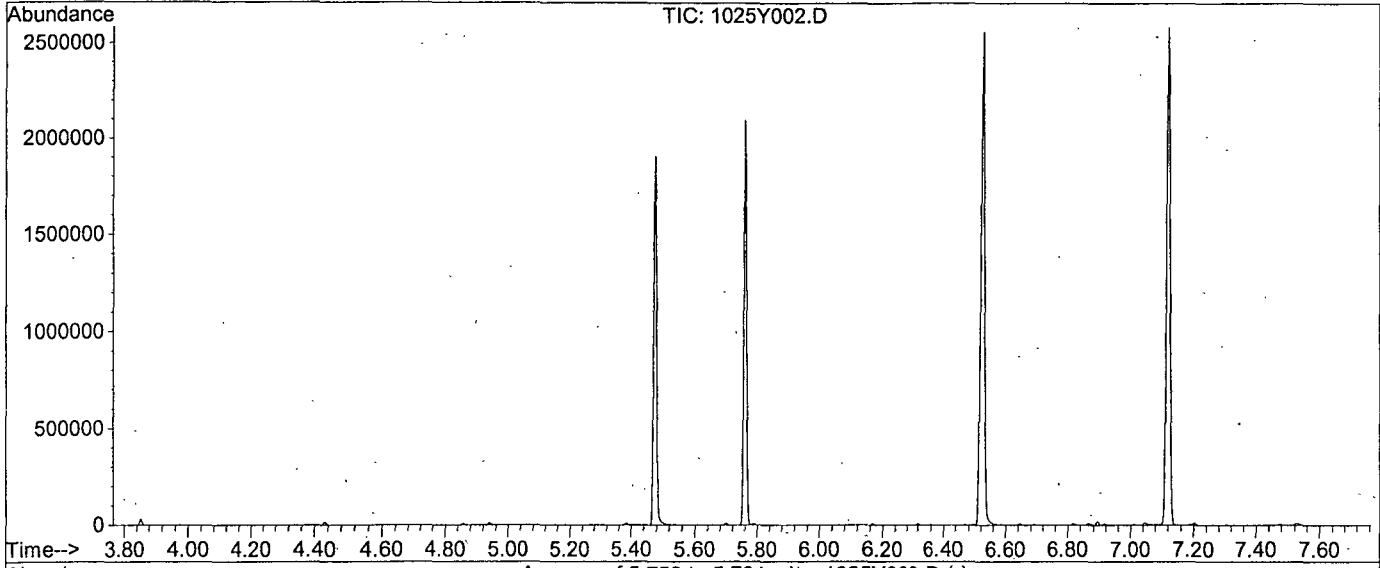
Quant Time: Oct 30 14:23 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y181025\1025Y002.D Vial: 2  
 Acq On : 25 Oct 18 11:17 Operator: MA  
 Sample : SV Tune 03/07/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C



AutoFind: Scans 870, 871, 872; Background Corrected with Scan 862

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	52.8	97467	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.4	371	PASS
127	198	10	80	59.4	109768	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	184661	PASS
199	198	5	9	7.1	13044	PASS
275	198	10	60	26.1	48283	PASS
365	198	1	100	3.7	6805	PASS
441	442	0.01	24	17.3	32043	PASS
442	198	50	150	100.0	184749	PASS
443	442	15	24	17.8	32880	PASS



Data File Name: 1025Y002.D  
Data File Path: M:\YODA\DATA\Y181025\  
Operator: MA  
Date Acquired: 25 Oct 2018 11:17  
Method File: DFTPP2.M  
Sample Name: SV Tune 03/07/18  
Vial Number: 2  
Instrument Name: Yoda

#	Name	Ret Time	Target Response
1)	DDT	7.13	19507100
2)	DDD	6.93	122658
3)	DDE	7.09	0

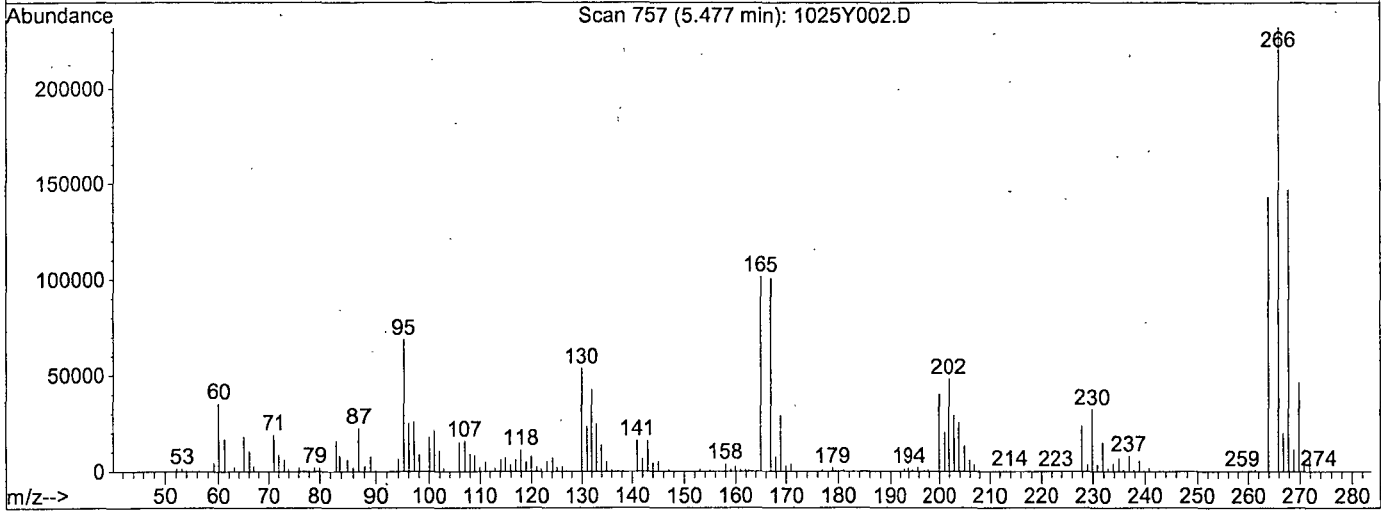
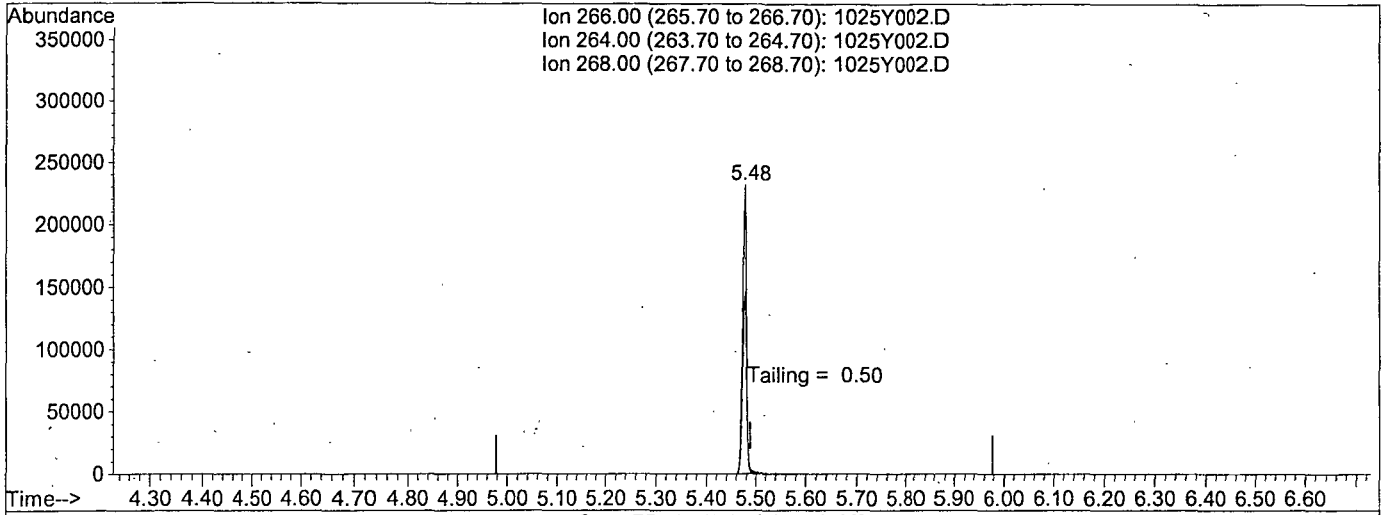
Breakdown 0.62

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y002.D  
Acq On : 25 Oct 18 11:17  
Sample : SV Tune 03/07/18  
Misc :  
Quant Time: Oct 25 13:10 2018

Vial: 2  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00  
Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\DFTPP2.M (Chemstation Integrator)  
Title :  
Last Update : Thu Oct 25 09:06:57 2018  
Response via : Single Level Calibration



TIC: 1025Y002.D

(5) Pentachlorophenol

5.48min 0.0000

response 1348374

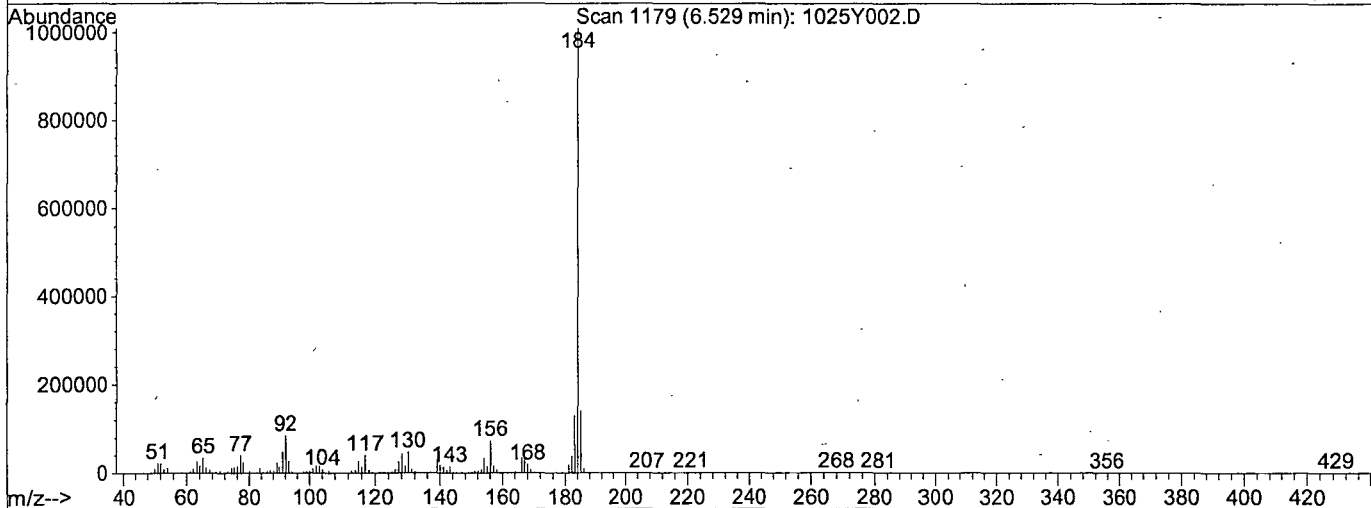
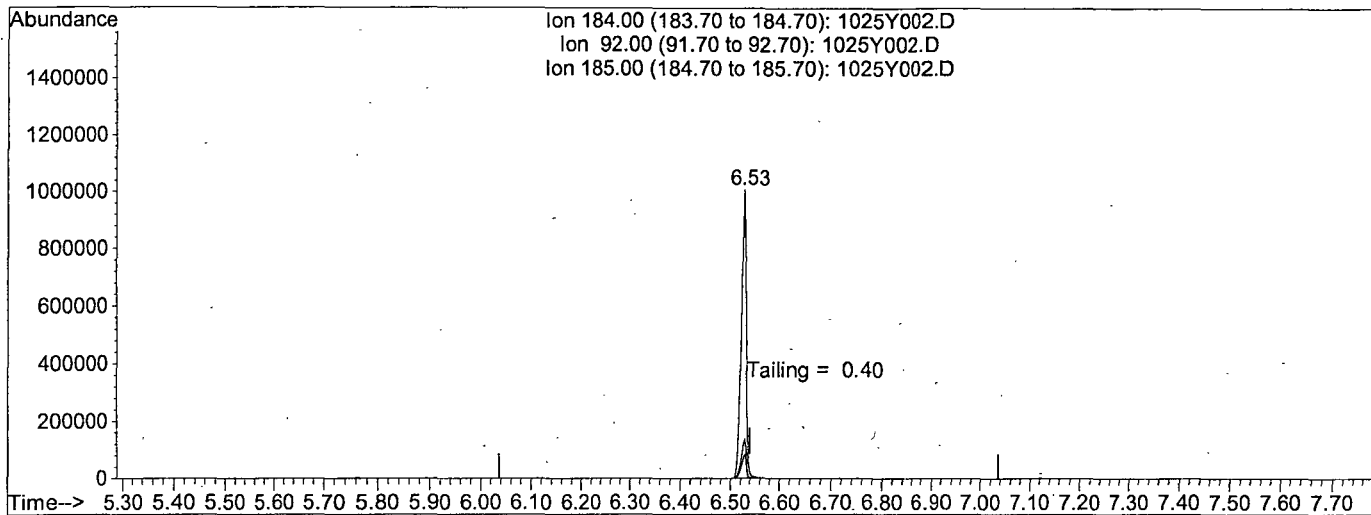
Ion	Exp%	Act%
266.00	100	100
264.00	57.80	62.08
268.00	63.30	62.31
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y002.D  
 Acq On : 25 Oct 18 11:17  
 Sample : SV Tune 03/07/18  
 Misc :  
 Quant Time: Oct 25 13:10 2018

Vial: 2  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Oct 25 09:06:57 2018  
 Response via : Single Level Calibration



TIC: 1025Y002.D

(6) Benzidine

6.53min 0.0000

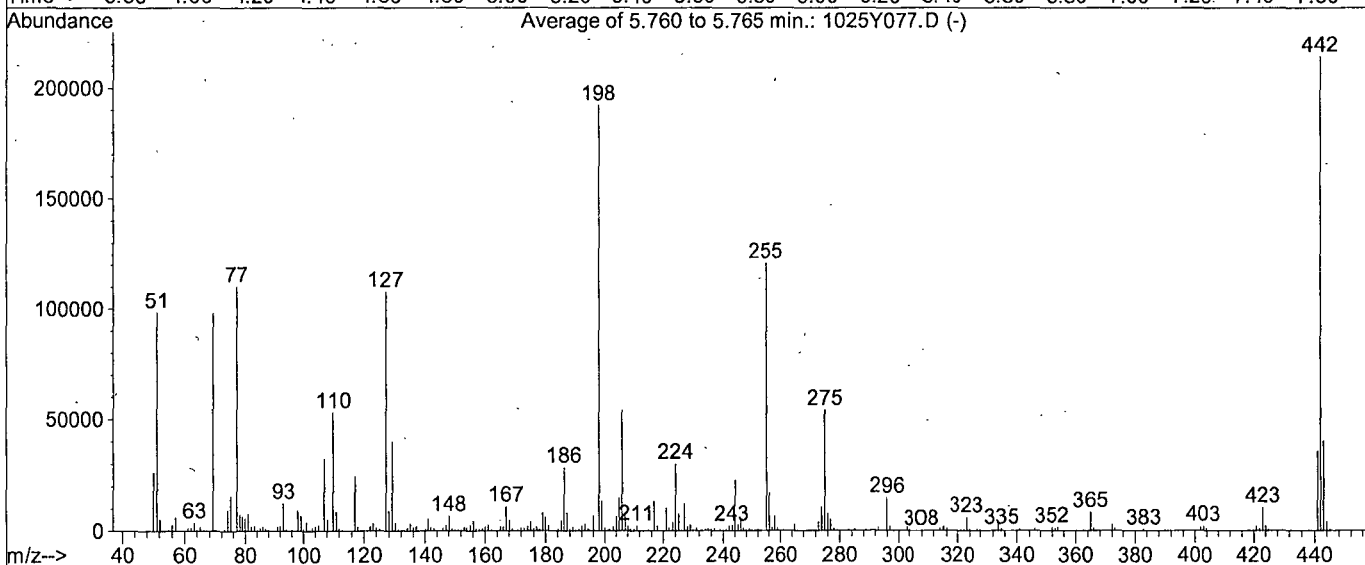
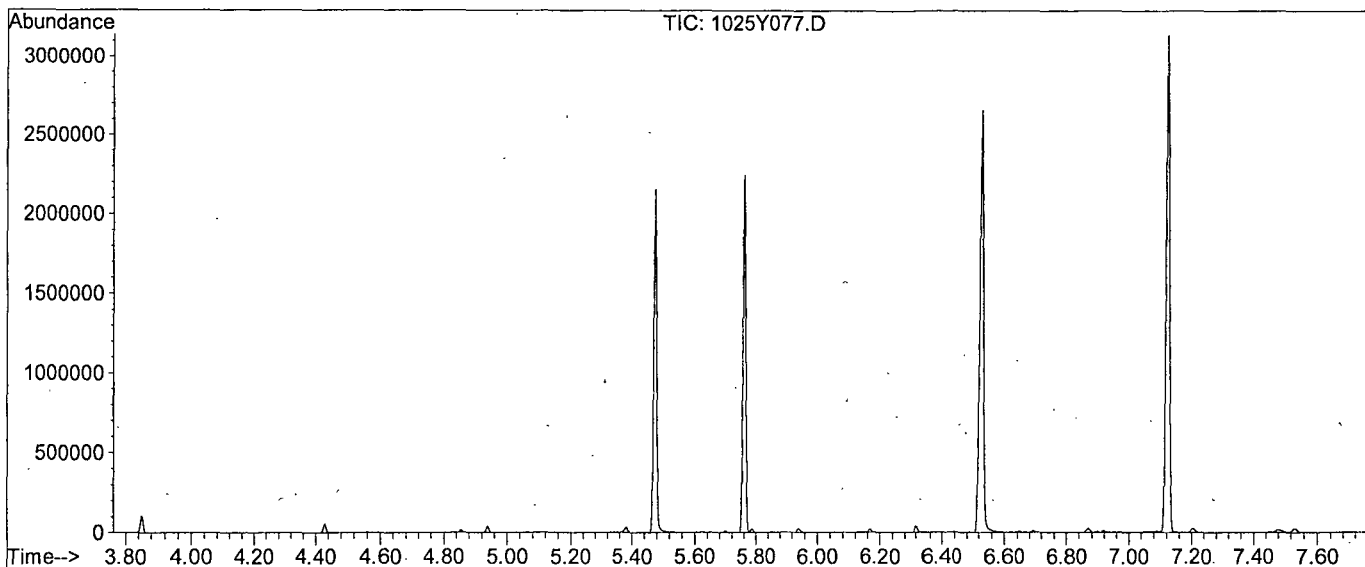
response 7252222

Ion	Exp%	Act%
184.00	100	100
92.00	7.80	8.06
185.00	14.30	14.29
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y181025\1025Y077.D  
 Acq On : 30 Oct 18 9:19  
 Sample : SV TUNE 03/07/18  
 Misc :

Vial: 77  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C



AutoFind: Scans 871, 872, 873; Background Corrected with Scan 862

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	51.1	98363	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	577	PASS
127	198	10	80	56.1	107920	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	192320	PASS
199	198	5	9	6.9	13348	PASS
275	198	10	60	28.0	53925	PASS
365	198	1	100	4.3	8290	PASS
441	442	0.01	24	16.6	35549	PASS
442	198	50	150	111.6	214571	PASS
443	442	15	24	18.8	40248	PASS

M:\YODA\DATA\Y181025\1025Y077.D

Data File Name: 1025Y077.D  
Data File Path: M:\YODA\DATA\Y181025\  
Operator: MA  
Date Acquired: 30 Oct 2018 09:19  
Method File: DFTPP2.M  
Sample Name: SV TUNE 03/07/18  
Vial Number: 77  
Instrument Name: Yoda

#	Name	Ret Time	Target Response
1)	DDT	7.12	22598100
2)	DDD	6.91	227715
3)	DDE	7.03	0

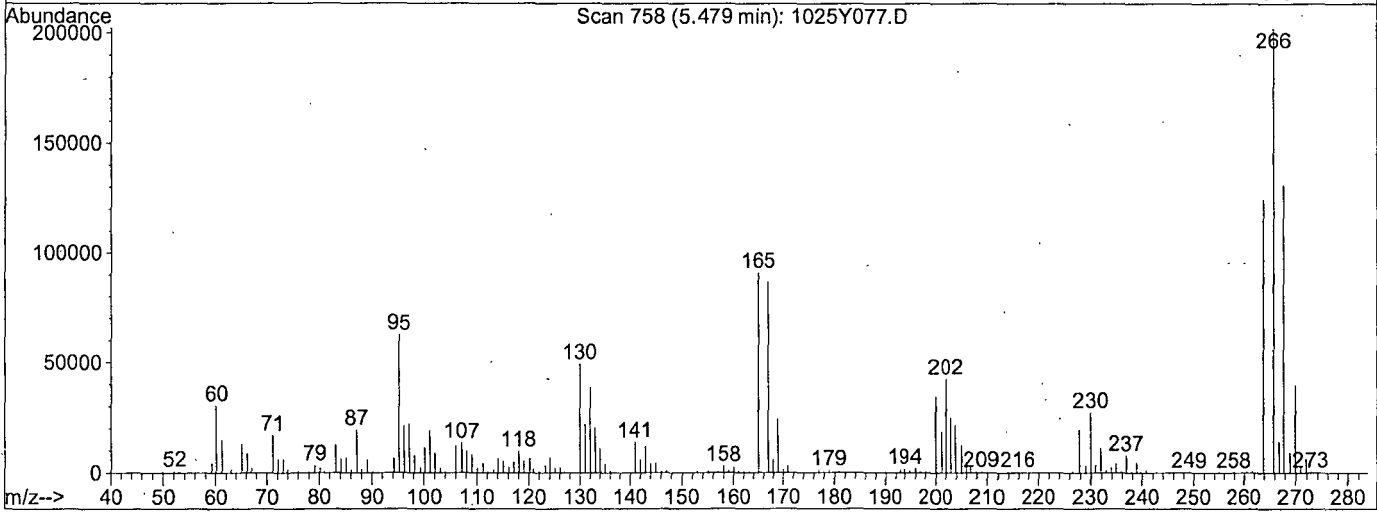
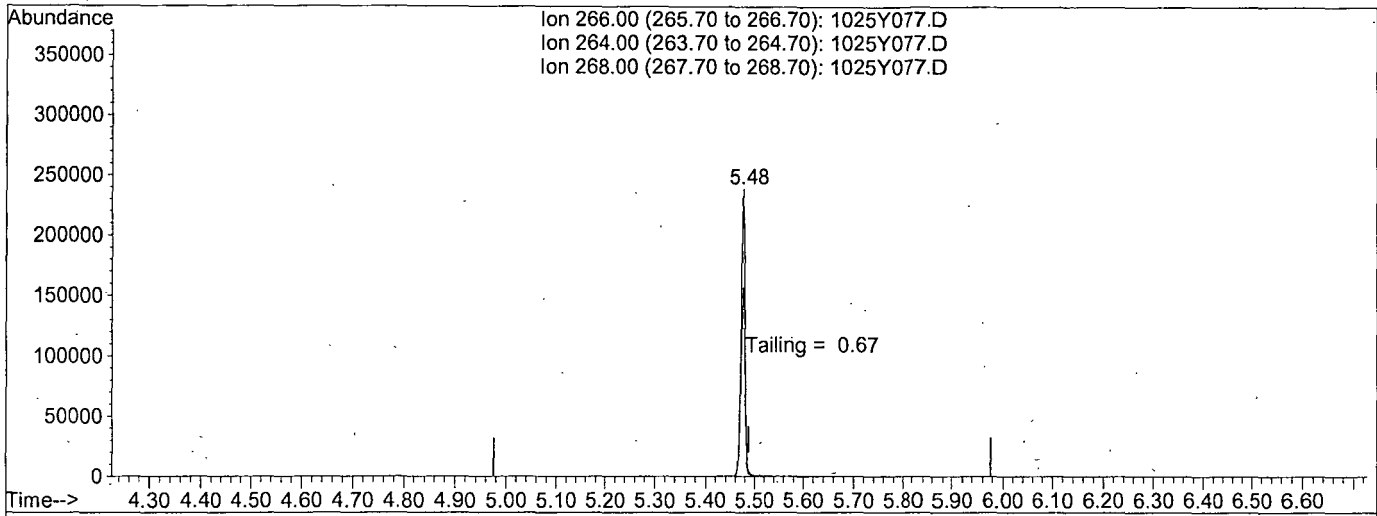
Breakdown 1.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y077.D  
 Acq On : 30 Oct 18 9:19  
 Sample : SV TUNE 03/07/18  
 Misc :  
 Quant Time: Oct 30 9:43 2018

Vial: 77  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Mon Oct 29 16:30:38 2018  
 Response via : Single Level Calibration



TIC: 1025Y077.D

(5) Pentachlorophenol

5.48min 0.0000

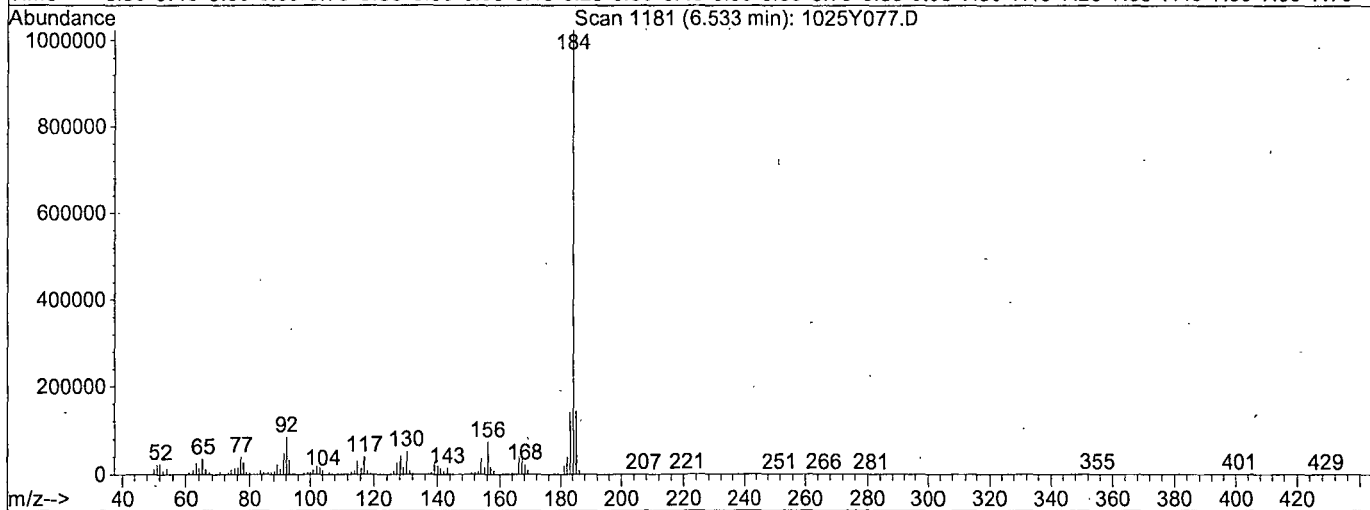
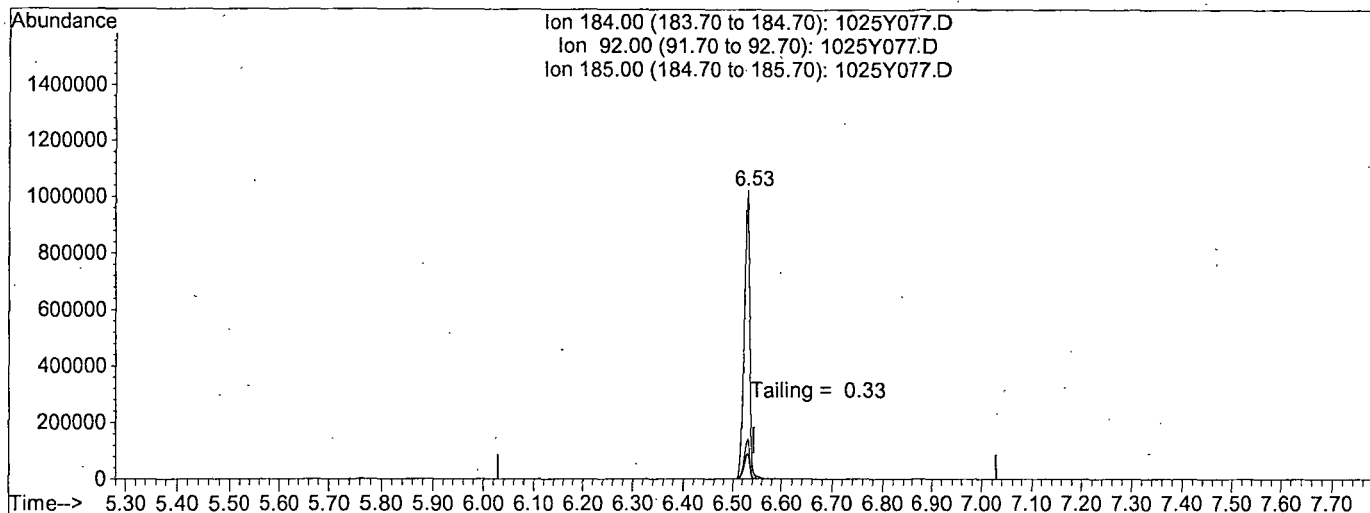
response 1424827

Ion	Exp%	Act%
266.00	100	100
264.00	64.30	64.74
268.00	67.40	63.95
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y077.D Vial: 77  
 Acq On : 30 Oct 18 9:19 Operator: MA  
 Sample : SV TUNE 03/07/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Oct 30 9:43 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Mon Oct 29 16:30:38 2018  
 Response via : Single Level Calibration



TIC: 1025Y077.D

(6) Benzidine  
 6.53min 0.0000  
 response 8026942

Ion	Exp%	Act%
184.00	100	100
92.00	8.80	8.52
185.00	14.30	13.95
0.00	0.00	0.00

Name of Final Standard 8270 Full Scan Standard Curve  
 Prep Date 10/18/18  
 Exp Date 12/19/18

Prep'd By (Initials)

OA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA# (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	4 uL	200uL	MC 56258 192uL	4 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	4 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	5 uL	200uL	MC 56258 190uL	5 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	5 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	5 uL	100uL	MC 56258 90uL	10 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	5 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	10 uL	100uL	MC 56258 80 uL	20 ug/mL



8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	20 uL	100uL	MC 56258 60 uL	40 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	20 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	50 uL	200 uL	MC 56258 100 uL	50 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	30 uL	100uL	MC 56258 40 uL	60 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	30 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	40 uL	100uL	MC 56258 20 uL	80 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	40 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	50 uL	100uL	na	100 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*

Name of Final Standard 8270 Full Scan Second Source  
 Prep Date 10/18/19  
 Exp Date 02/16/19

Prep'd By (Initials) OA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 SS Stock	o2si	8270 SS Stock	200 ug/mL	04/19/18	04/19/19	50 uL	200uL	MC 56258 150uL	50 ug/mL
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	4 uL	*	*	*

8270 Full Scan Stock						
	12/19/17 -GA					
8270 Source Stock						
Exp:	12/19/18					
Supplier	ID #	Conc.	Lot #	Date	Exp.	µL
Absolute	10001	2000	012317-38399 012317-38400	12/19/17	12/19/18	2000
Absolute	10002	2000	062216-37964 062216-37965	12/19/17	12/19/18	2000
Absolute	10004	2000	012516-38188 012516-38508	12/19/17	12/19/18	2000
Absolute	10005	2000	110314-38248 110314-38249	12/19/17	12/19/18	2000
Absolute	10006	2000	021717-38253 021717-38254	12/19/17	12/19/18	2000
Absolute	10007	2000	080116-38258 080116-38259	12/19/17	12/19/18	2000
Absolute	10018	2000	090216-38192 090216-38192	12/19/17	12/19/18	2000
Absolute	70023	1000	091217-038263 091217-038264	12/19/17	12/19/18	2000
Absolute	82705	2000	041217-38268 041217-38269	12/19/17	12/19/18	2000
Absolute	94552	various	102017-38402 102017-38403	12/19/17	12/19/18	2000
				Final Vol.		20000

G34

G34

Name of

Final

Standard 8270 Surrogate 200/400 ppm

Prep'd By (Initials)

GA

Prep Date 06/13/18

Exp Date 05/29/19

Initial Standard Information					Final Standard Information				
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 Acid Surrogate Mix	Restek	33029	10,000 ug/mL	A0130078-38378	05/29/19	200 uL	5 mL	MC 56258	400 ug/mL
8270 B/N Surrogate Mix	Restek	31086	5000 ug/mL	A0130555-38549	06/04/19	200 uL	*	*	200 ug/mL

Name of  
Final  
Standard

**8270 SS STOCK**

Prep'd By (Initials)

OA

Prep Date 04/19/18

Exp Date 04/19/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
	Absolute	10001	2000	G34-081717-38180	04/19/19	1.0 mL	10 mL	NA	2000 ug/mL
	Absolute	10002	2000	G34-020217-38183	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10004	2000	010815-38624	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10005	2000	041317-37803	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10006	2000	011718-38826	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10007	2000	020515-38628	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10018	2000	G34-030216-38198	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	70023	1000	013118-38829	04/19/19	1.0 mL	*	*	1000 ug/mL
	Absolute	82705	2000	090617-38831	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	94552	various	013118-38824	04/19/19	1.0 mL	*	*	various

Name of  
 Final **8270 Surrogate 100/200**  
 Standard **ppm**

Prep'd By (Initials) **GA**

Prep Date **09/07/18**  
 Exp Date **03/07/19**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 Acid Surrogate Mix	Restek	33029	10,000 ug/mL	A0132399-38918 & A0132399 39394	07/11/2019 09/07/19	5.0 mL	250 mL	Acetone #030817A	200 ug/mL
8270 B/N Surrogate Mix	Restek	31086	5000 ug/mL	A0135243-39164 & 39165	08/09/19 09/07/19	5.0 mL	250 mL	*	100 ug/mL

Name of Final Standard 8270 Full Scan Spike      Prep'd By (Initials) OA  
 Prep Date 09/20/18  
 Exp Date 09/20/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc.(range)
10001	Absolute	10001	2000	051018-39432	09/20/19	1.0 mL	10 mL	NA	2000 ug/mL
10002	Absolute	10002	2000	051018-39438	09/20/19	1.0 mL	*	*	2000 ug/mL
10004	Absolute	10004	2000	071618-39442	09/20/19	1.0 mL	*	*	2000 ug/mL
10005	Absolute	10005	2000	110314-38938	09/20/19	1.0 mL	*	*	2000 ug/mL
10006	Absolute	10006	2000	071318-39448	09/20/19	1.0 mL	*	*	2000 ug/mL
10007	Absolute	10007	2000	080116-38946	09/20/19	1.0 mL	*	*	2000 ug/mL
10018	Absolute	10018	2000	062718-39453	09/20/19	1.0 mL	*	*	2000 ug/mL
70023	Absolute	70023	1000	620818-39488	09/20/19	1.0 mL	*	*	1000 ug/mL
82705	Absolute	82705	2000	090617-39227	09/20/19	1.0 mL	*	*	2000 ug/mL
94552	Absolute	94552	various	102017-38956	09/20/19	1.0 mL	*	*	various

Name of Final Standard 8270 Internal Standard (Ampule)  
 Prep Date 10/11/18  
 Exp Date 10/11/19

Prep'd By (Initials) GA

Initial Standard Information					Final Standard Information				
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile Internal Standard	Restek	31206	2mg/mL	A0138585 - 39541 39542	10/11/19	2 mL	2 mL	NA	2mg/mL



Name of  
Final  
Standard Semivolatle (SV) Tuning Solution

Prep'd By (Initials)

GA

Prep Date      03/07/18  
Exp Date      03/07/19

Initial Standard Information					Final Standard Information				
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	<u>Lot # with QA #</u> (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	<u>Final Solvent + Lot#</u> (or APPL Prep Date)	Final Standard Conc (range)
Semivolatle GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38878	03/07/19	1,250 uL	25 mL	MC #56258	50 ug/mL

# Organic Extraction Worksheet

<b>Method</b>	Continuous Liquid/Liquid SVOC 3520C	<b>Extraction Set</b>	181024A	<b>Extraction Method</b>	LIQ003	<b>Units</b>	mL	
Spiked ID 1	8270T Spike 10-9-18 EXP 10-9-19	Surrogate ID 1	8270 Surrogate 9-27-18 EXP 3-27-19					
Spiked ID 2	Sim Spike 9-27-18 EXP 3-24-19	Surrogate ID 2	SIM Surrogate 9-27-18 EXP 9-27-19					
Spiked ID 3		Surrogate ID 3						
Spiked ID 4		Surrogate ID 4						
Spiked ID 5		Surrogate ID 5						
Spiked ID 6		Sufficient Vol for Matrix QC:		YES				
Spiked ID 7		Ext. Start Time:		10/24/18 14:00, 10/25/18 14:30				
Spiked ID 8		Ext. End Time:		10/25/18 9:30, 10/26/18 10:05, 10/30/18 11:45				
		GC Requires Extract By:		10/30/18 0:00				
		pH1	2	10/24/18 2:09:00 PM	Water Bath Temp Criteria			73,75 °C
		pH2	14	10/25/18 2:00:00 PM				
		pH3						

Spiked By: KY

Date 10/24/18

Witnessed By: DL

Date 10/24/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	181024A Blk			1,0.050	1,2	800	1	2/1	10/24/18 14:00	
					equip					
2	181024A LCS-1	0.250	1	1	1	800	1	2/1	10/24/18 14:00	
					equip					
3	181024A LCS-2	0.0250	2	0.050	2	800	1	2/1	10/24/18 14:00	
					equip					
4	181024A LCSD-1	0.250	1	1	1	800	1	2/1	10/24/18 14:00	
					equip					
5	181024A LCSD-2	0.0250	2	0.050	2	800	1	2/1	10/24/18 14:00	
					equip					
6	AZ81584 MS-1 AZ81584W24	0.250	1	1	1	800	1	2/1	10/24/18 14:00	87198
					equip					
7	AZ81584 MSD-1 AZ81584W20	0.250	1	1	1	800	1	2/1	10/24/18 14:00	87198
					equip					
8	AZ81584 MS-2 AZ81584W22	0.0250	2	0.050	2	800	1	2/1	10/24/18 14:00	87198
					equip					
9	AZ81584 MSD-2 AZ81584W26	0.0250	2	0.050	2	800	1	2/1	10/24/18 14:00	87198
					equip					
10	AZ81584 AZ81584W18			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87198
					equip					
11	AZ81585 AZ81585W08			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87198
					equip					
12	AZ81587 AZ81587W10			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87198
					equip					
13	AZ81636 AZ81636W12			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
					equip					
14	AZ81638 AZ81638W09			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
					equip					
15	AZ81640 AZ81640W10			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
					equip					
16	AZ81642 AZ81642W11			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
					equip					

Solvent and Lot#	
PH Strips	HC 727135
Dichloromethane (DCM)	58059
1+1 H2SO4	7-3-18
10N NaOH	10-17-18
Filter Paper	400147
Acidified Na2SO4	10-2-18
B. Na2SO4	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	MP
Date	10/30/18
Time	12:00
Refrigerator	CC-C

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	10/31/18 10:39:53 AM

Reviewed By: *KY* 502 Date 10/31/18

# Organic Extraction Worksheet

<b>Method</b>	Continuous Liquid/Liquid SVOC 3520C	<b>Extraction Set</b>	181024A	<b>Extraction Method</b>	LIQ003	<b>Units</b>	mL	
Spiked ID 1	8270T Spike 10-9-18 EXP 10-9-19	Surrogate ID 1	8270 Surrogate 9-27-18 EXP 3-27-19					
Spiked ID 2	Sim Spike 9-27-18 EXP 3-24-19	Surrogate ID 2	SIM Surrogate 9-27-18 EXP 9-27-19					
Spiked ID 3		Surrogate ID 3						
Spiked ID 4		Surrogate ID 4						
Spiked ID 5		Surrogate ID 5						
Spiked ID 6		Sufficient Vol for Matrix QC:		YES				
Spiked ID 7		Ext. Start Time:		10/24/18 14:00, 10/25/18 14:30				
Spiked ID 8		Ext. End Time:		10/25/18 9:30, 10/24/18 10:05, 10/25/18 11:45				
		GC Requires Extract By:		10/30/18 0:00				
		pH1	2	10/24/18 2:09:00 PM	Water Bath Temp Criteria			73,75 °C
		pH2	14	10/25/18 2:00:00 PM				
		pH3						

Spiked By: KY

Date 10/24/18

Witnessed By: DL

Date 10/24/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17 AZ81644	AZ81644W12			1,0.050	1,2	800	1	2/1	10/24/18 14:00	87212
						equip				
						E-HP12 E-WB6				

Solvent and Lot#	
PH Strips	HC 727135
Dichloromethane (DCM)	58059
1+1 H2SO4	7-3-18
10N NaOH	10-17-18
Filter Paper	400147
Acidified Na2SO4	10-2-18
B. Na2SO4	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	10/31/18 10:39:53 AM

Reviewed By: *Key* 503      Date 10/31/18

## Injection Log

Directory: M:\YODA\DATA\Y181025\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	1025Y002.D	1	SV Tune 03/07/18		25 Oct 18 11:17
3	1025Y003.D	1	4ug/mL 8270 10/18/18		25 Oct 18 11:33
4	1025Y004.D	1	5ug/mL 8270 10/18/18		25 Oct 18 12:01
5	1025Y005.D	1	10ug/mL 8270 10/18/18		25 Oct 18 12:28
6	1025Y006.D	1	20ug/mL 8270 10/18/18		25 Oct 18 12:56
7	1025Y007.D	1	40ug/mL 8270 10/18/18		25 Oct 18 13:24
8	1025Y008.D	1	50ug/mL 8270 10/18/18		25 Oct 18 13:52
9	1025Y009.D	1	60ug/mL 8270 10/18/18		25 Oct 18 14:20
10	1025Y010.D	1	80ug/mL 8270 10/18/18		25 Oct 18 14:48
11	1025Y011.D	1	100ug/mL 8270 10/18/18		25 Oct 18 15:16
12	1025Y012.D	1	SS- 8270 10/18/18		25 Oct 18 15:44
77	1025Y077.D	1	SV TUNE 03/07/18		30 Oct 18 9:19
78	1025Y078.D	1	50ug/mL 8270 10/18/18 (2)		30 Oct 18 9:34
83	1025Y083.D	1.25	181024A BLK 1/800		30 Oct 18 13:20
84	1025Y084.D	1.25	181024A LCS-1 1/800		30 Oct 18 13:48
85	1025Y085.D	1.25	181024A LCSD-1 1/800		30 Oct 18 14:16
91	1025Y091.D	1.25	AZ81636W12 1/800		30 Oct 18 17:03
92	1025Y092.D	1.25	AZ81638W09 1/800		30 Oct 18 17:31
93	1025Y093.D	1.25	AZ81640W10 1/800		30 Oct 18 17:59
94	1025Y094.D	1.25	AZ81642W11 1/800		30 Oct 18 18:27
95	1025Y095.D	1.25	AZ81644W12 1/800		30 Oct 18 18:54
96	1025Y096.D	1	50ug/mL 8270 10/18/18 (2)		30 Oct 18 19:22

**ORGANICS**  
**Calibration Data**

**APPL, INC.**

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 08/01/18  
Instrument: Yoda

Initials: \_\_\_\_\_

0801Y003.D    0801Y005.D    0801Y006.D    0801Y007.D    0801Y004.D    0801Y008.D    0801Y009.D    0801Y010.D

	Compound	1	2	3	4	5	6	7	8			Avg	%RSD	Type	r <sup>2</sup>	Q	MRF
1	I 1,4-dichlorobenzene-D4(IS)																
2	TML 2-(2-Methoxyethoxy)ethanol	0.1397	0.2559	0.2135	0.2096	0.2114	0.2268	0.2198	0.2224			0.21	15	TML	0.998		
3	I Napthalene-D8(IS)																
4	I Acenaphthene-D10(IS)																
5	I Phenanthrene-D10(IS)																
6	I Chrysene-D12(IS)																
7	I Perylene-D12(IS)																
8																	
9																	
10																	
11																	
12																	
13																	
14																	
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32																	
33																	
34																	
35																	

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y003.D Vial: 3  
 Acq On : 1 Aug 18 15:09 Operator: MA  
 Sample : 50ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	423228	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1672731	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	846835	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1554428	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1480723	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1510378	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.90	45	73888	40.09311	ppb	92

Quantitation Report

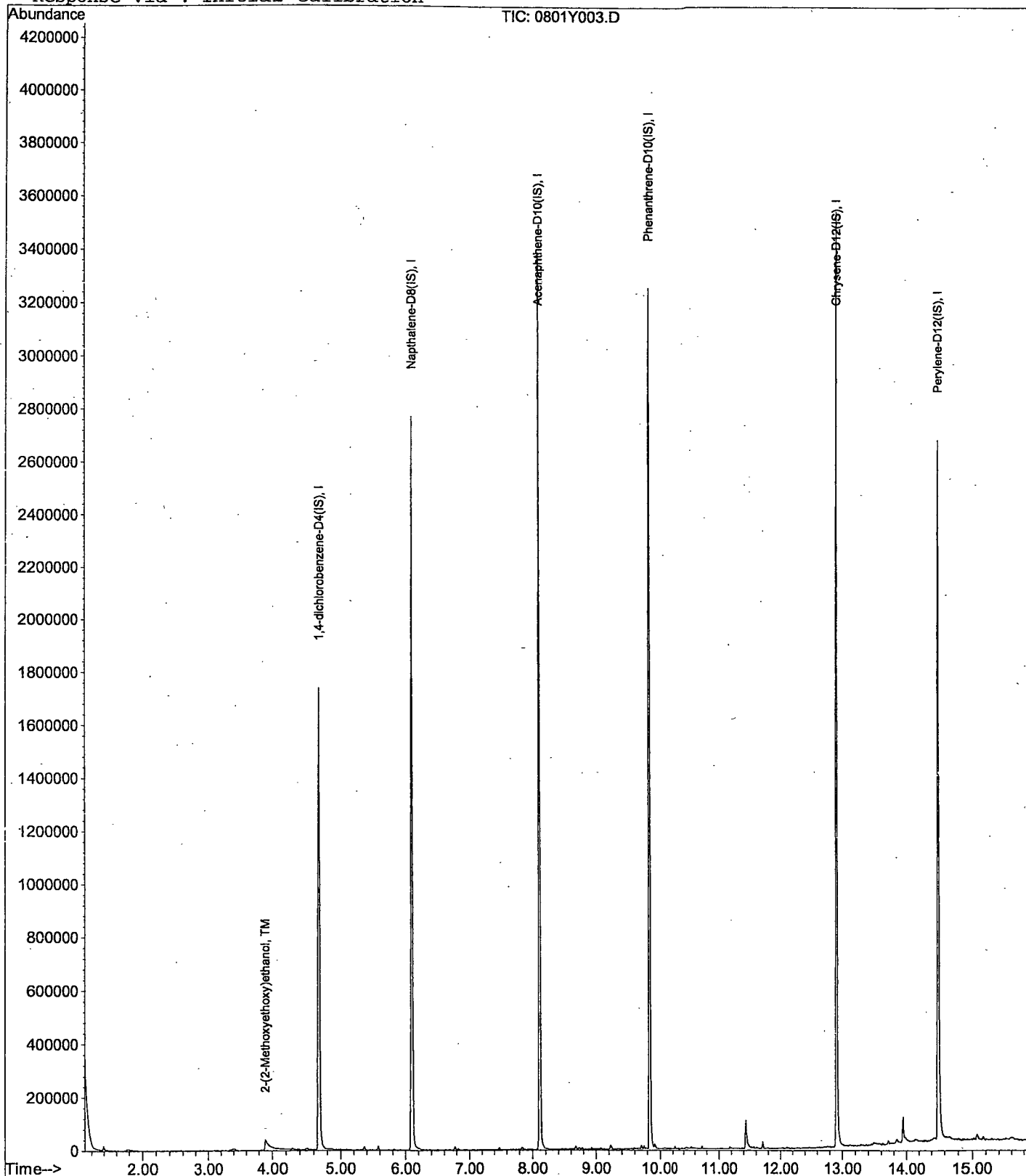
Data File : M:\YODA\DATA\Y180801M\0801Y003.D  
Acq On : 1 Aug 18 15:09  
Sample : 50ug/ml MEE 08/01/18  
Misc : soil

Vial: 3  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration





Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y004.D	Vial: 4
Acq On : 1 Aug 18 15:34	Operator: MA
Sample : 500ug/ml MEE 08/01/18	Inst : Yoda
Misc : soil	Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	444036	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1697285	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	865268	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.83	188	1608326	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1531073	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1598774	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.88	45	1173343	482.22697	ppb	99

Quantitation Report

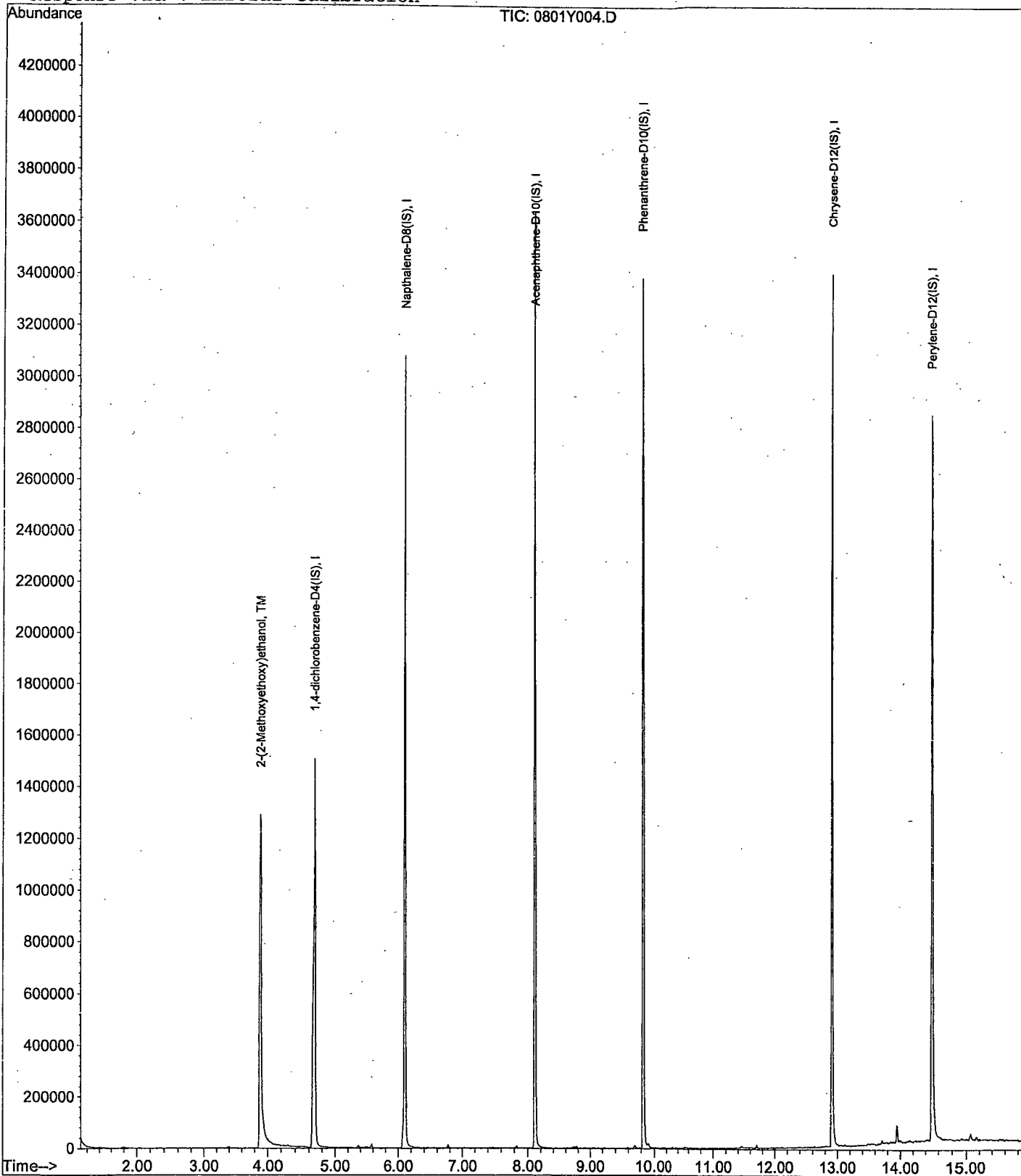
Data File : M:\YODA\DATA\Y180801M\0801Y004.D  
Acq On : 1 Aug 18 15:34  
Sample : 500ug/ml MEE 08/01/18  
Misc : soil

Vial: 4  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y005.D Vial: 5  
 Acq On : 1 Aug 18 16:26 Operator: MA  
 Sample : 100ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	412018	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1553432	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	800497	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1436197	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1368694	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1351563	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.87	45	263617	123.44322	ppb	99

Quantitation Report

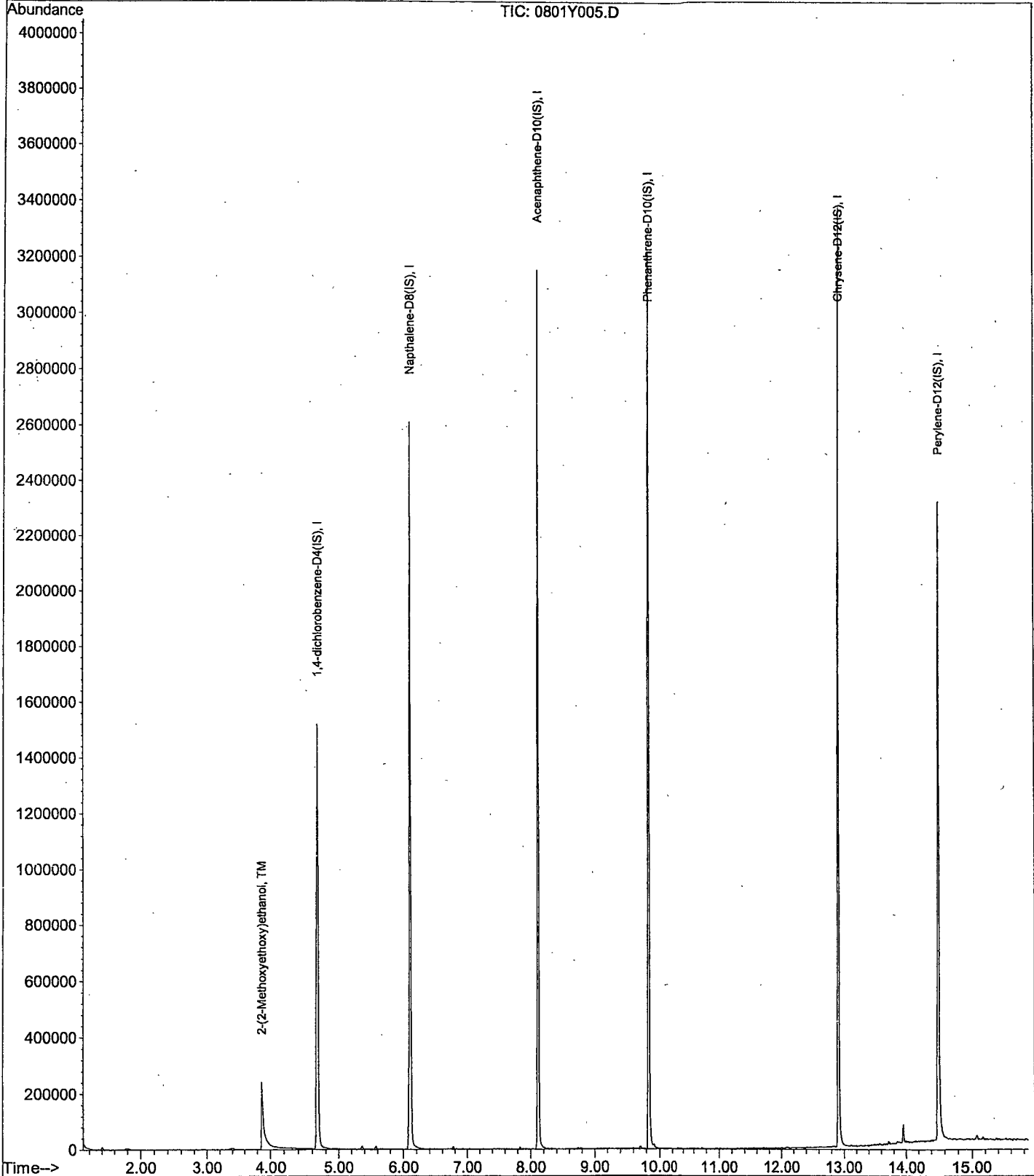
Data File : M:\YODA\DATA\Y180801M\0801Y005.D  
Acq On : 1 Aug 18 16:26  
Sample : 100ug/ml MEE 08/01/18  
Misc : soil

Vial: 5  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y006.D  
 Acq On : 1 Aug 18 16:51  
 Sample : 200ug/ml MEE 08/01/18  
 Misc : soil

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	408598	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1570821	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	801658	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1450305	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1375178	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1308796	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.87	45	436085	200.02396	ppb	98

Quantitation Report

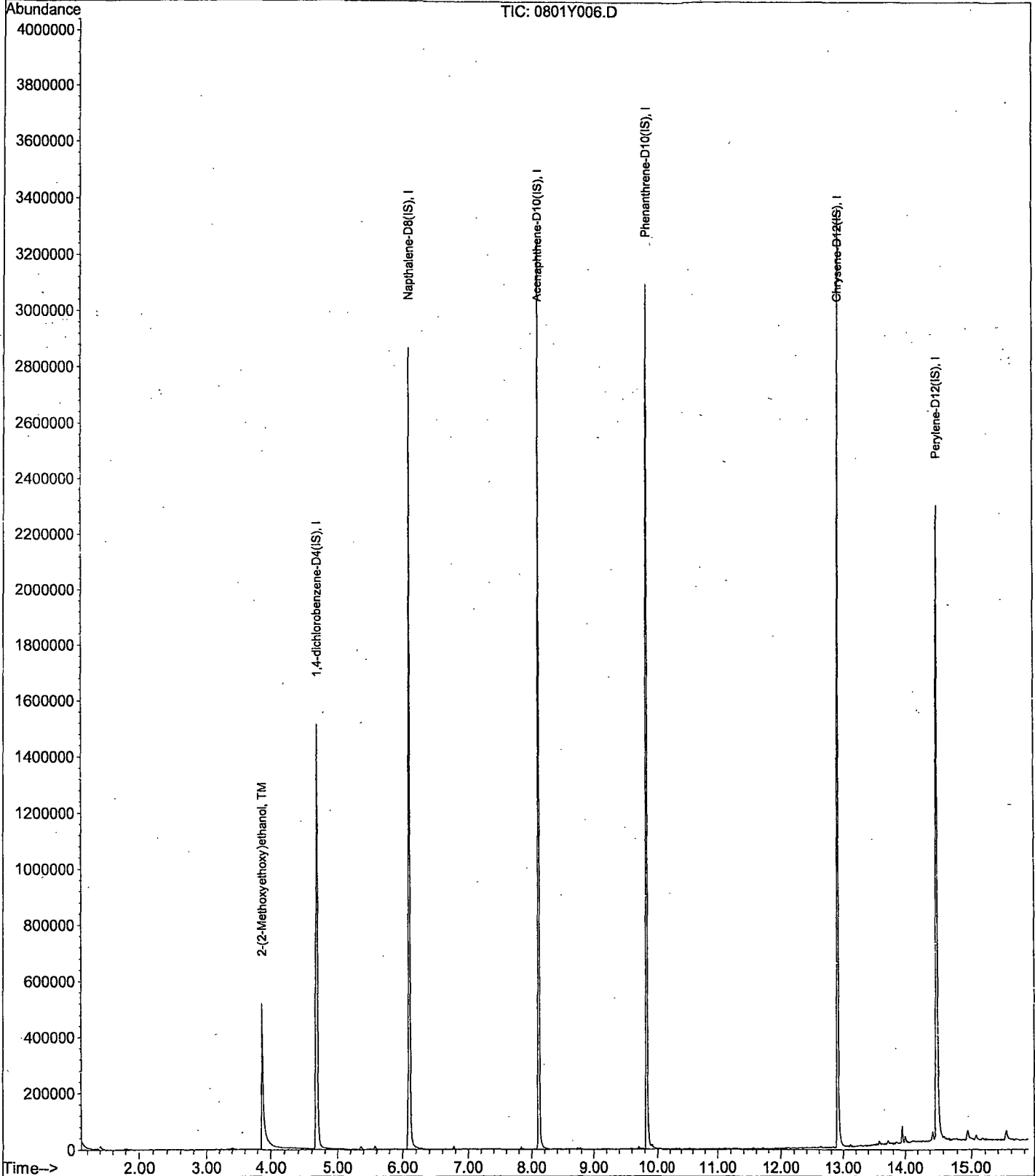
Data File : M:\YODA\DATA\Y180801M\0801Y006.D  
Acq On : 1 Aug 18 16:51  
Sample : 200ug/ml MEE 08/01/18  
Misc : soil

vial: 6  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y007.D Vial: 7  
 Acq On : 1 Aug 18 17:16 Operator: MA  
 Sample : 400ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	404706	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1558208	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	769410	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.83	188	1420741	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1352975	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.50	264	1257373	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.87	45	848145	384.27446	ppb	97

Quantitation Report

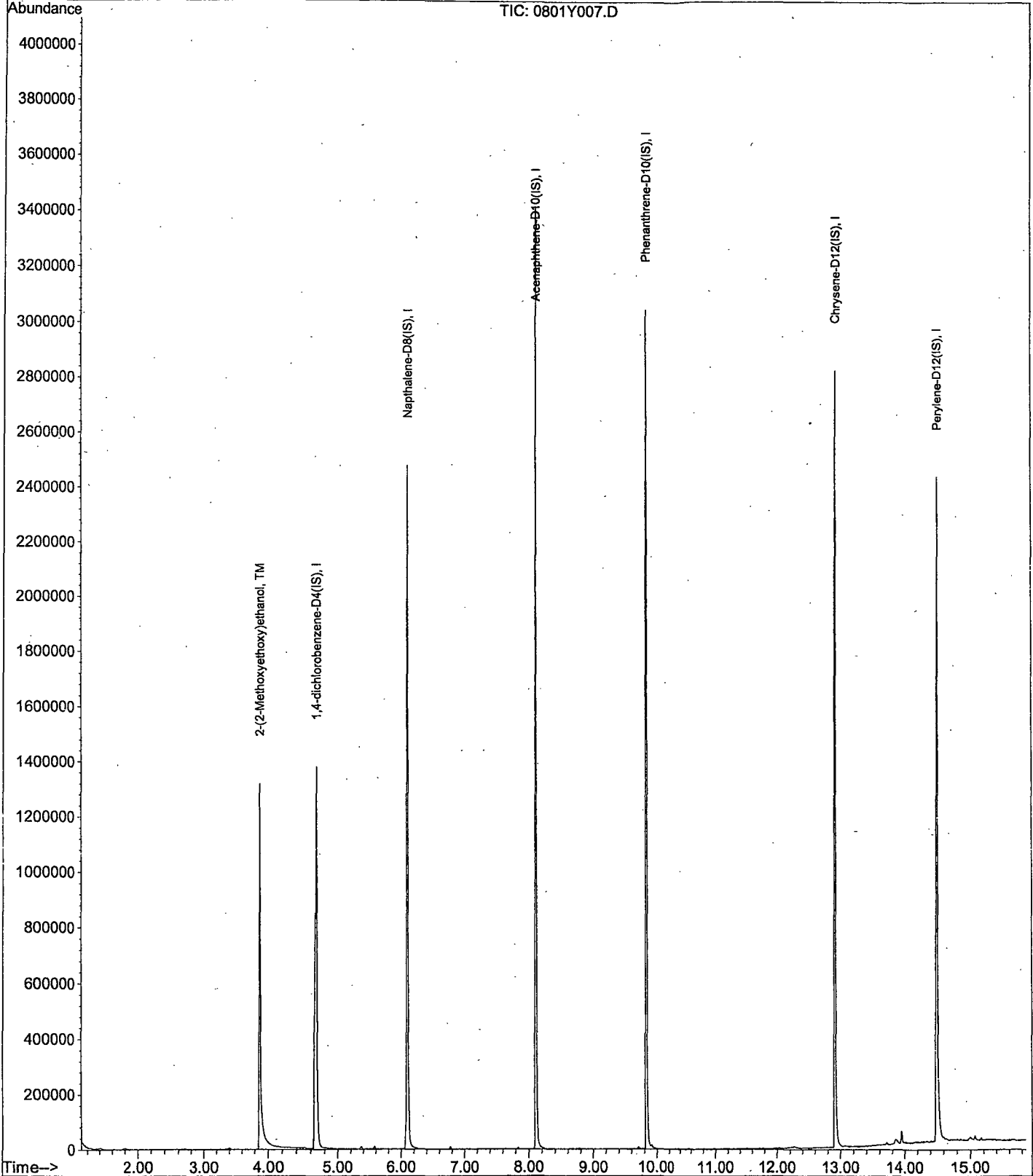
Data File : M:\YODA\DATA\Y180801M\0801Y007.D  
Acq On : 1 Aug 18 17:16  
Sample : 400ug/ml MEE 08/01/18  
Misc : soil

Vial: 7  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



516



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y008.D Vial: 8  
 Acq On : 1 Aug 18 17:41 Operator: MA  
 Sample : 600ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.69	152	405475	40.00000	ppb	0.01
3) Napthalene-D8 (IS)	6.11	136	1552965	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	796436	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.83	188	1490717	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.90	240	1398690	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.50	264	1658322	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.91	45	1379331	618.26307	ppb	97

Quantitation Report

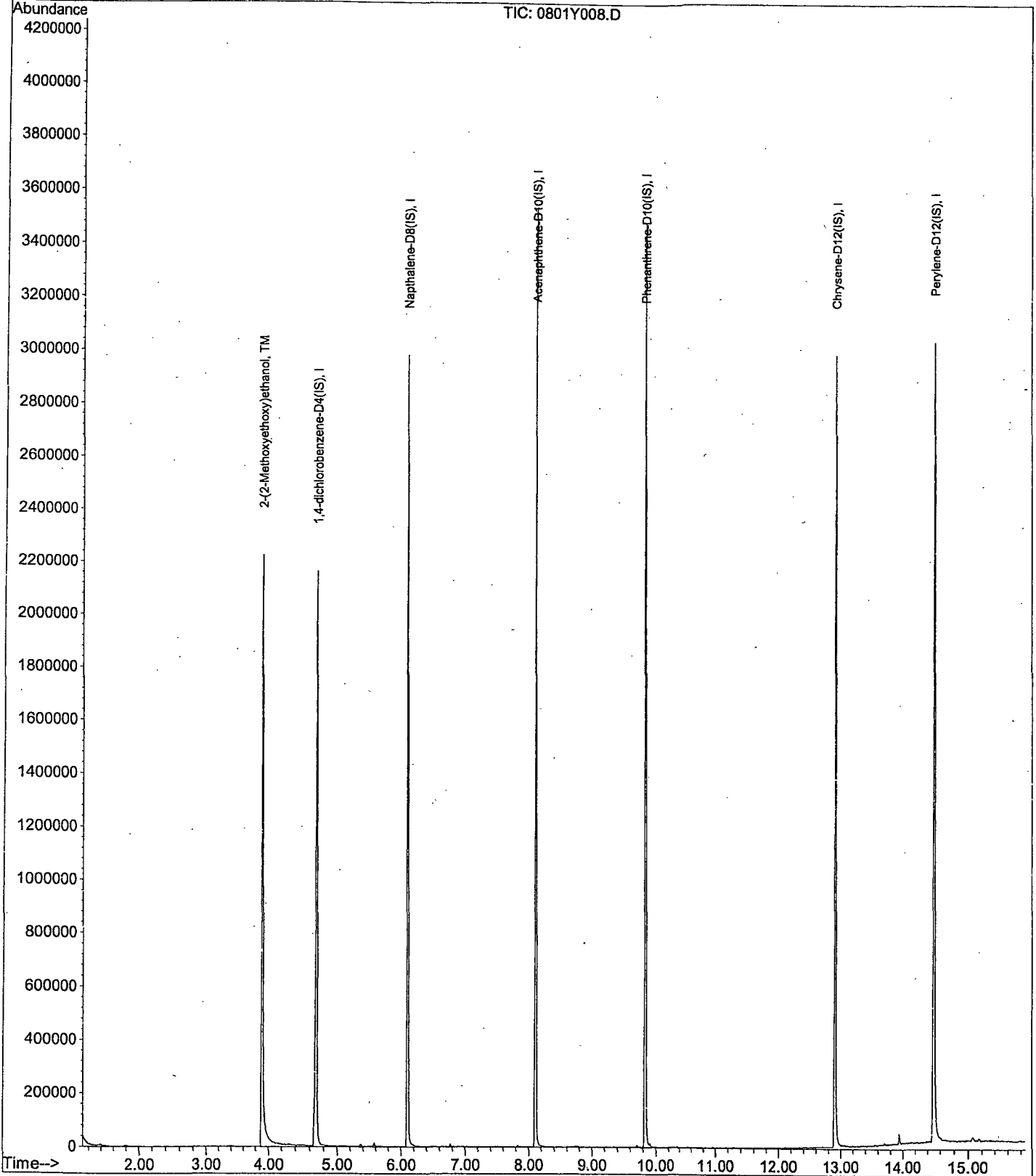
Data File : M:\YODA\DATA\Y180801M\0801Y008.D  
Acq On : 1 Aug 18 17:41  
Sample : 600ug/ml MEE 08/01/18  
Misc : soil

Vial: 8  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y009.D Vial: 9  
 Acq On : 1 Aug 18 18:06 Operator: MA  
 Sample : 800ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.69	152	408320	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1525383	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	796830	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1438835	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1358221	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1353471	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.92	45	1795349	796.55050	ppb	98

Quantitation Report

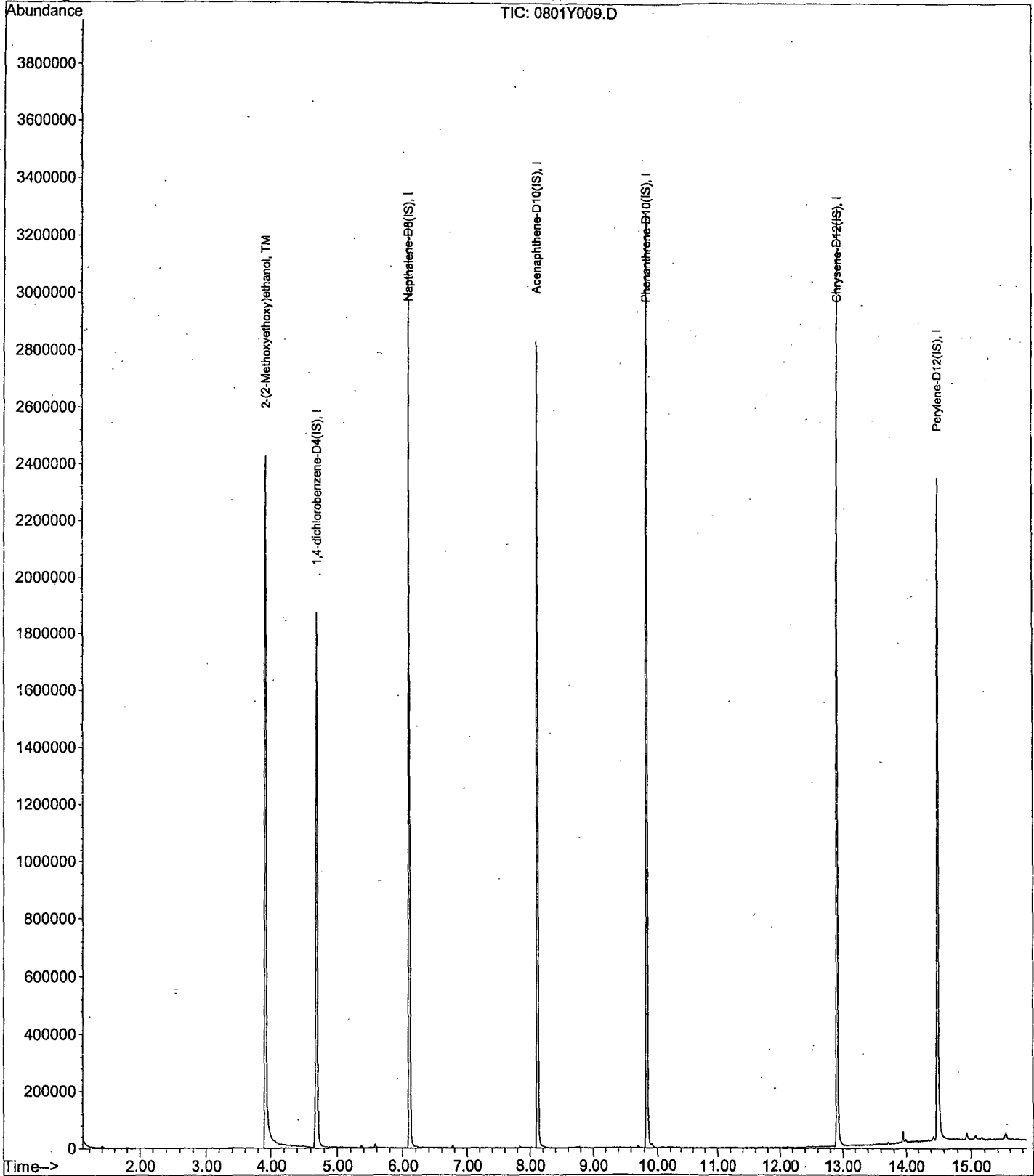
Data File : M:\YODA\DATA\Y180801M\0801Y009.D  
Acq On : 1 Aug 18 18:06  
Sample : 800ug/ml, MEE 08/01/18  
Misc : soil

Vial: 9  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y010.D Vial: 10  
 Acq On : 1 Aug 18 18:31 Operator: MA  
 Sample : 1000ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.69	152	405400	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1531861	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	798997	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1470941	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1395838	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1333379	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.93	45	2254478	1005.12472	ppb	97

Quantitation Report

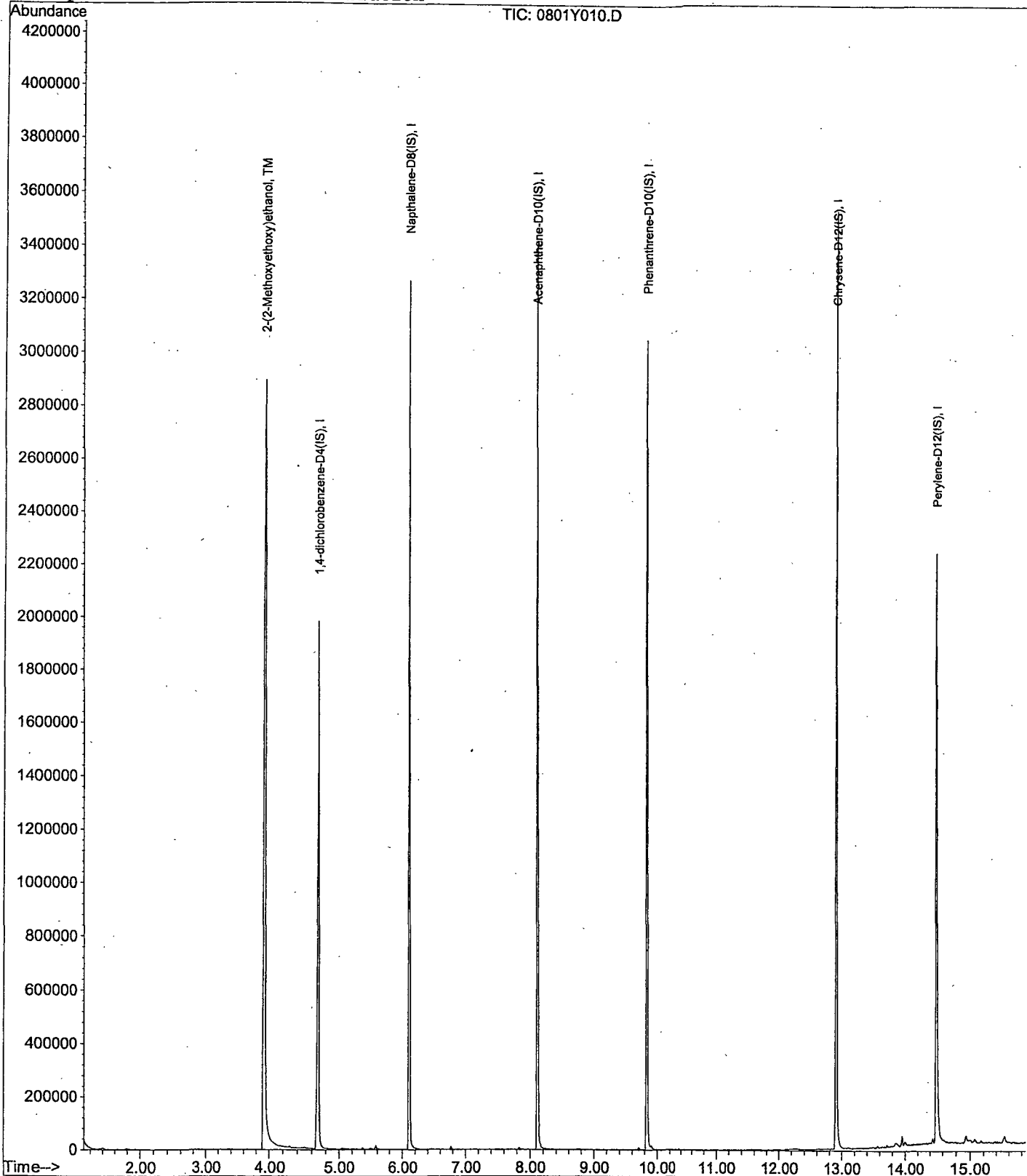
Data File : M:\YODA\DATA\Y180801M\0801Y010.D  
Acq On : 1 Aug 18 18:31  
Sample : 1000ug/ml MEE 08/01/18  
Misc : soil

Vial: 10  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



2MEE  
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 1 Aug 18 18:55

Matrix: \_\_\_\_\_

Instrument: Yoda

Initial Cal. Date: 08/01/18

Data File: 0801Y011.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TML	2-(2-Methoxyethoxy)ethanol	0.2124	0.2617	23	TML	19
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
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30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							

Average

23.0

Data File : M:\YODA\DATA\Y180801M\0801Y011.D Vial: 11  
 Acq On : 1 Aug 18 18:55 Operator: MA  
 Sample : SS ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:31 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:29:28 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	402794	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1509521	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	769368	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1397959	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1355134	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1392217	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.89	45	1317418	594.78167	ppb	98

$$Algo = \frac{(1317418 + 0.0492) \times 40}{0.22 \times 402794} = 594.7 \quad MA \quad 8/2/18$$



Quantitation Report

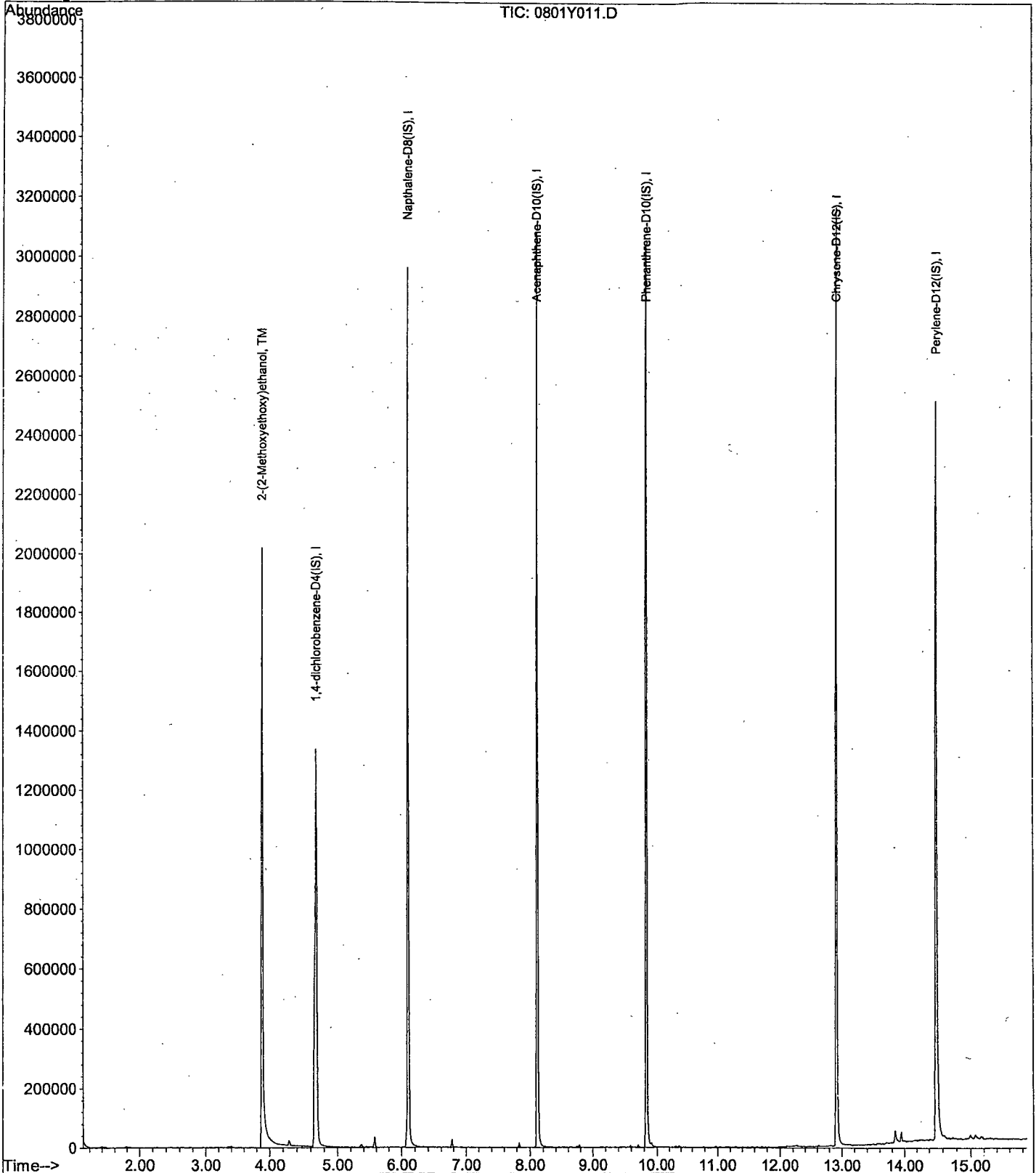
Data File : M:\YODA\DATA\Y180801M\0801Y011.D  
Acq On : 1 Aug 18 18:55  
Sample : SS ug/ml MEE 08/01/18  
Misc : soil

Vial: 11  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:31 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



2MEE  
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/31/18

Matrix: \_\_\_\_\_

Instrument: Yoda

Initial Cal. Date: 08/01/18

Data File: 0801Y070.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I
2	TML	2-(2-Methoxyethoxy)ethanol	0.2124	0.2493	17	TML 13
3	I	Napthalene-D8(IS)	ISTD			I
4	I	Acenaphthene-D10(IS)	ISTD			I
5	I	Phenanthrene-D10(IS)	ISTD			I
6	I	Chrysene-D12(IS)	ISTD			I
7	I	Perylene-D12(IS)	ISTD			I
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40		Average			17.0	

Data File : M:\YODA\DATA\Y180801M\0801Y070.D Vial: 70  
 Acq On : 31 Oct 18 6:51 Operator: MA  
 Sample : 500ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:19 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	357281	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1484912	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	759796	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1392264	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1474563	40.00000	ppb	0.00
7) Perylene-D12 (IS)	15.43	264	2044915	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	4.49	45	1113167	567.00588	ppb	100

Quantitation Report

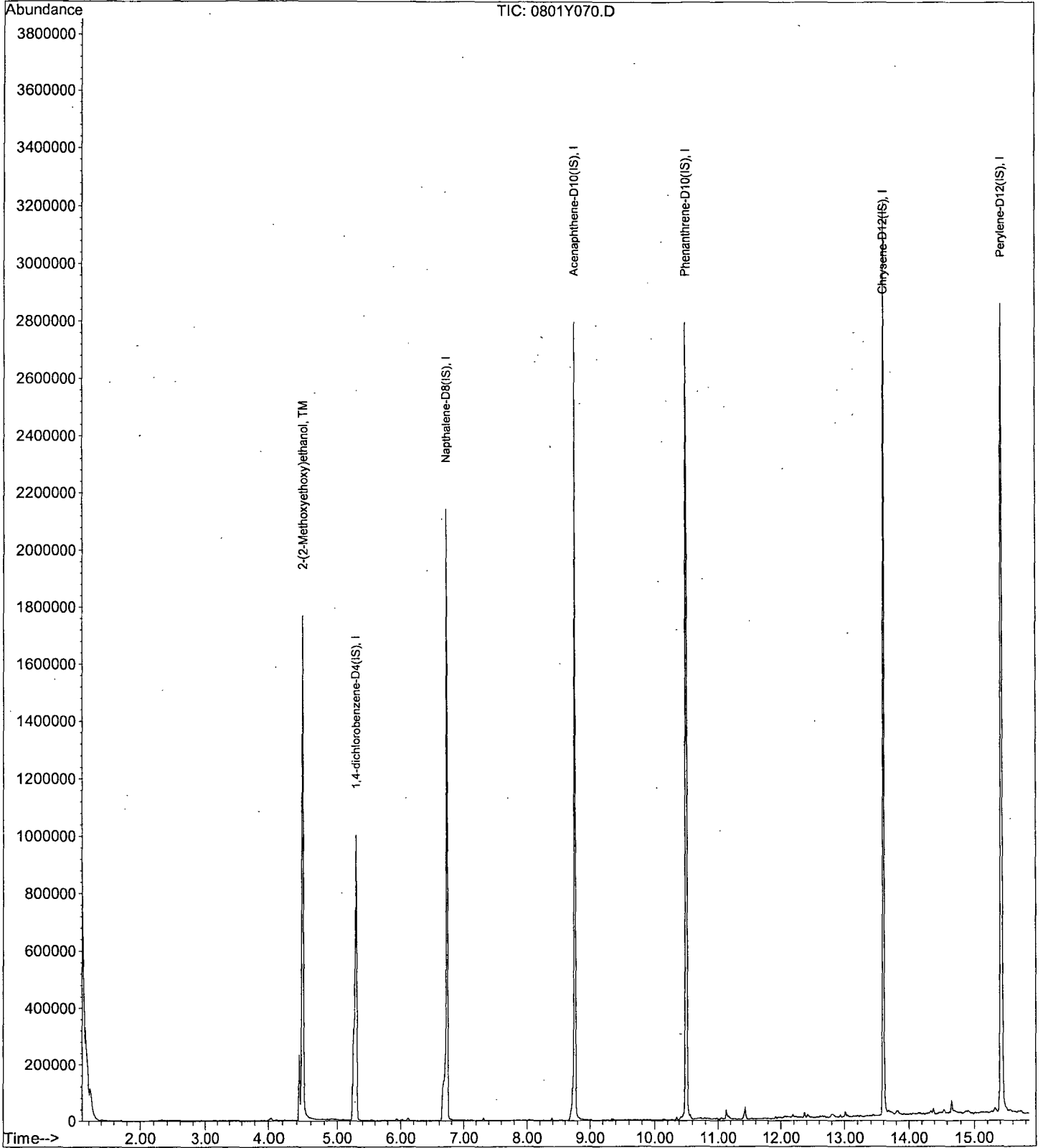
Data File : M:\YODA\DATA\Y180801M\0801Y070.D  
Acq On : 31 Oct 18 6:51  
Sample : 500ug/ml MEE 08/01/18  
Misc : soil

Vial: 70  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:19 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



2MEE  
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/31/18

Matrix: \_\_\_\_\_

Instrument: Yoda

Initial Cal. Date: 08/01/18

Data File: 0801Y098.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TML	2-(2-Methoxyethoxy)ethanol	0.2124	0.2077	2.2	TML	5.2
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
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26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							

Average

2.2

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y098.D Vial: 98  
 Acq On : 31 Oct 18 18:12 Operator: MA  
 Sample : 500ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:17 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.31	152	387693	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1637394	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	845559	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1555868	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1391754	40.00000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1264016	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	4.50	45	1006670	474.00632	ppb	98

Quantitation Report

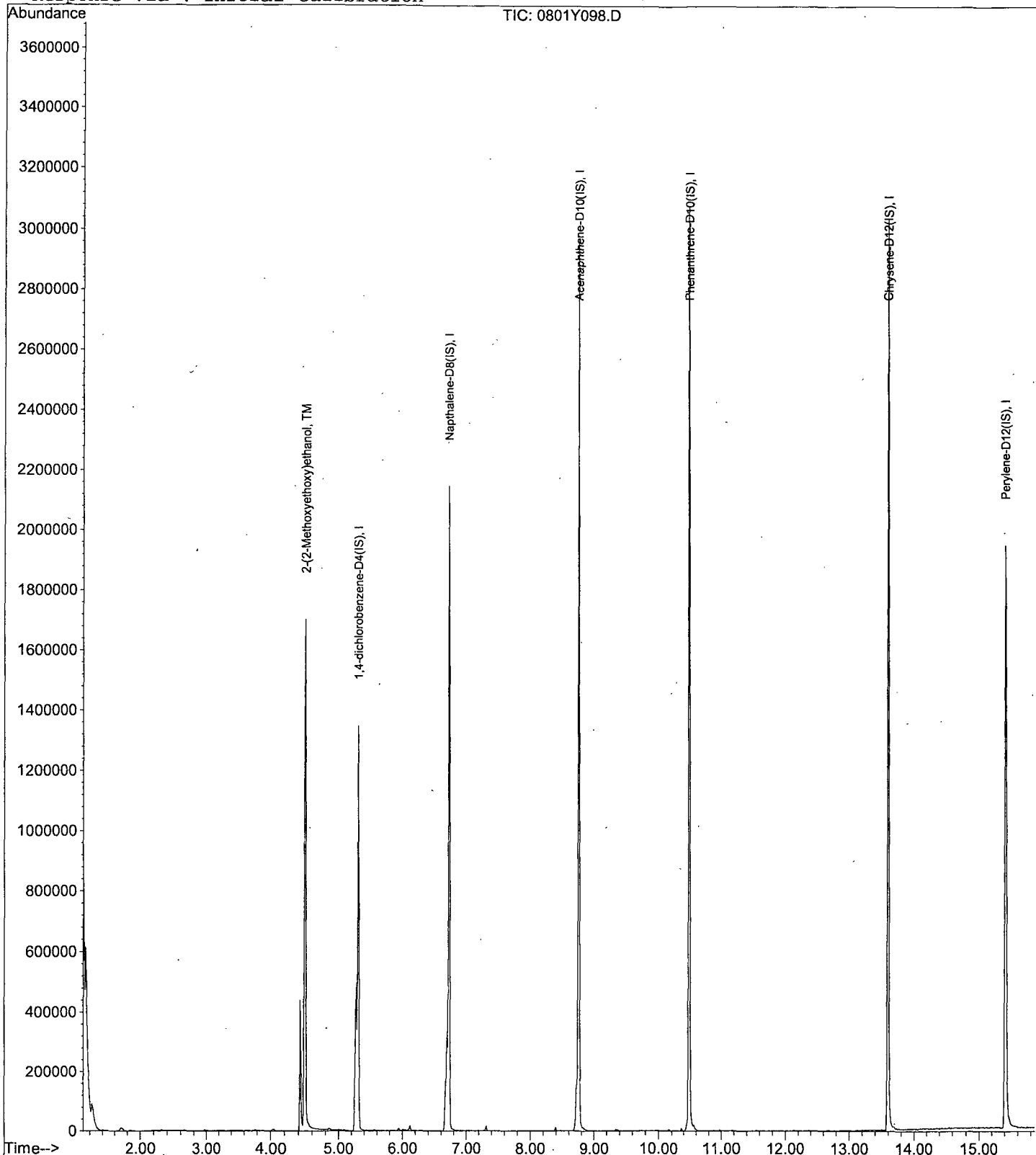
Data File : M:\YODA\DATA\Y180801M\0801Y098.D  
Acq On : 31 Oct 18 18:12  
Sample : 500ug/ml MEE 08/01/18  
Misc : soil

Vial: 98  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:17 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



**ORGANICS**  
**Raw Data**

**APPL, INC.**



Data File : M:\YODA\DATA\Y180801M\0801Y082.D Vial: 82  
 Acq On : 31 Oct 18 11:54 Operator: MA  
 Sample : AZ81636W09 2/470 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.31	152	377132	40.0000	ppb	0.00
3) Napthalene-D8 (IS)	6.74	136	1472359	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	724350	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1358015	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1239161	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1197524	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Quantitation Report

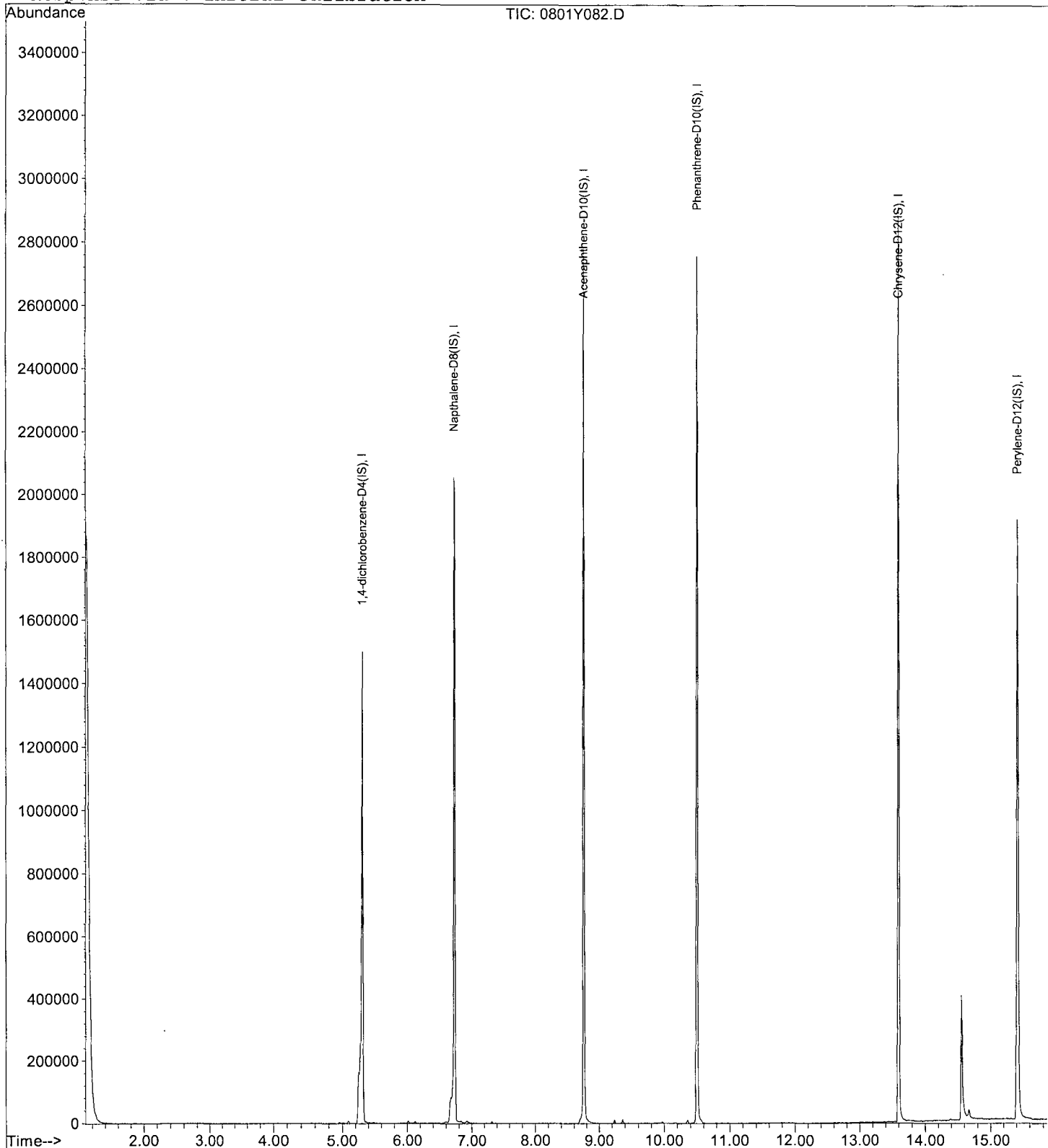
Data File : M:\YODA\DATA\Y180801M\0801Y082.D  
Acq On : 31 Oct 18 11:54  
Sample : AZ81636W09 2/470  
Misc : soil

Vial: 82  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y083.D Vial: 83  
 Acq On : 31 Oct 18 12:18 Operator: MA  
 Sample : AZ81638W05 2/490 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.29	152	215540	40.0000	ppb	-0.02
3) Napthalene-D8 (IS)	6.73	136	909969	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	475814	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	881903	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	812313	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	793555	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Quantitation Report

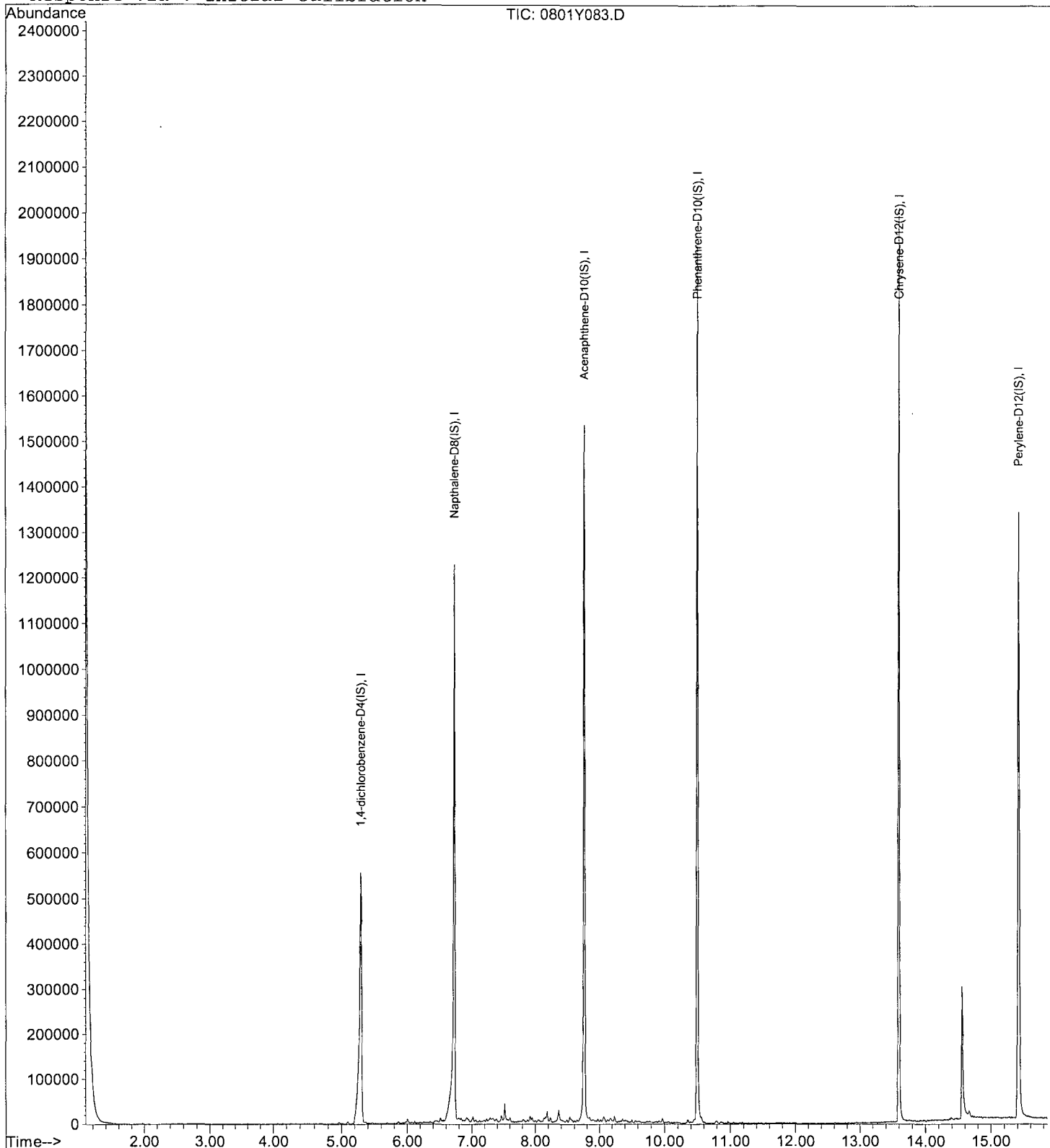
Data File : M:\YODA\DATA\Y180801M\0801Y083.D  
Acq On : 31 Oct 18 12:18  
Sample : AZ81638W05 2/490  
Misc : soil

Vial: 83  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y084.D Vial: 84  
 Acq On : 31 Oct 18 12:41 Operator: MA  
 Sample : AZ81640W08 2/480 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	270346	40.0000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1169066	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	713887	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1383482	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1161761	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1067177	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Quantitation Report

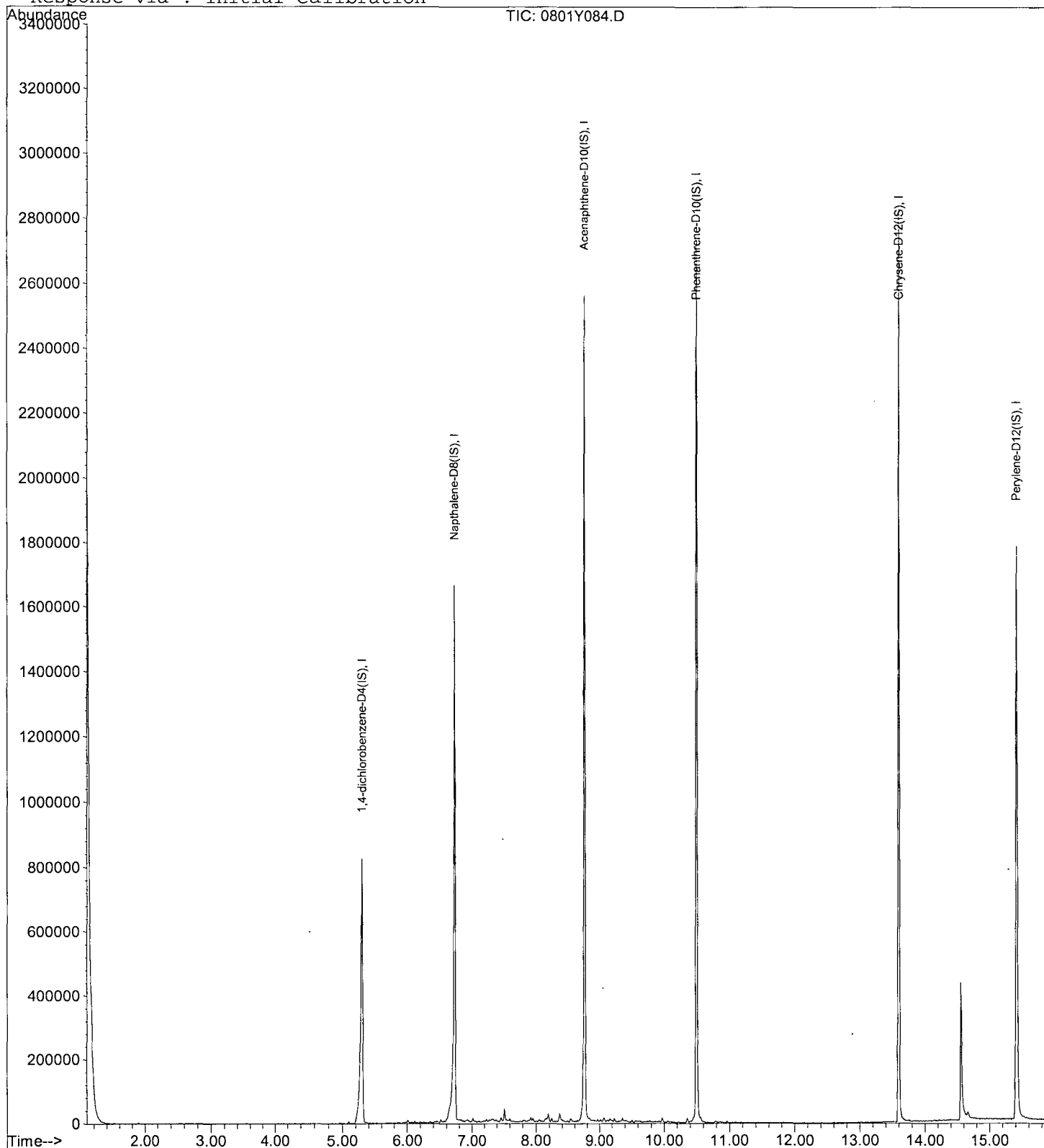
Data File : M:\YODA\DATA\Y180801M\0801Y084.D  
Acq On : 31 Oct 18 12:41  
Sample : AZ81640W08 2/480  
Misc : soil

Vial: 84  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y085.D Vial: 85  
 Acq On : 31 Oct 18 13:05 Operator: MA  
 Sample : AZ81642W09 2/500 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 9:06 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.29	152	307652	40.0000	ppb	-0.02
3) Napthalene-D8 (IS)	6.73	136	1255690	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	705980	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1339374	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1148367	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1068489	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Quantitation Report

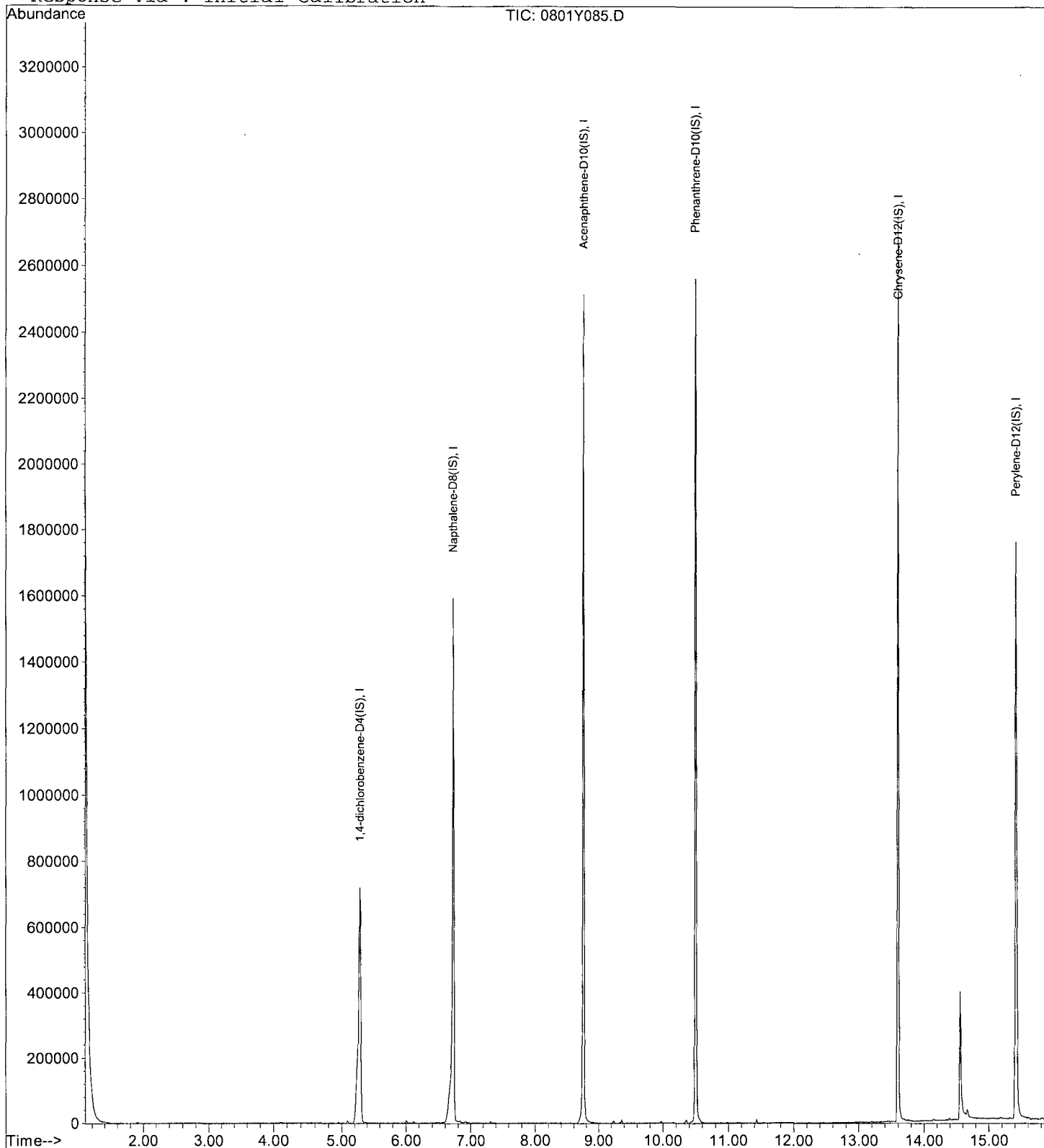
Data File : M:\YODA\DATA\Y180801M\0801Y085.D  
Acq On : 31 Oct 18 13:05  
Sample : AZ81642W09 2/500  
Misc : soil

Vial: 85  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 9:06 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration





Data File : M:\YODA\DATA\Y180801M\0801Y086.D Vial: 86  
 Acq On : 31 Oct 18 13:29 Operator: MA  
 Sample : AZ81644W09 2/490 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	330969	40.0000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1289806	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	642166	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1202771	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1171756	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1151470	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Quantitation Report

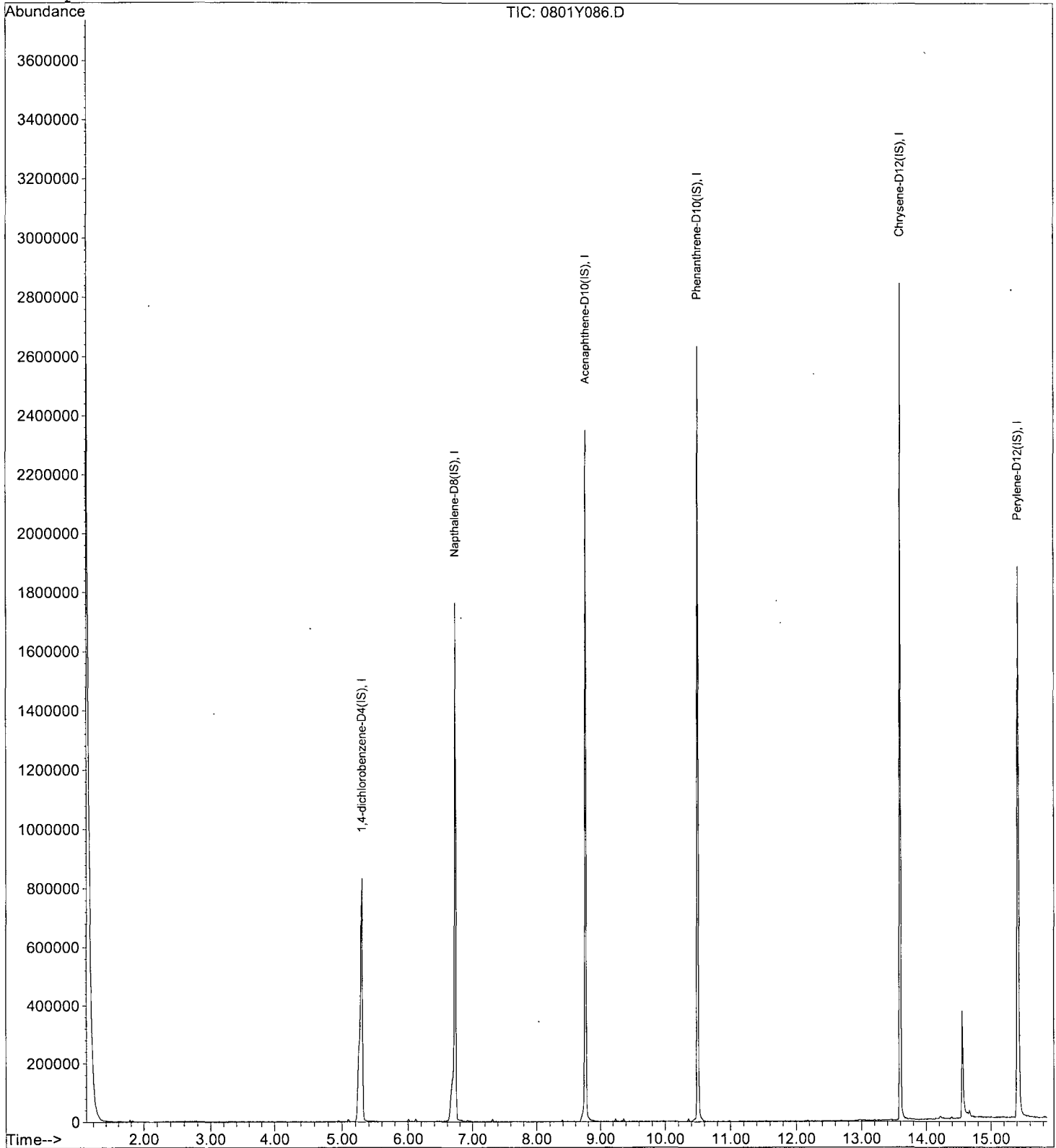
Data File : M:\YODA\DATA\Y180801M\0801Y086.D  
Acq On : 31 Oct 18 13:29  
Sample : AZ81644W09 2/490  
Misc : soil

Vial: 86  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y079.D Vial: 79  
 Acq On : 31 Oct 18 10:43 Operator: MA  
 Sample : 181029A Blk 2/500 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.31	152	233584	40.0000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1284274	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	664335	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1204751	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1112334	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1097799	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Quantitation Report

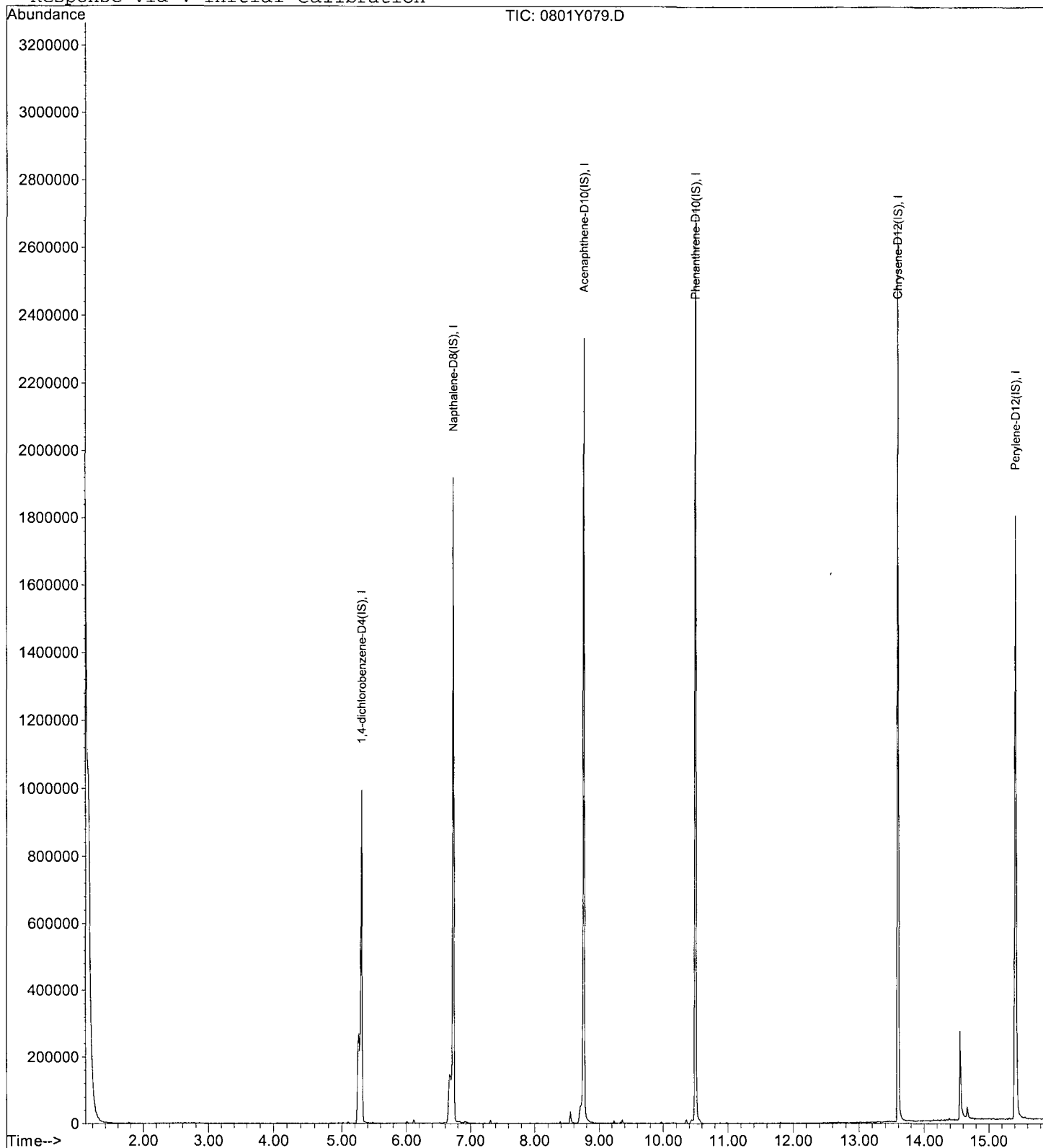
Data File : M:\YODA\DATA\Y180801M\0801Y079.D  
Acq On : 31 Oct 18 10:43  
Sample : 181029A Blk 2/500  
Misc : soil

Vial: 79  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y080.D Vial: 80  
 Acq On : 31 Oct 18 11:07 Operator: MA  
 Sample : 181029A LCS-1 2/500 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	392175	40.0000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1594599	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	819390	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1395149	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1241785	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1311326	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.48	45	140476	72.9889	ppb	98

Quantitation Report

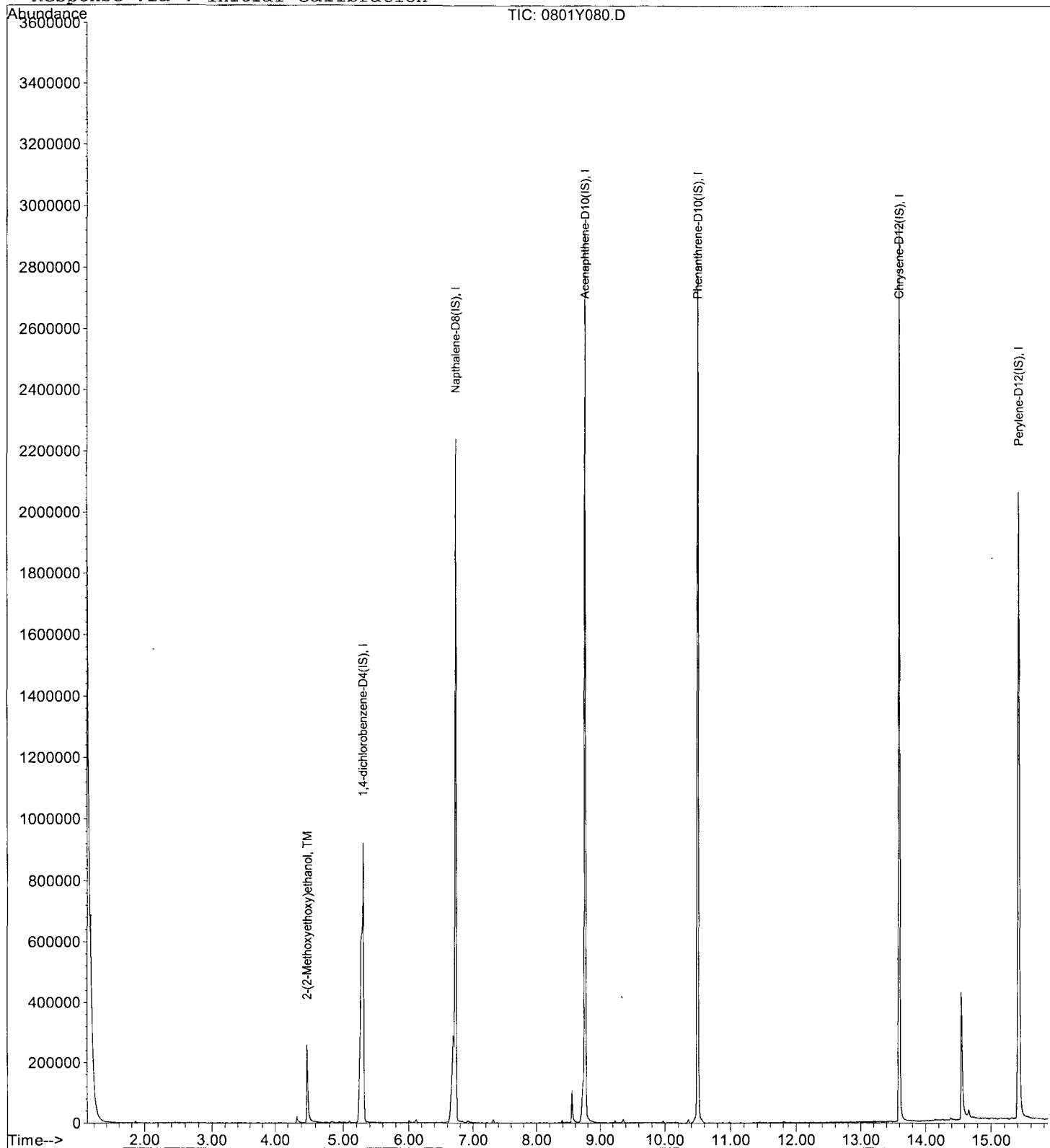
Data File : M:\YODA\DATA\Y180801M\0801Y080.D  
Acq On : 31 Oct 18 11:07  
Sample : 181029A LCS-1 2/500  
Misc : soil

Vial: 80  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y097.D Vial: 97  
 Acq On : 31 Oct 18 17:49 Operator: MA  
 Sample : 181029A LCSD-1 2/500 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.31	152	353234	40.0000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1396888	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	700025	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1287861	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1186080	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1218318	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.51	45	159843	89.8862	ppb	100

Quantitation Report

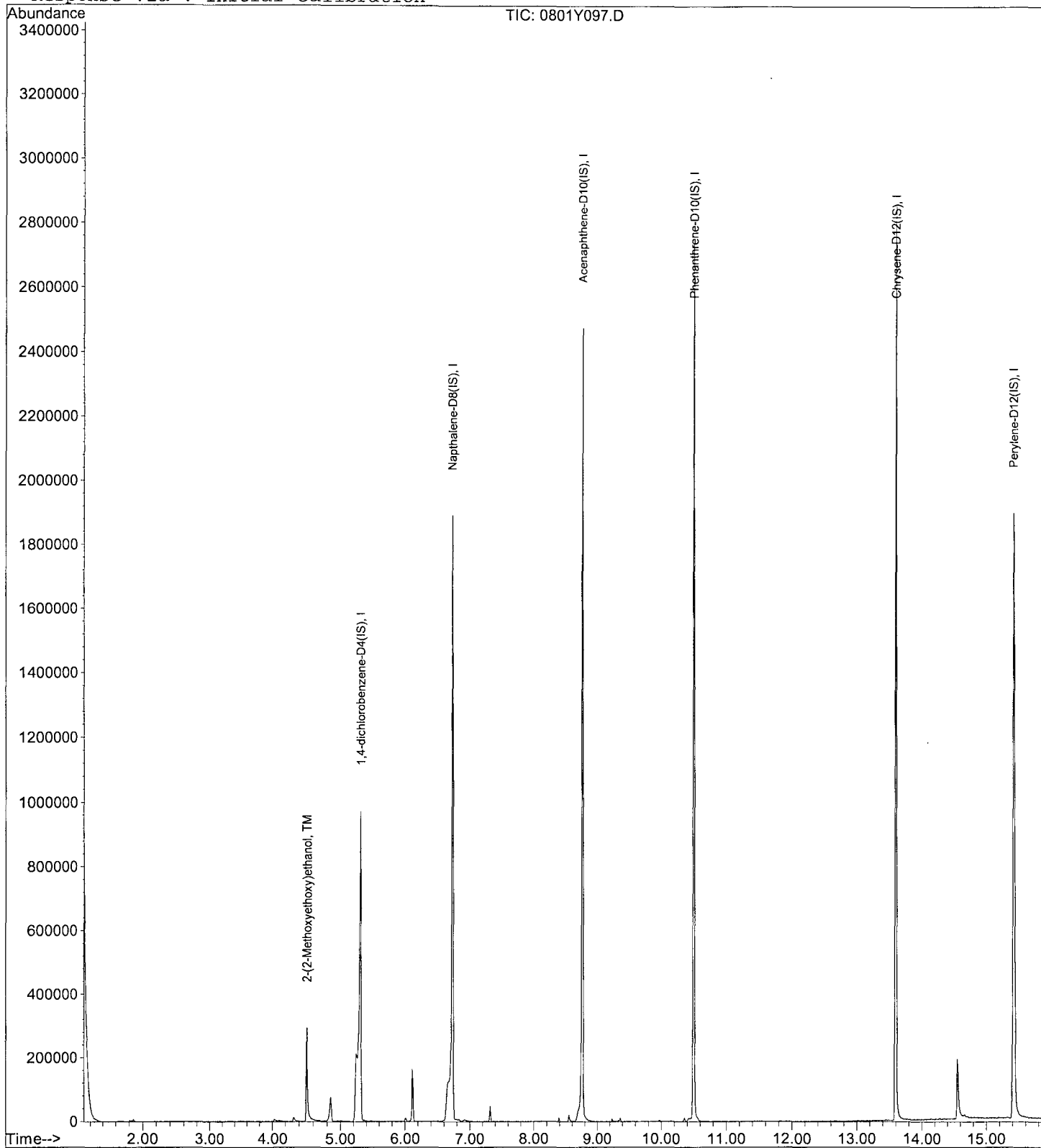
Data File : M:\YODA\DATA\Y180801M\0801Y097.D  
Acq On : 31 Oct 18 17:49  
Sample : 181029A LCSD-1 2/500  
Misc : soil

Vial: 97  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration

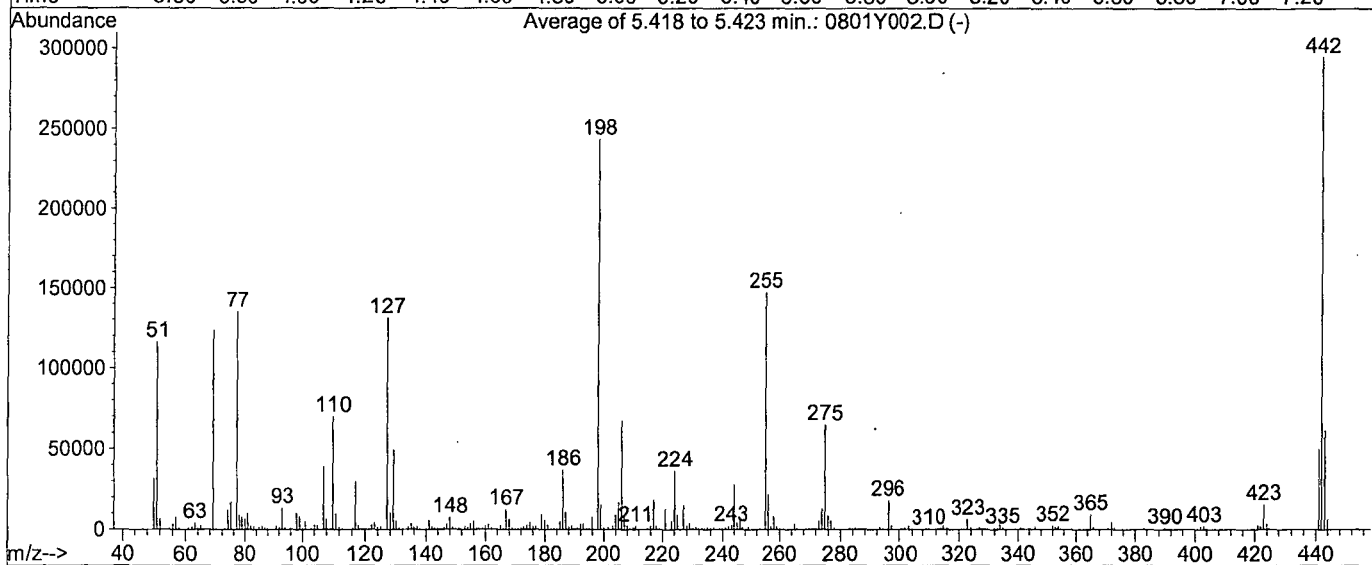
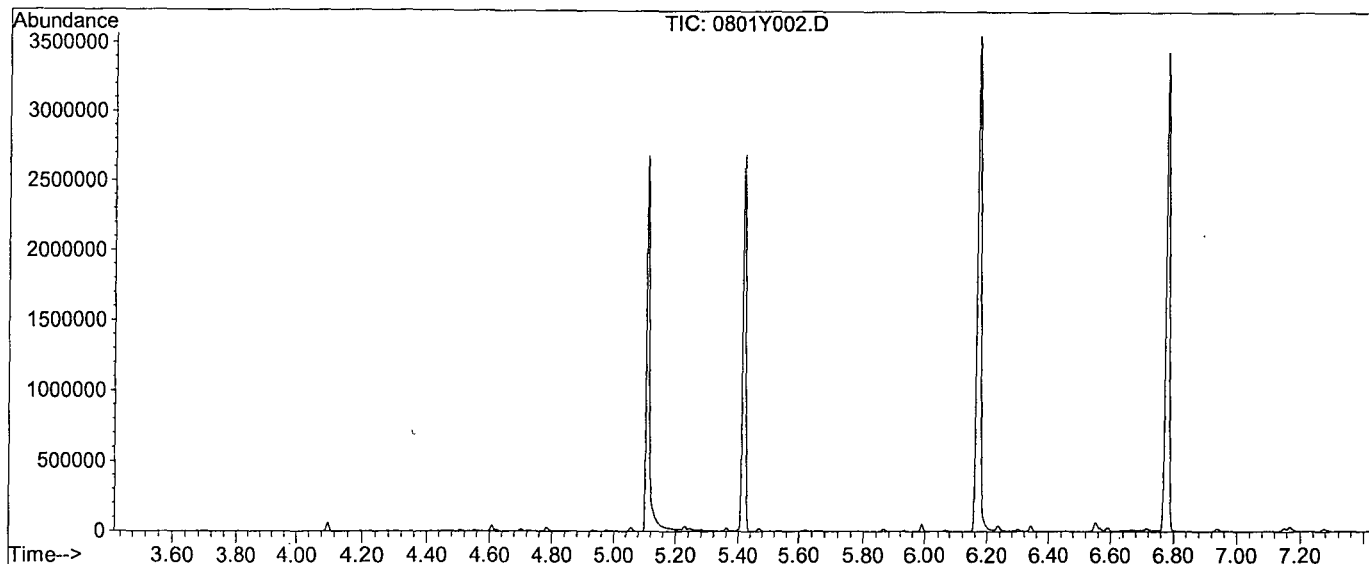




Data File : M:\YODA\DATA\Y180801M\0801Y002.D  
 Acq On : 1 Aug 18 14:52  
 Sample : SV Tune 03/07/18  
 Misc :

Vial: 2  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C



AutoFind: Scans 732, 733, 734; Background Corrected with Scan 723

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	47.8	116235	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	582	PASS
127	198	10	80	53.9	131100	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	243285	PASS
199	198	5	9	6.3	15320	PASS
275	198	10	60	26.6	64613	PASS
365	198	1	100	3.8	9226	PASS
441	442	0.01	24	16.8	49651	PASS
442	198	50	150	121.2	294869	PASS
443	442	15	24	20.7	61115	PASS

Data File Name: 0801Y002.D  
Data File Path: M:\YODA\DATA\Y180801\  
Operator: MA  
Date Acquired: 1 Aug 18 14:52  
Method File: DFTPP2.M  
Sample Name: SV Tune 03/07/18  
Vial Number: 2  
Instrument Name: Yoda

#	Name	Ret Time	Target Response
1)	DDT	6.66	26824100
2)	DDD	6.46	639080
3)	DDE	6.55	564547

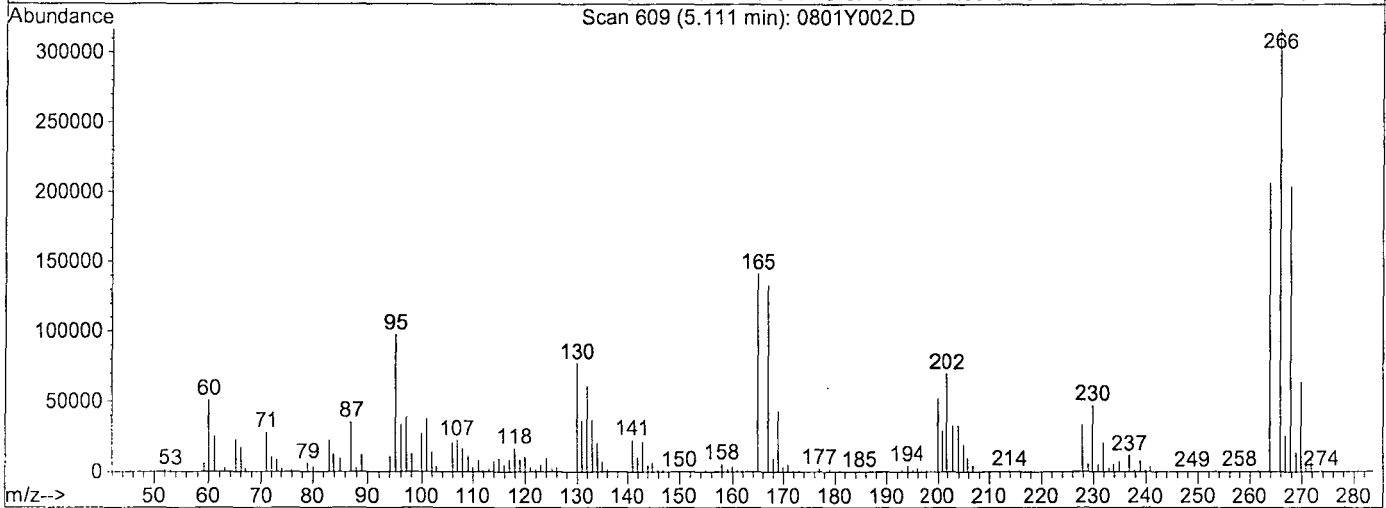
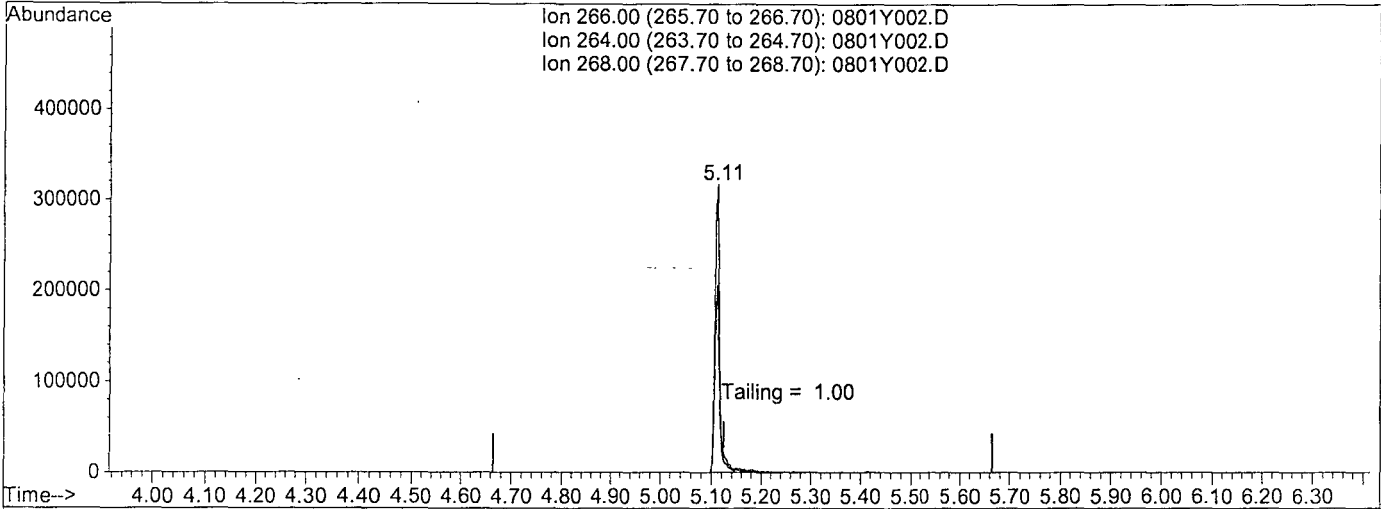
Breakdown 4.29

Quantitation Report

Data File : M:\YODA\DATA\Y180801\0801Y002.D  
 Acq On : 1 Aug 18 14:52  
 Sample : SV Tune 03/07/18  
 Misc :  
 Quant Time: Aug 1 14:55 2018

Vial: 2  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y180716\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Wed Jul 25 12:12:29 2018  
 Response via : Single Level Calibration



TIC: 0801Y002.D

(5) Pentachlorophenol

5.11min 0.0000 m

response 1984014

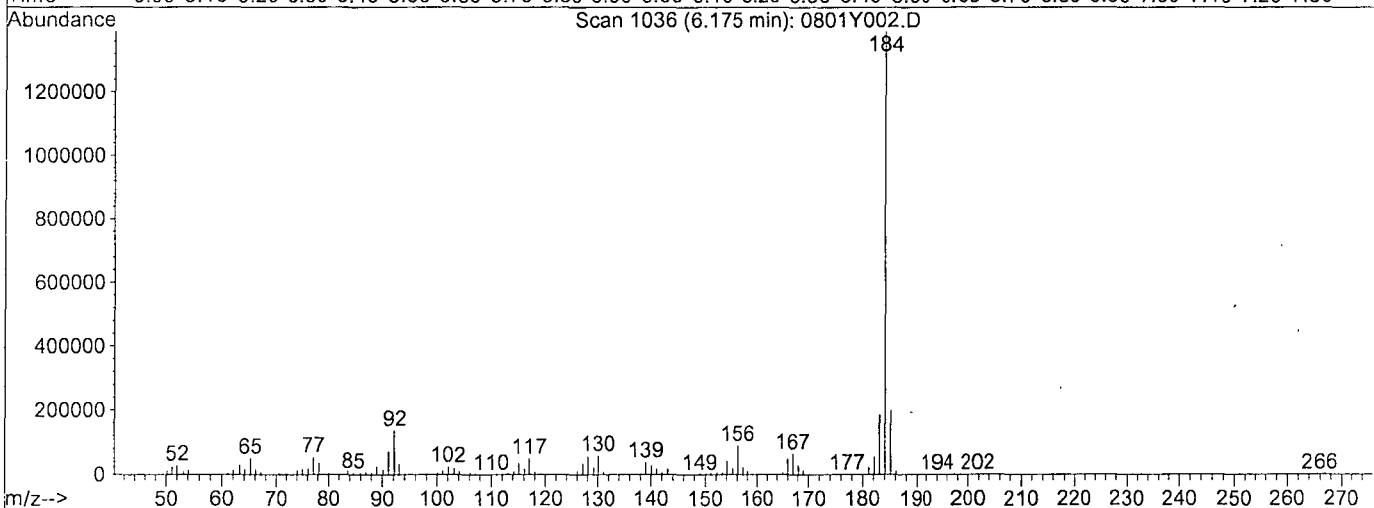
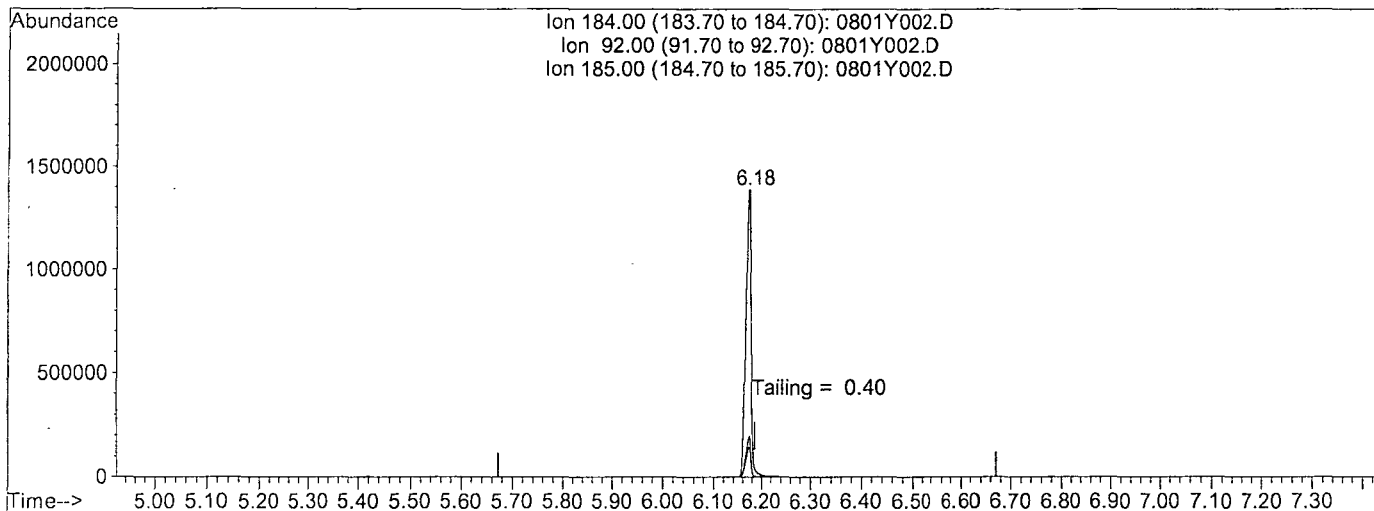
Ion	Exp%	Act%
266.00	100	100
264.00	64.20	64.17
268.00	61.30	65.81
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y180801\0801Y002.D  
 Acq On : 1 Aug 18 14:52  
 Sample : SV Tune 03/07/18  
 Misc :  
 Quant Time: Aug 1 14:55 2018

Vial: 2  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y180716\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Wed Jul 25 12:12:29 2018  
 Response via : Single Level Calibration



TIC: 0801Y002.D

(6) Benzidine

6.17min 0.0000

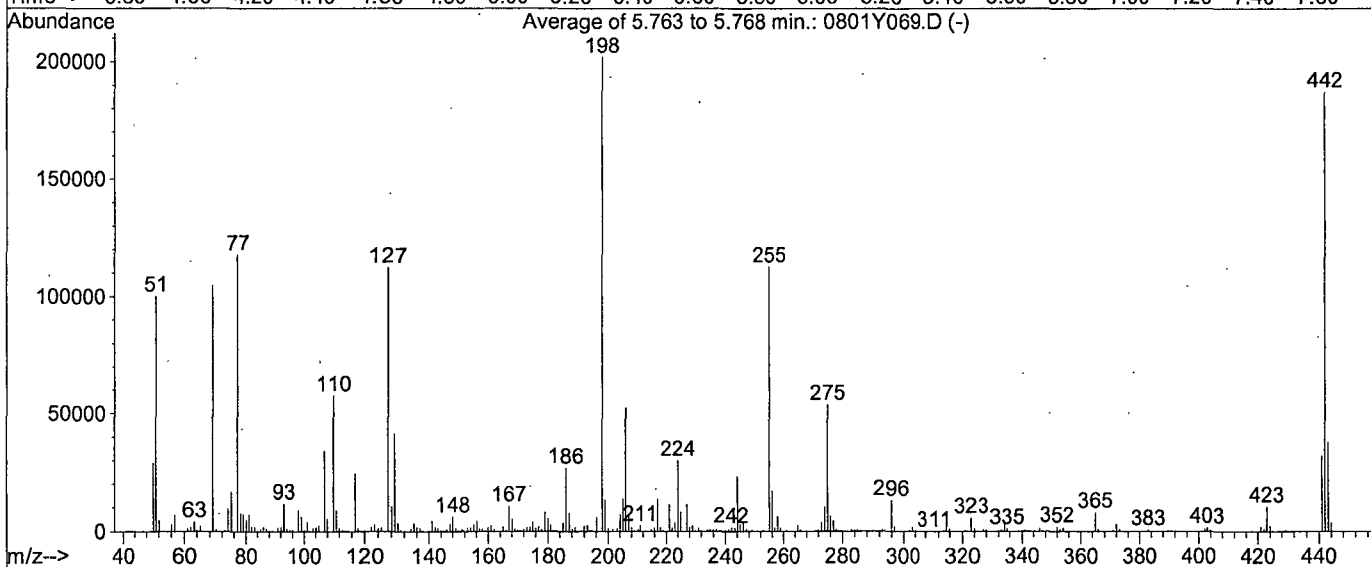
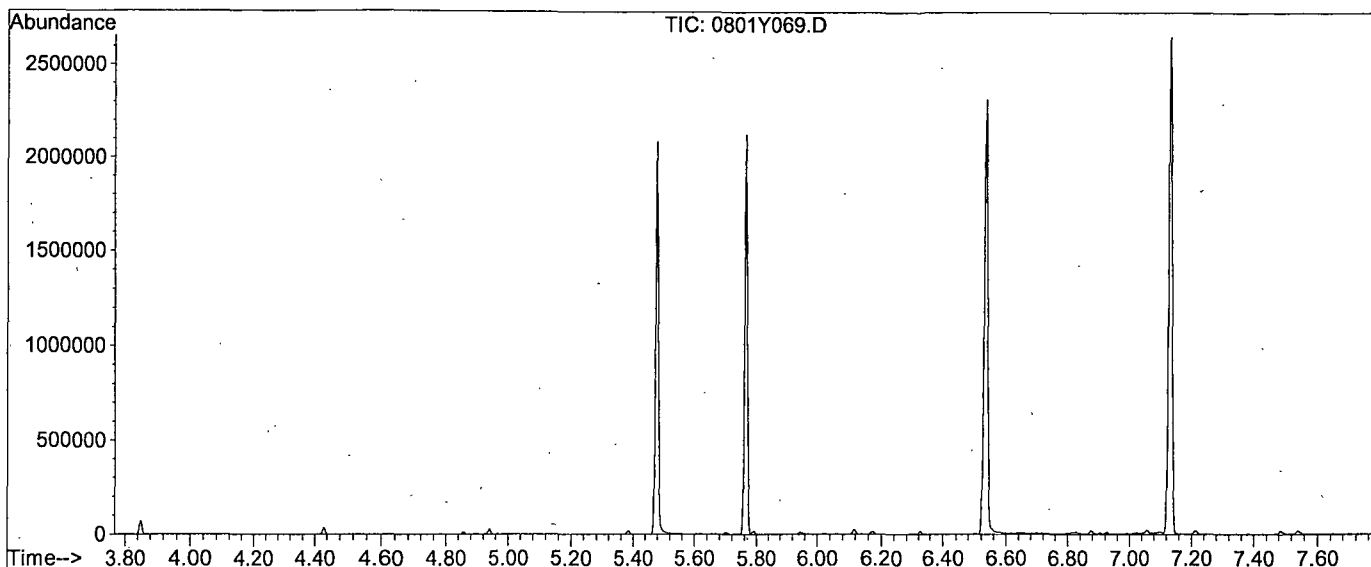
response 10907511

Ion	Exp%	Act%
184.00	100	100
92.00	10.20	9.66
185.00	14.00	13.74
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y180801M\0801Y069.D  
 Acq On : 31 Oct 18 6:36  
 Sample : SV TUNE 03/07/18  
 Misc : soil

Vial: 69  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C



AutoFind: Scans 871, 872, 873; Background Corrected with Scan 863

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	49.6	100069	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	760	PASS
127	198	10	80	55.5	112144	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	201941	PASS
199	198	5	9	6.5	13143	PASS
275	198	10	60	26.6	53648	PASS
365	198	1	100	3.9	7927	PASS
441	442	0.01	24	17.1	31907	PASS
442	198	50	150	92.6	186987	PASS
443	442	15	24	20.3	37923	PASS

Data File Name: 0801Y069.D  
Data File Path: M:\YODA\DATA\Y180801M\  
Operator: MA  
Date Acquired: 31 Oct 2018 06:36  
Method File: DFTPP2.M  
Sample Name: SV TUNE 03/07/18  
Vial Number: 69  
Instrument Name: Yoda

#	Name	Ret Time	Target Response
1)	DDT	7.13	19429200
2)	DDD	6.93	114381
3)	DDE	7.06	0

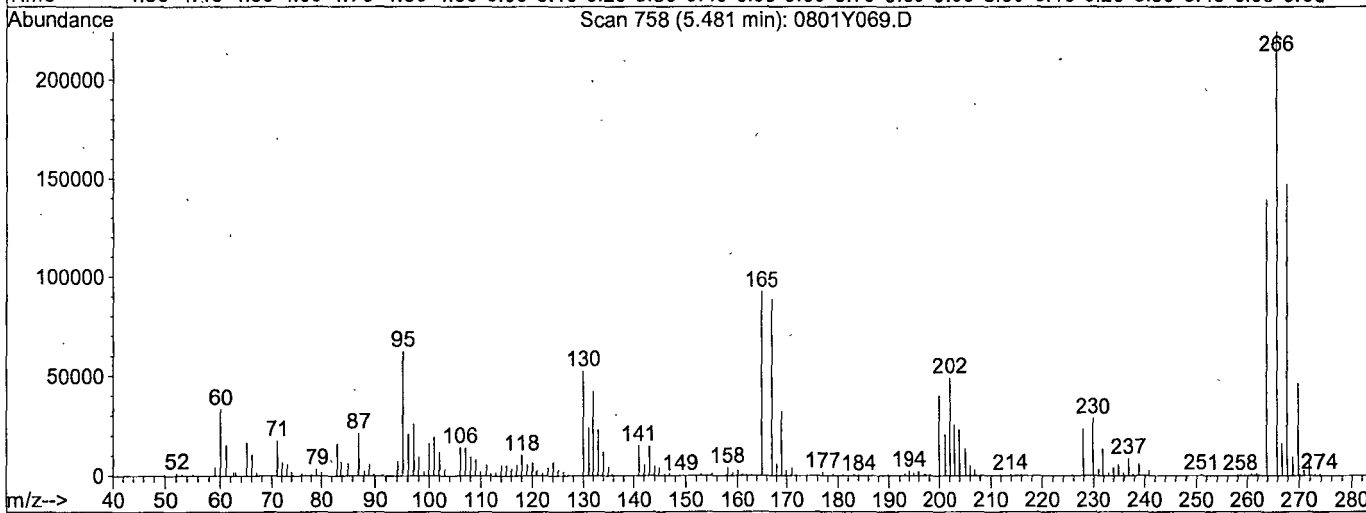
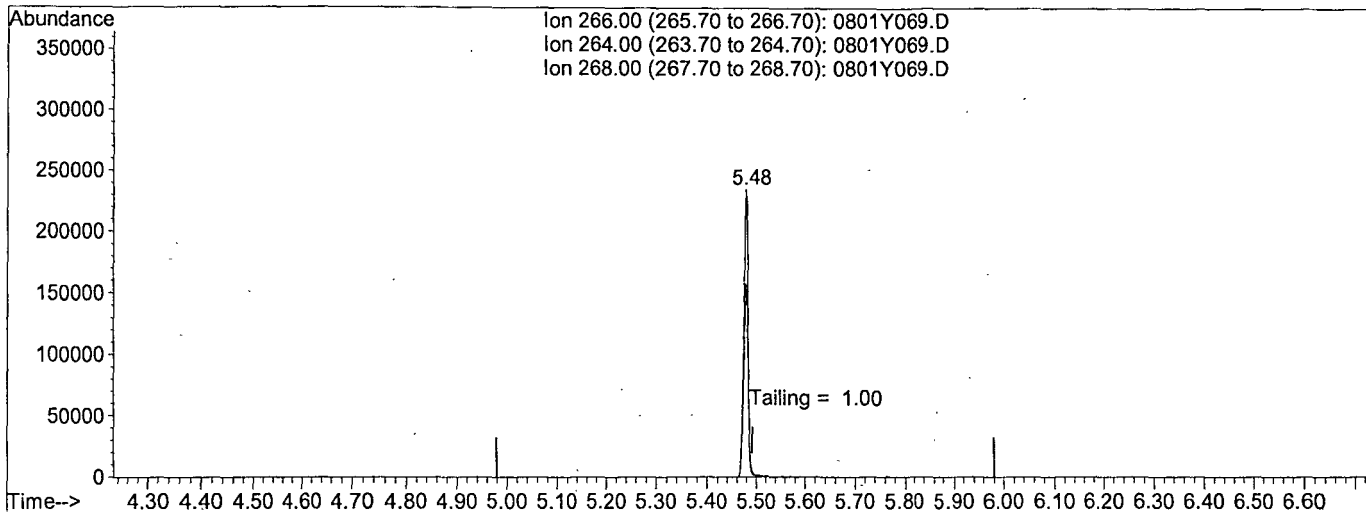
Breakdown 0.59

Quantitation Report

Data File : M:\YODA\DATA\Y180801M\0801Y069.D  
 Acq On : 31 Oct 18 6:36  
 Sample : SV TUNE 03/07/18  
 Misc : soil  
 Quant Time: Oct 31 6:16 2018

Vial: 69  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y180801M\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Wed Oct 31 07:16:04 2018  
 Response via : Single Level Calibration



TIC: 0801Y069.D

(5) Pentachlorophenol

5.48min 0.0000

response 1468963

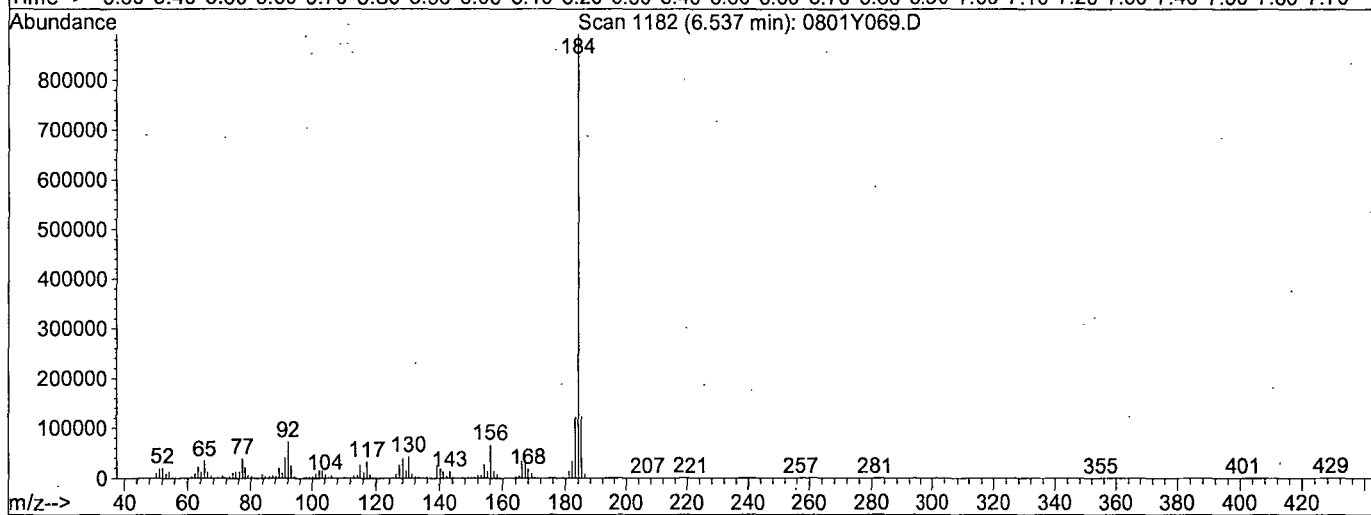
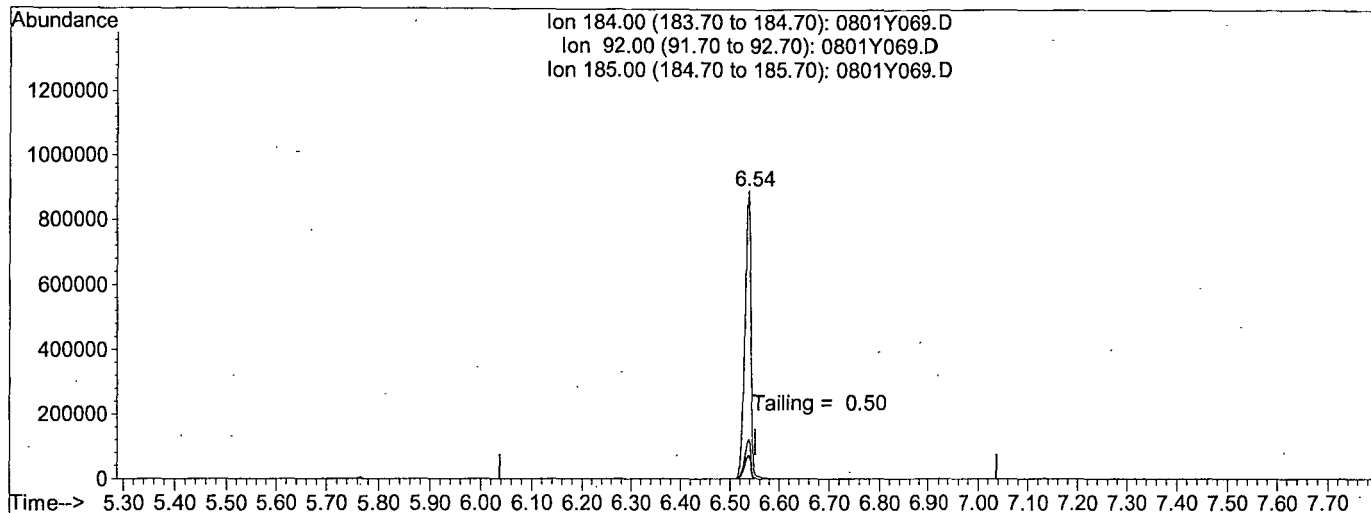
Ion	Exp%	Act%
266.00	100	100
264.00	64.70	64.44
268.00	67.10	64.99
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y180801M\0801Y069.D  
 Acq On : 31 Oct 18 6:36  
 Sample : SV TUNE 03/07/18  
 Misc : soil  
 Quant Time: Oct 31 6:16 2018

Vial: 69  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y180801M\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Wed Oct 31 07:16:04 2018  
 Response via : Single Level Calibration



TIC: 0801Y069.D

(6) Benzidine

6.54min 0.0000

response 7364167

Ion	Exp%	Act%
184.00	100	100
92.00	8.10	8.27
185.00	13.70	14.03
0.00	0.00	0.00



Name of  
Final  
Standard  
Prep Date  
Exp Date

MEE Curve

Prep'd By (Initials)

GA

08/01/18

11/10/18

Initial Standard Information						Final Standard Information			
MEE M STD Stock	APPL		200 ug/mL	07/27/18	11/10/18	5 uL	200uL	Methanol 195uL	50 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	4 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/10/18	5 uL	100uL	Methanol 95uL	100 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/10/18	10 uL	100uL	Methanol 90 uL	200 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/10/18	20 uL	100uL	Methanol 80 uL	400 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/10/18	50 uL	200 uL	Methanol 150 uL	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	4 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/10/18	30 uL	100uL	Methanol 70 uL	600 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/10/18	40 uL	100uL	Methanol 60 uL	800 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/10/18	50 uL	100uL	Methanol 50uL	1000 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*

# Organic Extraction Worksheet

<b>Method</b>	Solid Phase Extraction of 2MEE in Water	<b>Extraction Set</b>	180727A	<b>Extraction Method</b>	MWE2MEE	<b>Units</b>	mL
Spiked ID 1	Diethylene Glycol 7-25-18 EXP 10-3-18	Surrogate ID 1					
Spiked ID 2	MEE 10320ug/ML 5-22-17 EXP 8-4-18	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		NO			
Spiked ID 7		Ext. Start Time:	07/27/18 10:55				
Spiked ID 8		Ext. End Time:	07/30/18 12:00				
<b>STANDARD PREPARATION</b>		<b>MA 11/5/18</b>		GC Requires Extract By:	07/31/18 0:00		
		pH1		Water Bath Temp Criteria			
		pH2					
		pH3					

Spiked By: DL

Date 07/27/18

Witnessed By: RP

Date 07/27/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1 180727A Blk				NA	NA	500	2	7	07/27/18 10:55	
2 180727A LCS-1		0.040	1	NA	NA	500	2	7	07/27/18 10:55	
3 180727A SS		0.097	2	NA	NA	500	2	7	07/27/18 10:55	
4 AZ76727 MS-1	AZ76727W14	0.040	1	NA	NA	500	2	7	07/27/18 10:55	86359
5 AZ76727 MSD-1	AZ76727W15	0.040	1	NA	NA	500	2	7	07/27/18 10:55	86359
6 AZ76727	AZ76727W13			NA	NA	500	2	7	07/27/18 10:55	86359
7 AZ76728	AZ76728W05			NA	NA	500	2	7	07/27/18 10:55	86359
8 AZ76730	AZ76730W08			NA	NA	490	2	7	07/27/18 10:55	86359
9 AZ76732	AZ76732W05			NA	NA	500	2	7	07/27/18 10:55	86359
10 AZ76733	AZ76733W04			NA	NA	500	2	7	07/27/18 10:55	86359
11 AZ76734	AZ76734W04			NA	NA	480	2	7	07/27/18 10:55	86359
12 AZ76760	AZ76760W09			NA	NA	500	2	7	07/27/18 10:55	86367
13 AZ76762	AZ76762W09			NA	NA	500	2	7	07/27/18 10:55	86367
14 AZ76764	AZ76764W09			NA	NA	500	2	7	07/27/18 10:55	86367
15 AZ76766	AZ76766W09			NA	NA	490	2	7	07/27/18 10:55	86367
16 AZ76768	AZ76768W08			NA	NA	500	2	7	07/27/18 10:55	86367

<b>Solvent and Lot#</b>	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	8099704
PH Strip	HC613865
Di Water	7-27-18
Dichloromethane	57278
Methanol	121417A

<b>Extraction COC Transfer</b>	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

	<b>Technician's Initials</b>
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	07/30/18 7:00:03 AM

Reviewed By: 558 Date

# Organic Extraction Worksheet







<b>Method</b>	Solid Phase Extraction of 2MEE in Water	<b>Extraction Set</b>	180727A	<b>Extraction Method</b>	MWE2MEE	<b>Units</b>	mL
Spiked ID 1	Diethylene Glycol 7-25-18 EXP 10-3-18	Surrogate ID 1					
Spiked ID 2	MEE 10320ug/MI 5-22-17 EXP 8-4-18	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		NO			
Spiked ID 7		Ext. Start Time:		07/27/18 10:55			
Spiked ID 8		Ext. End Time:		07/30/18 12:00			
				GC Requires Extract By:		07/31/18 0:00	
				pH1		Water Bath Temp Criteria	
				pH2			
				pH3			

Spiked By: DL

Date 07/27/18

Witnessed By: RP

Date 07/27/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ76879 	AZ76879W08		NA	NA	500	2	7	07/27/18 10:55	86376
					equip					
18	AZ76880 	AZ76880W05		NA	NA	490	2	7	07/27/18 10:55	86376
					equip					
19	AZ76882 	AZ76882W08		NA	NA	500	2	7	07/27/18 10:55	86376
					equip					
20	AZ76884 	AZ76884W09		NA	NA	500	2	7	07/27/18 10:55	86376
					equip					
21	AZ76886 	AZ76886W09		NA	NA	500	2	7	07/27/18 10:55	86376
					equip					
22	M Std 	1	1	NA	NA	500	2	7	07/27/18 10:55	
					equip					

<b>Solvent and Lot#</b>	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	8099704
PH Strip	HC613865
Di Water	7-27-18
Dichloromethane	57278
Methanol	121417A

<b>Extraction COC Transfer</b>	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

<b>Technician's Initials</b>	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	07/30/18 7:00:03 AM

Reviewed By:

559

Date

Name of Final Standard Diethylene Glycol

Prep'd By (Initials) GA

Prep Date 07/25/18

Exp Date 11/10/18

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Diethylene glycol monomethyl ether	AccuStandard	72273	2000 ug/mL	21610100 7-37330 and 37331	10/03/18	2.0 mL	4 mL	Methanol #042317C	1000 ug/mL

Given to Extraction to do **MEE M STD Stock** (used for ICAL) Final concentration 2000ug/L  
 APPL re-certified diethylene glycol monomethyl ether lot 216101007-37330 and 37331 and extended the expiration date to 11/10/18 per verification with a second source from ChemService lot 7079100-39417 Inj on Yoda 0801Y064

Methoxyethoxyethanol-Neat (MEE) SS Stock: 5/22/17-R.H. ex: 08/04/18						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MEE	Neat 99.5%	HEM SERVICE	0.1032g	10 mL	10320 ug/ml	MC
		Cat: N-12404-1G				#56258
		Lot: 5259000-37082				
		OP: 09/27/16				
		EXP: 08/04/18				

0.097ml were spiked in 500ml of water and extracted on 06/07/17. Final concentration is 2000ug

APPL re-certified MEE SS stock Lot 5259000-37082 and extended the expiration date to 8/04/18 per verification with a different source Accu Standards Lot # 216101007-37334,5 injected on 05/04/18

Name of Final Standard 8270 Internal Standard (Ampule)  
 Prep Date 06/22/18  
 Exp Date 06/22/19

Prep'd By (Initials)

OA

Initial Standard Information					Final Standard Information				
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent Lot# (or APPL Prep Date)	Final Standard Conc (range)
EPA 8270 Semivolatiles Internal Standard	RESTEK	CRM48902	2000 ug/mL	A0130603-38562	06/22/19	1000 uL	1 mL	NA	100ug/mL

# Organic Extraction Worksheet

<b>Method</b>	Solid Phase Extraction of 2MEE in Water	<b>Extraction Set</b>	181029A	<b>Extraction Method</b>	MWE2MEE	<b>Units</b>	mL
Spiked ID 1	Diethylene Glycol 7-25-18 EXP 10-3-18		Surrogate ID 1				
Spiked ID 2	2MEE SS STK 8-3-18 EXP 8-3-19		Surrogate ID 2				
Spiked ID 3			Surrogate ID 3				
Spiked ID 4			Surrogate ID 4				
Spiked ID 5			Surrogate ID 5				
Spiked ID 6			Sufficient Vol for Matrix QC:		YES		
Spiked ID 7			Ext. Start Time:		10/29/18 13:50		
Spiked ID 8			Ext. End Time:		10/30/18 16:10		
			GC Requires Extract By:		10/30/18 0:00		
			pH1			Water Bath Temp Criteria	
			pH2				
			pH3				

Spiked By: KY

Date 10/29/18

Witnessed By: DL

Date 10/29/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1 181029A Blk				NA	NA	500	2	7	10/29/18 13:50	
2 181029A LCS-1		0.040	1	NA	NA	500	2	7	10/29/18 13:50	LOQ
3 181029A LCSD-1		0.040	1	NA	NA	500	2	7	10/29/18 13:50	
4 181029A SS		0.097	2	NA	NA	500	2	7	10/29/18 13:50	
5 AZ77514	AZ77514W01	0.040	1	NA	NA	500	2	7	10/29/18 13:50	86492 LOD
6 AZ81584 MS-1	AZ81584W17	0.040	1	NA	NA	460	2	7	10/29/18 13:50	87198
7 AZ81584 MSD-1	AZ81584W14	0.040	1	NA	NA	460	2	7	10/29/18 13:50	87198
8 AZ81584	AZ81584W12			NA	NA	500	2	7	10/29/18 13:50	87198
9 AZ81585	AZ81585W05			NA	NA	500	2	7	10/29/18 13:50	87198
10 AZ81587	AZ81587W09			NA	NA	500	2	7	10/29/18 13:50	87198
11 AZ81636	AZ81636W09			NA	NA	470	2	7	10/29/18 13:50	87212
12 AZ81638	AZ81638W05			NA	NA	490	2	7	10/29/18 13:50	87212
13 AZ81640	AZ81640W08			NA	NA	480	2	7	10/29/18 13:50	87212
14 AZ81642	AZ81642W09			NA	NA	500	2	7	10/29/18 13:50	87212
15 AZ81644	AZ81644W09			NA	NA	490	2	7	10/29/18 13:50	87212
16 AZ81676	AZ81676W08			NA	NA	490	2	7	10/29/18 13:50	87219

<b>Solvent and Lot#</b>	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	10699801
PH Strip	HC 727135
Di Water	10-29-18
Dichloromethane	58059
Methanol	58055

<b>Extraction COC Transfer</b>	
Extraction lab employee Initials	KY
GC analyst's initials	JA
Date	10/30/18
Time	17:11
Refrigerator	GC-C

<b>Technician's Initials</b>	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	10/29/18 2:20:25 PM

Reviewed By: *KY* 563 Date 10/31/18

# Organic Extraction Worksheet

<b>Method</b>	Solid Phase Extraction of 2MEE in Water	<b>Extraction Set</b>	181029A	<b>Extraction Method</b>	MWE2MEE	<b>Units</b>	mL
Spiked ID 1	Diethylene Glycol 7-25-18 EXP 10-3-18		Surrogate ID 1				
Spiked ID 2	2MEE SS STK 8-3-18 EXP 8-3-19		Surrogate ID 2				
Spiked ID 3			Surrogate ID 3				
Spiked ID 4			Surrogate ID 4				
Spiked ID 5			Surrogate ID 5				
Spiked ID 6			Sufficient Vol for Matrix QC:		YES		
Spiked ID 7			Ext. Start Time:		10/29/18 13:50		
Spiked ID 8			Ext. End Time:		10/30/18 16:10		
			GC Requires Extract By:		10/30/18 0:00		
			pH1		Water Bath Temp Criteria		
			pH2				
			pH3				

Spiked By: KY

Date 10/29/18

Witnessed By: DL

Date 10/29/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17 AZ81677	AZ81677W09			NA	NA	450	2	7	10/29/18 13:50	87219
					equip					
18 AZ81678	AZ81678W09			NA	NA	500	2	7	10/29/18 13:50	87219
					equip					
19 AZ81840	AZ81840W09			NA	NA	470	2	7	10/29/18 13:50	87238
					equip					
20 AZ81841	AZ81841W08			NA	NA	450	2	7	10/29/18 13:50	87238
					equip					
21 AZ81842	AZ81842W08			NA	NA	500	2	7	10/29/18 13:50	87238
					equip					
22 AZ81901	AZ81901W07			NA	NA	450	2	7	10/29/18 13:50	87248
					equip					
23 AZ81903	AZ81903W08			NA	NA	500	2	7	10/29/18 13:50	87248
					equip					
24 M Std		1	1	NA	NA	500	2	7	10/29/18 13:50	
					equip					

Ks 10/31/18

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	10699801
PH Strip	HC 727135
Di Water	10-29-18
Dichloromethane	58059
Methanol	58055

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	10/29/18 2:20:25 PM

Reviewed By: *Ks* 564 Date 10/31/18



## Injection Log

Directory: M:\YODA\DATA\Y180801M\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	0801Y002.D	1	SV Tune 03/07/18	.	1 Aug 18 14:52
3	0801Y003.D	1	50ug/ml MEE 08/01/18	soil	1 Aug 18 15:09
4	0801Y004.D	1	500ug/ml MEE 08/01/18	soil	1 Aug 18 15:34
5	0801Y005.D	1	100ug/ml MEE 08/01/18	soil	1 Aug 18 16:26
6	0801Y006.D	1	200ug/ml MEE 08/01/18	soil	1 Aug 18 16:51
7	0801Y007.D	1	400ug/ml MEE 08/01/18	soil	1 Aug 18 17:16
8	0801Y008.D	1	600ug/ml MEE 08/01/18	soil	1 Aug 18 17:41
9	0801Y009.D	1	800ug/ml MEE 08/01/18	soil	1 Aug 18 18:06
10	0801Y010.D	1	1000ug/ml MEE 08/01/18	soil	1 Aug 18 18:31
11	0801Y011.D	1	SS ug/ml MEE 08/01/18	soil	1 Aug 18 18:55
69	0801Y069.D	1	SV TUNE 03/07/18	soil	31 Oct 18 6:36
70	0801Y070.D	1	500ug/ml MEE 08/01/18	soil	31 Oct 18 6:51
79	0801Y079.D	1	181029A Blk 2/500	soil	31 Oct 18 10:43
80	0801Y080.D	1	181029A LCS-1 2/500	soil	31 Oct 18 11:07
82	0801Y082.D	1	AZ81636W09 2/470	soil	31 Oct 18 11:54
83	0801Y083.D	1	AZ81638W05 2/490	soil	31 Oct 18 12:18
84	0801Y084.D	1	AZ81640W08 2/480	soil	31 Oct 18 12:41
85	0801Y085.D	1	AZ81642W09 2/500	soil	31 Oct 18 13:05
86	0801Y086.D	1	AZ81644W09 2/490	soil	31 Oct 18 13:29
97	0801Y097.D	1	181029A LCSD-1 2/500	soil	31 Oct 18 17:49
98	0801Y098.D	1	500ug/ml MEE 08/01/18	soil	31 Oct 18 18:12

**ORGANICS**  
**Calibration Data**

**APPL, INC.**

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

**Form 6**  
**Initial Calibration**

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/23/18 \_\_\_\_\_  
Instrument: Loki \_\_\_\_\_

Initials: \_\_\_\_\_

1023L03.D    1023L04.D    1023L05.D    1023L06.D    1023L07.D    1023L08.D    1023L09.D    1023L10.D

	Compound	1	2	3	4	5	6	7	8		Avg	%RSD	Type	r <sup>2</sup>	Q	MRF	
1	I	Fluorobenzene (IS)															
2	TM	Dichlorodifluoromethane		0.8734	0.8726	0.6612	0.6857	0.6567			0.75	15	TM				
3	TM	Freon 114		0.5071	0.5887	0.4659	0.4870	0.4718	0.3906	0.4892	0.49	12	TM				
4	TM**L	Chloromethane		0.7767	0.7090	0.6487	0.6098	0.5725	0.4696	0.5461	0.62	17	TM**L	0.994			
5	TM*	Vinyl chloride		0.7519	0.6659	0.6448	0.6224	0.6115	0.4954	0.5871	0.63	12	TM*				
6	TML	Bromomethane		0.6311	0.5959	0.5208	0.4785	0.4394	0.3470	0.4296	0.49	20	TML	0.990			
7	TM	Chloroethane	0.3602	0.3982	0.4251	0.3664	0.3520	0.3229	0.2511	0.3293	0.35	15	TM				
8	TM	Dichlorofluoromethane		1.254	1.158	1.092	1.065	1.043	0.8493	1.043	1.1	12	TM				
9	TM	Trichlorofluoromethane		1.166	1.151	1.135	1.058	1.042	0.8575	1.035	1.1	9.9	TM				
10	TM	Acrolein	0.0431	0.0383	0.0346	0.0345	0.0344	0.0326	0.0334	0.0356	0.04	9.5	TM				
11	TML	Acetone			0.5859	0.2245	0.1647	0.1484	0.1102	0.1227	0.23	80	TML	0.994			
12	TM	Freon-113		0.5888	0.6055	0.5613	0.5433	0.5068	0.4184	0.5180	0.53	12	TM				
13	TM*L	1,1-DCE		0.2820	0.2401	0.2099	0.2025	0.2030	0.1646	0.2049	0.22	17	TM*L	0.990			
14	TM	t-Butanol		0.0439	0.0366	0.0320	0.0374	0.0324	0.0334		0.04	12	TM				
15	TM	Acetonitrile		0.0624	0.0599	0.0544	0.0541	0.0459	0.0447	0.0519	0.05	12	TM				
16	TML	Methyl Acetate		0.3761	0.3591	0.3343	0.3029	0.2573			0.33	14	TML	0.990			
17	TM	Iodomethane		0.2926	0.2545	0.2951	0.3298	0.3629	0.2998		0.31	12	TM				
18	TM	Acrylonitrile		0.0995	0.1159	0.1125	0.1046	0.1120	0.0874	0.1029	0.10	9.3	TM				
19	TM	Methylene chloride		0.6468	0.6827	0.6649	0.6391	0.5615	0.4434	0.5513	0.60	14	TM				
20	TM	Carbon disulfide	1.888	1.852	1.796	1.580	1.529	1.502	1.212	1.508	1.6	14	TM				
21	TM	Methyl t-butyl ether (MtBE)	1.380	1.358	1.271	1.310	1.259	1.272	1.038	1.312	1.3	8.2	TM				
22	TM	Trans-1,2-DCE	0.6099	0.6179	0.5658	0.5915	0.5410	0.5199	0.4279	0.5240	0.55	11	TM				
23	TM	Diisopropyl Ether	1.392	1.326	1.234	1.340	1.334	1.347	1.112	1.389	1.3	7.1	TM				
24	TM**	1,1-DCA	1.185	1.042	1.028	1.050	0.9927	0.9388	0.7640	0.9393	0.99	12	TM**				
25	TM	Vinyl Acetate	0.3697	0.4002	0.3401	0.3784	0.3330	0.3321	0.2747	0.3290	0.34	11	TM				
26	TM	Ethyl tert Butyl Ether	1.259	1.217	1.205	1.323	1.327	1.327	1.116	1.453	1.3	8.0	TM				
27	TM	MEK (2-Butanone)			0.1757	0.1712	0.1601	0.1556	0.1210	0.1498	0.16	13	TM				
28	TM	Cis-1,2-DCE	0.6944	0.7078	0.6360	0.6725	0.6456	0.6382	0.5071	0.6173	0.64	9.7	TM				
29	TM	2,2-Dichloropropane		1.066	0.9605	0.9747	0.9195	0.8968	0.7134	0.8769	0.92	12	TM				
30	TM*	Chloroform	1.248	1.163	1.207	1.212	1.173	1.101	0.8858	1.076	1.1	10	TM*				
31	TM	Bromochloromethane	0.3678	0.4234	0.3387	0.3499	0.3436	0.3328	0.2572	0.3063	0.34	14	TM				
32	SL	Dibromofluoromethane(S)	1.047	0.9749	0.7727	0.7744	0.8480	0.8872	0.6664	0.6255	0.82	18	SL	0.994			
33	TM	1,1,1-TCA	1.132	1.141	1.144	1.118	1.045	1.005	0.8142	0.9999	1.0	11	TM				
34	TM	Cyclohexane	0.3956	0.4219	0.3422	0.3661	0.3414	0.3555	0.2954	0.3784	0.36	11	TM				
35	TM	1,1-Dichloropropene	0.6966	0.7083	0.6851	0.6948	0.6606	0.6806	0.5666	0.7195	0.68	7.1	TM				

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

**Form 6**  
**Initial Calibration**

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/23/18 \_\_\_\_\_  
Instrument: Loki \_\_\_\_\_

Initials: \_\_\_\_\_

		Compound	1	2	3	4	5	6	7	8			Avg	%RSD	Type		Q	MRF
36	TM	2,2,4-Trimethylpentane	1.163	1.302	1.174	1.216	1.256	1.291	1.087	1.361			1.2	7.2	TM			
37	SL	1,2-DCA-D4(S)	1.115	1.042	0.7869	0.8259	0.9321	0.9642	0.7437	0.6948			0.89	17	SL	0.994		
38	TM	Carbon Tetrachloride	0.9854	0.9820	0.9172	0.9924	0.9431	0.9409	0.7768	0.9556			0.94	7.4	TM			
39	TM	Tert Amyl Methyl Ether	1.310	1.188	1.194	1.260	1.288	1.306	1.101	1.369			1.3	6.9	TM			
40	TM	1,2-DCA	0.7829	0.7793	0.8483	0.8282	0.8460	0.8076	0.6401	0.7818			0.79	8.4	TM			
41	TM	Benzene	2.220	2.324	2.077	2.172	2.151	2.082	1.675	2.043			2.1	9.1	TM			
42	TM	TCE		0.3022	0.3080	0.3065	0.2939	0.2982	0.2357	0.2907			0.29	8.6	TM			
43	TM	2-Pentanone	0.2637	0.2465	0.2409	0.2507	0.2566	0.2631	0.2671	0.2684			0.26	4.0	TM			
44	TM*	1,2-Dichloropropane	0.6611	0.5631	0.6040	0.5991	0.5564	0.5620	0.4407	0.5379			0.57	11	TM*			
45	TM	Bromodichloromethane	1.057	1.002	0.9188	0.9987	0.9491	0.9075	0.7272	0.8842			0.93	11	TM			
46	TM	Methyl Cyclohexane	0.6165	0.7004	0.6714	0.6681	0.6933	0.6917	0.6085	0.7805			0.68	7.9	TM			
47	TM	Dibromomethane	0.3854	0.4578	0.4629	0.4410	0.3861	0.3758	0.3036	0.3673			0.40	14	TM			
48	TM	2-Chloroethyl vinyl ether													TM			
49	TML	MIBK (methyl isobutyl ketone)		0.5268	0.4655	0.3418	0.3694	0.3537					0.41	20	TML	0.999		
50	TM	1-Bromo-2-chloroethane	0.4000	0.3513	0.3478	0.3717	0.3670	0.3465	0.2877	0.3498			0.35	9.0	TM			
51	TM	Cis-1,3-Dichloropropene	1.030	0.8499	0.9099	0.9698	0.9447	0.9399	0.7858	0.9872			0.93	8.4	TM			
52	TM*	Toluene	2.617	2.540	2.410	2.669	2.603	2.551	2.087	2.538			2.5	7.4	TM*			
53	TM	Trans-1,3-Dichloropropene	0.8798	0.8158	0.8013	0.9332	0.8601	0.8634	0.7225	0.8942			0.85	7.7	TM			
54	TM	1,1,2-TCA	0.4944	0.4163	0.4250	0.4686	0.4243	0.4288	0.3455	0.4130			0.43	10	TM			
55	TM	2-Hexanone	0.2304	0.2372	0.2357	0.2149	0.2153	0.2291	0.1927	0.2581			0.23	8.5	TM			
56	I	Chlorobenzene-D5 (IS)																
57	SL	Toluene-D8(S)	3.014	2.812	2.271	2.412	2.795	2.955	2.192	2.082			2.6	14	SL	0.992		
58	TM	1,2-EDB	0.5082	0.5114	0.4832	0.5542	0.5196	0.5181	0.3990	0.4886			0.50	9.1	TM			
59	TM	Tetrachloroethene	0.7929	0.8044	0.9102	0.9263	0.8625	0.8287	0.6477	0.7810			0.82	11	TM			
60	TM	1-Chlorohexane	0.6237	0.5852	0.5048	0.5952	0.5998	0.6530	0.5290	0.6808			0.60	9.8	TM			
61	TM	1,1,1,2-Tetrachloroethane	0.8986	0.7986	0.7536	0.8112	0.7576	0.7461	0.5752	0.6908			0.75	13	TM			
62	TM	m&p-Xylene	1.100	1.002	0.9618	1.155	1.252	1.285	1.016	1.257			1.1	11	TM			
63	TM	o-Xylene	0.9651	0.8202	0.8636	1.041	1.009	1.036	0.8361	1.050			0.95	10	TM			
64	TM	Styrene	0.8932	0.7227	0.8623	1.037	1.058	1.159	0.9044	1.111			0.97	15	TM			
65	SL	4-Bromofluorobenzene(S)	1.092	1.017	0.8018	0.9328	1.076	1.115	0.8434	0.8110			0.96	14	SL	0.993		
66	TM	1,3-Dichloropropane	0.8201	0.8491	0.8352	0.8583	0.8044	0.8094	0.6232	0.7653			0.80	9.5	TM			
67	TM	Dibromochloromethane	0.7519	0.7377	0.7115	0.7782	0.7235	0.7298	0.5654	0.6843			0.71	9.1	TM			
68	TM**	Chlorobenzene	1.962	1.719	1.809	1.854	1.790	1.755	1.354	1.632			1.7	10	TM**			
69	TM*	Ethylbenzene	2.546	2.376	2.426	2.684	2.636	2.805	2.198	2.702			2.5	7.9	TM*			
70	TM**	Bromoform	0.5797	0.4756	0.4937	0.5272	0.5129	0.5121	0.3965	0.5018			0.50	10	TM**			

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

**Form 6**  
**Initial Calibration**

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/23/18 \_\_\_\_\_  
Instrument: Loki \_\_\_\_\_

Initials: \_\_\_\_\_

	Compound	1	2	3	4	5	6	7	8			Avg	%RSD	Type		Q	MRF
71	I	1,4-Dichlorobenzene-D (IS)															
72	TM	Isopropylbenzene	3.994	4.094	3.710	4.020	4.291	4.176	3.540	4.152		4.0	6.3	TM			
73	TM**	1,1,2,2-Tetrachloroethane	1.130	1.048	1.059	1.082	1.014	0.9181	0.7180	0.8804		0.98	14	TM**			
74	TML	1,2,3-Trichloropropane		0.4177	0.3436	0.3448	0.3465	0.3015	0.2466	0.2950		0.33	16	TML	0.992		
75	TM	t-1,4-Dichloro-2-Butene			0.2245	0.2085	0.2229	0.2098	0.1687	0.2090		0.21	9.7	TM			
76	TM	Bromobenzene	1.467	1.485	1.487	1.438	1.438	1.302	1.065	1.247		1.4	11	TM			
77	TM	n-Propylbenzene	2.808	2.563	2.757	3.104	3.217	3.070	2.671	3.033		2.9	8.1	TM			
78	TM	4-Ethyltoluene	3.832	3.349	3.575	4.045	4.530	4.207	3.519	4.082		3.9	10	TM			
79	TM	2-Chlorotoluene	3.197	2.906	2.880	3.134	3.274	3.012	2.478	2.838		3.0	8.5	TM			
80	TM	1,3,5-Trimethylbenzene	2.055	1.763	1.941	2.356	2.532	2.365	1.966	2.318		2.2	12	TM			
81	TM	4-Chlorotoluene	3.531	3.417	3.258	3.735	3.966	3.636	2.935	3.418		3.5	9.0	TM			
82	TM	Tert-Butylbenzene	3.011	3.001	2.678	3.222	3.336	3.229	2.748	3.290		3.1	8.1	TM			
83	TM	1,2,4-Trimethylbenzene	2.912	2.965	2.762	3.515	3.980	3.822	3.182	3.799		3.4	14	TM			
84	TM	Sec-Butylbenzene	4.437	4.072	3.819	4.501	4.930	4.636	3.905	4.658		4.4	9.1	TM			
85	TM	p-Isopropyltoluene	4.093	3.886	3.510	4.328	4.491	4.251	3.539	4.307		4.1	9.1	TM			
86	TM	Benzyl Chloride	1.743	1.383	1.434	1.431	1.510	1.405	1.198	1.503		1.5	11	TM			
87	TM	1,3-DCB	2.843	2.685	2.552	2.719	2.776	2.494	2.027	2.439		2.6	10	TM			
88	TM	1,4-DCB	3.020	2.944	2.952	2.802	2.841	2.521	2.009	2.470		2.7	13	TM			
89	TM	n-Butylbenzene	3.017	2.891	2.928	3.229	3.547	3.453	2.871	3.575		3.2	9.5	TM			
90	TM	1,2-DCB	2.738	2.521	2.480	2.488	2.567	2.333	1.925	2.369		2.4	9.8	TM			
91	TM	Hexachloroethane	1.055	1.031	0.9343	0.8929	0.9610	0.8074	0.6562	0.8412		0.90	14	TM			
92	TM	1,2-Dibromo-3-chloropropane			0.1707	0.1833	0.1927	0.1565	0.1464	0.1717		0.17	10.0	TM			
93	TM	1,2,4-Trichlorobenzene	1.668	1.429	1.376	1.568	1.656	1.618	1.444	1.819		1.6	9.5	TM			
94	TM	Hexachlorobutadiene	1.211	1.251	1.114	1.066	1.086	0.9786	0.8317	1.007		1.1	12	TM			
95	TML	Naphthalene		1.822	1.482	1.988	2.225	2.400	2.259			2.0	17	TML	0.999		
96	TM	1,2,3-Trichlorobenzene	0.8055	0.7264	0.6227	0.8464	0.8588	0.8584	0.7525	0.9184		0.80	12	TM			
97																	
98																	
99																	
100																	
101																	
102																	
103																	
104																	
105																	

Data File : M:\LOKI\DATA\181023\1023L03.D  
 Acq On : 23 Oct 18 13:39  
 Sample : 0.3ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 2  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:16:04 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	227904	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	248256	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	139776	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	47710	3.8289	ppb	0.00
Spiked Amount 25.000			Recovery =	15.316%		
37) 1,2-DCA-D4(S)	4.36	65	50837	7.7256	ppb	0.00
Spiked Amount 25.000			Recovery =	30.904%		
57) Toluene-D8(S)	6.91	98	149671	6.9916	ppb	0.00
Spiked Amount 25.000			Recovery =	27.968%		
65) 4-Bromofluorobenzene(S)	9.84	95	54237	6.5375	ppb	0.00
Spiked Amount 25.000			Recovery =	26.152%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	2097	0.3067	ppb	# 79
3) Freon 114	0.79	85	1434	0.3238	ppb	98
4) Chloromethane	0.82	50	2343	0.2297	ppb	# 74
5) Vinyl chloride	0.87	62	2257	0.3958	ppb	94
6) Bromomethane	1.04	94	1767	0.4274	ppb	84
7) Chloroethane	1.10	64	985	0.3081	ppb	# 65
8) Dichlorofluoromethane	1.21	67	3053	0.3124	ppb	95
9) Trichlorofluoromethane	1.24	101	3060	0.3156	ppb	100
10) Acrolein	1.50	56	3933	12.0458	ppb	# 85
11) Acetone	1.60	43	5848	1.7260	ppb	99
12) Freon-113	1.57	101	1465	0.3006	ppb	91
13) 1,1-DCE	1.56	63	678	0.9835	ppb	91
14) t-Butanol	2.05	59	4537	11.9654	ppb	91
15) Acetonitrile	1.79	41	7963	13.7337	ppb	# 86
16) Methyl Acetate	1.85	43	1486	-0.2239	ppb	94
17) Iodomethane	1.65	142	912	0.3272	ppb	# 67
18) Acrylonitrile	2.12	52	173	0.1808	ppb	# 1
19) Methylene chloride	1.90	84	1752	0.3211	ppb	# 70
20) Carbon disulfide	1.69	76	5163	0.3522	ppb	# 79
21) Methyl t-butyl ether (MtBE)	2.15	73	3774	0.3247	ppb	95
22) Trans-1,2-DCE	2.12	96	1668	0.3328	ppb	85
23) Diisopropyl Ether	2.64	45	3806	0.3189	ppb	92
24) 1,1-DCA	2.51	63	3241	0.3582	ppb	98
25) Vinyl Acetate	2.64	43	1011	0.3218	ppb	# 95
26) Ethyl tert Butyl Ether	3.06	59	3442	0.2954	ppb	89
27) MEK (2-Butanone)	3.26	43	553	0.3899	ppb	# 43
28) Cis-1,2-DCE	3.17	96	1899	0.3256	ppb	83
29) 2,2-Dichloropropane	3.14	77	2666	0.3195	ppb	94
30) Chloroform	3.63	83	3414	0.3305	ppb	81
31) Bromochloromethane	3.48	128	1006	0.3246	ppb	83
33) 1,1,1-TCA	3.84	97	3097	0.3236	ppb	96
34) Cyclohexane	3.92	41	1082	0.3278	ppb	94
35) 1,1-Dichloropropene	4.15	75	1905	0.3089	ppb	# 87
36) 2,2,4-Trimethylpentane	4.63	57	3180	0.2833	ppb	# 77
38) Carbon Tetrachloride	4.10	117	2695	0.3156	ppb	76
39) Tert Amyl Methyl Ether	4.72	73	3584	0.3140	ppb	# 92
40) 1,2-DCA	4.48	62	2141	0.2976	ppb	# 78
41) Benzene	4.43	78	6072	0.3183	ppb	# 86
42) TCE	5.40	95	1151	0.4342	ppb	# 67

(#) = qualifier out of range (m) = manual integration  
 1023L03.D L1023W.M Wed Oct 24 07:46:03 2018

Data File : M:\LOKI\DATA\181023\1023L03.D  
 Acq On : 23 Oct 18 13:39  
 Sample : 0.3ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 2  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:16:04 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.72	43	24038	9.1642	ppb	99
44) 1,2-Dichloropropane	5.67	63	1808	0.3507	ppb #	71
45) Bromodichloromethane	6.06	83	2891	0.3408	ppb #	87
46) Methyl Cyclohexane	5.61	83	1686	0.2725	ppb	77
47) Dibromomethane	5.80	93	1054	0.2909	ppb	78
49) MIBK (methyl isobutyl ket	6.85	43	987	0.0815	ppb #	69
50) 1-Bromo-2-chloroethane	6.39	63	1094	0.3402	ppb	96
51) Cis-1,3-Dichloropropene	6.63	75	2816	0.3332	ppb #	57
52) Toluene	6.99	91	7156	0.3138	ppb	81
53) Trans-1,3-Dichloropropene	7.30	75	2406	0.3119	ppb	92
54) 1,1,2-TCA	7.49	83	1352	0.3473	ppb	96
55) 2-Hexanone	7.84	43	630	0.3049	ppb #	52
58) 1,2-EDB	8.00	107	1514	0.3063	ppb #	76
59) Tetrachloroethene	7.61	166	2362	0.2904	ppb #	83
60) 1-Chlorohexane	8.61	91	1858	0.3137	ppb	93
61) 1,1,1,2-Tetrachloroethane	8.68	131	2677	0.3576	ppb	99
62) m&p-Xylene	8.86	91	6551	0.5845	ppb	87
63) o-Xylene	9.28	106	2875	0.3039	ppb	94
64) Styrene	9.31	104	2661	0.2767	ppb	93
66) 1,3-Dichloropropane	7.67	76	2443	0.3092	ppb	99
67) Dibromochloromethane	7.90	129	2240	0.3176	ppb	88
68) Chlorobenzene	8.57	112	5844	0.3393	ppb	92
69) Ethylbenzene	8.72	91	7585	0.2999	ppb	87
70) Bromoform	9.46	173	1727	0.3479	ppb	88
72) Isopropylbenzene	9.70	105	6700	0.2998	ppb #	86
73) 1,1,2,2-Tetrachloroethane	10.05	83	1896	0.3456	ppb	97
74) 1,2,3-Trichloropropane	10.05	110	688	0.2812	ppb	88
75) t-1,4-Dichloro-2-Butene	10.11	53	87	0.0751	ppb	99
76) Bromobenzene	9.98	156	2460	0.3221	ppb	87
77) n-Propylbenzene	10.15	91	4710	0.2902	ppb #	82
78) 4-Ethyltoluene	10.28	105	6428	0.2954	ppb	98
79) 2-Chlorotoluene	10.21	91	5363	0.3235	ppb	99
80) 1,3,5-Trimethylbenzene	10.35	105	3447	0.2852	ppb	84
81) 4-Chlorotoluene	10.33	91	5922	0.3038	ppb	97
82) Tert-Butylbenzene	10.69	119	5051	0.2948	ppb	99
83) 1,2,4-Trimethylbenzene	10.74	105	4884	0.2594	ppb	95
84) Sec-Butylbenzene	10.93	105	7443	0.3046	ppb	96
85) p-Isopropyltoluene	11.09	119	6865	0.3031	ppb	97
86) Benzyl Chloride	11.26	91	2923	0.3603	ppb	95
87) 1,3-DCB	11.00	146	4769	0.3323	ppb #	88
88) 1,4-DCB	11.10	146	5066	0.3362	ppb	98
89) n-Butylbenzene	11.53	91	5060	0.2838	ppb	94
90) 1,2-DCB	11.50	146	4593	0.3384	ppb	96
91) Hexachloroethane	11.77	117	1769	0.3526	ppb	96
92) 1,2-Dibromo-3-chloropropan	12.32	75	406	0.4266	ppb #	33
93) 1,2,4-Trichlorobenzene	13.22	180	2797	0.3182	ppb	96
94) Hexachlorobutadiene	13.43	225	2032	0.3402	ppb	94
95) Naphthalene	13.47	128	2997	0.3804	ppb #	86
96) 1,2,3-Trichlorobenzene	13.72	180	1351	0.3026	ppb #	66

(#) = qualifier out of range (m) = manual integration  
 1023L03.D L1023W.M Wed Oct 24 07:46:04 2018

Quantitation Report

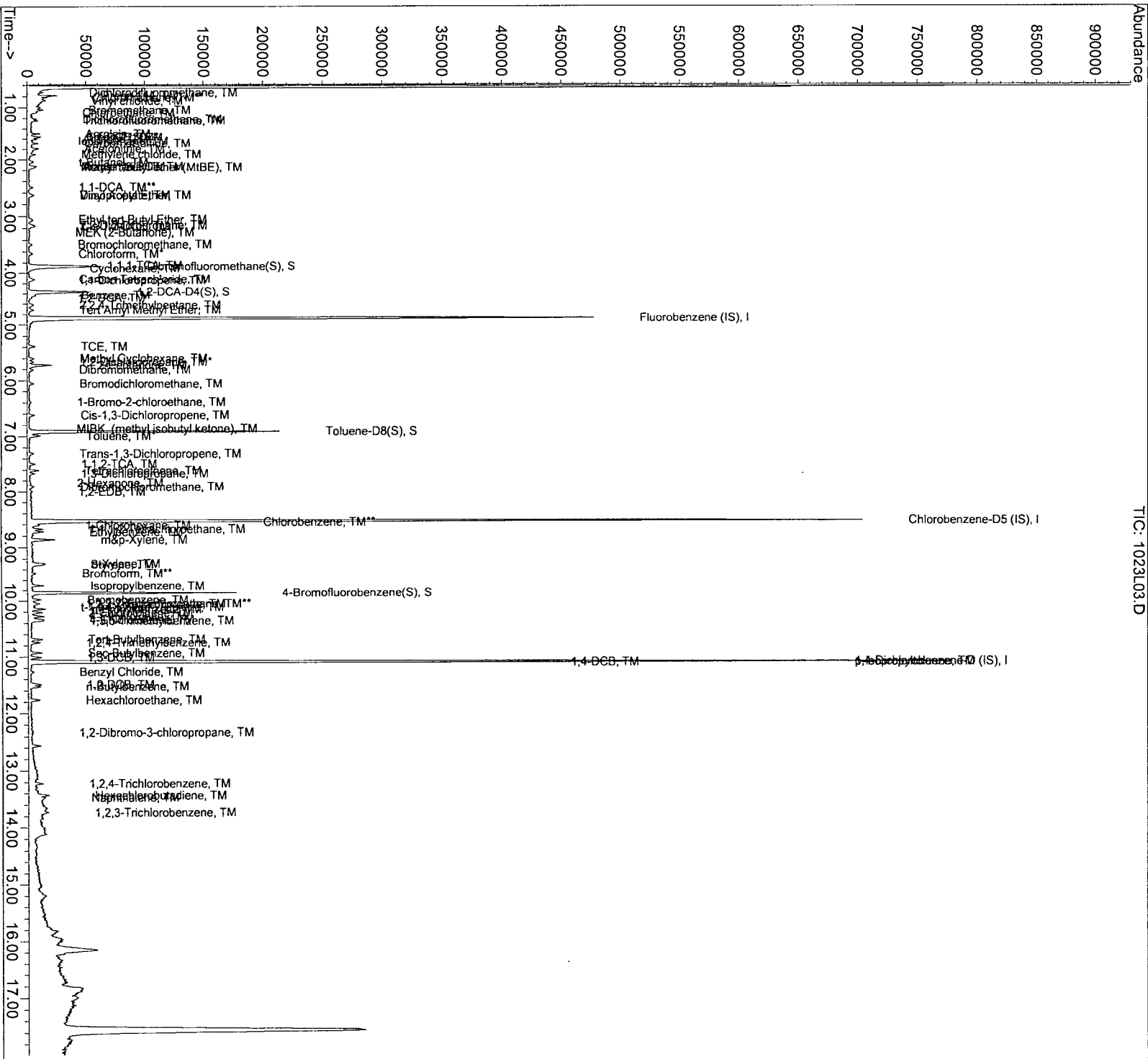
Data File : M:\LOKI\DATA\181023\1023L03.D  
Acq On : 23 Oct 18 13:39  
Sample : 0.3ug/L VOC STD 10/23/18  
Misc : ISSS 9/28/18,8/23/18

Vial : 2  
Operator : PM,DG,SV,CMM,KV  
Inst : LOKI  
Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 07:41:53 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181023\1023L04.D  
 Acq On : 23 Oct 18 14:07  
 Sample : 0.5ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	230144	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	257024	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	140416	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	44873	3.2339	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	12.936%	
37) 1,2-DCA-D4(S)	4.36	65	47959	7.2173	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	28.868%	
57) Toluene-D8(S)	6.91	98	144541	6.5216	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	26.088%	
65) 4-Bromofluorobenzene(S)	9.84	95	52263	6.0847	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	24.340%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	4020	0.5823	ppb	94
3) Freon 114	0.79	85	2334	0.5220	ppb	100
4) Chloromethane	0.82	50	3575	0.4770	ppb	89
5) Vinyl chloride	0.87	62	3461	0.6010	ppb	93
6) Bromomethane	1.04	94	2905	0.7211	ppb	89
7) Chloroethane	1.10	64	1833	0.5678	ppb	85
8) Dichlorofluoromethane	1.21	67	5774	0.5850	ppb	89
9) Trichlorofluoromethane	1.24	101	5368	0.5482	ppb	97
10) Acrolein	1.50	56	8804	26.7021	ppb	# 99
11) Acetone	1.61	43	4519	0.4200	ppb	91
12) Freon-113	1.57	101	2710	0.5507	ppb	94
13) 1,1-DCE	1.56	63	1298	1.3186	ppb	# 64
14) t-Butanol	2.05	59	10108	26.3984	ppb	96
15) Acetonitrile	1.79	41	14356	24.5187	ppb	# 82
16) Methyl Acetate	1.84	43	1731	-0.1256	ppb	91
17) Iodomethane	1.65	142	1347	0.4785	ppb	# 91
18) Acrylonitrile	2.11	52	458	0.4740	ppb	# 25
19) Methylene chloride	1.91	84	2977	0.5403	ppb	89
20) Carbon disulfide	1.69	76	8523	0.5757	ppb	94
21) Methyl t-butyl ether (MtBE)	2.15	73	6250	0.5325	ppb	95
22) Trans-1,2-DCE	2.13	96	2844	0.5620	ppb	85
23) Diisopropyl Ether	2.65	45	6105	0.5065	ppb	98
24) 1,1-DCA	2.51	63	4794	0.5247	ppb	95
25) Vinyl Acetate	2.64	43	1842	0.5806	ppb	# 95
26) Ethyl tert Butyl Ether	3.06	59	5603	0.4762	ppb	# 83
27) MEK (2-Butanone)	3.25	43	1027	0.7170	ppb	92
28) Cis-1,2-DCE	3.16	96	3258	0.5531	ppb	82
29) 2,2-Dichloropropane	3.14	77	4906	0.5822	ppb	97
30) Chloroform	3.64	83	5352	0.5130	ppb	80
31) Bromochloromethane	3.47	128	1949	0.6227	ppb	94
33) 1,1,1-TCA	3.85	97	5252	0.5434	ppb	95
34) Cyclohexane	3.91	41	1942	0.5827	ppb	82
35) 1,1-Dichloropropene	4.14	75	3260	0.5235	ppb	95
36) 2,2,4-Trimethylpentane	4.63	57	5994	0.5288	ppb	# 79
38) Carbon Tetrachloride	4.12	117	4520	0.5242	ppb	92
39) Tert Amyl Methyl Ether	4.71	73	5466	0.4743	ppb	# 86
40) 1,2-DCA	4.48	62	3587	0.4937	ppb	99
41) Benzene	4.43	78	10696	0.5552	ppb	94
42) TCE	5.38	95	1391	0.5197	ppb	# 85

(#) = qualifier out of range (m) = manual integration  
 1023L04.D L1023W.M Wed Oct 24 07:46:07 2018

Data File : M:\LOKI\DATA\181023\1023L04.D  
 Acq On : 23 Oct 18 14:07  
 Sample : 0.5ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.72	43	56561	21.3534	ppb	99
44) 1,2-Dichloropropane	5.65	63	2592	0.4979	ppb #	88
45) Bromodichloromethane	6.06	83	4613	0.5385	ppb	90
46) Methyl Cyclohexane	5.60	83	3224	0.5159	ppb	87
47) Dibromomethane	5.81	93	2107	0.5758	ppb	86
49) MIBK (methyl isobutyl ket	6.86	43	2425	0.5237	ppb	96
50) 1-Bromo-2-chloroethane	6.39	63	1617	0.4980	ppb	99
51) Cis-1,3-Dichloropropene	6.63	75	3912	0.4584	ppb #	82
52) Toluene	6.99	91	11693	0.5077	ppb	81
53) Trans-1,3-Dichloropropene	7.30	75	3755	0.4820	ppb	92
54) 1,1,2-TCA	7.48	83	1916	0.4874	ppb	93
55) 2-Hexanone	7.84	43	1092	0.5233	ppb #	63
58) 1,2-EDB	7.99	107	2629	0.5137	ppb	96
59) Tetrachloroethene	7.61	166	4135	0.4910	ppb	86
60) 1-Chlorohexane	8.62	91	3008	0.4906	ppb	89
61) 1,1,1,2-Tetrachloroethane	8.68	131	4105	0.5296	ppb	87
62) m&p-Xylene	8.86	91	10306	0.8882	ppb	95
63) o-Xylene	9.28	106	4216	0.4305	ppb	97
64) Styrene	9.30	104	3715	0.3731	ppb	99
66) 1,3-Dichloropropane	7.66	76	4365	0.5336	ppb	83
67) Dibromochloromethane	7.91	129	3792	0.5193	ppb	97
68) Chlorobenzene	8.56	112	8838	0.4957	ppb	89
69) Ethylbenzene	8.72	91	12215	0.4665	ppb	91
70) Bromoform	9.46	173	2445	0.4757	ppb	93
72) Isopropylbenzene	9.70	105	11498	0.5121	ppb	93
73) 1,1,2,2-Tetrachloroethane	10.04	83	2943	0.5340	ppb	84
74) 1,2,3-Trichloropropane	10.07	110	1173	0.5813	ppb	79
75) t-1,4-Dichloro-2-Butene	10.11	53	462	0.3969	ppb	98
76) Bromobenzene	9.98	156	4170	0.5436	ppb	78
77) n-Propylbenzene	10.15	91	7198	0.4415	ppb	98
78) 4-Ethyltoluene	10.28	105	9405	0.4302	ppb	88
79) 2-Chlorotoluene	10.21	91	8161	0.4901	ppb	90
80) 1,3,5-Trimethylbenzene	10.35	105	4950	0.4077	ppb	95
81) 4-Chlorotoluene	10.33	91	9595	0.4899	ppb	100
82) Tert-Butylbenzene	10.69	119	8429	0.4897	ppb	97
83) 1,2,4-Trimethylbenzene	10.74	105	8328	0.4404	ppb	94
84) Sec-Butylbenzene	10.92	105	11435	0.4659	ppb	100
85) p-Isopropyltoluene	11.09	119	10913	0.4797	ppb	98
86) Benzyl Chloride	11.26	91	3884	0.4766	ppb #	87
87) 1,3-DCB	11.00	146	7541	0.5230	ppb	88
88) 1,4-DCB	11.10	146	8268	0.5462	ppb	96
89) n-Butylbenzene	11.53	91	8120	0.4534	ppb	91
90) 1,2-DCB	11.49	146	7080	0.5192	ppb	90
91) Hexachloroethane	11.77	117	2895	0.5744	ppb	88
92) 1,2-Dibromo-3-chloropropan	12.32	75	563	0.5889	ppb #	79
93) 1,2,4-Trichlorobenzene	13.22	180	4013	0.4545	ppb	90
94) Hexachlorobutadiene	13.43	225	3512	0.5854	ppb	84
95) Naphthalene	13.47	128	5116	0.5445	ppb	94
96) 1,2,3-Trichlorobenzene	13.73	180	2040	0.4548	ppb	90

(#) = qualifier out of range (m) = manual integration  
 1023L04.D L1023W.M Wed Oct 24 07:46:08 2018

Quantitation Report

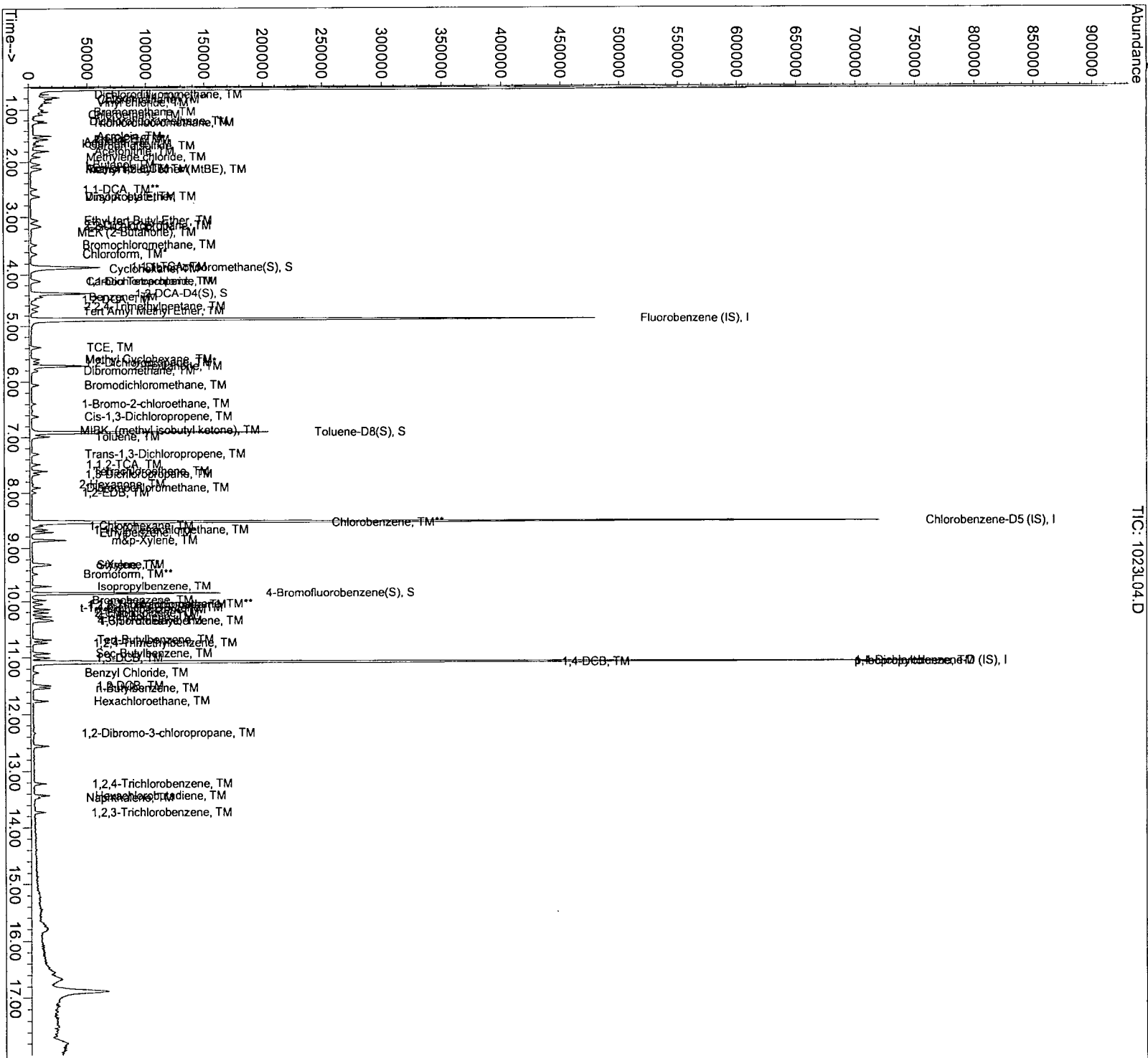
Data File : M:\LOKI\DATA\181023\1023L04.D  
 Acq On : 23 Oct 18 14:07  
 Sample : 0.5ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial : 3  
 Operator : PM, DG, SV, CMM, KV  
 Inst : LOKI  
 Multiplr : 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:41:53 2018  
 Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L05.D  
 Acq On : 23 Oct 18 14:35  
 Sample : 1.0ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	226944	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	244864	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	139840	25.0000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	3.88	111	70141	7.9599	ppb	0.00
Spiked Amount			Recovery	=	31.840%	
37) 1,2-DCA-D4(S)	4.37	65	71429	10.9008	ppb	0.00
Spiked Amount			Recovery	=	43.604%	
57) Toluene-D8(S)	6.91	98	222436	10.5346	ppb	0.00
Spiked Amount			Recovery	=	42.140%	
65) 4-Bromofluorobenzene(S)	9.84	95	78536	9.5976	ppb	0.00
Spiked Amount			Recovery	=	38.392%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.73	85	7921	1.1636	ppb	100
3) Freon 114	0.79	85	5344	1.2119	ppb	99
4) Chloromethane	0.82	50	6436	1.0808	ppb	100
5) Vinyl chloride	0.87	62	6045	1.0645	ppb	87
6) Bromomethane	1.04	94	5409	1.3975	ppb	92
7) Chloroethane	1.10	64	3859	1.2123	ppb	# 83
8) Dichlorofluoromethane	1.21	67	10516	1.0804	ppb	99
9) Trichlorofluoromethane	1.24	101	10452	1.0825	ppb	95
10) Acrolein	1.49	56	15684	48.2395	ppb	# 97
11) Acetone	1.60	43	5319	1.2442	ppb	100
12) Freon-113	1.57	101	5497	1.1327	ppb	94
13) 1,1-DCE	1.55	63	2180	1.8172	ppb	87
14) t-Butanol	2.05	59	16400	43.4347	ppb	93
15) Acetonitrile	1.79	41	27192	47.0963	ppb	99
16) Methyl Acetate	1.85	43	3260	0.5463	ppb	94
17) Iodomethane	1.64	142	2310	0.8322	ppb	96
18) Acrylonitrile	2.11	52	1052	1.1040	ppb	# 38
19) Methylene chloride	1.90	84	6197	1.1406	ppb	87
20) Carbon disulfide	1.69	76	16300	1.1166	ppb	93
21) Methyl t-butyl ether (MtBE)	2.15	73	11539	0.9970	ppb	97
22) Trans-1,2-DCE	2.12	96	5136	1.0292	ppb	93
23) Diisopropyl Ether	2.64	45	11203	0.9427	ppb	92
24) 1,1-DCA	2.51	63	9328	1.0354	ppb	96
25) Vinyl Acetate	2.64	43	3087	0.9867	ppb	# 95
26) Ethyl tert Butyl Ether	3.07	59	10936	0.9425	ppb	# 88
27) MEK (2-Butanone)	3.25	43	1595	1.1293	ppb	90
28) Cis-1,2-DCE	3.18	96	5773	0.9939	ppb	97
29) 2,2-Dichloropropane	3.15	77	8719	1.0493	ppb	# 89
30) Chloroform	3.64	83	10955	1.0649	ppb	87
31) Bromochloromethane	3.47	128	3075	0.9963	ppb	91
33) 1,1,1-TCA	3.85	97	10389	1.0900	ppb	81
34) Cyclohexane	3.91	41	3106	0.9450	ppb	92
35) 1,1-Dichloropropene	4.14	75	6219	1.0127	ppb	95
36) 2,2,4-Trimethylpentane	4.62	57	10660	0.9537	ppb	# 68
38) Carbon Tetrachloride	4.12	117	8326	0.9792	ppb	90
39) Tert Amyl Methyl Ether	4.71	73	10835	0.9534	ppb	# 96
40) 1,2-DCA	4.49	62	7701	1.0748	ppb	100
41) Benzene	4.43	78	18851	0.9922	ppb	93
42) TCE	5.39	95	2796	1.0593	ppb	94

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

Data File : M:\LOKI\DATA\181023\1023L05.D  
 Acq On : 23 Oct 18 14:35  
 Sample : 1.0ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.72	43	109171	41.7963	ppb	95
44) 1,2-Dichloropropane	5.66	63	5483	1.0680	ppb #	88
45) Bromodichloromethane	6.05	83	8341	0.9874	ppb	86
46) Methyl Cyclohexane	5.60	83	6095	0.9891	ppb	100
47) Dibromomethane	5.80	93	4202	1.1645	ppb	78
49) MIBK (methyl isobutyl ket	6.87	43	4226	1.0997	ppb #	91
50) 1-Bromo-2-chloroethane	6.39	63	3157	0.9860	ppb	94
51) Cis-1,3-Dichloropropene	6.62	75	8260	0.9815	ppb #	83
52) Toluene	6.99	91	21875	0.9632	ppb	98
53) Trans-1,3-Dichloropropene	7.30	75	7274	0.9468	ppb	96
54) 1,1,2-TCA	7.48	83	3858	0.9953	ppb	95
55) 2-Hexanone	7.85	43	2140	1.0400	ppb #	71
58) 1,2-EDB	7.99	107	4733	0.9707	ppb	85
59) Tetrachloroethene	7.61	166	8915	1.1111	ppb	91
60) 1-Chlorohexane	8.61	91	4944	0.8463	ppb	97
61) 1,1,1,2-Tetrachloroethane	8.68	131	7381	0.9995	ppb	88
62) m&p-Xylene	8.86	91	18840	1.7044	ppb	95
63) o-Xylene	9.28	106	8459	0.9066	ppb	86
64) Styrene	9.30	104	8446	0.8903	ppb	92
66) 1,3-Dichloropropane	7.66	76	8180	1.0497	ppb	88
67) Dibromochloromethane	7.90	129	6969	1.0017	ppb	90
68) Chlorobenzene	8.57	112	17719	1.0431	ppb	86
69) Ethylbenzene	8.72	91	23764	0.9527	ppb	94
70) Bromoform	9.47	173	4836	0.9876	ppb	90
72) Isopropylbenzene	9.70	105	20751	0.9281	ppb	94
73) 1,1,2,2-Tetrachloroethane	10.04	83	5923	1.0792	ppb	94
74) 1,2,3-Trichloropropane	10.06	110	1922	1.0528	ppb	84
75) t-1,4-Dichloro-2-Butene	10.10	53	1256	1.0835	ppb	94
76) Bromobenzene	9.97	156	8315	1.0883	ppb	96
77) n-Propylbenzene	10.15	91	15422	0.9498	ppb	95
78) 4-Ethyltoluene	10.27	105	19995	0.9184	ppb	97
79) 2-Chlorotoluene	10.20	91	16109	0.9713	ppb	96
80) 1,3,5-Trimethylbenzene	10.35	105	10857	0.8978	ppb	88
81) 4-Chlorotoluene	10.33	91	18223	0.9343	ppb	97
82) Tert-Butylbenzene	10.69	119	14980	0.8739	ppb	97
83) 1,2,4-Trimethylbenzene	10.74	105	15448	0.8202	ppb	97
84) Sec-Butylbenzene	10.92	105	21364	0.8740	ppb	95
85) p-Isopropyltoluene	11.09	119	19631	0.8664	ppb	97
86) Benzyl Chloride	11.26	91	8020	0.9882	ppb	95
87) 1,3-DCB	11.00	146	14275	0.9942	ppb	98
88) 1,4-DCB	11.10	146	16515	1.0956	ppb	99
89) n-Butylbenzene	11.53	91	16379	0.9183	ppb	92
90) 1,2-DCB	11.49	146	13871	1.0215	ppb	97
91) Hexachloroethane	11.76	117	5226	1.0412	ppb	78
92) 1,2-Dibromo-3-chloropropan	12.33	75	955	1.0031	ppb #	83
93) 1,2,4-Trichlorobenzene	13.22	180	7696	0.8751	ppb	81
94) Hexachlorobutadiene	13.43	225	6234	1.0433	ppb	95
95) Naphthalene	13.46	128	8292	0.7948	ppb	97
96) 1,2,3-Trichlorobenzene	13.73	180	3483	0.7797	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1023L05.D L1023W.M Wed Oct 24 07:46:12 2018

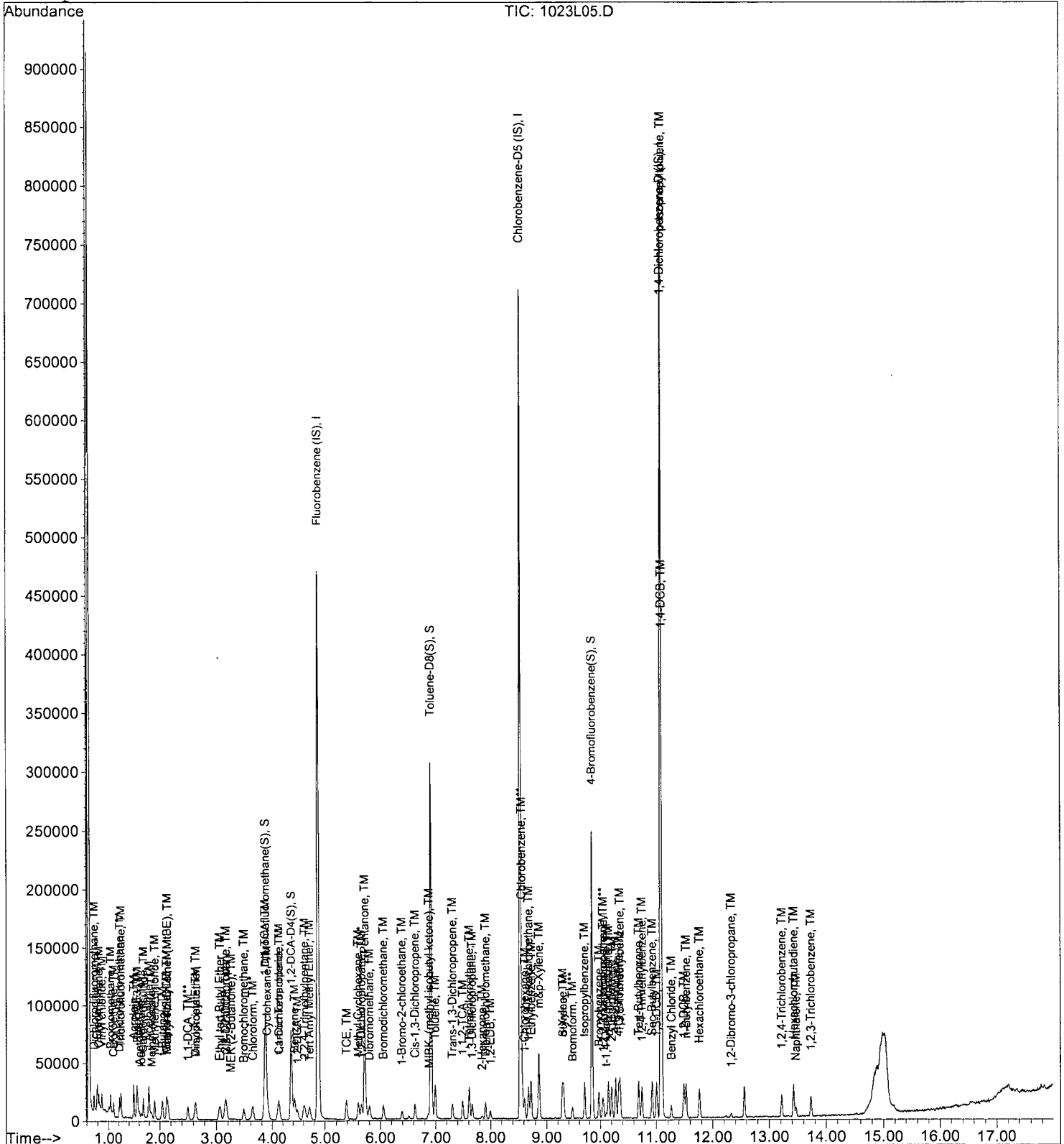
Data File : M:\LOKI\DATA\181023\1023L05.D  
Acq On : 23 Oct 18 14:35  
Sample : 1.0ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18, 8/23/18

Vial: 4  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 07:41:53 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L06.D  
 Acq On : 23 Oct 18 15:03  
 Sample : 5.0ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 5  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	236672	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	255872	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	162048	25.0000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	3.88	111	73308	7.9880	ppb	0.00
Spiked Amount						
						Recovery = 31.952%
37) 1,2-DCA-D4(S)	4.37	65	78190	11.4421	ppb	0.00
Spiked Amount						
						Recovery = 45.768%
57) Toluene-D8(S)	6.91	98	246891	11.1898	ppb	0.00
Spiked Amount						
						Recovery = 44.760%
65) 4-Bromofluorobenzene(S)	9.84	95	95468	11.1648	ppb	0.00
Spiked Amount						
						Recovery = 44.660%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.73	85	31296	4.4083	ppb	95
3) Freon 114	0.79	85	22053	4.7957	ppb	100
4) Chloromethane	0.82	50	30705	5.8534	ppb	97
5) Vinyl chloride	0.87	62	30523	5.1539	ppb	97
6) Bromomethane	1.04	94	24566	6.2215	ppb	100
7) Chloroethane	1.10	64	17344	5.2248	ppb	98
8) Dichlorofluoromethane	1.21	67	51693	5.0928	ppb	97
9) Trichlorofluoromethane	1.24	101	53730	5.3360	ppb	95
10) Acrolein	1.49	56	32672	96.3592	ppb	97
11) Acetone	1.60	43	10628	5.8984	ppb	96
12) Freon-113	1.57	101	26568	5.2498	ppb	95
13) 1,1-DCE	1.55	63	9935	5.8877	ppb	91
14) t-Butanol	2.05	59	30322	77.0057	ppb	99
15) Acetonitrile	1.79	41	51515	85.5561	ppb	97
16) Methyl Acetate	1.84	43	15824	5.7007	ppb	94
17) Iodomethane	1.65	142	13968	4.8251	ppb	98
18) Acrylonitrile	2.11	52	5324	5.3576	ppb	73
19) Methylene chloride	1.90	84	31472	5.5545	ppb	91
20) Carbon disulfide	1.69	76	74765	4.9109	ppb	99
21) Methyl t-butyl ether (MtBE)	2.15	73	61985	5.1356	ppb	97
22) Trans-1,2-DCE	2.13	96	27997	5.3797	ppb	94
23) Diisopropyl Ether	2.64	45	63406	5.1159	ppb	94
24) 1,1-DCA	2.51	63	49724	5.2925	ppb	99
25) Vinyl Acetate	2.64	43	17912	5.4900	ppb	99
26) Ethyl tert Butyl Ether	3.06	59	62627	5.1755	ppb	99
27) MEK (2-Butanone)	3.24	43	8105	5.5027	ppb	94
28) Cis-1,2-DCE	3.17	96	31830	5.2548	ppb	96
29) 2,2-Dichloropropane	3.15	77	46139	5.3243	ppb	99
30) Chloroform	3.64	83	57375	5.3480	ppb	96
31) Bromochloromethane	3.48	128	16562	5.1457	ppb	96
33) 1,1,1-TCA	3.85	97	52916	5.3239	ppb	99
34) Cyclohexane	3.91	41	17330	5.0560	ppb	96
35) 1,1-Dichloropropene	4.13	75	32890	5.1356	ppb	98
36) 2,2,4-Trimethylpentane	4.63	57	57576	4.9391	ppb	93
38) Carbon Tetrachloride	4.11	117	46973	5.2973	ppb	90
39) Tert Amyl Methyl Ether	4.71	73	59661	5.0339	ppb	99
40) 1,2-DCA	4.48	62	39204	5.2468	ppb	97
41) Benzene	4.43	78	102788	5.1879	ppb	99
42) TCE	5.38	95	14509	5.2711	ppb	93

(#) = qualifier out of range (m) = manual integration  
 1023L06.D L1023W.M Wed Oct 24 07:46:15 2018

Data File : M:\LOKI\DATA\181023\1023L06.D  
 Acq On : 23 Oct 18 15:03  
 Sample : 5.0ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 5  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	237020	87.0136	ppb	98
44) 1,2-Dichloropropane	5.66	63	28359	5.2969	ppb #	96
45) Bromodichloromethane	6.05	83	47272	5.3658	ppb	96
46) Methyl Cyclohexane	5.60	83	31625	4.9214	ppb	97
47) Dibromomethane	5.80	93	20873	5.5470	ppb	92
49) MIBK (methyl isobutyl ket	6.86	43	16179	4.6434	ppb	96
50) 1-Bromo-2-chloroethane	6.39	63	17592	5.2684	ppb	97
51) Cis-1,3-Dichloropropene	6.62	75	45905	5.2302	ppb	94
52) Toluene	6.99	91	126345	5.3345	ppb	95
53) Trans-1,3-Dichloropropene	7.30	75	44172	5.5135	ppb	100
54) 1,1,2-TCA	7.49	83	22182	5.4875	ppb	95
55) 2-Hexanone	7.84	43	10173	4.7406	ppb #	82
58) 1,2-EDB	7.99	107	28360	5.5662	ppb	99
59) Tetrachloroethene	7.61	166	47401	5.6535	ppb	94
60) 1-Chlorohexane	8.61	91	30460	4.9899	ppb	96
61) 1,1,1,2-Tetrachloroethane	8.68	131	41514	5.3797	ppb	96
62) m&p-Xylene	8.86	91	118232	10.2358	ppb	99
63) o-Xylene	9.28	106	53253	5.4620	ppb	92
64) Styrene	9.30	104	53072	5.3534	ppb	99
66) 1,3-Dichloropropane	7.66	76	43923	5.3938	ppb	93
67) Dibromochloromethane	7.90	129	39825	5.4782	ppb	97
68) Chlorobenzene	8.57	112	94881	5.3451	ppb	98
69) Ethylbenzene	8.72	91	137367	5.2699	ppb	99
70) Bromoform	9.46	173	26979	5.2725	ppb	100
72) Isopropylbenzene	9.70	105	130292	5.0287	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.04	83	35075	5.5150	ppb	95
74) 1,2,3-Trichloropropane	10.06	110	11174	5.8820	ppb	87
75) t-1,4-Dichloro-2-Butene	10.10	53	6758	5.0309	ppb	93
76) Bromobenzene	9.97	156	46604	5.2639	ppb	99
77) n-Propylbenzene	10.15	91	100584	5.3459	ppb	99
78) 4-Ethyltoluene	10.27	105	131092	5.1960	ppb	96
79) 2-Chlorotoluene	10.20	91	101354	5.2738	ppb	98
80) 1,3,5-Trimethylbenzene	10.35	105	76352	5.4487	ppb	99
81) 4-Chlorotoluene	10.33	91	121061	5.3561	ppb	97
82) Tert-Butylbenzene	10.69	119	104408	5.2565	ppb	97
83) 1,2,4-Trimethylbenzene	10.74	105	113915	5.2195	ppb	97
84) Sec-Butylbenzene	10.92	105	145890	5.1506	ppb	99
85) p-Isopropyltoluene	11.09	119	140280	5.3428	ppb	97
86) Benzyl Chloride	11.26	91	46366	4.9299	ppb	97
87) 1,3-DCB	11.00	146	88127	5.2965	ppb	98
88) 1,4-DCB	11.10	146	90818	5.1990	ppb	97
89) n-Butylbenzene	11.53	91	104644	5.0628	ppb	99
90) 1,2-DCB	11.49	146	80650	5.1251	ppb	98
91) Hexachloroethane	11.76	117	28938	4.9754	ppb	99
92) 1,2-Dibromo-3-chloropropan	12.32	75	5940	5.3842	ppb #	87
93) 1,2,4-Trichlorobenzene	13.21	180	50813	4.9863	ppb	94
94) Hexachlorobutadiene	13.43	225	34551	4.9900	ppb	96
95) Naphthalene	13.46	128	64415	4.4977	ppb	99
96) 1,2,3-Trichlorobenzene	13.72	180	27432	5.2992	ppb	94



Quantitation Report

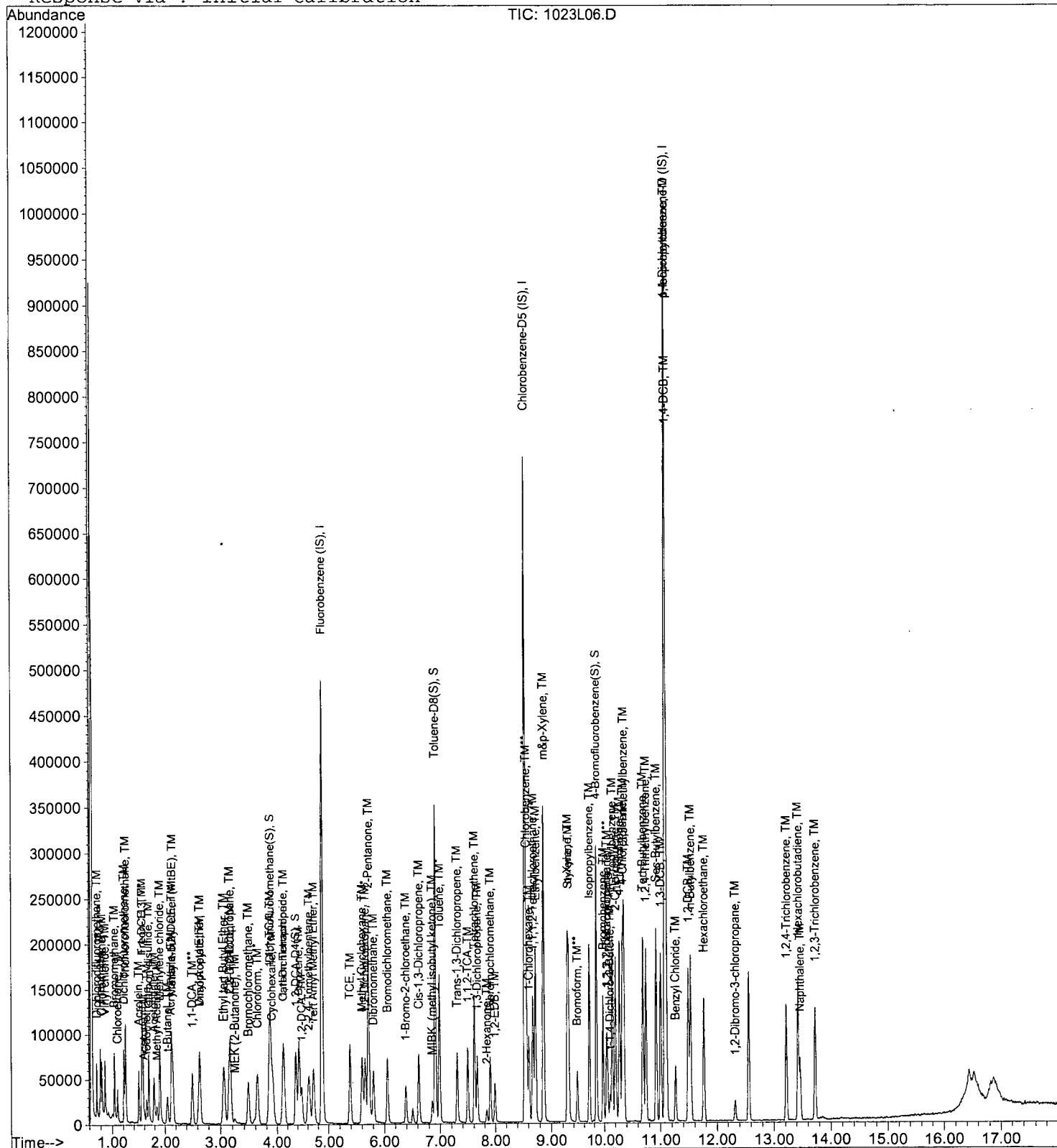
Data File : M:\LOKI\DATA\181023\1023L06.D  
Acq On : 23 Oct 18 15:03  
Sample : 5.0ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 5  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 07:41:53 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L07.D  
 Acq On : 23 Oct 18 15:31  
 Sample : 10ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 6  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	242688	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	261312	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	157376	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	164646	23.2602	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	93.040%
37) 1,2-DCA-D4 (S)	4.36	65	180960	25.8248	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	103.300%
57) Toluene-D8 (S)	6.91	98	584334	25.9322	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	103.728%
65) 4-Bromofluorobenzene(S)	9.84	95	224926	25.7571	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	103.028%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	66568	9.1442	ppb	100
3) Freon 114	0.79	85	47277	10.0261	ppb	100
4) Chloromethane	0.82	50	59195	11.2287	ppb	100
5) Vinyl chloride	0.87	62	60418	9.9489	ppb	100
6) Bromomethane	1.04	94	46309	11.4712	ppb	100
7) Chloroethane	1.10	64	34171	10.0386	ppb	100
8) Dichlorofluoromethane	1.21	67	103375	9.9320	ppb	100
9) Trichlorofluoromethane	1.24	101	102673	9.9438	ppb	100
10) Acrolein	1.49	56	41796	120.2129	ppb	100
11) Acetone	1.60	43	15991	10.4477	ppb	100
12) Freon-113	1.57	101	52737	10.1623	ppb	100
13) 1,1-DCE	1.55	63	19656	10.7934	ppb	100
14) t-Butanol	2.04	59	45417	112.4818	ppb	100
15) Acetonitrile	1.79	41	65616	106.2737	ppb	100
16) Methyl Acetate	1.85	43	29401	11.0308	ppb	100
17) Iodomethane	1.65	142	32016	10.7855	ppb	100
18) Acrylonitrile	2.11	52	10155	9.9658	ppb	100
19) Methylene chloride	1.90	84	62036	10.6773	ppb	100
20) Carbon disulfide	1.69	76	148390	9.5053	ppb	100
21) Methyl t-butyl ether (MtBE)	2.15	73	122203	9.8739	ppb	100
22) Trans-1,2-DCE	2.12	96	52513	9.8405	ppb	100
23) Diisopropyl Ether	2.64	45	129454	10.1860	ppb	100
24) 1,1-DCA	2.51	63	96371	10.0032	ppb	100
25) Vinyl Acetate	2.64	43	32328	9.6629	ppb	100
26) Ethyl tert Butyl Ether	3.06	59	128837	10.3831	ppb	100
27) MEK (2-Butanone)	3.24	43	15539	10.2884	ppb	100
28) Cis-1,2-DCE	3.17	96	62672	10.0900	ppb	100
29) 2,2-Dichloropropane	3.15	77	89260	10.0451	ppb	100
30) Chloroform	3.63	83	113863	10.3503	ppb	100
31) Bromochloromethane	3.48	128	33359	10.1076	ppb	100
33) 1,1,1-TCA	3.85	97	101402	9.9492	ppb	100
34) Cyclohexane	3.91	41	33137	9.4281	ppb	100
35) 1,1-Dichloropropene	4.13	75	64128	9.7651	ppb	100
36) 2,2,4-Trimethylpentane	4.62	57	121931	10.2005	ppb	100
38) Carbon Tetrachloride	4.11	117	91550	10.0685	ppb	100
39) Tert Amyl Methyl Ether	4.71	73	124998	10.2852	ppb	100
40) 1,2-DCA	4.48	62	82124	10.7184	ppb	100
41) Benzene	4.43	78	208827	10.2786	ppb	100
42) TCE	5.38	95	28528	10.1073	ppb	100

(#) = qualifier out of range (m) = manual integration  
 1023L07.D L1023W.M Wed Oct 24 07:46:19 2018

Data File : M:\LOKI\DATA\181023\1023L07.D  
 Acq On : 23 Oct 18 15:31  
 Sample : 10ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 6  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	311019	111.3493	ppb	100
44) 1,2-Dichloropropane	5.65	63	54011	9.8380	ppb	100
45) Bromodichloromethane	6.05	83	92136	10.1990	ppb	100
46) Methyl Cyclohexane	5.60	83	67298	10.2132	ppb	100
47) Dibromomethane	5.80	93	37485	9.7146	ppb	100
49) MIBK (methyl isobutyl ket	6.86	43	35856	10.2992	ppb	100
50) 1-Bromo-2-chloroethane	6.39	63	35624	10.4042	ppb	100
51) Cis-1,3-Dichloropropene	6.62	75	91705	10.1895	ppb	100
52) Toluene	6.99	91	252689	10.4045	ppb	100
53) Trans-1,3-Dichloropropene	7.30	75	83492	10.1630	ppb	100
54) 1,1,2-TCA	7.49	83	41193	9.9379	ppb	100
55) 2-Hexanone	7.84	43	20897	9.4965	ppb	100
58) 1,2-EDB	7.99	107	54315	10.4385	ppb	100
59) Tetrachloroethene	7.61	166	90155	10.5289	ppb	100
60) 1-Chlorohexane	8.61	91	62689	10.0558	ppb	100
61) 1,1,1,2-Tetrachloroethane	8.68	131	79185	10.0478	ppb	100
62) m&p-Xylene	8.86	91	261632	22.1790	ppb	100
63) o-Xylene	9.28	106	105434	10.5889	ppb	100
64) Styrene	9.30	104	110632	10.9272	ppb	100
66) 1,3-Dichloropropane	7.66	76	84082	10.1105	ppb	100
67) Dibromochloromethane	7.90	129	75620	10.1855	ppb	100
68) Chlorobenzene	8.57	112	187103	10.3211	ppb	100
69) Ethylbenzene	8.72	91	275515	10.3497	ppb	100
70) Bromoform	9.46	173	53613	10.2595	ppb	100
72) Isopropylbenzene	9.70	105	270128	10.7352	ppb	100
73) 1,1,2,2-Tetrachloroethane	10.04	83	63805	10.3301	ppb	100
74) 1,2,3-Trichloropropane	10.06	110	21810	11.9724	ppb	100
75) t-1,4-Dichloro-2-Butene	10.10	53	14030	10.7545	ppb	100
76) Bromobenzene	9.97	156	90513	10.5268	ppb	100
77) n-Propylbenzene	10.15	91	202496	11.0819	ppb	100
78) 4-Ethyltoluene	10.27	105	285148	11.6378	ppb	100
79) 2-Chlorotoluene	10.20	91	206074	11.0410	ppb	100
80) 1,3,5-Trimethylbenzene	10.35	105	159360	11.7100	ppb	100
81) 4-Chlorotoluene	10.33	91	249683	11.3746	ppb	100
82) Tert-Butylbenzene	10.69	119	209975	10.8851	ppb	100
83) 1,2,4-Trimethylbenzene	10.74	105	250521	11.8196	ppb	100
84) Sec-Butylbenzene	10.92	105	310314	11.2807	ppb	100
85) p-Isopropyltoluene	11.09	119	282738	11.0883	ppb	100
86) Benzyl Chloride	11.26	91	95079	10.4096	ppb	100
87) 1,3-DCB	11.00	146	174760	10.8149	ppb	100
88) 1,4-DCB	11.10	146	178855	10.5428	ppb	100
89) n-Butylbenzene	11.53	91	223290	11.1237	ppb	100
90) 1,2-DCB	11.49	146	161582	10.5730	ppb	100
91) Hexachloroethane	11.76	117	60494	10.7096	ppb	100
92) 1,2-Dibromo-3-chloropropan	12.32	75	12128	11.3195	ppb	100
93) 1,2,4-Trichlorobenzene	13.21	180	104264	10.5351	ppb	100
94) Hexachlorobutadiene	13.43	225	68370	10.1673	ppb	100
95) Naphthalene	13.46	128	140051	9.8887	ppb	100
96) 1,2,3-Trichlorobenzene	13.72	180	54064	10.7539	ppb	100

(#) = qualifier out of range (m) = manual integration  
 1023L07.D L1023W.M Wed Oct 24 07:46:20 2018

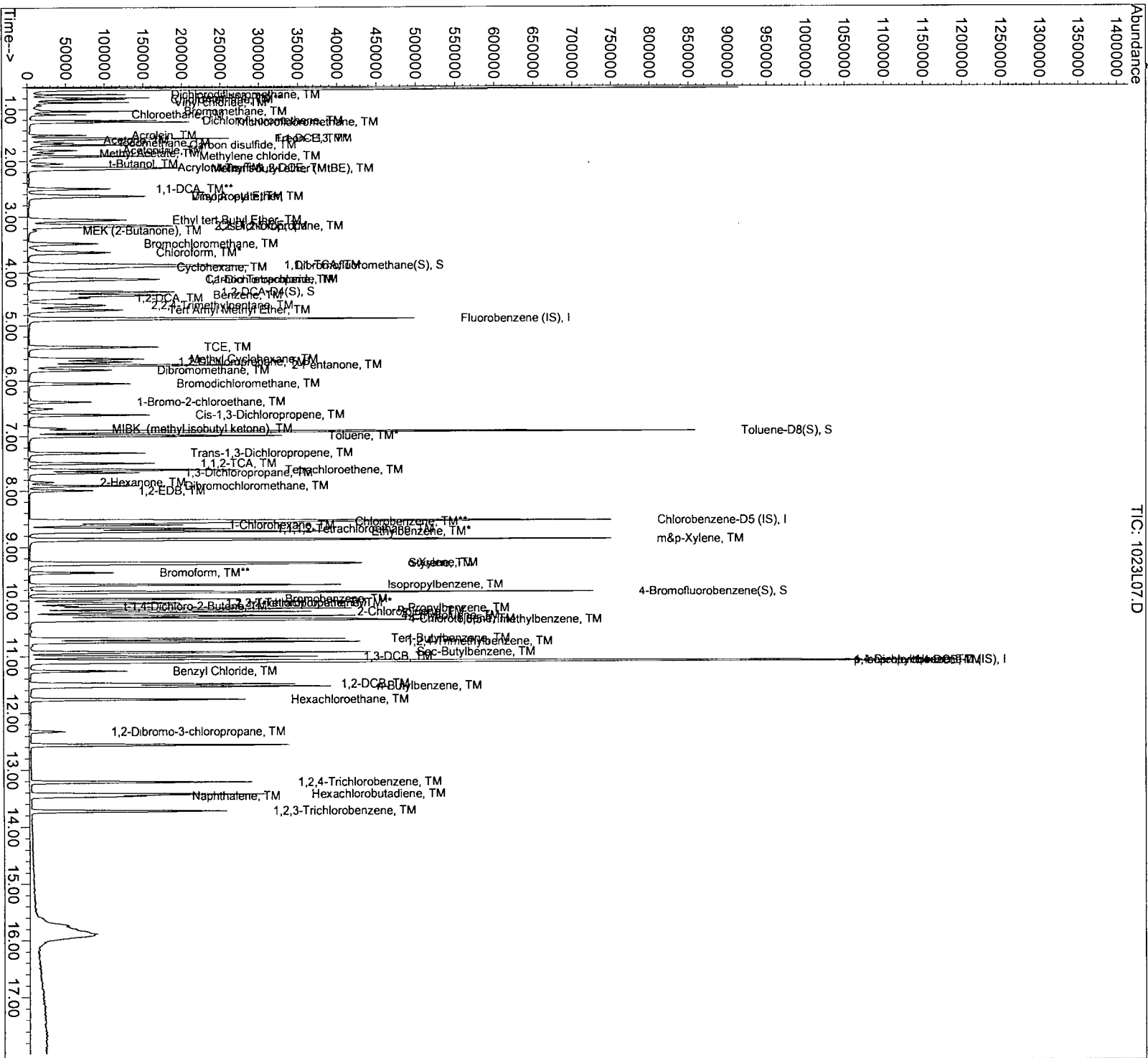
Data File : M:\LOKI\DATA\181023\1023I07.D  
Acq On : 23 Oct 18 15:31  
Sample : 10ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18, 8/23/18

Vial: 6  
Operator: PM, DG, SV, CMM, KV  
Inst : LOKI  
Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 07:41:53 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L08.D  
 Acq On : 23 Oct 18 15:59  
 Sample : 20ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 7  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	249600	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	266752	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	177152	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	177154	24.5578	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	98.232%
37) 1,2-DCA-D4(S)	4.36	65	192539	26.7164	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	106.864%
57) Toluene-D8(S)	6.91	98	630504	27.4106	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	109.644%
65) 4-Bromofluorobenzene(S)	9.84	95	237884	26.6854	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	106.740%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	131136	17.5148	ppb	99
3) Freon 114	0.79	85	94203	19.4245	ppb	93
4) Chloromethane	0.82	50	114314	21.3069	ppb	100
5) Vinyl chloride	0.87	62	122107	19.5502	ppb	97
6) Bromomethane	1.03	94	87428	21.0909	ppb	97
7) Chloroethane	1.09	64	64480	18.4182	ppb	97
8) Dichlorofluoromethane	1.21	67	208211	19.4504	ppb	100
9) Trichlorofluoromethane	1.24	101	208161	19.6019	ppb	97
10) Acrolein	1.49	56	48893	136.7309	ppb	# 91
11) Acetone	1.60	43	29638	21.9051	ppb	99
12) Freon-113	1.57	101	101197	18.9605	ppb	94
13) 1,1-DCE	1.55	63	40528	21.0260	ppb	99
14) t-Butanol	2.05	59	48498	116.7862	ppb	97
15) Acetonitrile	1.79	41	68734	108.2409	ppb	96
16) Methyl Acetate	1.85	43	51381	19.3477	ppb	100
17) Iodomethane	1.64	142	72472	23.7382	ppb	99
18) Acrylonitrile	2.11	52	22362	21.3377	ppb	83
19) Methylene chloride	1.90	84	112157	18.7693	ppb	98
20) Carbon disulfide	1.69	76	299869	18.6766	ppb	99
21) Methyl t-butyl ether (MtBE)	2.15	73	254013	19.9556	ppb	99
22) Trans-1,2-DCE	2.12	96	103815	18.9153	ppb	98
23) Diisopropyl Ether	2.64	45	269017	20.5812	ppb	96
24) 1,1-DCA	2.51	63	187453	18.9186	ppb	100
25) Vinyl Acetate	2.64	43	66306	19.2701	ppb	100
26) Ethyl tert Butyl Ether	3.06	59	264881	20.7558	ppb	99
27) MEK (2-Butanone)	3.24	43	31078	20.0070	ppb	95
28) Cis-1,2-DCE	3.17	96	127426	19.9470	ppb	98
29) 2,2-Dichloropropane	3.15	77	179069	19.5939	ppb	99
30) Chloroform	3.63	83	219866	19.4326	ppb	97
31) Bromochloromethane	3.47	128	66461	19.5796	ppb	99
33) 1,1,1-TCA	3.85	97	200634	19.1404	ppb	98
34) Cyclohexane	3.92	41	70991	19.6389	ppb	90
35) 1,1-Dichloropropene	4.13	75	135899	20.1209	ppb	96
36) 2,2,4-Trimethylpentane	4.63	57	257803	20.9700	ppb	94
38) Carbon Tetrachloride	4.11	117	187884	20.0909	ppb	97
39) Tert Amyl Methyl Ether	4.72	73	260840	20.8683	ppb	95
40) 1,2-DCA	4.48	62	161270	20.4653	ppb	94
41) Benzene	4.43	78	415646	19.8918	ppb	99
42) TCE	5.38	95	59552	20.5147	ppb	97

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

Data File : M:\LOKI\DATA\181023\1023L08.D  
 Acq On : 23 Oct 18 15:59  
 Sample : 20ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 7  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	Qion	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	393887	137.1121	ppb	100
44) 1,2-Dichloropropane	5.66	63	112222	19.8750	ppb	97
45) Bromodichloromethane	6.05	83	181208	19.5033	ppb	99
46) Methyl Cyclohexane	5.60	83	138112	20.3795	ppb	99
47) Dibromomethane	5.80	93	75048	18.9109	ppb	98
49) MIBK (methyl isobutyl ket	6.86	43	70631	19.9339	ppb	99
50) 1-Bromo-2-chloroethane	6.39	63	69184	19.6460	ppb	97
51) Cis-1,3-Dichloropropene	6.62	75	187676	20.2756	ppb	98
52) Toluene	6.99	91	509445	20.3957	ppb	98
53) Trans-1,3-Dichloropropene	7.30	75	172409	20.4052	ppb	100
54) 1,1,2-TCA	7.49	83	85630	20.0864	ppb	98
55) 2-Hexanone	7.83	43	45740	20.2106	ppb	# 86
58) 1,2-EDB	7.99	107	110564	20.8154	ppb	98
59) Tetrachloroethene	7.61	166	176844	20.2318	ppb	97
60) 1-Chlorohexane	8.61	91	139346	21.8964	ppb	99
61) 1,1,1,2-Tetrachloroethane	8.68	131	159218	19.7913	ppb	95
62) m&p-Xylene	8.86	91	548416	45.5420	ppb	100
63) o-Xylene	9.28	106	221089	21.7515	ppb	98
64) Styrene	9.30	104	247424	23.9399	ppb	99
66) 1,3-Dichloropropane	7.66	76	172729	20.3463	ppb	96
67) Dibromochloromethane	7.90	129	155740	20.5494	ppb	94
68) Chlorobenzene	8.57	112	374474	20.2356	ppb	96
69) Ethylbenzene	8.72	91	598621	22.0285	ppb	97
70) Bromoform	9.46	173	109275	20.4847	ppb	97
72) Isopropylbenzene	9.70	105	591801	20.8934	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.04	83	130113	18.7139	ppb	98
74) 1,2,3-Trichloropropane	10.06	110	42725	20.9458	ppb	94
75) t-1,4-Dichloro-2-Butene	10.10	53	29732	20.2465	ppb	97
76) Bromobenzene	9.97	156	184486	19.0609	ppb	96
77) n-Propylbenzene	10.15	91	435072	21.1521	ppb	98
78) 4-Ethyltoluene	10.27	105	596286	21.6195	ppb	97
79) 2-Chlorotoluene	10.20	91	426728	20.3108	ppb	98
80) 1,3,5-Trimethylbenzene	10.35	105	335168	21.8792	ppb	96
81) 4-Chlorotoluene	10.33	91	515325	20.8555	ppb	99
82) Tert-Butylbenzene	10.69	119	457615	21.0746	ppb	99
83) 1,2,4-Trimethylbenzene	10.74	105	541722	22.7052	ppb	100
84) Sec-Butylbenzene	10.92	105	657006	21.2176	ppb	99
85) p-Isopropyltoluene	11.09	119	602426	20.9882	ppb	99
86) Benzyl Chloride	11.26	91	199181	19.3726	ppb	99
87) 1,3-DCB	11.00	146	353403	19.4287	ppb	98
88) 1,4-DCB	11.10	146	357263	18.7083	ppb	99
89) n-Butylbenzene	11.53	91	489297	21.6542	ppb	99
90) 1,2-DCB	11.49	146	330590	19.2171	ppb	99
91) Hexachloroethane	11.76	117	114422	17.9955	ppb	94
92) 1,2-Dibromo-3-chloropropan	12.32	75	22178	18.3887	ppb	80
93) 1,2,4-Trichlorobenzene	13.21	180	229290	20.5818	ppb	97
94) Hexachlorobutadiene	13.43	225	138685	18.3216	ppb	95
95) Naphthalene	13.46	128	340084	21.1635	ppb	98
96) 1,2,3-Trichlorobenzene	13.72	180	121648	21.4959	ppb	98

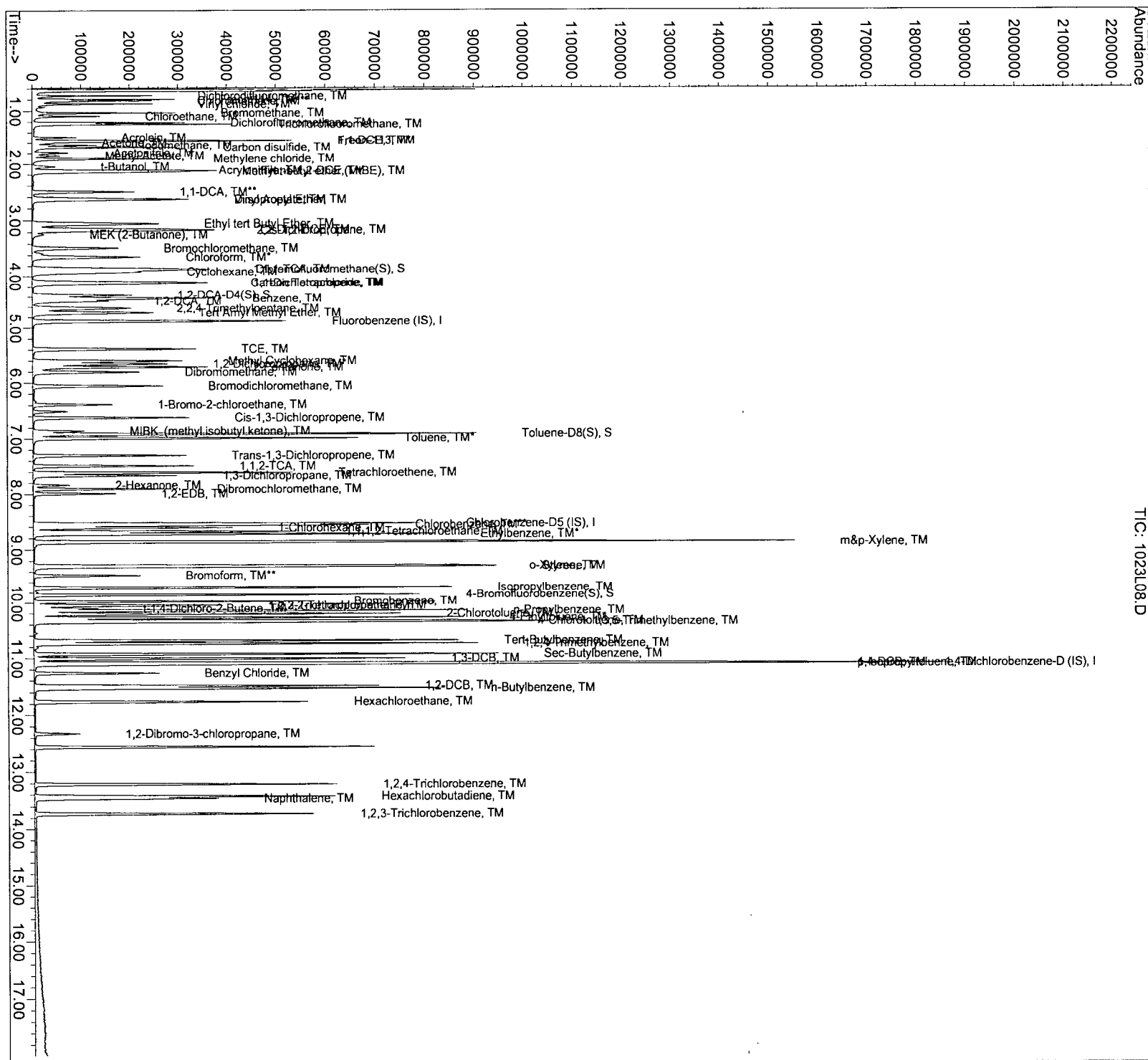
Data File : M:\LOKI\DATA\181023\1023I08.D  
Acq On : 23 Oct 18 15:59  
Sample : 20ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial : 7  
Operator : PM, DG, SV, CMM, KV  
Inst : LOKI  
Multiplr : 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 07:41:53 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L09.D  
 Acq On : 23 Oct 18 16:27  
 Sample : 50ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 8  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	249152	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	278144	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	174016	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	332062	50.3655	ppb	0.00
Spiked Amount				25.000		
					Recovery = 201.464%	
37) 1,2-DCA-D4(S)	4.36	65	370570	51.5121	ppb	0.00
Spiked Amount				25.000		
					Recovery = 206.048%	
57) Toluene-D8(S)	6.91	98	1219191	50.8323	ppb	0.00
Spiked Amount				25.000		
					Recovery = 203.328%	
65) 4-Bromofluorobenzene(S)	9.84	95	469147	50.4726	ppb	0.00
Spiked Amount				25.000		
					Recovery = 201.892%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	261952	35.0498	ppb	97
3) Freon 114	0.79	85	194635	40.2055	ppb	98
4) Chloromethane	0.82	50	234005	43.9616	ppb	98
5) Vinyl chloride	0.87	62	246874	39.5974	ppb	100
6) Bromomethane	1.03	94	172595	41.7506	ppb	99
7) Chloroethane	1.09	64	125128	35.8060	ppb	99
8) Dichlorofluoromethane	1.21	67	423220	39.6069	ppb	99
9) Trichlorofluoromethane	1.24	101	427287	40.3088	ppb	95
10) Acrolein	1.50	56	58217	163.0985	ppb	# 86
11) Acetone	1.60	43	54927	43.9555	ppb	100
12) Freon-113	1.57	101	208487	39.1329	ppb	96
13) 1,1-DCE	1.55	63	82008	41.9965	ppb	97
14) t-Butanol	2.06	59	58336	140.7293	ppb	97
15) Acetonitrile	1.80	41	77897	122.8911	ppb	99
16) Methyl Acetate	1.85	43	99690	38.4216	ppb	100
17) Iodomethane	1.64	142	149376	49.0160	ppb	98
18) Acrylonitrile	2.11	52	43544	41.6241	ppb	80
19) Methylene chloride	1.90	84	221011	37.0524	ppb	95
20) Carbon disulfide	1.68	76	604127	37.6941	ppb	99
21) Methyl t-butyl ether (MtBE)	2.15	73	517197	40.7047	ppb	98
22) Trans-1,2-DCE	2.12	96	213236	38.9218	ppb	99
23) Diisopropyl Ether	2.64	45	553955	42.4566	ppb	99
24) 1,1-DCA	2.51	63	380689	38.4899	ppb	99
25) Vinyl Acetate	2.64	43	136896	39.8568	ppb	# 98
26) Ethyl tert Butyl Ether	3.06	59	556039	43.6491	ppb	97
27) MEK (2-Butanone)	3.24	43	59191	38.1738	ppb	95
28) Cis-1,2-DCE	3.17	96	252698	39.6279	ppb	99
29) 2,2-Dichloropropane	3.15	77	355469	38.9657	ppb	99
30) Chloroform	3.63	83	441392	39.0820	ppb	96
31) Bromochloromethane	3.47	128	128173	37.8280	ppb	99
33) 1,1,1-TCA	3.85	97	405714	38.7745	ppb	98
34) Cyclohexane	3.92	41	147181	40.7893	ppb	85
35) 1,1-Dichloropropene	4.13	75	282316	41.8742	ppb	98
36) 2,2,4-Trimethylpentane	4.63	57	541778	44.1481	ppb	92
38) Carbon Tetrachloride	4.11	117	387088	41.4666	ppb	99
39) Tert Amyl Methyl Ether	4.71	73	548535	43.9641	ppb	94
40) 1,2-DCA	4.48	62	318980	40.5515	ppb	96
41) Benzene	4.43	78	834755	40.0212	ppb	98
42) TCE	5.38	95	117448	40.5317	ppb	96

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



Data File : M:\LOKI\DATA\181023\1023L09.D  
 Acq On : 23 Oct 18 16:27  
 Sample : 50ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 8  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	Qion	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	465849	162.4537	ppb	99
44) 1,2-Dichloropropane	5.65	63	219614	38.9646	ppb #	95
45) Bromodichloromethane	6.05	83	362367	39.0715	ppb	100
46) Methyl Cyclohexane	5.60	83	303198	44.8196	ppb	98
47) Dibromomethane	5.80	93	151265	38.1849	ppb	96
49) MIBK (methyl isobutyl ket	6.86	43	142870	40.6272	ppb	98
50) 1-Bromo-2-chloroethane	6.39	63	143360	40.7828	ppb	96
51) Cis-1,3-Dichloropropene	6.62	75	391560	42.3783	ppb	97
52) Toluene	6.99	91	1039845	41.7051	ppb	98
53) Trans-1,3-Dichloropropene	7.30	75	360035	42.6879	ppb	99
54) 1,1,2-TCA	7.49	83	172150	40.4542	ppb	95
55) 2-Hexanone	7.83	43	96044	42.5142	ppb	91
58) 1,2-EDB	7.99	107	221967	40.0772	ppb	100
59) Tetrachloroethene	7.61	166	360295	39.5312	ppb	96
60) 1-Chlorohexane	8.61	91	294295	44.3506	ppb	96
61) 1,1,1,2-Tetrachloroethane	8.68	131	320001	38.1479	ppb	96
62) m&p-Xylene	8.86	91	1130290	90.0182	ppb	100
63) o-Xylene	9.28	106	465116	43.8856	ppb	99
64) Styrene	9.30	104	503104	46.6848	ppb	98
66) 1,3-Dichloropropane	7.66	76	346688	39.1650	ppb	98
67) Dibromochloromethane	7.90	129	314538	39.8025	ppb	97
68) Chlorobenzene	8.57	112	753378	39.0432	ppb	97
69) Ethylbenzene	8.72	91	1222878	43.1573	ppb	99
70) Bromoform	9.46	173	220589	39.6579	ppb	99
72) Isopropylbenzene	9.70	105	1231973	44.2784	ppb	100
73) 1,1,2,2-Tetrachloroethane	10.04	83	249872	36.5862	ppb	99
74) 1,2,3-Trichloropropane	10.06	110	85834	42.9943	ppb	90
75) t-1,4-Dichloro-2-Butene	10.10	53	58715	40.7035	ppb	92
76) Bromobenzene	9.97	156	370605	38.9805	ppb	94
77) n-Propylbenzene	10.15	91	929472	46.0029	ppb	98
78) 4-Ethyltoluene	10.27	105	1224583	45.1998	ppb	97
79) 2-Chlorotoluene	10.20	91	862189	41.7769	ppb	97
80) 1,3,5-Trimethylbenzene	10.35	105	684160	45.4656	ppb	96
81) 4-Chlorotoluene	10.33	91	1021415	42.0822	ppb	97
82) Tert-Butylbenzene	10.69	119	956447	44.8411	ppb	97
83) 1,2,4-Trimethylbenzene	10.74	105	1107265	47.2452	ppb	98
84) Sec-Butylbenzene	10.92	105	1359070	44.6814	ppb	99
85) p-Isopropyltoluene	11.09	119	1231705	43.6853	ppb	98
86) Benzyl Chloride	11.26	91	417080	41.2968	ppb	99
87) 1,3-DCB	11.00	146	705581	39.4892	ppb	100
88) 1,4-DCB	11.10	146	699072	37.2671	ppb	99
89) n-Butylbenzene	11.53	91	999067	45.0113	ppb	99
90) 1,2-DCB	11.49	146	670043	39.6513	ppb	98
91) Hexachloroethane	11.76	117	228366	36.5630	ppb	92
92) 1,2-Dibromo-3-chloropropan	12.32	75	50937	42.9951	ppb	89
93) 1,2,4-Trichlorobenzene	13.21	180	502441	45.9135	ppb	98
94) Hexachlorobutadiene	13.43	225	289451	38.9283	ppb	98
95) Naphthalene	13.46	128	786213	49.6108	ppb	99
96) 1,2,3-Trichlorobenzene	13.72	180	261888	47.1112	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1023L09.D L1023W.M Wed Oct 24 07:46:28 2018

Quantitation Report

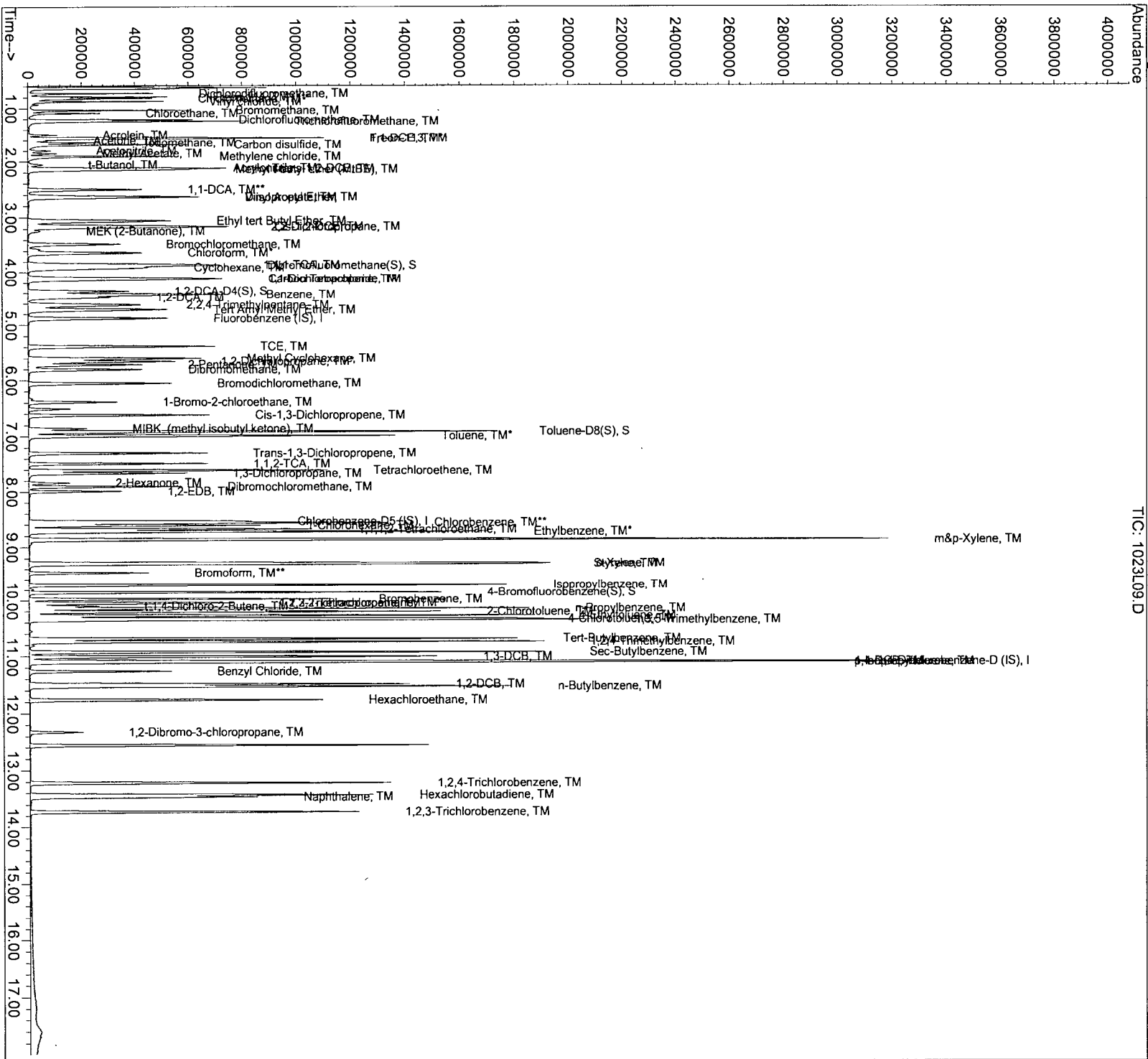
Data File : M:\LOKI\DATA\181023\1023L09.D  
Acq On : 23 Oct 18 16:27  
Sample : 50ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 8  
Operator: PM, DG, SV, CMM, KV  
Inst : LOKI  
Multiplier: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 07:41:53 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L10.D  
 Acq On : 23 Oct 18 16:55  
 Sample : 100ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 9  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	249344	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	276416	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	185792	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	623896	98.8057	ppb	0.00
Spiked Amount				25.000		
					Recovery = 395.224%	
37) 1,2-DCA-D4(S)	4.36	65	692972	96.2543	ppb	0.00
Spiked Amount				25.000		
					Recovery = 385.016%	
57) Toluene-D8(S)	6.91	98	2301830	96.5713	ppb	0.00
Spiked Amount				25.000		
					Recovery = 386.284%	
65) 4-Bromofluorobenzene(S)	9.84	95	896648	97.0678	ppb	0.00
Spiked Amount				25.000		
					Recovery = 388.272%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	609280	81.4603	ppb	97
3) Freon 114	0.79	85	487913	100.7099	ppb	97
4) Chloromethane	0.82	50	544713	102.5916	ppb	99
5) Vinyl chloride	0.87	62	585538	93.8451	ppb	98
6) Bromomethane	1.03	94	427543	103.4024	ppb	100
7) Chloroethane	1.09	64	328394	93.8992	ppb	100
8) Dichlorofluoromethane	1.21	67	1040691	97.3177	ppb	100
9) Trichlorofluoromethane	1.23	101	1032435	97.3213	ppb	97
10) Acrolein	1.50	56	70995	198.7437	ppb	# 97
11) Acetone	1.61	43	122732	102.8708	ppb	99
12) Freon-113	1.56	101	516665	96.9030	ppb	98
13) 1,1-DCE	1.55	63	204352	103.6606	ppb	98
14) t-Butanol	2.12	59	90414	217.9460	ppb	# 23
15) Acetonitrile	1.80	41	103434	163.0529	ppb	98
16) Methyl Acetate	1.85	43	271199	105.9273	ppb	97
17) Iodomethane	1.64	142	390016	127.8808	ppb	99
18) Acrylonitrile	2.11	52	102660	98.0580	ppb	82
19) Methylene chloride	1.90	84	550148	92.1611	ppb	94
20) Carbon disulfide	1.68	76	1503999	93.7688	ppb	99
21) Methyl t-butyl ether (MtBE)	2.15	73	1308655	102.9152	ppb	98
22) Trans-1,2-DCE	2.12	96	522586	95.3138	ppb	98
23) Diisopropyl Ether	2.64	45	1385808	106.1302	ppb	99
24) 1,1-DCA	2.51	63	936838	94.6469	ppb	100
25) Vinyl Acetate	2.64	43	328108	95.4539	ppb	99
26) Ethyl tert Butyl Ether	3.06	59	1448787	113.6422	ppb	98
27) MEK (2-Butanone)	3.24	43	149434	96.2995	ppb	99
28) Cis-1,2-DCE	3.17	96	615759	96.4886	ppb	98
29) 2,2-Dichloropropane	3.15	77	874562	95.7936	ppb	98
30) Chloroform	3.63	83	1073309	94.9604	ppb	99
31) Bromochloromethane	3.47	128	305462	90.0824	ppb	99
33) 1,1,1-TCA	3.85	97	997473	95.2561	ppb	99
34) Cyclohexane	3.91	41	377130	104.4361	ppb	86
35) 1,1-Dichloropropene	4.13	75	717585	106.3531	ppb	97
36) 2,2,4-Trimethylpentane	4.62	57	1357271	110.5153	ppb	88
38) Carbon Tetrachloride	4.11	117	953061	102.0176	ppb	98
39) Tert Amyl Methyl Ether	4.71	73	1365240	109.3372	ppb	93
40) 1,2-DCA	4.48	62	779797	99.0583	ppb	96
41) Benzene	4.43	78	2037101	97.5908	ppb	99
42) TCE	5.38	95	289984	99.9973	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1023L10.D L1023W.M Wed Oct 24 07:46:31 2018

Data File : M:\LOKI\DATA\181023\1023L10.D  
 Acq On : 23 Oct 18 16:55  
 Sample : 100ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 9  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 07:21:56 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.72	43	535341	186.5436	ppb	99
44) 1,2-Dichloropropane	5.65	63	536467	95.1084	ppb #	95
45) Bromodichloromethane	6.05	83	881755	95.0002	ppb	99
46) Methyl Cyclohexane	5.60	83	778410	114.9783	ppb	98
47) Dibromomethane	5.80	93	366376	92.4156	ppb	96
49) MIBK (methyl isobutyl ket	6.86	43	375105	106.9531	ppb	98
50) 1-Bromo-2-chloroethane	6.39	63	348928	99.1859	ppb	96
51) Cis-1,3-Dichloropropene	6.62	75	984546	106.4747	ppb	99
52) Toluene	6.99	91	2530848	101.4267	ppb	99
53) Trans-1,3-Dichloropropene	7.30	75	891798	105.6556	ppb	100
54) 1,1,2-TCA	7.49	83	411962	96.7339	ppb	98
55) 2-Hexanone	7.84	43	257423	113.8613	ppb	91
58) 1,2-EDB	7.99	107	540279	98.1599	ppb	99
59) Tetrachloroethene	7.61	166	863480	95.3324	ppb	96
60) 1-Chlorohexane	8.61	91	752722	114.1451	ppb	96
61) 1,1,1,2-Tetrachloroethane	8.68	131	763822	91.6260	ppb	96
62) m&p-Xylene	8.86	91	2780332	222.8145	ppb	99
63) o-Xylene	9.28	106	1161470	110.2745	ppb	98
64) Styrene	9.30	104	1228800	114.7375	ppb	98
66) 1,3-Dichloropropane	7.66	76	846211	96.1932	ppb	100
67) Dibromochloromethane	7.90	129	756576	96.3378	ppb	98
68) Chlorobenzene	8.57	112	1803996	94.0752	ppb	97
69) Ethylbenzene	8.72	91	2988007	106.1106	ppb	98
70) Bromoform	9.47	173	554787	100.3642	ppb	98
72) Isopropylbenzene	9.70	105	3086114	103.8878	ppb	100
73) 1,1,2,2-Tetrachloroethane	10.04	83	654284	89.7280	ppb	99
74) 1,2,3-Trichloropropane	10.06	110	219254	103.0714	ppb	87
75) t-1,4-Dichloro-2-Butene	10.11	53	155317	100.8471	ppb	97
76) Bromobenzene	9.97	156	926469	91.2702	ppb	98
77) n-Propylbenzene	10.15	91	2253679	104.4727	ppb	99
78) 4-Ethyltoluene	10.28	105	3033313	104.8643	ppb	98
79) 2-Chlorotoluene	10.21	91	2109116	95.7185	ppb	96
80) 1,3,5-Trimethylbenzene	10.35	105	1722674	107.2236	ppb	95
81) 4-Chlorotoluene	10.33	91	2540423	98.0312	ppb	99
82) Tert-Butylbenzene	10.69	119	2444714	107.3508	ppb	99
83) 1,2,4-Trimethylbenzene	10.74	105	2823025	112.8192	ppb	99
84) Sec-Butylbenzene	10.92	105	3461868	106.6001	ppb	100
85) p-Isopropyltoluene	11.09	119	3200845	106.3299	ppb	98
86) Benzyl Chloride	11.26	91	1117219	103.6089	ppb	99
87) 1,3-DCB	11.00	146	1812521	95.0115	ppb	98
88) 1,4-DCB	11.10	146	1835320	91.6385	ppb	99
89) n-Butylbenzene	11.53	91	2657957	112.1599	ppb	98
90) 1,2-DCB	11.49	146	1760789	97.5941	ppb	99
91) Hexachloroethane	11.76	117	625177	93.7510	ppb	95
92) 1,2-Dibromo-3-chloropropan	12.32	75	127599	100.8777	ppb	90
93) 1,2,4-Trichlorobenzene	13.21	180	1351968	115.7134	ppb	98
94) Hexachlorobutadiene	13.43	225	748226	94.2510	ppb	97
95) Naphthalene	13.46	128	2186597	128.9972	ppb	100
96) 1,2,3-Trichlorobenzene	13.72	180	682496	114.9927	ppb	96

(#) = qualifier out of range (m) = manual integration  
 1023L10.D L1023W.M Wed Oct 24 07:46:32 2018

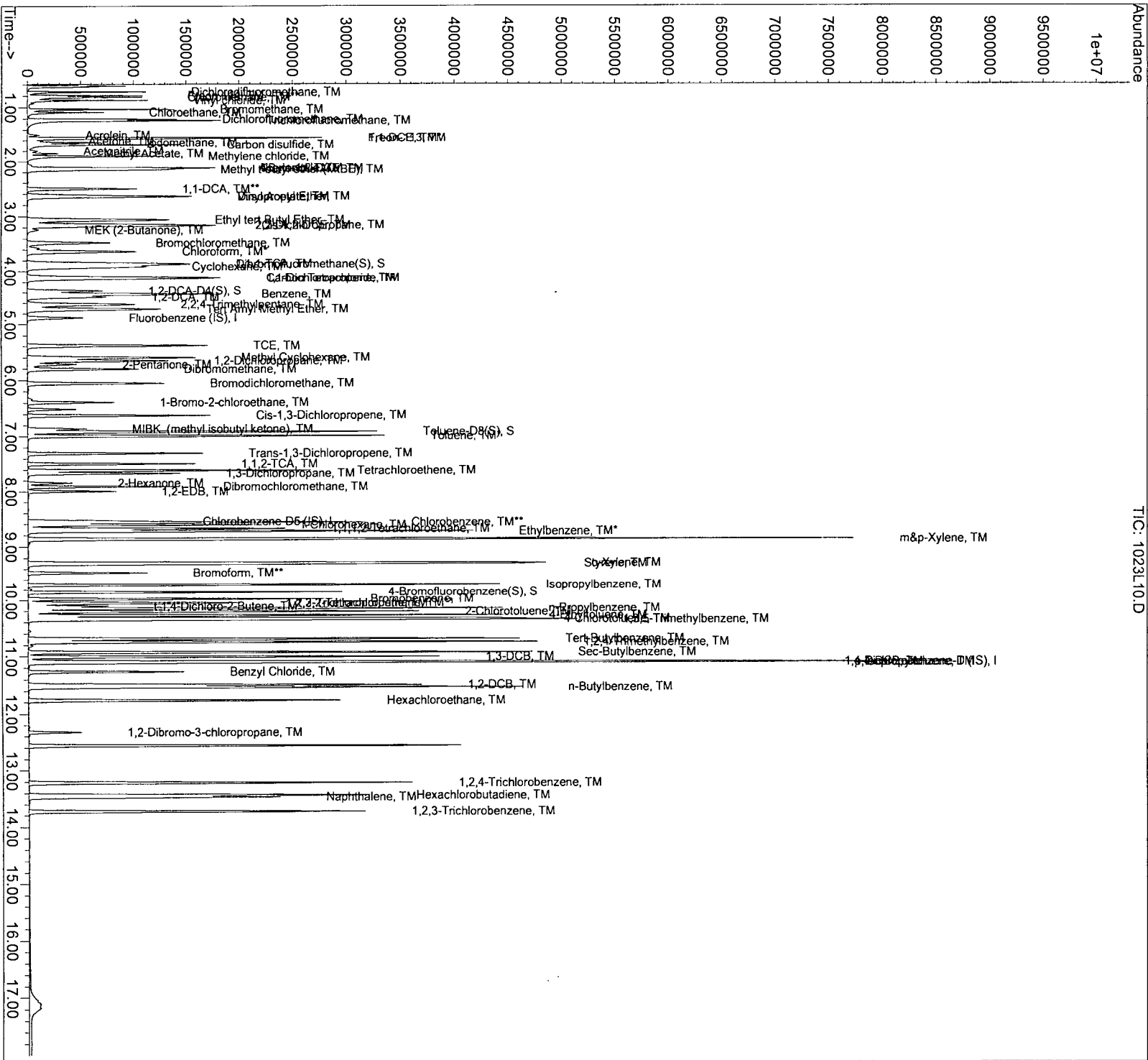
Data File : M:\LOKI\DATA\181023\1023L10.D  
Acq On : 23 Oct 18 16:55  
Sample : 100ug/L VOC STD 10/23/18  
Misc : ISS 9/28/18,8/23/18

Vial: 9  
Operator: PM, DG, SV, CMM, KV  
Inst : LOKI  
Multiplr: 1.00

Quant Time: Oct 24 7:22 2018

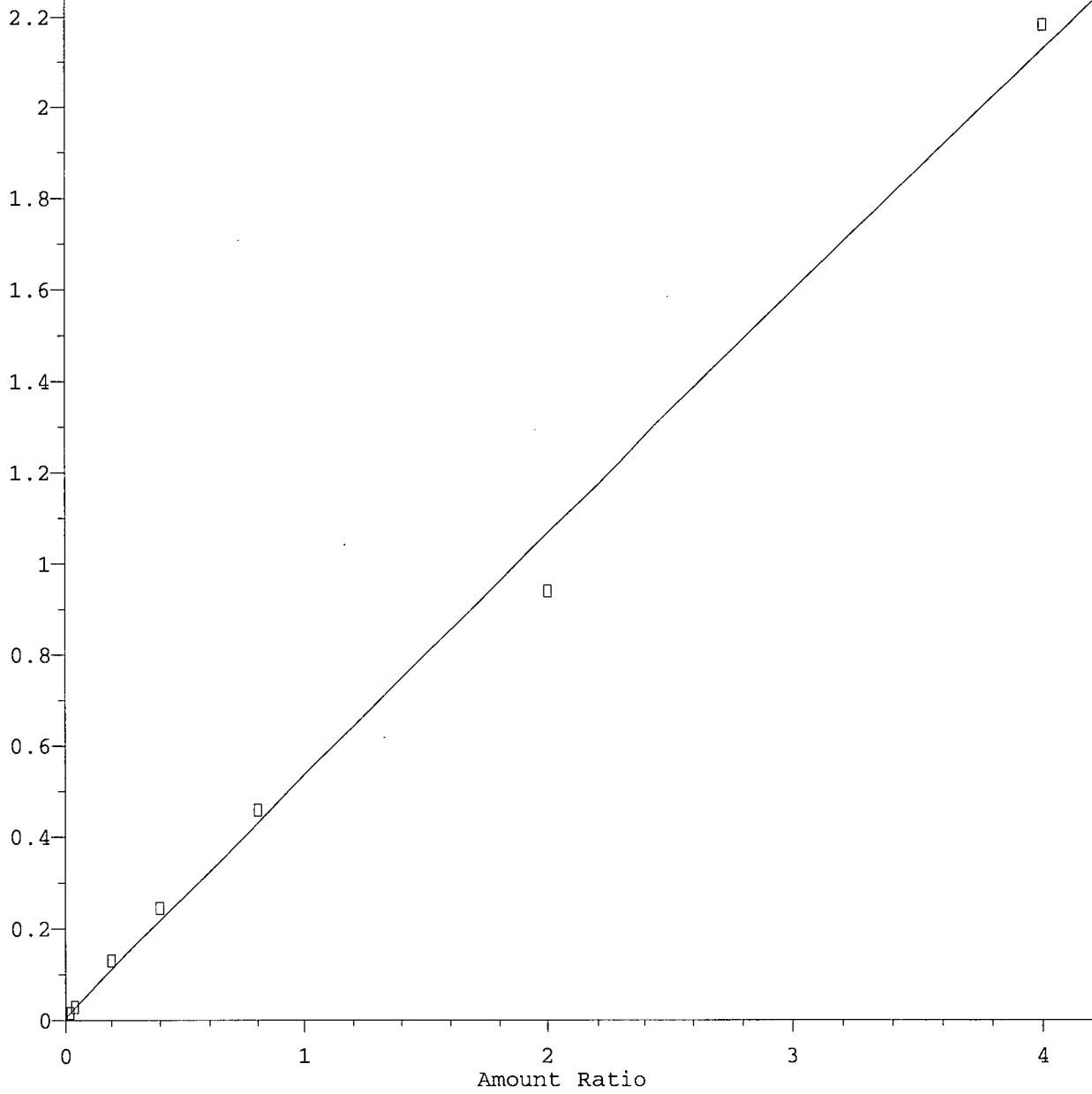
Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 07:41:53 2018  
Response via : Initial Calibration



Chloromethane

Response Ratio

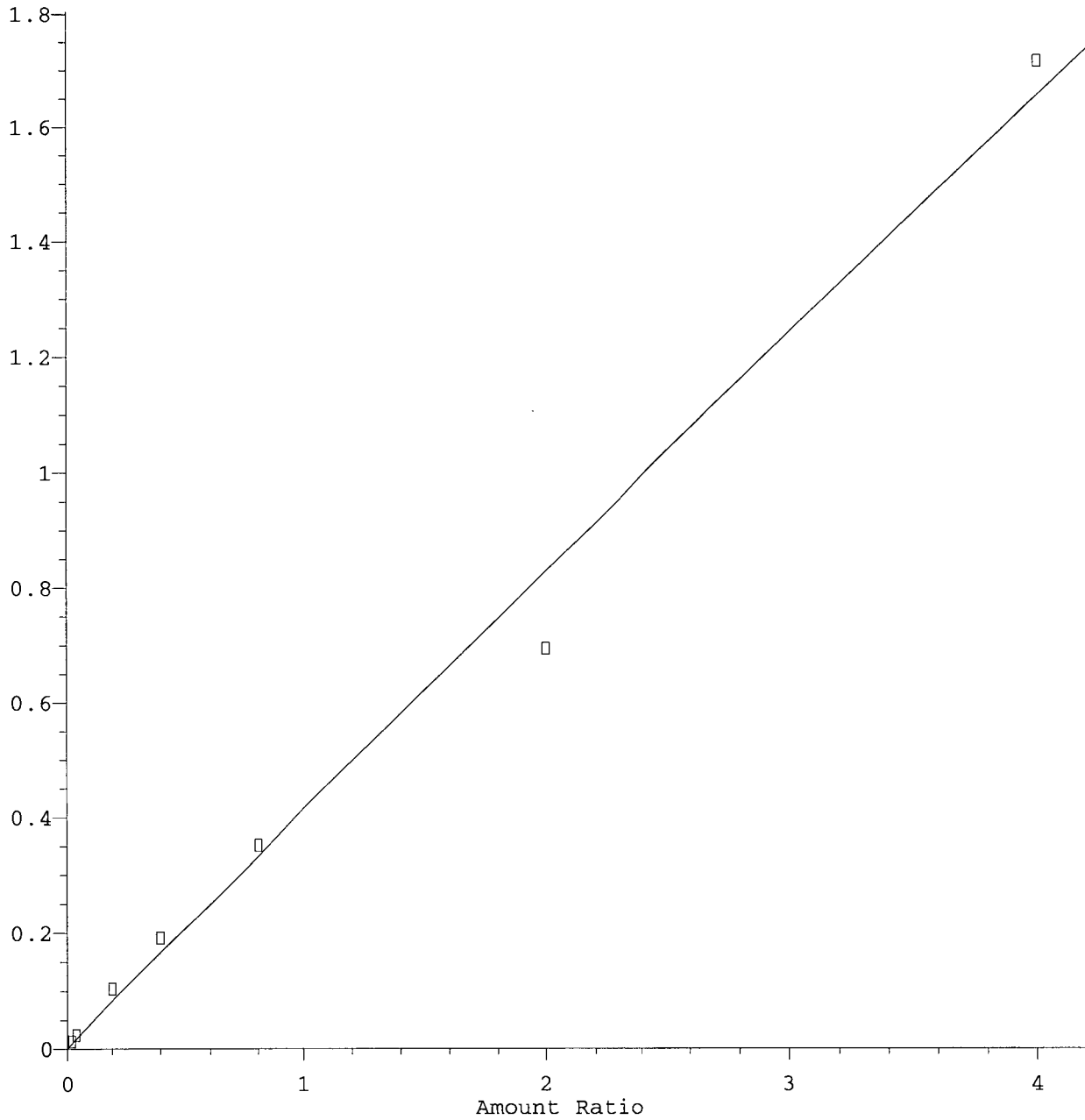


Resp Ratio = 5.31e-001 \* Amt + 5.40e-003  
Coef of Det (r^2) = 0.994 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018

Bromomethane

Response Ratio

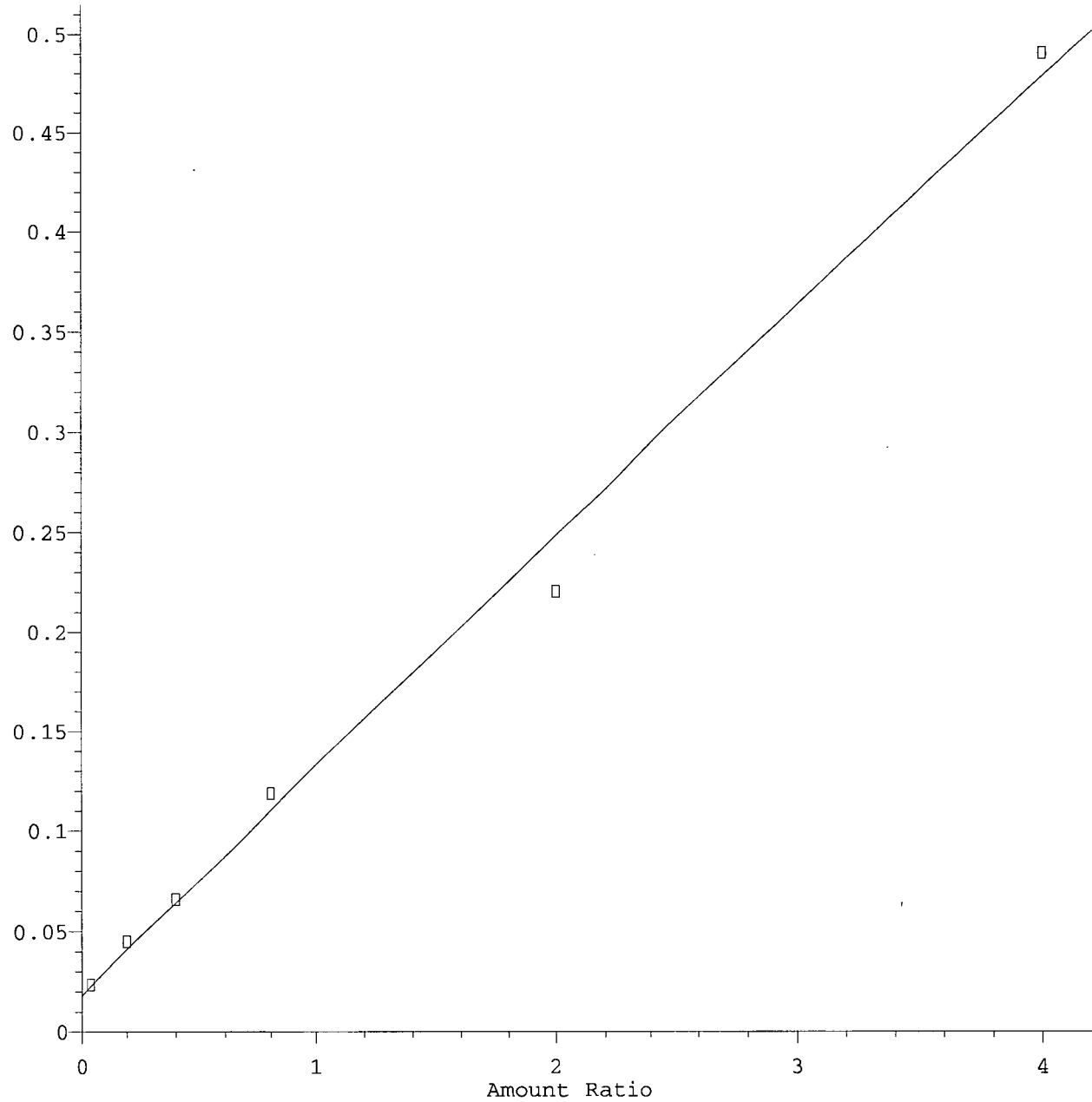


Resp Ratio = 4.14e-001 \* Amt + 6.69e-004  
Coef of Det (r^2) = 0.990 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018

Acetone

Response Ratio



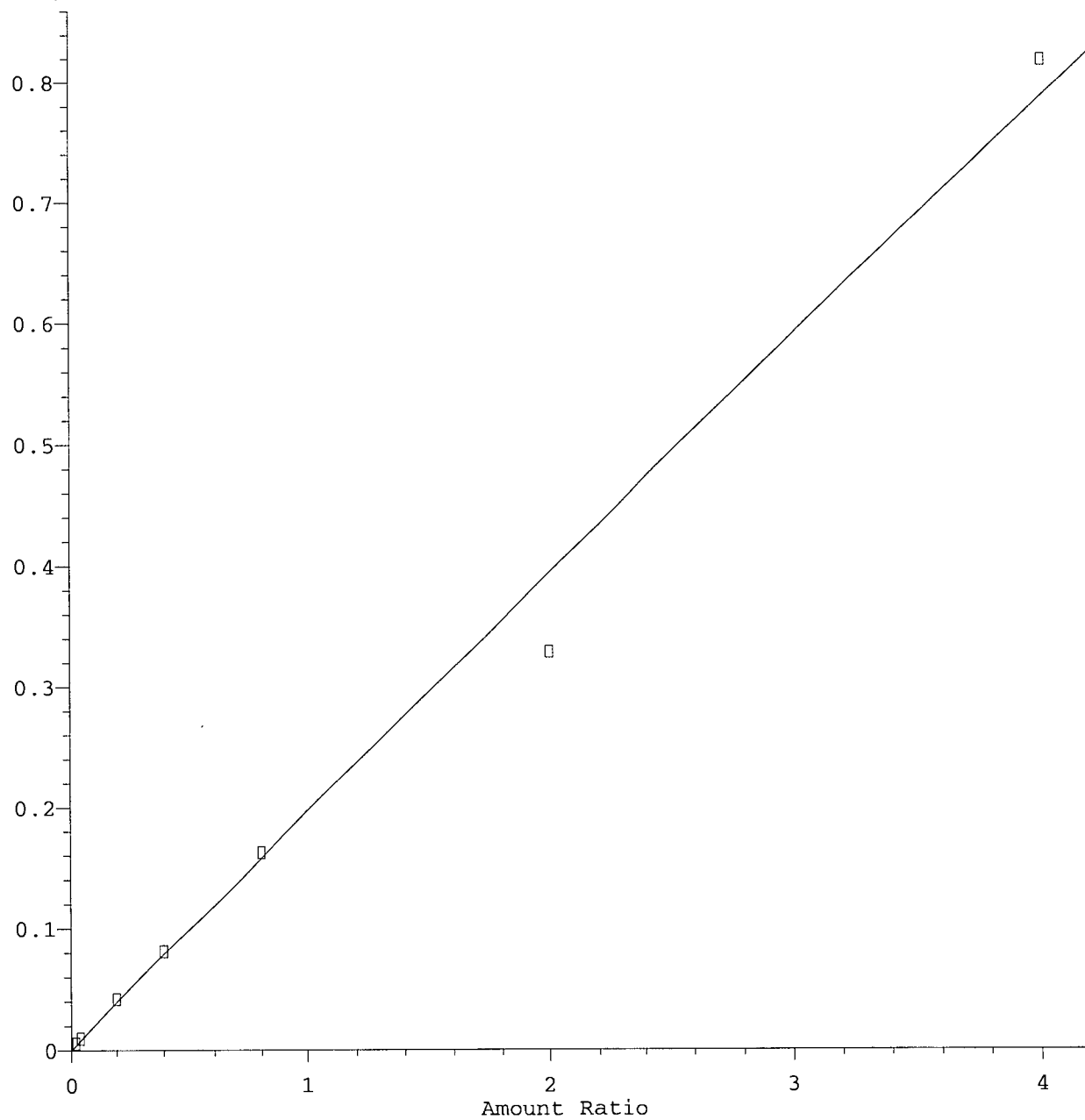
Resp Ratio = 1.15e-001 \* Amt + 1.77e-002  
Coef of Det (r^2) = 0.993    Curve Fit: Linear

Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018



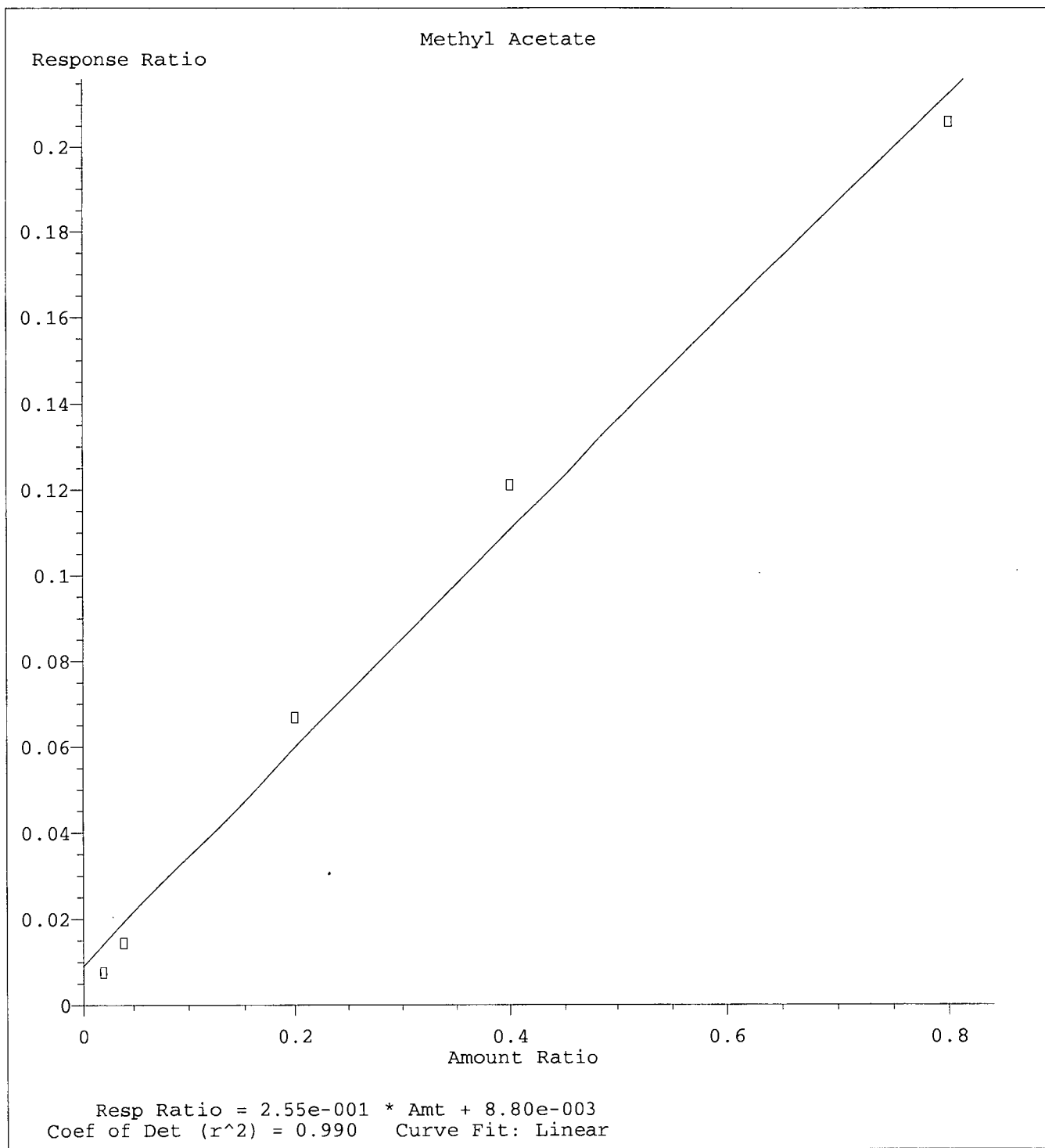
1,1-DCE

Response Ratio



Resp Ratio = 1.97e-001 \* Amt  
Coef of Det (r<sup>2</sup>) = 0.990    Curve Fit: Linear/(0,0)

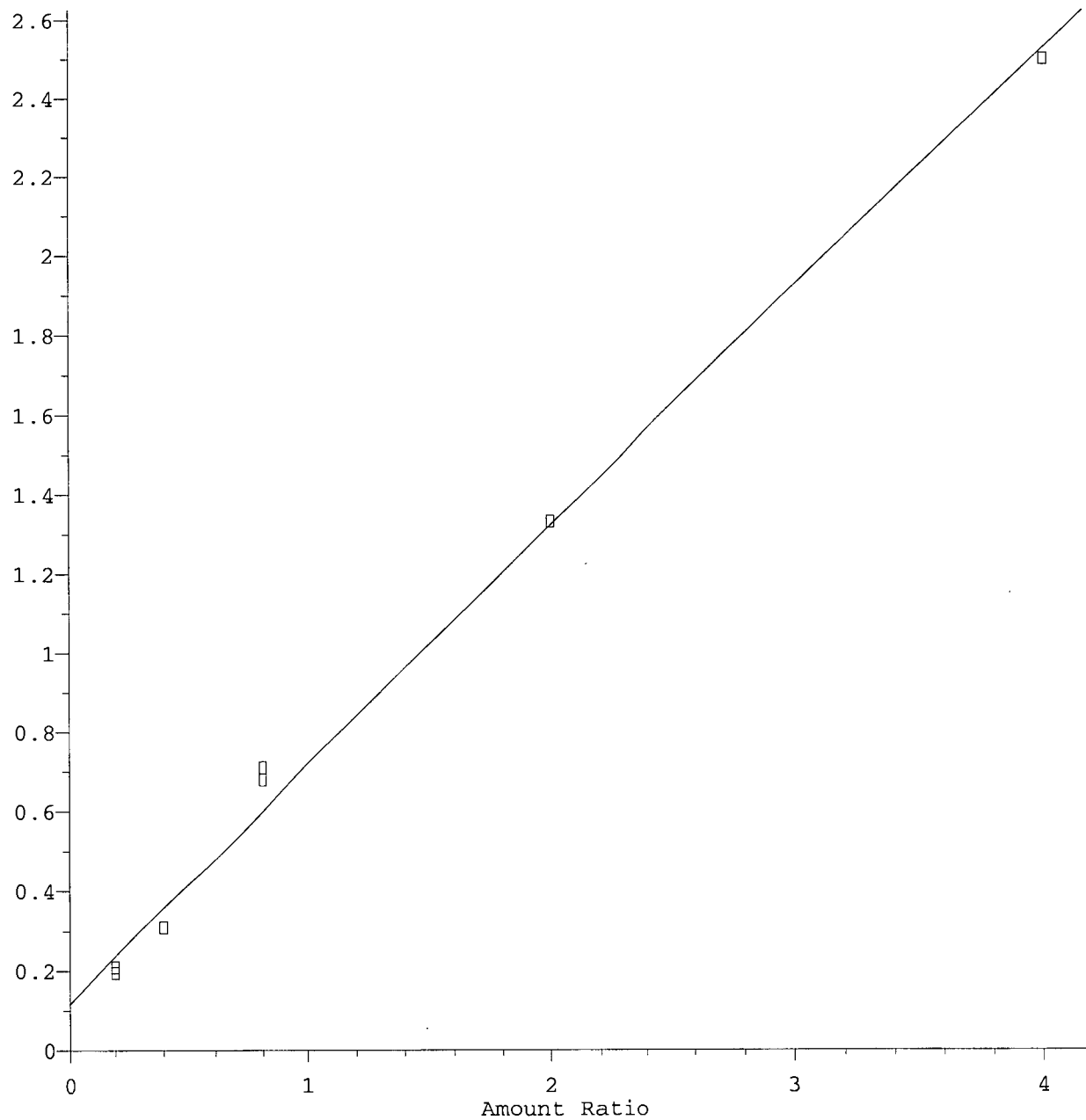
Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 11:02:36 2018



Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018

Dibromofluoromethane(S)

Response Ratio

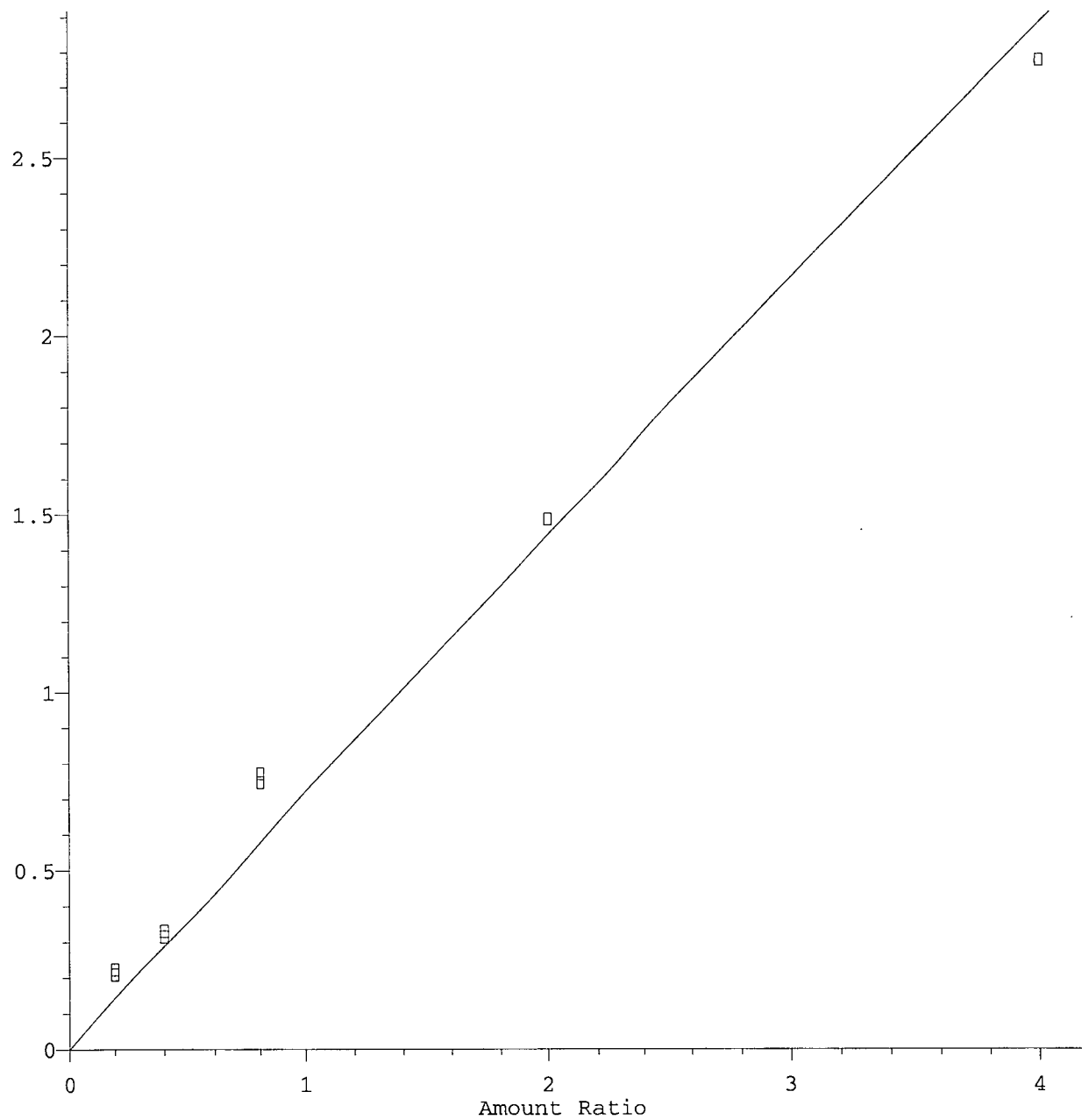


Resp Ratio = 6.04e-001 \* Amt + 1.17e-001  
Coef of Det (r^2) = 0.994 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018

1,2-DCA-D4(S)

Response Ratio

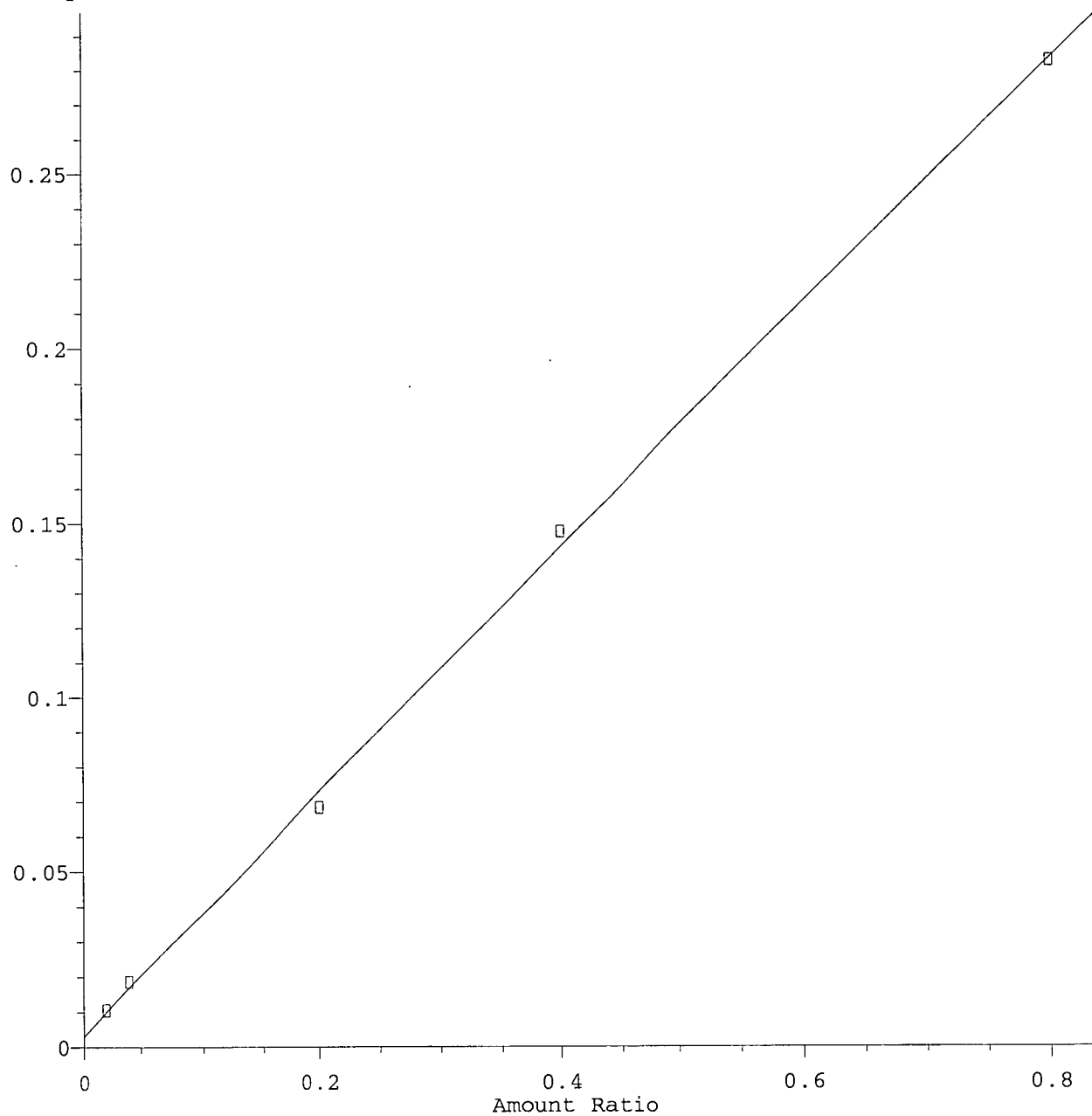


Resp Ratio = 7.22e-001 \* Amt  
Coef of Det (r<sup>2</sup>) = 0.994 Curve Fit: Linear/(0,0)

Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018

MIBK (methyl isobutyl ketone)

Response Ratio

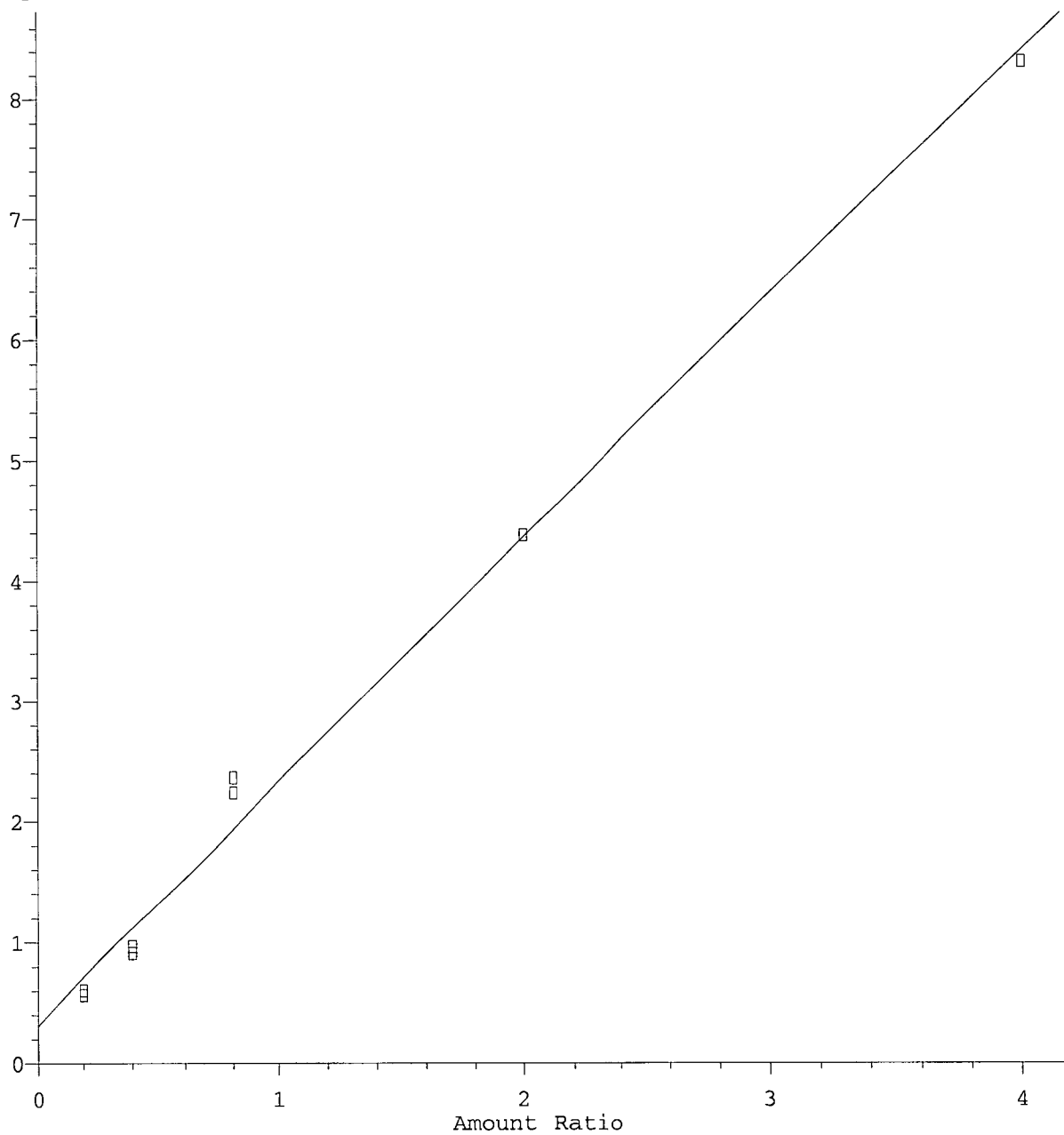


Resp Ratio = 3.51e-001 \* Amt + 3.19e-003  
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018

Toluene-D8 (S)

Response Ratio

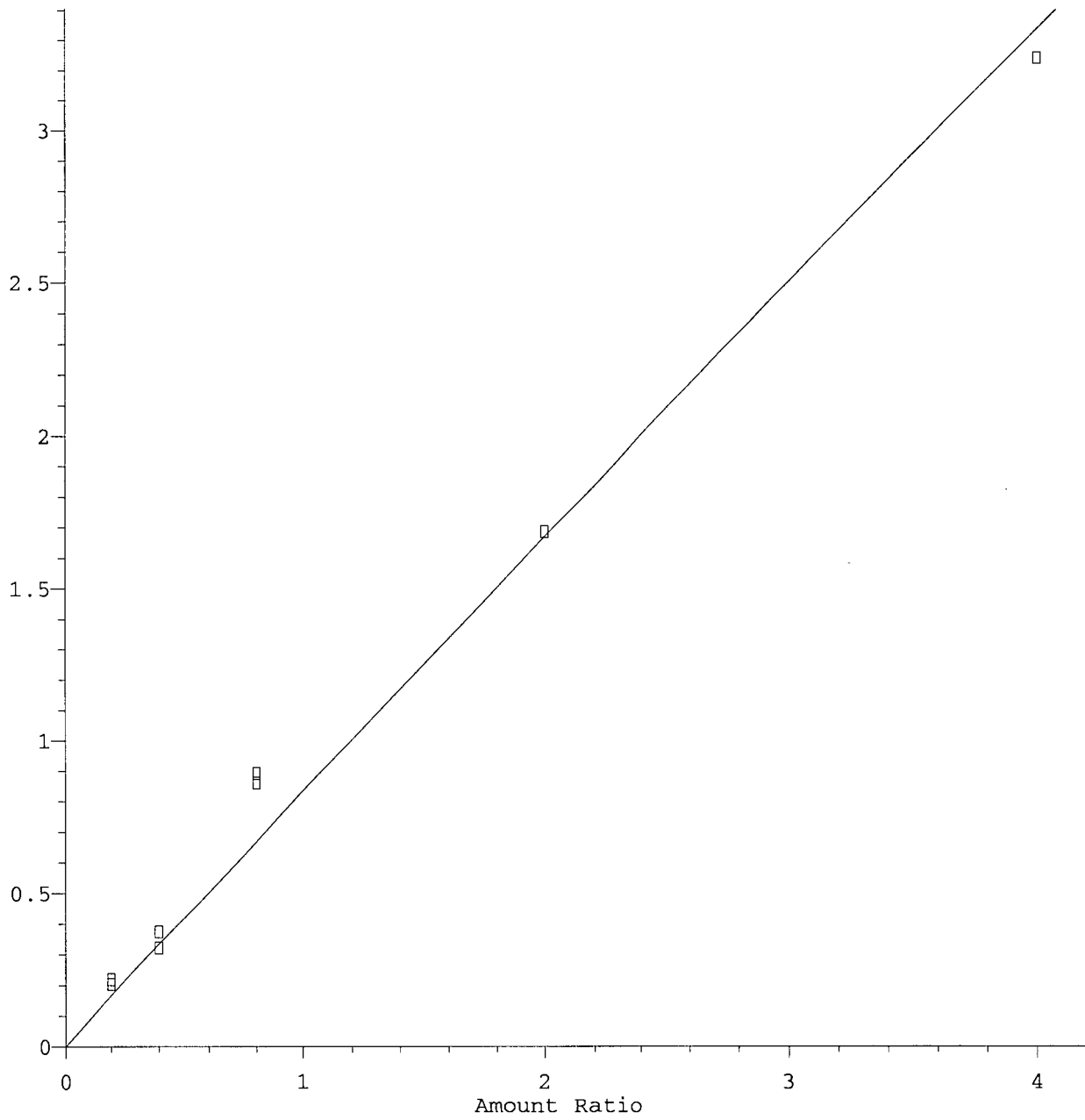


Resp Ratio = 2.03e+000 \* Amt + 3.11e-001  
Coef of Det (r^2) = 0.992 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018

4-Bromofluorobenzene(S)

Response Ratio

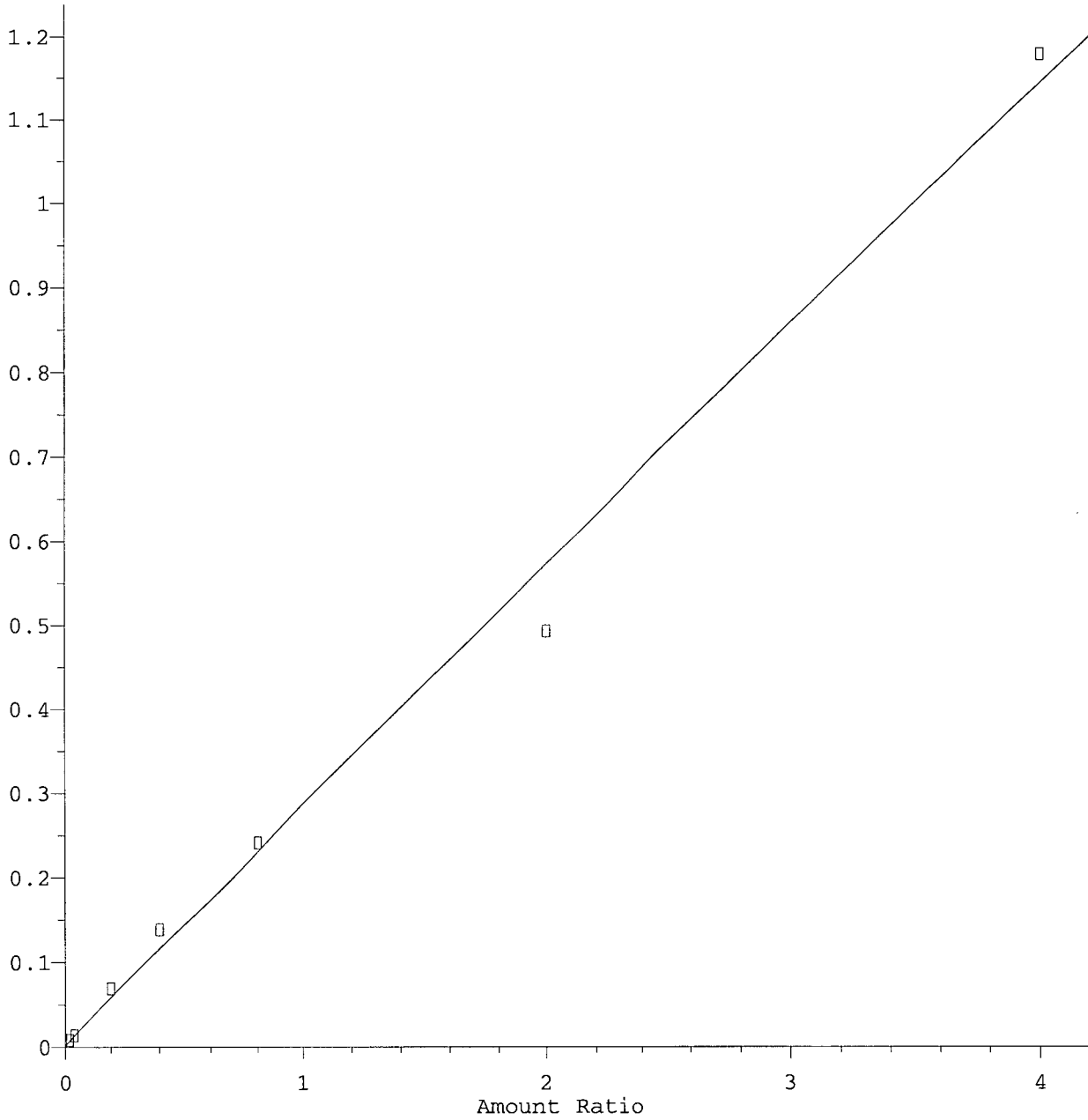


Resp Ratio = 8.35e-001 \* Amt  
Coef of Det (r^2) = 0.992    Curve Fit: Linear/(0,0)

Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018

1,2,3-Trichloropropane

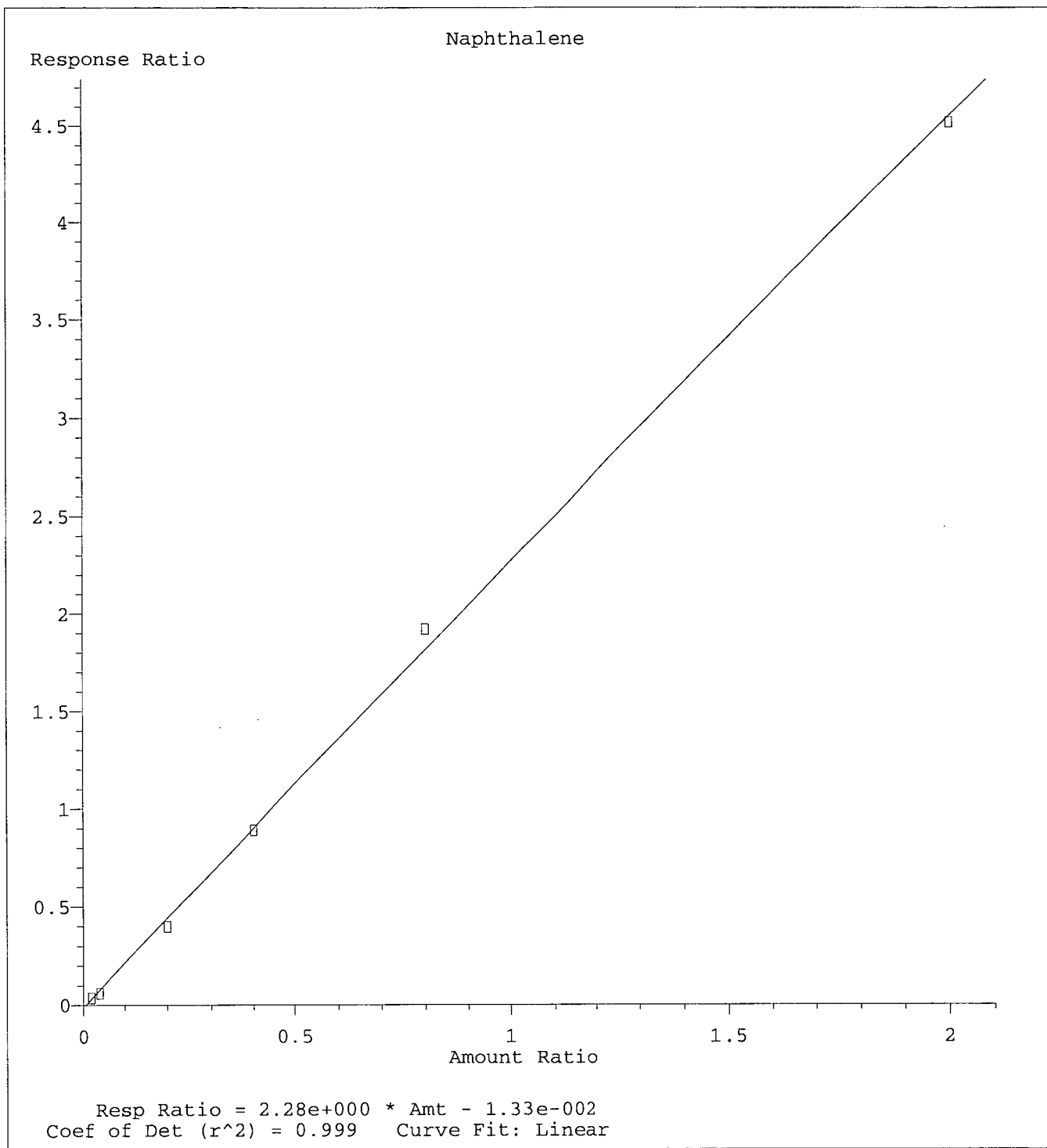
Response Ratio



Resp Ratio = 2.86e-001 \* Amt + 1.71e-003  
Coef of Det (r^2) = 0.992    Curve Fit: Linear

Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018





Method Name: M:\LOKI\DATA\181023\L1023W.M  
Calibration Table Last Updated: Wed Oct 24 07:41:53 2018

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/23/18  
Instrument: Loki  
Initial Cal. Date: 10/23/18  
Data File: 1023L14.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TM	Dichlorodifluoromethane	0.7499	0.7645	1.9	TM	
2	TM	Freon 114	0.4857	0.4684	3.6	TM	
3	TM**L	Chloromethane	0.6189	0.6428	3.9	TM**L	18
4	TM*	Vinyl chloride	0.6256	0.6223	0.53	TM*	
5	TML	Bromomethane	0.4918	0.4742	3.6	TML	14
6	TM	Chloroethane	0.3507	0.3445	1.8	TM	
7	TM	Dichlorofluoromethane	1.072	0.9770	8.9	TM	
8	TM	Trichlorofluoromethane	1.064	1.081	1.6	TM	
9	TM	Acrolein	0.0358	0.0319	11	TM	
10	TML	Acetone	0.2261	0.1714	24	TML	10
11	TM	Freon-113	0.5346	0.4859	9.1	TM	
12	TM*L	1,1-DCE	0.2153	0.2136	0.78	TM*L	8.4
13	TM	t-Butanol	0.0360	0.0357	0.63	TM	
14	TM	Acetonitrile	0.0533	0.0511	4.1	TM	
15	TML	Methyl Acetate	0.3259	0.3042	6.7	TML	11
16	TM	Iodomethane	0.3058	0.3047	0.35	TM	
17	TM	Acrylonitrile	0.1050	0.1000	4.7	TM	
18	TM	Methylene chloride	0.5985	0.6378	6.6	TM	
19	TM	Carbon disulfide	1.608	1.513	5.9	TM	
20	TM	Methyl t-butyl ether (MtBE)	1.275	1.207	5.3	TM	
21	TM	Trans-1,2-DCE	0.5497	0.5720	4.0	TM	
22	TM	Diisopropyl Ether	1.309	1.208	7.7	TM	
23	TM**	1,1-DCA	0.9924	0.9667	2.6	TM**	
24	TM	Vinyl Acetate	0.3446	0.3318	3.7	TM	
25	TM	Ethyl tert Butyl Ether	1.278	1.200	6.2	TM	
26	TM	MEK (2-Butanone)	0.1556	0.1564	0.54	TM	
27	TM	Cis-1,2-DCE	0.6398	0.6278	1.9	TM	
28	TM	2,2-Dichloropropane	0.9154	0.8620	5.8	TM	
29	TM*	Chloroform	1.133	1.124	0.83	TM*	
30	TM	Bromochloromethane	0.3400	0.3430	0.90	TM	
31	TM	1,1,1-TCA	1.050	1.028	2.1	TM	
32	TM	Cyclohexane	0.3621	0.3387	6.5	TM	
33	TM	1,1-Dichloropropene	0.6765	0.6570	2.9	TM	
34	TM	2,2,4-Trimethylpentane	1.231	1.080	12	TM	
35	TM	Carbon Tetrachloride	0.9367	0.9465	1.0	TM	
36	TM	Tert Amyl Methyl Ether	1.252	1.179	5.8	TM	
37	TM	1,2-DCA	0.7893	0.8211	4.0	TM	
38	TM	Benzene	2.093	2.106	0.64	TM	
39	TM	TCE	0.2908	0.3018	3.8	TM	
40	TM	2-Pentanone	0.2571	0.2511	2.4	TM	
Average					4.5		

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/23/18  
Instrument: Loki  
Cal. Date: 10/23/18  
Data File: 1023L14.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM*	1,2-Dichloropropane	0.5655	0.5539	2.1	TM*
42	TM	Bromodichloromethane	0.9306	0.8878	4.6	TM
43	TM	Methyl Cyclohexane	0.6788	0.6419	5.4	TM
44	TM	Dibromomethane	0.3975	0.3827	3.7	TM
45	TM	2-Chloroethyl vinyl ether	0.0000	0.0004	0.00	TM
46	TML	MIBK (methyl isobutyl ketone)	0.4115	0.3487	15	TML 2.9
47	TM	1-Bromo-2-chloroethane	0.3527	0.3175	10.0	TM
48	TM	Cis-1,3-Dichloropropene	0.9271	0.9134	1.5	TM
49	TM*	Toluene	2.502	2.566	2.6	TM*
50	TM	Trans-1,3-Dichloropropene	0.8463	0.8499	0.43	TM
51	TM	1,1,2-TCA	0.4270	0.4271	0.02	TM
52	TM	2-Hexanone	0.2267	0.1993	12	TM
53	TM	1,2-EDB	0.4978	0.5124	2.9	TM
54	TM	Tetrachloroethene	0.8192	0.8479	3.5	TM
55	TM	1-Chlorohexane	0.5964	0.5518	7.5	TM
56	TM	1,1,1,2-Tetrachloroethane	0.7540	0.7481	0.78	TM
57	TM	m&p-Xylene	1.129	1.209	7.1	TM
58	TM	o-Xylene	0.9526	1.020	7.1	TM
59	TM	Styrene	0.9686	1.056	9.0	TM
60	TM	1,3-Dichloropropane	0.7956	0.7994	0.48	TM
61	TM	Dibromochloromethane	0.7103	0.7188	1.2	TM
62	TM**	Chlorobenzene	1.734	1.701	1.9	TM**
63	TM*	Ethylbenzene	2.547	2.626	3.1	TM*
64	TM**	Bromoform	0.4999	0.4930	1.4	TM**
65	TM	Isopropylbenzene	3.997	4.144	3.7	TM
66	TM**	1,1,2,2-Tetrachloroethane	0.9812	0.9048	7.8	TM**
67	TML	1,2,3-Trichloropropane	0.3280	0.3156	3.8	TML 8.9
68	TM	t-1,4-Dichloro-2-Butene	0.2072	0.1940	6.4	TM
69	TM	Bromobenzene	1.366	1.364	0.13	TM
70	TM	n-Propylbenzene	2.903	3.157	8.8	TM
71	TM	4-Ethyltoluene	3.892	4.053	4.1	TM
72	TM	2-Chlorotoluene	2.965	3.105	4.7	TM
73	TM	1,3,5-Trimethylbenzene	2.162	2.404	11	TM
74	TM	4-Chlorotoluene	3.487	3.733	7.0	TM
75	TM	Tert-Butylbenzene	3.064	3.248	6.0	TM
76	TM	1,2,4-Trimethylbenzene	3.367	3.796	13	TM
77	TM	Sec-Butylbenzene	4.370	4.730	8.2	TM
78	TM	p-Isopropyltoluene	4.051	4.310	6.4	TM
79	TM	Benzyl Chloride	1.451	0.0992	93	TM
80	TM	1,3-DCB	2.567	2.603	1.4	TM

Average

7.2

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VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/23/18  
Instrument: Loki  
Cal. Date: 10/23/18  
Data File: 1023L14.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	1,4-DCB	2.695	2.644	1.9	TM
82	TM	n-Butylbenzene	3.189	3.305	3.7	TM
83	TM	1,2-DCB	2.428	2.395	1.3	TM
84	TM	Hexachloroethane	0.8973	0.8248	8.1	TM
85	TM	1,2-Dibromo-3-chloropropane	0.1702	0.1728	1.5	TM
86	TM	1,2,4-Trichlorobenzene	1.572	1.538	2.1	TM
87	TM	Hexachlorobutadiene	1.068	1.032	3.4	TM
88	TML	Naphthalene	2.029	2.137	5.3	TML 5.0
89	TM	1,2,3-Trichlorobenzene	0.7986	0.8230	3.1	TM
90						
91						
92						
93						
94						
95						
96						
97						
98						
99						
100						
101						
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103						
104						
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109						
110						
111						
112						
113						
114						
115						
116						
117						
118						
119						
120		Average			3.4	

Data File : M:\LOKI\DATA\181023\1023L14.D  
 Acq On : 23 Oct 18 18:47  
 Sample : (SS) 10ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 13  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 11:11 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	241856	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	260480	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	161920	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	165676	23.5333	ppb	0.00
Spiked Amount				25.000		
					Recovery =	94.132%
37) 1,2-DCA-D4(S)	4.36	65	182677	26.1596	ppb	0.00
Spiked Amount				25.000		
					Recovery =	104.640%
57) Toluene-D8(S)	6.91	98	593450	24.2317	ppb	0.00
Spiked Amount				25.000		
					Recovery =	96.928%
65) 4-Bromofluorobenzene(S)	9.84	95	227774	26.1665	ppb	0.00
Spiked Amount				25.000		
					Recovery =	104.668%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	73960	10.1946	ppb	97
3) Freon 114	0.79	85	45317	9.6435	ppb	96
4) Chloromethane	0.82	50	62182	11.8496	ppb	100
5) Vinyl chloride	0.87	62	60202	9.9474	ppb	100
6) Bromomethane	1.04	94	45871	11.4016	ppb	98
7) Chloroethane	1.10	64	33328	9.8247	ppb	99
8) Dichlorofluoromethane	1.21	67	94514	9.1119	ppb	98
9) Trichlorofluoromethane	1.24	101	104574	10.1627	ppb	93
10) Acrolein	1.49	56	38554	111.2698	ppb	# 97
11) Acetone	1.60	43	16582	11.0266	ppb	99
12) Freon-113	1.57	101	47005	9.0890	ppb	93
13) 1,1-DCE	1.55	63	20664	10.8377	ppb	97
14) t-Butanol	2.05	59	43222	124.2159	ppb	99
15) Acetonitrile	1.79	41	61815	119.8516	ppb	99
16) Methyl Acetate	1.84	43	29431	11.0839	ppb	93
17) Iodomethane	1.64	142	29480	9.9653	ppb	98
18) Acrylonitrile	2.11	52	9677	9.5294	ppb	80
19) Methylene chloride	1.90	84	61700	10.6560	ppb	98
20) Carbon disulfide	1.69	76	146407	9.4105	ppb	98
21) Methyl t-butyl ether (MtBE)	2.15	73	116770	9.4673	ppb	98
22) Trans-1,2-DCE	2.12	96	55333	10.4046	ppb	96
23) Diisopropyl Ether	2.64	45	116875	9.2278	ppb	99
24) 1,1-DCA	2.51	63	93523	9.7410	ppb	99
25) Vinyl Acetate	2.63	43	32096	9.6265	ppb	# 94
26) Ethyl tert Butyl Ether	3.06	59	116047	9.3845	ppb	99
27) MEK (2-Butanone)	3.24	43	15133	10.0541	ppb	99
28) Cis-1,2-DCE	3.17	96	60732	9.8113	ppb	99
29) 2,2-Dichloropropane	3.15	77	83388	9.4165	ppb	96
30) Chloroform	3.63	83	108727	9.9174	ppb	96
31) Bromochloromethane	3.47	128	33187	10.0900	ppb	93
33) 1,1,1-TCA	3.85	97	99423	9.7886	ppb	99
34) Cyclohexane	3.92	41	32767	9.3549	ppb	84
35) 1,1-Dichloropropene	4.14	75	63557	9.7114	ppb	97
36) 2,2,4-Trimethylpentane	4.63	57	104518	8.7738	ppb	98
38) Carbon Tetrachloride	4.12	117	91564	10.1046	ppb	91
39) Tert Amyl Methyl Ether	4.71	73	114093	9.4202	ppb	99
40) 1,2-DCA	4.48	62	79437	10.4034	ppb	# 93
41) Benzene	4.43	78	203761	10.0637	ppb	98
42) TCE	5.38	95	29192	10.3782	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1023L14.D L1023W.M Wed Oct 24 11:12:20 2018

Data File : M:\LOKI\DATA\181023\1023L14.D  
 Acq On : 23 Oct 18 18:47  
 Sample : (SS) 10ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 13  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 24 11:11 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	303630	122.0624	ppb	99
44) 1,2-Dichloropropane	5.66	63	53584	9.7938	ppb	97
45) Bromodichloromethane	6.05	83	85887	9.5400	ppb	100
46) Methyl Cyclohexane	5.60	83	62100	9.4567	ppb	97
47) Dibromomethane	5.80	93	37023	9.6279	ppb	96
49) MIBK (methyl isobutyl ket	6.86	43	33738	9.7115	ppb	97
50) 1-Bromo-2-chloroethane	6.39	63	30720	9.0028	ppb	94
51) Cis-1,3-Dichloropropene	6.62	75	88366	9.8523	ppb	98
52) Toluene	6.99	91	248282	10.2583	ppb	100
53) Trans-1,3-Dichloropropene	7.30	75	82226	10.0433	ppb	98
54) 1,1,2-TCA	7.49	83	41317	10.0021	ppb	90
55) 2-Hexanone	7.83	43	19278	8.7909	ppb	# 89
58) 1,2-EDB	7.99	107	53389	10.2933	ppb	95
59) Tetrachloroethene	7.61	166	88341	10.3500	ppb	97
60) 1-Chlorohexane	8.61	91	57498	9.2526	ppb	92
61) 1,1,1,2-Tetrachloroethane	8.68	131	77944	9.9220	ppb	99
62) m&p-Xylene	8.86	91	251968	21.4280	ppb	100
63) o-Xylene	9.28	106	106286	10.7086	ppb	96
64) Styrene	9.30	104	110032	10.9027	ppb	98
66) 1,3-Dichloropropane	7.66	76	83294	10.0477	ppb	99
67) Dibromochloromethane	7.90	129	74891	10.1196	ppb	98
68) Chlorobenzene	8.57	112	177262	9.8094	ppb	98
69) Ethylbenzene	8.72	91	273652	10.3125	ppb	96
70) Bromoform	9.47	173	51369	9.8615	ppb	99
72) Isopropylbenzene	9.70	105	268426	10.3682	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.04	83	58601	9.2213	ppb	96
74) 1,2,3-Trichloropropane	10.06	110	20438	10.8910	ppb	84
75) t-1,4-Dichloro-2-Butene	10.10	53	12568	9.3635	ppb	91
76) Bromobenzene	9.97	156	88352	9.9871	ppb	96
77) n-Propylbenzene	10.15	91	204480	10.8765	ppb	98
78) 4-Ethyltoluene	10.28	105	262496	10.4126	ppb	95
79) 2-Chlorotoluene	10.20	91	201104	10.4723	ppb	94
80) 1,3,5-Trimethylbenzene	10.35	105	155712	11.1208	ppb	98
81) 4-Chlorotoluene	10.33	91	241753	10.7043	ppb	99
82) Tert-Butylbenzene	10.69	119	210344	10.5982	ppb	98
83) 1,2,4-Trimethylbenzene	10.74	105	245864	11.2743	ppb	97
84) Sec-Butylbenzene	10.92	105	306356	10.8243	ppb	98
85) p-Isopropyltoluene	11.09	119	279149	10.6403	ppb	98
86) Benzyl Chloride	11.26	91	6427	0.6839	ppb	95
87) 1,3-DCB	11.00	146	168605	10.1412	ppb	98
88) 1,4-DCB	11.10	146	171240	9.8107	ppb	98
89) n-Butylbenzene	11.53	91	214070	10.3651	ppb	98
90) 1,2-DCB	11.49	146	155138	9.8665	ppb	97
91) Hexachloroethane	11.76	117	53422	9.1922	ppb	93
92) 1,2-Dibromo-3-chloropropan	12.32	75	11191	10.1518	ppb	90
93) 1,2,4-Trichlorobenzene	13.21	180	99644	9.7858	ppb	95
94) Hexachlorobutadiene	13.43	225	66836	9.6603	ppb	95
95) Naphthalene	13.46	128	138413	9.5045	ppb	98
96) 1,2,3-Trichlorobenzene	13.72	180	53304	10.3052	ppb	97

(#) = qualifier out of range (m) = manual integration  
 1023L14.D L1023W.M Wed Oct 24 11:12:20 2018

Quantitation Report

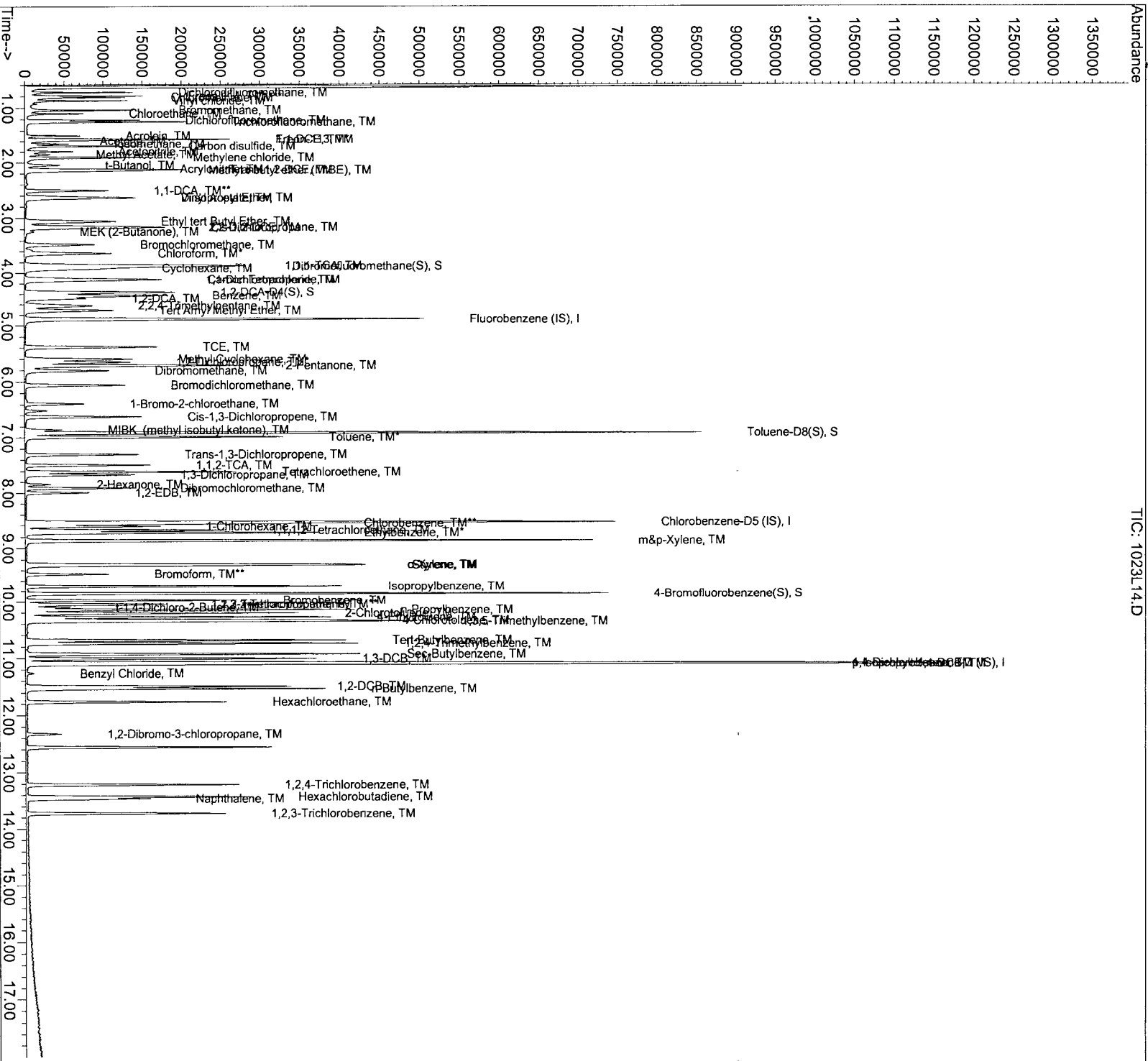
Data File : M:\LOKI\DATA\181023\1023L14.D  
Acq On : 23 Oct 18 18:47  
Sample : (SS) 10ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 13  
Operator: PM,DG,SV,CMM,KV  
Inst : LOKI  
Multiplier: 1.00

Quant Time: Oct 24 11:11 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 24 11:02:36 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Loki  
Initial Cal. Date: 10/23/18  
Data File: 1025L05.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Dichlorodifluoromethane	0.7499	0.4520	40	TM	nt
3	TM	Freon 114	0.4857	0.4500	7.3	TM	
4	TM**L	Chloromethane	0.6189	0.7774	26	TM**L	44 nt
5	TM*	Vinyl chloride	0.6256	1.028	64	TM*	nt
6	TML	Bromomethane	0.4918	0.7638	55	TML	84 nt
7	TM	Chloroethane	0.3507	0.6630	89	TM	nt
8	TM	Dichlorofluoromethane	1.072	1.021	4.8	TM	
9	TM	Trichlorofluoromethane	1.064	2.269	113	TM	nt
10	TM	Acrolein	0.0358	0.0125	65	TM	nt
11	TML	Acetone	0.2261	0.1479	35	TML	10
12	TM	Freon-113	0.5346	0.4912	8.1	TM	
13	TM*L	1,1-DCE	0.2153	0.1919	11	TM*L	2.6
14	TM	t-Butanol	0.0360	0.0116	68	TM	nt
15	TM	Acetonitrile	0.0533	0.0157	71	TM	nt
16	TML	Methyl Acetate	0.3259	0.2328	29	TML	17
17	TM	Iodomethane	0.3058	0.3689	21	TM	nt
18	TM	Acrylonitrile	0.1050	0.0978	6.8	TM	
19	TM	Methylene chloride	0.5985	0.5180	13	TM	
20	TM	Carbon disulfide	1.608	1.417	12	TM	
21	TM	Methyl t-butyl ether (MtBE)	1.275	1.145	10	TM	
22	TM	Trans-1,2-DCE	0.5497	0.5024	8.6	TM	
23	TM	Diisopropyl Ether	1.309	1.240	5.3	TM	
24	TM**	1,1-DCA	0.9924	0.9098	8.3	TM**	
25	TM	Vinyl Acetate	0.3446	0.3361	2.5	TM	
26	TM	Ethyl tert Butyl Ether	1.278	1.222	4.4	TM	
27	TM	MEK (2-Butanone)	0.1556	0.1426	8.3	TM	
28	TM	Cis-1,2-DCE	0.6398	0.5957	6.9	TM	
29	TM	2,2-Dichloropropane	0.9154	0.9164	0.12	TM	
30	TM*	Chloroform	1.133	1.081	4.6	TM*	
31	TM	Bromochloromethane	0.3400	0.3102	8.8	TM	
32	SL	Dibromofluoromethane(S)	0.7811	0.7295	6.6	SL	1.5
33	TM	1,1,1-TCA	1.050	0.9767	7.0	TM	
34	TM	Cyclohexane	0.3621	0.3396	6.2	TM	
35	TM	1,1-Dichloropropene	0.6765	0.6456	4.6	TM	
36	TM	2,2,4-Trimethylpentane	1.231	1.263	2.6	TM	
37	SL	1,2-DCA-D4(S)	0.8407	0.7863	6.5	SL	8.9
38	TM	Carbon Tetrachloride	0.9367	0.9132	2.5	TM	
39	TM	Tert Amyl Methyl Ether	1.252	1.173	6.3	TM	
40	TM	1,2-DCA	0.7893	0.7536	4.5	TM	

Average

21.9



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/25/18

Matrix: 0

Instrument: Loki

Cal. Date: 10/23/18

Data File: 1025L05.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM	Benzene	2.093	2.001	4.4	TM	
42	TM	TCE	0.2908	0.2784	4.2	TM	
43	TM	2-Pentanone	0.2571	0.0888	65	TM	nt
44	TM*	1,2-Dichloropropane	0.5655	0.5216	7.8	TM*	
45	TM	Bromodichloromethane	0.9306	0.8596	7.6	TM	
46	TM	Methyl Cyclohexane	0.6788	0.6867	1.2	TM	
47	TM	Dibromomethane	0.3975	0.3515	12	TM	
48	TM	2-Chloroethyl vinyl ether	0.0000	0.0177	0.00	TM	
49	TML	MIBK (methyl isobutyl ketone)	0.4115	0.3063	26	TML	15
50	TM	1-Bromo-2-chloroethane	0.3527	0.3242	8.1	TM	
51	TM	Cis-1,3-Dichloropropene	0.9271	0.8821	4.9	TM	
52	TM*	Toluene	2.502	2.473	1.2	TM*	
53	TM	Trans-1,3-Dichloropropene	0.8463	0.8042	5.0	TM	
54	TM	1,1,2-TCA	0.4270	0.3927	8.0	TM	
55	TM	2-Hexanone	0.2267	0.1953	14	TM	
56	I	Chlorobenzene-D5 (IS)	ISTD			I	
57	SL	Toluene-D8(S)	2.423	2.489	2.7	SL	7.3
58	TM	1,2-EDB	0.4978	0.4630	7.0	TM	
59	TM	Tetrachloroethene	0.8192	0.8660	5.7	TM	
60	TM	1-Chlorohexane	0.5964	0.6033	1.1	TM	
61	TM	1,1,1,2-Tetrachloroethane	0.7540	0.7002	7.1	TM	
62	TM	m&p-Xylene	1.129	1.164	3.1	TM	
63	TM	o-Xylene	0.9526	1.000	5.0	TM	
64	TM	Styrene	0.9686	1.005	3.7	TM	
65	SL	4-Bromofluorobenzene(S)	0.9063	0.9522	5.1	SL	14
66	TM	1,3-Dichloropropane	0.7956	0.7295	8.3	TM	
67	TM	Dibromochloromethane	0.7103	0.6515	8.3	TM	
68	TM**	Chlorobenzene	1.734	1.632	5.9	TM**	
69	TM*	Ethylbenzene	2.547	2.589	1.6	TM*	
70	TM**	Bromoform	0.4999	0.4586	8.3	TM**	
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
72	TM	Isopropylbenzene	3.997	3.915	2.1	TM	
73	TM**	1,1,2,2-Tetrachloroethane	0.9812	0.8332	15	TM**	
74	TML	1,2,3-Trichloropropane	0.3280	0.2718	17	TML	6.4
75	TM	t-1,4-Dichloro-2-Butene	0.2072	0.1913	7.7	TM	
76	TM	Bromobenzene	1.366	1.275	6.7	TM	
77	TM	n-Propylbenzene	2.903	2.941	1.3	TM	
78	TM	4-Ethyltoluene	3.892	3.982	2.3	TM	
79	TM	2-Chlorotoluene	2.965	2.922	1.4	TM	
80	TM	1,3,5-Trimethylbenzene	2.162	2.281	5.5	TM	

Average

7.9

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Loki  
Cal. Date: 10/23/18  
Data File: 1025L05.D

		Compound	MEAN	CCRF	%D	%Drift	
81	TM	4-Chlorotoluene	3.487	3.513	0.74	TM	
82	TM	Tert-Butylbenzene	3.064	3.047	0.57	TM	
83	TM	1,2,4-Trimethylbenzene	3.367	3.545	5.3	TM	
84	TM	Sec-Butylbenzene	4.370	4.408	0.88	TM	
85	TM	p-Isopropyltoluene	4.051	4.106	1.4	TM	
86	TM	Benzyl Chloride	1.451	3.455	138	TM	nt
87	TM	1,3-DCB	2.567	2.429	5.4	TM	
88	TM	1,4-DCB	2.695	2.444	9.3	TM	
89	TM	n-Butylbenzene	3.189	3.248	1.9	TM	
90	TM	1,2-DCB	2.428	2.186	9.9	TM	
91	TM	Hexachloroethane	0.8973	2.095	133	TM	nt
92	TM	1,2-Dibromo-3-chloropropane	0.1702	0.1424	16	TM	
93	TM	1,2,4-Trichlorobenzene	1.572	1.501	4.5	TM	
94	TM	Hexachlorobutadiene	1.068	0.9536	11	TM	
95	TML	Naphthalene	2.029	2.021	0.42	TML	10
96	TM	1,2,3-Trichlorobenzene	0.7986	0.7676	3.9	TM	
97							
98							
99							
100							
101							
102							
103							
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114							
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116							
117							
118							
119							
120							

Average

21.4

Data File : M:\LOKI\DATA\181023\1025L05.D  
 Acq On : 25 Oct 18 9:51  
 Sample : 181025A CCV 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 2  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 10:13 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	268928	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	288960	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	185664	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	196194	25.3775	ppb	0.00
Spiked Amount 25.000			Recovery = 101.512%			
37) 1,2-DCA-D4(S)	4.36	65	211461	27.2331	ppb	0.00
Spiked Amount 25.000			Recovery = 108.932%			
57) Toluene-D8(S)	6.91	98	719240	26.8281	ppb	0.00
Spiked Amount 25.000			Recovery = 107.312%			
65) 4-Bromofluorobenzene(S)	9.84	95	275147	28.4934	ppb	0.00
Spiked Amount 25.000			Recovery = 113.972%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	48624	6.0276	ppb	99
3) Freon 114	0.79	85	48412	9.2650	ppb	95
4) Chloromethane	0.82	50	83630	14.3858	ppb	96
5) Vinyl chloride	0.87	62	110600	16.4352	ppb	99
6) Bromomethane	1.04	94	82164	18.3913	ppb	100
7) Chloroethane	1.10	64	71319	18.9075	ppb	99
8) Dichlorofluoromethane	1.21	67	109843	9.5237	ppb	100
9) Trichlorofluoromethane	1.24	101	244042	21.3291	ppb	95
10) Acrolein	1.49	56	16861	43.7635	ppb	# 96
11) Acetone	1.60	43	15914	8.9918	ppb	98
12) Freon-113	1.57	101	52836	9.1880	ppb	93
13) 1,1-DCE	1.55	63	20640	9.7354	ppb	96
14) t-Butanol	2.05	59	15585	40.2810	ppb	96
15) Acetonitrile	1.79	41	21091	36.7763	ppb	# 79
16) Methyl Acetate	1.85	43	25043	8.2791	ppb	93
17) Iodomethane	1.64	142	39680	12.0631	ppb	95
18) Acrylonitrile	2.10	52	10525	9.3211	ppb	71
19) Methylene chloride	1.90	84	55726	8.6554	ppb	91
20) Carbon disulfide	1.69	76	152406	8.8100	ppb	100
21) Methyl t-butyl ether (MtBE)	2.15	73	123180	8.9817	ppb	98
22) Trans-1,2-DCE	2.12	96	54044	9.1392	ppb	98
23) Diisopropyl Ether	2.64	45	133435	9.4748	ppb	96
24) 1,1-DCA	2.51	63	97873	9.1678	ppb	99
25) Vinyl Acetate	2.64	43	36152	9.7515	ppb	99
26) Ethyl tert Butyl Ether	3.06	59	131428	9.5584	ppb	97
27) MEK (2-Butanone)	3.24	43	15343	9.1674	ppb	97
28) Cis-1,2-DCE	3.17	96	64080	9.3100	ppb	98
29) 2,2-Dichloropropane	3.15	77	98583	10.0118	ppb	100
30) Chloroform	3.63	83	116329	9.5426	ppb	96
31) Bromochloromethane	3.47	128	33366	9.1233	ppb	95
33) 1,1,1-TCA	3.85	97	105065	9.3028	ppb	99
34) Cyclohexane	3.91	41	36531	9.3796	ppb	91
35) 1,1-Dichloropropene	4.13	75	69449	9.5435	ppb	98
36) 2,2,4-Trimethylpentane	4.62	57	135894	10.2593	ppb	# 83
38) Carbon Tetrachloride	4.11	117	98235	9.7495	ppb	96
39) Tert Amyl Methyl Ether	4.71	73	126223	9.3726	ppb	99
40) 1,2-DCA	4.48	62	81069	9.5483	ppb	98
41) Benzene	4.43	78	215276	9.5621	ppb	99
42) TCE	5.38	95	29952	9.5764	ppb	98

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

Data File : M:\LOKI\DATA\181023\1025L05.D  
 Acq On : 25 Oct 18 9:51  
 Sample : 181025A CCV 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 2  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 10:13 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	119378	43.1601	ppb	95
44) 1,2-Dichloropropane	5.65	63	56105	9.2223	ppb	98
45) Bromodichloromethane	6.05	83	92463	9.2365	ppb	100
46) Methyl Cyclohexane	5.60	83	73865	10.1160	ppb	95
47) Dibromomethane	5.80	93	37807	8.8421	ppb	94
49) MIBK (methyl isobutyl ket	6.86	43	32945	8.5010	ppb	98
50) 1-Bromo-2-chloroethane	6.38	63	34880	9.1929	ppb	99
51) Cis-1,3-Dichloropropene	6.62	75	94893	9.5150	ppb	99
52) Toluene	6.99	91	266005	9.8841	ppb	99
53) Trans-1,3-Dichloropropene	7.30	75	86509	9.5028	ppb	98
54) 1,1,2-TCA	7.49	83	42240	9.1962	ppb	97
55) 2-Hexanone	7.83	43	21006	8.6146	ppb	# 86
58) 1,2-EDB	7.99	107	53519	9.3014	ppb	100
59) Tetrachloroethene	7.61	166	100092	10.5709	ppb	98
60) 1-Chlorohexane	8.61	91	69727	10.1146	ppb	97
61) 1,1,1,2-Tetrachloroethane	8.68	131	80932	9.2869	ppb	94
62) m&p-Xylene	8.86	91	269056	20.6260	ppb	99
63) o-Xylene	9.28	106	115599	10.4990	ppb	88
64) Styrene	9.30	104	116128	10.3726	ppb	99
66) 1,3-Dichloropropane	7.66	76	84318	9.1688	ppb	98
67) Dibromochloromethane	7.90	129	75299	9.1719	ppb	98
68) Chlorobenzene	8.56	112	188621	9.4093	ppb	96
69) Ethylbenzene	8.72	91	299200	10.1640	ppb	99
70) Bromoform	9.46	173	53011	9.1737	ppb	92
72) Isopropylbenzene	9.70	105	290736	9.7938	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.04	83	61876	8.4915	ppb	98
74) 1,2,3-Trichloropropane	10.06	110	20184	9.3595	ppb	95
75) t-1,4-Dichloro-2-Butene	10.10	53	14207	9.2309	ppb	86
76) Bromobenzene	9.97	156	94680	9.3337	ppb	100
77) n-Propylbenzene	10.15	91	218432	10.1327	ppb	97
78) 4-Ethyltoluene	10.27	105	295733	10.2308	ppb	95
79) 2-Chlorotoluene	10.20	91	217010	9.8554	ppb	96
80) 1,3,5-Trimethylbenzene	10.35	105	169408	10.5517	ppb	97
81) 4-Chlorotoluene	10.33	91	260873	10.0736	ppb	100
82) Tert-Butylbenzene	10.69	119	226280	9.9431	ppb	98
83) 1,2,4-Trimethylbenzene	10.74	105	263274	10.5287	ppb	96
84) Sec-Butylbenzene	10.92	105	327384	10.0880	ppb	99
85) p-Isopropyltoluene	11.09	119	304931	10.1366	ppb	97
86) Benzyl Chloride	11.26	91	256562	23.8095	ppb	99
87) 1,3-DCB	11.00	146	180364	9.4611	ppb	97
88) 1,4-DCB	11.10	146	181523	9.0698	ppb	98
89) n-Butylbenzene	11.53	91	241217	10.1858	ppb	97
90) 1,2-DCB	11.49	146	162366	9.0056	ppb	98
91) Hexachloroethane	11.76	117	155586	23.3476	ppb	100
92) 1,2-Dibromo-3-chloropropan	12.32	75	10577	8.3678	ppb	87
93) 1,2,4-Trichlorobenzene	13.21	180	111501	9.5498	ppb	96
94) Hexachlorobutadiene	13.43	225	70823	8.9274	ppb	100
95) Naphthalene	13.46	128	150063	8.9946	ppb	100
96) 1,2,3-Trichlorobenzene	13.72	180	57008	9.6118	ppb	97

Quantitation Report

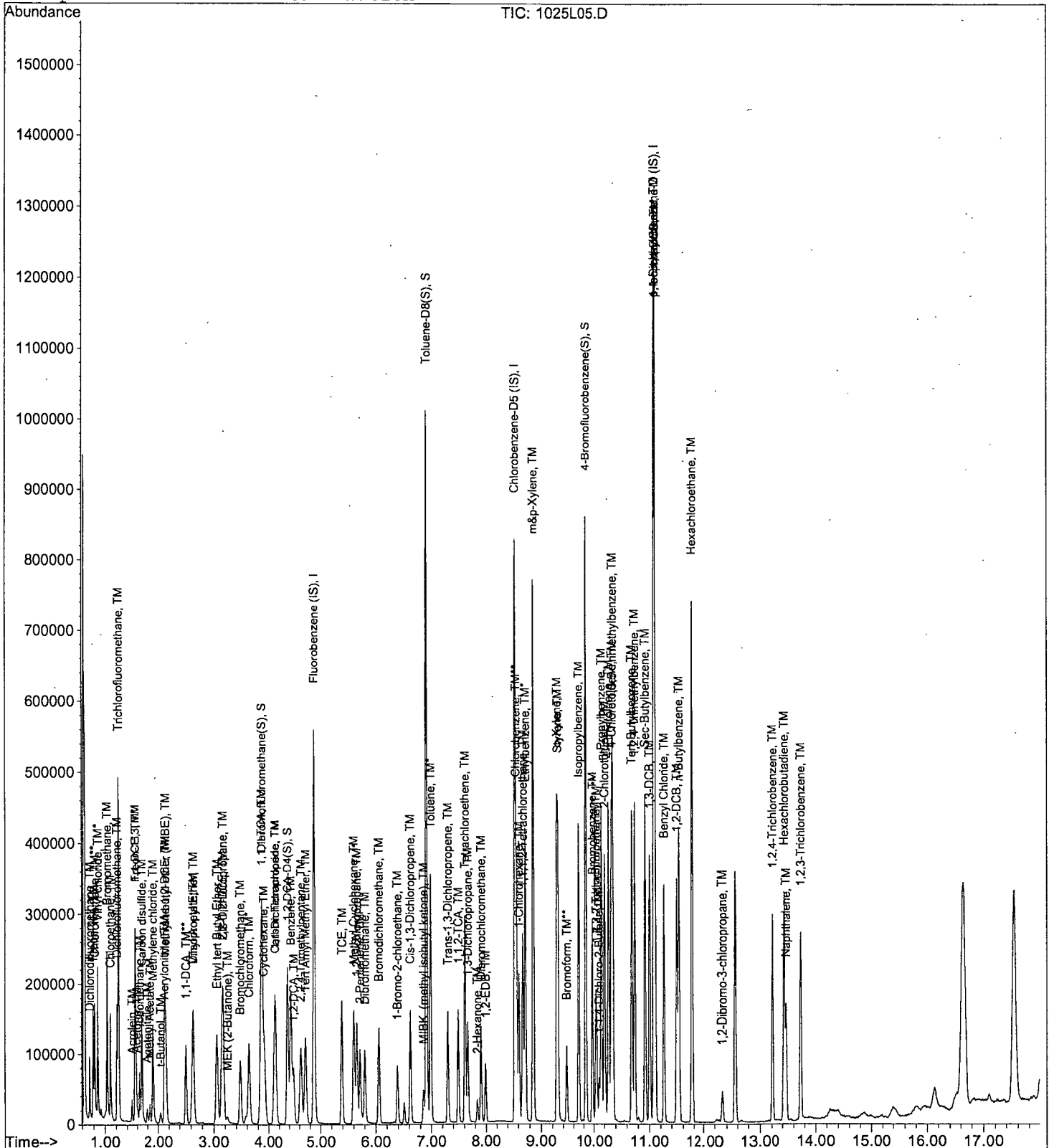
Data File : M:\LOKI\DATA\181023\1025L05.D  
Acq On : 25 Oct 18 9:51  
Sample : 181025A CCV 10ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 2  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 10:13 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 11:05:23 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Loki  
Initial Cal. Date: 10/23/18  
Data File: 1025L30.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Dichlorodifluoromethane	0.7499	0.4517	40	TM	
3	TM	Freon 114	0.4857	0.4437	8.7	TM	
4	TM**L	Chloromethane	0.6189	0.7925	28	TM**L	47
5	TM*	Vinyl chloride	0.6256	1.068	71	TM*	
6	TML	Bromomethane	0.4918	0.8434	72	TML	103
7	TM	Chloroethane	0.3507	0.7114	103	TM	
8	TM	Dichlorofluoromethane	1.072	1.096	2.2	TM	
9	TM	Trichlorofluoromethane	1.064	2.407	126	TM	
10	TM	Acrolein	0.0358	0.0135	62	TM	
11	TML	Acetone	0.2261	0.1590	30	TML	0.50
12	TM	Freon-113	0.5346	0.5066	5.2	TM	
13	TM*L	1,1-DCE	0.2153	0.2133	0.92	TM*L	8.2
14	TM	t-Butanol	0.0360	0.0141	61	TM	
15	TM	Acetonitrile	0.0533	0.0198	63	TM	
16	TML	Methyl Acetate	0.3259	0.2880	12	TML	4.5
17	TM	Iodomethane	0.3058	0.3133	2.4	TM	
18	TM	Acrylonitrile	0.1050	0.1149	9.4	TM	
19	TM	Methylene chloride	0.5985	0.5886	1.6	TM	
20	TM	Carbon disulfide	1.608	1.482	7.9	TM	
21	TM	Methyl t-butyl ether (MtBE)	1.275	1.269	0.43	TM	
22	TM	Trans-1,2-DCE	0.5497	0.5372	2.3	TM	
23	TM	Diisopropyl Ether	1.309	1.345	2.8	TM	
24	TM**	1,1-DCA	0.9924	1.006	1.4	TM**	
25	TM	Vinyl Acetate	0.3446	0.3255	5.6	TM	
26	TM	Ethyl tert Butyl Ether	1.278	1.370	7.2	TM	
27	TM	MEK (2-Butanone)	0.1556	0.1541	0.93	TM	
28	TM	Cis-1,2-DCE	0.6398	0.6465	1.0	TM	
29	TM	2,2-Dichloropropane	0.9154	0.7456	19	TM	
30	TM*	Chloroform	1.133	1.130	0.31	TM*	
31	TM	Bromochloromethane	0.3400	0.3469	2.0	TM	
32	SL	Dibromofluoromethane(S)	0.7811	0.7485	4.2	SL	9.7
33	TM	1,1,1-TCA	1.050	1.065	1.4	TM	
34	TM	Cyclohexane	0.3621	0.3433	5.2	TM	
35	TM	1,1-Dichloropropene	0.6765	0.6905	2.1	TM	
36	TM	2,2,4-Trimethylpentane	1.231	1.080	12	TM	
37	SL	1,2-DCA-D4(S)	0.8407	0.8132	3.3	SL	14
38	TM	Carbon Tetrachloride	0.9367	0.9946	6.2	TM	
39	TM	Tert Amyl Methyl Ether	1.252	1.295	3.5	TM	
40	TM	1,2-DCA	0.7893	0.8125	2.9	TM	

Average

20.3

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Loki  
Cal. Date: 10/23/18  
Data File: 1025L30.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM	Benzene	2.093	2.136	2.0	TM	
42	TM	TCE	0.2908	0.3315	14	TM	
43	TM	2-Pentanone	0.2571	0.0986	62	TM	
44	TM*	1,2-Dichloropropane	0.5655	0.5787	2.3	TM*	
45	TM	Bromodichloromethane	0.9306	0.9470	1.8	TM	
46	TM	Methyl Cyclohexane	0.6788	0.6448	5.0	TM	
47	TM	Dibromomethane	0.3975	0.4090	2.9	TM	
48	TM	2-Chloroethyl vinyl ether	0.0000	0.0034	0.00	TM	
49	TML	MIBK (methyl isobutyl ketone)	0.4115	0.3508	15	TML	2.3
50	TM	1-Bromo-2-chloroethane	0.3527	0.3468	1.7	TM	
51	TM	Cis-1,3-Dichloropropene	0.9271	0.9089	2.0	TM	
52	TM*	Toluene	2.502	2.646	5.8	TM*	
53	TM	Trans-1,3-Dichloropropene	0.8463	0.8638	2.1	TM	
54	TM	1,1,2-TCA	0.4270	0.4319	1.2	TM	
55	TM	2-Hexanone	0.2267	0.2113	6.8	TM	
56	I	Chlorobenzene-D5 (IS)	ISTD			I	
57	SL	Toluene-D8(S)	2.423	2.419	0.15	SL	8.9
58	TM	1,2-EDB	0.4978	0.4952	0.53	TM	
59	TM	Tetrachloroethene	0.8192	0.8887	8.5	TM	
60	TM	1-Chlorohexane	0.5964	0.5946	0.31	TM	
61	TM	1,1,1,2-Tetrachloroethane	0.7540	0.7677	1.8	TM	
62	TM	m&p-Xylene	1.129	1.208	7.0	TM	
63	TM	o-Xylene	0.9526	1.006	5.6	TM	
64	TM	Styrene	0.9686	1.073	11	TM	
65	SL	4-Bromofluorobenzene(S)	0.9063	0.9432	4.1	SL	14
66	TM	1,3-Dichloropropane	0.7956	0.7987	0.39	TM	
67	TM	Dibromochloromethane	0.7103	0.7330	3.2	TM	
68	TM**	Chlorobenzene	1.734	1.779	2.6	TM**	
69	TM*	Ethylbenzene	2.547	2.673	5.0	TM*	
70	TM**	Bromoform	0.4999	0.5075	1.5	TM**	
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
72	TM	Isopropylbenzene	3.997	4.120	3.1	TM	
73	TM**	1,1,2,2-Tetrachloroethane	0.9812	0.8140	17	TM**	
74	TML	1,2,3-Trichloropropane	0.3280	0.3308	0.86	TML	14
75	TM	t-1,4-Dichloro-2-Butene	0.2072	0.1935	6.6	TM	
76	TM	Bromobenzene	1.366	1.368	0.18	TM	
77	TM	n-Propylbenzene	2.903	3.035	4.6	TM	
78	TM	4-Ethyltoluene	3.892	4.108	5.5	TM	
79	TM	2-Chlorotoluene	2.965	3.102	4.6	TM	
80	TM	1,3,5-Trimethylbenzene	2.162	2.388	10	TM	

Average

6.0

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Loki  
Cal. Date: 10/23/18  
Data File: 1025L30.D

		Compound	MEAN	CCRF	%D	%Drift	
81	TM	4-Chlorotoluene	3.487	3.717	6.6	TM	
82	TM	Tert-Butylbenzene	3.064	3.157	3.0	TM	
83	TM	1,2,4-Trimethylbenzene	3.367	3.710	10	TM	
84	TM	Sec-Butylbenzene	4.370	4.583	4.9	TM	
85	TM	p-Isopropyltoluene	4.051	4.191	3.5	TM	
86	TM	Benzyl Chloride	1.451	2.592	79	TM	nt
87	TM	1,3-DCB	2.567	2.544	0.88	TM	
88	TM	1,4-DCB	2.695	2.627	2.5	TM	
89	TM	n-Butylbenzene	3.189	3.188	0.01	TM	
90	TM	1,2-DCB	2.428	2.405	0.92	TM	
91	TM	Hexachloroethane	0.8973	2.165	141	TM	nt
92	TM	1,2-Dibromo-3-chloropropane	0.1702	0.1620	4.8	TM	
93	TM	1,2,4-Trichlorobenzene	1.572	1.577	0.32	TM	
94	TM	Hexachlorobutadiene	1.068	1.017	4.8	TM	
95	TML	Naphthalene	2.029	2.302	13	TML	2.3
96	TM	1,2,3-Trichlorobenzene	0.7986	0.8696	8.9	TM	
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
Average					17.8		



Data File : M:\LOKI\DATA\181023\1025L30.D  
 Acq On : 25 Oct 18 21:32  
 Sample : Ending CCV 10ug/L 10/25/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 27  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 6:04 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 11:05:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	234048	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	260160	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	166784	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	175189	27.4273	ppb	0.00
Spiked Amount 25.000			Recovery = 109.708%			
37) 1,2-DCA-D4(S)	4.36	65	190318	28.5448	ppb	0.00
Spiked Amount 25.000			Recovery = 114.180%			
57) Toluene-D8(S)	6.91	98	629407	27.2357	ppb	0.00
Spiked Amount 25.000			Recovery = 108.944%			
65) 4-Bromofluorobenzene(S)	9.84	95	245372	28.6066	ppb	0.00
Spiked Amount 25.000			Recovery = 114.428%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	42288	6.0234	ppb	97
3) Freon 114	0.79	85	41541	9.1348	ppb	94
4) Chloromethane	0.82	50	74191	14.6690	ppb	98
5) Vinyl chloride	0.87	62	100007	17.0758	ppb	97
6) Bromomethane	1.04	94	78957	20.3115	ppb	100
7) Chloroethane	1.09	64	66600	20.2878	ppb	99
8) Dichlorofluoromethane	1.21	67	102591	10.2205	ppb	99
9) Trichlorofluoromethane	1.24	101	225361	22.6317	ppb	98
10) Acrolein	1.49	56	15764	47.0139	ppb	# 97
11) Acetone	1.60	43	14884	9.9496	ppb	92
12) Freon-113	1.57	101	47430	9.4771	ppb	95
13) 1,1-DCE	1.55	63	19968	10.8220	ppb	96
14) t-Butanol	2.05	59	16473	48.9212	ppb	95
15) Acetonitrile	1.79	41	23129	46.3403	ppb	95
16) Methyl Acetate	1.85	43	26966	10.4484	ppb	92
17) Iodomethane	1.64	142	29328	10.2447	ppb	98
18) Acrylonitrile	2.11	52	10755	10.9443	ppb	76
19) Methylene chloride	1.90	84	55108	9.8350	ppb	96
20) Carbon disulfide	1.69	76	138721	9.2140	ppb	99
21) Methyl t-butyl ether (MtBE)	2.15	73	118845	9.9570	ppb	98
22) Trans-1,2-DCE	2.12	96	50296	9.7729	ppb	98
23) Diisopropyl Ether	2.64	45	125941	10.2754	ppb	99
24) 1,1-DCA	2.51	63	94214	10.1403	ppb	98
25) Vinyl Acetate	2.64	43	30472	9.4443	ppb	99
26) Ethyl tert Butyl Ether	3.06	59	128273	10.7192	ppb	100
27) MEK (2-Butanone)	3.24	43	14430	9.9068	ppb	98
28) Cis-1,2-DCE	3.17	96	60523	10.1037	ppb	93
29) 2,2-Dichloropropane	3.15	77	69799	8.1450	ppb	96
30) Chloroform	3.64	83	105764	9.9690	ppb	95
31) Bromochloromethane	3.48	128	32481	10.2048	ppb	98
33) 1,1,1-TCA	3.85	97	99666	10.1399	ppb	99
34) Cyclohexane	3.91	41	32139	9.4817	ppb	93
35) 1,1-Dichloropropene	4.13	75	64640	10.2064	ppb	98
36) 2,2,4-Trimethylpentane	4.63	57	101154	8.7747	ppb	# 85
38) Carbon Tetrachloride	4.11	117	93110	10.6180	ppb	92
39) Tert Amyl Methyl Ether	4.71	73	121268	10.3466	ppb	98
40) 1,2-DCA	4.48	62	76069	10.2946	ppb	97
41) Benzene	4.43	78	199939	10.2044	ppb	99
42) TCE	5.38	95	31032	11.4003	ppb	97

(#) = qualifier out of range (m) = manual integration  
 1025L30.D L1023W.M Fri Oct 26 06:24:30 2018

Data File : M:\LOKI\DATA\181023\1025L30.D  
 Acq On : 25 Oct 18 21:32  
 Sample : Ending CCV 10ug/L 10/25/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 27  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 6:04 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 11:05:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	115443	47.9575	ppb	100
44) 1,2-Dichloropropane	5.65	63	54176	10.2324	ppb #	95
45) Bromodichloromethane	6.05	83	88656	10.1760	ppb	100
46) Methyl Cyclohexane	5.60	83	60366	9.4993	ppb	99
47) Dibromomethane	5.80	93	38293	10.2904	ppb	87
49) MIBK (methyl isobutyl ket	6.86	43	32839	9.7694	ppb	97
50) 1-Bromo-2-chloroethane	6.39	63	32464	9.8313	ppb	96
51) Cis-1,3-Dichloropropene	6.62	75	85092	9.8038	ppb	97
52) Toluene	6.99	91	247707	10.5759	ppb	98
53) Trans-1,3-Dichloropropene	7.30	75	80864	10.2065	ppb	98
54) 1,1,2-TCA	7.49	83	40436	10.1154	ppb	93
55) 2-Hexanone	7.83	43	19778	9.3198	ppb	91
58) 1,2-EDB	7.99	107	51531	9.9473	ppb	96
59) Tetrachloroethene	7.61	166	92477	10.8479	ppb	94
60) 1-Chlorohexane	8.61	91	61872	9.9687	ppb	97
61) 1,1,1,2-Tetrachloroethane	8.68	131	79894	10.1827	ppb	93
62) m&p-Xylene	8.86	91	251328	21.3998	ppb	98
63) o-Xylene	9.28	106	104644	10.5561	ppb	99
64) Styrene	9.30	104	111712	11.0827	ppb	99
66) 1,3-Dichloropropane	7.66	76	83118	10.0388	ppb	96
67) Dibromochloromethane	7.90	129	76281	10.3201	ppb	99
68) Chlorobenzene	8.57	112	185138	10.2579	ppb	96
69) Ethylbenzene	8.72	91	278164	10.4954	ppb	99
70) Bromoform	9.46	173	52815	10.1516	ppb	99
72) Isopropylbenzene	9.70	105	274832	10.3061	ppb	100
73) 1,1,2,2-Tetrachloroethane	10.04	83	54308	8.2966	ppb	99
74) 1,2,3-Trichloropropane	10.06	110	22067	11.4234	ppb	98
75) t-1,4-Dichloro-2-Butene	10.10	53	12908	9.3363	ppb	96
76) Bromobenzene	9.97	156	91285	10.0178	ppb	95
77) n-Propylbenzene	10.15	91	202496	10.4568	ppb	97
78) 4-Ethyltoluene	10.27	105	274036	10.5534	ppb	96
79) 2-Chlorotoluene	10.20	91	206972	10.4636	ppb	100
80) 1,3,5-Trimethylbenzene	10.35	105	159296	11.0450	ppb	96
81) 4-Chlorotoluene	10.33	91	247982	10.6598	ppb	99
82) Tert-Butylbenzene	10.69	119	210631	10.3032	ppb	99
83) 1,2,4-Trimethylbenzene	10.74	105	247476	11.0173	ppb	95
84) Sec-Butylbenzene	10.92	105	305769	10.4885	ppb	99
85) p-Isopropyltoluene	11.09	119	279622	10.3475	ppb	96
86) Benzyl Chloride	11.26	91	172942	17.8662	ppb	99
87) 1,3-DCB	11.00	146	169741	9.9118	ppb	99
88) 1,4-DCB	11.10	146	175267	9.7485	ppb	98
89) n-Butylbenzene	11.53	91	212713	9.9990	ppb	99
90) 1,2-DCB	11.49	146	160477	9.9084	ppb	99
91) Hexachloroethane	11.76	117	144467	24.1332	ppb	92
92) 1,2-Dibromo-3-chloropropan	12.32	75	10810	9.5202	ppb	90
93) 1,2,4-Trichlorobenzene	13.21	180	105216	10.0316	ppb	97
94) Hexachlorobutadiene	13.42	225	67841	9.5196	ppb	96
95) Naphthalene	13.46	128	153587	10.2277	ppb	98
96) 1,2,3-Trichlorobenzene	13.72	180	58016	10.8891	ppb	95

(#) = qualifier out of range (m) = manual integration  
 1025L30.D L1023W.M Fri Oct 26 06:24:31 2018

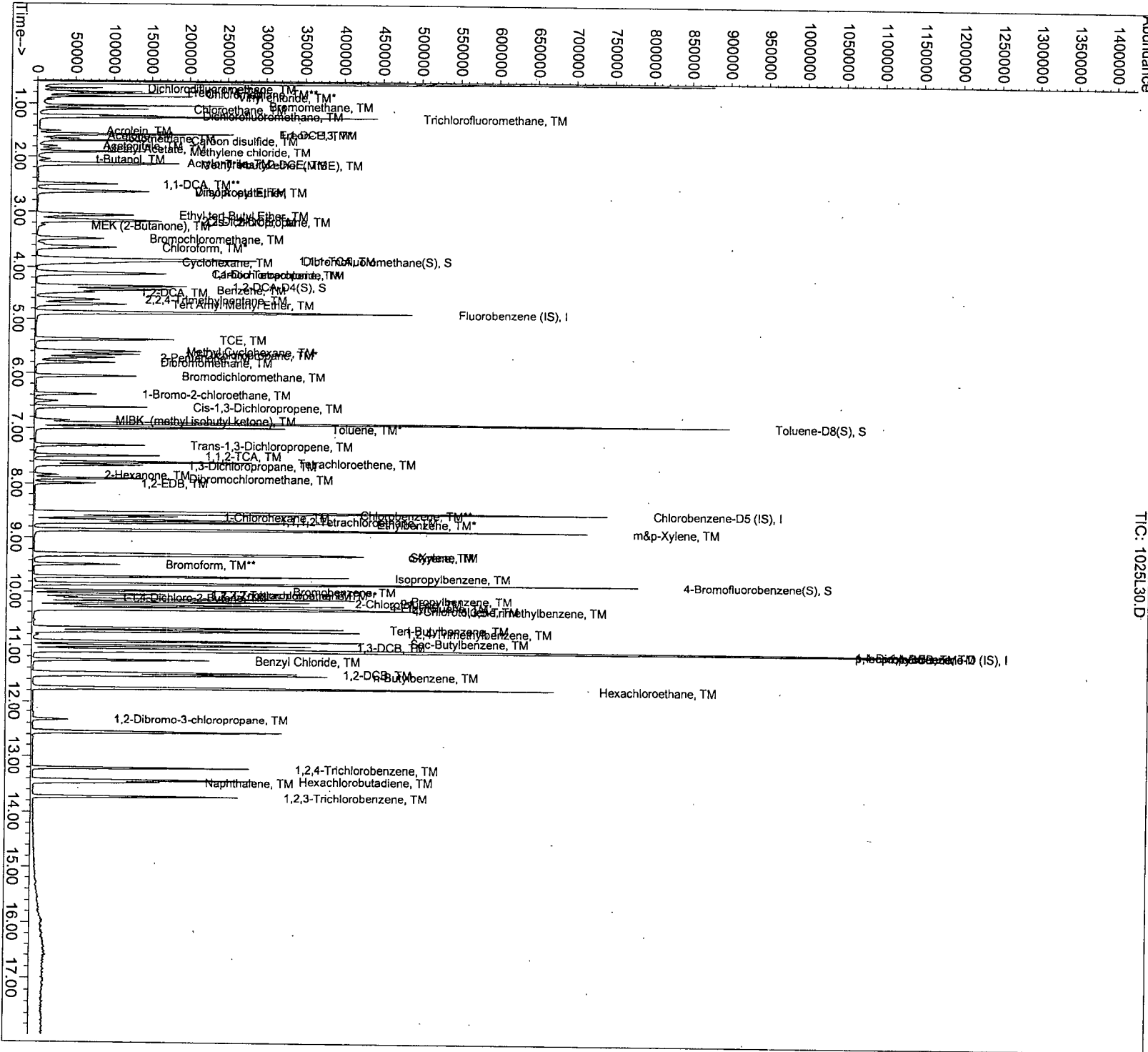
Data File : M:\LOKI\DATA\181023\1025L30.D  
Acq On : 25 Oct 18 21:32  
Sample : Ending CCV 10ug/L 10/25/18  
Misc : ISS&S 9/28/18,8/23/18

Vial: 27  
Operator: PM,DG,SV,CMM,KV  
Inst : LOKI  
Multiplr: 1.00

Quant Time: Oct 26 6:04 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 11:05:23 2018  
Response via : Initial Calibration



**ORGANICS**

**Raw Data**

**APPL, INC.**

Data File : M:\LOKI\DATA\181023\1025L25.D  
 Acq On : 25 Oct 18 19:12  
 Sample : AZ81636W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 22  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 6:34 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 11:05:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	206912	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	234432	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	135168	25.0000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	3.87	111	155370	27.5250	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	110.100%
37) 1,2-DCA-D4(S)	4.37	65	165428	28.0657	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	112.264%
57) Toluene-D8(S)	6.91	98	508032	24.1629	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	96.652%
65) 4-Bromofluorobenzene(S)	9.84	95	181617	23.4975	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	93.988%

Target Compounds

Qvalue

Quantitation Report

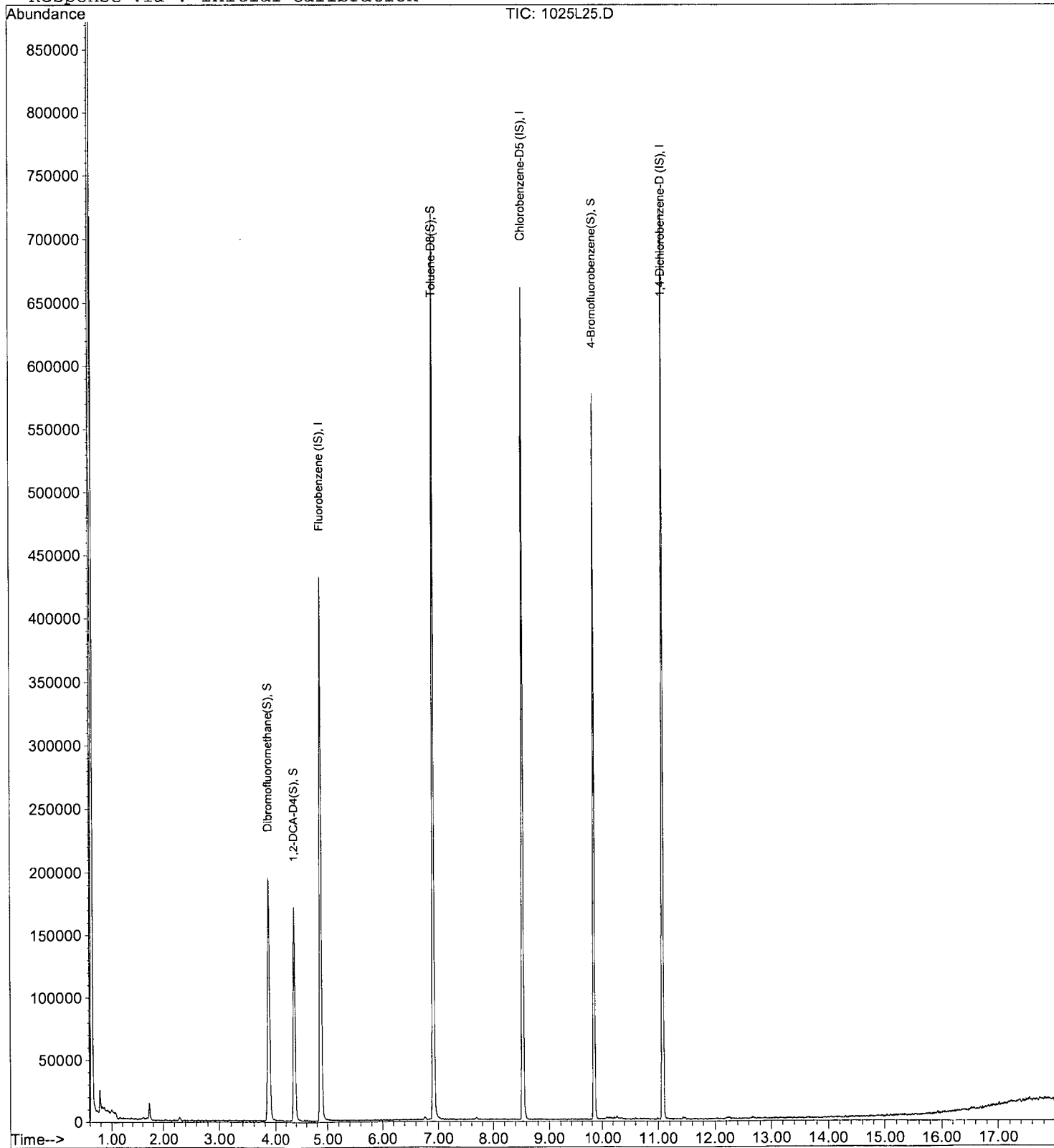
Data File : M:\LOKI\DATA\181023\1025L25.D  
Acq On : 25 Oct 18 19:12  
Sample : AZ81636W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 22  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 6:34 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 11:05:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1025L21.D  
 Acq On : 25 Oct 18 17:20  
 Sample : AZ81637W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 18  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 6:32 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 11:05:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	218560	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	242368	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	142208	25.0000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	3.87	111	163206	27.3542	ppb	0.00
Spiked Amount				25.000		
					Recovery = 109.416%	
37) 1,2-DCA-D4(S)	4.36	65	174464	28.0213	ppb	0.00
Spiked Amount				25.000		
					Recovery = 112.084%	
57) Toluene-D8(S)	6.91	98	541236	24.9674	ppb	0.00
Spiked Amount				25.000		
					Recovery = 99.868%	
65) 4-Bromofluorobenzene(S)	9.84	95	195789	24.5016	ppb	0.00
Spiked Amount				25.000		
					Recovery = 98.008%	

Target Compounds

Qvalue

Quantitation Report

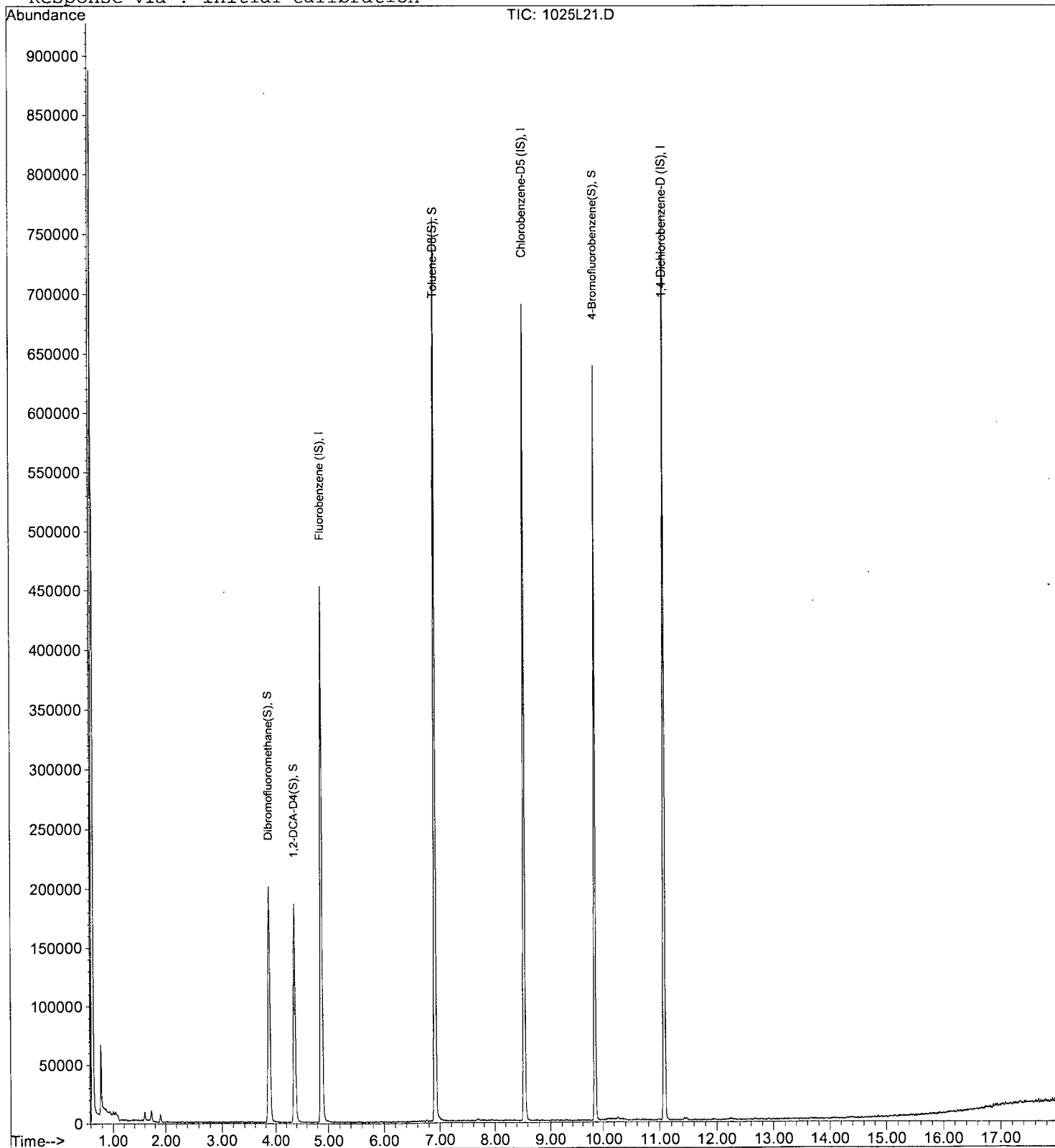
Data File : M:\LOKI\DATA\181023\1025L21.D  
Acq On : 25 Oct 18 17:20  
Sample : AZ81637W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 18  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 6:32 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 11:05:23 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181023\1025L26.D  
 Acq On : 25 Oct 18 19:40  
 Sample : AZ81638W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 23  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 6:35 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 11:05:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	204928	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	238272	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	154560	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	153223	27.3935	ppb	0.00
Spiked Amount				25.000		
					Recovery = 109.572%	
37) 1,2-DCA-D4(S)	4.37	65	165000	28.2641	ppb	0.00
Spiked Amount				25.000		
					Recovery = 113.056%	
57) Toluene-D8(S)	6.91	98	511764	23.9282	ppb	0.00
Spiked Amount				25.000		
					Recovery = 95.712%	
65) 4-Bromofluorobenzene(S)	9.84	95	197652	25.1599	ppb	0.00
Spiked Amount				25.000		
					Recovery = 100.640%	

Target Compounds

Qvalue

Quantitation Report

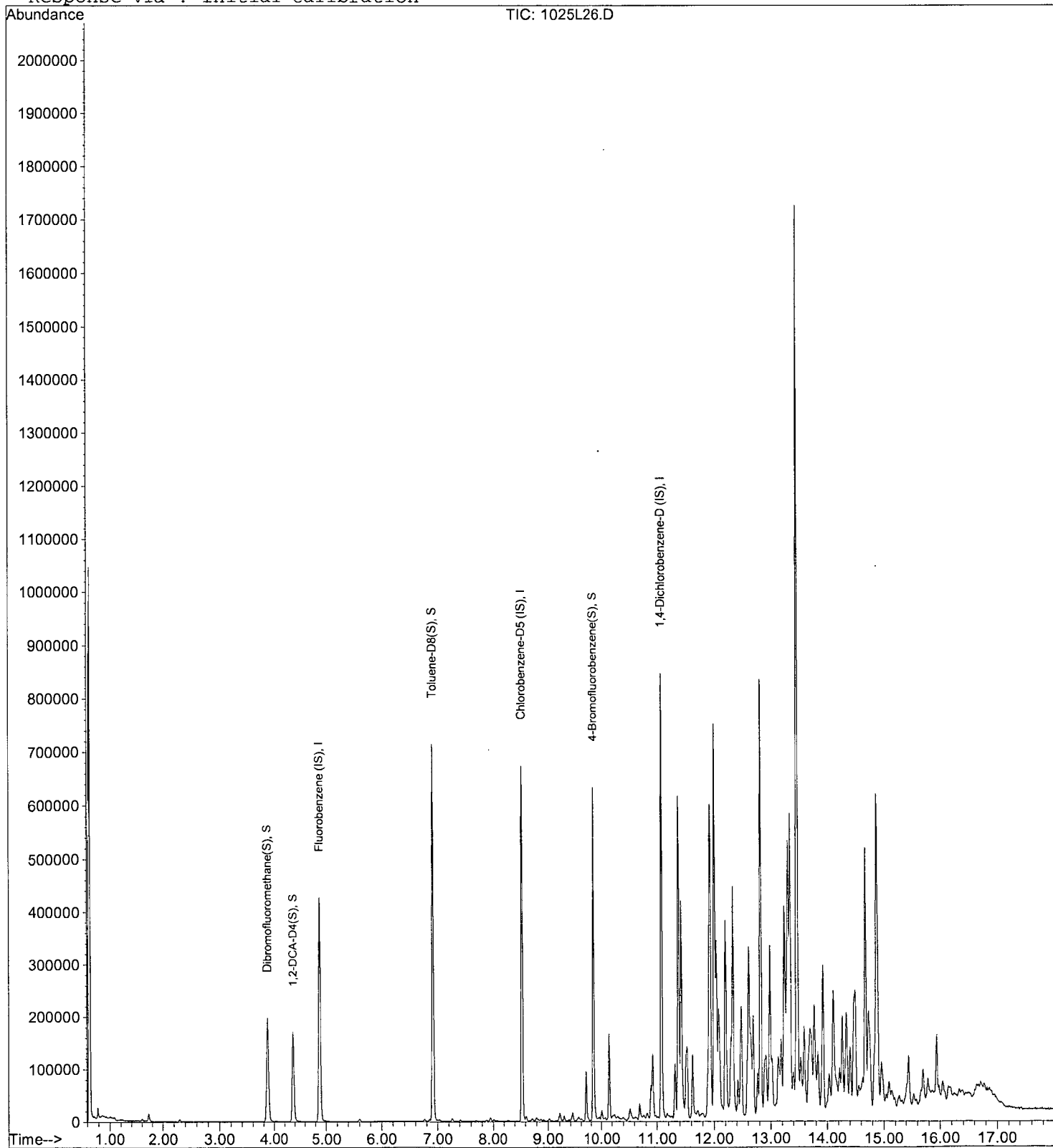
Data File : M:\LOKI\DATA\181023\1025L26.D  
Acq On : 25 Oct 18 19:40  
Sample : AZ81638W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 23  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 6:35 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 11:05:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1025L22.D  
 Acq On : 25 Oct 18 17:48  
 Sample : AZ81639W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 19  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 6:33 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 11:05:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	211904	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	235008	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	136576	25.0000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	3.87	111	158040	27.3163	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	109.264%
37) 1,2-DCA-D4(S)	4.37	65	168342	27.8873	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	111.548%
57) Toluene-D8(S)	6.91	98	525321	24.9944	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	99.976%
65) 4-Bromofluorobenzene(S)	9.84	95	190048	24.5280	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	98.112%

Target Compounds

Qvalue

Quantitation Report

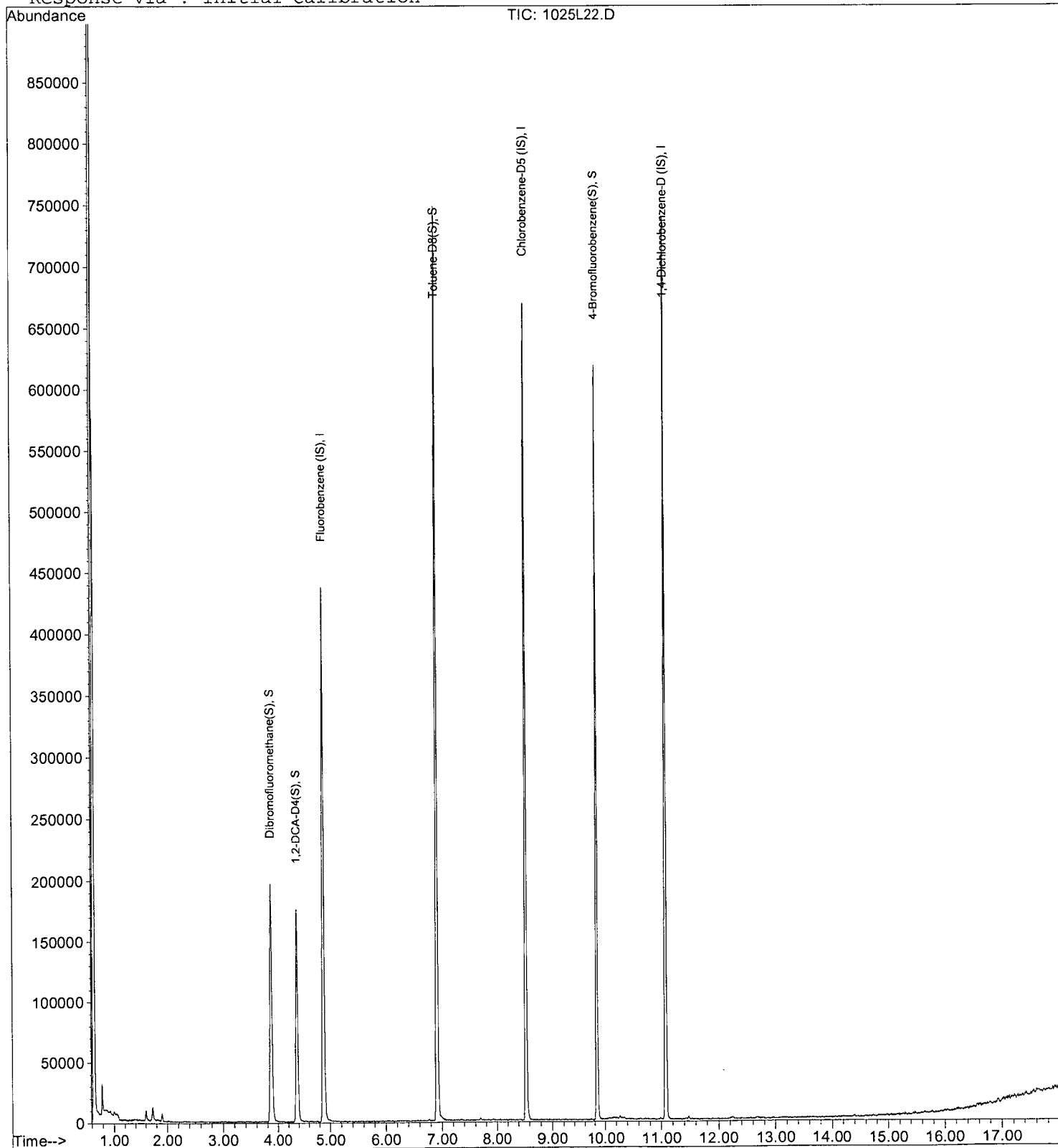
Data File : M:\LOKI\DATA\181023\1025L22.D  
Acq On : 25 Oct 18 17:48  
Sample : AZ81639W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 19  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 6:33 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 11:05:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1025L27.D  
 Acq On : 25 Oct 18 20:08  
 Sample : AZ81640W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 24  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 6:37 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 11:05:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	237312	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	262976	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	169280	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	170105	26.1269	ppb	0.00
Spiked Amount 25.000						
					Recovery = 104.508%	
37) 1,2-DCA-D4(S)	4.36	65	177336	26.2319	ppb	0.00
Spiked Amount 25.000						
					Recovery = 104.928%	
57) Toluene-D8(S)	6.91	98	561412	23.7702	ppb	0.00
Spiked Amount 25.000						
					Recovery = 95.080%	
65) 4-Bromofluorobenzene(S)	9.84	95	220107	25.3863	ppb	0.00
Spiked Amount 25.000						
					Recovery = 101.544%	

Target Compounds Qvalue

Quantitation Report

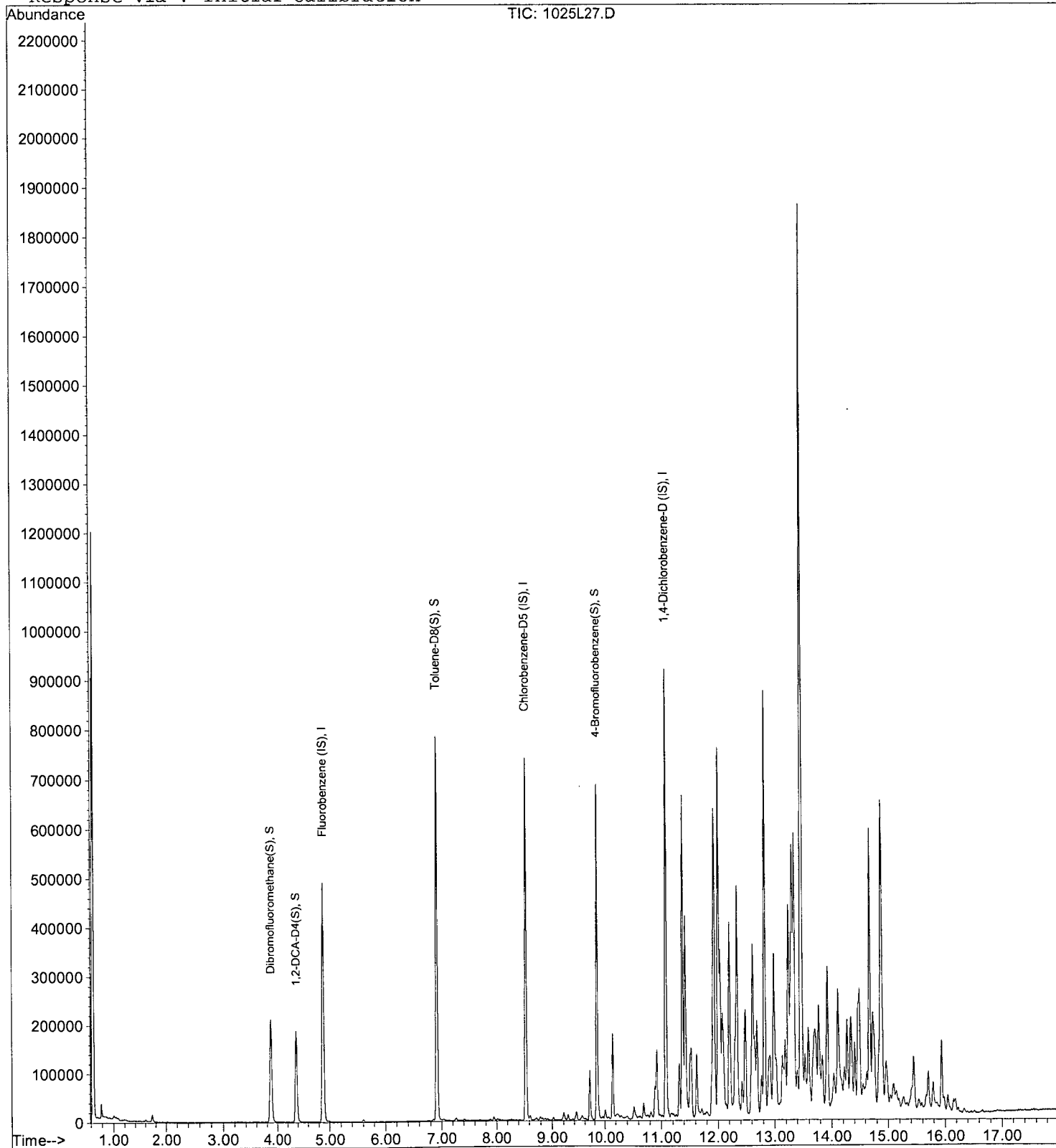
Data File : M:\LOKI\DATA\181023\1025L27.D  
Acq On : 25 Oct 18 20:08  
Sample : AZ81640W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 24  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 6:37 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 11:05:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1025L24.D  
 Acq On : 25 Oct 18 18:44  
 Sample : AZ81641W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 21  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 6:34 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 11:05:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	207488	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.53	117	235904	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	127008	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.88	111	165581	29.4572	ppb	0.00
Spiked Amount				25.000		
					Recovery =	117.828%
37) 1,2-DCA-D4(S)	4.37	65	174885	29.5878	ppb	0.00
Spiked Amount				25.000		
					Recovery =	118.352%
57) Toluene-D8(S)	6.91	98	541376	25.7201	ppb	0.00
Spiked Amount				25.000		
					Recovery =	102.880%
65) 4-Bromofluorobenzene(S)	9.84	95	194443	24.9999	ppb	0.00
Spiked Amount				25.000		
					Recovery =	100.000%

Target Compounds Qvalue

Quantitation Report

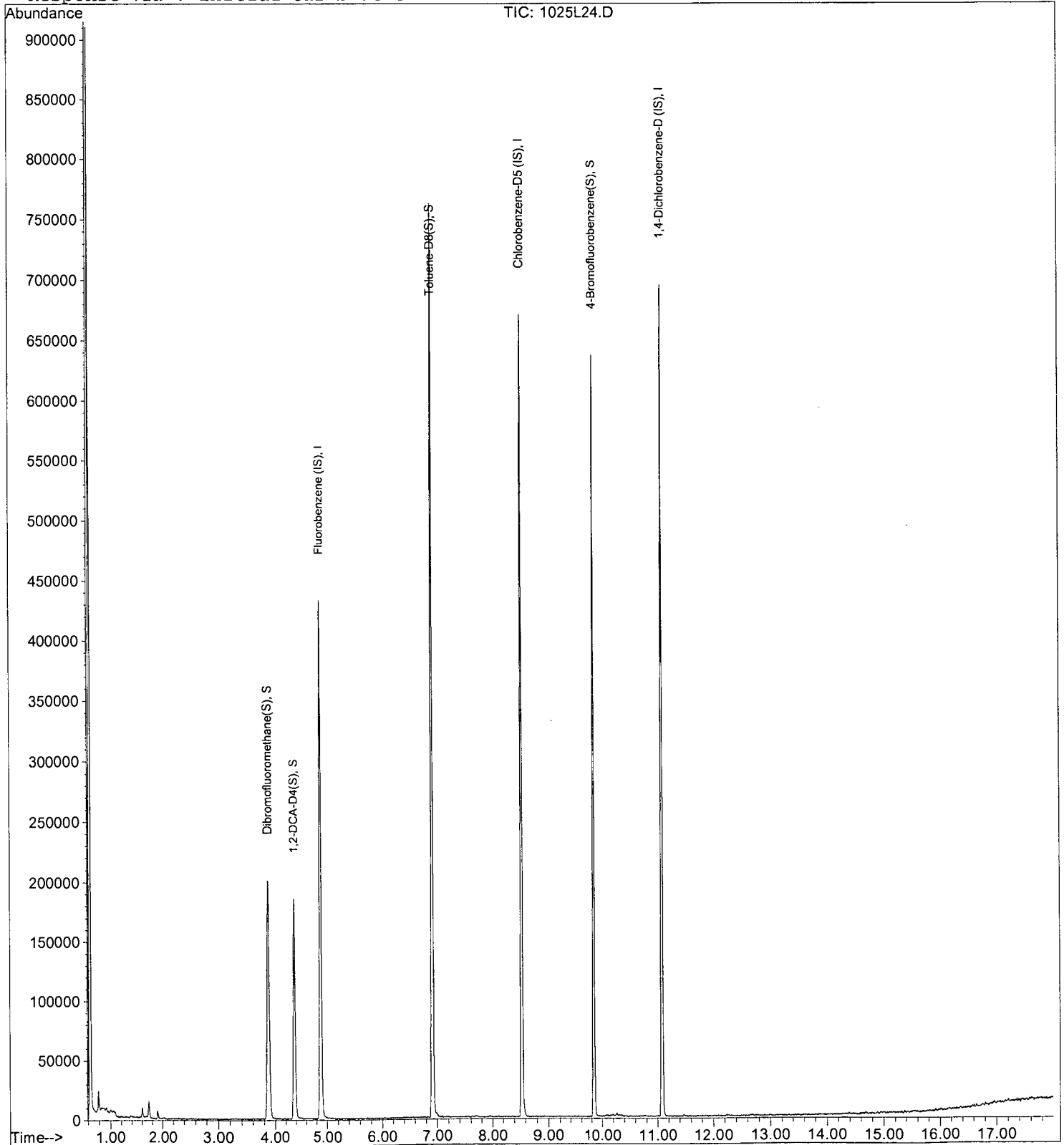
Data File : M:\LOKI\DATA\181023\1025L24.D  
Acq On : 25 Oct 18 18:44  
Sample : AZ81641W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 21  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 6:34 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 11:05:23 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181023\1025L28.D  
 Acq On : 25 Oct 18 20:36  
 Sample : AZ81642W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 25  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 6:37 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 11:05:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	239424	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	268288	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	149504	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.88	111	175397	26.7739	ppb	0.00
Spiked Amount				25.000		
					Recovery = 107.096%	
37) 1,2-DCA-D4(S)	4.36	65	181291	26.5804	ppb	0.00
Spiked Amount				25.000		
					Recovery = 106.320%	
57) Toluene-D8(S)	6.91	98	594735	24.7684	ppb	0.00
Spiked Amount				25.000		
					Recovery = 99.072%	
65) 4-Bromofluorobenzene(S)	9.84	95	213255	24.1090	ppb	0.00
Spiked Amount				25.000		
					Recovery = 96.436%	

Target Compounds Qvalue

Quantitation Report

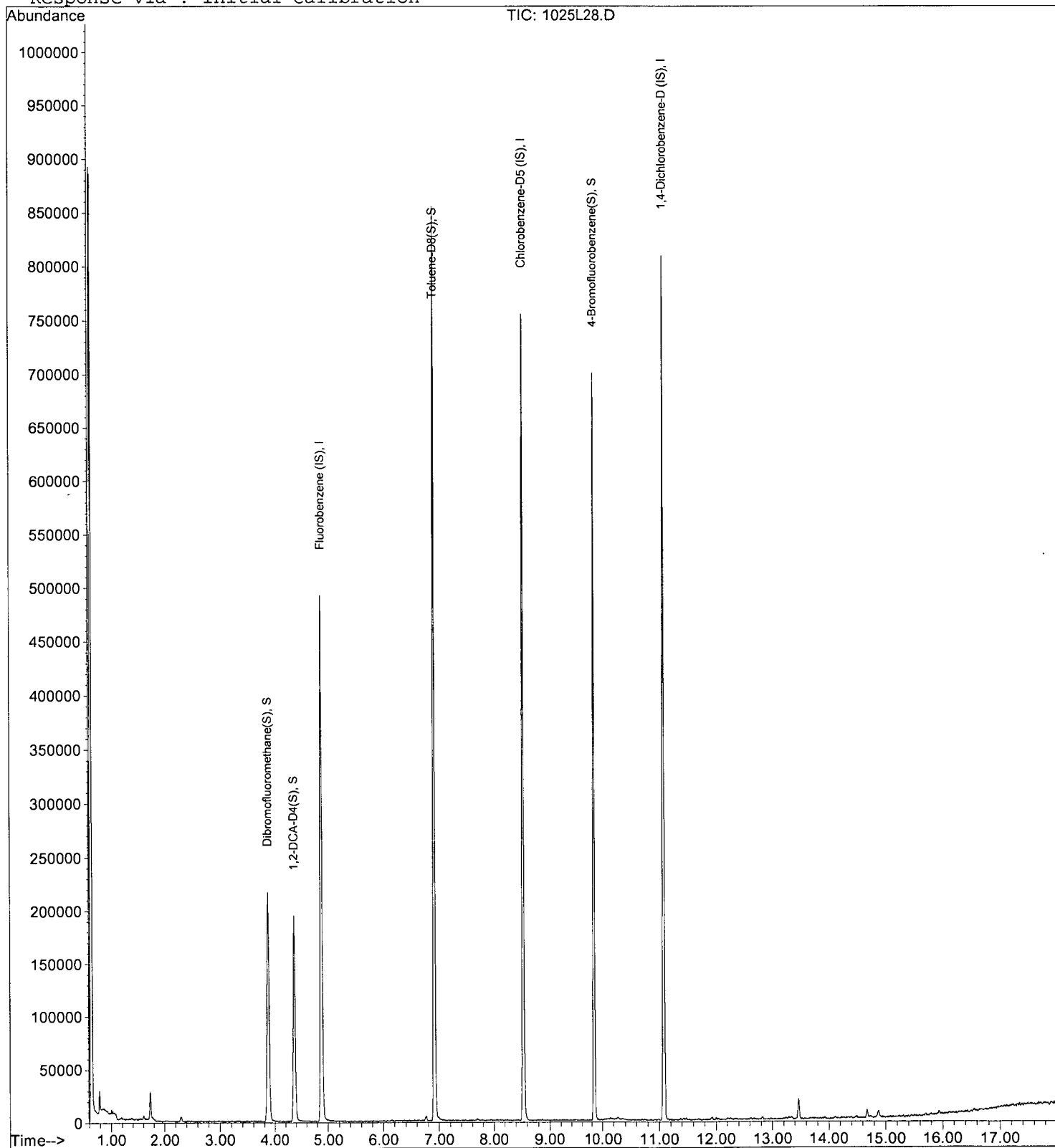
Data File : M:\LOKI\DATA\181023\1025L28.D  
Acq On : 25 Oct 18 20:36  
Sample : AZ81642W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 25  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 6:37 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 11:05:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1025L23.D  
 Acq On : 25 Oct 18 18:16  
 Sample : AZ81643W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 20  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 6:33 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 11:05:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	207936	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	237888	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	132672	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	158293	27.9497	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	111.800%
37) 1,2-DCA-D4(S)	4.37	65	167252	28.2354	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	112.940%
57) Toluene-D8(S)	6.91	98	526038	24.7014	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	98.804%
65) 4-Bromofluorobenzene(S)	9.84	95	186997	23.8420	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	95.368%

Target Compounds

Qvalue

Quantitation Report

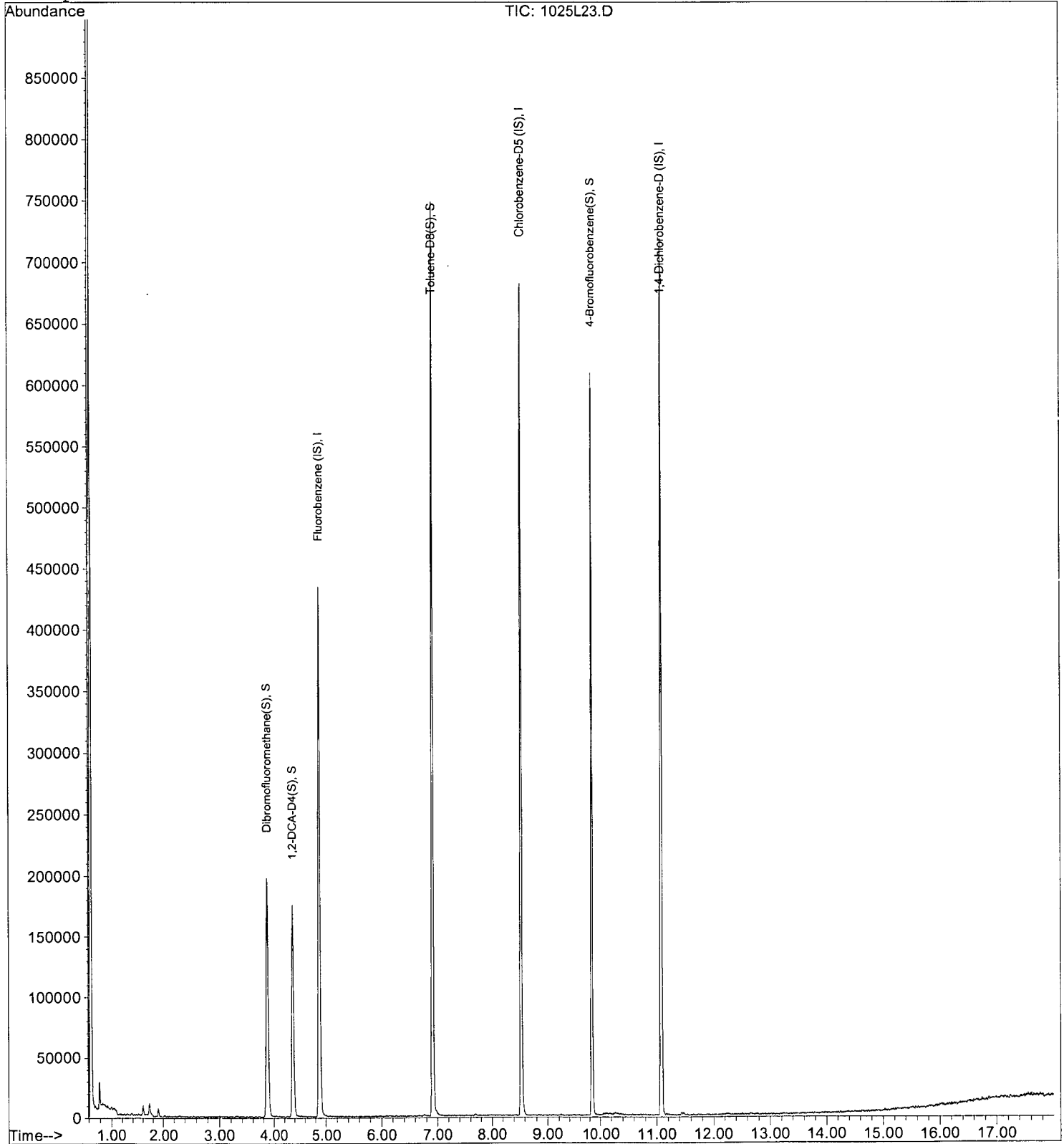
Data File : M:\LOKI\DATA\181023\1025L23.D  
Acq On : 25 Oct 18 18:16  
Sample : AZ81643W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 20  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 6:33 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 11:05:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1025L29.D  
 Acq On : 25 Oct 18 21:04  
 Sample : AZ81644W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 26  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 6:38 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 11:05:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	224640	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	250176	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	136384	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	166336	27.0968	ppb	0.00
Spiked Amount 25.000						
					Recovery = 108.388%	
37) 1,2-DCA-D4(S)	4.37	65	177761	27.7781	ppb	0.00
Spiked Amount 25.000						
					Recovery = 111.112%	
57) Toluene-D8(S)	6.91	98	557330	24.9021	ppb	0.00
Spiked Amount 25.000						
					Recovery = 99.608%	
65) 4-Bromofluorobenzene(S)	9.84	95	196923	23.8744	ppb	0.00
Spiked Amount 25.000						
					Recovery = 95.496%	

Target Compounds Qvalue

Quantitation Report

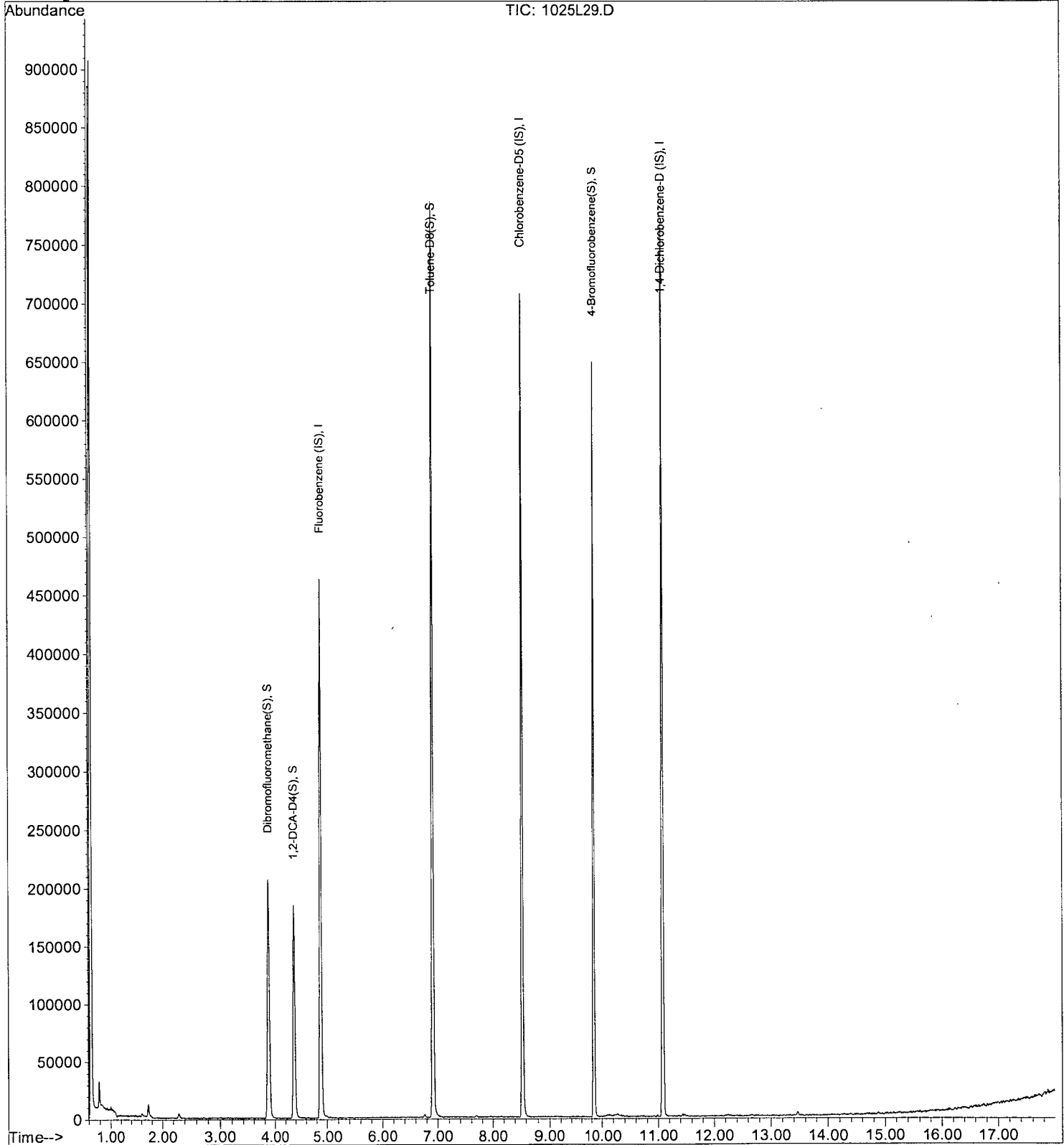
Data File : M:\LOKI\DATA\181023\1025L29.D  
Acq On : 25 Oct 18 21:04  
Sample : AZ81644W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 26  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 6:38 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 11:05:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1025L20.D  
 Acq On : 25 Oct 18 16:52  
 Sample : 181025A Blk  
 Misc : IS&S 9/28/18,8/23/18

Vial: 17  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 6:23 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 11:05:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	213184	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	242368	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	138624	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	165975	28.6587	ppb	0.00
Spiked Amount 25.000						
					Recovery = 114.636%	
37) 1,2-DCA-D4(S)	4.37	65	174450	28.7256	ppb	0.00
Spiked Amount 25.000						
					Recovery = 114.904%	
57) Toluene-D8(S)	6.91	98	553468	25.5823	ppb	0.00
Spiked Amount 25.000						
					Recovery = 102.328%	
65) 4-Bromofluorobenzene(S)	9.84	95	198000	24.7783	ppb	0.00
Spiked Amount 25.000						
					Recovery = 99.112%	

Target Compounds Qvalue

Quantitation Report

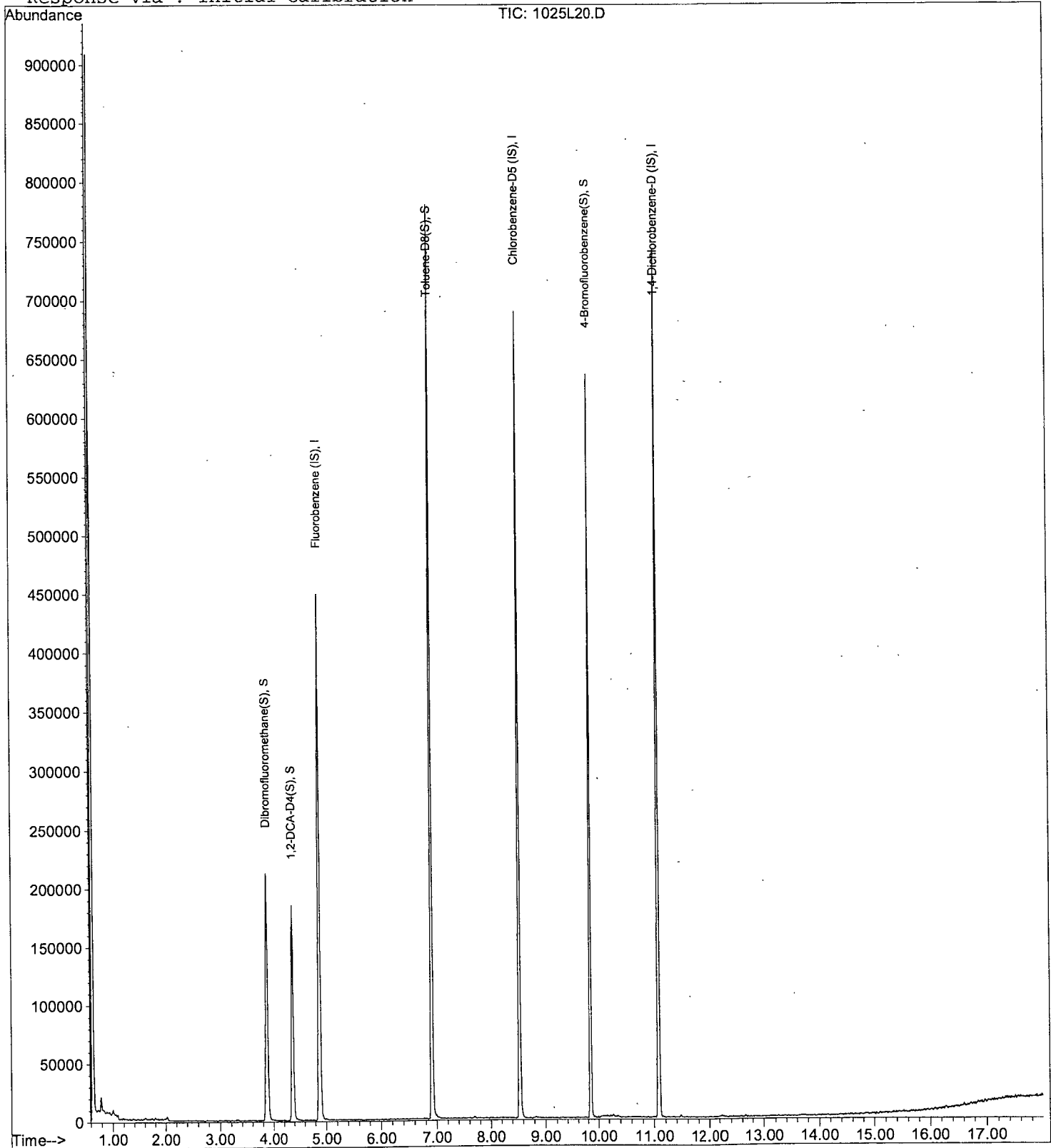
Data File : M:\LOKI\DATA\181023\1025L20.D  
Acq On : 25 Oct 18 16:52  
Sample : 181025A Blk  
Misc : IS&S 9/28/18,8/23/18

Vial: 17  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 6:23 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 11:05:23 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181023\1025L06.D  
 Acq On : 25 Oct 18 10:19  
 Sample : 181025A LCS 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 11:17 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 11:05:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	267456	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	301824	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	189632	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.87	111	185914	25.2381	ppb	0.00
Spiked Amount	25.000					
					Recovery =	100.952%
37) 1,2-DCA-D4(S)	4.36	65	199403	26.1717	ppb	0.00
Spiked Amount	25.000					
					Recovery =	104.688%
57) Toluene-D8(S)	6.91	98	667924	24.7218	ppb	0.00
Spiked Amount	25.000					
					Recovery =	98.888%
65) 4-Bromofluorobenzene(S)	9.84	95	258761	26.0032	ppb	0.00
Spiked Amount	25.000					
					Recovery =	104.012%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	44224	5.5123	ppb	100
3) Freon 114	0.79	85	45336	8.7241	ppb	98
4) Chloromethane	0.82	50	83034	14.3615	ppb	98
5) Vinyl chloride	0.87	62	109135	16.3067	ppb	97
6) Bromomethane	1.04	94	80729	18.1690	ppb	98
7) Chloroethane	1.09	64	69000	18.3934	ppb	100
8) Dichlorofluoromethane	1.21	67	106577	9.2914	ppb	99
9) Trichlorofluoromethane	1.24	101	237401	20.8629	ppb	95
10) Acrolein	1.49	56	18626	48.6107	ppb	# 95
11) Acetone	1.60	43	16774	9.7595	ppb	93
12) Freon-113	1.57	101	51426	8.9920	ppb	97
13) 1,1-DCE	1.55	63	21360	10.1304	ppb	93
14) t-Butanol	2.05	59	18439	47.9197	ppb	92
15) Acetonitrile	1.79	41	23098	40.4976	ppb	97
16) Methyl Acetate	1.85	43	26101	8.7178	ppb	97
17) Iodomethane	1.64	142	39176	11.9754	ppb	98
18) Acrylonitrile	2.11	52	11021	9.8141	ppb	74
19) Methylene chloride	1.90	84	57736	9.0170	ppb	91
20) Carbon disulfide	1.69	76	148134	8.6102	ppb	97
21) Methyl t-butyl ether (MtBE)	2.15	73	127903	9.3774	ppb	98
22) Trans-1,2-DCE	2.12	96	55001	9.3522	ppb	98
23) Diisopropyl Ether	2.64	45	135020	9.6401	ppb	97
24) 1,1-DCA	2.51	63	96728	9.1105	ppb	99
25) Vinyl Acetate	2.64	43	34936	9.4754	ppb	100
26) Ethyl tert Butyl Ether	3.06	59	136285	9.9662	ppb	99
27) MEK (2-Butanone)	3.24	43	17220	10.3456	ppb	88
28) Cis-1,2-DCE	3.17	96	63978	9.3464	ppb	99
29) 2,2-Dichloropropane	3.15	77	97375	9.9435	ppb	98
30) Chloroform	3.64	83	112111	9.2473	ppb	95
31) Bromochloromethane	3.47	128	32537	8.9455	ppb	96
33) 1,1,1-TCA	3.85	97	103271	9.1943	ppb	99
34) Cyclohexane	3.92	41	37085	9.5742	ppb	89
35) 1,1-Dichloropropene	4.13	75	68606	9.4795	ppb	98
36) 2,2,4-Trimethylpentane	4.63	57	132879	10.0869	ppb	# 82
38) Carbon Tetrachloride	4.11	117	96713	9.6513	ppb	95
39) Tert Amyl Methyl Ether	4.71	73	133369	9.9577	ppb	96
40) 1,2-DCA	4.48	62	81055	9.5992	ppb	95
41) Benzene	4.43	78	212380	9.4854	ppb	98
42) TCE	5.38	95	28128	9.0427	ppb	94

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

Data File : M:\LOKI\DATA\181023\1025L06.D  
 Acq On : 25 Oct 18 10:19  
 Sample : 181025A LCS 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 11:17 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 11:05:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.72	43	129388	47.0366	ppb	99
44) 1,2-Dichloropropane	5.65	63	57450	9.4954	ppb	97
45) Bromodichloromethane	6.05	83	91408	9.1814	ppb	98
46) Methyl Cyclohexane	5.60	83	70847	9.7561	ppb	92
47) Dibromomethane	5.80	93	38616	9.0810	ppb	96
49) MIBK (methyl isobutyl ket	6.86	43	36501	9.4963	ppb	95
50) 1-Bromo-2-chloroethane	6.38	63	35616	9.4386	ppb	100
51) Cis-1,3-Dichloropropene	6.62	75	97494	9.8296	ppb	97
52) Toluene	6.99	91	256973	9.6011	ppb	98
53) Trans-1,3-Dichloropropene	7.30	75	89337	9.8674	ppb	97
54) 1,1,2-TCA	7.49	83	43072	9.4289	ppb	97
55) 2-Hexanone	7.84	43	23210	9.5708	ppb	# 85
58) 1,2-EDB	7.99	107	55674	9.2636	ppb	95
59) Tetrachloroethene	7.61	166	95865	9.6930	ppb	93
60) 1-Chlorohexane	8.61	91	68908	9.5698	ppb	97
61) 1,1,1,2-Tetrachloroethane	8.68	131	79894	8.7771	ppb	92
62) m&p-Xylene	8.86	91	274752	20.1649	ppb	100
63) o-Xylene	9.28	106	110659	9.6220	ppb	94
64) Styrene	9.30	104	119896	10.2527	ppb	98
66) 1,3-Dichloropropane	7.66	76	89629	9.3309	ppb	95
67) Dibromochloromethane	7.90	129	78531	9.1579	ppb	93
68) Chlorobenzene	8.56	112	191257	9.1341	ppb	96
69) Ethylbenzene	8.72	91	296667	9.6484	ppb	100
70) Bromoform	9.46	173	55323	9.1657	ppb	96
72) Isopropylbenzene	9.70	105	288264	9.5073	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.04	83	66721	8.9648	ppb	96
74) 1,2,3-Trichloropropane	10.06	110	21244	9.6494	ppb	91
75) t-1,4-Dichloro-2-Butene	10.10	53	15425	9.8126	ppb	88
76) Bromobenzene	9.97	156	95044	9.1736	ppb	97
77) n-Propylbenzene	10.15	91	214272	9.7318	ppb	98
78) 4-Ethyltoluene	10.27	105	298503	10.1105	ppb	92
79) 2-Chlorotoluene	10.20	91	219555	9.7623	ppb	94
80) 1,3,5-Trimethylbenzene	10.35	105	165824	10.1123	ppb	96
81) 4-Chlorotoluene	10.33	91	257638	9.7406	ppb	99
82) Tert-Butylbenzene	10.69	119	226754	9.7555	ppb	99
83) 1,2,4-Trimethylbenzene	10.74	105	266467	10.4334	ppb	97
84) Sec-Butylbenzene	10.92	105	326188	9.8408	ppb	99
85) p-Isopropyltoluene	11.09	119	305052	9.9284	ppb	99
86) Benzyl Chloride	11.26	91	272395	24.7499	ppb	99
87) 1,3-DCB	11.00	146	180685	9.2796	ppb	97
88) 1,4-DCB	11.10	146	182484	8.9270	ppb	99
89) n-Butylbenzene	11.53	91	241980	10.0042	ppb	98
90) 1,2-DCB	11.49	146	165927	9.0105	ppb	99
91) Hexachloroethane	11.76	117	151720	22.2911	ppb	98
92) 1,2-Dibromo-3-chloropropan	12.32	75	12479	9.6659	ppb	93
93) 1,2,4-Trichlorobenzene	13.21	180	115485	9.6841	ppb	98
94) Hexachlorobutadiene	13.43	225	71058	8.7696	ppb	97
95) Naphthalene	13.46	128	168067	9.8489	ppb	99
96) 1,2,3-Trichlorobenzene	13.72	180	57744	9.5322	ppb	96

(#) = qualifier out of range (m) = manual integration  
 1025L06.D L1023W.M Fri Oct 26 06:24:17 2018

Quantitation Report

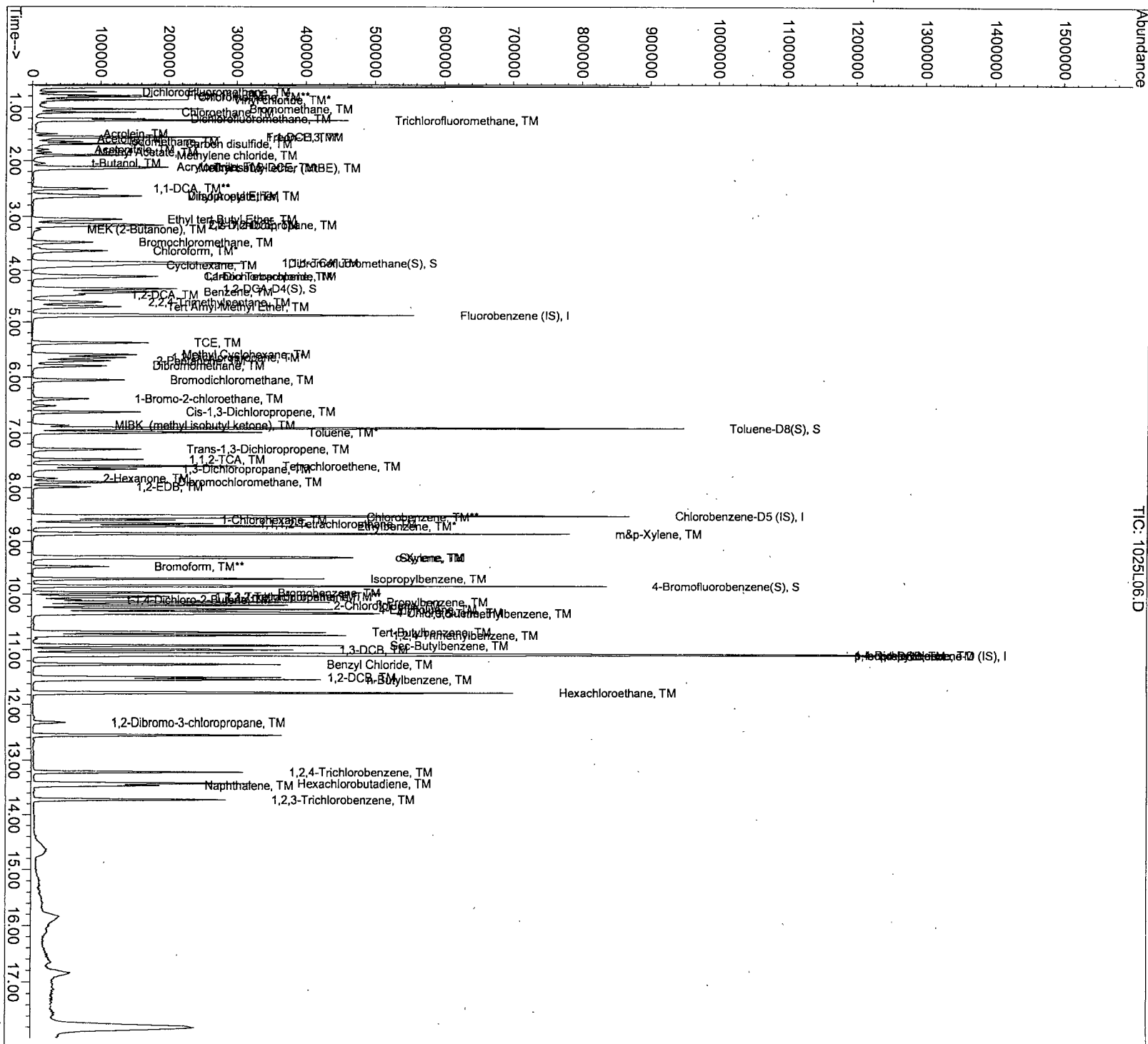
Data File : M:\LOKI\DATA\181023\1025L06.D  
Acq On : 25 Oct 18 10:19  
Sample : 181025A LCS 10ug/L  
Misc : IS&S 9/28/18, 8/23/18

Vial: 3  
Operator: PM, DG, SV, CMM, KV  
Inst: LOKI  
Multiplier: 1.00

Quant Time: Oct 25 11:17 2018

Quant Results File: L1023W.RES

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 11:05:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1025L07.D  
 Acq On : 25 Oct 18 10:48  
 Sample : 181025A LCSD 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 11:18 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 11:05:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	267776	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.54	117	291392	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.08	152	180160	25.0000	ppb	0.00

System Monitoring Compounds

32) Dibromofluoromethane(S)	3.87	111	186821	25.3429	ppb	0.00
Spiked Amount	25.000		Recovery	=	101.372%	
37) 1,2-DCA-D4(S)	4.36	65	198506	26.0228	ppb	0.00
Spiked Amount	25.000		Recovery	=	104.092%	
57) Toluene-D8(S)	6.91	98	678089	26.1120	ppb	0.00
Spiked Amount	25.000		Recovery	=	104.448%	
65) 4-Bromofluorobenzene(S)	9.84	95	263672	27.4453	ppb	0.00
Spiked Amount	25.000		Recovery	=	109.780%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	47000	5.8513	ppb	99
3) Freon 114	0.79	85	47546	9.1384	ppb	100
4) Chloromethane	0.82	50	85106	14.7083	ppb	100
5) Vinyl chloride	0.87	62	109847	16.3935	ppb	99
6) Bromomethane	1.04	94	84355	18.9642	ppb	99
7) Chloroethane	1.09	64	72972	19.4290	ppb	99
8) Dichlorofluoromethane	1.21	67	111106	9.6746	ppb	98
9) Trichlorofluoromethane	1.24	101	249288	21.8813	ppb	94
10) Acrolein	1.50	56	18790	48.9801	ppb	# 96
11) Acetone	1.60	43	19197	11.7049	ppb	93
12) Freon-113	1.57	101	53220	9.2946	ppb	97
13) 1,1-DCE	1.55	63	22712	10.7588	ppb	94
14) t-Butanol	2.05	59	19751	51.2680	ppb	97
15) Acetonitrile	1.79	41	24515	42.9306	ppb	96
16) Methyl Acetate	1.85	43	27141	9.0877	ppb	99
17) Iodomethane	1.64	142	39160	11.9562	ppb	99
18) Acrylonitrile	2.11	52	11756	10.4561	ppb	76
19) Methylene chloride	1.90	84	60256	9.3993	ppb	93
20) Carbon disulfide	1.69	76	156383	9.0788	ppb	99
21) Methyl t-butyl ether (MtBE)	2.15	73	135616	9.9310	ppb	98
22) Trans-1,2-DCE	2.12	96	55518	9.4289	ppb	96
23) Diisopropyl Ether	2.64	45	144264	10.2878	ppb	99
24) 1,1-DCA	2.51	63	101669	9.5644	ppb	99
25) Vinyl Acetate	2.64	43	37272	10.0969	ppb	99
26) Ethyl tert Butyl Ether	3.06	59	144374	10.5451	ppb	96
27) MEK (2-Butanone)	3.24	43	17563	10.5390	ppb	94
28) Cis-1,2-DCE	3.17	96	66702	9.7327	ppb	99
29) 2,2-Dichloropropane	3.15	77	97959	9.9912	ppb	97
30) Chloroform	3.63	83	119345	9.8322	ppb	94
31) Bromochloromethane	3.47	128	36433	10.0047	ppb	94
33) 1,1,1-TCA	3.85	97	107444	9.5543	ppb	98
34) Cyclohexane	3.92	41	39464	10.1763	ppb	93
35) 1,1-Dichloropropene	4.13	75	73791	10.1837	ppb	94
36) 2,2,4-Trimethylpentane	4.63	57	138667	10.5137	ppb	92
38) Carbon Tetrachloride	4.11	117	100341	10.0014	ppb	99
39) Tert Amyl Methyl Ether	4.71	73	139473	10.4010	ppb	97
40) 1,2-DCA	4.48	62	84711	10.0202	ppb	96
41) Benzene	4.43	78	225992	10.0813	ppb	97
42) TCE	5.38	95	30680	9.8514	ppb	96

(#) = qualifier out of range (m) = manual integration  
 1025L07.D L1023W.M Fri Oct 26 06:24:20 2018

Data File : M:\LOKI\DATA\181023\1025L07.D  
 Acq On : 25 Oct 18 10:48  
 Sample : 181025A LCSD 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 11:18 2018

Quant Results File: L1023W.RES

Quant Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 11:05:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	138094	50.1415	ppb	99
44) 1,2-Dichloropropane	5.65	63	58675	9.6863	ppb #	94
45) Bromodichloromethane	6.05	83	95238	9.5546	ppb	98
46) Methyl Cyclohexane	5.60	83	73679	10.1339	ppb	94
47) Dibromomethane	5.80	93	40137	9.4274	ppb	99
49) MIBK (methyl isobutyl ket	6.86	43	39883	10.3845	ppb	94
50) 1-Bromo-2-chloroethane	6.39	63	37392	9.8974	ppb	93
51) Cis-1,3-Dichloropropene	6.62	75	99257	9.9954	ppb	99
52) Toluene	6.99	91	270932	10.1105	ppb	96
53) Trans-1,3-Dichloropropene	7.30	75	95100	10.4914	ppb	99
54) 1,1,2-TCA	7.49	83	45127	9.8670	ppb	94
55) 2-Hexanone	7.84	43	23768	9.7892	ppb #	89
58) 1,2-EDB	7.99	107	58578	10.0957	ppb	98
59) Tetrachloroethene	7.61	166	102680	10.7537	ppb	97
60) 1-Chlorohexane	8.61	91	71520	10.2881	ppb	97
61) 1,1,1,2-Tetrachloroethane	8.68	131	84833	9.6533	ppb	95
62) m&p-Xylene	8.86	91	277248	21.0766	ppb	98
63) o-Xylene	9.28	106	118307	10.6552	ppb	99
64) Styrene	9.30	104	121248	10.7395	ppb	100
66) 1,3-Dichloropropane	7.66	76	93594	10.0925	ppb	98
67) Dibromochloromethane	7.90	129	81116	9.7980	ppb	94
68) Chlorobenzene	8.57	112	197437	9.7668	ppb	98
69) Ethylbenzene	8.72	91	308448	10.3907	ppb	99
70) Bromoform	9.46	173	59730	10.2502	ppb	96
72) Isopropylbenzene	9.70	105	301943	10.4820	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.04	83	69016	9.7607	ppb	98
74) 1,2,3-Trichloropropane	10.06	110	21856	10.4617	ppb	86
75) t-1,4-Dichloro-2-Butene	10.11	53	16299	10.9138	ppb	97
76) Bromobenzene	9.98	156	97825	9.9384	ppb	98
77) n-Propylbenzene	10.15	91	223680	10.6932	ppb	97
78) 4-Ethyltoluene	10.28	105	305793	10.9020	ppb	97
79) 2-Chlorotoluene	10.20	91	221709	10.3764	ppb	100
80) 1,3,5-Trimethylbenzene	10.35	105	171648	11.0178	ppb	99
81) 4-Chlorotoluene	10.33	91	267090	10.6288	ppb	100
82) Tert-Butylbenzene	10.69	119	236448	10.7073	ppb	99
83) 1,2,4-Trimethylbenzene	10.74	105	278718	11.4869	ppb	100
84) Sec-Butylbenzene	10.92	105	338744	10.7569	ppb	98
85) p-Isopropyltoluene	11.09	119	310962	10.6529	ppb	100
86) Benzyl Chloride	11.26	91	280305	26.8076	ppb	99
87) 1,3-DCB	11.00	146	186903	10.1036	ppb	99
88) 1,4-DCB	11.10	146	186118	9.5835	ppb	99
89) n-Butylbenzene	11.53	91	250186	10.8873	ppb	97
90) 1,2-DCB	11.49	146	171630	9.8102	ppb	99
91) Hexachloroethane	11.76	117	159045	24.5958	ppb	98
92) 1,2-Dibromo-3-chloropropan	12.32	75	12817	10.4497	ppb	90
93) 1,2,4-Trichlorobenzene	13.22	180	121314	10.7077	ppb	97
94) Hexachlorobutadiene	13.43	225	73139	9.5010	ppb	95
95) Naphthalene	13.46	128	182464	11.2340	ppb	99
96) 1,2,3-Trichlorobenzene	13.72	180	62848	10.9202	ppb	99

Quantitation Report

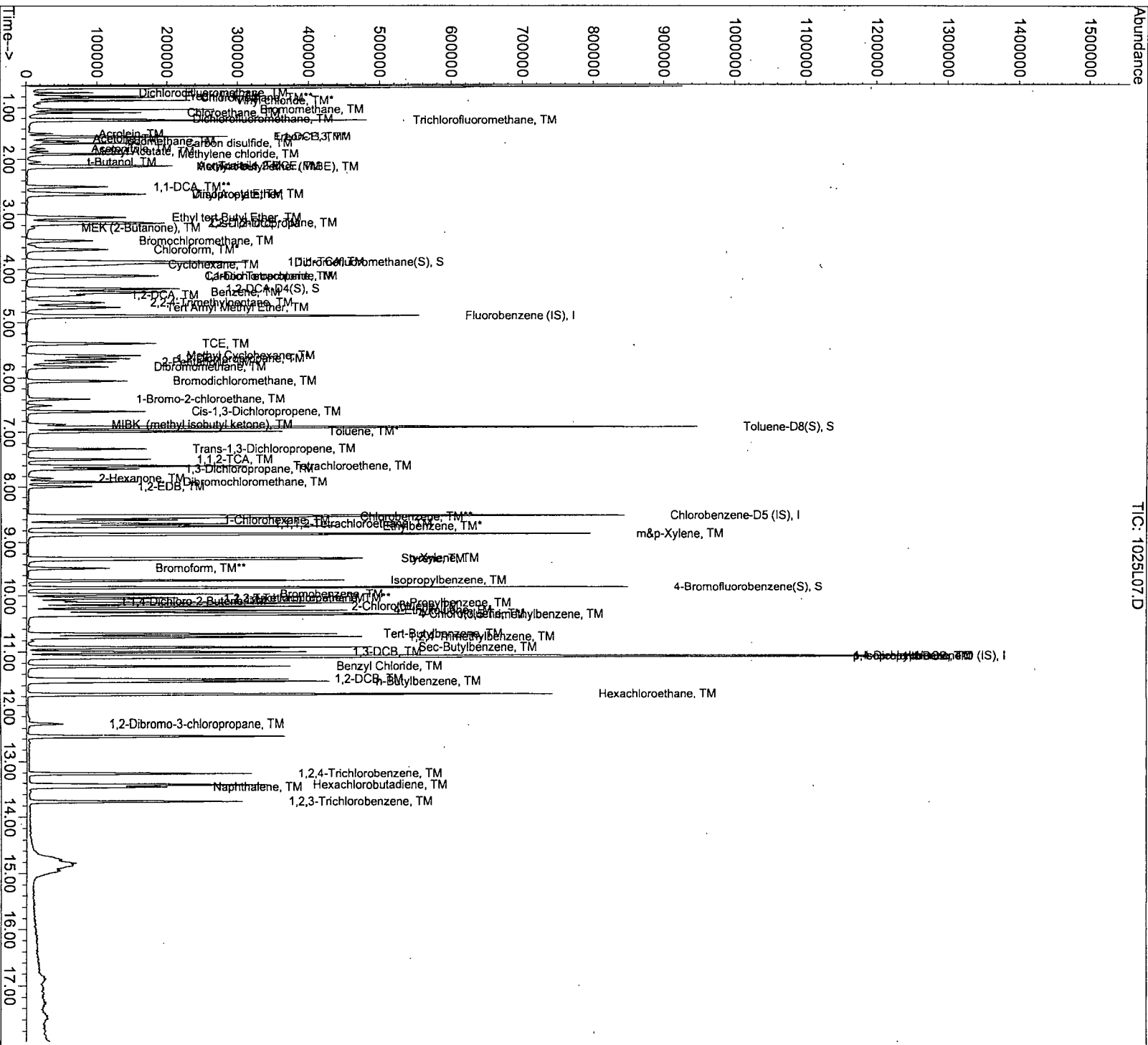
Data File : M:\LOKI\DATA\181023\1025L07.D  
Acq On : 25 Oct 18 10:48  
Sample : 181025A LCSD 10ug/L  
Misc : IS&S 9/28/18, 8/23/18

Vial: 4  
Operator: PM, DG, SV, CMM, KV  
Inst : LOKI  
Multiplier: 1.00

Quant Time: Oct 25 11:18 2018

Quant Results File: L1023W.RES

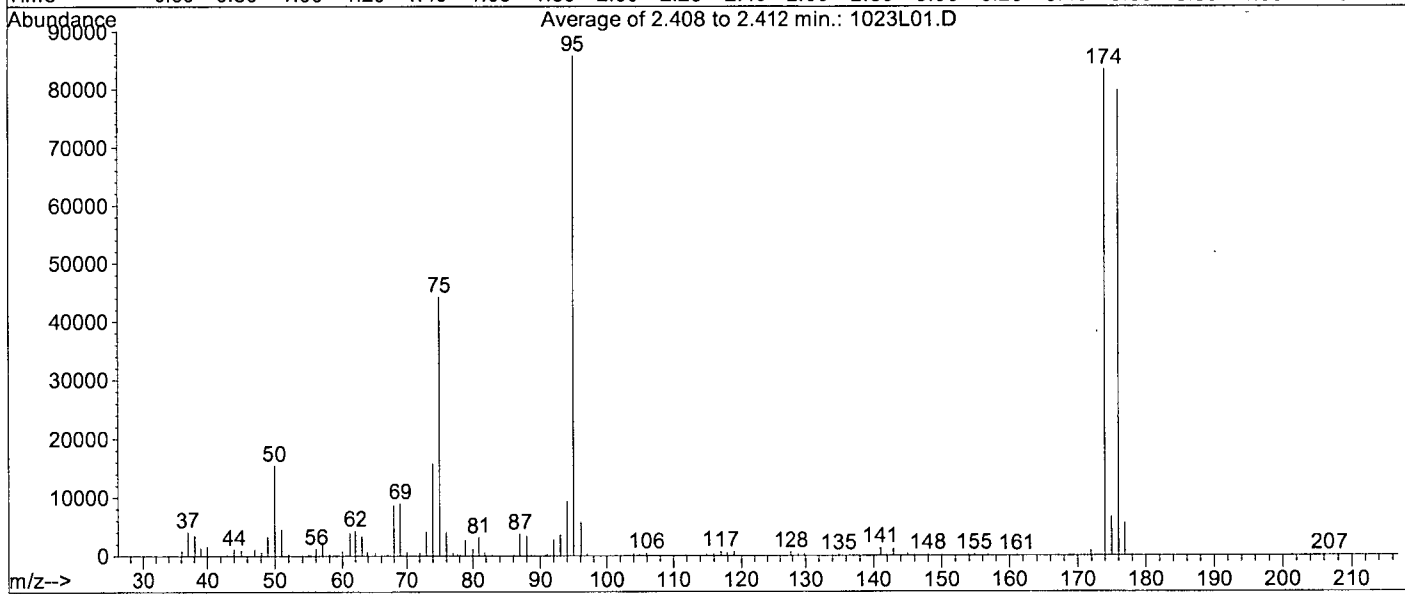
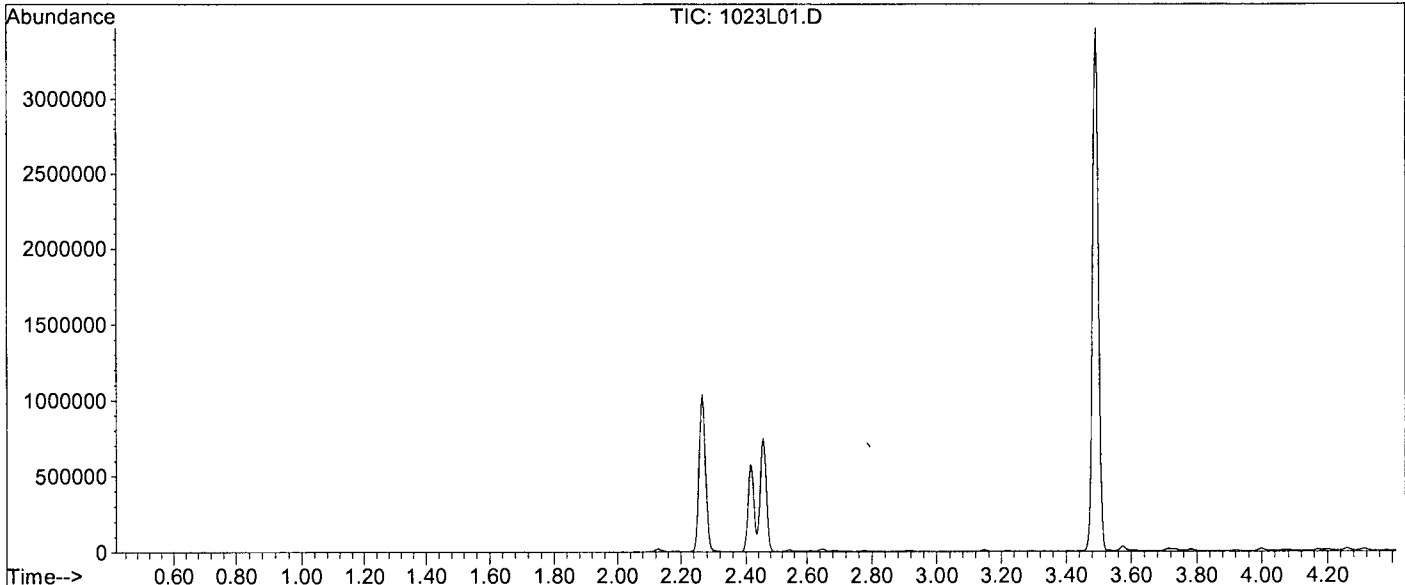
Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 11:05:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L01.D  
 Acq On : 23 Oct 18 12:54  
 Sample : 25ug/L BFB STD 9/2/18  
 Misc : 2ul

Vial: 1  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
 Title : METHOD 8260B



Spectrum Information: Average of 2.408 to 2.412 min.

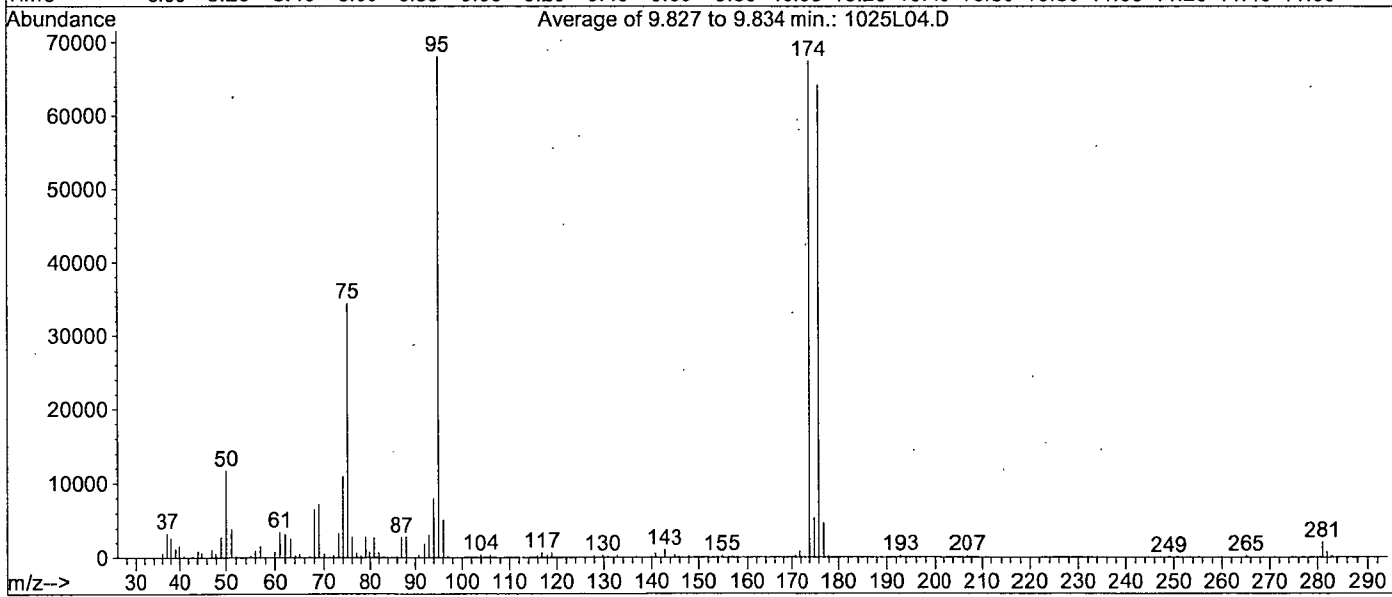
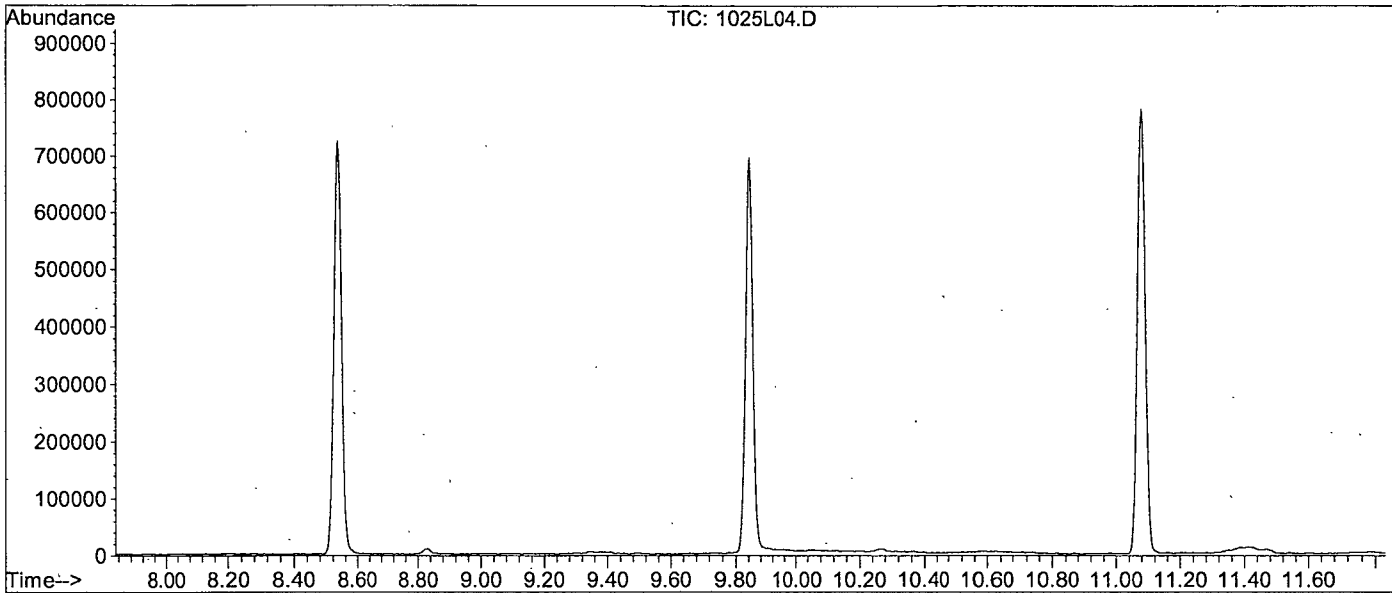
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	15403	PASS
75	95	30	60	51.6	44232	PASS
95	95	100	100	100.0	85744	PASS
96	95	5	9	6.7	5755	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	97.3	83404	PASS
175	174	5	9	7.9	6624	PASS
176	174	95	101	95.7	79804	PASS
177	176	5	9	6.9	5533	PASS

BFB

Data File : M:\LOKI\DATA\181023\1025L04.D  
Acq On : 25 Oct 18 9:23  
Sample : 25ug/L BFB STD 9/2/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 1  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Method : M:\LOKI\DATA\181023\L1023W.M (RTE Integrator)  
Title : METHOD 8260B



Spectrum Information: Average of 9.827 to 9.834 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.2	11699	PASS
75	95	30	60	50.5	34368	PASS
95	95	100	100	100.0	68091	PASS
96	95	5	9	7.5	5122	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	99.1	67477	PASS
175	174	5	9	7.9	5328	PASS
176	174	95	101	95.1	64200	PASS
177	176	5	9	7.2	4633	PASS



**Primary and Secondary Working Standards**

Primary Standards										
VOA STD 7										
Prepared: 10/23/18 C										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses STD	Phenova	ALO-101206	2,000	CL12418-39660	09/13/19	04/30/23	100uL	4mL	Methanol	50
Hexachloroethane	Absolute	70199	1,000	071317-39700	09/04/19	05/14/28	200uL			50
Benzyl Chloride	O2SI	020228-02	1,000	041918-39343	09/04/19	04/19/19	200uL			50
VOA STD 8										
Prepared: 10/23/18 D										
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Additions STD	Phenova	ALO-101206	2,000	CL12622-39323	06/20/19	05/31/20	100uL	4mL	Methanol	50
VOC's-54 COMP	Phenova	ALO-101200	2,000	CL12490-39490	06/20/19	05/30/20	100uL			50
Vinyl Acetate	Phenova	ALO-101228	2,000	CL12805-39766	09/06/19	10/31/18	100uL			50
VOA STD TBA										
Prepared: 10/23/18 E										
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOC Mix	Phenova	ALO-130176	2,000	CL12228-39680	09/06/19	08/31/28	500uL	4mL	Methanol	250
Acrolein	Phenova	ALO-101224	5,000	CL12863-39768	09/06/19	10/31/18	200uL			250
VOA STD 1										
Prepared: 10/23/18 F										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
2-CEVE	O2SI	020145-02	2,000	292247-38407	09/06/19	11/12/19	50	2mL	Methanol	50
VOA STD 2										
Prepared: 10/23/18 G										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
HSL's Ketone Solution	O2SI	121020-05	2,000	CL17279-39663	10/17/19	08/01/28	100	4mL	Methanol	50
VOA STD 9										
Prepared: 10/23/18 H										
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 7	O2SI	VOA STD. 9	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5
VOA STD. 8	O2SI	VOA STD. 9	50	Prepared 10/23/18	10/31/18	N/A	200uL			5
VOA STD. 10										
Prepared: 10/23/18 I										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 1	O2SI	VOA STD. 10	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5
VOA STD. 12										
Prepared: 10/23/18 J										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 2	O2SI	VOA STD. 12	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5

Second Source (SS) Standards										
VOA STD. 3										
Prepared: 10/23/18 K										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Ketones Standard	Phenova	ALO-101211	2,000	CL12730-39669	07/25/19	08/01/28	50uL	2mL	Methanol	50
VOA STD. 5										
Prepared: 10/23/18 L										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260 Gases (SS)	Phenova	ALO-101206	2,000	CL12417-39649	09/13/19	04/30/23	50uL	2mL	Methanol	50
2-CEVE (SS)	O2SI	020145-02-02-SS	2,000	71018-39539	06/20/19	11/12/19	50uL			50
VOA STD. 6										
Prepared: 10/23/18 M										
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
502.2 Calibration STD. (54-compounds)	Phenova	ALO-101200	2,000	CL12489-39484	06/20/19	05/31/23	50uL	2mL	Methanol	50
Vinyl Acetate	Phenova	ALO-101228	1,000	CL12869-39767	09/06/19	10/31/18	50uL			50
Hexachloroethane	O2SI	020049-02	1,000	218051281	06/20/19	05/14/28	50uL			50
VOA STD. TBA										
Prepared: 10/23/18 N										
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOA Mix (4-3)	Phenova	ALO-130179	2,000	CL12228-39309	08/13/19	08/31/20	250uL	2mL	Methanol	250
Acrolein	Phenova	ALO-101224	5,000	CL12868-39769	09/06/19	10/31/18	100uL			250
VOA STD. 0										
Prepared: 10/23/18 O										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Addition STD.	Phenova	ALO-130175	2,000	CL12230-39138	07/25/19	01/31/20	50uL	2mL	Methanol	50
BFB Tune										
Prepared: 08/29/18										
Expires: 08/07/19										
Methanol Lot No. 9077-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
4-Bromofluorobenzene	O2SI	020135-03	2,500	320514-38965	09/07/19	09/03/20	20uL	2mL	Methanol	25

## Loki 8260 Standard Prep

Loki 8260 Water Calibration Curve										
0.3ug/L						Prepared By (Initials): <u>DG</u>				
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.3ug/L	5	Prepared 10/23/18	10/31/18	N/A	3uL	50mL	P&T Water	0.3
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	3uL			0.3
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	3uL			0.3
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	2uL			10
0.5ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.5ug/L	5	Prepared 10/23/18	10/31/18	N/A	5uL	50mL	P&T Water	0.5
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	5uL			0.5
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	5uL			0.5
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	5uL			25
1.0ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	1.0ug/L	5	Prepared 10/23/18	10/31/18	N/A	10uL	50mL	P&T Water	1
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	10uL			1
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	10uL			1
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	10uL			50
2.0ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	2.0ug/L	5	Prepared 10/23/18	10/31/18	N/A	20uL	50mL	P&T Water	2
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	20uL			2
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	20uL			2
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	15uL			75
5ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	5ug/L	50	Prepared 10/23/18	12/22/18	N/A	5uL	50mL	P&T Water	5
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	5uL			5
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	5uL			5
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	5uL			5
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	20uL			100
10ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	10ug/L	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	25uL			125

20ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	20ug/L	50	Prepared 10/23/18	12/22/18	N/A	20uL	50mL	P&T Water	20
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	20uL			20
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	20uL			20
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	20uL			20
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	30uL			150
40ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	40ug/L	50	Prepared 10/23/18	12/22/18	N/A	40uL	50mL	P&T Water	40
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	40uL			40
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	35uL			175
100ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	100ug/L	50	Prepared 10/23/18	12/22/18	N/A	100uL	50mL	P&T Water	100
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	100uL			100
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	100uL			100
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	100uL			100
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	40uL			200
Loki 8260 Water Second Source (SS)										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 4	Phenova	8260 Water SS	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 5	O2SI	8260 Water SS	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 6	Various	8260 Water SS	50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. TBA	Various	8260 Water SS	250	Prepared 10/23/18	10/31/18	N/A	25uL			250
Prepared By (Initials): <u>DG</u>										
8260 Water Continuing Calibrations (CCV)/ Lab Control Spikes (LCS)										
Prepared: 10/23/18										
Expires: 10/24/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	CCV/ LCS	50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. TBA	Various	CCV/ LCS	250	Prepared 10/23/18	10/31/18	N/A	25uL			125
LCS (X4 Ketones)										
Prepared: 10/23/18										
Expires: 10/24/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	LCS X4 Ketones	50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. TBA	Various	LCS X4 Ketones	250	Prepared 10/23/18	10/31/18	N/A	25uL			125

Loki 8260 Water Surrogate							Prepared By (Initials): <u>DG</u>			
Prepared: <u>09/28/18</u>										
Expires: <u>04/02/19</u>										
Methanol Lot No: <u>57159</u>										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260 Surrogate Solution	O2SI	120002-01	2,000	275545-36334	09/28/19	04/02/19	375uL	15mL	Methanol	50
Loki 8260 Water Internal Standard							Prepared By (Initials): <u>DG</u>			
Prepared: <u>09/28/18</u>										
Expires: <u>06/29/19</u>										
Methanol Lot No: <u>57159</u>										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Internal Standard Solution	O2SI	120004-02	2,000	326533-38434	06/29/19	04/27/21	375uL	15mL	Methanol	50

## Injection Log

Directory: M:\LOKI\DATA\181023\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1023L01.D	1	25ug/L BFB STD 9/2/18	2ul	23 Oct 18 12:54
2	2	1023L03.D	1	0.3ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 13:39
3	3	1023L04.D	1	0.5ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 14:07
4	4	1023L05.D	1	1.0ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 14:35
5	5	1023L06.D	1	5.0ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 15:03
6	6	1023L07.D	1	10ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 15:31
7	7	1023L08.D	1	20ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 15:59
8	8	1023L09.D	1	50ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 16:27
9	9	1023L10.D	1	100ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 16:55
10	13	1023L14.D	1	(SS) 10ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 18:47
11	1	1025L04.D	1	25ug/L BFB STD 9/2/18	IS&S 9/28/18,8/23/18	25 Oct 18 9:23
12	2	1025L05.D	1	181025A CCV 10ug/L	IS&S 9/28/18,8/23/18	25 Oct 18 9:51
13	3	1025L06.D	1	181025A LCS 10ug/L	IS&S 9/28/18,8/23/18	25 Oct 18 10:19
14	4	1025L07.D	1	181025A LCSD 10ug/L	IS&S 9/28/18,8/23/18	25 Oct 18 10:48
15	17	1025L20.D	1	181025A Blk	IS&S 9/28/18,8/23/18	25 Oct 18 16:52
16	18	1025L21.D	1	AZ81637W01	IS&S 9/28/18,8/23/18	25 Oct 18 17:20
17	19	1025L22.D	1	AZ81639W01	IS&S 9/28/18,8/23/18	25 Oct 18 17:48
18	20	1025L23.D	1	AZ81643W01	IS&S 9/28/18,8/23/18	25 Oct 18 18:16
19	21	1025L24.D	1	AZ81641W01	IS&S 9/28/18,8/23/18	25 Oct 18 18:44
20	22	1025L25.D	1	AZ81636W01	IS&S 9/28/18,8/23/18	25 Oct 18 19:12
21	23	1025L26.D	1	AZ81638W01	IS&S 9/28/18,8/23/18	25 Oct 18 19:40
22	24	1025L27.D	1	AZ81640W01	IS&S 9/28/18,8/23/18	25 Oct 18 20:08
23	25	1025L28.D	1	AZ81642W01	IS&S 9/28/18,8/23/18	25 Oct 18 20:36
24	26	1025L29.D	1	AZ81644W01	IS&S 9/28/18,8/23/18	25 Oct 18 21:04
25	27	1025L30.D	1	Ending CCV 10ug/L 10/25/18	IS&S 9/28/18,8/23/18	25 Oct 18 21:32

**ORGANICS**  
**Calibration Data**

**APPL, INC.**

VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

**Form 6**  
**Initial Calibration**

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: water

SDG No: \_\_\_\_\_  
Initial Cal. Date: 09/19/18  
Instrument: Loki

Initials: DG

0919L33.D    0919L34.D    0919L35.D    0919L36.D    0919L37.D    0919L38.D    0919L39.D

	Compound	1	2	3	4	5	6	7			Avg	%RSD	Type	r <sup>2</sup>	Q	MRF
1	I Fluorobenzene (IS)															
2	TMHBL Gasoline C6-C10	15.4	6.882	3.929	1.907	1.491	1.402	1.324			4.6	112	TMHBL	0.999		
3	I Chlorobenzene-D5 (IS)															
4	I 1,4-Dichlorobenzene-D (IS)															
5																
6																
7																
8																
9																
10																
11																
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Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\180915\0919L33.D Vial: 32  
 Acq On : 19 Sep 18 21:20 Operator: PM, DG, SV, CMM, KV  
 Sample : 20ug/L VOC GAS STD 18/09/19 Inst : Loki  
 Misc : IS&S 8/30/18, 8/23/18 Multiplr: 1.00

Quant Time: Sep 20 8:24 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:17:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.88	TIC	655321	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	888041	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	863044	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	8053939m	23.563	ppb	100

Quantitation Report

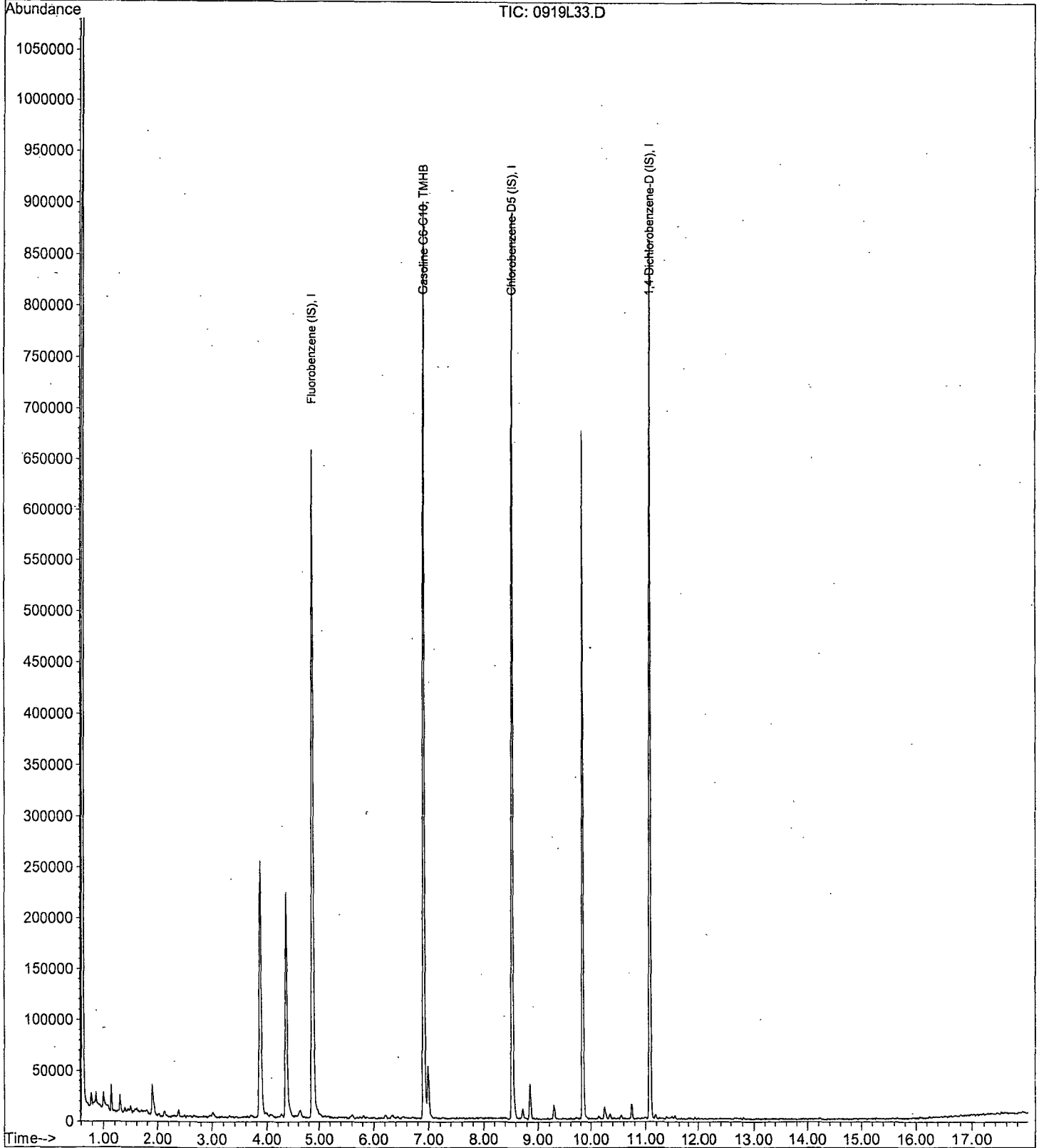
Data File : M:\LOKI\DATA\180915\0919L33.D  
Acq On : 19 Sep 18 21:20  
Sample : 20ug/L VOC GAS STD 18/09/19  
Misc : IS&S 8/30/18,8/23/18

Vial: 32  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Sep 20 8:24 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\180915\0919L34.D Vial: 33  
 Acq On : 19 Sep 18 21:48 Operator: PM,DG,SV,CMM,KV  
 Sample : 50ug/L VOC GAS STD 18/09/19 Inst : Loki  
 Misc : IS&S 8/30/18,8/23/18 Multiplr: 1.00

Quant Time: Sep 20 8:25 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:17:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	668290	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	889744	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	878355	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	9197833m	59.385	ppb	100

Quantitation Report

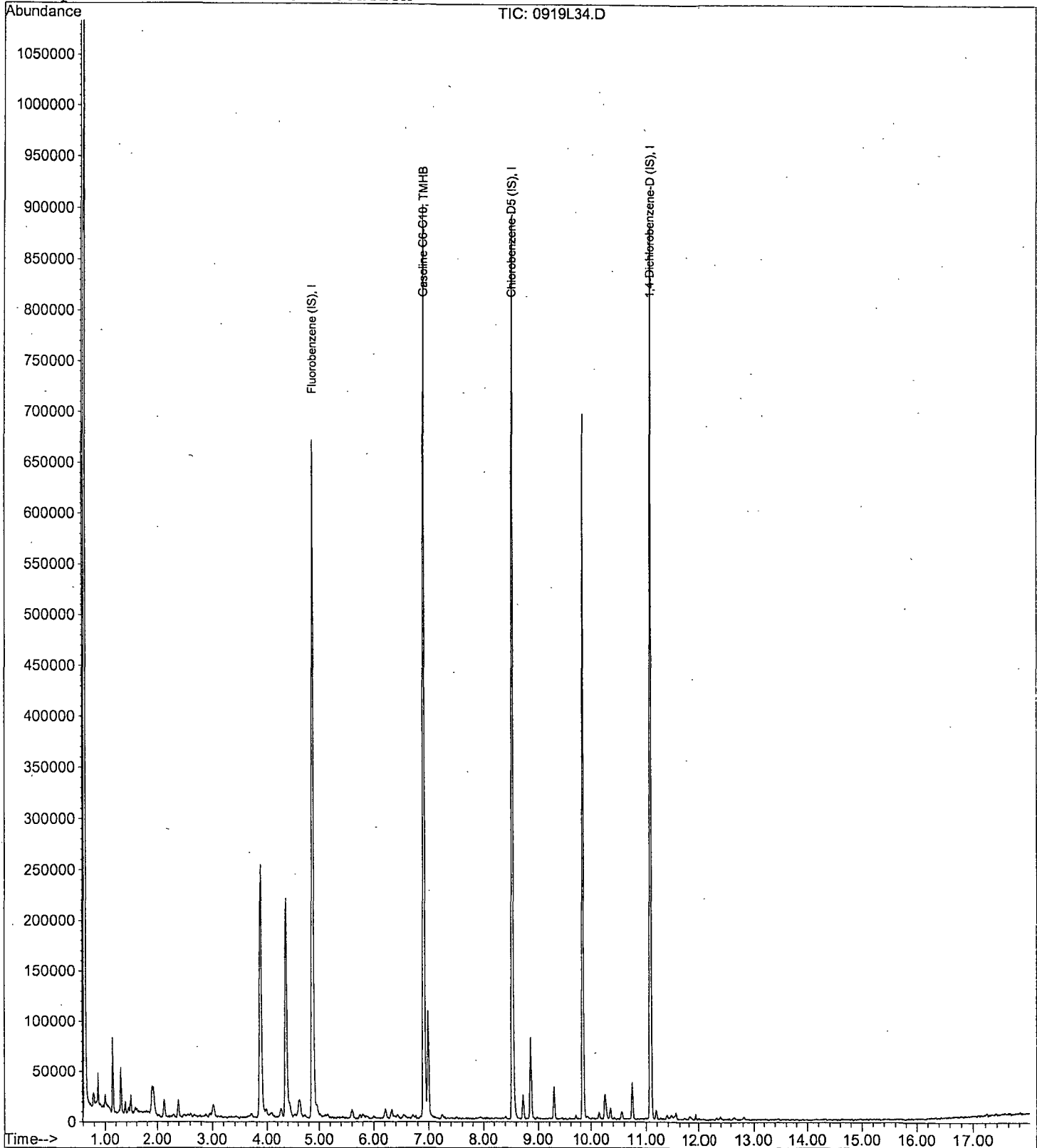
Data File : M:\LOKI\DATA\180915\0919L34.D  
Acq On : 19 Sep 18 21:48  
Sample : 50ug/L VOC GAS STD 18/09/19  
Misc : IS&S 8/30/18,8/23/18

Vial: 33  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Sep 20 8:25 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\180915\0919L35.D Vial: 34  
 Acq On : 19 Sep 18 22:16 Operator: PM,DG,SV,CMM,KV  
 Sample : 100ug/L VOC GAS STD 18/09/19 Inst : Loki  
 Misc : IS&S 8/30/18,8/23/18 Multiplr: 1.00

Quant Time: Sep 20 8:25 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:17:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	670166	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	873087	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	899572	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	10532909m	106.890	ppb	100

Quantitation Report

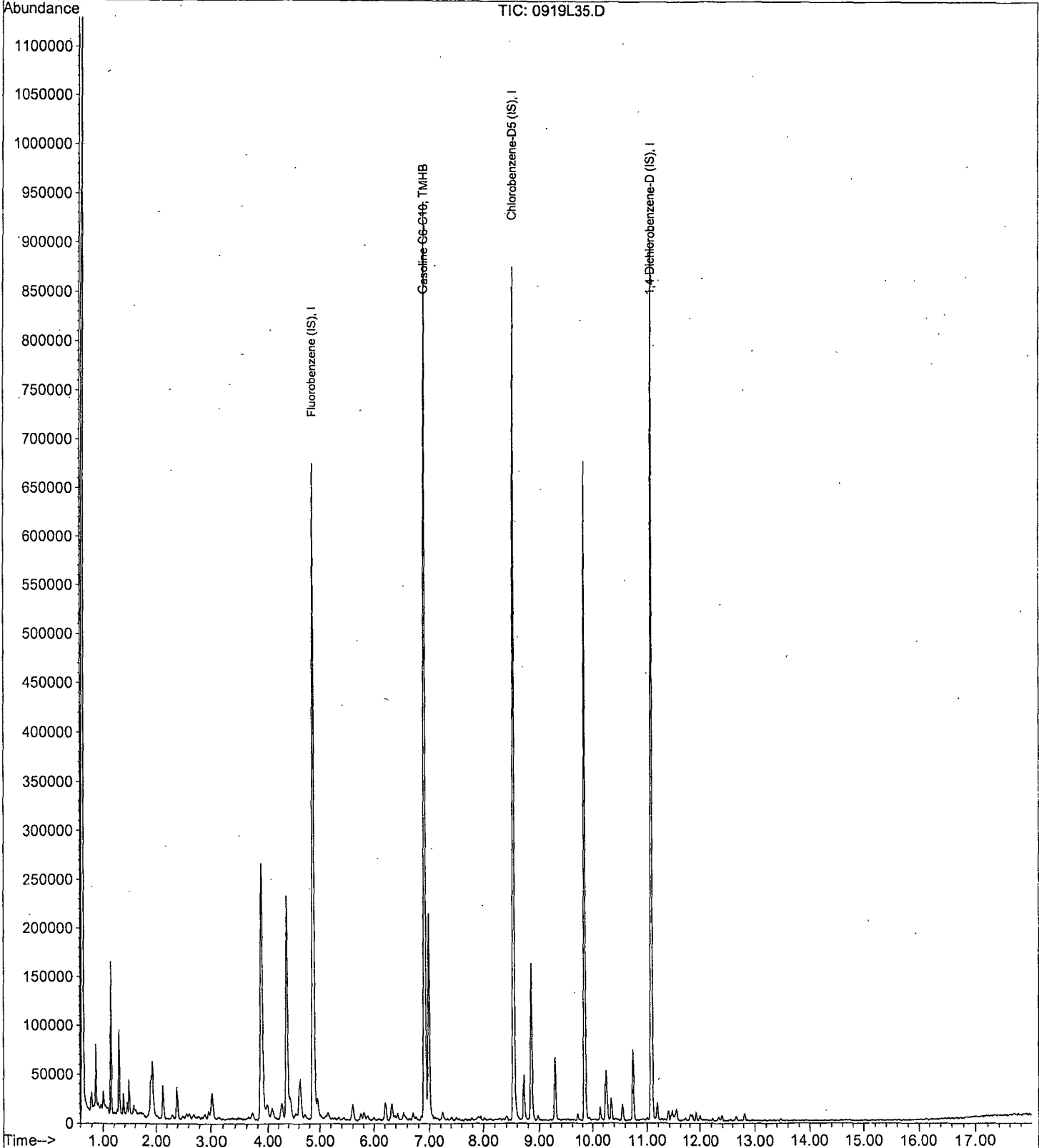
Data File : M:\LOKI\DATA\180915\0919L35.D  
Acq On : 19 Sep 18 22:16  
Sample : 100ug/L VOC GAS STD 18/09/19  
Misc : IS&S 8/30/18, 8/23/18

Vial: 34  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Sep 20 8:25 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\180915\0919L36.D Vial# 35  
 Acq On : 19 Sep 18 22:44 Operator: PM,DG,SV,CMM,KV  
 Sample : 300ug/L VOC GAS STD 18/09/19 Inst : Loki  
 Misc : IS&S 8/30/18,8/23/18 Multiplr: 1.00

Quant Time: Sep 20 8:26 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:17:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.88	TIC	718087	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	969706	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	991570	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	8.54	TIC	16432098m	281.147	ppb	100

Quantitation Report

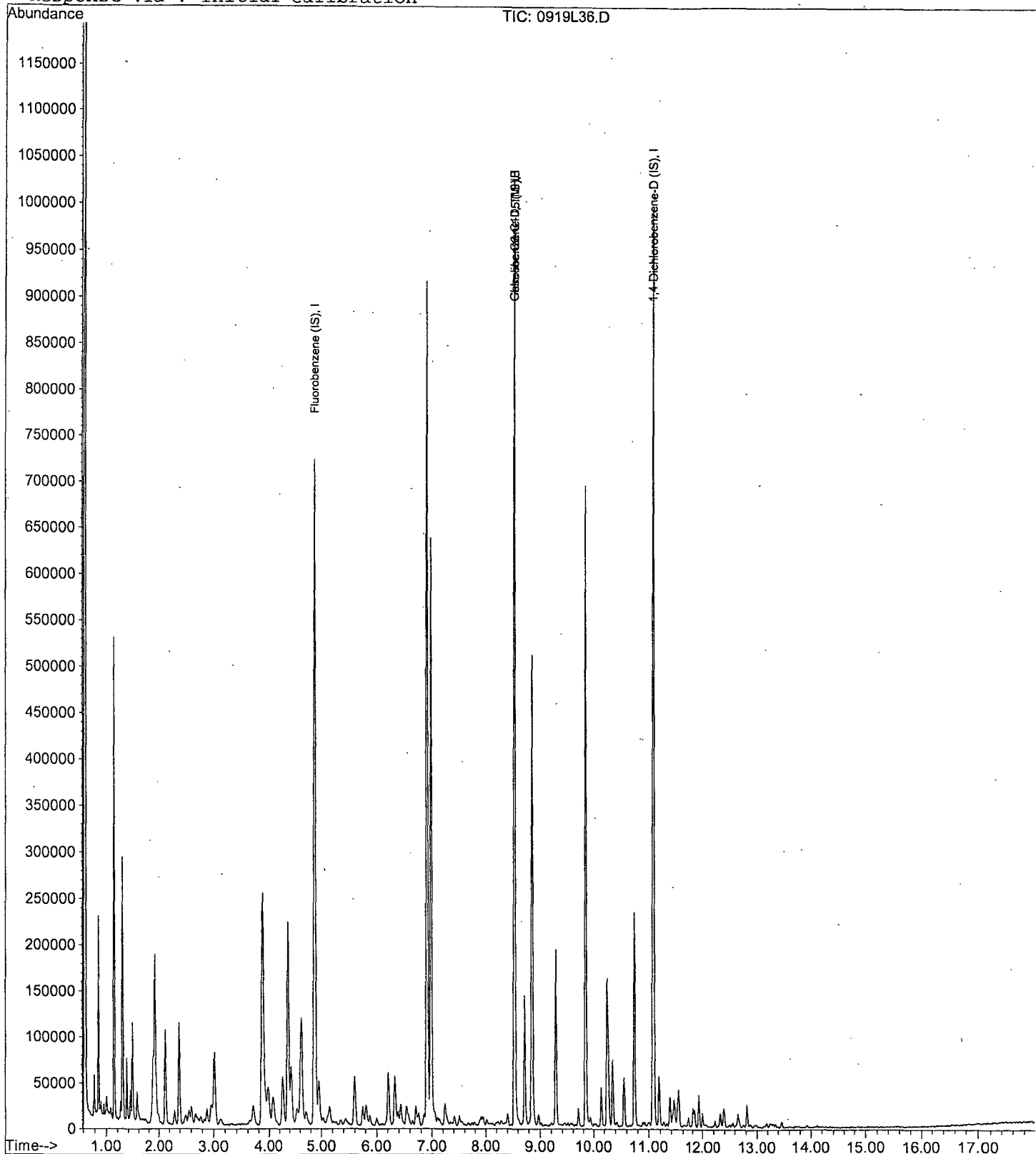
Data File : M:\LOKI\DATA\180915\0919L36.D  
Acq On : 19 Sep 18 22:44  
Sample : 300ug/L VOC GAS STD 18/09/19  
Misc : IS&S 8/30/18,8/23/18

Vial: 35  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Sep 20 8:26 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\180915\0919L37.D Vial: 36  
 Acq On : 19 Sep 18 23:12 Operator: PM,DG,SV,CMM,KV  
 Sample : 600ug/L VOC GAS STD 18/09/19 Inst : Loki  
 Misc : IS&S 8/30/18,8/23/18 Multiplr: 1.00

Quant Time: Sep 20 8:26 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:17:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	700643	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	968178	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	991178	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.99	TIC	25066879m	594.676	ppb	100

Quantitation Report

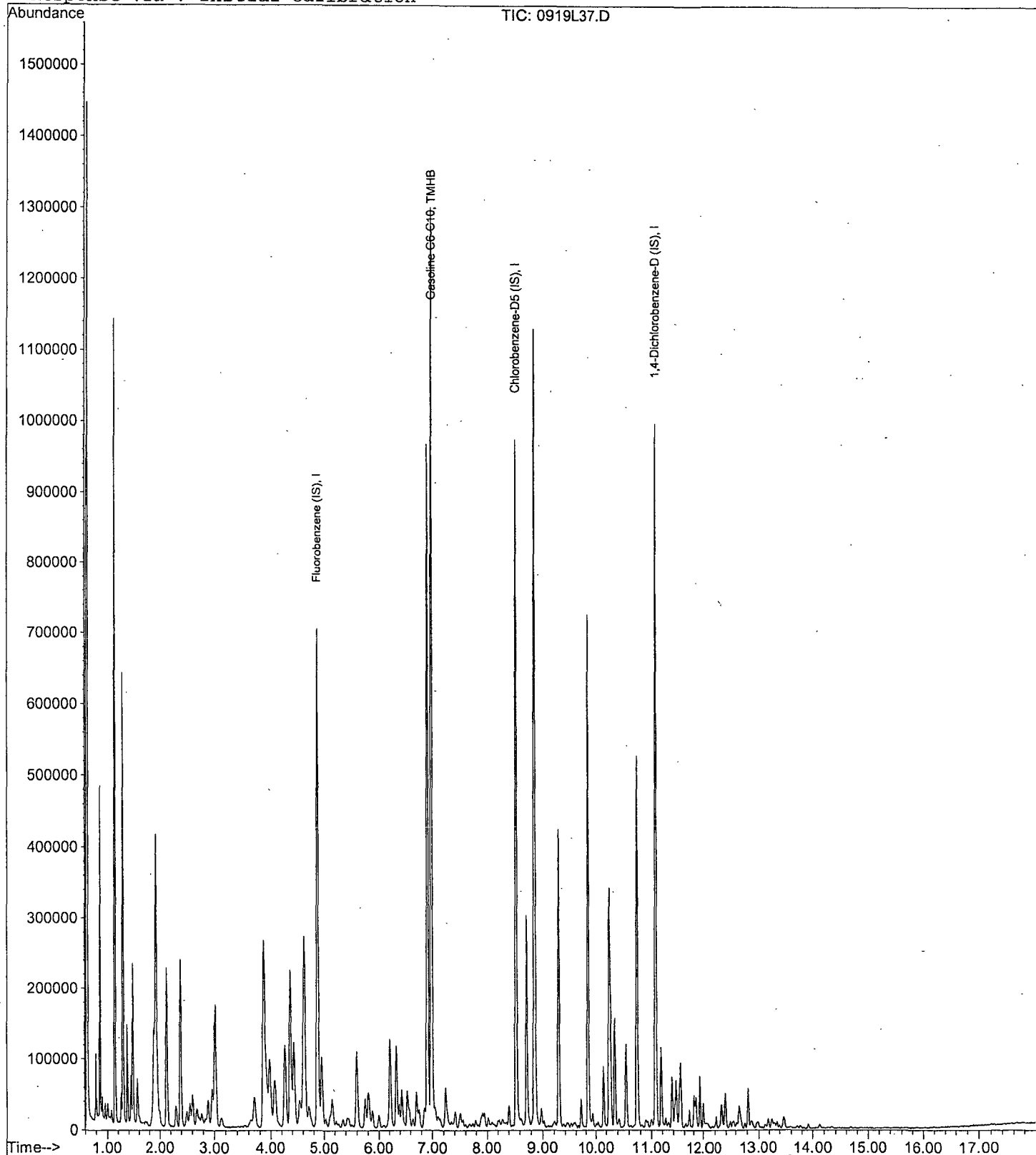
Data File : M:\LOKI\DATA\180915\0919L37.D  
Acq On : 19 Sep 18 23:12  
Sample : 600ug/L VOC GAS STD 18/09/19  
Misc : IS&S 8/30/18,8/23/18

Vial: 36  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Sep 20 8:26 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\180915\0919L38.D  
 Acq On : 19 Sep 18 23:40  
 Sample : 800ug/L VOC GAS STD 18/09/19  
 Misc : IS&S 8/30/18,8/23/18

Vial: 37  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Sep 20 8:28 2018

Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:17:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	726019	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	990263	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	1024708	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.99	TIC	32576102m	815.772	ppb	100

Quantitation Report

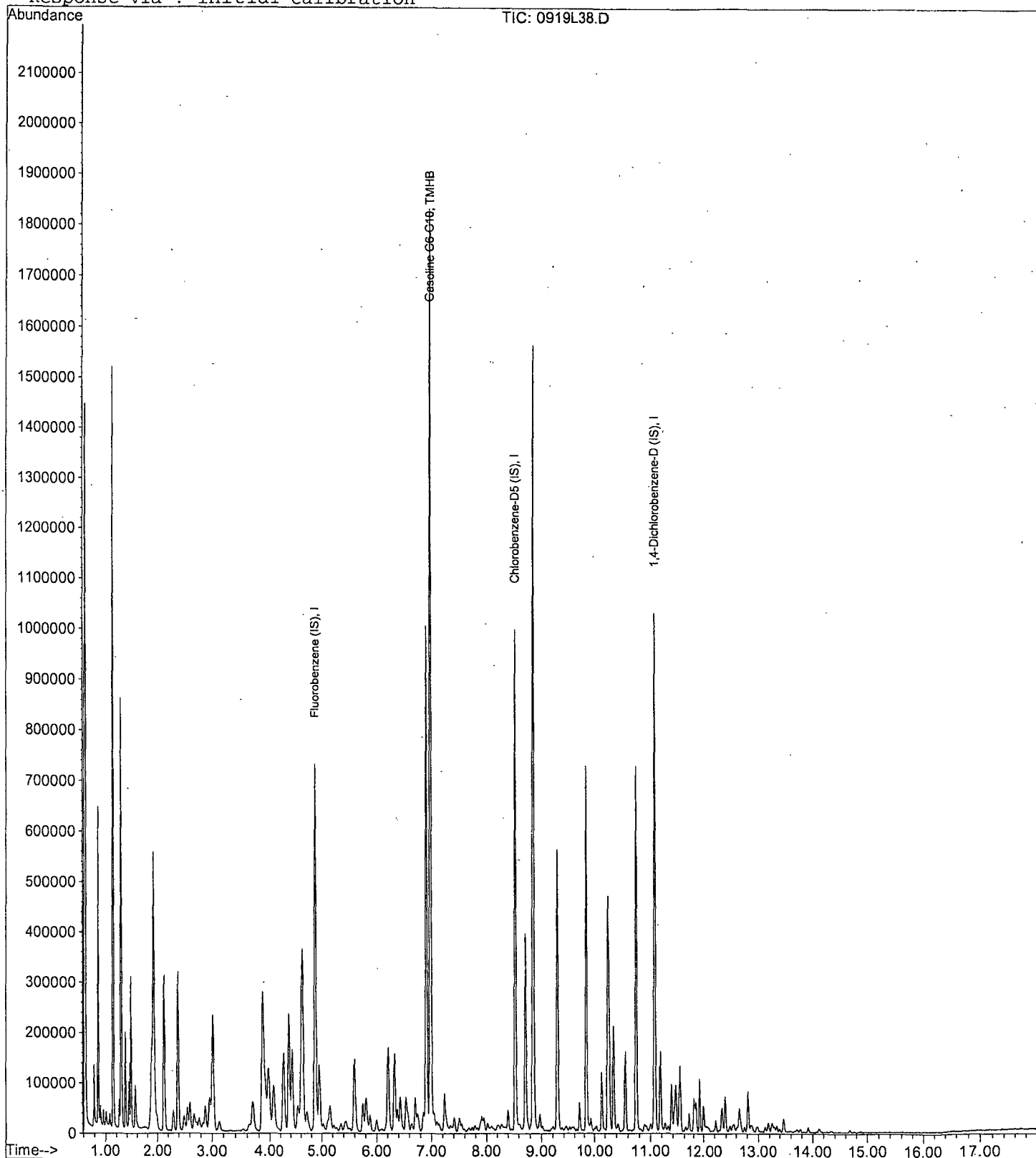
Data File : M:\LOKI\DATA\180915\0919L38.D  
Acq On : 19 Sep 18 23:40  
Sample : 800ug/L VOC GAS STD 18/09/19  
Misc : IS&S 8/30/18,8/23/18

Vial: 37'  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Sep 20 8:28 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\180915\0919L39.D Vial: 38  
 Acq On : 20 Sep 18 00:09 Operator: PM,DG,SV,CMM,KV  
 Sample : 1000ug/L VOC GAS STD 18/09/19 Inst : Loki  
 Misc : IS&S 8/30/18,8/23/18 Multiplr: 1.00

Quant Time: Sep 20 8:27 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:17:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	728891	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	1014695	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	1050391	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.99	TIC	38607524m	1012.685	ppb	100

Quantitation Report

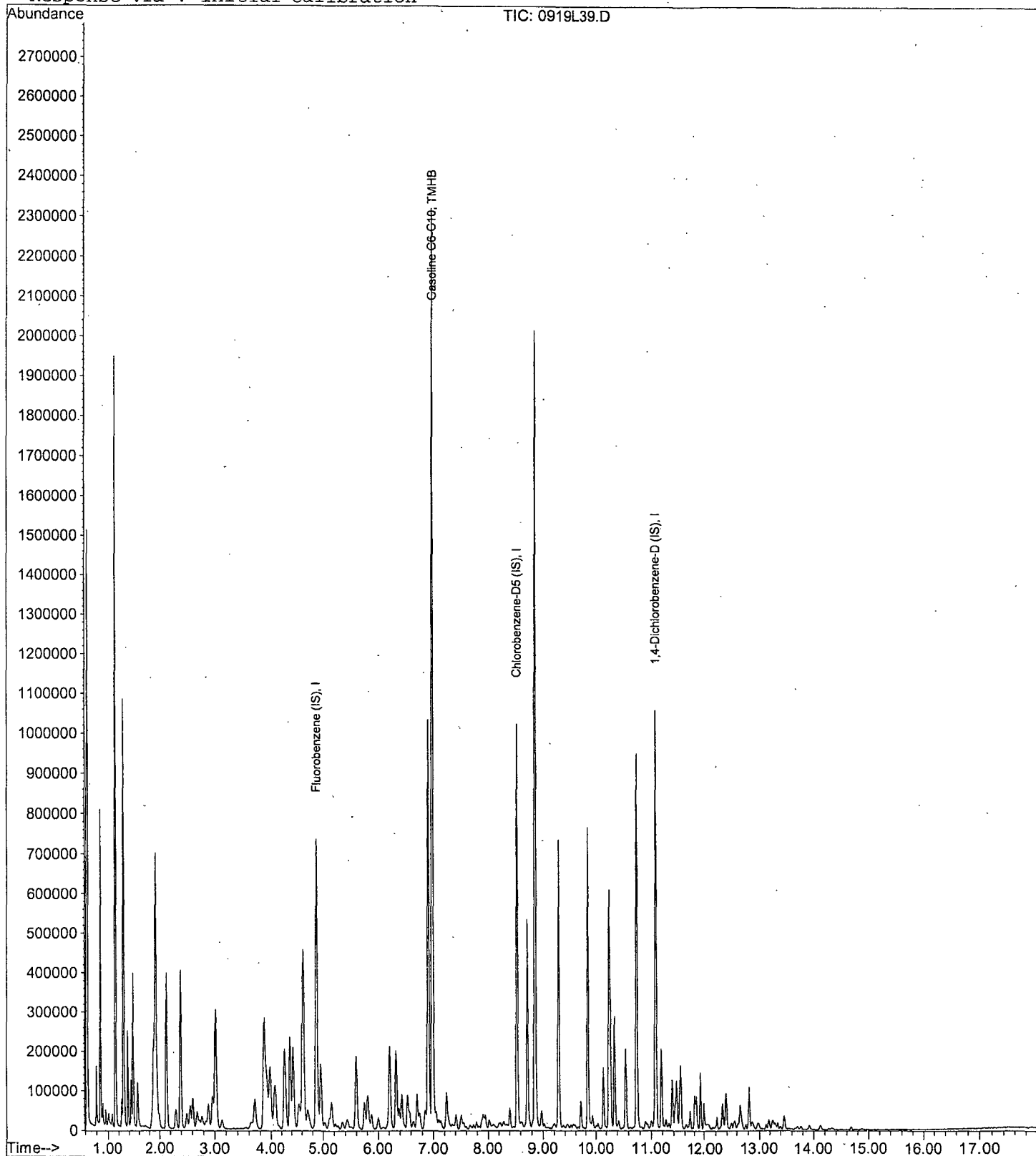
Data File : M:\LOKI\DATA\180915\0919L39.D  
Acq On : 20 Sep 18 00:09  
Sample : 1000ug/L VOC GAS STD 18/09/19  
Misc : IS&S 8/30/18,8/23/18

Vial: 38  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Sep 20 8:27 2018

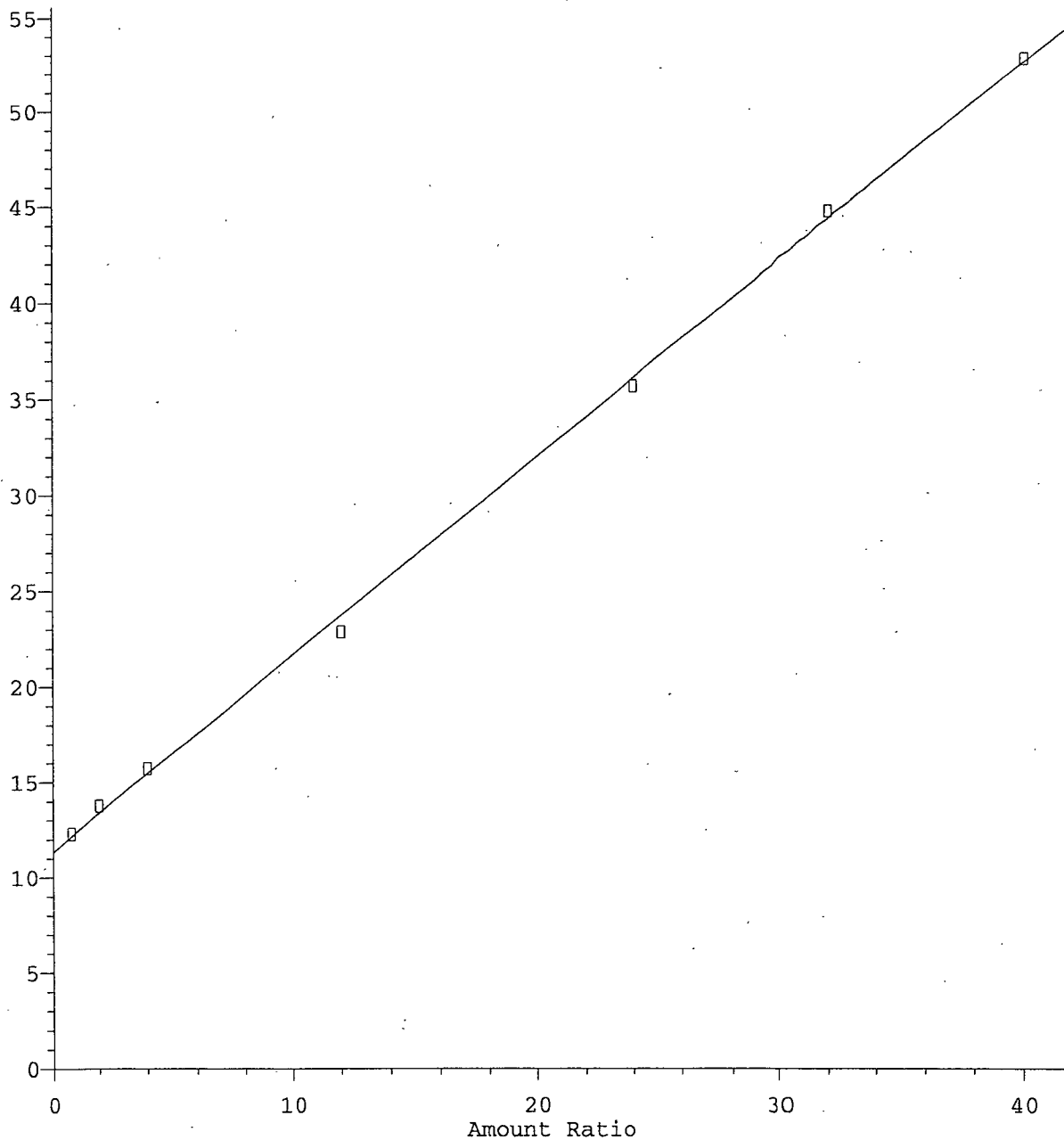
Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Gasoline C6-C10

Response Ratio



Resp Ratio = 1.04e+000 \* Amt + 1.13e+001  
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: M:\LOKI\DATA\180915\LGAS915.M  
Calibration Table Last Updated: Thu Sep 20 08:28:14 2018

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/23/18  
Instrument: Loki

Initials: \_\_\_\_\_

1023L03.D 1023L04.D 1023L05.D 1023L06.D 1023L07.D 1023L08.D 1023L09.D 1023L10.D

	Compound	1	2	3	4	5	6	7	8		Avg	%RSD	Type	r <sup>2</sup>	Q	MRF
1	I Fluorobenzene (IS)															
2	SL Dibromofluoromethane(S)	1.047	0.9749	0.7727	0.7744	0.8480	0.8872	0.6664	0.6255		0.82	18	SL	0.994		
3	SL 1,2-DCA-D4(S)	1.115	1.042	0.7869	0.8259	0.9321	0.9642	0.7437	0.6948		0.89	17	SL	0.994		
4	I Chlorobenzene-D5 (IS)															
5	SL Toluene-D8(S)	3.014	2.812	2.271	2.412	2.795	2.955	2.192	2.082		2.6	14	SL	0.992		
6	SL 4-Bromofluorobenzene(S)	1.092	1.017	0.8018	0.9328	1.076	1.115	0.8434	0.8110		0.96	14	SL	0.993		
7	I 1,4-Dichlorobenzene-D (IS)															
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Data File : M:\LOKI\DATA\181023\1023L03.D  
 Acq On : 23 Oct 18 13:39  
 Sample : 0.3ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 2  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	227904	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	248256	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	139776	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.87	111	47710	3.8289	ppb	0.00
Spiked Amount	25.000		Recovery	= 15.316%		
3) 1,2-DCA-D4(S)	4.36	65	50837	7.7256	ppb	0.00
Spiked Amount	25.000		Recovery	= 30.904%		
5) Toluene-D8(S)	6.91	98	149671	3.5930	ppb	0.00
Spiked Amount	25.000		Recovery	= 14.372%		
6) 4-Bromofluorobenzene(S)	9.84	95	54237	6.5375	ppb	0.00
Spiked Amount	25.000		Recovery	= 26.152%		

Target Compounds

Qvalue

Quantitation Report

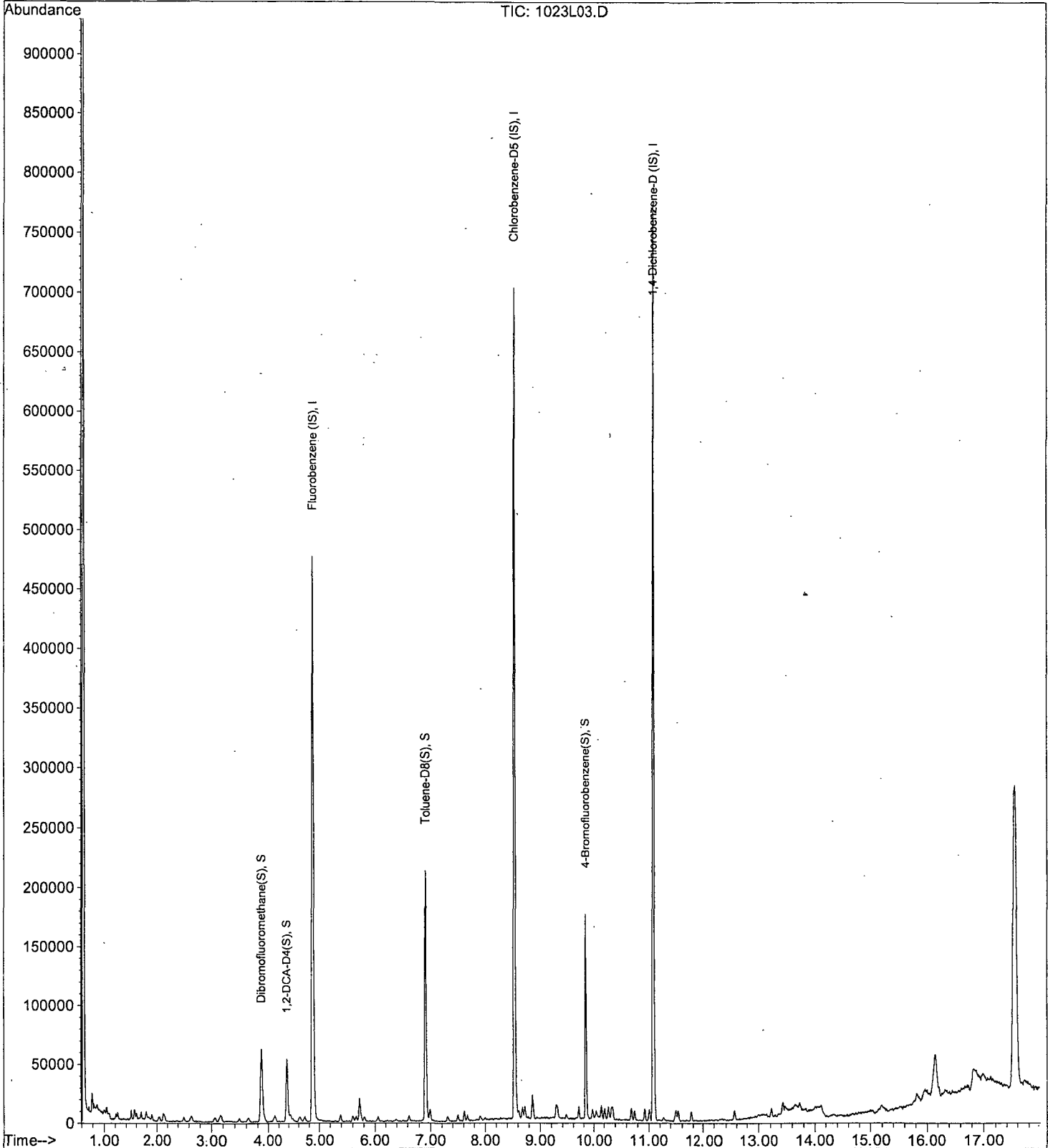
Data File : M:\LOKI\DATA\181023\1023L03.D  
Acq On : 23 Oct 18 13:39  
Sample : 0.3ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 2  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:43:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L04.D  
 Acq On : 23 Oct 18 14:07  
 Sample : 0.5ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	230144	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	257024	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	140416	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.87	111	44873	3.2339	ppb	0.00
Spiked Amount	25.000		Recovery	=	12.936%	
3) 1,2-DCA-D4(S)	4.36	65	47959	7.2173	ppb	0.00
Spiked Amount	25.000		Recovery	=	28.868%	
5) Toluene-D8(S)	6.91	98	144541	3.0938	ppb	0.00
Spiked Amount	25.000		Recovery	=	12.376%	
6) 4-Bromofluorobenzene(S)	9.84	95	52263	6.0847	ppb	0.00
Spiked Amount	25.000		Recovery	=	24.340%	

Target Compounds

Qvalue

Quantitation Report

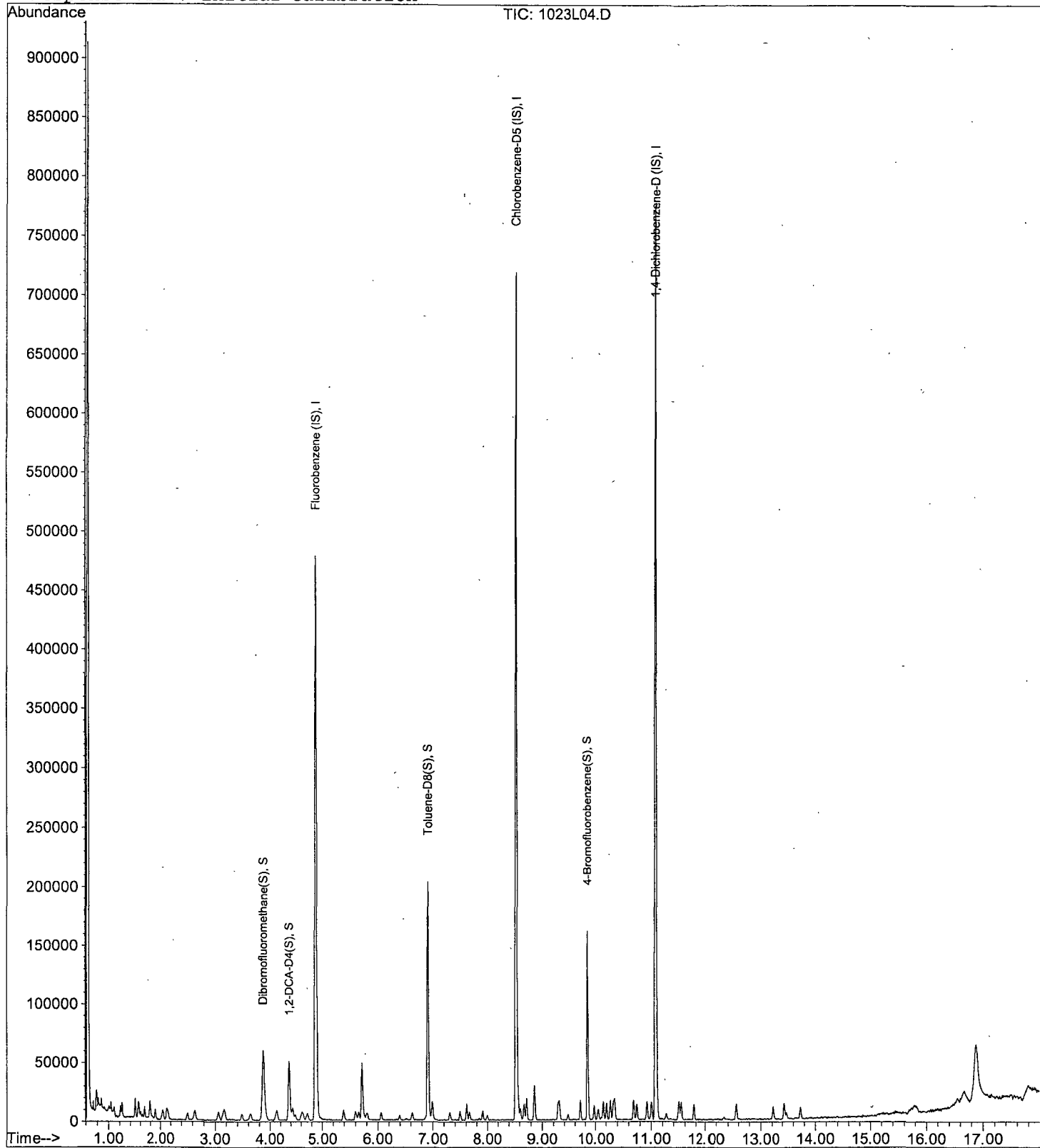
Data File : M:\LOKI\DATA\181023\1023L04.D  
Acq On : 23 Oct 18 14:07  
Sample : 0.5ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 3  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:43:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L05.D Vial: 4  
 Acq On : 23 Oct 18 14:35 Operator: PM, DG, SV, CMM, KV  
 Sample : 1.0ug/L VOC STD 10/23/18 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 25 9:31 2018 Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	226944	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	244864	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	139840	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.88	111	70141	7.9599	ppb	0.00
Spiked Amount	25.000		Recovery	=	31.840%	
3) 1,2-DCA-D4(S)	4.37	65	71429	10.9008	ppb	0.00
Spiked Amount	25.000		Recovery	=	43.604%	
5) Toluene-D8(S)	6.91	98	222436	7.3565	ppb	0.00
Spiked Amount	25.000		Recovery	=	29.428%	
6) 4-Bromofluorobenzene(S)	9.84	95	78536	9.5976	ppb	0.00
Spiked Amount	25.000		Recovery	=	38.392%	

Target Compounds Qvalue

Quantitation Report

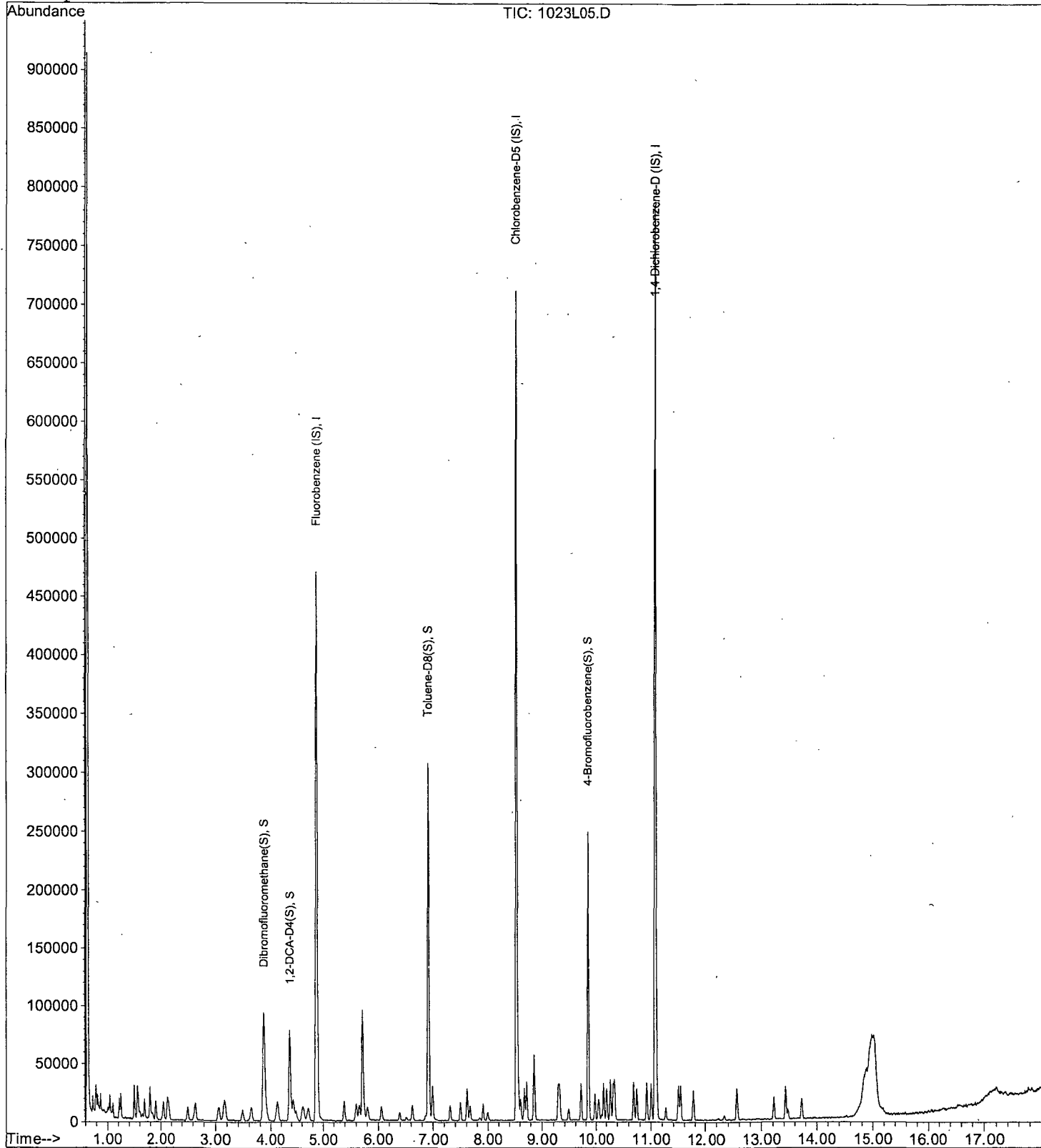
Data File : M:\LOKI\DATA\181023\1023L05.D  
Acq On : 23 Oct 18 14:35  
Sample : 1.0ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 4  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:43:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L06.D  
 Acq On : 23 Oct 18 15:03  
 Sample : 5.0ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 5  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	236672	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	255872	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	162048	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.88	111	73308	7.9880	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	31.952%	
3) 1,2-DCA-D4(S)	4.37	65	78190	11.4421	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	45.768%	
5) Toluene-D8(S)	6.91	98	246891	8.0525	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	32.208%	
6) 4-Bromofluorobenzene(S)	9.84	95	95468	11.1648	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	44.660%	

Target Compounds

Qvalue

Quantitation Report

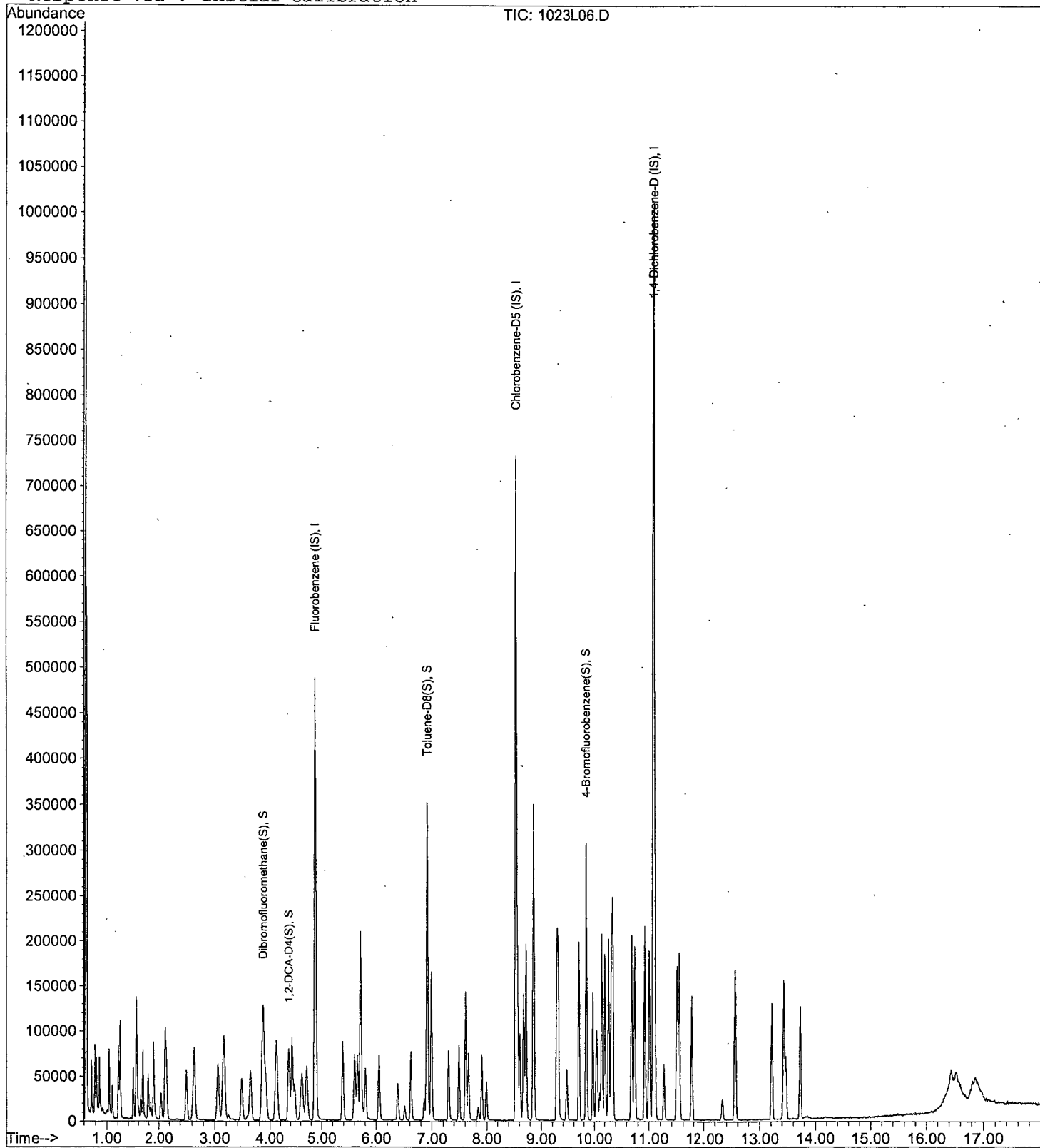
Data File : M:\LOKI\DATA\181023\1023L06.D  
Acq On : 23 Oct 18 15:03  
Sample : 5.0ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 5  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:43:23 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181023\1023L07.D  
 Acq On : 23 Oct 18 15:31  
 Sample : 10ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 6  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	242688	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	261312	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	157376	25.0000	ppb	0.00

System Monitoring Compounds

2) Dibromofluoromethane(S)	3.87	111	164646	23.2602	ppb	0.00
Spiked Amount				25.000		
			Recovery			= 93.040%
3) 1,2-DCA-D4(S)	4.36	65	180960	25.8248	ppb	0.00
Spiked Amount				25.000		
			Recovery			= 103.300%
5) Toluene-D8(S)	6.91	98	584334	23.7126	ppb	0.00
Spiked Amount				25.000		
			Recovery			= 94.852%
6) 4-Bromofluorobenzene(S)	9.84	95	224926	25.7571	ppb	0.00
Spiked Amount				25.000		
			Recovery			= 103.028%

Target Compounds

Qvalue

Quantitation Report

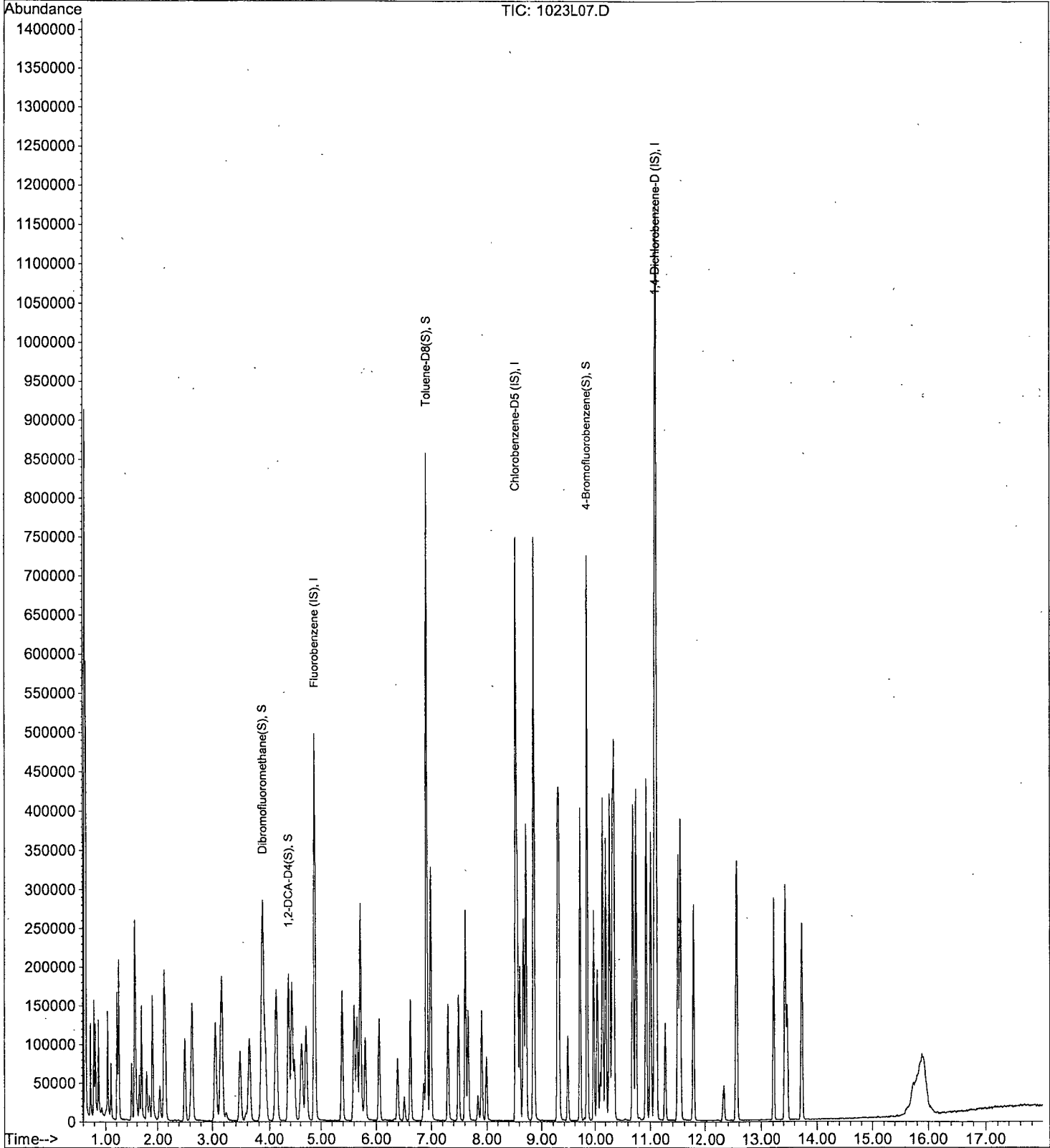
Data File : M:\LOKI\DATA\181023\1023L07.D  
Acq On : 23 Oct 18 15:31  
Sample : 10ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 6  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:43:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L08.D  
 Acq On : 23 Oct 18 15:59  
 Sample : 20ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 7  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	249600	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	266752	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	177152	25.0000	ppb	0.00

System Monitoring Compounds

2) Dibromofluoromethane(S)	3.87	111	177154	24.5578	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	98.232%	
3) 1,2-DCA-D4(S)	4.36	65	192539	26.7164	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	106.864%	
5) Toluene-D8(S)	6.91	98	630504	25.2830	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	101.132%	
6) 4-Bromofluorobenzene(S)	9.84	95	237884	26.6854	ppb	0.00
Spiked Amount				25.000		
			Recovery	=	106.740%	

Target Compounds

Qvalue

Quantitation Report

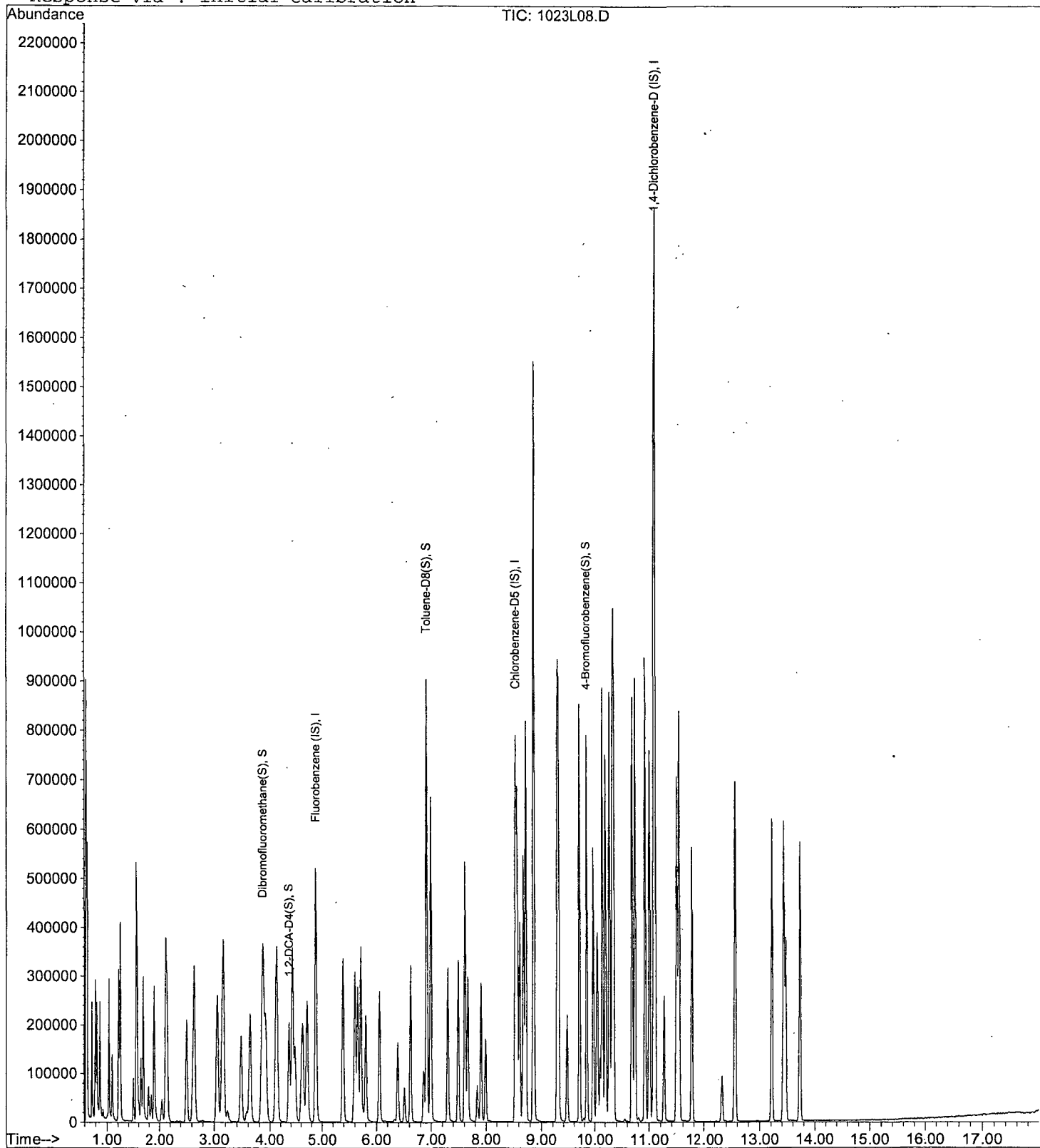
Data File : M:\LOKI\DATA\181023\1023L08.D  
Acq On : 23 Oct 18 15:59  
Sample : 20ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 7  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:43:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L09.D  
 Acq On : 23 Oct 18 16:27  
 Sample : 50ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 8  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	249152	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	278144	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	174016	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.87	111	332062	50.3655	ppb	0.00
Spiked Amount	25.000		Recovery	=	201.464%	
3) 1,2-DCA-D4(S)	4.36	65	370570	51.5121	ppb	0.00
Spiked Amount	25.000		Recovery	=	206.048%	
5) Toluene-D8(S)	6.91	98	1219191	50.1627	ppb	0.00
Spiked Amount	25.000		Recovery	=	200.652%	
6) 4-Bromofluorobenzene(S)	9.84	95	469147	50.4726	ppb	0.00
Spiked Amount	25.000		Recovery	=	201.892%	

Target Compounds

Qvalue

Quantitation Report

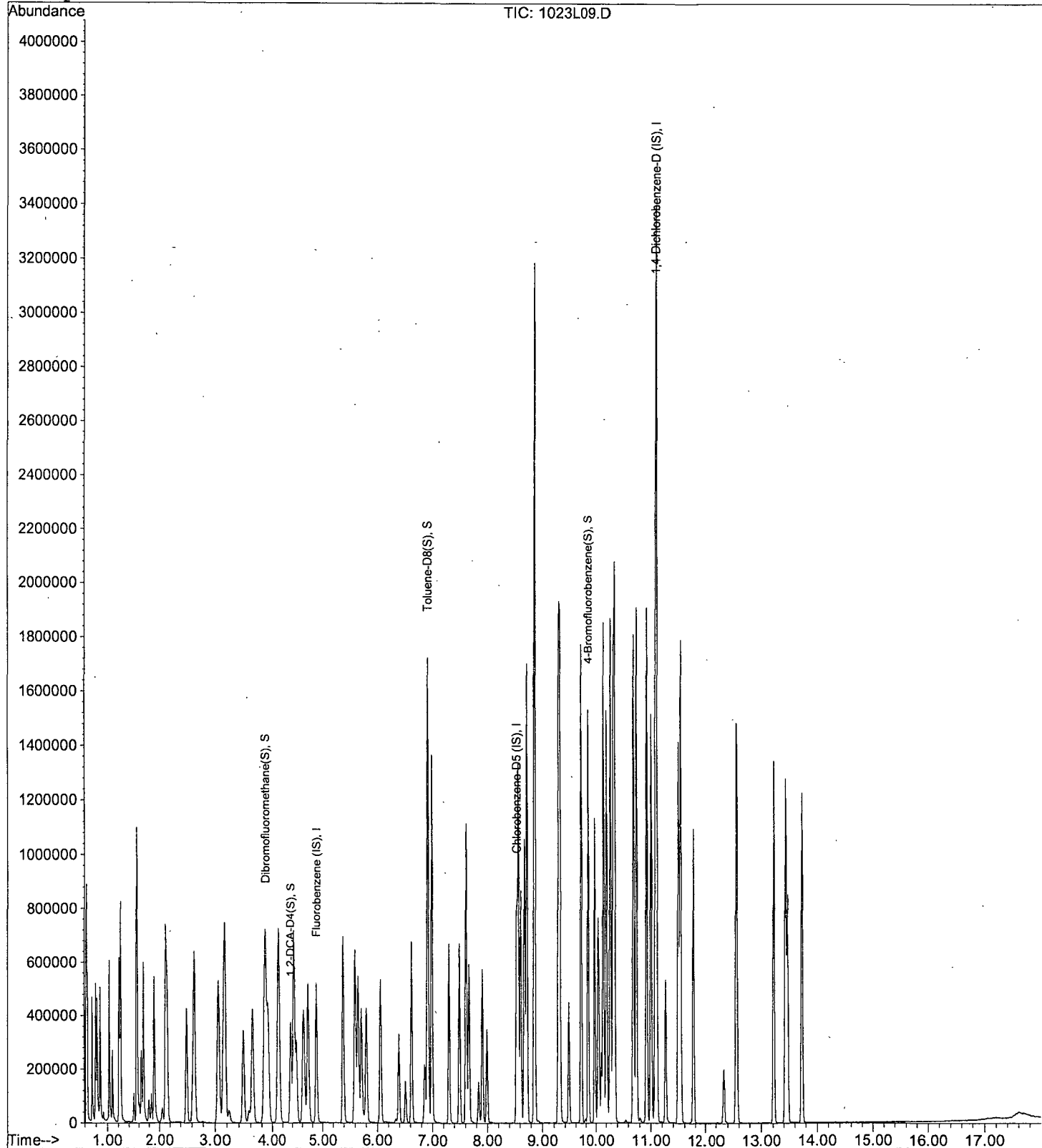
Data File : M:\LOKI\DATA\181023\1023L09.D  
Acq On : 23 Oct 18 16:27  
Sample : 50ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 8  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:43:23 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1023L10.D  
 Acq On : 23 Oct 18 16:55  
 Sample : 100ug/L VOC STD 10/23/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 9  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 24 11:02:36 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	249344	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	276416	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	185792	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.87	111	623896	98.8057	ppb	0.00
Spiked Amount	25.000					
					Recovery = 395.224%	
3) 1,2-DCA-D4(S)	4.36	65	692972	96.2543	ppb	0.00
Spiked Amount	25.000					
					Recovery = 385.016%	
5) Toluene-D8(S)	6.91	98	2301830	98.7487	ppb	0.00
Spiked Amount	25.000					
					Recovery = 394.996%	
6) 4-Bromofluorobenzene(S)	9.84	95	896648	97.0678	ppb	0.00
Spiked Amount	25.000					
					Recovery = 388.272%	

Target Compounds

Qvalue

Quantitation Report

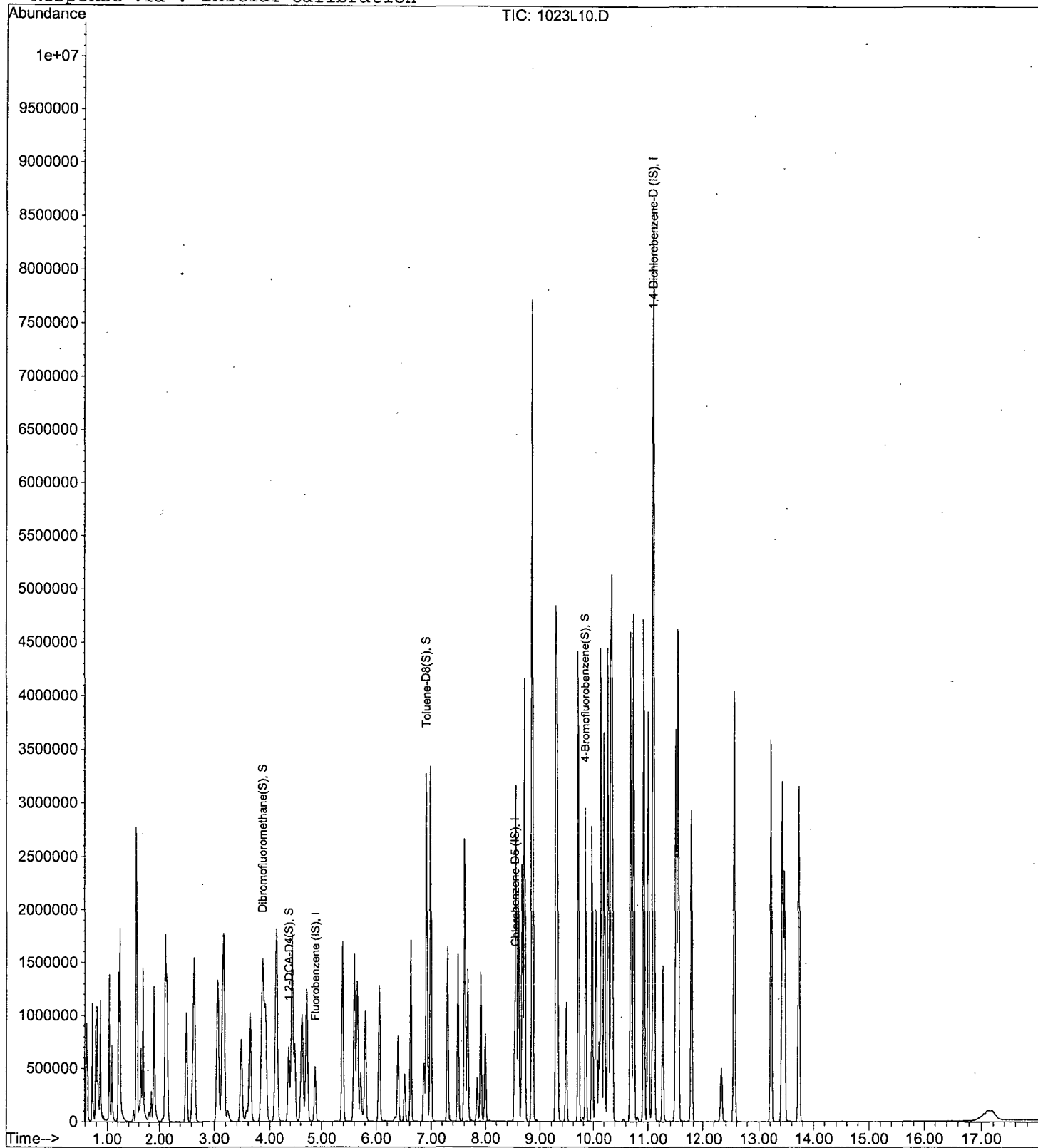
Data File : M:\LOKI\DATA\181023\1023L10.D  
Acq On : 23 Oct 18 16:55  
Sample : 100ug/L VOC STD 10/23/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 9  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 25 9:31 2018

Quant Results File: LSUR1023.RES

Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Oct 25 09:43:23 2018  
Response via : Initial Calibration





VOLATILE ORGANIC ANALYSIS BY  
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 09/20/18

Matrix: water

Instrument: Loki

Initial Cal. Date: 09/19/18

Data File: 0919L44.D

	Compound	MEAN	CCRF	%D	%Drift
1	TMHB Gasoline C6-C10	4.614	1.883	59	TMHBL 9.4
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
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30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40	Average			59.0	

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\180915\0919L44.D Vial: 43  
 Acq On : 20 Sep 18 2:29 Operator: PM, DG, SV, CMM, KV  
 Sample : (SS)300ug/L VOC GAS STD 18/09/19 Inst : Loki  
 Misc : IS&S 8/30/18, 8/23/18 Multiplr: 1.00

Quant Time: Sep 20 8:45 2018 Quant Results File: LSUR915.RES

Quant Method : M:\LOKI\DATA\180915\LSUR915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Sep 18 13:25:38 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.88	96	335744	25.000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	330368	25.000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	155264	25.000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.88	111	211395	25.320	ppb	0.00
Spiked Amount	25.000					
					Recovery =	101.280%
3) 1,2-DCA-D4(S)	4.37	65	201692	24.490	ppb	0.00
Spiked Amount	25.000					
					Recovery =	97.960%
5) Toluene-D8(S)	6.91	98	671799	24.672	ppb	0.00
Spiked Amount	25.000					
					Recovery =	98.688%
6) 4-Bromofluorobenzene(S)	9.84	95	231971	23.347	ppb	0.00
Spiked Amount	25.000					
					Recovery =	93.388%

Target Compounds Qvalue

Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\180915\0919L44.D Vial: 43  
 Acq On : 20 Sep 18 2:29 Operator: PM,DG,SV,CMM,KV  
 Sample : (SS)300ug/L VOC GAS STD 18/09/19 Inst : Loki  
 Misc : IS&S 8/30/18,8/23/18 Multiplr: 1.00

Quant Time: Sep 20 8:31 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	687305	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	935573	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	911358	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	15527206m	271.771	ppb	100

Quantitation Report

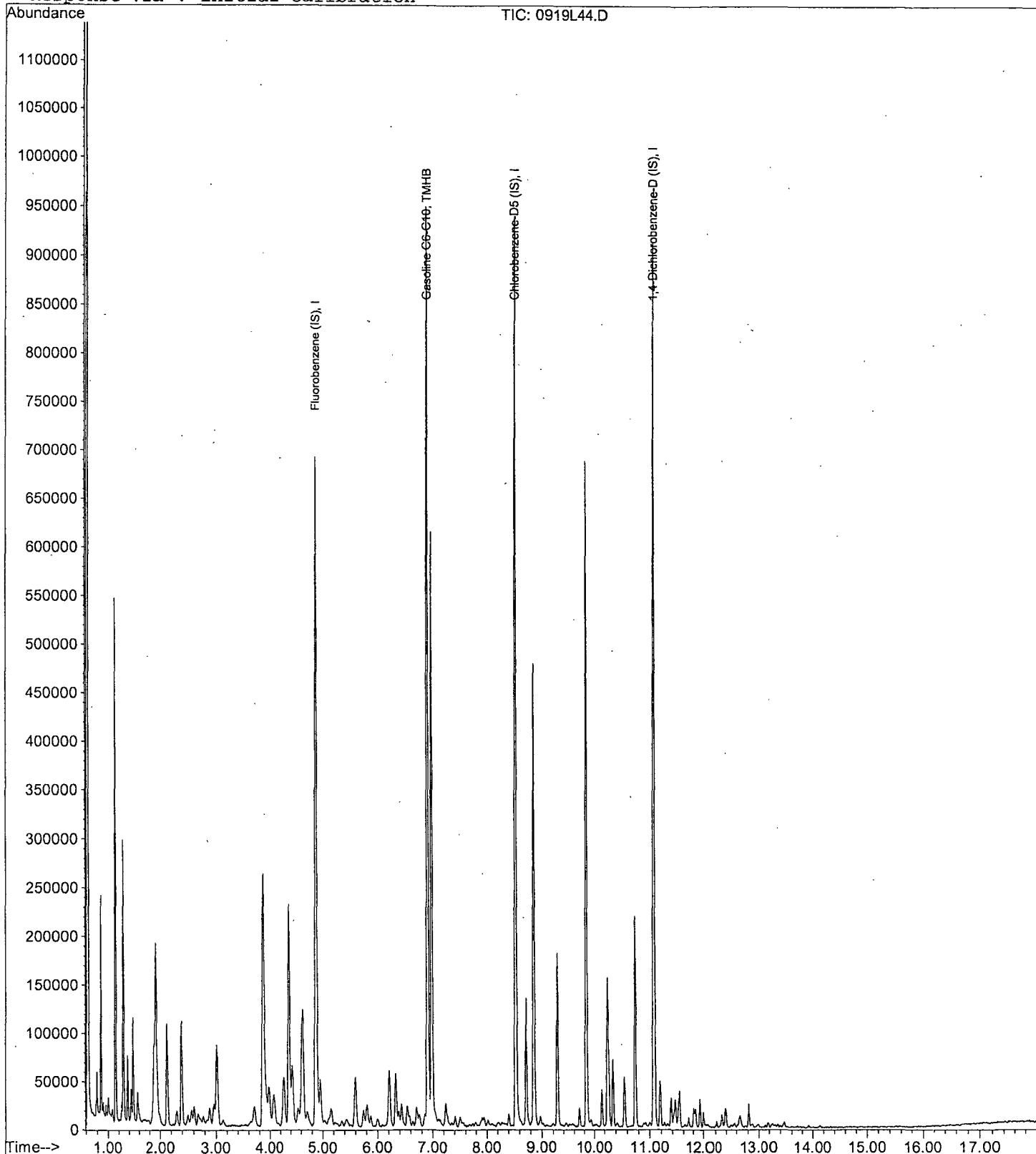
Data File : M:\LOKI\DATA\180915\0919L44.D  
Acq On : 20 Sep 18 2:29  
Sample : (SS)300ug/L VOC GAS STD 18/09/19  
Misc : IS&S 8/30/18,8/23/18

Vial: 43  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Sep 20 8:31 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\180915\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/25/18

Matrix: \_\_\_\_\_

Instrument: Loki

Initial Cal. Date: 09/19/18

Data File: 1025L16.D

	Compound	MEAN	CCRF	%D	%Drift
1	Fluorobenzene (IS)	ISTD			
2	TMHB Gasoline C6-C10	4.614	1.964	57	TMHBL 1.6
3	Chlorobenzene-D5 (IS)	ISTD			
4	1,4-Dichlorobenzene-D (IS)	ISTD			
5					
6					
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36					
37					
38					
39					
40					

Average

57.0

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/25/18

Matrix: \_\_\_\_\_

Instrument: Loki

Initial Cal. Date: 10/23/18

Data File: 1025L16.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	SL	Dibromofluoromethane(S)	0.7811	0.7438	4.8	SL	8.9
3	SL	1,2-DCA-D4(S)	0.8407	0.7865	6.4	SL	10
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	SL	Toluene-D8(S)	2.423	2.270	6.3	SL	1.7
6	SL	4-Bromofluorobenzene(S)	0.9063	0.8363	7.7	SL	1.5
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
8							
9							
10							
11							
12							
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38							
39							
40							

Average

6.3

Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\181023\1025L16.D  
 Acq On : 25 Oct 18 15:00  
 Sample : 181025A CCV 300ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 13  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:06 2018

Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	450442	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	708123	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	839811	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	10613760m	295.1987	ppb	100

Data File : M:\LOKI\DATA\181023\1025L16.D  
 Acq On : 25 Oct 18 15:00  
 Sample : 181025A CCV 300ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 13  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:19 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:43:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	216640	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	246592	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	153536	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.87	111	161134	27.2334	ppb	0.00
Spiked Amount	25.000					
					Recovery = 108.932%	
3) 1,2-DCA-D4(S)	4.36	65	170393	27.6100	ppb	0.00
Spiked Amount	25.000					
					Recovery = 110.440%	
5) Toluene-D8(S)	6.91	98	559859	25.4215	ppb	0.00
Spiked Amount	25.000					
					Recovery = 101.684%	
6) 4-Bromofluorobenzene(S)	9.84	95	206229	25.3660	ppb	0.00
Spiked Amount	25.000					
					Recovery = 101.464%	

Target Compounds

Qvalue



Quantitation Report

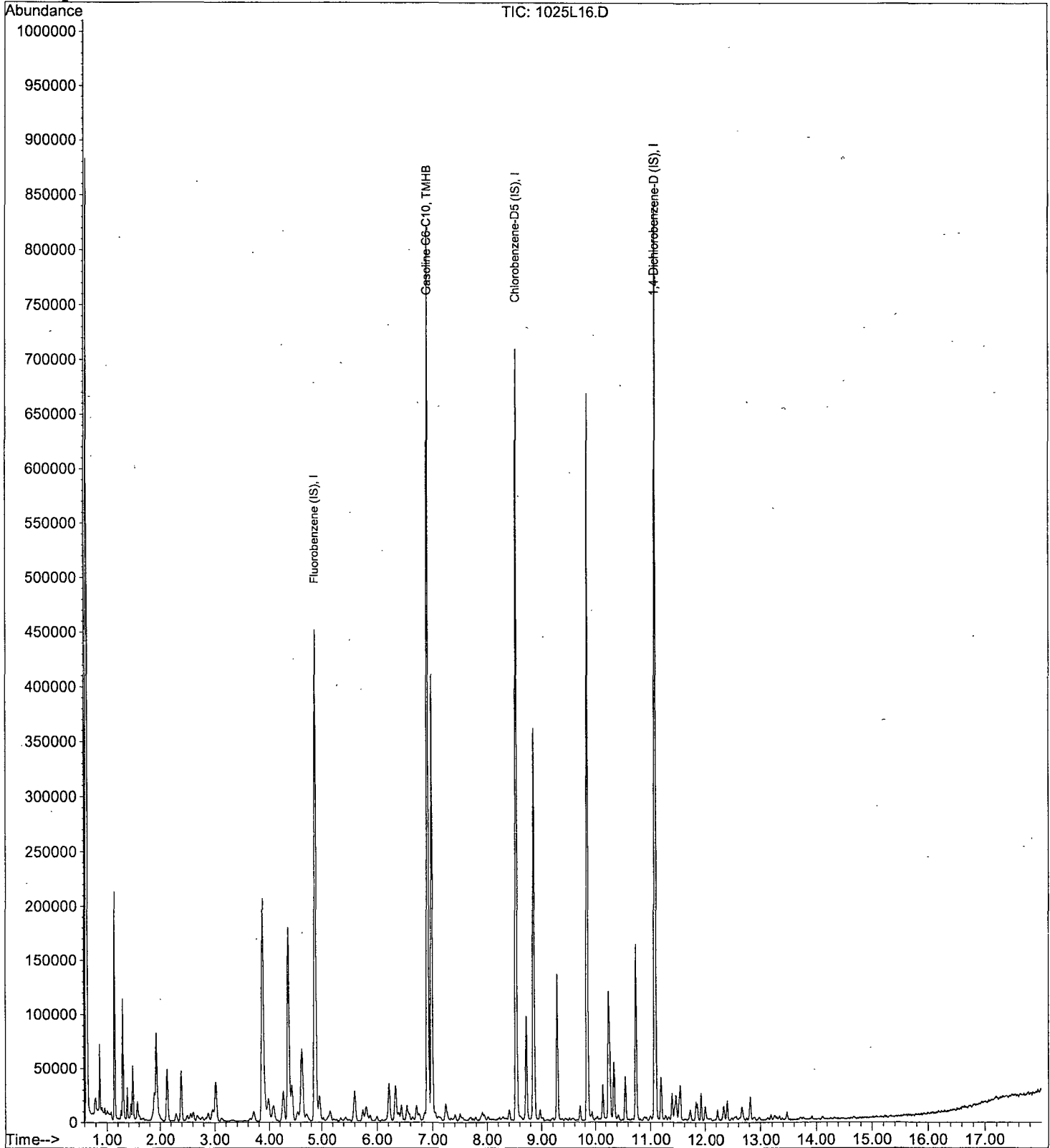
Data File : M:\LOKI\DATA\181023\1025L16.D  
Acq On : 25 Oct 18 15:00  
Sample : 181025A CCV 300ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 13  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 7:06 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/25/18

Matrix: \_\_\_\_\_

Instrument: Loki

Initial Cal. Date: 09/19/18

Data File: 1025L31.D

		Compound	MEAN	CCRF	%D	%Drift
1		Fluorobenzene (IS)	ISTD			
2	TMHB	Gasoline C6-C10	4.614	1.885	59	TMHBL 9.2
3		Chlorobenzene-D5 (IS)	ISTD			
4		1,4-Dichlorobenzene-D (IS)	ISTD			
5						
6						
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35						
36						
37						
38						
39						
40						

Average

59.0

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Loki  
Initial Cal. Date: 10/23/18  
Data File: 1025L31.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	SL	Dibromofluoromethane(S)	0.7811	0.7261	7.0	SL	6.0
3	SL	1,2-DCA-D4(S)	0.8407	0.7695	8.5	SL	8.0
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	SL	Toluene-D8(S)	2.423	2.202	9.1	SL	1.7
6	SL	4-Bromofluorobenzene(S)	0.9063	0.8403	7.3	SL	2.0
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
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39							
40		Average			8.0		

Data File : M:\LOKI\DATA\181023\1025L31.D Vial: 28  
 Acq On : 25 Oct 18 22:00 Operator: PM, DG, SV, CMM, KV  
 Sample : Ending CCV 300ug/L 10/25/18 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 26 7:14 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	478878	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	738587	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	857011	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	10832681m	272.4832	ppb	100

Data File : M:\LOKI\DATA\181023\1025L31.D  
 Acq On : 25 Oct 18 22:00  
 Sample : Ending CCV 300ug/L 10/25/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 28  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:19 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:43:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	230144	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	260992	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	155264	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	167108	26.5083	ppb	0.00
Spiked Amount 25.000						
					Recovery = 106.032%	
3) 1,2-DCA-D4(S)	4.36	65	177096	27.0123	ppb	0.00
Spiked Amount 25.000						
					Recovery = 108.048%	
5) Toluene-D8(S)	6.91	98	574676	24.5870	ppb	0.00
Spiked Amount 25.000						
					Recovery = 98.348%	
6) 4-Bromofluorobenzene(S)	9.84	95	219323	25.4882	ppb	0.00
Spiked Amount 25.000						
					Recovery = 101.952%	

Target Compounds Qvalue

Quantitation Report

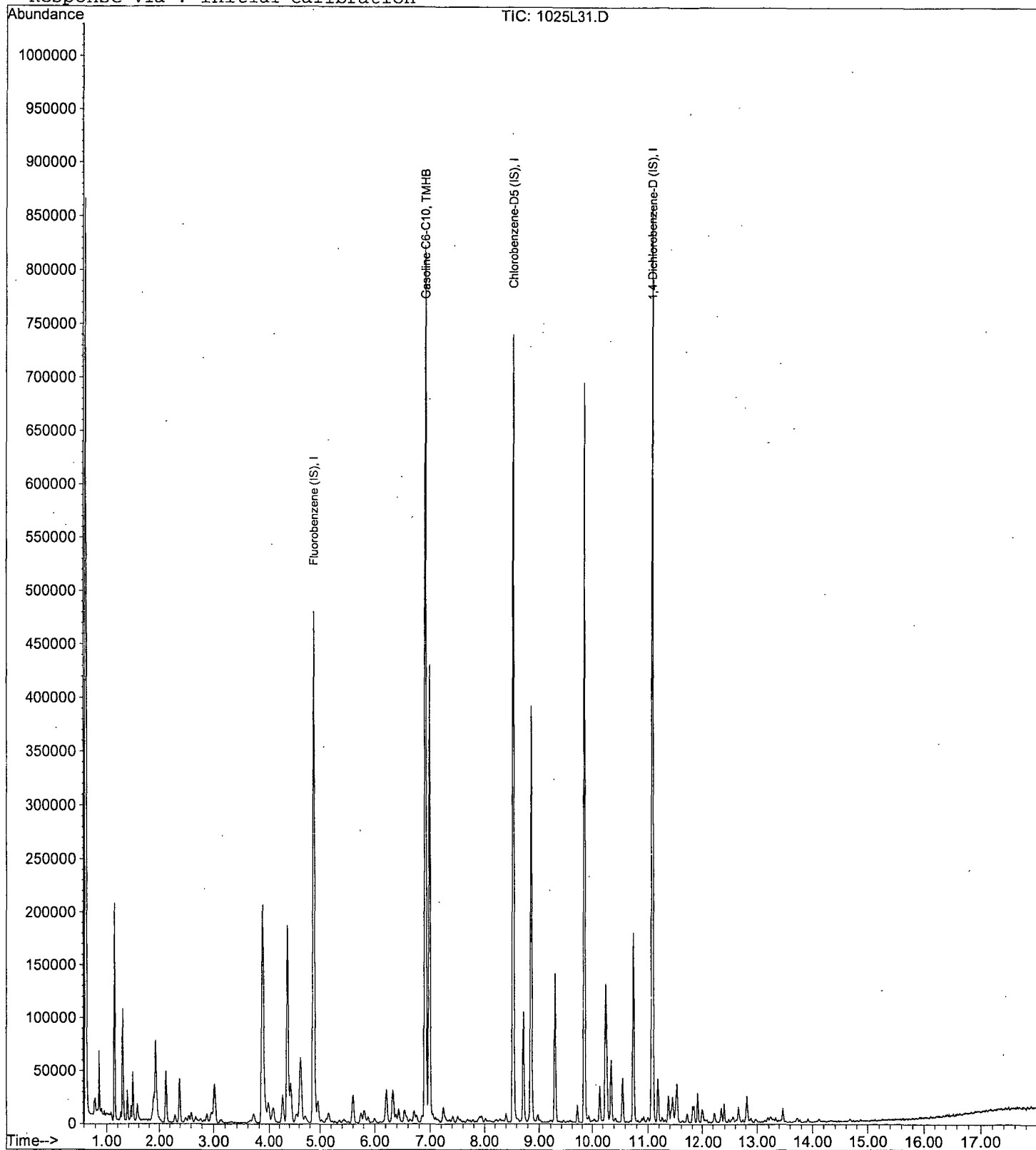
Data File : M:\LOKI\DATA\181023\1025L31.D  
Acq On : 25 Oct 18 22:00  
Sample : Ending CCV 300ug/L 10/25/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 28  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 7:14 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



**ORGANICS**

**Raw Data**

**APPL, INC.**

Data File : M:\LOKI\DATA\181023\1025L25.D  
 Acq On : 25 Oct 18 19:12  
 Sample : AZ81636W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 22  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:12 2018

Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	431417	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	660262	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	725288	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds

Qvalue



Data File : M:\LOKI\DATA\181023\1025L25.D  
 Acq On : 25 Oct 18 19:12  
 Sample : AZ81636W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 22  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:19 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:43:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	206912	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	234432	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	135168	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	155370	27.5250	ppb	0.00
Spiked Amount 25.000						
					Recovery = 110.100%	
3) 1,2-DCA-D4(S)	4.37	65	165428	28.0657	ppb	0.00
Spiked Amount 25.000						
					Recovery = 112.264%	
5) Toluene-D8(S)	6.91	98	508032	24.1629	ppb	0.00
Spiked Amount 25.000						
					Recovery = 96.652%	
6) 4-Bromofluorobenzene(S)	9.84	95	181617	23.4975	ppb	0.00
Spiked Amount 25.000						
					Recovery = 93.988%	

Target Compounds Qvalue

Quantitation Report

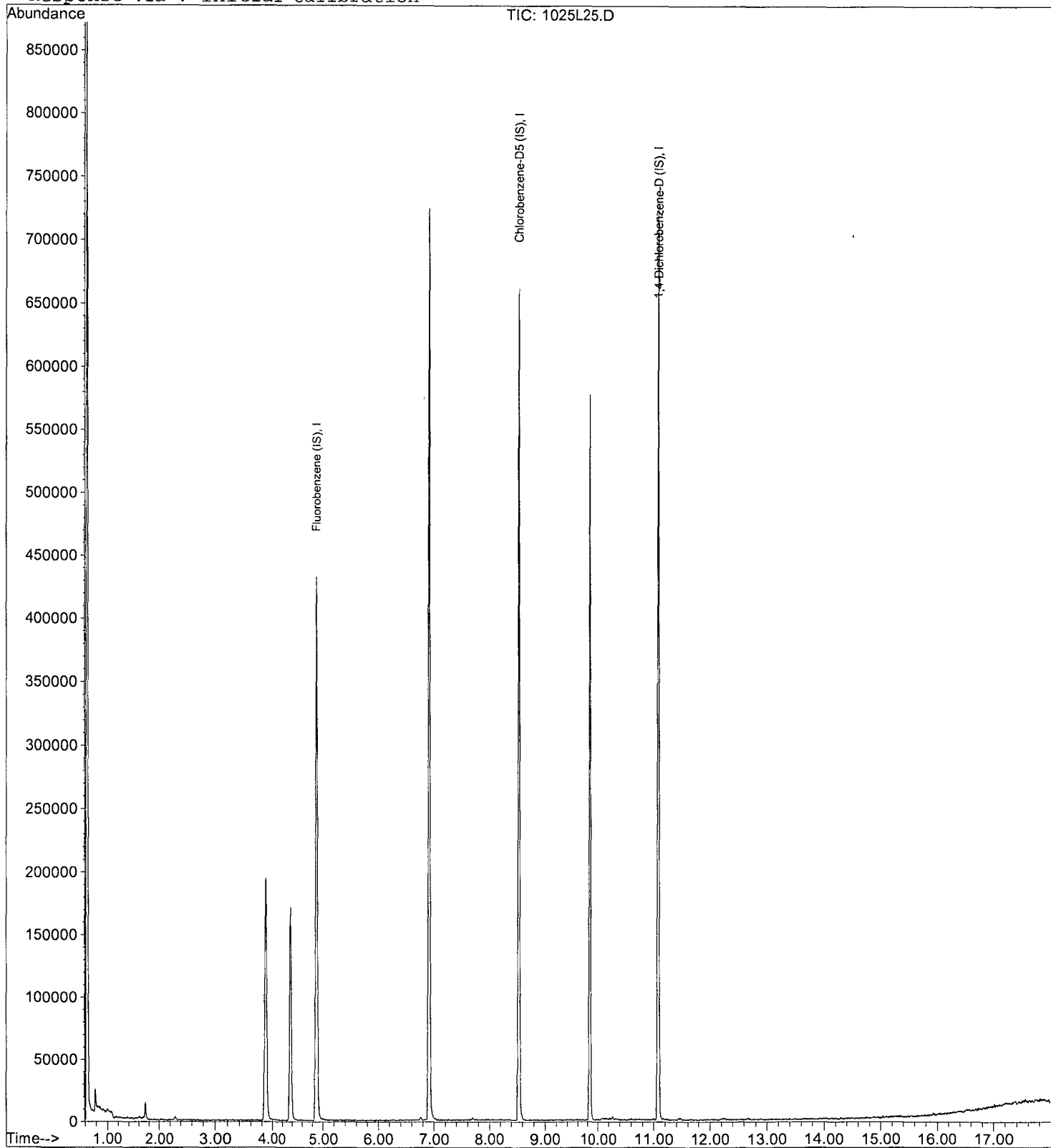
Data File : M:\LOKI\DATA\181023\1025L25.D  
Acq On : 25 Oct 18 19:12  
Sample : AZ81636W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 22  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 7:12 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1025L21.D Vial: 18  
 Acq On : 25 Oct 18 17:20 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81637W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 26 7:12 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	451927	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	689277	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	771496	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181023\1025L21.D Vial: 18  
 Acq On : 25 Oct 18 17:20 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81637W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 26 7:19 2018 Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:43:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	218560	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	242368	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	142208	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	163206	27.3542	ppb	0.00
Spiked Amount 25.000						
					Recovery = 109.416%	
3) 1,2-DCA-D4(S)	4.36	65	174464	28.0213	ppb	0.00
Spiked Amount 25.000						
					Recovery = 112.084%	
5) Toluene-D8(S)	6.91	98	541236	24.9674	ppb	0.00
Spiked Amount 25.000						
					Recovery = 99.868%	
6) 4-Bromofluorobenzene(S)	9.84	95	195789	24.5016	ppb	0.00
Spiked Amount 25.000						
					Recovery = 98.008%	

Target Compounds Qvalue

Quantitation Report

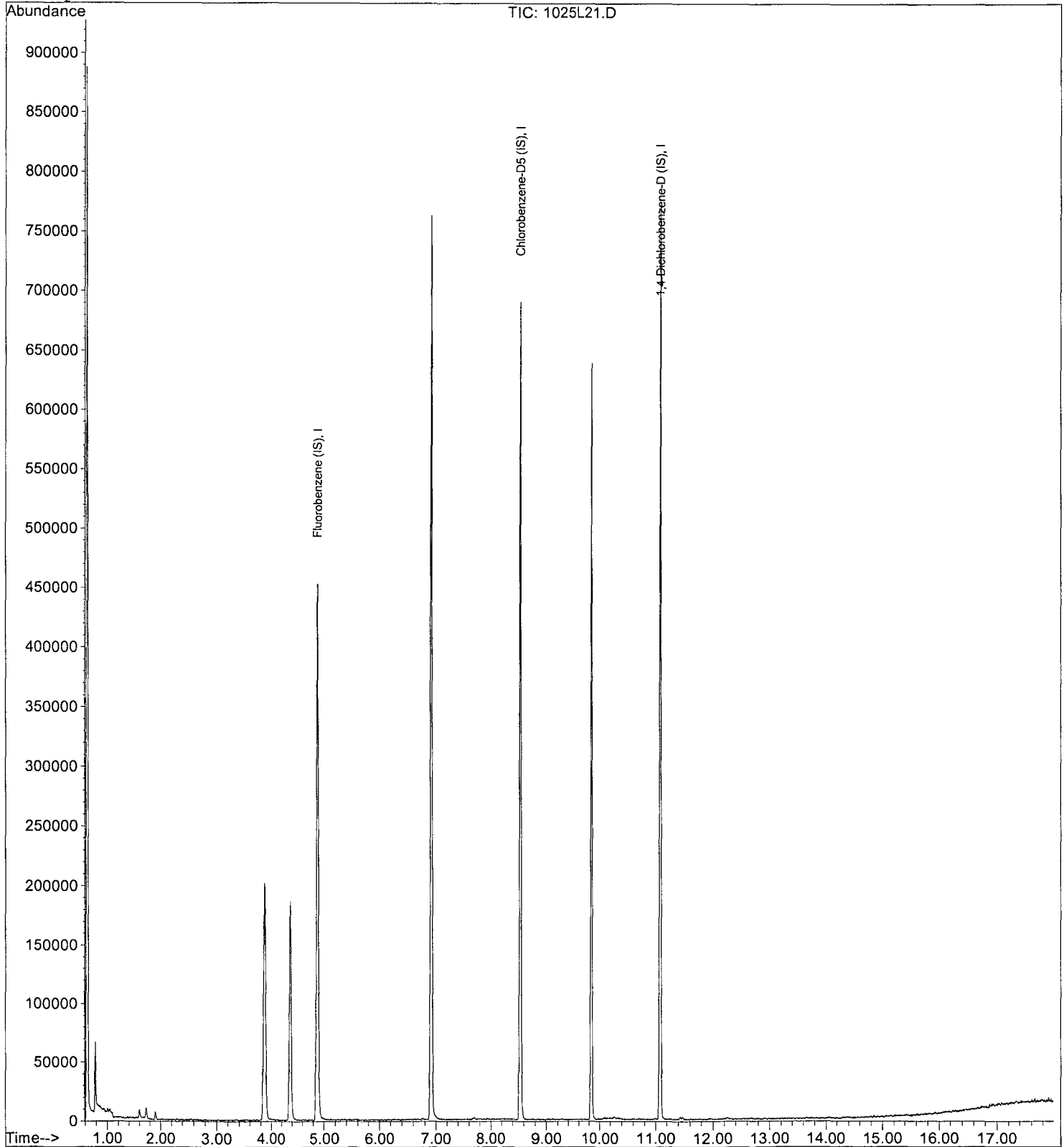
Data File : M:\LOKI\DATA\181023\1025L21.D  
Acq On : 25 Oct 18 17:20  
Sample : AZ81637W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 18  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 7:12 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1025L26.D  
 Acq On : 25 Oct 18 19:40  
 Sample : AZ81638W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 23  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:13 2018

Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	426110	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	671344	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	838760	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	6448328m	91.9238	ppb	100

Data File : M:\LOKI\DATA\181023\1025L26.D  
 Acq On : 25 Oct 18 19:40  
 Sample : AZ81638W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 23  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:19 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:43:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	204928	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	238272	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	154560	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	153223	27.3935	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	109.572%
3) 1,2-DCA-D4(S)	4.37	65	165000	28.2641	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	113.056%
5) Toluene-D8(S)	6.91	98	511764	23.9282	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	95.712%
6) 4-Bromofluorobenzene(S)	9.84	95	197652	25.1599	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	100.640%

Target Compounds Qvalue

Quantitation Report

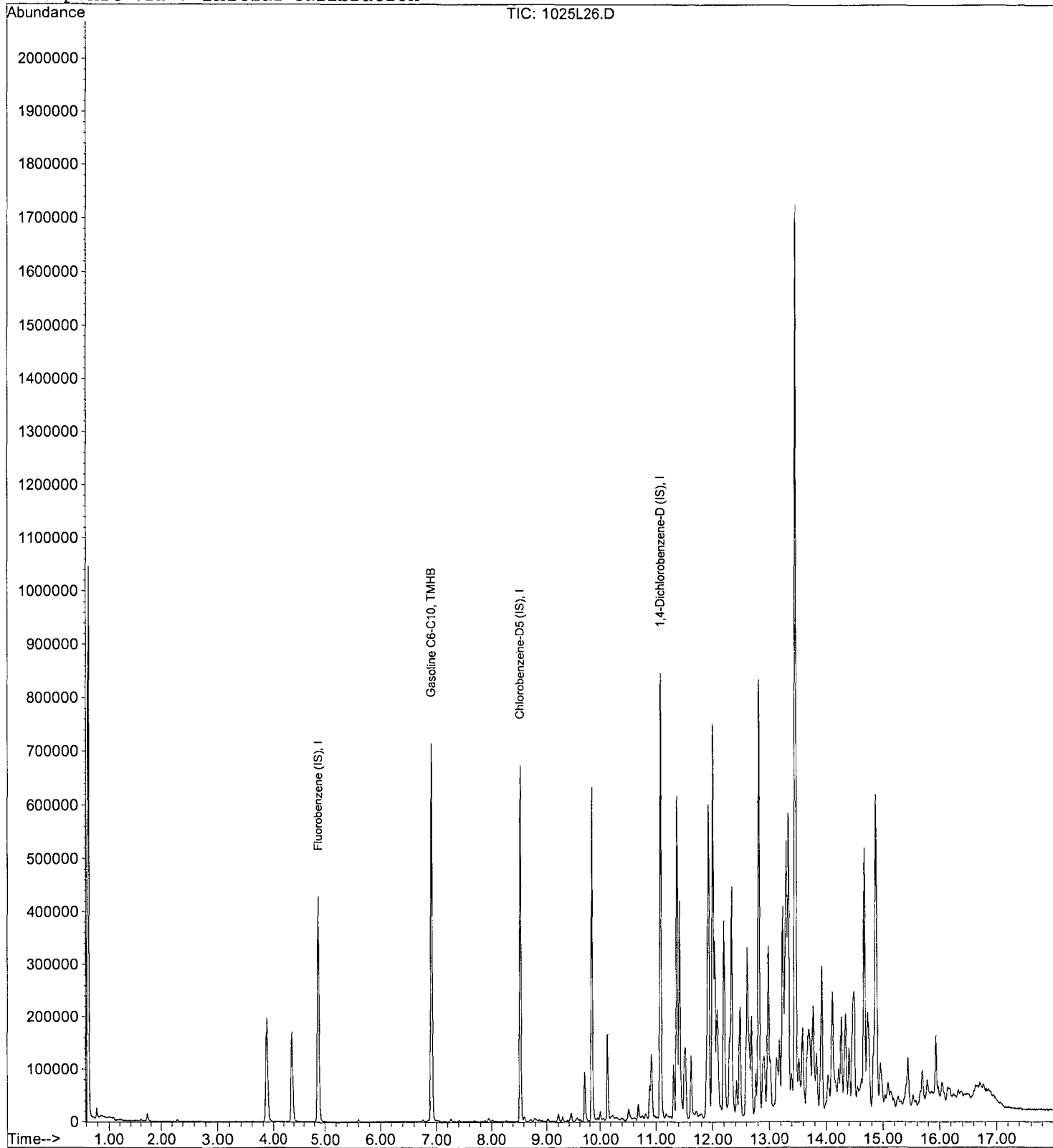
Data File : M:\LOKI\DATA\181023\1025L26.D  
Acq On : 25 Oct 18 19:40  
Sample : AZ81638W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 23  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 7:13 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181023\1025L22.D  
 Acq On : 25 Oct 18 17:48  
 Sample : AZ81639W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 19  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:12 2018

Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	436814	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	668886	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	738414	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds

Qvalue

Data File : M:\LOKI\DATA\181023\1025L22.D  
 Acq On : 25 Oct 18 17:48  
 Sample : AZ81639W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 19  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:19 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:43:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	211904	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	235008	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	136576	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	158040	27.3163	ppb	0.00
Spiked Amount 25.000					Recovery = 109.264%	
3) 1,2-DCA-D4(S)	4.37	65	168342	27.8873	ppb	0.00
Spiked Amount 25.000					Recovery = 111.548%	
5) Toluene-D8(S)	6.91	98	525321	24.9944	ppb	0.00
Spiked Amount 25.000					Recovery = 99.976%	
6) 4-Bromofluorobenzene(S)	9.84	95	190048	24.5280	ppb	0.00
Spiked Amount 25.000					Recovery = 98.112%	

Target Compounds Qvalue

Quantitation Report

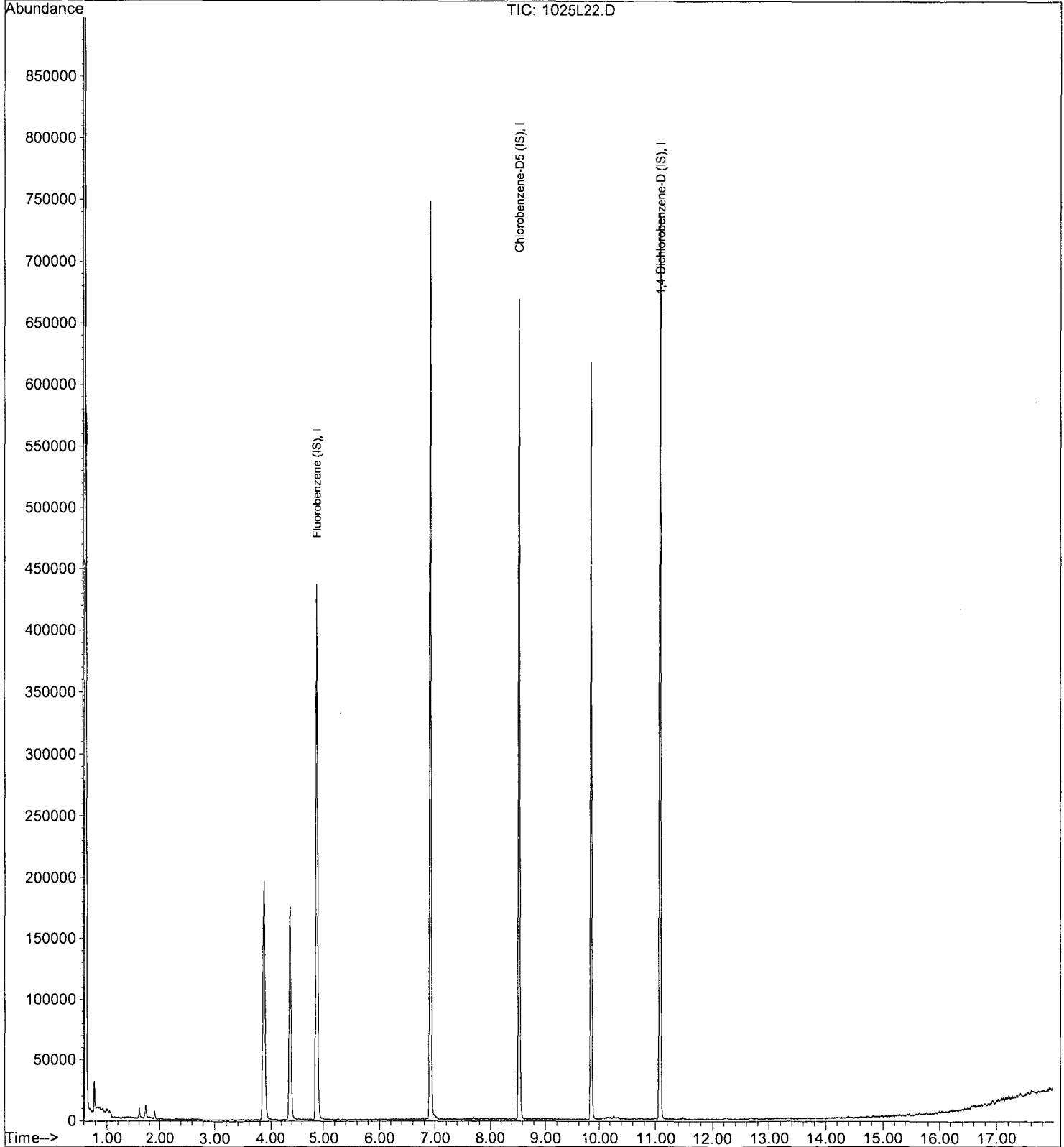
Data File : M:\LOKI\DATA\181023\1025L22.D  
Acq On : 25 Oct 18 17:48  
Sample : AZ81639W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 19  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 7:12 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1025L27.D  
 Acq On : 25 Oct 18 20:08  
 Sample : AZ81640W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 24  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:13 2018

Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	489247	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	740166	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	913009	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	7184398m	81.1111	ppb	100

Data File : M:\LOKI\DATA\181023\1025L27.D  
 Acq On : 25 Oct 18 20:08  
 Sample : AZ81640W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 24  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:19 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:43:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	237312	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	262976	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	169280	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	170105	26.1269	ppb	0.00
Spiked Amount 25.000						
					Recovery = 104.508%	
3) 1,2-DCA-D4(S)	4.36	65	177336	26.2319	ppb	0.00
Spiked Amount 25.000						
					Recovery = 104.928%	
5) Toluene-D8(S)	6.91	98	561412	23.7702	ppb	0.00
Spiked Amount 25.000						
					Recovery = 95.080%	
6) 4-Bromofluorobenzene(S)	9.84	95	220107	25.3863	ppb	0.00
Spiked Amount 25.000						
					Recovery = 101.544%	

Target Compounds Qvalue

Quantitation Report

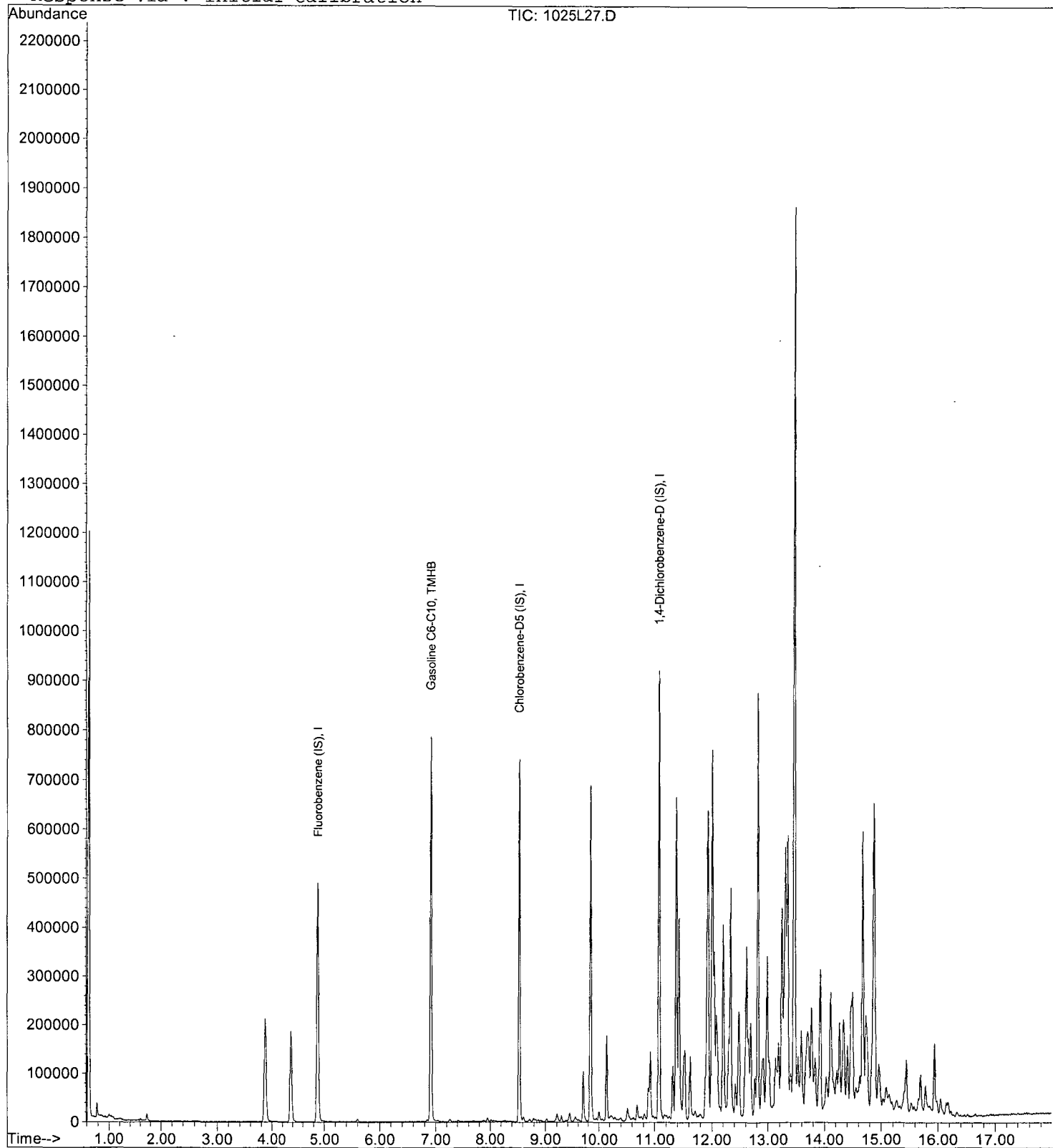
Data File : M:\LOKI\DATA\181023\1025L27.D  
Acq On : 25 Oct 18 20:08  
Sample : AZ81640W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 24  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 7:13 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1025L24.D  
 Acq On : 25 Oct 18 18:44  
 Sample : AZ81641W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 21  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:12 2018

Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	432126	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.53	TIC	668791	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	693283	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds

Qvalue

Data File : M:\LOKI\DATA\181023\1025L24.D Vial: 21  
 Acq On : 25 Oct 18 18:44 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81641W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 26 7:19 2018 Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:43:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	207488	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.53	117	235904	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	127008	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.88	111	165581	29.4572	ppb	0.00
Spiked Amount 25.000						
					Recovery = 117.828%	
3) 1,2-DCA-D4(S)	4.37	65	174885	29.5878	ppb	0.00
Spiked Amount 25.000						
					Recovery = 118.352%	
5) Toluene-D8(S)	6.91	98	541376	25.7201	ppb	0.00
Spiked Amount 25.000						
					Recovery = 102.880%	
6) 4-Bromofluorobenzene(S)	9.84	95	194443	24.9999	ppb	0.00
Spiked Amount 25.000						
					Recovery = 100.000%	

Target Compounds Qvalue



Quantitation Report

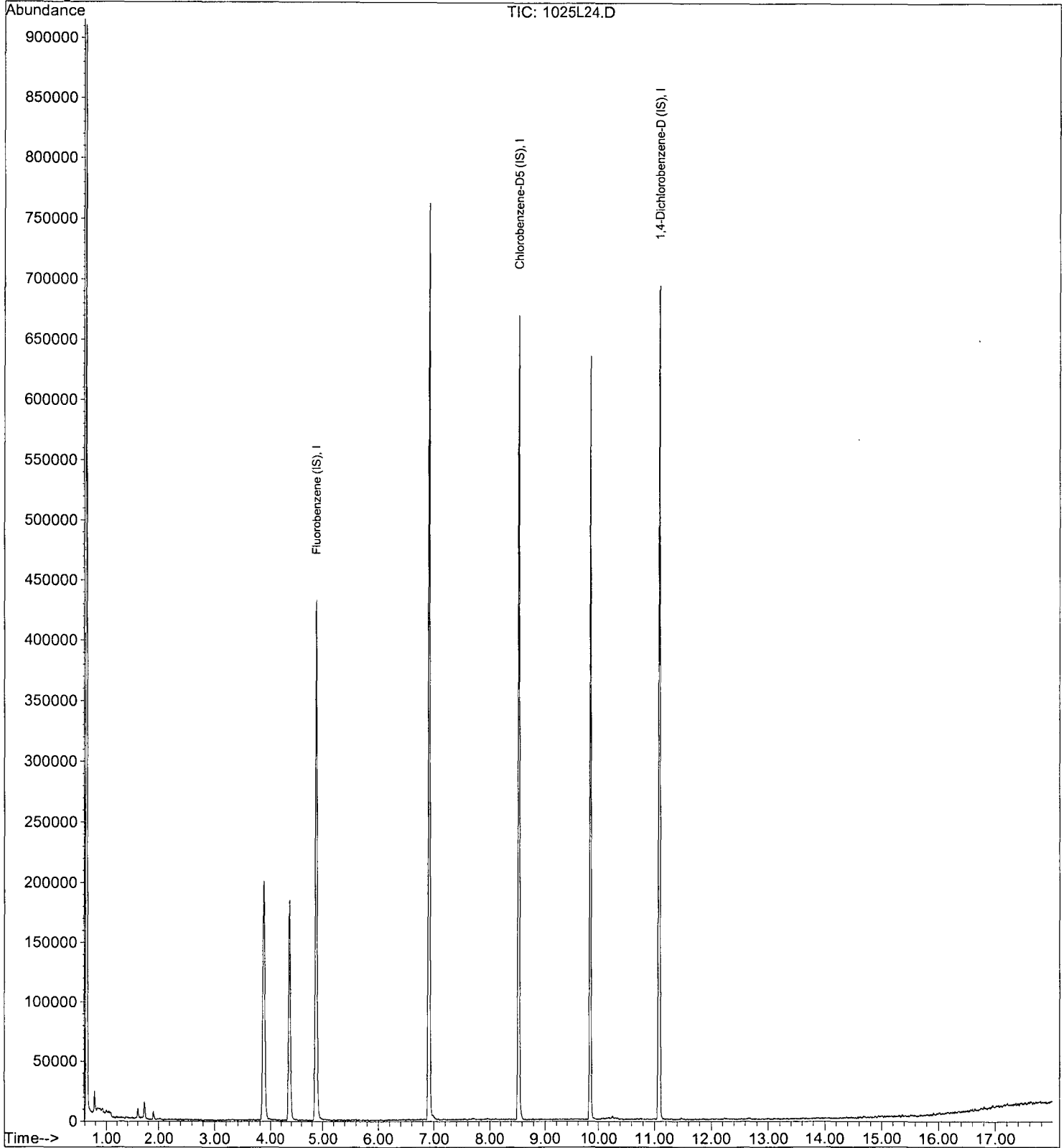
Data File : M:\LOKI\DATA\181023\1025L24.D  
Acq On : 25 Oct 18 18:44  
Sample : AZ81641W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 21  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 7:12 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1025L28.D Vial: 25  
 Acq On : 25 Oct 18 20:36 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81642W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 26 7:14 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	491242	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	753687	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	807562	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181023\1025L28.D  
 Acq On : 25 Oct 18 20:36  
 Sample : AZ81642W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 25  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:19 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:43:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	239424	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	268288	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	149504	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.88	111	175397	26.7739	ppb	0.00
Spiked Amount				25.000		
					Recovery =	107.096%
3) 1,2-DCA-D4(S)	4.36	65	181291	26.5804	ppb	0.00
Spiked Amount				25.000		
					Recovery =	106.320%
5) Toluene-D8(S)	6.91	98	594735	24.7684	ppb	0.00
Spiked Amount				25.000		
					Recovery =	99.072%
6) 4-Bromofluorobenzene(S)	9.84	95	213255	24.1090	ppb	0.00
Spiked Amount				25.000		
					Recovery =	96.436%

Target Compounds Qvalue

Quantitation Report

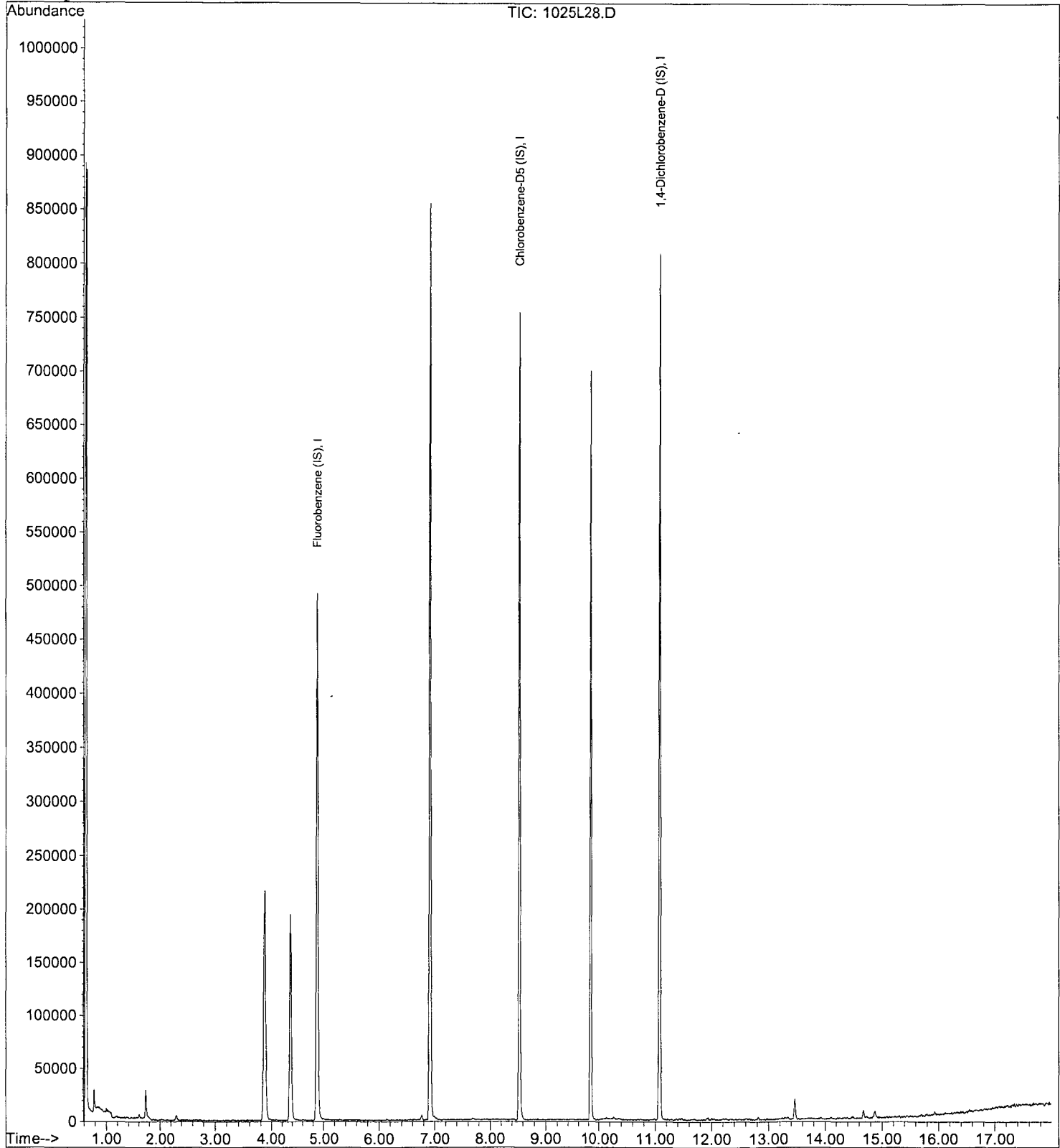
Data File : M:\LOKI\DATA\181023\1025L28.D  
Acq On : 25 Oct 18 20:36  
Sample : AZ81642W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 25  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 7:14 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1025L23.D  
 Acq On : 25 Oct 18 18:16  
 Sample : AZ81643W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 20  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:12 2018

Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	433408	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	680968	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	717364	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181023\1025L23.D  
 Acq On : 25 Oct 18 18:16  
 Sample : AZ81643W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 20  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:19 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:43:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	207936	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	237888	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	132672	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	158293	27.9497	ppb	0.00
Spiked Amount 25.000						
					Recovery = 111.800%	
3) 1,2-DCA-D4(S)	4.37	65	167252	28.2354	ppb	0.00
Spiked Amount 25.000						
					Recovery = 112.940%	
5) Toluene-D8(S)	6.91	98	526038	24.7014	ppb	0.00
Spiked Amount 25.000						
					Recovery = 98.804%	
6) 4-Bromofluorobenzene(S)	9.84	95	186997	23.8420	ppb	0.00
Spiked Amount 25.000						
					Recovery = 95.368%	

Target Compounds Qvalue

Quantitation Report

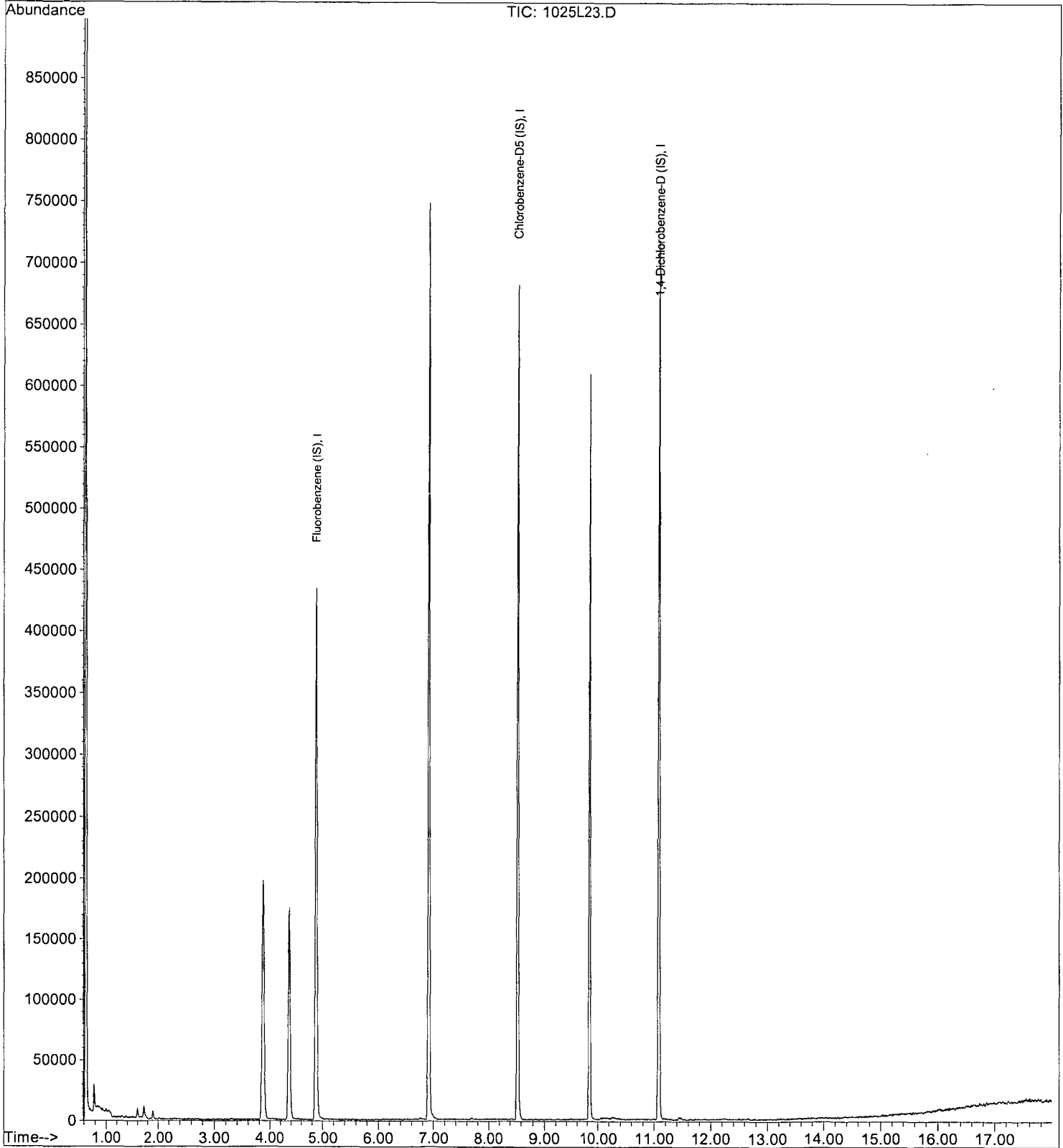
Data File : M:\LOKI\DATA\181023\1025L23.D  
Acq On : 25 Oct 18 18:16  
Sample : AZ81643W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 20  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 7:12 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1025L29.D  
 Acq On : 25 Oct 18 21:04  
 Sample : AZ81644W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 26  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:14 2018

Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	462398	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	706705	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	765806	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue



Data File : M:\LOKI\DATA\181023\1025L29.D  
 Acq On : 25 Oct 18 21:04  
 Sample : AZ81644W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 26  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:19 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:43:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	224640	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	250176	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	136384	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.87	111	166336	27.0968	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	108.388%
3) 1,2-DCA-D4(S)	4.37	65	177761	27.7781	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	111.112%
5) Toluene-D8(S)	6.91	98	557330	24.9021	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	99.608%
6) 4-Bromofluorobenzene(S)	9.84	95	196923	23.8744	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	95.496%

Target Compounds Qvalue

Quantitation Report

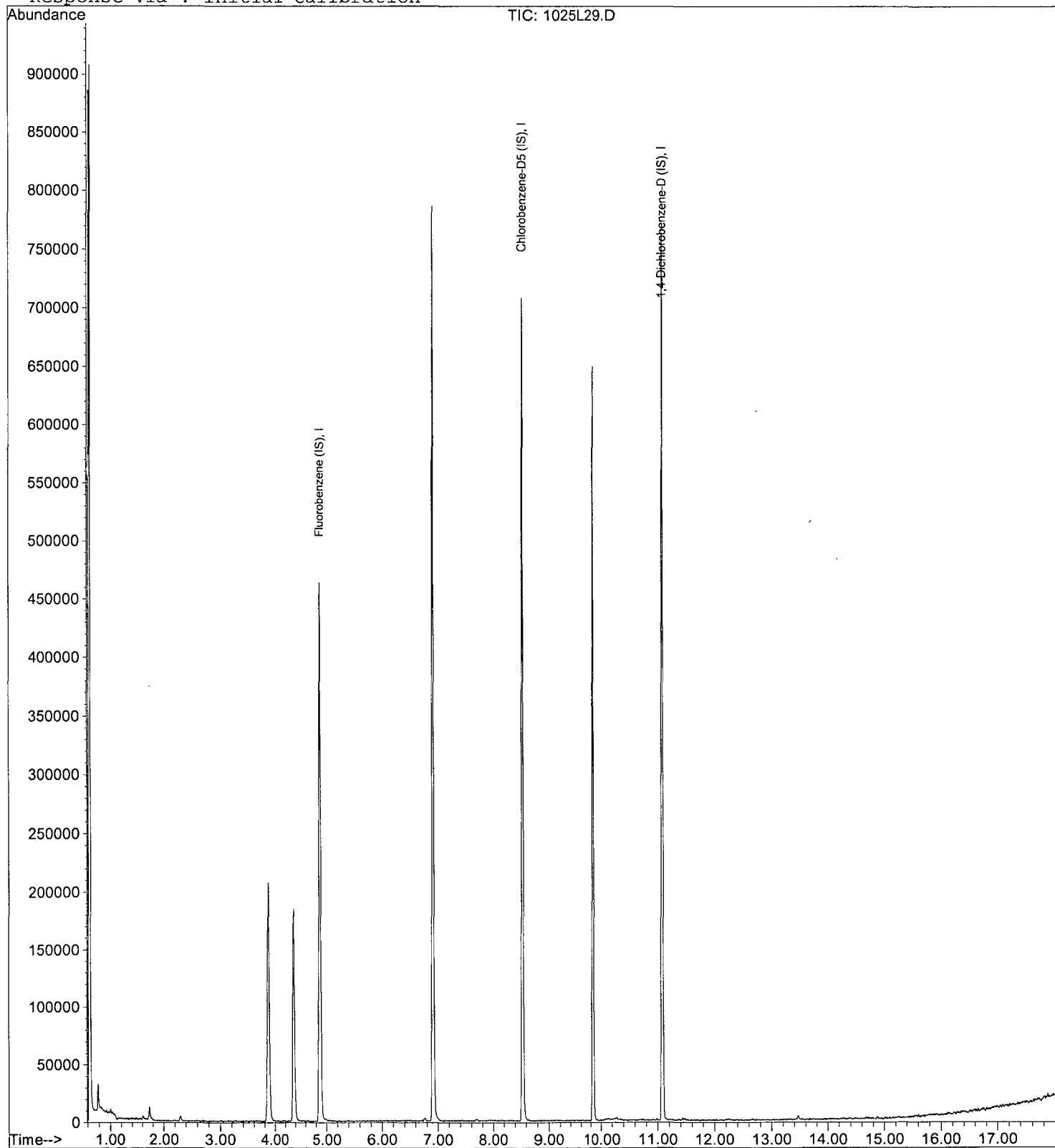
Data File : M:\LOKI\DATA\181023\1025L29.D  
Acq On : 25 Oct 18 21:04  
Sample : AZ81644W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 26  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 7:14 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1025L20.D  
 Acq On : 25 Oct 18 16:52  
 Sample : 181025A Blk  
 Misc : IS&S 9/28/18,8/23/18

Vial: 17  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:11 2018

Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	448397	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	688011	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	739951	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181023\1025L20.D  
 Acq On : 25 Oct 18 16:52  
 Sample : 181025A Blk  
 Misc : IS&S 9/28/18,8/23/18

Vial: 17  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:19 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:43:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	213184	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	242368	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	138624	25.0000	ppb	0.00
<b>System Monitoring Compounds</b>						
2) Dibromofluoromethane(S)	3.87	111	165975	28.6587	ppb	0.00
Spiked Amount	25.000		Recovery	=	114.636%	
3) 1,2-DCA-D4(S)	4.37	65	174450	28.7256	ppb	0.00
Spiked Amount	25.000		Recovery	=	114.904%	
5) Toluene-D8(S)	6.91	98	553468	25.5823	ppb	0.00
Spiked Amount	25.000		Recovery	=	102.328%	
6) 4-Bromofluorobenzene(S)	9.84	95	198000	24.7783	ppb	0.00
Spiked Amount	25.000		Recovery	=	99.112%	

Target Compounds

Qvalue

Quantitation Report

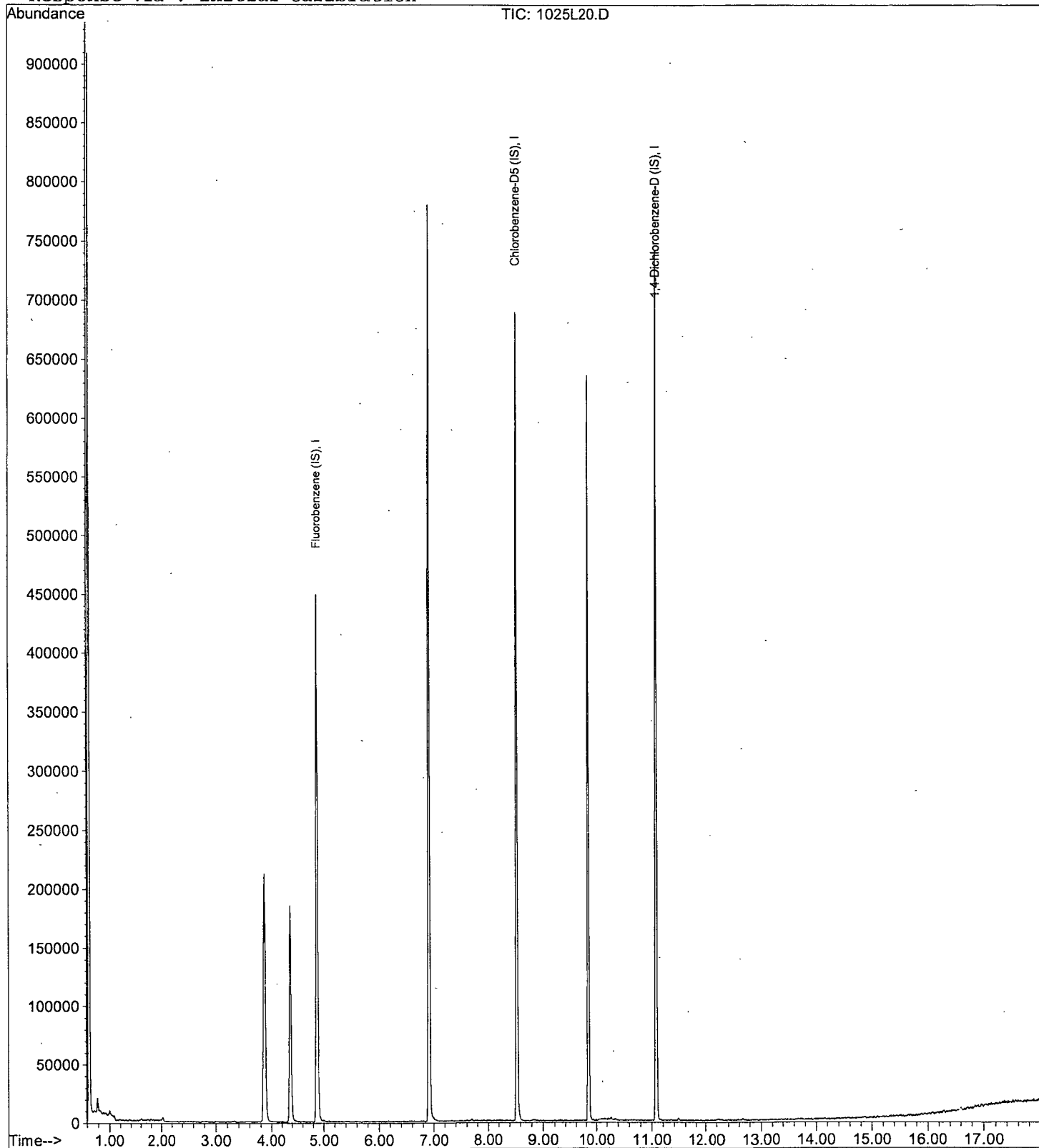
Data File : M:\LOKI\DATA\181023\1025L20.D  
Acq On : 25 Oct 18 16:52  
Sample : 181025A Blk  
Misc : IS&S 9/28/18,8/23/18

Vial: 17  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 7:11 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018.  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181023\1025L17.D Vial: 14  
 Acq On : 25 Oct 18 15:28 Operator: PM,DG,SV,CMM,KV  
 Sample : 181025A LCS 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 26 7:10 2018 Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	459489	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	712681	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	816266	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	10869544m	297.4348	ppb	100

Data File : M:\LOKI\DATA\181023\1025L17.D  
 Acq On : 25 Oct 18 15:28  
 Sample : 181025A LCS 300ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 14  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:19 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:43:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	221440	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	250304	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	149312	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.87	111	164221	27.1439	ppb	0.00
Spiked Amount	25.000					
					Recovery = 108.576%	
3) 1,2-DCA-D4(S)	4.36	65	176805	28.0279	ppb	0.00
Spiked Amount	25.000					
					Recovery = 112.112%	
5) Toluene-D8(S)	6.91	98	579585	25.9714	ppb	0.00
Spiked Amount	25.000					
					Recovery = 103.884%	
6) 4-Bromofluorobenzene(S)	9.84	95	213283	25.8446	ppb	0.00
Spiked Amount	25.000					
					Recovery = 103.380%	

Target Compounds Qvalue

Quantitation Report

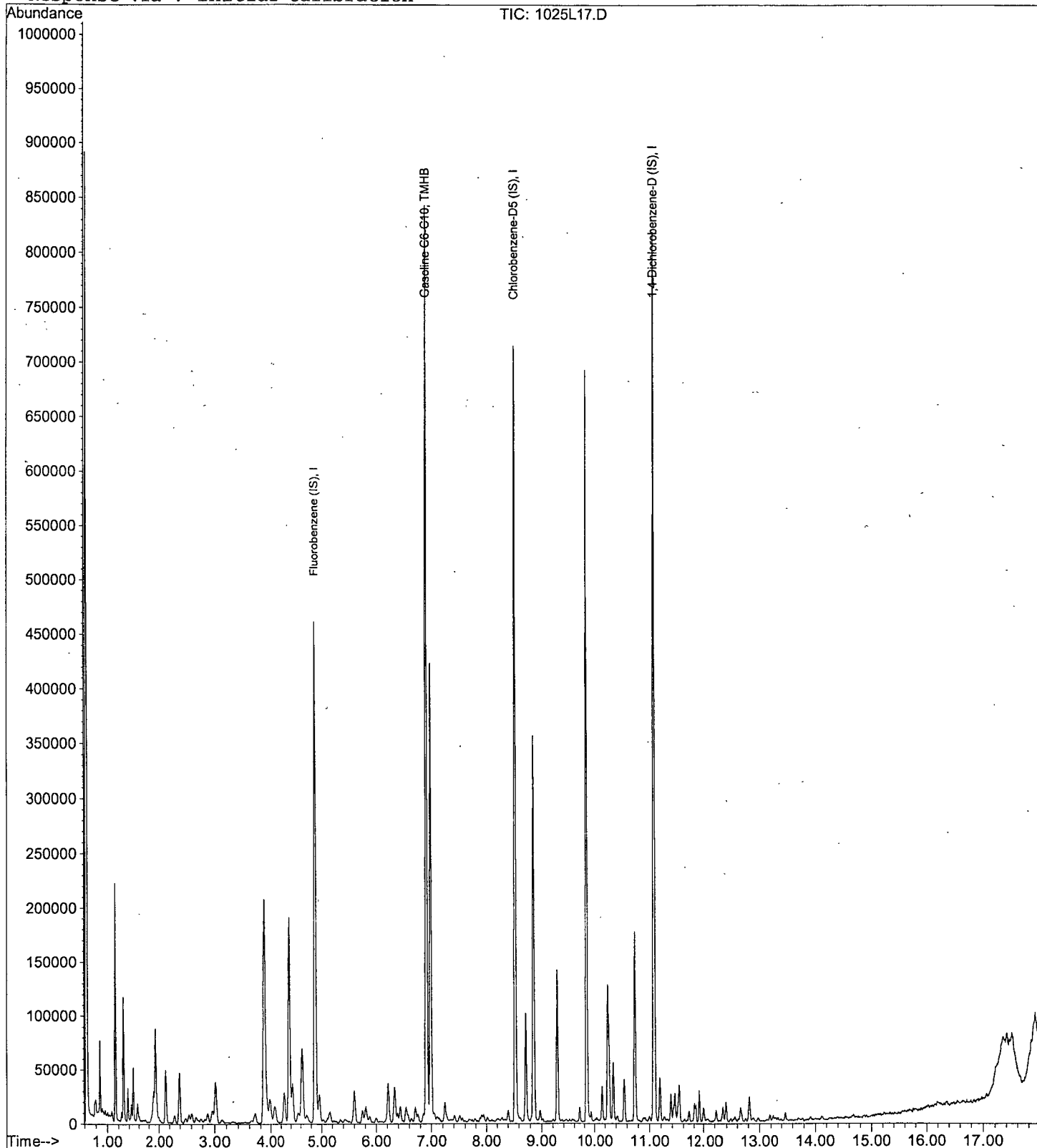
Data File : M:\LOKI\DATA\181023\1025L17.D  
Acq On : 25 Oct 18 15:28  
Sample : 181025A LCS 300ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 14  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 7:10 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181023\1025L18.D  
 Acq On : 25 Oct 18 15:56  
 Sample : 181025A LCSD 300ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 15  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:11 2018

Quant Results File: LGAS915.RES

Quant Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Sep 20 08:28:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	TIC	461397	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.54	TIC	714214	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.08	TIC	808027	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.91	TIC	10936868m	298.5944	ppb	100

Data File : M:\LOKI\DATA\181023\1025L18.D  
 Acq On : 25 Oct 18 15:56  
 Sample : 181025A LCSD 300ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 15  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 26 7:19 2018

Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\181023\LSUR1023.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Thu Oct 25 09:43:23 2018  
 Response via : Initial Calibration  
 DataAcq Meth : 8260\_BETA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.88	96	220928	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.54	117	250432	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.08	152	149504	25.0000	ppb	0.00

System Monitoring Compounds

2) Dibromofluoromethane(S)	3.87	111	156552	25.7912	ppb	0.00
Spiked Amount				25.000		
			Recovery	= 103.164%		
3) 1,2-DCA-D4(S)	4.36	65	163595	25.9939	ppb	0.00
Spiked Amount				25.000		
			Recovery	= 103.976%		
5) Toluene-D8(S)	6.91	98	550081	24.5217	ppb	0.00
Spiked Amount				25.000		
			Recovery	= 98.088%		
6) 4-Bromofluorobenzene(S)	9.84	95	202830	24.5654	ppb	0.00
Spiked Amount				25.000		
			Recovery	= 98.260%		

Target Compounds

Qvalue

Quantitation Report

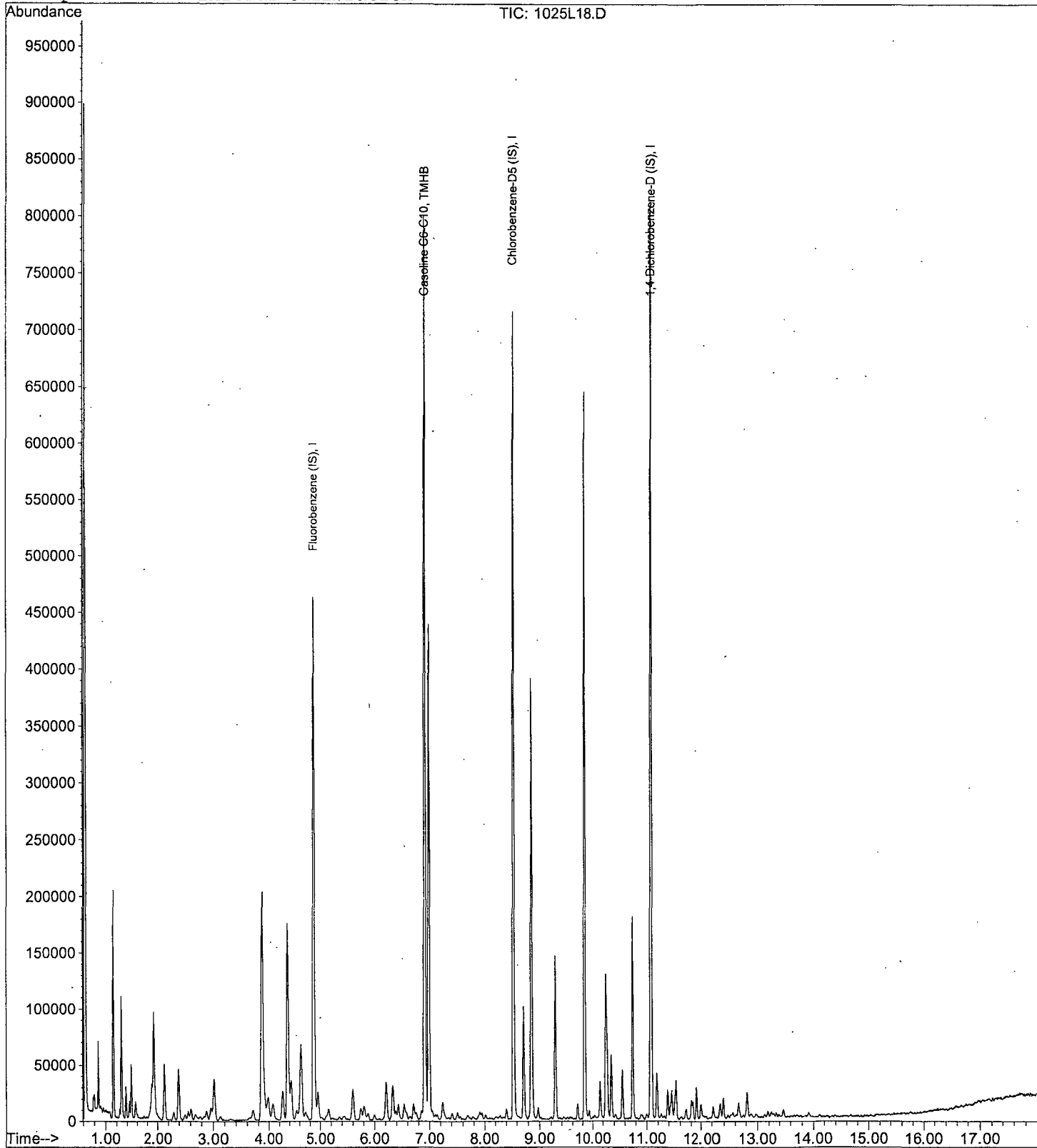
Data File : M:\LOKI\DATA\181023\1025L18.D  
Acq On : 25 Oct 18 15:56  
Sample : 181025A LCSD 300ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 15  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 26 7:11 2018

Quant Results File: LGAS915.RES

Method : M:\LOKI\DATA\181023\LGAS915.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Thu Sep 20 08:28:14 2018  
Response via : Initial Calibration



### Loki Gas Standard Prep

Gas Primary Working Standard										
Prepared: 09/11/18						Prepared By (Initials): <u>CMM</u>				
Expires: 04/27/19										
Methanol Lot No. 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
50,000ug/mL Gas STD	Restek	30205	50,000	A092370-36126	04/27/19	01/31/20	80uL	2mL	Methanol	2,000
Gas Second Source (SS) Working Standard										
Prepared: 04/27/18						Prepared By (Initials): <u>PC</u>				
Expires: 04/27/19										
Methanol Lot No. 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Gasoline (5,000ppm)	O2SI	020246-06	5,000	G34-325261-38383	04/27/19	07/23/20	200uL	500uL	Methanol	2,000
Loki Gas Calibration Curve										
Prepared: 09/19/18						Prepared By (Initials): <u>PC</u>				
Expires: 11/18/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA Gasses Standards	Phenova	20ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	1uL	100mL	P&T Water	20
VOA Gasses Standards	Phenova	50ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	2.5uL	100mL	P&T Water	50
VOA Gasses Standards	Phenova	100ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	5uL	100mL	P&T Water	100
VOA Gasses Standards	Phenova	300ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	15uL	100mL	P&T Water	300
VOA Gasses Standards	Phenova	600ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	30uL	100mL	P&T Water	600
VOA Gasses Standards	Phenova	800ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	40uL	100mL	P&T Water	800
VOA Gasses Standards	Phenova	1,000ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	50uL	100mL	P&T Water	1,000
Loki Gas Second Source										
Prepared: 09/19/18						Prepared By (Initials): <u>PC</u>				
Expires: 11/18/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
50,000ug/mL Gas STD	Phenova	SS 300ug/L	2,000	Prepared 04/27/18	04/27/19	N/A	15uL	100mL	P&T Water	300
Loki Gas Continuing Calibrations/Lab Control Spikes										
Prepared: 09/19/18						Prepared By (Initials): <u>PC</u>				
Expires: 09/20/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses Standards	Phenova	300ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	15uL	100mL	P&T Water	300
Loki Gas Surrogate										
Prepared: 08/30/18						Prepared By (Initials): <u>PC</u>				
Expires: 04/02/19										
Methanol Lot No. 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260B Surrogate Solution	O2SI	120002-01	2,000	275545-36329	06/09/19	04/02/19	375uL	15mL	Methanol	50
Loki Gas Internal Standard										
Prepared: 08/24/18						Prepared By (Initials): <u>PC</u>				
Expires: 04/13/19										
Methanol Lot No. 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
IS Solution	O2SI	120004-02	2,000	326533-38443	04/13/19	04/27/21	375uL	15mL	Methanol	50

GASOLINE							
09/12/18							
Gasoline 2000ug/ml PRIMARY SOURCE							
Supplier	ID #		ug/ml	Lot #	Date	Exp.	
Restek		Unleaded Gasoline	50,000	A092370-36126	04/27/18F-KV	01/31/20	80
J.T BAKER		Purge & Trap MeOH		9077	09/06/18	09/06/19	1920
04/27/18							
Gasoline 2000ug/ml SECONDARY SOURCE							
Supplier	ID #		Conc.	Lot #	Date	Exp.	
O2SI	020246-06	Unleaded Gasoline	5,000	G34-325261-38383	04/27/18E-KV	07/23/20	200
OMNISOLV		Purge & Trap MeOH		57159-MX0480-1	04/20/18	04/20/19	300

## Loki 8260 Standard Prep

Loki 8260 Water Calibration Curve										
0.3ug/L						Prepared By (Initials): <u>DG</u>				
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.3ug/L	5	Prepared 10/23/18	10/31/18	N/A	3uL	50mL	P&T Water	0.3
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	3uL			0.3
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	3uL			0.3
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	2uL			10
0.5ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.5ug/L	5	Prepared 10/23/18	10/31/18	N/A	5uL	50mL	P&T Water	0.5
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	5uL			0.5
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	5uL			0.5
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	5uL			25
1.0ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	1.0ug/L	5	Prepared 10/23/18	10/31/18	N/A	10uL	50mL	P&T Water	1
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	10uL			1
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	10uL			1
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	10uL			50
2.0ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	2.0ug/L	5	Prepared 10/23/18	10/31/18	N/A	20uL	50mL	P&T Water	2
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	20uL			2
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	20uL			2
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	15uL			75
5ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	5ug/L	50	Prepared 10/23/18	12/22/18	N/A	5uL	50mL	P&T Water	5
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	5uL			5
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	5uL			5
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	5uL			5
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	20uL			100
10ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	10ug/L	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	25uL			125

20ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	20ug/L	50	Prepared 10/23/18	12/22/18	N/A	20uL	50mL	P&T Water	20
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	20uL			20
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	20uL			20
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	20uL			20
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	30uL			150
40ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	40ug/L	50	Prepared 10/23/18	12/22/18	N/A	40uL	50mL	P&T Water	40
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	40uL			40
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	35uL			175
100ug/L										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	100ug/L	50	Prepared 10/23/18	12/22/18	N/A	100uL	50mL	P&T Water	100
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	100uL			100
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	100uL			100
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	100uL			100
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	40uL			200
Loki 8260 Water Second Source (SS)										
Prepared: 10/23/18										
Expires: 11/22/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 4	Phenova	8260 Water SS	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 5	O2SI	8260 Water SS	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 6	Various	8260 Water SS	50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. TBA	Various	8260 Water SS	250	Prepared 10/23/18	10/31/18	N/A	25uL			250
8260 Water Continuing Calibrations (CCV)/ Lab Control Spikes (LCS)										
Prepared: 10/23/18										
Expires: 10/24/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	CCV/ LCS	50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. TBA	Various	CCV/ LCS	250	Prepared 10/23/18	10/31/18	N/A	25uL			125
LCS (X4 Ketones)										
Prepared: 10/23/18										
Expires: 10/24/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	LCS X4 Ketones	50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. TBA	Various	LCS X4 Ketones	250	Prepared 10/23/18	10/31/18	N/A	25uL			125

<b>Loki 8260 Water Surrogate</b>										
Prepared: 09/28/18						Prepared By (Initials): <u>DG</u>				
Expires: 04/02/19										
Methanol Lot No: 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260 Surrogate Solution	O2SI	120002-01	2,000	275545-36334	09/28/19	04/02/19	375uL	15mL	Methanol	50
<b>Loki 8260 Water Internal Standard</b>										
Prepared: 09/28/18						Prepared By (Initials): <u>DG</u>				
Expires: 06/29/19										
Methanol Lot No: 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Internal Standard Solution	O2SI	120004-02	2,000	326533-38434	06/29/19	04/27/21	375uL	15mL	Methanol	50



### Primary and Secondary Working Standards

Primary Standards										
VOA STD 7										
Prepared: 10/23/18 C										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses STD	Phenova	ALO-101206	2,000	CL12418-39660	09/13/19	04/30/23	100uL	4mL	Methanol	50
Hexachloroethane	Absolute	70199	1,000	071317-39700	09/04/19	05/14/28	200uL			50
Benzyl Chloride	O2SI	020228-02	1,000	041918-39343	09/04/19	04/19/19	200uL			50
VOA STD 8										
Prepared: 10/23/18 D										
Expires: 10/31/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Additions STD	Phenova	ALO-101206	2,000	CL12622-39323	06/20/19	05/31/20	100uL	4mL	Methanol	50
VOC's-54 COMP	Phenova	ALO-101200	2,000	CL12490-39490	06/20/19	05/30/20	100uL			50
Vinyl Acetate	Phenova	ALO-101228	2,000	CL12805-39766	09/06/19	10/31/18	100uL			50
VOA STD TBA										
Prepared: 10/23/18 E										
Expires: 10/31/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOC Mix	Phenova	ALO-130176	2,000	CL12228-39680	09/06/19	08/31/28	500uL	4mL	Methanol	250
Acrolein	Phenova	ALO-101224	5,000	CL12863-39768	09/06/19	10/31/18	200uL			250
VOA STD 1										
Prepared: 10/23/18 F										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
2-CEVE	O2SI	020145-02	2,000	292247-38407	09/06/19	11/12/19	50	2mL	Methanol	50
VOA STD 2										
Prepared: 10/23/18 G										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
HSL's Ketone Solution	O2SI	121020-05	2,000	CL12729-39663	10/17/19	08/01/28	100	4mL	Methanol	50
VOA STD 9										
Prepared: 10/23/18 H										
Expires: 10/31/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 7	O2SI	VOA STD. 9	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5
VOA STD. 8	O2SI		50	Prepared 10/23/18	10/31/18	N/A	200uL			5
VOA STD. 10										
Prepared: 10/23/18 I										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 1	O2SI	VOA STD. 10	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5
VOA STD. 12										
Prepared: 10/23/18 J										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 2	O2SI	VOA STD. 12	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5

Second Source (SS) Standards										
VOA STD. 3										
Prepared: 10/23/18 K										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Ketones Standard	Phenova	ALO-101211	2,000	CL12730-39669	07/25/19	08/01/28	50uL	2mL	Methanol	50
VOA STD. 5										
Prepared: 10/23/18 L										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260 Gases (SS)	Phenova	ALO-101206	2,000	CL12417-39649	09/13/19	04/30/23	50uL	2mL	Methanol	50
2-CEVE (SS)	O2SI	020145-02-02-SS	2,000	71018-39539	06/20/19	11/12/19	50uL			50
VOA STD. 6										
Prepared: 10/23/18 M										
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
502.2 Calibration STD. (54-compounds)	Phenova	ALO-101200	2,000	CL12489-39484	06/20/19	05/31/23	50uL	2mL	Methanol	50
Vinyl Acetate	Phenova	ALO-101228	1,000	CL12869-39767	09/06/19	10/31/18	50uL			50
Hexachloroethane	O2SI	020049-02	1,000	218051281	06/20/19	05/14/28	50uL			50
VOA STD. TBA										
Prepared: 10/23/18 N										
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOA Mix (4-3)	Phenova	ALO-130179	2,000	CL12228-39309	08/13/19	08/31/20	250uL	2mL	Methanol	250
Acrolein	Phenova	ALO-101224	5,000	CL12868-39769	09/06/19	10/31/18	100uL			250
VOA STD. 0										
Prepared: 10/23/18 O										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Addition STD.	Phenova	ALO-130175	2,000	CL12230-39138	07/25/19	01/31/20	50uL	2mL	Methanol	50
BFB Tune										
Prepared: 08/29/18										
Expires: 08/07/19										
Methanol Lot No. 9077-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
4-Bromofluorobenzene	O2SI	020135-03	2,500	320514-38965	08/07/19	09/03/20	20uL	2mL	Methanol	25

## Injection Log

Directory: M:\LOK\DATA\180915\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	32	0919L33.D	1	20ug/L VOC GAS STD 18/09/19	IS&S 8/30/18,8/23/18	19 Sep 18 21:20
2	33	0919L34.D	1	50ug/L VOC GAS STD 18/09/19	IS&S 8/30/18,8/23/18	19 Sep 18 21:48
3	34	0919L35.D	1	100ug/L VOC GAS STD 18/09/19	IS&S 8/30/18,8/23/18	19 Sep 18 22:16
4	35	0919L36.D	1	300ug/L VOC GAS STD 18/09/19	IS&S 8/30/18,8/23/18	19 Sep 18 22:44
5	36	0919L37.D	1	600ug/L VOC GAS STD 18/09/19	IS&S 8/30/18,8/23/18	19 Sep 18 23:12
6	37	0919L38.D	1	800ug/L VOC GAS STD 18/09/19	IS&S 8/30/18,8/23/18	19 Sep 18 23:40
7	38	0919L39.D	1	1000ug/L VOC GAS STD 18/09/19	IS&S 8/30/18,8/23/18	20 Sep 18 00:09
8	43	0919L44.D	1	(SS)300ug/L VOC GAS STD 18/09/19	IS&S 8/30/18,8/23/18	20 Sep 18 2:29
9	2	1023L03.D	1	0.3ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 13:39
10	3	1023L04.D	1	0.5ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 14:07
11	4	1023L05.D	1	1.0ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 14:35
12	5	1023L06.D	1	5.0ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 15:03
13	6	1023L07.D	1	10ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 15:31
14	7	1023L08.D	1	20ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 15:59
15	8	1023L09.D	1	50ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 16:27
16	9	1023L10.D	1	100ug/L VOC STD 10/23/18	IS&S 9/28/18,8/23/18	23 Oct 18 16:55
17	13	1025L16.D	1	181025A CCV 300ug/L	IS&S 9/28/18,8/23/18	25 Oct 18 15:00
18	14	1025L17.D	1	181025A LCS 300ug/L	IS&S 9/28/18,8/23/18	25 Oct 18 15:28
19	15	1025L18.D	1	181025A LCSD 300ug/L	IS&S 9/28/18,8/23/18	25 Oct 18 15:56
20	17	1025L20.D	1	181025A Blk	IS&S 9/28/18,8/23/18	25 Oct 18 16:52
21	18	1025L21.D	1	AZ81637W01	IS&S 9/28/18,8/23/18	25 Oct 18 17:20
22	19	1025L22.D	1	AZ81639W01	IS&S 9/28/18,8/23/18	25 Oct 18 17:48
23	20	1025L23.D	1	AZ81643W01	IS&S 9/28/18,8/23/18	25 Oct 18 18:16
24	21	1025L24.D	1	AZ81641W01	IS&S 9/28/18,8/23/18	25 Oct 18 18:44
25	22	1025L25.D	1	AZ81636W01	IS&S 9/28/18,8/23/18	25 Oct 18 19:12
26	23	1025L26.D	1	AZ81638W01	IS&S 9/28/18,8/23/18	25 Oct 18 19:40
27	24	1025L27.D	1	AZ81640W01	IS&S 9/28/18,8/23/18	25 Oct 18 20:08
28	25	1025L28.D	1	AZ81642W01	IS&S 9/28/18,8/23/18	25 Oct 18 20:36
29	26	1025L29.D	1	AZ81644W01	IS&S 9/28/18,8/23/18	25 Oct 18 21:04
30	28	1025L31.D	1	Ending CCV 300ug/L 10/25/18	IS&S 9/28/18,8/23/18	25 Oct 18 22:00

**ORGANICS  
Calibration Data**

**APPL, INC.**

RSK 175  
RSK 175

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/29/18  
Instrument: 7890

Initials: \_\_\_\_\_

18102900.D 18102901.D 18102903.D 18102904.D 18102905.D 18102906.D 18102907.D

	Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r <sup>2</sup>	Q
1	ATML Methane	19615	9373	10954	15702	14030	13431	10703				13401	26	ATM	0.996	*
2	ATM Ethane	14917	8316	8621	12025	10728	10915	8329				10550	23	ATM		*
3	ATM Ethene	12812	7388	7413	10412	9206	9538	7250				9145	22	ATM		*
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2.038643

Data File : G:\ROCKY\DATA\181029RS\18102900.D Vial: 1  
 Acq On : 29 Oct 18 10:29 Operator: cmm  
 Sample : RSK Std 1 10/29/18 Inst : 7890  
 Misc : 125uL from RSK Std 3 Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:07 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:05:00 2018  
 Response via : Multiple Level Calibration

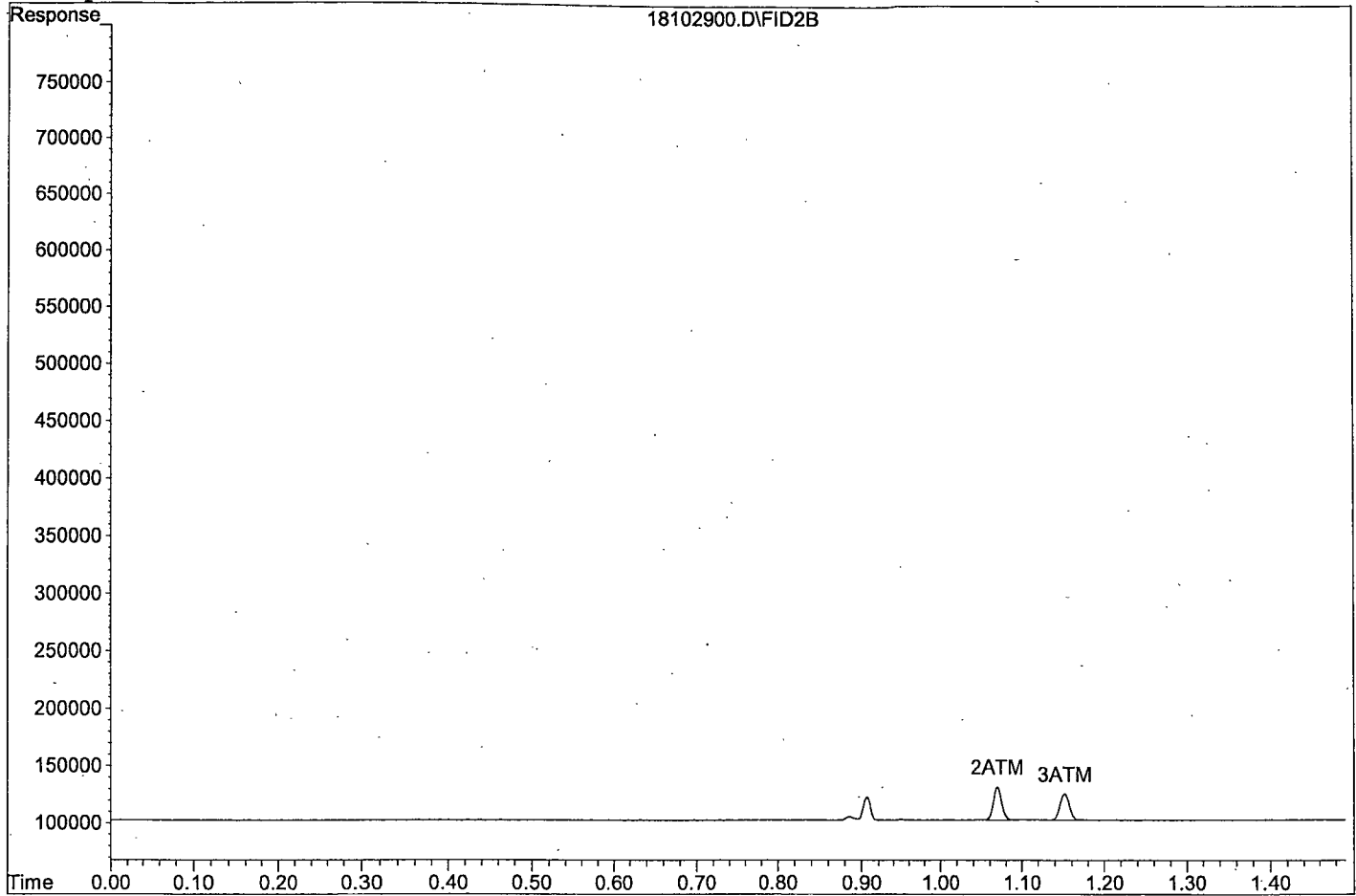
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
2) ATM Ethane	1.07	29163	5.528 ppb
3) ATM Ethene	1.15	23381	5.113 ppb
Target Compounds			
1) ATM Methane	0.91	20400	N.D. ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102900.D

Sample : RSK Std 1 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102901.D Vial: 2  
 Acq On : 29 Oct 18 10:32 Operator: cmm  
 Sample : RSK Std 2 10/29/18 Inst : 7890  
 Misc : 250uL from RSK Std 3 Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:07 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:05:00 2018  
 Response via : Multiple Level Calibration

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

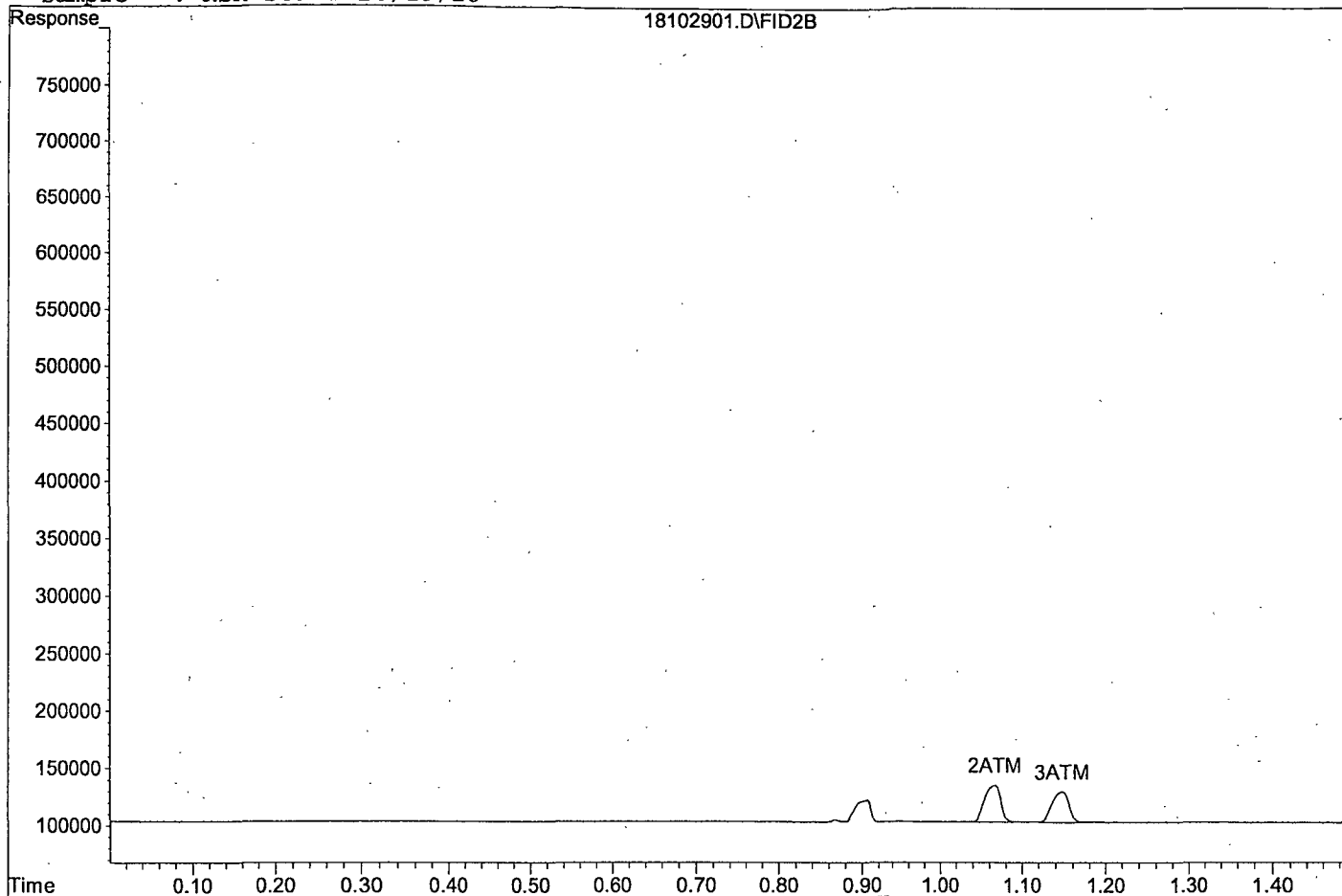
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
2) ATM Ethane	1.07	32474	6.156 ppb
3) ATM Ethene	1.15	26966	5.897 ppb
Target Compounds			
1) ATM Methane	0.91	19495	N.D. ppb



Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102901.D

Sample : RSK Std 2 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102903.D Vial: 4  
 Acq On : 29 Oct 18 10:40 Operator: cmm  
 Sample : RSK Std 3 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:07 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:05:00 2018  
 Response via : Multiple Level Calibration

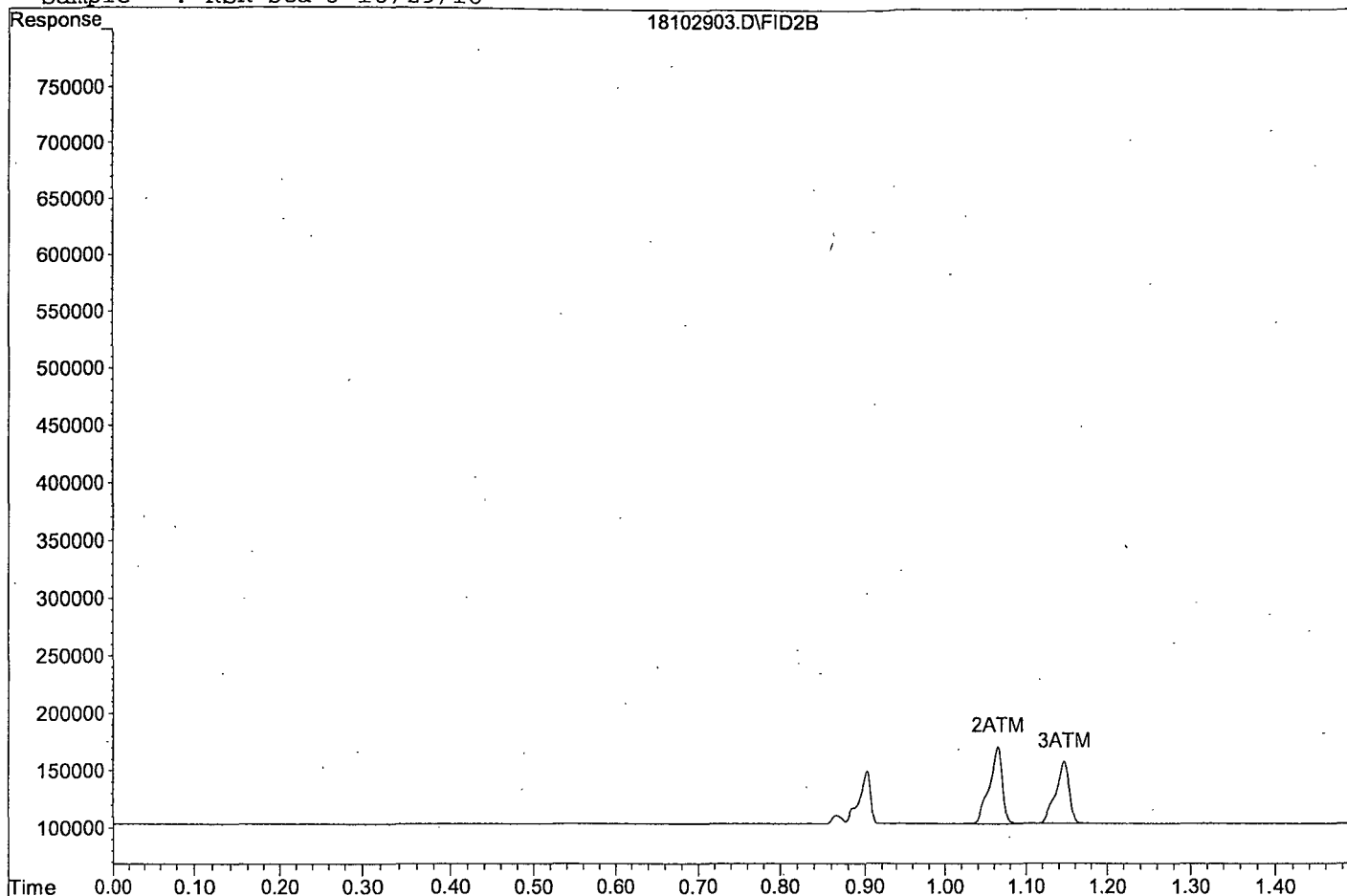
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
2) ATM Ethane	1.07	67242	12.747 ppb
3) ATM Ethene	1.15	54115	11.834 ppb
Target Compounds			
1) ATM Methane	0.90	45677	N.D. ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102903.D

Sample : RSK Std 3 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102904.D Vial: 5  
 Acq On : 29 Oct 18 10:42 Operator: cmm  
 Sample : RSK Std 4 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:02 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:02:34 2018  
 Response via : Multiple Level Calibration

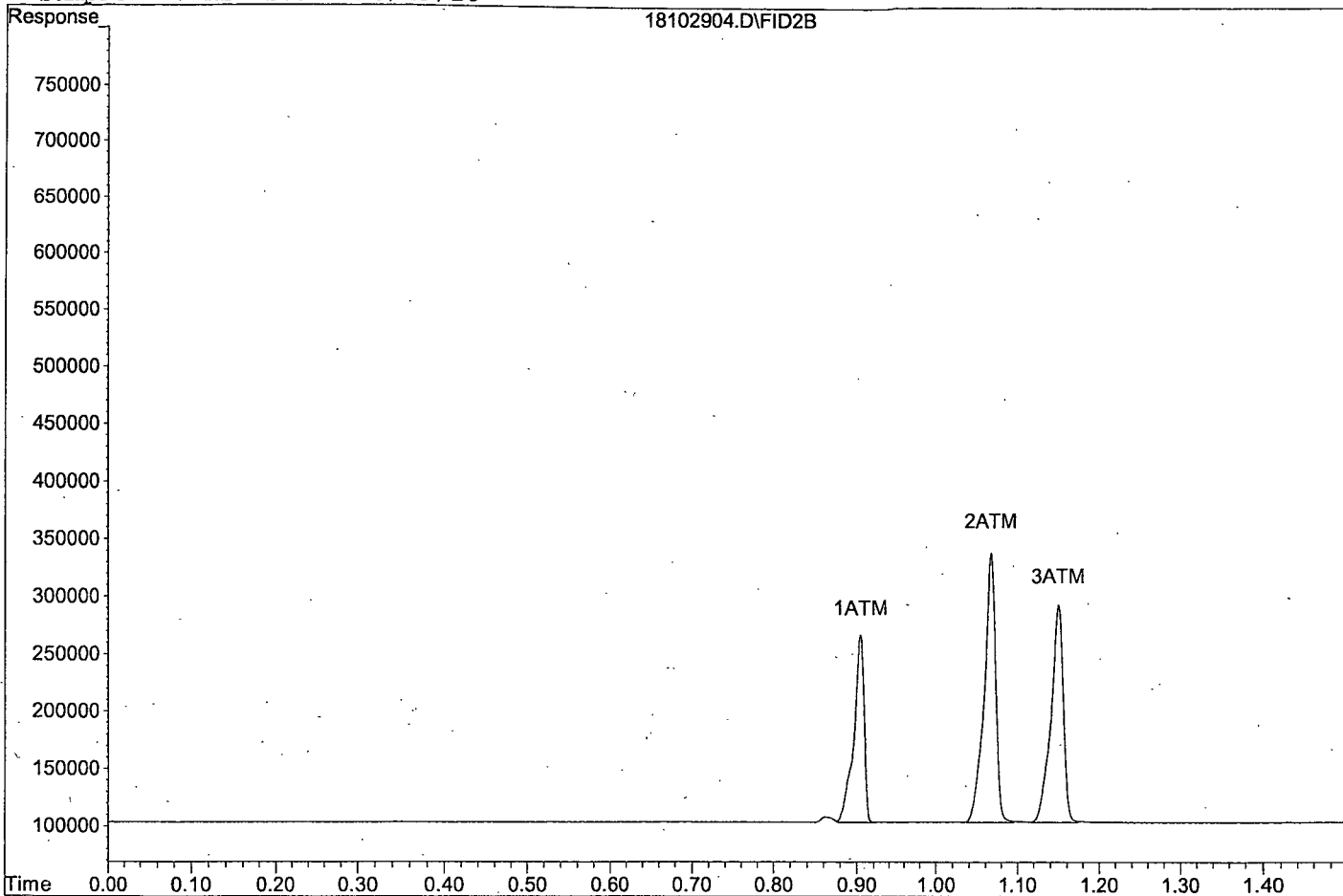
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.91	163698	17.293 ppb
2) ATM Ethane	1.07	235032	44.556 ppb
3) ATM Ethene	1.15	189804	41.508 ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102904.D

Sample : RSK Std 4 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102905.D Vial: 6  
 Acq On : 29 Oct 18 10:44 Operator: cmm  
 Sample : RSK Std 5 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:02 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:02:34 2018  
 Response via : Multiple Level Calibration

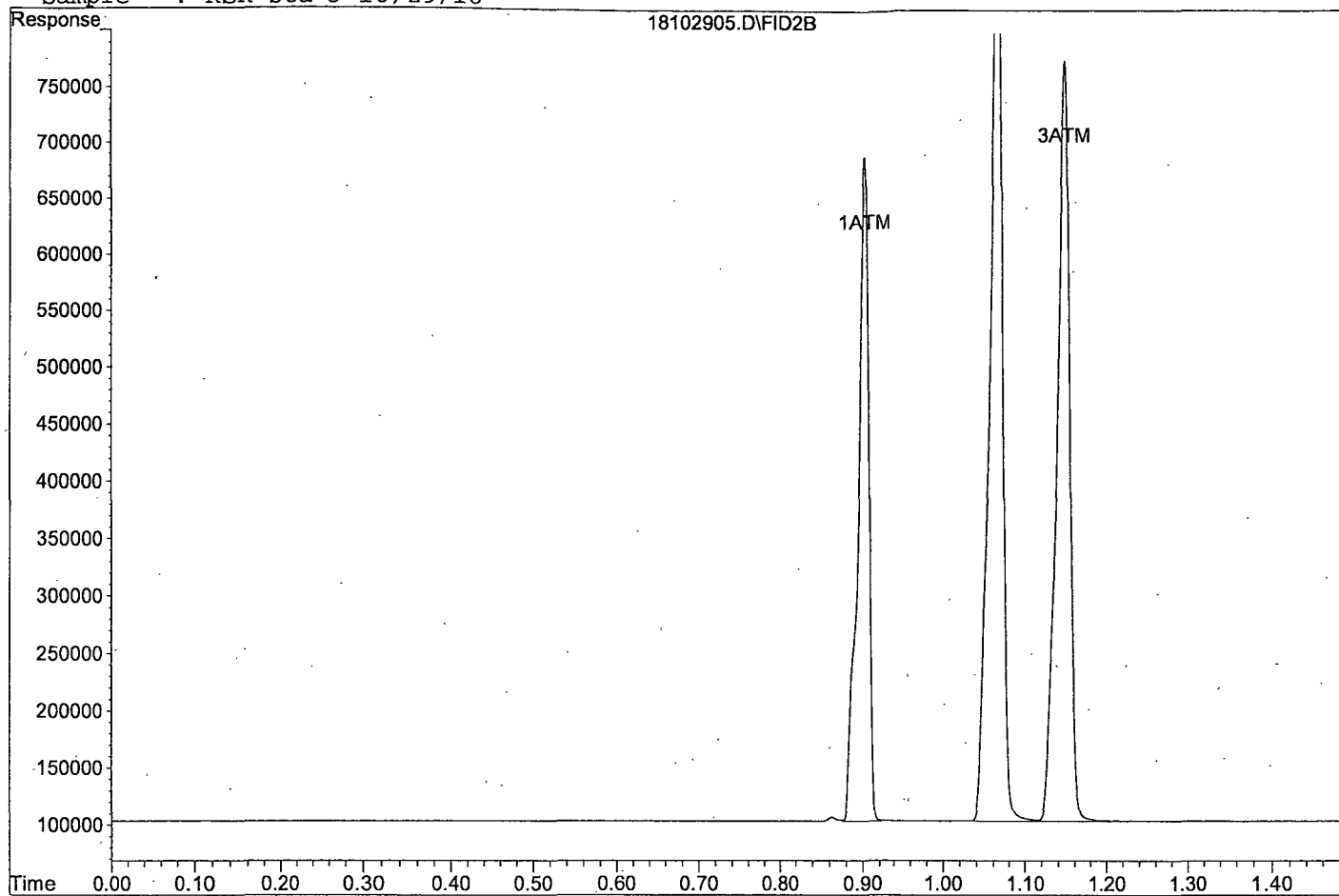
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.90	585044	96.247 ppb
2) ATM Ethane	1.07	838627	158.980 ppb
3) ATM Ethene	1.15	671284	146.802 ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102905.D

Sample : RSK Std 5 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102906.D Vial: 7  
 Acq On : 29 Oct 18 10:47 Operator: cmm  
 Sample : RSK Std 6 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:02 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:02:34 2018  
 Response via : Multiple Level Calibration

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

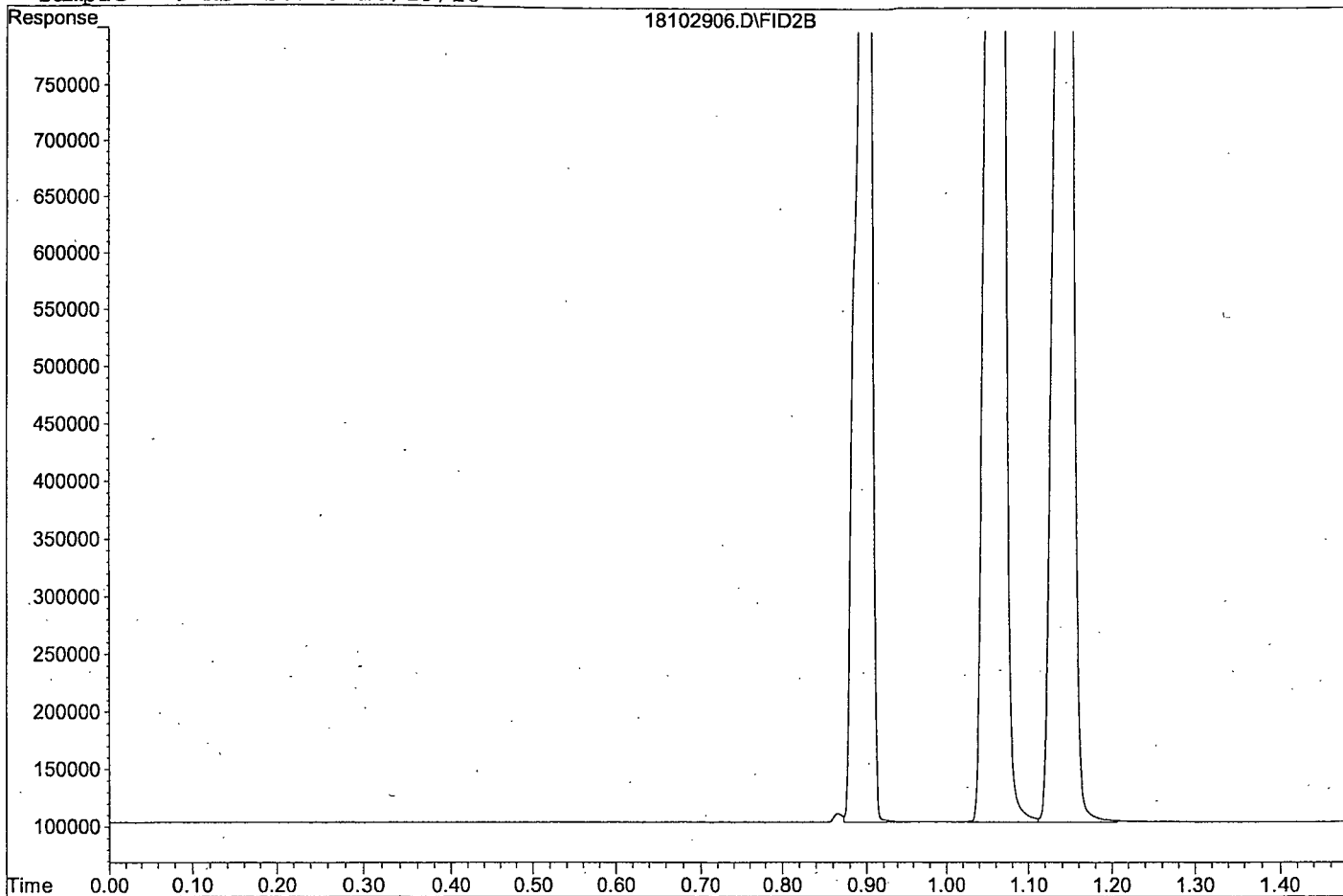
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.90	1400165	248.989 ppb
2) ATM Ethane	1.06	2133368	404.427 ppb
3) ATM Ethene	1.15	1738763	380.248 ppb



Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102906.D

Sample : RSK Std 6 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102907.D Vial: 8  
 Acq On : 29 Oct 18 10:49 Operator: cmm  
 Sample : RSK Std 7 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:02 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct. 29 11:02:34 2018  
 Response via : Multiple Level Calibration

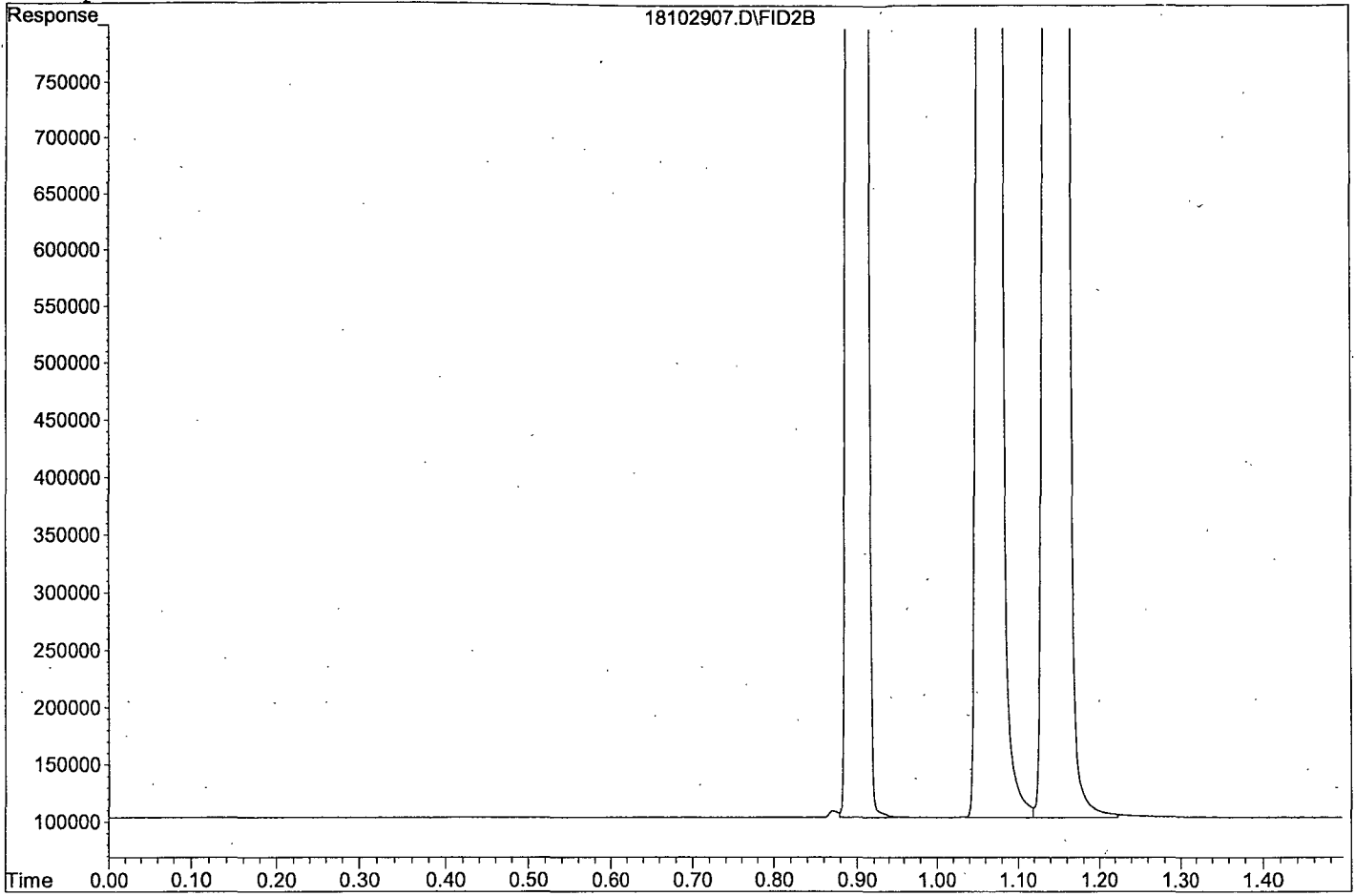
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.91	4462952	822.912 ppb
2) ATM Ethane	1.07	6510961	1234.297 ppb
3) ATM Ethene	1.15	5286849	1156.173 ppb

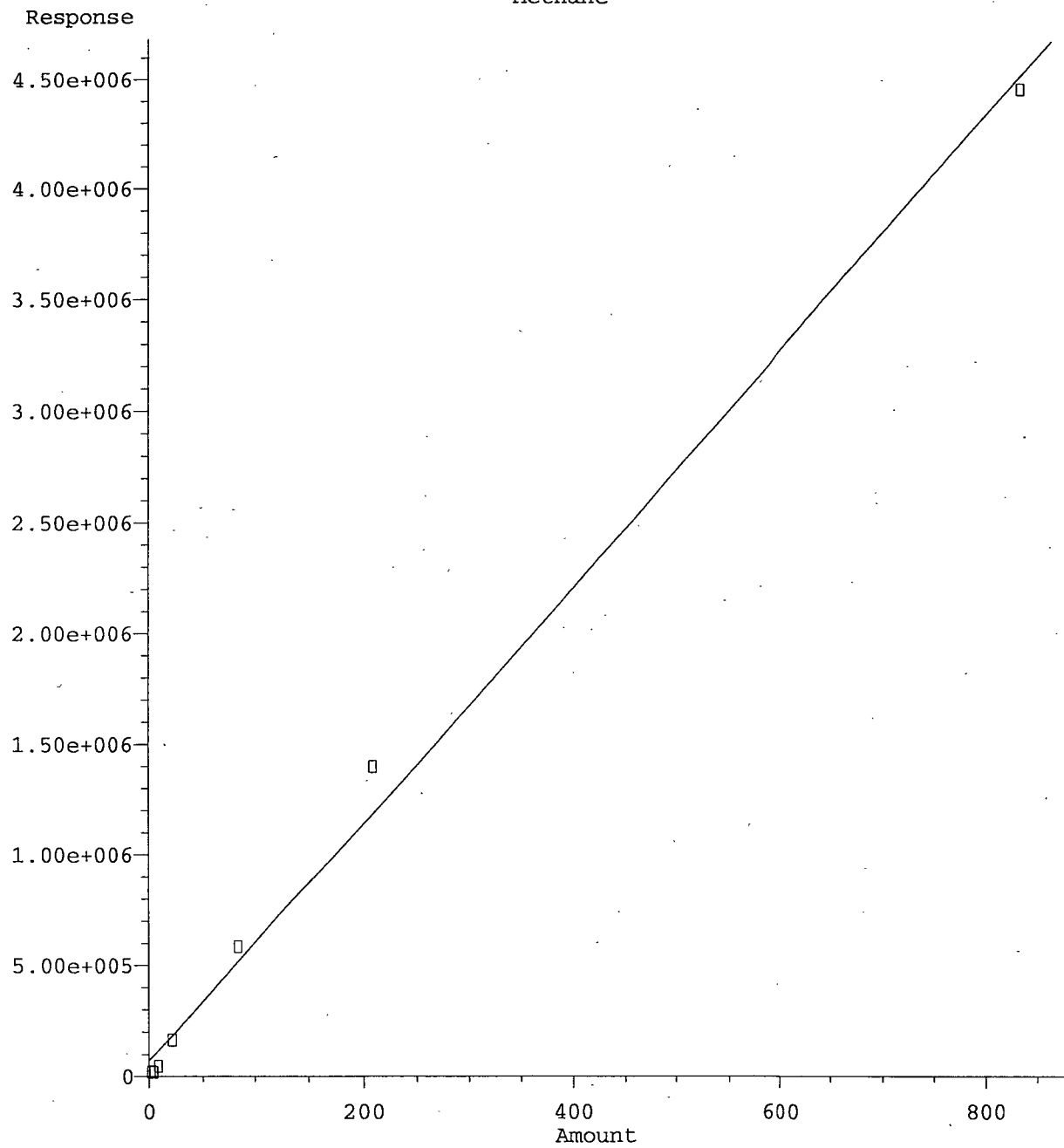
Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102907.D

Sample : RSK Std 7 10/29/18



Methane



Response = 5.34e+003 \* Amt + 7.14e+004  
Coef of Det (r^2) = 0.996 Curve Fit: Linear

Method Name: G:\ROCKY\DATA\181029RS\RSK1029.M  
Calibration Table Last Updated: Mon Oct 29 11:05:00 2018

RSK 175  
RSK 175

Form 7

### Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/29/18  
Instrument: 7890  
Initial Cal. Date: 10/29/18  
Data File: 18102908.D

		Compound	MEAN	CCRF	%D	%Drift	
1	ATML	Methane	13401	11162	17	ATML	11
2	ATM	Ethane	10550	8709	17	ATM	
3	ATM	Ethene	9145	7473	18	ATM	
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
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24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							

Average

17.3

Data File : G:\ROCKY\DATA\181029RS\18102908.D Vial: 9  
 Acq On : 29 Oct 18 10:51 Operator: cmm  
 Sample : SS RSK Std 5 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:05 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:05:00 2018  
 Response via : Multiple Level Calibration

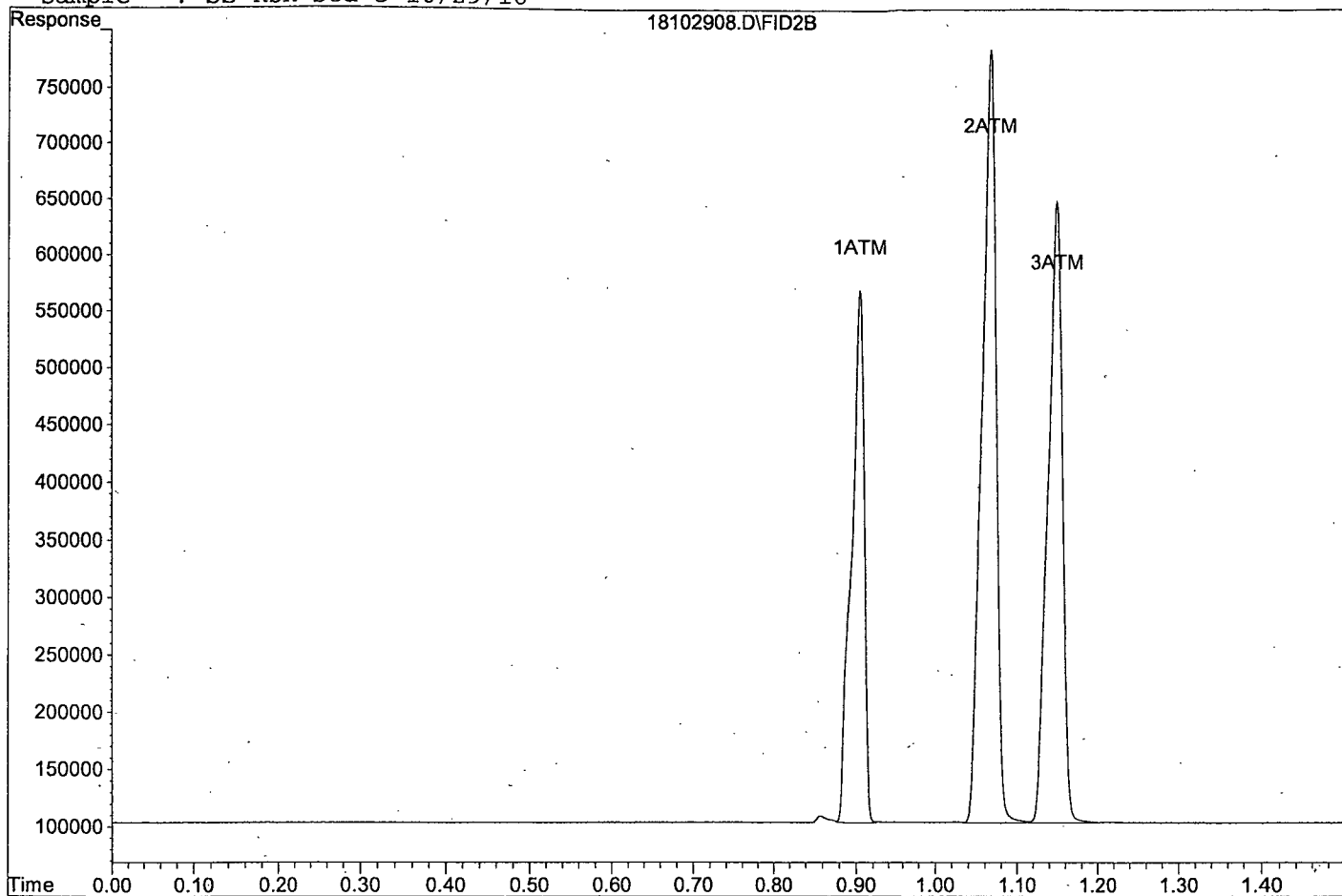
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.91	465450	73.837 ppb
2) ATM Ethane	1.07	680794	129.060 ppb
3) ATM Ethene	1.15	544918	119.167 ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102908.D

Sample : SS RSK Std 5 10/29/18



RSK 175  
RSK 175

Form 7  
Ending Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/29/18  
Instrument: 7890  
Initial Cal. Date: 10/29/18  
Data File: 18102933.D

		Compound	MEAN	CCRF	%D	%Drift	
1	ATML	Methane	13401	9911	26	ATML	23
2	ATM	Ethane	10550	7617	28	ATM	*nt
3	ATM	Ethene	9145	6406	30	ATM	*nt
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							

Average

28.0



Data File : G:\ROCKY\DATA\181029RS\18102933.D Vial: 14  
 Acq On : 29 Oct 18 14:11 Operator: cmm  
 Sample : Ending CCV RSK Std 5 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 14:13 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 14:13:45 2018  
 Response via : Multiple Level Calibration

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

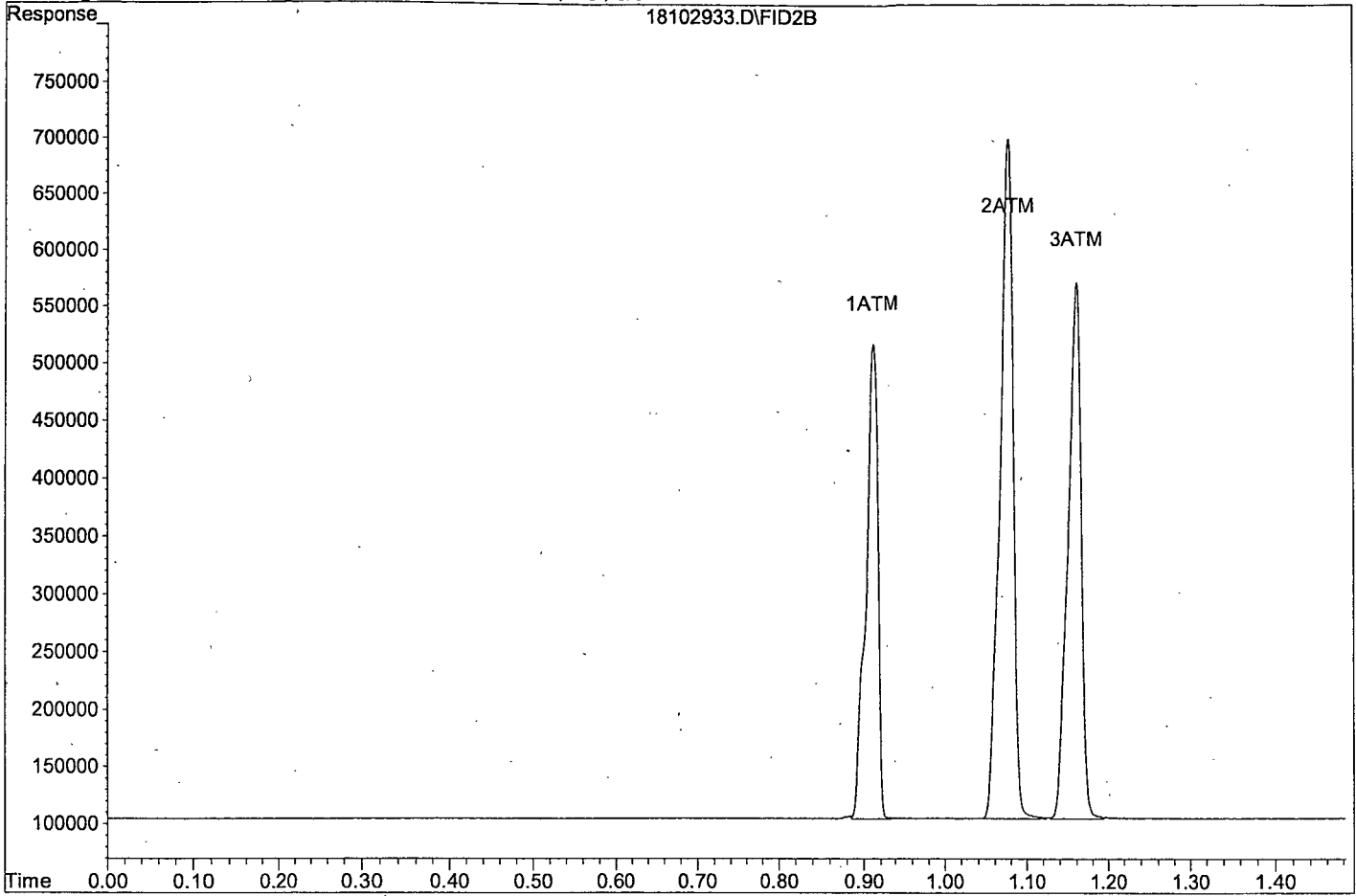
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.91	413269	64.059 ppb
2) ATM Ethane	1.08	595427	112.876 ppb
3) ATM Ethene	1.16	467149	102.160 ppb

Target Compounds

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102933.D

Sample : Ending CCV RSK Std 5 10/29/18



**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : G:\ROCKY\DATA\181029RS\18102924.D Vial: 5  
 Acq On : 29 Oct 18 13:50 Operator: cmm  
 Sample : AZ81636W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 13:53 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
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Target Compounds

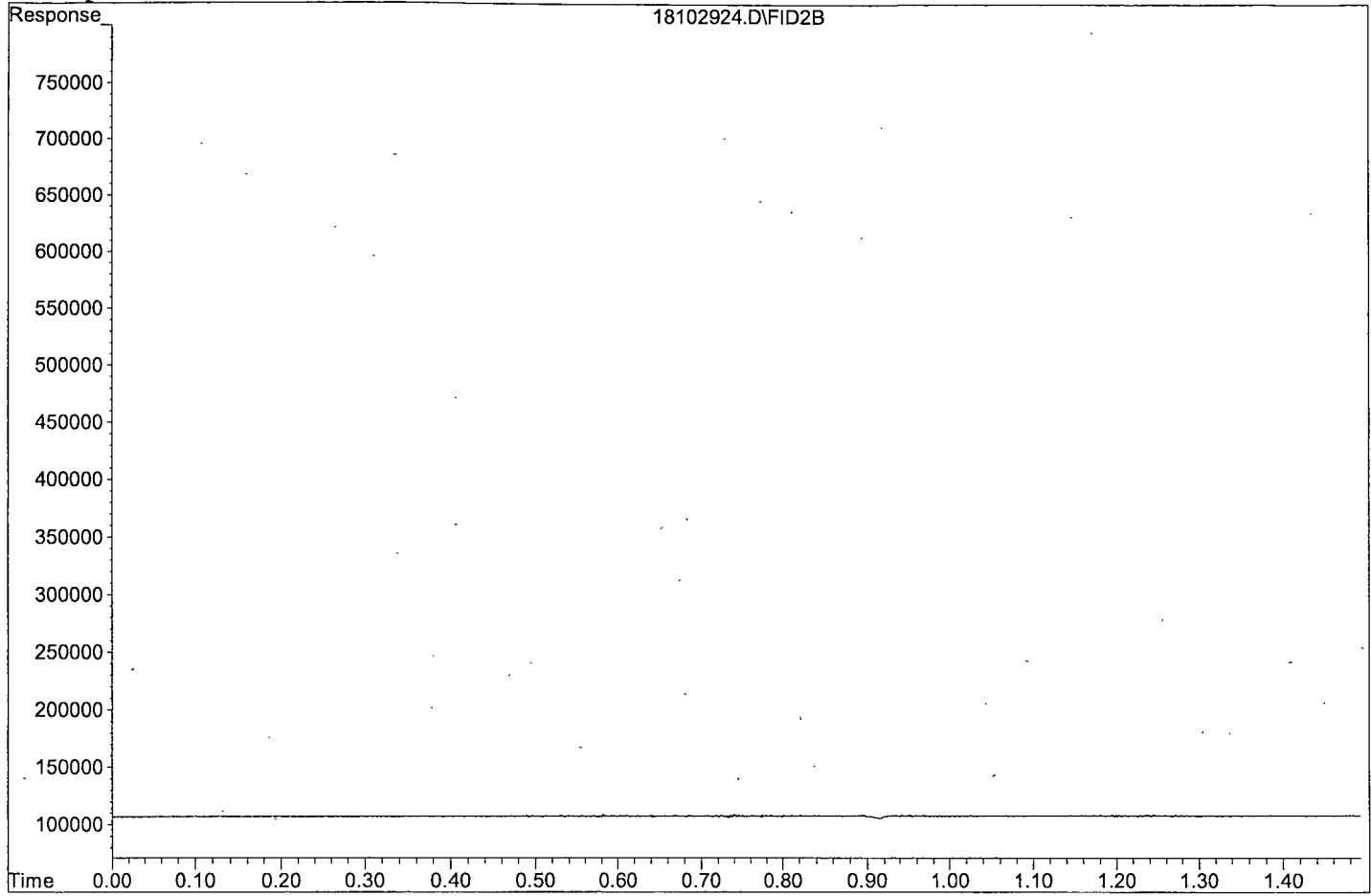
Target Compounds

1) ATM Methane	0.00	0	N.D.	ppb d
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102924.D

Sample : AZ81636W04



Data File : G:\ROCKY\DATA\181029RS\18102925.D Vial: 6  
 Acq On : 29 Oct 18 13:52 Operator: cmm  
 Sample : AZ81637W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 13:55 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
----------	------	----------	------	-------

Target Compounds

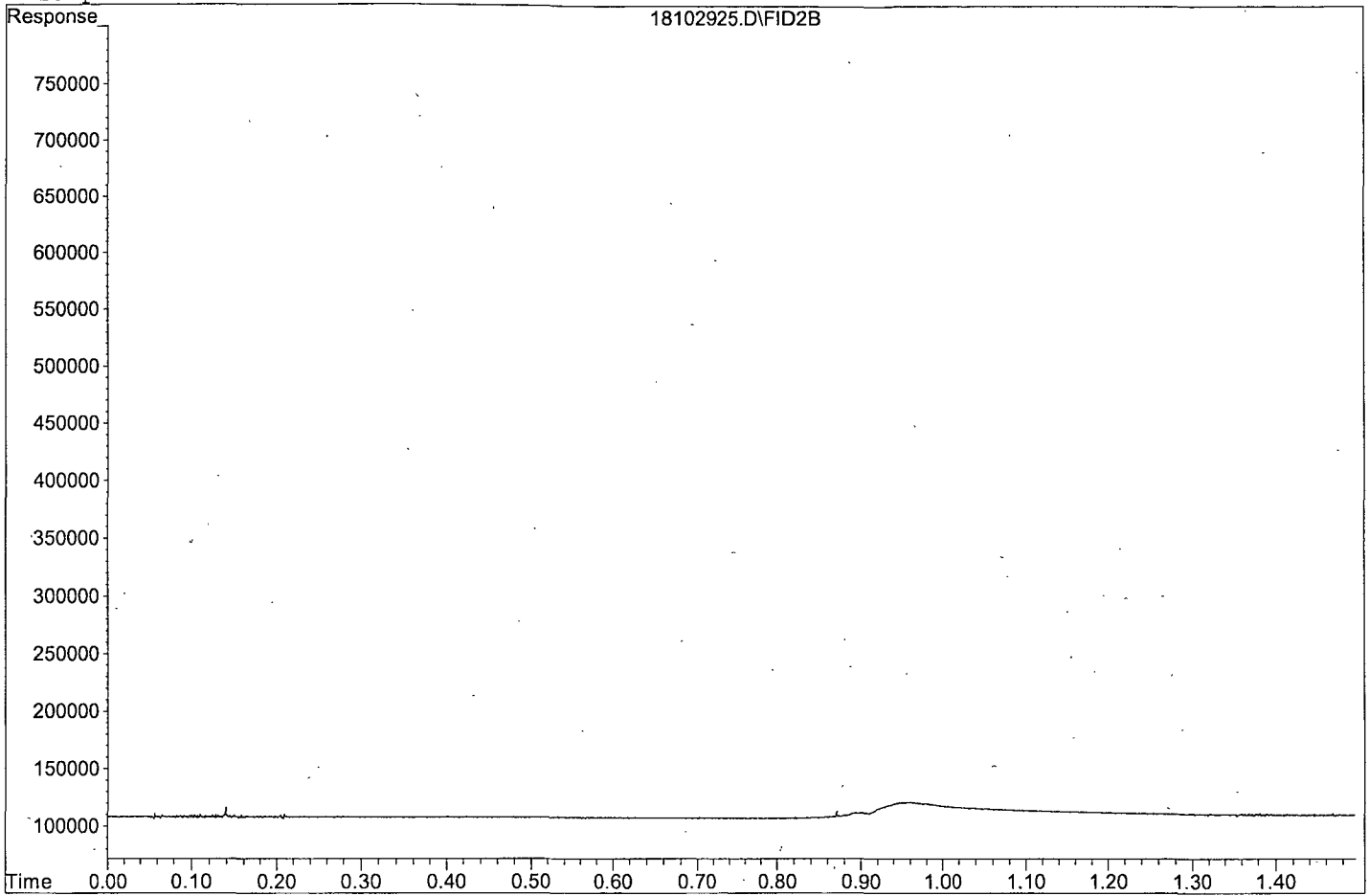
Target Compounds	R.T.	Response	Conc	Units
1) ATM Methane	0.00	0	N.D.	ppb d
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102925.D

Sample : AZ81637W04

18102925.D\FID2B



Data File : G:\ROCKY\DATA\181029RS\18102926.D Vial: 7  
 Acq On : 29 Oct 18 13:54 Operator: cmm  
 Sample : AZ81639W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 13:57 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
----------	------	----------	------------

Target Compounds

Target Compounds

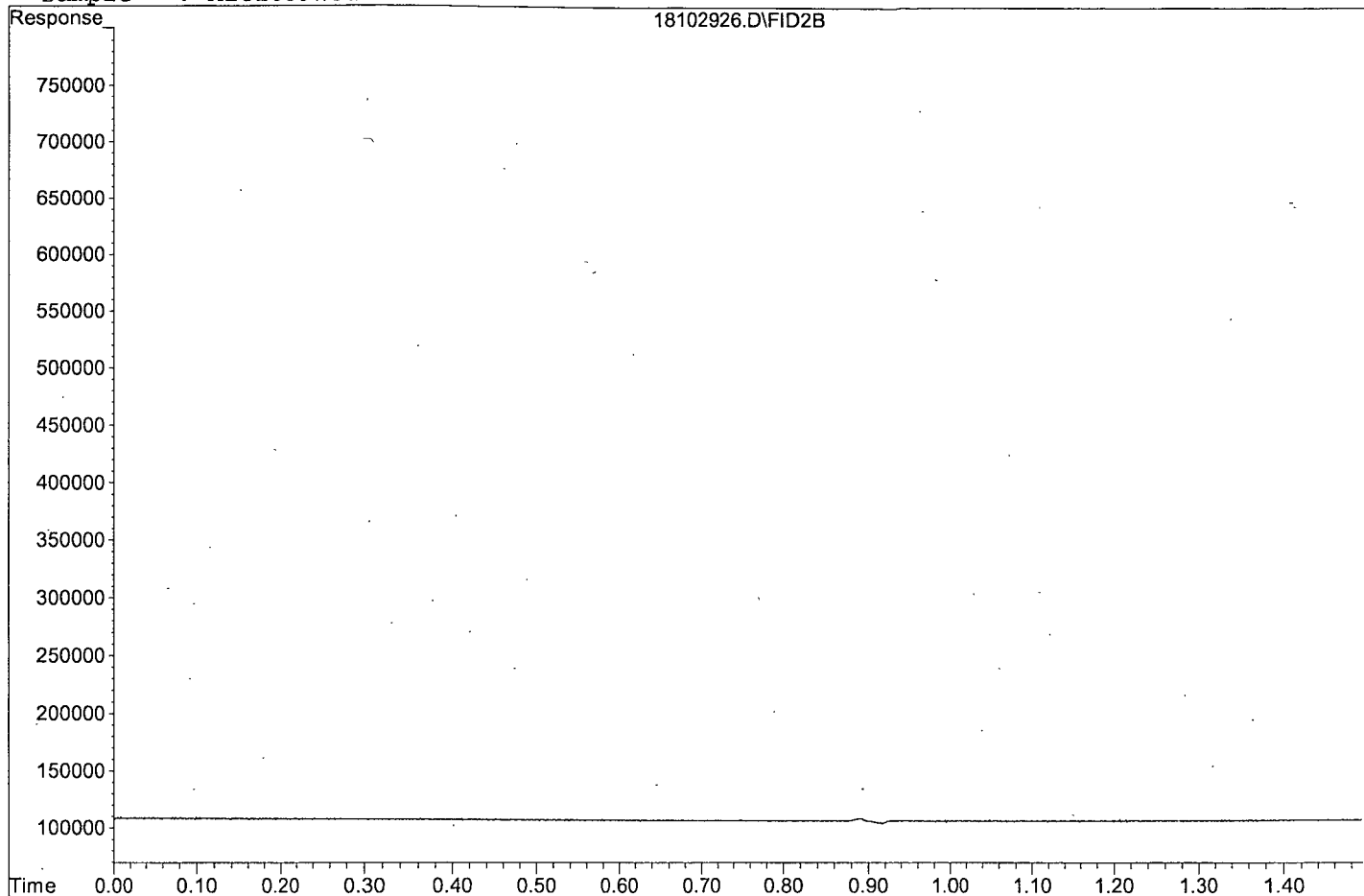
1) ATM Methane	0.00	0	N.D. ppb d
2) ATM Ethane	0.00	0	N.D. ppb d
3) ATM Ethene	0.00	0	N.D. ppb d



Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102926.D

Sample : AZ81639W04



Data File : G:\ROCKY\DATA\181029RS\18102927.D Vial: 8  
 Acq On : 29 Oct 18 13:56 Operator: cmm  
 Sample : AZ81640W04 E Methane Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 13:59 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

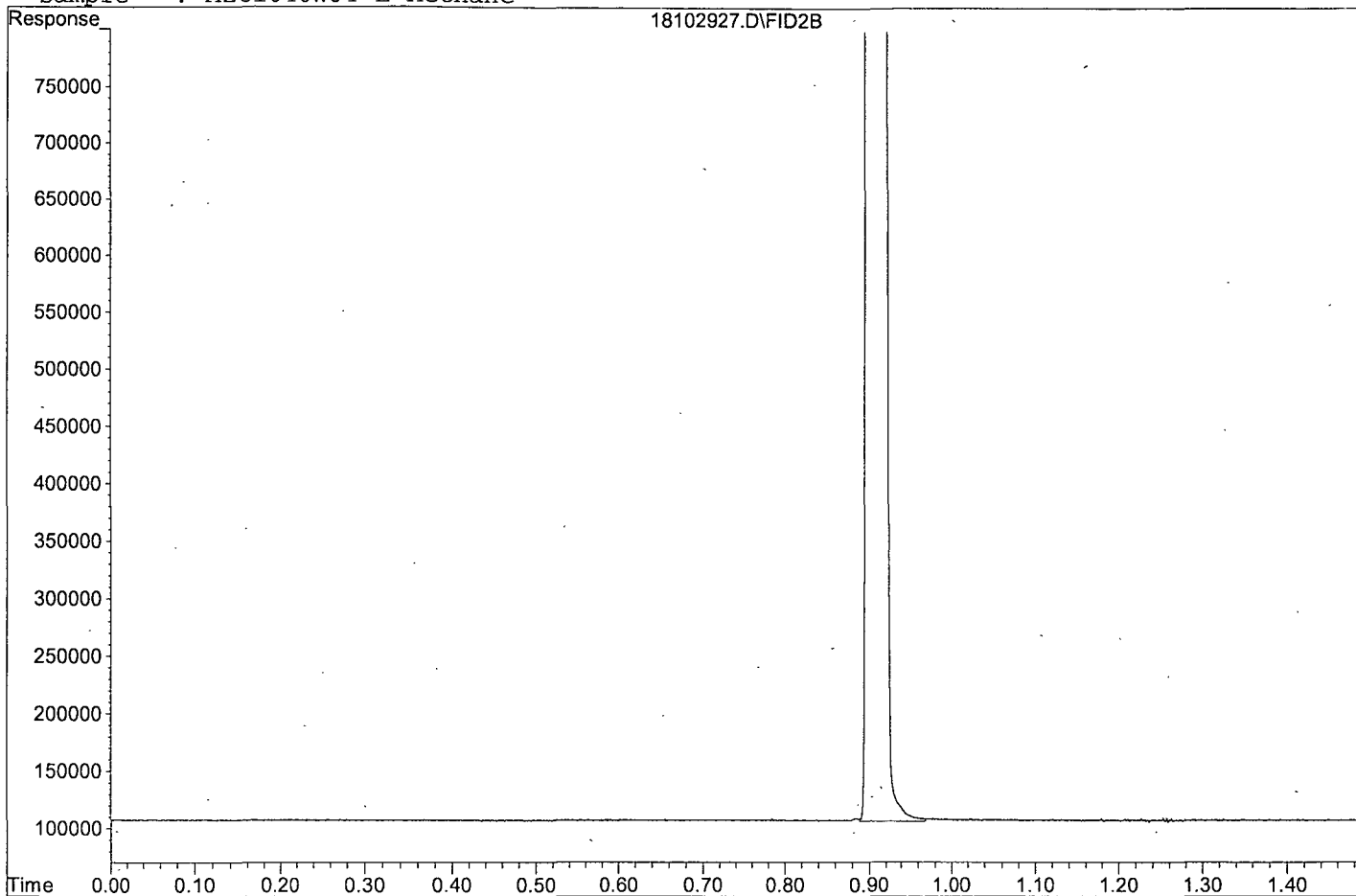
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) ATM Methane	0.91	21407960	3998.166	ppb
Target Compounds				
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102927.D

Sample : AZ81640W04 E Methane



Data File : G:\ROCKY\DATA\181029RS\18102928.D Vial: 9  
 Acq On : 29 Oct 18 14:00 Operator: cmm  
 Sample : AZ81640W04 DF20 Inst : 7890  
 Misc : Multiplr: 20.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 14:03 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

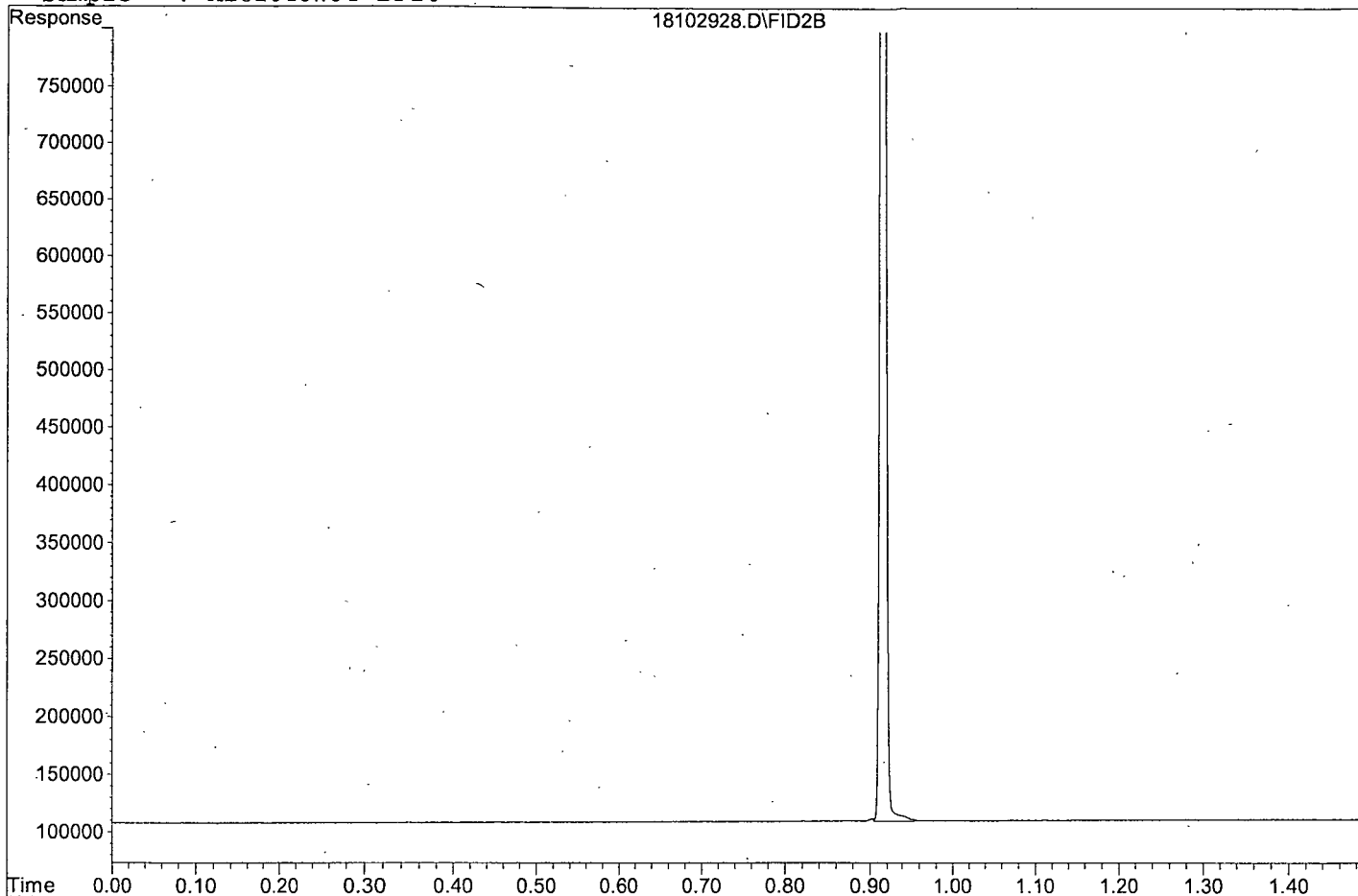
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) ATM Methane	0.92	1902265	6861.511	ppb
Target Compounds				
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102928.D

Sample : AZ81640W04 DF20



Data File : G:\ROCKY\DATA\181029RS\18102929.D Vial: 10  
 Acq On : 29 Oct 18 14:02 Operator: cmm  
 Sample : AZ81641W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 14:05 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
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Target Compounds

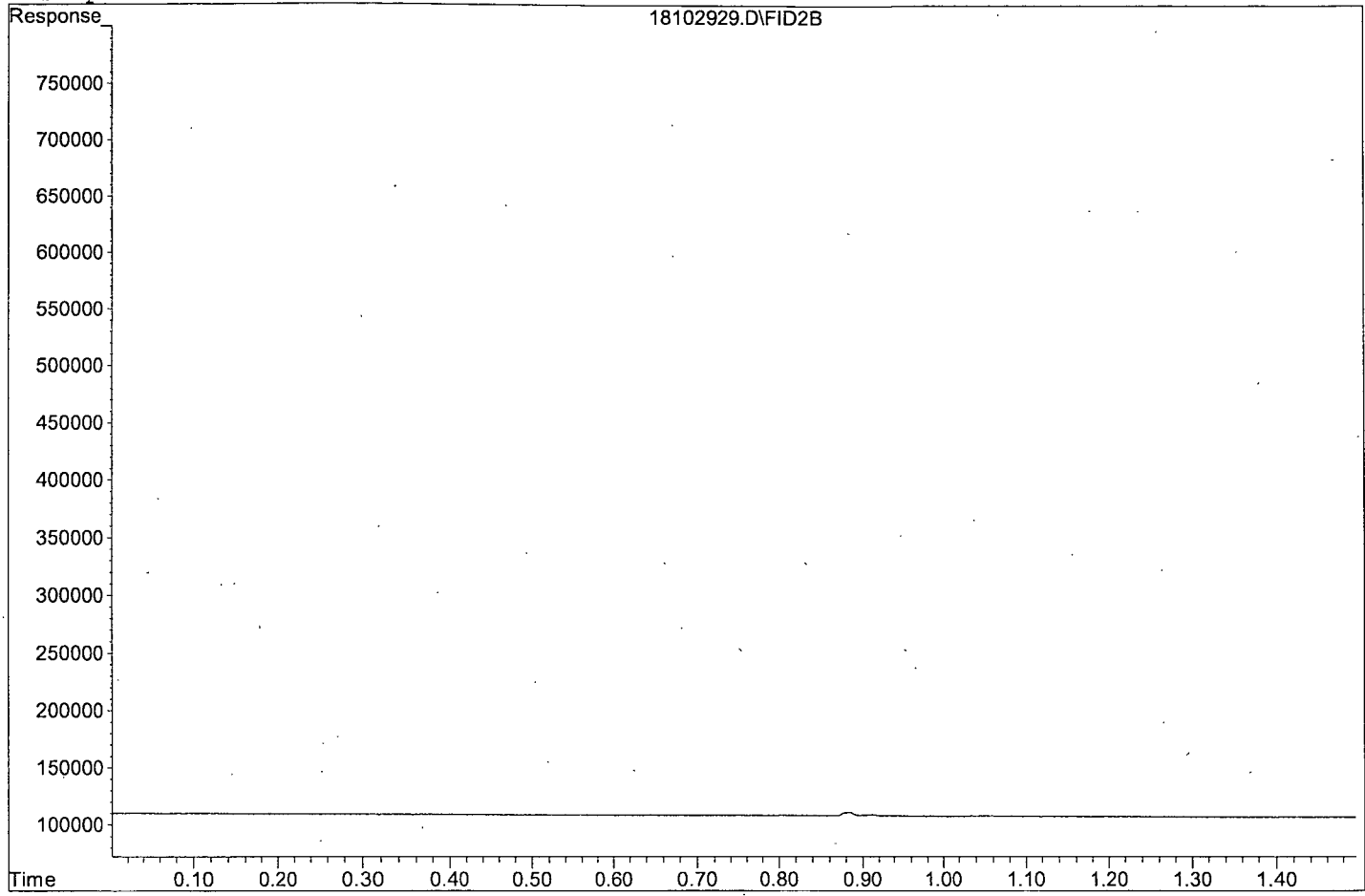
Target Compounds

1) ATM Methane	0.00	0	N.D.	ppb d
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102929.D

Sample : AZ81641W04



Data File : G:\ROCKY\DATA\181029RS\18102930.D Vial: 11  
 Acq On : 29 Oct 18 14:04 Operator: cmm  
 Sample : AZ81642W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 14:07 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct, 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

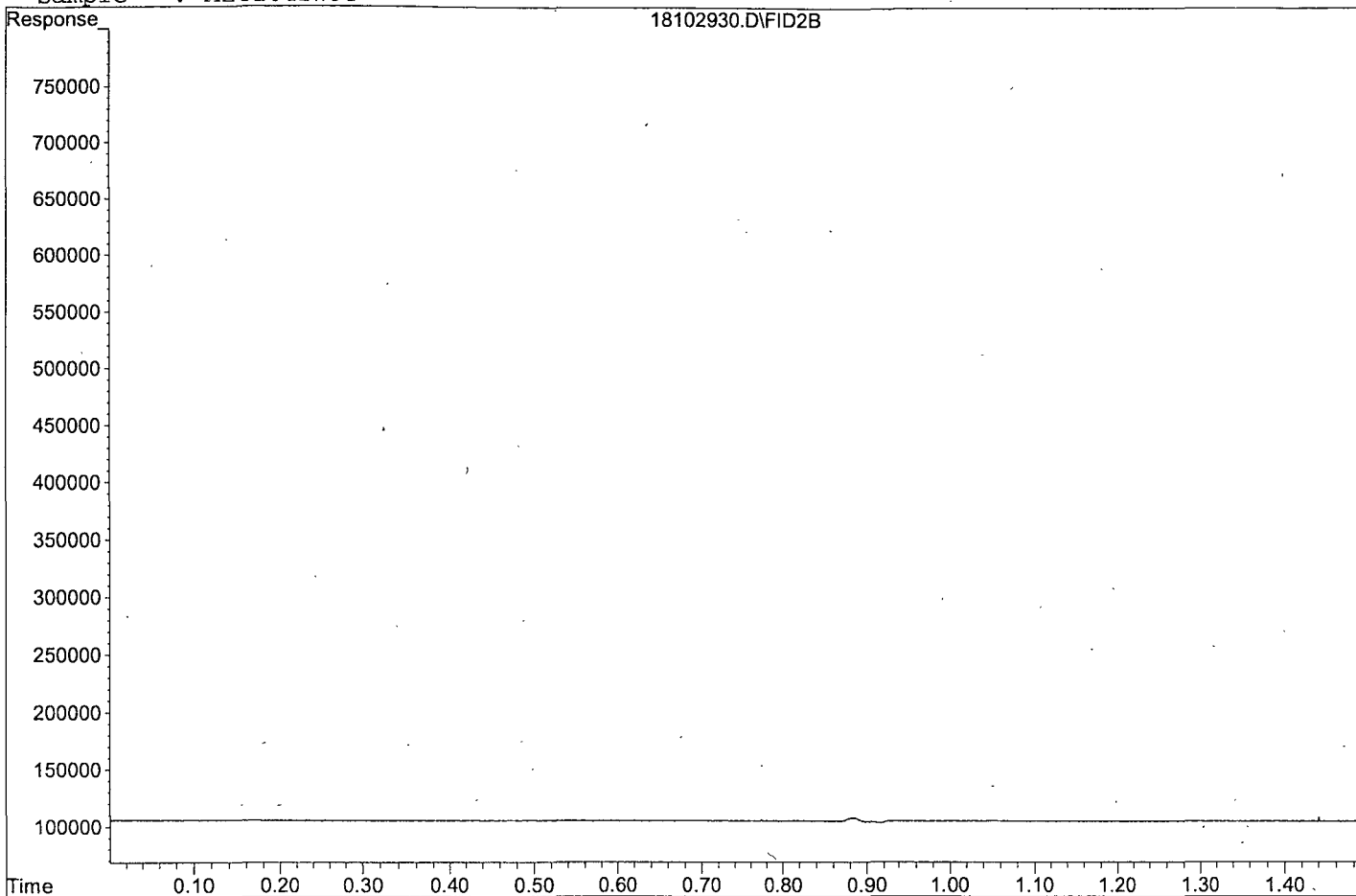
Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
Target Compounds				
1) ATM Methane	0.00	0	N.D.	ppb d
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d



Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102930.D

Sample : AZ81642W04



Data File : G:\ROCKY\DATA\181029RS\18102931.D Vial: 12  
 Acq On : 29 Oct 18 14:06 Operator: cmm  
 Sample : AZ81643W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 14:09 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

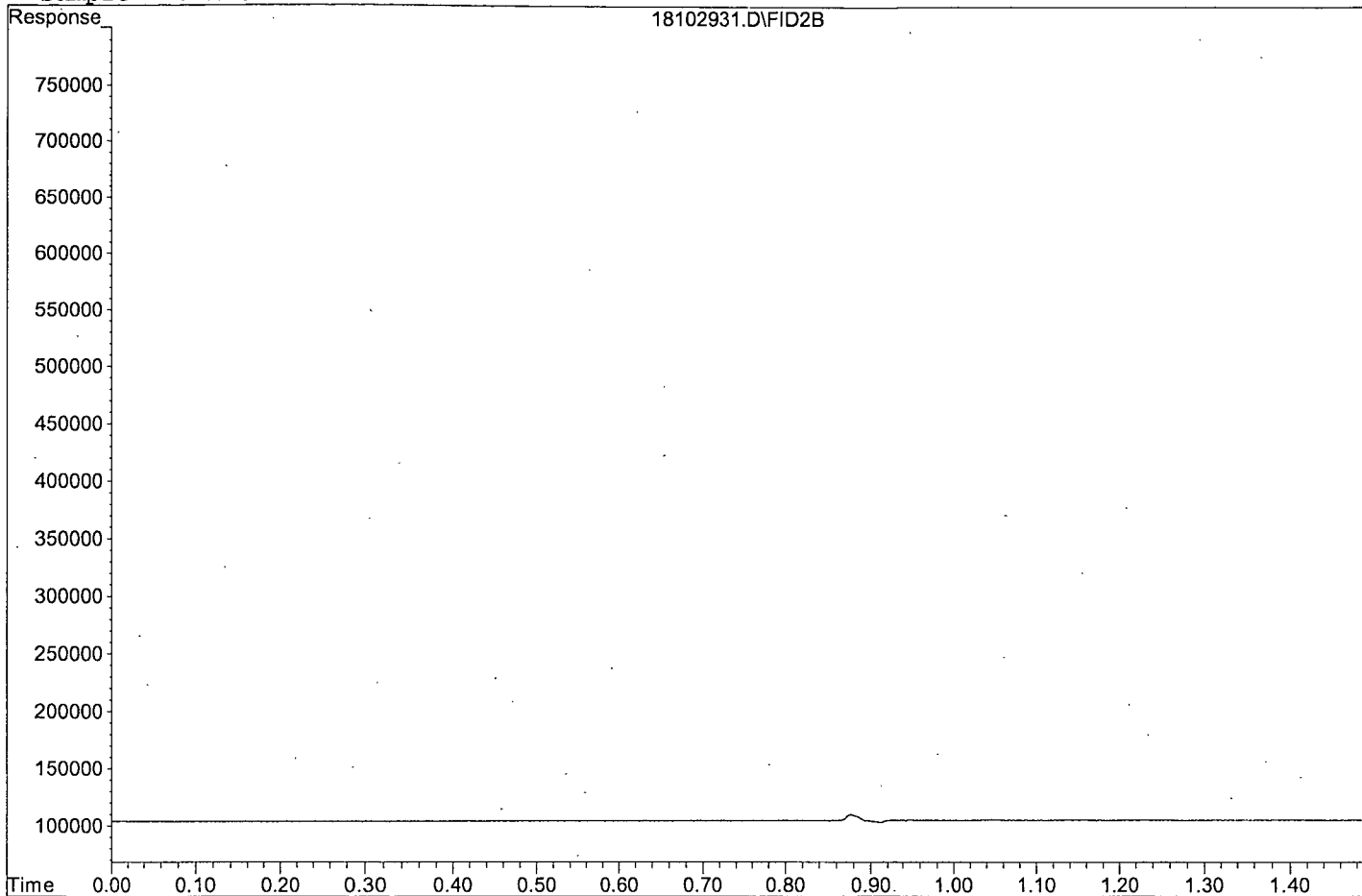
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

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

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102931.D

Sample : AZ81643W04



Data File : G:\ROCKY\DATA\181029RS\18102932.D Vial: 13  
 Acq On : 29 Oct 18 14:08 Operator: cmm  
 Sample : AZ81644W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 14:12 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
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Target Compounds

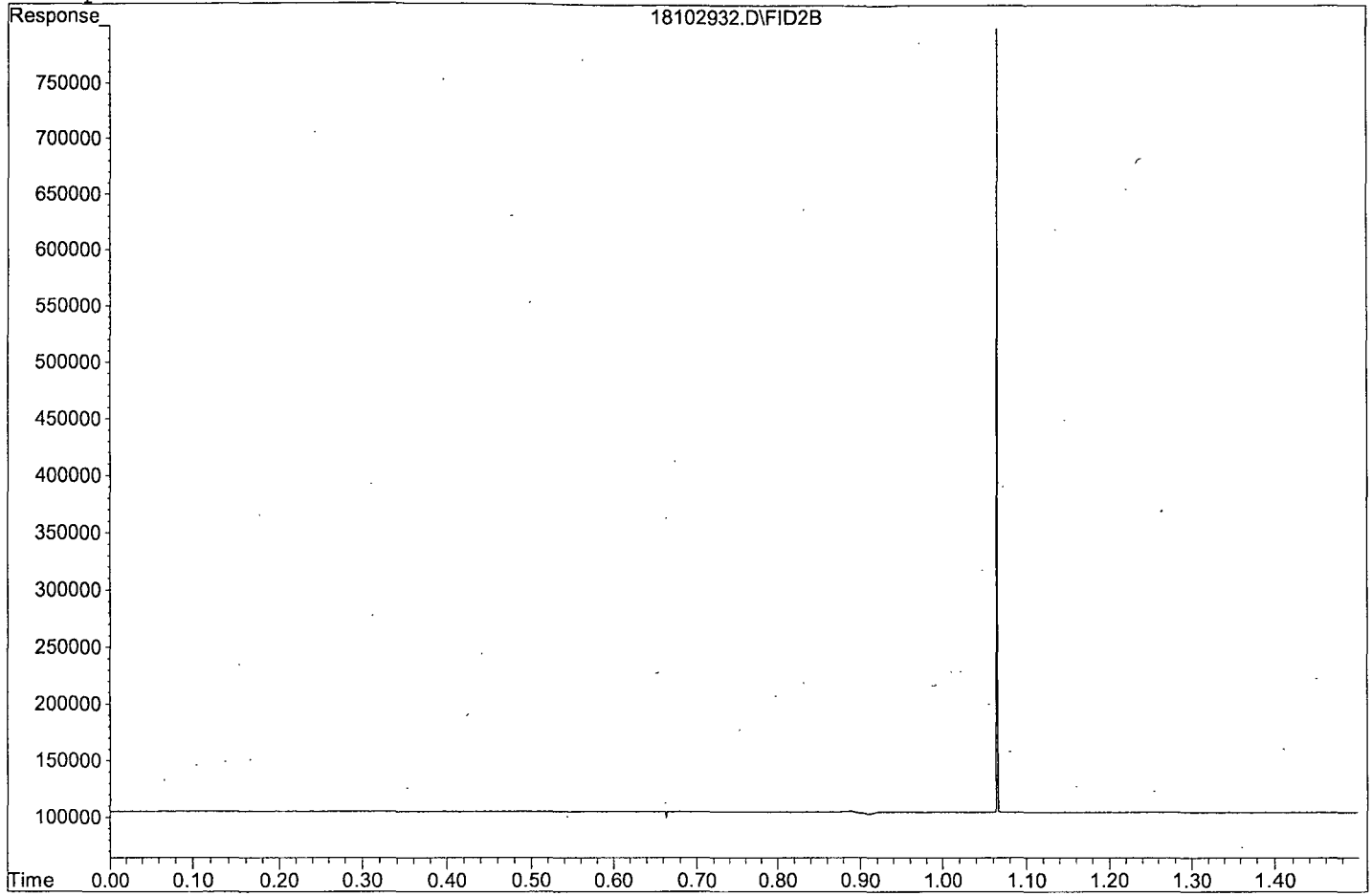
Target Compounds

1) ATM Methane	0.00	0	N.D. ppb d
2) ATM Ethane	0.00	0	N.D. ppb d
3) ATM Ethene	0.00	0	N.D. ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102932.D

Sample : AZ81644W04



Data File : G:\ROCKY\DATA\181029RS\18102912.D Vial: 3  
 Acq On : 29 Oct 18 11:34 Operator: cmm  
 Sample : 181029A Blk Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:37 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
----------	------	----------	------	-------

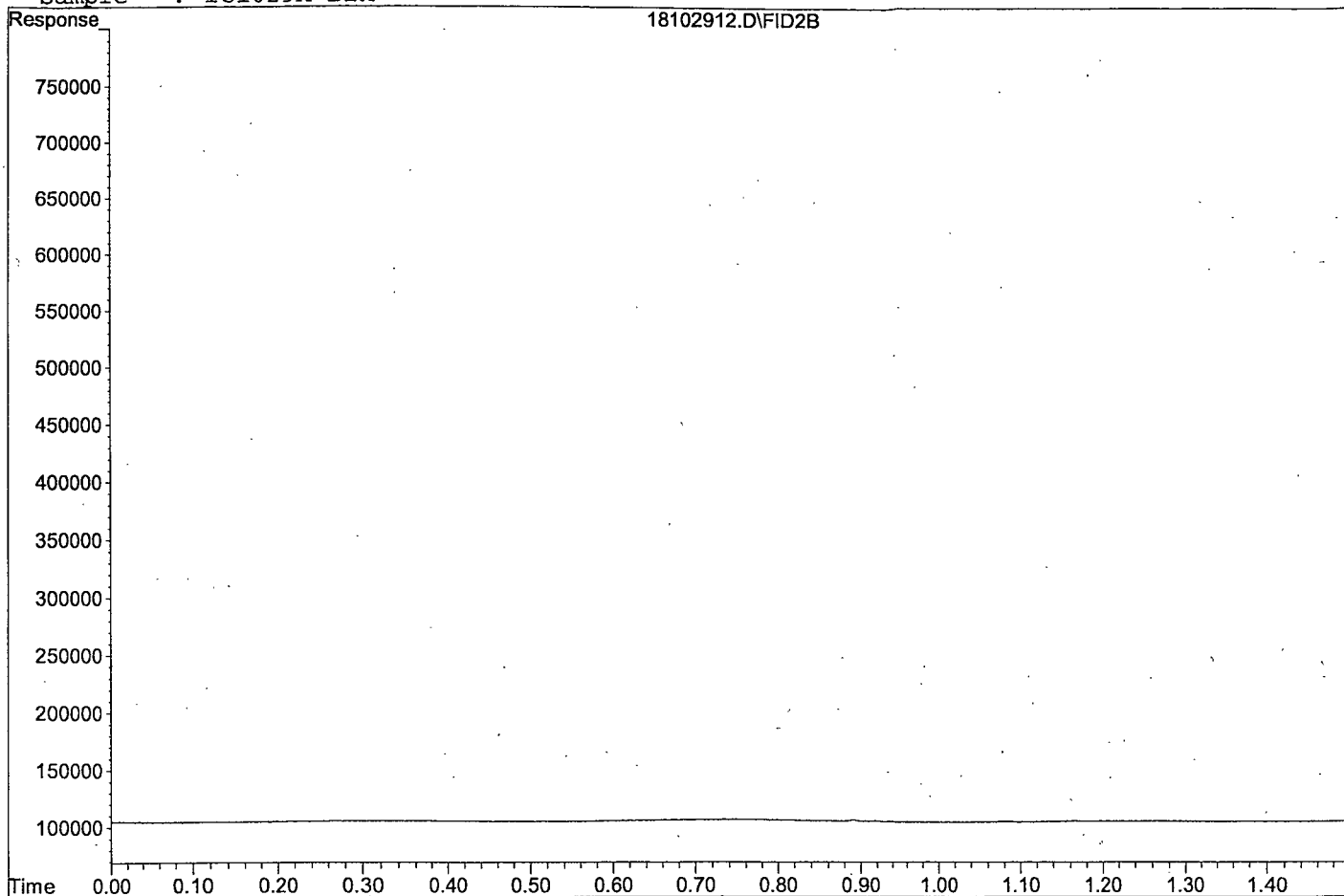
Target Compounds

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

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102912.D

Sample : 181029A Blk



Data File : G:\ROCKY\DATA\181029RS\18102910.D Vial: 1  
 Acq On : 29 Oct 18 11:29 Operator: cmm  
 Sample : 181029A LCS RSK Std 5 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:31 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.92	463602	73.490 ppb
2) ATM Ethane	1.08	679858	128.882 ppb
3) ATM Ethene	1.16	543114	118.773 ppb

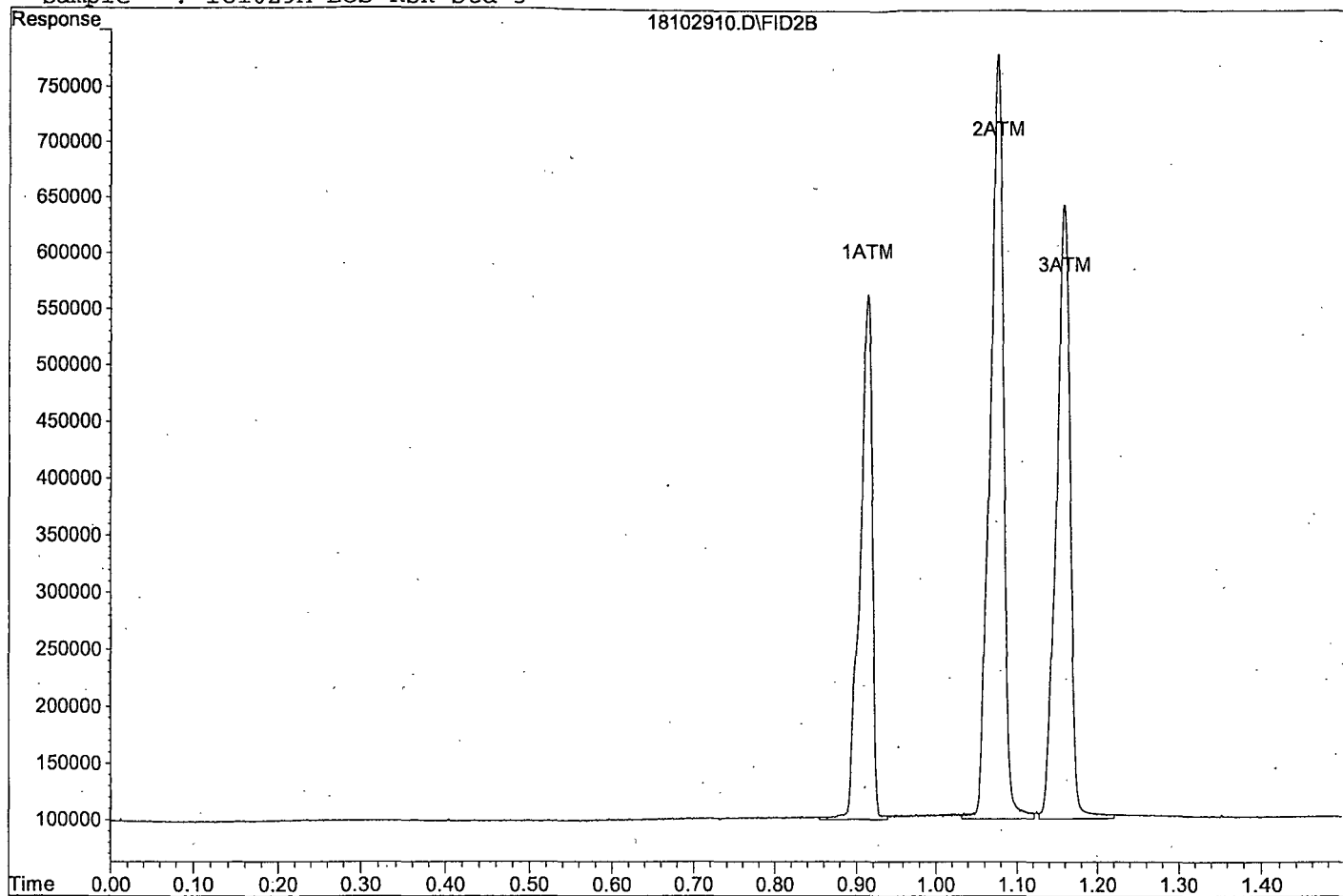
Target Compounds



Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102910.D

Sample : 181029A LCS RSK Std 5



Data File : G:\ROCKY\DATA\181029RS\18102911.D Vial: 2  
 Acq On : 29 Oct 18 11:32 Operator: cmm  
 Sample : 181029A LCSD RSK Std 5 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:34 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

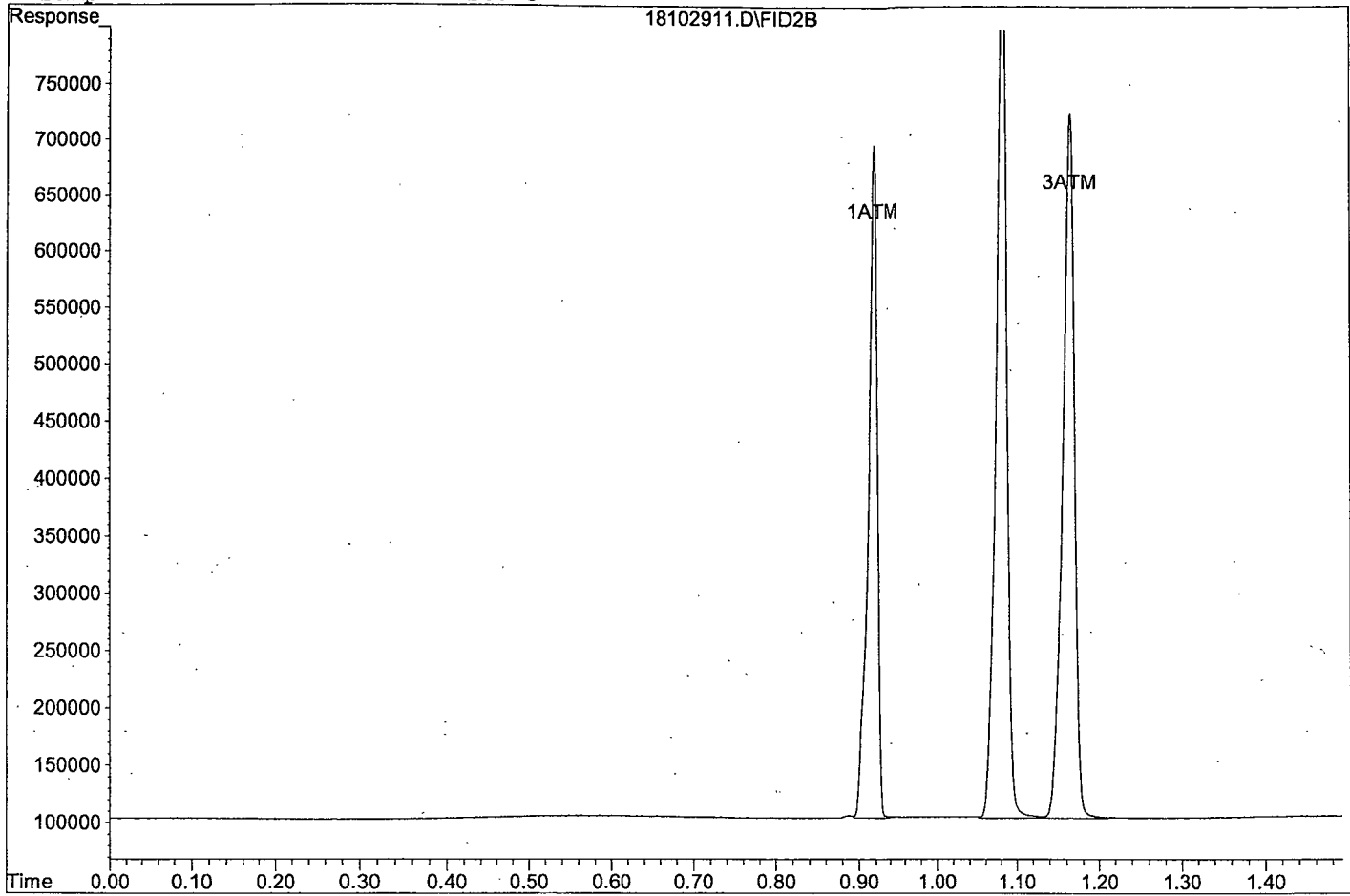
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.92	591178	97.396 ppb
2) ATM Ethane	1.08	790708	149.896 ppb
3) ATM Ethene	1.16	619673	135.515 ppb

Target Compounds

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102911.D

Sample : 181029A LCSD RSK Std 5



**Primary Source Stock Standard 10,000ppmV**

Manufacturer Exp Date 09-21-2021

RSK Gas Mix (Scott Mini-Mix) Cat.# X04NI97CP140001, Lot # 16-401303031-1

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

**RSK Calibration Curve (prepared in 1.0 L Tedlar Bags at room temp)****Expires 12/24/18****CMM 08/05/18**

Analyte	Conc Std 1 (1/2 = LOD) (ug/L)	Conc Std 2 (LOQ Chk) (ug/L)	Conc Std 3 (ug/L)	Conc Std 4 (ug/L)	Conc Std 5 (ug/L)	Conc Std 6 (ug/L)	Conc Std 7 (ug/L)
Methane (MW 16.04)	2.08	4.16	8.34	20.85	83.40	208.5	834.0
Ethane (MW 30.07)	3.91	7.81	15.6	39.09	156.35	390.9	1563.5
Ethene (MW 28.05)	3.65	7.30	14.6	36.46	145.84	364.6	1458.4
Stock Source	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC 06L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410
Stock Conc (ppmv)	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV
Stock Aliquot (mL)	0.010	0.020	0.040	0.100	0.400	1.00	4.00
Final Volume P&T Water	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL

**Second Source Stock Standard 10,000ppmV**

Manufacturer Exp date 09/21/2021

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

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

**Second Source****Expires 10/29/18****CMM 10/29/18**

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

**CCV/LCS/LCSD****CMM 10/29/18**

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

# Injection Log

Directory: G:\ROCKY\DATA\181029RS\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	18102900.D	1	RSK Std 1 10/29/18	125uL from RSK Std 3	29 Oct 18 10:29
2	2	18102901.D	1	RSK Std 2 10/29/18	250uL from RSK Std 3	29 Oct 18 10:32
3	4	18102903.D	1	RSK Std 3 10/29/18		29 Oct 18 10:40
4	5	18102904.D	1	RSK Std 4 10/29/18		29 Oct 18 10:42
5	6	18102905.D	1	RSK Std 5 10/29/18		29 Oct 18 10:44
6	7	18102906.D	1	RSK Std 6 10/29/18		29 Oct 18 10:47
7	8	18102907.D	1	RSK Std 7 10/29/18		29 Oct 18 10:49
8	9	18102908.D	1	SS RSK Std 5 10/29/18		29 Oct 18 10:51
9	1	18102910.D	1	181029A LCS RSK Std 5		29 Oct 18 11:29
10	2	18102911.D	1	181029A LCSD RSK Std 5		29 Oct 18 11:32
11	3	18102912.D	1	181029A Blk		29 Oct 18 11:34
12	5	18102924.D	1	AZ81636W04		29 Oct 18 13:50
13	6	18102925.D	1	AZ81637W04		29 Oct 18 13:52
14	7	18102926.D	1	AZ81639W04		29 Oct 18 13:54
15	8	18102927.D	1	AZ81640W04 E Methane		29 Oct 18 13:56
16	9	18102928.D	20	AZ81640W04 DF20		29 Oct 18 14:00
17	10	18102929.D	1	AZ81641W04		29 Oct 18 14:02
18	11	18102930.D	1	AZ81642W04		29 Oct 18 14:04
19	12	18102931.D	1	AZ81643W04		29 Oct 18 14:06
20	13	18102932.D	1	AZ81644W04		29 Oct 18 14:08
21	14	18102933.D	1	Ending CCV RSK Std 5 10/29/18		29 Oct 18 14:11

**INORGANIC ANALYSIS**  
**Calibration Data**

**APPL, INC.**

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

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

ARF No: 87212 SDG: 87212

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 06/15/18

Analyte	Calibration Verification									M
	True ICV	Found 12:31	%R(1)	True CCV1	Found 11:37	%R(1)	True CCV1	Found 11:44	%R(1)	
Ferrous Iron	3	3.16507	106	4	3.98495	99.6	4	4.16492	104	

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.

3

BLANKS

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

Contract: AECOM

ARF No.: 87212

SDG: 87212

Preparation Blank Matrix (soil/water): water

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

Analyte	Calibration Blanks										M
	ICB	C	CCB	C	CCB	C		C		C	
	06/15/18 12:32		10/24/18 11:38		10/24/18 11:45						
Ferrous Iron	1.000	U	1.000	U	1.000	U					



INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: \_\_\_\_\_

ARF No: \_\_\_\_\_ SDG: \_\_\_\_\_

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: \_\_\_\_\_

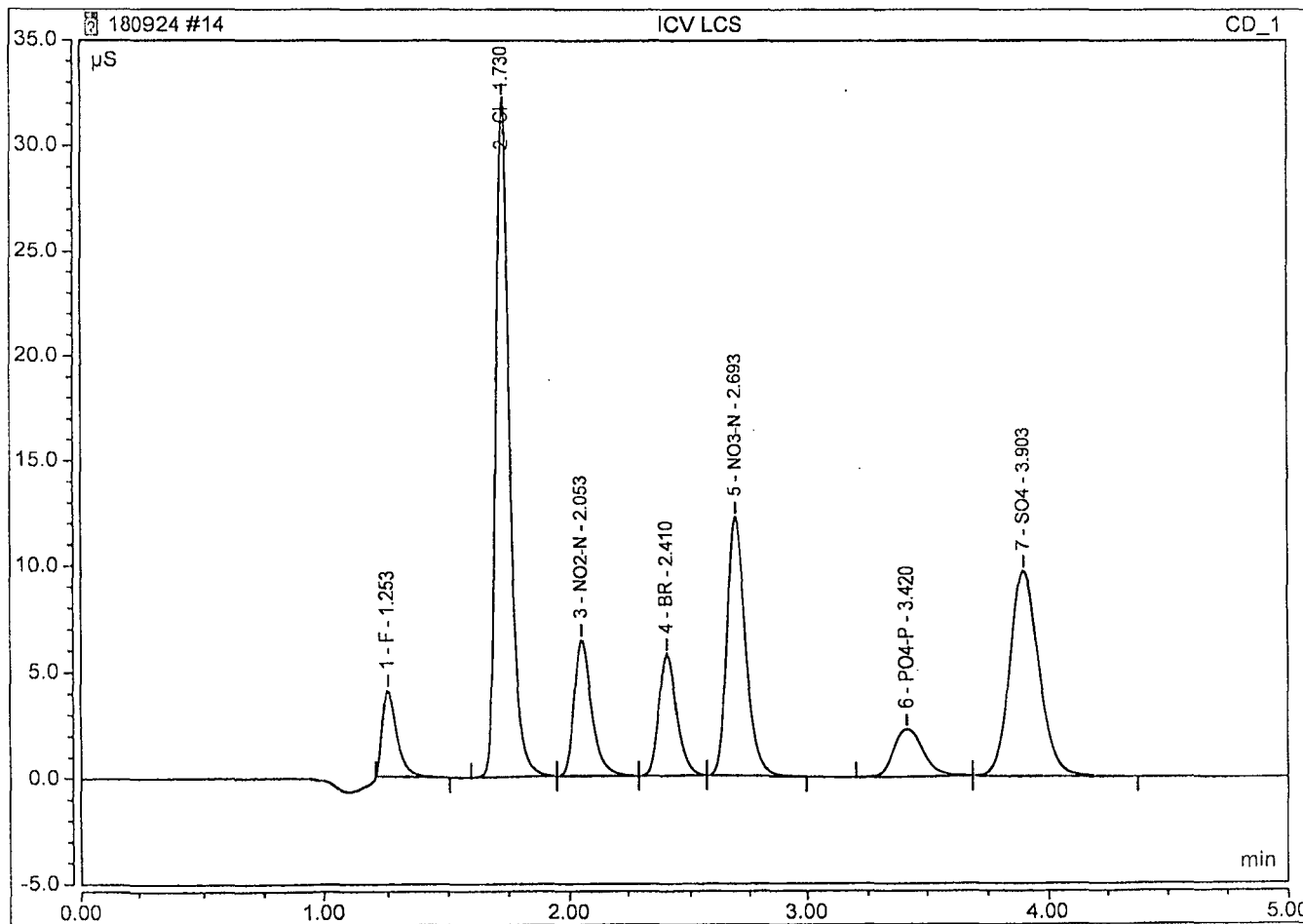
Analysis Date: 09/24/18

Analyte	Calibration Verification									M
	True ICV	Found 11:51	%R(1)	True	Found	%R(1)	True	Found	%R(1)	
bromide	12.5	12.7618	102							
chloride	20	18.7141	93.6							
fluoride	2.5	2.3808	95.2							
Nitrate(NO3)	22.1	21.9977	99.5							
Nitrate(NO3)-N	5	4.9672	99.3							
Nitrite(NO2)	9.98	10.2042	102							
Nitrite(NO2)-N	3.04	3.1067	102							
phosphate-p	5	4.9649	99.3							
sulfate	20	19.129	95.6							

### Peak Integration Report

Sample Name:	ICV LCS	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:51	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.25	F	BMB	0.271	4.107	2.3807
2	1.73	Cl	BMB	2.043	32.215	18.7141
3	2.05	NO2-N	BMB	0.562	6.419	3.1067
4	2.41	BR	BMB	0.480	5.743	12.7618
5	2.69	NO3-N	BMB	1.141	12.194	4.9672
6	3.42	PO4-P	BMB	0.319	2.256	4.9649
7	3.90	SO4	BMB	1.364	9.663	19.1290
TOTAL:				6.18	72.60	66.02



Algorithm Check: HH 180926  
 $y = \text{Peak Area}$   
 $x = \text{mg/L NO}_3\text{-N}$   
 $y = .2308 x - .0053$   
 $y = 1.141 \therefore x = 4.966 \checkmark$

BLANKS

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

Contract: \_\_\_\_\_

ARF No.: \_\_\_\_\_

SDG: \_\_\_\_\_

Preparation Blank Matrix (soil/water): water

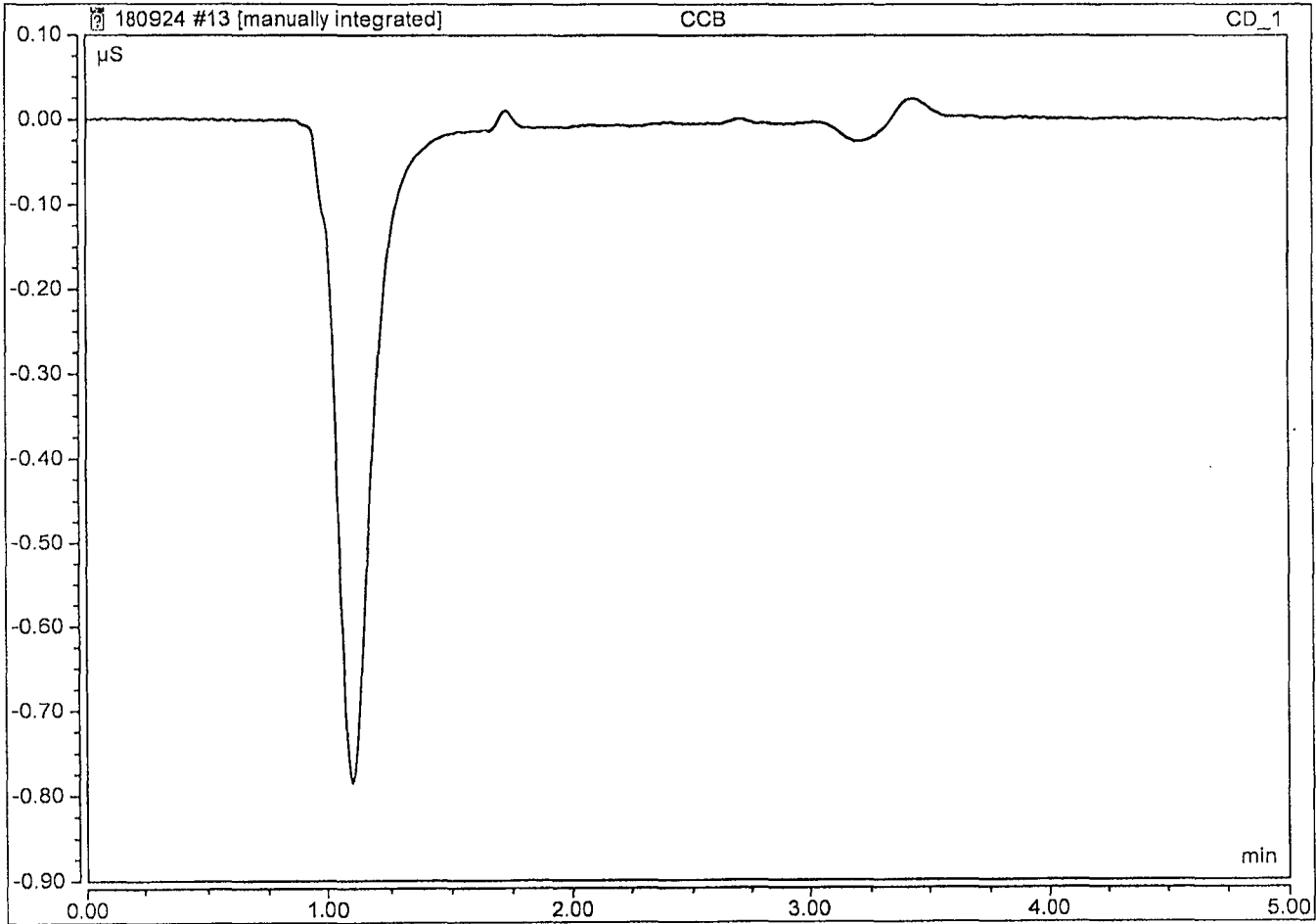
Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks									M
	CCB 09/24/18 11:43	C		C		C		C		
bromide	.500	U								
chloride	1.000	U								
fluoride	.100	U								
Nitrate(NO3)	.500	U								
Nitrate(NO3)-N	.200	U								
Nitrite(NO2)	.300	U								
Nitrite(NO2)-N	.100	U								
phosphate-p	.200	U								
sulfate	1.000	U								

### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:43	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00



A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

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

ARF No: 87212 SDG: 87212

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 10/24/18

Analyte	Calibration Verification									M
	True CCV1	Found 10:21	%R(1)	True CCV1	Found 12:28	%R(1)	True CCV1	Found 13:00	%R(1)	
chloride	25	24.1563	96.6	25	24.2073	96.8	25	24.1147	96.5	
Nitrate(NO3)	22.1	21.1363	95.6	22.1	21.3086	96.4	22.1	21.3179	96.5	
sulfate	25	23.6425	94.6	25	23.8015	95.2	25	23.8673	95.5	

INITIAL AND CONTINUING CALIBRATION VERIFICATION

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

ARF No: 87212 SDG: 87212

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

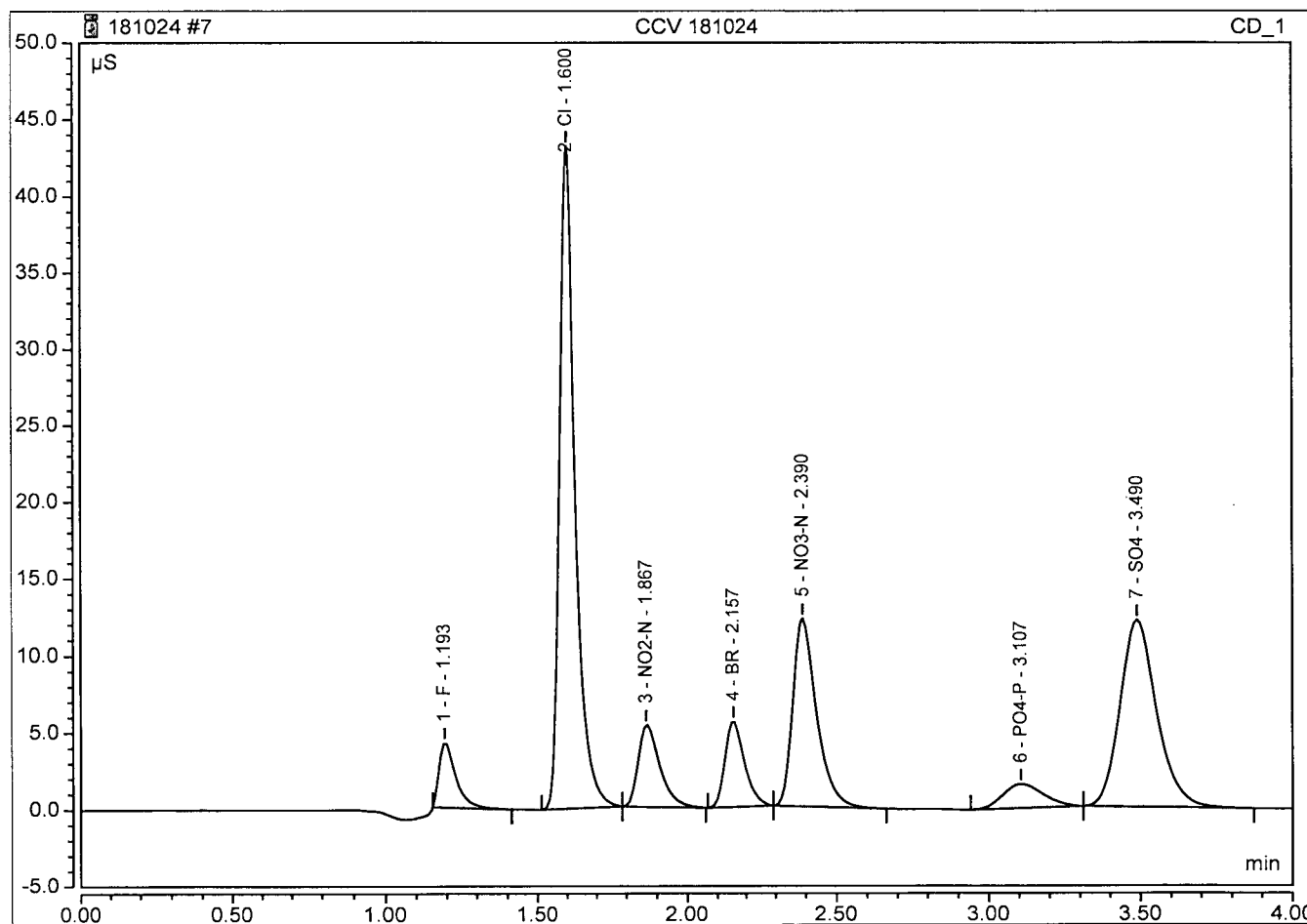
Analysis Date: 10/24/18

Analyte	Calibration Verification									M
	True CCV1	Found 13:49	%R(1)	True	Found	%R(1)	True	Found	%R(1)	
chloride	25	24.0927	96.4							
Nitrate(NO3)	22.1	21.3152	96.4							
sulfate	25	23.855	95.4							

### Peak Integration Report

Sample Name:	CCV 181024	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 10:21	Run Time:	4.00

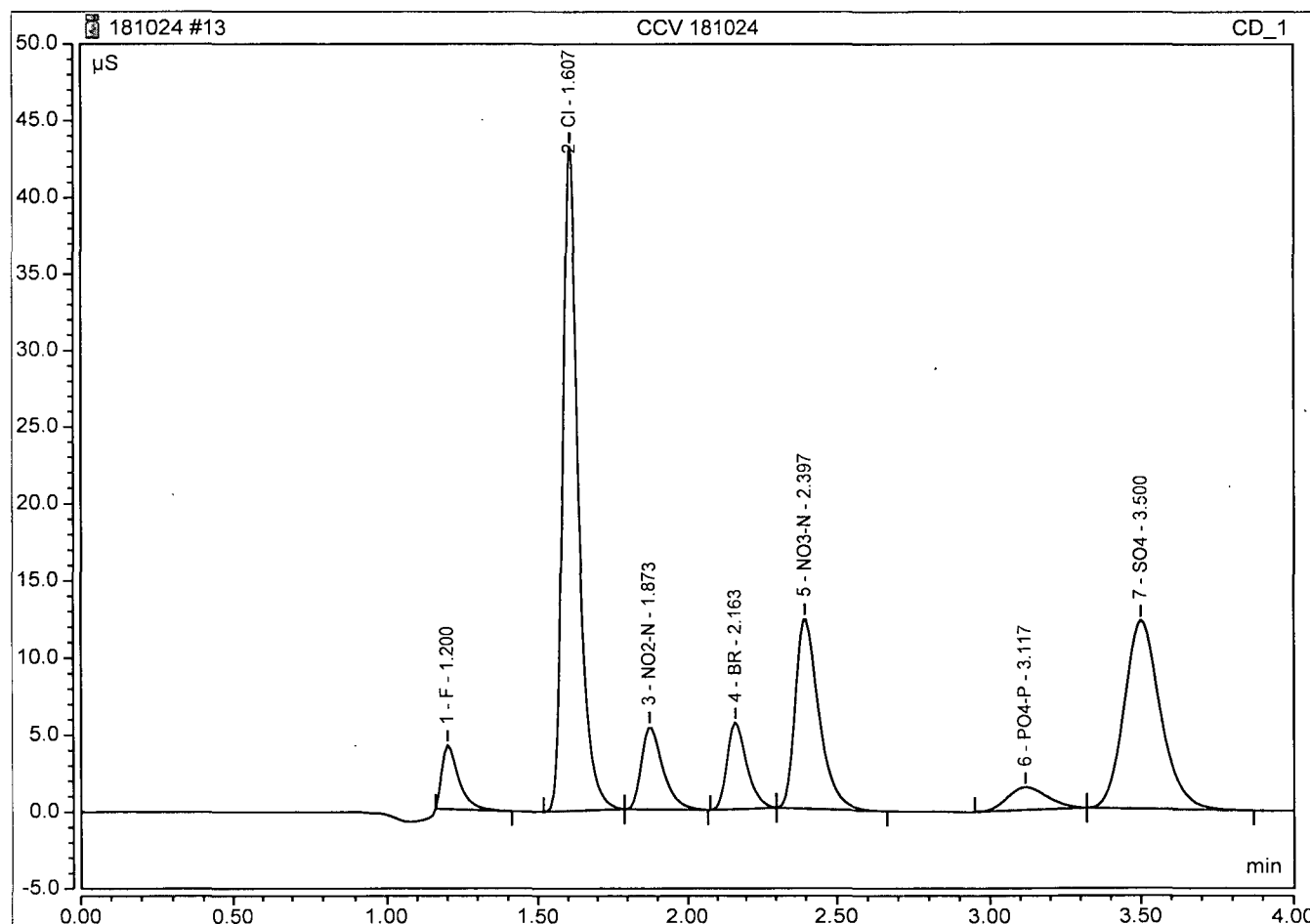
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.19	F	BMB	0.272	4.237	2.3854
2	1.60	Cl	BMB	2.644	43.200	24.1563
3	1.87	NO <sub>2</sub> -N	BMB	0.438	5.352	2.4259
4	2.16	BR	BMB	0.442	5.583	11.7451
5	2.39	NO <sub>3</sub> -N	BMB	1.096	12.220	4.7727
6	3.11	PO <sub>4</sub> -P	BMB	0.241	1.576	3.7987
7	3.49	SO <sub>4</sub>	BMB	1.688	12.156	23.6425
TOTAL:				6.82	84.32	72.93



### Peak Integration Report

Sample Name:	CCV 181024	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 12:28	Run Time:	4.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.20	F	BMB	0.269	4.180	2.3596
2	1.61	Cl	BMB	2.650	43.260	24.2073
3	1.87	NO2-N	BMB	0.443	5.394	2.4496
4	2.16	BR	BMB	0.447	5.640	11.9005
5	2.40	NO3-N	BMB	1.105	12.355	4.8116
6	3.12	PO4-P	BMB	0.227	1.485	3.6031
7	3.50	SO4	BMB	1.699	12.261	23.8015
TOTAL:				6.84	84.58	73.13

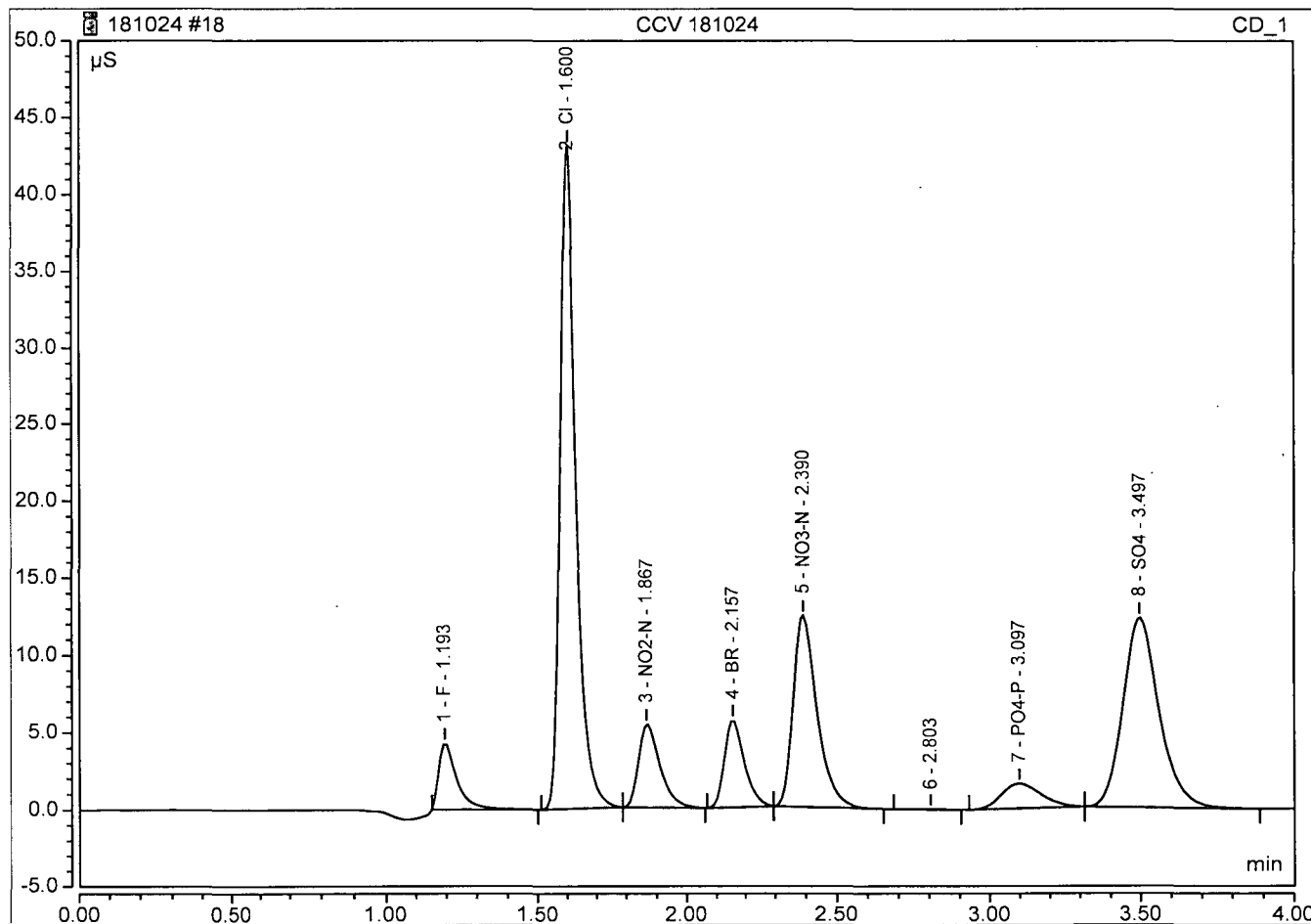




### Peak Integration Report

Sample Name:	CCV 181024	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 13:00	Run Time:	4.00

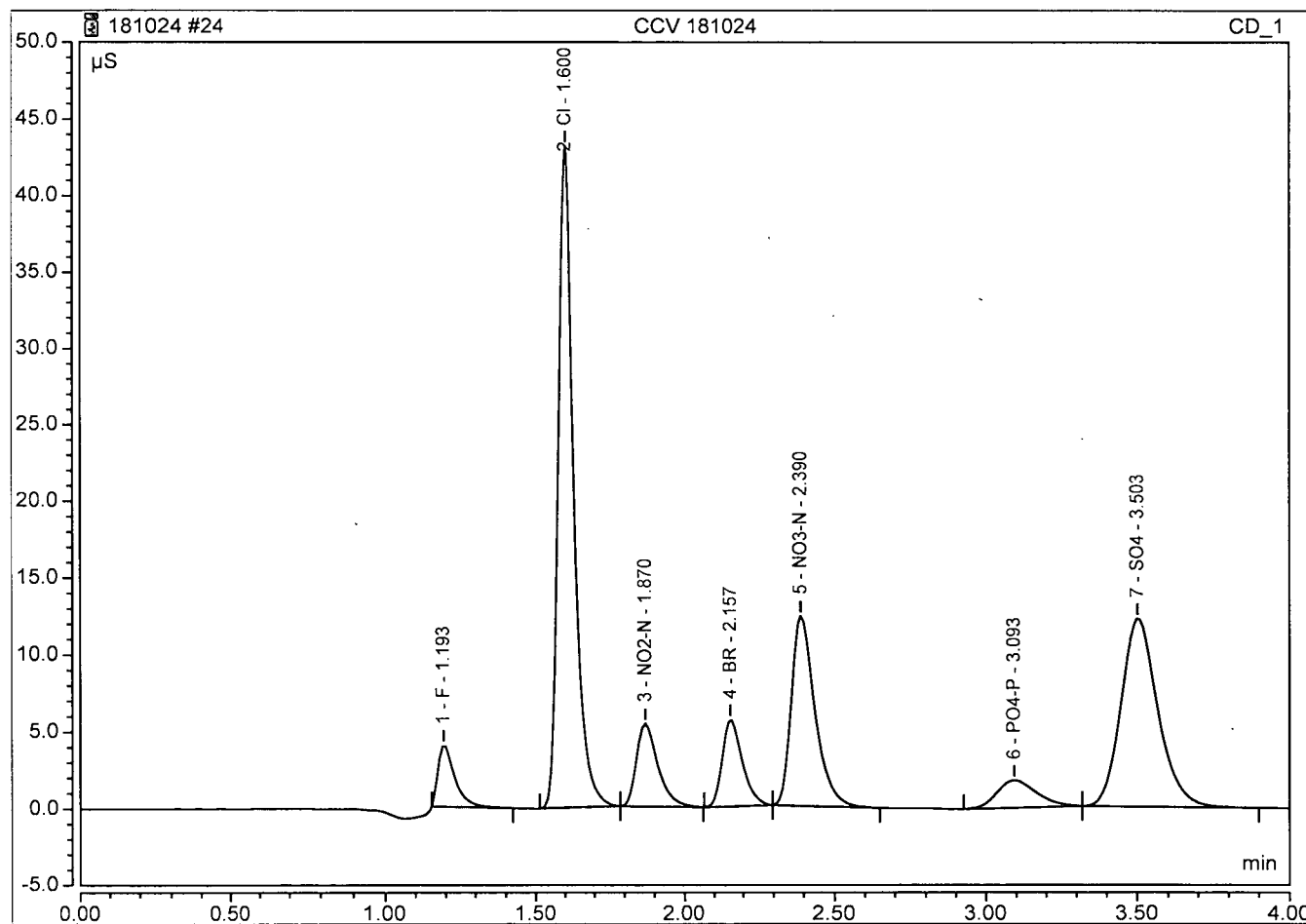
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.19	F	BMB	0.294	4.292	2.5719
2	1.60	Cl	BMB	2.640	43.120	24.1147
3	1.87	NO <sub>2</sub> -N	BMB	0.442	5.395	2.4463
4	2.16	BR	BMB	0.448	5.646	11.9043
5	2.39	NO <sub>3</sub> -N	BMB	1.106	12.369	4.8137
7	3.10	PO <sub>4</sub> -P	BMB	0.245	1.599	3.8605
8	3.50	SO <sub>4</sub>	BMB	1.704	12.278	23.8673
TOTAL:				6.88	84.70	73.58



### Peak Integration Report

Sample Name:	CCV 181024	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 13:49	Run Time:	4.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.19	F	BMB	0.262	4.031	2.3069
2	1.60	Cl	BMB	2.637	43.179	24.0927
3	1.87	NO2-N	BMB	0.443	5.409	2.4496
4	2.16	BR	BMB	0.448	5.656	11.9051
5	2.39	NO3-N	BMB	1.105	12.356	4.8131
6	3.09	PO4-P	BMB	0.274	1.797	4.2905
7	3.50	SO4	BMB	1.703	12.234	23.8550
TOTAL:				6.87	84.66	73.71



A.P.P.L. INC.

3

BLANKS

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

Contract: AECOM

ARF No.: 87212

SDG: 87212

Preparation Blank Matrix (soil/water): water

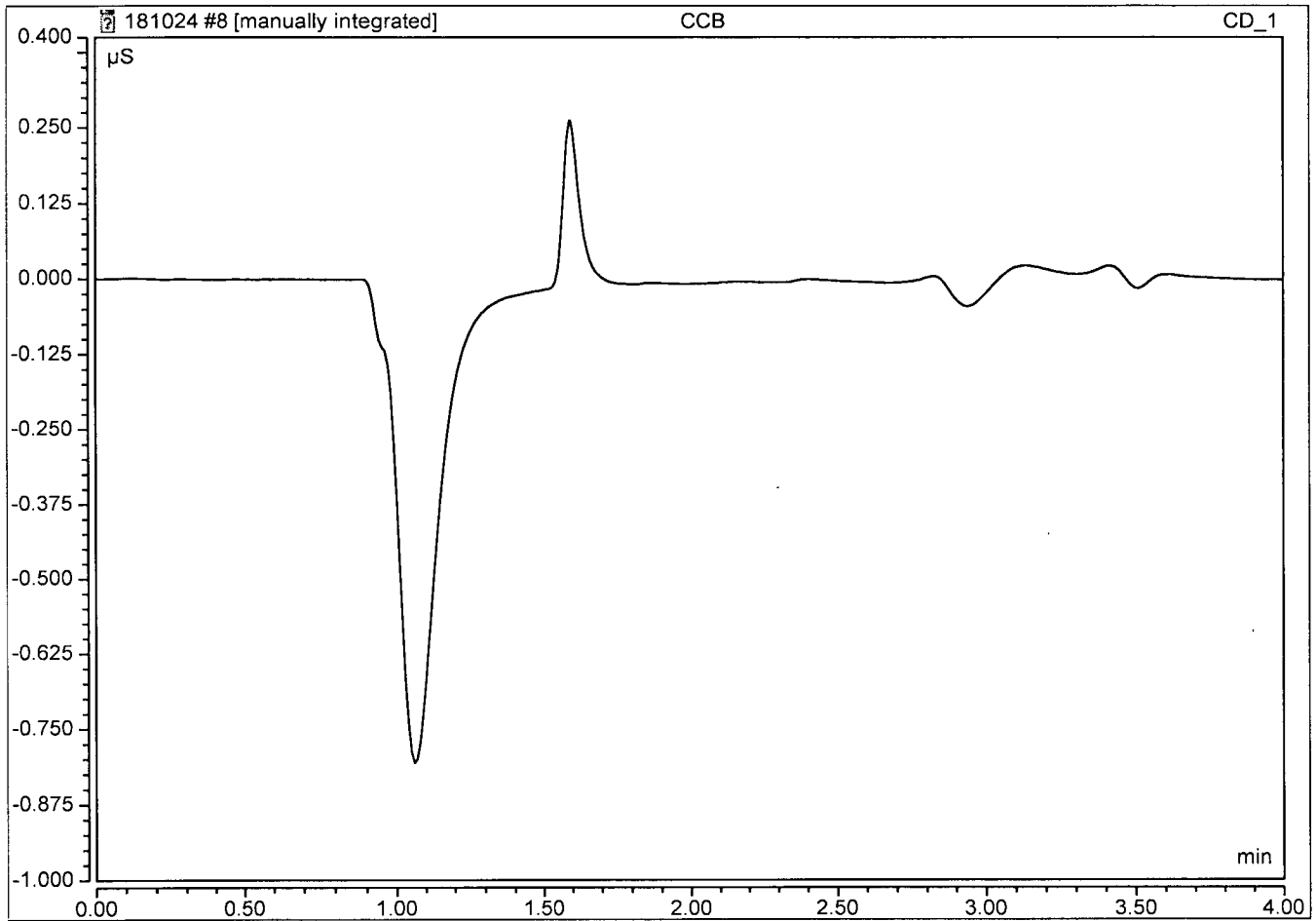
Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	CCB 10/24/18 10:28	C	CCB 10/24/18 12:34	C	CCB 10/24/18 13:06	C	CCB 10/24/18 13:55	C		C	
chloride	1.000	U	1.000	U	1.000	U	1.000	U			
Nitrate(NO3)	.500	U	.500	U	.500	U	.500	U			
sulfate	1.000	U	1.000	U	1.000	U	1.000	U			

### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 10:28	Run Time:	4.00

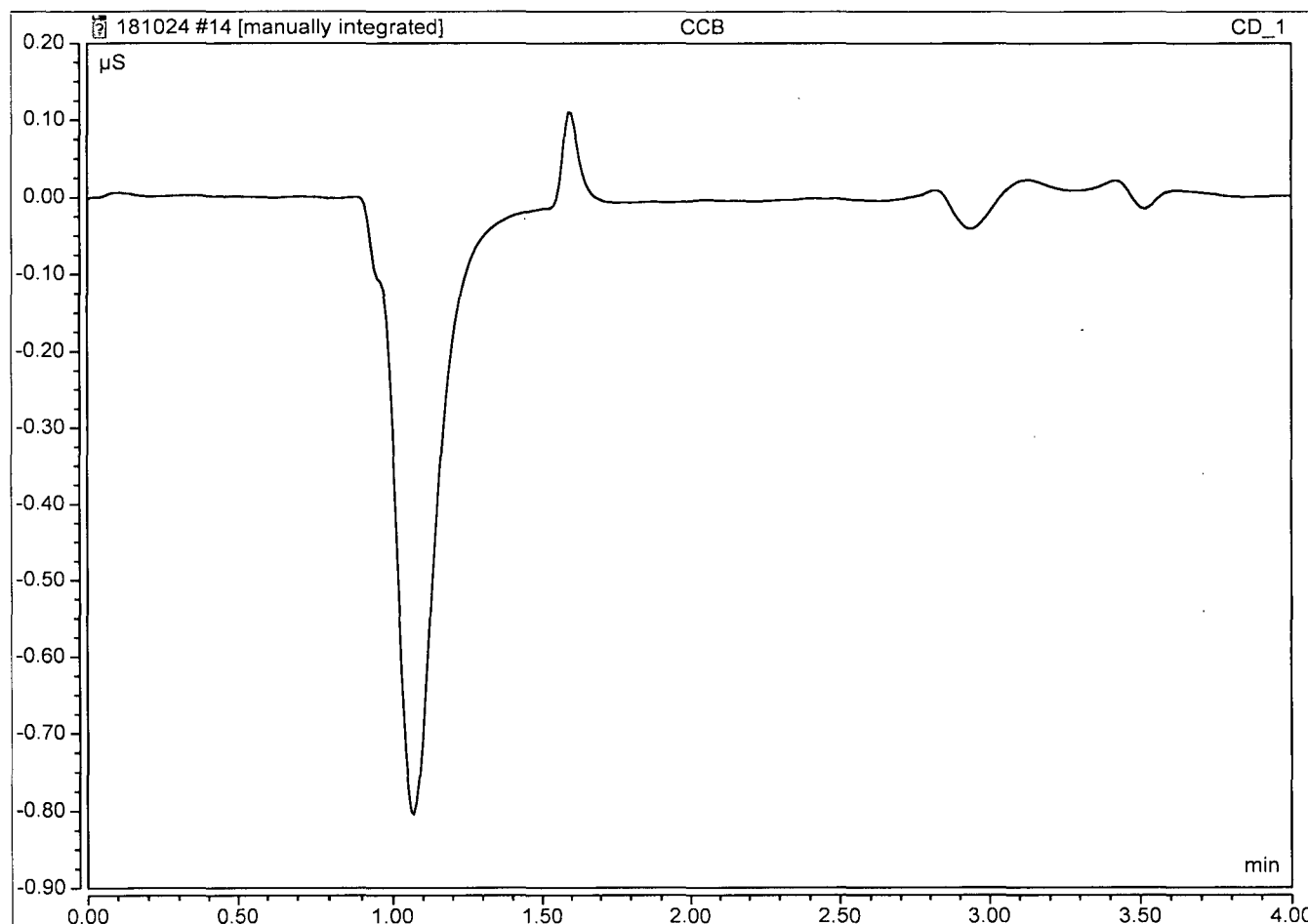
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00



### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 12:34	Run Time:	4.00

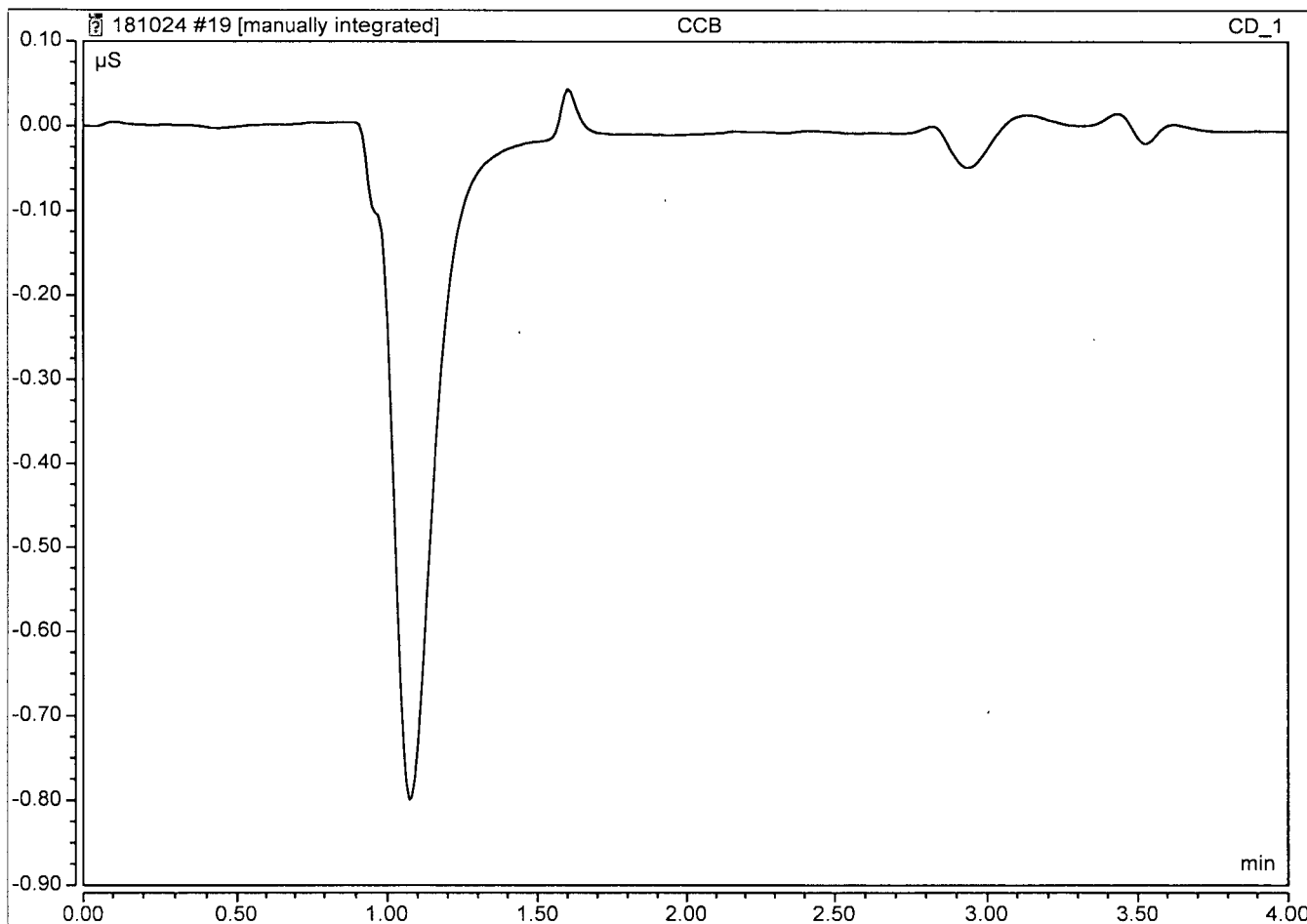
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00



### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 13:06	Run Time:	4.00

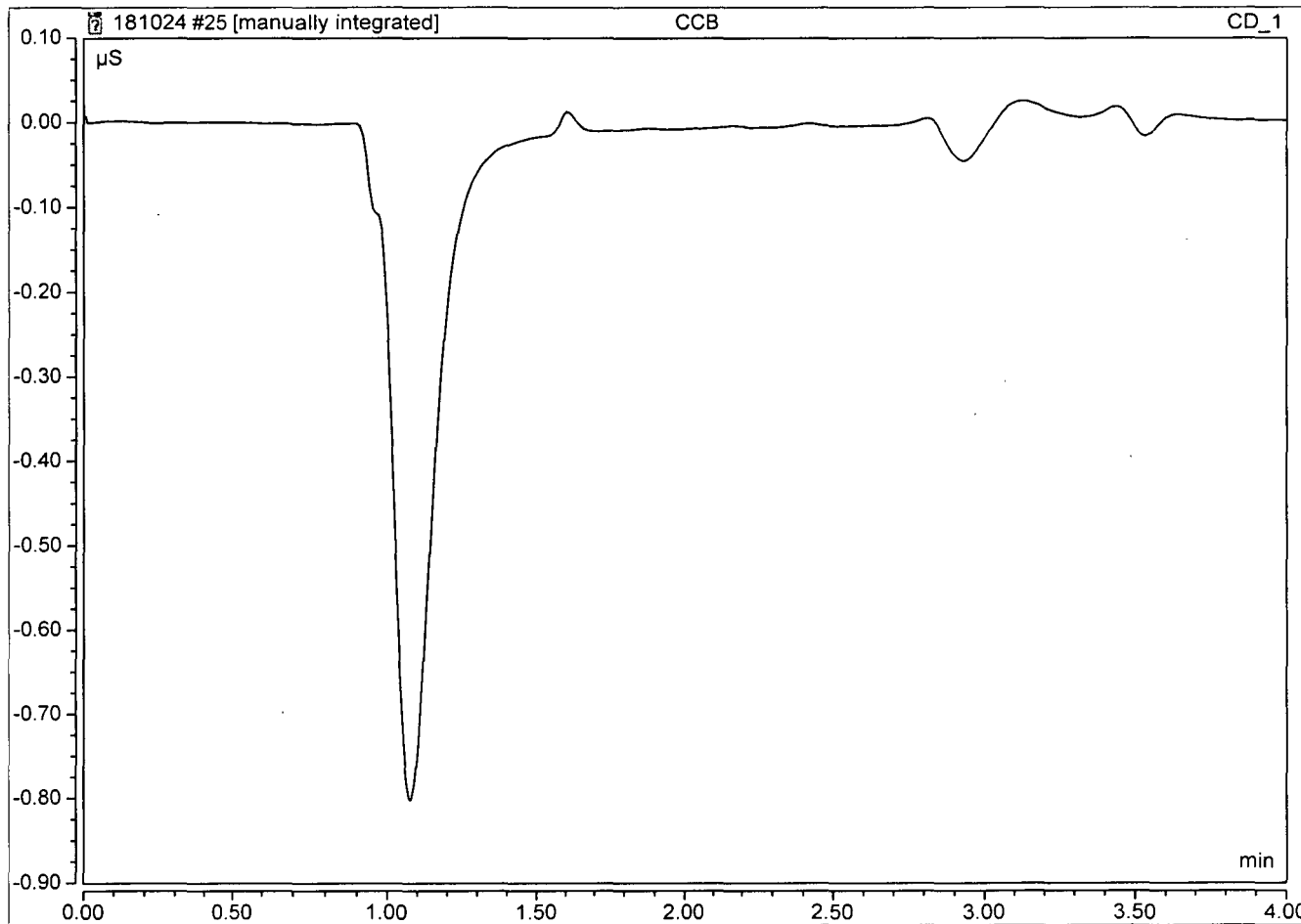
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount
TOTAL:				0.00	0.00	0.00



### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 13:55	Run Time:	4.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount
TOTAL:				0.00	0.00	0.00



A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

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

ARF No: 87198 SDG: 87198

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 10/30/18

Analyte	Calibration Verification									M
	True ICV	Found 14:32	%R(1)	True CCV1	Found 15:04	%R(1)	True CCV1	Found 15:14	%R(1)	
TOXN	3	3.0057	100	3	2.9472	98.2	3	2.9304	97.7	



A.P.P.L. INC.

3

BLANKS

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

Contract: AECOM

ARF No.: 87198

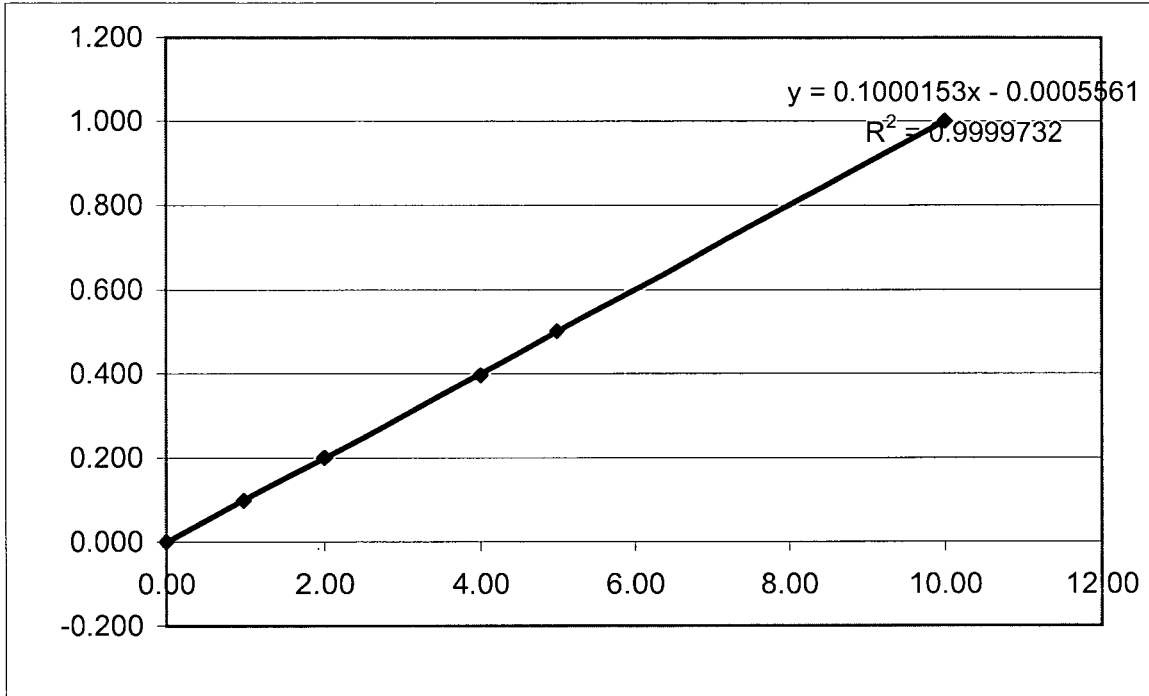
SDG: 87198

Preparation Blank Matrix (soil/water): water

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

Analyte	Calibration Blanks										M
	ICB 10/30/18 14:34	C	CCB 10/30/18 15:06	C	CCB 10/30/18 15:15	C		C		C	
TOXN	.100	U	.100	U	.100	U					

181024 Ferrous Iron



X	Y
0.00	0.000
1.00	0.099
2.00	0.201
4.00	0.396
5.00	0.501
10.00	1.000

Algorithm Check

reading (y)= 0.322

dilution= 1

result (x)= 3.23

3.22506759

HH

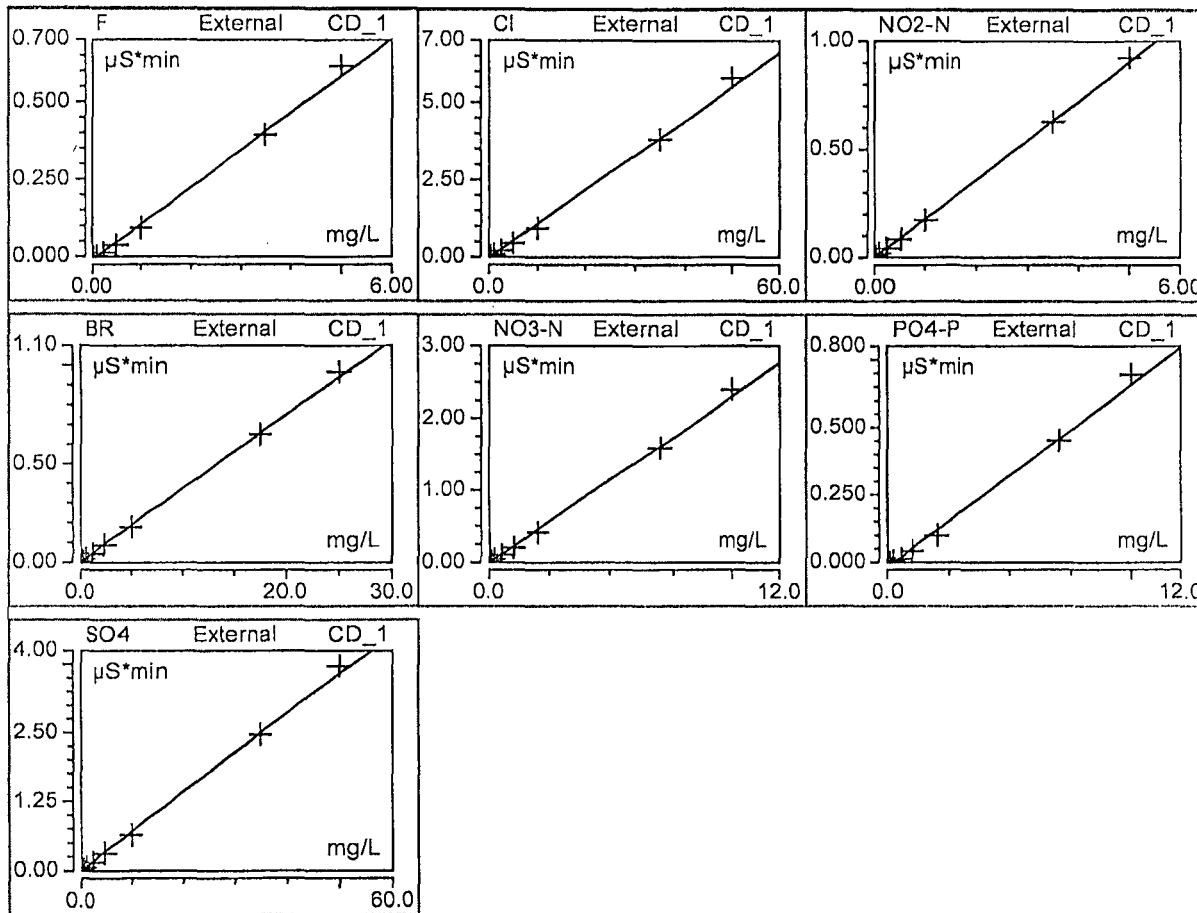
10/30/18

14:38

### Calibration Batch Report

Sequence:	180924	Injection Volume:	25.00
Instrument Method:	Anlons IM	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:36	Run Time:	5

Calibration Summary						
Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Coeff.Det. %
F	Area	Lin, WithOffset, 1/A	6	-0.013904	0.119725	99.34
Cl	Area	Lin, WithOffset, 1/A	7	-0.023621	0.110450	99.36
NO2-N	Area	Lin, WithOffset, 1/A	7	-0.001107	0.181176	99.92
BR	Area	Lin, WithOffset, 1/A	7	-0.000715	0.037662	99.88
NO3-N	Area	Lin, WithOffset, 1/A	7	-0.005336	0.230793	99.68
PO4-P	Area	Lin, WithOffset, 1/A	6	-0.015615	0.067471	99.04
SO4	Area	Lin, WithOffset, 1/A	7	-0.008285	0.071734	99.71

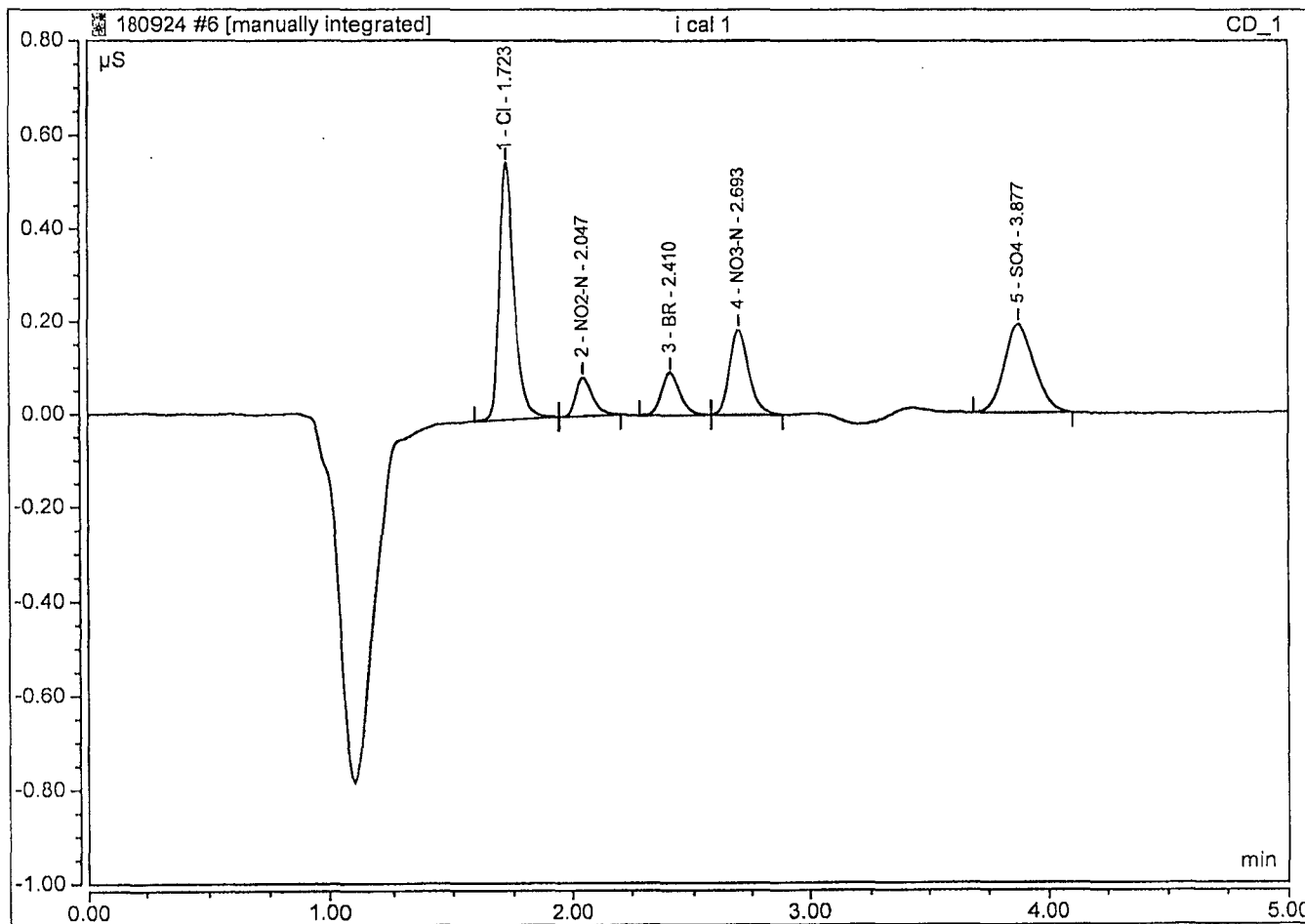


Injection Name	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1
	F	Cl	NO2-N	BR	NO3-N	PO4-P	SO4
ical 1	n.a.	0.5622	0.0441	0.2341	0.1016	n.a.	0.5074
ical 2	0.135	0.9959	0.1035	0.4942	0.1991	0.2894	0.9909
ical 3	0.220	2.1289	0.2368	1.1823	0.4535	0.4157	2.2625
ical 4	0.427	4.2154	0.4726	2.3380	0.8947	0.8302	4.4921
ical 5	0.889	8.5779	0.9575	4.7219	1.8093	1.6962	9.0988
ical 6	3.410	34.7347	3.4715	17.2981	6.9001	6.9186	34.5706
ical 7	5.269	52.6849	5.1040	25.6813	10.4216	10.5499	51.9777

### Peak Integration Report

Sample Name:	i cal 1	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 10:51	Run Time:	5.00

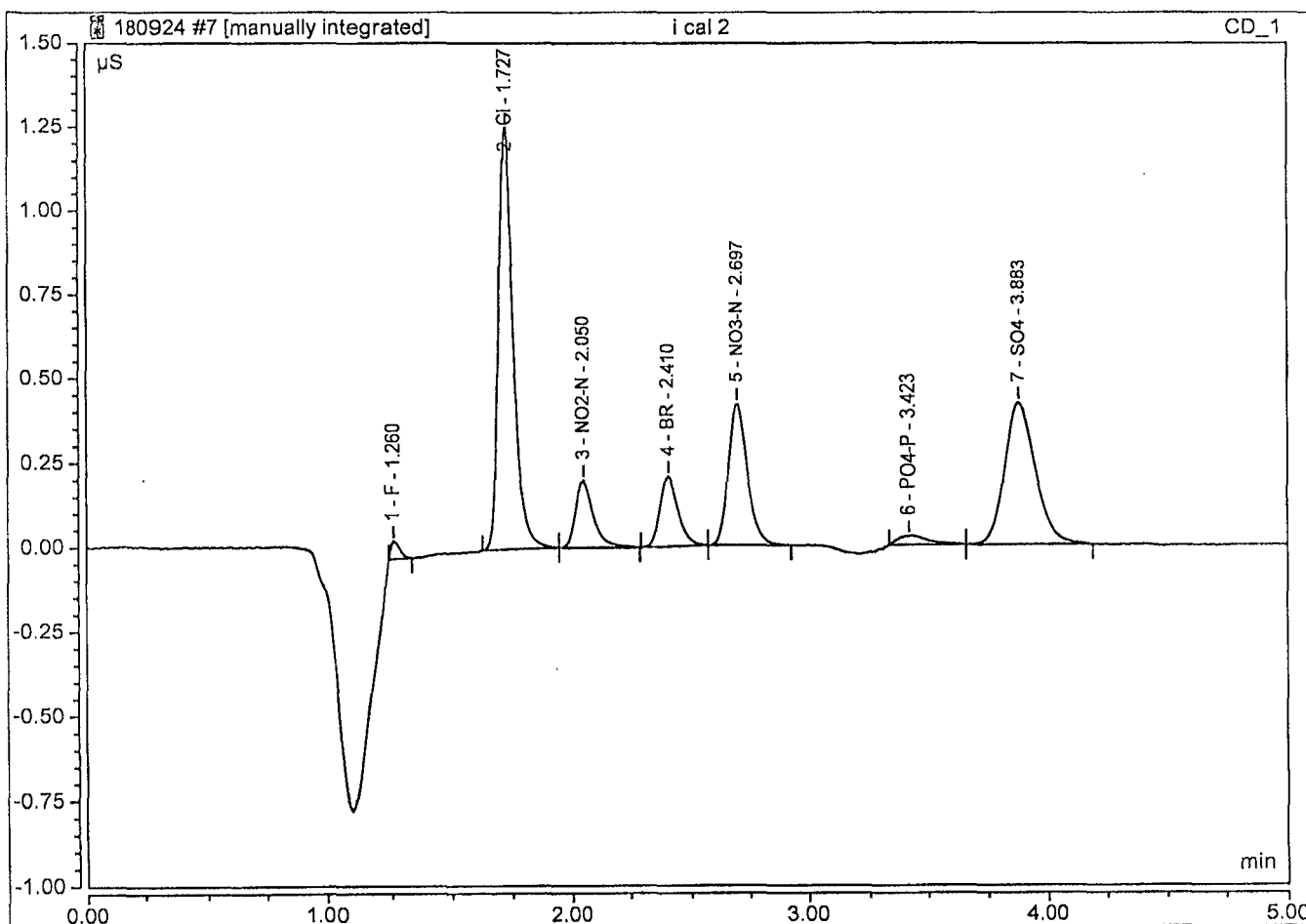
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.72	Cl	BMB	0.038	0.553	0.5622
2	2.05	NO2-N	BMB	0.007	0.083	0.0441
3	2.41	BR	BMB	0.008	0.093	0.2341
4	2.69	NO3-N	BMB	0.018	0.184	0.1016
5	3.88	SO4	BMB	0.028	0.192	0.5074
TOTAL:				0.10	1.10	1.45



### Peak Integration Report

Sample Name:	I cal 2	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 10:59	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB*	0.002	0.053	0.1347
2	1.73	Cl	BMB	0.086	1.253	0.9959
3	2.05	NO2-N	BMB	0.018	0.200	0.1035
4	2.41	BR	BMB	0.018	0.209	0.4942
5	2.70	NO3-N	BMB	0.041	0.418	0.1991
6	3.42	PO4-P	BMB*	0.004	0.027	0.2894
7	3.88	SO4	bMB*	0.063	0.420	0.9909
TOTAL:				0.23	2.58	3.21



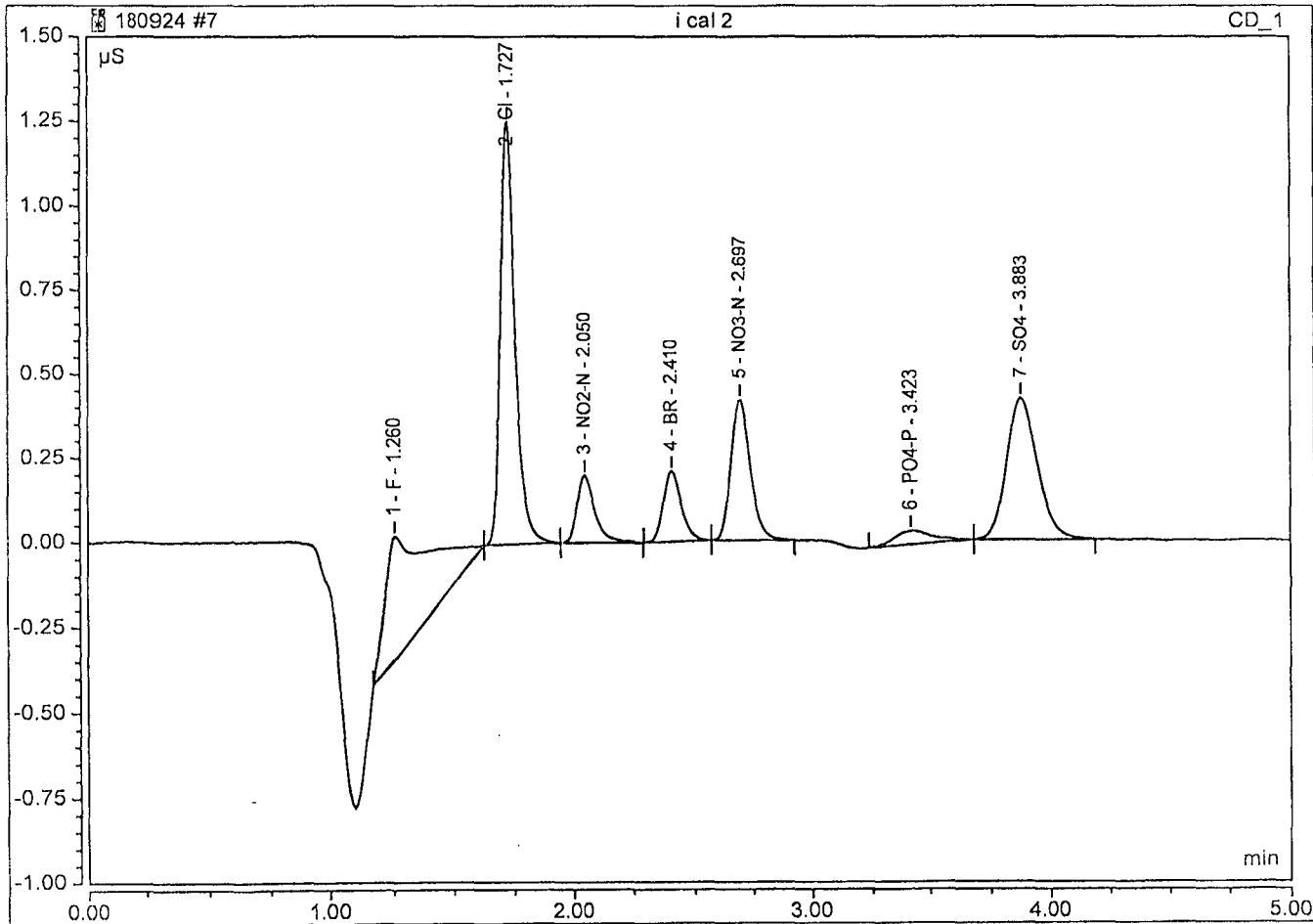
F M: 1 180926 HH  
 PO<sub>4</sub> M: 1 180926 HH

JR 09-26-18

### Peak Integration Report

Sample Name:	I cal 2	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 10:59	Run Time:	5.00

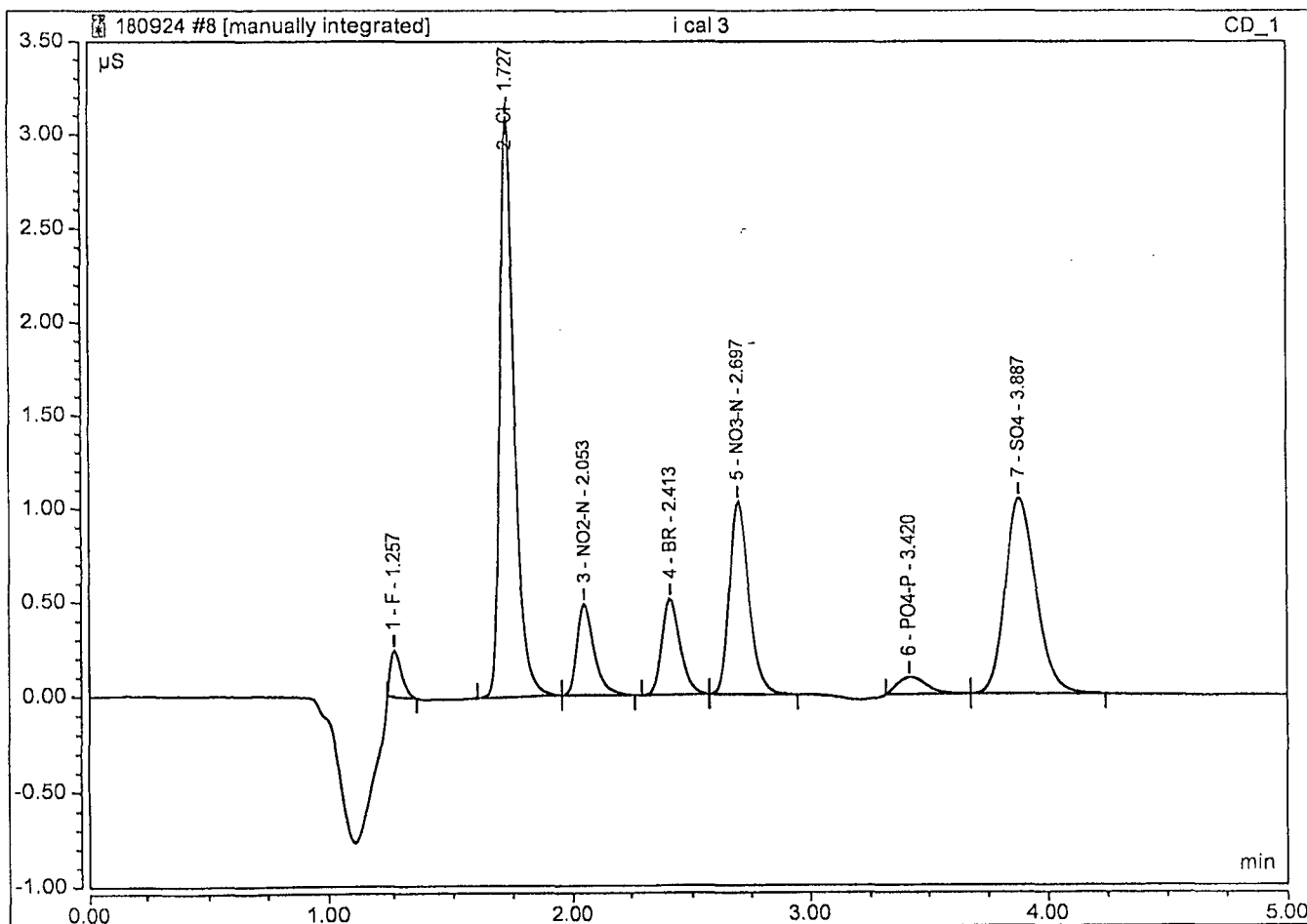
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB	0.075	0.362	0.7410
2	1.73	Cl	BMB	0.086	1.253	0.9959
3	2.05	NO <sub>2</sub> -N	BMB	0.018	0.200	0.1035
4	2.41	BR	BMB	0.018	0.209	0.4942
5	2.70	NO <sub>3</sub> -N	BMB	0.041	0.418	0.1991
6	3.42	PO <sub>4</sub> -P	BMB	0.008	0.040	0.3441
7	3.88	SO <sub>4</sub>	BMB	0.063	0.419	0.9886
TOTAL:				0.31	2.90	3.87



### Peak Integration Report

Sample Name:	i cal 3	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:06	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB*	0.012	0.245	0.2204
2	1.73	Cl	BMB	0.212	3.095	2.1289
3	2.05	NO2-N	BMB	0.042	0.484	0.2368
4	2.41	BR	BMB	0.044	0.508	1.1823
5	2.70	NO3-N	BMB	0.099	1.026	0.4535
6	3.42	PO4-P	BMB*	0.012	0.090	0.4157
7	3.89	SO4	BMB	0.154	1.039	2.2625
TOTAL:				0.58	6.49	6.90



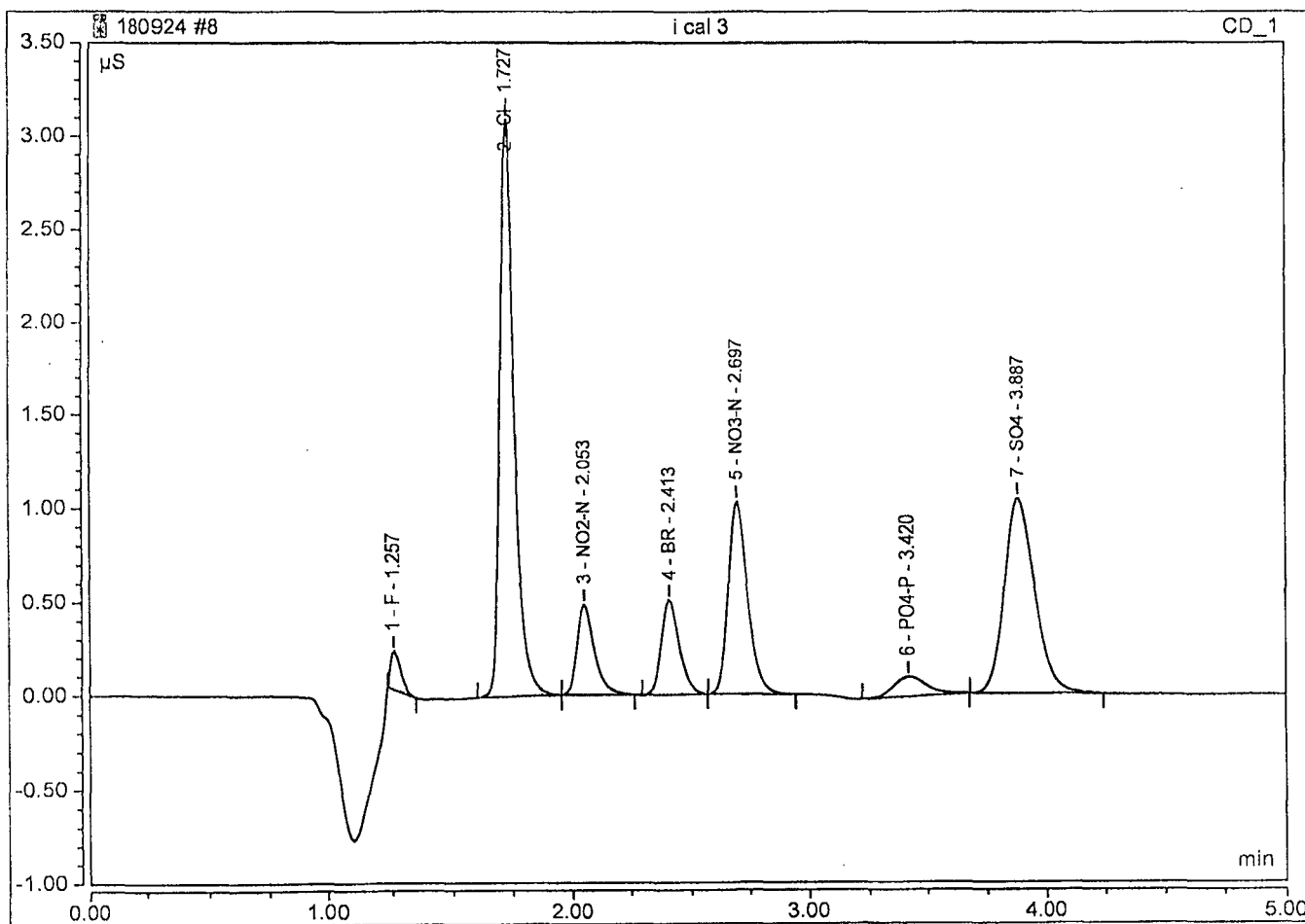
F M:1 180926 HH  
 PO4 M:1 180926 HH

JR 09-26-18

### Peak Integration Report

Sample Name:	i cal 3	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:06	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB	0.010	0.207	0.1969
2	1.73	Cl	BMB	0.212	3.095	2.1289
3	2.05	NO2-N	BMB	0.042	0.484	0.2368
4	2.41	BR	BMB	0.044	0.508	1.1823
5	2.70	NO3-N	BMB	0.099	1.026	0.4535
6	3.42	PO4-P	BMB	0.017	0.105	0.4781
7	3.89	SO4	BMB	0.154	1.039	2.2625
TOTAL:				0.58	6.46	6.94

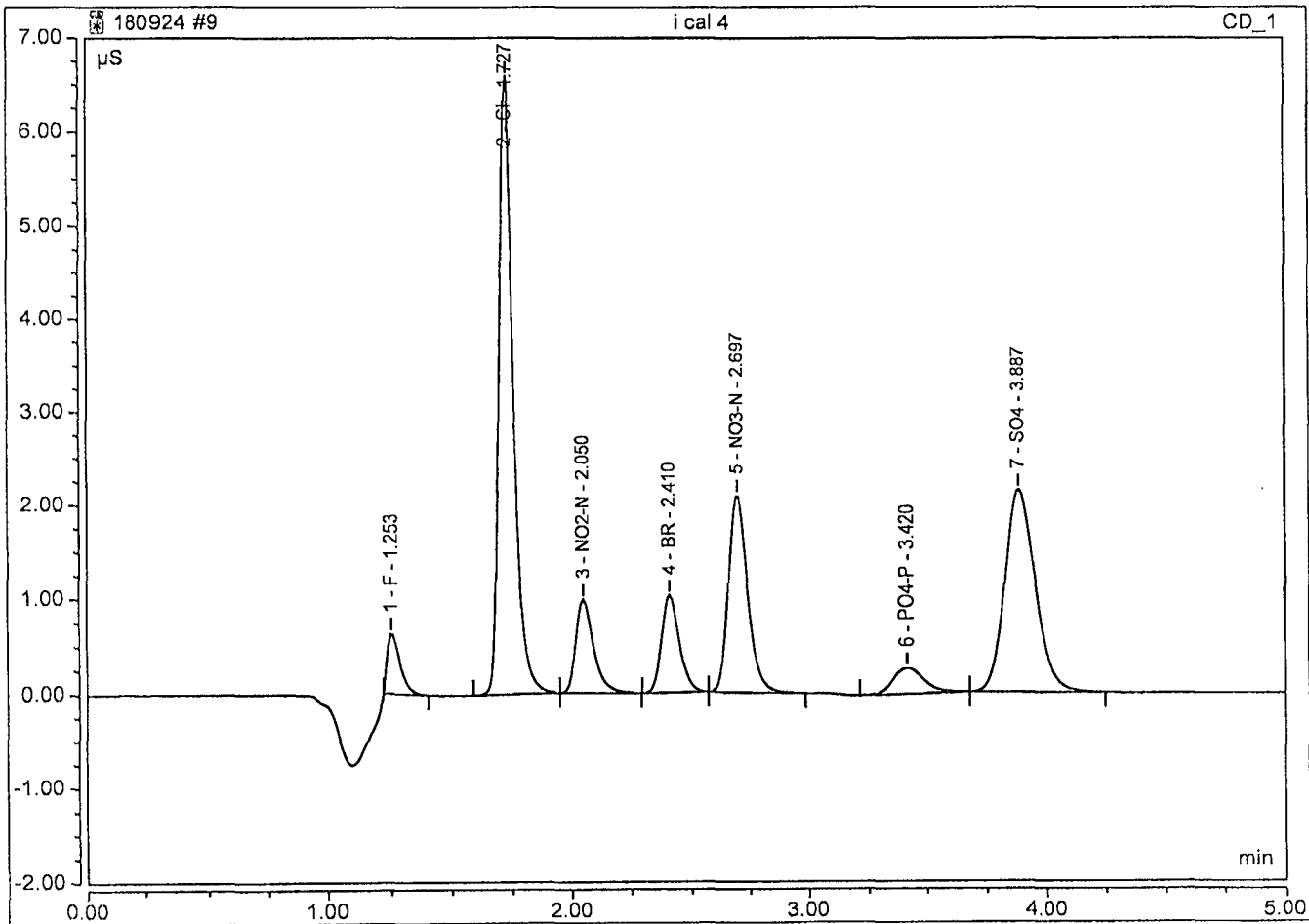




### Peak Integration Report

Sample Name:	l cal 4	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:14	Run Time:	5.00

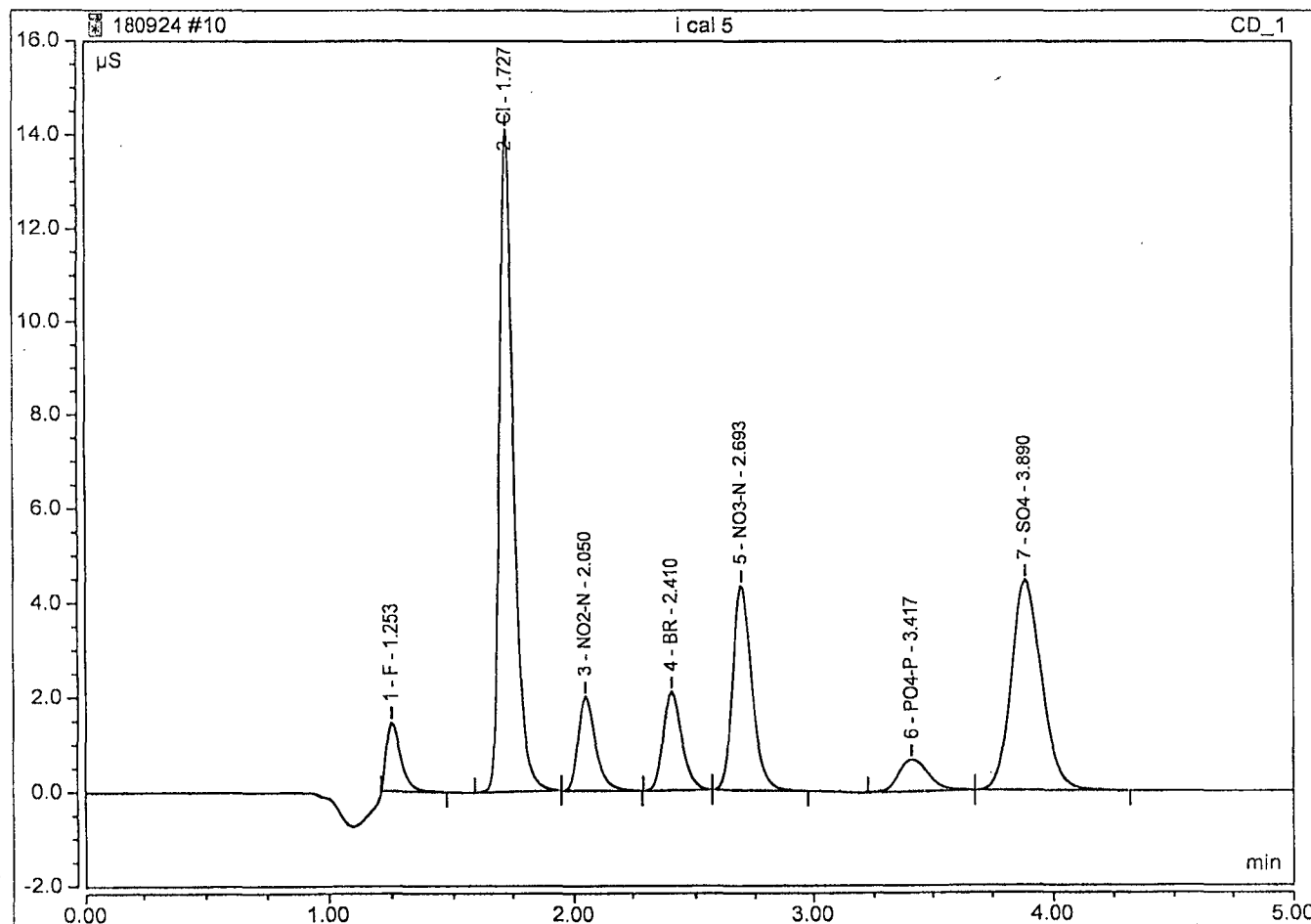
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.25	F	BMB	0.037	0.633	0.4272
2	1.73	Cl	BMB	0.442	6.587	4.2154
3	2.05	NO2-N	BMB	0.085	0.978	0.4726
4	2.41	BR	BMB	0.087	1.020	2.3380
5	2.70	NO3-N	BMB	0.201	2.080	0.8947
6	3.42	PO4-P	BMB	0.040	0.267	0.8302
7	3.89	SO4	BMB	0.314	2.135	4.4921
TOTAL:				1.21	13.70	13.67



### Peak Integration Report

Sample Name:	i cal 5	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:21	Run Time:	5.00

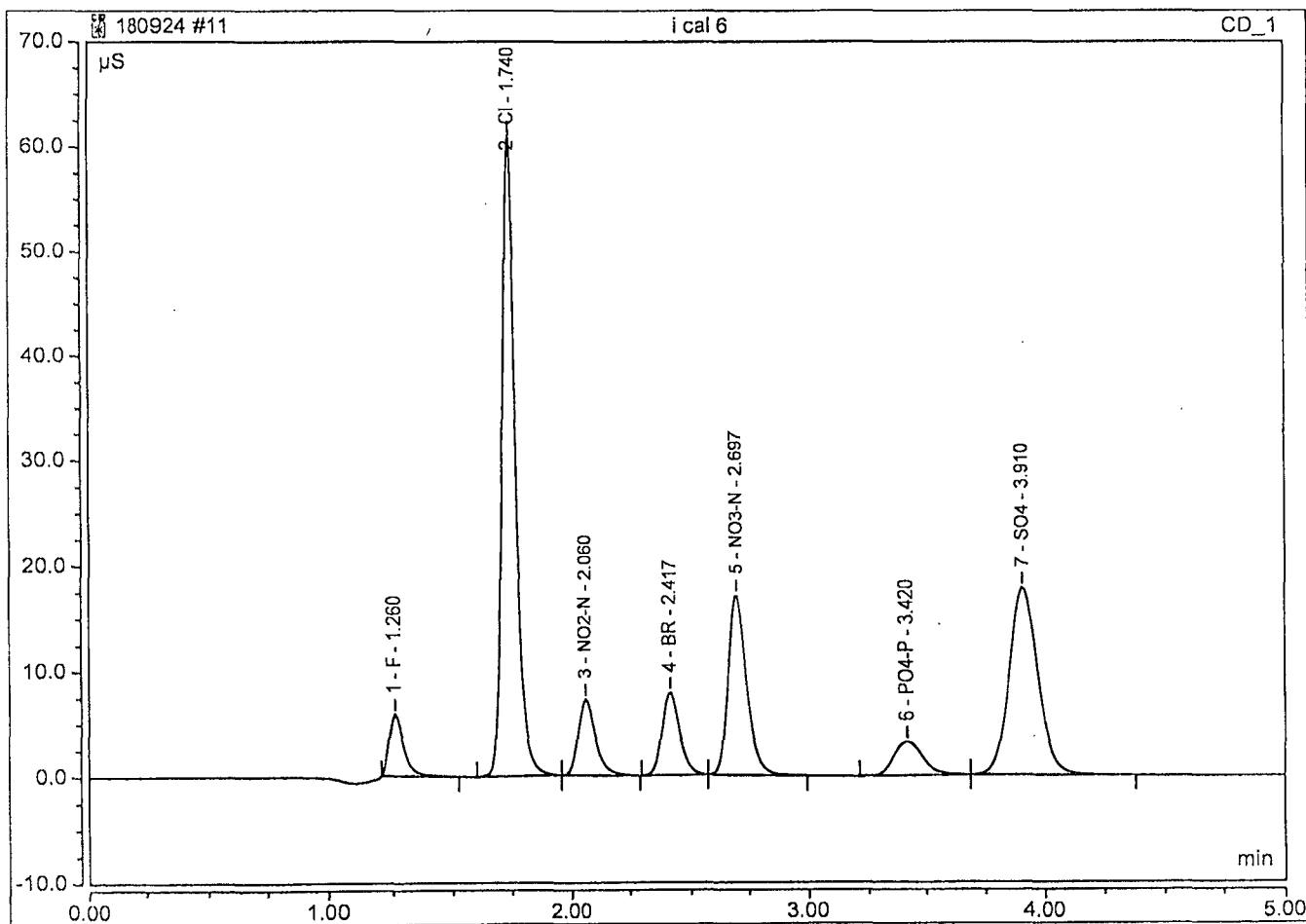
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.25	F	BMB	0.093	1.455	0.8893
2	1.73	Cl	BMB	0.924	14.090	8.5779
3	2.05	NO <sub>2</sub> -N	BMB	0.172	1.985	0.9575
4	2.41	BR	BMB	0.177	2.085	4.7219
5	2.69	NO <sub>3</sub> -N	BMB	0.412	4.323	1.8093
6	3.42	PO <sub>4</sub> -P	BMB	0.099	0.678	1.6962
7	3.89	SO <sub>4</sub>	BMB	0.644	4.443	9.0988
TOTAL:				2.52	29.06	27.75



### Peak Integration Report

Sample Name:	i cal 6	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:28	Run Time:	5.00

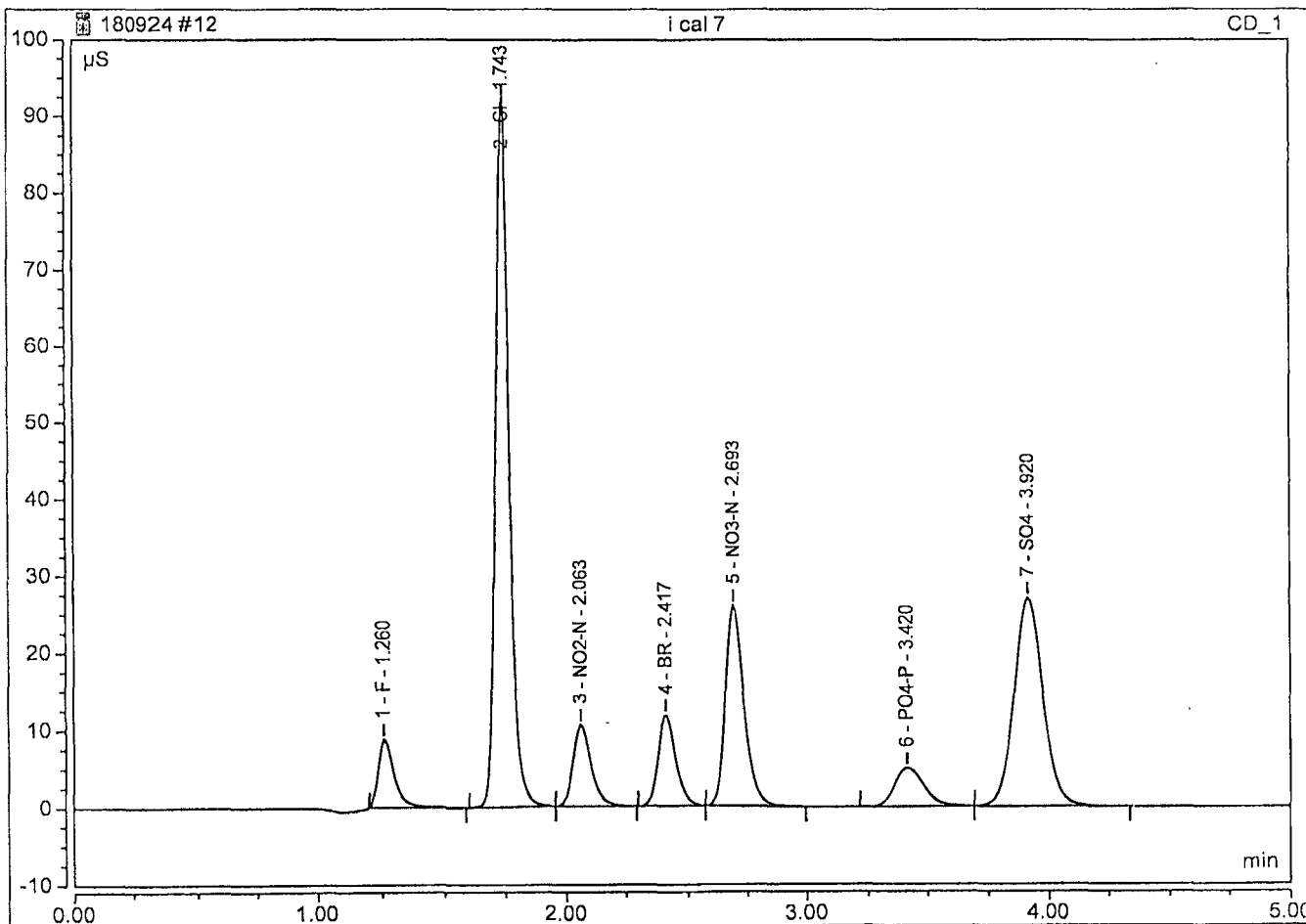
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB	0.394	5.883	3.4098
2	1.74	Cl	BMB	3.813	60.935	34.7347
3	2.06	NO2-N	BMB	0.628	7.206	3.4715
4	2.42	BR	BMB	0.651	7.839	17.2981
5	2.70	NO3-N	BMB	1.587	17.063	6.9001
6	3.42	PO4-P	BMB	0.451	3.196	6.9186
7	3.91	SO4	BMB	2.472	17.710	34.5706
TOTAL:				10.00	119.83	107.30



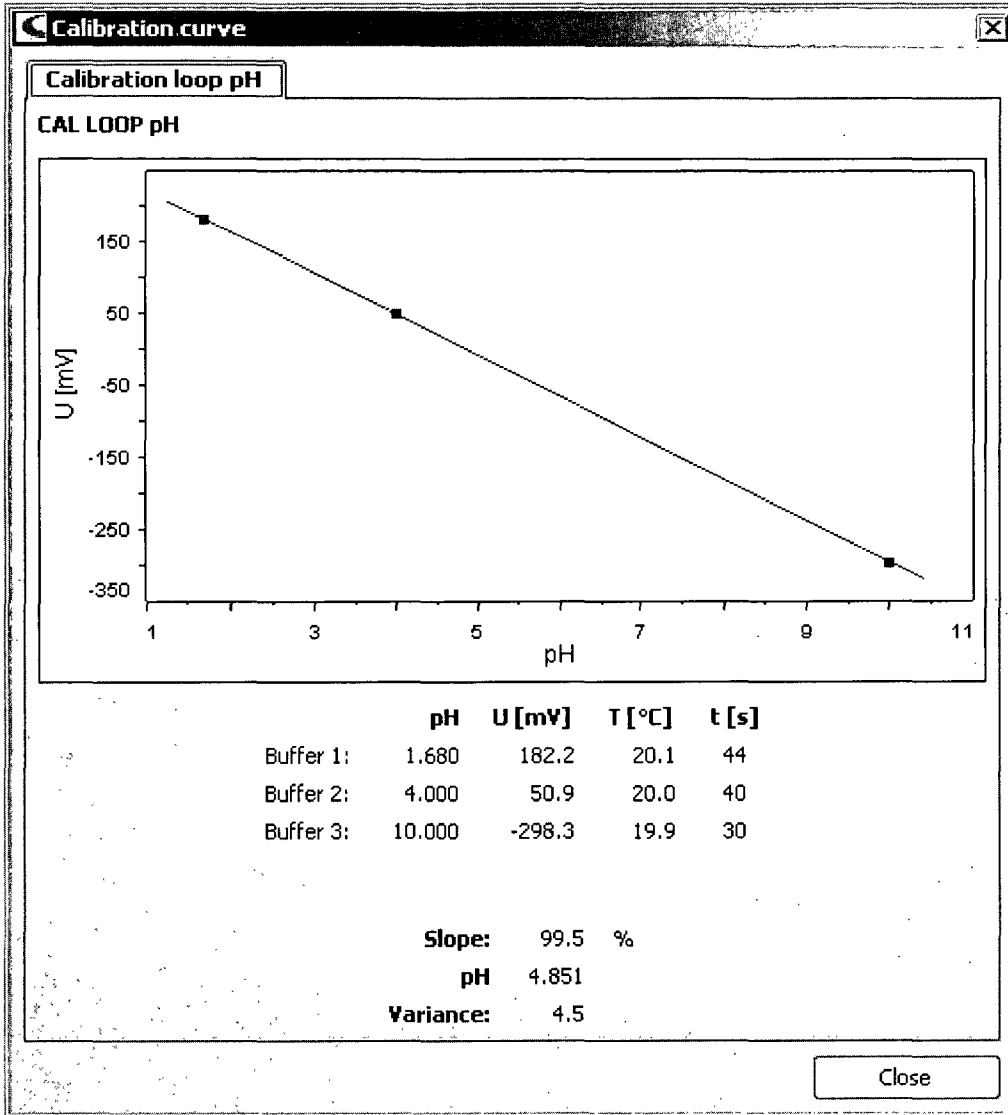
### Peak Integration Report

Sample Name:	i cal 7	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:36	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}^*\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB	0.617	8.838	5.2687
2	1.74	Cl	BMB	5.795	92.222	52.6849
3	2.06	NO2-N	BMB	0.924	10.519	5.1040
4	2.42	BR	BMB	0.966	11.770	25.6813
5	2.69	NO3-N	BMB	2.400	25.942	10.4216
6	3.42	PO4-P	BMB	0.696	4.987	10.5499
7	3.92	SO4	BMB	3.720	26.940	51.9777
TOTAL:				15.12	181.22	161.69



Tiamo Calibration Curve 181029A



**INORGANIC ANALYSIS**  
**Raw Data**

**APPL, INC.**

**SPECTROPHOTOMETRIC ANALYSIS (Ferrous Iron)**

Method: SM3500Fe  
 Analyte: Ferrous Iron  
 Analyst: HH  
 Units: mg/L  
 QCG: 181024  
 Notes:  
 Final Volume: 50mL

Instrument: GENESYS 10UV  
 Raw Spec: abs. @ 510nm  
 R-Squared: 0.99997  
 Reagent (lot#): COLORIZING REAGENT (181024)  
 BUFFER (09/19/18)

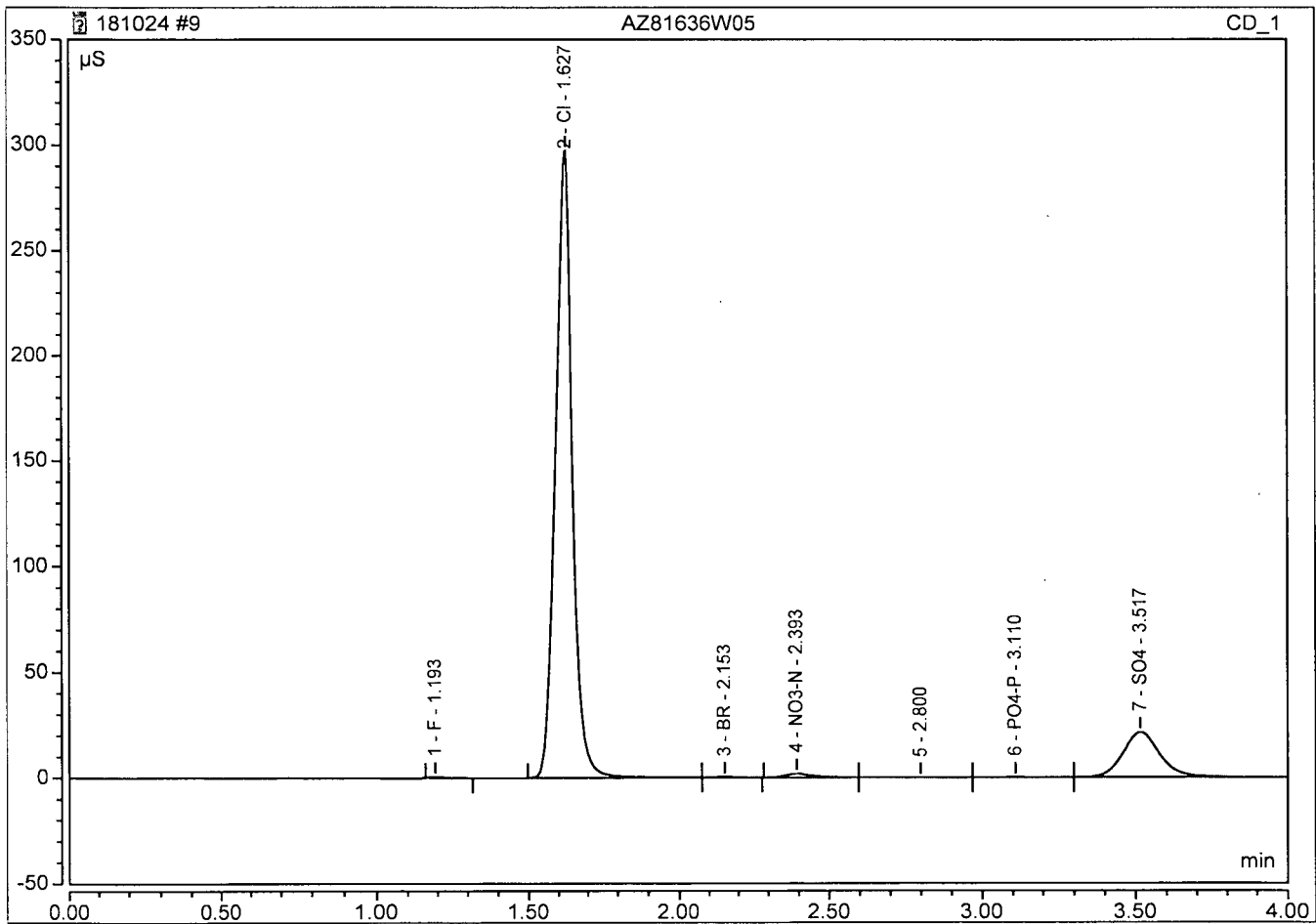
Analyst Completes  
 Formula Locked Cells

Date	Time	APPL ID	DF	Raw Result	SubSample Amt	Raw BLK	Calc Conc	Result	QC True	QC%	Row Complete
06/15/18	12:27	0 HH 180615	1	0.000	25mL						
06/15/18	12:27	1	1	0.099	25mL						
06/15/18	12:28	2	1	0.201	25mL						
06/15/18	12:28	3	1	0.396	25mL						
06/15/18	12:29	4	1	0.501	25mL						
06/15/18	12:30	5	1	1.000	25mL						
06/15/18	12:31	180615A ICV	1	0.316	25mL		3.17	3.17	3.000	105.5%	#NAME?
06/15/18	12:32	180615A ICB	1	0.000	25mL		0.01	0.01			#NAME?
10/24/18	11:37	CCV 4.0 181024	1	0.398	25mL		3.98	3.985	4.000	99.6%	#NAME?
10/24/18	11:38	CCB 181024	1	0.009	25mL		0.10	0.096			#NAME?
10/24/18	11:38	181024A LCS	1	0.322	25mL		3.23	3.225	3.000	107.5%	#NAME?
10/24/18	11:39	181024A LCSD	1	0.316	25mL		3.17	3.165	3.000	105.5%	#NAME?
10/24/18	11:39	AZ81640W07	1	0.255	25mL		2.56	2.555			#REF!
10/24/18	11:40	AZ81636W07	1	0.012	25mL		0.13	0.126			#REF!
10/24/18	11:40	AZ81644W07	1	0.015	25mL		0.16	0.156			
10/24/18	11:41	AZ81642W07	1	0.013	25mL		0.14	0.136	3.16	4.3%	
10/24/18	11:42	AZ81640W07 MS	1	0.539	25mL		5.39	5.395	3.16	171.0%	
10/24/18	11:43	AZ81640W07 MSD	1	0.541	25mL		5.41	5.415	4.00	135.4%	
10/24/18	11:44 AM	CCV 4.0 181024	1	0.416	25mL		4.16	4.165			
10/24/18	11:45	CCB 181024	1	0.001	25mL						

### Peak Integration Report

Sample Name:	AZ81636W05	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 12:02	Run Time:	4.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.19	F	BMB	0.027	0.448	0.3457
2	1.63	Cl	BMB	19.465	297.322	176.4466
3	2.15	BR	BMB	0.016	0.206	0.4447
4	2.39	NO3-N	BMB	0.166	1.773	0.7405
6	3.11	PO4-P	BMB	0.006	0.049	0.3273
7	3.52	SO4	BMB	2.920	21.411	40.8183
TOTAL:				22.60	321.21	219.12

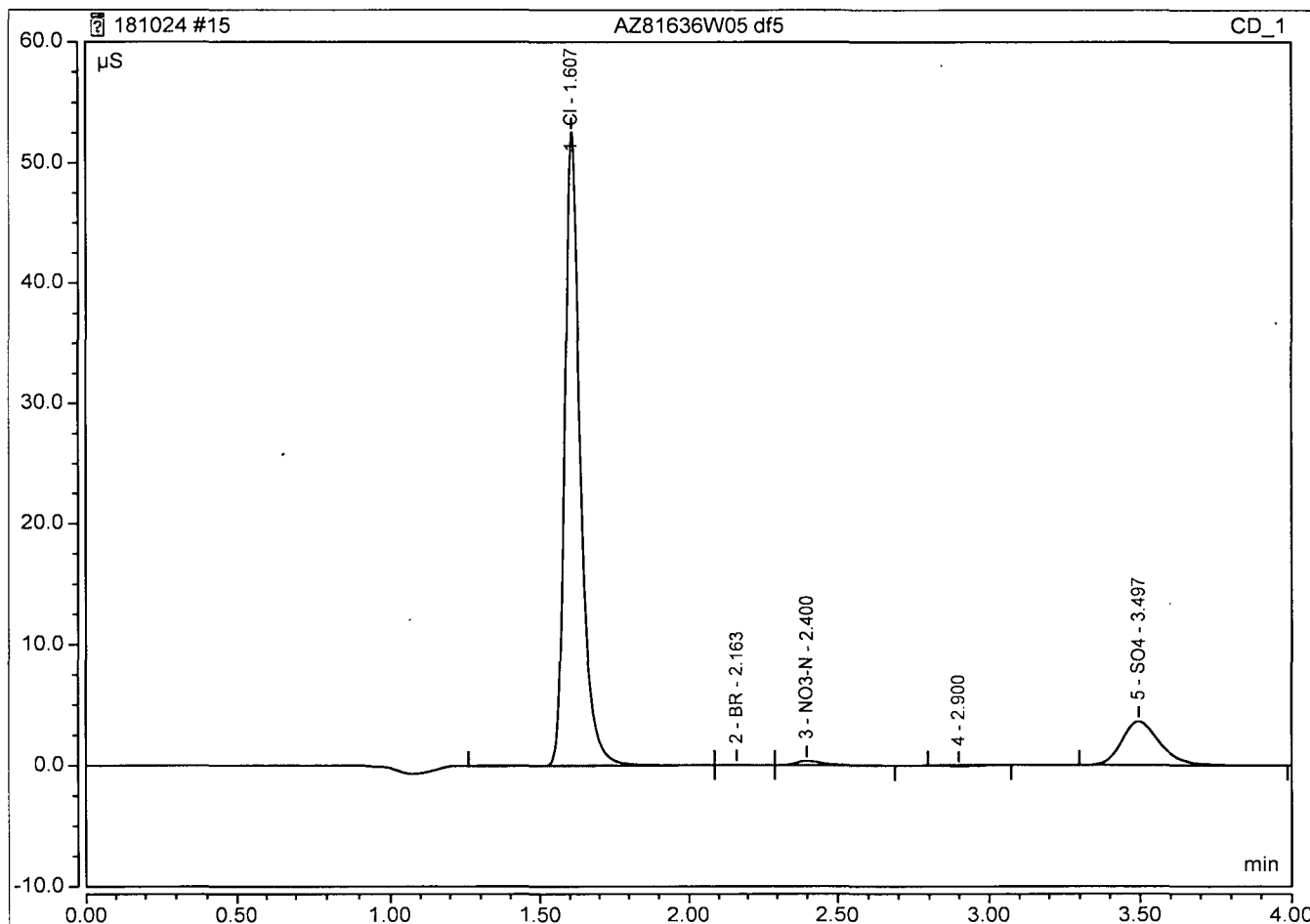




### Peak Integration Report

Sample Name:	AZ81636W05 df5	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	5.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 12:40	Run Time:	4.00

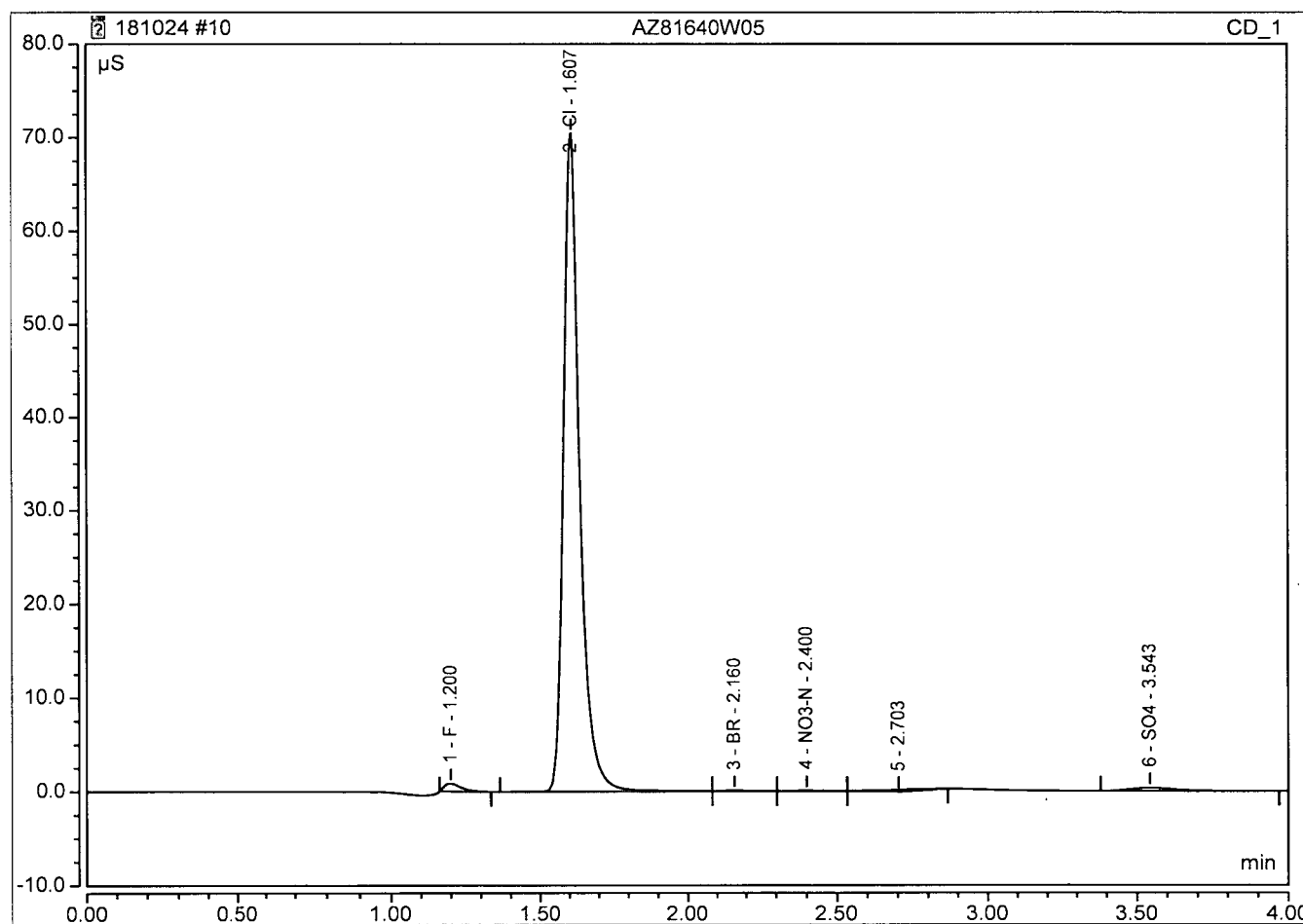
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.61	Cl	BMB	3.236	52.562	147.5535
2	2.16	BR	BMB	0.003	0.043	0.5438
3	2.40	NO3-N	BMB	0.033	0.354	0.8343
5	3.50	SO4	BMB	0.520	3.609	36.8410
TOTAL:				3.79	56.57	185.77



### Peak Integration Report

Sample Name:	AZ81640W05	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 12:08	Run Time:	4.00

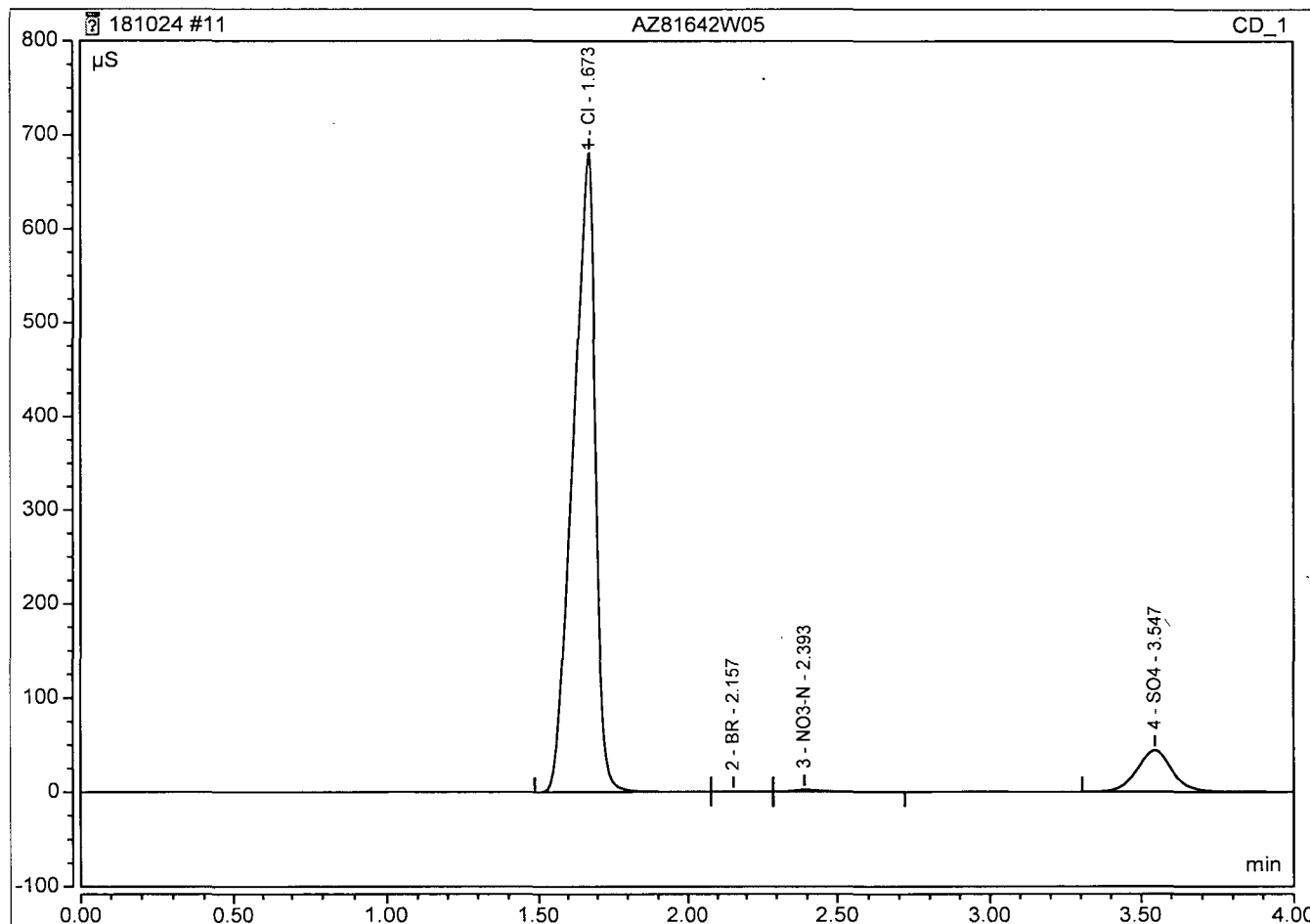
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.20	F	BMB	0.054	0.859	0.5634
2	1.61	Cl	BMB	4.499	70.447	40.9462
3	2.16	BR	BMB	0.005	0.058	0.1412
4	2.40	NO3-N	BMB	0.005	0.055	0.0448
6	3.54	SO4	BMB	0.054	0.323	0.8735
TOTAL:				4.62	71.74	42.57



### Peak Integration Report

Sample Name:	AZ81642W05	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 12:15	Run Time:	4.00

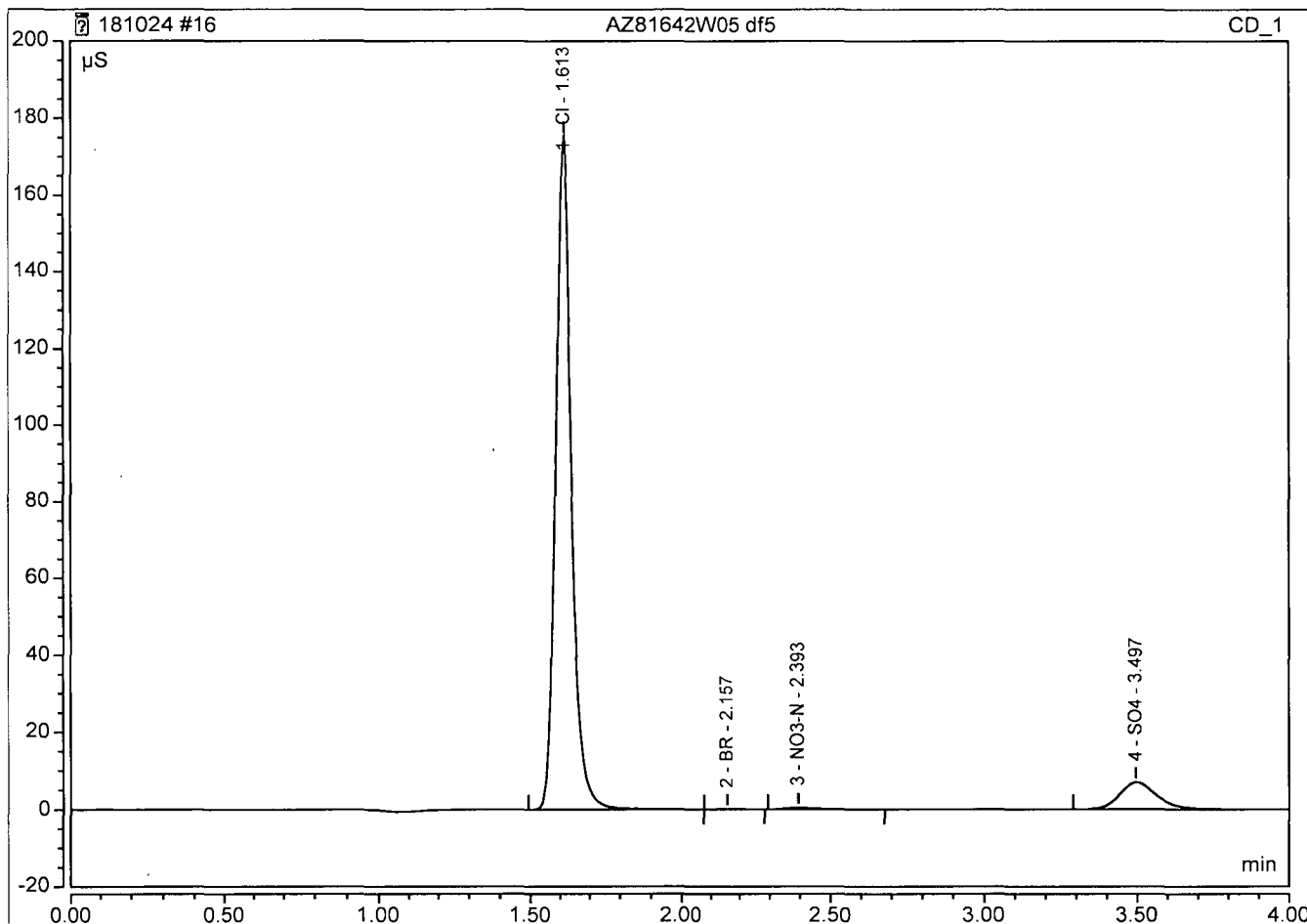
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.67	Cl	BMB	59.821	680.678	541.8236
2	2.16	BR	BMB	0.045	0.560	1.2075
3	2.39	NO3-N	BMB	0.213	2.147	0.9453
4	3.55	SO4	BMB	5.886	43.891	82.1732
TOTAL:				65.96	727.28	626.15



### Peak Integration Report

Sample Name:	AZ81642W05 df5	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	5.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 12:47	Run Time:	4.00

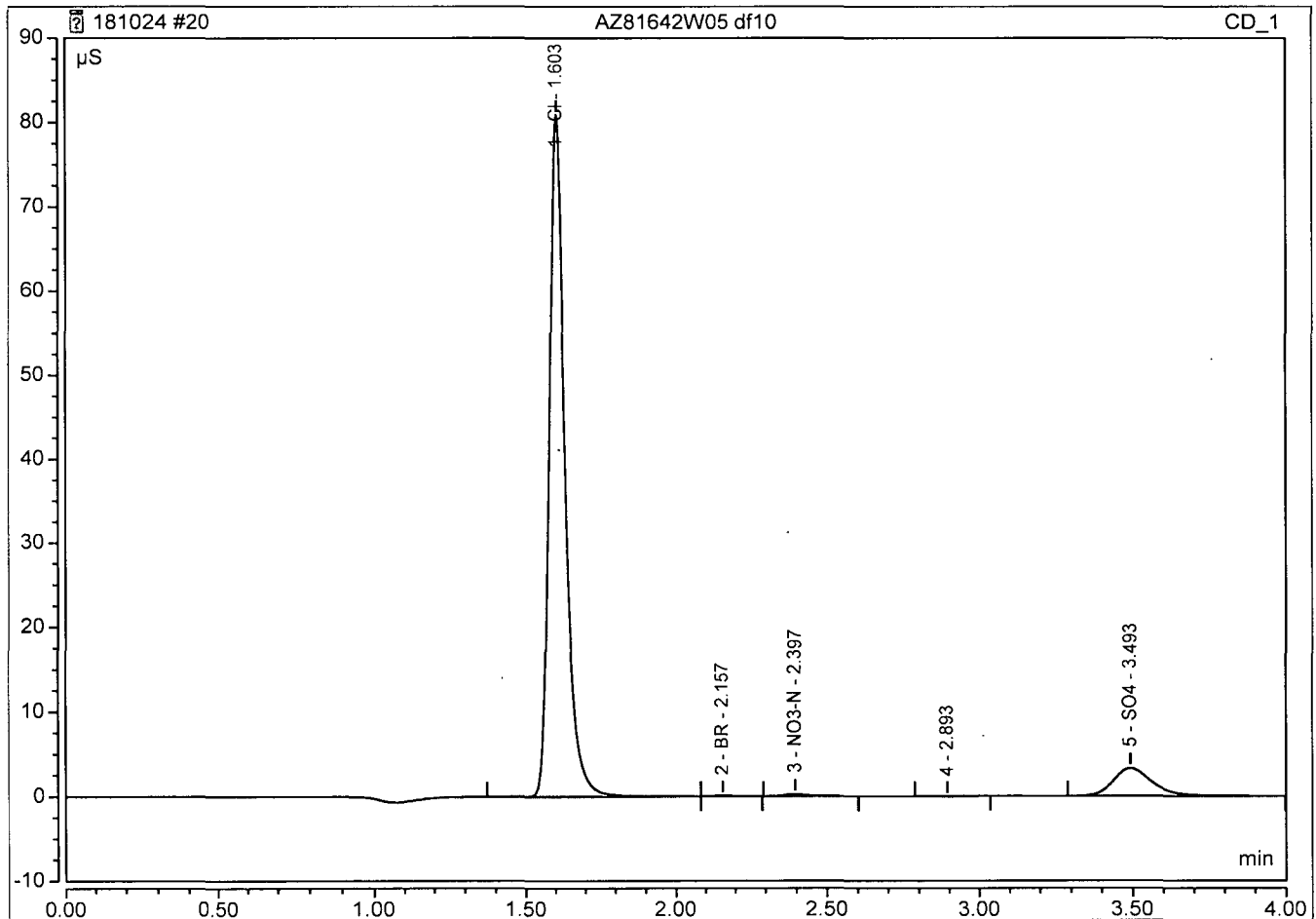
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.61	Cl	BMB	10.800	175.402	489.9617
2	2.16	BR	BMB	0.009	0.112	1.2489
3	2.39	NO3-N	BMB	0.042	0.440	1.0201
4	3.50	SO4	BMB	0.986	6.956	69.3106
TOTAL:				11.84	182.91	561.54



### Peak Integration Report

Sample Name:	AZ81642W05 df10	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	10.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 13:23	Run Time:	4.00

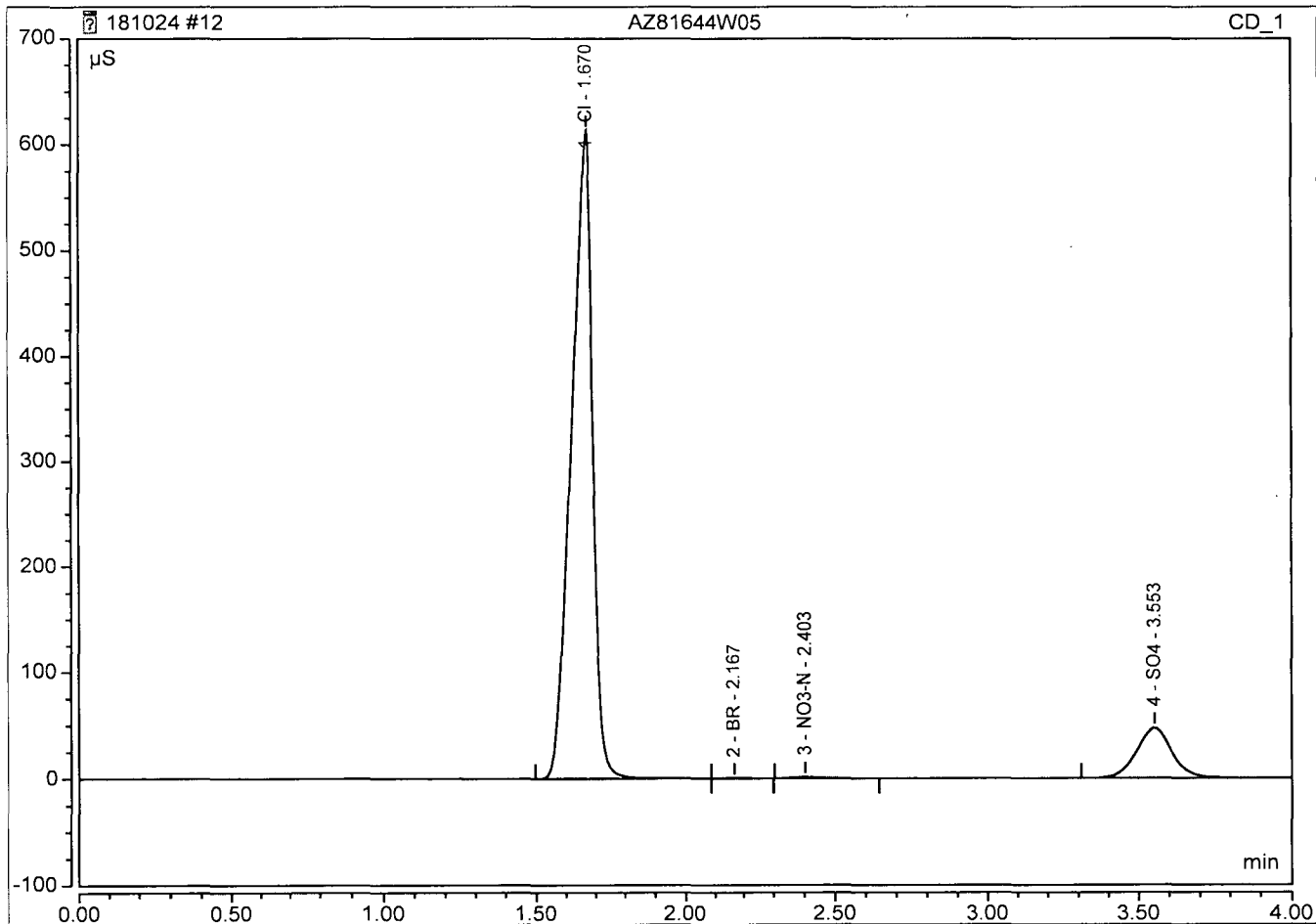
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.60	Cl	BMB	4.921	80.883	447.6814
2	2.16	BR	BMB	0.005	0.058	1.3910
3	2.40	NO3-N	BMB	0.020	0.218	1.1101
5	3.49	SO4	BMB	0.474	3.272	67.2577
TOTAL:				5.42	84.43	517.44



### Peak Integration Report

Sample Name:	AZ81644W05	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 12:21	Run Time:	4.00

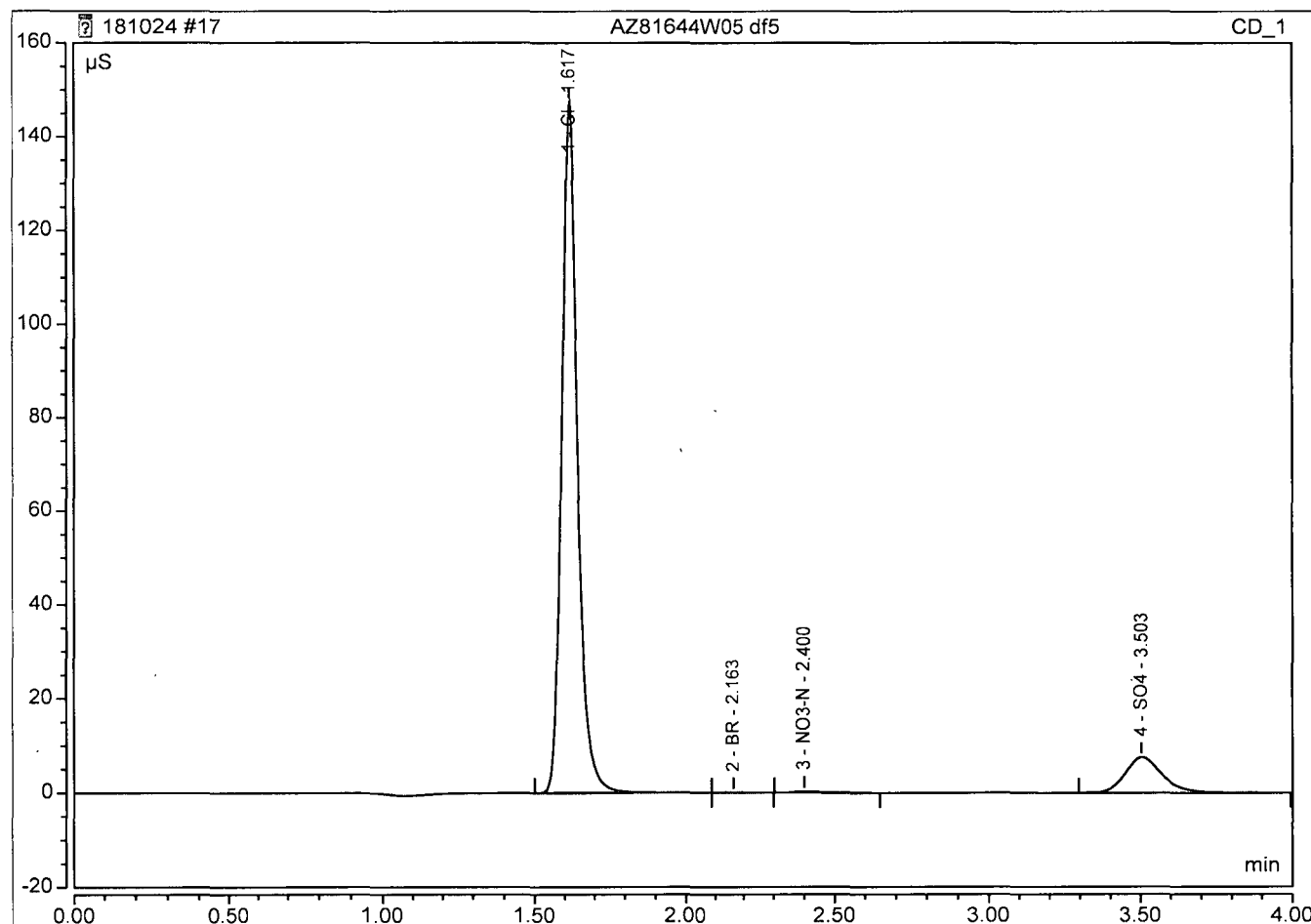
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.67	Cl	BMB	50.471	613.270	457.1679
2	2.17	BR	BMB	0.039	0.480	1.0426
3	2.40	NO3-N	BMB	0.122	1.274	0.5509
4	3.55	SO4	BMB	6.363	47.160	88.8239
TOTAL:				56.99	662.18	547.59



### Peak Integration Report

Sample Name:	AZ81644W05 df5	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	5.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 12:53	Run Time:	4.00

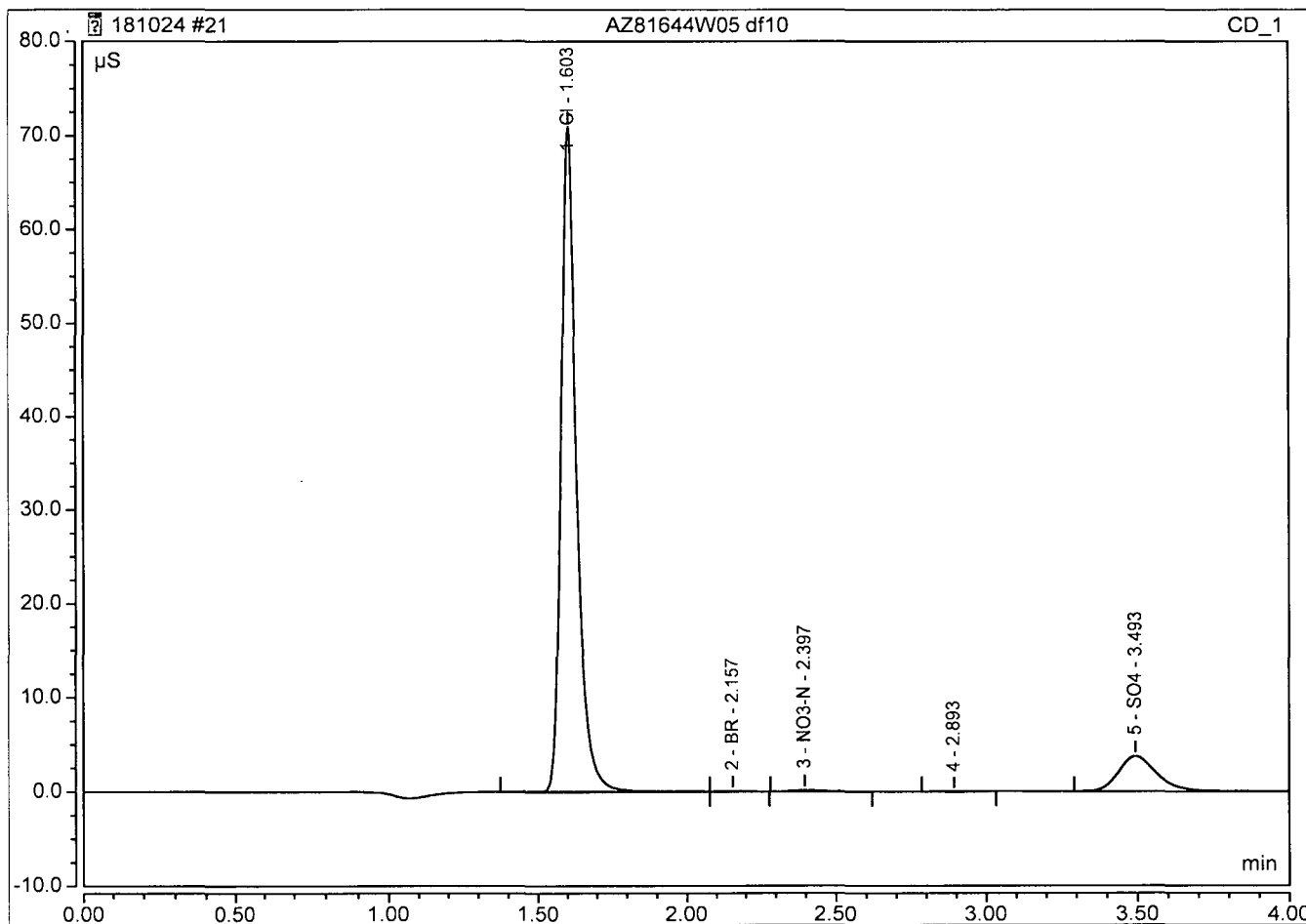
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.62	Cl	BMB	9.034	147.433	410.0201
2	2.16	BR	BMB	0.008	0.099	1.1667
3	2.40	NO3-N	BMB	0.024	0.262	0.6455
4	3.50	SO4	BMB	1.066	7.524	74.8674
TOTAL:				10.13	155.32	486.70



### Peak Integration Report

Sample Name:	AZ81644W05 df10	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	10.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 13:30	Run Time:	4.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.60	Cl	BMB	4.324	70.970	393.5862
2	2.16	BR	BMB	0.004	0.052	1.2683
3	2.40	NO3-N	BMB	0.013	0.139	0.8004
5	3.49	SO4	BMB	0.538	3.721	76.1804
TOTAL:				4.88	74.88	471.84

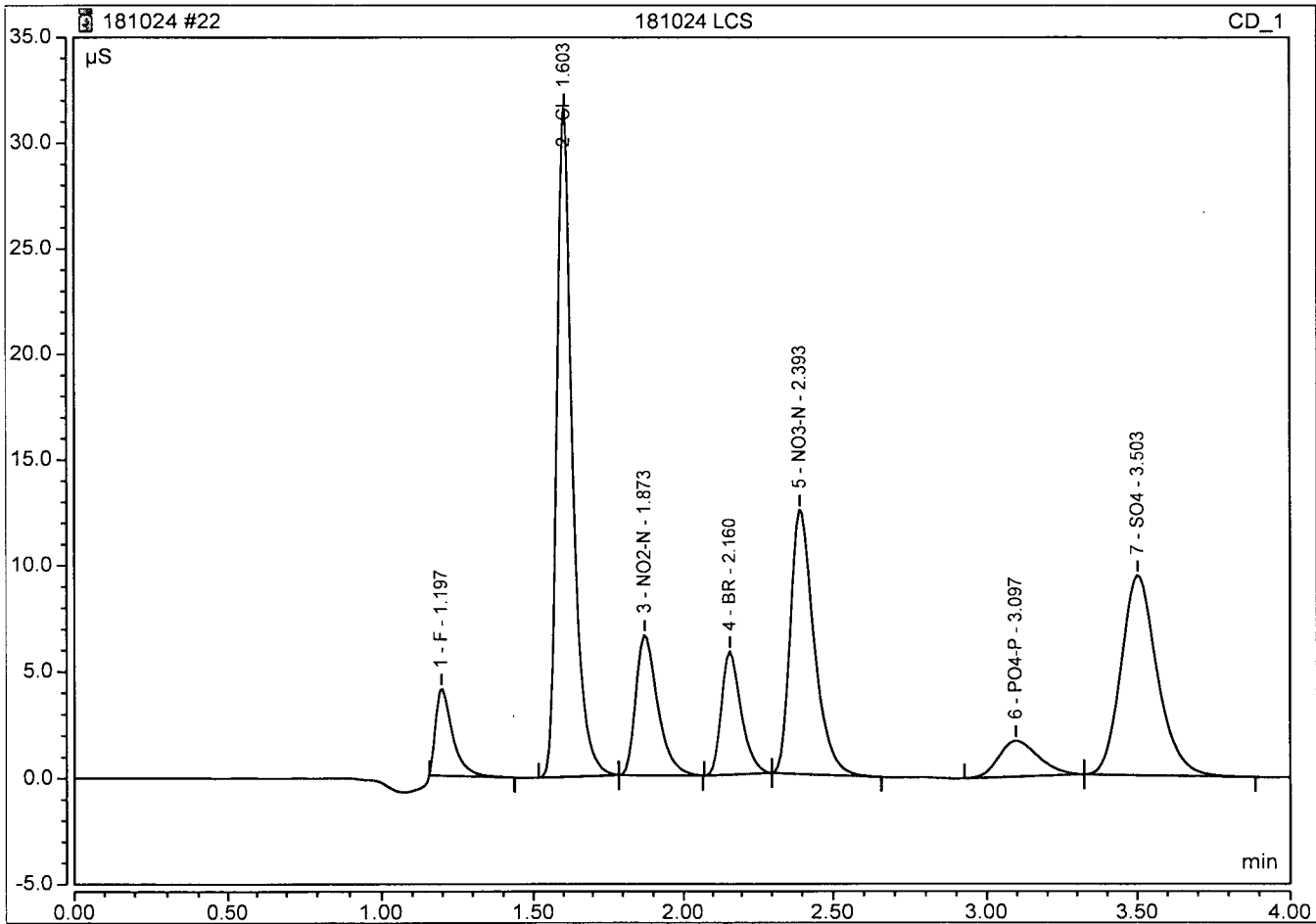




### Peak Integration Report

Sample Name:	181024 LCS	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 13:36	Run Time:	4.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.20	F	BMB	0.266	4.073	2.3349
2	1.60	Cl	BMB	1.954	31.591	17.9091
3	1.87	NO2-N	BMB	0.544	6.602	3.0108
4	2.16	BR	BMB	0.457	5.778	12.1512
5	2.39	NO3-N	BMB	1.112	12.431	4.8399
6	3.10	PO4-P	BMB	0.258	1.690	4.0536
7	3.50	SO4	BMB	1.309	9.392	18.3700
TOTAL:				5.90	71.56	62.67

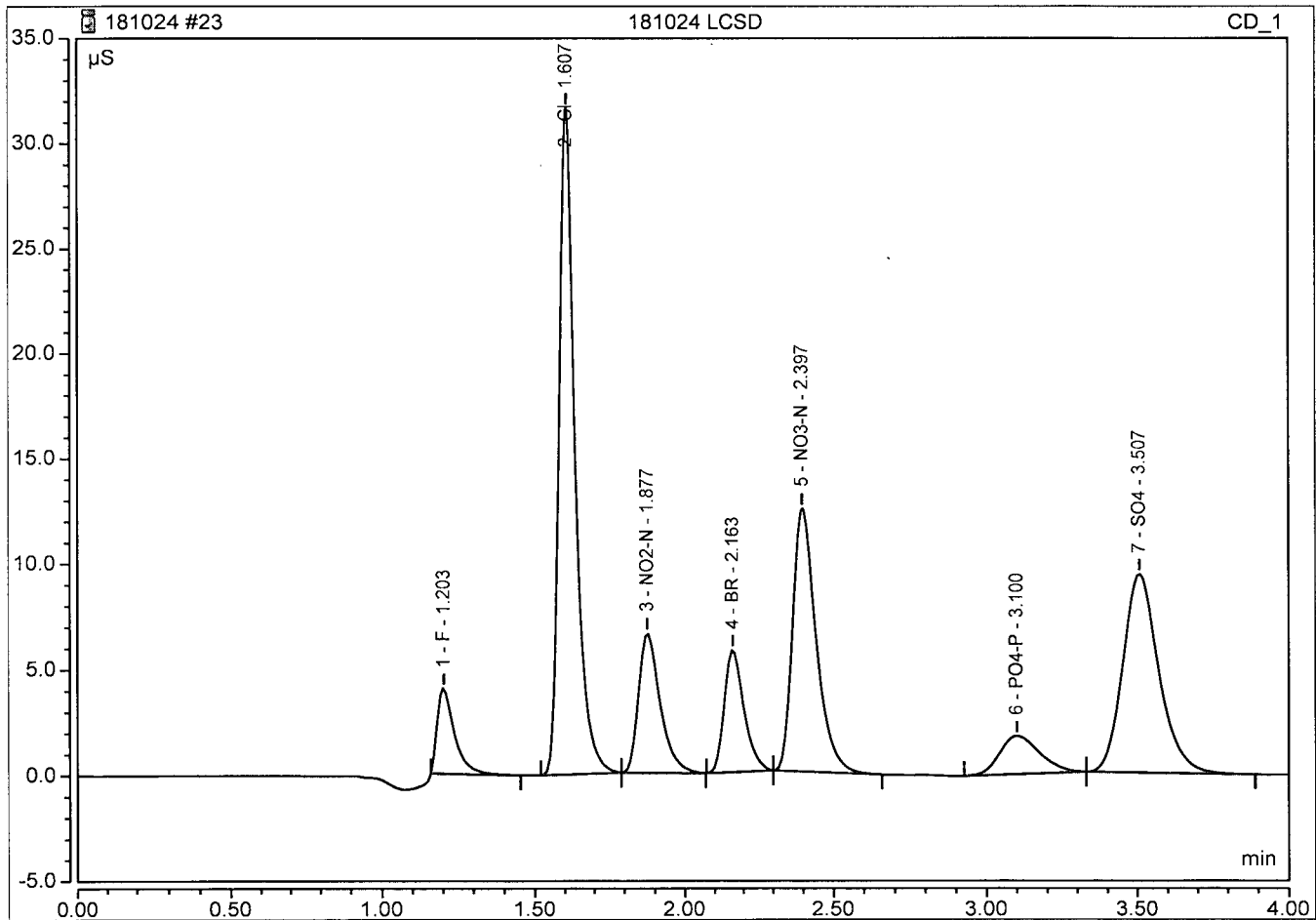


Algorithm Check: HH 181030  
 $y = \text{Peak Area}$   
 $x = \text{mg/L Br}$   
 $y = .0377x - .0007, y = .457$   
 $x = 12.4$

### Peak Integration Report

Sample Name:	181024 LCSD	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Oct-2018 / 13:42	Run Time:	4.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.20	F	BMB	0.265	4.039	2.3327
2	1.61	Cl	BMB	1.954	31.633	17.9047
3	1.88	NO <sub>2</sub> -N	BMB	0.545	6.608	3.0139
4	2.16	BR	BMB	0.457	5.783	12.1532
5	2.40	NO <sub>3</sub> -N	BMB	1.113	12.442	4.8437
6	3.10	PO <sub>4</sub> -P	BMB	0.276	1.810	4.3208
7	3.51	SO <sub>4</sub>	BMB	1.309	9.387	18.3584
TOTAL:				5.92	71.70	62.93



## Metrohm 814/809 Titrand Data

Sample ID	Analysis Date/Time	Method	Titration Volume		OH	CO3	HCO3	Total Alk	Unit	Sample Vol	N	Batch	Initials
			(to 8.3)	(total)									
181029A BLK	2018-10-29 13:29:02 UTC-8	Alkalinity	0.000	0.056	0.00	0.00	2.24	2.24	mg/L	25 mL	0.0200	181029A	AR
AZ81644W05	2018-10-29 12:58:16 UTC-8	Alkalinity	0.000	2.578	0.00	0.00	103.12	103.12	mg/L	25 mL	0.0200	181029A	AR
AZ81642W05	2018-10-29 12:51:08 UTC-8	Alkalinity	0.000	2.576	0.00	0.00	103.04	103.04	mg/L	25 mL	0.0200	181029A	AR
AZ81640W05	2018-10-29 12:41:25 UTC-8	Alkalinity	0.000	4.600	0.00	0.00	184.00	184.00	mg/L	25 mL	0.0200	181029A	AR
AZ81636W05	2018-10-29 12:35:30 UTC-8	Alkalinity	0.000	2.202	0.00	0.00	88.08	88.08	mg/L	25 mL	0.0200	181029A	AR
181029A LCSD	2018-10-29 10:42:19 UTC-8	Alkalinity	0.000	5.790	0.00	0.00	231.60	231.60	mg/L	25 mL	0.0200	181029A	AR
181029A LCS	2018-10-29 10:32:42 UTC-8	Alkalinity	0.000	5.876	0.00	0.00	235.04	235.04	mg/L	25 mL	0.0200	181029A	AR

# AQ2 Tray Report



**Serial Number:** 190170  
**Software Version:** 2.1.0  
**Report Requested By:** Joel  
**Date & Time:** 2018-10-30 15:18:17  
**Tray Number:** 93  
**Tray Name:** 181030A TOXN

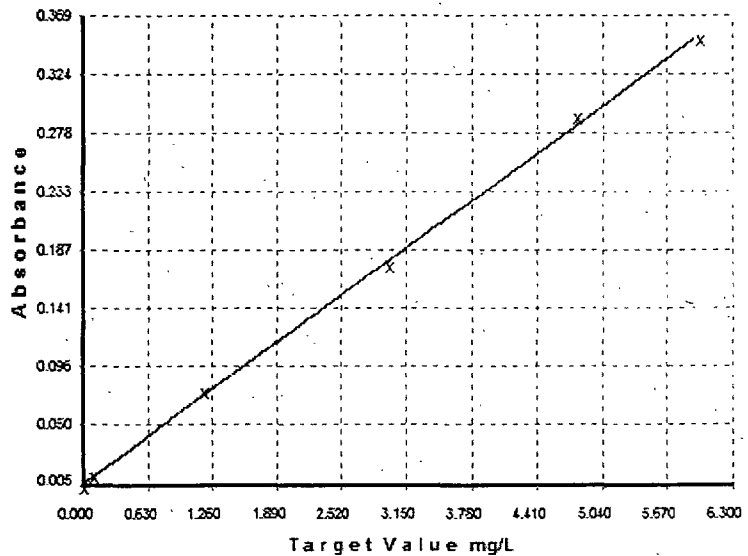
## TOXN

### Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0047	-0.0454	0.0000	
S90	0.0142	0.1183	0.1000	18.29
S91	0.0799	1.2507	1.2000	4.23
S92	0.1773	2.9314	3.0000	-2.29
S93	0.2918	4.9058	4.8000	2.20
S94	0.3517	5.9392	6.0000	-1.01
S0	0.0054	-0.0339	0.0000	

**Polynomial Order:** 1  
**Correlation Coefficient:** 0.9996  
**Carryover(%):** 0.2  
**Calibration equation:**  $y = bx + a$   
**y =:** Concentration mg/L  
**x =:** Measured absorbance  
**a =:** -1.270205E-001  
**b =:** 1.724661E+001  
**Date & Time:** 2018-10-30 14:29:48

### Calibration Graph



## Reagents

Name	Batch	Prepared By	Expiry Date
NO3 W Buffer	Algorithm Check	Joel	
Sulfa-NEDD	$y = 17.25x - 0.13$ $y = 3.00 \checkmark$	Joel	
		JR	
		11-9-16	

## Test Results

Cup Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
S1	Standard 1	0.0047			0.004732			JR	2018-10-30 14:16:00
S90	Standard 90	0.0142			0.014223			JR	2018-10-30 14:18:20
S91	Standard 91	0.0799			0.079884			JR	2018-10-30 14:20:37
S92	Standard 92	0.1773			0.177333			JR	2018-10-30 14:22:55
S93	Standard 93	0.2918			0.291817			JR	2018-10-30 14:25:13
S94	Standard 94	0.3517			0.351734			JR	2018-10-30 14:27:31
S0	Standard 0	0.0054			0.005402			JR	2018-10-30 14:29:48
2	ICV	3.0057	mg/L		0.181641			JR	2018-10-30 14:32:06
3	ICB	-0.0254	mg/L		0.005891			JR	2018-10-30 14:34:24
	CCV	2.8860	mg/L		0.174701			JR	2018-10-30 14:36:42
	CCB	-0.0265	mg/L		0.005827			JR	2018-10-30 14:39:01
4	U1	181030A BLK	-0.0376	mg/L	0.005183			JR	2018-10-30 14:41:19
5	U2	181030A LCS	2.9834	mg/L	0.180348			JR	2018-10-30 14:43:37
6	U3	181030A LCSD	2.9608	mg/L	0.179040			JR	2018-10-30 14:45:57
7	U4	AZ81584W10	0.5379	mg/L	0.038552			JR	2018-10-30 14:48:15
8	U5	AZ81584W10 MS	3.0498	mg/L	0.184200			JR	2018-10-30 14:50:33
9	U6	AZ81584W10 MSD	3.1202	mg/L	0.188282			JR	2018-10-30 14:52:51

10	U7	AZ81587W06	0.2006	mg/L	0.018995	JR	2018-10-30 14:55:10
11	U8	AZ81636W06	0.7206	mg/L	0.049149	JR	2018-10-30 14:57:28
12	U9	AZ81640W06	-0.0014	mg/L	0.007286	JR	2018-10-30 14:59:47
13	U10	AZ81642W06	0.9302	mg/L	0.061297	JR	2018-10-30 15:02:05
	CCV	CCV	2.9472	mg/L	0.178253	JR	2018-10-30 15:04:24
	CCB	CCB	-0.0167	mg/L	0.006395	JR	2018-10-30 15:06:43
14	U11	AZ81644W06	0.5641	mg/L	0.040070	JR	2018-10-30 15:07:51
15	U12	AZ81676W06	1.5066	mg/L	0.094721	JR	2018-10-30 15:08:47
16	U13	AZ81677W06	0.4253	mg/L	0.032026	JR	2018-10-30 15:09:44
17	U14	AZ81678W06	0.4665	mg/L	0.034416	JR	2018-10-30 15:10:40
18	U15	AZ81840W06	0.0293	mg/L	0.009062	JR	2018-10-30 15:11:36
19	U16	AZ81841W06	1.8760	mg/L	0.116141	JR	2018-10-30 15:12:33
20	U17	AZ81842W06	1.9744	mg/L	0.121846	JR	2018-10-30 15:13:29
	CCV	CCV	2.9304	mg/L	0.177276	JR	2018-10-30 15:14:25
	CCB	CCB	-0.0243	mg/L	0.005956	JR	2018-10-30 15:15:22

Method Ferrous Iron Standards Prep'd By (Initials) HH  
 Prep Date 06/15/18  
 Exp Date 06/15/19

Stock Label	Supplier	Batch Number	Exp Date	Aliquot from Stock	Final Volume	Solvent	Ferrous Iron Concentration
Ferrous Ammonium Sulfate	J.T.Baker	0000184592	08/21/20	0.351	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L
Ferrous Sulfate	Mallinckrodt	Lot 5056 KDRX	NA	0.249	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L

Method Ferrous Iron CCV/LCS/MS/ICV Prep'd By (Initials) HH  
 Prep Date See Injection Log  
 Exp Date 24 Hours

Initial Standard Information	Supplier	Batch Number	Exp Date	Final Standard Information			
Ferrous Iron CCV	J.T.Baker	0000184592	06/14/19	500uL	25mL	Deionized water	4mg/L
Ferrous Iron LCS	Mallinckrodt	Lot 5056 KDRX	06/14/19	375uL	25mL	Deionized water	3mg/L

Method Ferrous Iron Calibration Curve Prep'd By (Initials) HH  
 Prep Date 06/15/18  
 Exp Date 06/16/18

Final Standard Information

Point Label	Supplier	Batch Number	Exp Date	Aliquot from Stock	Final Volume	Solvent	Ferrous Iron Concentration
0 HH 180615	J.T.Baker	0000184592	06/14/19	0	25mL	Deionized water	0mg/L
1	J.T.Baker	0000184592	06/14/19	0.125	25mL	Deionized water	1mg/L
2	J.T.Baker	0000184592	06/14/19	0.25	25mL	Deionized water	2mg/L
3	J.T.Baker	0000184592	06/14/19	0.5	25mL	Deionized water	4mg/L
4	J.T.Baker	0000184592	06/14/19	0.625	25mL	Deionized water	5mg/L
5	J.T.Baker	0000184592	06/14/19	1.25	25mL	Deionized water	10mg/L
Ferrous Iron ICV	Mallinckrodt	Lot 5056 KDRX	06/14/19	375uL	25mL	Deionized water	3mg/L

Anion Chromatography Working Standard									
Prep Date: 09/24/18									
Exp Date: 09/25/18									
Prep'd By (Initials): HH									
Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000µg/mL in H2O	o2si	O2SI-062002-01-01	1000	142626-24-38407	04/20/19	125 uL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O	o2si	O2SI-062004-01-01	1000	142626-24-38408	04/20/19	125 uL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	250 uL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	250 uL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	250 uL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	625 uL	25 mL	Millipore Water	12.5
Sulfate Standard	Ultra Scientific	ICC-006	1000	G34-CR-2905-39056	07/31/21	1250 uL	25 mL	Millipore Water	25

Anion Chromatography Calibration Curve									
Prep Date: 09/24/18									
Exp Date: 09/25/18									
Prep'd By (Initials): HH									
Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/mL)	Reference To APPL Prep Date	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc. Range (µg/mL)
Anion Chromatography Working Standard	Varries	ICal1	5.0-50.0	Prepared 09/24/18	09/25/18	8 µL	1000 µL	Millipore Water	0.08-0.40
Anion Chromatography Working Standard	Varries	ICal2	5.0-50.0	Prepared 09/24/18	09/25/18	20 µL	1000 µL	Millipore Water	0.1-1.0
Anion Chromatography Working Standard	Varries	ICal3	5.0-50.0	Prepared 09/24/18	09/25/18	50 µL	1000 µL	Millipore Water	0.25-2.5
Anion Chromatography Working Standard	Varries	ICal4	5.0-50.0	Prepared 09/24/18	09/25/18	100 µL	1000 µL	Millipore Water	0.5-5.0
Anion Chromatography Working Standard	Varries	ICal5	5.0-50.0	Prepared 09/24/18	09/25/18	200 µL	1000 µL	Millipore Water	1.0-10.0
Anion Chromatography Working Standard	Varries	ICal6	5.0-50.0	Prepared 09/24/18	09/25/18	700 µL	1000 µL	Millipore Water	3.5-35.0
Anion Chromatography Working Standard	Varries	ICal7	5.0-50.0	Prepared 09/24/18	09/25/18	1000 µL	1000 µL	Millipore Water	5.0-50.0

Anion Chromatography LCS/ICV									
Prep Date: See Injection Log									
Exp Date: 24 hours after prep									
Prep'd By (Initials): HH									
Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Fluoride	Inorganic Ventures	ICF1	993-999	K2-F652018-38331	10/19/18	62.5 µL	25 mL	Millipore Water	2.5
Nitrite	Inorganic Ventures	ICNO21	993-1001	M2-NOX660562-38333	10/19/18	250 µL	25 mL	Millipore Water	3.04
Chloride	Inorganic Ventures	ICCL1	995-1001	N2CL664868-39036	04/16/19	500 µL	25 mL	Millipore Water	20
O-Phosphate as P	Inorganic Ventures	IPPO41	1001-1009	M2-POX655826-38334	10/19/18	125 µL	25 mL	Millipore Water	5
Nitrate as N	Inorganic Ventures	ICNNO31	994-1002	N2-NOX667147-39509	09/12/19	125 µL	25 mL	Millipore Water	5
Ion Chromatography Bromide Standard	CPI International	4400-IC8M	1000	181681-8-39539	02/06/20	312.5 µL	25 mL	Millipore Water	12.5
Sulfate	Inorganic Ventures	ICSO41	998-1006	N2-SOX664928-39508	08/13/19	500 µL	25 mL	Millipore Water	20

Anion Chromatography CCV									
Prep Date: See Injection Log									
Exp Date: 24 hours after prep									
Prep'd By (Initials): HH									
Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000µg/mL in H2O	o2si	O2SI-062002-01-01	1000	142626-24-38407	04/20/19	62.5 µL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O	o2si	O2SI-062004-01-01	1000	142626-24-38408	04/20/19	62.5 µL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	125 µL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	125 µL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	312.5 µL	25 mL	Millipore Water	12.5
Sulfate Standard	Ultra Scientific	ICC-006	1000	G34-CR-2905-39056	07/31/21	625 µL	25 mL	Millipore Water	25

Anion Chromatography Working Standard									
Prep Date: 10/23/18					Prep'd By (Initials): HH				
Exp Date: 10/24/18									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (ug/mL)
Ion Chromatography Standard Fluoride 1000ug/mL in H2O	o2si	O2SI-062002-01-01	1000	142626-24-38407	04/20/19	125 uL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O	o2si	O2SI-062004-01-01	1000	142626-24-38408	04/20/19	125 uL	25 mL	Millipore Water	5
Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	250 uL	25 mL	Millipore Water	50
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	250 uL	25 mL	Millipore Water	10
Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	250 uL	25 mL	Millipore Water	10
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	625 uL	25 mL	Millipore Water	25
Sulfate Standard	Ultra Scientific	ICC-006	1000	G34-CR-2905-39056	07/31/21	1250 uL	25 mL	Millipore Water	50

Anion Chromatography Calibration Curve									
Prep Date: 10/23/18					Prep'd By (Initials): HH				
Exp Date: 10/24/18									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/mL)	Reference To APPL Prep Date	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Conc. Range (ug/mL)
Anion Chromatography Working Standard	Varries	ICal1	5.0-50.0	Prepared 10/23/18	10/24/18	200 uL	25000 uL	Millipore Water	0.08-0.40
Anion Chromatography Working Standard	Varries	ICal2	5.0-50.0	Prepared 10/23/18	10/24/18	20 uL	1000 uL	Millipore Water	0.1-1.0
Anion Chromatography Working Standard	Varries	ICal3	5.0-50.0	Prepared 10/23/18	10/24/18	50 uL	1000 uL	Millipore Water	0.25-2.5
Anion Chromatography Working Standard	Varries	ICal4	5.0-50.0	Prepared 10/23/18	10/24/18	100 uL	1000 uL	Millipore Water	0.5-5.0
Anion Chromatography Working Standard	Varries	ICal5	5.0-50.0	Prepared 10/23/18	10/24/18	200 uL	1000 uL	Millipore Water	1.0-10.0
Anion Chromatography Working Standard	Varries	ICal6	5.0-50.0	Prepared 10/23/18	10/24/18	700 uL	1000 uL	Millipore Water	3.5-35.0
Anion Chromatography Working Standard	Varries	ICal7	5.0-50.0	Prepared 10/23/18	10/24/18	1000 uL	1000 uL	Millipore Water	5.0-50.0

Anion Chromatography LCS/ICV									
Prep Date: See injection Log					Prep'd By (Initials): HH				
Exp Date: 24 hours after prep									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (ug/mL)
Flouride	Inorganic Ventures	ICF1	993-999	K-F652018-39801	10/23/19	62.5 uL	25 mL	Millipore Water	2.5
Nitrite	Inorganic Ventures	ICNO21	993-1001	M2-NOX660562-39802	10/23/19	250 uL	25 mL	Millipore Water	3.04
Chloride	Inorganic Ventures	ICCL1	995-1001	N2CL664868-39036	04/16/19	500 uL	25 mL	Millipore Water	20
O-Phosphate as P	Inorganic Ventures	IPPO41	1001-1009	M2-POX655826-39803	10/23/19	125 uL	25 mL	Millipore Water	5
Nitrate as N	Inorganic Ventures	ICNNO31	994-1002	N2-NOX667147-39510	10/23/19	125 uL	25 mL	Millipore Water	5
Ion Chromatography Bromide Standard	CPI International	4400-IC8M	995-1005	16H087-37320	01/15/19	312.5 uL	25 mL	Millipore Water	12.5
Sulfate	Inorganic Ventures	ICSO41	998-1006	K2-SOX01111-38875	08/13/19	500 uL	25 mL	Millipore Water	20

Anion Chromatography CCV									
Prep Date: See injection Log					Prep'd By (Initials): HH				
Exp Date: 24 hours after prep									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (ug/mL)
Ion Chromatography Standard Fluoride 1000ug/mL in H2O	o2si	O2SI-062002-01-01	1000	142626-24-38407	04/20/19	62.5 uL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O	o2si	O2SI-062004-01-01	1000	142626-24-38408	04/20/19	62.5 uL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	125 uL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	125 uL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	125 uL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	312.5 uL	25 mL	Millipore Water	12.5
Sulfate Standard	Ultra Scientific	ICC-006	1000	G34-CR-2905-39056	07/31/21	625 uL	25 mL	Millipore Water	25



**Tiamo Alkalinity Standard Prep**

Prep'd By (Initials): AR

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Unit	Conc	Lot Number - QA Number	Prep/Opened	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc
Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	J.T.Baker	NA	NA	167828	NA	NA	PURCHASED	NA	NA	NA
0.10N Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	J.T.Baker	Normality	0.1N	167828	09/05/18	09/05/19	3ml	1L	DI	0.10N
0.02N Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	J.T.Baker	Normality	0.02N	167828	10/24/18	10/24/19	200mL	1L	DI	0.02N
Inorganic Spike(NaHCO <sub>3</sub> )	BDH	NA	NA	1575C510	10/18/18	08/14/20	PURCHASED	NA	NA	NA
Inorganic Spike Solution	BDH	Milligrams/Liters	250mg/L	1575C510	10/18/18	10/18/19	3.5g	500mL	DI	250mg/L
Standarizing Solution(NaCO <sub>3</sub> )	J.T.Baker	Normality	1N	178494	07/25/17	07/25/19	PURCHASED	NA	NA	NA

## Nitrite

### High Point @ 1.5 mg/L

0.075 mL NO<sub>2</sub> O<sub>2</sub>Si lot 142626-24 – 38408 exp: 04/20/19  
50 mL DI Water

### CCV @ 0.75 mg/L

0.0375 mL NO<sub>2</sub> O<sub>2</sub>Si lot 142626-24 – 38408 exp: 4/20/19  
50 mL DI Water

### ICV/LCS @ 0.73 mg/L

0.12 mL NO<sub>2</sub> Inorganic Ventures lot M2-NOX660562 – 38802 exp: 10/23/19  
50 mL DI Water

### 1 mg/L NO<sub>2</sub>

400 uL of High point and 200 uL of DI made directly into a sample cup

Prep 10/23/18  
Exp 10/30/18  
JR

## Nitrate/TOXN

### High Point @ 6 mg/L

0.30 mL NO<sub>3</sub> O<sub>2</sub>Si lot 880117-4 – 39577 exp: 02/21/20  
50 mL DI Water

### CCV @ 3.0 mg/L

0.15 mL NO<sub>3</sub> O<sub>2</sub>Si lot 880117-4 – 39577 exp: 02/21/20  
50 mL DI Water

### ICV/LCS @ 3.0 mg/L

0.150 mL NO<sub>3</sub> Inorganic Ventures lot M2-NOX667147 – 39510 exp: 10/23/18  
50 mL DI Water

### 1 mg/L NO<sub>3</sub>

100 uL of High point and 500 uL of DI made directly into a sample cup

### MS @ 2.5 mg/L NO<sub>3</sub> and 0.73 mg/L NO<sub>2</sub>

0.125 mL NO<sub>3</sub> Inorganic Ventures lot M2-NOX667147 – 39510 M2-NOX667147 – 39510 and 0.12 mL  
M2-NOX660562 – 38802 exp: 10/23/19  
Final volume 50 mL of sample

Prep 10/23/18  
Exp 10/30/18  
JR

# SM3500FeB Injection Log

Directory: I:\Spec Sheets\Ferrous Iron (Fe2)\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
2	15 Jun 2018	12:27	0 HH 180615		Upload Temp	1.
1	15 Jun 2018	12:27	1		Upload Temp	1.
3	15 Jun 2018	12:28	2		Upload Temp	1.
4	15 Jun 2018	12:28	3		Upload Temp	1.
5	15 Jun 2018	12:29	4		Upload Temp	1.
6	15 Jun 2018	12:30	5		Upload Temp	1.
7	15 Jun 2018	12:31	180615A ICV		Upload Temp	1.
8	15 Jun 2018	12:32	180615A ICB		Upload Temp	1.
9	24 Oct 2018	11:37	CCV 4.0 181024		Upload Temp	1.
11	24 Oct 2018	11:38	181024A LCS		Upload Temp	1.
10	24 Oct 2018	11:38	CCB 181024		Upload Temp	1.
12	24 Oct 2018	11:39	AZ81640W07		Upload Temp	1.
13	24 Oct 2018	11:39	181024A LCSD		Upload Temp	1.
14	24 Oct 2018	11:40	AZ81644W07		Upload Temp	1.
15	24 Oct 2018	11:40	AZ81636W07		Upload Temp	1.
16	24 Oct 2018	11:41	AZ81642W07		Upload Temp	1.
19	24 Oct 2018	11:44	CCV 4.0 181024		Upload Temp	1.
20	24 Oct 2018	11:45	CCB 181024		Upload Temp	1.

# EPA 9056A Injection Log

Directory: I:\Dionex\Charlie\

unID	Injected		Sample Name	Misc Info	FileName	Multiplier
	24 Sep 2018	10:51	i cal 1		Anions	1.
	24 Sep 2018	10:59	i cal 2		Anions	1.
	24 Sep 2018	11:06	i cal 3		Anions	1.
	24 Sep 2018	11:14	i cal 4		Anions	1.
0	24 Sep 2018	11:21	i cal 5		Anions	1.
1	24 Sep 2018	11:28	i cal 6		Anions	1.
2	24 Sep 2018	11:36	i cal 7		Anions	1.
3	24 Sep 2018	11:43	CCB		Anions	1.
4	24 Sep 2018	11:51	ICV LCS		Anions	1.

# EPA 300.0 Injection Log

Directory: I:\Dionex\Charlie\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
7	24 Oct 2018	10:21	CCV 181024		Anions	1.
8	24 Oct 2018	10:28	CCB		Anions	1.
9	24 Oct 2018	12:02	AZ81636W05		Anions	1.
10	24 Oct 2018	12:08	AZ81640W05		Anions	1.
11	24 Oct 2018	12:15	AZ81642W05		Anions	1.
12	24 Oct 2018	12:21	AZ81644W05		Anions	1.
13	24 Oct 2018	12:28	CCV 181024		Anions	1.
14	24 Oct 2018	12:34	CCB		Anions	1.
15	24 Oct 2018	12:40	AZ81636W05 df5		Anions	5.
16	24 Oct 2018	12:47	AZ81642W05 df5		Anions	5.
17	24 Oct 2018	12:53	AZ81644W05 df5		Anions	5.
18	24 Oct 2018	13:00	CCV 181024		Anions	1.
19	24 Oct 2018	13:06	CCB		Anions	1.
20	24 Oct 2018	13:23	AZ81642W05 df10		Anions	10.
21	24 Oct 2018	13:30	AZ81644W05 df10		Anions	10.
22	24 Oct 2018	13:36	181024 LCS		Anions	1.
23	24 Oct 2018	13:42	181024 LCSD		Anions	1.
24	24 Oct 2018	13:49	CCV 181024		Anions	1.
25	24 Oct 2018	13:55	CCB		Anions	1.

# SM 2320B Injection Log

Directory: I:\Tiamo\EXPORT\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
27	29 Oct 2018	10:32	181029A LCS		181029A_AL	1.
28	29 Oct 2018	10:42	181029A LCSD		181029A_AL	1.
41	29 Oct 2018	12:35	AZ81636W05		181029A_AL	1.
42	29 Oct 2018	12:41	AZ81640W05		181029A_AL	1.
43	29 Oct 2018	12:51	AZ81642W05		181029A_AL	1.
44	29 Oct 2018	12:58	AZ81644W05		181029A_AL	1.
48	29 Oct 2018	13:29	181029A BLK		181029A_AL	1.

# EPA 353.2 Injection Log

Directory: I:\EVE\Export\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	30 Oct 2018	14:16	Standard 1 TOXN/NO3		181030A TO	1.
2	30 Oct 2018	14:18	Standard 90 TOXN/NO3		181030A TO	1.
3	30 Oct 2018	14:20	Standard 91 TOXN/NO3		181030A TO	1.
4	30 Oct 2018	14:22	Standard 92 TOXN/NO3		181030A TO	1.
5	30 Oct 2018	14:25	Standard 93 TOXN/NO3		181030A TO	1.
6	30 Oct 2018	14:27	Standard 94 TOXN/NO3		181030A TO	1.
7	30 Oct 2018	14:29	Standard 0 TOXN/NO3		181030A TO	1.
8	30 Oct 2018	14:32	ICV TOXN/NO3		181030A TO	1.
9	30 Oct 2018	14:34	ICB TOXN/NO3		181030A TO	1.
12	30 Oct 2018	14:41	181030A BLK TOXN/NO3		181030A TO	1.
13	30 Oct 2018	14:43	181030A LCS TOXN/NO3		181030A TO	1.
14	30 Oct 2018	14:45	181030A LCSD TOXN/NO3		181030A TO	1.
19	30 Oct 2018	14:57	AZ81636W06 TOXN/NO3		181030A TO	1.
20	30 Oct 2018	14:59	AZ81640W06 TOXN/NO3		181030A TO	1.
21	30 Oct 2018	15:02	AZ81642W06 TOXN/NO3		181030A TO	1.
22	30 Oct 2018	15:04	CCV TOXN/NO3		181030A TO	1.
23	30 Oct 2018	15:06	CCB TOXN/NO3		181030A TO	1.
24	30 Oct 2018	15:07	AZ81644W06 TOXN/NO3		181030A TO	1.
31	30 Oct 2018	15:14	CCV TOXN/NO3		181030A TO	1.
32	30 Oct 2018	15:15	CCB TOXN/NO3		181030A TO	1.



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

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

## Data Validatable Report

November 14, 2018

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, Hawaii 96813

Attn: Margie Pascua

Title: Report of Data: Case 87219

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

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

Dear Ms. Pascua:

Six water samples were received October 25, 2018. Written results for the requested analyses are being provided on this November 14, 2018.

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

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

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

Paula McCartney, Laboratory Director  
APPL, Inc.

PM/rp  
Enclosure  
cc: File

Number of pages in this report: 850



Data Validation Package  
for  
60481245 CIV 0053 Red Hill Fuel Storage  
APPL SDG 87219

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## **CASE NARRATIVE**

# Case Narrative

ARF: 87219

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

## Sample Receipt Information:

Six water samples were received October 25, 2018, at 2.0°C, 2.5°C, and 2.0°C. The sample group was assigned Analytical Request Form (ARF) number 87219. Labeling discrepancies were noted and reported to the client. The collection times for samples ERH687 and ERH688 were switched on the COC; the collection time listed on the field labels was used, as instructed. Some of the containers for sample ERH698 were labeled ERH688; the client confirmed all containers collected 10-23-18 at 16:21 should be labeled ERH698. No other exception was noted.

## Sample Preparation and Analysis Information:

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

For the EPA 8270D SIM analysis, the samples were extracted according to EPA method 3520C.

For the EPA 8270D Phenol analysis, the samples were extracted according to EPA method 3520C. The samples were screened for Tentatively Identified Compounds (TICs).

For the APPL SOP ANA2MEE analysis, the samples were extracted according to EPA method 3535.

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

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

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

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

## Analytical Exceptions, Deviations and Abnormalities.

**EPA 8015B:** In the 181029A method blank, Diesel (C10-C24) and Oil (C24-C40) were detected at concentration greater than the LOQ. Corrective action: All of the samples were re-extracted and re-analyzed. Both sets of data are reported.

In the 181029A LCS, Oil (C24-C40) recovered above the 113% upper control limit. Corrective action: All of the samples were re-extracted and re-analyzed. Both sets of data are reported.

**APPL SOP ANA2MEE:** In the lab control spikes, the RPD exceeded the 20% limit at 20.7%. All spike recoveries were acceptable.

**Inorganic Analyses:** The samples were received the day after collection. They were analyzed for ferrous iron and nitrate as soon as possible on the day received. The samples were re-analyzed the following day for nitrate due to calibration failure and instrument maintenance.

Two samples ERH698 and ERH688 were switched on the auto-sampler due to human error. This was caught during the final report review with the chloride dilutions not matching with one another. All the dilutions were re-injected and now confirm with one another. The final report includes the revised results.

In the method blank, total alkalinity and bicarbonate were detected above the LOQ. Corrective action: The concentration of total alkalinity and bicarbonate in the samples exceeds the blank concentration by ten-fold or more.

SDG	Received	Client ID	APPL ID	Collected DateTime	Matrix	Method	Method Description
87219	10/25/18	ERH687	AZ81673	10/24/18 7:55:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87219	10/25/18	ERH687	AZ81673	10/24/18 7:55:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87219	10/25/18	ERH687	AZ81673	10/24/18 7:55:00 AM	WATER	RSK 175	METHANE BY RSK 175
87219	10/25/18	ERH697	AZ81674	10/22/18 12:20:00 PM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87219	10/25/18	ERH697	AZ81674	10/22/18 12:20:00 PM	WATER	EPA 8260B	EPA 8260B GRO WATER
87219	10/25/18	ERH697	AZ81674	10/22/18 12:20:00 PM	WATER	RSK 175	METHANE BY RSK 175
87219	10/25/18	ERH685	AZ81675	10/23/18 12:45:00 PM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87219	10/25/18	ERH685	AZ81675	10/23/18 12:45:00 PM	WATER	EPA 8260B	EPA 8260B GRO WATER
87219	10/25/18	ERH685	AZ81675	10/23/18 12:45:00 PM	WATER	RSK 175	METHANE BY RSK 175
87219	10/25/18	ERH686	AZ81676	10/23/18 1:25:00 PM	WATER	SM 2320B	Wetlab 2320B - Water
87219	10/25/18	ERH686	AZ81676	10/23/18 1:25:00 PM	WATER	EPA 300.0	Wetlab 300.0 - Water
87219	10/25/18	ERH686	AZ81676	10/23/18 1:25:00 PM	WATER	SM3500FeB	Ferrous Iron
87219	10/25/18	ERH686	AZ81676	10/23/18 1:25:00 PM	WATER	EPA 353.2	EPA 353.2 - WATER
87219	10/25/18	ERH686	AZ81676	10/23/18 1:25:00 PM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87219	10/25/18	ERH686	AZ81676	10/23/18 1:25:00 PM	WATER	EPA 8270D	EPA 8270D WATER
87219	10/25/18	ERH686	AZ81676	10/23/18 1:25:00 PM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
87219	10/25/18	ERH686	AZ81676	10/23/18 1:25:00 PM	WATER	EPA 8015B-eLL	EPA 8015B TPH L-L SGC
87219	10/25/18	ERH686	AZ81676	10/23/18 1:25:00 PM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
87219	10/25/18	ERH686	AZ81676	10/23/18 1:25:00 PM	WATER	EPA 8015B-eLL	EPA 8015B TPH RE-EXTRACT
87219	10/25/18	ERH686	AZ81676	10/23/18 1:25:00 PM	WATER	EPA 8260B	EPA 8260B GRO WATER
87219	10/25/18	ERH686	AZ81676	10/23/18 1:25:00 PM	WATER	RSK 175	METHANE BY RSK 175
87219	10/25/18	ERH686	AZ81676	10/23/18 1:25:00 PM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ
87219	10/25/18	ERH698	AZ81677	10/23/18 4:21:00 PM	WATER	SM 2320B	Wetlab 2320B - Water
87219	10/25/18	ERH698	AZ81677	10/23/18 4:21:00 PM	WATER	EPA 300.0	Wetlab 300.0 - Water
87219	10/25/18	ERH698	AZ81677	10/23/18 4:21:00 PM	WATER	EPA 300.0	Wetlab 300.0 - Water
87219	10/25/18	ERH698	AZ81677	10/23/18 4:21:00 PM	WATER	SM3500FeB	Ferrous Iron
87219	10/25/18	ERH698	AZ81677	10/23/18 4:21:00 PM	WATER	EPA 353.2	EPA 353.2 - WATER
87219	10/25/18	ERH698	AZ81677	10/23/18 4:21:00 PM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87219	10/25/18	ERH698	AZ81677	10/23/18 4:21:00 PM	WATER	EPA 8270D	EPA 8270D WATER
87219	10/25/18	ERH698	AZ81677	10/23/18 4:21:00 PM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
87219	10/25/18	ERH698	AZ81677	10/23/18 4:21:00 PM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
87219	10/25/18	ERH698	AZ81677	10/23/18 4:21:00 PM	WATER	EPA 8015B-eLL	EPA 8015B TPH RE-EXTRACT
87219	10/25/18	ERH698	AZ81677	10/23/18 4:21:00 PM	WATER	EPA 8260B	EPA 8260B GRO WATER
87219	10/25/18	ERH698	AZ81677	10/23/18 4:21:00 PM	WATER	RSK 175	METHANE BY RSK 175
87219	10/25/18	ERH698	AZ81677	10/23/18 4:21:00 PM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ
87219	10/25/18	ERH688	AZ81678	10/24/18 9:12:00 AM	WATER	SM 2320B	Wetlab 2320B - Water
87219	10/25/18	ERH688	AZ81678	10/24/18 9:12:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water
87219	10/25/18	ERH688	AZ81678	10/24/18 9:12:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water
87219	10/25/18	ERH688	AZ81678	10/24/18 9:12:00 AM	WATER	SM3500FeB	Ferrous Iron
87219	10/25/18	ERH688	AZ81678	10/24/18 9:12:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER
87219	10/25/18	ERH688	AZ81678	10/24/18 9:12:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87219	10/25/18	ERH688	AZ81678	10/24/18 9:12:00 AM	WATER	EPA 8270D	EPA 8270D WATER
87219	10/25/18	ERH688	AZ81678	10/24/18 9:12:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
87219	10/25/18	ERH688	AZ81678	10/24/18 9:12:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
87219	10/25/18	ERH688	AZ81678	10/24/18 9:12:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH RE-EXTRACT
87219	10/25/18	ERH688	AZ81678	10/24/18 9:12:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87219	10/25/18	ERH688	AZ81678	10/24/18 9:12:00 AM	WATER	RSK 175	METHANE BY RSK 175
87219	10/25/18	ERH688	AZ81678	10/24/18 9:12:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ

**APPL Inc.**  
**Abbreviations and Flags**


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

**SAMPLE RECORDS MANAGEMENT  
CHAIN OF CUSTODY,  
ARF, CRF, AND  
CLIENT COMMUNICATION**

# APPL - Analysis Request Form

**87219**

Client: AECOM  
 Address: 1001 Bishop Street, Suite 1600  
Honolulu, HI 96813  
 Attn: Margie Pascua  
 Phone: 808-356-5373 Fax: 808-523-8950  
 Job: 60571032 CV18F0126 Red Hill Fuel Storage  
 PO #: 18S-S22209-HI27 PO# 102604  
 Chain of Custody (Y/N): Y # RH102418-1-3  
 RAD Screen (Y/N): Y pH (Y/N): Y  
 Turn Around Type: 1 WEEK

Received by: AAR   
 Date Received: 10/25/18 Time: 10:00  
 Delivered by: FEDEX  
 Shuttle Custody Seals (Y/N): Y Time Zone: -10  
 Chest Temp(s): 2.0,2.5,2.0°C  
 Color: VOA/K-PurpYel  
 Samples Chilled until Placed in Refrig/Freezer: Y  
 Project Manager: Libby Cheesebor  
 QC Report Type: DVP4DOD/EQUIS/HI  
 Due Date: 11/01/18

Comments:

**PM: login and F1s to Margie.Pascua@aecom.com**  
**AN: 7 day TAT for Form 1s; 21 day TAT for PKG STYLE 1; DOD v5.1; DOD Forms (LOQ/LOD database/DL)**  
**8260: BTEX & TPH-G only; 8270 SIM: 1-methylnaphthalene, 2-methylnaphthalene & naphthalene only.**  
**TPH D & O both with and w/o SGC, reverse surrogate for the SGC; analyze SGC if detections**  
**RSK: Methane only; \$87DC53W5: report phenol + TICs; \$87DMEEW5: 2-MEE (LCS Spk 80ppb).**  
  
**FR: HC to LDC, 2 labeled CDs to Margie Pascua.**  
**EDD: AECOM EQUIS EDD 2.5.3 Red Hill 87DMEE->3535A to Margie.Pascua@aecom.com & jecklund@lab-data.com**




Sample Distribution:

**GC: 3-\$87DC53W5, 3-\$87DMEEW5, 1-\$DOC53SGCW5LIQ,**  
**3-\$DOC53W5LIQ, 3-\$DOC53W5LIQRX, 3-\$SIM53LIQ51**  
**Extractions: 3- LIQ003, 3- LIQ005, 3- LIQ005SGC, 3-**  
**MWE2MEE**  
**VOA: 6-\$86BTOTXDOD5W, 6-\$GASBL, 6-\$GRO86BW, 6-**  
**\$RSKMETH**  
**Wetlab: 3-\$232W(HCO3,CO3,ALK), 3-\$300W(NO3,CL,SO4),**  
**3-\$35FE, 3-\$35OF, 2-\$300WD(CL,SO4)**

Charges:

Invoice To:

**ACCOUNTS PAYABLE**  
**1001 Bishop Street, Ste 1600**  
**USAPImaging@aecom.com**  
**mary.basano@aecom.com**

Client ID	APPL ID	Sampled	Analyses Requested
1. ERH687	AZ81673W LCSD 	10/24/18 07:55	\$86BTOTXDOD5W, \$GASBL, \$GRO86BW, \$RSKMETH
2. ERH697	AZ81674W LCSD 	10/22/18 12:20	\$86BTOTXDOD5W, \$GASBL, \$GRO86BW, \$RSKMETH
3. ERH685	AZ81675W LCSD 	10/23/18 12:45	\$86BTOTXDOD5W, \$GASBL, \$GRO86BW, \$RSKMETH



APPL - Analysis Request Form

87219

4. ERH686 LCSD AZ81676W 10/23/18 13:25 \$232W(HCO3,CO3,ALK),  
 \$300W(NO3,CL,SO4), \$35FE, \$35OF,  
 \$86BTOTXDOD5W, \$87DC53W5,  
 \$87DMEEW5, \$DOC53SGCW5LIQ,  
 \$DOC53W5LIQ, \$DOC53W5LIQRX, \$GASBL,  
 \$GRO86BW, \$RSKMETH, \$SIM53LIQ51 --  
 D&O-SGC analysis if detections

5. ERH698 LCSD AZ81677W 10/23/18 16:21 \$232W(HCO3,CO3,ALK),  
 \$300W(NO3,CL,SO4), \$300WD(CL,SO4),  
 \$35FE, \$35OF, \$86BTOTXDOD5W,  
 \$87DC53W5, \$87DMEEW5, \$DOC53W5LIQ,  
 \$DOC53W5LIQRX, \$GASBL, \$GRO86BW,  
 \$RSKMETH, \$SIM53LIQ51 -- D&O-SGC  
 analysis if detections

6. ERH688 LCSD AZ81678W 10/24/18 09:12 \$232W(HCO3,CO3,ALK),  
 \$300W(NO3,CL,SO4), \$300WD(CL,SO4),  
 \$35FE, \$35OF, \$86BTOTXDOD5W,  
 \$87DC53W5, \$87DMEEW5, \$DOC53W5LIQ,  
 \$DOC53W5LIQRX, \$GASBL, \$GRO86BW,  
 \$RSKMETH, \$SIM53LIQ51 -- D&O-SGC  
 analysis if detections

# APPL Sample Receipt Form

ARF# 87219

Sample	Container Type	Count	p
AZ81673	<sup>13</sup> VOAs - HCL	4	NA
AZ81674	<sup>13</sup> VOAs - HCL	4	NA
AZ81675	<sup>13</sup> VOAs - HCL	4	NA
AZ81676	<sup>3</sup> PL 250mL	1	NA
	<sup>10</sup> PL 250mL - H2SO4	1	1.7
	<sup>13</sup> VOAs - HCL	4	NA
	<sup>17</sup> Amber Liter	5	NA
	<sup>38</sup> 250mL brn poly, HCl prsvd	1	1.7
	<sup>40</sup> 500mL Amber, unprsvd	2	NA
AZ81677	<sup>3</sup> PL 250mL	1	NA
	<sup>10</sup> PL 250mL - H2SO4	1	1.7
	<sup>13</sup> VOAs - HCL	4	NA
	<sup>17</sup> Amber Liter	5	NA
	<sup>38</sup> 250mL brn poly, HCl prsvd	1	1.7
	<sup>40</sup> 500mL Amber, unprsvd	2	NA
AZ81678	<sup>3</sup> PL 250mL	1	NA
	<sup>10</sup> PL 250mL - H2SO4	1	1.7
	<sup>13</sup> VOAs - HCL	4	NA
	<sup>17</sup> Amber Liter	5	NA
	<sup>38</sup> 250mL brn poly, HCl prsvd	1	1.7
	<sup>40</sup> 500mL Amber, unprsvd	2	NA

Sample    Container Type    Count    p

## Libby Cheeseborough

---

**From:** Pascua, Margie Fabian. <Margie.Pascua@aecom.com>  
**Sent:** Thursday, October 25, 2018 5:18 PM  
**To:** Libby Cheeseborough  
**Subject:** RE: arf 87219 AECOM

Hi Libby,

Thank you for the pictures! That definitely helps. Sorry for the delay on getting this to you. I just got confirmation now.

For the VOA vials ERH687 (trip blank) = the COC is incorrect on the collection time; please log in as collection time 07:55

For the all bottles ERH688 with collection date 10/24/18, time 09:12 = these are correctly labeled as ERH688, but the COC is incorrect on the time; please log in as collection time 09:12

For the all bottles ERH688 with collection date 10/23/18, time 16:21 = this should actually be ERH698.

Thank you,

Margie Pascua  
*Environmental Scientist*  
Environment, West Region, Pacific District  
Direct 808.356.5373

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**From:** Libby Cheeseborough [<mailto:libby@applinc.com>]  
**Sent:** Thursday, October 25, 2018 11:07 AM  
**To:** Pascua, Margie Fabian.  
**Subject:** FW: arf 87219 AECOM

There was already an email and picture too.  
Please see email below and pictures and advise.

Thank you,  
Libby

Libby Cheeseborough  
*Project Manager*



Agriculture & Priority Pollutants Laboratories, Inc.  
WOSB. NELAP Accredited.  
d. 559.862.2109 t. 559.275.2175 f. 559.275.4422

## Libby Cheeseborough

---


**From:** Pascua, Margie Fabian. <Margie.Pascua@aecom.com>  
**Sent:** Friday, October 26, 2018 12:19 PM  
**To:** Libby Cheeseborough  
**Subject:** RE: login 87219 Red Hill

Thank you, Libby!

Minor change please: ERH685 – please correct collection time to 12:45.

Also, we are shipping a couple of coolers today (EB and FB) for Saturday (10/27) delivery. No wet chem analyses, so no nitrate hold time issue. Will the lab be able to receive?

3. ERH685

AZ81875W 10/23/18 12:25 \$86BTOTXDOD5W, \$GASBL, \$GRO86BW,  
LCSD  SRSKMETH

ERH685	Trip Blank	10/23/18	12:45	HST	4	X		
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Thank you,

**Margie Pascua**  
Environmental Scientist  
Environment, West Region, Pacific District  
Direct 808.356.5373

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**From:** Libby Cheeseborough [<mailto:libby@applinc.com>]  
**Sent:** Friday, October 26, 2018 6:31 AM  
**To:** Pascua, Margie Fabian.  
**Subject:** login 87219 Red Hill

Hi Margie,  
Here is the login for yesterday's samples. Please let me know if there any changes.

Thank you,  
Libby

**Libby Cheeseborough**  
Project Manager



**Agriculture & Priority Pollutants Laboratories, Inc.**  
WQSB. NELAP Accredited.

d. 559.862.2109 t. 559.275.2175 f. 559.275.4422  
a. 908 N. Temperance Ave., Clovis, CA 93611

[Website](#) • [Email](#)

DoD accredited for ISM, Dioxins and PCB congeners.



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

**CHAIN OF CUSTODY RECORD**  
 Phone: (559) 275-2175  
 Fax: (559) 275-4422  
 coc@applinc.com C.O.C. RH102418-3

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

Project Name/Number		Sampler (Print)				Analysis Requested/Method Number										Date Shipped: <u>10/24/18</u>									
<u>CIV 53 / 60481245</u> <u>CV 13F0126 / 60571032</u>		<u>GM, MH, CE</u>				No. of Containers	Matrix			8260C BTEX, TPH-g	8260C DCA 8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/ SGT	8270DSIM PAHs short list	8270D Phenol, TICs	8270D 2-(2-methoxyethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity	300.0 Nitrate, Sulfate, Chloride	300.0 Bromide/Fluoride	8010 Total Ca, Mg, Mn, K, Na	SM4500 Total & Dissolved Silica	Carrier: <u>FedEx</u>
Purchase Order Number		Sampler (Signature)					Aq	Sed.	Soil																Waybill No.:
Sample Identification		Location	Date Collected	Time Collected	Time Zone														Comments:						
<u>ERH687</u>		<u>Trip Blank</u>	<u>10/24/18</u>	<u>0912</u>	<u>HST</u>	<u>4</u>	<u>X</u>			<u>X</u>						<u>X</u>									
<u>ERH688</u>		<u>RHMW04</u>	<u>10/24/18</u>	<u>0755</u>	<u>HST</u>	<u>14</u>	<u>X</u>			<u>X</u>	<u>X</u>	<u>X*</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>							

Shuttle Temperature:	Turnaround Requested: Check one <input type="checkbox"/> Standard 2-3 wk <input checked="" type="checkbox"/> One week <input type="checkbox"/> 3 days <input type="checkbox"/> 24/48 Hrs. <input type="checkbox"/> Other: _____							Sample Disposal: <input type="checkbox"/> Return to client <input checked="" type="checkbox"/> Disposal by Lab (30-day retention)				
Relinquished by sampler: <u>AECOM</u>	Date	Time	Received by:		Relinquished by:	Date	Time	Received by:				
<u>[Signature]</u>	<u>10/24/18</u>	<u>1300</u>										
Relinquished by:	Date	Time	Received by:		Relinquished by:	Date	Time	Received at lab by:				
						<u>10-25-18</u>	<u>1000</u>	<u>[Signature]</u>				



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

CHAIN OF CUSTODY RECORD

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

C.O.C. RH02418-2

Report to: <u>PLEASE PRINT</u> Company Name: <u>AECOM</u> Phone: <u>808-356-5373</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u> Attn: <u>Margie Pascua</u> Email: <u>margie.pascua@aecom.com</u>	Invoice to: <u>PLEASE PRINT</u> Company Name: <u>AECOM</u> Phone: <u>808-529-7249</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u> Attn: <u>Mary Basano</u> Email: <u>mary.basano@aecom.com; usapimaging@aecom.com</u>
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Project Name/Number <u>CIV 53 / 60481245</u> <u>CV 18F0126/60571032</u>	Sampler (Print) <u>GM, CE, MH</u>	Analysis Requested/Method Number													Date Shipped: <u>10/24/18</u>									
		Matrix			8260C BTEX, TPH-g	8260C DCA	8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/ SGT	8270DSIM PAHs short list	8270D Phenol, TICs	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrrous Iron		353.2 Nitrate-Nitrite N	SM2320B Alkalinity	300.0 Nitrate Sulfate, Chloride	300.0 Bromide/Iodide	3010 Total Ca, Mg, Mn, K, Na	SM4500 Total & Dissolved Silica			
Purchase Order Number <u>77265 102604</u>	Sampler (Signature) <u>MCS for GM, MH, CE</u>	No. of Containers	Aq	Sed.	Soil																		Carrier: <u>FedEx</u>	
Sample Identification	Location	Date Collected	Time Collected	Time Zone																			Waybill No.:	
<u>ERM 697</u>	<u>Trip Blank</u>	<u>10/22/18</u>	<u>1220</u>	<u>HST</u>	<u>4</u>	<u>X</u>				<u>X</u>														Comments:
<u>ERM 698</u>	<u>RTHMWO9</u>	<u>10/23/18</u>	<u>1621</u>	<u>HST</u>	<u>14</u>	<u>X</u>				<u>X</u>	<u>X</u>	<u>X*</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
<div style="position: relative; width: 100%; height: 100%;"> <span style="font-size: 2em; opacity: 0.5; transform: rotate(-30deg); display: inline-block;">MCS</span> <span style="position: absolute; top: -20px; left: 50%; transform: translate(-50%, -50%); font-size: 1.2em;">10/24/18</span> </div>																								
<small>*Analyze TPH w/SGT only if TPH-d/o detected. TPH-d/o &amp; PAHs need liquid-liquid extraction.</small>																								

Shuttle Temperature: <u>2.0° 12.5°, 2.0</u>	Turnaround Requested: Check one <input type="checkbox"/> Standard 2-3 wk <input checked="" type="checkbox"/> One week <input type="checkbox"/> 3 days <input type="checkbox"/> 24/48 Hrs. <input type="checkbox"/> Other: _____	Sample Disposal: <input type="checkbox"/> Return to client <input checked="" type="checkbox"/> Disposal by Lab (30-day retention)
Relinquished by sampler: <u>AECOM</u> <u>MCS</u>	Date: <u>10/23/18</u> Time: <u>1200</u>	Received by: _____ Date: _____ Time: _____
Relinquished by: _____	Date: _____ Time: _____	Received at lab by: _____ Date: <u>10-25-18</u> Time: <u>1000</u>



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CHAIN OF CUSTODY RECORD

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

C.O.C. RH02418-1

Report to: <u>PLEASE PRINT</u>  Company Name: <u>AECOM</u> Phone: <u>808-356-5373</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u>  Attn: <u>Margie Pascua</u>  Email: <u>margie.pascua@aecom.com</u>	Invoice to: <u>PLEASE PRINT</u>  Company Name: <u>AECOM</u> Phone: <u>808-529-7249</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u>  Attn: <u>Mary Basano</u>  Email: <u>mary.basano@aecom.com; usapimaging@aecom.com</u>
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Project Name/Number <u>CIV 53 / 60481245</u> <u>CV 18F026 / 60591032</u>	Sampler (Print)				No. of Containers	Matrix			Analysis Requested/Method Number												Date Shipped: <u>10/24/18</u>						
	Purchase Order Number <u>77265 102604</u>	Sampler (Signature)				Aq	Sed.	Soil	8260C BTEX, TPH-g	8260C DCA	8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/SGT	8270DSM PAHs short list	8270D Phenol, TICs	8270D 2-(2-methoxyethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity		300.0 Nitrate Sulfate Chloride	300.0 Bromide/Fluoride	8010 Total Ca, Mg, Mn, K, Na	SM4500 Total & Dissolved Solids		
Sample Identification		Location	Date Collected	Time Collected	Time Zone																						Carrier: FedEx
ERH685	Trip Blank	10/23/18	1245	HST	4	X			X							X										Waybill No.:	
ERH686	RHMW03	10/23/18	1325	HST	14	X			X	X	X*	X	X	X	X	X	X	X	X						Comments:		
<p><i>[Handwritten signature and date 10/24/18]</i></p>																											
<p>*Analyze TPH w/SGT only if TPH-d/o detected.</p> <p>TPH-d/o &amp; PAHs need liquid-liquid extraction.</p>																											

Shuttle Temperature:	Turnaround Requested: Check one <input type="checkbox"/> Standard 2-3 wk <input checked="" type="checkbox"/> One week <input type="checkbox"/> 3 days <input type="checkbox"/> 24/48 Hrs. <input type="checkbox"/> Other: _____	Sample Disposal: <input type="checkbox"/> Return to client <input checked="" type="checkbox"/> Disposal by Lab (30-day retention)					
Relinquished by sampler: AECOM <i>[Signature]</i>	Date: <u>10/23/18</u> Time: <u>1150</u>	Received by:	Relinquished by:	Date:	Time:	Received by:	
Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date: <u>10-25-18</u>	Time: <u>1000</u>	Received at lab by: <i>[Signature]</i>

COOLER RECEIPT FORM

ARF: 87219

- 1) Project: 60571032 CV18F0126 Red Hill Fuel Storage Date Received: 10/25/18
- 2) Coolers: Number of Coolers: 3
- 3) YES Were custody seals present and intact?  
How many? 6 Name/Date on seal? See Below
- 4) YES Was there a shipping slip? Carrier name: FEDEX
- 5) Type of packing in cooler:  bubble wrap  popcorn  foam  plastic bags  other  
 wet ice  dry ice  no ice  gel ice
- 6) YES Were cooler temperatures acceptable?
- 7) Serial number of certified NIST thermometer use R1
- 8) Cooler temp(s): In °C  
1: 2.0°C x2 2: 2.5°C 3: 4: 5:  
7: 8: 9: 10: 11:

Chain of custody:

- 9) YES Was a chain of custody received?
- 10) YES Were the custody papers complete/signed in the appropriate places?

Sample Labels:

- 11) YES Were all sample labels complete (sample ID, date/time of sampling, etc.)?
- 12) YES/NO Did all container labels agree with custody papers?

Sample Containers:

- 13) YES Were all containers sealed in separate bags?
- 14) YES Did all containers arrive in good condition:(unbroken, no leakage, no cracked/
- 15) YES Were correct containers and preservatives used for the tests indicated?
- 16) YES Was a sufficient amount of sample sent for tests indicated?
- 17) Yes Were bubbles present in volatile samples?

If yes, the following were received with air bubbles:

Larger than a pea:

Smaller than a pea: AZ81673W01-4, AZ81674W01-4, AZ81676W01-4

Initials MLC Date 10/24  
**CUSTODY SEAL**  
 AECOM (808) 521-3051

Preservation Hold time:

- 18) Yes Was a sufficient amount of holding time remaining to analyze the samples?
- 19) Yes Was the pH taken of all non-VOA preserved samples and written on the sample container?
- 20) Yes Was the pH of acid preserved non-VOA samples < 2?
- 21) NA Was the pH of sodium hydroxide preserved samples for Cyanide > 12 and Sulfide >9?
- 22) NO Were unpreserved VOA Vials received?
- 23) NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?

pH strip lot number: 90B2031

Lab notified if pH was not adequate:

Notes/Deficiencies:

Sample ERH687 Containers say 07:55 COC says 09:12. Sample ERH698 Container Ids say ERH688 with collection time 16:21. Sample ERH688 Containers say 09:12 COC says 07:55

Personnel receiving samples: ZG Second reviewer: AA  
 Personnel labeling samples: ZG  
 Project manager notified: ZG, AA Date/Time of notification 10/25/18  
 Name of client notified: \_\_\_\_\_ Date/Time of notification \_\_\_\_\_



## **SAMPLE RESULTS**

# EPA 8015B TPH LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87219  
APPL ID: **AZ81676**  
QCG: #DOC53-181029A-234822

**Sample ID: ERH686**

Sample Collection Date: 10/23/18

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	270 B ++	40.0	25.00	13.07	ug/L	10/29/18	10/31/18
EPA 8015B-eL	OIL (C24-C40)	270 B	40.0	40.00	5.54	ug/L	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	121	60-142			%	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	101	56-125			%	10/29/18	10/31/18

B = The analyte was found in a method blank, as well as in the sample.  
++(T3M) The analyst has noted that the chromatogram of this sample is mainly higher boiling hydrocarbons.

Quant Method: DOC0905.M
Run #: 1031024
Instrument: Apollo
Sequence: 181031
Dilution Factor: 1
Initials: DPO

Printed: 11/02/18 2:24:14 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87219

**Sample ID: ERH686**

**APPL ID: AZ81676**

Sample Collection Date: 10/23/18

QCG: #DOC53-181105A-234971

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	220 ++	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
EPA 8015B-eL	OIL (C24-C40)	190	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	114	60-142			%	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	99.5	56-125			%	11/05/18	11/07/18

++(T3M) The analyst has noted that the chromatogram of this sample is mainly higher boiling hydrocarbons.

Quant Method: DOC0905.M
Run #: 1107017
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

*Printed: 11/08/18 9:55:11 AM*  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH WATER L-L SGC

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87219

**Sample ID: ERH686**

**APPL ID: AZ81676**

Sample Collection Date: 10/23/18

QCG: #DOC53-181105A1-235019

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/08/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/08/18
EPA 8015B-eL	SURROGATE: (R) DECANOIC ACID (S)	0.0	0-1			%	11/05/18	11/08/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	118	60-142			%	11/05/18	11/08/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	111	56-125			%	11/05/18	11/08/18

Quant Method: DOC0905.M
Run #: 1107046
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

Printed: 11/09/18 11:42:03 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8015B TPH LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH698**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87219

**APPL ID: AZ81677**

QCG: #DOC53-181029A-234822

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	98 B ++	40.0	25.00	13.07	ug/L	10/29/18	10/31/18
EPA 8015B-eL	OIL (C24-C40)	130 B	40.0	40.00	5.54	ug/L	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	124	60-142			%	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	111	56-125			%	10/29/18	10/31/18

B = The analyte was found in a method blank, as well as in the sample.  
++(T3M) The analyst has noted that the chromatogram of this sample is mainly higher boiling hydrocarbons.

Quant Method: DOC0905.M
Run #: 1031025
Instrument: Apollo
Sequence: 181031
Dilution Factor: 1
Initials: DPO

*Printed: 11/02/18 2:24:14 PM*  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87219  
APPL ID: **AZ81677**  
QCG: #DOC53-181105A-234971

**Sample ID: ERH698**

Sample Collection Date: 10/23/18

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	118	60-142			%	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	108	56-125			%	11/05/18	11/07/18

Quant Method: DOC0905.M
Run #: 1107018
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

Printed: 11/08/18 9:55:11 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8015B TPH LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH688**

Sample Collection Date: 10/24/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87219

**APPL ID: AZ81678**

QCG: #DOC53-181029A-234822

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	4500 B ++	40.0	25.00	13.07	ug/L	10/29/18	10/31/18
EPA 8015B-eL	OIL (C24-C40)	120 B	40.0	40.00	5.54	ug/L	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	128	60-142			%	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	113	56-125			%	10/29/18	10/31/18

B = The analyte was found in a method blank, as well as in the sample.  
++(T4M) The analyst has noted that the chromatogram of this sample does not contain a petroleum hydrocarbon pattern, however the presence of a dominant peak(s) were noted.

Quant Method: DOC0905.M
Run #: 1031026
Instrument: Apollo
Sequence: 181031
Dilution Factor: 1
Initials: DPO

Printed: 11/02/18 2:24:14 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87219

**Sample ID: ERH688**

**APPL ID: AZ81678**

Sample Collection Date: 10/24/18

QCG: #DOC53-181105A-234971

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	122	60-142			%	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	111	56-125			%	11/05/18	11/07/18

Quant Method: DOC0905.M
Run #: 1107021
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

*Printed: 11/08/18 9:55:11 AM*  
APPL-F1-SC-NoMC-REG MDLs-DOD



## EPA 8270D SIM LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH686**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87219

**APPL ID: AZ81676**

QCG: #SIM53-181030A-234793

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALE	91.3	39-114			%	10/30/18	11/01/18
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (	100	58-120			%	10/30/18	11/01/18

Quant Method: L1026.M
Run #: 1026L073
Instrument: Linus
Sequence: L181026
Dilution Factor: 1
Initials: MA

Printed: 11/01/18 4:33:23 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8270D SIM LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH698**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87219

**APPL ID: AZ81677**

QCG: #SIM53-181030A-234793

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALE	84.3	39-114			%	10/30/18	11/01/18
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (	96.7	58-120			%	10/30/18	11/01/18

Quant Method: L1026.M
Run #: 1026L074
Instrument: Linus
Sequence: L181026
Dilution Factor: 1
Initials: MA

Printed: 11/01/18 4:33:23 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D SIM LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH688**

Sample Collection Date: 10/24/18

ARF: 87219

**APPL ID: AZ81678**

QCG: #SIM53-181030A-234793

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALE	87.9	39-114			%	10/30/18	11/01/18
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (	100	58-120			%	10/30/18	11/01/18

Quant Method: L1026.M  
Run #: 1026L075  
Instrument: Linus  
Sequence: L181026  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 4:33:23 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87219

**Sample ID: ERH686**

**APPL ID: AZ81676**

Sample Collection Date: 10/23/18

QCG: #87DC5-181030A-234799

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BENZENESULFONOTHIOIC ACID, S-P	9.7 T				ug/L	10/30/18	11/01/18
EPA 8270D	HEXANEDIOIC ACID, DIOCTYL ESTER	13 T				ug/L	10/30/18	11/01/18
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	90.4	43-140			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2-FLUOROBIPHENYL (S)	86.6	44-119			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	84.0	19-119			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	101	44-120			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: PHENOL-D6 (S)	88.1	10-115			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	79.1	50-134			%	10/30/18	11/01/18

T = Tentatively identified compound.

Quant Method: Y1025NC.M
Run #: 1025Y109
Instrument: Yoda
Sequence: Y181025
Dilution Factor: 1
Initials: AAB

Printed: 11/07/18 8:18:35 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH698**

Sample Collection Date: 10/23/18

ARF: 87219

**APPL ID: AZ81677**

QCG: #87DC5-181030A-234799

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BENZENE, METHYL-	5.2 T	TIC			ug/L	10/30/18	11/01/18
EPA 8270D	BENZENESULFONOTHIOIC ACID, S-P	7.5 T	TIC			ug/L	10/30/18	11/01/18
EPA 8270D	DISULFIDE, DIPHENYL	5.1 T	TIC			ug/L	10/30/18	11/01/18
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	72.1	43-140			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	71.0	44-119			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	66.7	19-119			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	77.6	44-120			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: PHENOL-D6 (S)	72.5	10-115			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	65.5	50-134			%	10/30/18	11/01/18

T = Tentatively identified compound.

Quant Method: Y1025NC.M
Run #: 1025Y110
Instrument: Yoda
Sequence: Y181025
Dilution Factor: 1
Initials: AAB

Printed: 11/07/18 8:18:35 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH688**

Sample Collection Date: 10/24/18

ARF: 87219

**APPL ID: AZ81678**

QCG: #87DC5-181030A-234799

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BENZENESULFONOTHIOIC ACID, S-P	8.0 T	TIC			ug/L	10/30/18	11/01/18
EPA 8270D	DISULFIDE, DIPHENYL	5.0 T	TIC			ug/L	10/30/18	11/01/18
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	74.2	43-140			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	72.2	44-119			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	73.7	19-119			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	82.8	44-120			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: PHENOL-D6 (S)	76.4	10-115			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	64.0	50-134			%	10/30/18	11/01/18

T = Tentatively identified compound.

Quant Method: Y1025NC.M
Run #: 1025Y111
Instrument: Yoda
Sequence: Y181025
Dilution Factor: 1
Initials: AAB

Printed: 11/07/18 8:18:35 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8270D MODIFIED WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87219

**Sample ID: ERH686**

**APPL ID: AZ81676**

Sample Collection Date: 10/23/18

QCG: #87DME-181029A-234791

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method: YMEE0801.M  
Run #: 0801Y087  
Instrument: Yoda  
Sequence: Y180801M  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 3:55:02 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D MODIFIED WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87219

**Sample ID: ERH698**

**APPL ID: AZ81677**

Sample Collection Date: 10/23/18

QCG: #87DME-181029A-234791

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method: YMEE0801.M  
Run #: 0801Y088  
Instrument: Yoda  
Sequence: Y180801M  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 3:55:02 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD



## EPA 8270D MODIFIED WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87219

**Sample ID: ERH688**

**APPL ID: AZ81678**

Sample Collection Date: 10/24/18

QCG: #87DME-181029A-234791

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method: YMEE0801.M  
Run #: 0801Y089  
Instrument: Yoda  
Sequence: Y180801M  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 3:55:02 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH687**

Sample Collection Date: 10/24/18

ARF: 87219

**APPL ID: AZ81673**

QCG: #86BTO-181026AL-234621

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/26/18	10/26/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/26/18	10/26/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/26/18	10/26/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/26/18	10/26/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	105	81-118			%	10/26/18	10/26/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	101	85-114			%	10/26/18	10/26/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	105	80-119			%	10/26/18	10/26/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	106	89-112			%	10/26/18	10/26/18

Quant Method: L1026W.M
Run #: 1026L23
Instrument: Loki
Sequence: 181026
Dilution Factor: 1
Initials: SV

Printed: 10/30/18 10:59:02 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH697**

Sample Collection Date: 10/22/18

ARF: 87219

**APPL ID: AZ81674**

QCG: #86BTO-181026AL-234621

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/26/18	10/26/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/26/18	10/26/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/26/18	10/26/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/26/18	10/26/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	105	81-118			%	10/26/18	10/26/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	93.7	85-114			%	10/26/18	10/26/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	104	80-119			%	10/26/18	10/26/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	98.0	89-112			%	10/26/18	10/26/18

Quant Method: L1026W.M  
Run #: 1026L25  
Instrument: Loki  
Sequence: 181026  
Dilution Factor: 1  
Initials: SV

Printed: 10/30/18 10:59:02 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH685

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87219

APPL ID: AZ81675

QCG: #86BTO-181026AL-234621

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/26/18	10/26/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/26/18	10/26/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/26/18	10/26/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/26/18	10/26/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	103	81-118			%	10/26/18	10/26/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	89.6	85-114			%	10/26/18	10/26/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	102	80-119			%	10/26/18	10/26/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	95.0	89-112			%	10/26/18	10/26/18

Quant Method: L1026W.M  
Run #: 1026L24  
Instrument: Loki  
Sequence: 181026  
Dilution Factor: 1  
Initials: SV

Printed: 10/30/18 10:59:02 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH686**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87219

**APPL ID: AZ81676**

QCG: #86BTO-181026AL-234621

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/26/18	10/26/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/26/18	10/26/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/26/18	10/26/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/26/18	10/26/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	111	81-118			%	10/26/18	10/26/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	87.8	85-114			%	10/26/18	10/26/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	111	80-119			%	10/26/18	10/26/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	98.3	89-112			%	10/26/18	10/26/18

Quant Method: L1026W.M
Run #: 1026L29
Instrument: Loki
Sequence: 181026
Dilution Factor: 1
Initials: SV

Printed: 10/30/18 10:59:02 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH698**

Sample Collection Date: 10/23/18

ARF: 87219

**APPL ID: AZ81677**

QCG: #86BTO-181026AL-234621

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/26/18	10/26/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/26/18	10/26/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/26/18	10/26/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/26/18	10/26/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	116	81-118			%	10/26/18	10/26/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	100	85-114			%	10/26/18	10/26/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	116	80-119			%	10/26/18	10/26/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	109	89-112			%	10/26/18	10/26/18

Quant Method: L1026W.M
Run #: 1026L28
Instrument: Loki
Sequence: 181026
Dilution Factor: 1
Initials: SV

*Printed: 10/30/18 10:59:02 AM*  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87219

**Sample ID: ERH688**

**APPL ID: AZ81678**

Sample Collection Date: 10/24/18

QCG: #86BTO-181029AL-234666

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/29/18	10/29/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/29/18	10/29/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/29/18	10/29/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/29/18	10/29/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	116	81-118			%	10/29/18	10/29/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	86.7	85-114			%	10/29/18	10/29/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	115	80-119			%	10/29/18	10/29/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	97.1	89-112			%	10/29/18	10/29/18

Quant Method: LSUR1026.M
Run #: 1029L22
Instrument: Loki
Sequence: 181026
Dilution Factor: 1
Initials: SV

Printed: 10/30/18 10:59:02 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87219

**Sample ID: ERH687**

**APPL ID: AZ81673**

Sample Collection Date: 10/24/18

QCG: #GRO86-181029AL-234654

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/29/18	10/29/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	90.9	85-114			%	10/29/18	10/29/18

Quant Method: LGAS1029.M  
Run #: 1029L27  
Instrument: Loki  
Sequence: 181026  
Dilution Factor: 1  
Initials: SV

Printed: 10/30/18 11:00:22 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD



# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH697**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87219

**APPL ID: AZ81674**

QCG: #GRO86-181029AL-234654

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/29/18	10/29/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	87.7	85-114			%	10/29/18	10/29/18

1

Quant Method: LGAS1029.M  
Run #: 1029L26  
Instrument: Loki  
Sequence: 181026  
Dilution Factor: 1  
Initials: SV

Printed: 10/30/18 11:00:22 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87219

**Sample ID: ERH685**

**APPL ID: AZ81675**

Sample Collection Date: 10/23/18

QCG: #GRO86-181029AL-234654

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/29/18	10/29/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	85.2	85-114			%	10/29/18	10/29/18

Quant Method: LGAS1029.M  
Run #: 1029L25  
Instrument: Loki  
Sequence: 181026  
Dilution Factor: 1  
Initials: SV

Printed: 10/30/18 11:00:22 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH686**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87219

**APPL ID: AZ81676**

QCG: #GRO86-181029AL-234654

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/29/18	10/29/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	87.3	85-114			%	10/29/18	10/29/18

Quant Method: LGAS1029.M  
Run #: 1029L24  
Instrument: Loki  
Sequence: 181026  
Dilution Factor: 1  
Initials: SV

Printed: 10/30/18 11:00:22 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH698**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87219

**APPL ID: AZ81677**

QCG: #GRO86-181029AL-234654

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/29/18	10/29/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	89.9	85-114			%	10/29/18	10/29/18

Quant Method: LGAS1029.M  
Run #: 1029L23  
Instrument: Loki  
Sequence: 181026  
Dilution Factor: 1  
Initials: SV

Printed: 10/30/18 11:00:22 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH688**

Sample Collection Date: 10/24/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87219

**APPL ID: AZ81678**

QCG: #GRO86-181029AL-234654

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/29/18	10/29/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	86.7	85-114			%	10/29/18	10/29/18

Quant Method: LGAS1029.M  
Run #: 1029L22  
Instrument: Loki  
Sequence: 181026  
Dilution Factor: 1  
Initials: SV

Printed: 10/30/18 11:00:22 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH687**

Sample Collection Date: 10/24/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87219

**APPL ID: AZ81673**

QCG: #RSKME-181029A-234668

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102918  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:32:45 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH697**

Sample Collection Date: 10/22/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87219

**APPL ID: AZ81674**

QCG: #RSKME-181029A-234668

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102919  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:32:45 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH685**

Sample Collection Date: 10/23/18

ARF: 87219

**APPL ID: AZ81675**

QCG: #RSKME-181029A-234668

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102920  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:32:46 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD



# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH686**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87219

**APPL ID: AZ81676**

QCG: #RSKME-181029A-234668

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102921  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:32:46 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH698**

Sample Collection Date: 10/23/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87219

**APPL ID: AZ81677**

QCG: #RSKME-181029A-234668

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102922  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:32:46 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH688**

Sample Collection Date: 10/24/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87219

**APPL ID: AZ81678**

QCG: #RSKME-181029A-234668

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102923  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:32:46 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## Wet Lab Analysis

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH686**

Sample Collection Date: 10/23/18

**APPL ID: AZ81676**

ARF: 87219

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	49.9	1.0	0.20	0.08	mg/L	1	10/26/18	10/26/18
EPA 300.0	NITRATE	7.1	0.5	0.18	0.04	mg/L	1	10/26/18	10/26/18
EPA 300.0	SULFATE	51.5	1.0	0.20	0.09	mg/L	1	10/26/18	10/26/18
EPA 353.2	NITRATE-NITRITE-N	1.5	0.10	0.100	0.028	mg/L	1	10/30/18	10/30/18
SM 2320B	BICARBONATE AS CaCO3	267	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM 2320B	CARBONATE AS CaCO3	1.70 U	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM 2320B	TOTAL ALKALINITY AS CaCO	267	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/25/18	10/25/18

Printed: 11/13/18 4:49:43 PM

APPL-F1-SC-NoMC-REG MDLs

## Wet Lab Analysis

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH698**

Sample Collection Date: 10/23/18

**APPL ID: AZ81677**

ARF: 87219

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	48.7	5.0	1.00	0.40	mg/L	5	10/29/18	10/29/18
EPA 300.0	NITRATE	2.3	0.5	0.18	0.04	mg/L	1	10/26/18	10/26/18
EPA 300.0	SULFATE	9.3	1.0	0.20	0.09	mg/L	1	10/26/18	10/26/18
EPA 353.2	NITRATE-NITRITE-N	0.43	0.10	0.100	0.028	mg/L	1	10/30/18	10/30/18
SM 2320B	BICARBONATE AS CaCO <sub>3</sub>	64.6	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM 2320B	CARBONATE AS CaCO <sub>3</sub>	1.70 U	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM 2320B	TOTAL ALKALINITY AS CaCO <sub>3</sub>	64.6	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/25/18	10/25/18

Printed: 11/13/18 4:49:43 PM

APPL-F1-SC-NoMC-REG MDLs

## Wet Lab Analysis

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH688**

Sample Collection Date: 10/24/18

**APPL ID: AZ81678**

ARF: 87219

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	71.3	5.0	1.00	0.40	mg/L	5	10/29/18	10/29/18
EPA 300.0	NITRATE	2.6	0.5	0.18	0.04	mg/L	1	10/26/18	10/26/18
EPA 300.0	SULFATE	10.5	1	0.2	0.1	mg/L	1	10/26/18	10/26/18
EPA 353.2	NITRATE-NITRITE-N	0.47	0.10	0.100	0.028	mg/L	1	10/30/18	10/30/18
SM 2320B	BICARBONATE AS CaCO <sub>3</sub>	76.2	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM 2320B	CARBONATE AS CaCO <sub>3</sub>	1.70 U	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM 2320B	TOTAL ALKALINITY AS CaCO <sub>3</sub>	76.2	2.0	1.70	0.85	mg/L	1	10/29/18	10/29/18
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/25/18	10/25/18

Printed: 11/13/18 4:49:43 PM

APPL-F1-SC-NoMC-REG MDLs

# QC FORMS

# EPA 8015B-eLL

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/31/18

Matrix: WATER

Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181029A-BLK	Blank	60-142	130		56-125	115	
181029A-LCS	Lab Control Spike	60-142	125		56-125	107	
181029A-LCSD	Lab Control SpikeD	60-142	127		56-125	112	
AZ81676	ERH686	60-142	121		56-125	101	
AZ81677	ERH698	60-142	124		56-125	111	
AZ81678	ERH688	60-142	128		56-125	113	

Comments: Batch: #DOC53-181029A

Printed: 11/02/18 2:24:21 PM  
Form 2 & 8, Surrogate Recovery Summary



# EPA 8015B-eLL

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 11/07/18

Matrix: WATER

Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181105A-BLK	Blank	60-142	110		56-125	103	
181105A-LCS	Lab Control Spike	60-142	112		56-125	95.7	
181105A-LCSD	Lab Control SpikeD	60-142	115		56-125	98.3	
AZ81676	ERH686	60-142	114		56-125	99.5	
AZ81677	ERH698	60-142	118		56-125	108	
AZ81678	ERH688	60-142	122		56-125	111	

Comments: Batch: #DOC53-181105A

Printed: 11/08/18 9:55:17 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8015B-eLL

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 11/08/18

Matrix: WATER

Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: (R) DECANOIC ACID (S)			SURROGATE: OCTACOSANE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181105A1-BLK	Blank	0-1	0.0		60-142	116	
181105A1-LCS	Lab Control Spike	0-1	0.0		60-142	120	
181105A1-LCSD	Lab Control SpikeD	0-1	0.0		60-142	116	
AZ81676	ERH686	0-1	0.0		60-142	118	

Comments: Batch: #DOC53-181105A1

Printed: 11/09/18 11:42:10 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8015B-eLL

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 11/08/18

Matrix: WATER

Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: ORTHO-TERPHENYL (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
181105A1-BLK	Blank	56-125	108				
181105A1-LCS	Lab Control Spike	56-125	104				
181105A1-LCSD	Lab Control SpikeD	56-125	100				
AZ81676	ERH686	56-125	111				

Comments: Batch: #DOC53-181105A1

Printed: 11/09/18 11:42:10 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8015B-eL

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/31/18

Matrix: WATER

Instrument: Apollo

Blank ID: 181029A-BLK

Time Analyzed: 1307

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181029A-BLK	Blank	1031004	10/31/18 1307
181029A-LCS	Lab Control Spike	1031005	10/31/18 1327
181029A-LCSD	Lab Control Spiked	1031007	10/31/18 1406
AZ81676	ERH686	1031024	10/31/18 1944
AZ81677	ERH698	1031025	10/31/18 2004
AZ81678	ERH688	1031026	10/31/18 2024

Comments: Batch: #DOC53-181029A

Printed: 11/02/18 2:24:17 PM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8015B TPH LIQ-LIQ**

Blank Name/QCG: **181029W-81636 - 234822**  
Batch ID: #DOC53-181029A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	110	40.0	25.00	13.07	ug/L	10/29/18	10/31/18
BLANK	OIL (C24-C40)	150	40.0	40.00	5.54	ug/L	10/29/18	10/31/18
BLANK	SURROGATE: OCTACOSANE (S)	130	60-142			%	10/29/18	10/31/18
BLANK	SURROGATE: ORTHO-TERPHEN	115	56-125			%	10/29/18	10/31/18

Quant Method: DOC0905.M  
Run #: 1031004  
Instrument: Apollo  
Sequence: 181031  
Initials: DPO

GC SC-Blank-REG MDLs-DOD  
Printed: 11/02/18 2:24:23 PM

# EPA 8015B-eL

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 11/07/18

Matrix: WATER

Instrument: Apollo

Blank ID: 181105A-BLK

Time Analyzed: 1424

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181105A-BLK	Blank	1107004	11/07/18 1424
181105A-LCS	Lab Control Spike	1107005	11/07/18 1445
181105A-LCSD	Lab Control SpikeD	1107007	11/07/18 1525
AZ81676	ERH686	1107017	11/07/18 1849
AZ81677	ERH698	1107018	11/07/18 1909
AZ81678	ERH688	1107021	11/07/18 2010

Comments: Batch: #DOC53-181105A

Printed: 11/08/18 9:55:14 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8015B TPH LIQ-LIQ RE-EXTRACT**

Blank Name/QCG: **181105W-81584 - 234971**  
Batch ID: #DOC53-181105A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
BLANK	SURROGATE: OCTACOSANE (S)	110	60-142			%	11/05/18	11/07/18
BLANK	SURROGATE: ORTHO-TERPHEN	103	56-125			%	11/05/18	11/07/18

Quant Method: DOC0905.M  
Run #: 1107004  
Instrument: Apollo  
Sequence: 181107  
Initials: DPO

GC SC-Blank-REG MDLs-DOD  
Printed: 11/08/18 9:55:18 AM

# EPA 8015B-eL

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 11/08/18

Matrix: WATER

Instrument: Apollo

Blank ID: 181105A1-BLK

Time Analyzed: 1657

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181105A1-BLK	Blank	1107039	11/08/18 1657
181105A1-LCS	Lab Control Spike	1107040	11/08/18 1718
181105A1-LCSD	Lab Control SpikeD	1107042	11/08/18 1758
AZ81676	ERH686	1107046	11/08/18 1919

Comments: Batch: #DOC53-181105A1

Printed: 11/09/18 11:42:07 AM  
Form 4, Blank Summary



**Method Blank**  
**EPA 8015B TPH WATER L-L SGC**

Blank Name/QCG: **181105W-81638 - 235019**  
Batch ID: #DOC53-181105A1

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/08/18
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/08/18
BLANK	SURROGATE: (R) DECANOIC AC	0.0	0-1			%	11/05/18	11/08/18
BLANK	SURROGATE: OCTACOSANE (S)	116	60-142			%	11/05/18	11/08/18
BLANK	SURROGATE: ORTHO-TERPHEN	108	56-125			%	11/05/18	11/08/18

Quant Method: DOC0905.M  
Run #: 1107039  
Instrument: Apollo  
Sequence: 181107  
Initials: DPO

GC SC-Blank-REG MDLs-DOD  
Printed: 11/09/18 11:42:11 AM

# EPA 8015B-eL

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/31/18

Matrix: WATER

Instrument: Apollo

LCS ID: 181029A-LCS

Time Analyzed: 1327

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181029A-BLK	Blank	1031004	10/31/18 1307
181029A-LCS	Lab Control Spike	1031005	10/31/18 1327
181029A-LCSD	Lab Control SpikeD	1031007	10/31/18 1406
AZ81676	ERH686	1031024	10/31/18 1944
AZ81677	ERH698	1031025	10/31/18 2004
AZ81678	ERH688	1031026	10/31/18 2024

Comments: Batch: #DOC53-181029A

Printed: 11/02/18 2:24:15 PM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## EPA 8015B TPH LIQ-LIQ

APPL ID: 181029W-81636 LCS - 234822  
 Batch ID: #DOC53-181029A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1250	1210	1310	96.8	105	36-132	7.9	30
OIL (C24-C40)	1250	1570	1600	126 #	128 #	41-113	1.9	30
SURROGATE: OCTACOSANE (S)	75.0	93.4	95.6	125	127	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	80.3	84.2	107	112	56-125		

# = Recovery is outside QC limits.

Comments: \_\_\_\_\_

	<u>SPK</u>	<u>DUP</u>
Quant Method :	DOC0905.M	DOC0905.M
Extraction Date :	10/29/18	10/29/18
Analysis Date :	10/31/18	10/31/18
Instrument :	Apollo	Apollo
Run :	1031005	1031007
Initials :	DPO	

# EPA 8015B-eL

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 11/07/18

Matrix: WATER

Instrument: Apollo

LCS ID: 181105A-LCS

Time Analyzed: 1445

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181105A-BLK	Blank	1107004	11/07/18 1424
181105A-LCS	Lab Control Spike	1107005	11/07/18 1445
181105A-LCSD	Lab Control SpikeD	1107007	11/07/18 1525
AZ81676	ERH686	1107017	11/07/18 1849
AZ81677	ERH698	1107018	11/07/18 1909
AZ81678	ERH688	1107021	11/07/18 2010

Comments: Batch: #DOC53-181105A

Printed: 11/08/18 9:55:13 AM  
Form 4, LCS Summary

## Laboratory Control Spike Recoveries

### EPA 8015B TPH LIQ-LIQ RE-EXTRACT

APPL ID: 181105W-81584 LCS - 234971  
 Batch ID: #DOC53-181105A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1250	1270	1240	102	99.2	36-132	2.4	30
OIL (C24-C40)	1250	1170	1220	93.6	97.6	41-113	4.2	30
SURROGATE: OCTACOSANE (S)	75.0	84.2	85.9	112	115	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	71.8	73.7	95.7	98.3	56-125		

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	DOC0905.M	DOC0905.M
Extraction Date :	11/05/18	11/05/18
Analysis Date :	11/07/18	11/07/18
Instrument :	Apollo	Apollo
Run :	1107005	1107007
Initials :	DPO	

# EPA 8015B-eL

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 11/08/18

Matrix: WATER

Instrument: Apollo

LCS ID: 181105A1-LCS

Time Analyzed: 1718

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181105A1-BLK	Blank	1107039	11/08/18 1657
181105A1-LCS	Lab Control Spike	1107040	11/08/18 1718
181105A1-LCSD	Lab Control SpikeD	1107042	11/08/18 1758
AZ81676	ERH686	1107046	11/08/18 1919

Comments: Batch: #DOC53-181105A1

Printed: 11/09/18 11:42:05 AM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## EPA 8015B TPH WATER L-L SGC

APPL ID: 181105W-81638 LCS - 235019  
 Batch ID: #DOC53-181105A1

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1250	1170	1140	93.6	91.2	36-132	2.6	30
OIL (C24-C40)	1250	1220	1220	97.6	97.6	41-113	0.0	30
<hr style="border-top: 1px dashed black;"/>								
SURROGATE: (R) DECANOIC ACID (S)	10.00	0	0	0.0	0.0	0-1		
SURROGATE: OCTACOSANE (S)	75.0	90.2	87.3	120	116	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	78.3	75.3	104	100	56-125		
<hr style="border-top: 1px dashed black;"/>								

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	DOC0905.M	DOC0905.M
Extraction Date :	11/05/18	11/05/18
Analysis Date :	11/08/18	11/08/18
Instrument :	Apollo	Apollo
Run :	1107040	1107042
Initials :	DPO	

# 8270D-SIM

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 11/01/18

Matrix: WATER

Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-METHYLNAPHTHALENE-D10 (S)			SURROGATE: FLUORANTHENE-D10 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181030A-BLK	Blank	39-114	87.9		58-120	99.4	
181030A-LCS	Lab Control Spike	39-114	88.6		58-120	96.8	
181030A-LCSD	Lab Control SpikeD	39-114	93.1		58-120	103	
AZ81676	ERH686	39-114	91.3		58-120	100	
AZ81677	ERH698	39-114	84.3		58-120	96.7	
AZ81678	ERH688	39-114	87.9		58-120	100	

Comments: Batch: #SIM53-181030A

Printed: 11/01/18 4:33:49 PM  
Form 2 & 8, Surrogate Recovery Summary



# 8270D-SIM

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 11/01/18

Matrix: WATER

Instrument: Linus

Blank ID: 181030A-BLK

Time Analyzed: 1324

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181030A-BLK	Blank	1026L070	11/01/18 1324
181030A-LCS	Lab Control Spike	1026L071	11/01/18 1353
181030A-LCSD	Lab Control SpikeD	1026L072	11/01/18 1422
AZ81676	ERH686	1026L073	11/01/18 1451
AZ81677	ERH698	1026L074	11/01/18 1521
AZ81678	ERH688	1026L075	11/01/18 1550

Comments: Batch: #SIM53-181030A

Printed: 11/01/18 4:33:50 PM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8270D SIM LIQ-LIQ**

Blank Name/QCG: **181030W-81676 - 234793**  
Batch ID: #SIM53-181030A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
BLANK	SURROGATE: 2-METHYLNAPHT	87.9	39-114			%	10/30/18	11/01/18
BLANK	SURROGATE: FLUORANTHENE-	99.4	58-120			%	10/30/18	11/01/18

Quant Method:L1026.M  
Run #:1026L070  
Instrument:Linus  
Sequence:L181026  
Initials:MA

GC SC-Blank-REG MDLs-DOD  
Printed: 11/01/18 4:33:22 PM

# 8270D-SIM

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 11/01/18

Matrix: WATER

Instrument: Linus

LCS ID: 181030A-LCS

Time Analyzed: 1353

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181030A-BLK	Blank	1026L070	11/01/18 1324
181030A-LCS	Lab Control Spike	1026L071	11/01/18 1353
181030A-LCSD	Lab Control SpikeD	1026L072	11/01/18 1422
AZ81676	ERH686	1026L073	11/01/18 1451
AZ81677	ERH698	1026L074	11/01/18 1521
AZ81678	ERH688	1026L075	11/01/18 1550

Comments: Batch: #SIM53-181030A

Printed: 11/01/18 4:33:51 PM  
Form 4, LCS Summary

**Laboratory Control Spike Recoveries**  
**EPA 8270D SIM LIQ-LIQ**

APPL ID: 181030W-81676 LCS - 234793  
 Batch ID: #SIM53-181030A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1-METHYLNAPHTHALENE	6.25	5.31	5.59	85.0	89.4	41-115	5.1	20
2-METHYLNAPHTHALENE	6.25	5.42	5.75	86.7	92.0	39-114	5.9	20
NAPHTHALENE	6.25	5.38	5.76	86.1	92.2	43-114	6.8	20
-----								
SURROGATE: 2-METHYLNAPHTHALEN	6.25	5.54	5.82	88.6	93.1	39-114		
SURROGATE: FLUORANTHENE-D10 (S)	6.25	6.05	6.44	96.8	103	58-120		
-----								

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	L1026.M	L1026.M
Extraction Date :	10/30/18	10/30/18
Analysis Date :	11/01/18	11/01/18
Instrument :	Linus	Linus
Run :	1026L071	1026L072
Initials :	MA	

Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: 87227  
Matrix: Soil  
ID: 1026L002.D

SDG No: 87227  
Date Analyzed: 10/26/18  
Instrument: Linus  
Time Analyzed: 12:05

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	5 SIM 10/26/18	1026L003.D	10/26/18 12:21
2	0.1 SIM 10/26/18	1026L004.D	10/26/18 12:50
3	0.2 SIM 10/26/18	1026L005.D	10/26/18 13:20
4	0.5 SIM 10/26/18	1026L006.D	10/26/18 13:49
5	1 SIM 10/26/18	1026L007.D	10/26/18 14:18
6	10 SIM 10/26/18	1026L008.D	10/26/18 14:47
7	50 SIM 10/26/18	1026L009.D	10/26/18 15:16
8	100 SIM 10/26/18	1026L010.D	10/26/18 15:46
9	SS SIM 10/26/18	1026L011.D	10/26/18 16:46
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

51 9.95 - 80% of mass 198	<u>44.4</u>
68 0 - 2.05% of mass 69	<u>0.0</u>
70 0 - 2% of mass 69	<u>0.3</u>
127 10 - 80% of mass 198	<u>55.0</u>
197 0 - 2% of mass 198	<u>0.0</u>
198 100 - 100% of mass 198	<u>100.0</u>
199 5 - 9% of mass 198	<u>6.5</u>
275 10 - 60% of mass 198	<u>21.8</u>
365 1 - 100% of mass 198	<u>2.6</u>
441 0.01 - 24% of mass 442	<u>18.1</u>
442 50 - 150% of mass 198	<u>59.1</u>
443 15 - 24% of mass 442	<u>20.7</u>

Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: 87219  
Matrix: Water  
ID: 1026L068.D

SDG No: 87219  
Date Analyzed: 11/01/18  
Instrument: Linus  
Time Analyzed: 12:32

Client Sample No.	APPL ID.	File ID.	Date Analyzed	
1	5 SIM 10/26/18 (2)	1026L069.D	11/01/18 12:49	
2	Blank	181030A BLK 1/800	1026L070.D	11/01/18 13:24
3	Lab Control Spike	181030A LCS-2 1/800	1026L071.D	11/01/18 13:53
4	Lab Control SpikeD	181030A LCSD-2 1/800	1026L072.D	11/01/18 14:22
5	ERH686	AZ81676W10 1/800	1026L073.D	11/01/18 14:51
6	ERH698	AZ81677W10 1/800	1026L074.D	11/01/18 15:21
7	ERH688	AZ81678W12 1/800	1026L075.D	11/01/18 15:50
8	5 SIM 10/26/18 (1)	1026L082.D	11/01/18 19:14	
9				
10				
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13				
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15				
16				
17				
18				
19				
20				
21				
22				

m/e

51 9.95 - 80% of mass 198	44.8
68 0 - 2.05% of mass 69	0.0
70 0 - 2% of mass 69	0.7
127 10 - 80% of mass 198	54.2
197 0 - 2% of mass 198	0.0
198 100 - 100% of mass 198	100.0
199 5 - 9% of mass 198	7.0
275 10 - 60% of mass 198	22.1
365 1 - 100% of mass 198	2.7
441 0.01 - 24% of mass 442	18.1
442 50 - 150% of mass 198	65.7
443 15 - 24% of mass 442	19.8

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87219  
 Lab File ID (Standard): 1026L069.D Date Analyzed: 1 Nov 18 12:49  
 Instrument ID: Linus Time Analyzed: 1 Nov 18 12:49  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

	Naphthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	30774	4.18	13755	6.21	27077	7.94
UPPER LIMIT	61548	4.35	27510	6.38	54154	8.11
LOWER LIMIT	15387	4.01	6878	6.04	13539	7.77
SAMPLE NO.						
01 5 SIM 10/26/18 (2)	30774	4.18	13755	6.21	27077	7.94
02 181030A BLK 1/800	32155	4.18	14683	6.21	28635	7.95
03 181030A LCS-2 1/800	32648	4.18	14814	6.21	28647	7.94
04 181030A LCSD-2 1/800	30893	4.18	14273	6.21	26521	7.94
05 AZ81676W10 1/800	31583	4.18	14574	6.21	27353	7.95
06 AZ81677W10 1/800	32553	4.18	14886	6.21	28114	7.95
07 AZ81678W12 1/800	32390	4.18	14510	6.21	27264	7.95
08 5 SIM 10/26/18 (1)	34948	4.18	15835	6.21	30535	7.94
09						
10						
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15						
16						
17						
18						
19						
20						
21						
22						

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87219  
 Lab File ID (Standard): 1026L069.D Date Analyzed: 1 Nov 18 12:49  
 Instrument ID: Linus Time Analyzed: 1 Nov 18 12:49  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	37506	14.38	36493	18.17		
	UPPER LIMIT	75012	14.55	72986	18.34		
	LOWER LIMIT	18753	14.21	18247	18.00		
	SAMPLE NO.						
01	5 SIM 10/26/18 (2)	37506	14.38	36493	18.17		
02	181030A BLK 1/800	38811	14.39	37133	18.18		
03	181030A LCS-2 1/800	39215	14.38	37452	18.17		
04	181030A LCSD-2 1/800	36959	14.38	34601	18.17		
05	AZ81676W10 1/800	37779	14.39	36998	18.18		
06	AZ81677W10 1/800	38779	14.39	38457	18.18		
07	AZ81678W12 1/800	37573	14.39	36723	18.18		
08	5 SIM 10/26/18 (1)	43174	14.38	41015	18.17		
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.



# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 11/01/18

Matrix: WATER

Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181030A-BLK	Blank	43-140	74.1		44-119	80.3	
181030A-LCS	Lab Control Spike	43-140	71.2		44-119	68.4	
181030A-LCSD	Lab Control SpikeD	43-140	79.2		44-119	75.0	
AZ81676	ERH686	43-140	90.4		44-119	86.6	
AZ81677	ERH698	43-140	72.1		44-119	71.0	
AZ81678	ERH688	43-140	74.2		44-119	72.2	

Comments: Batch: #87DC5-181030A

Printed: 11/02/18 9:27:22 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 11/01/18

Matrix: WATER

Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181030A-BLK	Blank	19-119	76.7		44-120	82.4	
181030A-LCS	Lab Control Spike	19-119	73.2		44-120	78.8	
181030A-LCSD	Lab Control SpikeD	19-119	85.2		44-120	88.8	
AZ81676	ERH686	19-119	84.0		44-120	101	
AZ81677	ERH698	19-119	66.7		44-120	77.6	
AZ81678	ERH688	19-119	73.7		44-120	82.8	

Comments: Batch: #87DC5-181030A

Printed: 11/02/18 9:27:23 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 11/01/18

Matrix: WATER

Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL-D6 (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181030A-BLK	Blank	10-115	75.8		50-134	68.6	
181030A-LCS	Lab Control Spike	10-115	73.6		50-134	66.2	
181030A-LCSD	Lab Control SpikeD	10-115	83.6		50-134	71.0	
AZ81676	ERH686	10-115	88.1		50-134	79.1	
AZ81677	ERH698	10-115	72.5		50-134	65.5	
AZ81678	ERH688	10-115	76.4		50-134	64.0	

Comments: Batch: #87DC5-181030A

Printed: 11/02/18 9:27:23 AM  
Form 2 & 8, Surrogate Recovery Summary

**EPA 8270D**

Form 4

**Blank Summary**

Lab Name: APPL, Inc. SDG No: 87219  
Case No: 87219 Date Analyzed: 11/01/18  
Matrix: WATER Instrument: Yoda  
Blank ID: 181030A-BLK Time Analyzed: 1430

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181030A-BLK	Blank	1025Y106	11/01/18 1430
181030A-LCS	Lab Control Spike	1025Y107	11/01/18 1458
181030A-LCSD	Lab Control Spiked	1025Y108	11/01/18 1526
AZ81676	ERH686	1025Y109	11/01/18 1554
AZ81677	ERH698	1025Y110	11/01/18 1621
AZ81678	ERH688	1025Y111	11/01/18 1649

Comments: Batch: #87DC5-181030A

**Method Blank**  
**EPA 8270D WATER**

Blank Name/QCG: **181030W-81676 - 234799**  
Batch ID: #87DC5-181030A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/30/18	11/01/18
BLANK	SURROGATE: 2,4,6-TRIBROMOP	74.1	43-140			%	10/30/18	11/01/18
BLANK	SURROGATE: 2-FLUORBIPHENY	80.3	44-119			%	10/30/18	11/01/18
BLANK	SURROGATE: 2-FLUOROPHENO	76.7	19-119			%	10/30/18	11/01/18
BLANK	SURROGATE: NITROBENZENE-	82.4	44-120			%	10/30/18	11/01/18
BLANK	SURROGATE: PHENOL-D6 (S)	75.8	10-115			%	10/30/18	11/01/18
BLANK	SURROGATE: TERPHENYL-D14 (	68.6	50-134			%	10/30/18	11/01/18

Quant Method: Y1025NC.M  
Run #: 1025Y106  
Instrument: Yoda  
Sequence: Y181025  
Initials: AAB

GC SC-Blank-REG MDLs-DOD  
Printed: 11/02/18 9:27:20 AM

# EPA 8270D

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 11/01/18

Matrix: WATER

Instrument: Yoda

LCS ID: 181030A-LCS

Time Analyzed: 1458

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181030A-BLK	Blank	1025Y106	11/01/18 1430
181030A-LCS	Lab Control Spike	1025Y107	11/01/18 1458
181030A-LCSD	Lab Control SpikeD	1025Y108	11/01/18 1526
AZ81676	ERH686	1025Y109	11/01/18 1554
AZ81677	ERH698	1025Y110	11/01/18 1621
AZ81678	ERH688	1025Y111	11/01/18 1649

Comments: Batch: #87DC5-181030A

Printed: 11/02/18 9:27:24 AM  
Form 4, LCS Summary

## Laboratory Control Spike Recoveries

### EPA 8270D WATER

APPL ID: 181030W-81676 LCS - 234799  
 Batch ID: #87DC5-181030A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
PHENOL	62.5	45.4	49.8	72.6	79.7	10-115	9.2	20
SURROGATE: 2,4,6-TRIBROMOPHENOL	250	178	198	71.2	79.2	43-140		
SURROGATE: 2-FLUORBIPHENYL (S)	125	85.5	93.8	68.4	75.0	44-119		
SURROGATE: 2-FLUOROPHENOL (S)	250	183	213	73.2	85.2	19-119		
SURROGATE: NITROBENZENE-D5 (S)	125	98.5	111	78.8	88.8	44-120		
SURROGATE: PHENOL-D6 (S)	250	184	209	73.6	83.6	10-115		
SURROGATE: TERPHENYL-D14 (S)	125	82.8	88.7	66.2	71.0	50-134		

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	Y1025NC.M	Y1025NC.M
Extraction Date :	10/30/18	10/30/18
Analysis Date :	11/01/18	11/01/18
Instrument :	Yoda	Yoda
Run :	1025Y107	1025Y108
Initials :	AAB	

Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: \_\_\_\_\_  
Matrix: Soil  
ID: 1025Y002.D

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Yoda  
Time Analyzed: 11:17

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	4ug/mL 8270 10/18/18	1025Y003.D	10/25/18 11:33
2	5ug/mL 8270 10/18/18	1025Y004.D	10/25/18 12:01
3	10ug/mL 8270 10/18/1	1025Y005.D	10/25/18 12:28
4	20ug/mL 8270 10/18/1	1025Y006.D	10/25/18 12:56
5	40ug/mL 8270 10/18/1	1025Y007.D	10/25/18 13:24
6	50ug/mL 8270 10/18/1	1025Y008.D	10/25/18 13:52
7	60ug/mL 8270 10/18/1	1025Y009.D	10/25/18 14:20
8	80ug/mL 8270 10/18/1	1025Y010.D	10/25/18 14:48
9	100ug/mL 8270 10/18/	1025Y011.D	10/25/18 15:16
10	SS- 8270 10/18/18	1025Y012.D	10/25/18 15:44
11			
12			
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18			
19			
20			
21			
22			

m/e

51 9.95 - 80.04% of mass 198	52.8
68 0 - 2% of mass 69	0.0
70 0 - 2% of mass 69	0.4
127 10 - 80% of mass 198	59.4
197 0 - 2% of mass 198	0.0
198 100 - 100% of mass 198	100.0
199 5 - 9% of mass 198	7.1
275 10 - 60% of mass 198	26.1
365 1 - 100% of mass 198	3.7
441 0.01 - 24% of mass 442	17.3
442 50 - 150% of mass 198	100.0
443 15 - 24% of mass 442	17.8



Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 87219  
 Matrix: Water  
 ID: 1025Y100.D

SDG No: 87219  
 Date Analyzed: 11/01/18  
 Instrument: Yoda  
 Time Analyzed: 11:31

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	50ug/mL 8270 10/18/1	1025Y101.D	11/01/18 11:46
2	Blank	1025Y106.D	11/01/18 14:30
3	Lab Control Spike	1025Y107.D	11/01/18 14:58
4	Lab Control SpikeD	1025Y108.D	11/01/18 15:26
5	ERH686	1025Y109.D	11/01/18 15:54
6	ERH698	1025Y110.D	11/01/18 16:21
7	ERH688	1025Y111.D	11/01/18 16:49
8	50ug/mL 8270 10/18/1	1025Y117.D	11/01/18 19:36
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

51 10 - 80% of mass 198	<u>51.4</u>
68 0 - 2% of mass 69	<u>0.0</u>
70 0 - 2% of mass 69	<u>0.6</u>
127 10 - 80% of mass 198	<u>56.0</u>
197 0 - 2% of mass 198	<u>0.0</u>
198 100 - 100% of mass 198	<u>100.0</u>
199 5 - 9% of mass 198	<u>6.8</u>
275 10 - 60% of mass 198	<u>26.4</u>
365 1 - 100% of mass 198	<u>3.7</u>
441 0.01 - 24% of mass 442	<u>16.2</u>
442 50 - 150% of mass 198	<u>92.3</u>
443 17 - 23% of mass 442	<u>19.3</u>

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87219  
 Lab File ID (Standard): 1025Y101.D Date Analyzed: 1 Nov 18 11:46  
 Instrument ID: Yoda Time Analyzed: 1 Nov 18 11:46  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

	1,4-dichlorobenzene-D4(IS)		Naphthalene-D8(IS)		Acenaphthene-D10(IS)		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12 HOUR STD	297290	5.53	1211780	6.98	634714	9.01	
UPPER LIMIT	594580	5.70	2423560	7.15	1269428	9.18	
LOWER LIMIT	148645	5.36	605890	6.81	317357	8.84	
SAMPLE NO.							
01	181030A BLK 1/800	287396	5.54	1151480	6.98	562079	9.01
02	181030A LCS-1 1/800	295514	5.53	1197710	6.98	643161	9.02
03	181030A LCSD-1 1/800	265874	5.54	1075010	6.98	590010	9.01
04	AZ81676W10 1/800	253383	5.53	985786	6.98	488419	9.01
05	AZ81677W10 1/800	279576	5.53	1149250	6.98	573726	9.02
06	AZ81678W12 1/800	274760	5.53	1101890	6.98	584402	9.01
07	50ug/mL 8270 10/18/18	414395	5.54	1562730	6.99	835105	9.02
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
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20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87219  
 Lab File ID (Standard): 1025Y101.D Date Analyzed: 1 Nov 18 11:46  
 Instrument ID: Yoda Time Analyzed: 1 Nov 18 11:46  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

	Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)			
	AREA	#	RT	#	AREA	#	RT	#
12 HOUR STD	1183260		10.76		1135510		13.87	
UPPER LIMIT	2366520		10.93		2271020		14.04	
LOWER LIMIT	591630		10.59		567755		13.70	
SAMPLE NO.								
01	181030A BLK 1/800	1065880	10.76	1035340	13.86	1031350	15.81	
02	181030A LCS-1 1/800	1223740	10.76	1158740	13.87	1207180	15.82	
03	181030A LCSD-1 1/800	1147630	10.76	1081720	13.87	1100760	15.81	
04	AZ81676W10 1/800	942647	10.76	906759	13.86	891410	15.81	
05	AZ81677W10 1/800	1115500	10.76	1094160	13.86	1053580	15.81	
06	AZ81678W12 1/800	1140160	10.76	1146140	13.86	1068070	15.81	
07	50ug/mL 8270 10/18/18	1566960	10.77	1436800	13.88	1634150	15.83	
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

# EPA 8270D

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/31/18

Matrix: WATER

Instrument: Yoda

Blank ID: 181029A-BLK

Time Analyzed: 1043

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181029A-BLK	Blank	0801Y079	10/31/18 1043
181029A-LCS	Lab Control Spike	0801Y080	10/31/18 1107
AZ81676	ERH686	0801Y087	10/31/18 1352
AZ81677	ERH698	0801Y088	10/31/18 1416
AZ81678	ERH688	0801Y089	10/31/18 1440
181029A-LCSD	Lab Control SpikeD	0801Y097	10/31/18 1749

Comments: Batch: #87DME-181029A

Printed: 11/01/18 3:55:23 PM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8270D MODIFIED WATER**

Blank Name/QCG: **181029W-81584 - 234791**  
Batch ID: #87DME-181029A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-(2-METHOXYETHOXY)-ETHAN	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method:YMEE0801.M  
Run #:0801Y079  
Instrument:Yoda  
Sequence:Y180801M  
Initials:MA

GC SC-Blank-REG MDLs-DOD  
Printed: 11/01/18 3:55:01 PM

# EPA 8270D

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/31/18

Matrix: WATER

Instrument: Yoda

LCS ID: 181029A-LCS

Time Analyzed: 1107

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181029A-BLK	Blank	0801Y079	10/31/18 1043
181029A-LCS	Lab Control Spike	0801Y080	10/31/18 1107
AZ81676	ERH686	0801Y087	10/31/18 1352
AZ81677	ERH698	0801Y088	10/31/18 1416
AZ81678	ERH688	0801Y089	10/31/18 1440
181029A-LCSD	Lab Control Spiked	0801Y097	10/31/18 1749

Comments: Batch: #87DME-181029A

Printed: 11/01/18 3:55:24 PM  
Form 4, LCS Summary

## Laboratory Control Spike Recoveries

### EPA 8270D MODIFIED WATER

APPL ID: 181029W-81584 LCS - 234791  
 Batch ID: #87DME-181029A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2-(2-METHOXYETHOXY)-ETHANOL	80.0	73.0	89.9	91.3	112	30-130	20.7 #	20

# = Recovery is outside QC limits.

Comments:

	<u>SPK</u>	<u>DUP</u>
Quant Method :	YMEE0801.M	YMEE0801.M
Extraction Date :	10/29/18	10/29/18
Analysis Date :	10/31/18	10/31/18
Instrument :	Yoda	Yoda
Run :	0801Y080	0801Y097
Initials :	MA	

Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 87219  
 Matrix: Water  
 ID: 0801Y069.D

SDG No: 87219  
 Date Analyzed: 10/31/18  
 Instrument: Yoda  
 Time Analyzed: 6:36

Client Sample No.	APPL ID.	File ID.	Date Analyzed	
1	500ug/ml MEE 08/01/1	0801Y070.D	10/31/18 6:51	
2	Blank	181029A Blk 2/500	0801Y079.D	10/31/18 10:43
3	Lab Control Spike	181029A LCS-1 2/500	0801Y080.D	10/31/18 11:07
4	ERH686	AZ81676W08 2/490	0801Y087.D	10/31/18 13:52
5	ERH698	AZ81677W09 2/450	0801Y088.D	10/31/18 14:16
6	ERH688	AZ81678W09 2/500	0801Y089.D	10/31/18 14:40
7	Lab Control SpikeD	181029A LCSD-1 2/500	0801Y097.D	10/31/18 17:49
8	500ug/ml MEE 08/01/1	0801Y098.D	10/31/18 18:12	
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e

51	9.95 - 80.04% of mass 198	49.6
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.7
127	10 - 80% of mass 198	55.5
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 197.95	100.0
199	5 - 9% of mass 198	6.5
275	10 - 60% of mass 198	26.6
365	1 - 100% of mass 198	3.9
441	0.01 - 24% of mass 442	17.1
442	50 - 150% of mass 197.95	92.6
443	15 - 24% of mass 442	20.3



8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87219  
 Lab File ID (Standard): 0801Y070.D Date Analyzed: 10/31/18  
 Instrument ID: Yoda Time Analyzed: 6:51  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	357281	5.30	1484910	6.73	759796	8.76
	UPPER LIMIT	714562	5.47	2969820	6.90	1519592	8.93
	LOWER LIMIT	178641	5.13	742455	6.56	379898	8.59
	SAMPLE NO.						
01	500ug/ml MEE 08/01/18	357281	5.30	1484910	6.73	759796	8.76
02	181029A BIK 2/500	233584	5.31	1284270	6.73	664335	8.76
03	181029A LCS-1 2/500	392175	5.30	1594600	6.73	819390	8.76
04	AZ81676W08 2/490	367848	5.30	1466410	6.73	767726	8.76
05	AZ81677W09 2/450	345977	5.30	1401040	6.73	748190	8.76
06	AZ81678W09 2/500	351444	5.31	1387260	6.73	756332	8.76
07	181029A LCSD-1 2/500	353234	5.31	1396890	6.73	700025	8.76
08	500ug/ml MEE 08/01/18	387693	5.31	1637390	6.73	845559	8.76
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87219  
 Lab File ID (Standard): 0801Y070.D Date Analyzed: 10/31/18  
 Instrument ID: Yoda Time Analyzed: 6:51  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

	Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)								
	AREA	#	RT	#	AREA	#		RT	#				
12 HOUR STD	1392260		10.50		1474560		13.60		2044920		15.43		
UPPER LIMIT	2784520		10.67		2949120		13.77		4089840		15.60		
LOWER LIMIT	696130		10.33		737280		13.43		1022460		15.26		
SAMPLE NO.													
01	500ug/ml MEE 08/01/18		1392260		10.50		1474560		13.60		2044920		15.43
02	181029A Blk 2/500		1204750		10.50		1112330		13.60		1097800		15.42
03	181029A LCS-1 2/500		1395150		10.50		1241790		13.60		1311330		15.42
04	AZ81676W08 2/490		1440010		10.50		1356720		13.60		1323170		15.42
05	AZ81677W09 2/450		1416760		10.50		1312960		13.60		1293290		15.42
06	AZ81678W09 2/500		1446330		10.50		1247600		13.60		1210750		15.42
07	181029A LCSD-1 2/500		1287860		10.50		1186080		13.60		1218320		15.42
08	500ug/ml MEE 08/01/18		1555870		10.50		1391750		13.60		1264020		15.42
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/26/18

Matrix: WATER

Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181026AL-LCS	Lab Control Spike	81-118	101		85-114	102	
181026AL-LCSD	Lab Control SpikeD	81-118	104		85-114	106	
181026AL-BLK	Blank	81-118	101		85-114	87.8	
AZ81673	ERH687	81-118	105		85-114	101	
AZ81675	ERH685	81-118	103		85-114	89.6	
AZ81674	ERH697	81-118	105		85-114	93.7	
AZ81677	ERH698	81-118	116		85-114	100	
AZ81676	ERH686	81-118	111		85-114	87.8	

Comments: Batch: #86BTO-181026AL

Printed: 10/30/18 10:59:06 AM  
Form 2 & 8, Surrogate Recovery Summary

**EPA 8260B**

Form 2 & 8

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/26/18

Matrix: WATER

Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181026AL-LCS	Lab Control Spike	80-119	100		89-112	98.4	
181026AL-LCSD	Lab Control SpikeD	80-119	103		89-112	104	
181026AL-BLK	Blank	80-119	101		89-112	94.7	
AZ81673	ERH687	80-119	105		89-112	106	
AZ81675	ERH685	80-119	102		89-112	95.0	
AZ81674	ERH697	80-119	104		89-112	98.0	
AZ81677	ERH698	80-119	116		89-112	109	
AZ81676	ERH686	80-119	111		89-112	98.3	

Comments: Batch: #86BTO-181026AL

Printed: 10/30/18 10:59:07 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181029AL-LCS	Lab Control Spike	81-118	109		85-114	105	
181029AL-LCSD	Lab Control SpikeD	81-118	108		85-114	99.6	
181029AL-BLK	Blank	81-118	116		85-114	91.7	
AZ81678	ERH688	81-118	116		85-114	86.7	

Comments: Batch: #86BTO-181029AL

Printed: 10/30/18 10:59:07 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181029AL-LCS	Lab Control Spike	80-119	105		89-112	101	
181029AL-LCSD	Lab Control SpikeD	80-119	105		89-112	95.2	
181029AL-BLK	Blank	80-119	115		89-112	95.7	
AZ81678	ERH688	80-119	115		89-112	97.1	

Comments: Batch: #86BTO-181029AL

Printed: 10/30/18 10:59:07 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/26/18

Matrix: WATER

Instrument: Loki

Blank ID: 181026AL-BLK

Time Analyzed: 1929

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181026AL-LCS	Lab Control Spike	1026L16	10/26/18 1638
181026AL-LCSD	Lab Control Spiked	1026L17	10/26/18 1706
181026AL-BLK	Blank	1026L22	10/26/18 1929
AZ81673	ERH687	1026L23	10/26/18 1957
AZ81675	ERH685	1026L24	10/26/18 2025
AZ81674	ERH697	1026L25	10/26/18 2054
AZ81677	ERH698	1026L28	10/26/18 2219
AZ81676	ERH686	1026L29	10/26/18 2248

Comments: Batch: #86BTO-181026AL

Printed: 10/30/18 10:59:12 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8260B BTEX WATER**

Blank Name/QCG: **181026W-81673 - 234621**  
Batch ID: #86BTO-181026AL

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/26/18	10/26/18
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/26/18	10/26/18
BLANK	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/26/18	10/26/18
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/26/18	10/26/18
BLANK	SURROGATE: 1,2-DICHLOROET	101	81-118			%	10/26/18	10/26/18
BLANK	SURROGATE: 4-BROMOFLUORO	87.8	85-114			%	10/26/18	10/26/18
BLANK	SURROGATE: DIBROMOFLUOR	101	80-119			%	10/26/18	10/26/18
BLANK	SURROGATE: TOLUENE-D8 (S)	94.7	89-112			%	10/26/18	10/26/18

Quant Method: L1026W.M  
Run #: 1026L22  
Instrument: Loki  
Sequence: 181026  
Initials: SV

GC SC-Blank-REG MDLs-DOD  
Printed: 10/30/18 10:59:16 AM



# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Loki

Blank ID: 181029AL-BLK

Time Analyzed: 1823

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181029AL-LCS	Lab Control Spike	1029L15	10/29/18 1533
181029AL-LCSD	Lab Control Spiked	1029L16	10/29/18 1601
181029AL-BLK	Blank	1029L21	10/29/18 1823
AZ81678	ERH688	1029L22	10/29/18 1851

Comments: Batch: #86BTO-181029AL

Printed: 10/30/18 10:59:12 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8260B BTEX WATER**

Blank Name/QCG: **181029W-81678 - 234666**  
Batch ID: #86BTO-181029AL

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/29/18	10/29/18
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/29/18	10/29/18
BLANK	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/29/18	10/29/18
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/29/18	10/29/18
BLANK	SURROGATE: 1,2-DICHLOROET	116	81-118			%	10/29/18	10/29/18
BLANK	SURROGATE: 4-BROMOFLUORO	91.7	85-114			%	10/29/18	10/29/18
BLANK	SURROGATE: DIBROMOFLUOR	115	80-119			%	10/29/18	10/29/18
BLANK	SURROGATE: TOLUENE-D8 (S)	95.7	89-112			%	10/29/18	10/29/18

Quant Method:LSUR1026.M  
Run #: 1029L21  
Instrument:Loki  
Sequence: 181026  
Initials:SV

GC SC-Blank-REG MDLs-DOD  
Printed: 10/30/18 10:59:16 AM

# EPA 8260B

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/26/18

Matrix: WATER

Instrument: Loki

LCS ID: 181026AL-LCS

Time Analyzed: 1638

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181026AL-LCS	Lab Control Spike	1026L16	10/26/18 1638
181026AL-LCSD	Lab Control SpikeD	1026L17	10/26/18 1706
181026AL-BLK	Blank	1026L22	10/26/18 1929
AZ81673	ERH687	1026L23	10/26/18 1957
AZ81675	ERH685	1026L24	10/26/18 2025
AZ81674	ERH697	1026L25	10/26/18 2054
AZ81677	ERH698	1026L28	10/26/18 2219
AZ81676	ERH686	1026L29	10/26/18 2248

Comments: Batch: #86BTO-181026AL

Printed: 10/30/18 10:59:20 AM  
Form 4, LCS Summary

**Laboratory Control Spike Recoveries**  
**EPA 8260B BTEX WATER**

APPL ID: 181026W-81673 LCS - 234621  
 Batch ID: #86BTO-181026AL

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
BENZENE	10.00	10.2	10.1	102	101	79-120	0.99	20
ETHYLBENZENE	10.00	10.0	9.72	100	97.2	79-121	2.8	20
TOLUENE	10.00	10.5	10.7	105	107	80-121	1.9	20
XYLENES (TOTAL)	30.0	28.7	28.0	95.7	93.3	79-121	2.5	20
-----								
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	25.3	26.0	101	104	81-118		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	25.4	26.6	102	106	85-114		
SURROGATE: DIBROMOFLUOROMETH	25.0	25.1	25.8	100	103	80-119		
SURROGATE: TOLUENE-D8 (S)	25.0	24.6	26.0	98.4	104	89-112		
-----								

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	L1026W.M	L1026W.M
Extraction Date :	10/26/18	10/26/18
Analysis Date :	10/26/18	10/26/18
Instrument :	Loki	Loki
Run :	1026L16	1026L17
Initials :	SV	

**EPA 8260B**

Form 4

**LCS Summary**

Lab Name: APPL, Inc.  
Case No: 87219  
Matrix: WATER  
LCS ID: 181029AL-LCS

SDG No: 87219  
Date Analyzed: 10/29/18  
Instrument: Loki  
Time Analyzed: 1533

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181029AL-LCS	Lab Control Spike	1029L15	10/29/18 1533
181029AL-LCSD	Lab Control Spiked	1029L16	10/29/18 1601
181029AL-BLK	Blank	1029L21	10/29/18 1823
AZ81678	ERH688	1029L22	10/29/18 1851

Comments: Batch: #86BTO-181029AL

**Laboratory Control Spike Recoveries**  
**EPA 8260B BTEX WATER**

APPL ID: 181029W-81678 LCS - 234666  
 Batch ID: #86BTO-181029AL

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
BENZENE	10.00	9.88	10.0	98.8	100	79-120	1.2	20
ETHYLBENZENE	10.00	10.0	9.67	100	96.7	79-121	3.4	20
TOLUENE	10.00	9.48	10.6	94.8	106	80-121	11.2	20
XYLENES (TOTAL)	30.0	28.0	27.2	93.3	90.7	79-121	2.9	20
-----								
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	27.2	27.0	109	108	81-118		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	26.2	24.9	105	99.6	85-114		
SURROGATE: DIBROMOFLUOROMETH	25.0	26.2	26.3	105	105	80-119		
SURROGATE: TOLUENE-D8 (S)	25.0	25.2	23.8	101	95.2	89-112		
-----								

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	L1026W.M	L1026W.M
Extraction Date :	10/29/18	10/29/18
Analysis Date :	10/29/18	10/29/18
Instrument :	Loki	Loki
Run :	1029L15	1029L16
Initials :	SV	

Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: 87219  
Matrix: Water  
ID: 1026L01.D

SDG No: 87219  
Date Analyzed: 10/26/18  
Instrument: Loki  
Time Analyzed: 9:38

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	0.3ug/L VOC STD 18/1	1026L03.D	10/26/18 10:28
2	0.5ug/L VOC STD 18/1	1026L04.D	10/26/18 10:57
3	1.0ug/L VOC STD 18/1	1026L05.D	10/26/18 11:25
4	2.0ug/L VOC STD 18/1	1026L06.D	10/26/18 11:54
5	5.0ug/L VOC STD 18/1	1026L07.D	10/26/18 12:22
6	10ug/L VOC STD 18/10	1026L08.D	10/26/18 12:50
7	20ug/L VOC STD 18/10	1026L09.D	10/26/18 13:19
8	40ug/L VOC STD 18/10	1026L10.D	10/26/18 13:47
9	100ug/L VOC STD 18/1	1026L11.D	10/26/18 14:16
10	(SS)10ug/L VOC STD 1	1026L13.D	10/26/18 15:13
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

50 15 - 40% of mass 95	16.9
75 30 - 60% of mass 95	47.6
95 100 - 100% of mass 95	100.0
96 5 - 9% of mass 95	6.7
173 0 - 2% of mass 174	1.1
174 50 - 100% of mass 95	96.3
175 5 - 9% of mass 174	7.5
176 94.95 - 101% of mass 174	95.8
177 5 - 9% of mass 176	6.5

Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: 87219  
Matrix: Water  
ID: 1026L14.D

SDG No: 87219  
Date Analyzed: 10/26/18  
Instrument: Loki  
Time Analyzed: 15:41

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		181026A CCV 10ug/L	1026L15.D	10/26/18 16:10
2	Lab Control Spike	181026A LCS 10ug/L	1026L16.D	10/26/18 16:38
3	Lab Control SpikeD	181026A LCSD 10ug/L	1026L17.D	10/26/18 17:06
4	Blank	181026A blk	1026L22.D	10/26/18 19:29
5	ERH687	AZ81673W01	1026L23.D	10/26/18 19:57
6	ERH685	AZ81675W01	1026L24.D	10/26/18 20:25
7	ERH697	AZ81674W01	1026L25.D	10/26/18 20:54
8	ERH698	AZ81677W01	1026L28.D	10/26/18 22:19
9	ERH686	AZ81676W01	1026L29.D	10/26/18 22:48
10		Ending CCV 10ug/L 1	1026L37.D	10/27/18 2:35
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e

50 15 - 40% of mass 95	<u>16.5</u>
75 30 - 60% of mass 95	<u>47.7</u>
95 100 - 100% of mass 95	<u>100.0</u>
96 5 - 9% of mass 95	<u>6.5</u>
173 0 - 2% of mass 174	<u>1.2</u>
174 50 - 100% of mass 95	<u>97.0</u>
175 5 - 9% of mass 174	<u>7.7</u>
176 94.95 - 101% of mass 174	<u>97.9</u>
177 5 - 9% of mass 176	<u>6.3</u>



Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 87219  
 Matrix: Water  
 ID: 1029L13.D

SDG No: 87219  
 Date Analyzed: 10/29/18  
 Instrument: Loki  
 Time Analyzed: 14:36

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		181029A CCV 10ug/L	1029L14.D
2	Lab Control Spike	181029A LCS 10ug/L	1029L15.D
3	Lab Control SpikeD	181029A LCSD 10ug/L	1029L16.D
4	Blank	181029A BLK	1029L21.D
5	ERH688	AZ81678W02	1029L22.D
6		Ending CCV 8260 10ug	1029L36.D
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

50	15 - 40% of mass 95	<u>17.4</u>
75	30 - 60% of mass 95	<u>48.0</u>
95	100 - 100% of mass 95	<u>100.0</u>
96	5 - 9% of mass 95	<u>7.0</u>
173	0 - 2% of mass 174	<u>1.3</u>
174	50 - 100% of mass 95	<u>99.4</u>
175	5 - 9% of mass 174	<u>7.2</u>
176	94.95 - 101% of mass 174	<u>96.5</u>
177	5 - 9% of mass 176	<u>6.4</u>

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87219  
 Lab File ID (Standard): 1026L08.D Date Analyzed: 10/26/18  
 Instrument ID: Loki Time Analyzed: 12:50  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

	Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	526592	4.86	505536	8.52	278912	11.07
UPPER LIMIT	1053184	5.03	1011072	8.69	557824	11.24
LOWER LIMIT	263296	4.69	252768	8.35	139456	10.90
SAMPLE NO.						
01 (SS)10ug/L VOC STD 1	545024	4.86	523328	8.52	283520	11.07
02 181026A CCV 10ug/L	527680	4.86	519296	8.52	292864	11.07
03 181026A LCS 10ug/L	522752	4.86	525184	8.52	292672	11.07
04 181026A LCSD 10ug/L	528256	4.86	513920	8.52	288384	11.07
05 181026A blk	513152	4.86	455680	8.52	230720	11.07
06 AZ81673W01	506432	4.86	460032	8.52	214976	11.07
07 AZ81675W01	500160	4.86	484800	8.52	239808	11.07
08 AZ81674W01	476288	4.86	447872	8.52	218368	11.07
09 AZ81677W01	459328	4.86	430336	8.52	222528	11.07
10 AZ81676W01	463936	4.86	425856	8.52	200640	11.07
11 Ending CCV 10ug/L 10/	441984	4.86	425344	8.52	248128	11.07
12 181029A CCV 10ug/L	526528	4.86	475328	8.52	277824	11.07
13 181029A LCS 10ug/L	498048	4.86	442240	8.52	241152	11.07
14 181029A LCSD 10ug/L	476864	4.86	478464	8.52	257408	11.07
15 181029A BLK	444416	4.86	409664	8.52	204480	11.07
16 AZ81678W02	458240	4.86	440320	8.52	211968	11.07
17 Ending CCV 8260 10ug/	444992	4.86	418432	8.52	233600	11.07
18						
19						
20						
21						
22						

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: 4-BROMOFLUOROBENZENE (S)			Limits	Result	Qualifier
		Limits	Result	Qualifier			
181029AL-LCS	Lab Control Spike	85-114	98.8				
181029AL-LCSD	Lab Control SpikeD	85-114	94.8				
181029AL-BLK	Blank	85-114	91.7				
AZ81678	ERH688	85-114	86.7				
AZ81677	ERH698	85-114	89.9				
AZ81676	ERH686	85-114	87.3				
AZ81675	ERH685	85-114	85.2				
AZ81674	ERH697	85-114	87.7				
AZ81673	ERH687	85-114	90.9				

Comments: Batch: #GRO86-181029AL

Printed: 10/30/18 11:00:29 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Loki

Blank ID: 181029AL-BLK

Time Analyzed: 1823

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181029AL-LCS	Lab Control Spike	1029L19	10/29/18 1726
181029AL-LCSD	Lab Control SpikeD	1029L20	10/29/18 1755
181029AL-BLK	Blank	1029L21	10/29/18 1823
AZ81678	ERH688	1029L22	10/29/18 1851
AZ81677	ERH698	1029L23	10/29/18 1920
AZ81676	ERH686	1029L24	10/29/18 1948
AZ81675	ERH685	1029L25	10/29/18 2017
AZ81674	ERH697	1029L26	10/29/18 2045
AZ81673	ERH687	1029L27	10/29/18 2114

Comments: Batch: #GRO86-181029AL

Printed: 10/30/18 11:00:33 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8260B GRO WATER**

Blank Name/QCG: **181029W-81673 - 234654**  
Batch ID: #GRO86-181029AL

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/29/18	10/29/18
BLANK	SURROGATE: 4-BROMOFLUORO	91.7	85-114			%	10/29/18	10/29/18

Quant Method: LGAS1029.M  
Run #: 1029L21  
Instrument: Loki  
Sequence: 181026  
Initials: SV

GC SC-Blank-REG MDLs-DOD  
Printed: 10/30/18 11:00:38 AM

# EPA 8260B

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Loki

LCS ID: 181029AL-LCS

Time Analyzed: 1726

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181029AL-LCS	Lab Control Spike	1029L19	10/29/18 1726
181029AL-LCSD	Lab Control SpikeD	1029L20	10/29/18 1755
181029AL-BLK	Blank	1029L21	10/29/18 1823
AZ81678	ERH688	1029L22	10/29/18 1851
AZ81677	ERH698	1029L23	10/29/18 1920
AZ81676	ERH686	1029L24	10/29/18 1948
AZ81675	ERH685	1029L25	10/29/18 2017
AZ81674	ERH697	1029L26	10/29/18 2045
AZ81673	ERH687	1029L27	10/29/18 2114

Comments: Batch: #GRO86-181029AL

Printed: 10/30/18 11:00:41 AM  
Form 4, LCS Summary

**Laboratory Control Spike Recoveries**  
**EPA 8260B GRO WATER**

APPL ID: 181029W-81673 LCS - 234654  
 Batch ID: #GRO86-181029AL

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
GASOLINE RANGE ORGANICS	300	318	315	106	105	78-122	0.95	20
SURROGATE: 4-BROMOFLUOROBENZE	25.0	24.7	23.7	98.8	94.8	85-114		

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	LGAS1029.M	LGAS1029.M
Extraction Date :	10/29/18	10/29/18
Analysis Date :	10/29/18	10/29/18
Instrument :	Loki	Loki
Run :	1029L19	1029L20
Initials :	SV	

# RSK 175

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Rocky

Blank ID: 181029A-BLK

Time Analyzed: 1134

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181029A-LCS	Lab Control Spike	18102910	10/29/18 1129
181029A-LCSD	Lab Control SpikeD	18102911	10/29/18 1132
181029A-BLK	Blank	18102912	10/29/18 1134
AZ81673	ERH687	18102918	10/29/18 1237
AZ81674	ERH697	18102919	10/29/18 1239
AZ81675	ERH685	18102920	10/29/18 1341
AZ81676	ERH686	18102921	10/29/18 1343
AZ81677	ERH698	18102922	10/29/18 1345
AZ81678	ERH688	18102923	10/29/18 1348

Comments: Batch: #RSKME-181029A

Printed: 10/30/18 11:32:38 AM  
Form 4, Blank Summary



**Method Blank**  
**METHANE**

Blank Name/QCG: **181029W-81583 - 234668**  
Batch ID: #RSKME-181029A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/29/18	10/29/18

Quant Method: RSK1029.M  
Run #: 18102912  
Instrument: Rocky  
Sequence: 181029  
Initials: CMO

GC SC-Blank-REG MDLs-DOD  
Printed: 10/30/18 11:32:49 AM

# RSK 175

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Rocky

LCS ID: 181029A-LCS

Time Analyzed: 1129

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181029A-LCS	Lab Control Spike	18102910	10/29/18 1129
181029A-LCSD	Lab Control Spiked	18102911	10/29/18 1132
181029A-BLK	Blank	18102912	10/29/18 1134
AZ81673	ERH687	18102918	10/29/18 1237
AZ81674	ERH697	18102919	10/29/18 1239
AZ81675	ERH685	18102920	10/29/18 1341
AZ81676	ERH686	18102921	10/29/18 1343
AZ81677	ERH698	18102922	10/29/18 1345
AZ81678	ERH688	18102923	10/29/18 1348

Comments: Batch: #RSKME-181029A

Printed: 10/30/18 11:32:35 AM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## METHANE

APPL ID: 181029W-81583 LCS - 234668

Batch ID: #RSKME-181029A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
METHANE	83.4	73.5	97.4	88.1	117	72-125	28.0	30

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	RSK1029.M	RSK1029.M
Extraction Date :	10/29/18	10/29/18
Analysis Date :	10/29/18	10/29/18
Instrument :	Rocky	Rocky
Run :	18102910	18102911
Initials :	CMO	

# EPA 300.0

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/26/18

Matrix: WATER

Instrument: Charlie

Blank ID: 181026A2-BLK

Time Analyzed: 0949

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ81676	ERH686	32	10/26/18 1241
AZ81678	ERH688	33	10/26/18 1248
AZ81677	ERH698	34	10/26/18 1241
181026A2-BLK	Blank	7	10/26/18 0949
181026A2-LCS	Lab Control Spike	8	10/26/18 0956
181026A2-LCSD	Lab Control SpikeD	9	10/26/18 1003

Comments: Batch: #300W-181026A2

Printed: 11/13/18 4:49:49 PM  
Form 4, Blank Summary

# WETLAB BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	10/26/18	10/26/18	#300W-181026A2-AZ81676
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	10/26/18	10/26/18	#300W-181026A2-AZ81676
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	10/26/18	10/26/18	#300W-181026A2-AZ81676

Wetlab SC-Blank-REG MDLs  
Printed: 11/09/18 12:36:14 PM

# EPA 300.0

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Charlie

Blank ID: 181029A1-BLK

Time Analyzed: 1116

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181029A1-BLK	Blank	32	10/29/18 1116
181029A1-LCS	Lab Control Spike	33	10/29/18 1123
181029A1-LCSD	Lab Control SpikeD	34	10/29/18 1130
AZ81677	ERH698	35	10/29/18 1137
AZ81678	ERH688	36	10/29/18 1144

Comments: Batch: #300WD-181029A1

Printed: 11/09/18 12:36:11 PM  
Form 4, Blank Summary

# WETLAB BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	10/29/18	10/29/18	#300WD-181029A1-AZ81677

Wetlab SC-Blank-REG MDLs  
Printed: 11/09/18 12:36:14 PM

# EPA 353.2

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: EVE

Blank ID: A181030-BLK

Time Analyzed: 1441

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
A181030-BLK	Blank	12	10/30/18 1441
A181030-LCS	Lab Control Spike	13	10/30/18 1443
A181030-LCSD	Lab Control SpikeD	14	10/30/18 1445
AZ81676	ERH686	25	10/30/18 1508
AZ81677	ERH698	26	10/30/18 1509
AZ81678	ERH688	27	10/30/18 1510

Comments: Batch: #35OF-A181030

Printed: 11/09/18 12:36:11 PM  
Form 4, Blank Summary



# WETLAB BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 353.2	NITRATE-NITRITE-N	0.100 U	0.10	0.100	0.028	mg/L	10/30/18	10/30/18	#35OF-A181030-AZ81584

Wetlab SC-Blank-REG MDLs  
Printed: 11/09/18 12:36:14 PM

# SM 2320B

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Tiamo

Blank ID: 181029A1-BLK

Time Analyzed: 1329

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181029A1-LCS	Lab Control Spike	1	10/29/18 1032
AZ81676	ERH686	19	10/29/18 1305
181029A1-LCSD	Lab Control SpikeD	2	10/29/18 1042
AZ81677	ERH698	20	10/29/18 1317
AZ81678	ERH688	21	10/29/18 1323
181029A1-BLK	Blank	22	10/29/18 1329

Comments: Batch: #232W-181029A1

Printed: 11/09/18 12:36:11 PM  
Form 4, Blank Summary

# WETLAB BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SM 2320B	BICARBONATE AS CA	2.2	2.0	1.70	0.85	mg/L	10/29/18	10/29/18	#232W-181029A1-AZ81584
SM 2320B	CARBONATE AS CACO	1.70 U	2.0	1.70	0.85	mg/L	10/29/18	10/29/18	#232W-181029A1-AZ81584
SM 2320B	TOTAL ALKALINITY AS	2.2	2.0	1.70	0.85	mg/L	10/29/18	10/29/18	#232W-181029A1-AZ81584

Wetlab SC-Blank-REG MDLs  
Printed: 11/09/18 12:36:14 PM

# SM3500FeB

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/25/18

Matrix: WATER

Instrument: Manual Spec

Blank ID: 181025A-BLK

Time Analyzed: 1208

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181025A-LCS	Lab Control Spike	11	10/25/18 1209
181025A-LCSD	Lab Control SpikeD	12	10/25/18 1210
AZ81676	ERH686	13	10/25/18 1210
AZ81677	ERH698	14	10/25/18 1211
AZ81678	ERH688	16	10/25/18 1212
181025A-BLK	Blank	9	10/25/18 1208

Comments: Batch: #35FE-181025A

Printed: 11/09/18 12:36:11 PM  
Form 4, Blank Summary

# WETLAB BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SM3500Fe	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	10/25/18	10/25/18	#35FE-181025A-AZ81676

# EPA 300.0

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/26/18

Matrix: WATER

Instrument: Charlie

LCS ID: 181026A2-LCS

Time Analyzed: 0956

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
AZ81676	ERH686	32	10/26/18 1241
AZ81678	ERH688	33	10/26/18 1248
AZ81677	ERH698	34	10/26/18 1241
181026A2-BLK	Blank	7	10/26/18 0949
181026A2-LCS	Lab Control Spike	8	10/26/18 0956
181026A2-LCSD	Lab Control SpikeD	9	10/26/18 1003

Comments: Batch: #300W-181026A2

Printed: 11/13/18 4:49:53 PM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 300.0	CHLORIDE	25.0	23.4	23.4	93.6	93.6	0.0	20	90-110	10/26/18	10/26/18	10/26/18	10/26/18	#300W-181026A2-AZ8167
EPA 300.0	NITRATE	22.1	22.1	22.1	100	100	0.0	20	90-110	10/26/18	10/26/18	10/26/18	10/26/18	#300W-181026A2-AZ8167
EPA 300.0	SULFATE	25.0	24.3	24.3	97.2	97.2	0.0	20	90-110	10/26/18	10/26/18	10/26/18	10/26/18	#300W-181026A2-AZ8167

Comments: \_\_\_\_\_

\_\_\_\_\_

# EPA 300.0

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Charlie

LCS ID: 181029A1-LCS

Time Analyzed: 1123

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181029A1-BLK	Blank	32	10/29/18 1116
181029A1-LCS	Lab Control Spike	33	10/29/18 1123
181029A1-LCSD	Lab Control SpikeD	34	10/29/18 1130
AZ81677	ERH698	35	10/29/18 1137
AZ81678	ERH688	36	10/29/18 1144

Comments: Batch: #300WD-181029A1

Printed: 11/09/18 12:36:17 PM  
Form 4, LCS Summary



# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 300.0	CHLORIDE	25	24.3	24.1	97.2	96.4	0.83	20	90-110	10/29/18	10/29/18	10/29/18	10/29/18	#300WD-181029A1-AZ816

Comments: \_\_\_\_\_

# EPA 353.2

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: EVE

LCS ID: A181030-LCS

Time Analyzed: 1443

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
A181030-BLK	Blank	12	10/30/18 1441
A181030-LCS	Lab Control Spike	13	10/30/18 1443
A181030-LCSD	Lab Control SpikeD	14	10/30/18 1445
AZ81676	ERH686	25	10/30/18 1508
AZ81677	ERH698	26	10/30/18 1509
AZ81678	ERH688	27	10/30/18 1510

Comments: Batch: #35OF-A181030

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 353.2	NITRATE-NITRITE-N	3.00	2.98	2.96	99.3	98.7	0.67	20	90-110	10/30/18	10/30/18	10/30/18	10/30/18	#35OF-A181030-AZ81584

Comments: \_\_\_\_\_

# SM 2320B

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Tiamo

LCS ID: 181029A1-LCS

Time Analyzed: 1032

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181029A1-LCS	Lab Control Spike	1	10/29/18 1032
AZ81676	ERH686	19	10/29/18 1305
181029A1-LCSD	Lab Control SpikeD	2	10/29/18 1042
AZ81677	ERH698	20	10/29/18 1317
AZ81678	ERH688	21	10/29/18 1323
181029A1-BLK	Blank	22	10/29/18 1329

Comments: Batch: #232W-181029A1

Printed: 11/09/18 12:36:17 PM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
SM 2320B	BICARBONATE AS CaCO3	250	235	232	94.0	92.8	1.3	20	90-110	10/29/18	10/29/18	10/29/18	10/29/18	#232W-181029A1-AZ8158
SM 2320B	TOTAL ALKALINITY AS CA	250	235	232	94.0	92.8	1.3	20	90-110	10/29/18	10/29/18	10/29/18	10/29/18	#232W-181029A1-AZ8158

Comments: \_\_\_\_\_

\_\_\_\_\_

# SM3500FeB

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87219

Case No: 87219

Date Analyzed: 10/25/18

Matrix: WATER

Instrument: Manual Spec

LCS ID: 181025A-LCS

Time Analyzed: 1209

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181025A-LCS	Lab Control Spike	11	10/25/18 1209
181025A-LCSD	Lab Control SpikeD	12	10/25/18 1210
AZ81676	ERH686	13	10/25/18 1210
AZ81677	ERH698	14	10/25/18 1211
AZ81678	ERH688	16	10/25/18 1212
181025A-BLK	Blank	9	10/25/18 1208

Comments: Batch: #35FE-181025A

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
SM3500Fe	FERROUS IRON	3.00	3.11	3.11	104	104	0.0	20	80-120	10/25/18	10/25/18	10/25/18	10/25/18	#35FE-181025A-AZ81676

Comments: \_\_\_\_\_  
\_\_\_\_\_

**ORGANICS  
Calibration Data**

**APPL, INC.**



TPH Extractables  
DOC0905

Form 6  
Initial Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Initial Cal. Date: 09/05/18

Matrix: \_\_\_\_\_

Instrument: Apollo

Initials: \_\_\_\_\_

Diesel: 905003.D 905004.D 905005.D 905006.D 905007.D 905008.D

Motor Oil: 905010.D 905011.D 905012.D 905013.D 905014.D 905015.D

Decanoic Acid: 814017.D 814018.D 814019.D 814020.D 814021.D 814022.D

	Compound	1	2	3	4	5	6					Avg	%RSD	Type	r <sup>2</sup>	Q
1	HATM Diesel (C10-C24)	1977954	1585759	1547772	1602850	1558536	1558715					1638598	10	HATM		
2	HBTM Motor Oil (C24-C40)	1632679	1442329	1281707	1335557	1305155	1329878					1387884	9.5	HBTM		
3	SC Decanoic Acid(S)	648675	1095549	1090928	1053315	1004335	1065935					993123	17	SC		
4	SA Ortho-Terphenyl(S)	2367841	1987512	1916740	1891892	1734307	1719637					1936322	12	SA		
5	SA Octacosane(S)	1652614	1674318	1605080	1646548	1560961	1550101					1614937	3.2	SA		
6																
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1.497611

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180814\814017.D Vial: 17  
 Acq On : 8-14-18 16:56:27 Operator: DP  
 Sample : Decanoic Acid - 1 8/13/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 11:33 2018 Quant Results File: DOC0905.RES

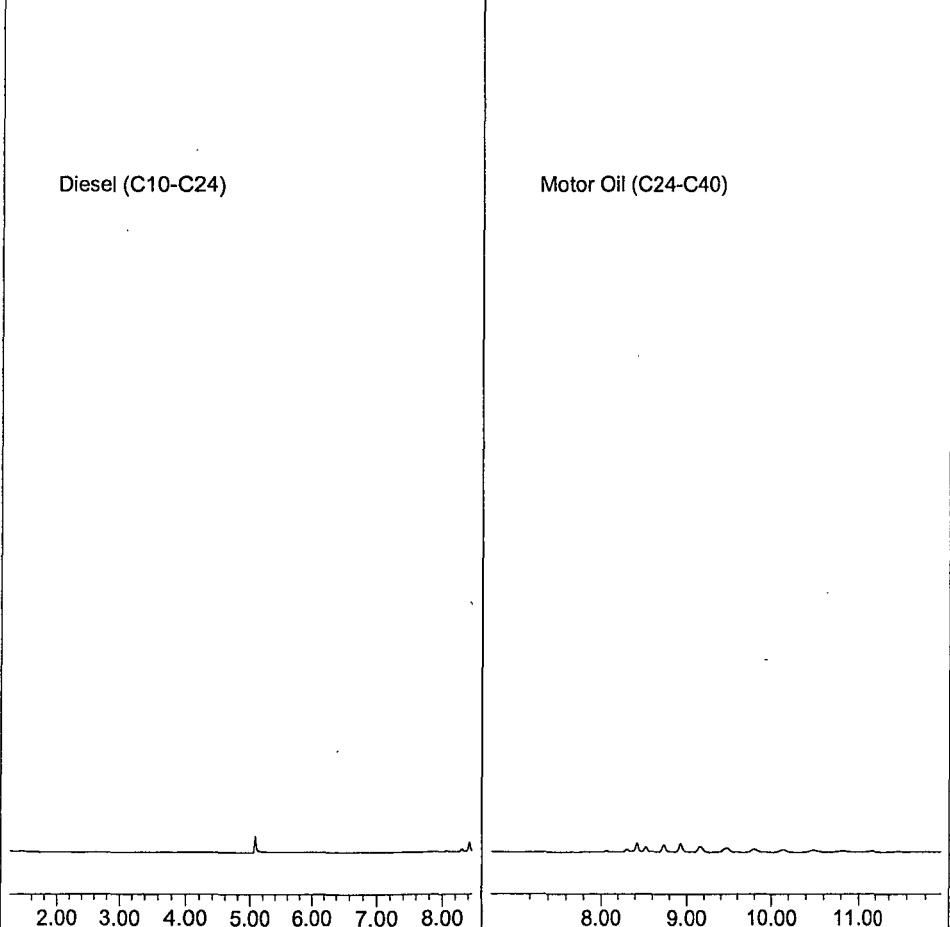
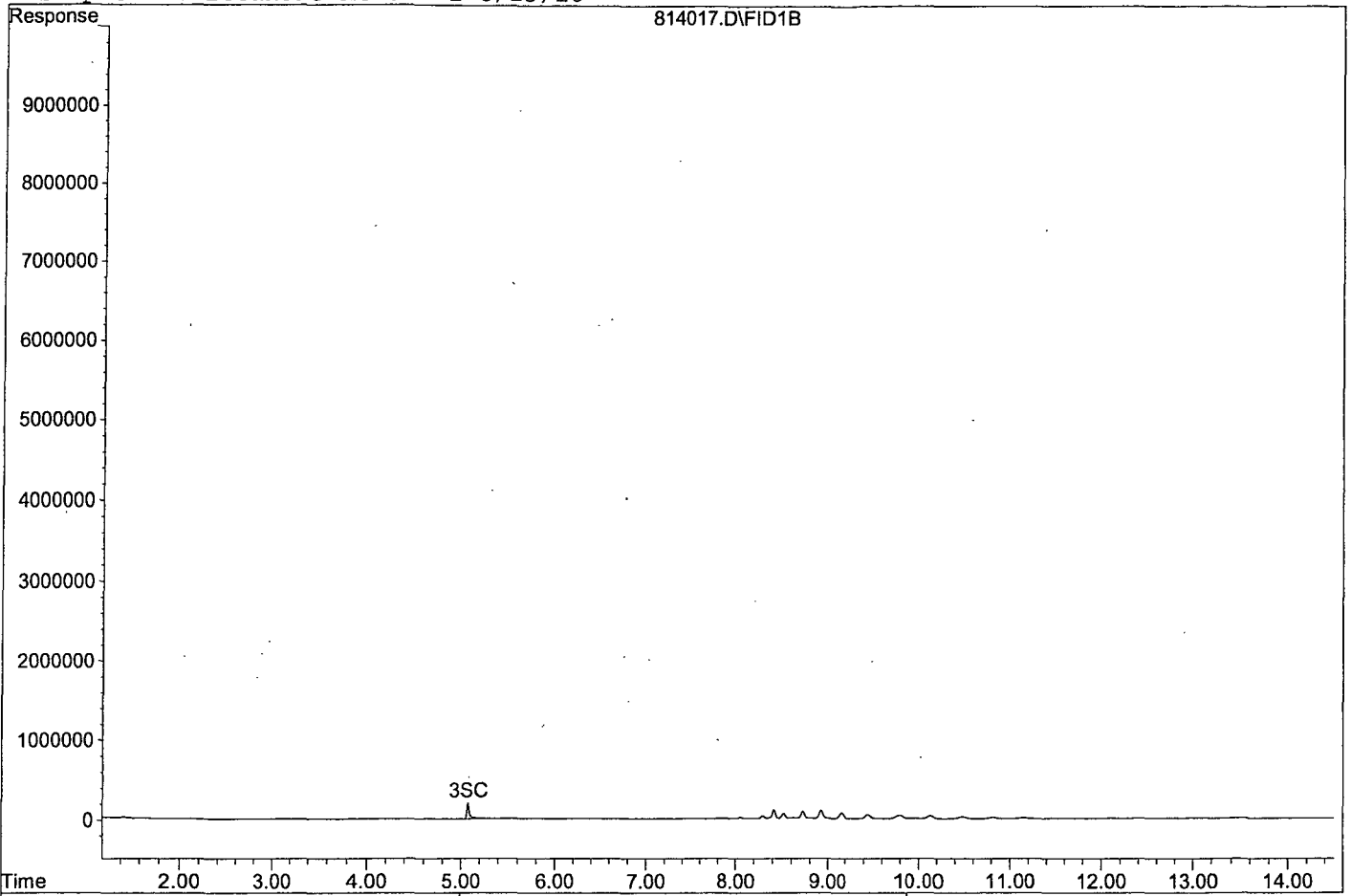
Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.08f	3892047	1.959 ppb
Surrogate Spike 24.000	Recovery	=	8.16%
Target Compounds			

Quantitation Report

Data File: G:\APOLLO\DATA\180814\814017.D  
Sample : Decanoic Acid - 1 8/13/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180814\814018.D Vial: 18  
 Acq On : 8-14-18 17:15:48 Operator: DP  
 Sample : Decanoic Acid - 2 8/13/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 11:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

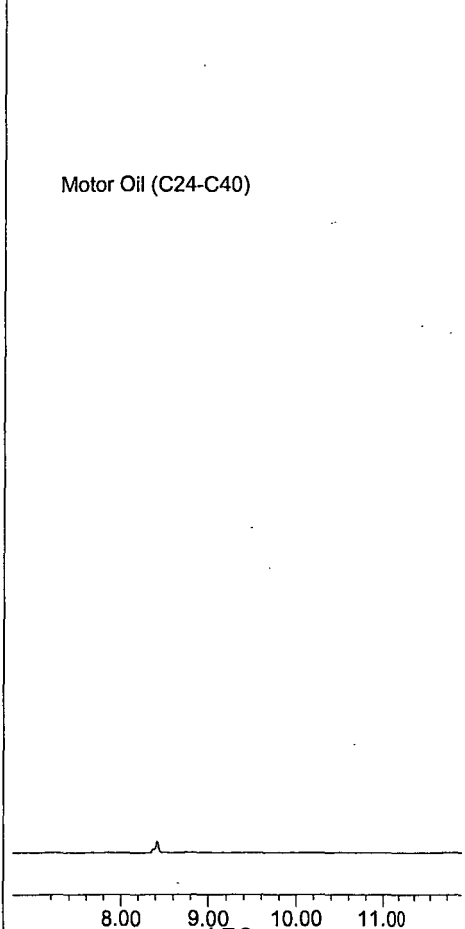
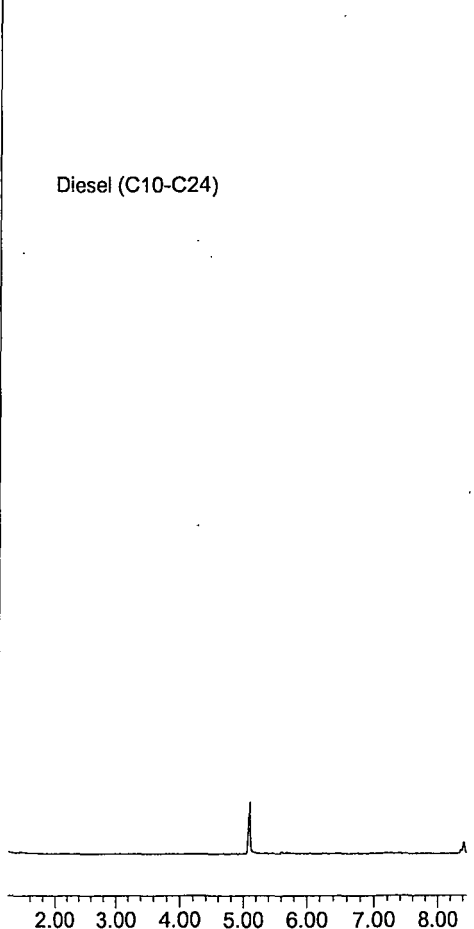
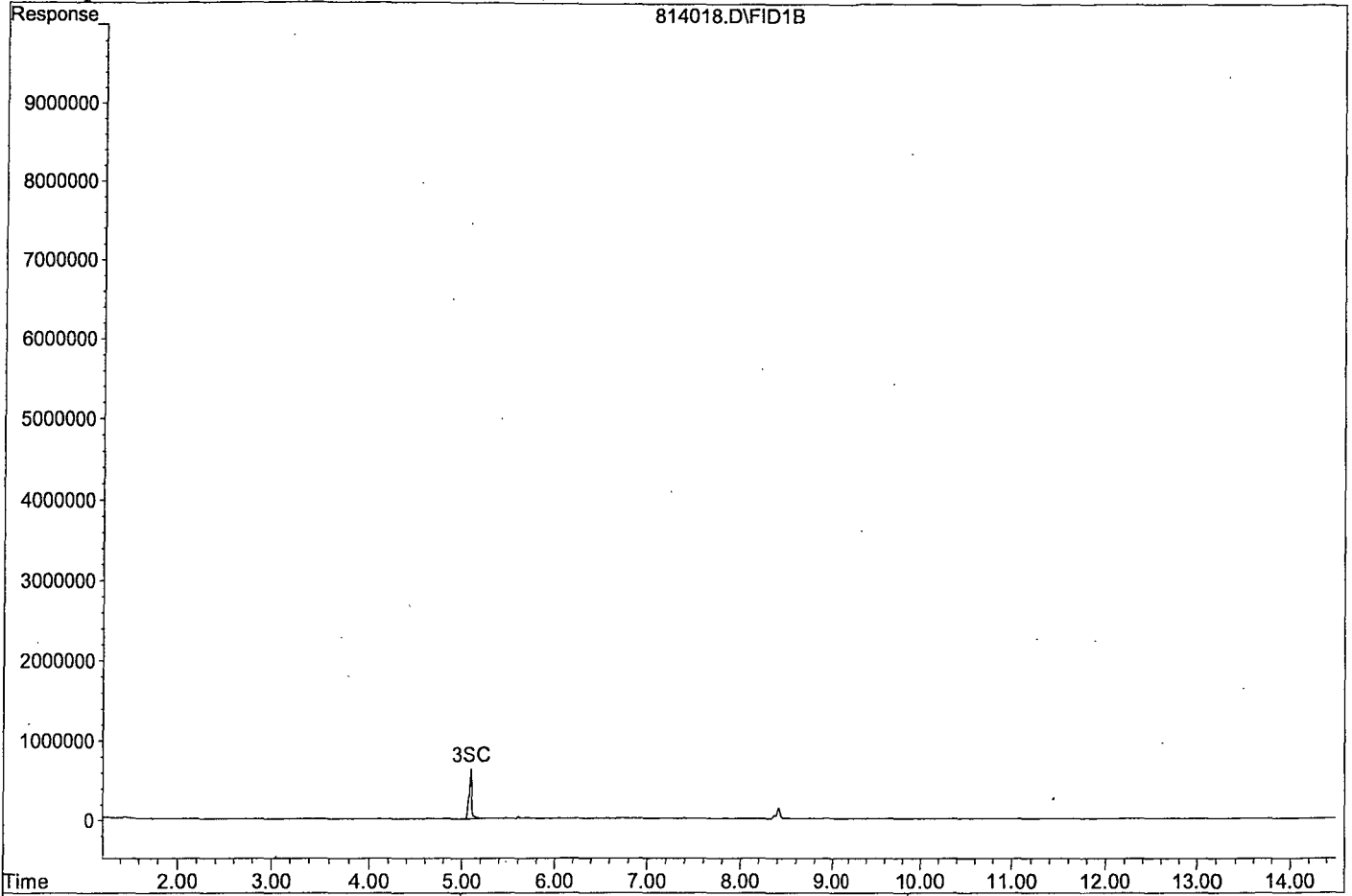
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.10	13146585	6.619 ppb
Surrogate Spike 24.000	Recovery	=	27.58%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\180814\814018.D  
Sample : Decanoic Acid - 2 8/13/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180814\814019.D Vial: 19  
 Acq On : 8-14-18 17:35:59 Operator: DP  
 Sample : Decanoic Acid - 3 8/13/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 11:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

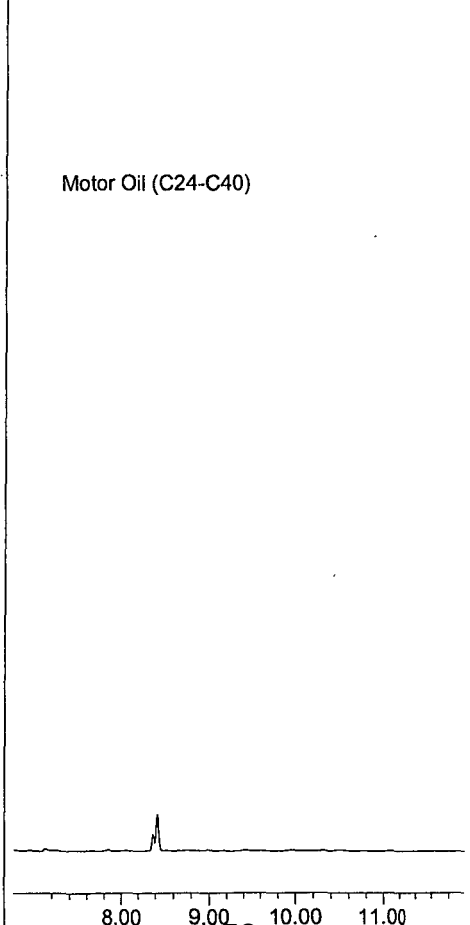
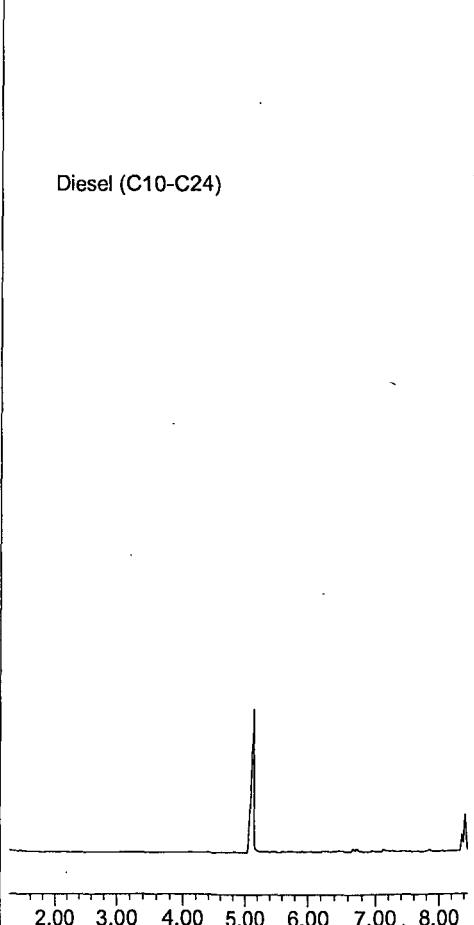
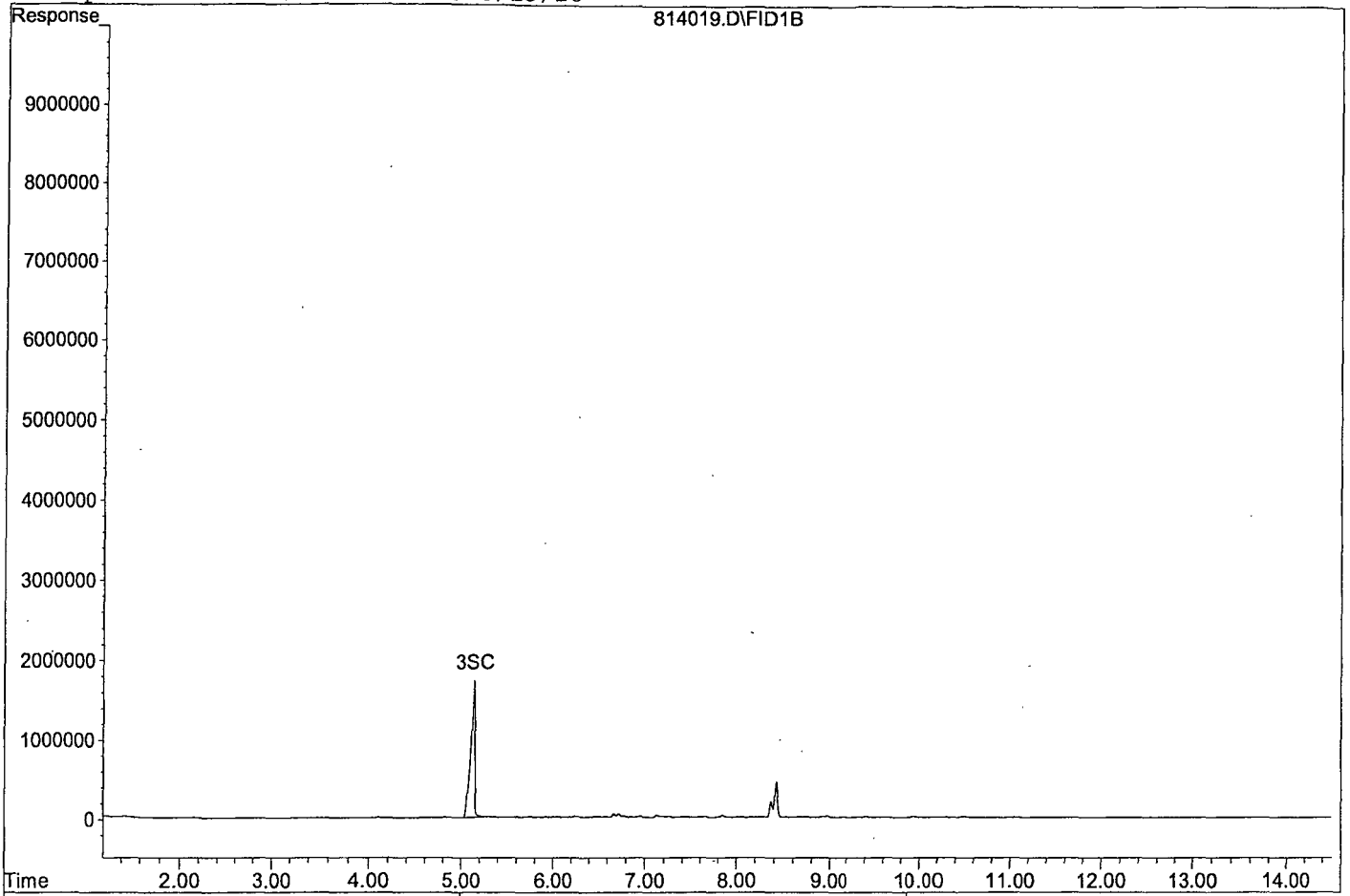
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.14	52364534	26.364 ppb
Surrogate Spike 24.000	Recovery	=	109.85%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\180814\814019.D  
Sample : Decanoic Acid - 3 8/13/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180814\814020.D Vial: 20  
 Acq On : 8-14-18 17:56:16 Operator: DP  
 Sample : Decanoic Acid - 4 8/13/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 11:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

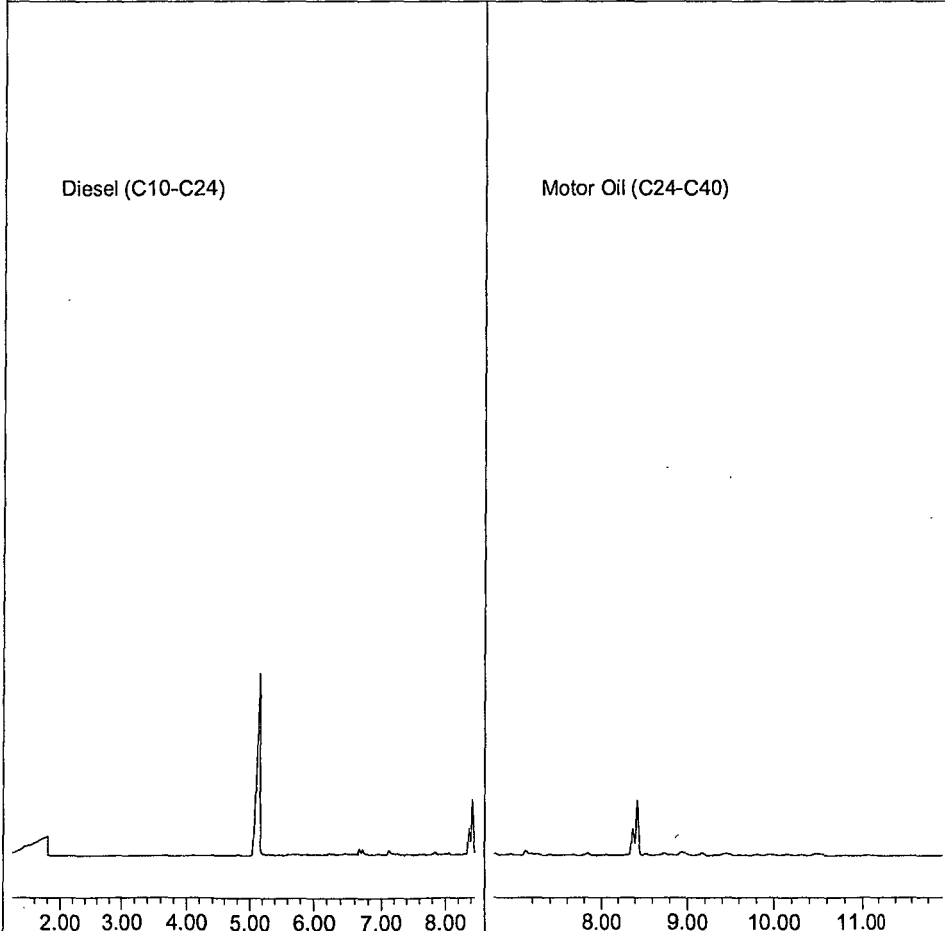
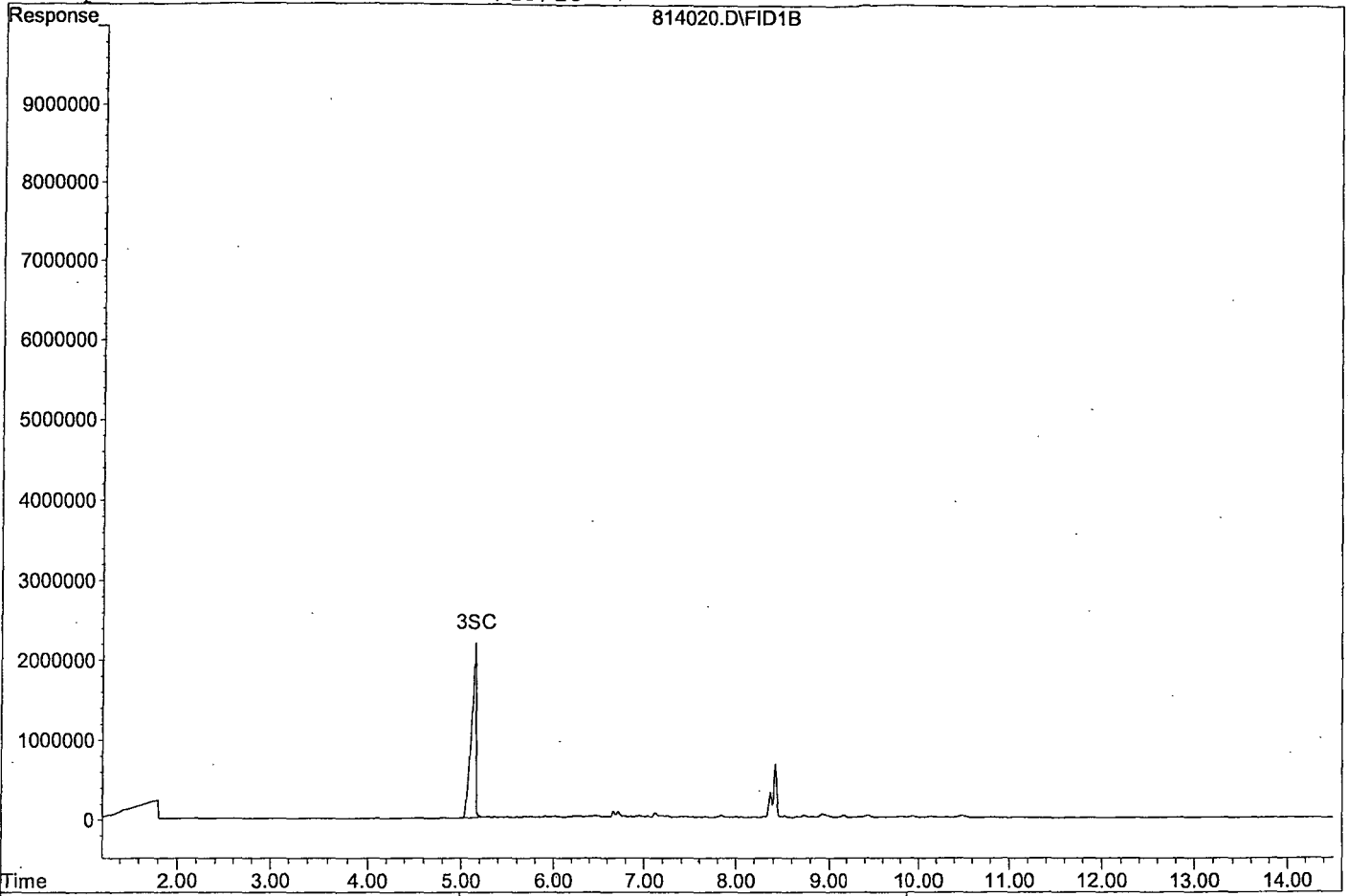
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.15	75838654	38.182 ppb
Surrogate Spike 24.000		Recovery =	159.09%
Target Compounds			



Quantitation Report

Data File: G:\APOLLO\DATA\180814\814020.D

Sample : Decanoic Acid - 4 8/13/18



Data File : G:\APOLLO\DATA\180814\814021.D Vial: 21  
 Acq On : 8-14-18 18:16:22 Operator: DP  
 Sample : Decanoic Acid - 5 8/13/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 11:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

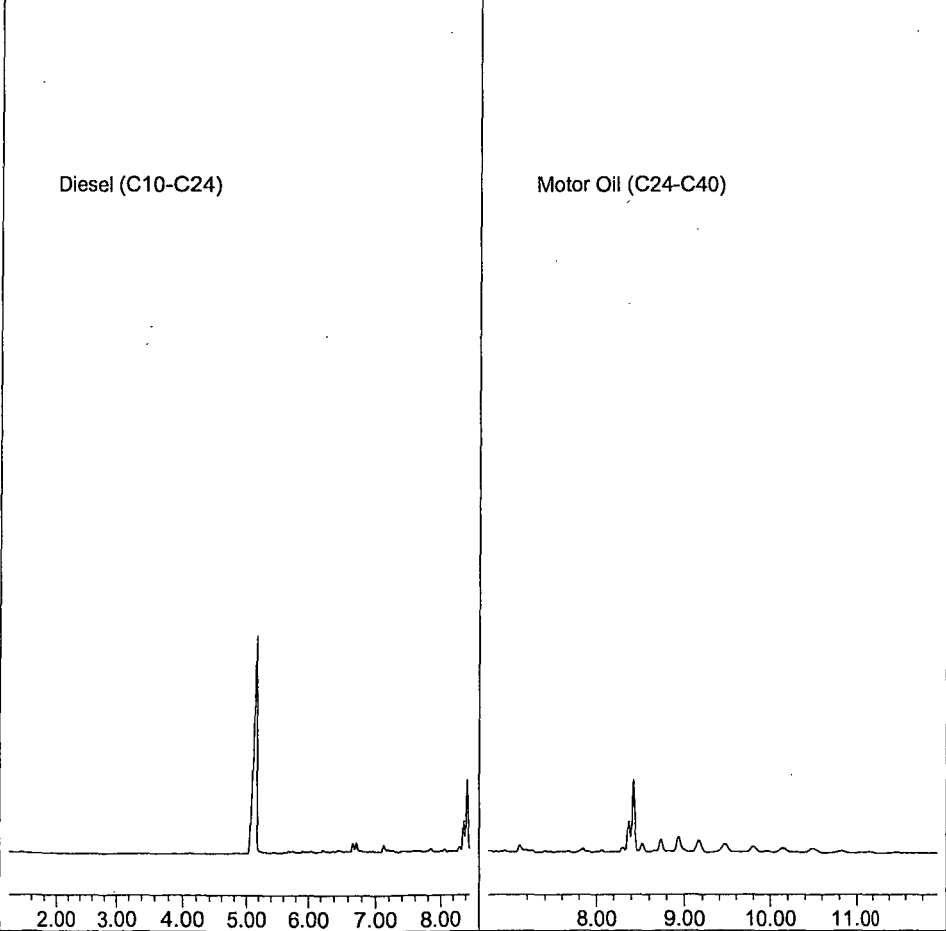
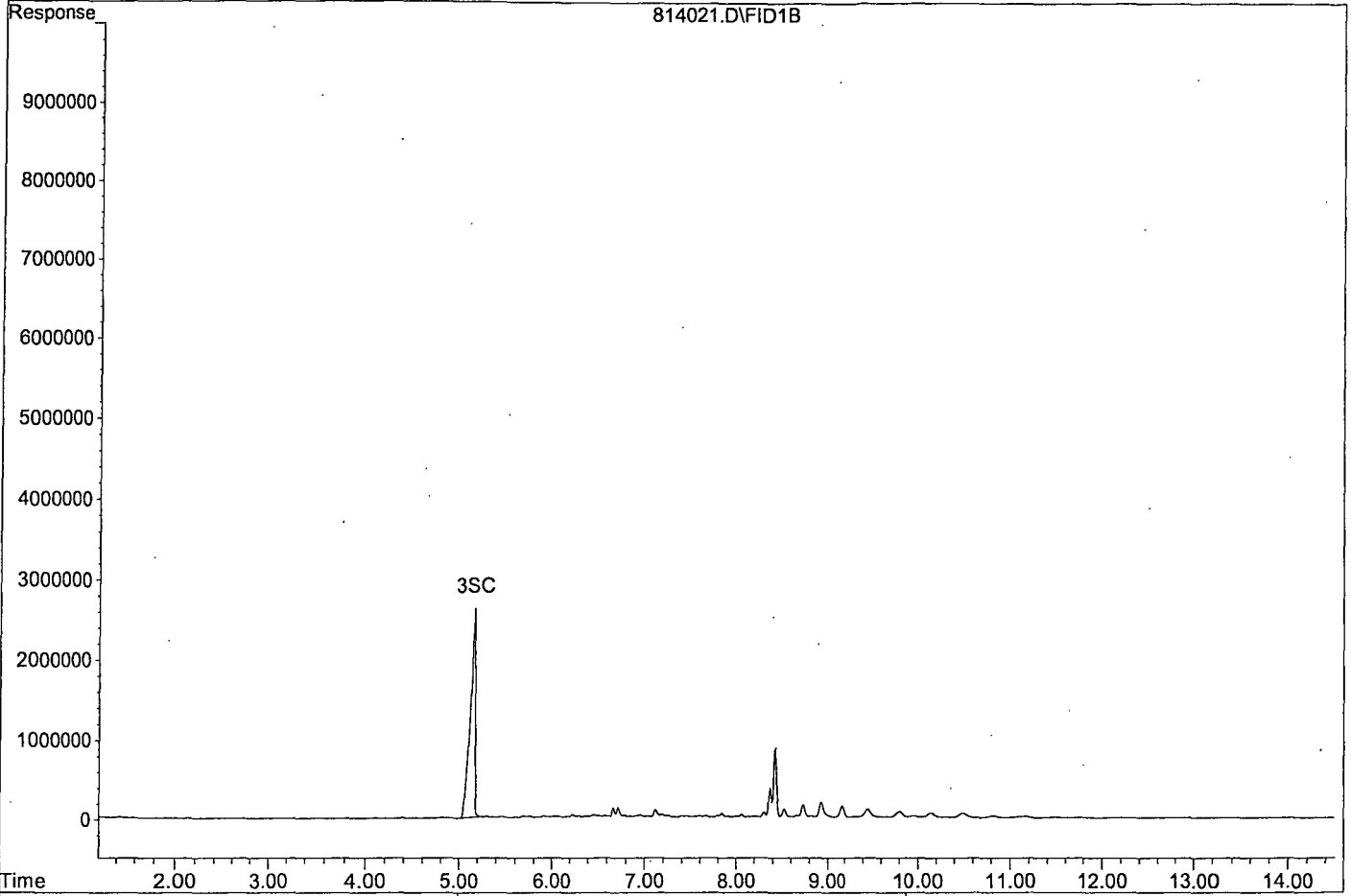
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.17	96416189	48.542 ppb
Surrogate Spike 24.000		Recovery =	202.26%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\180814\814021.D

Sample : Decanoic Acid - 5 8/13/18



Data File : G:\APOLLO\DATA\180814\814022.D Vial: 22  
 Acq On : 8-14-18 18:36:30 Operator: DP  
 Sample : Decanoic Acid - 6 8/13/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 11:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

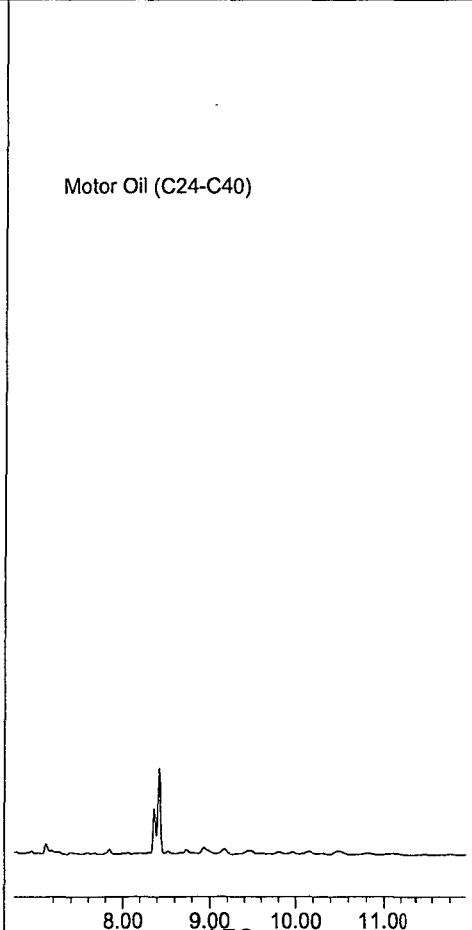
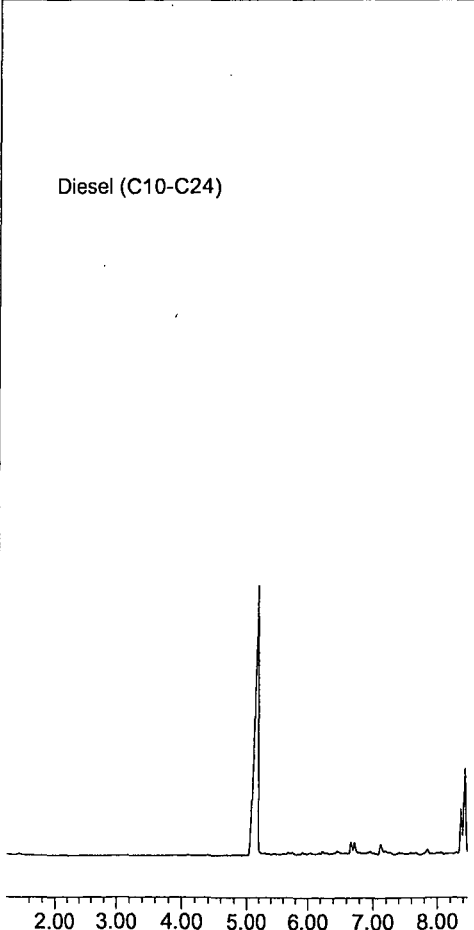
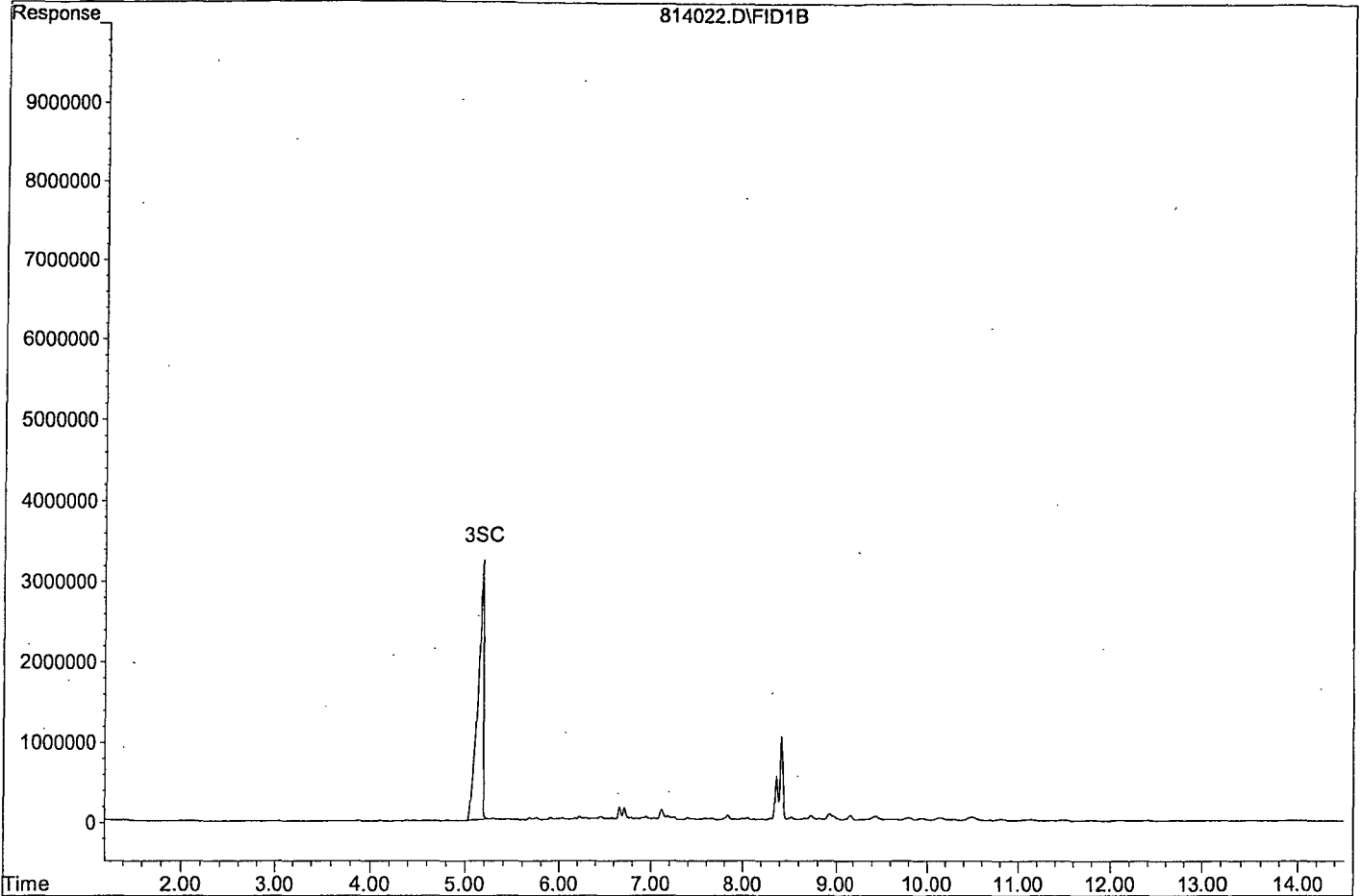
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.18	127912154	64.399 ppb
Surrogate Spike 24.000	Recovery	=	268.33%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\180814\814022.D

Sample : Decanoic Acid - 6 8/13/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905003.D Vial: 3  
 Acq On : 9-5-18 13:32:12 Operator: DP  
 Sample : Diesel - 1 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

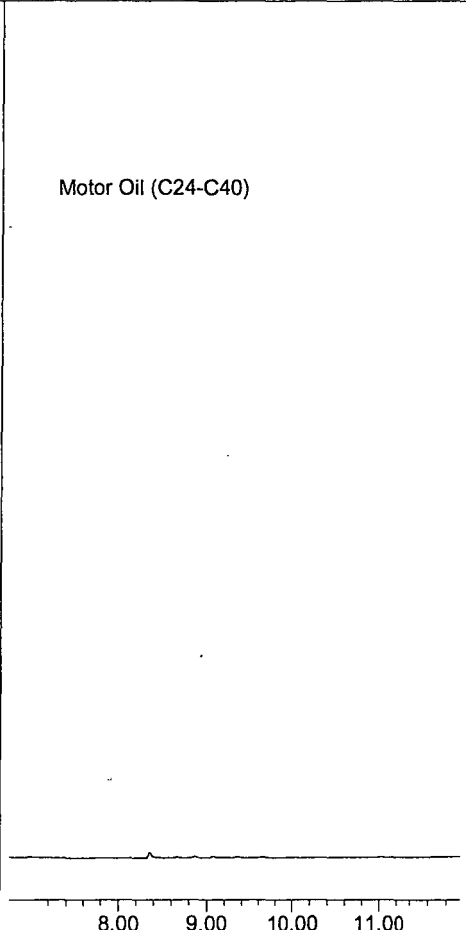
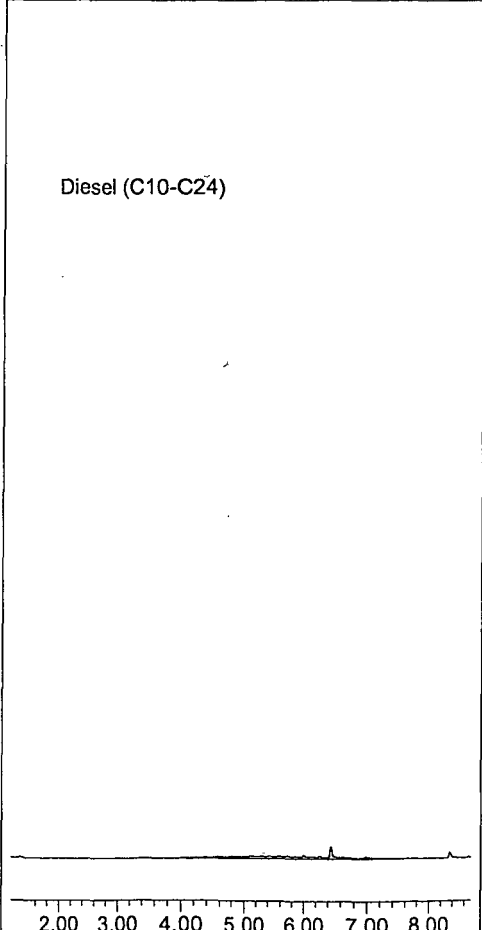
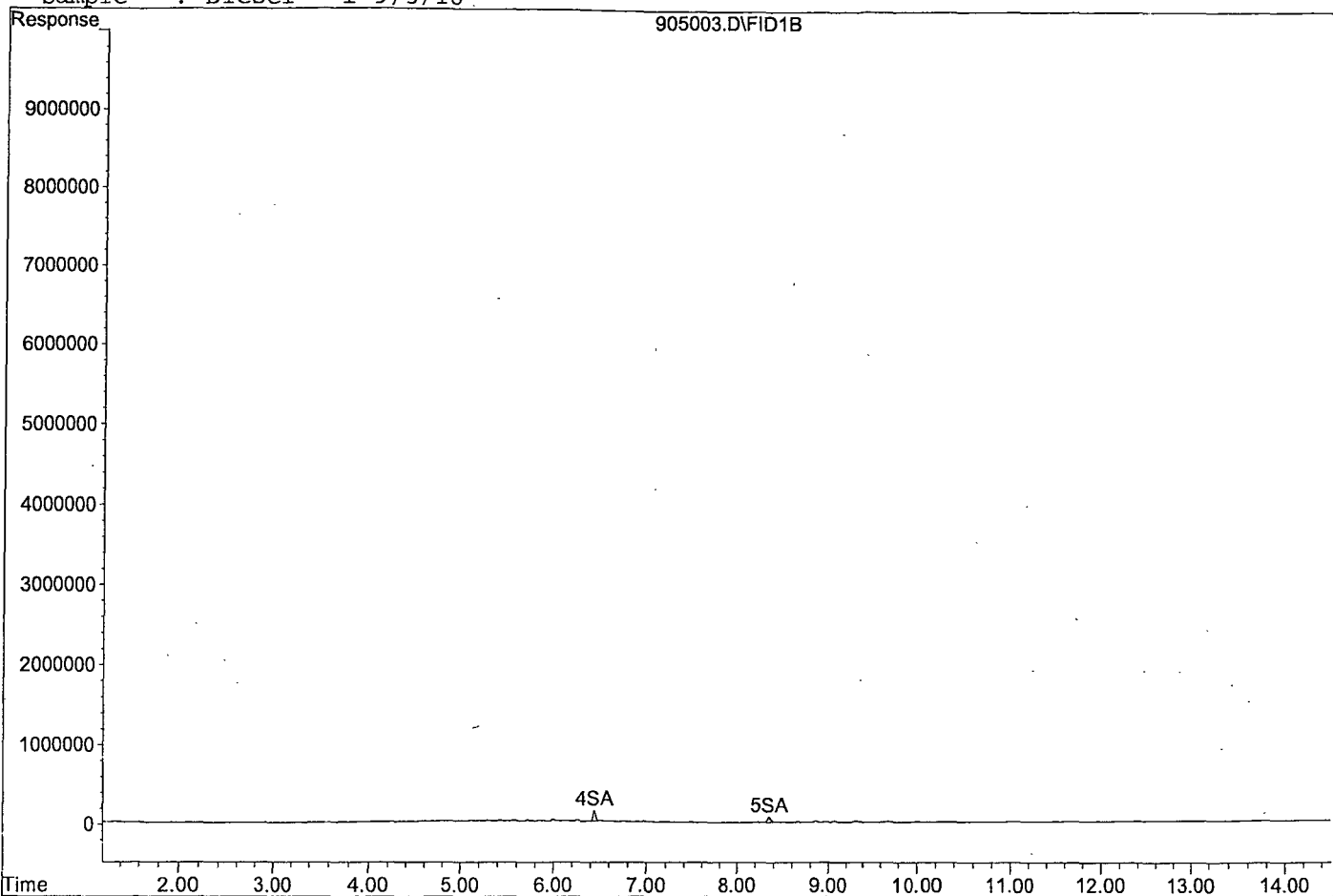
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	2367841	0.611 ppb
Surrogate Spike 30.000		Recovery =	2.04%
5) SA Octacosane(S)	8.35	1652614	0.512 ppb
Surrogate Spike 30.000		Recovery =	1.71%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	39559086	12.071 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905003.D

Sample : Diesel - 1 9/5/18



Data File : G:\APOLLO\DATA\180905\905004.D Vial: 4  
 Acq On : 9-5-18 13:51:56 Operator: DP  
 Sample : Diesel - 2 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

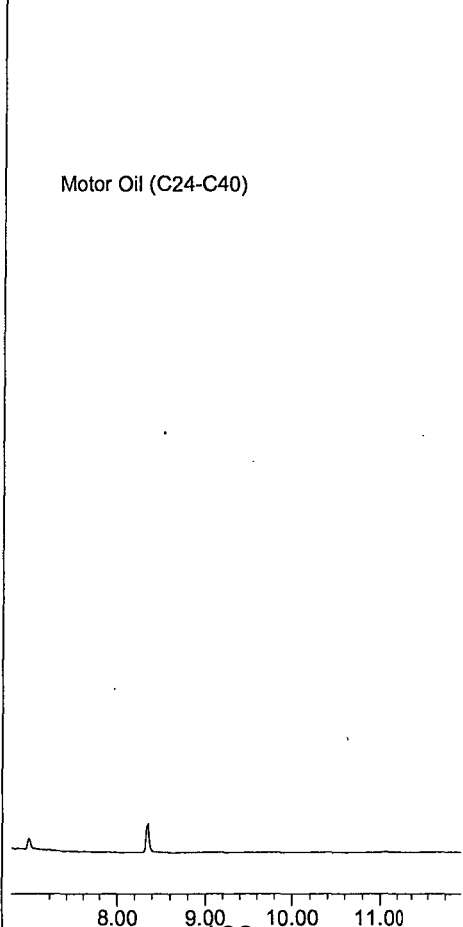
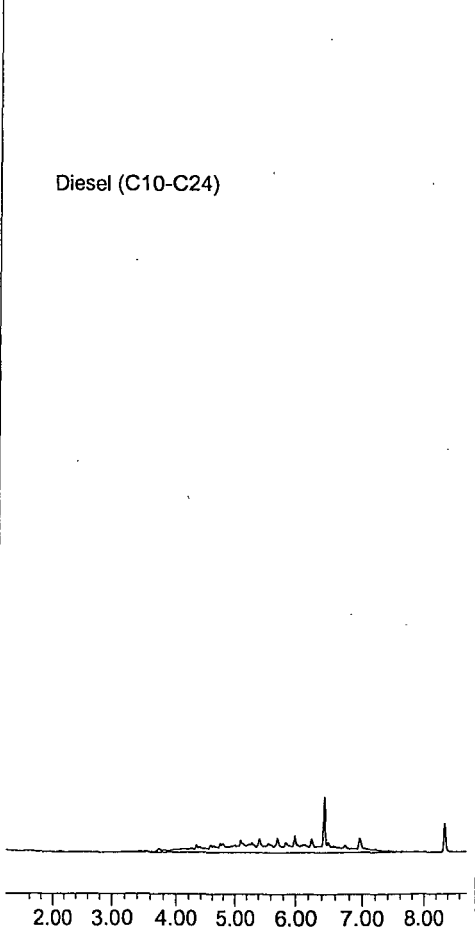
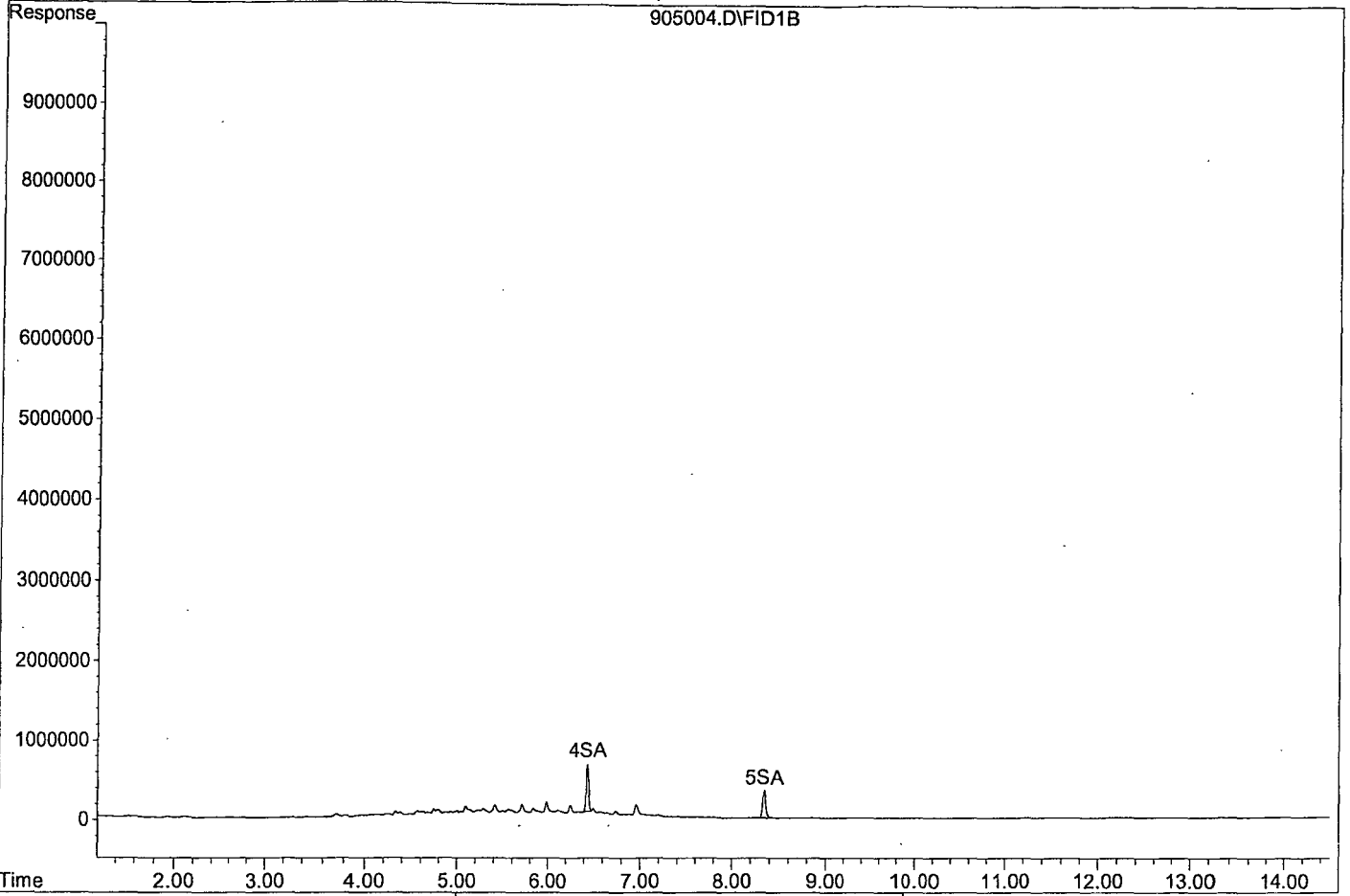
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	9937558	2.566 ppb
Surrogate Spike 30.000		Recovery =	8.55%
5) SA Octacosane(S)	8.35	8371591	2.592 ppb
Surrogate Spike 30.000		Recovery =	8.64%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	158575904	48.388 ppb



Quantitation Report

Data File: G:\APOLLO\DATA\180905\905004.D  
Sample : Diesel - 2 9/5/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905005.D Vial: 5  
 Acq On : 9-5-18 14:11:55 Operator: DP  
 Sample : Diesel - 3 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

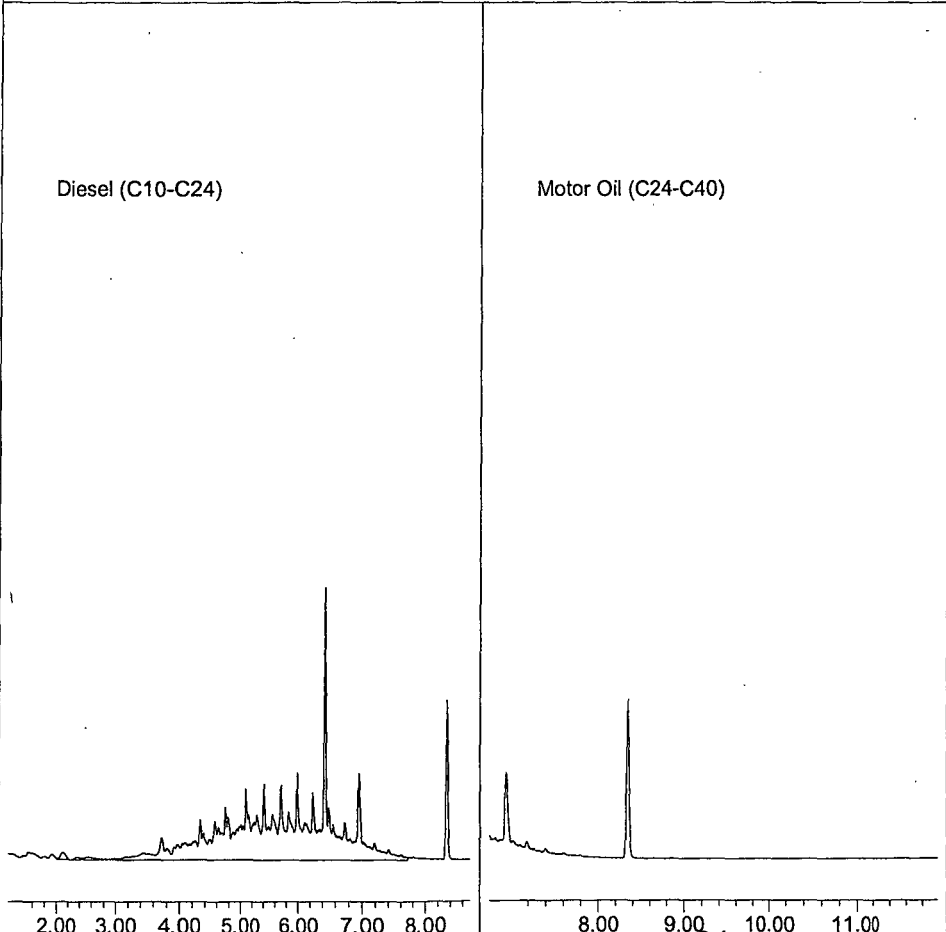
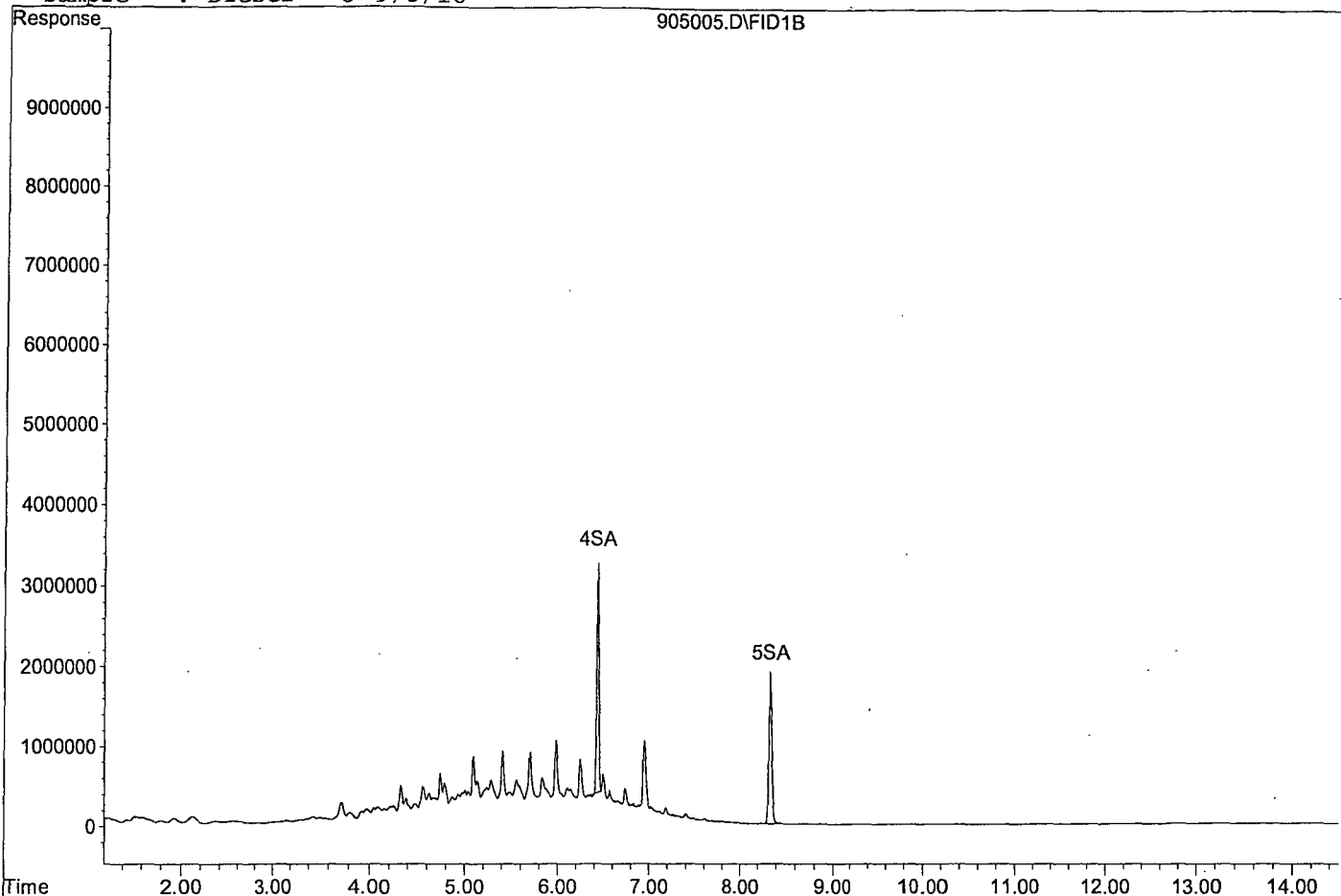
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	47918495	12.374 ppb
Surrogate Spike 30.000		Recovery =	41.25%
5) SA Octacosane(S)	8.34	40127010	12.424 ppb
Surrogate Spike 30.000		Recovery =	41.41%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	773886098	236.143 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905005.D

Sample : Diesel - 3 9/5/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905006.D Vial: 6  
 Acq On : 9-5-18 14:31:55 Operator: DP  
 Sample : Diesel - 4 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

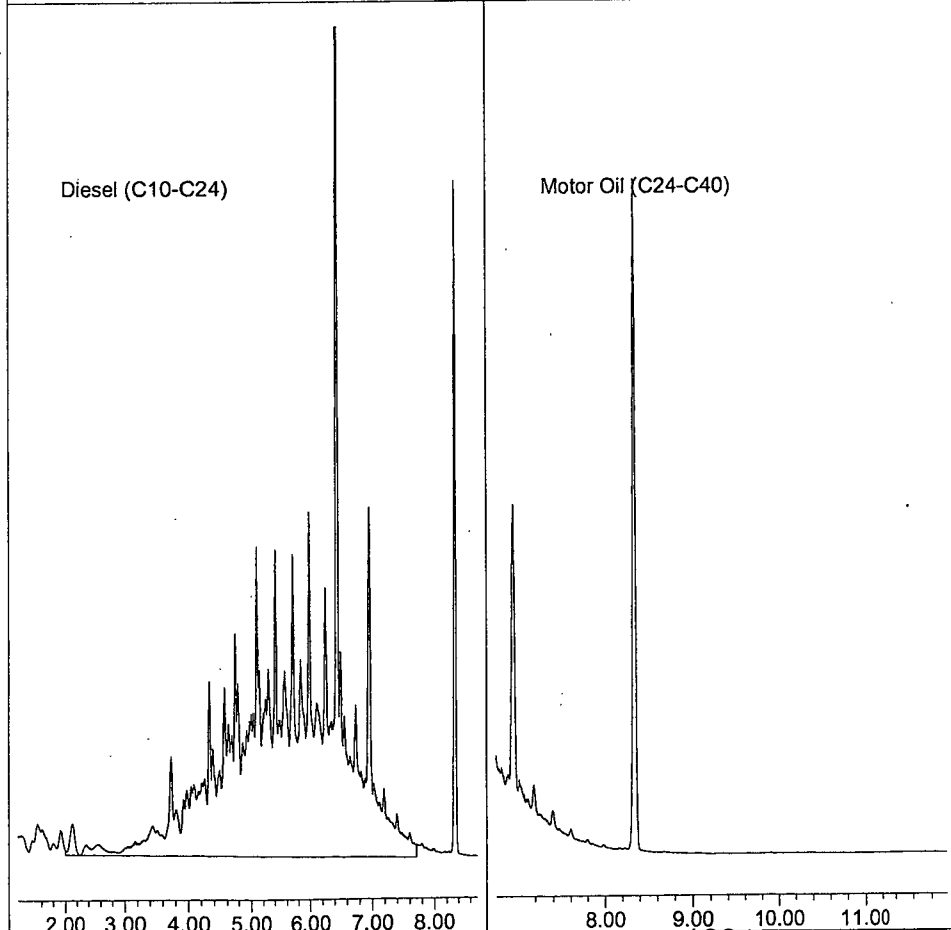
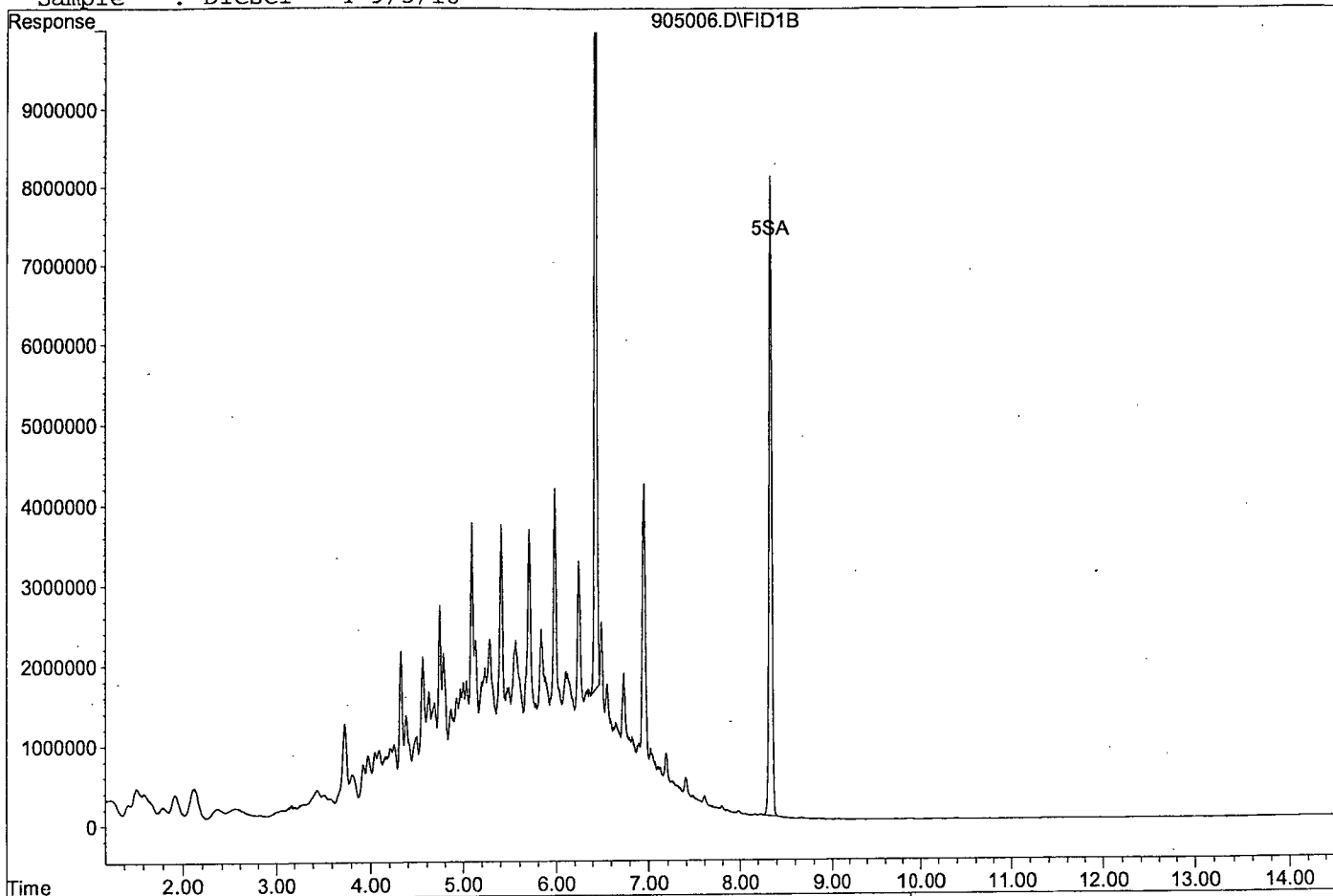
Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	189189247	48.853 ppb
Surrogate Spike 30.000		Recovery =	162.84%
5) SA Octacosane(S)	8.34	164654773	50.979 ppb
Surrogate Spike 30.000		Recovery =	169.93%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	3205699857	978.184 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905006.D  
Sample : Diesel - 4 9/5/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905007.D Vial: 7  
 Acq On : 9-5-18 14:51:56 Operator: DP  
 Sample : Diesel - 5 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

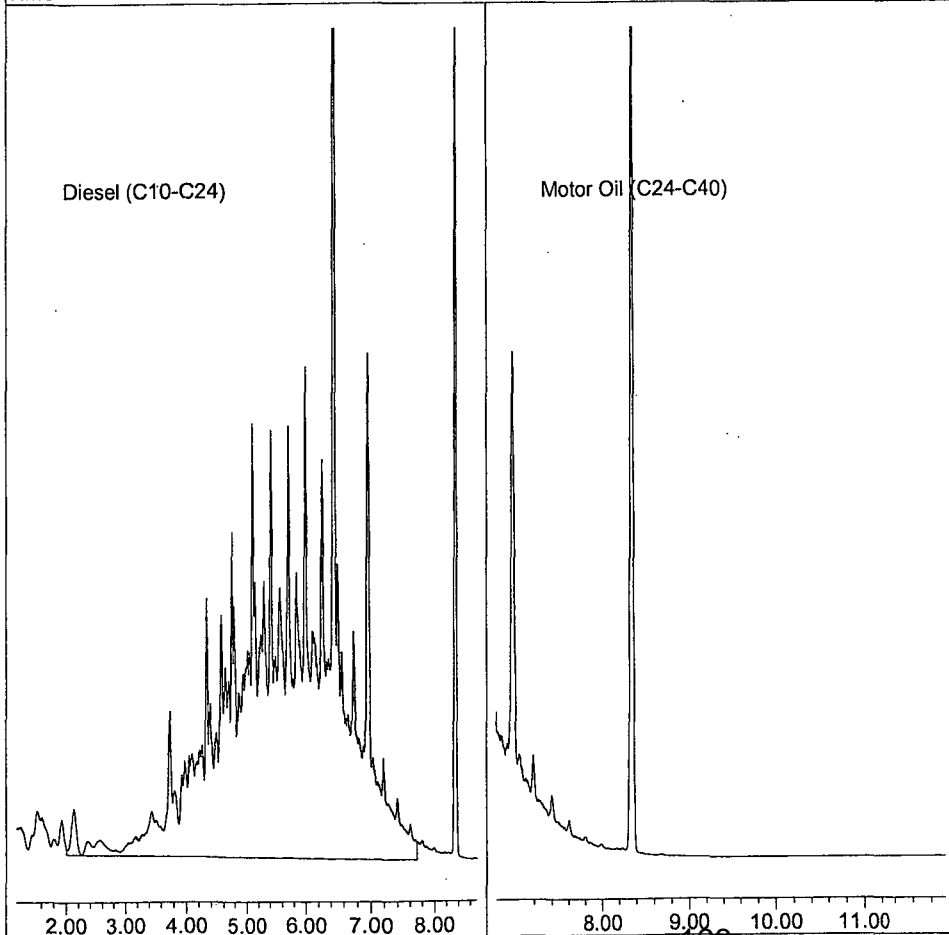
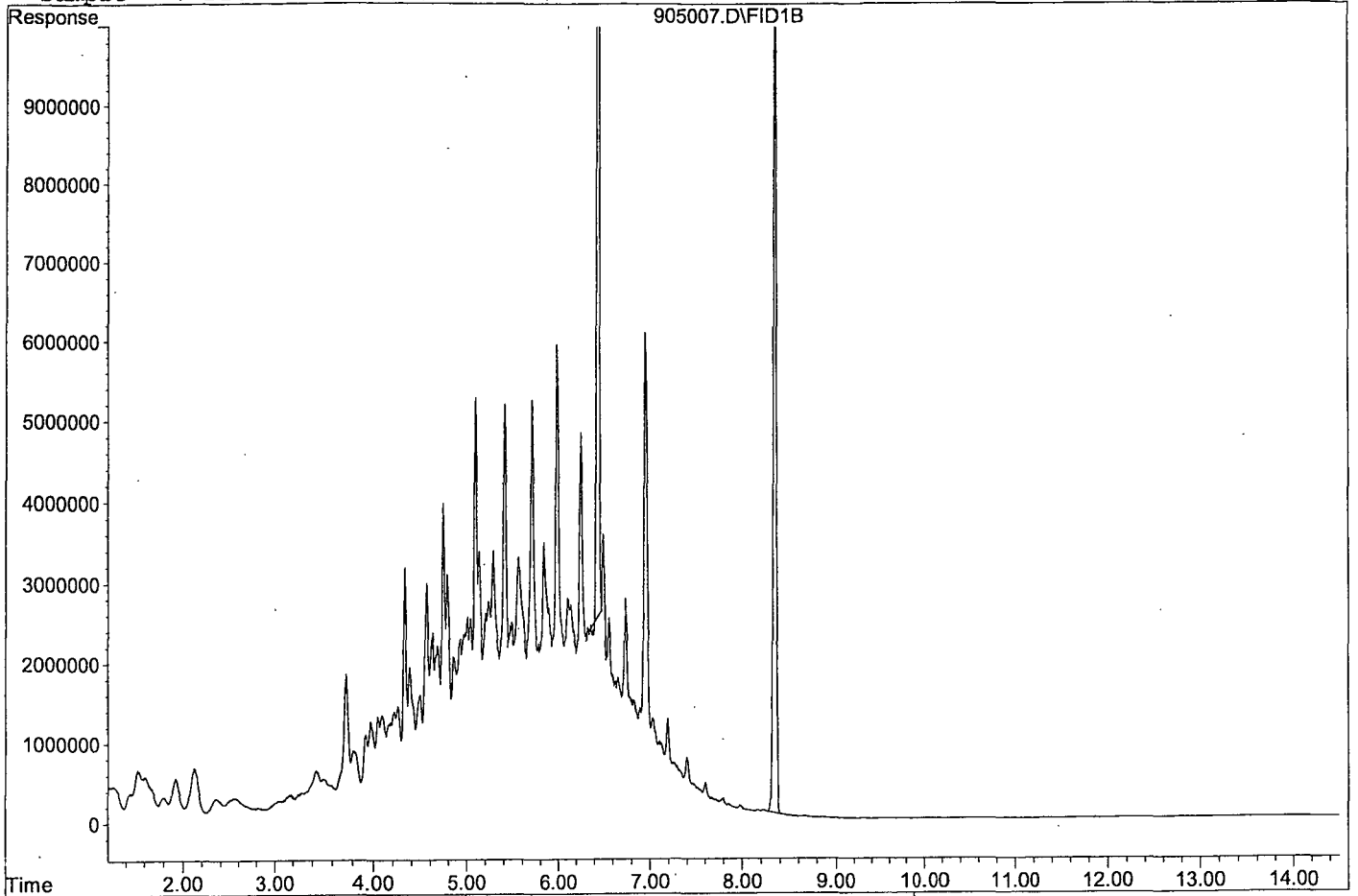
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.45	260146116	67.175 ppb
Surrogate Spike 30.000		Recovery =	223.92%
5) SA Octacosane(S)	8.35	234144102	72.493 ppb
Surrogate Spike 30.000		Recovery =	241.64%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	4675608367	1426.710 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905007.D

Sample : Diesel - 5 9/5/18



Data File : G:\APOLLO\DATA\180905\905008.D Vial: 8  
 Acq On : 9-5-18 15:11:58 Operator: DP  
 Sample : Diesel - 6 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

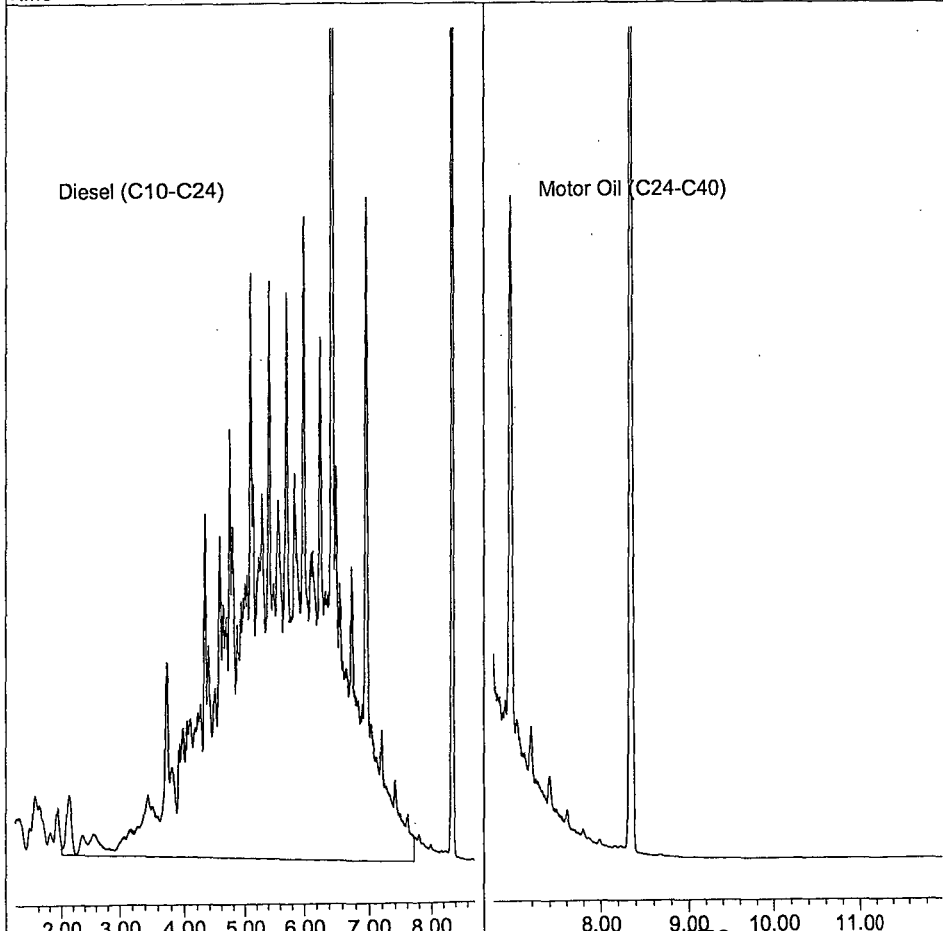
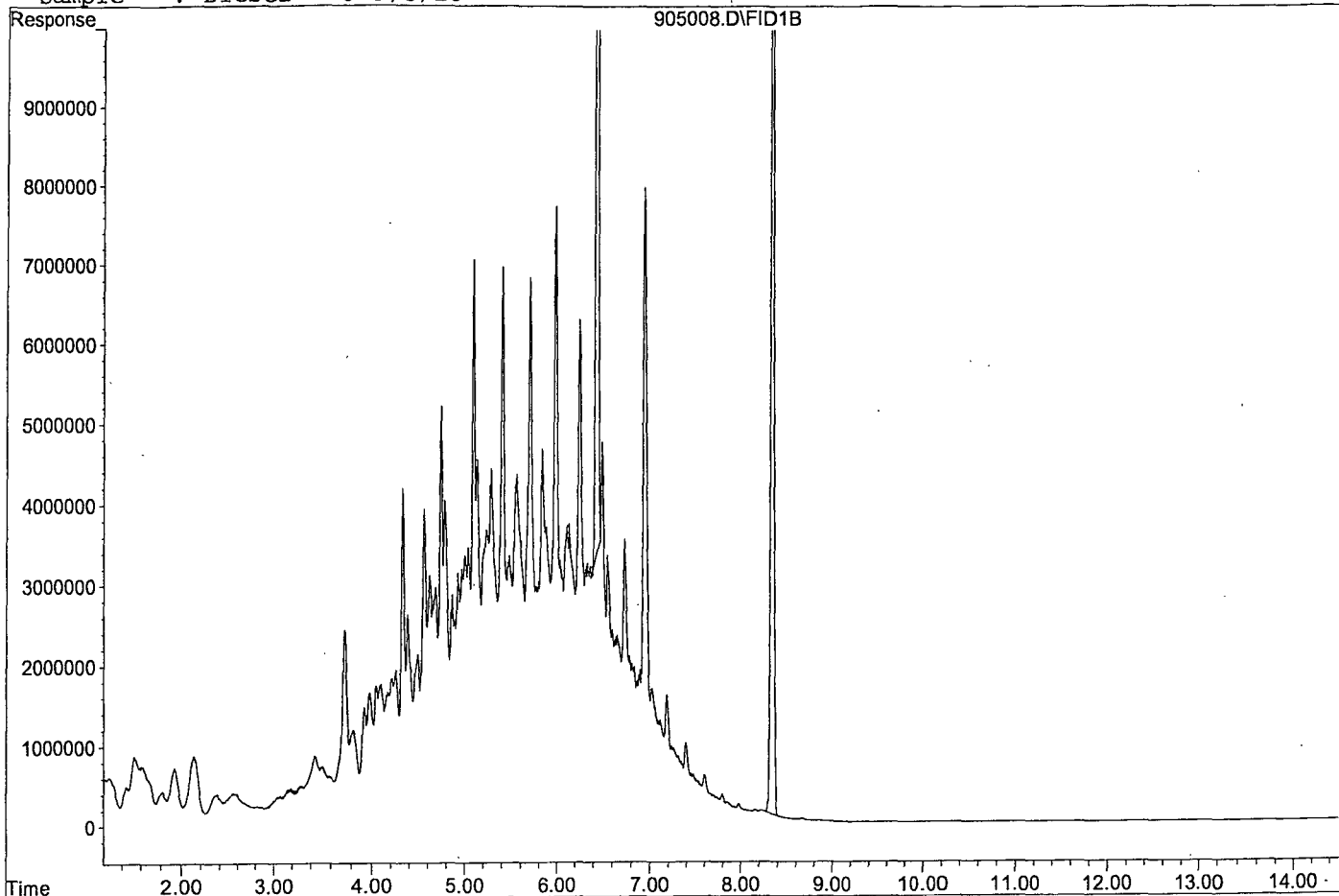
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.45	343927438	88.809 ppb
Surrogate Spike 30.000		Recovery =	296.03%
5) SA Octacosane(S)	8.35	310020200	95.985 ppb
Surrogate Spike 30.000		Recovery =	319.95%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	6234861442	1902.499 ppb



Quantitation Report

Data File: G:\APOLLO\DATA\180905\905008.D

Sample : Diesel - 6 9/5/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905010.D Vial: 10  
 Acq On : 9-5-18 15:52:08 Operator: DP  
 Sample : Motor Oil - 1 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

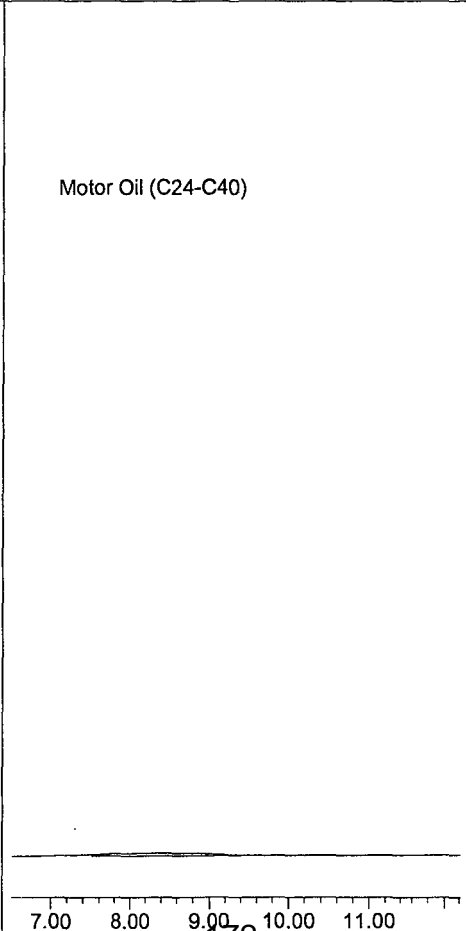
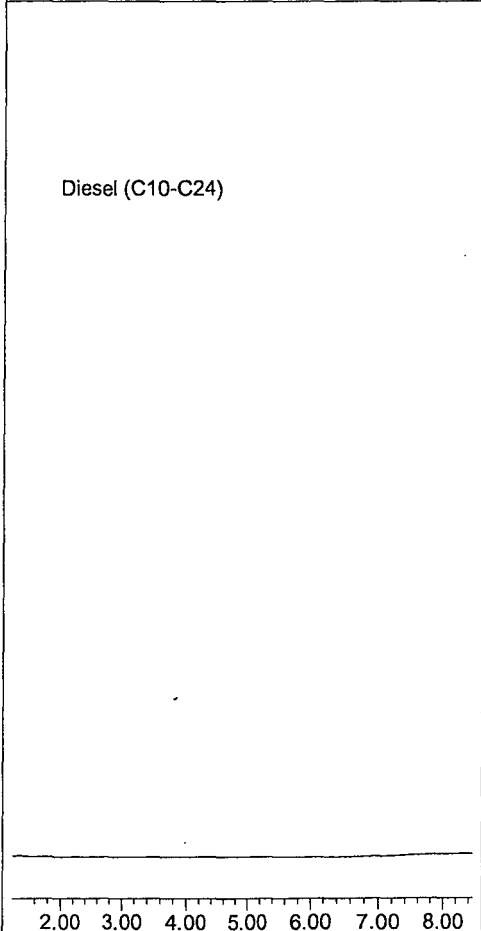
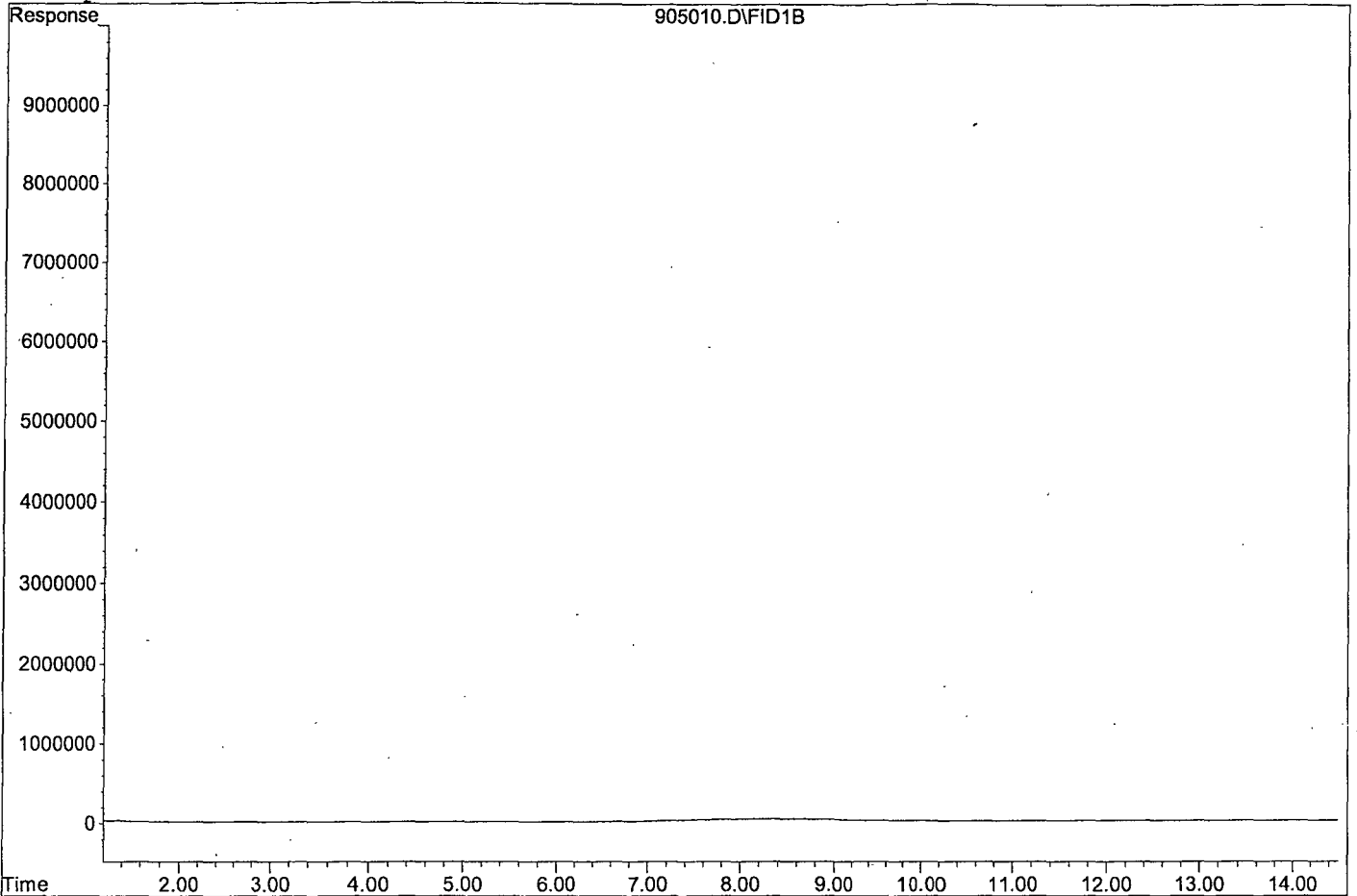
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	32653584	11.764 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905010.D

Sample : Motor Oil - 1 9/5/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905011.D Vial: 11  
Acq On : 9-5-18 16:12:11 Operator: DP  
Sample : Motor Oil - 2 9/5/18 Inst : Apollo  
Misc : Mix(B) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
Title : 8015 B&C  
Last Update : Tue Sep 25 13:45:30 2018  
Response via : Multiple Level Calibration

Volume Inj. : 2UL  
Signal Phase : DB-5  
Signal Info : FID02A

-----  
Compound R.T. Response Conc Units  
-----

System Monitoring Compounds

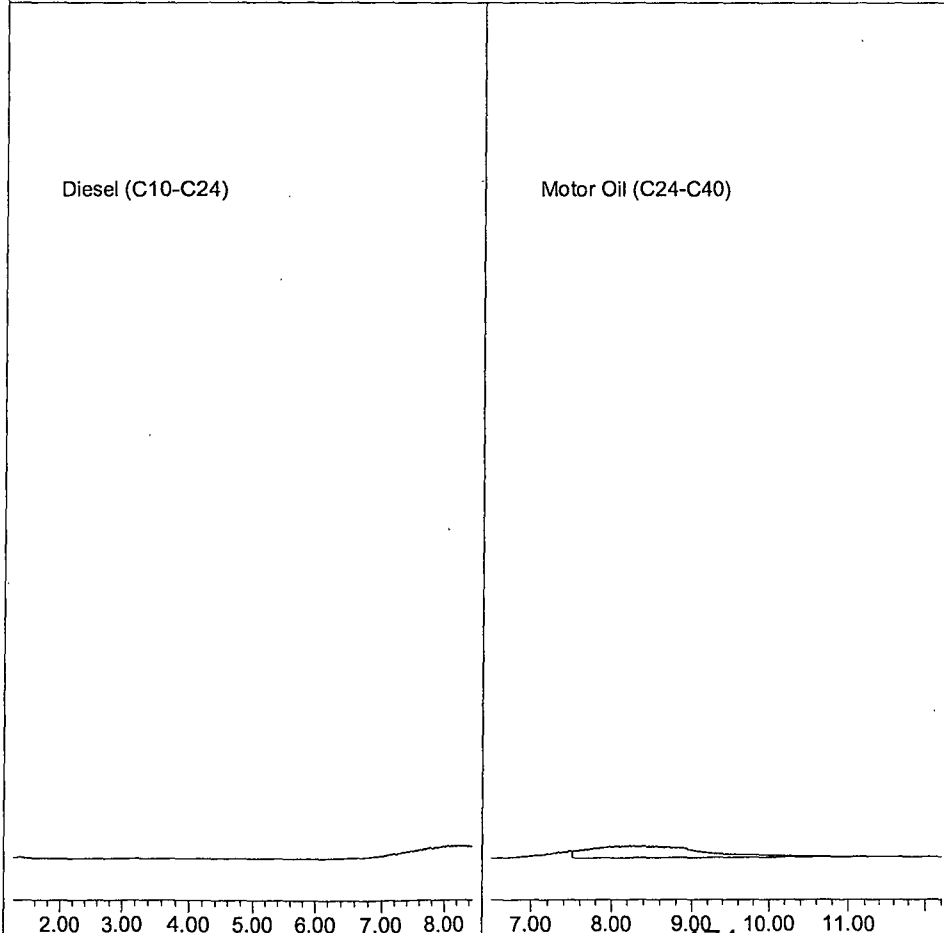
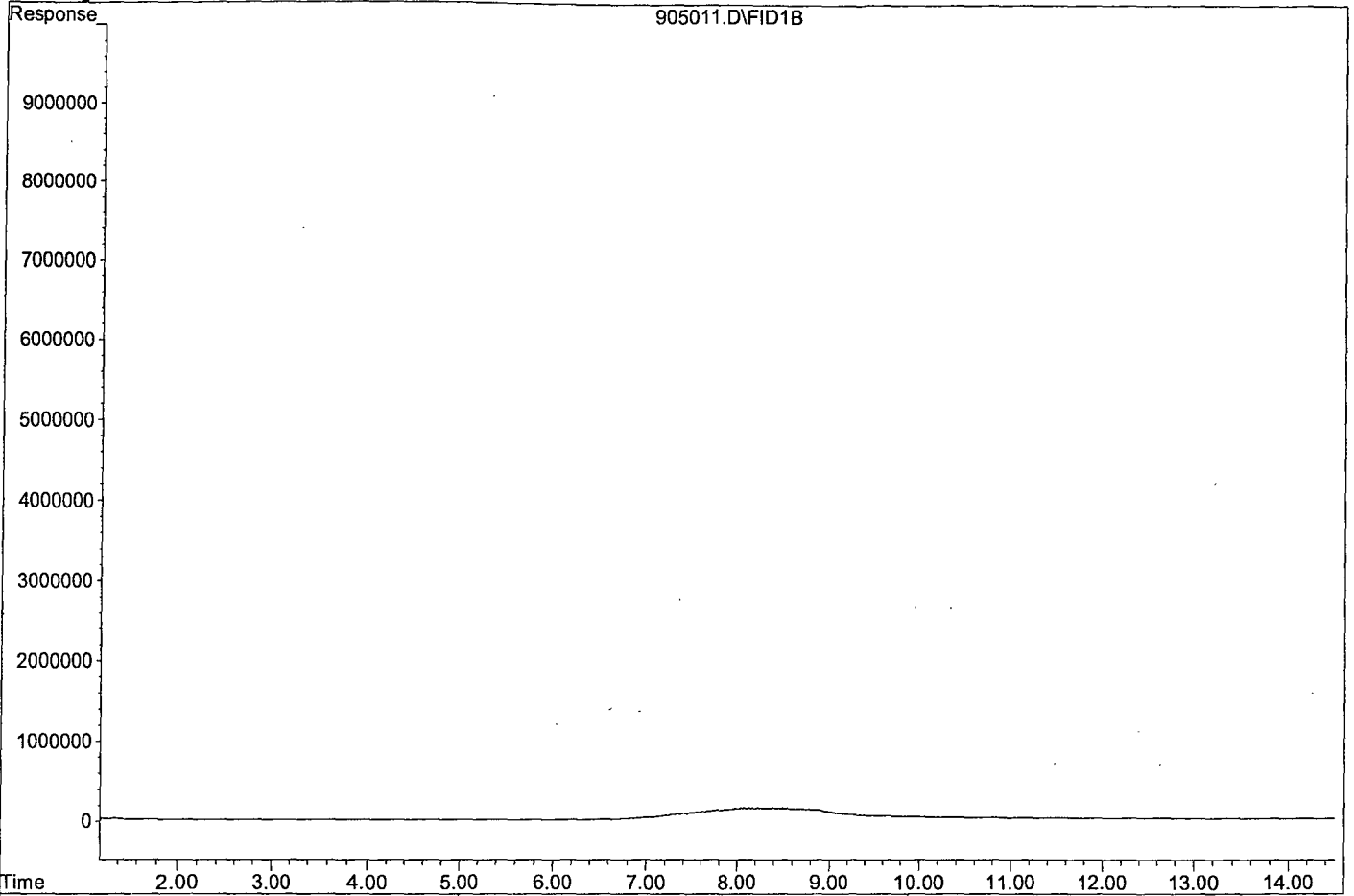
Target Compounds

2) HBTM Motor Oil (C24-C40) 9.36 144232897 51.961 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905011.D

Sample : Motor Oil - 2 9/5/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905012.D Vial: 12  
 Acq On : 9-5-18 16:32:11 Operator: DP  
 Sample : Motor Oil - 3 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

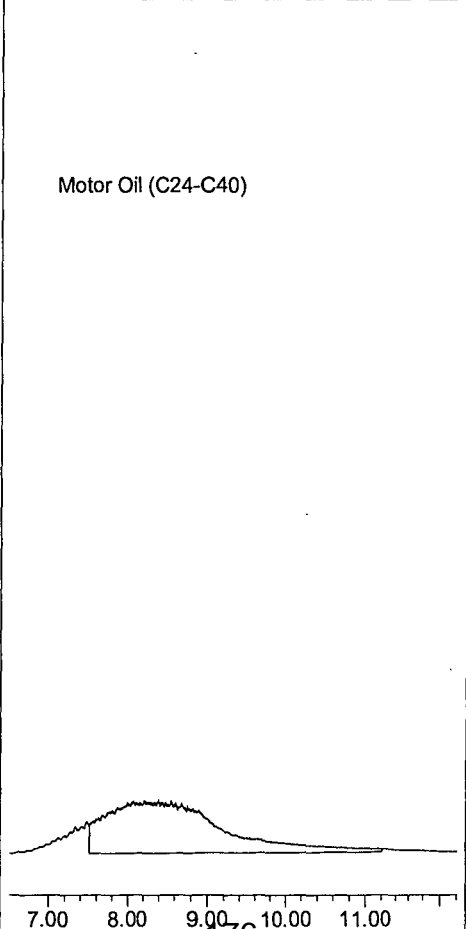
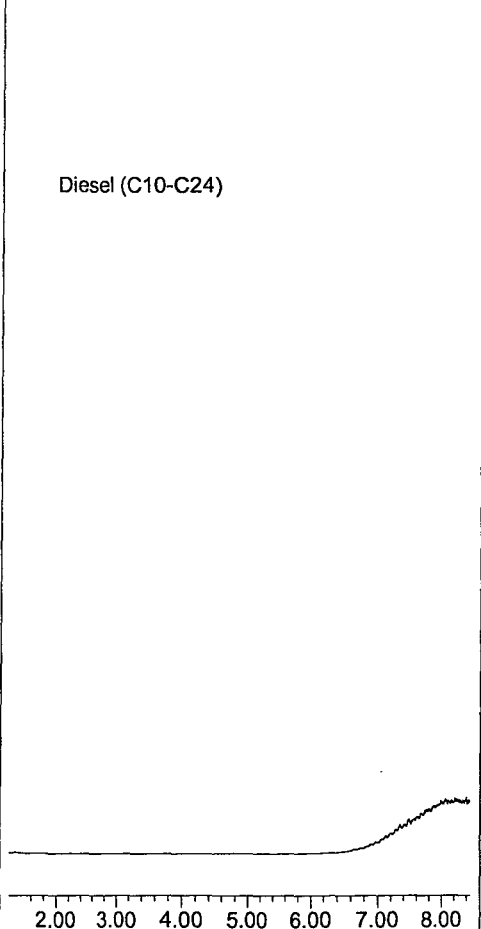
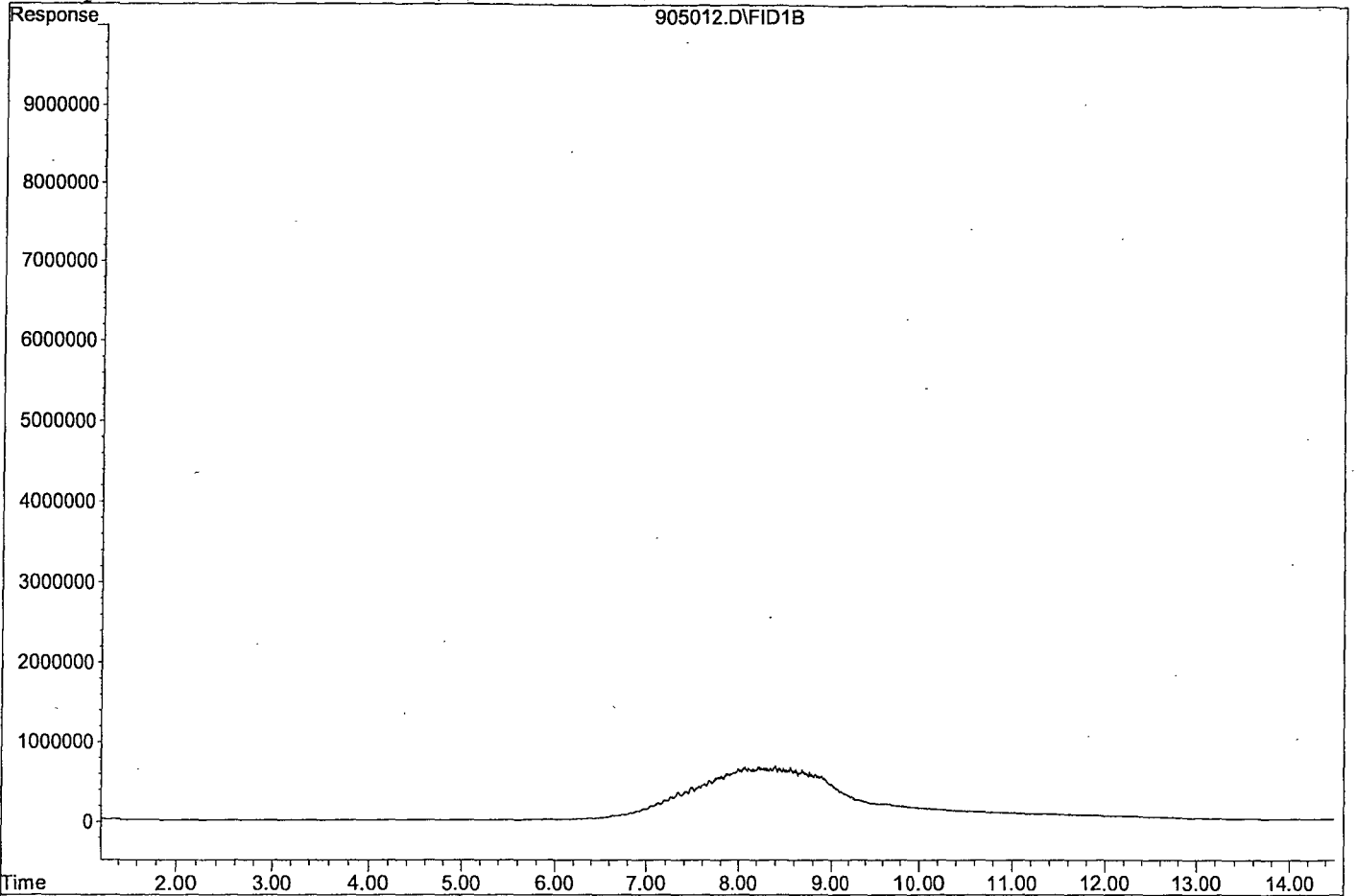
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	640853647	230.874 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905012.D

Sample : Motor Oil - 3 9/5/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905013.D Vial: 13  
Acq On : 9-5-18 16:52:14 Operator: DP  
Sample : Motor Oil - 4 9/5/18 Inst : Apollo  
Misc : Mix(B) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
Title : 8015 B&C  
Last Update : Tue Sep 25 13:45:30 2018  
Response via : Multiple Level Calibration

Volume Inj. : 2UL  
Signal Phase : DB-5  
Signal Info : FID02A

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Compound R.T. Response Conc Units  
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System Monitoring Compounds

Target Compounds

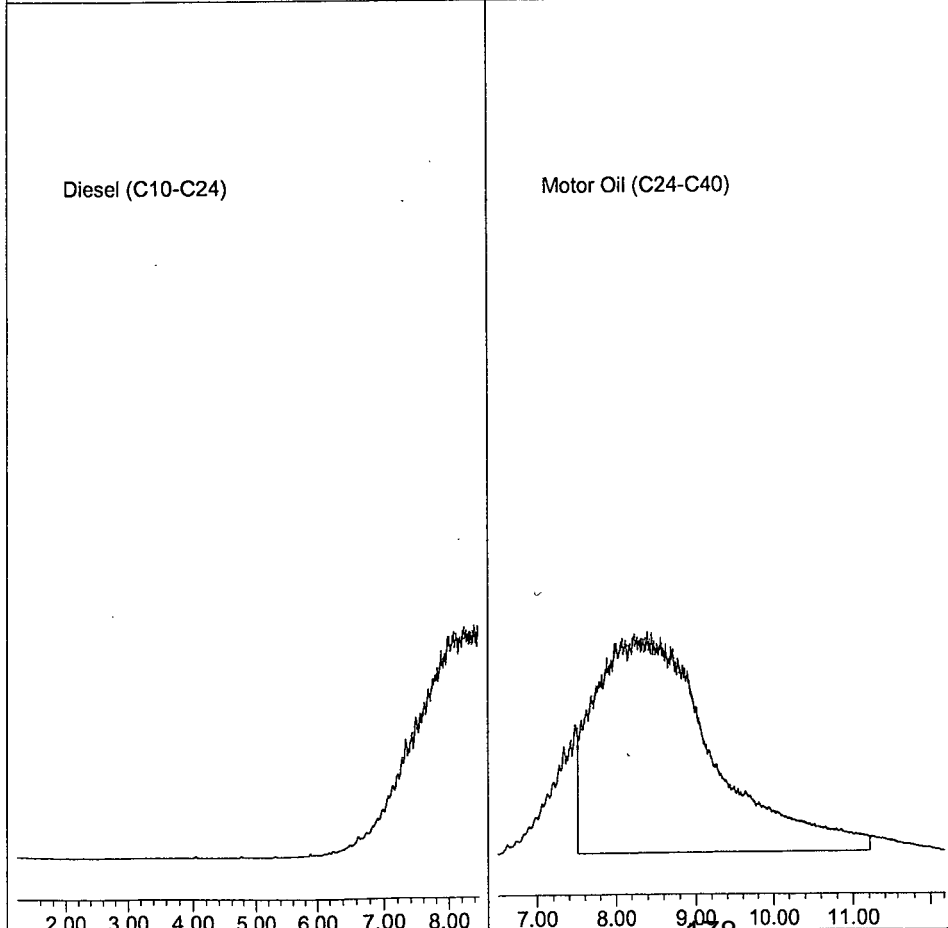
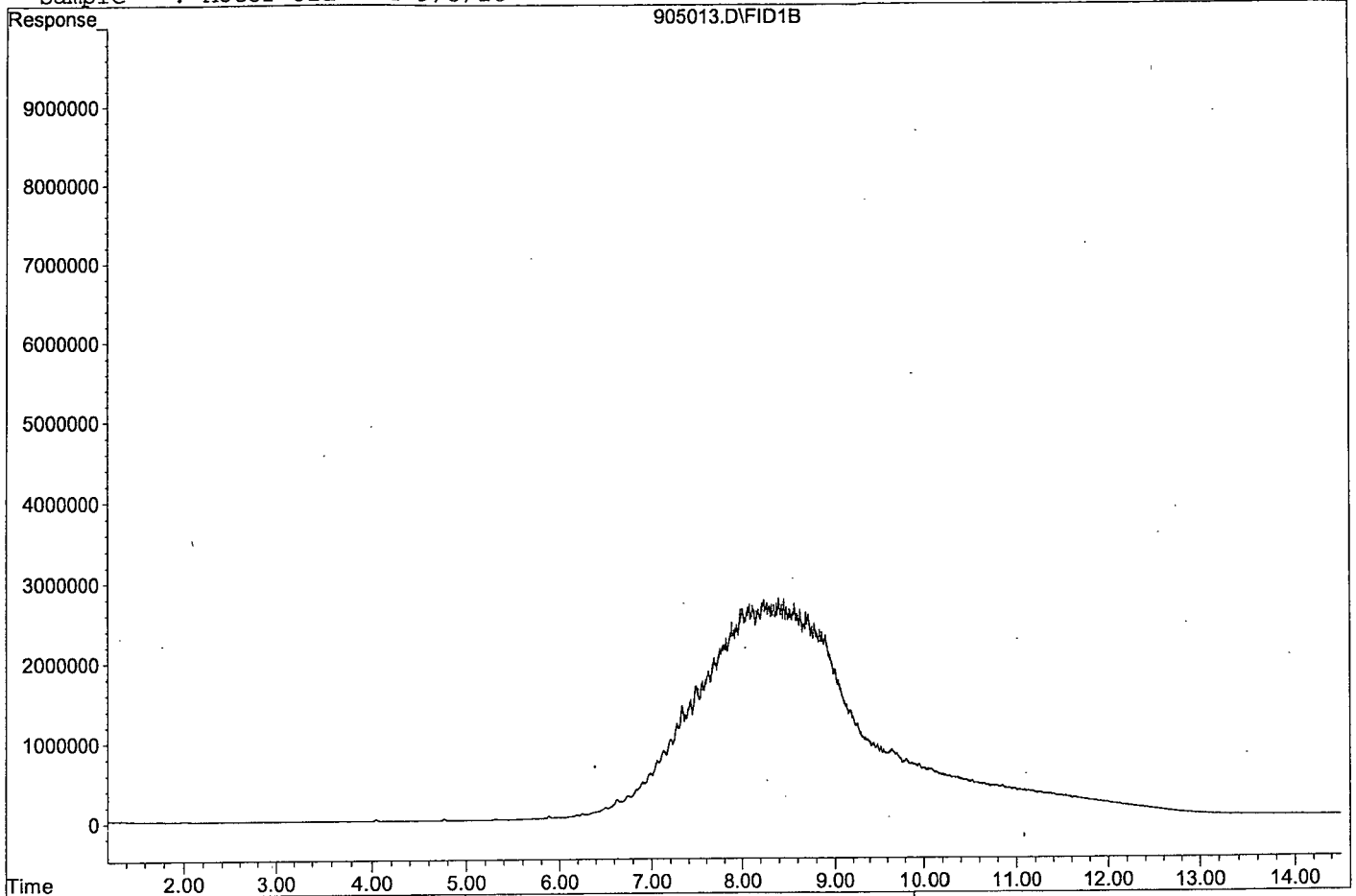
2) HBTM Motor Oil (C24-C40) 9.36 2671114888 962.297 ppb



Quantitation Report

Data File: G:\APOLLO\DATA\180905\905013.D

Sample : Motor Oil - 4 9/5/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905014.D Vial: 14  
Acq On : 9-5-18 17:12:14 Operator: DP  
Sample : Motor Oil - 5 9/5/18 Inst : Apollo  
Misc : Mix(B) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
Title : 8015 B&C  
Last Update : Tue Sep 25 13:45:30 2018  
Response via : Multiple Level Calibration

Volume Inj. : 2UL  
Signal Phase : DB-5  
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

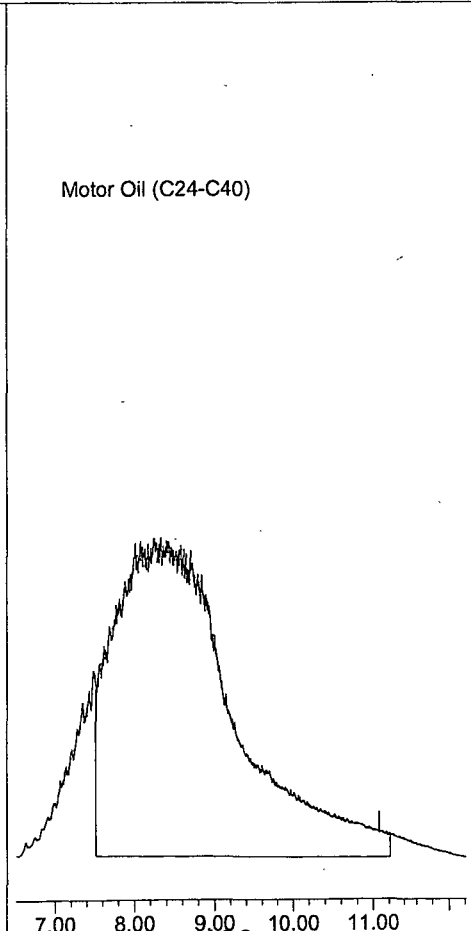
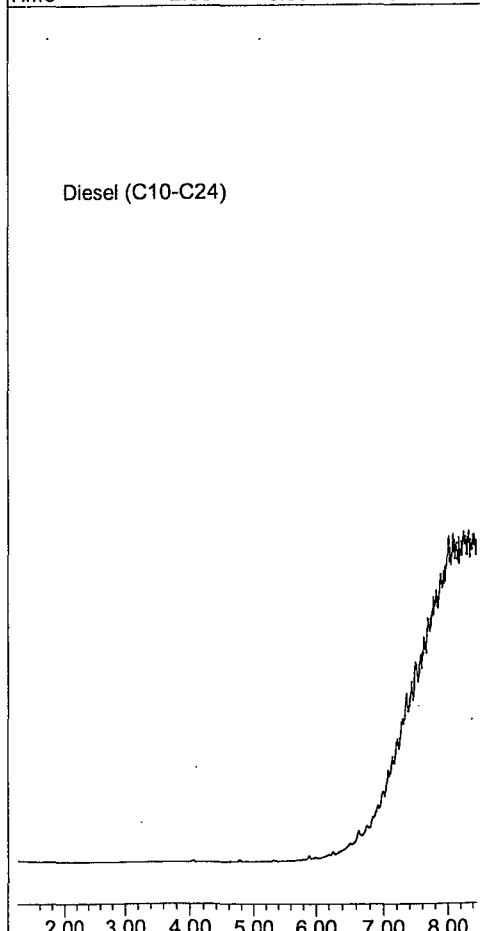
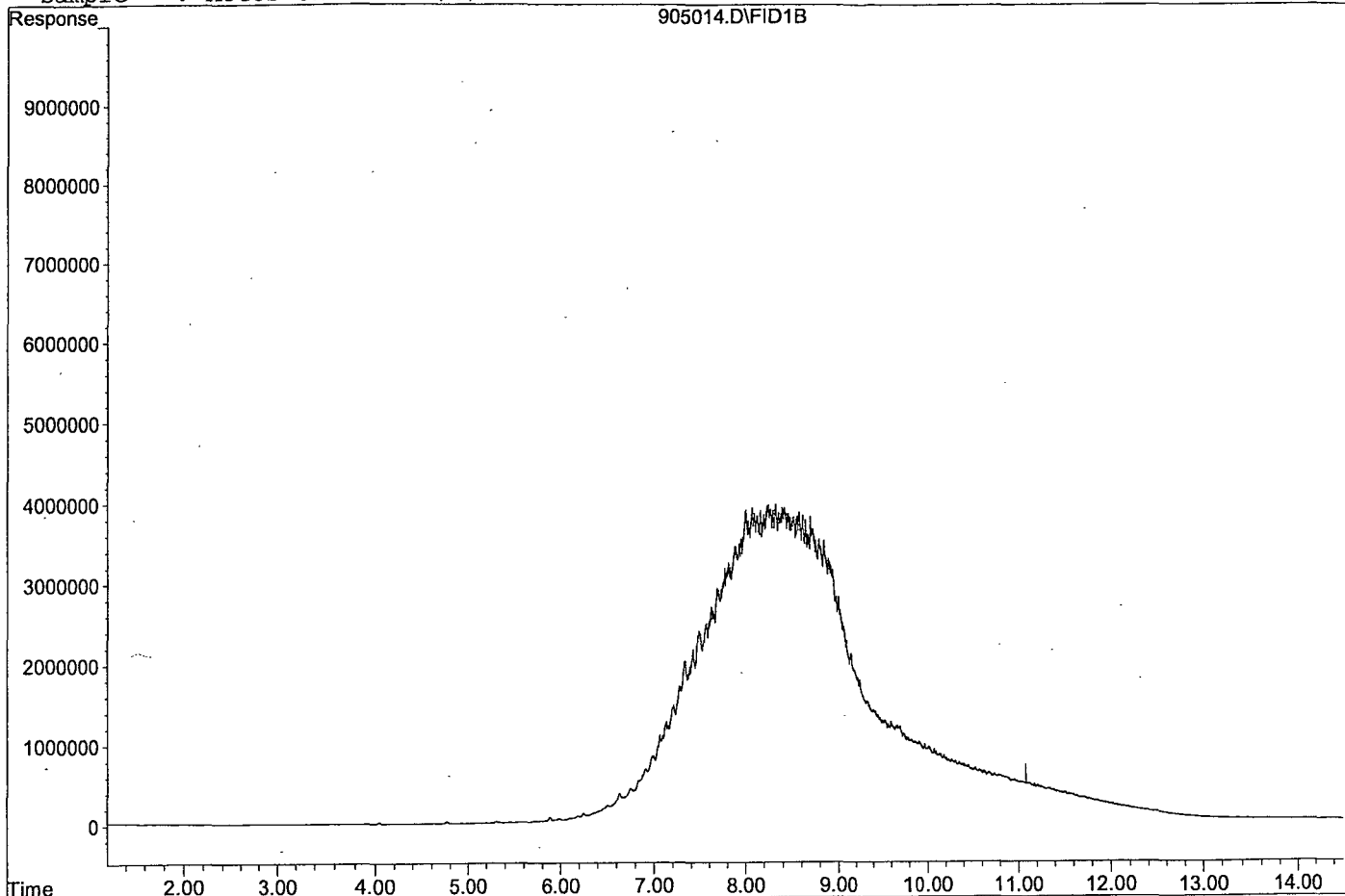
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	3915465455	1410.588 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905014.D

Sample : Motor Oil - 5 9/5/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905015.D Vial: 15  
 Acq On : 9-5-18 17:31:25 Operator: DP  
 Sample : Motor Oil - 6 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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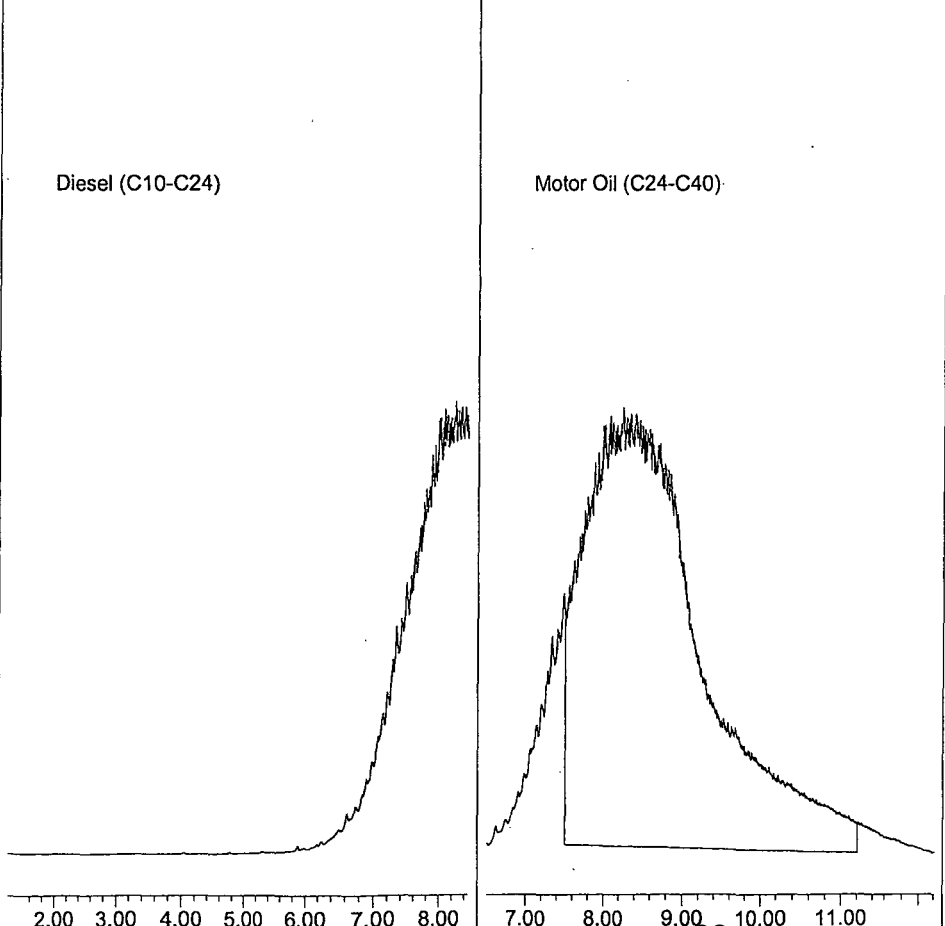
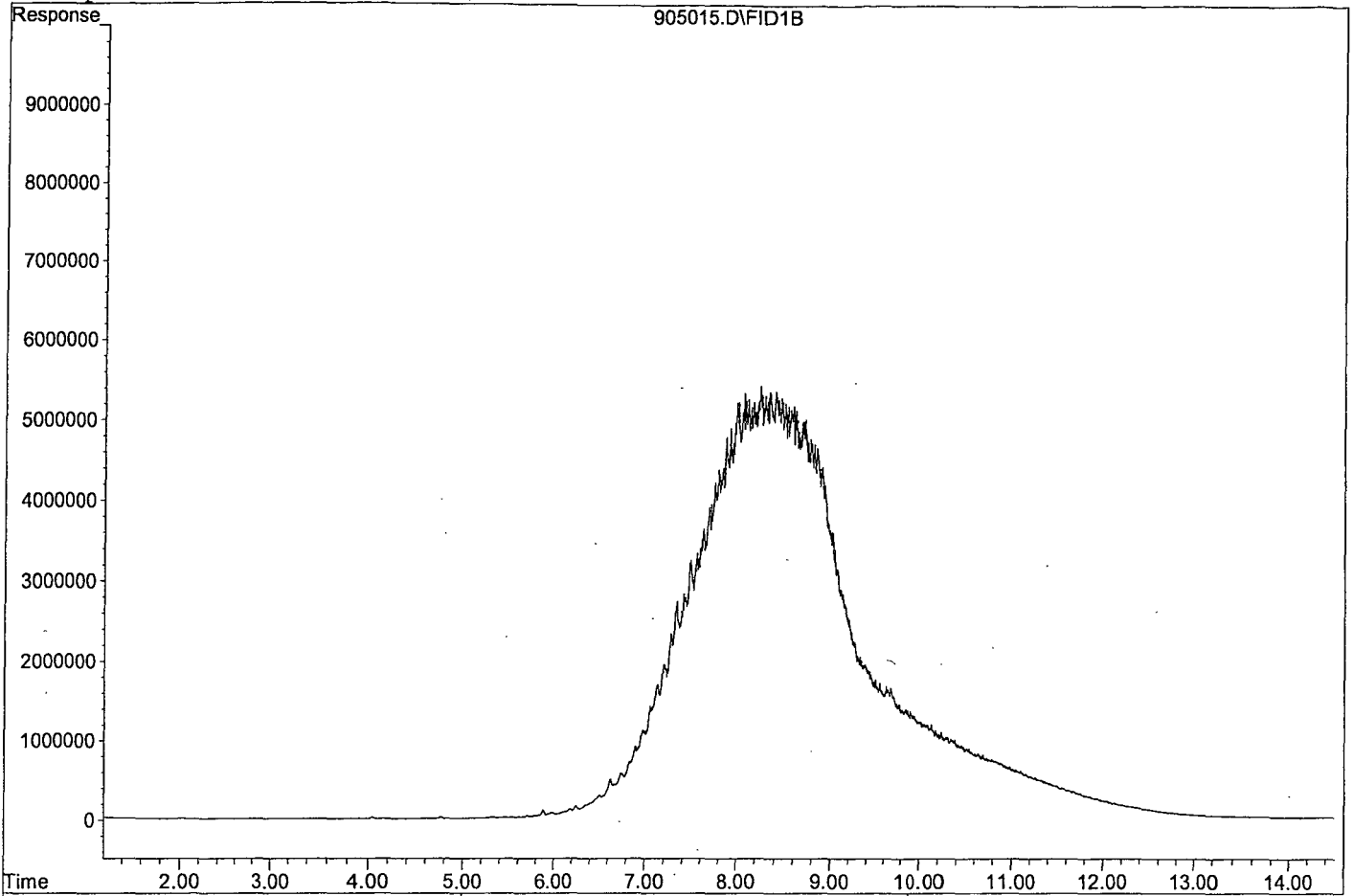
System Monitoring Compounds

Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	5319513396	1916.411 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905015.D  
Sample : Motor Oil - 6 9/5/18



TPH Extractables  
DOC0905

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 09/05/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 905009.D 905016.D  
Diesel Motor Oil

		Compound	MEAN	CCRF	%D	%Drift
1	HATM	Diesel (C10-C24)	1638600	1644000	0.33	HATM
2	HBTM	Motor Oil (C24-C40)	1387880	1237490	11	HBTM
3						
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38						
39						
40						

Average

5.7

Data File : G:\APOLLO\DATA\180905\905009.D Vial: 9  
 Acq On : 9-5-18 15:32:03 Operator: DP  
 Sample : Diesel - SS 8/2/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

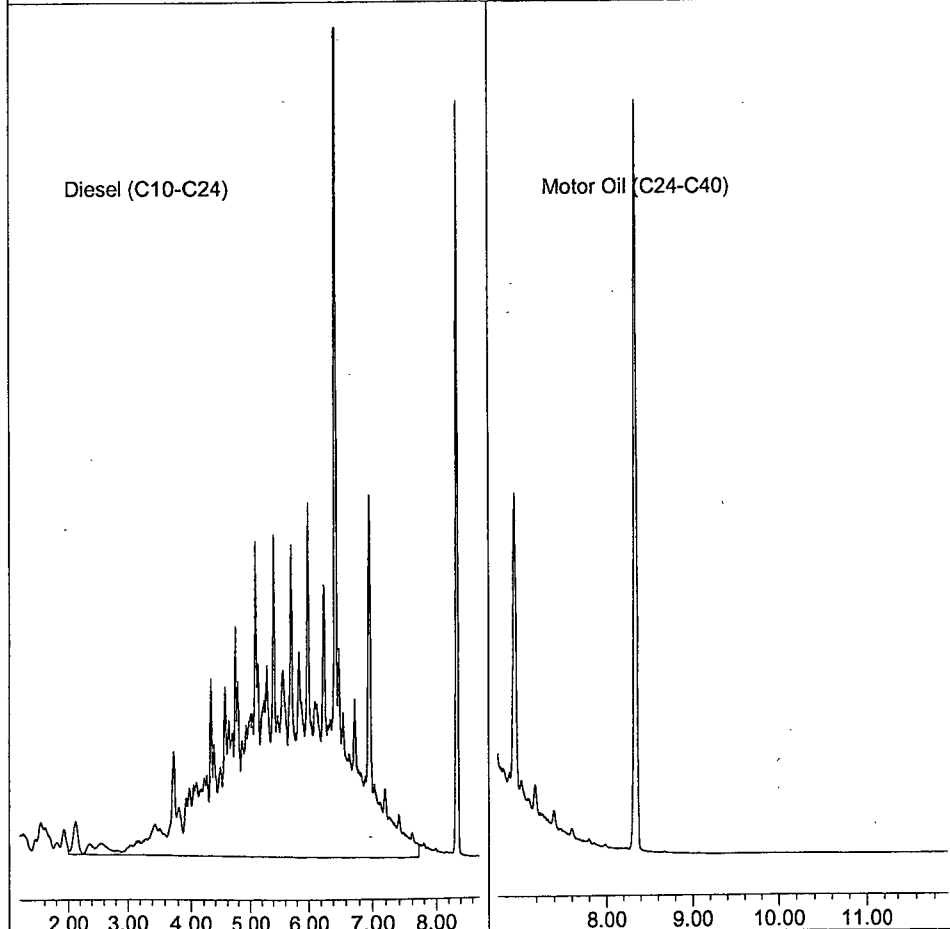
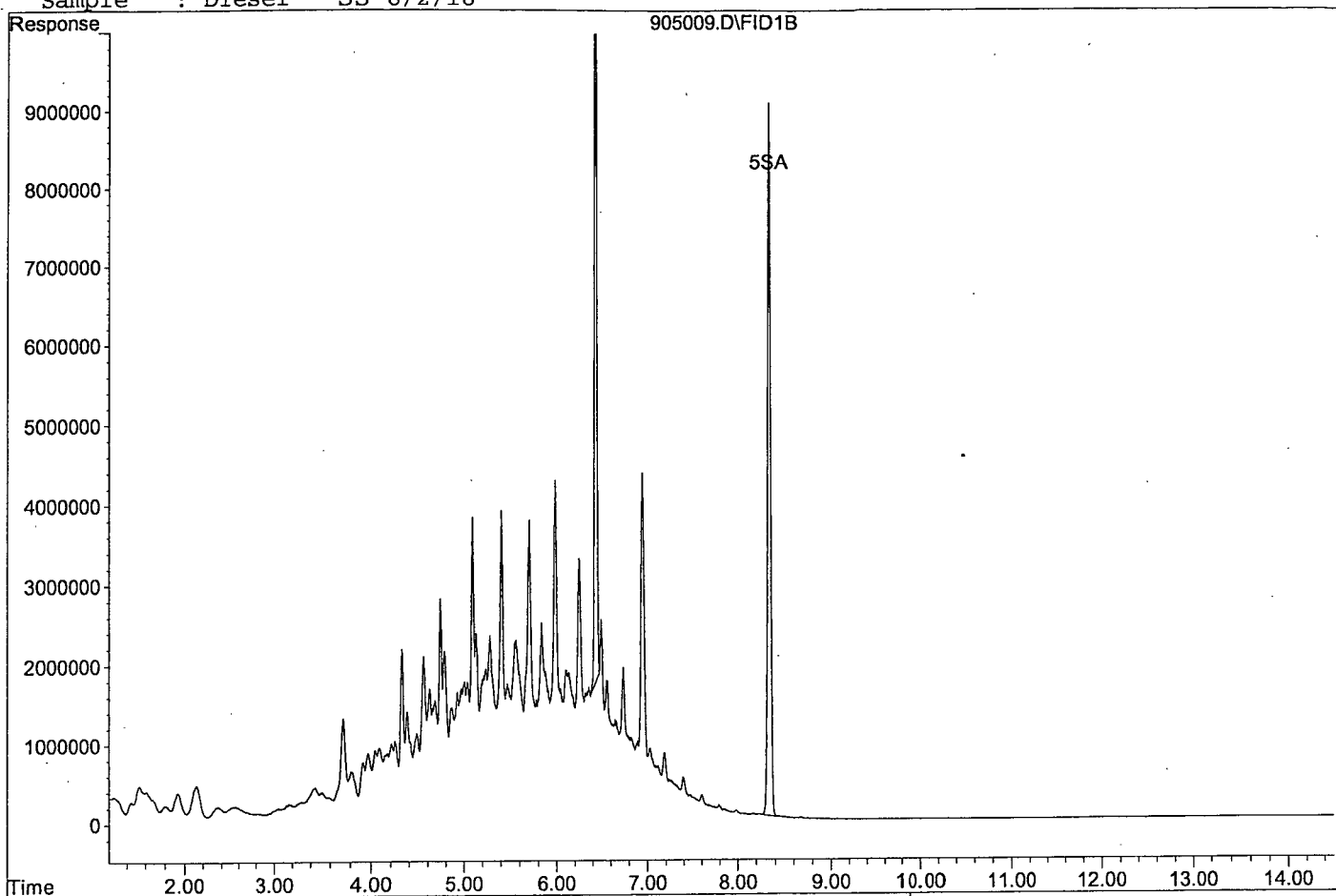
Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	189576923	48.953 ppb
Surrogate Spike 30.000		Recovery =	163.18%
5) SA Octacosane(S)	8.35	191937049	59.426 ppb
Surrogate Spike 30.000		Recovery =	198.09%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	3287993103	1003.295 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905009.D  
Sample : Diesel - SS 8/2/18





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905016.D Vial: 16  
 Acq On : 9-5-18 17:51:24 Operator: DP  
 Sample : Motor Oil - SS 7/13/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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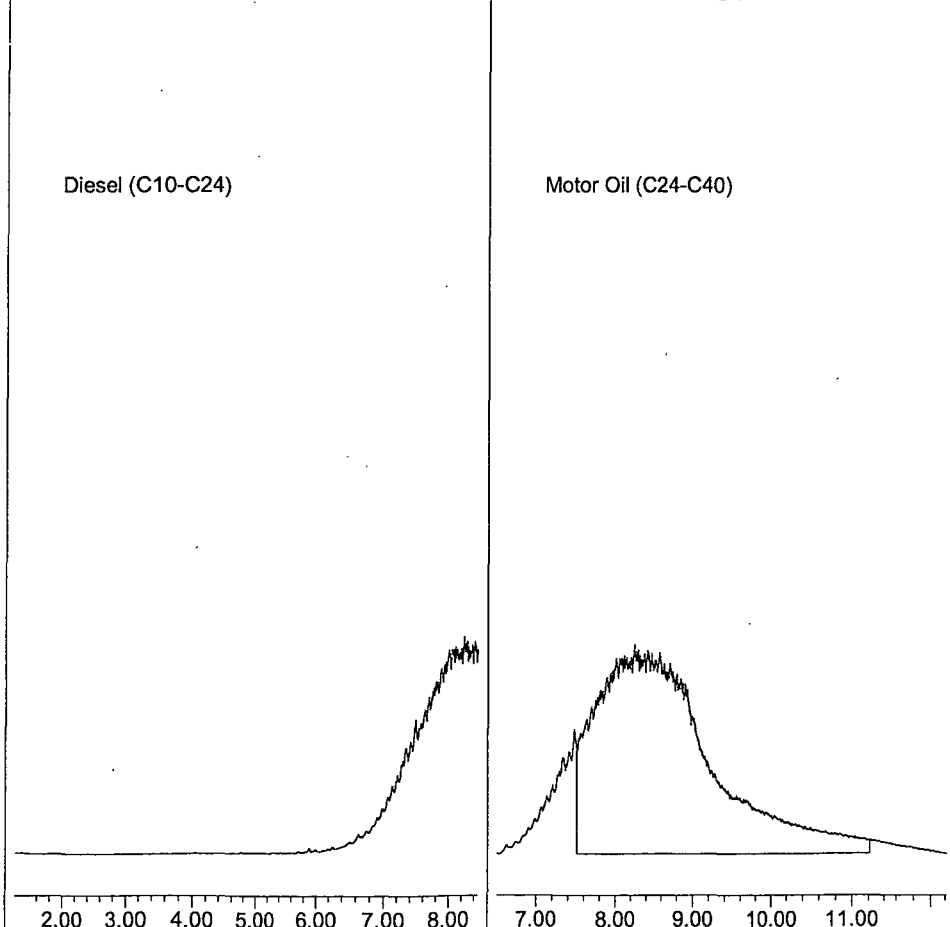
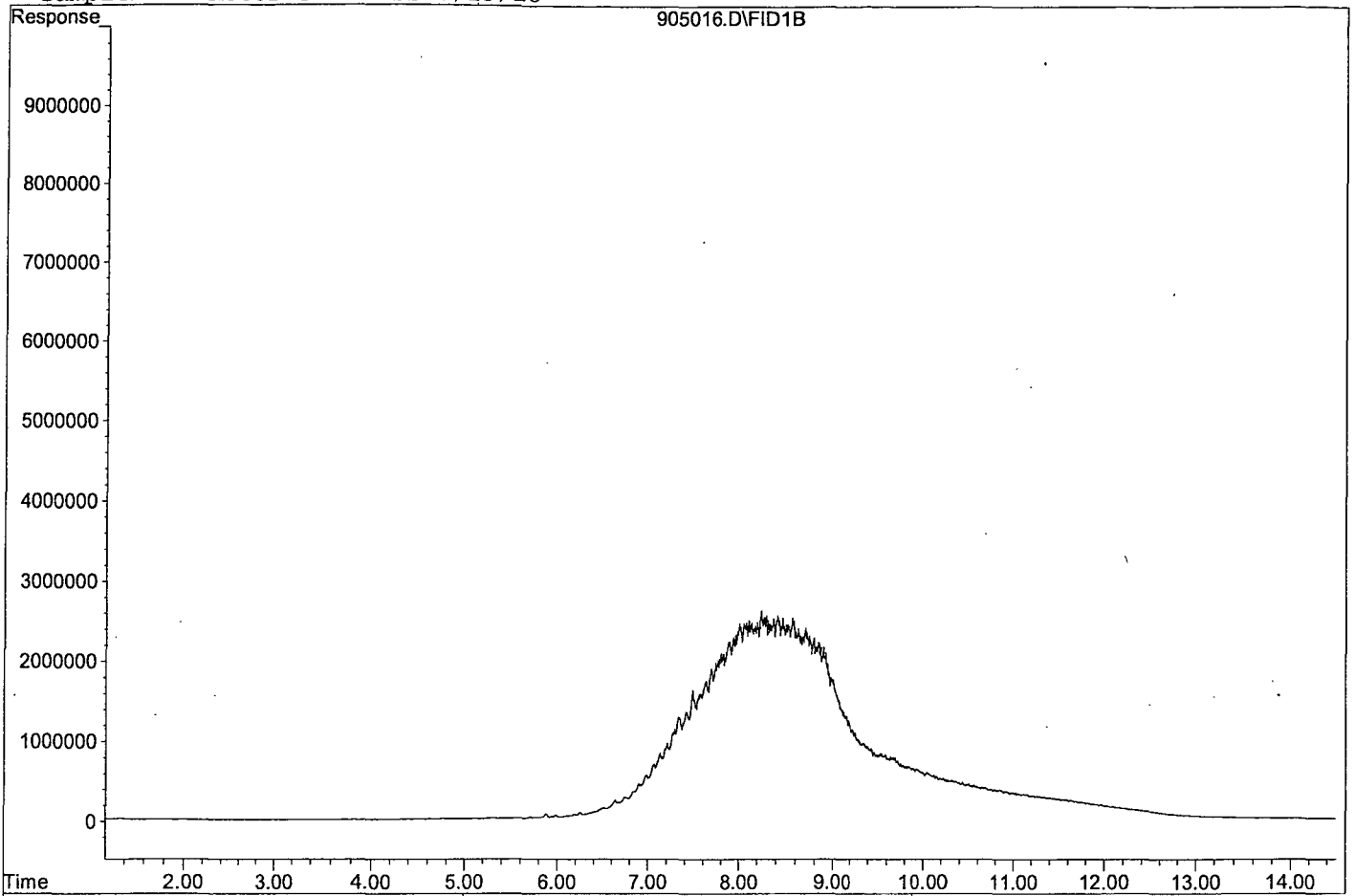
System Monitoring Compounds

Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	2474981428	891.638 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905016.D  
Sample : Motor Oil - SS 7/13/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/31/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1031002-3.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1696100	3.5	HATM
2	SA Ortho-Terphenyl(S)	1936320	2050630	5.9	SA
3	SA Octacosane(S)	1614940	1660800	2.8	SA
4	HBTM Motor Oil (C24-C40)	1387880	1269490	8.5	HBTM
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6					
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39					
40	Average			5.2	

Data File : G:\APOLLO\DATA\181031\1031002.D Vial: 2  
 Acq On : 10-31-18 12:27:03 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Oct 31 11:43 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

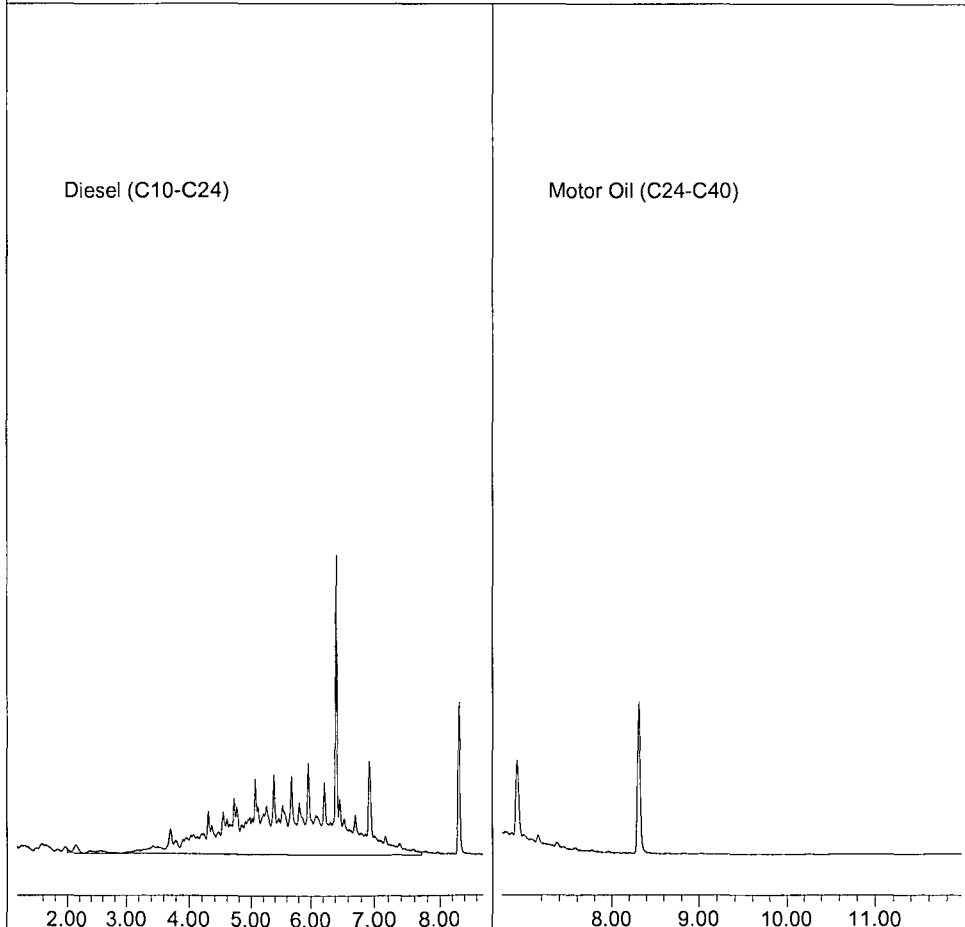
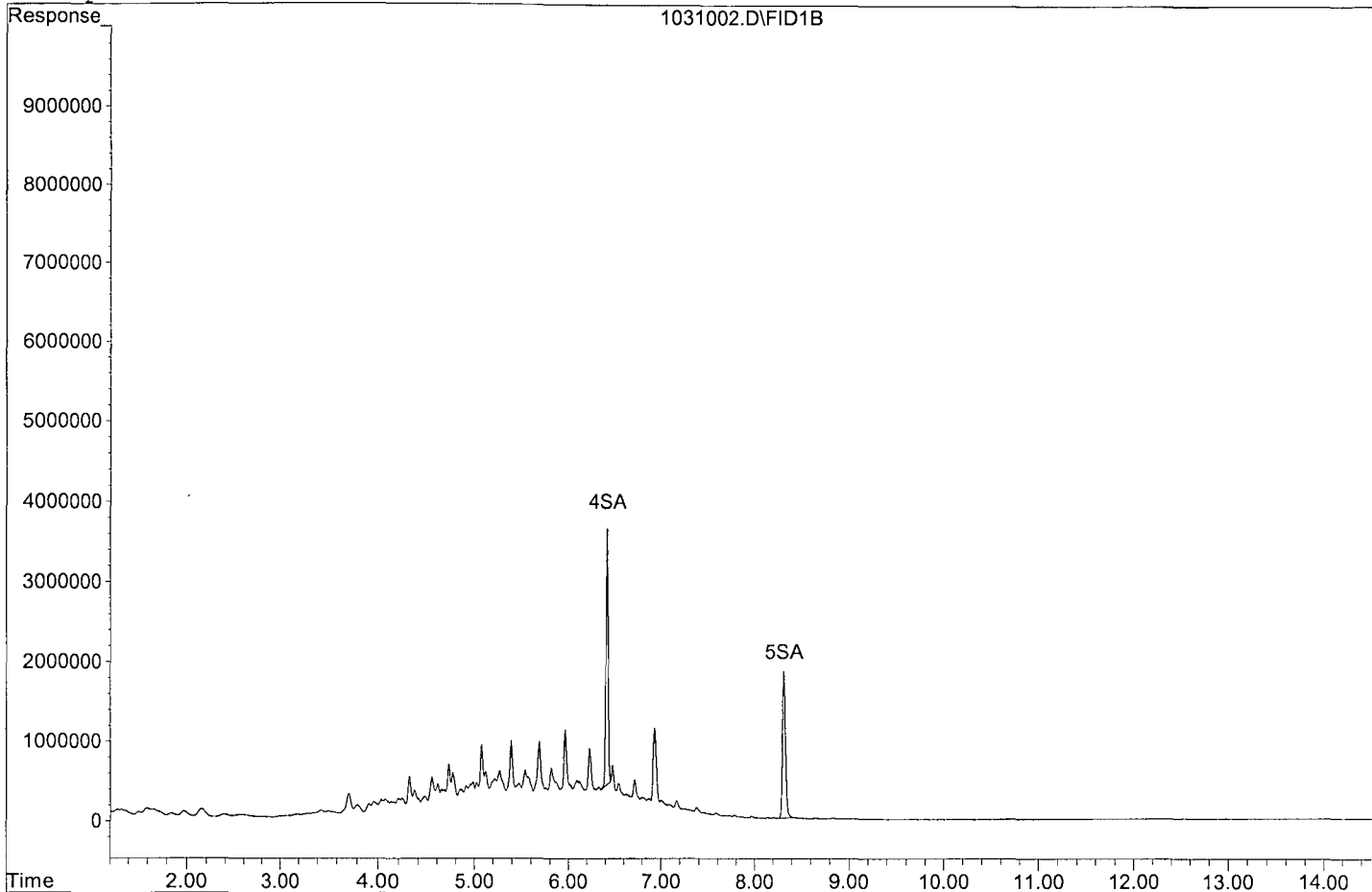
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	51265698	13.238 ppb
Surrogate Spike 30.000		Recovery =	44.13%
5) SA Octacosane(S)	8.32	41519886	12.855 ppb
Surrogate Spike 30.000		Recovery =	42.85%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	848049990	258.773 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031002.D

Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181031\1031003.D Vial: 3  
 Acq On : 10-31-18 12:47:21 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Oct 31 12:02 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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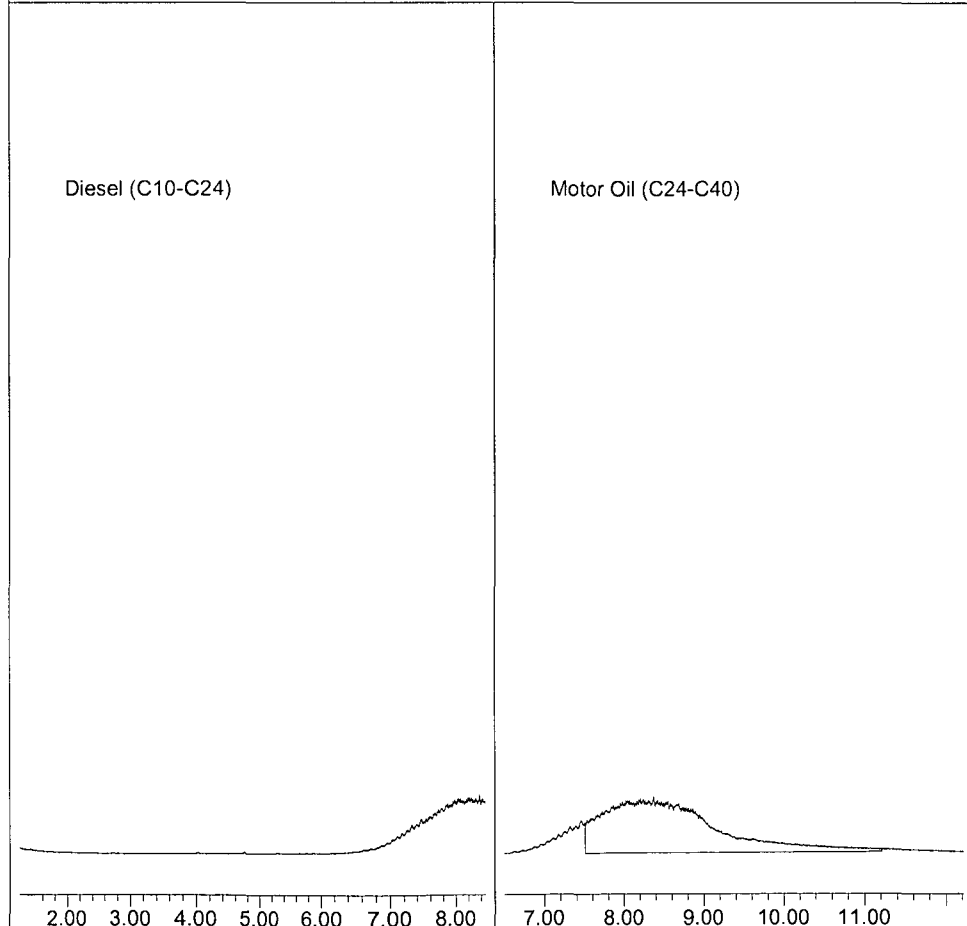
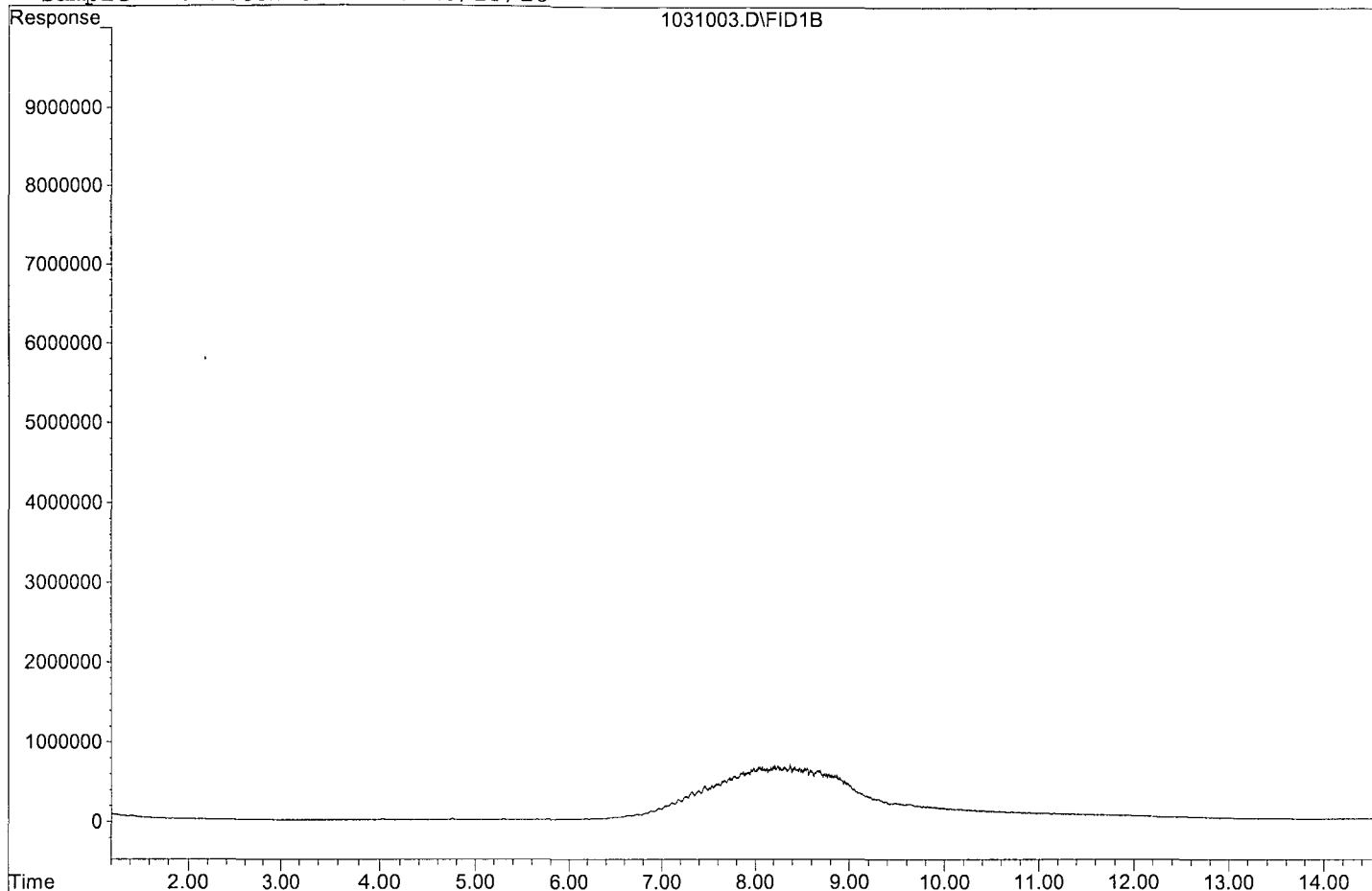
System Monitoring Compounds

Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	634742927	228.673 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031003.D  
Sample : Motor Oil - 3 10/15/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/31/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1031014-15.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1723880	5.2	HATM
2	SA Ortho-Terphenyl(S)	1936320	2055650	6.2	SA
3	SA Octacosane(S)	1614940	1694270	4.9	SA
4	HBTM Motor Oil (C24-C40)	1387880	1342280	3.3	HBTM
5					
6					
7					
8					
9					
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39					
40	Average			4.9	



Data File : G:\APOLLO\DATA\181031\1031014.D Vial: 14  
 Acq On : 10-31-18 16:24:34 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Oct 31 15:42 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

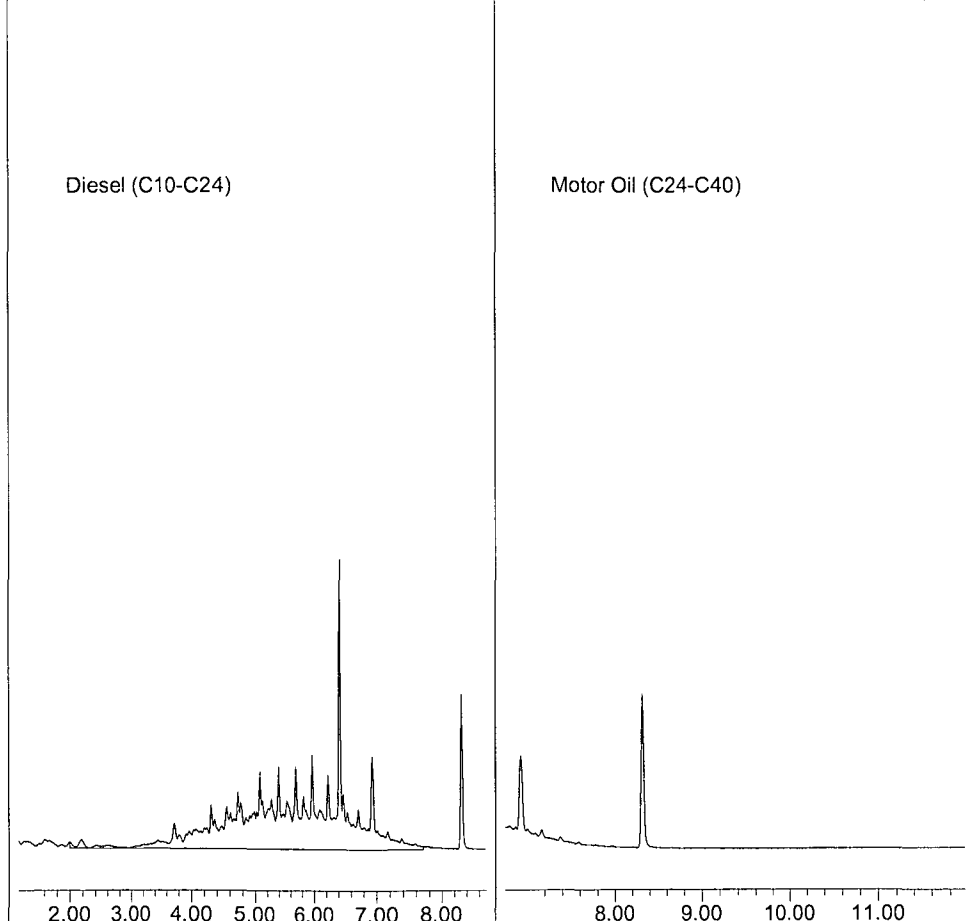
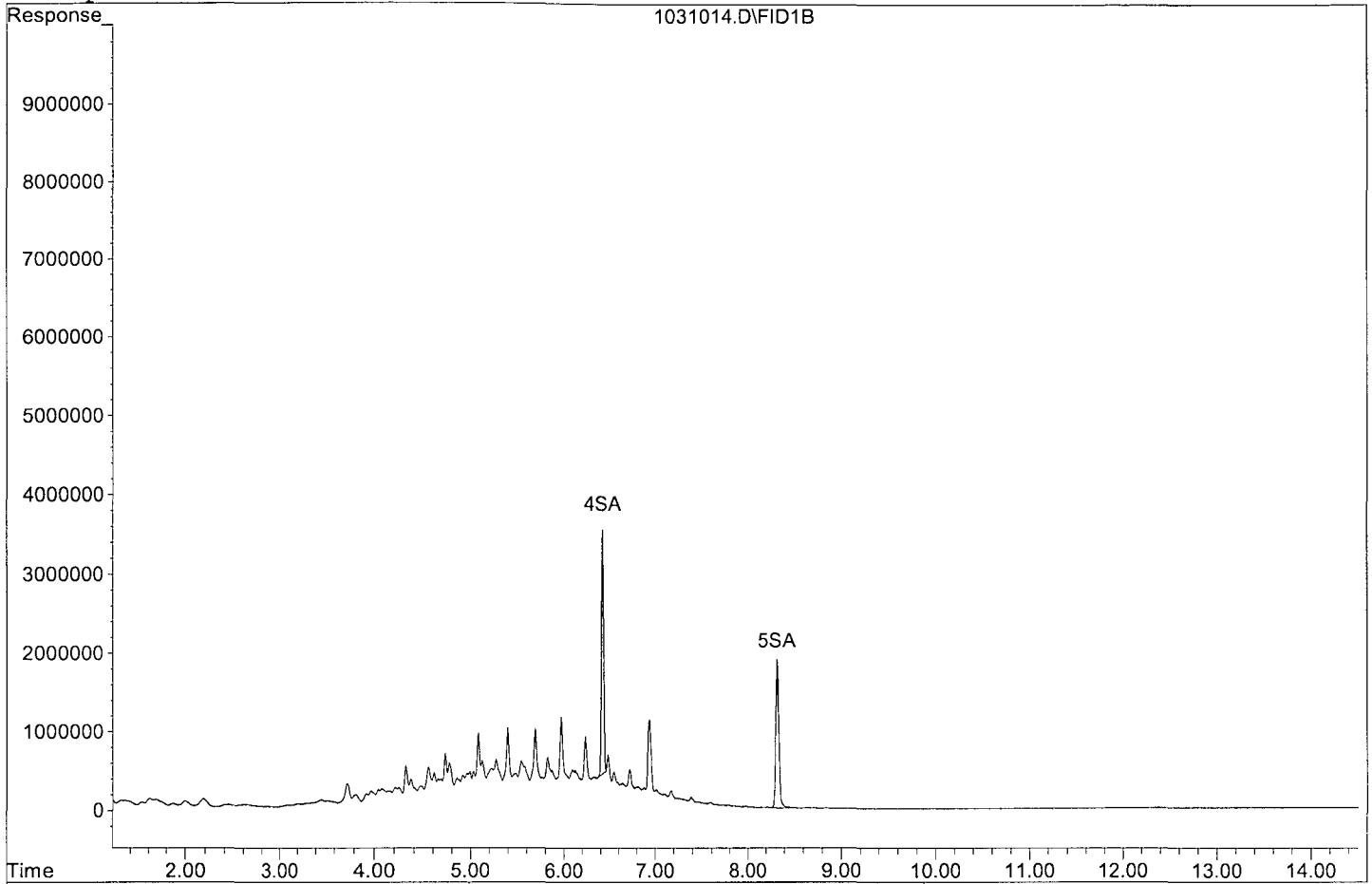
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	51391263	13.270 ppb
Surrogate Spike 30.000		Recovery =	44.23%
5) SA Octacosane(S)	8.32	42356741	13.114 ppb
Surrogate Spike 30.000		Recovery =	43.71%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	861939931	263.011 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031014.D

Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181031\1031015.D Vial: 15  
 Acq On : 10-31-18 16:44:47 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Oct 31 16:09 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

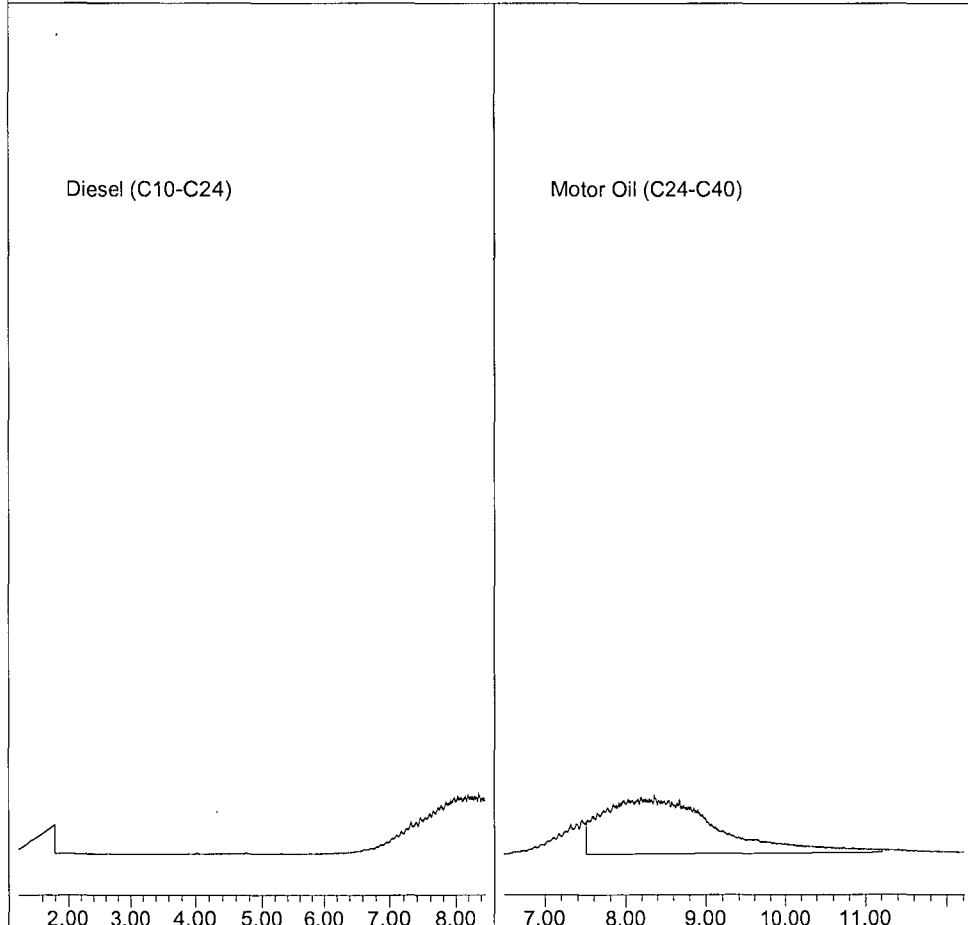
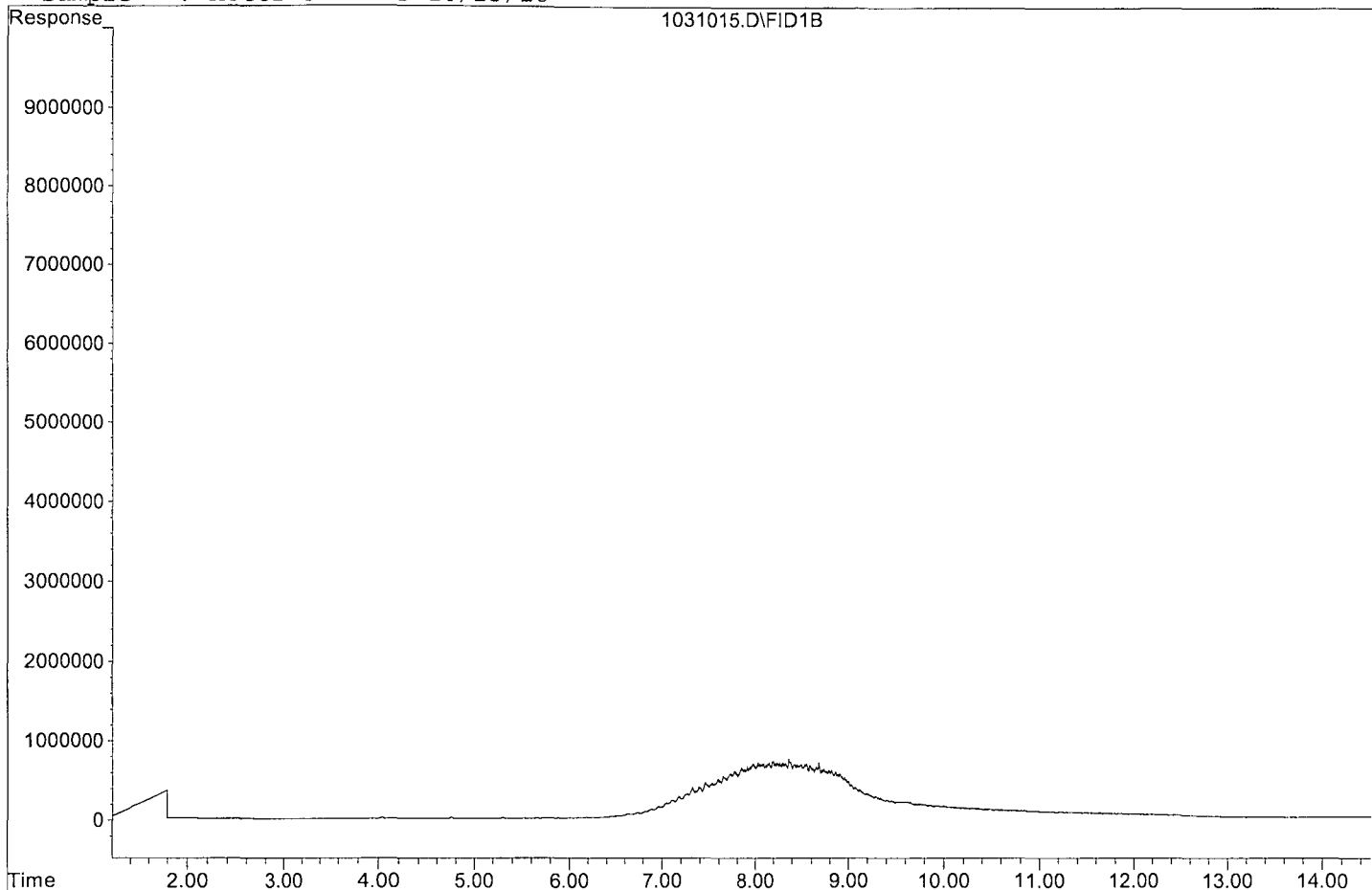
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	671139762	241.785 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031015.D

Sample : Motor Oil - 3 10/15/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/31/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1031032-33.D

		Compound	MEAN	CCRF	%D	%Drift
1	HATM	Diesel (C10-C24)	1638600	1654920	1.0	HATM
2	SA	Ortho-Terphenyl(S)	1936320	1995370	3.0	SA
3	SA	Octacosane(S)	1614940	1632970	1.1	SA
4	HBTM	Motor Oil (C24-C40)	1387880	1349090	2.8	HBTM
5						
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34						
35						
36						
37						
38						
39						
40		Average			2.0	

Data File : G:\APOLLO\DATA\181031\1031032.D Vial: 32  
 Acq On : 10-31-18 22:25:23 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 1 8:09 2018 Quant Results File: DOC0905.RES

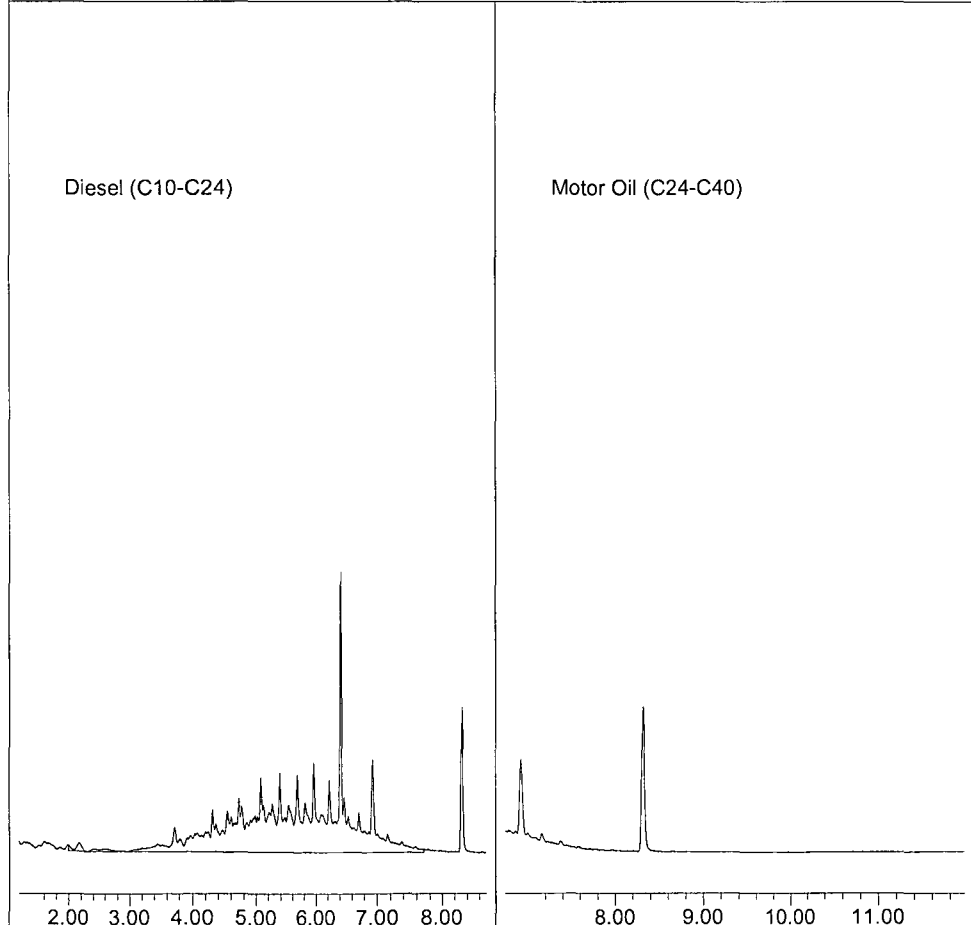
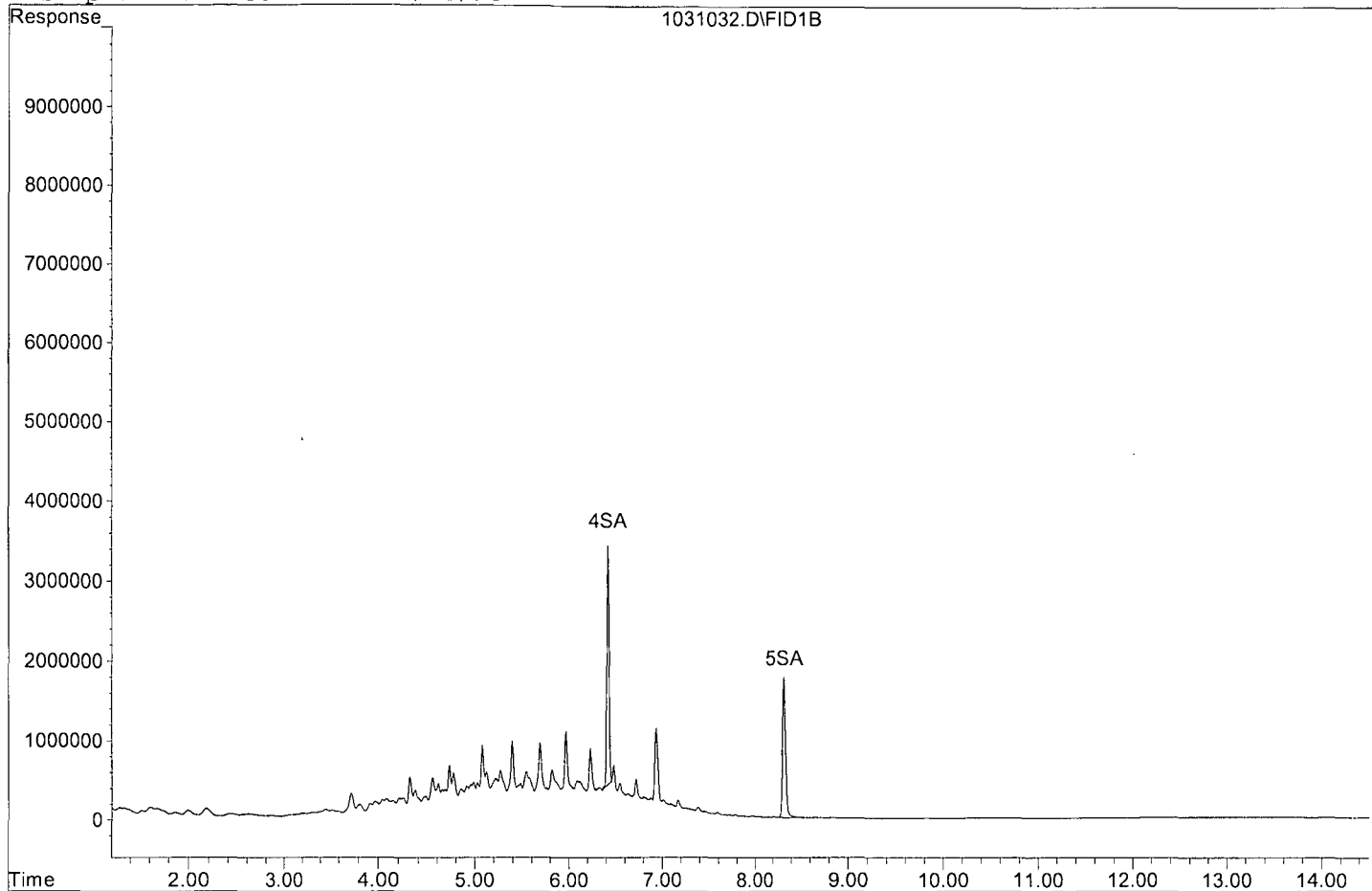
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	49884329	12.881 ppb
Surrogate Spike 30.000		Recovery =	42.94%
5) SA Octacosane(S)	8.32	40824196	12.640 ppb
Surrogate Spike 30.000		Recovery =	42.13%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	827457936	252.490 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031032.D  
Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181031\1031033.D Vial: 33  
 Acq On : 10-31-18 22:45:19 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 1 8:09 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

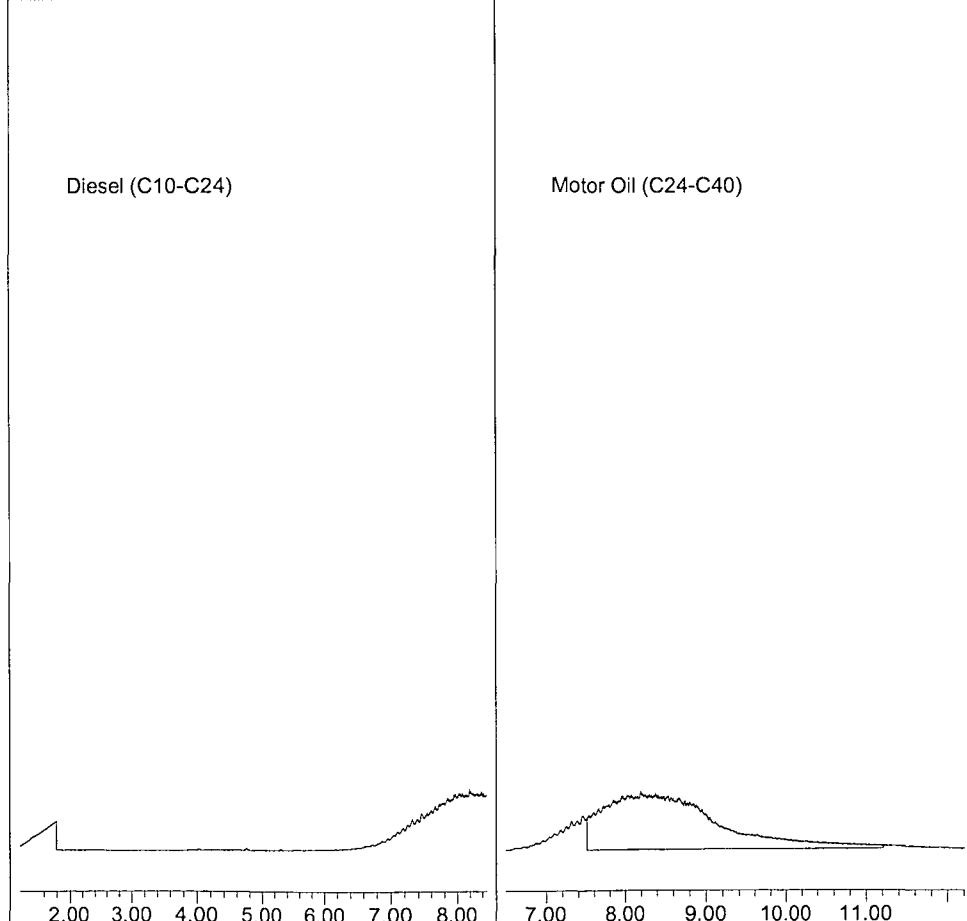
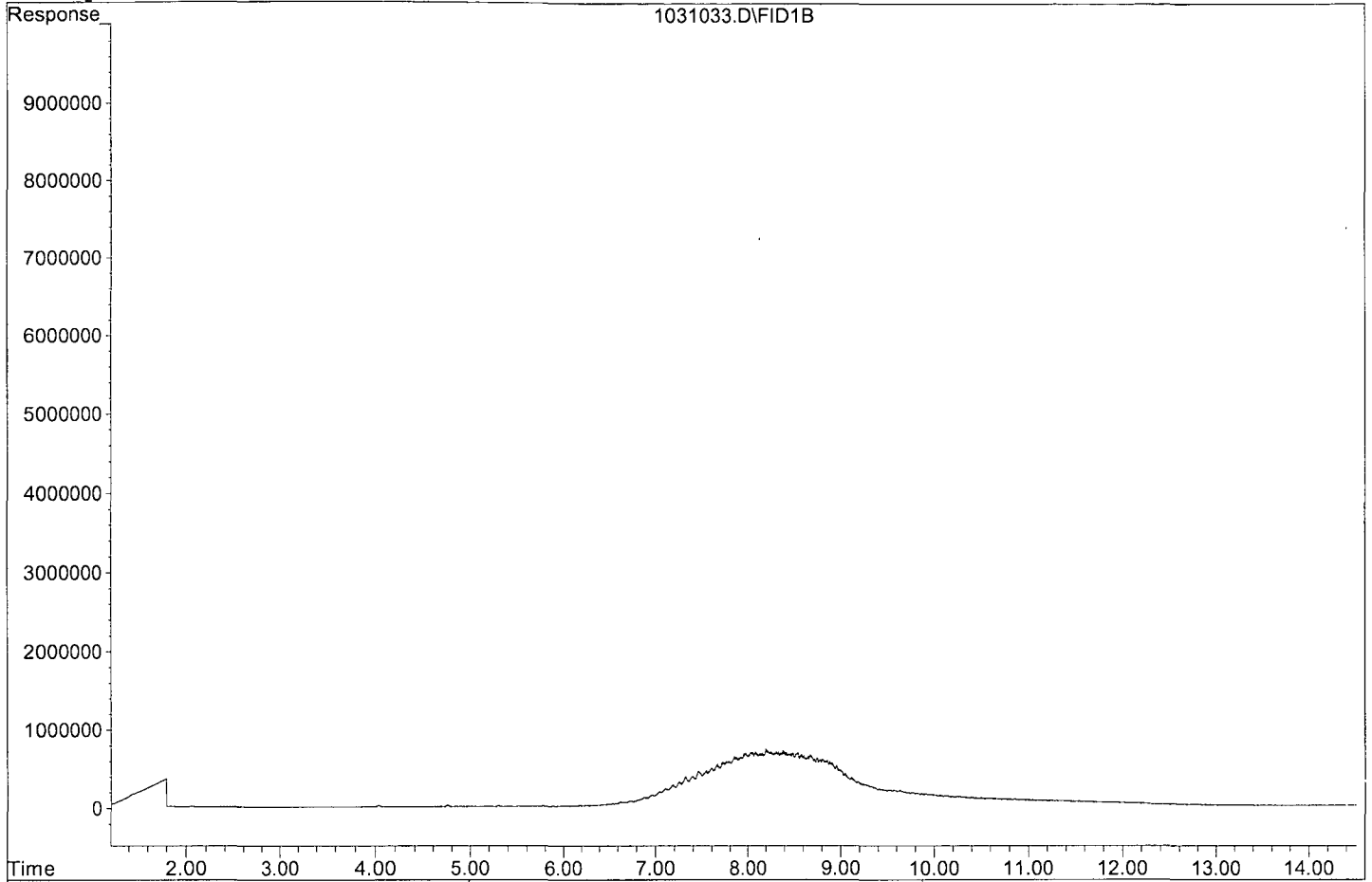
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	674543764	243.012 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031033.D  
Sample : Motor Oil - 3 10/15/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 11/07/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1107002-3.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1637300	0.08	HATM
2	SA Ortho-Terphenyl(S)	1936320	1996750	3.1	SA
3	SA Octacosane(S)	1614940	1603460	0.71	SA
4	HBTM Motor Oil (C24-C40)	1387880	1272680	8.3	HBTM
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37					
38					
39					
40	Average			3.0	

Data File : G:\APOLLO\DATA\181107\1107002.D Vial: 2  
 Acq On : 11-7-18 13:44:44 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 7 14:00 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

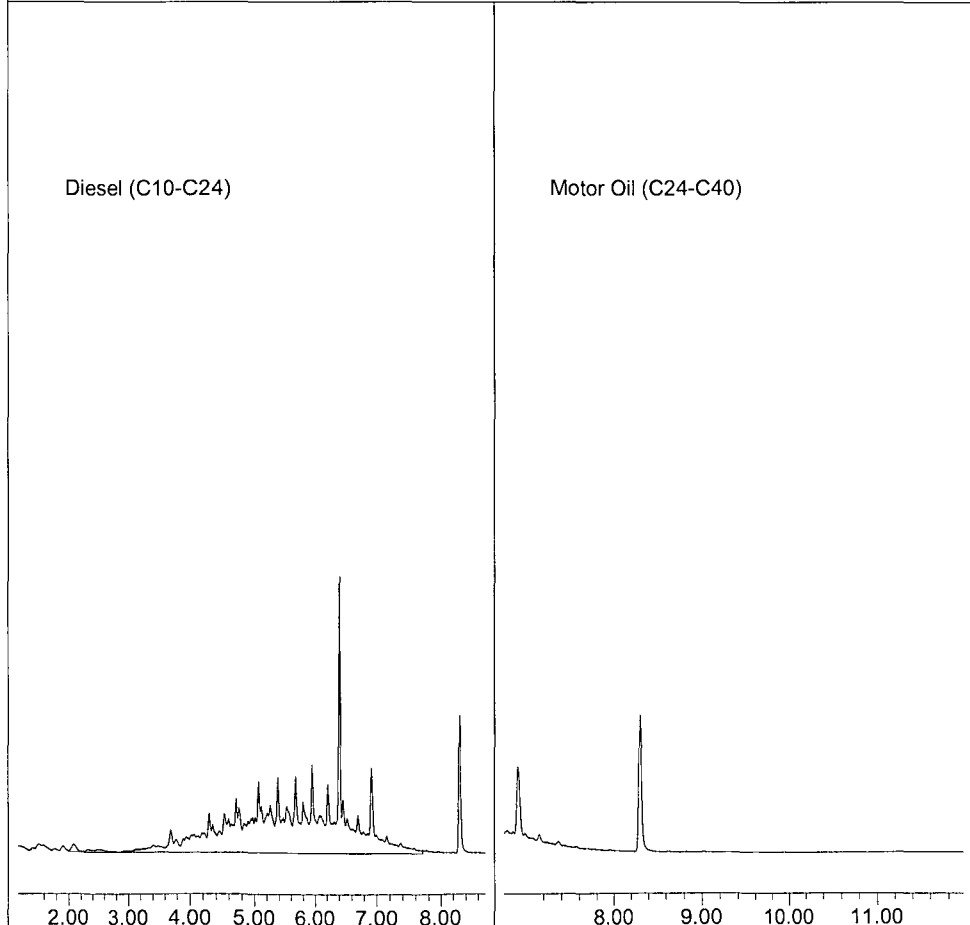
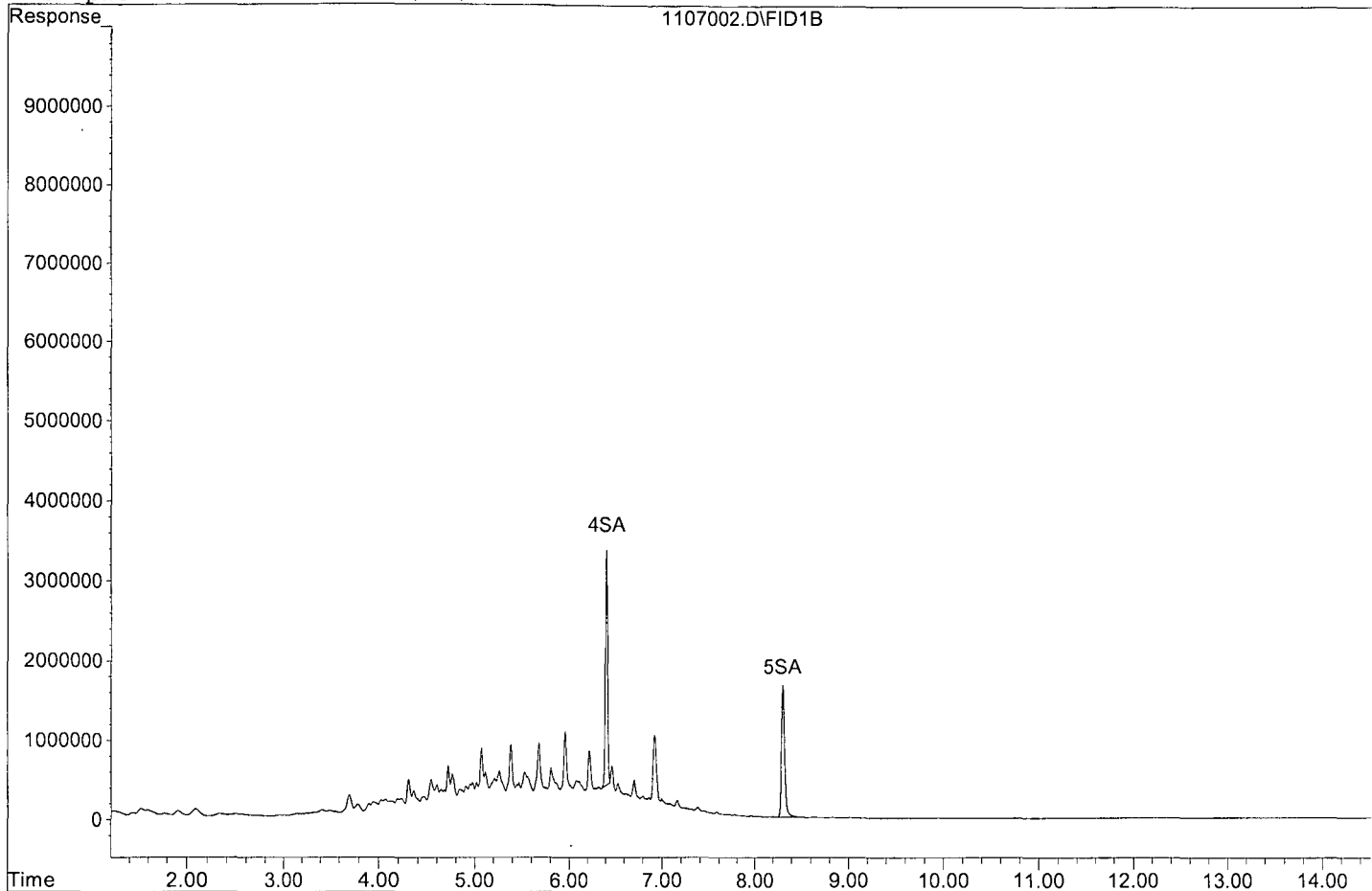
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	49918690	12.890 ppb
Surrogate Spike 30.000		Recovery =	42.97%
5) SA Octacosane(S)	8.31	40086512	12.411 ppb
Surrogate Spike 30.000		Recovery =	41.37%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	818648452	249.802 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107002.D

Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107003.D Vial: 3  
 Acq On : 11-7-18 14:04:52 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 7 14:24 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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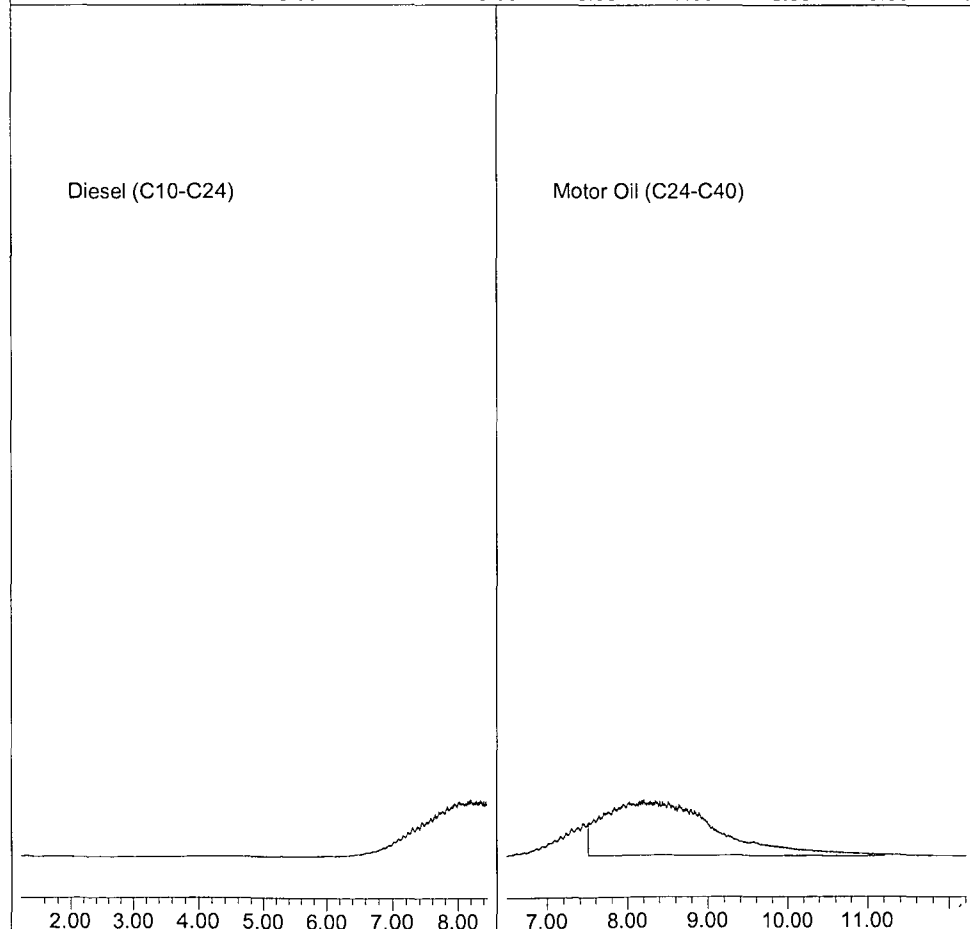
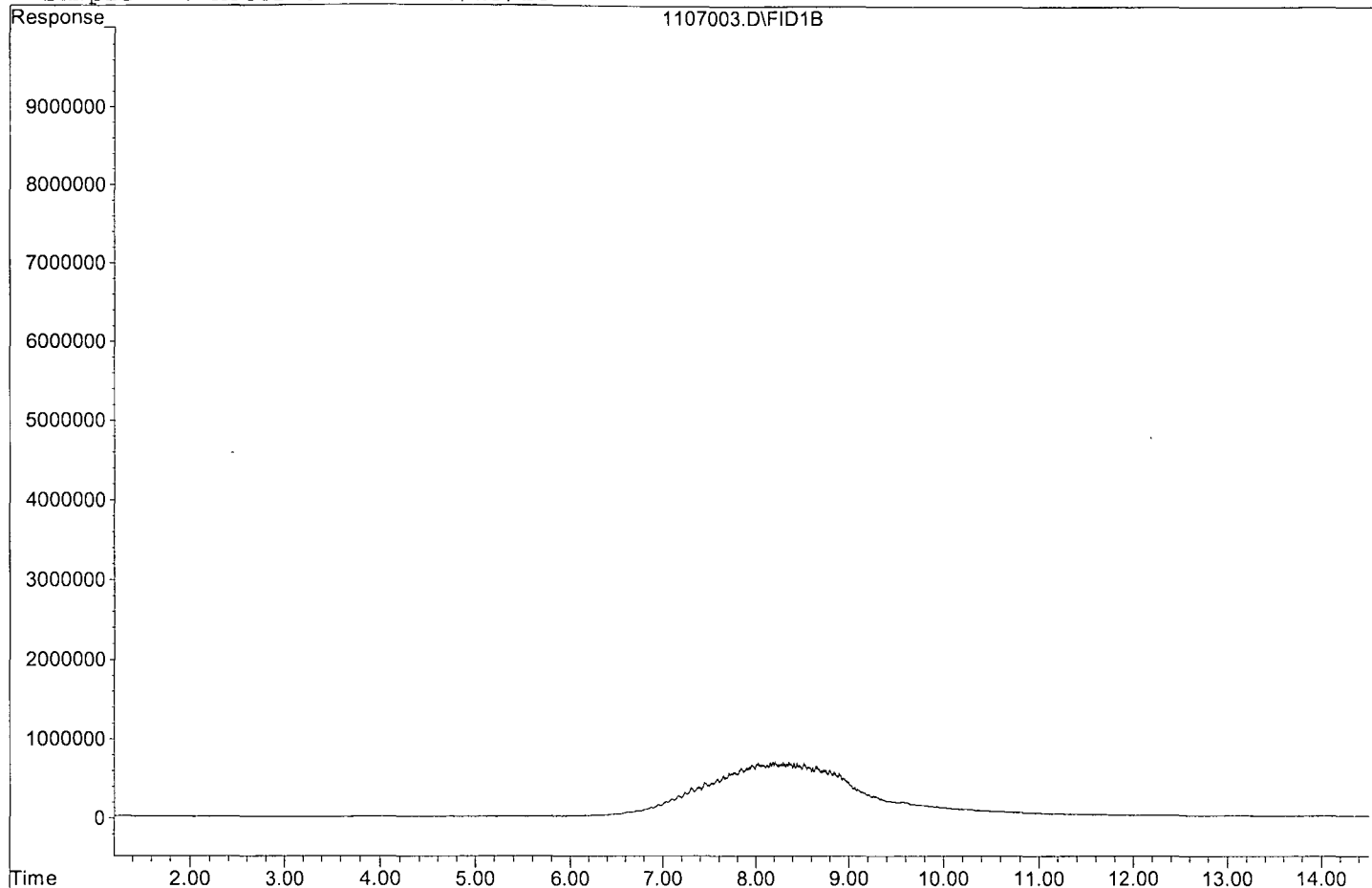
System Monitoring Compounds

Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	636338949	229.248 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107003.D

Sample : Motor Oil - 3 10/15/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 11/07/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1107019-20.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1666450	1.7	HATM
2	SA Ortho-Terphenyl(S)	1936320	2039030	5.3	SA
3	SA Octacosane(S)	1614940	1660830	2.8	SA
4	HBTM Motor Oil (C24-C40)	1387880	1317870	5.0	HBTM
5					
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7					
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39					
40	Average			3.7	

Data File : G:\APOLLO\DATA\181107\1107019.D Vial: 19  
 Acq On : 11-7-18 19:30:00 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 9:16 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

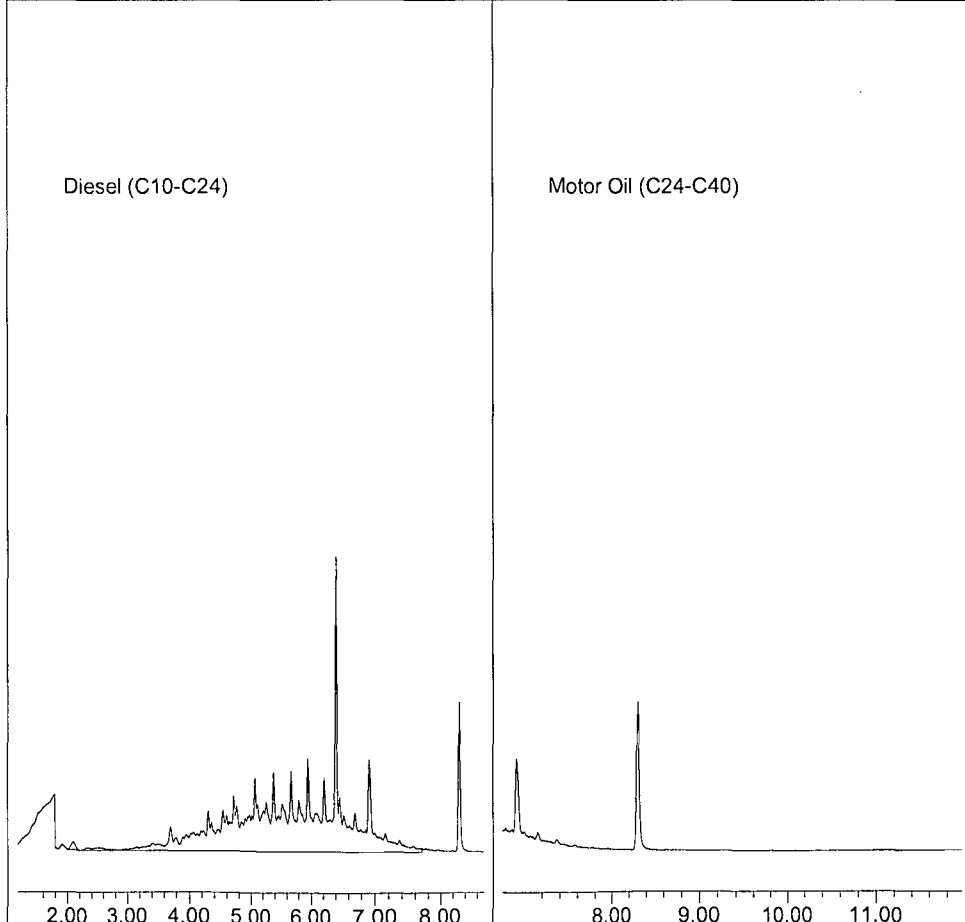
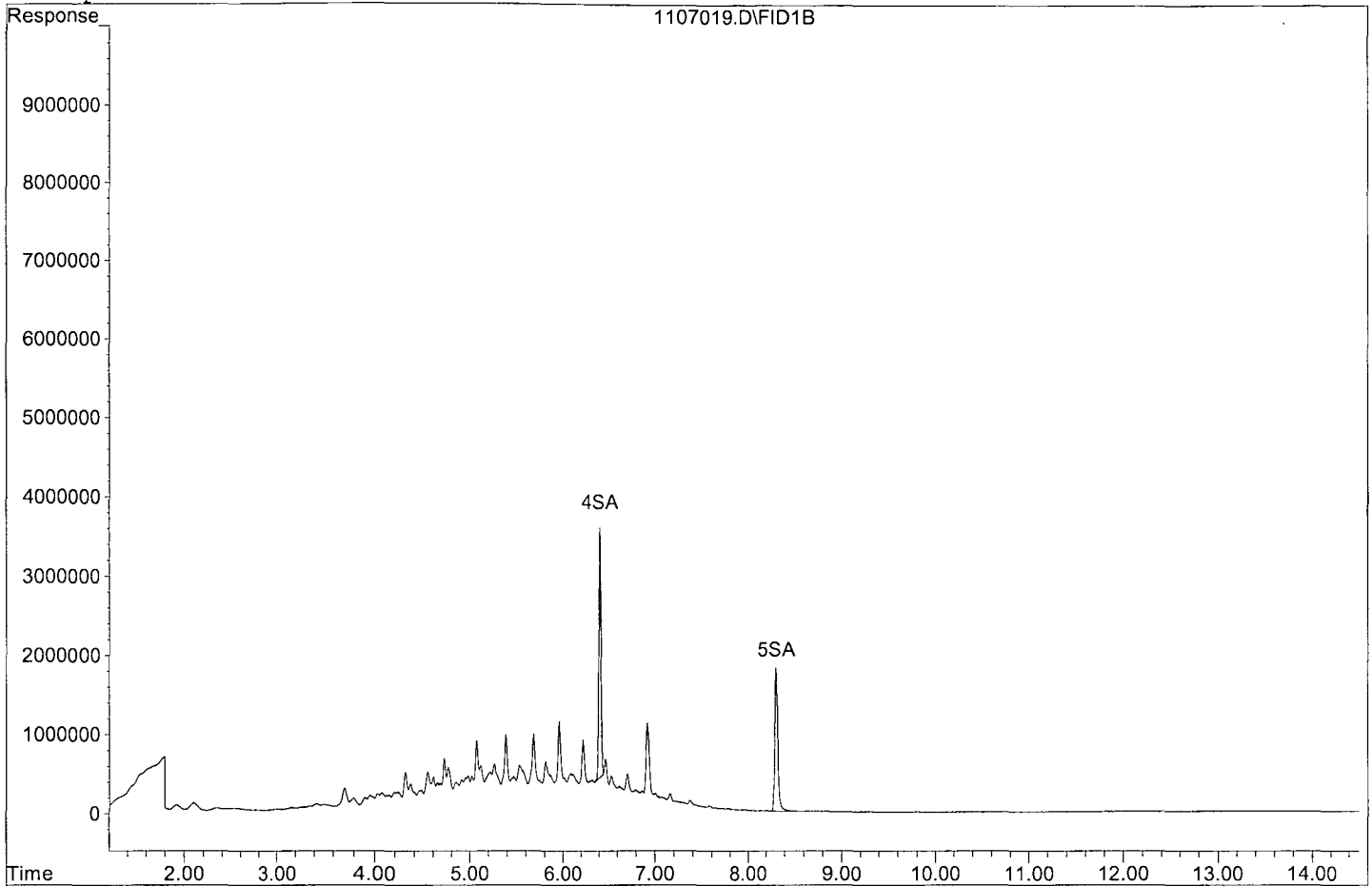
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	50975648	13.163 ppb
Surrogate Spike 30.000		Recovery =	43.88%
5) SA Octacosane(S)	8.31	41520747	12.855 ppb
Surrogate Spike 30.000		Recovery =	42.85%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	833224325	254.249 ppb



Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107019.D

Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107020.D Vial: 20  
 Acq On : 11-7-18 19:50:19 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 9:16 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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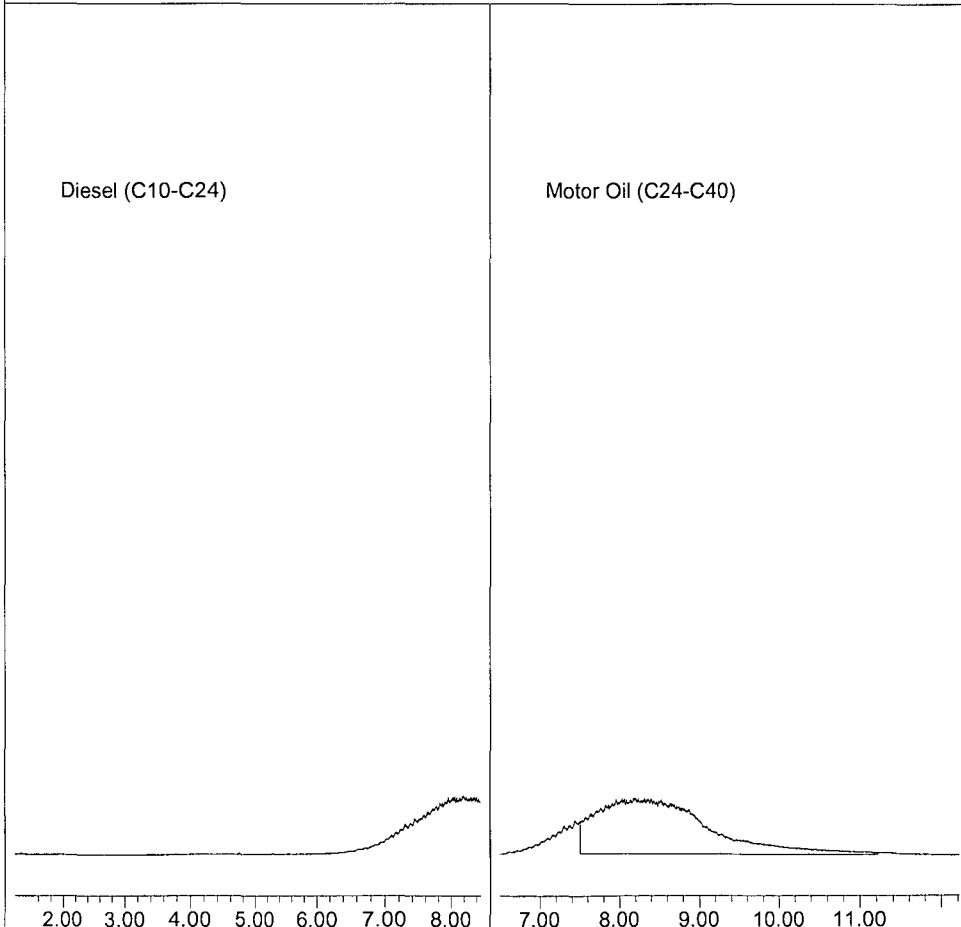
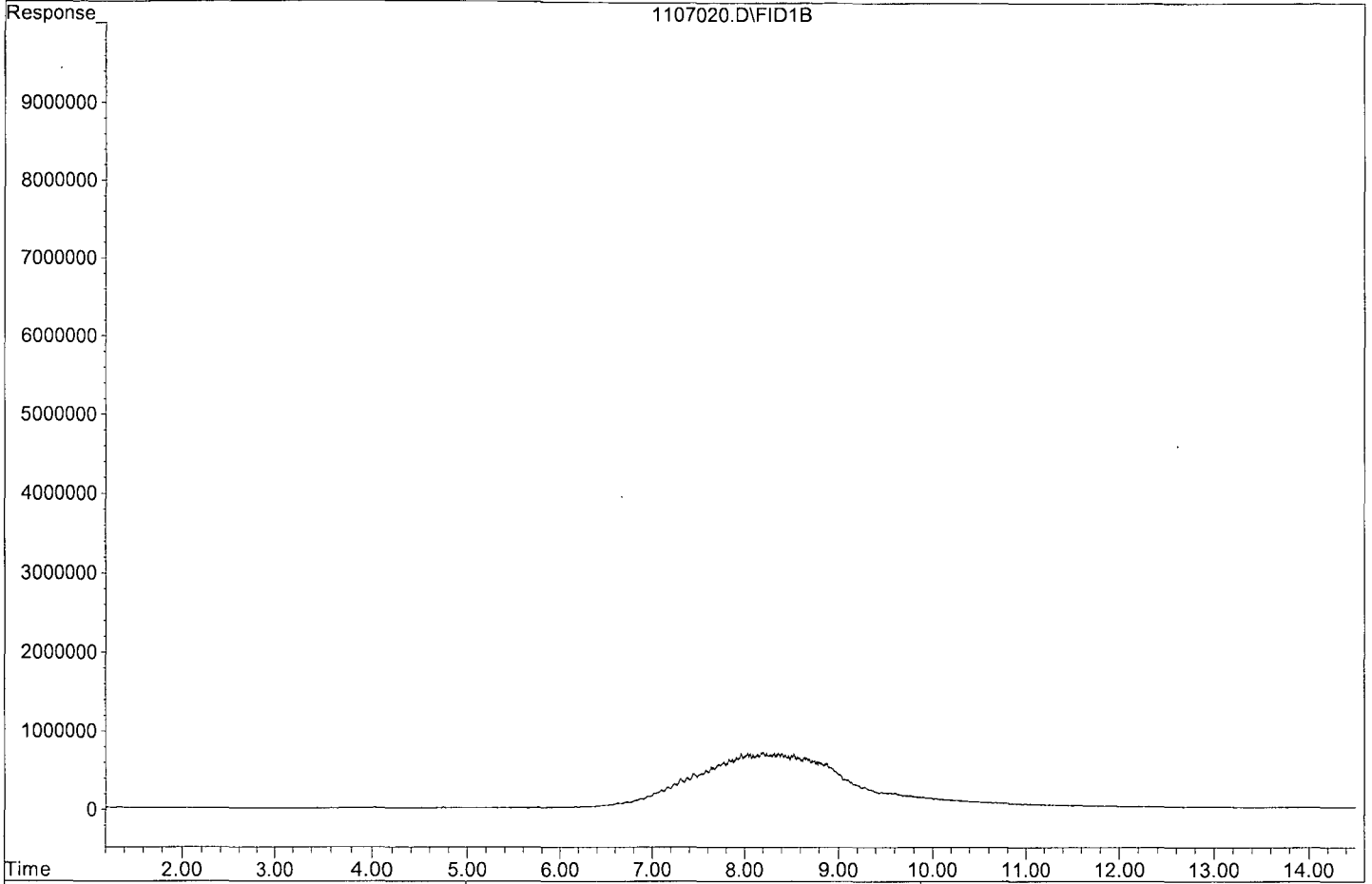
System Monitoring Compounds

Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	658935006	237.388 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107020.D  
Sample : Motor Oil - 3 10/15/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 11/07/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1107027-28.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1712170	4.5	HATM
2	SA Ortho-Terphenyl(S)	1936320	2079630	7.4	SA
3	SA Octacosane(S)	1614940	1699620	5.2	SA
4	HBTM Motor Oil (C24-C40)	1387880	1309190	5.7	HBTM
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36					
37					
38					
39					
40	Average			5.7	

Data File : G:\APOLLO\DATA\181107\1107027.D Vial: 27  
 Acq On : 11-7-18 22:10:29 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 9:17 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

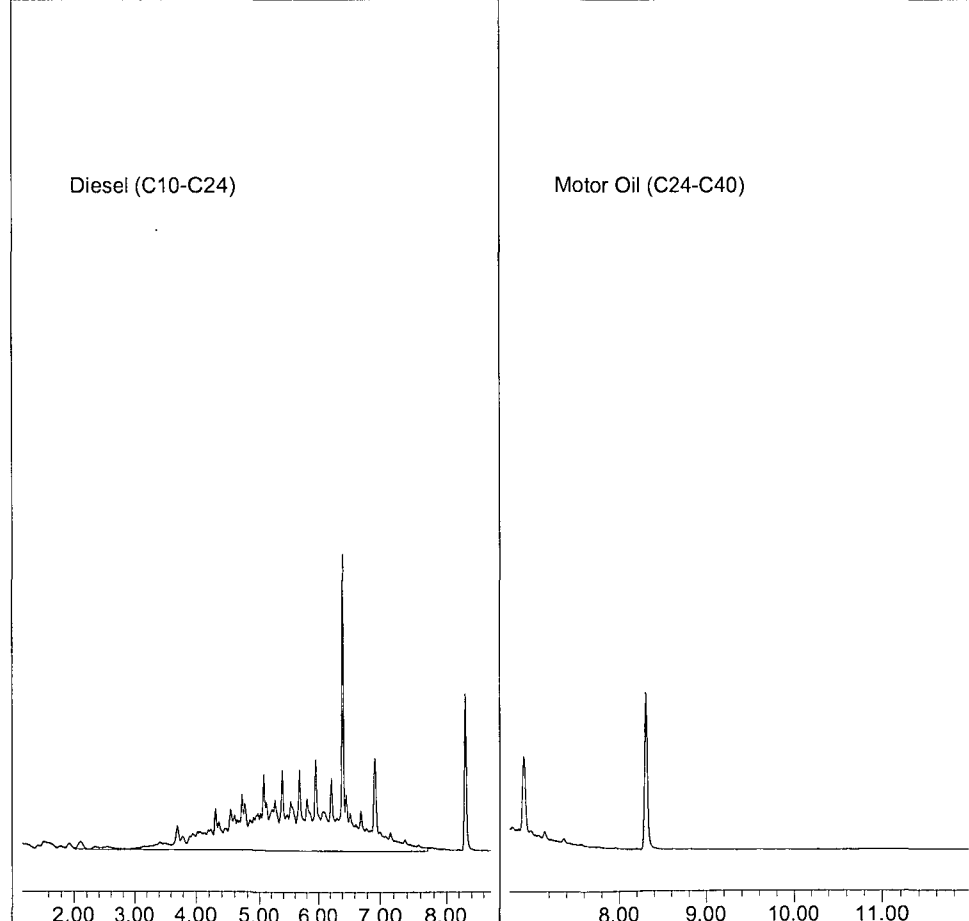
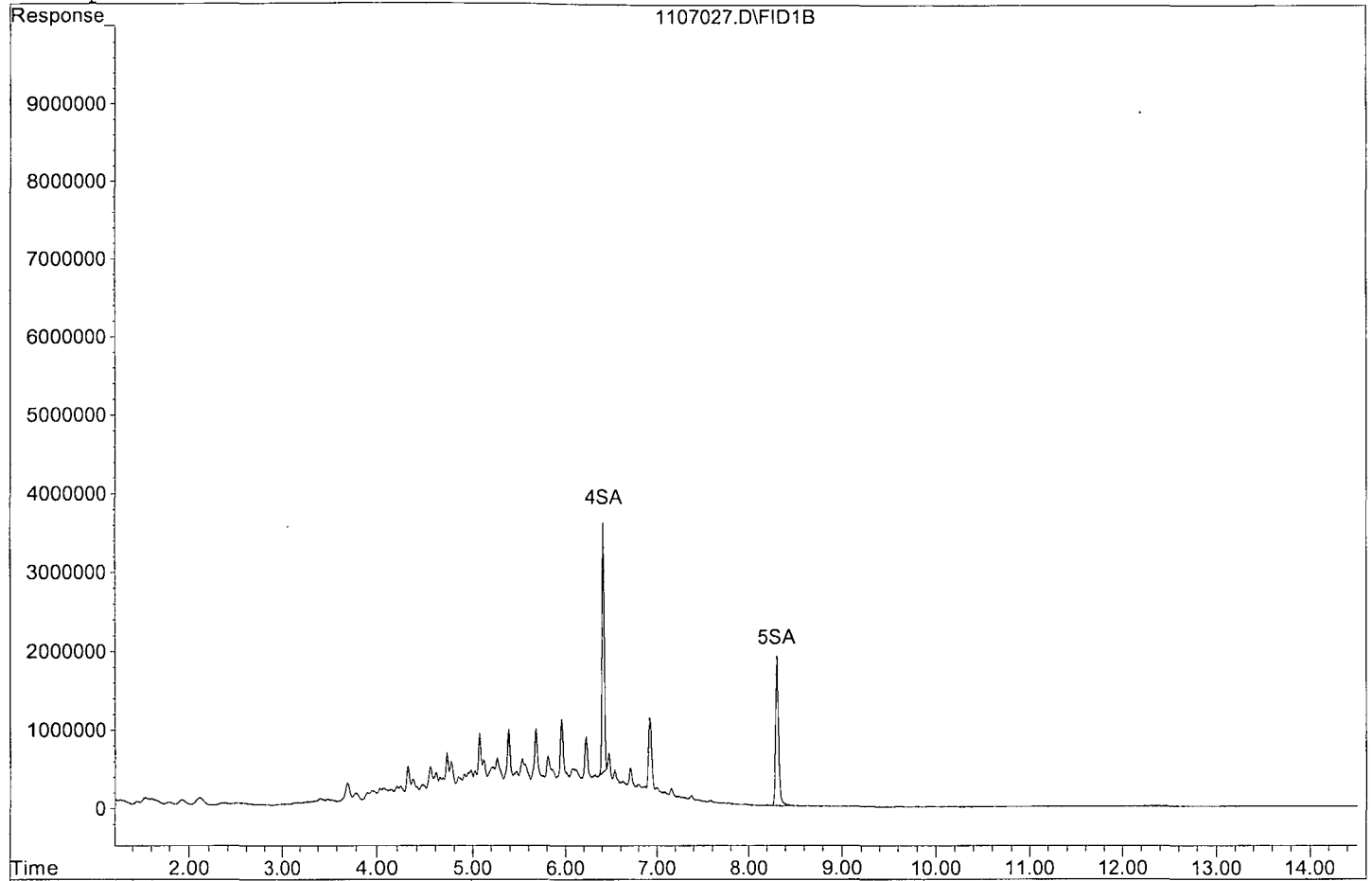
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	51990682	13.425 ppb
Surrogate Spike 30.000		Recovery =	44.75%
5) SA Octacosane(S)	8.31	42490624	13.156 ppb
Surrogate Spike 30.000		Recovery =	43.85%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	856085877	261.225 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107027.D

Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107028.D Vial: 28  
 Acq On : 11-7-18 22:30:38 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 9:17 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

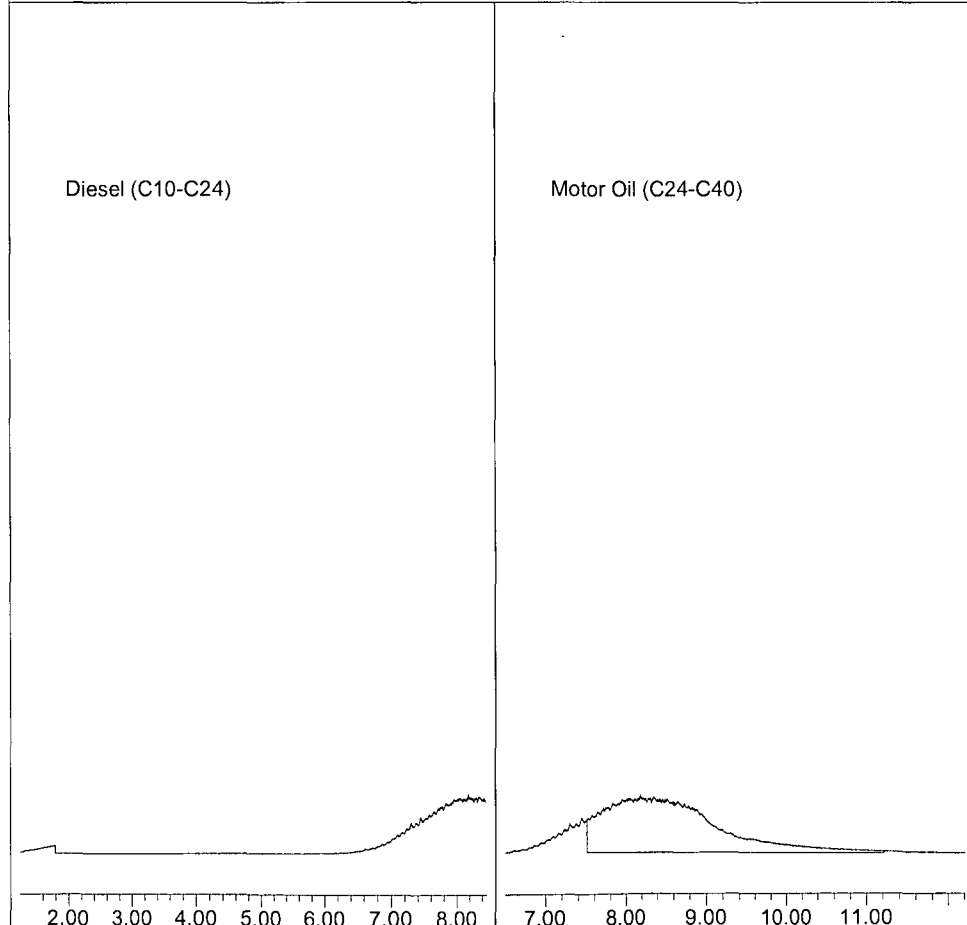
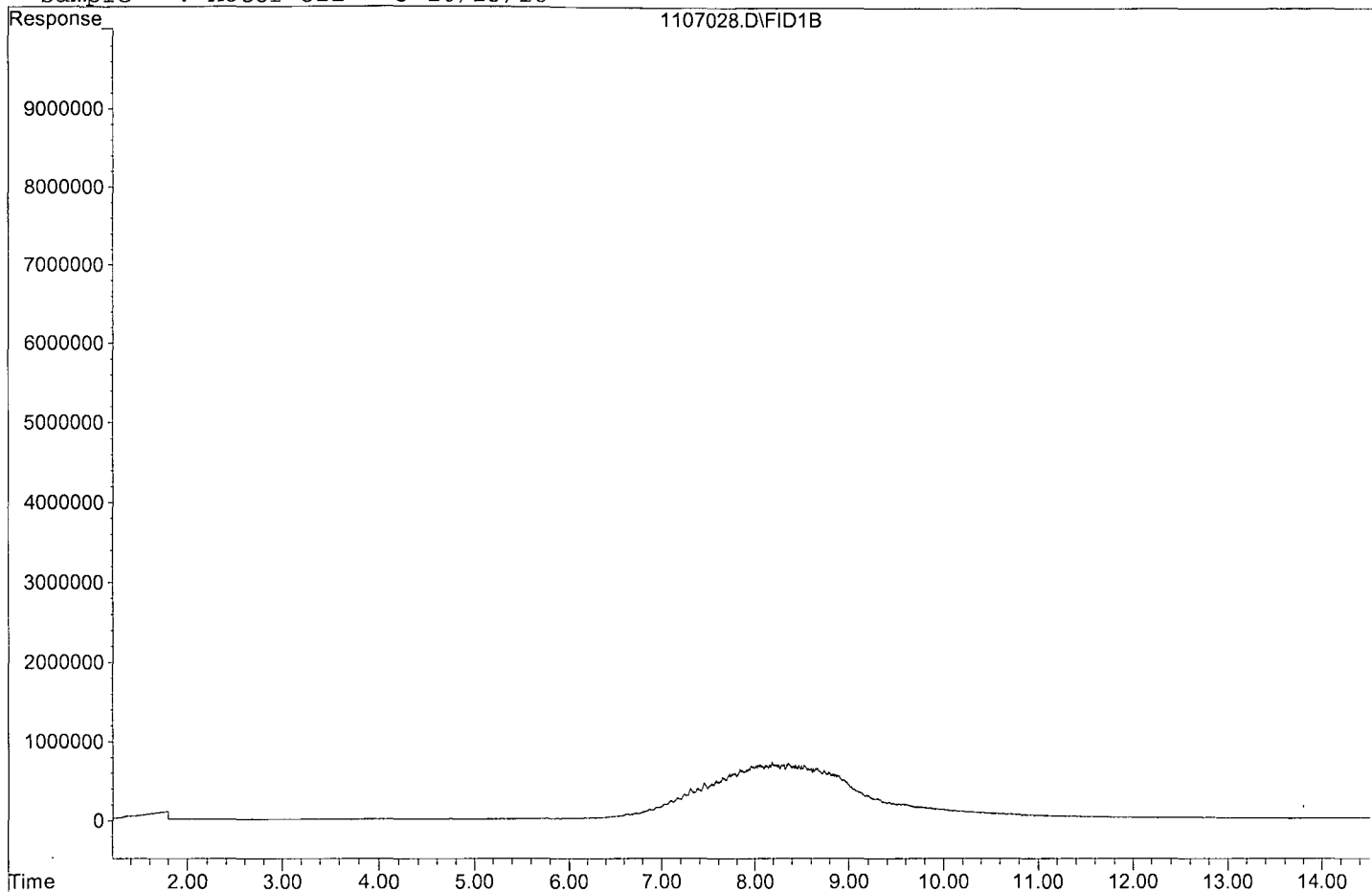
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	654594378	235.825 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107028.D

Sample : Motor Oil - 3 10/15/18





TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 11/08/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1107030-31.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1592010	2.8	HATM
2	SA Ortho-Terphenyl(S)	1936320	1978180	2.2	SA
3	SA Octacosane(S)	1614940	1622920	0.49	SA
4	HBTM Motor Oil (C24-C40)	1387880	1288240	7.2	HBTM
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37					
38					
39					
40	Average			3.2	

Data File : G:\APOLLO\DATA\181107\1107030.D Vial: 30  
 Acq On : 11-8-18 13:54:55 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 14:45 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

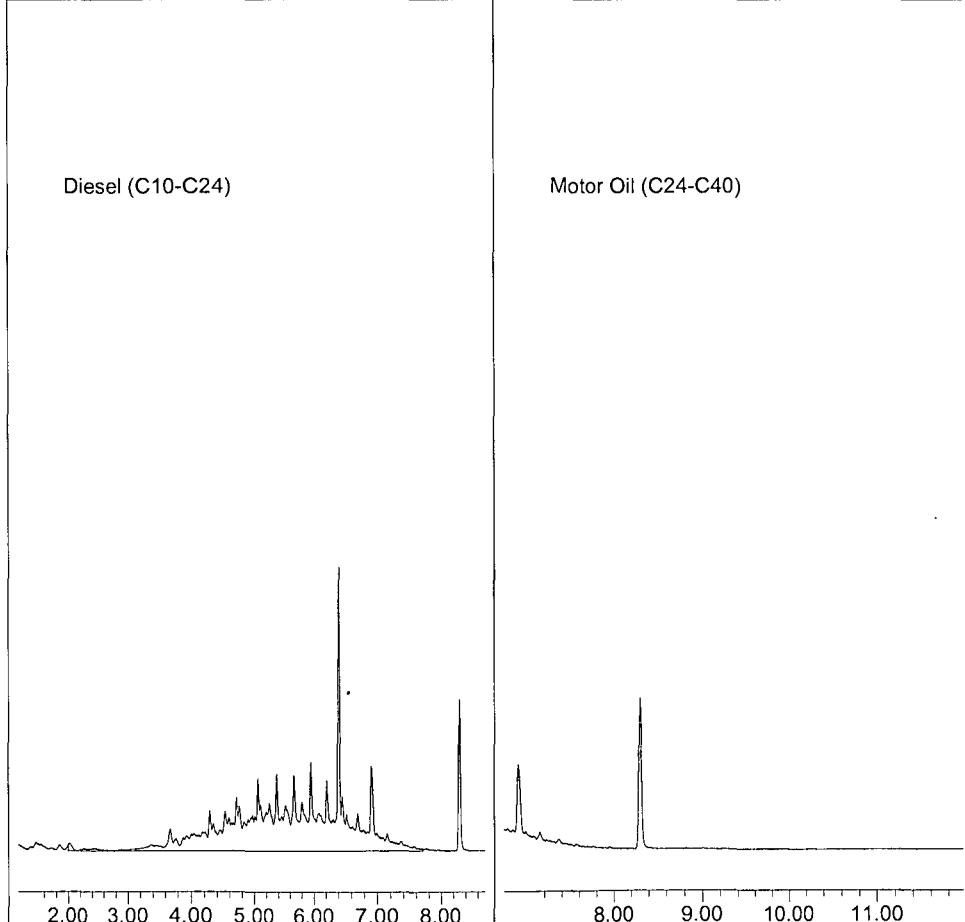
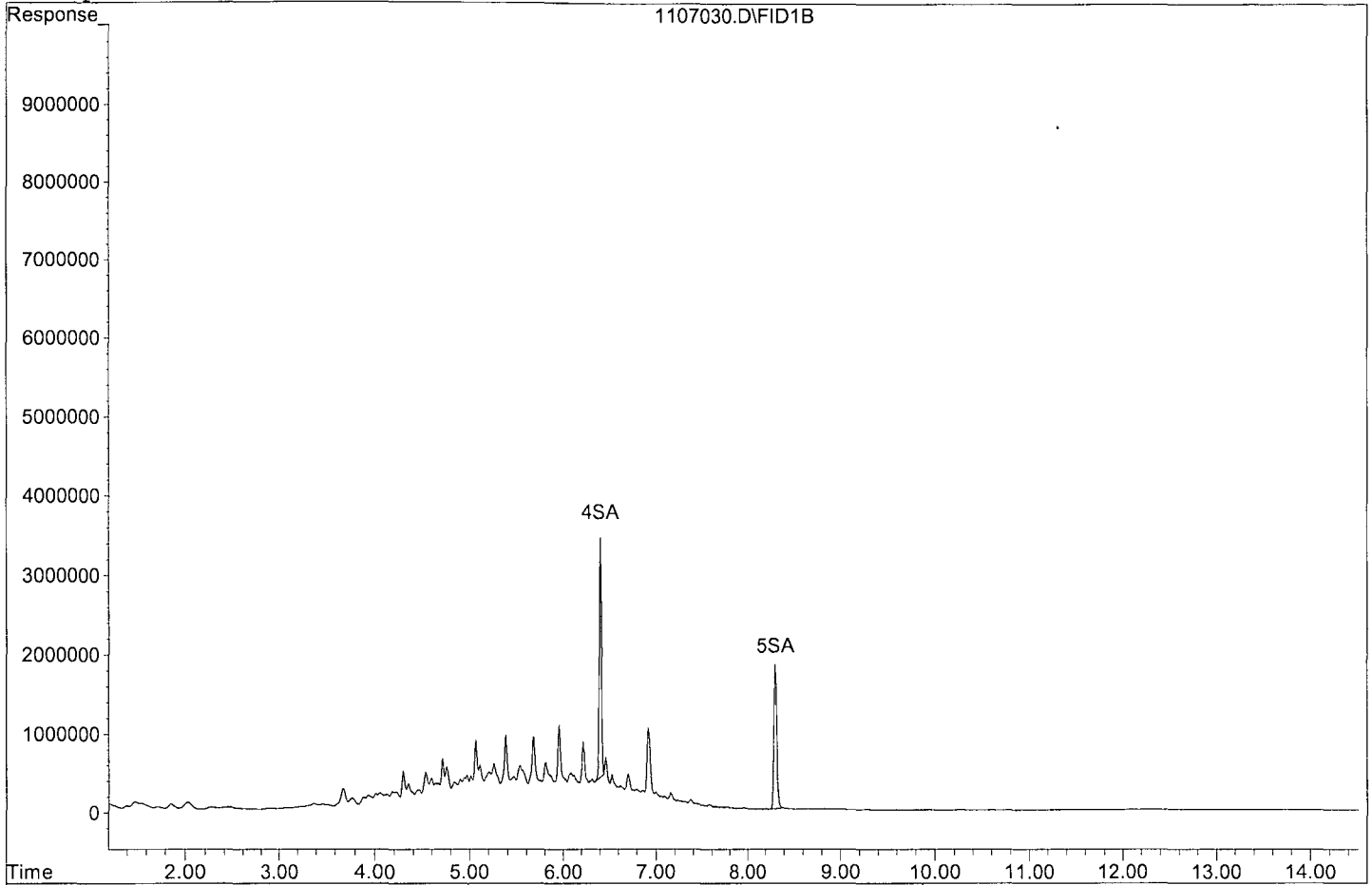
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	49454517	12.770 ppb
Surrogate Spike 30.000		Recovery =	42.57%
5) SA Octacosane(S)	8.30	40572908	12.562 ppb
Surrogate Spike 30.000		Recovery =	41.87%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	796005616	242.892 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107030.D

Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107031.D Vial: 31  
 Acq On : 11-8-18 14:15:05 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 14:45 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
----------	------	----------	------------

System Monitoring Compounds

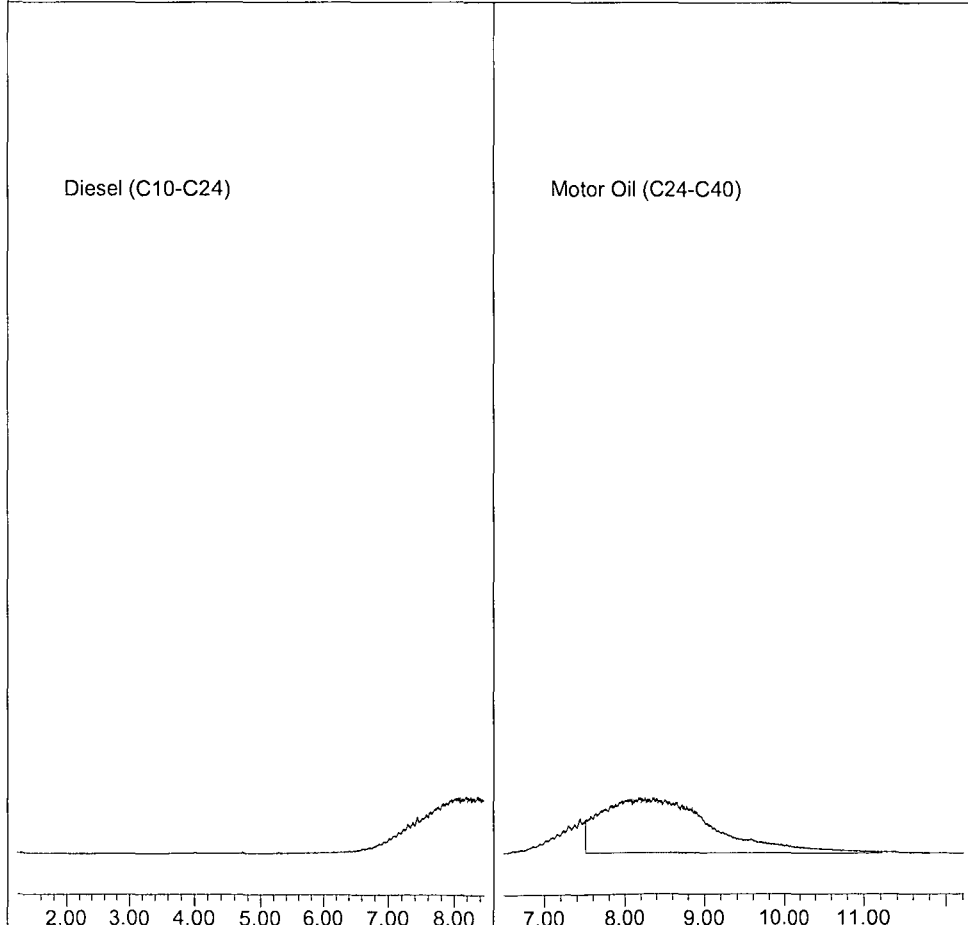
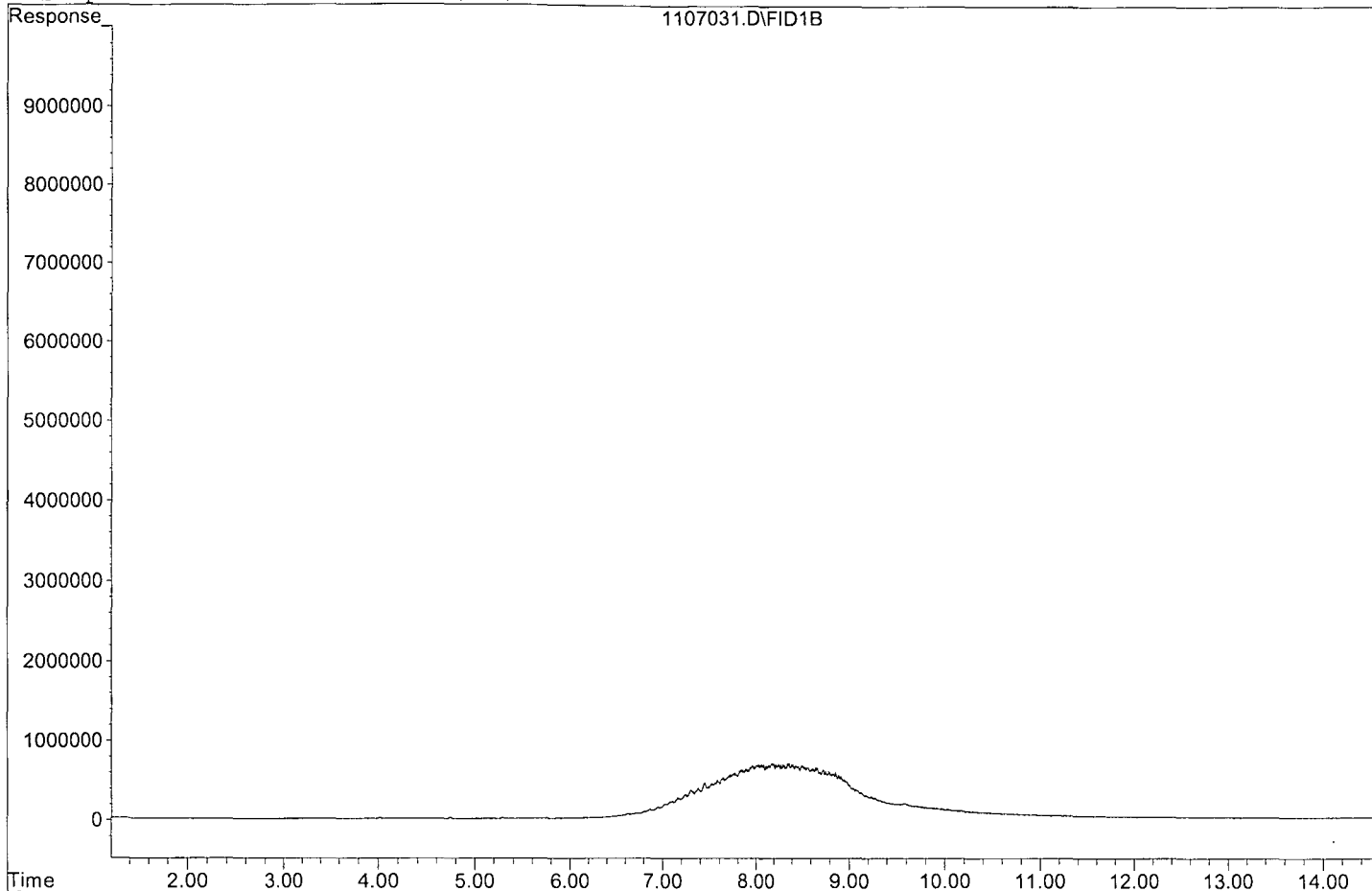
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	644118064	232.050 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107031.D

Sample : Motor Oil - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107032.D Vial: 32  
 Acq On : 11-8-18 14:35:27 Operator: DP  
 Sample : Decanoic Acid - 3 8/23/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 15:40 2018 Quant Results File: DOC0905.RES

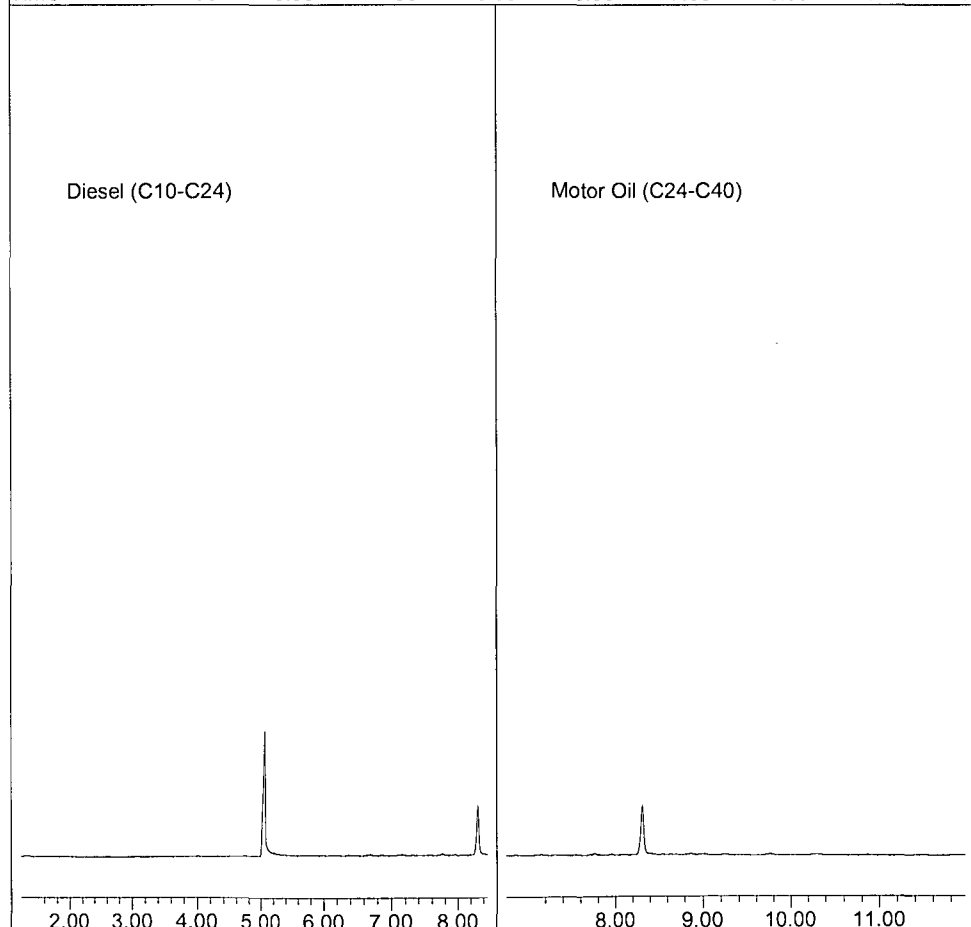
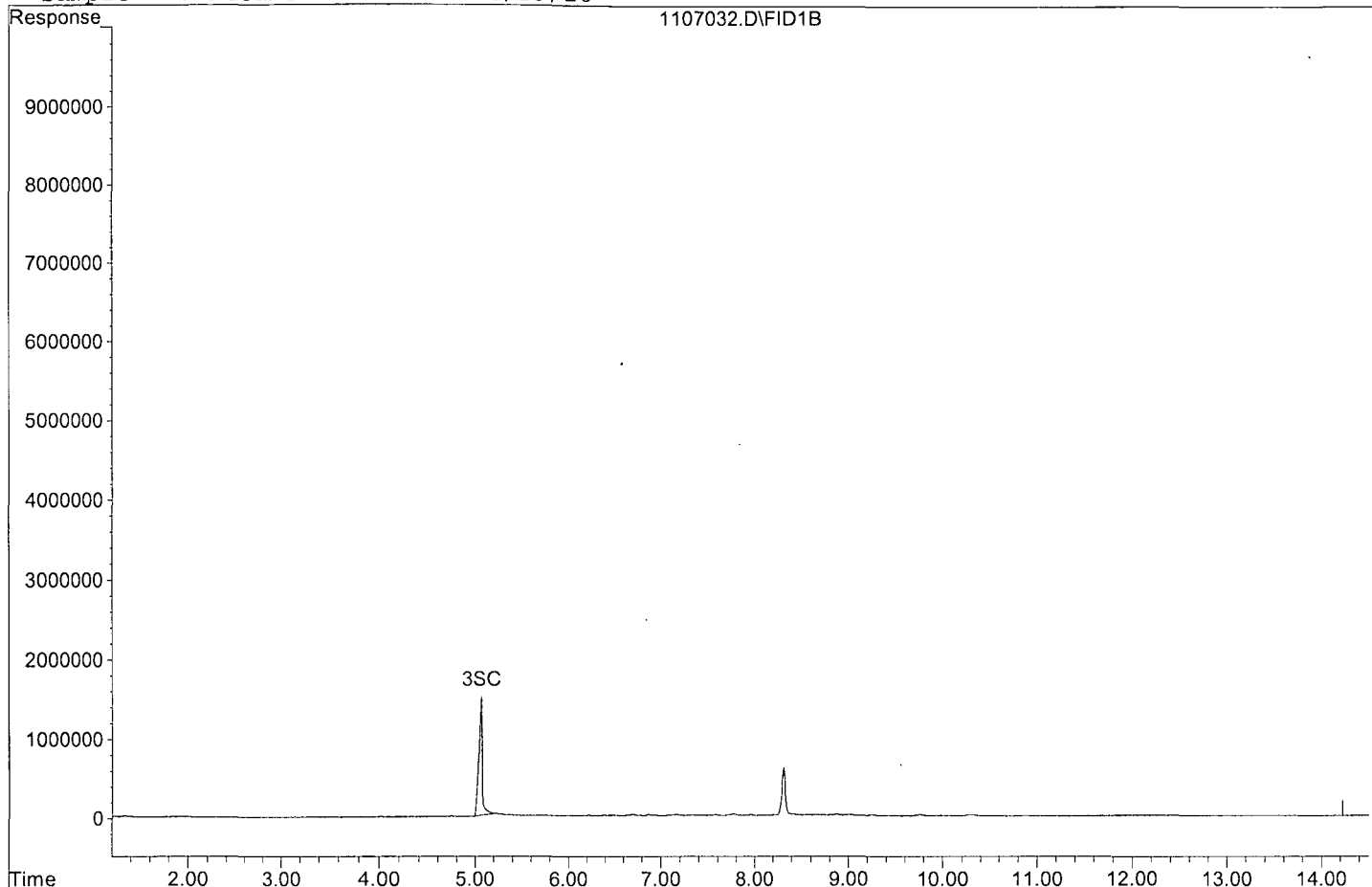
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.07	38744112	19.506 ppb
Surrogate Spike 24.000	Recovery	=	81.27%

Target Compounds

Data File: G:\APOLLO\DATA\181107\1107032.D  
Sample : Decanoic Acid - 3 8/23/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 11/08/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1107056-57.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1690390	3.2	HATM
2	SA Ortho-Terphenyl(S)	1936320	2051610	6.0	SA
3	SA Octacosane(S)	1614940	1646080	1.9	SA
4	HBTM Motor Oil (C24-C40)	1387880	1384240	0.26	HBTM
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40	Average			2.8	



Data File : G:\APOLLO\DATA\181107\1107056.D Vial: 56  
 Acq On : 11-8-18 22:40:31 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 9:11 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

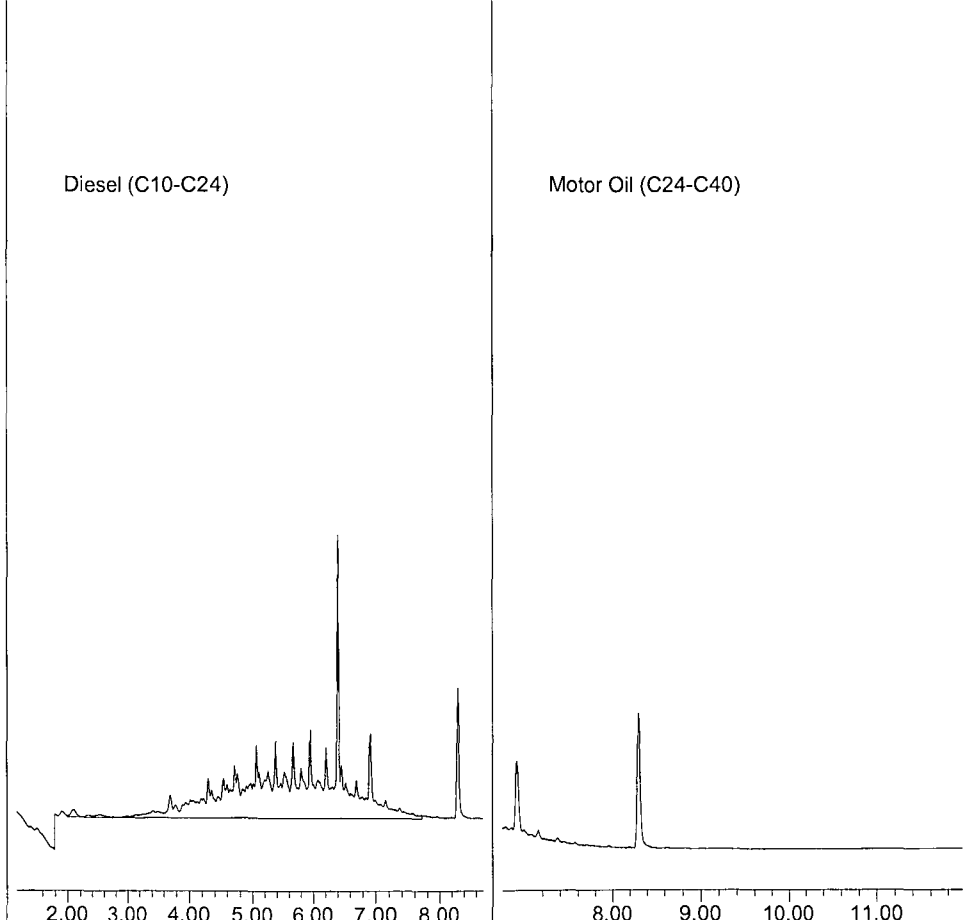
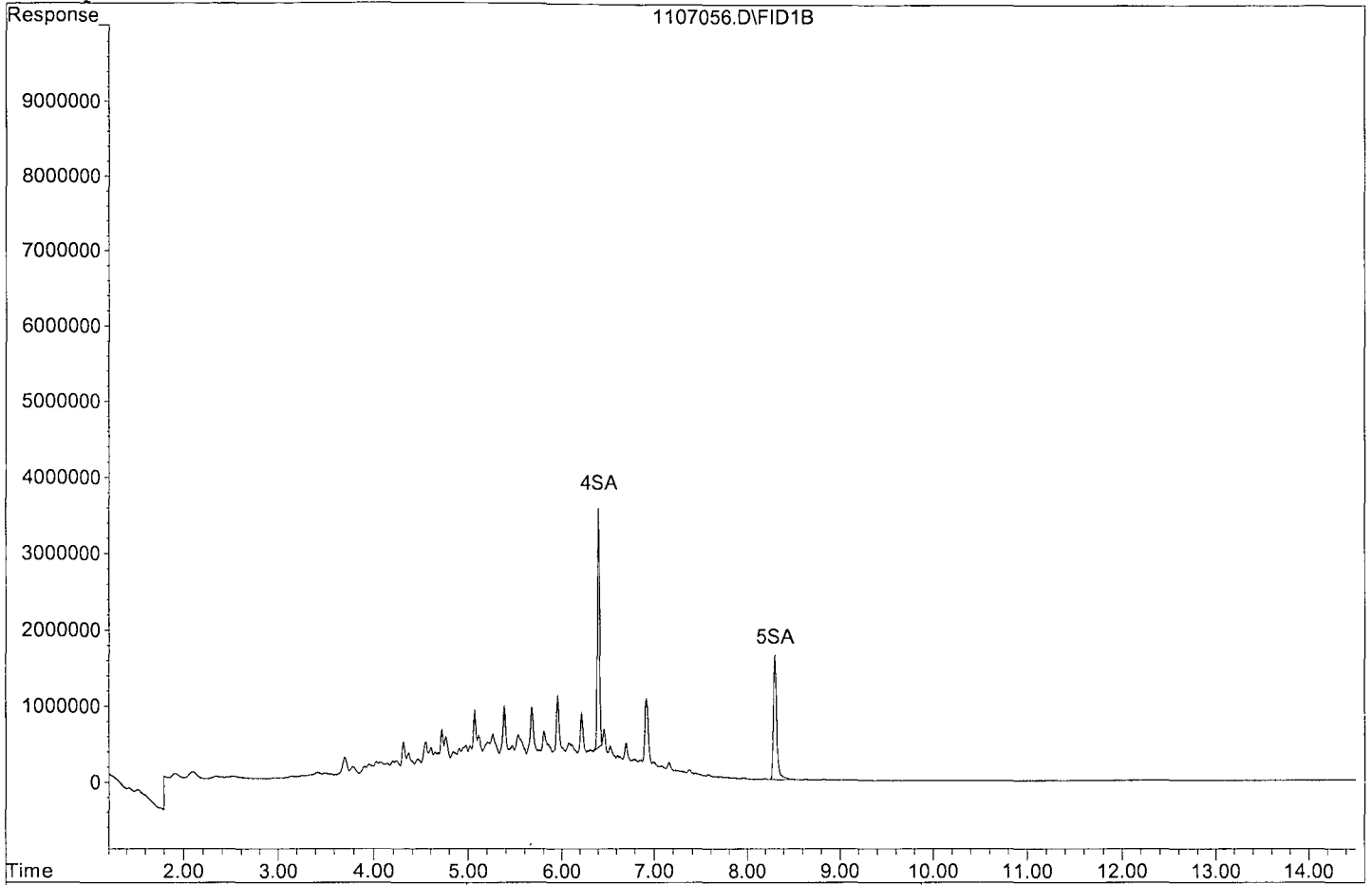
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	51290355	13.244 ppb
Surrogate Spike 30.000		Recovery =	44.15%
5) SA Octacosane(S)	8.30	41151998	12.741 ppb
Surrogate Spike 30.000		Recovery =	42.47%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	845195891	257.902 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107056.D

Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107057.D Vial: 57  
 Acq On : 11-8-18 22:59:46 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 9:11 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

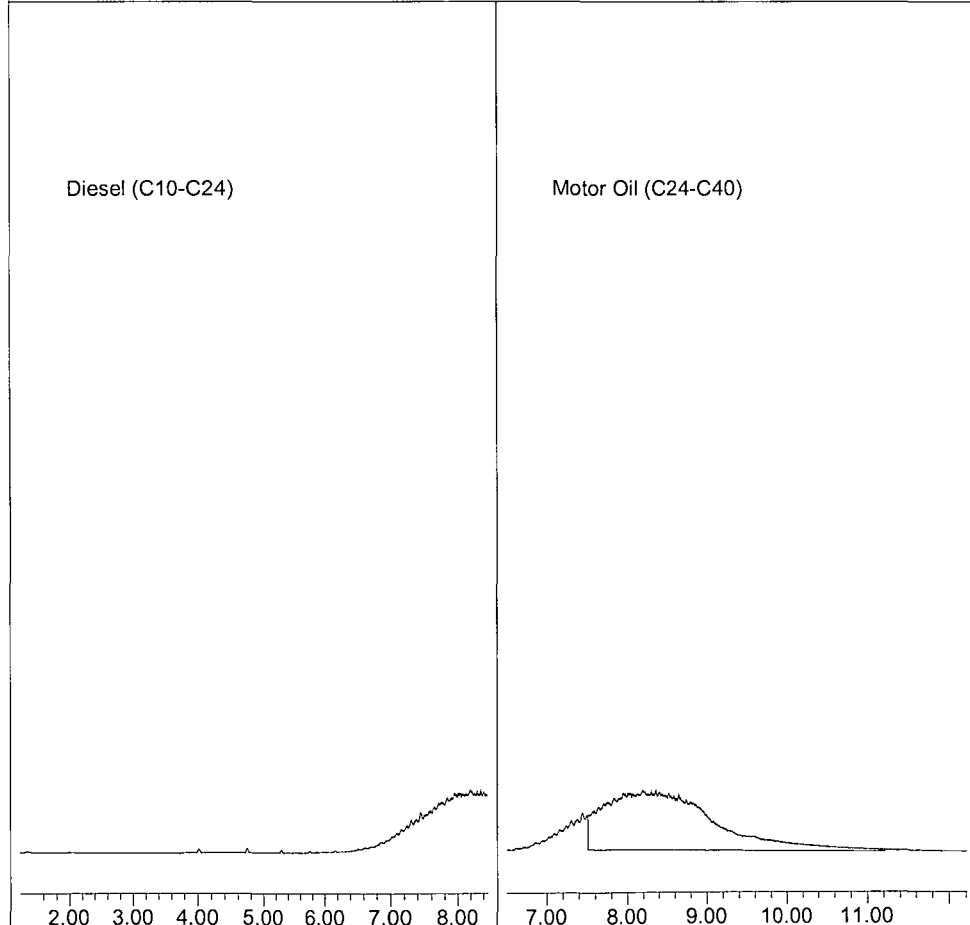
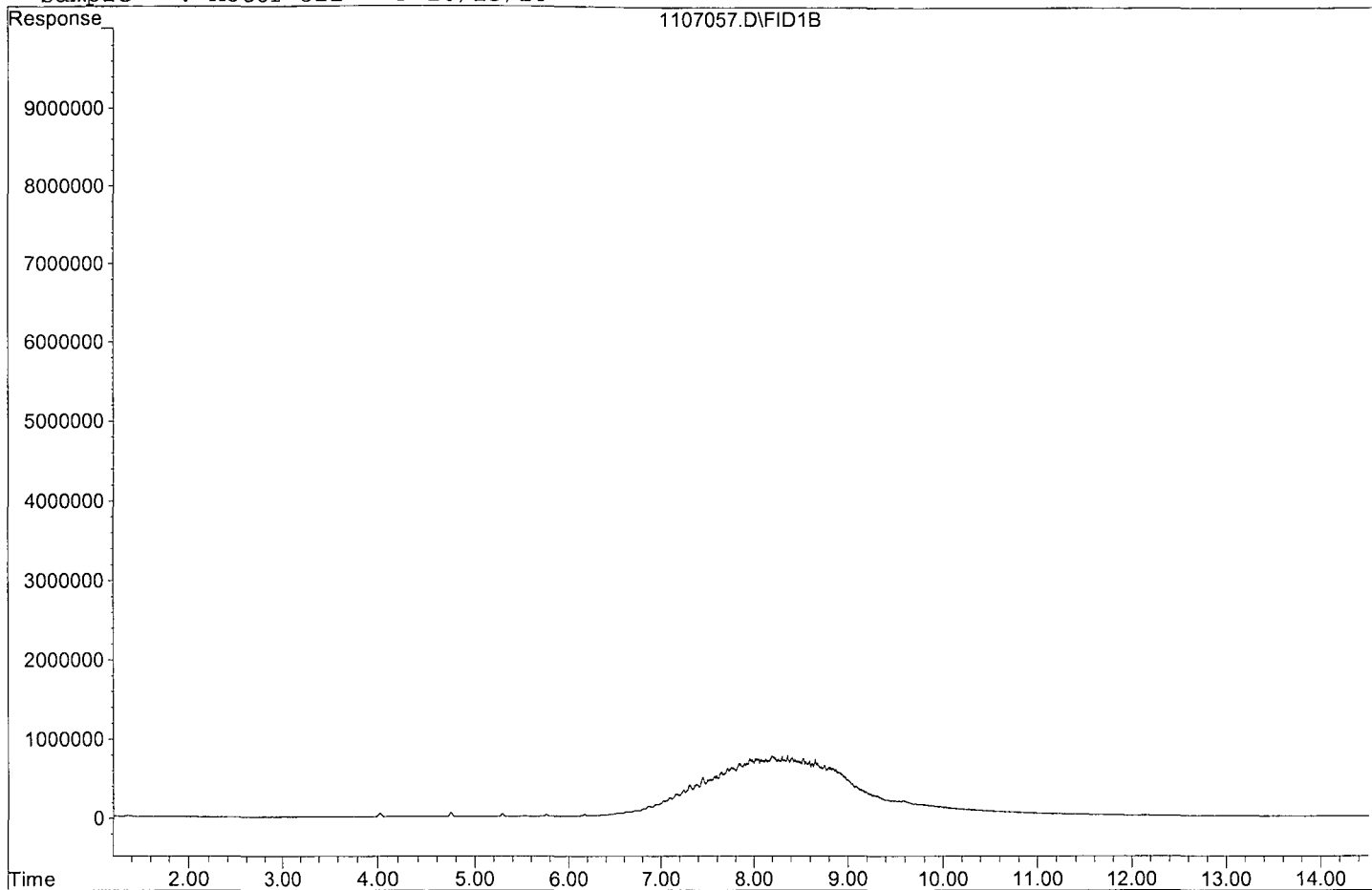
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	692119808	249.343 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107057.D

Sample : Motor Oil - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107058.D Vial: 58  
 Acq On : 11-8-18 23:19:51 Operator: DP  
 Sample : Decanoic Acid - 3 8/23/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 9:11 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

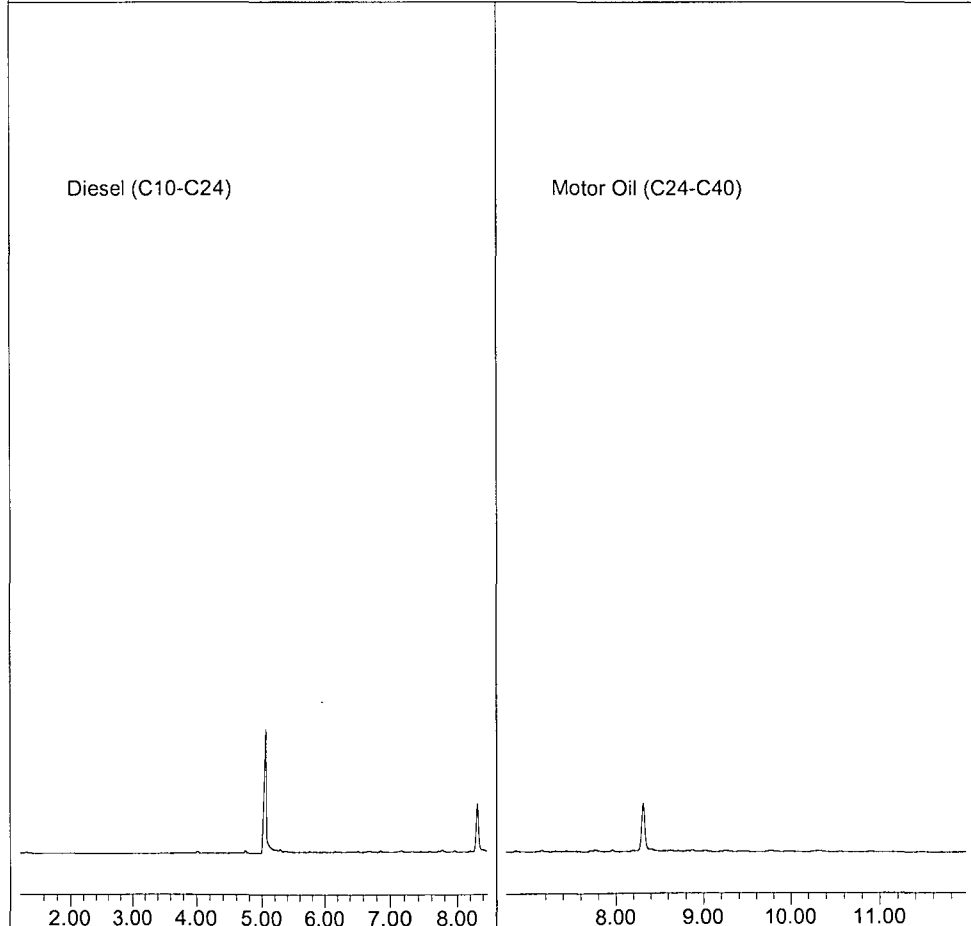
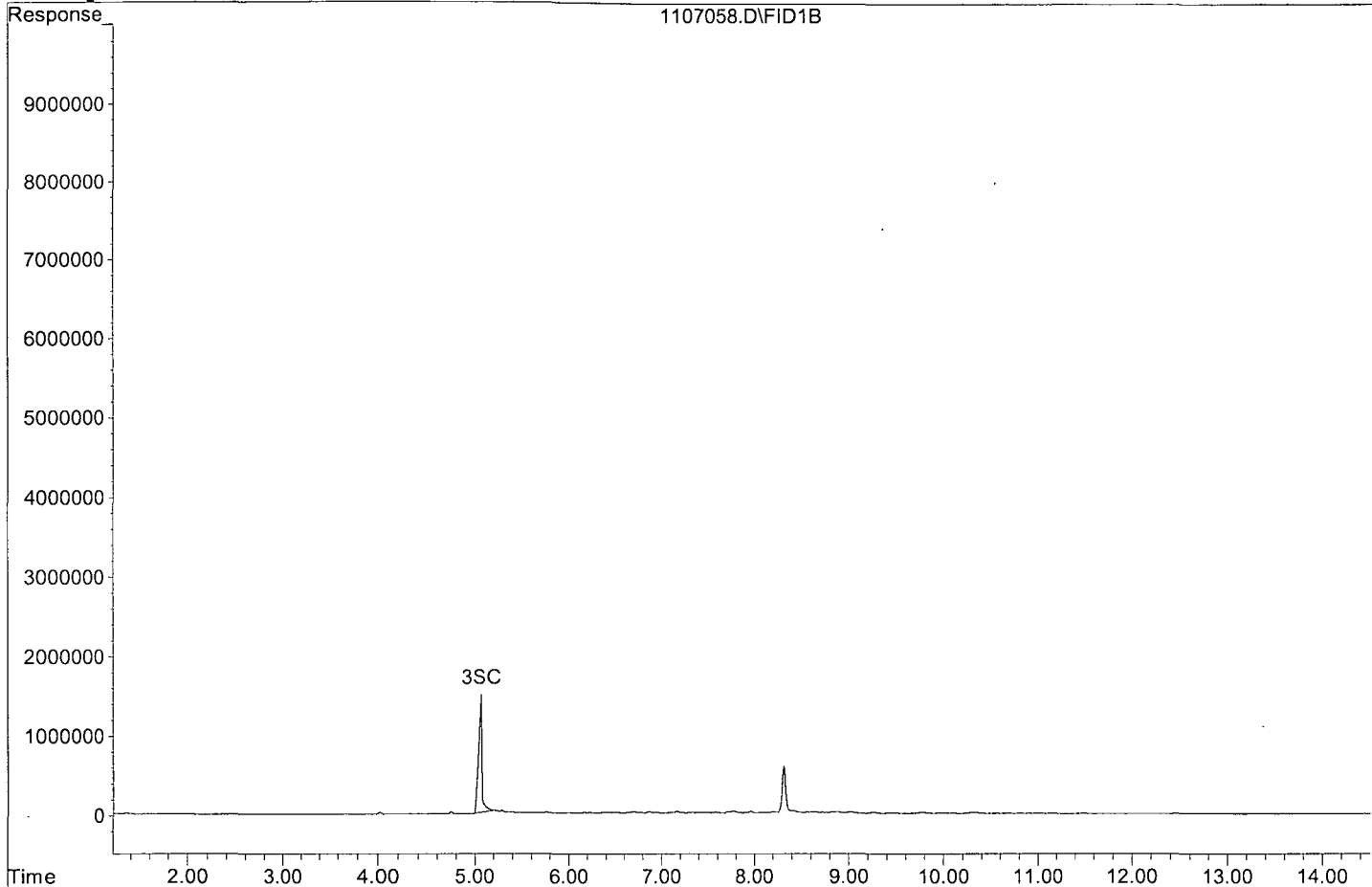
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.06	37861185	19.062 ppb
Surrogate Spike 24.000		Recovery =	79.43%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107058.D

Sample : Decanoic Acid - 3 8/23/18



**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : G:\APOLLO\DATA\181031\1031024.D Vial: 24  
 Acq On : 10-31-18 19:44:24 Operator: DP  
 Sample : AZ81676W14 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 1 8:07 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

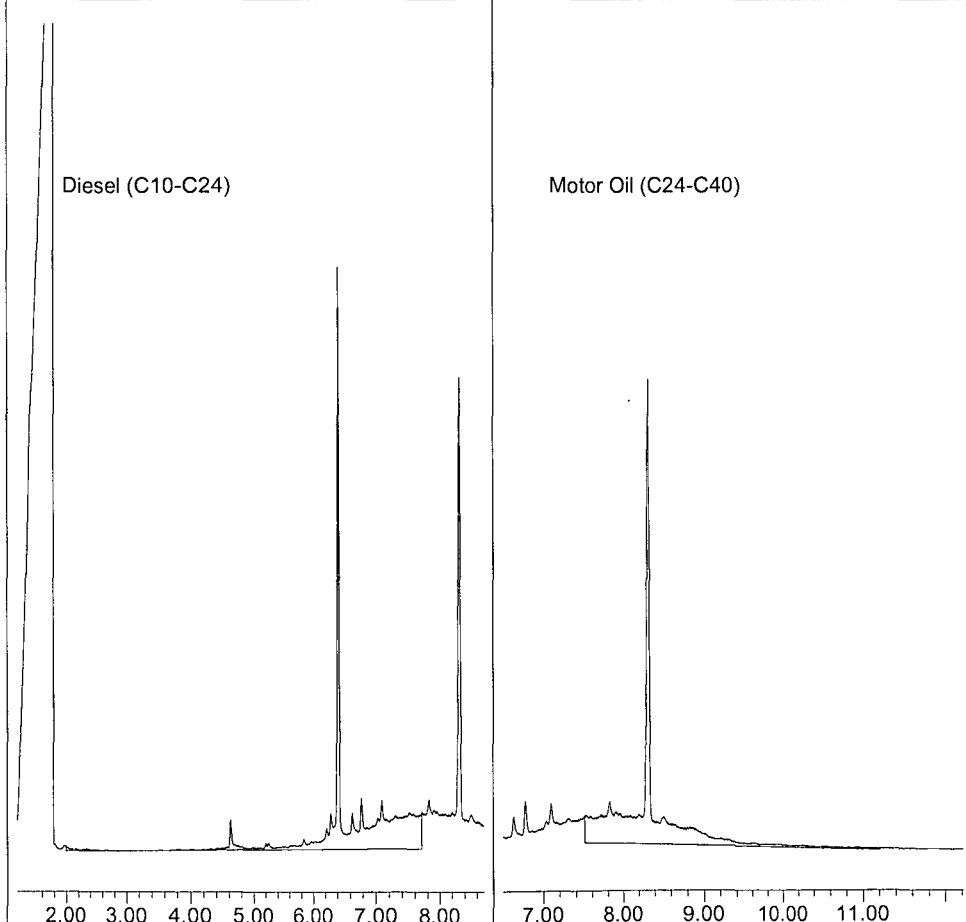
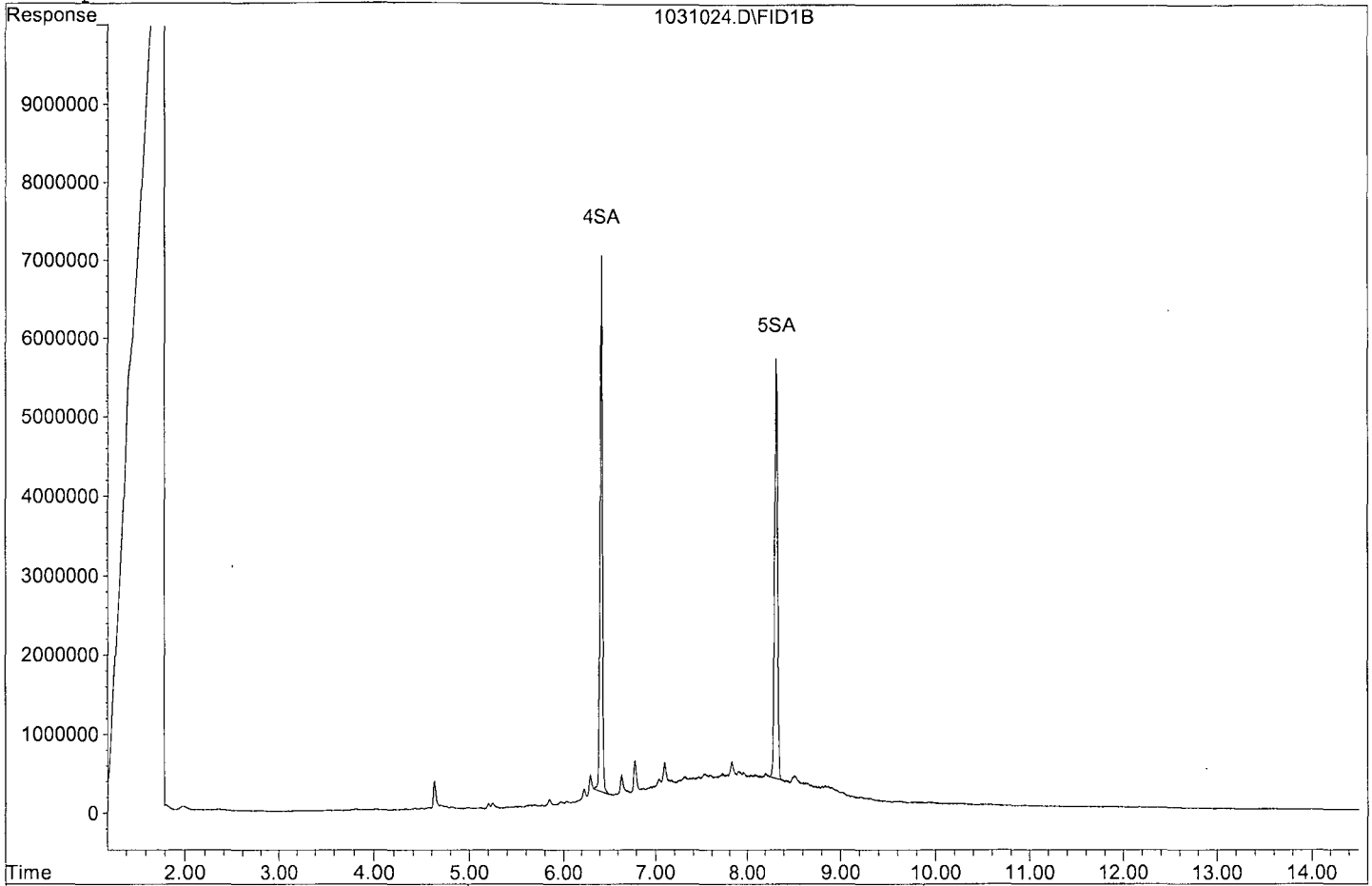
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	117502959	75.854 ppb
Surrogate Spike 75.000		Recovery =	101.14%
5) SA Octacosane(S)	8.32	116898748	90.482 ppb
Surrogate Spike 75.000		Recovery =	120.64%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	351051428	267.799 ppb
2) HBTM Motor Oil (C24-C40)	9.36	295672553	266.298 ppb



Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031024.D

Sample : AZ81676W14 2/800



Data File : G:\APOLLO\DATA\181107\1107017.D Vial: 17  
 Acq On : 11-7-18 18:49:20 Operator: DP  
 Sample : AZ81676W11 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 8 9:16 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

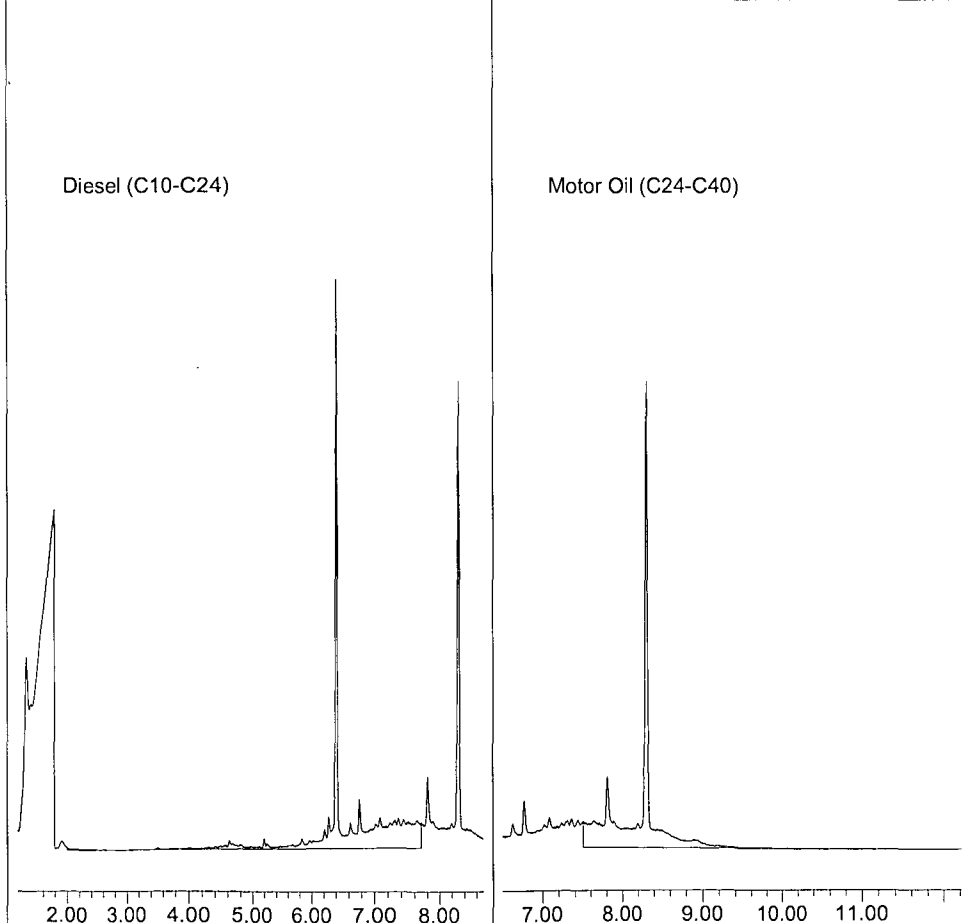
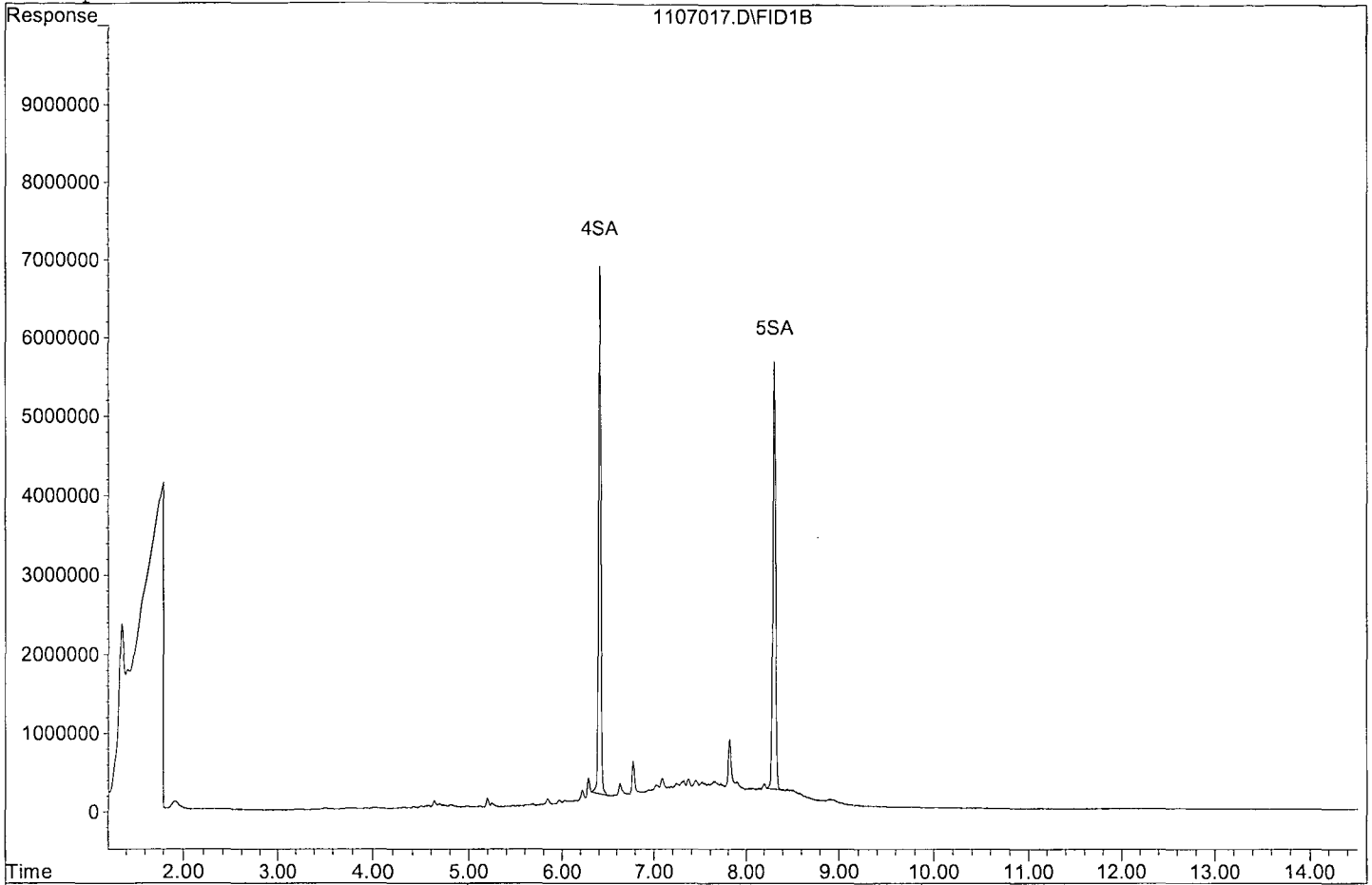
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	115548258	74.593 ppb
Surrogate Spike 75.000		Recovery =	99.46%
5) SA Octacosane(S)	8.31	110204825	85.301 ppb
Surrogate Spike 75.000		Recovery =	113.73%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	291961440	222.722 ppb
2) HBTM Motor Oil (C24-C40)	9.36	206151752	185.671 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107017.D

Sample : AZ81676W11 2/800



Data File : G:\APOLLO\DATA\181107\1107046.D Vial: 46  
 Acq On : 11-8-18 19:19:55 Operator: DP  
 Sample : AZ81676W11 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:13 2018 Quant Results File: DOC0905.RES

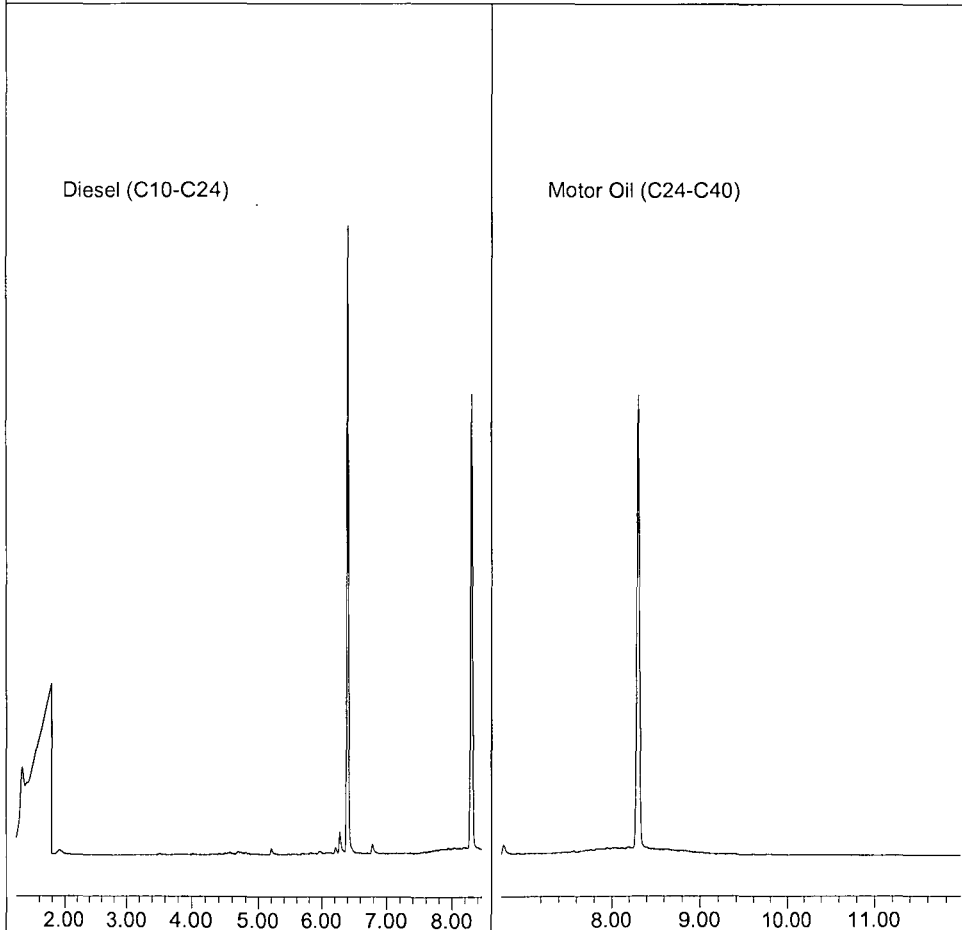
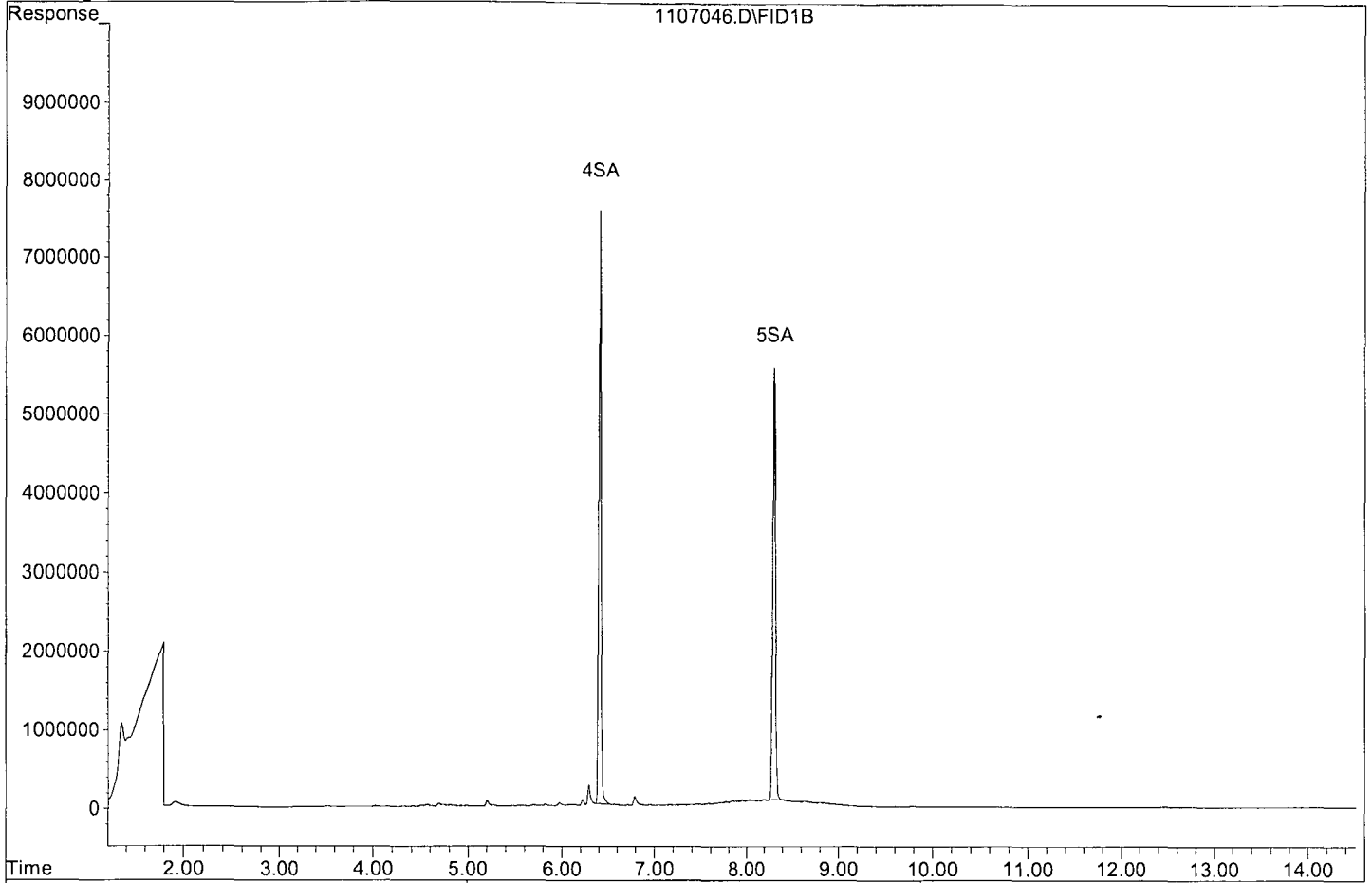
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	128964465	83.254 ppb
Surrogate Spike 75.000		Recovery =	111.01%
5) SA Octacosane(S)	8.31	114095407	88.313 ppb
Surrogate Spike 75.000		Recovery =	117.75%
Target Compounds			

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107046.D  
Sample : AZ81676W11 2/800 SGC



Data File : G:\APOLLO\DATA\181031\1031025.D Vial: 25  
 Acq On : 10-31-18 20:04:42 Operator: DP  
 Sample : AZ81677W14 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 1 8:07 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

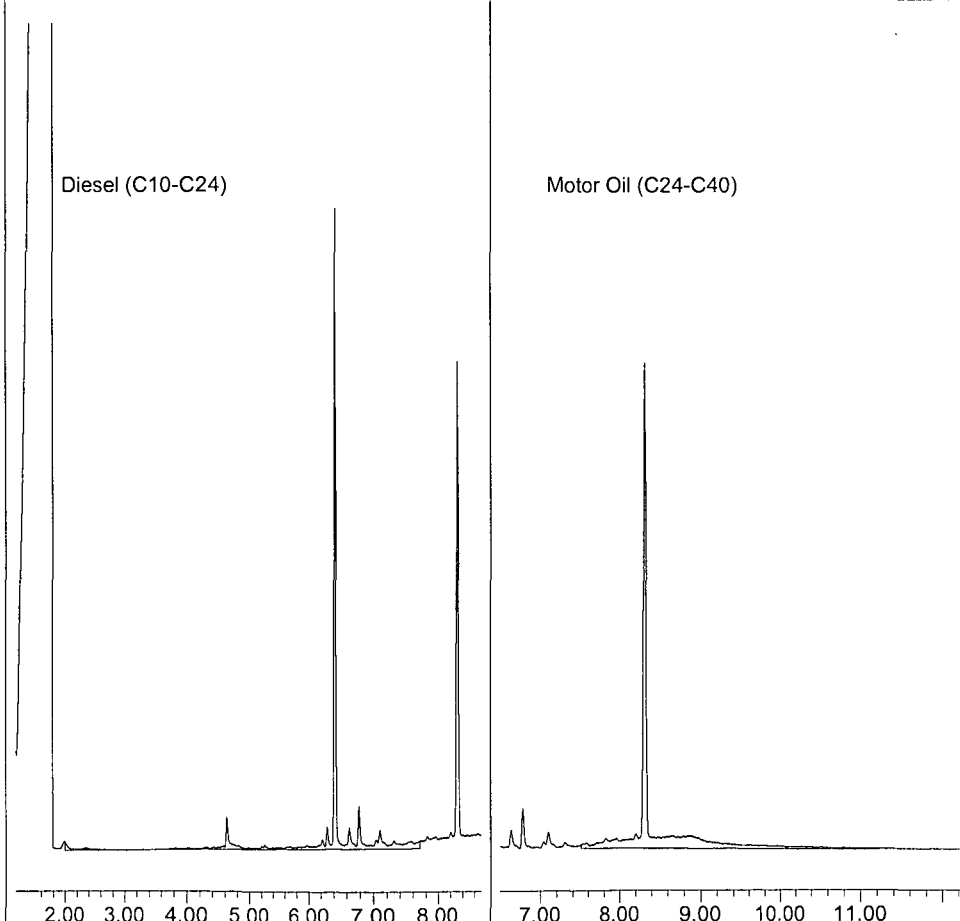
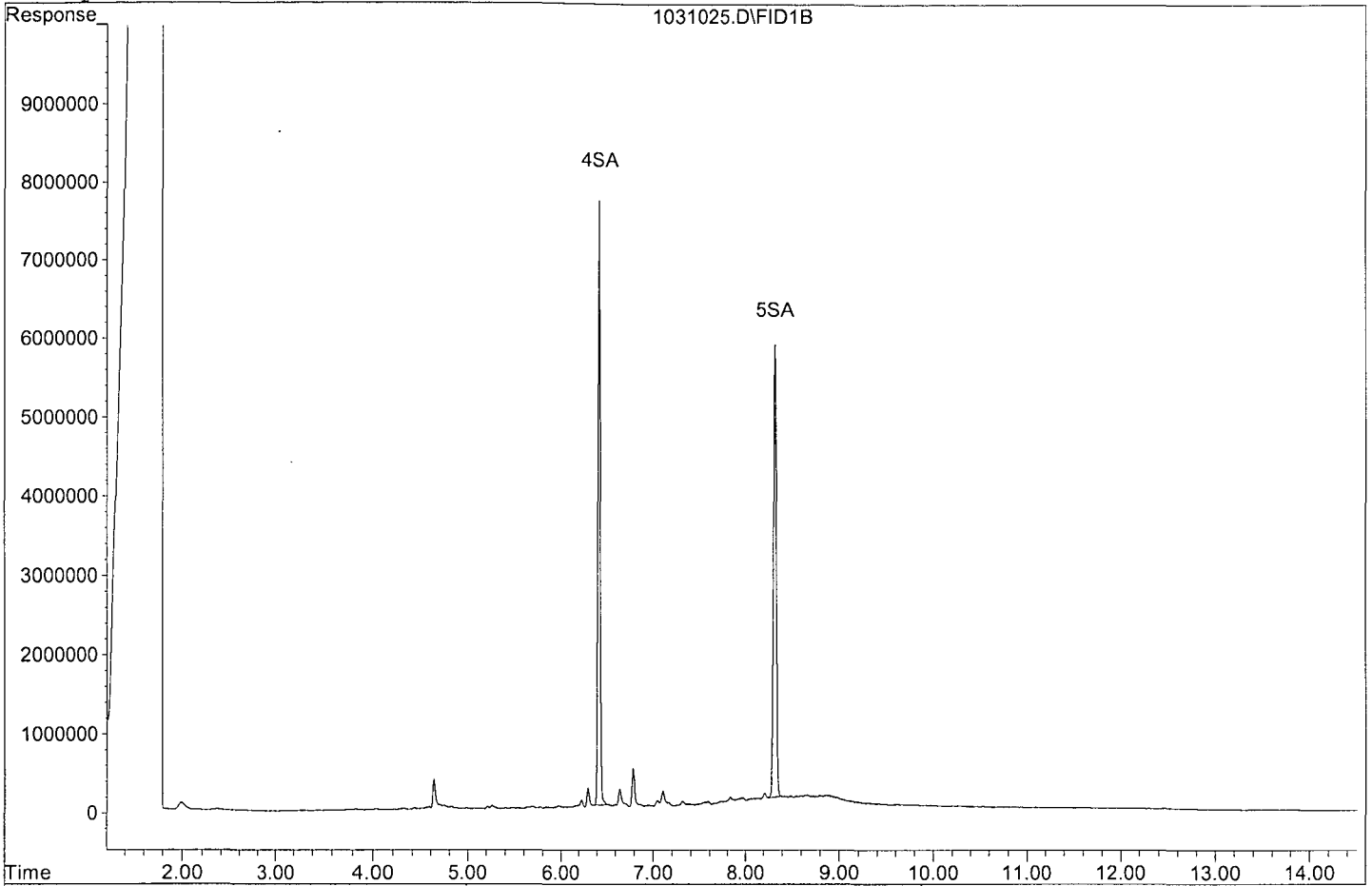
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	128386989	82.881 ppb
Surrogate Spike 75.000		Recovery =	110.51%
5) SA Octacosane(S)	8.32	120414504	93.204 ppb
Surrogate Spike 75.000		Recovery =	124.27%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	128801960	98.256 ppb
2) HBTM Motor Oil (C24-C40)	9.36	140097404	126.179 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031025.D

Sample : AZ81677W14 2/800



Data File : G:\APOLLO\DATA\181107\1107018.D Vial: 18  
 Acq On : 11-7-18 19:09:43 Operator: DP  
 Sample : AZ81677W12 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 8 9:16 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

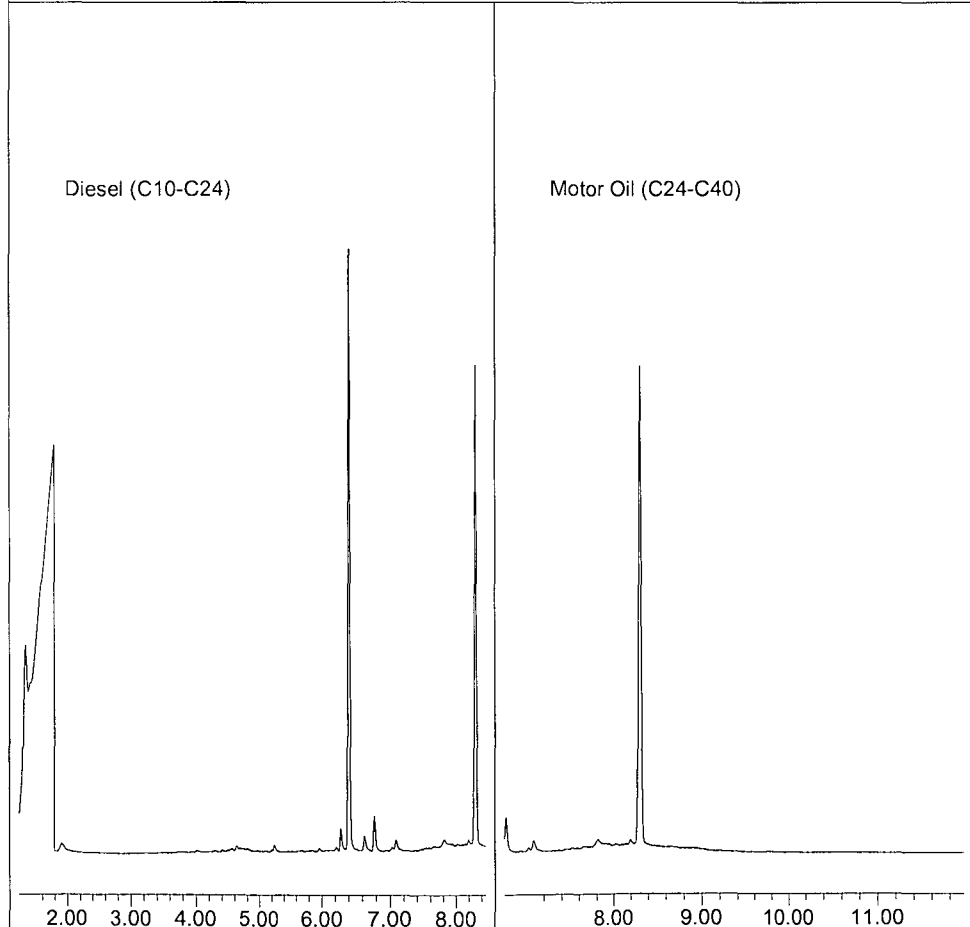
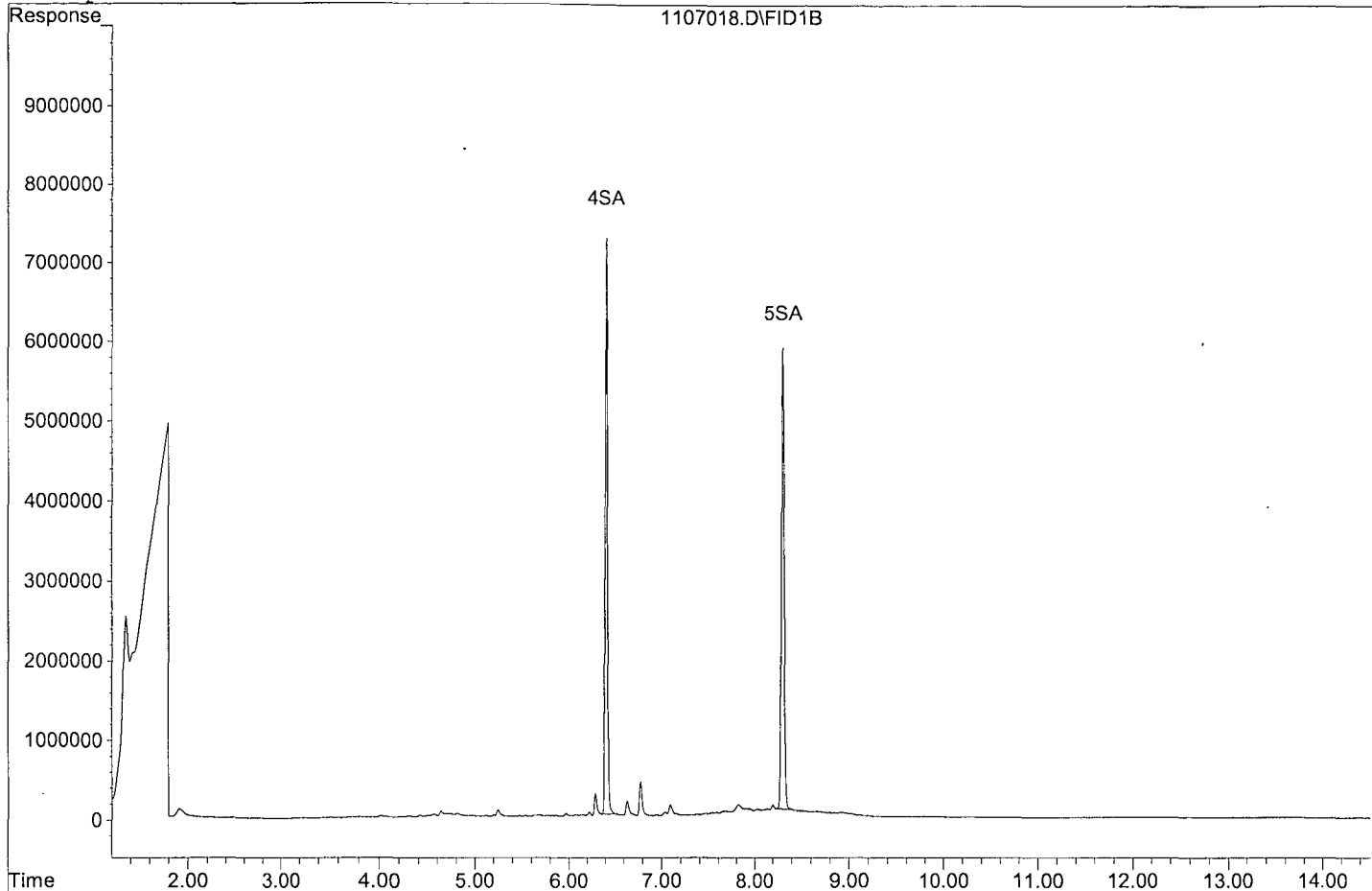
4) SA Ortho-Terphenyl(S)	6.41	125862160	81.251 ppb
Surrogate Spike 75.000		Recovery =	108.33%
5) SA Octacosane(S)	8.31	114760999	88.828 ppb
Surrogate Spike 75.000		Recovery =	118.44%

Target Compounds



Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107018.D  
Sample : AZ81677W12 2/800



Data File : G:\APOLLO\DATA\181031\1031026.D Vial: 26  
 Acq On : 10-31-18 20:24:54 Operator: DP  
 Sample : AZ81678W10 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 1 8:08 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

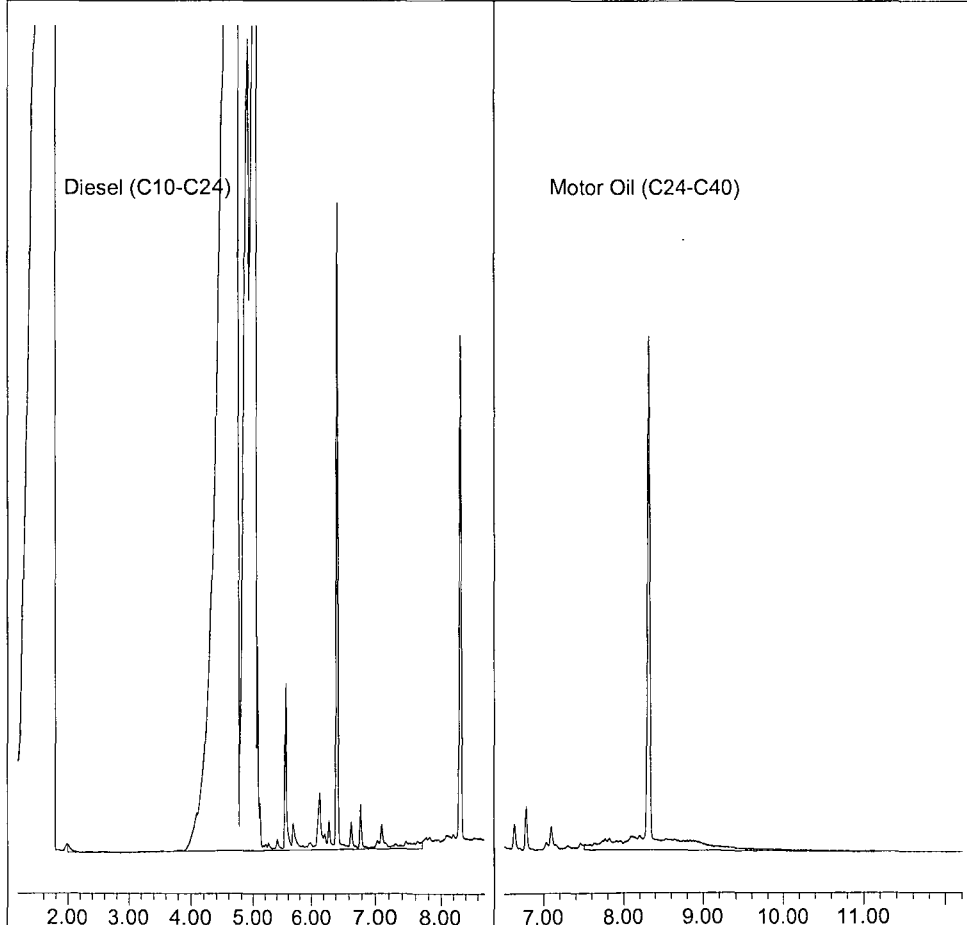
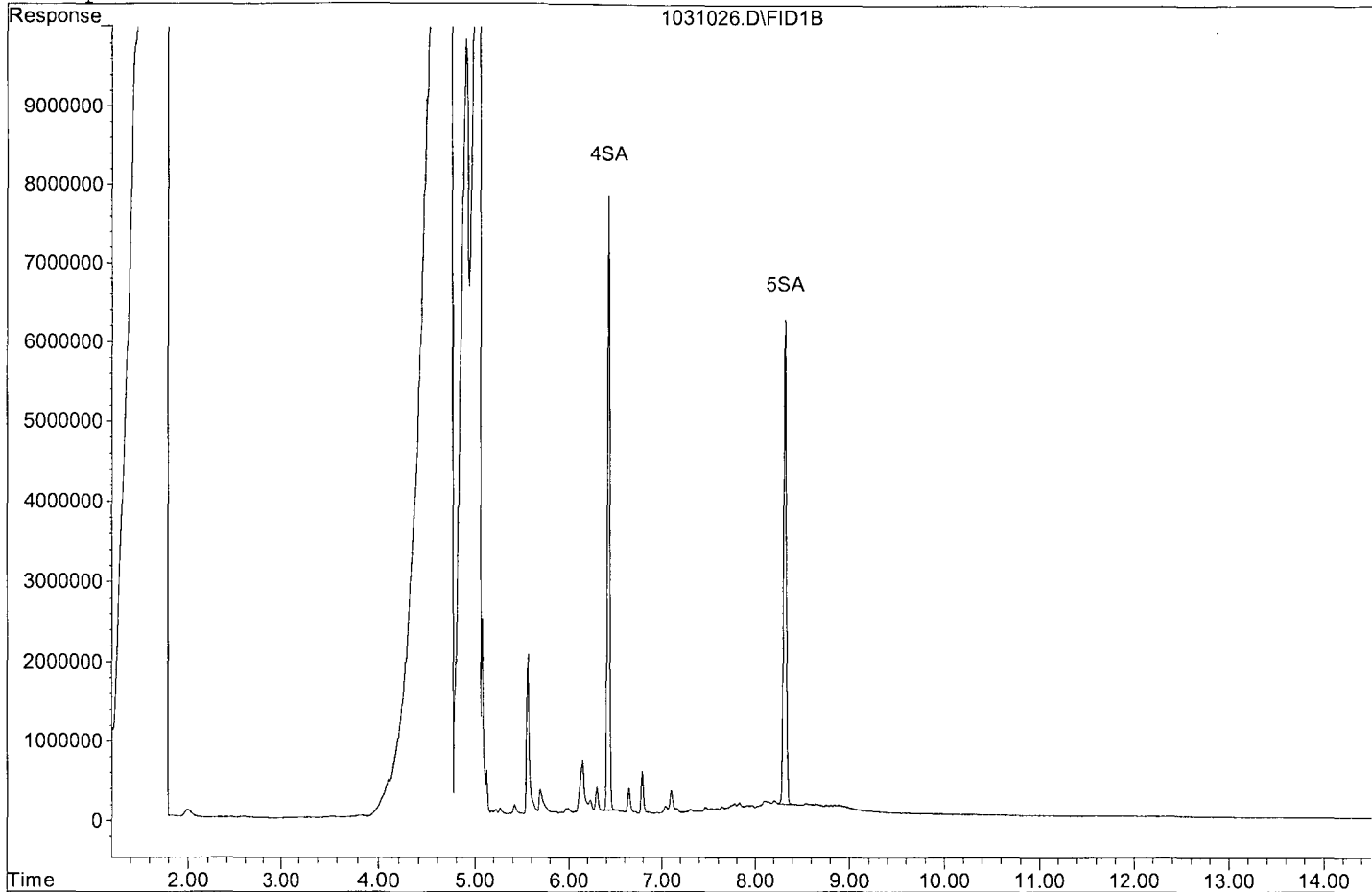
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	130830750	84.458 ppb
Surrogate Spike 75.000		Recovery =	112.61%
5) SA Octacosane(S)	8.32	124066515	96.030 ppb
Surrogate Spike 75.000		Recovery =	128.04%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	5858433036	4469.090 ppb
2) HBTM Motor Oil (C24-C40)	9.36	128493935	115.728 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031026.D

Sample : AZ81678W10 2/800



Data File : G:\APOLLO\DATA\181107\1107021.D Vial: 21  
 Acq On : 11-7-18 20:10:31 Operator: DP  
 Sample : AZ81678W13 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 8 9:17 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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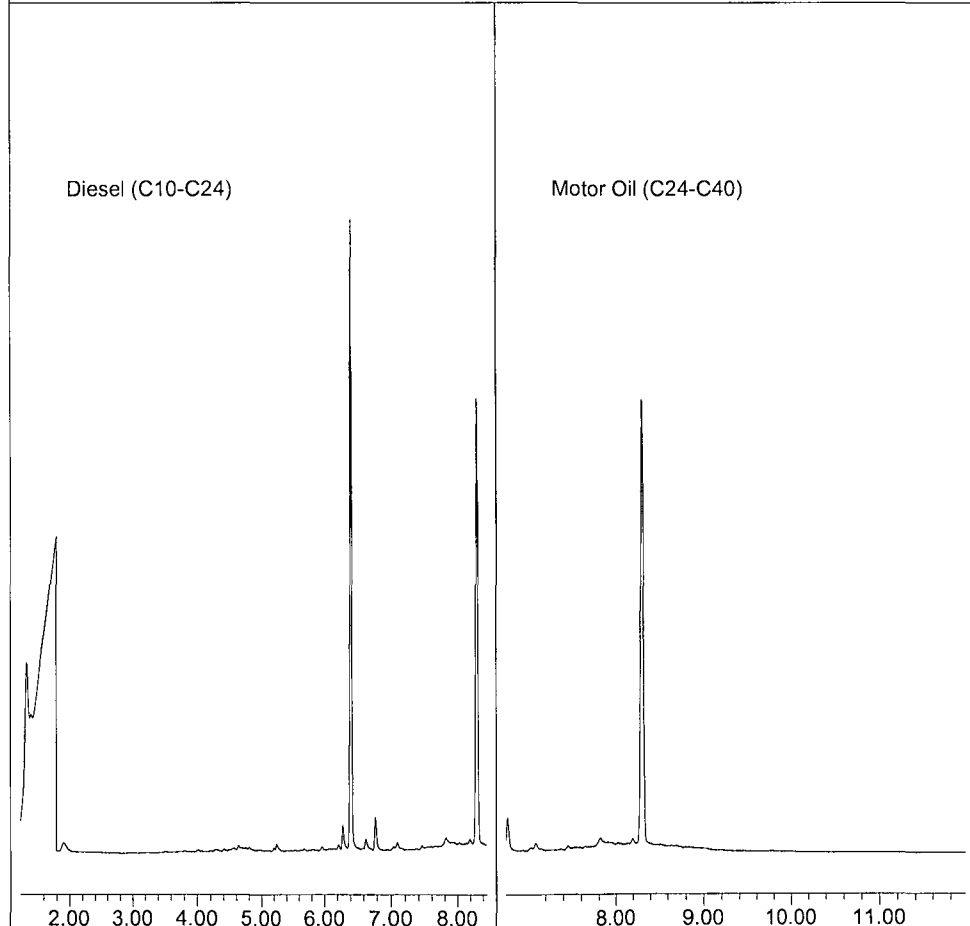
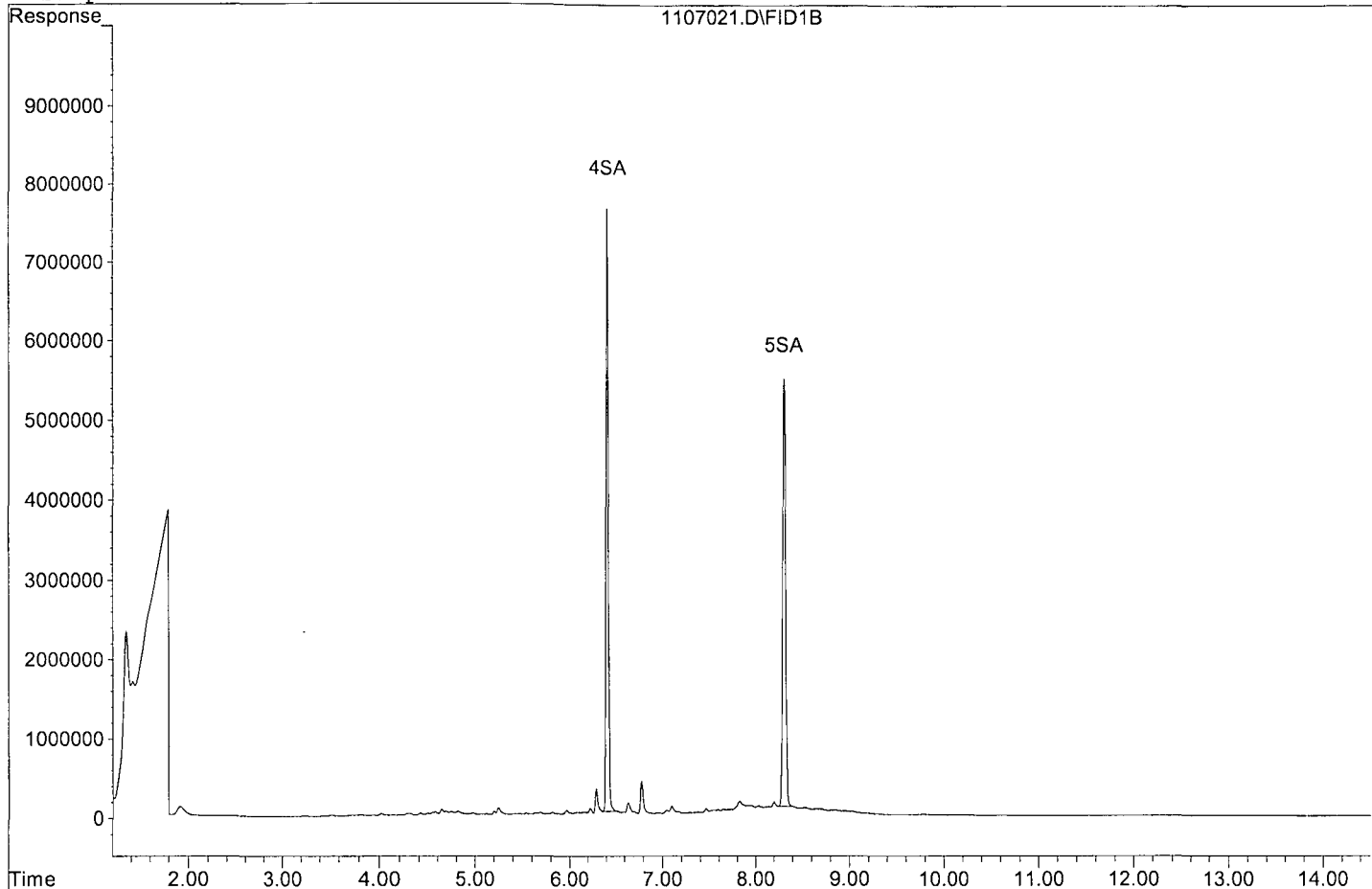
System Monitoring Compounds

4) SA Ortho-Terphenyl(S)	6.41	128893548	83.208 ppb
Surrogate Spike 75.000		Recovery =	110.94%
5) SA Octacosane(S)	8.31	118312289	91.577 ppb
Surrogate Spike 75.000		Recovery =	122.10%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107021.D  
Sample : AZ81678W13 2/800



Data File : G:\APOLLO\DATA\181031\1031004.D Vial: 4  
 Acq On : 10-31-18 13:07:10 Operator: DP  
 Sample : 181029A BLK 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 31 12:34 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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 System Monitoring Compounds

4) SA Ortho-Terphenyl(S)	6.42	133485549	86.172 ppb
Surrogate Spike 75.000		Recovery =	114.90%
5) SA Octacosane(S)	8.32	126068736	97.580 ppb
Surrogate Spike 75.000		Recovery =	130.11%

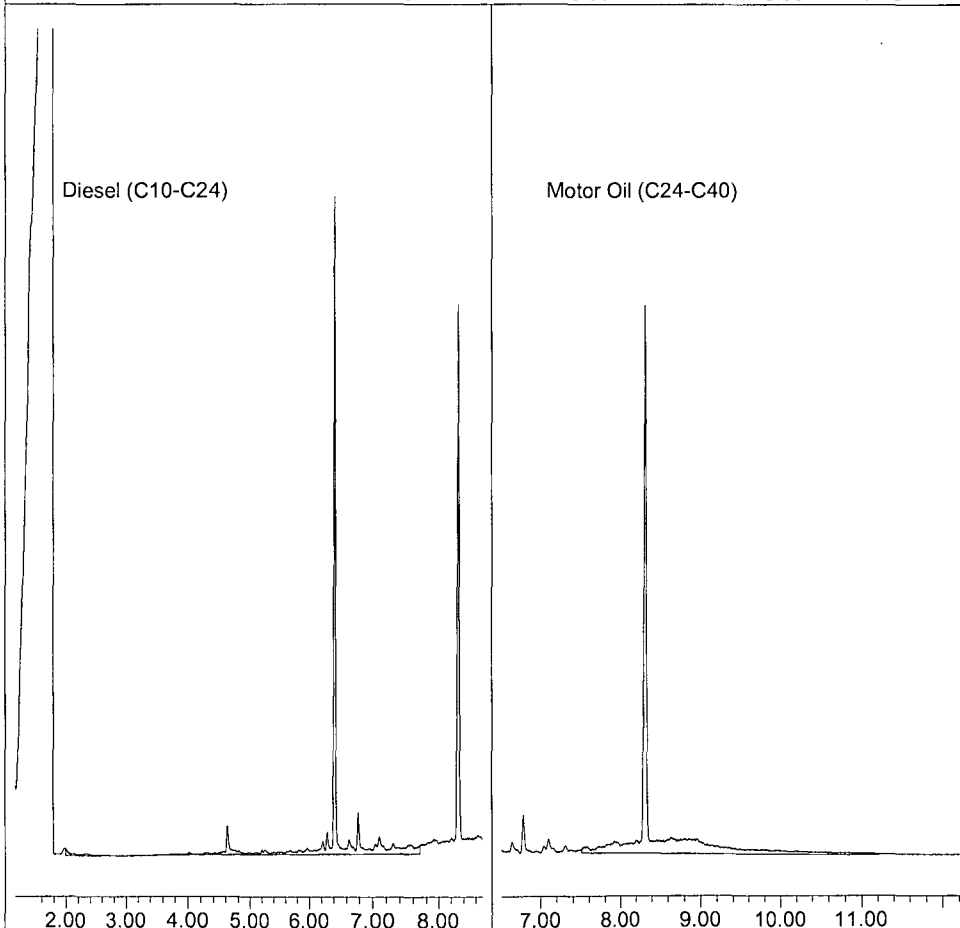
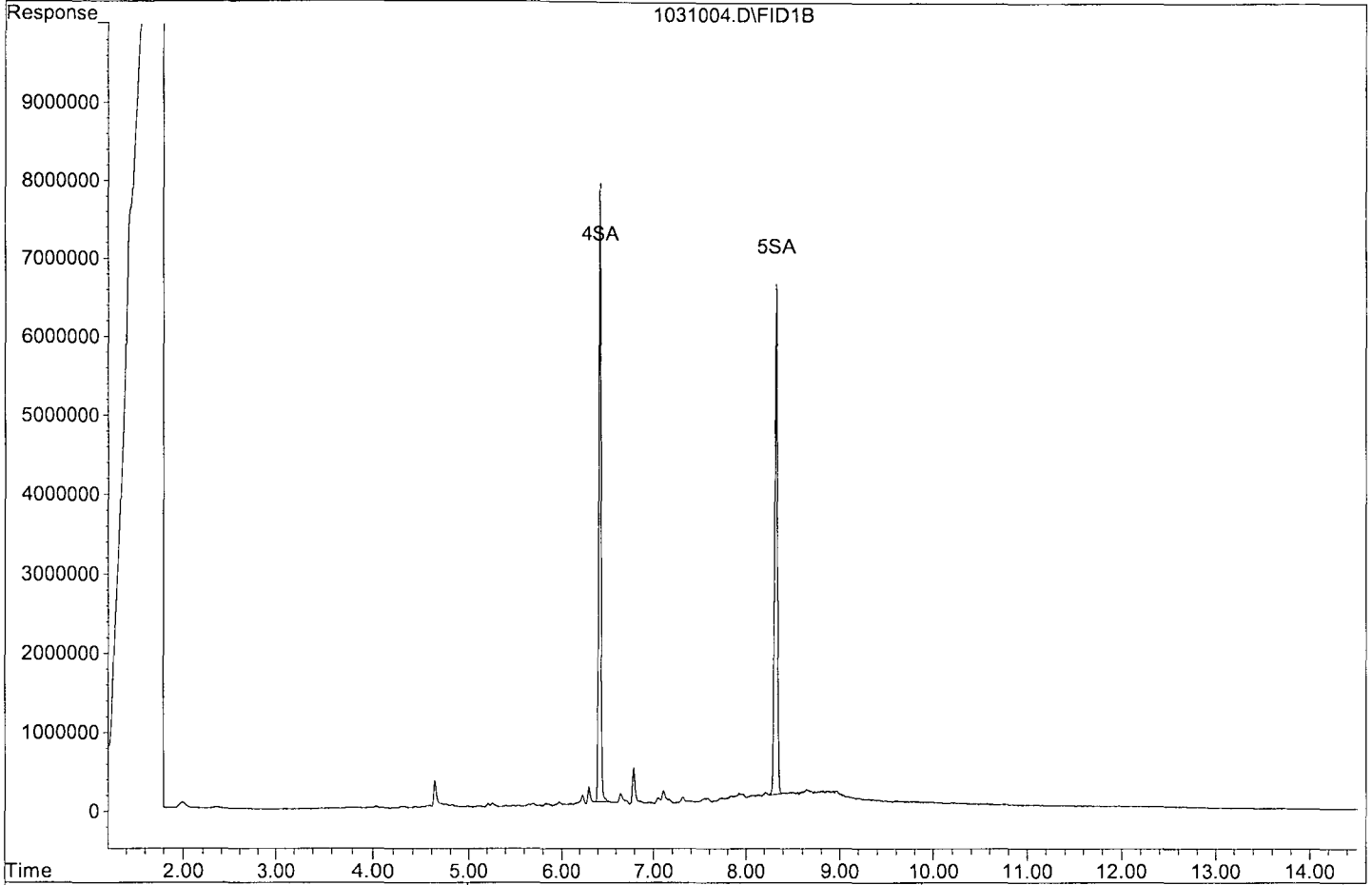
Target Compounds

1) HATM Diesel (C10-C24)	4.86	139543936	106.451 ppb
2) HBTM Motor Oil (C24-C40)	9.36	169088208	152.290 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031004.D

Sample : 181029A BLK 2/800



Data File : G:\APOLLO\DATA\181107\1107004.D Vial: 4  
 Acq On : 11-7-18 14:24:57 Operator: DP  
 Sample : 181105A BLK 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 15:05 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	120181049	77.583 ppb
Surrogate Spike 75.000		Recovery =	103.44%
5) SA Octacosane(S)	8.31	106752854	82.629 ppb
Surrogate Spike 75.000		Recovery =	110.17%

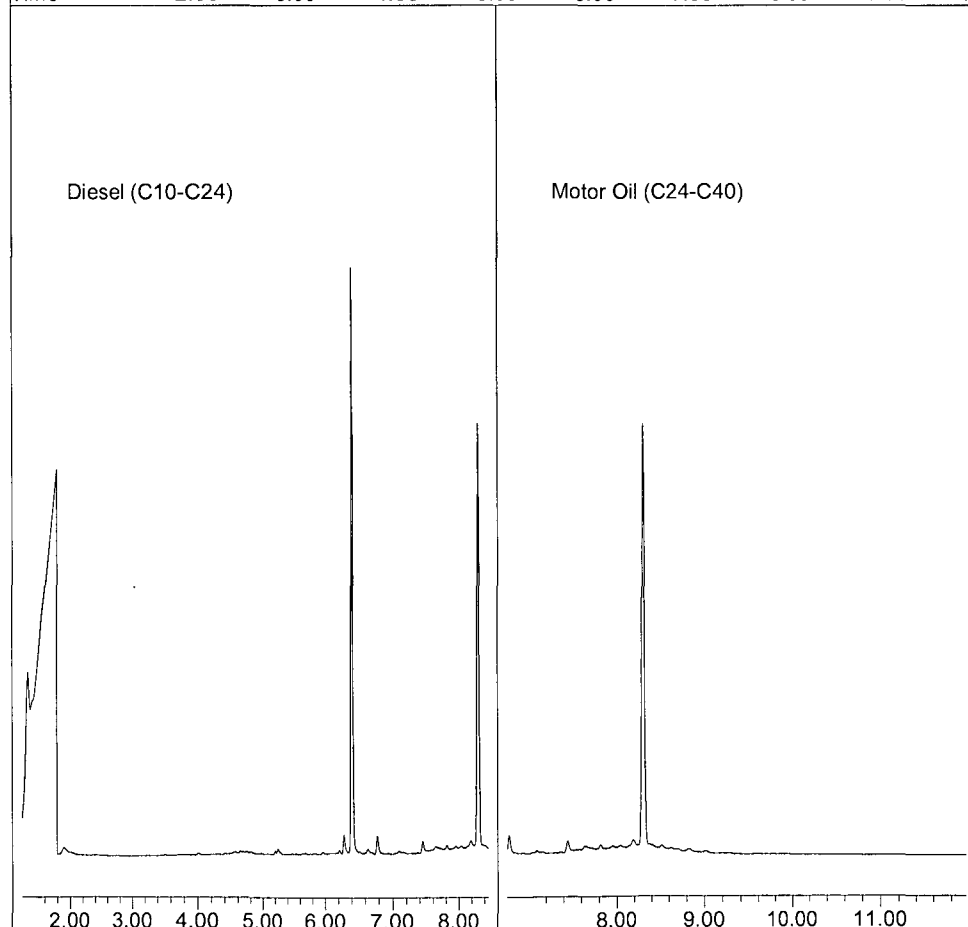
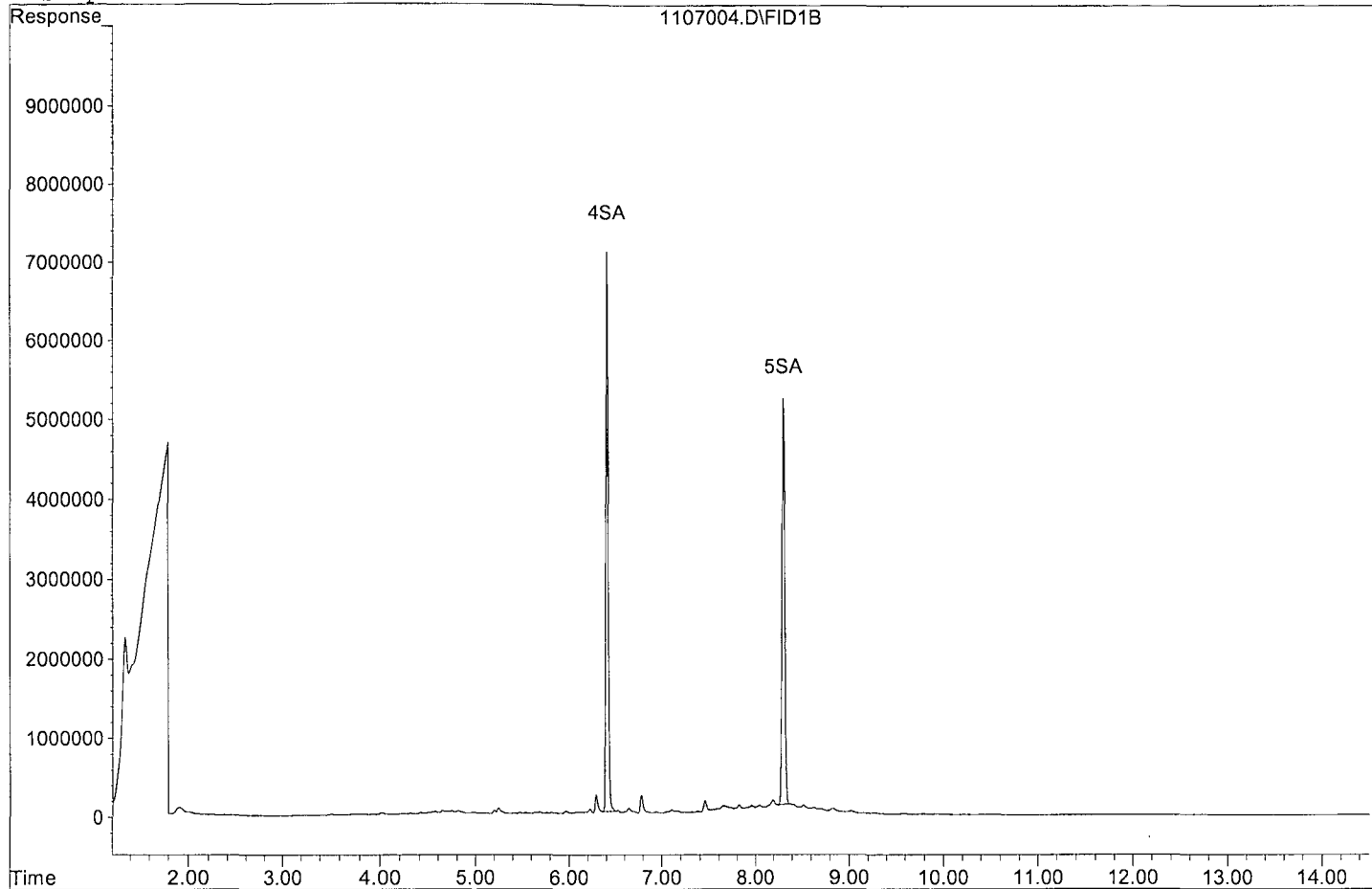
Target Compounds



Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107004.D

Sample : 181105A BLK 2/800



Data File : G:\APOLLO\DATA\181107\1107039.D Vial: 39  
 Acq On : 11-8-18 16:57:41 Operator: DP  
 Sample : 181105A BLK 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:12 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

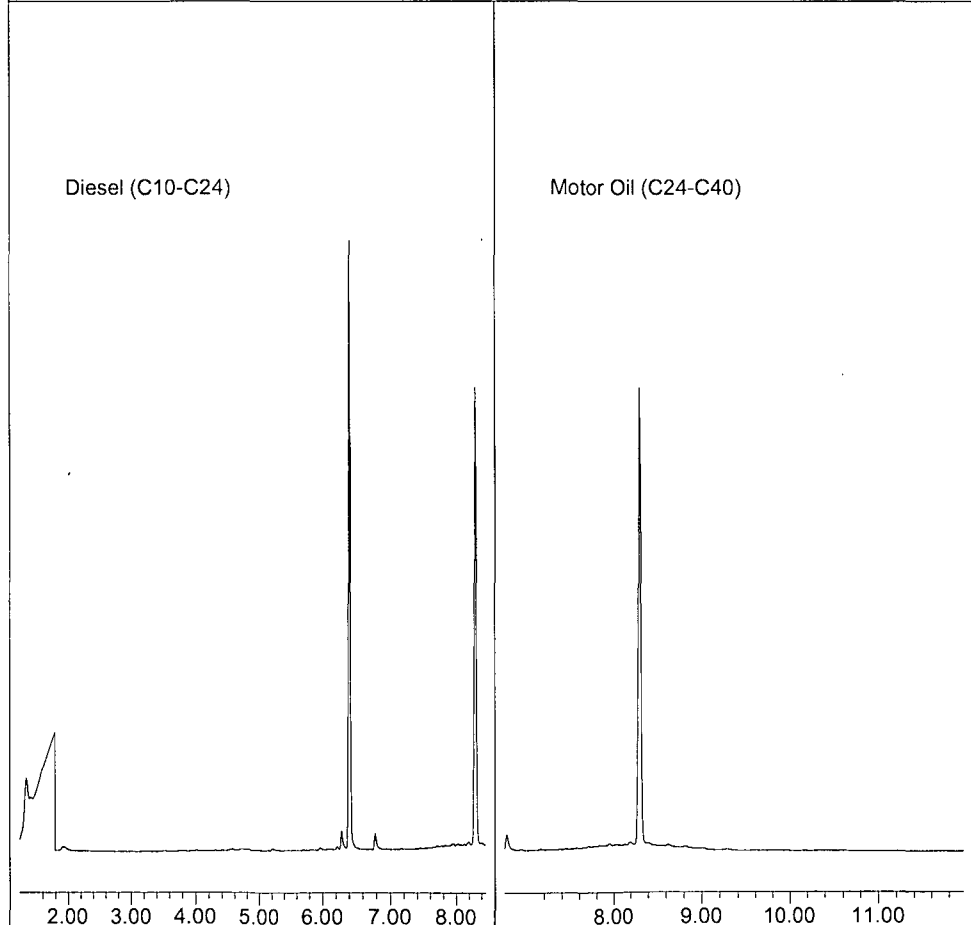
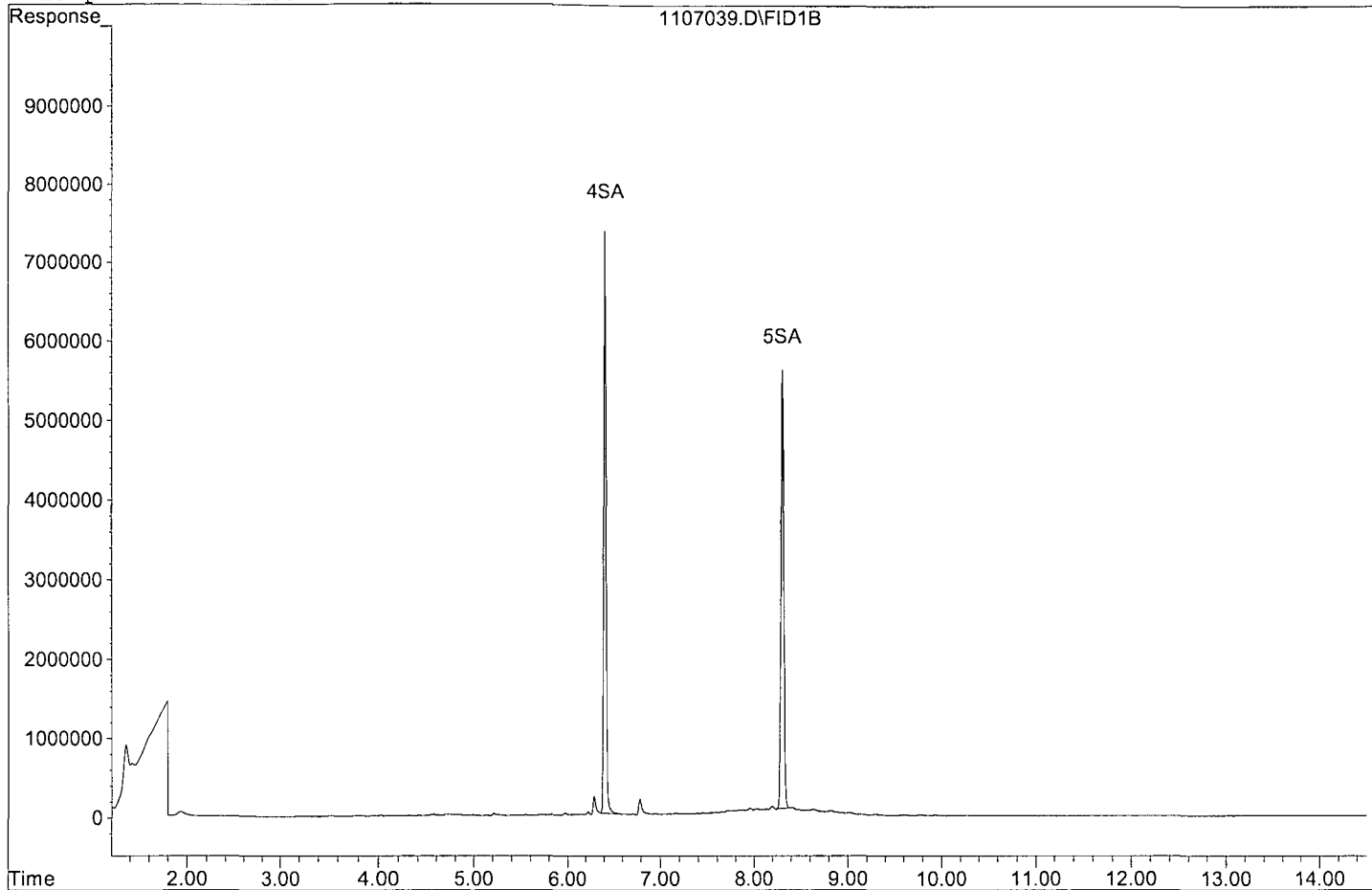
4) SA Ortho-Terphenyl(S)	6.41	125097962	80.757 ppb
Surrogate Spike 75.000		Recovery =	107.68%
5) SA Octacosane(S)	8.30	112214296	86.857 ppb
Surrogate Spike 75.000		Recovery =	115.81%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107039.D

Sample : 181105A BLK 2/800 SGC



Data File : G:\APOLLO\DATA\181031\1031005.D Vial: 5  
 Acq On : 10-31-18 13:27:09 Operator: DP  
 Sample : 181029A LCS-1 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 31 13:11 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

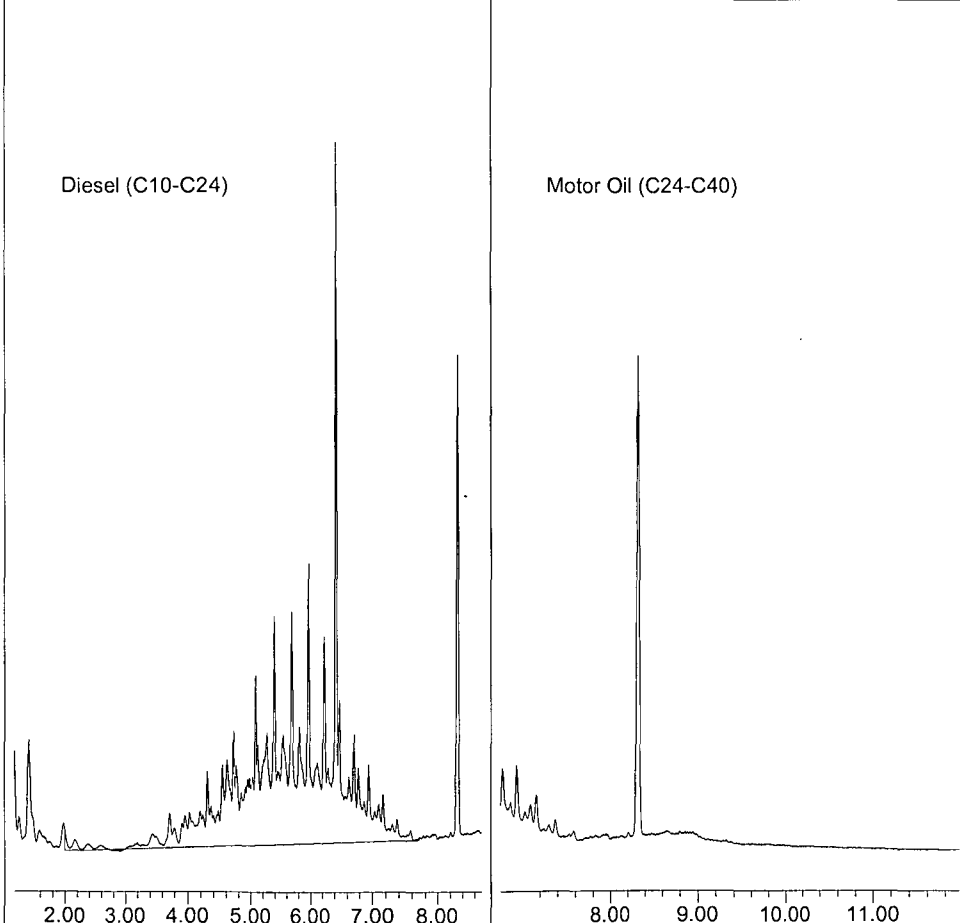
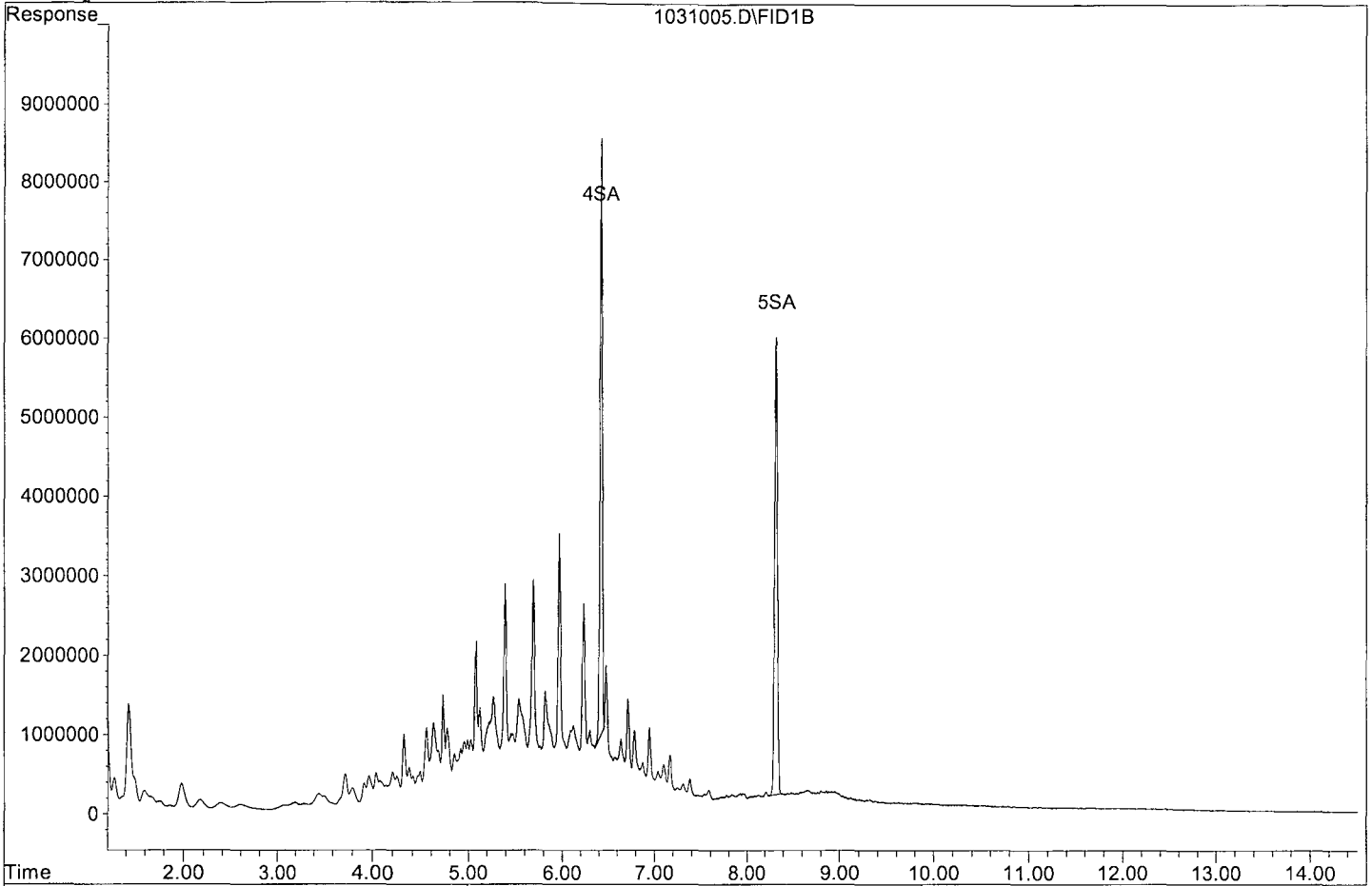
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	124326623	80.260 ppb
Surrogate Spike 75.000		Recovery =	107.01%
5) SA Octacosane(S)	8.32	122965950	95.179 ppb
Surrogate Spike 75.000		Recovery =	126.91%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1587811018	1211.257 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031005.D

Sample : 181029A LCS-1 2/800



Data File : G:\APOLLO\DATA\181107\1107005.D Vial: 5  
 Acq On : 11-7-18 14:45:01 Operator: DP  
 Sample : 181105A LCS-1 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 15:05 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

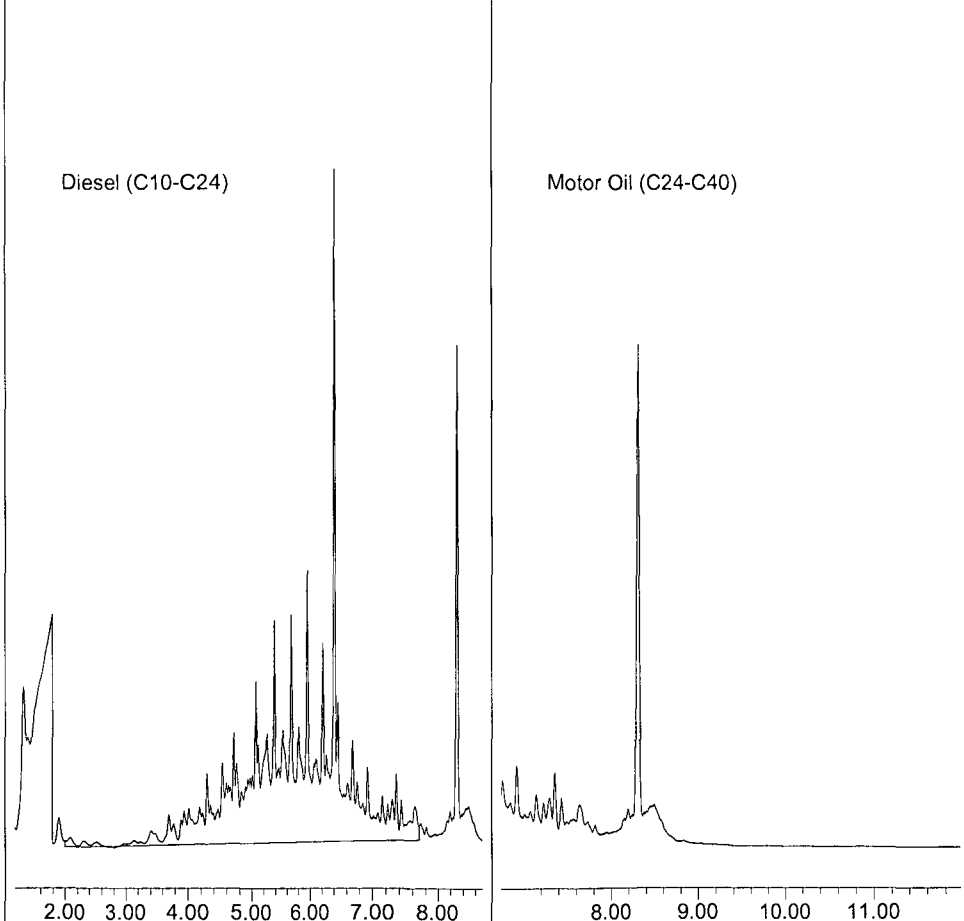
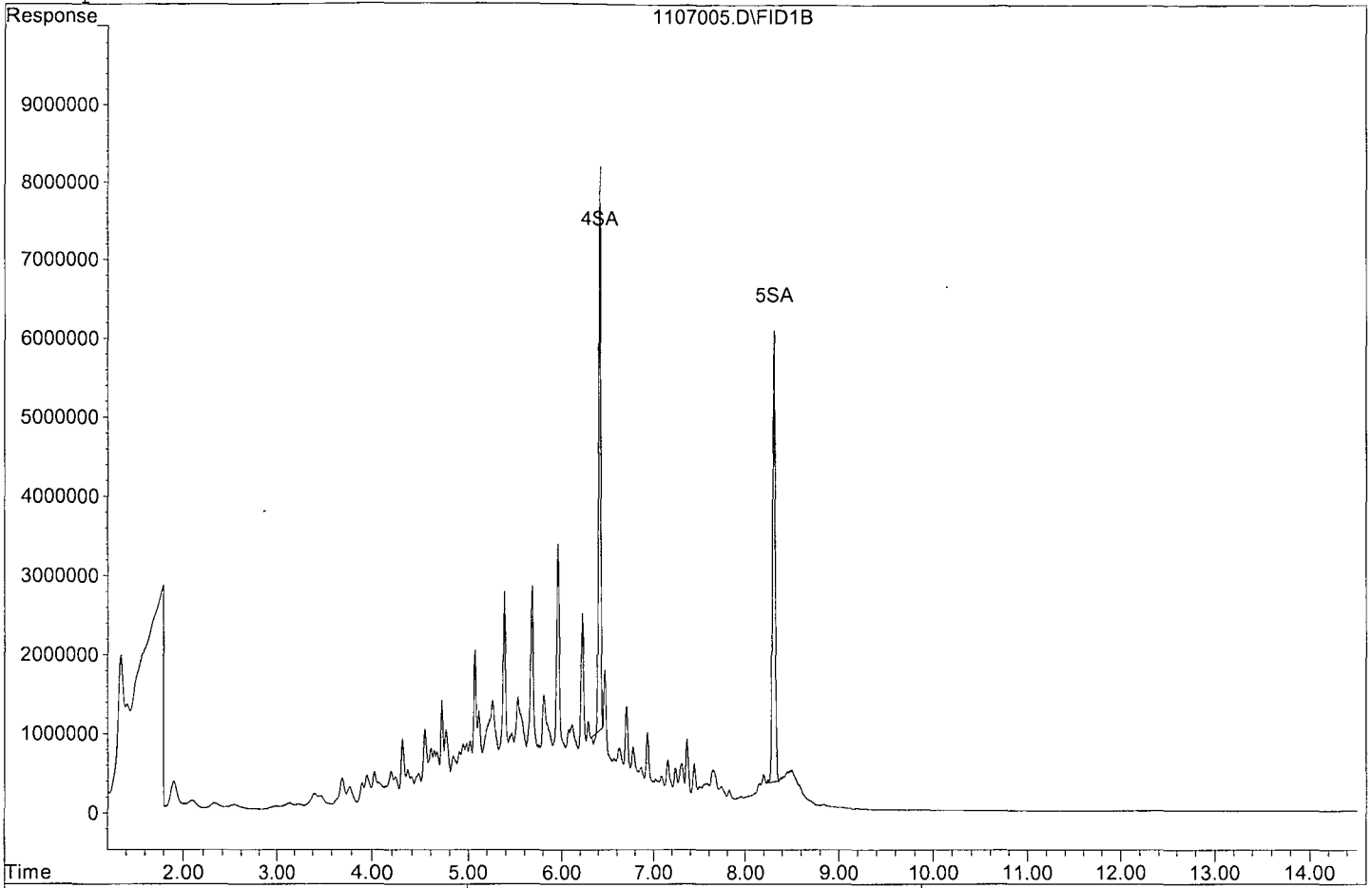
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	111223308	71.801 ppb
Surrogate Spike 75.000		Recovery =	95.73%
5) SA Octacosane(S)	8.31	113189424	87.611 ppb
Surrogate Spike 75.000		Recovery =	116.81%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1661661781	1267.594 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107005.D

Sample : 181105A LCS-1 2/800



Data File : G:\APOLLO\DATA\181107\1107040.D Vial: 40  
 Acq On : 11-8-18 17:18:11 Operator: DP  
 Sample : 181105A LCS-1 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:12 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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 System Monitoring Compounds

4) SA Ortho-Terphenyl(S)	6.41	121227891	78.259 ppb
Surrogate Spike 75.000		Recovery =	104.35%
5) SA Octacosane(S)	8.31	115243390	89.201 ppb
Surrogate Spike 75.000		Recovery =	118.93%

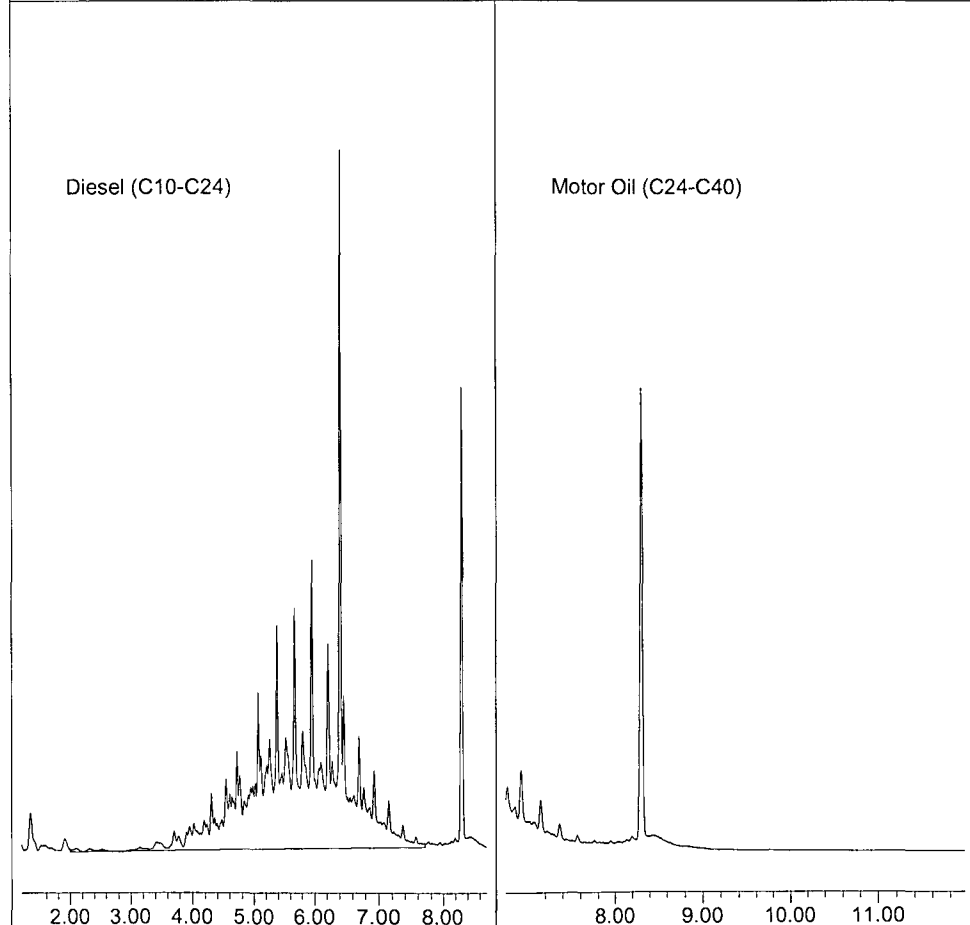
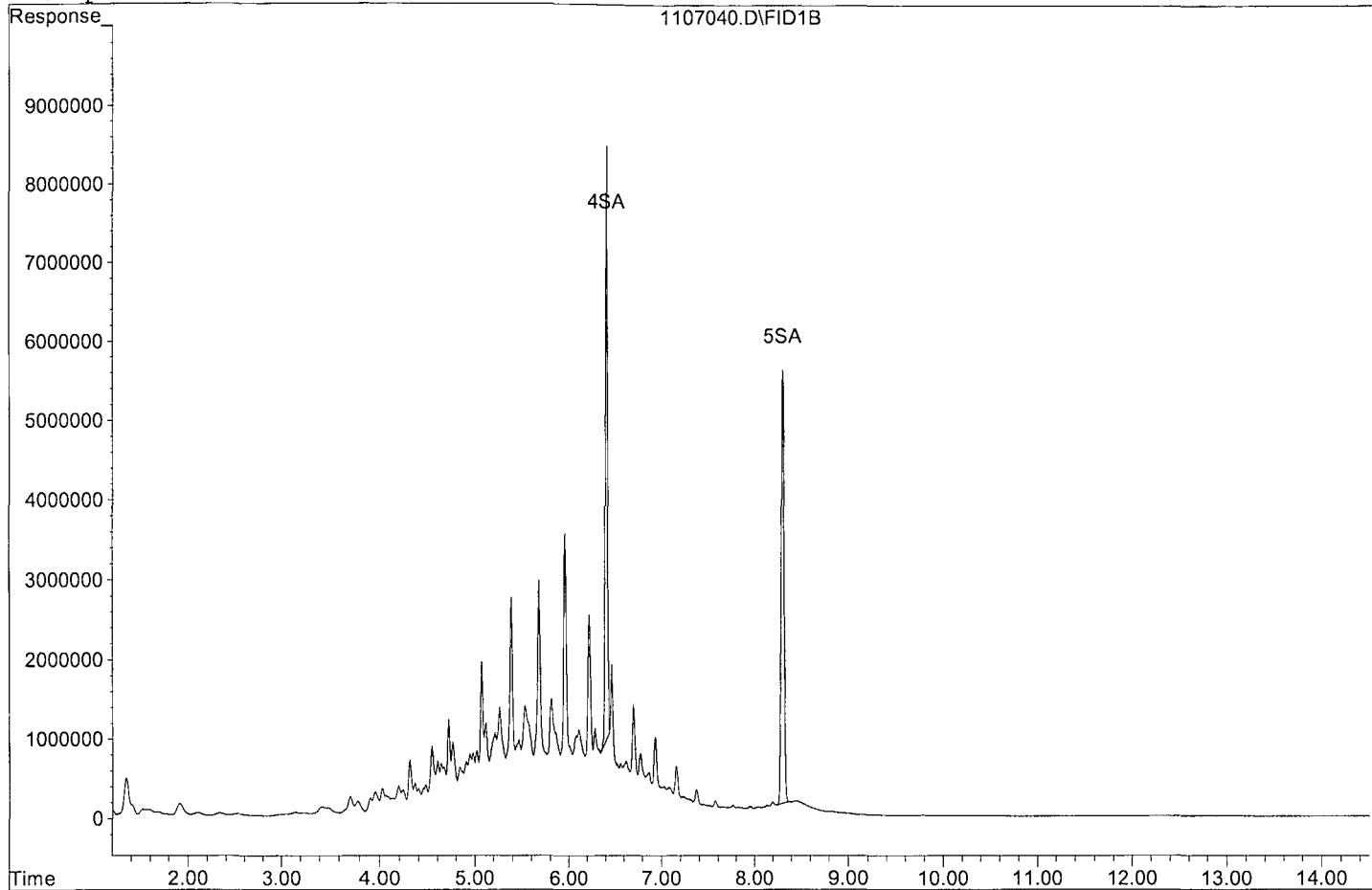
Target Compounds

1) HATM Diesel (C10-C24)	4.86	1528067346	1165.682 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107040.D  
Sample : 181105A LCS-1 2/800 SGC



Data File : G:\APOLLO\DATA\181031\1031006.D Vial: 6  
 Acq On : 10-31-18 13:47:04 Operator: DP  
 Sample : 181029A LCS-2 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 31 13:11 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

4) SA Ortho-Terphenyl(S)	6.42	131538659	84.915 ppb
Surrogate Spike 75.000		Recovery =	113.22%
5) SA Octacosane(S)	8.33	120728819	93.447 ppb
Surrogate Spike 75.000		Recovery =	124.60%

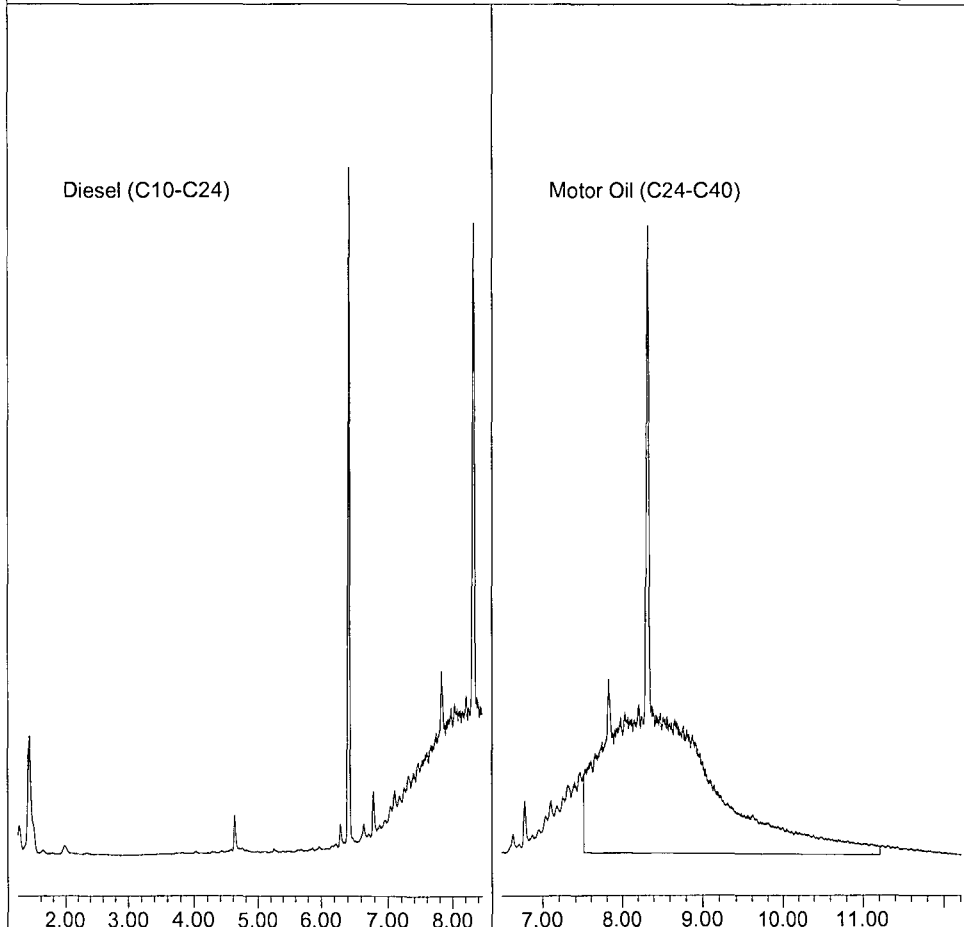
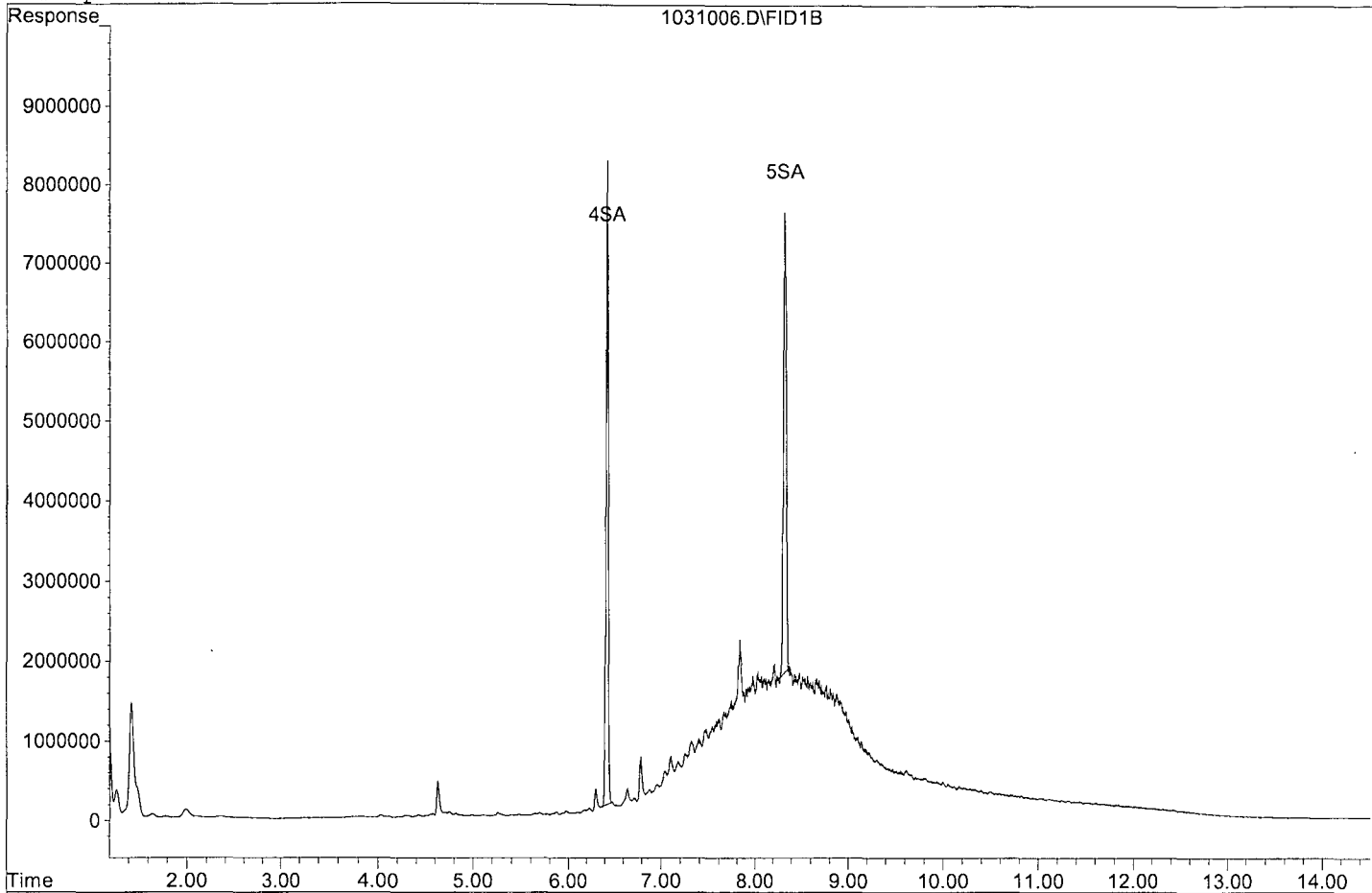
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	1738408382	1565.700 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031006.D

Sample : 181029A LCS-2 2/800



Data File : G:\APOLLO\DATA\181107\1107006.D Vial: 6  
 Acq On : 11-7-18 15:05:06 Operator: DP  
 Sample : 181105A LCS-2 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 15:23 2018 Quant Results File: DOC0905.RES

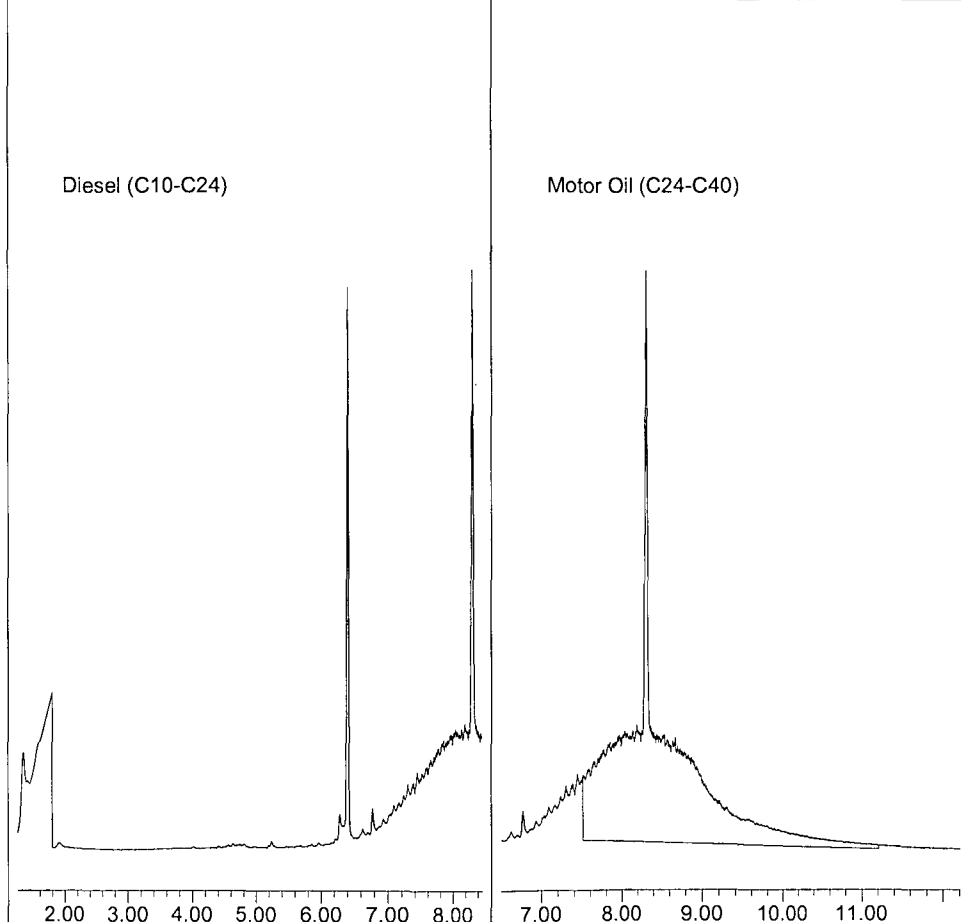
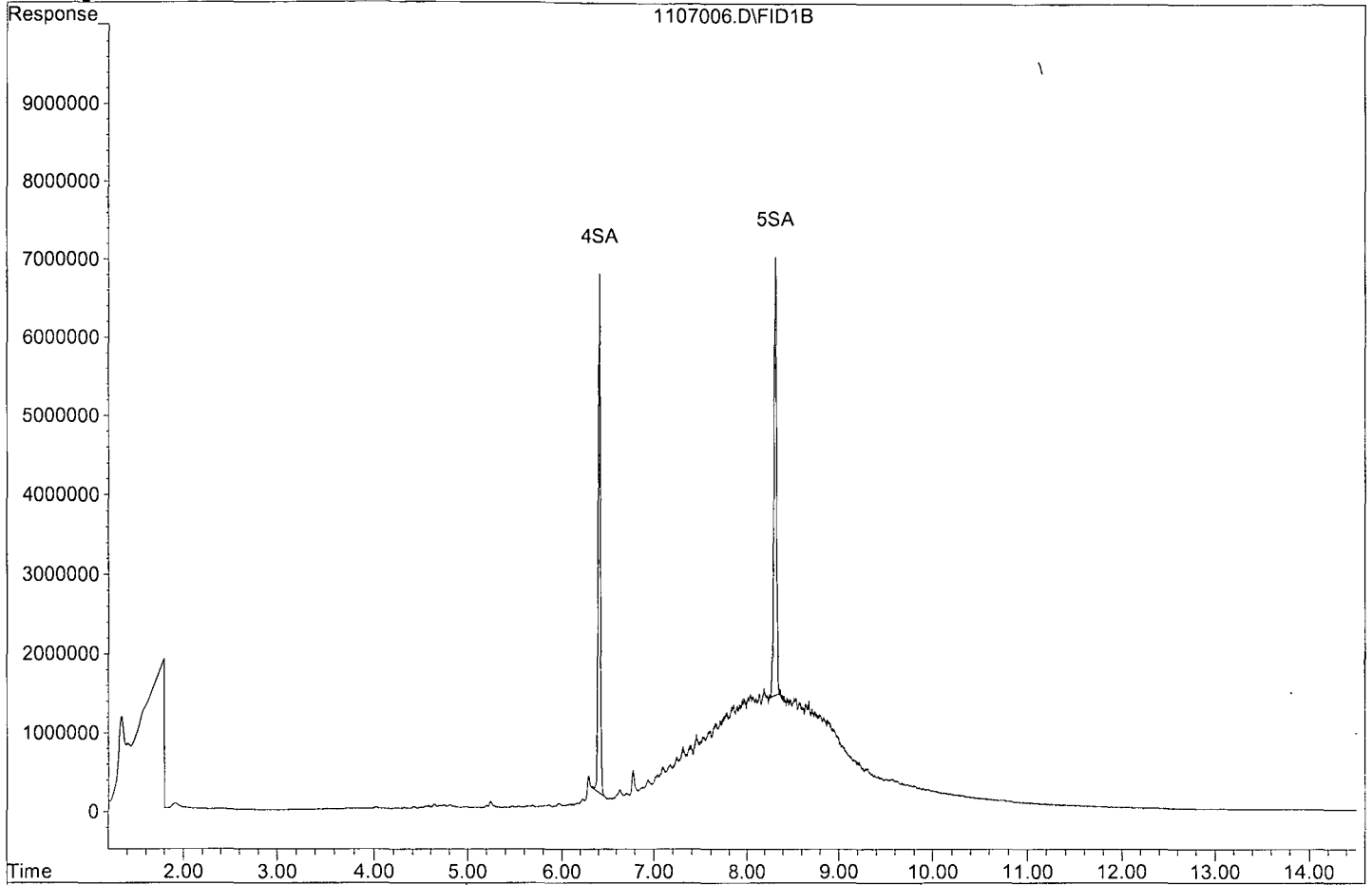
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	109672489	70.800 ppb
Surrogate Spike 75.000		Recovery =	94.40%
5) SA Octacosane(S)	8.31	108757242	84.181 ppb
Surrogate Spike 75.000		Recovery =	112.24%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1301672640	1172.353 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107006.D  
Sample : 181105A LCS-2 2/800



Data File : G:\APOLLO\DATA\181107\1107041.D Vial: 41  
 Acq On : 11-8-18 17:38:32 Operator: DP  
 Sample : 181105A LCS-2 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:12 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

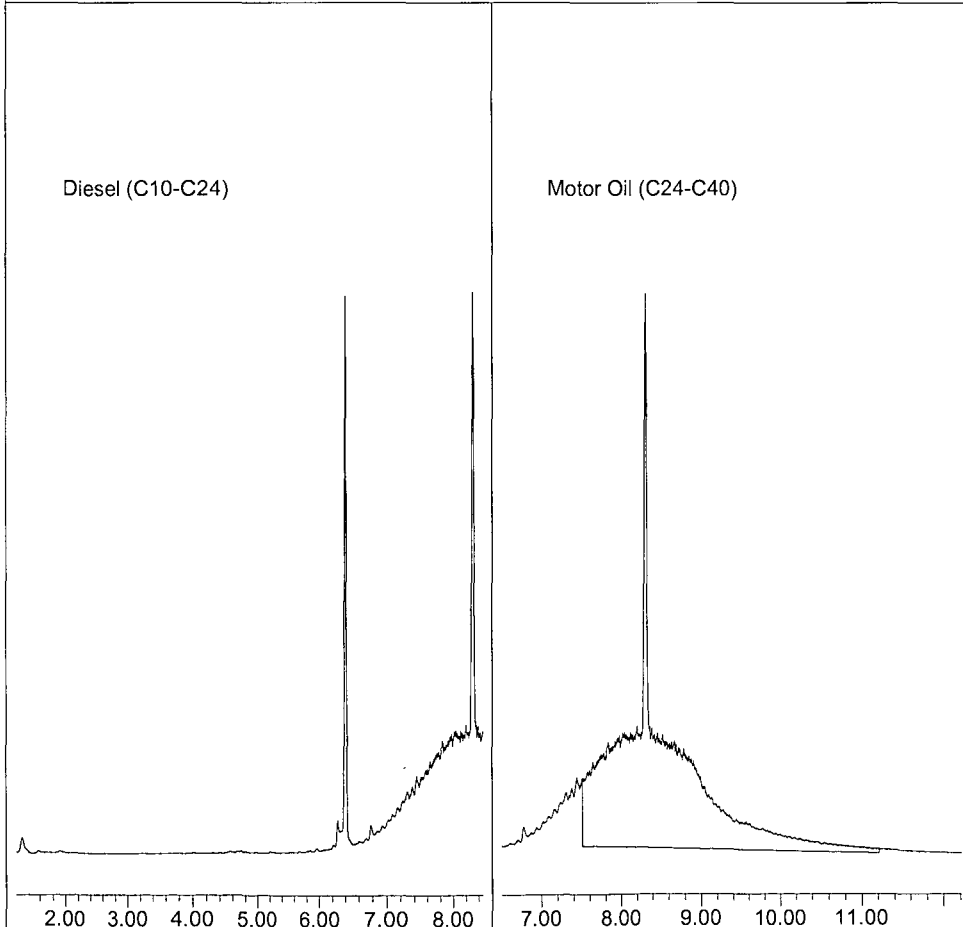
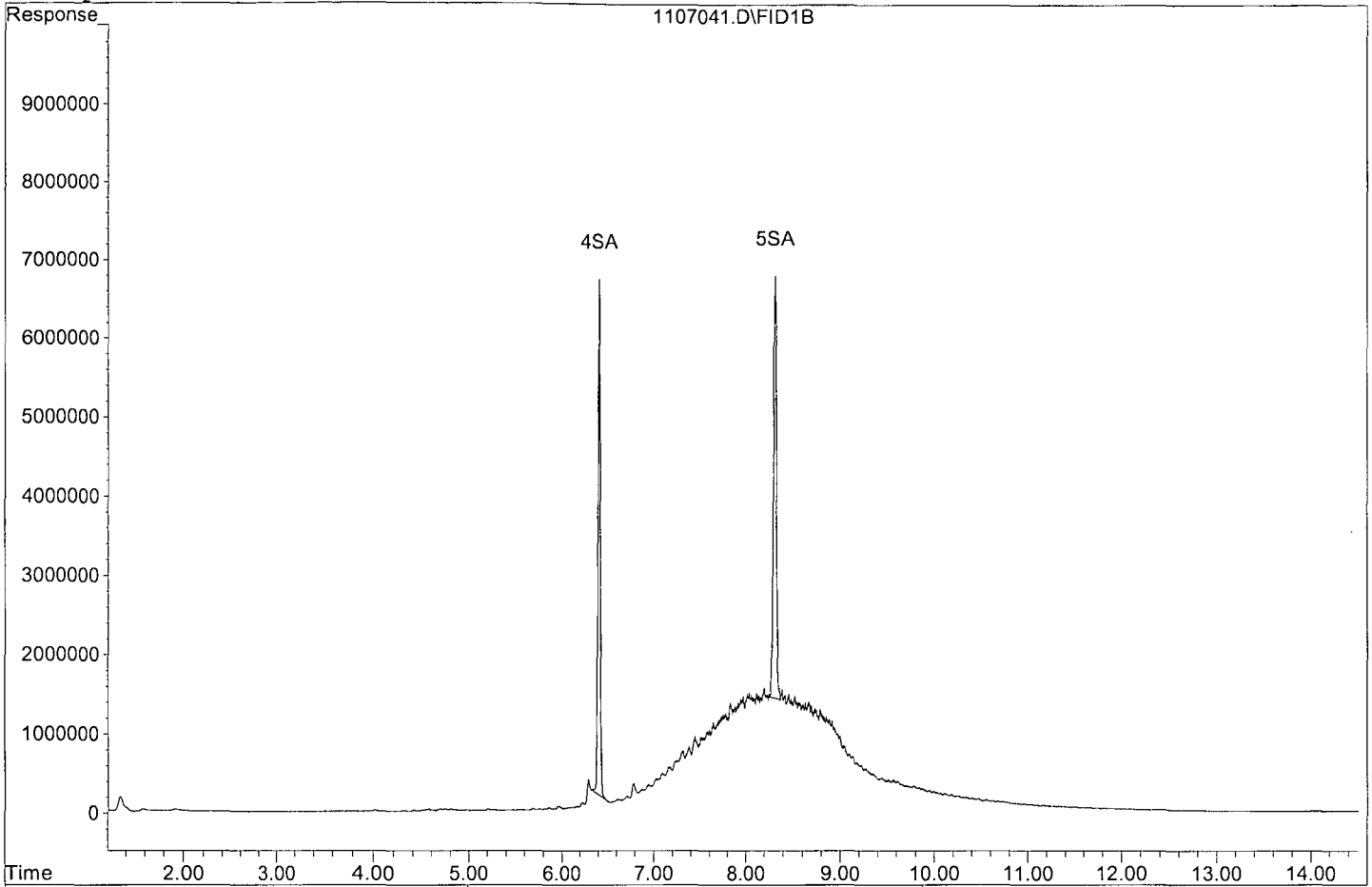
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	111601685	72.045 ppb
Surrogate Spike 75.000		Recovery =	96.06%
5) SA Octacosane(S)	8.31	116564683	90.224 ppb
Surrogate Spike 75.000		Recovery =	120.30%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1353843261	1219.341 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107041.D

Sample : 181105A LCS-2 2/800 SGC



Data File : G:\APOLLO\DATA\181031\1031007.D Vial: 7  
 Acq On : 10-31-18 14:06:12 Operator: DP  
 Sample : 181029A LCSD-1 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 31 15:08 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

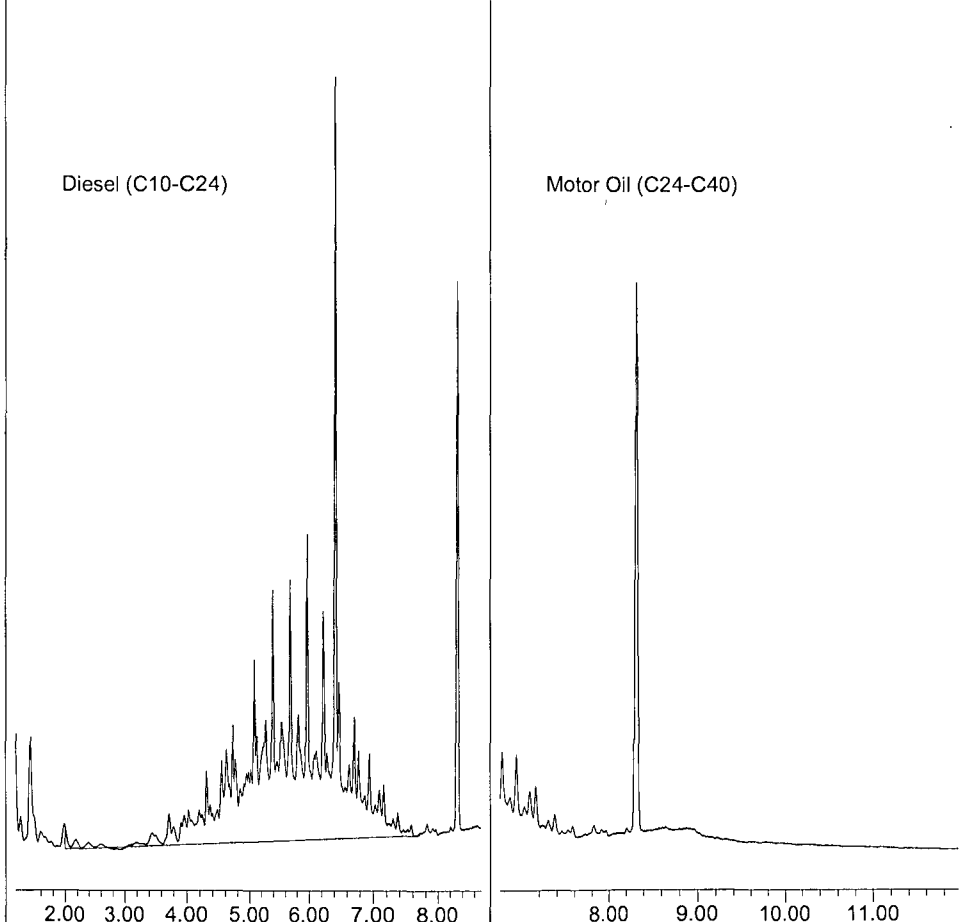
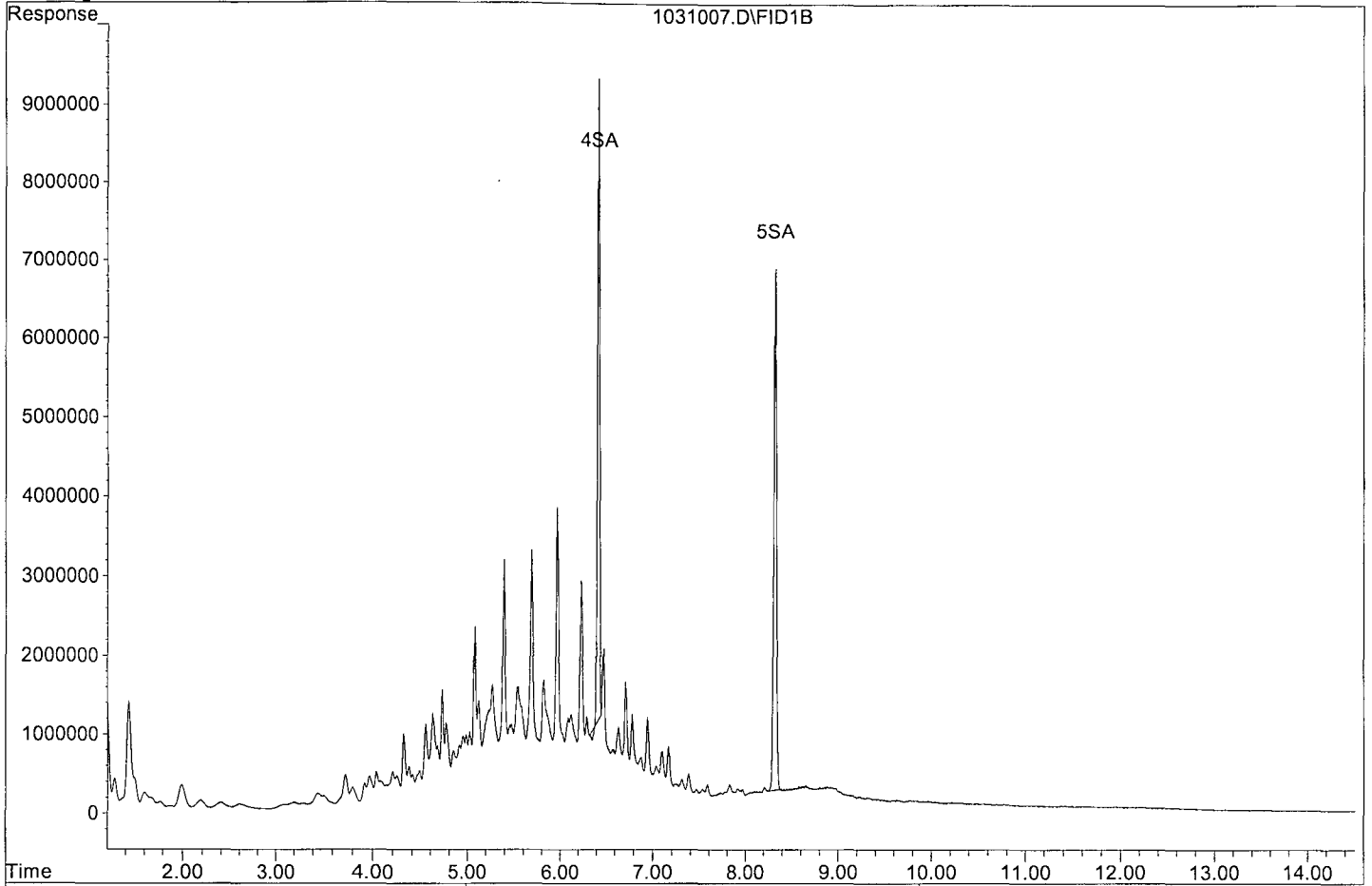
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	130380912	84.168 ppb
Surrogate Spike 75.000		Recovery =	112.22%
5) SA Octacosane(S)	8.32	134459291	104.075 ppb
Surrogate Spike 75.000		Recovery =	138.77%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1712638199	1306.482 ppb



Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031007.D

Sample : 181029A LCSD-1 2/800



Data File : G:\APOLLO\DATA\181107\1107007.D Vial: 7  
 Acq On : 11-7-18 15:25:09 Operator: DP  
 Sample : 181105A LCSD-1 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 16:22 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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 System Monitoring Compounds

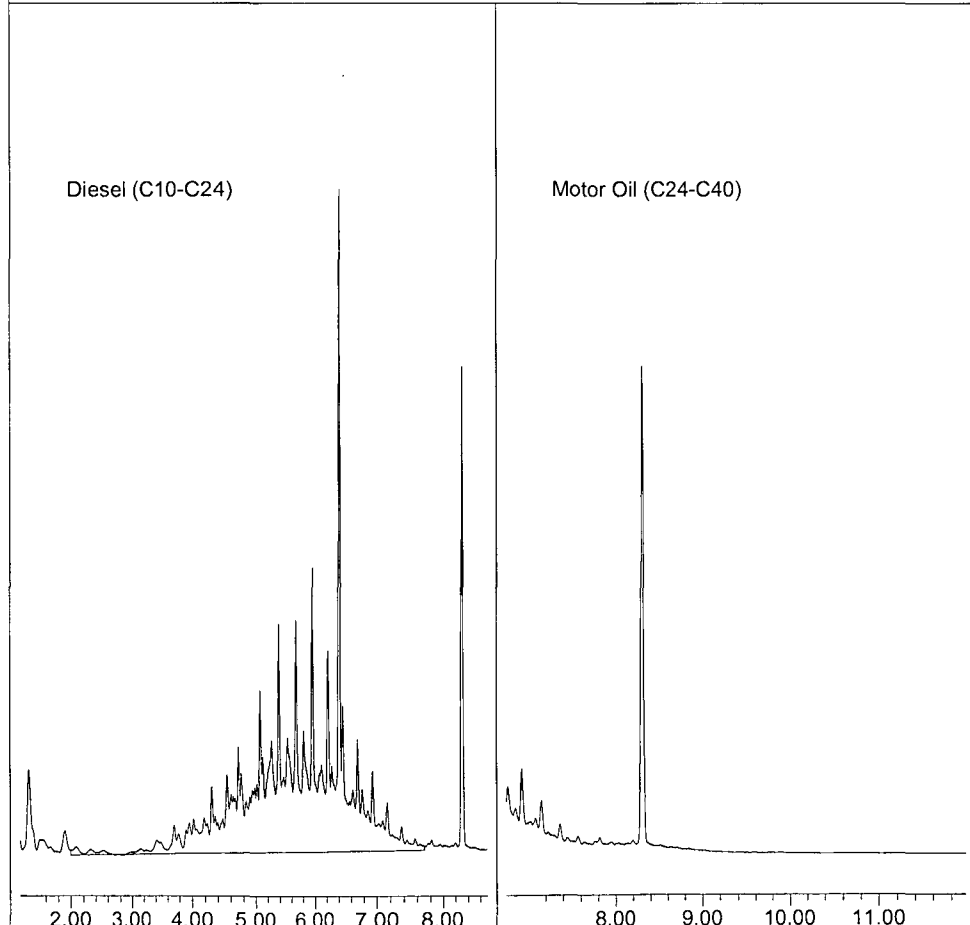
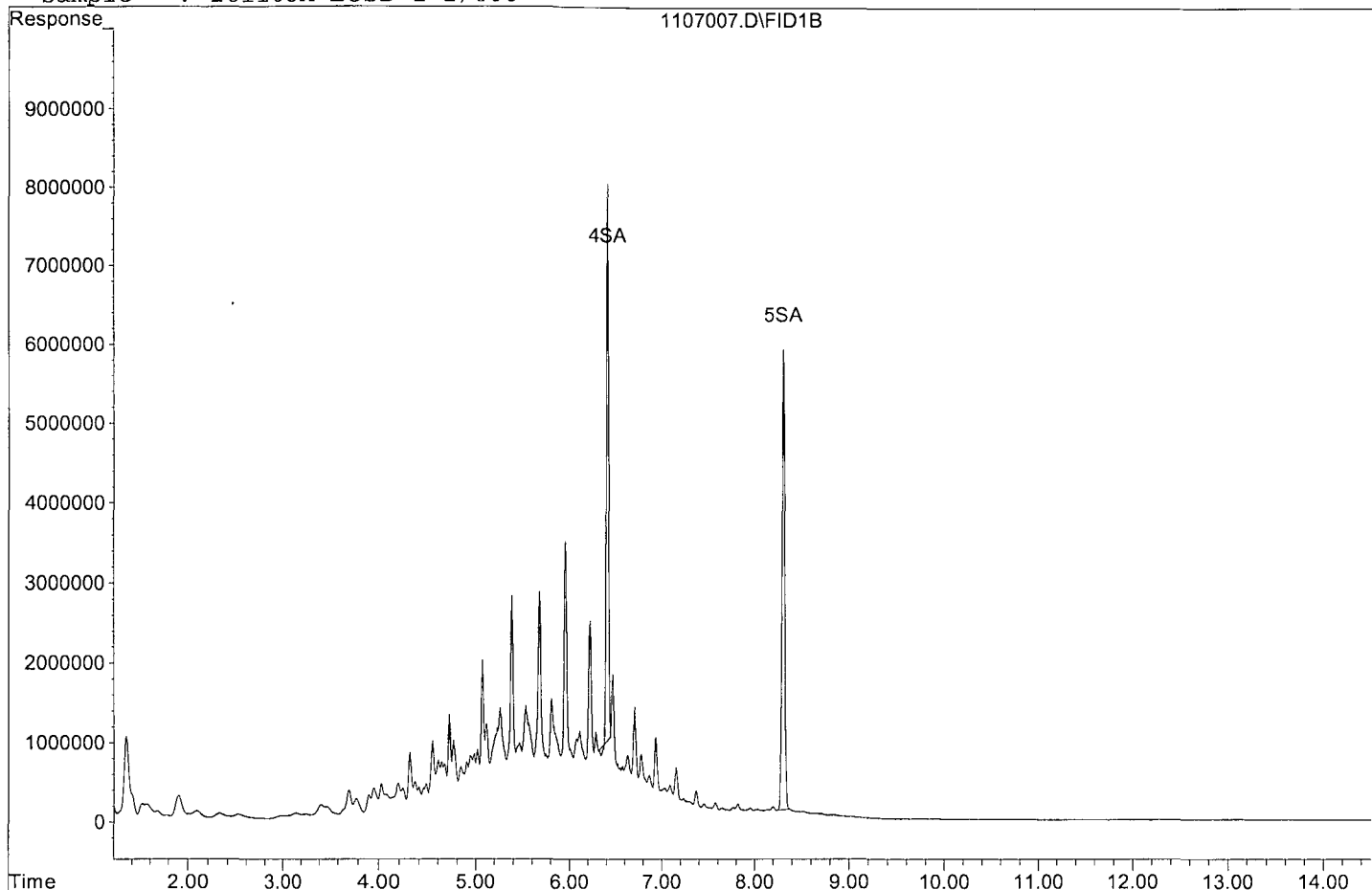
4) SA Ortho-Terphenyl(S)	6.41	114158680	73.696 ppb
Surrogate Spike 75.000		Recovery =	98.26%
5) SA Octacosane(S)	8.31	113691490	88.000 ppb
Surrogate Spike 75.000		Recovery =	117.33%

Target Compounds

1) HATM Diesel (C10-C24)	4.86	1620538315	1236.223 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107007.D  
Sample : 181105A LCSD-1 2/800



Data File : G:\APOLLO\DATA\181107\1107042.D Vial: 42  
 Acq On : 11-8-18 17:58:56 Operator: DP  
 Sample : 181105A LCSD-1 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:12 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

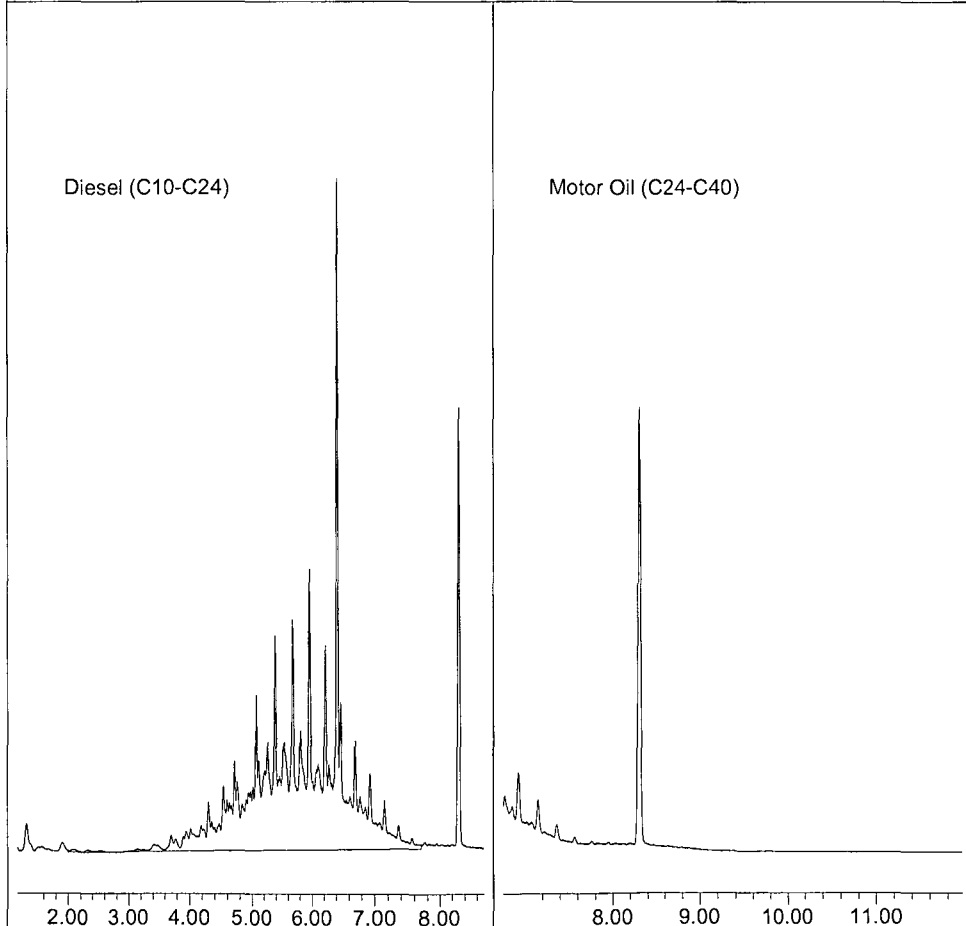
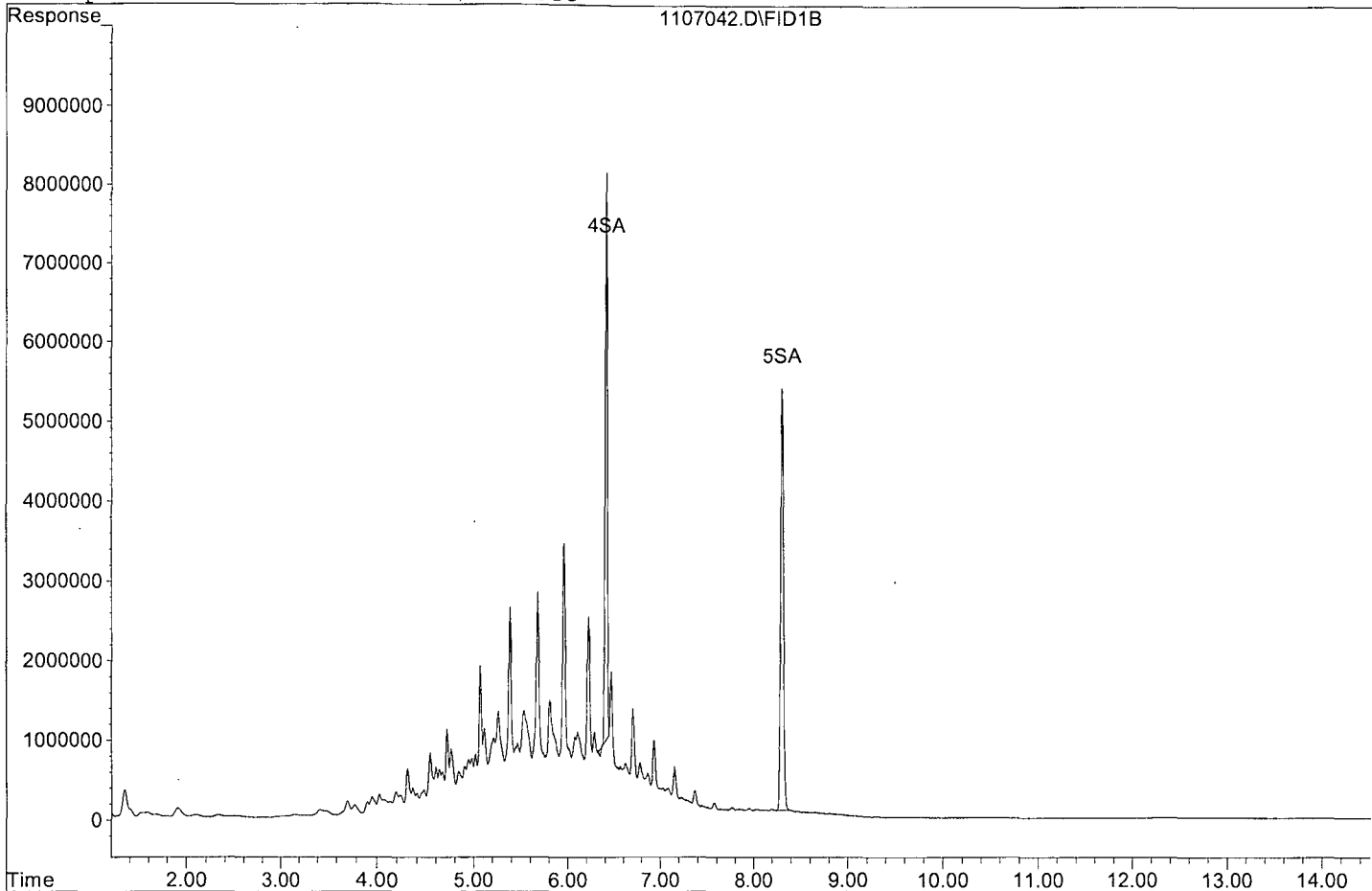
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	116654980	75.307 ppb
Surrogate Spike 75.000		Recovery =	100.41%
5) SA Octacosane(S)	8.31	113802608	88.086 ppb
Surrogate Spike 75.000		Recovery =	117.45%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1492724196	1138.721 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107042.D

Sample : 181105A LCSD-1 2/800 SGC



Data File : G:\APOLLO\DATA\181031\1031008.D Vial: 8  
 Acq On : 10-31-18 14:26:08 Operator: DP  
 Sample : 181029A LCSD-2 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 31 15:08 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

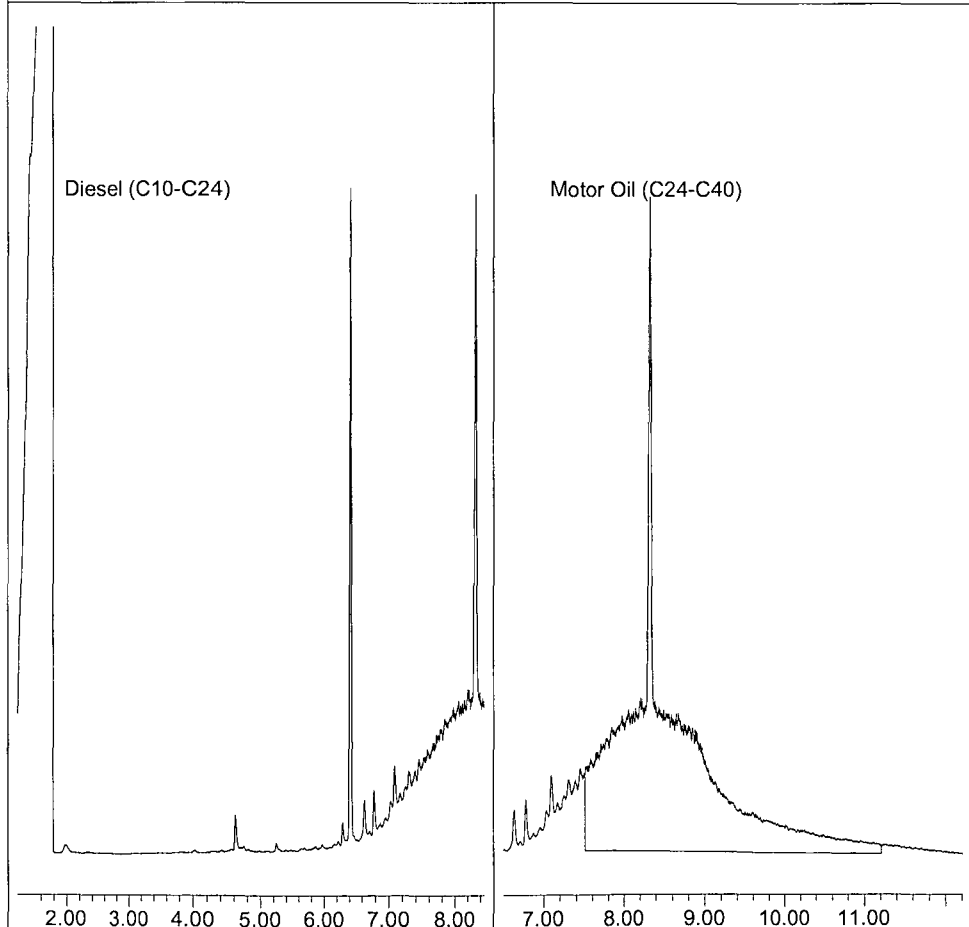
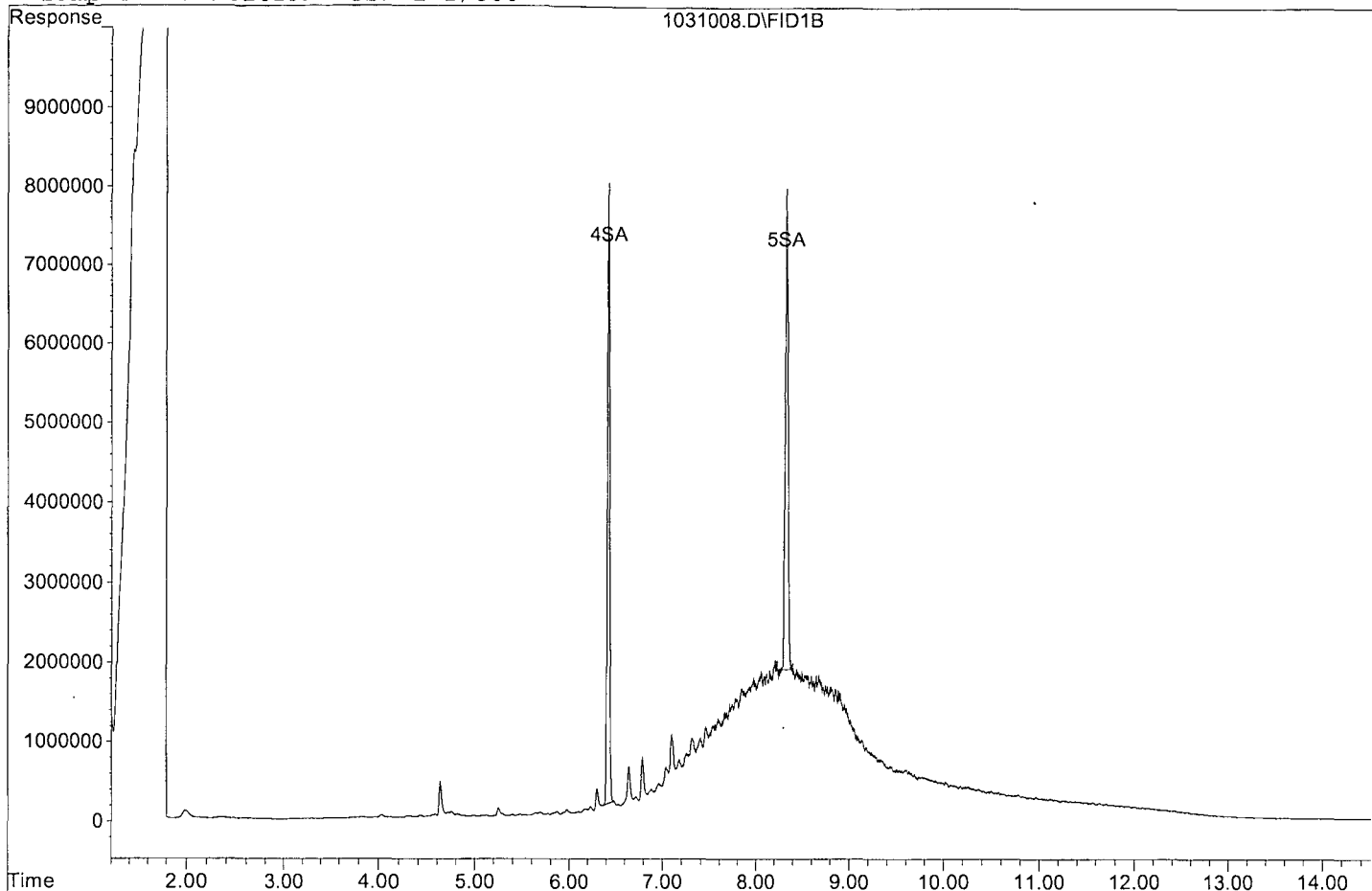
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	131342297	84.789 ppb
Surrogate Spike 75.000		Recovery =	113.05%
5) SA Octacosane(S)	8.33	123563443	95.641 ppb
Surrogate Spike 75.000		Recovery =	127.52%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1771379152	1595.395 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031008.D

Sample : 181029A LCSD-2 2/800



Data File : G:\APOLLO\DATA\181107\1107008.D Vial: 8  
 Acq On : 11-7-18 15:45:12 Operator: DP  
 Sample : 181105A LCSD-2 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 16:22 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

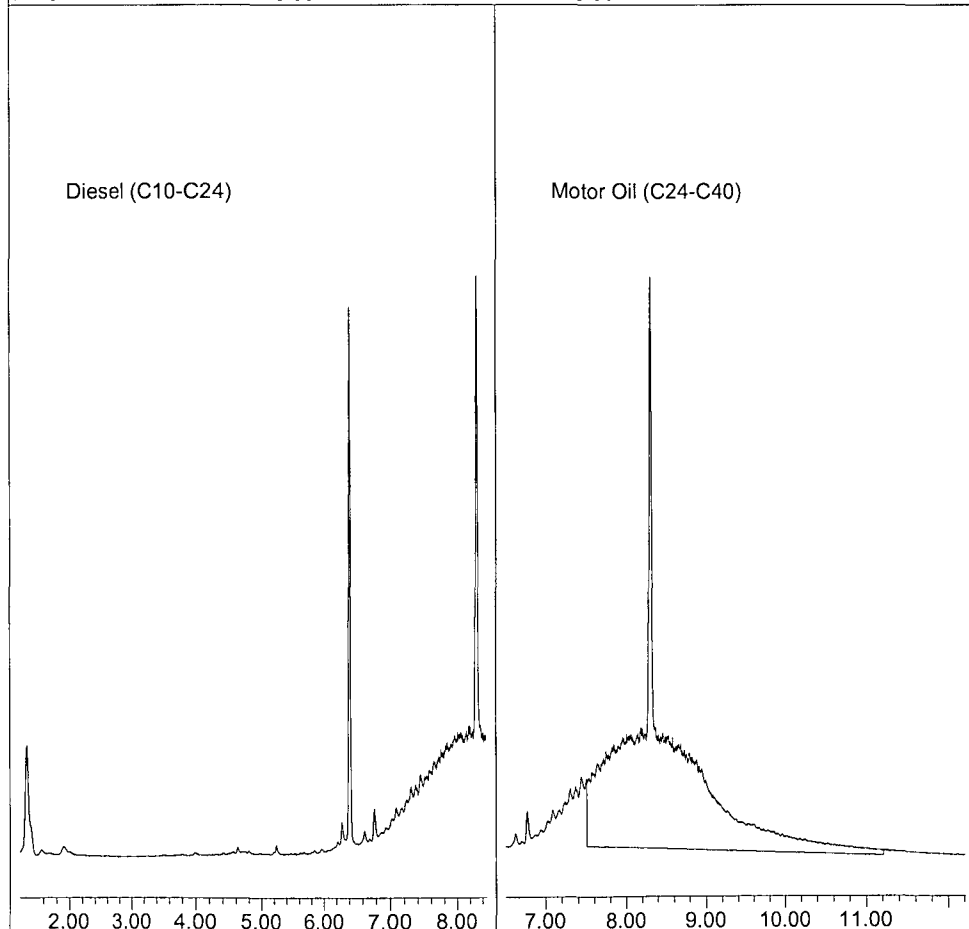
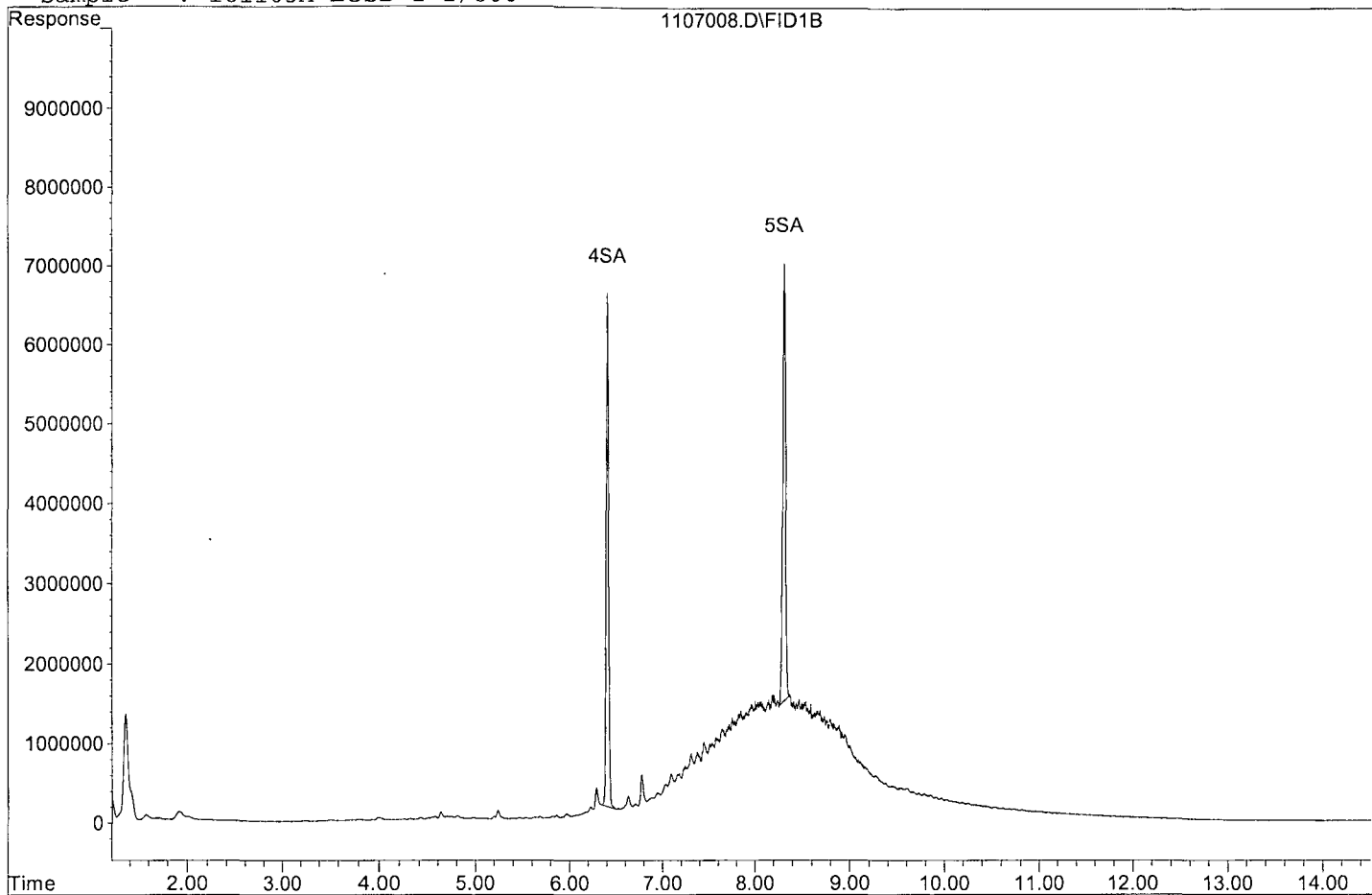
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	114394936	73.848 ppb
Surrogate Spike 75.000		Recovery =	98.46%
5) SA Octacosane(S)	8.31	110962591	85.888 ppb
Surrogate Spike 75.000		Recovery =	114.52%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1358881145	1223.878 ppb



Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107008.D  
Sample : 181105A LCSD-2 2/800



Data File : G:\APOLLO\DATA\181107\1107043.D Vial: 43  
 Acq On : 11-8-18 18:19:13 Operator: DP  
 Sample : 181105A LCSD-2 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:12 2018 Quant Results File: DOC0905.RES

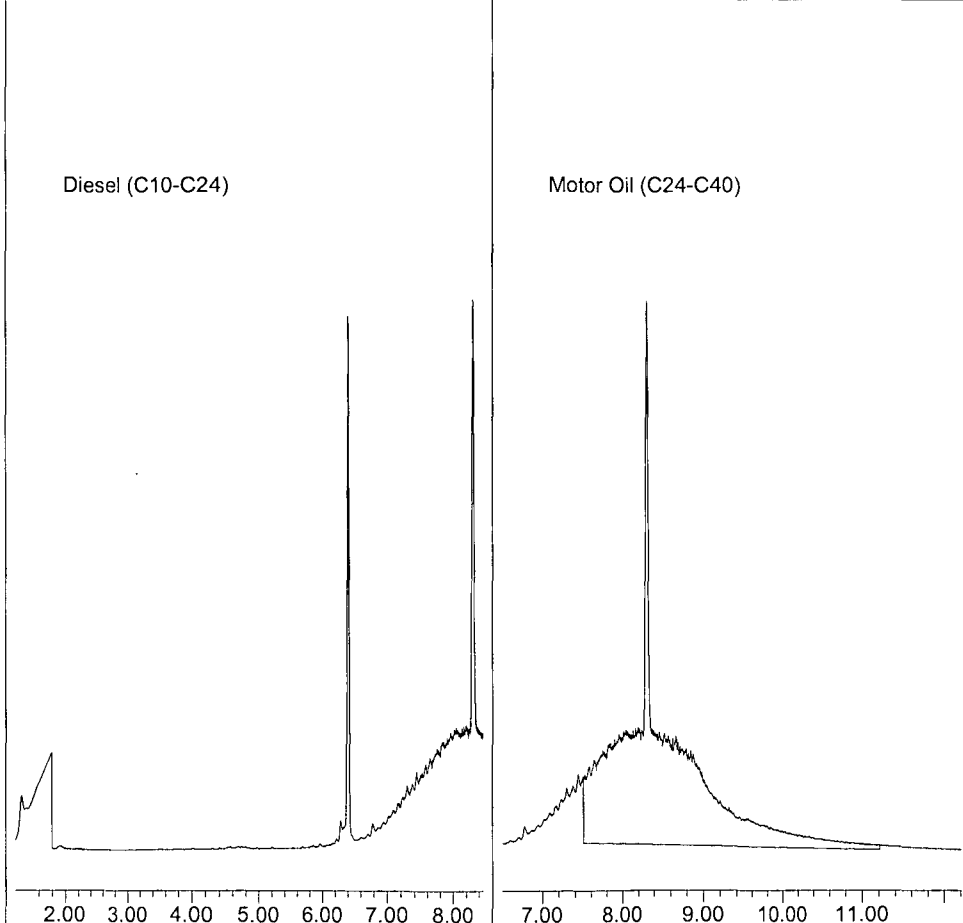
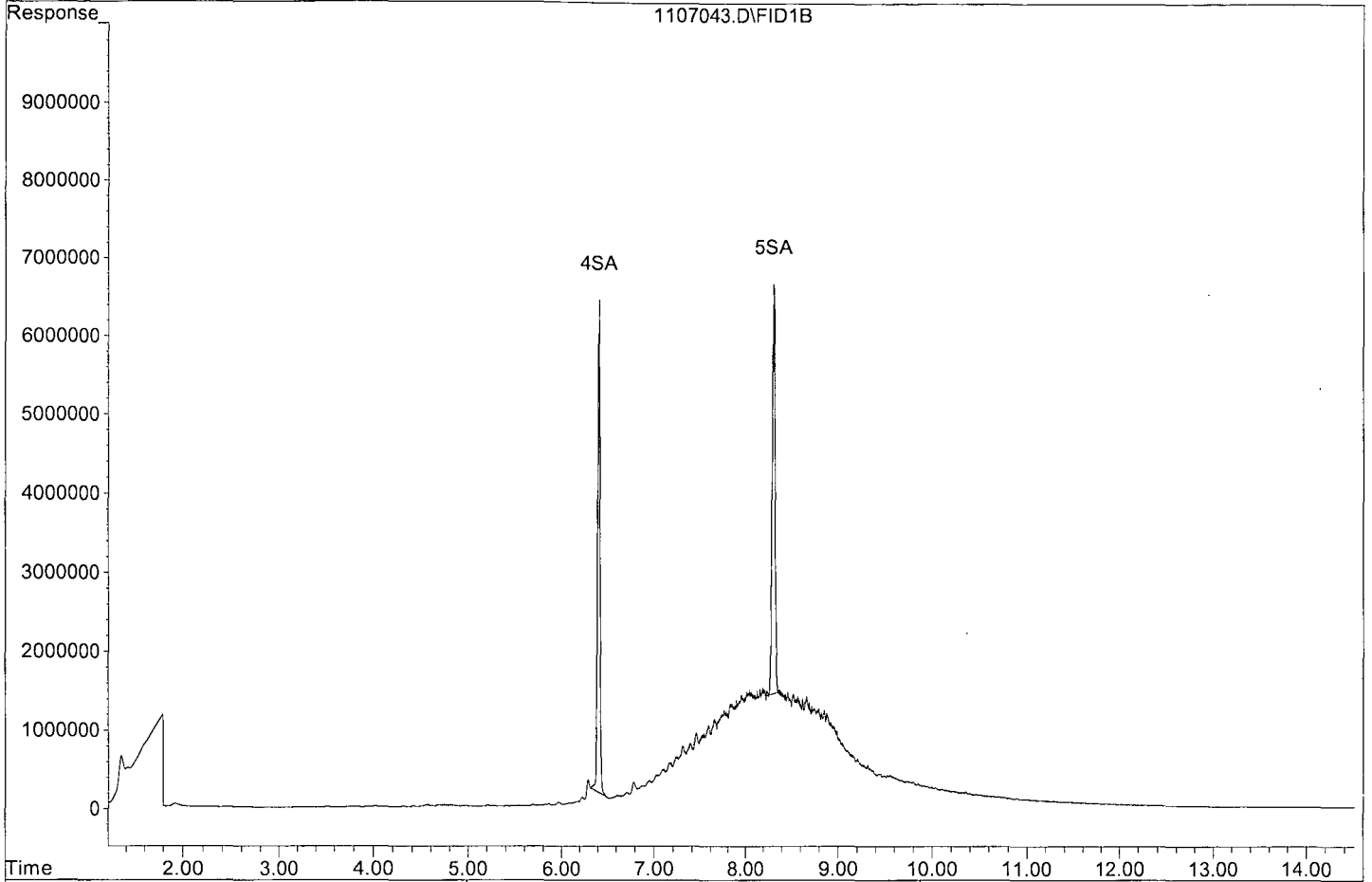
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	110812417	71.535 ppb
Surrogate Spike 75.000		Recovery =	95.38%
5) SA Octacosane(S)	8.31	112819352	87.325 ppb
Surrogate Spike 75.000		Recovery =	116.43%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1349434309	1215.370 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107043.D  
Sample : 181105A LCSD-2 2/800 SGC



### 8015 Standard Prep

THC Surrogate										
Prepared: 11/02/18						Prepared By (Initials): DP				
Expires: 10/18/19										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
O-terphenyl / Octacosane Mix	Phenova	ALO-130161	600	CL12572-39692	10/18/19	06/30/23	N/A	N/A	N/A	600

Diesel Calibration Standard										
Prepared: 08/13/18						Prepared By (Initials): DP				
Expires: 08/13/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Fuel #2	Restek	31258	50,000	A0121108	08/13/19		1000uL	25mL	MC	2000
THC Surrogate	Phenova	ALO-130161	600	CL12238-39244	08/13/19		4165		MC	100

Diesel Calibration Curve										
Prepared: 09/05/18						Prepared By (Initials): DP				
Expires: 03/06/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Calibration STD	Restek	Diesel STD (Level 1)	2,000	Prepared 08/13/18	08/13/19	N/A	5uL	1000uL	MC	10
Diesel Calibration STD	Restek	Diesel STD (Level 2)	2,000	Prepared 08/13/18	08/13/19	N/A	25uL	1000uL	MC	50
Diesel Calibration STD	Restek	Diesel STD (Level 3)	2,000	Prepared 08/13/18	08/13/19	N/A	125uL	1000uL	MC	250
Diesel Calibration STD	Restek	Diesel STD (Level 4)	2,000	Prepared 08/13/18	08/13/19	N/A	50uL	100uL	MC	1000
Diesel Calibration STD	Restek	Diesel STD (Level 5)	2,000	Prepared 08/13/18	08/13/19	N/A	75uL	100uL	MC	1500
Diesel Calibration STD	Restek	Diesel STD (Level 6)	2,000	Prepared 08/13/18	08/13/19	N/A	100uL	100uL	N/A	2,000

Diesel Second Source (SS)										
Prepared: 08/02/18						Prepared By (Initials): DP				
Expires: 08/02/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Fuel #2	O2SI	G34-011598-03	50,000	G34-319187-38958	08/02/19		100uL	5mL	MC	1,000

Diesel CCV										
Prepared: 10/15/18						Prepared By (Initials): DP				
Expires: 04/15/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Calibration STD	Restek	Diesel CCV	2,000	Prepared 08/13/18	08/13/19	N/A	1250uL	10mL	MC	250

Diesel Spike										
Prepared: 10/24/18						Prepared By (Initials): DP				
Expires: 10/24/19										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Fuel #2	Absolute	51046	50,000	111715-39358	10/24/19	11/17/20	N/A	N/A	N/A	50,000

Motor Oil Standard										
Prepared: 03/02/18						Prepared By (Initials): DP				
Expires: 03/02/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil	O2SI	116390-01	50,000	334223-38795	03/02/19		1mL	25mL	MC	2,000

Motor Oil Calibration Curve										
Prepared: 09/05/18						Prepared By (Initials): DP				
Expires: 03/02/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil STD	O2SI	Motor Oil (Level 1)	2,000	Prepared 03/02/18	03/02/19	N/A	5uL	1000uL	MC	10
Motor Oil STD	O2SI	Motor Oil (Level 2)	2,000	Prepared 03/02/18	03/02/19	N/A	25uL	1000uL	MC	50
Motor Oil STD	O2SI	Motor Oil (Level 3)	2,000	Prepared 03/02/18	03/02/19	N/A	125uL	1000uL	MC	250
Motor Oil STD	O2SI	Motor Oil (Level 4)	2,000	Prepared 03/02/18	03/02/19	N/A	50uL	100uL	MC	1,000
Motor Oil STD	O2SI	Motor Oil (Level 5)	2,000	Prepared 03/02/18	03/02/19	N/A	75uL	100uL	MC	1,500
Motor Oil STD	O2SI	Motor Oil (Level 6)	2,000	Prepared 03/02/18	03/02/19	N/A	100uL	100uL	N/A	2,000

Motor Oil Second Source (SS)										
Prepared: 07/13/18						Prepared By (Initials): DP				
Expires: 03/02/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil Second Source	O2SI	116390-02-SS	50,000	301142-37652	03/02/19		100uL	5mL	MC	1,000

Motor Oil CCV										
Prepared: 10/15/18						Prepared By (Initials): DP				
Expires: 03/02/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil STD	O2SI	Motor Oil CCV	2,000	Prepared 03/02/18	03/02/19	N/A	1250uL	10mL	MC	250

Motor Oil Spike										
Prepared: 10/31/18						Prepared By (Initials): DP				
Expires: 10/31/19										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil Composite	O2SI	116390-02	50,000	343132-39108	10/31/19	03/02/22	N/A	N/A	N/A	50,000

# Organic Extraction Worksheet

<b>Method</b>	Continuous Liq/Liq TPH-Diesel/MO 3520C	<b>Extraction Set</b>	181029A	<b>Extraction Method</b>	LIQ005	<b>Units</b>	mL
Spiked ID 1	Diesel Spike 10-24-18 EXP 10-24-19	Surrogate ID 1	THC Surrogate 10-18-18 EXP 10-18-19				
Spiked ID 2	Motor Oil Spike 7-9-18 EXP 7-9-19	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		YES			
Spiked ID 7		Ext. Start Time:		10/29/18 13:00			
Spiked ID 8		Ext. End Time:		10/30/18 8:10, 10/31/18 11:45, 1500			
		GC Requires Extract By:		10/30/18 0:00			
		pH1	2	0/29/18 12:45:00 PM	Water Bath Temp Criteria	35,35,35 °	
		pH2					
		pH3					

Spiked By: KY

Date 10/29/18

Witnessed By: DL

Date 10/29/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1 181029A Blk				0.100	1	800	2	2	10/29/18 13:00	
					equip	E-HP3 E-WB1				
2 181029A LCS-1		0.020	1	0.100	1	800	2	2	10/29/18 13:00	
					equip	E-HP4 E-WB2				
3 181029A LCS-2		0.020	2	0.100	1	800	2	2	10/29/18 13:00	
					equip	E-HP6 E-WB1				
4 181029A LCSD-1		0.020	1	0.100	1	800	2	2	10/29/18 13:00	
					equip	E-HP7 E-WB2				
5 181029A LCSD-2		0.020	2	0.100	1	800	2	2	10/29/18 13:00	
					equip	E-HP9 E-WB2				
6 AZ81584 MS-1	AZ81584W28	0.020	1	0.100	1	800	2	2	10/29/18 13:00	87198
					equip	E-HP10 E-WB1				
7 AZ81584 MSD-1	AZ81584W32	0.020	1	0.100	1	800	2	2	10/29/18 13:00	87198
					equip	E-HP12 E-WB3				
8 AZ81584 MS-2	AZ81584W27	0.020	2	0.100	1	800	2	2	10/29/18 13:00	87198
					equip	E-HP11 E-WB2				
9 AZ81584 MSD-2	AZ81584W31	0.020	2	0.100	1	800	2	2	10/29/18 13:00	87198
					equip	E-HP13 E-WB1				
10 AZ81584	AZ81584W29			0.100	1	800	2	2	10/29/18 13:00	87198
					equip	E-HP51 E-WB2				
11 AZ81585	AZ81585W11			0.100	1	810	2	2	10/29/18 13:00	87198
					equip	E-HP14 E-WB2				
12 AZ81587	AZ81587W12			0.100	1	800	2	2	10/29/18 13:00	87198
					equip	E-HP15 E-WB3				
13 AZ81636	AZ81636W14			0.100	1	810	2	2	10/29/18 13:00	87212
					equip	E-HP16 E-WB2				
14 AZ81638	AZ81638W08			0.100	1	810	2	2	10/29/18 13:00	87212
					equip	E-HP17 E-WB1				
15 AZ81640	AZ81640W13			0.100	1	800	2	2	10/29/18 13:00	87212
					equip	E-HP19 E-WB2				
16 AZ81642	AZ81642W13			0.100	1	840	2	2	10/29/18 13:00	87212
					equip	E-HP25 E-WB1				

Solvent and Lot#	
1+1 HCL (5mL)	9-19-18
pH Strips	HC 727135
Dichloromethane (DCM)	58059
Filter Paper	400147
B. Sodium Sulfate	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	DL
Date	10/31/18
Time	12:00
Refrigerator	Hobart

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	11/02/18 11:57:26 AM

Reviewed By: *ky* 279 Date 11/02/18

# Organic Extraction Worksheet

<b>Method</b>	Continuous Liq/Liq TPH-Diesel/MO 3520C	<b>Extraction Set</b>	181029A	<b>Extraction Method</b>	LIQ005	<b>Units</b>	mL
Spiked ID 1	Diesel Spike 10-24-18 EXP 10-24-19	Surrogate ID 1	THC Surrogate 10-18-18 EXP 10-18-19				
Spiked ID 2	Motor Oil Spike 7-9-18 EXP 7-9-19	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC: YES					
Spiked ID 7		Ext. Start Time:		10/29/18 13:00			
Spiked ID 8		Ext. End Time:		10/30/18 8:10, 10/31/18 11:45, 10/30			
		GC Requires Extract By:		10/30/18 0:00			
pH1	2	0/29/18 12:45:00 PM		Water Bath Temp Criteria		35,35,35 °	
pH2							
pH3							

Spiked By: KY

Date 10/29/18

Witnessed By: DL

Date 10/29/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17 AZ81644	AZ81644W11			0.100	1	810	2	2	10/29/18 13:00	87212
					equip	E-HP26 E-WB2				
18 AZ81676	AZ81676W14			0.100	1	800	2	2	10/29/18 13:00	87219
					equip	E-HP27 E-WB3				
19 AZ81677	AZ81677W14			0.100	1	800	2	2	10/29/18 13:00	87219
					equip	E-HP28 E-WB1				
20 AZ81678	AZ81678W10			0.100	1	800	2	2	10/29/18 13:00	87219
					equip	E-HP29 E-WB2				
21 AZ81840	AZ81840W14			0.100	1	820	2	2	10/29/18 13:00	87238
					equip	E-HP48 E-WB2				
22 AZ81841	AZ81841W10			0.100	1	810	2	2	10/29/18 13:00	87238
					equip	E-HP30 E-WB3				
23 AZ81842	AZ81842W10			0.100	1	800	2	2	10/29/18 13:00	87238
					equip	E-HP47 E-WB1				
24 AZ81901	AZ81901W10			0.100	1	800	2	2	10/29/18 13:00	87248
					equip	E-HP50 E-WB1				
25 AZ81903	AZ81903W09			0.100	1	810	2	2	10/29/18 13:00	87248
					equip	E-HP49 E-WB3				

*Kes 11/02/18*

Solvent and Lot#	
1+1 HCL (5mL)	9-19-18
PH Strips	HC 727135
Dichloromethane (DCM)	58059
Filter Paper	400147
B. Sodium Sulfate	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	11/02/18 11:57:26 AM

Reviewed By: *Kes* 280 Date *11/02/18*

# Organic Extraction Worksheet

<b>Method</b>	Continuous Liq/Liq TPH-Diesel/MO 3520C	<b>Extraction Set</b>	181105A	<b>Extraction Method</b>	LIQ005	<b>Units</b>	mL
Spiked ID 1	Diesel Spike 10-24-18 EXP 10-24-19	Surrogate ID 1	THC Surrogate 11-2-18 EXP 11-2-19				
Spiked ID 2	Motor Oil Spike 10-31-18 EXP 10-31-19	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC: NO					
Spiked ID 7		Ext. Start Time:		11/05/18 14:25			
Spiked ID 8		Ext. End Time:		11/06/18 9:25 <i>11/07/18 11:30</i>			
		GC Requires Extract By:		10/30/18 0:00			
pH1	2	1/05/18 12:40:00 PM		Water Bath Temp Criteria		35,35,35 °	
pH2							
pH3							

Spiked By: DL

Date 11/05/18

Witnessed By: CFM

Date 11/05/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1 181105A Blk				0.100	1	800	2	2	11/05/18 12:50	RX
					equip	e-hp51 E-WB1				
2 181105A LCS-1		0.020	1	0.100	1	800	2	2	11/05/18 12:50	RX
					equip	E-HP50 E-WB2				
3 181105A LCS-2		0.020	2	0.100	1	800	2	2	11/05/18 12:50	RX
					equip	E-HP49 E-WB1				
4 181105A LCSD-1		0.020	1	0.100	1	800	2	2	11/05/18 12:50	RX
					equip	E-HP48 E-WB3				
5 181105A LCSD-2		0.020	2	0.100	1	800	2	2	11/05/18 12:50	RX
					equip	E-HP47 E-WB2				
6 AZ81584	AZ81584W13			0.100	1	800	2	2	11/05/18 12:50	87198 RX
					equip	E-HP30 E-WB3				
7 AZ81585	AZ81585W07			0.100	1	800	2	2	11/05/18 12:50	87198 RX
					equip	E-HP29 E-WB1				
8 AZ81587	AZ81587W11			0.100	1	800	2	2	11/05/18 12:50	87198 RX
					equip	E-HP28 E-WB2				
9 AZ81636	AZ81636W13			0.100	1	800	2	2	11/05/18 12:50	87212 RX
					equip	E-HP27 E-WB3				
10 AZ81638	AZ81638W11			0.100	1	800	2	2	11/05/18 12:50	87212 RX
					equip	E-HP26 E-WB1				
11 AZ81640	AZ81640W14			0.100	1	800	2	2	11/05/18 12:50	87212 RX
					equip	E-HP25 E-WB2				
12 AZ81642	AZ81642W12			0.100	1	800	2	2	11/05/18 12:50	87212 RX
					equip	E-HP17 E-WB3				
13 AZ81644	AZ81644W14			0.100	1	800	2	2	11/05/18 12:50	87212 RX
					equip	E-HP16 E-WB1				
14 AZ81676	AZ81676W11			0.100	1	800	2	2	11/05/18 12:50	87219 RX
					equip	E-HP15 E-WB2				
15 AZ81677	AZ81677W12			0.100	1	800	2	2	11/05/18 12:50	87219 RX
					equip	E-HP14 E-WB3				
16 AZ81678	AZ81678W13			0.100	1	800	2	2	11/05/18 12:50	87219 RX
					equip	E-HP13 E-WB1				

Solvent and Lot#	
1+1 HCL (5mL)	9-19-18
PH Strips	HC 849161
Dichloromethane (DCM)	58059
Filter Paper	400147
B. Sodium Sulfate	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	OP
Date	11/7/18
Time	11:30
Refrigerator	Hobart

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	11/07/18 12:10:36 PM

Reviewed By: *KY* 281 Date *11/07/18*



# Organic Extraction Worksheet






<b>Method</b>	Continuous Liq/Liq TPH-Diesel/MO 3520C	<b>Extraction Set</b>	181105A	<b>Extraction Method</b>	LIQ005	<b>Units</b>	mL
Spiked ID 1	Diesel Spike 10-24-18 EXP 10-24-19	Surrogate ID 1	THC Surrogate 11-2-18 EXP 11-2-19				
Spiked ID 2	Motor Oil Spike 10-31-18 EXP 10-31-19	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		NO			
Spiked ID 7		Ext. Start Time:		11/05/18 14:25			
Spiked ID 8		Ext. End Time:		11/06/18 9:25, 11/07/18 11:30			
		GC Requires Extract By:		10/30/18 0:00			
pH1	2	1/05/18 12:40:00 PM		Water Bath Temp Criteria 35,35,35 °			
pH2							
pH3							

Spiked By: DL

Date 11/05/18

Witnessed By: CFM

Date 11/05/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ81840 	AZ81840W10		0.100	1	800	2	2	11/05/18 12:50	87238 RX
					equip	E-HP12 E-WB2				
18	AZ81841 	AZ81841W13		0.100	1	800	2	2	11/05/18 12:50	87238 RX
					equip	E-HP11 E-WB3				
19	AZ81842 	AZ81842W11		0.100	1	800	2	2	11/05/18 12:50	87238 RX
					equip	E-HP10 E-WB1				
20	AZ81901 	AZ81901W09		0.100	1	800	2	2	11/05/18 12:50	87248 RX
					equip	E-HP9 E-WB2				
21	AZ81903 	AZ81903W10		0.100	1	800	2	2	11/05/18 12:50	87248 RX
					equip	E-HP7 E-WB3				

Key 11/07/18

Solvent and Lot#	
1+1 HCL (5mL)	9-19-18
PH Strips	HC 849161
Dicholormethane (DCM)	58059
Filter Paper	400147
B. Sodium Sulfate	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	11/07/18 12:10:36 PM

Reviewed By: Key 282 Date 11/07/18

## Injection Log

Directory: G:\APOLLO\DATA\180814\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
17	814017.D	1	Decanoic Acid - 1 8/13/18	Mix(C)	8-14-18 16:56:27
18	814018.D	1	Decanoic Acid - 2 8/13/18	Mix(C)	8-14-18 17:15:48
19	814019.D	1	Decanoic Acid - 3 8/13/18	Mix(C)	8-14-18 17:35:59
20	814020.D	1	Decanoic Acid - 4 8/13/18	Mix(C)	8-14-18 17:56:16
21	814021.D	1	Decanoic Acid - 5 8/13/18	Mix(C)	8-14-18 18:16:22
22	814022.D	1	Decanoic Acid - 6 8/13/18	Mix(C)	8-14-18 18:36:30
3	905003.D	1	Diesel - 1 9/5/18	Mix(A)	9-5-18 13:32:12
4	905004.D	1	Diesel - 2 9/5/18	Mix(A)	9-5-18 13:51:56
5	905005.D	1	Diesel - 3 9/5/18	Mix(A)	9-5-18 14:11:55
6	905006.D	1	Diesel - 4 9/5/18	Mix(A)	9-5-18 14:31:55
7	905007.D	1	Diesel - 5 9/5/18	Mix(A)	9-5-18 14:51:56
8	905008.D	1	Diesel - 6 9/5/18	Mix(A)	9-5-18 15:11:58
9	905009.D	1	Diesel - SS 8/2/18	Mix(A)	9-5-18 15:32:03
10	905010.D	1	Motor Oil - 1 9/5/18	Mix(B)	9-5-18 15:52:08
11	905011.D	1	Motor Oil - 2 9/5/18	Mix(B)	9-5-18 16:12:11
12	905012.D	1	Motor Oil - 3 9/5/18	Mix(B)	9-5-18 16:32:11
13	905013.D	1	Motor Oil - 4 9/5/18	Mix(B)	9-5-18 16:52:14
14	905014.D	1	Motor Oil - 5 9/5/18	Mix(B)	9-5-18 17:12:14
15	905015.D	1	Motor Oil - 6 9/5/18	Mix(B)	9-5-18 17:31:25
16	905016.D	1	Motor Oil - SS 7/13/18	Mix(B)	9-5-18 17:51:24
2	1031002.D	1	Diesel - 3 10/15/18	Mix(A)	10-31-18 12:27:03
3	1031003.D	1	Motor Oil - 3 10/15/18	Mix(B)	10-31-18 12:47:21
4	1031004.D	2.5	181029A BLK 2/800	water	10-31-18 13:07:10
5	1031005.D	2.5	181029A LCS-1 2/800	water	10-31-18 13:27:09
6	1031006.D	2.5	181029A LCS-2 2/800	water	10-31-18 13:47:04
7	1031007.D	2.5	181029A LCSD-1 2/800	water	10-31-18 14:06:12
8	1031008.D	2.5	181029A LCSD-2 2/800	water	10-31-18 14:26:08
14	1031014.D	1	Diesel - 3 10/15/18	Mix(A)	10-31-18 16:24:34
15	1031015.D	1	Motor Oil - 3 10/15/18	Mix(B)	10-31-18 16:44:47
24	1031024.D	2.5	AZ81676W14 2/800	water	10-31-18 19:44:24
25	1031025.D	2.5	AZ81677W14 2/800	water	10-31-18 20:04:42
26	1031026.D	2.5	AZ81678W10 2/800	water	10-31-18 20:24:54
32	1031032.D	1	Diesel - 3 10/15/18	Mix(A)	10-31-18 22:25:23
33	1031033.D	1	Motor Oil - 3 10/15/18	Mix(B)	10-31-18 22:45:19
2	1107002.D	1	Diesel - 3 10/15/18	Mix(A)	11-7-18 13:44:44
3	1107003.D	1	Motor Oil - 3 10/15/18	Mix(B)	11-7-18 14:04:52
4	1107004.D	2.5	181105A BLK 2/800	water	11-7-18 14:24:57
5	1107005.D	2.5	181105A LCS-1 2/800	water	11-7-18 14:45:01
6	1107006.D	2.5	181105A LCS-2 2/800	water	11-7-18 15:05:06
7	1107007.D	2.5	181105A LCSD-1 2/800	water	11-7-18 15:25:09
8	1107008.D	2.5	181105A LCSD-2 2/800	water	11-7-18 15:45:12
17	1107017.D	2.5	AZ81676W11 2/800	water	11-7-18 18:49:20
18	1107018.D	2.5	AZ81677W12 2/800	water	11-7-18 19:09:43
19	1107019.D	1	Diesel - 3 10/15/18	Mix(A)	11-7-18 19:30:00
20	1107020.D	1	Motor Oil - 3 10/15/18	Mix(B)	11-7-18 19:50:19
21	1107021.D	2.5	AZ81678W13 2/800	water	11-7-18 20:10:31
27	1107027.D	1	Diesel - 3 10/15/18	Mix(A)	11-7-18 22:10:29
28	1107028.D	1	Motor Oil - 3 10/15/18	Mix(B)	11-7-18 22:30:38
30	1107030.D	1	Diesel - 3 10/15/18	Mix(A)	11-8-18 13:54:55
31	1107031.D	1	Motor Oil - 3 10/15/18	Mix(B)	11-8-18 14:15:05
32	1107032.D	1	Decanoic Acid - 3 8/23/18	Mix(C)	11-8-18 14:35:27

39	1107039.D	2.5	181105A BLK 2/800 SGC	water	11-8-18 16:57:41
40	1107040.D	2.5	181105A LCS-1 2/800 SGC	water	11-8-18 17:18:11
41	1107041.D	2.5	181105A LCS-2 2/800 SGC	water	11-8-18 17:38:32
42	1107042.D	2.5	181105A LCSD-1 2/800 SGC	water	11-8-18 17:58:56
43	1107043.D	2.5	181105A LCSD-2 2/800 SGC	water	11-8-18 18:19:13
46	1107046.D	2.5	AZ81676W11 2/800 SGC	water	11-8-18 19:19:55
56	1107056.D	1	Diesel - 3 10/15/18	Mix(A)	11-8-18 22:40:31
57	1107057.D	1	Motor Oil - 3 10/15/18	Mix(B)	11-8-18 22:59:46
58	1107058.D	1	Decanoic Acid - 3 8/23/18	Mix(C)	11-8-18 23:19:51

**ORGANICS  
Calibration Data**

**APPL, INC.**

PAH by GCMS SIM  
EPA 8270 SIM

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/26/18  
Instrument: Linus

Initials: \_\_\_\_\_

1026L004.D 1026L005.D 1026L006.D 1026L007.D 1026L008.D 1026L009.D 1026L010.D

	Compound	0.1	0.2	0.5	1	5	10	50	100			Avg	%RSD	Type	r^2	Q	MRF
1	I Naphthalene-D8(IS)																
2	S Surrogate Recovery (NBZ)		0.4490	0.3905	0.3381	0.3544	0.3895	0.3629	0.3647			0.38	9.6	S			
3	TM Naphthalene	1.071	1.109	1.094	1.040	0.9826	1.064	0.9678	0.9409			1.0	6.0	TM			0.700
4	S 2-Methylnaphthalene-D10 (2M)	1.204	1.170	1.283	1.182	1.115	1.207	1.054	1.014			1.2	7.6	S			
5	TM 2-Methylnaphthalene	0.6342	0.6457	0.6760	0.6427	0.6407	0.6856	0.6079	0.5737			0.64	5.6	TM			0.400
6	TM 1-Methylnaphthalene	0.6941	0.6784	0.7038	0.6570	0.6224	0.6581	0.5807	0.5502			0.64	8.5	TM			
7	I Acenaphthene-D10(IS)																
8	S Surrogate Recovery (FBP)	1.668	1.668	1.756	1.634	1.614	1.756	1.472	1.448			1.6	7.1	S			
9	TM Acenaphthylene	4.411	4.374	4.576	4.233	4.273	4.605	4.004	3.832			4.3	6.2	TM			0.900
10	*TM Acenaphthene	1.471	1.421	1.404	1.292	1.236	1.347	1.147	1.130			1.3	9.7	*TM			0.900
11	TM Fluorene	1.527	1.526	1.612	1.554	1.494	1.607	1.380	1.349			1.5	6.4	TM			0.900
12	I Phenanthrene-D10(IS)																
13	TM Phenanthrene	1.224	1.258	1.233	1.198	1.099	1.227	1.071	0.9849			1.2	8.4	TM			0.700
14	TM Anthracene	1.101	1.107	1.146	1.108	1.076	1.204	1.040	0.9417			1.1	7.1	TM			0.700
15	S Fluoranthene-D10 (FRT)	1.512	1.533	1.628	1.543	1.527	1.738	1.504	1.474			1.6	5.5	S			
16	*TM Fluoranthene	1.639	1.693	1.766	1.728	1.661	1.857	1.631	1.559			1.7	5.4	*TM			0.600
17	I Chrysene-D12(IS)																
18	TM Pyrene	1.239	1.278	1.319	1.266	1.226	1.359	1.271	1.238			1.3	3.5	TM			0.600
19	S Surrogate Recovery (TPH)	0.9654	0.8333	0.8383	0.7662	0.7250	0.8033	0.7421	0.7345			0.80	9.9	S			
20	TM Benz (a) anthracene	1.135	1.030	1.075	0.9966	1.038	1.151	1.122	1.044			1.1	5.2	TM			0.800
21	TM Chrysene	1.267	1.224	1.220	1.123	1.071	1.175	1.069	1.061			1.2	7.0	TM			0.700
22	TML Indeno (1,2,3-cd) pyrene	0.5269	0.5639	0.6808	0.6912	0.7735	0.8537	0.9032	0.9238			0.74	20	TML	1.000		0.500
23	I Perylene-D12(IS)																
24	TM Benzo (b) fluoranthene	1.025	1.065	1.071	1.012	1.056	1.169	1.109	1.091			1.1	4.6	TM			0.700
25	TM Benzo (k) fluoranthene	1.385	1.237	1.205	1.145	1.158	1.283	1.115	1.070			1.2	8.4	TM			0.700
26	*TM Benzo (a) pyrene	0.8478	0.8472	0.9054	0.8976	0.9593	1.090	1.004	0.9603			0.94	8.8	*TM			0.700
27	TM Dibenz (a,h) anthracene	0.9632	0.8830	0.9203	0.8970	0.8805	0.9763	0.9194	0.8807			0.92	4.1	TM			0.400
28	TM Benzo (g,h,i) perylene	0.9218	0.9218	0.9490	0.8944	0.9068	1.008	0.9146	0.8895			0.93	4.1	TM			0.500
29																	
30																	
31																	
32																	
33																	
34																	
35																	

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L003.D  
 Acq On : 26 Oct 18 12:21  
 Sample : 5 SIM 10/26/18  
 Misc :

Vial: 3  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 15:34 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
1) Napthalene-D8 (IS)	4.18	136	34683	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.20	164	15809	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.94	188	31498	2.50000	ppb	0.00
17) Chrysene-D12 (IS)	14.38	240	43804	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	42589	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.36	82	12292	1.97005	ppb	0.00
Spiked Amount	5.000		Recovery	=	39.400%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	38674	2.07165	ppb	0.00
Spiked Amount	5.000		Recovery	=	41.440%	
8) Surrogate Recovery (FBP)	5.43	172	25518	2.08947	ppb	0.00
Spiked Amount	5.000		Recovery	=	41.780%	
15) Fluoranthene-D10 (FRT)	10.10	212	48093	2.01683	ppb	0.00
Spiked Amount	5.000		Recovery	=	40.340%	
19) Surrogate Recovery (TPH)	11.37	244	31756	1.90290	ppb	0.00
Spiked Amount	5.000		Recovery	=	38.060%	
Target Compounds						Qvalue
3) Naphthalene	4.20	128	68158	4.39564	ppb	100
5) 2-Methylnaphthalene	5.00	142	44443	4.68460	ppb	100
6) 1-Methylnaphthalene	5.11	142	43171	4.63382	ppb	100
9) Acenaphthylene	6.04	152	135113	4.62142	ppb	100
10) Acenaphthene	6.24	154	39083	4.31457	ppb	100
11) Fluorene	6.84	166	47222	4.67548	ppb	100
13) Phenanthrene	7.98	178	69245	4.31309	ppb	100
14) Anthracene	8.05	178	67774	4.69700	ppb	100
16) Fluoranthene	10.14	202	104660	4.52909	ppb	100
18) Pyrene	10.76	202	107443	4.23342	ppb	100
20) Benz (a) anthracene	14.36	228	90932	4.13406	ppb	100
21) Chrysene	14.46	228	93849	4.26898	ppb	100
22) Indeno (1,2,3-cd) pyrene	20.47	276	67761	3.61003	ppb	100
24) Benzo (b) fluoranthene	17.27	252	89977	4.21504	ppb	100
25) Benzo (k) fluoranthene	17.34	252	98605	4.42343	ppb	100
26) Benzo (a) pyrene	18.03	252	81715	4.30156	ppb	100
27) Dibenz (a,h) anthracene	20.54	278	74995	3.92549	ppb	100
28) Benzo (g,h,i) perylene	20.96	276	77243	3.90791	ppb	100

Quantitation Report

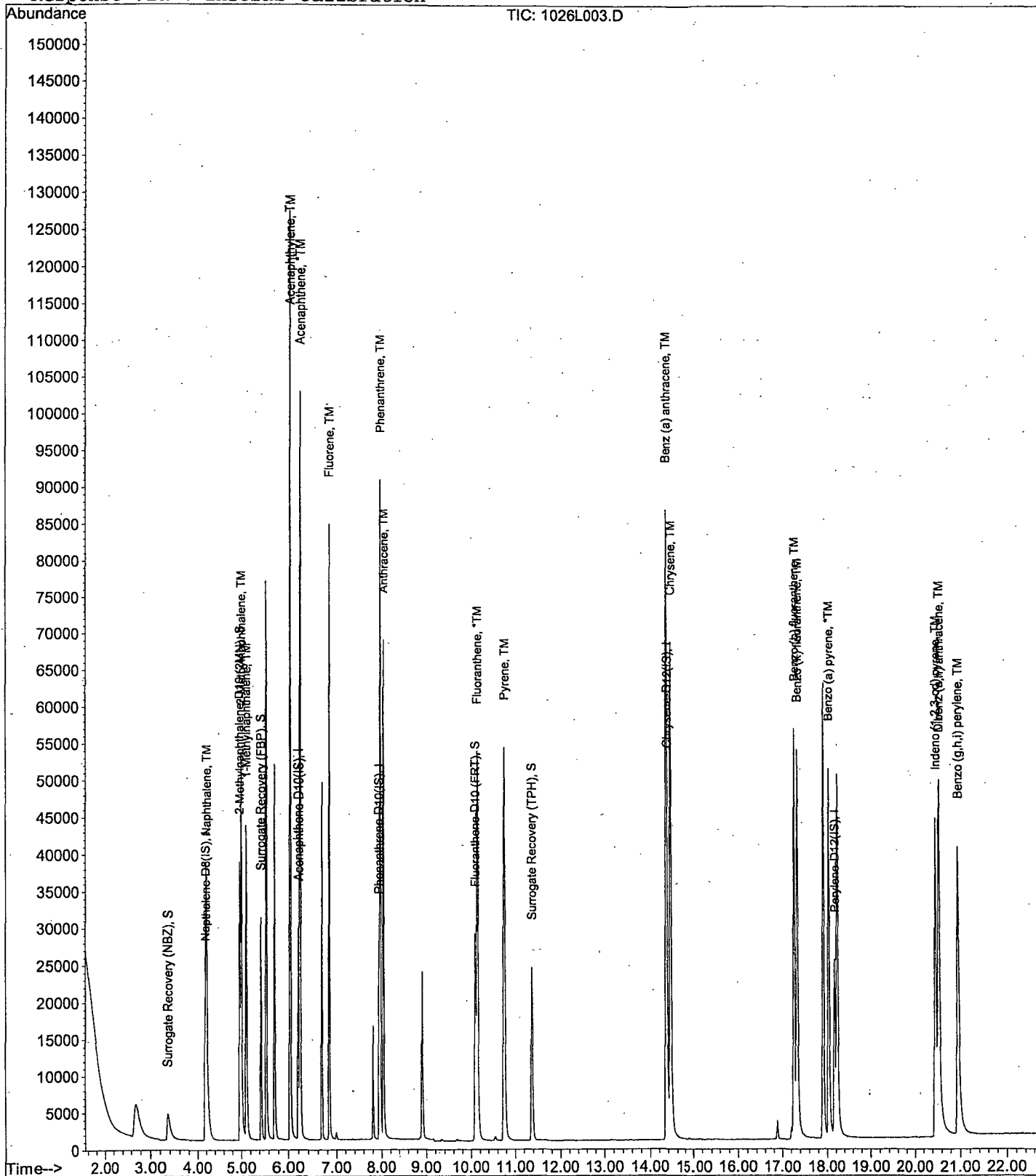
Data File : M:\LINUS\DATA\L181026\1026L003.D  
Acq On : 26 Oct 18 12:21  
Sample : 5 SIM 10/26/18  
Misc :

Vial: 3  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 15:34 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 16:19 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Napthalene-D8 (IS)	4.18	136	33859	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.20	164	15943	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	30089	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.39	240	40761	2.50000	ppb	0.01
23) Perylene-D12 (IS)	18.17	264	40517	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.38	82	331	0.05434	ppb	0.02
Spiked Amount	5.000		Recovery	=	1.080%	
4) 2-Methylnaphthalene-D10 (2)	4.99	152	815	0.04472	ppb	0.02
Spiked Amount	5.000		Recovery	=	0.900%	
8) Surrogate Recovery (FBP)	5.44	172	532	0.04320	ppb	0.01
Spiked Amount	5.000		Recovery	=	0.860%	
15) Fluoranthene-D10 (FRT)	10.13	212	910	0.03995	ppb	0.03
Spiked Amount	5.000		Recovery	=	0.800%	
19) Surrogate Recovery (TPH)	11.39	244	787	0.05068	ppb	0.02
Spiked Amount	5.000		Recovery	=	1.020%	
Target Compounds						
3) Naphthalene	4.20	128	1450	0.09579	ppb	98
5) 2-Methylnaphthalene	5.01	142	859	0.09275	ppb	97
6) 1-Methylnaphthalene	5.12	142	940	0.10335	ppb	94
9) Acenaphthylene	6.05	152	2813	0.09541	ppb	99
10) Acenaphthene	6.24	154	938	0.10268	ppb	96
11) Fluorene	6.86	166	974	0.09563	ppb	95
13) Phenanthrene	7.98	178	1473	0.09605	ppb	99
14) Anthracene	8.06	178	1325	0.09613	ppb	97
16) Fluoranthene	10.18	202	1973	0.08938	ppb	97
18) Pyrene	10.79	202	2020	0.08553	ppb	97
20) Benz (a) anthracene	14.37	228	1851	0.09043	ppb	99
21) Chrysene	14.47	228	2065	0.10094	ppb	98
22) Indeno (1,2,3-cd) pyrene	20.55	276	859m	0.04918	ppb	100
24) Benzo (b) fluoranthene	17.31	252	1661	0.08179	ppb	99
25) Benzo (k) fluoranthene	17.38	252	2245m	0.10586	ppb	97
26) Benzo (a) pyrene	18.06	252	1374	0.07603	ppb	98
27) Dibenz (a,h) anthracene	20.61	278	1561	0.08589	ppb	# 93
28) Benzo (g,h,i) perylene	21.03	276	1494	0.07945	ppb	95



Quantitation Report

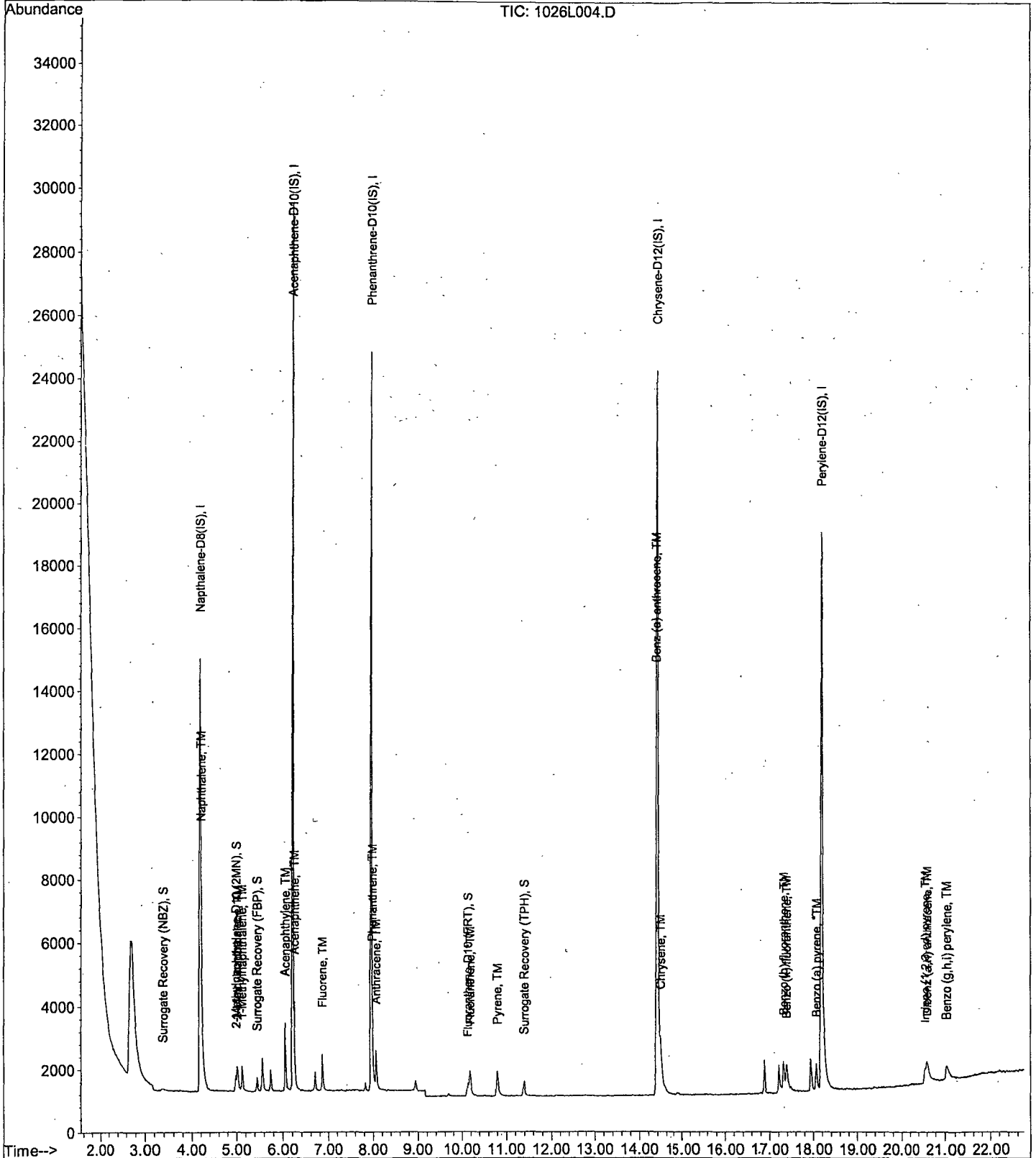
Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 16:19 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration

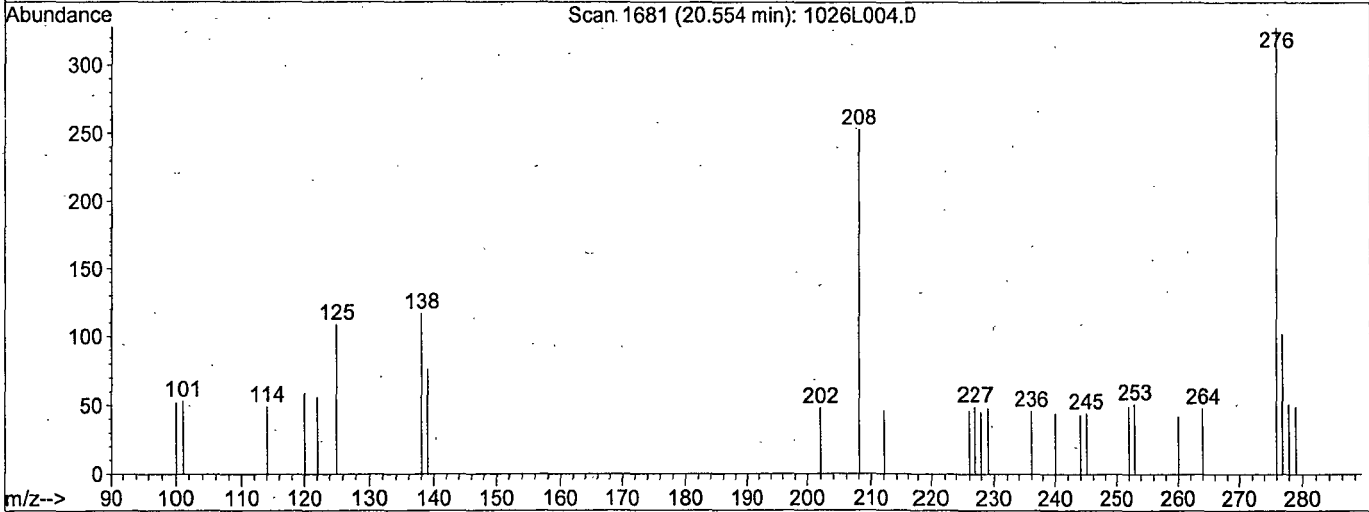
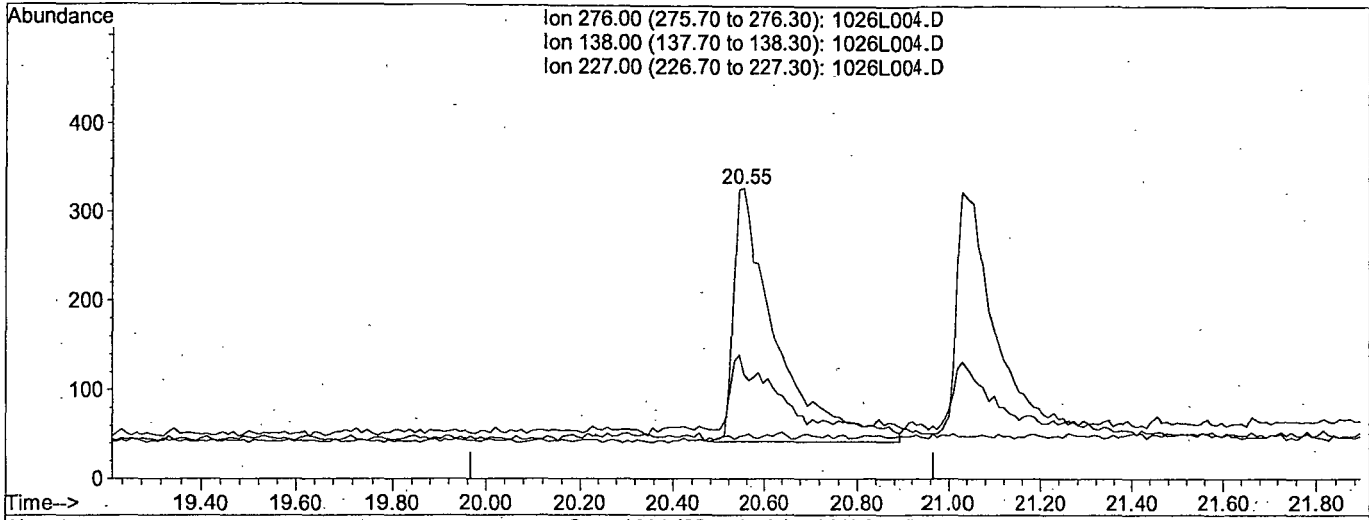


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 15:34 2018

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L004.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.55min 0.1080ppb

response 1887

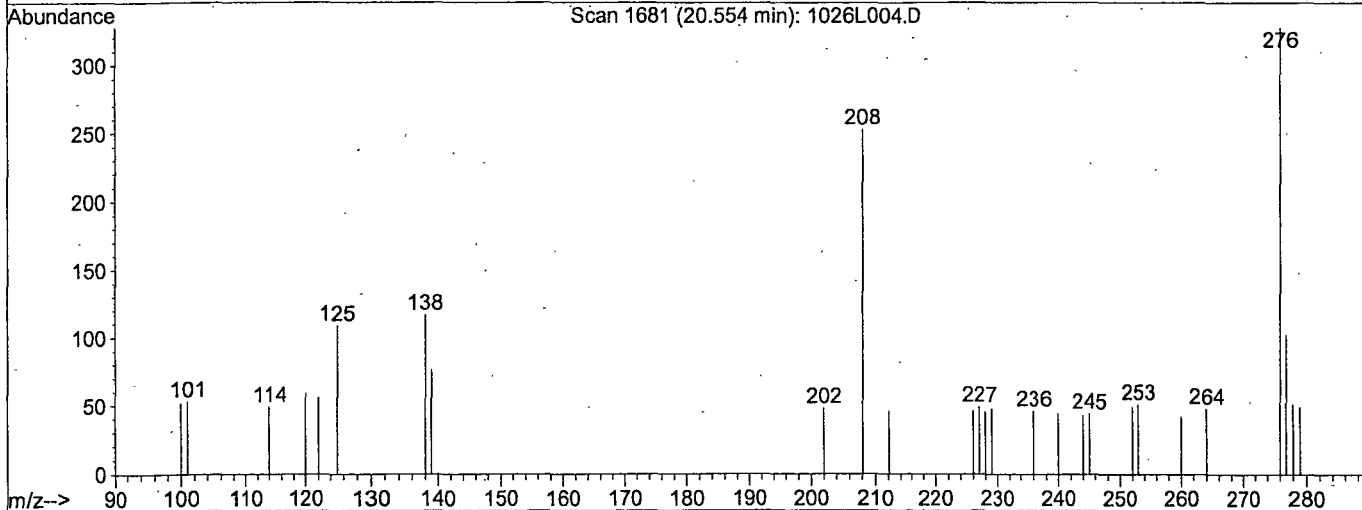
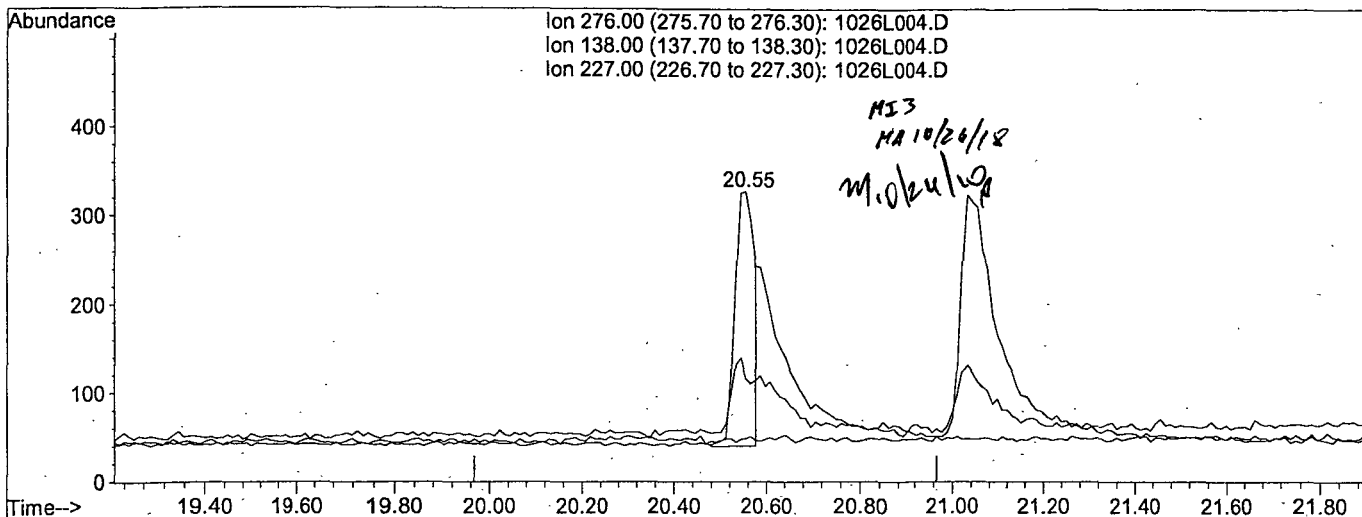
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	21.68
227.00	0.10	1.05#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:14 2018

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L004.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.55min 0.0492ppb m

response 859

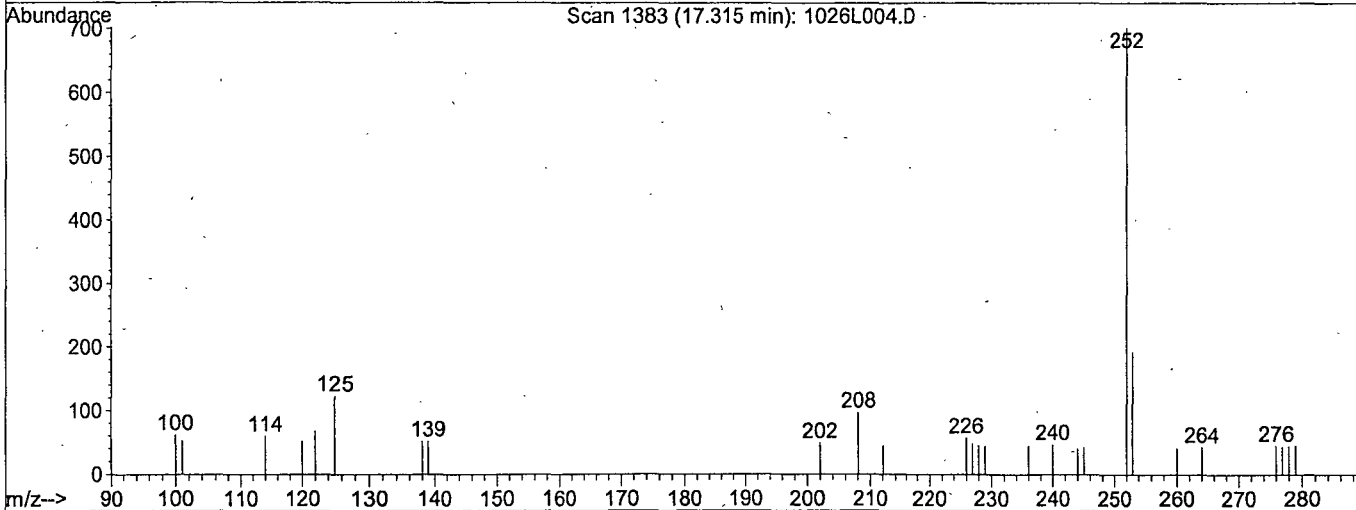
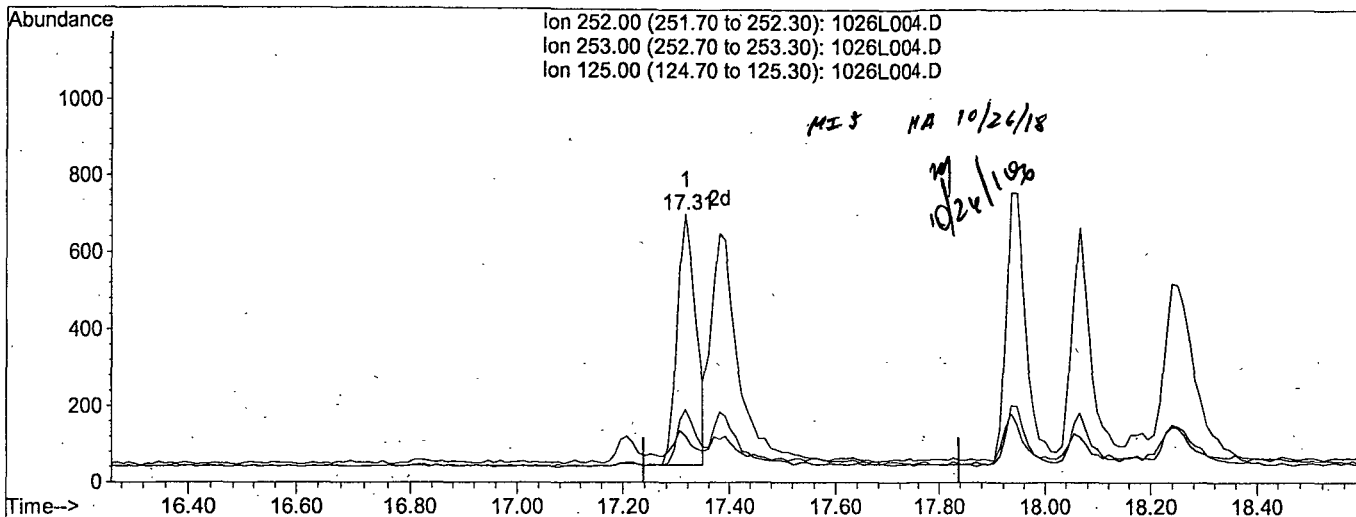
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	35.67#
227.00	0.10	14.94#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:14 2018

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:17:28 2018  
 Response via : Multiple Level Calibration



TIC: 1026L004.D

(25) Benzo (k) fluoranthene (TM)

17.31min 0.0773ppb

response 1640

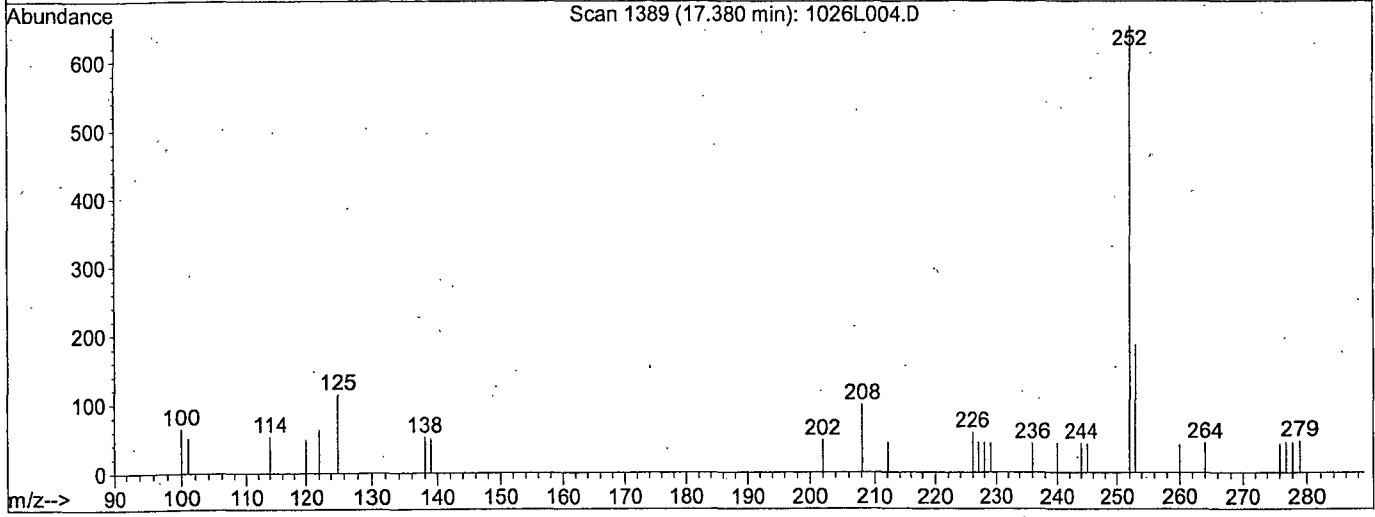
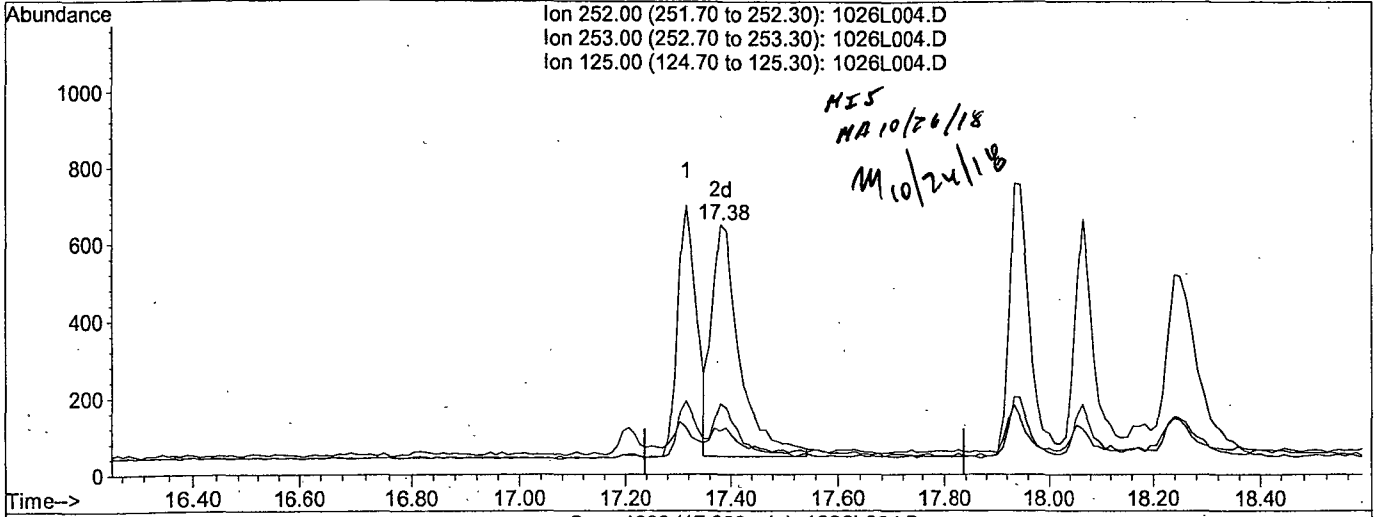
Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.41
125.00	9.90	7.93
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:19 2018

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:17:28 2018  
 Response via : Multiple Level Calibration



TIC: 1026L004.D

(25) Benzo (k) fluoranthene (TM)

17.38min 0.1059ppb m

response 2245

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	28.37#
125.00	9.90	17.48#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 16:15 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	32908	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	15199	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	28536	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.38	240	38282	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	37740	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.38	82	591	0.09983	ppb	0.02
Spiked Amount	5.000		Recovery	=	2.000%	
4) 2-Methylnaphthalene-D10 (2)	4.97	152	1540	0.08694	ppb	0.01
Spiked Amount	5.000		Recovery	=	1.740%	
8) Surrogate Recovery (FBP)	5.44	172	1014	0.08636	ppb	0.01
Spiked Amount	5.000		Recovery	=	1.720%	
15) Fluoranthene-D10 (FRT)	10.13	212	1750	0.08101	ppb	0.03
Spiked Amount	5.000		Recovery	=	1.620%	
19) Surrogate Recovery (TPH)	11.39	244	1276	0.08749	ppb	0.02
Spiked Amount	5.000		Recovery	=	1.740%	
Target Compounds						
3) Naphthalene	4.20	128	2920	0.19847	ppb	98
5) 2-Methylnaphthalene	5.01	142	1700	0.18886	ppb	93
6) 1-Methylnaphthalene	5.12	142	1786	0.20204	ppb	97
9) Acenaphthylene	6.05	152	5319	0.18923	ppb	100
10) Acenaphthene	6.24	154	1728	0.19842	ppb	93
11) Fluorene	6.86	166	1855	0.19104	ppb	96
13) Phenanthrene	7.98	178	2873	0.19753	ppb	99
14) Anthracene	8.06	178	2528	0.19339	ppb	99
16) Fluoranthene	10.17	202	3865	0.18462	ppb	98
18) Pyrene	10.79	202	3914	0.17646	ppb	97
20) Benz (a) anthracene	14.37	228	3153	0.16402	ppb	98
21) Chrysene	14.47	228	3749	0.19513	ppb	98
22) Indeno (1,2,3-cd) pyrene	20.53	276	1727m	0.10528	ppb	97
24) Benzo (b) fluoranthene	17.30	252	3214	0.16991	ppb	98
25) Benzo (k) fluoranthene	17.38	252	3734m	0.18903	ppb	98
26) Benzo (a) pyrene	18.06	252	2558	0.15196	ppb	100
27) Dibenz (a,h) anthracene	20.60	278	2666	0.15748	ppb	94
28) Benzo (g,h,i) perylene	21.02	276	2783	0.15889	ppb	97

Quantitation Report

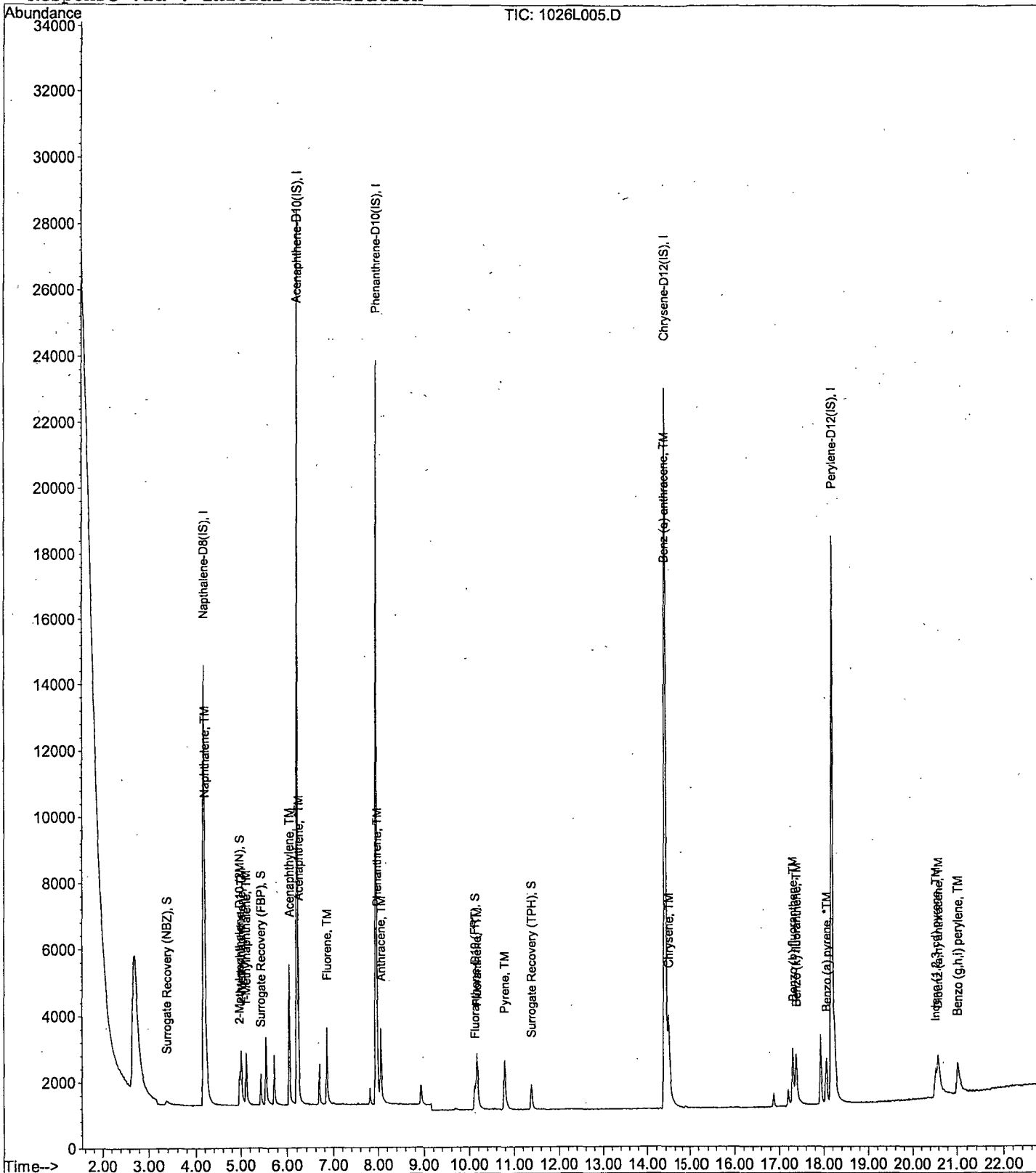
Data File : M:\LINUS\DATA\L181026\1026L005.D  
Acq On : 26 Oct 18 13:20  
Sample : 0.2 SIM 10/26/18  
Misc :

Vial: 5  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 16:15 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration

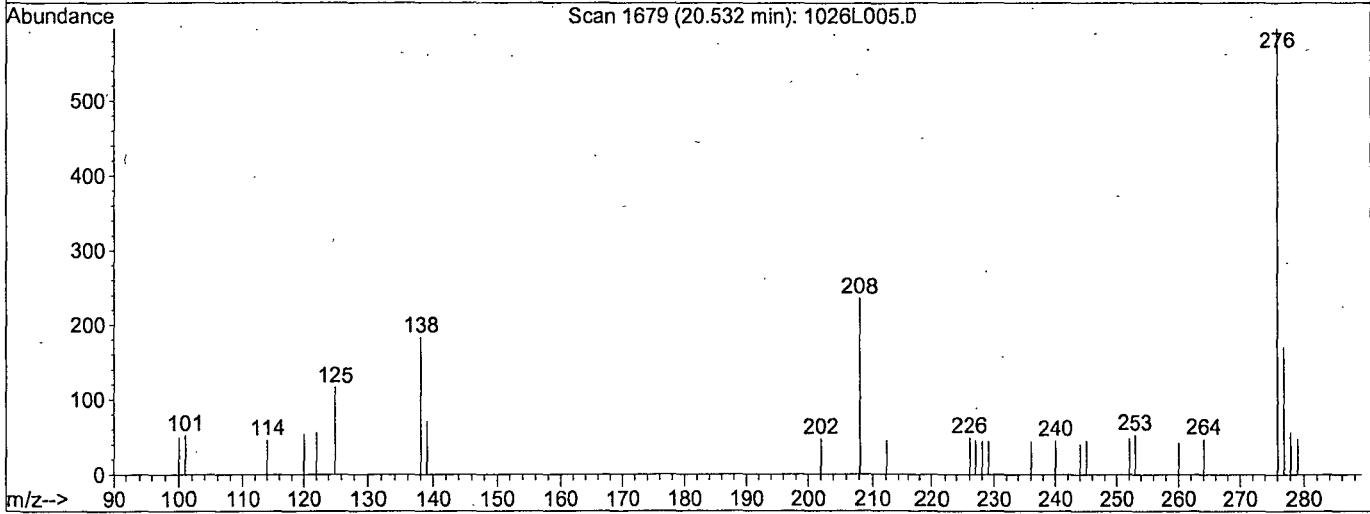
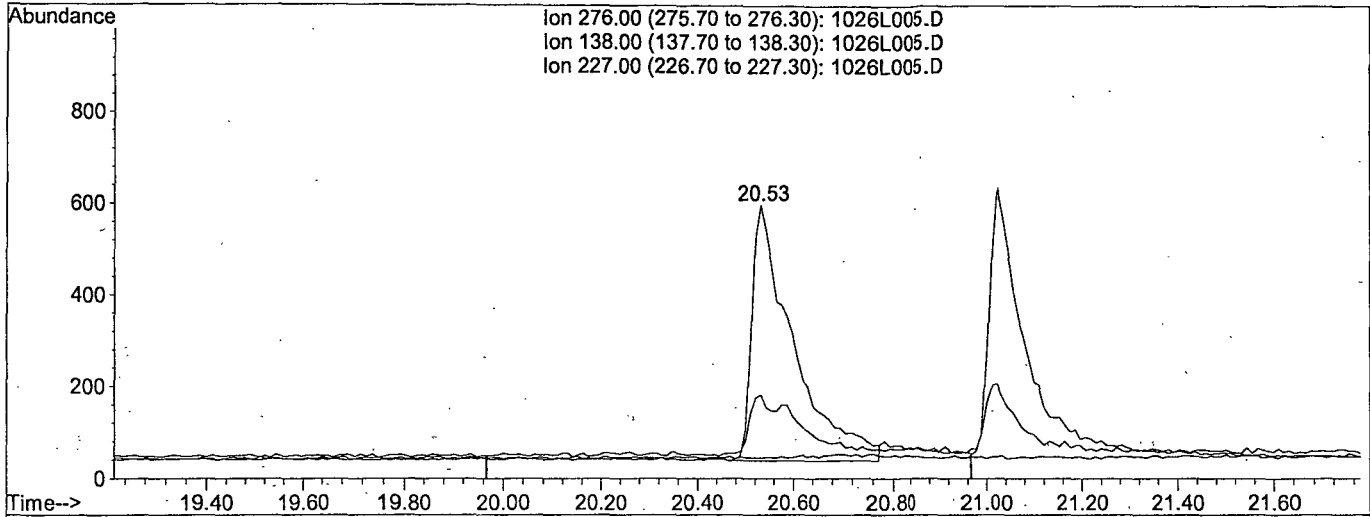


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 15:34 2018

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L005.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.53min 0.2008ppb

response 3294

Ion	Exp%	Act%
276.00	100	100
138.00	21.50	22.90
227.00	0.10	0.00#
0.00	0.00	0.00

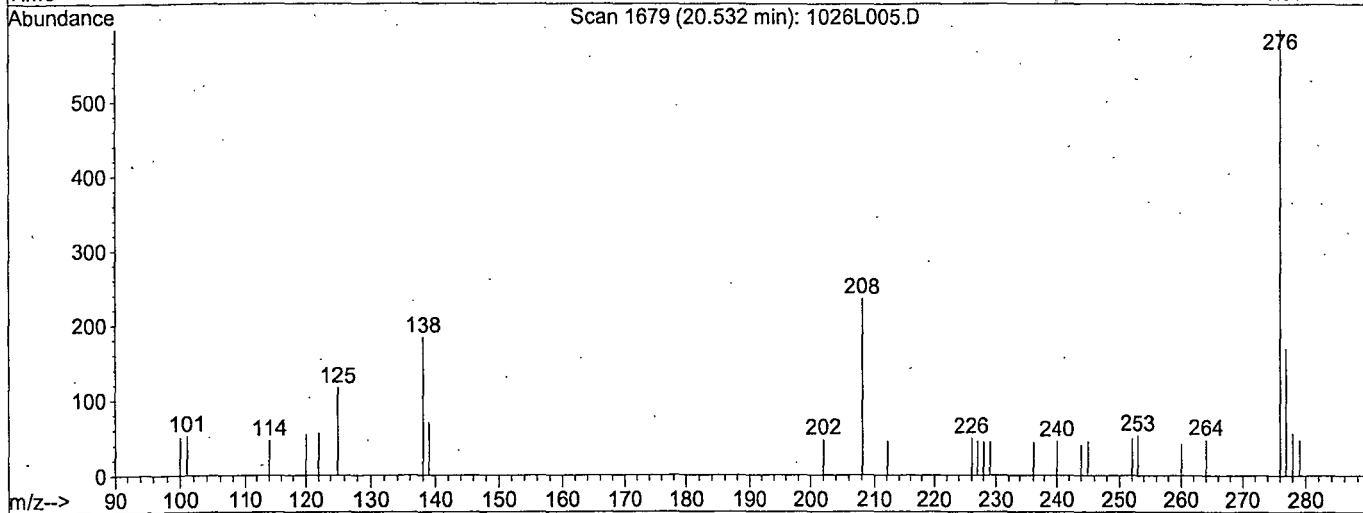
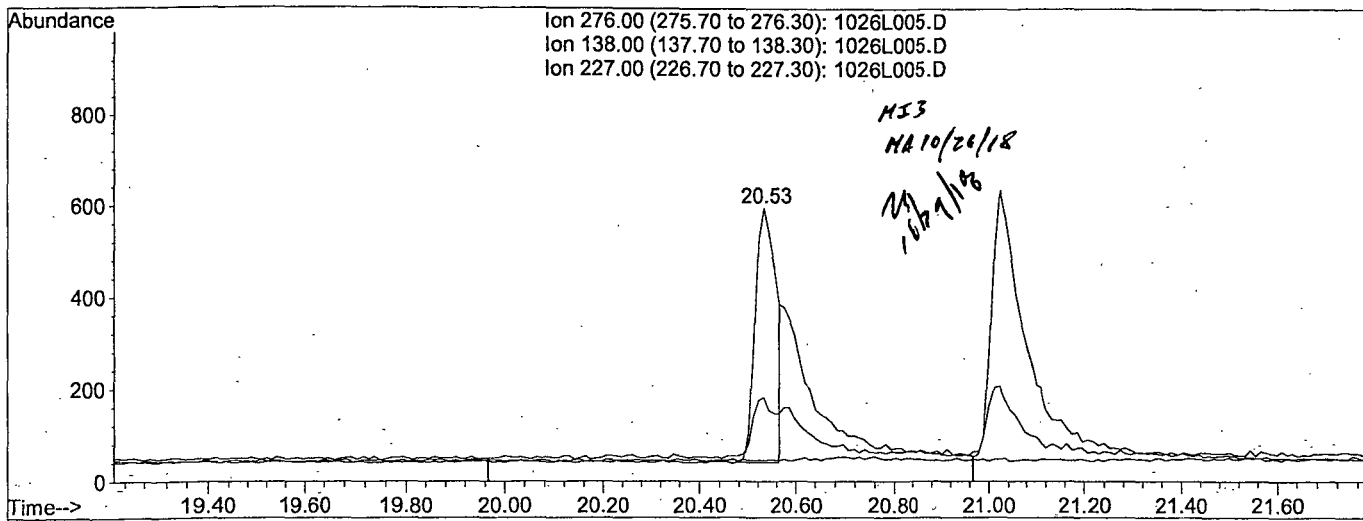


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:14 2018

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration.



TIC: 1026L005.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.53min 0.1053ppb m

response 1727

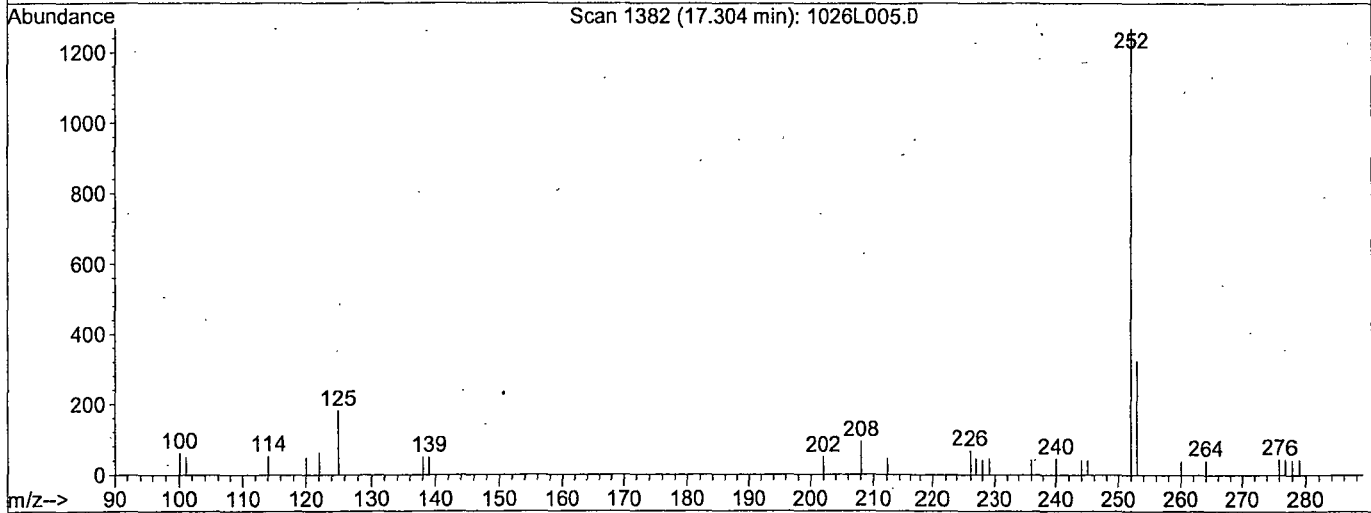
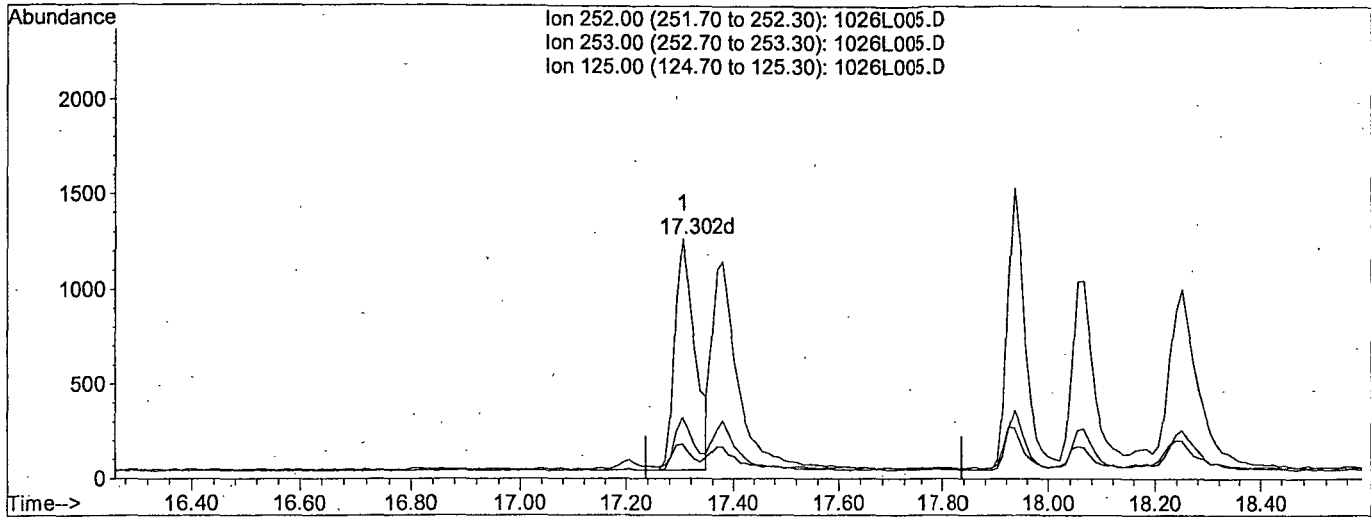
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	30.60#
227.00	0.10	7.53#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:14 2018

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L005.D

(25) Benzo (k) fluoranthene (TM)

17.30min 0.1624ppb

response 3208

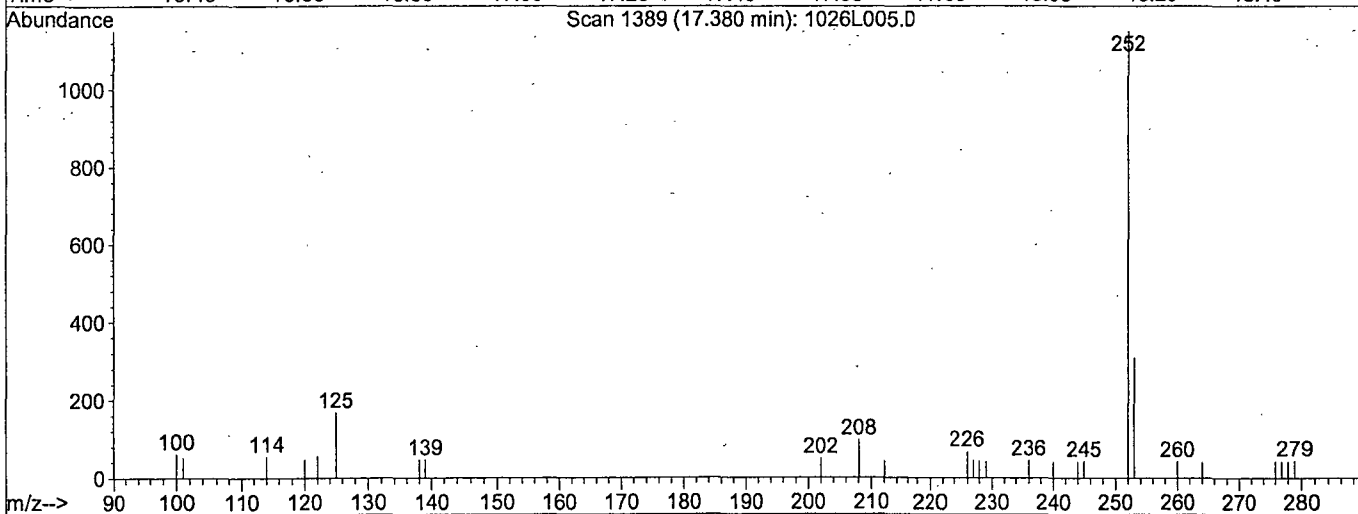
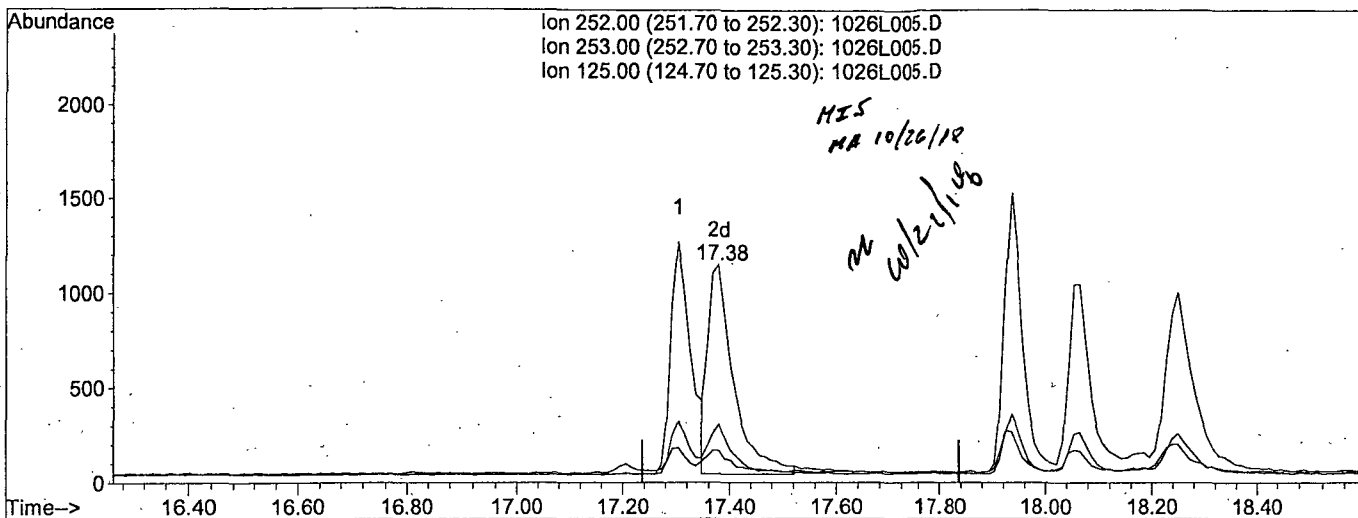
Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.68
125.00	9.90	9.95
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:15 2018

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L005.D

(25) Benzo (k) fluoranthene (TM)

17.38min 0.1890ppb m

response 3734

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	26.78
125.00	9.90	14.61#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L006.D  
 Acq On : 26 Oct 18 13:49  
 Sample : 0.5 SIM 10/26/18  
 Misc :

Vial: 6  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 16:11 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Naphthalene-D8 (IS)	4.18	136	32750	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.20	164	14930	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	28628	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.39	240	38484	2.50000	ppb	0.01
23) Perylene-D12 (IS)	18.17	264	37609	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.38	82	1279	0.21709	ppb	0.02
Spiked Amount	5.000		Recovery	=	4.340%	
4) 2-Methylnaphthalene-D10 (2)	4.97	152	4203	0.23843	ppb	0.01
Spiked Amount	5.000		Recovery	=	4.760%	
8) Surrogate Recovery (FBP)	5.44	172	2622	0.22734	ppb	0.01
Spiked Amount	5.000		Recovery	=	4.540%	
15) Fluoranthene-D10 (FRT)	10.12	212	4660	0.21501	ppb	0.02
Spiked Amount	5.000		Recovery	=	4.300%	
19) Surrogate Recovery (TPH)	11.39	244	3226	0.22003	ppb	0.02
Spiked Amount	5.000		Recovery	=	4.400%	
Target Compounds						
3) Naphthalene	4.20	128	7168	0.48956	ppb	98
5) 2-Methylnaphthalene	5.01	142	4428	0.49429	ppb	99
6) 1-Methylnaphthalene	5.12	142	4610	0.52403	ppb	100
9) Acenaphthylene	6.05	152	13663	0.49485	ppb	98
10) Acenaphthene	6.24	154	4192	0.49002	ppb	93
11) Fluorene	6.86	166	4814	0.50470	ppb	99
13) Phenanthrene	7.98	178	7057	0.48363	ppb	98
14) Anthracene	8.06	178	6562	0.50036	ppb	99
16) Fluoranthene	10.16	202	10110	0.48136	ppb	99
18) Pyrene	10.78	202	10151	0.45526	ppb	99
20) Benz (a) anthracene	14.37	228	8271	0.42801	ppb	99
21) Chrysene	14.47	228	9389	0.48612	ppb	97
22) Indeno (1,2,3-cd) pyrene	20.51	276	5240m	0.31776	ppb	99
24) Benzo (b) fluoranthene	17.29	252	8054	0.42726	ppb	97
25) Benzo (k) fluoranthene	17.37	252	9064	0.46045	ppb	100
26) Benzo (a) pyrene	18.05	252	6810	0.40595	ppb	99
27) Dibenz (a,h) anthracene	20.58	278	6922	0.41030	ppb	96
28) Benzo (g,h,i) perylene	21.00	276	7138	0.40895	ppb	96

Quantitation Report

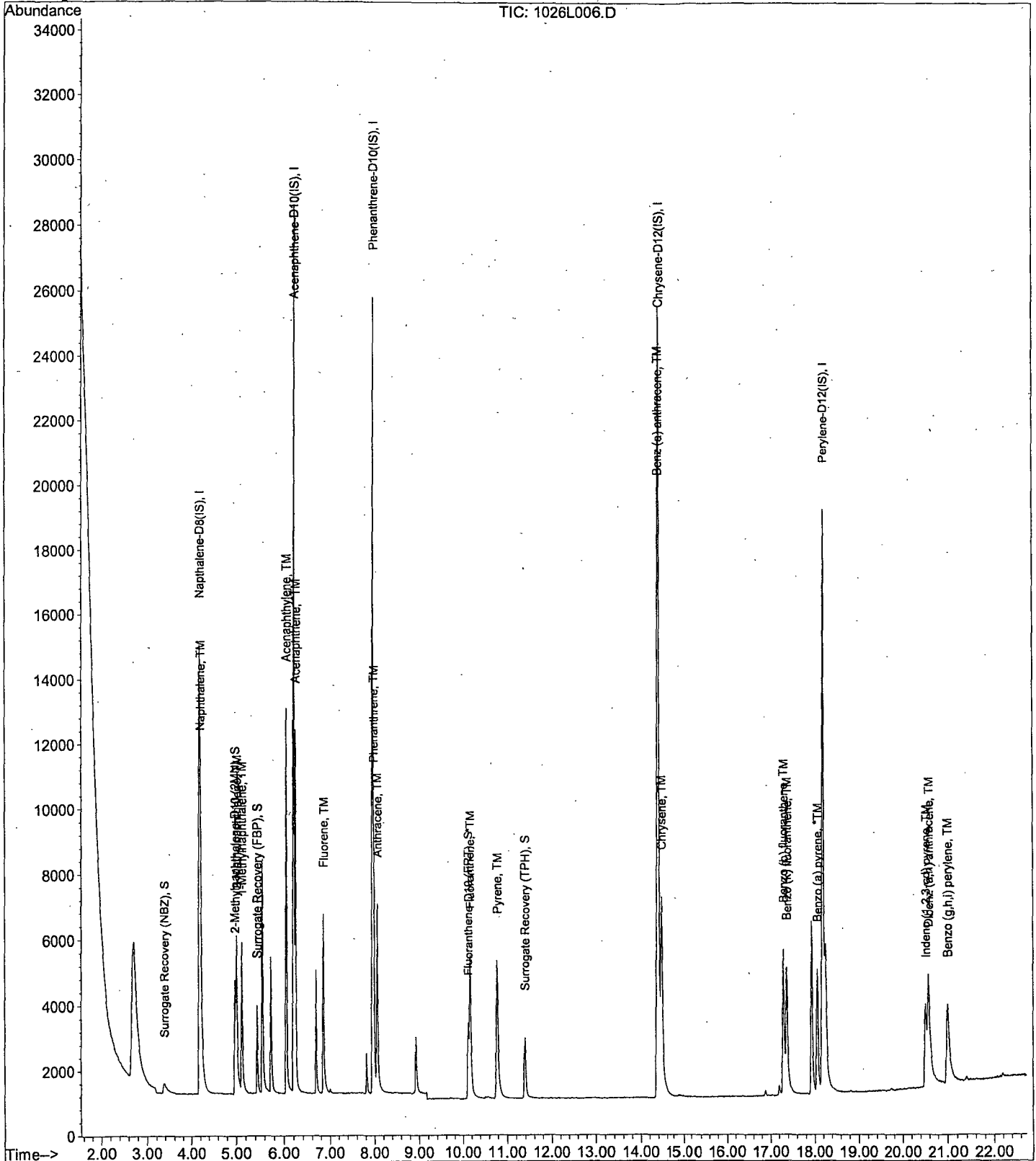
Data File : M:\LINUS\DATA\L181026\1026L006.D  
Acq On : 26 Oct 18 13:49  
Sample : 0.5 SIM 10/26/18  
Misc :

Vial: 6  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 16:11 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration

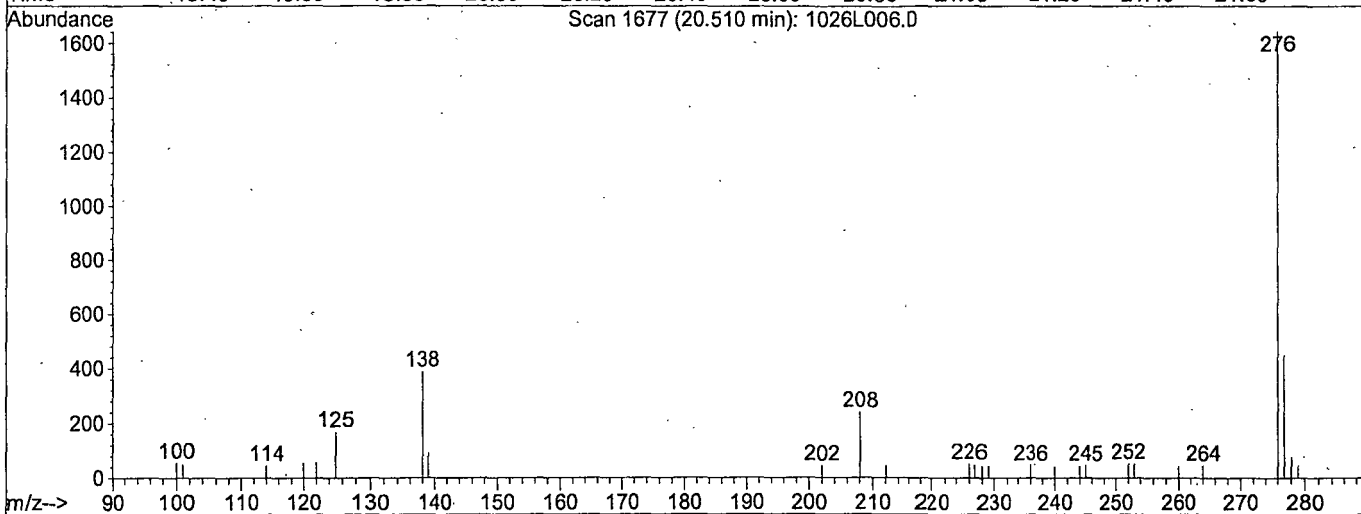
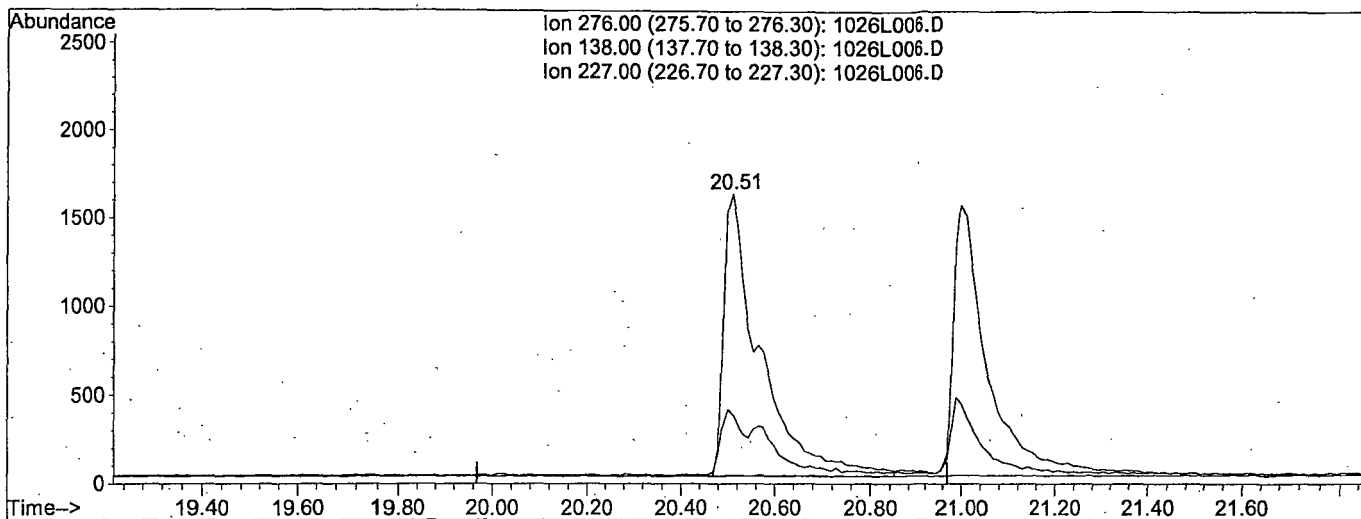


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L006.D  
 Acq On : 26 Oct 18 13:49  
 Sample : 0.5 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 15:34 2018

Vial: 6  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L006.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.51min 0.5224ppb

response 8614

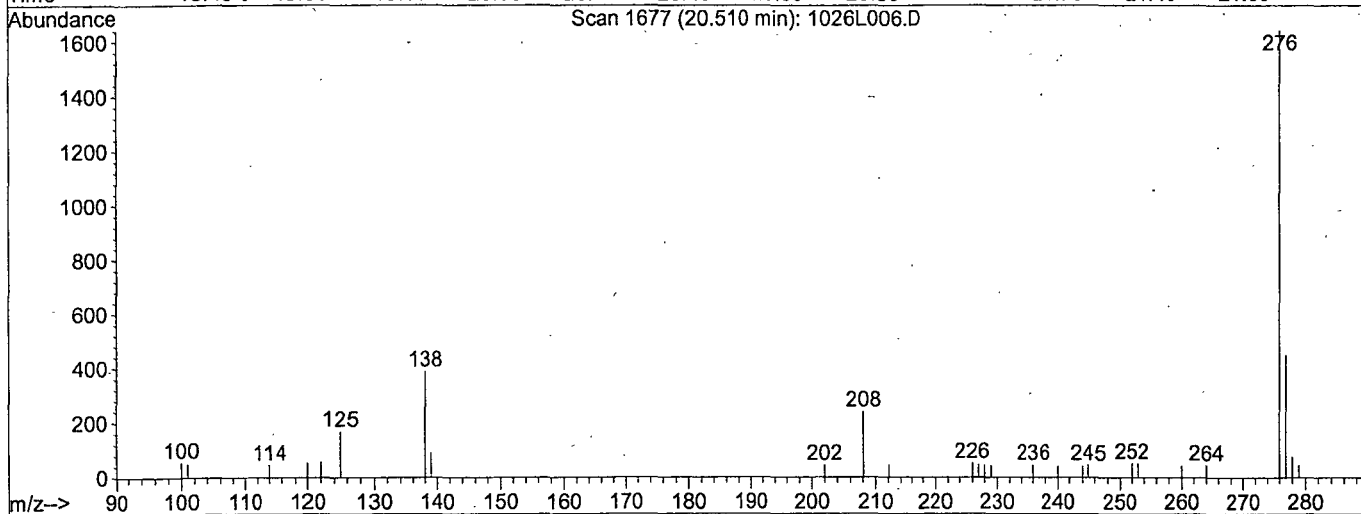
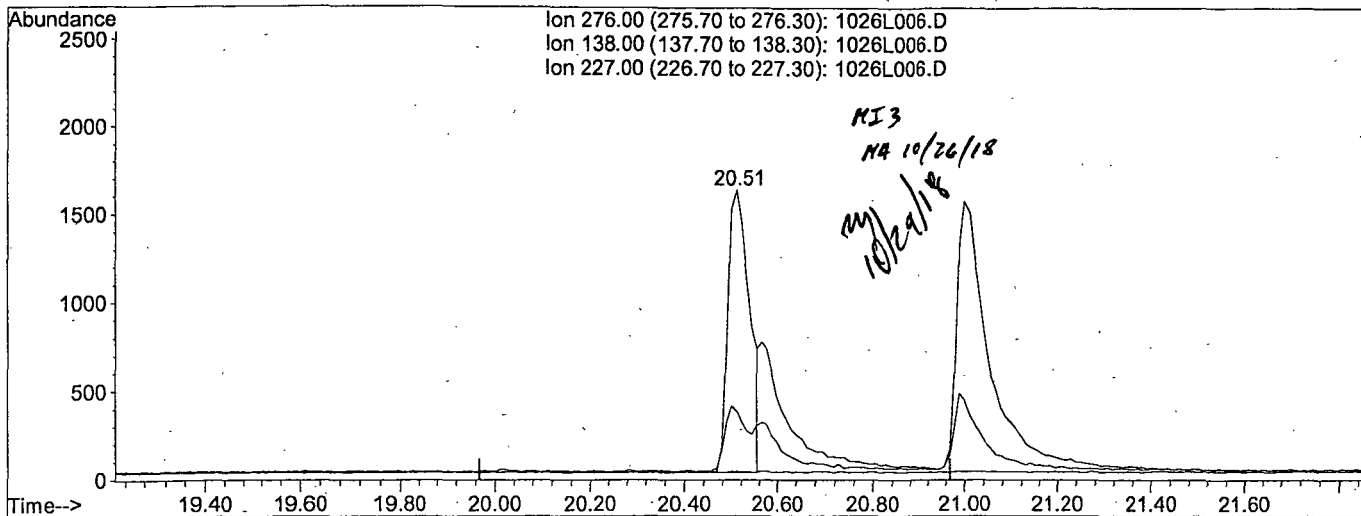
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	20.97
227.00	0.10	0.25#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L006.D  
 Acq On : 26 Oct 18 13:49  
 Sample : 0.5 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:11 2018

Vial: 6  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L006.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.51min 0.3178ppb m

response 5240

Ion	Exp%	Act%
276.00	100	100
138.00	21.50	23.62
227.00	0.10	2.86#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L007.D Vial: 7  
 Acq On : 26 Oct 18 14:18 Operator: MA  
 Sample : 1 SIM 10/26/18 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Oct 26 16:11 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8(IS)	4.18	136	33971	2.50000	ppb	0.00
7) Acenaphthene-D10(IS)	6.21	164	15608	2.50000	ppb	0.00
12) Phenanthrene-D10(IS)	7.95	188	29272	2.50000	ppb	0.01
17) Chrysene-D12(IS)	14.38	240	39857	2.50000	ppb	0.00
23) Perylene-D12(IS)	18.17	264	39069	2.50000	ppb	0.00

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	3.37	82	2297	0.37586	ppb	0.01
Spiked Amount	5.000		Recovery	=	7.520%	
4) 2-Methylnaphthalene-D10 (2)	4.97	152	8029	0.43910	ppb	0.01
Spiked Amount	5.000		Recovery	=	8.780%	
8) Surrogate Recovery (FBP)	5.44	172	5100	0.42298	ppb	0.01
Spiked Amount	5.000		Recovery	=	8.460%	
15) Fluoranthene-D10 (FRT)	10.11	212	9033	0.40761	ppb	0.01
Spiked Amount	5.000		Recovery	=	8.160%	
19) Surrogate Recovery (TPH)	11.38	244	6108	0.40225	ppb	0.01
Spiked Amount	5.000		Recovery	=	8.040%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	4.20	128	14128	0.93024	ppb	100
5) 2-Methylnaphthalene	5.01	142	8733	0.93981	ppb	98
6) 1-Methylnaphthalene	5.12	142	8928	0.97838	ppb	98
9) Acenaphthylene	6.05	152	26429	0.91562	ppb	99
10) Acenaphthene	6.24	154	8065	0.90180	ppb	92
11) Fluorene	6.84	166	9703	0.97307	ppb	97
13) Phenanthrene	7.98	178	14031	0.94041	ppb	99
14) Anthracene	8.06	178	12971	0.96730	ppb	99
16) Fluoranthene	10.16	202	20236	0.94229	ppb	98
18) Pyrene	10.77	202	20187	0.87417	ppb	97
20) Benz (a) anthracene	14.36	228	15888	0.79385	ppb	99
21) Chrysene	14.47	228	17899	0.89481	ppb	99
22) Indeno (1,2,3-cd) pyrene	20.50	276	11020m	0.64524	ppb	95
24) Benzo (b) fluoranthene	17.28	252	15809	0.80731	ppb	98
25) Benzo (k) fluoranthene	17.36	252	17901	0.87539	ppb	99
26) Benzo (a) pyrene	18.04	252	14027	0.80492	ppb	97
27) Dibenz (a,h) anthracene	20.56	278	14018	0.79986	ppb	95
28) Benzo (g,h,i) perylene	20.99	276	13977	0.77084	ppb	98



Quantitation Report

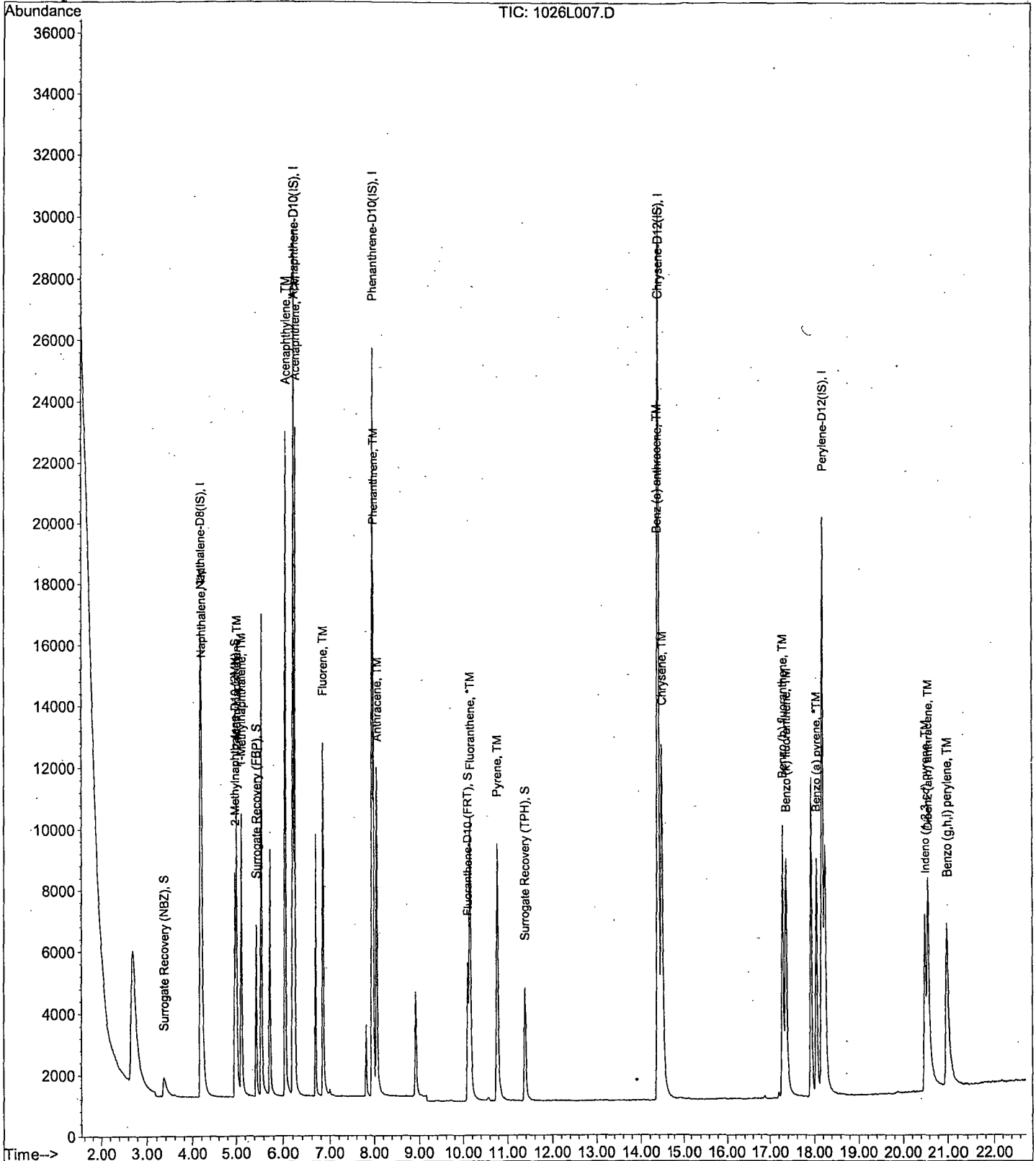
Data File : M:\LINUS\DATA\L181026\1026L007.D  
 Acq On : 26 Oct 18 14:18  
 Sample : 1 SIM 10/26/18  
 Misc :

Vial: 7  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 16:11 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration

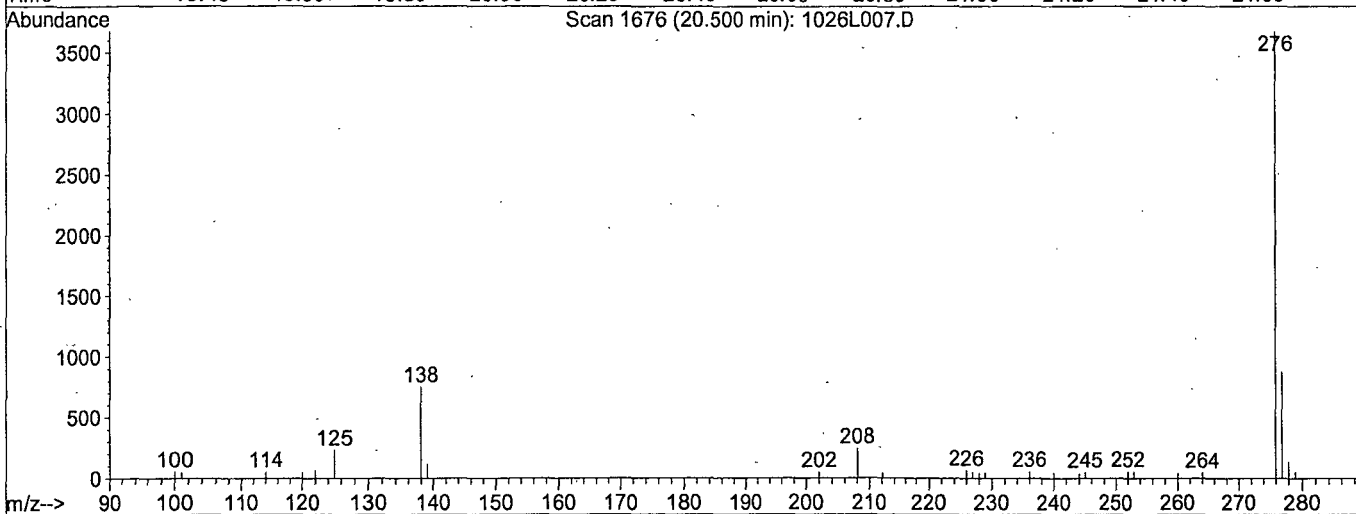
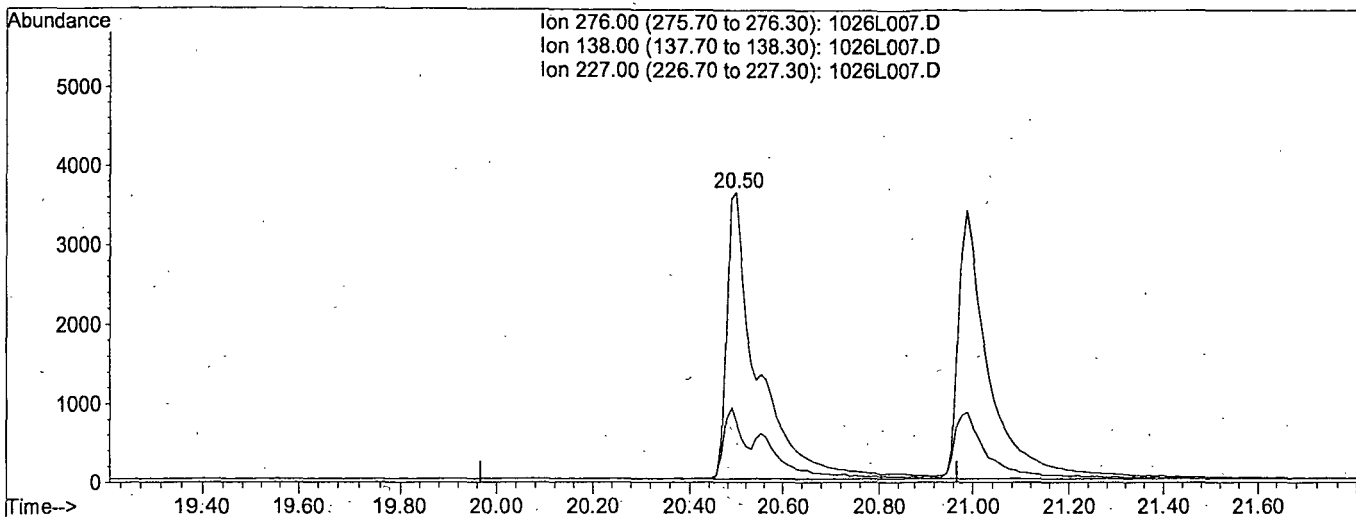


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L007.D  
 Acq On : 26 Oct 18 14:18  
 Sample : 1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 15:34 2018

Vial: 7  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L007.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.50min 0.9777ppb

response 16698

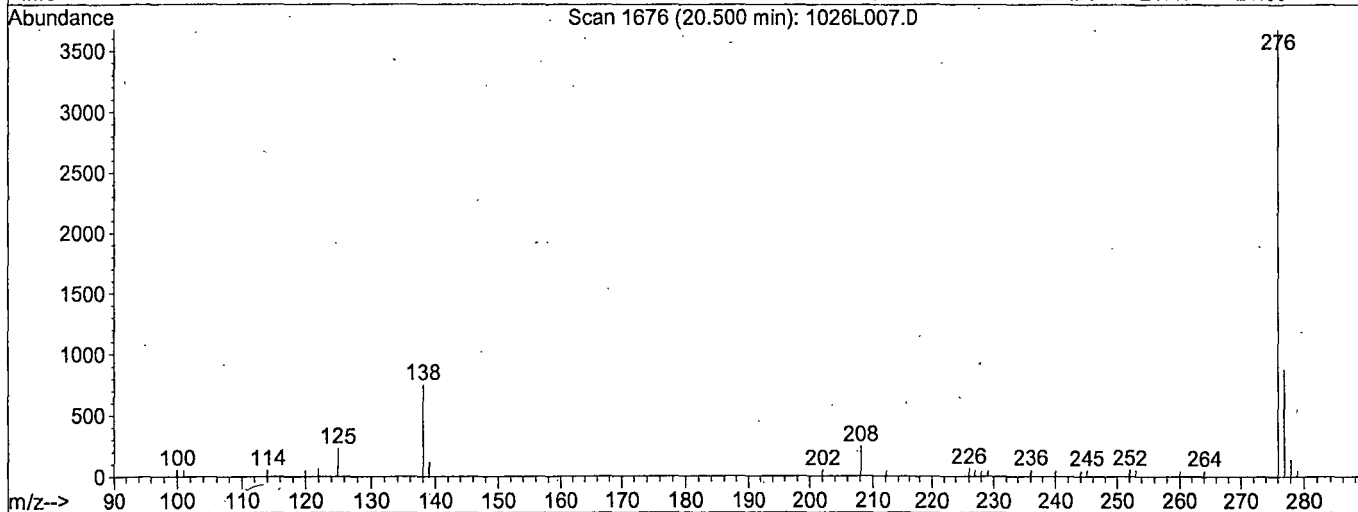
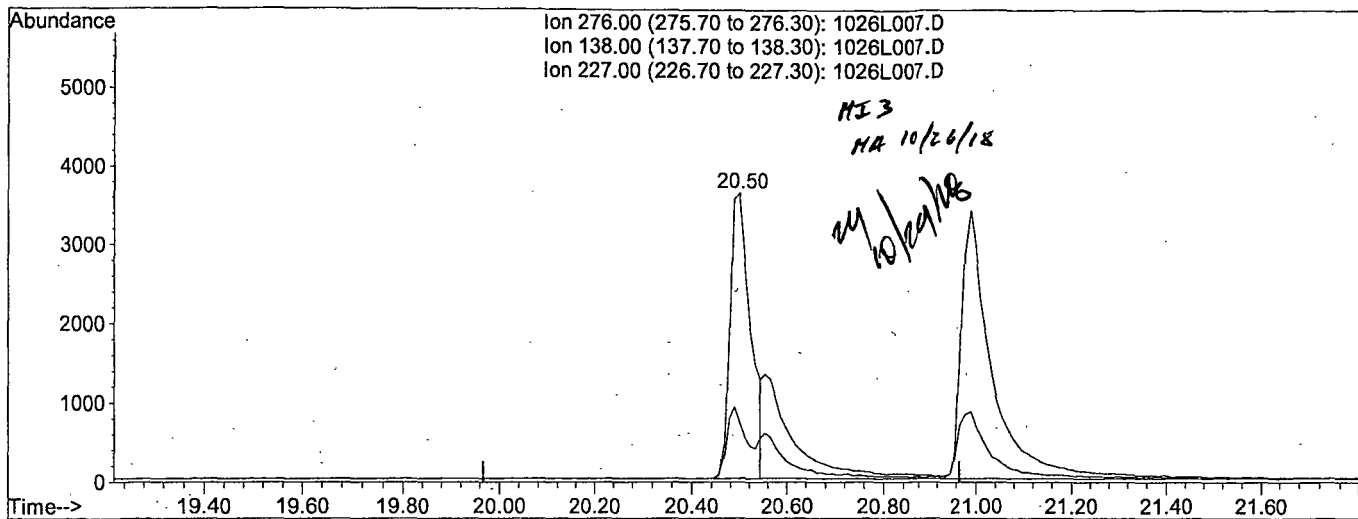
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	19.31
227.00	0.10	0.17#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L007.D  
 Acq On : 26 Oct 18 14:18  
 Sample : 1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:11 2018

Vial: 7  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L007.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.50min 0.6452ppb m

response 11020

Ion	Exp%	Act%
276.00	100	100
138.00	21.50	20.41
227.00	0.10	1.36#
0.00	0.00	0.00

Data File : M:\LINUS\DATA\L181026\1026L008.D  
 Acq On : 26 Oct 18 14:47  
 Sample : 10 SIM 10/26/18  
 Misc :

Vial: 8  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 15:34 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	32570	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	14513	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	27797	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.38	240	38774	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	36501	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.36	82	25371	4.33004	ppb	0.00
Spiked Amount	5.000		Recovery	=	86.600%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	78619	4.48459	ppb	0.00
Spiked Amount	5.000		Recovery	=	89.700%	
8) Surrogate Recovery (FBP)	5.43	172	50972	4.54640	ppb	0.00
Spiked Amount	5.000		Recovery	=	90.920%	
15) Fluoranthene-D10 (FRT)	10.10	212	96613	4.59101	ppb	0.00
Spiked Amount	5.000		Recovery	=	91.820%	
19) Surrogate Recovery (TPH)	11.37	244	62297	4.21726	ppb	0.00
Spiked Amount	5.000		Recovery	=	84.340%	
Target Compounds						
3) Naphthalene	4.20	128	138573	9.51662	ppb	100
5) 2-Methylnaphthalene	5.00	142	89316	10.02530	ppb	99
6) 1-Methylnaphthalene	5.12	142	85742	9.80030	ppb	97
9) Acenaphthylene	6.04	152	267328	9.96025	ppb	100
10) Acenaphthene	6.24	154	78196	9.40333	ppb	98
11) Fluorene	6.84	166	93296	10.06218	ppb	100
13) Phenanthrene	7.98	178	136446	9.63044	ppb	99
14) Anthracene	8.05	178	133826	10.50953	ppb	100
16) Fluoranthene	10.15	202	206441	10.12305	ppb	96
18) Pyrene	10.76	202	210764	9.38172	ppb	98
20) Benz (a) anthracene	14.36	228	178514	9.16865	ppb	100
21) Chrysene	14.46	228	182173	9.36164	ppb	100
22) Indeno (1,2,3-cd) pyrene	20.47	276	132404	7.96902	ppb	98
24) Benzo (b) fluoranthene	17.27	252	170669	9.32862	ppb	99
25) Benzo (k) fluoranthene	17.34	252	187357	9.80670	ppb	99
26) Benzo (a) pyrene	18.03	252	159123	9.77348	ppb	99
27) Dibenz (a,h) anthracene	20.54	278	142540	8.70545	ppb	99
28) Benzo (g,h,i) perylene	20.96	276	147120	8.68460	ppb	99

Quantitation Report

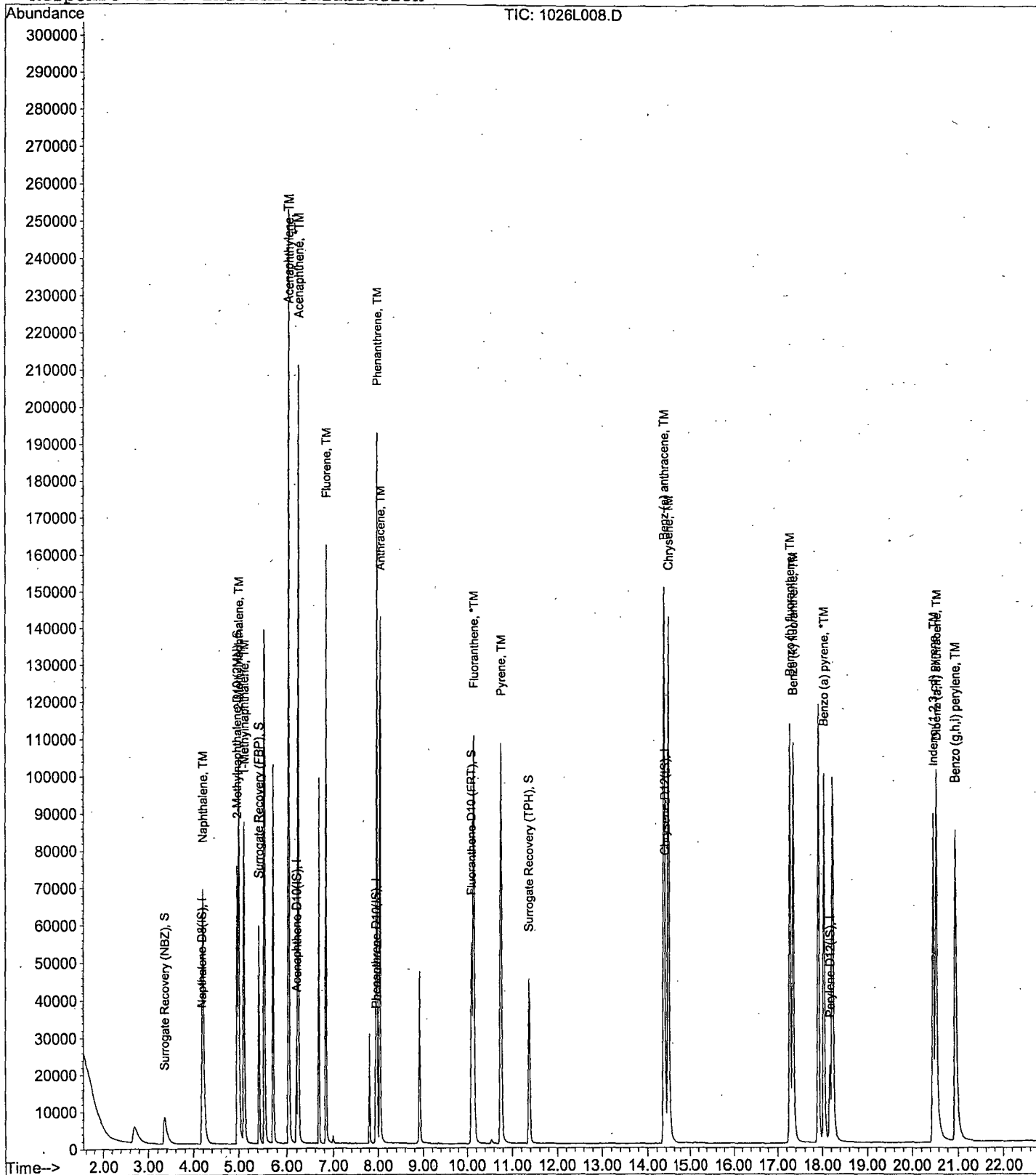
Data File : M:\LINUS\DATA\L181026\1026L008.D  
 Acq On : 26 Oct 18 14:47  
 Sample : 10 SIM 10/26/18  
 Misc :

Vial: 8  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 15:34 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L009.D  
 Acq On : 26 Oct 18 15:16  
 Sample : 50 SIM 10/26/18  
 Misc :

Vial: 9  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 15:56 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.17	136	33697	2.50000	ppb	-0.01
7) Acenaphthene-D10 (IS)	6.20	164	14973	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	28689	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.40	240	38392	2.50000	ppb	0.02
23) Perylene-D12 (IS)	18.18	264	37588	2.50000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.35	82	122273	21.73245	ppb	-0.01
Spiked Amount	5.000		Recovery	=	434.640%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	355045	22.10239	ppb	0.00
Spiked Amount	5.000		Recovery	=	442.040%	
8) Surrogate Recovery (FBP)	5.43	172	220430	21.82249	ppb	0.00
Spiked Amount	5.000		Recovery	=	436.440%	
15) Fluoranthene-D10 (FRT)	10.11	212	431396	22.92845	ppb	0.01
Spiked Amount	5.000		Recovery	=	458.560%	
19) Surrogate Recovery (TPH)	11.38	244	284921	21.83788	ppb	0.01
Spiked Amount	5.000		Recovery	=	436.760%	
Target Compounds						
3) Naphthalene	4.20	128	652242	46.00597	ppb	100
5) 2-Methylnaphthalene	5.00	142	409700	47.62530	ppb	99
6) 1-Methylnaphthalene	5.12	142	391332	45.14684	ppb	96
9) Acenaphthylene	6.04	152	1199003	46.39626	ppb	100
10) Acenaphthene	6.24	154	343423	43.41979	ppb	94
11) Fluorene	6.84	166	413269	45.87248	ppb	98
13) Phenanthrene	7.98	178	614637	45.60337	ppb	99
14) Anthracene	8.05	178	596928	47.86908	ppb	99
16) Fluoranthene	10.17	202	935853	47.50242	ppb	97
18) Pyrene	10.78	202	976032	48.05263	ppb	98
20) Benz (a) anthracene	14.38	228	861770	50.73337	ppb	99
21) Chrysene	14.49	228	821012	45.08714	ppb	99
22) Indeno (1,2,3-cd) pyrene	20.50	276	693522	42.54313	ppb	95
24) Benzo (b) fluoranthene	17.29	252	833397	49.82667	ppb	# 98
25) Benzo (k) fluoranthene	17.38	252	837921	48.85260	ppb	97
26) Benzo (a) pyrene	18.08	252	754977	52.03384	ppb	97
27) Dibenz (a,h) anthracene	20.58	278	691170	48.13785	ppb	97
28) Benzo (g,h,i) perylene	21.00	276	687548	47.00469	ppb	96

Quantitation Report

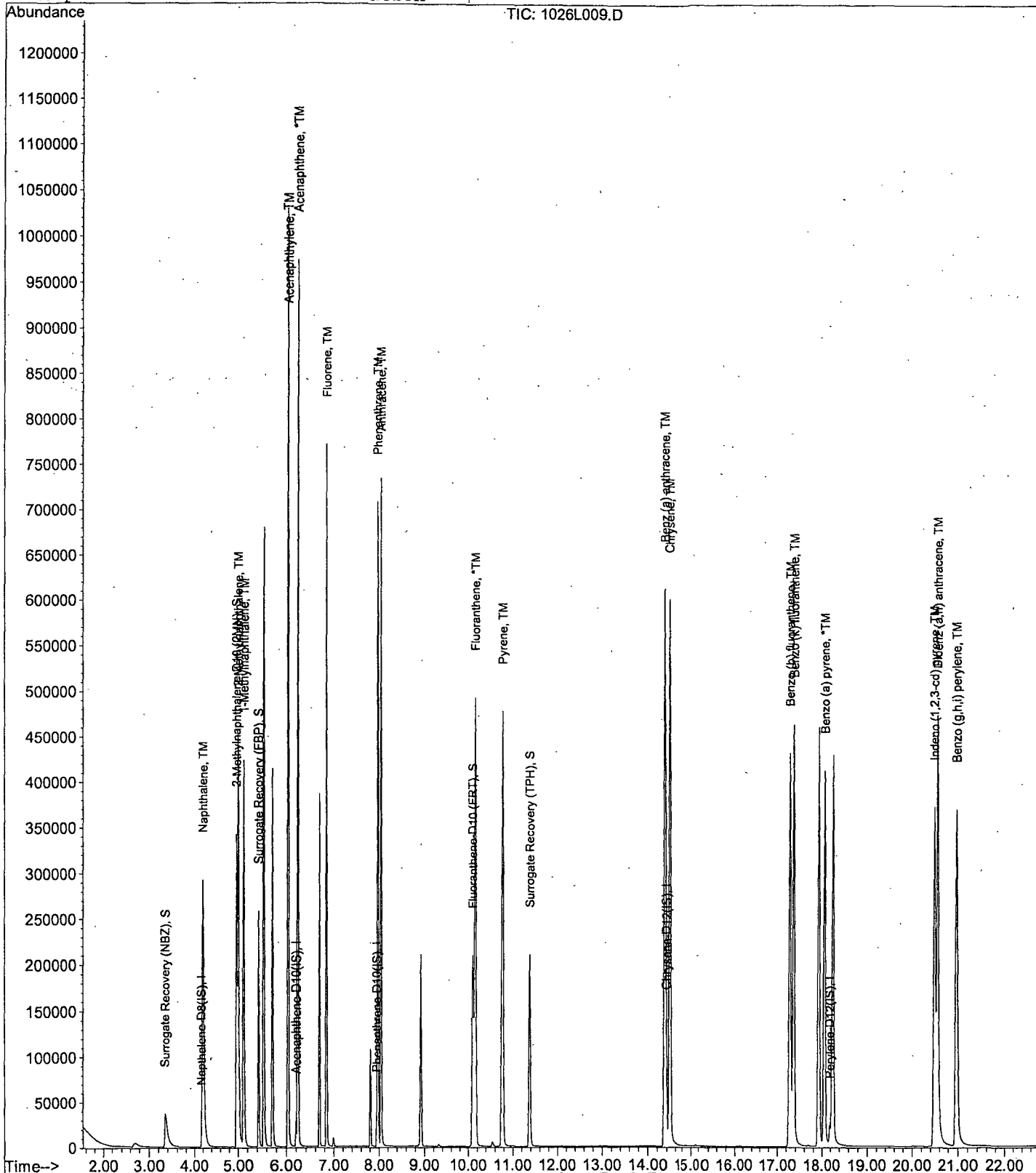
Data File : M:\LINUS\DATA\L181026\1026L009.D  
Acq On : 26 Oct 18 15:16  
Sample : 50 SIM 10/26/18  
Misc :

Vial: 9  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 15:56 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 16:12 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.17	136	31633	2.50000	ppb	-0.01
7) Acenaphthene-D10 (IS)	6.20	164	14067	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	26871	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.42	240	35782	2.50000	ppb	0.04
23) Perylene-D12 (IS)	18.20	264	35404	2.50000	ppb	0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	3.35	82	230737	45.09256	ppb	-0.01
Spiked Amount	5.000		Recovery	=	901.860%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	641392	43.26523	ppb	0.00
Spiked Amount	5.000		Recovery	=	865.300%	
8) Surrogate Recovery (FBP)	5.43	172	407321	43.93229	ppb	0.00
Spiked Amount	5.000		Recovery	=	878.640%	
15) Fluoranthene-D10 (FRT)	10.12	212	792092	46.17898	ppb	0.02
Spiked Amount	5.000		Recovery	=	923.580%	
19) Surrogate Recovery (TPH)	11.39	244	525605	44.69973	ppb	0.02
Spiked Amount	5.000		Recovery	=	894.000%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	4.19	128	1190602	90.34580	ppb	100
5) 2-Methylnaphthalene	5.01	142	725937	89.84741	ppb	96
6) 1-Methylnaphthalene	5.12	142	696199	85.61444	ppb	97
9) Acenaphthylene	6.05	152	2156100	89.29356	ppb	99
10) Acenaphthene	6.25	154	635563	86.08448	ppb	95
11) Fluorene	6.86	166	758985	89.77625	ppb	99
13) Phenanthrene	7.99	178	1058586	83.98357	ppb	98
14) Anthracene	8.06	178	1012170	86.44068	ppb	98
16) Fluoranthene	10.19	202	1675844	91.44665	ppb	98
18) Pyrene	10.80	202	1771989	95.58281	ppb	96
20) Benz (a) anthracene	14.40	228	1494777	96.18039	ppb	99
21) Chrysene	14.51	228	1518028	91.13060	ppb	98
22) Indeno (1,2,3-cd) pyrene	20.53	276	1322256m	89.75981	ppb	95
24) Benzo (b) fluoranthene	17.31	252	1544889	98.73724	ppb	# 97
25) Benzo (k) fluoranthene	17.41	252	1515838m	94.40721	ppb	98
26) Benzo (a) pyrene	18.11	252	1359978	100.87684	ppb	98
27) Dibenz (a,h) anthracene	20.61	278	1247200	94.24990	ppb	98
28) Benzo (g,h,i) perylene	21.03	276	1259732	93.82010	ppb	98



Quantitation Report

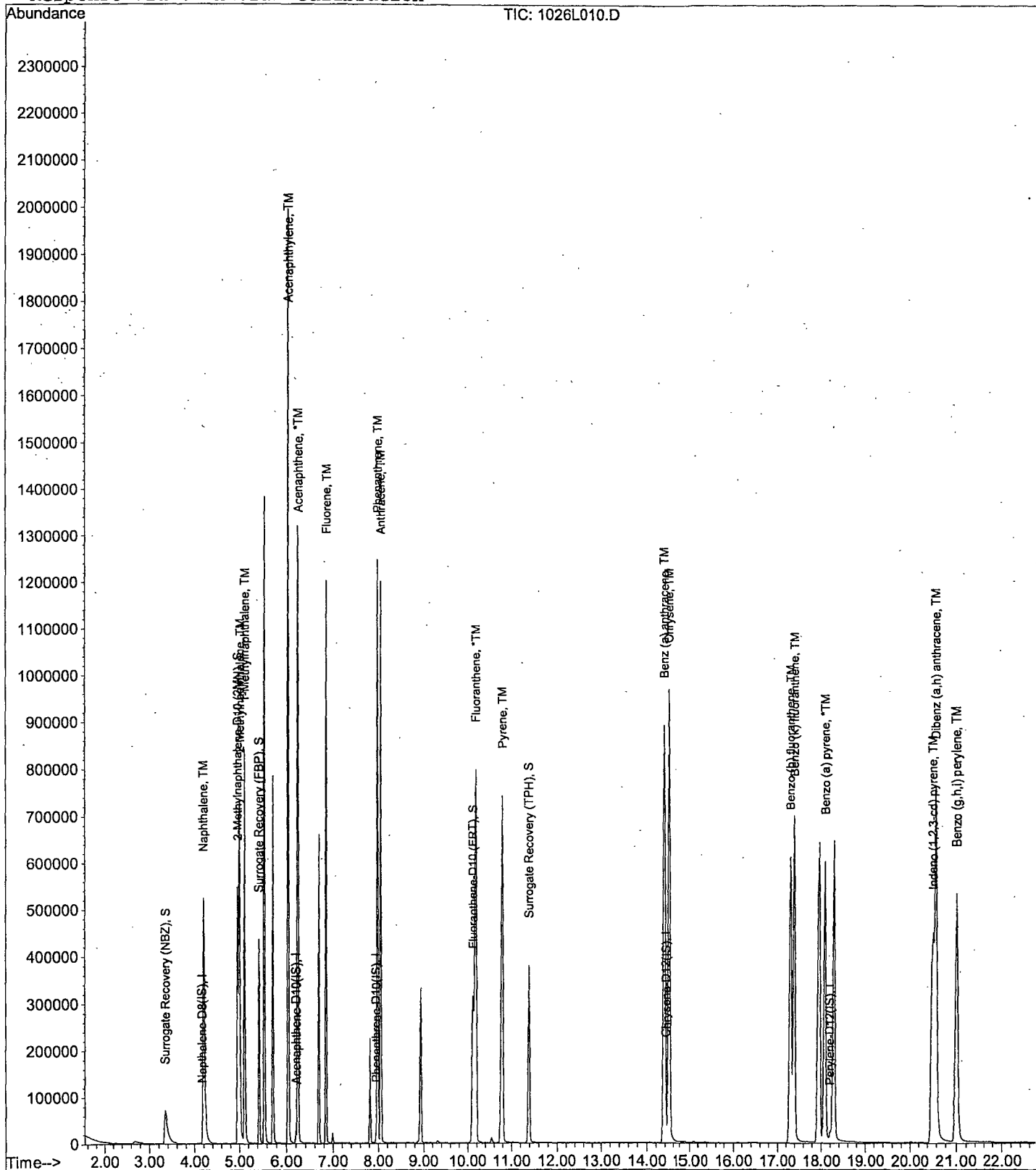
Data File : M:\LINUS\DATA\L181026\1026L010.D  
Acq On : 26 Oct 18 15:46  
Sample : 100 SIM 10/26/18  
Misc :

Vial: 10  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 16:12 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration

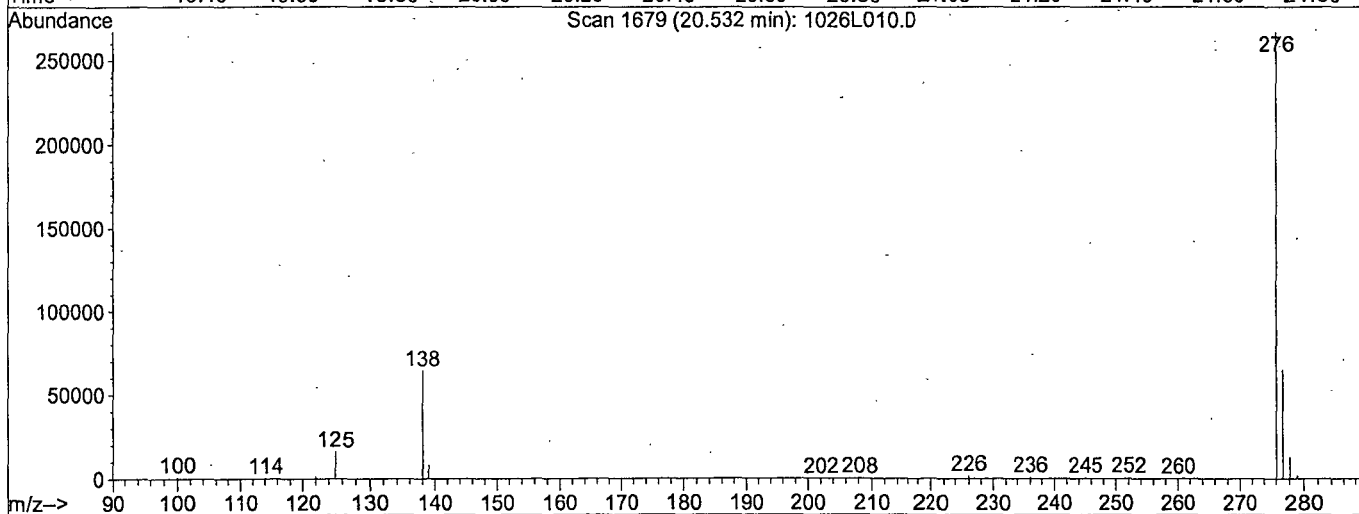
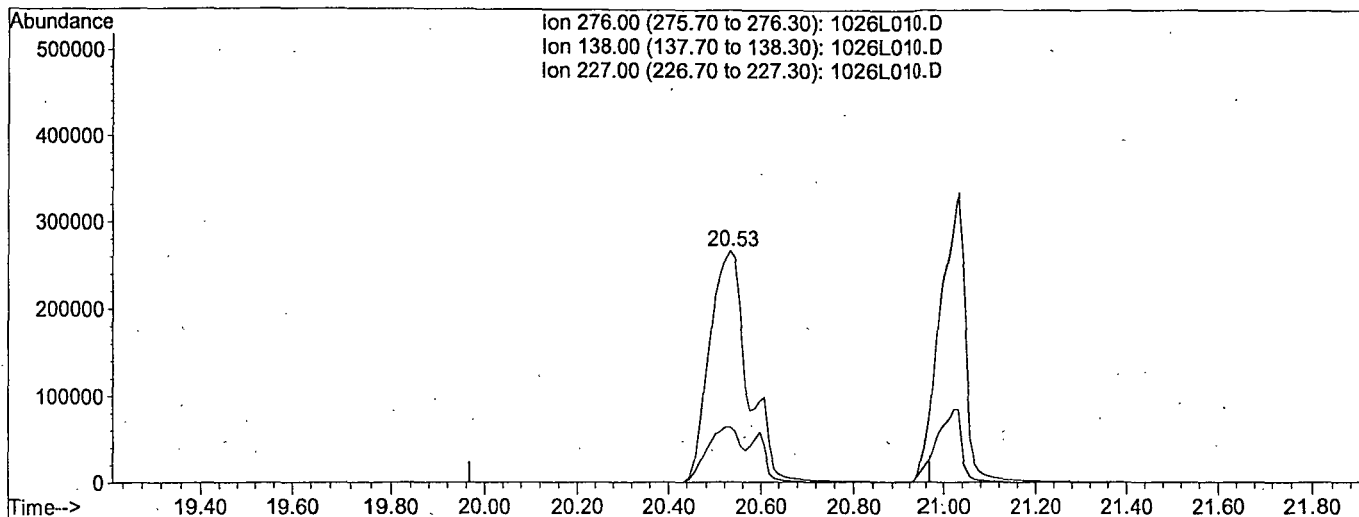


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:09 2018

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L010.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.53min 107.1725ppb

response 1578763

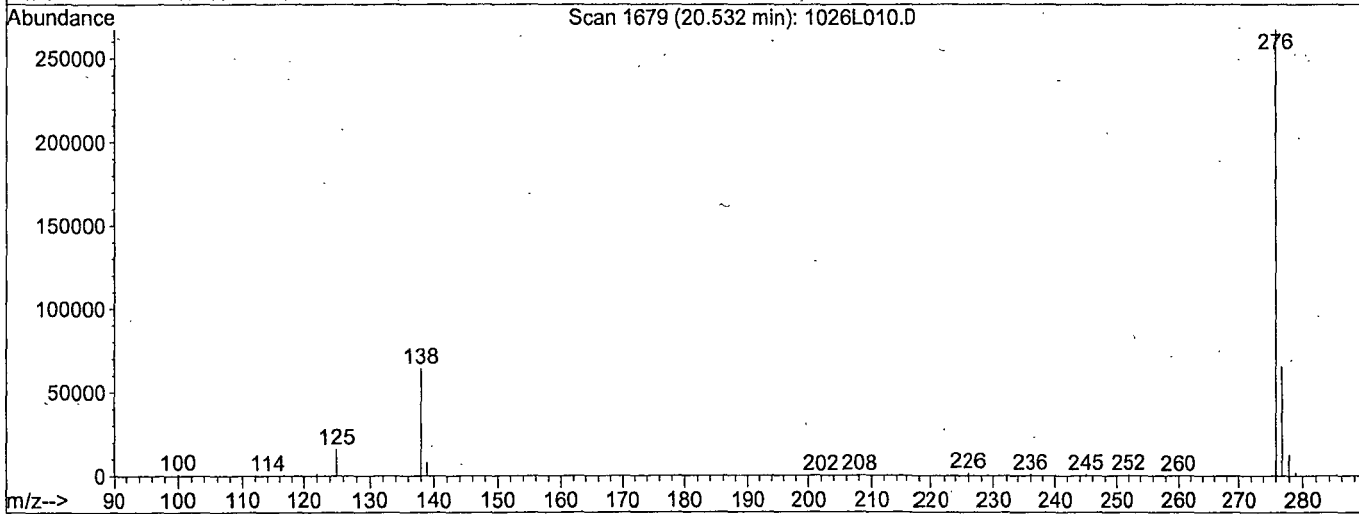
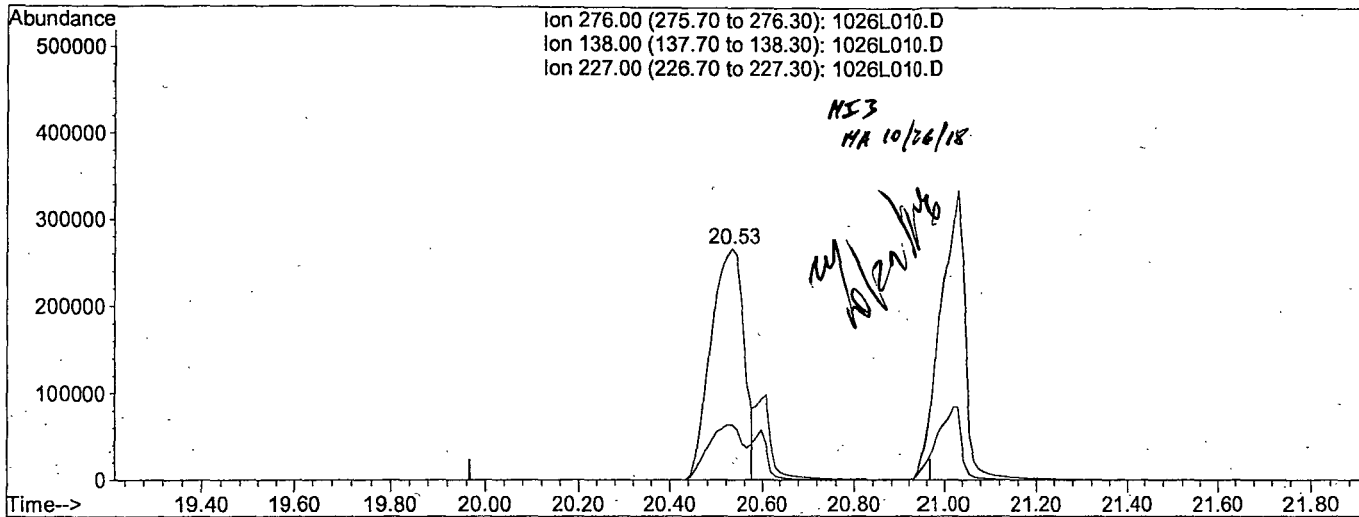
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	24.02
227.00	0.10	0.11
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:12 2018

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L010.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.53min 89.7598ppb m

response 1322256

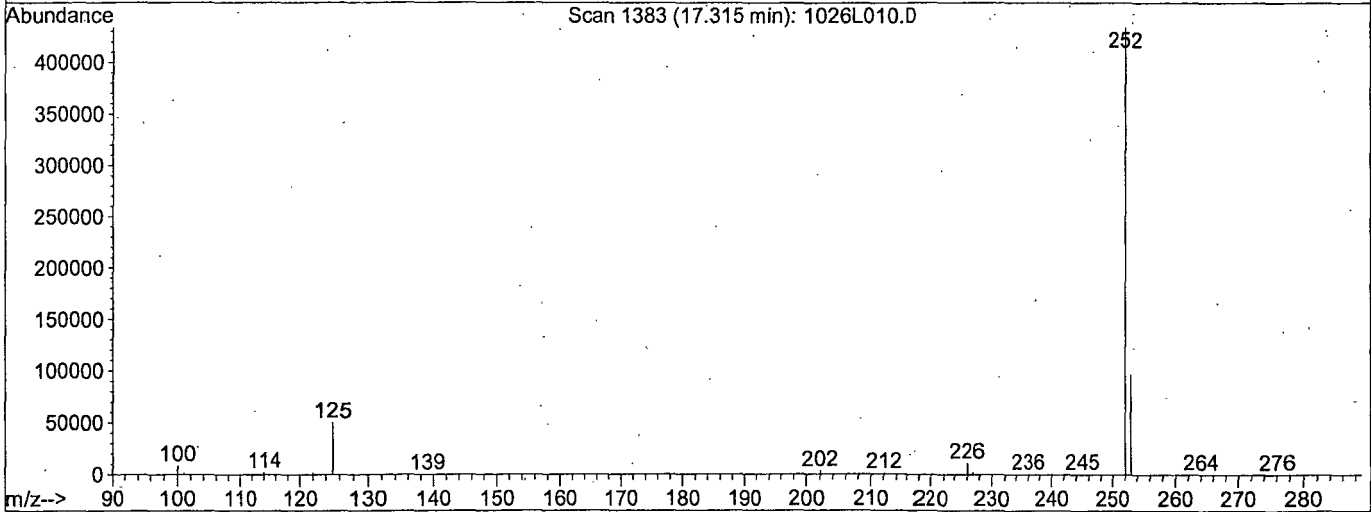
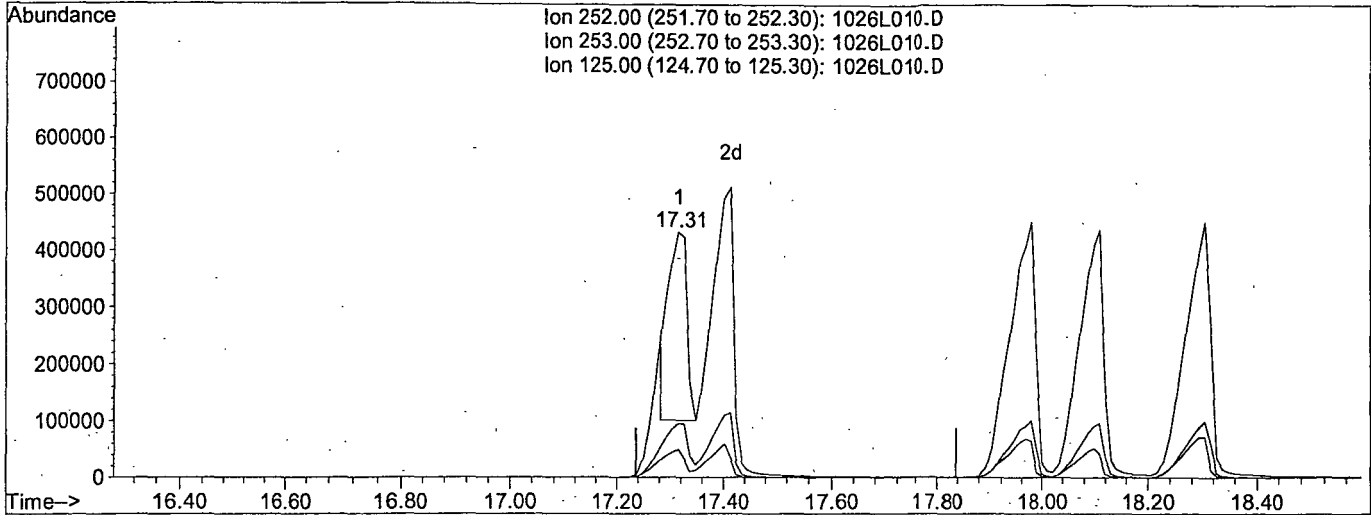
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	24.04
227.00	0.10	0.13#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:12 2018

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L010.D

(25) Benzo (k) fluoranthene (TM)

17.31min 49.4605ppb

response 794156

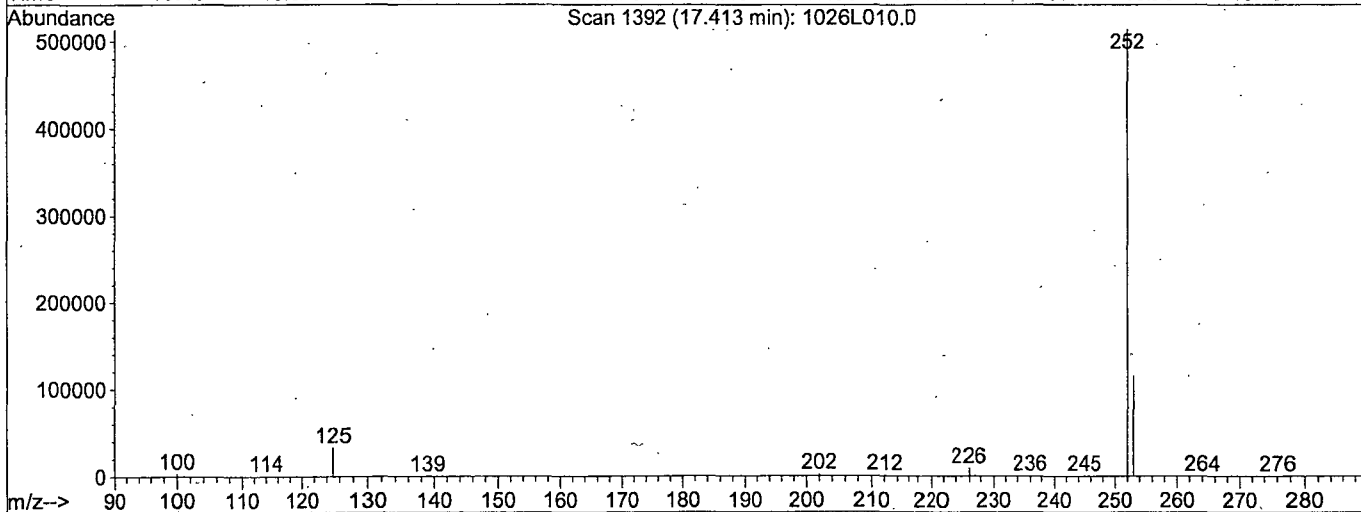
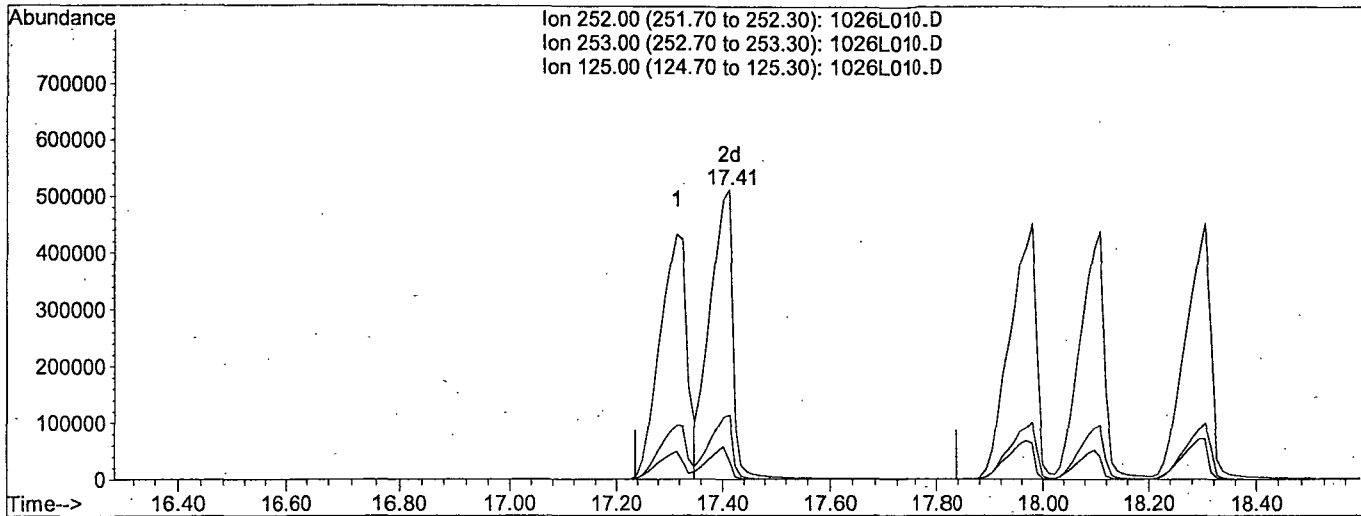
Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.27
125.00	9.90	11.17
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:12 2018

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L010.D

(25) Benzo (k) fluoranthene (TM)

17.41min 94.4072ppb m

response 1515838

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.26
125.00	9.90	6.39#
0.00	0.00	0.00

PAH by GCMS SIM  
EPA 8270 SIM

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/26/18  
Instrument: Linus  
Initial Cal. Date: 10/26/18  
Data File: 1026L011.D

		Compound	MEAN	CCRF	%D	%Drift
1	TM	Naphthalene	1.034	0.9993	3.3	TM
2	TM	2-Methylnaphthalene	0.6383	0.6413	0.46	TM
3	TM	1-Methylnaphthalene	0.6431	0.6161	4.2	TM
4	TM	Acenaphthylene	4.289	4.407	2.8	TM
5	*TM	Acenaphthene	1.306	1.332	2.0	*TM
6	TM	Fluorene	1.506	1.561	3.6	TM
7	TM	Phenanthrene	1.162	1.168	0.56	TM
8	TM	Anthracene	1.090	1.139	4.5	TM
9	*TM	Fluoranthene	1.692	1.720	1.7	*TM
10	TM	Pyrene	1.275	1.256	1.4	TM
11	TM	Benz (a) anthracene	1.074	1.063	1.0	TM
12	TM	Chrysene	1.151	1.121	2.6	TM
13	TML	Indeno (1,2,3-cd) pyrene	0.7396	0.7805	5.5	TML 7.6
14	TM	Benzo (b) fluoranthene	1.075	1.067	0.71	TM
15	TM	Benzo (k) fluoranthene	1.200	1.235	3.0	TM
16	*TM	Benzo (a) pyrene	0.9390	1.033	10.0	*TM
17	TM	Dibenz (a,h) anthracene	0.9150	0.9194	0.47	TM
18	TM	Benzo (g,h,i) perylene	0.9257	0.9786	5.7	TM
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						

Average

3.0

PAH by GCMS SIM  
EPA 8270 SIM

Form 7

Second Source Calibration

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L011.D  
 Acq On : 26 Oct 18 16:46  
 Sample : SS SIM 10/26/18  
 Misc :

Vial: 11  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 29 8:35 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	35068	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	15606	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	29941	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.38	240	41767	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	39215	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.37	82	17	0.00320	ppb	0.01
Spiked Amount	5.000		Recovery	=	0.060%	
4) 2-Methylnaphthalene-D10 (2)	4.97	152	29	0.00179	ppb	0.01
Spiked Amount	5.000		Recovery	=	0.040%	
8) Surrogate Recovery (FBP)	5.46	172	33	0.00325	ppb	0.02
Spiked Amount	5.000		Recovery	=	0.060%	
15) Fluoranthene-D10 (FRT)	10.11	212	117	0.00627	ppb	0.01
Spiked Amount	5.000		Recovery	=	0.120%	
19) Surrogate Recovery (TPH)	11.42	244	200	0.01495	ppb	0.05
Spiked Amount	5.000		Recovery	=	0.300%	
Target Compounds						
3) Naphthalene	4.20	128	70085	4.83393	ppb	99
5) 2-Methylnaphthalene	5.01	142	44975	5.02294	ppb	97
6) 1-Methylnaphthalene	5.12	142	43210	4.79009	ppb	96
9) Acenaphthylene	6.04	152	137556	5.13827	ppb	99
10) Acenaphthene	6.24	154	41566	5.09893	ppb	97
11) Fluorene	6.84	166	48722	5.18226	ppb	98
13) Phenanthrene	7.98	178	69971	5.02806	ppb	99
14) Anthracene	8.05	178	68217	5.22347	ppb	99
16) Fluoranthene	10.15	202	103017	5.08425	ppb	99
18) Pyrene	10.76	202	104952	4.92873	ppb	96
20) Benz (a) anthracene	14.36	228	88798	4.94910	ppb	99
21) Chrysene	14.46	228	93681	4.87125	ppb	99
22) Indeno (1,2,3-cd) pyrene	20.47	276	65202	4.62149	ppb	96
24) Benzo (b) fluoranthene	17.27	252	83679	4.96445	ppb	98
25) Benzo (k) fluoranthene	17.34	252	96884	5.14794	ppb	98
26) Benzo (a) pyrene	18.03	252	80997	5.49925	ppb	99
27) Dibenz (a,h) anthracene	20.54	278	72107	5.02375	ppb	97
28) Benzo (g,h,i) perylene	20.96	276	76750	5.28564	ppb	97

Quantitation Report

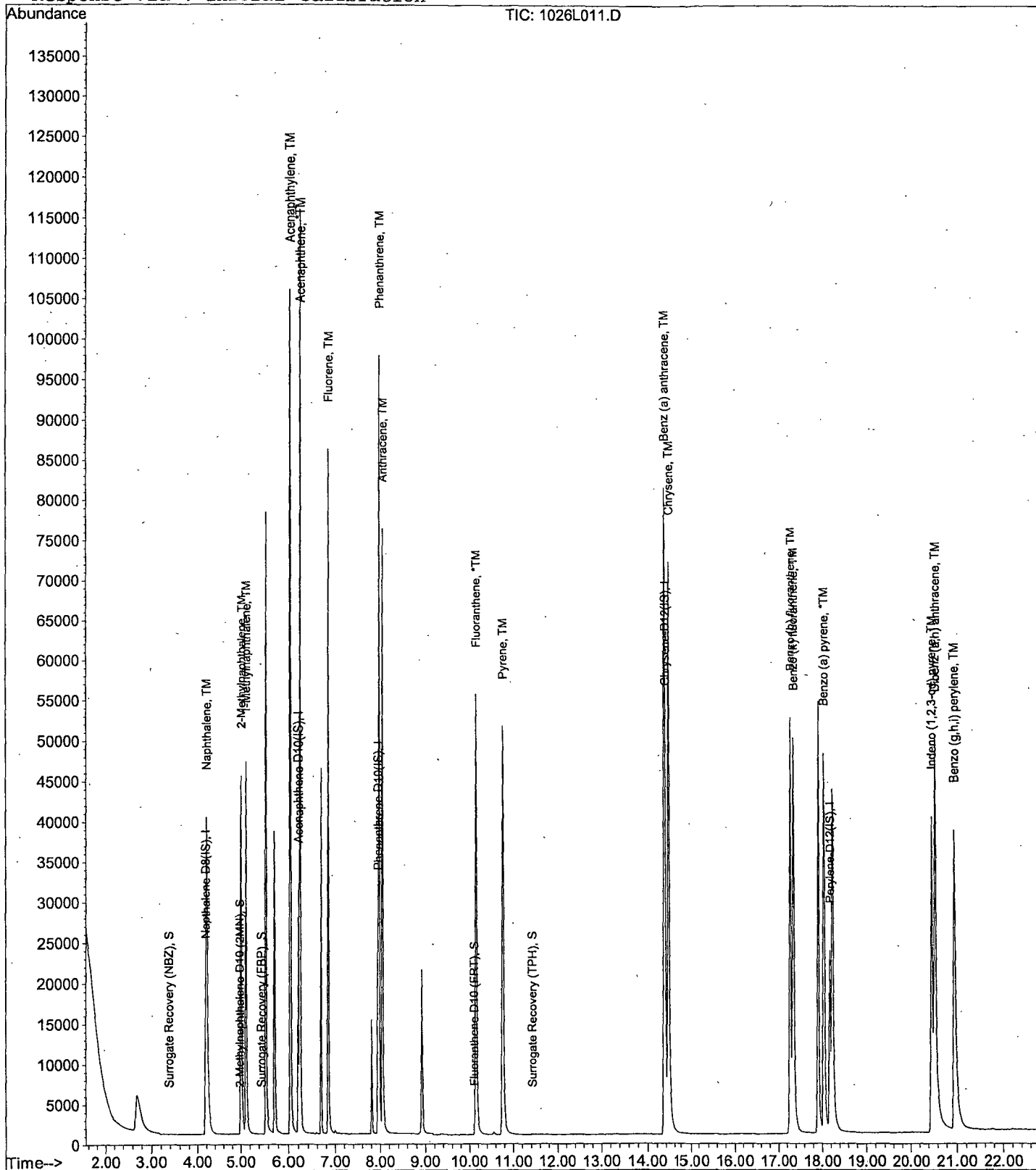
Data File : M:\LINUS\DATA\L181026\1026L011.D  
Acq On : 26 Oct 18 16:46  
Sample : SS SIM 10/26/18  
Misc :

Vial: 11  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 29 8:35 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration





PAH by GCMS SIM  
EPA 8270 SIM

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 1 Nov 18 12:49  
Instrument: Linus  
Initial Cal. Date: 10/26/18  
Data File: 1026L069.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Napthalene-D8(IS)	ISTD			I
2	S	Surrogate Recovery (NBZ)	0.3784	0.4068	7.5	S
3	TM	Napthalene	1.034	1.101	6.5	TM
4	S	2-Methylnapthalene-D10 (2MN)	1.154	1.265	9.7	S
5	TM	2-Methylnapthalene	0.6383	0.7075	11	TM
6	TM	1-Methylnapthalene	0.6431	0.6970	8.4	TM
7	I	Acenaphthene-D10(IS)	ISTD			I
8	S	Surrogate Recovery (FBP)	1.627	1.827	12	S
9	TM	Acenaphthylene	4.289	4.830	13	TM
10	*TM	Acenaphthene	1.306	1.402	7.4	*TM
11	TM	Fluorene	1.506	1.702	13	TM
12	I	Phenanthrene-D10(IS)	ISTD			I
13	TM	Phenanthrene	1.162	1.254	7.9	TM
14	TM	Anthracene	1.090	1.225	12	TM
15	S	Fluoranthene-D10 (FRT)	1.557	1.770	14	S
16	*TM	Fluoranthene	1.692	1.909	13	*TM
17	I	Chrysene-D12(IS)	ISTD			I
18	TM	Pyrene	1.275	1.405	10	TM
19	S	Surrogate Recovery (TPH)	0.8010	0.8507	6.2	S
20	TM	Benz (a) anthracene	1.074	1.218	13	TM
21	TM	Chrysene	1.151	1.208	5.0	TM
22	TML	Indeno (1,2,3-cd) pyrene	0.7396	0.8949	21	TML 4.8
23	I	Perylene-D12(IS)	ISTD			I
24	TM	Benzo (b) fluoranthene	1.075	1.199	12	TM
25	TM	Benzo (k) fluoranthene	1.200	1.296	8.0	TM
26	*TM	Benzo (a) pyrene	0.9390	1.110	18	*TM
27	TM	Dibenz (a,h) anthracene	0.9150	0.9918	8.4	TM
28	TM	Benzo (g,h,i) perylene	0.9257	1.025	11	TM
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						

Average

10.8

Data File : M:\LINUS\DATA\L181026\1026L069.D  
 Acq On : 1 Nov 18 12:49  
 Sample : 5 SIM 10/26/18 (2)  
 Misc :

Vial: 69  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Nov 1 13:13 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Napthalene-D8 (IS)	4.18	136	30774	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	13755	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.94	188	27077	2.50000	ppb	0.00
17) Chrysene-D12 (IS)	14.38	240	37506	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	36493	2.50000	ppb	0.00
<b>System Monitoring Compounds</b>						
2) Surrogate Recovery (NBZ)	3.36	82	12518	2.68718	ppb	0.00
Spiked Amount	5.000			Recovery =	53.740%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	38939	2.74236	ppb	0.00
Spiked Amount	5.000			Recovery =	54.840%	
8) Surrogate Recovery (FBP)	5.43	172	25137	2.80795	ppb	0.00
Spiked Amount	5.000			Recovery =	56.160%	
15) Fluoranthene-D10 (FRT)	10.10	212	47915	2.84081	ppb	0.00
Spiked Amount	5.000			Recovery =	56.820%	
19) Surrogate Recovery (TPH)	11.37	244	31908	2.65523	ppb	0.00
Spiked Amount	5.000			Recovery =	53.100%	
<b>Target Compounds</b>						
3) Naphthalene	4.20	128	67749	5.32482	ppb	99
5) 2-Methylnaphthalene	5.00	142	43547	5.54207	ppb	99
6) 1-Methylnaphthalene	5.11	142	42898	5.41906	ppb	100
9) Acenaphthylene	6.04	152	132877	5.63143	ppb	100
10) Acenaphthene	6.24	154	38577	5.36909	ppb	100
11) Fluorene	6.84	166	46823	5.65046	ppb	98
13) Phenanthrene	7.98	178	67908	5.39597	ppb	99
14) Anthracene	8.05	178	66318	5.61517	ppb	100
16) Fluoranthene	10.14	202	103394	5.64260	ppb	99
18) Pyrene	10.76	202	105365	5.51027	ppb	100
20) Benz (a) anthracene	14.36	228	91366	5.67074	ppb	99
21) Chrysene	14.46	228	90645	5.24886	ppb	100
22) Indeno (1,2,3-cd) pyrene	20.47	276	67127	5.24041	ppb	100
24) Benzo (b) fluoranthene	17.27	252	87498	5.57822	ppb	100
25) Benzo (k) fluoranthene	17.34	252	94585	5.40066	ppb	100
26) Benzo (a) pyrene	18.03	252	81017	5.91089	ppb	100
27) Dibenz (a,h) anthracene	20.54	278	72387	5.41943	ppb	98
28) Benzo (g,h,i) perylene	20.96	276	74795	5.53522	ppb	99

Quantitation Report

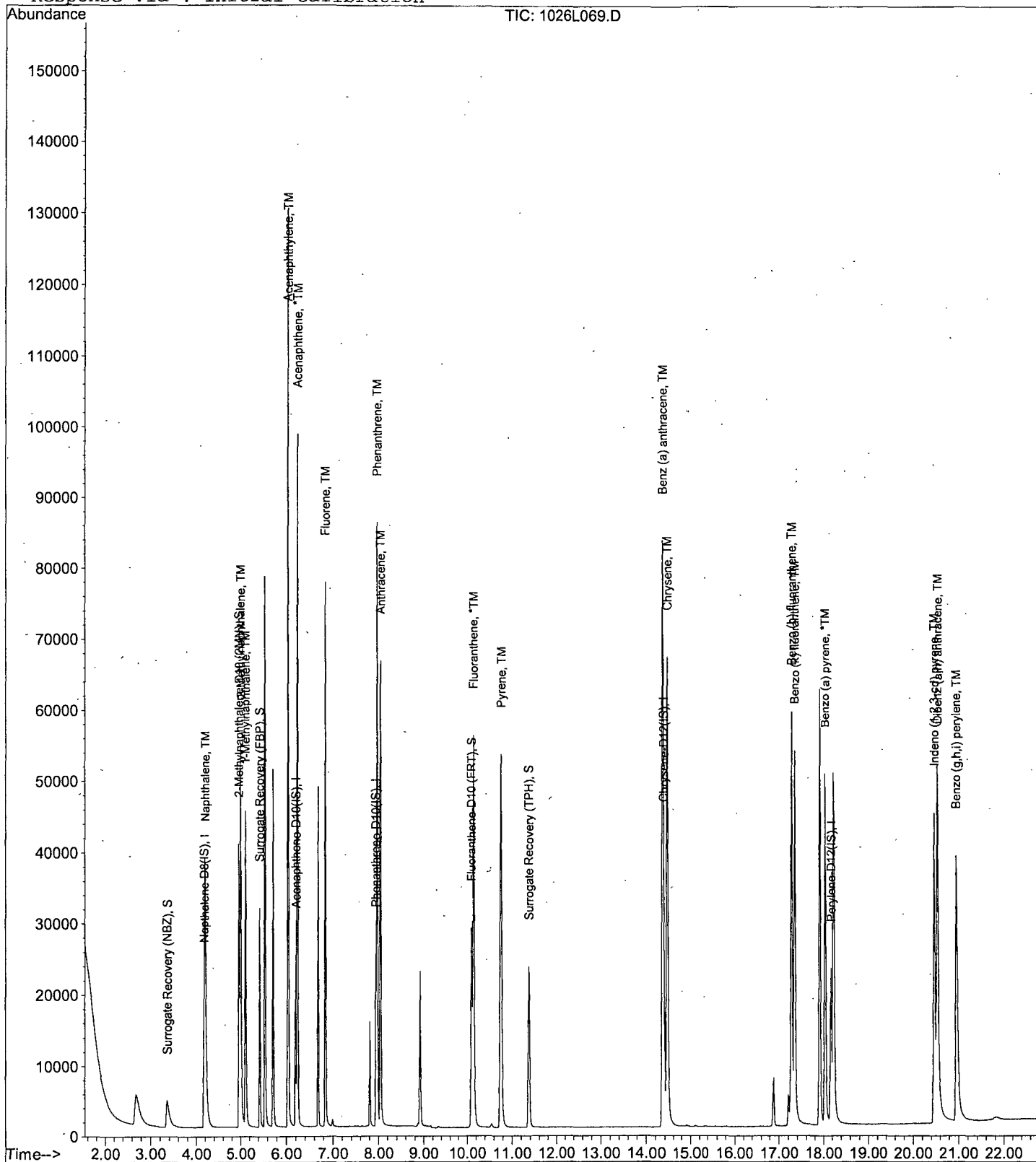
Data File : M:\LINUS\DATA\L181026\1026L069.D  
Acq On : 1 Nov 18 12:49  
Sample : 5 SIM 10/26/18 (2)  
Misc :

Vial: 69  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Nov 1 13:13 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



PAH by GCMS SIM  
EPA 8270 SIM

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 1 Nov 18 19:14  
Instrument: Linus  
Initial Cal. Date: 10/26/18  
Data File: 1026L082.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Napthalene-D8(IS)	ISTD			I
2	S	Surrogate Recovery (NBZ)	0.3784	0.4493	19	S
3	TM	Napthalene	1.034	1.057	2.3	TM
4	S	2-Methylnapthalene-D10 (2MN)	1.154	1.221	5.8	S
5	TM	2-Methylnapthalene	0.6383	0.6804	6.6	TM
6	TM	1-Methylnapthalene	0.6431	0.6675	3.8	TM
7	I	Acenaphthene-D10(IS)	ISTD			I
8	S	Surrogate Recovery (FBP)	1.627	1.956	20	S
9	TM	Acenaphthylene	4.289	4.604	7.4	TM
10	*TM	Acenaphthene	1.306	1.344	2.9	*TM
11	TM	Fluorene	1.506	1.628	8.1	TM
12	I	Phenanthrene-D10(IS)	ISTD			I
13	TM	Phenanthrene	1.162	1.245	7.1	TM
14	TM	Anthracene	1.090	1.207	11	TM
15	S	Fluoranthene-D10 (FRT)	1.557	1.758	13	S
16	*TM	Fluoranthene	1.692	1.881	11	*TM
17	I	Chrysene-D12(IS)	ISTD			I
18	TM	Pyrene	1.275	1.345	5.5	TM
19	S	Surrogate Recovery (TPH)	0.8010	0.9418	18	S
20	TM	Benz (a) anthracene	1.074	1.143	6.4	TM
21	TM	Chrysene	1.151	1.182	2.7	TM
22	TML	Indeno (1,2,3-cd) pyrene	0.7396	0.8498	15	TML 0.08
23	I	Perylene-D12(IS)	ISTD			I
24	TM	Benzo (b) fluoranthene	1.075	1.159	7.8	TM
25	TM	Benzo (k) fluoranthene	1.200	1.259	4.9	TM
26	*TM	Benzo (a) pyrene	0.9390	1.072	14	*TM
27	TM	Dibenz (a,h) anthracene	0.9150	0.9595	4.9	TM
28	TM	Benzo (g,h,i) perylene	0.9257	0.9865	6.6	TM
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						

Average

8.9

Data File : M:\LINUS\DATA\L181026\1026L082.D  
 Acq On : 1 Nov 18 19:14  
 Sample : 5 SIM 10/26/18 (1)  
 Misc :

Vial: 82  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Nov 2 8:26 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Naphthalene-D8 (IS)	4.18	136	34948	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	15835	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.94	188	30535	2.50000	ppb	0.00
17) Chrysene-D12 (IS)	14.38	240	43174	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	41015	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.36	82	15701	2.96791	ppb	0.00
Spiked Amount	5.000		Recovery	=	59.360%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	42657	2.64540	ppb	0.00
Spiked Amount	5.000		Recovery	=	52.900%	
8) Surrogate Recovery (FBP)	5.43	172	30967	3.00481	ppb	0.00
Spiked Amount	5.000		Recovery	=	60.100%	
15) Fluoranthene-D10 (FRT)	10.10	212	53695	2.82297	ppb	0.00
Spiked Amount	5.000		Recovery	=	56.460%	
19) Surrogate Recovery (TPH)	11.37	244	40662	2.93947	ppb	0.00
Spiked Amount	5.000		Recovery	=	58.780%	
Target Compounds						
3) Naphthalene	4.20	128	73910	5.11525	ppb	100
5) 2-Methylnaphthalene	5.00	142	47557	5.32954	ppb	100
6) 1-Methylnaphthalene	5.12	142	46653	5.18953	ppb	96
9) Acenaphthylene	6.04	152	145824	5.36834	ppb	100
10) Acenaphthene	6.24	154	42573	5.14694	ppb	99
11) Fluorene	6.84	166	51548	5.40355	ppb	100
13) Phenanthrene	7.98	178	76012	5.35591	ppb	100
14) Anthracene	8.05	178	73708	5.53413	ppb	100
16) Fluoranthene	10.14	202	114875	5.55919	ppb	99
18) Pyrene	10.76	202	116110	5.27503	ppb	100
20) Benz (a) anthracene	14.36	228	98667	5.31993	ppb	100
21) Chrysene	14.45	228	102095	5.13575	ppb	99
22) Indeno (1,2,3-cd) pyrene	20.47	276	73376	4.99621	ppb	# 98
24) Benzo (b) fluoranthene	17.27	252	95060	5.39215	ppb	99
25) Benzo (k) fluoranthene	17.34	252	103282	5.24706	ppb	100
26) Benzo (a) pyrene	18.03	252	87942	5.70874	ppb	100
27) Dibenz (a,h) anthracene	20.53	278	78706	5.24286	ppb	96
28) Benzo (g,h,i) perylene	20.96	276	80922	5.32838	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1026L082.D L1026.M Fri Nov 02 08:26:23 2018

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L082.D

Vial: 82

Acq On : 1 Nov 18 19:14

Operator: MA

Sample : 5 SIM 10/26/18 (1)

Inst : Linus

Misc :

Multiplr: 1.00

Quant Time: Nov 2 8:26 2018

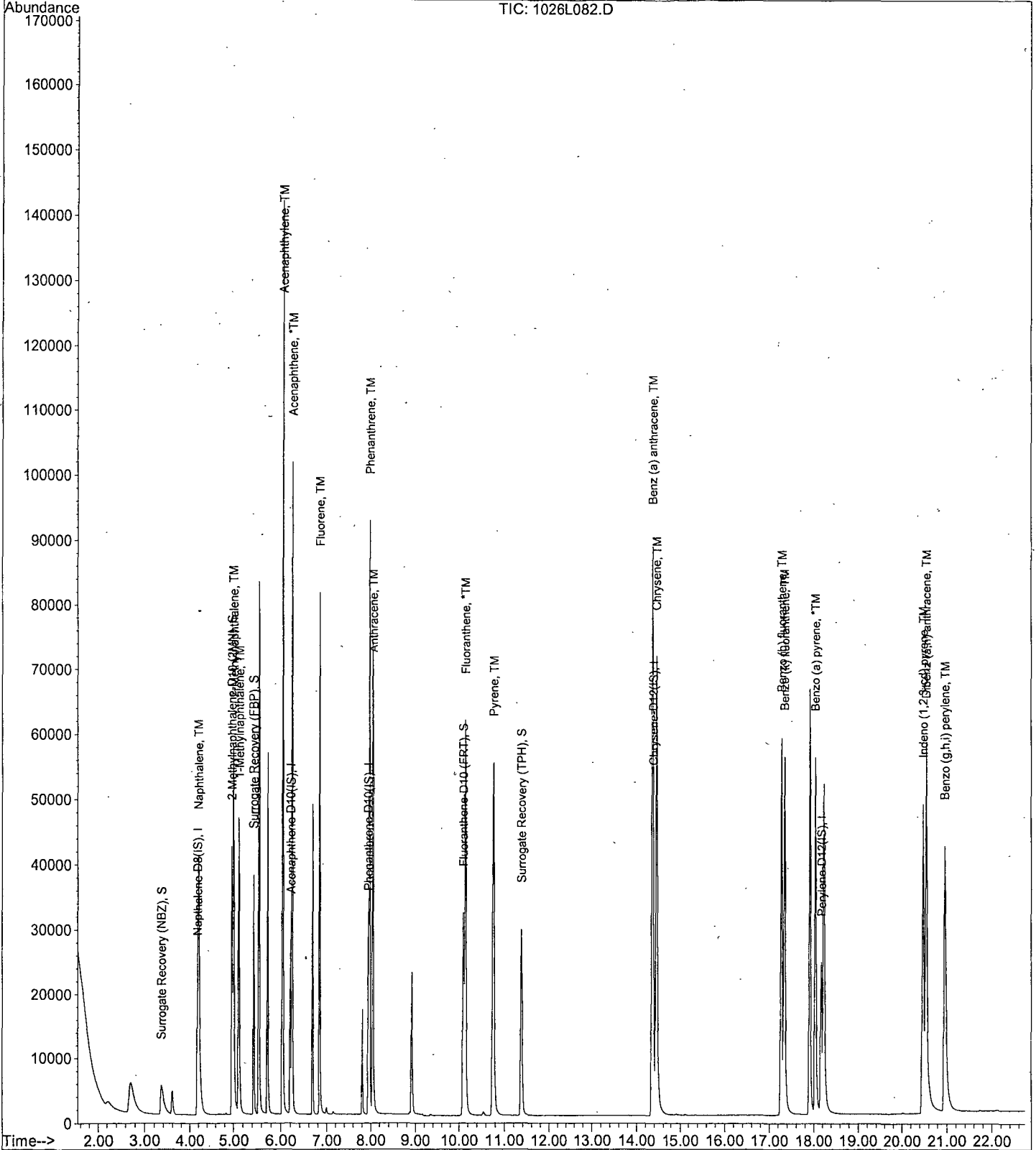
Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)

Title : EPA 8270

Last Update : Fri Oct 26 16:20:40 2018

Response via : Initial Calibration



**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : M:\LINUS\DATA\L181026\1026L073.D Vial: 73  
 Acq On : 1 Nov 18 14:51 Operator: MA  
 Sample : AZ81676W10 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 1 14:48 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	4.18	136	31583	2.50000	ppb	0.00
7) Acenaphthene-D10(IS)	6.21	164	14574	2.50000	ppb	0.00
12) Phenanthrene-D10(IS)	7.95	188	27353	2.50000	ppb	0.01
17) Chrysene-D12(IS)	14.39	240	37779	2.50000	ppb	0.01
23) Perylene-D12(IS)	18.18	264	36998	2.50000	ppb	0.01
System Monitoring Compounds .						
2) Surrogate Recovery (NBZ)	3.35	82	417596	109.18408	ppb	-0.01
Spiked Amount	6.250		Recovery	= 1746.944%		
4) 2-Methylnaphthalene-D10 (2)	4.96	152	66505	5.70472	ppb	0.00
Spiked Amount	6.250		Recovery	= 91.280%		
8) Surrogate Recovery (FBP)	5.43	172	681012	89.74747	ppb	0.00
Spiked Amount	6.250		Recovery	= 1435.952%		
15) Fluoranthene-D10 (FRT)	10.10	212	85457	6.26936	ppb	0.00
Spiked Amount	6.250		Recovery	= 100.304%		
19) Surrogate Recovery (TPH)	11.40	244	898240	92.75878	ppb	0.03
Spiked Amount	6.250		Recovery	= 1484.144%		

Target Compounds Qvalue



Quantitation Report

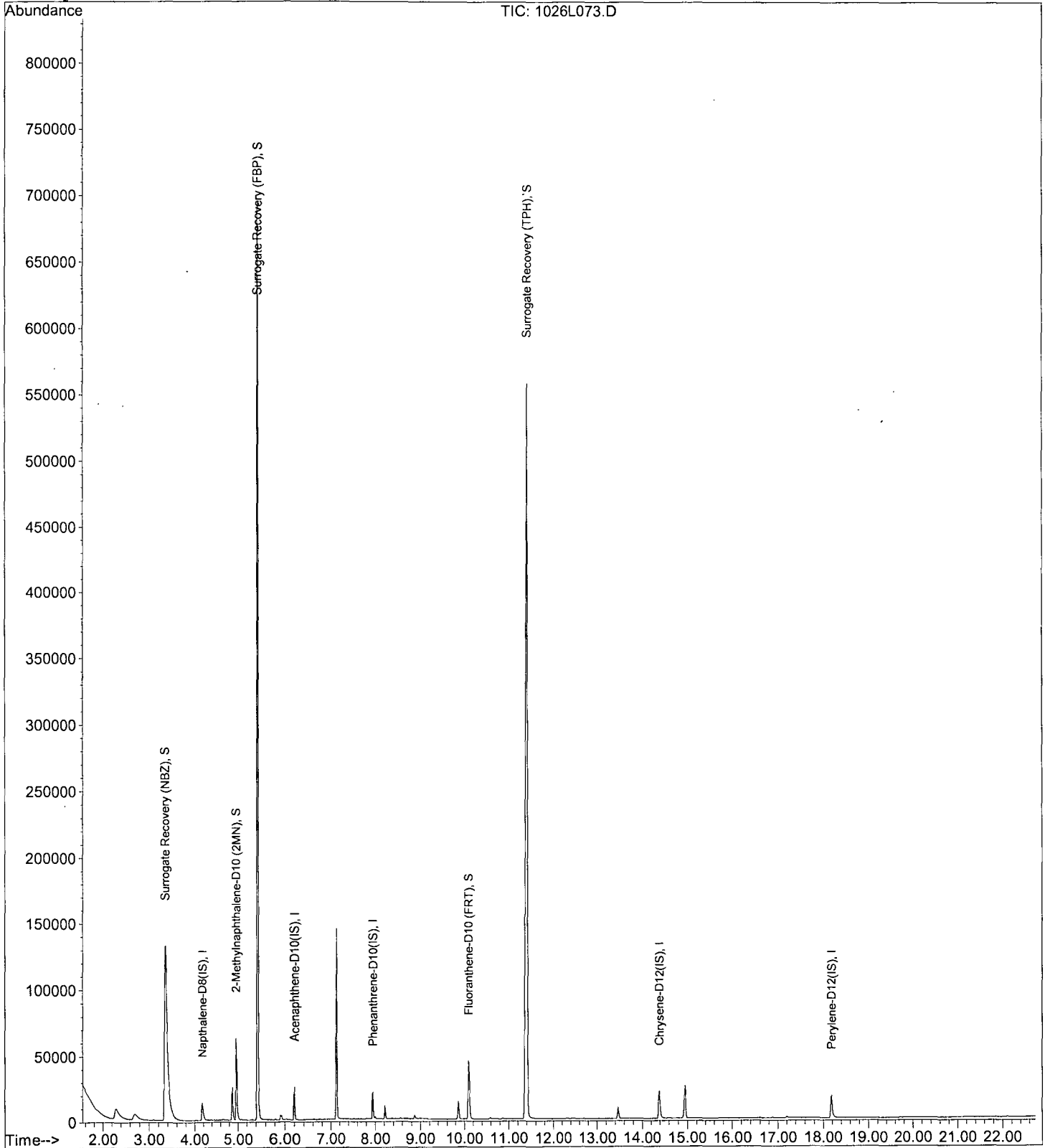
Data File : M:\LINUS\DATA\L181026\1026L073.D  
Acq On : 1 Nov 18 14:51  
Sample : AZ81676W10 1/800  
Misc :

Vial: 73  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 1 14:48 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L074.D Vial: 74  
 Acq On : 1 Nov 18 15:21 Operator: MA  
 Sample : AZ81677W10 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 1 14:52 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	4.18	136	32553	2.50000	ppb	0.00
7) Acenaphthene-D10(IS)	6.21	164	14886	2.50000	ppb	0.00
12) Phenanthrene-D10(IS)	7.95	188	28114	2.50000	ppb	0.01
17) Chrysene-D12(IS)	14.39	240	38779	2.50000	ppb	0.01
23) Perylene-D12(IS)	18.18	264	38457	2.50000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.35	82	405351	102.82450	ppb	-0.01
Spiked Amount	6.250		Recovery	=	1645.184%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	63272	5.26567	ppb	0.00
Spiked Amount	6.250		Recovery	=	84.256%	
8) Surrogate Recovery (FBP)	5.43	172	670229	86.47517	ppb	0.00
Spiked Amount	6.250		Recovery	=	1383.600%	
15) Fluoranthene-D10 (FRT)	10.10	212	84691	6.04498	ppb	0.00
Spiked Amount	6.250		Recovery	=	96.720%	
19) Surrogate Recovery (TPH)	11.40	244	940041	94.57215	ppb	0.03
Spiked Amount	6.250		Recovery	=	1513.152%	

Target Compounds Qvalue

Quantitation Report

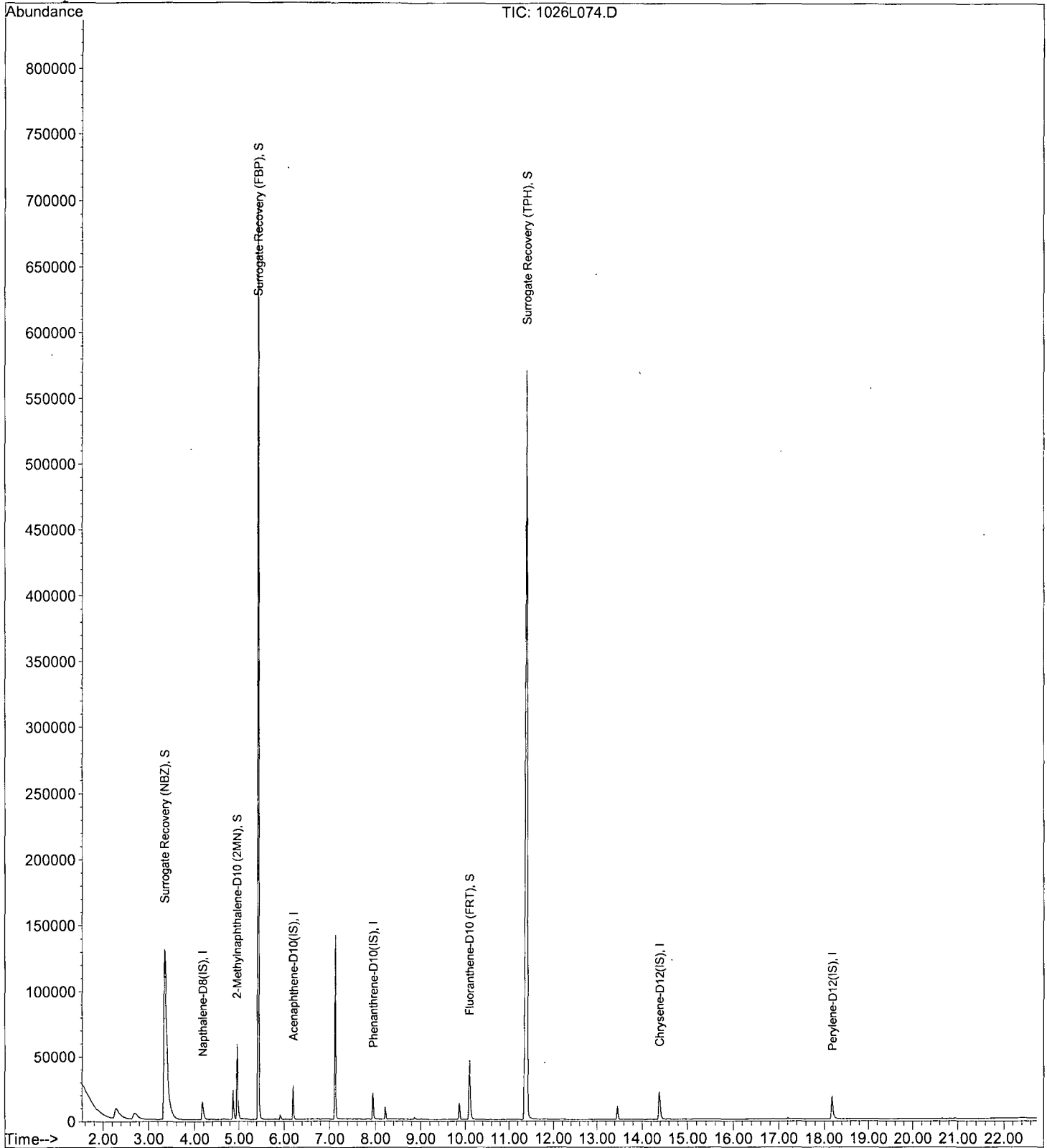
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Acq On : 1 Nov 18 15:21  
Sample : AZ81677W10 1/800  
Misc :

Vial: 74  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 1 14:52 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L075.D Vial: 75  
 Acq On : 1 Nov 18 15:50 Operator: MA  
 Sample : AZ81678W12 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 1 15:17 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	4.18	136	32390	2.50000	ppb	0.00
7) Acenaphthene-D10(IS)	6.21	164	14510	2.50000	ppb	0.00
12) Phenanthrene-D10(IS)	7.95	188	27264	2.50000	ppb	0.01
17) Chrysene-D12(IS)	14.39	240	37573	2.50000	ppb	0.01
23) Perylene-D12(IS)	18.18	264	36723	2.50000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.35	82	416549	106.19682	ppb	-0.01
Spiked Amount	6.250					
					Recovery = 1699.152%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	65679	5.49349	ppb	0.00
Spiked Amount	6.250					
					Recovery = 87.888%	
8) Surrogate Recovery (FBP)	5.44	172	674596	89.29406	ppb	0.01
Spiked Amount	6.250					
					Recovery = 1428.704%	
15) Fluoranthene-D10 (FRT)	10.10	212	85014	6.25722	ppb	0.00
Spiked Amount	6.250					
					Recovery = 100.112%	
19) Surrogate Recovery (TPH)	11.40	244	905934	94.06624	ppb	0.03
Spiked Amount	6.250					
					Recovery = 1505.056%	

Target Compounds Qvalue

Quantitation Report

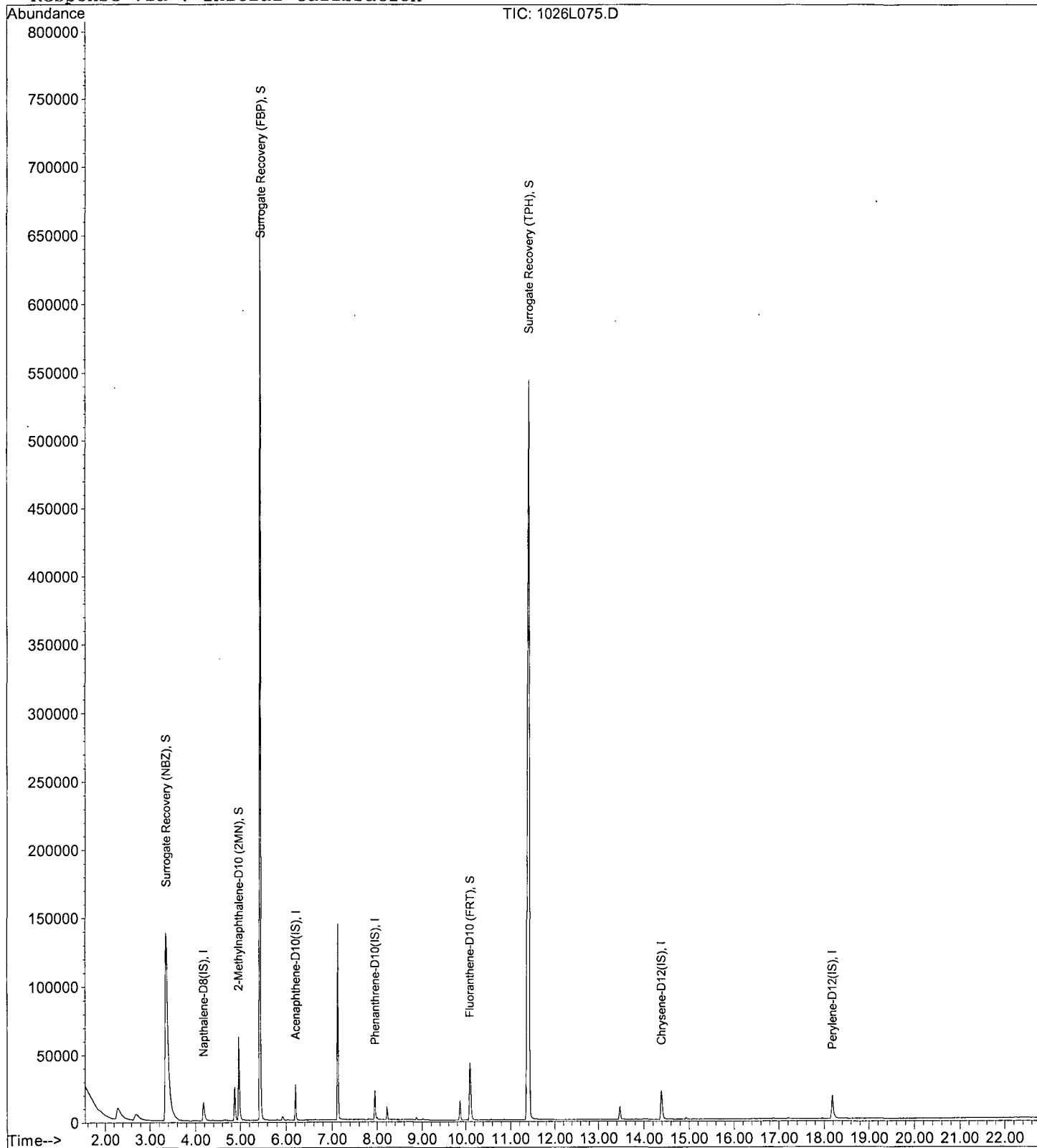
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Acq On : 1 Nov 18 15:50  
Sample : AZ81678W12 1/800  
Misc :

Vial: 75  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 1 15:17 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L070.D Vial: 70  
 Acq On : 1 Nov 18 13:24 Operator: MA  
 Sample : 181030A BLK 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 1 13:31 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	4.18	136	32155	2.50000	ppb	0.00
7) Acenaphthene-D10(IS)	6.21	164	14683	2.50000	ppb	0.00
12) Phenanthrene-D10(IS)	7.95	188	28635	2.50000	ppb	0.01
17) Chrysene-D12(IS)	14.39	240	38811	2.50000	ppb	0.01
23) Perylene-D12(IS)	18.18	264	37133	2.50000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.35	82	431373	110.77986	ppb	-0.01
Spiked Amount	6.250		Recovery	=	1772.480%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	65181	5.49168	ppb	0.00
Spiked Amount	6.250		Recovery	=	87.872%	
8) Surrogate Recovery (FBP)	5.44	172	712050	93.14122	ppb	0.01
Spiked Amount	6.250		Recovery	=	1490.256%	
15) Fluoranthene-D10 (FRT)	10.11	212	88692	6.21538	ppb	0.01
Spiked Amount	6.250		Recovery	=	99.440%	
19) Surrogate Recovery (TPH)	11.41	244	977100	98.21940	ppb	0.04
Spiked Amount	6.250		Recovery	=	1571.504%	

Target Compounds Qvalue

Quantitation Report

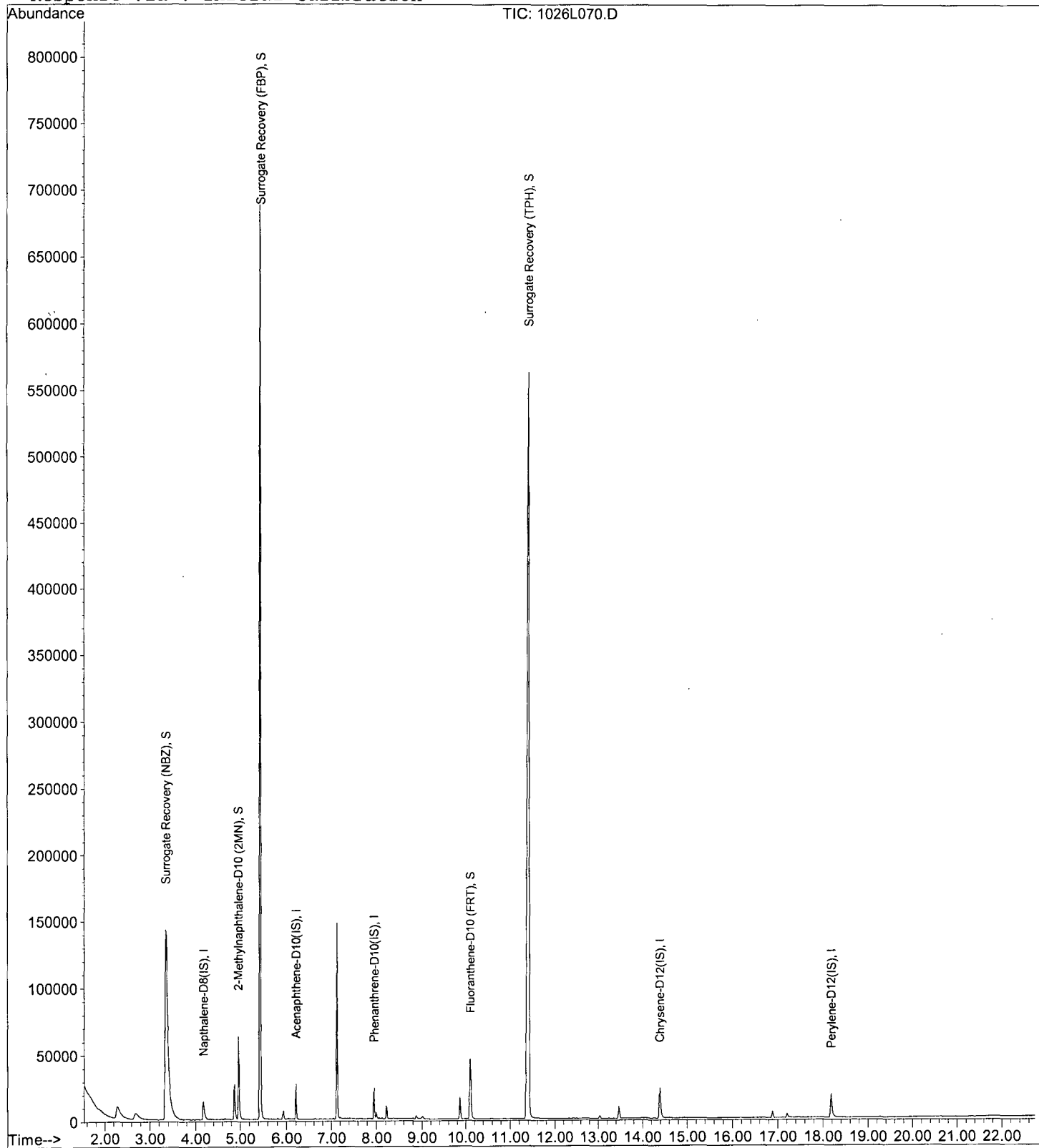
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Acq On : 1 Nov 18 13:24  
Sample : 181030A BLK 1/800  
Misc :

Vial: 70  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 1 13:31 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L071.D  
 Acq On : 1 Nov 18 13:53  
 Sample : 181030A LCS-2 1/800  
 Misc :

Vial: 71  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.25

Quant Time: Nov 1 13:31 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	32648	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	14814	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.94	188	28647	2.50000	ppb	0.00
17) Chrysene-D12 (IS)	14.38	240	39215	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	37452	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.35	82	62	0.01568	ppb	-0.01
Spiked Amount	6.250		Recovery	=	0.256%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	66819	5.54468	ppb	0.00
Spiked Amount	6.250		Recovery	=	88.720%	
8) Surrogate Recovery (FBP)	5.41	172	31	0.00402	ppb	-0.02
Spiked Amount	6.250		Recovery	=	0.064%	
15) Fluoranthene-D10 (FRT)	10.10	212	86358	6.04928	ppb	0.00
Spiked Amount	6.250		Recovery	=	96.784%	
19) Surrogate Recovery (TPH)	11.38	244	206	0.02049	ppb	0.01
Spiked Amount	6.250		Recovery	=	0.320%	
Target Compounds						
3) Naphthalene	4.20	128	58141	5.38421	ppb	99
5) 2-Methylnaphthalene	5.00	142	36148	5.42045	ppb	100
6) 1-Methylnaphthalene	5.12	142	35645	5.30546	ppb	95
9) Acenaphthylene	6.04	152	116328	5.72204	ppb	100
10) Acenaphthene	6.24	154	33643	5.43457	ppb	100
11) Fluorene	6.84	166	41713	5.84244	ppb	99
13) Phenanthrene	7.98	178	61347	5.75935	ppb	99
14) Anthracene	8.05	178	56978	5.69994	ppb	100
16) Fluoranthene	10.15	202	93226	6.01107	ppb	96
18) Pyrene	10.76	202	96209	6.01521	ppb	100
20) Benz (a) anthracene	14.36	228	81058	6.01464	ppb	99
21) Chrysene	14.46	228	82542	5.71419	ppb	100
22) Indeno (1,2,3-cd) pyrene	20.47	276	61695	5.81801	ppb	# 95
24) Benzo (b) fluoranthene	17.27	252	77969	6.05430	ppb	99
25) Benzo (k) fluoranthene	17.34	252	85282	5.93098	ppb	100
26) Benzo (a) pyrene	18.03	252	69878	6.20958	ppb	99
27) Dibenz (a,h) anthracene	20.54	278	65163	5.94209	ppb	98
28) Benzo (g,h,i) perylene	20.96	276	67339	6.06978	ppb	97



Quantitation Report

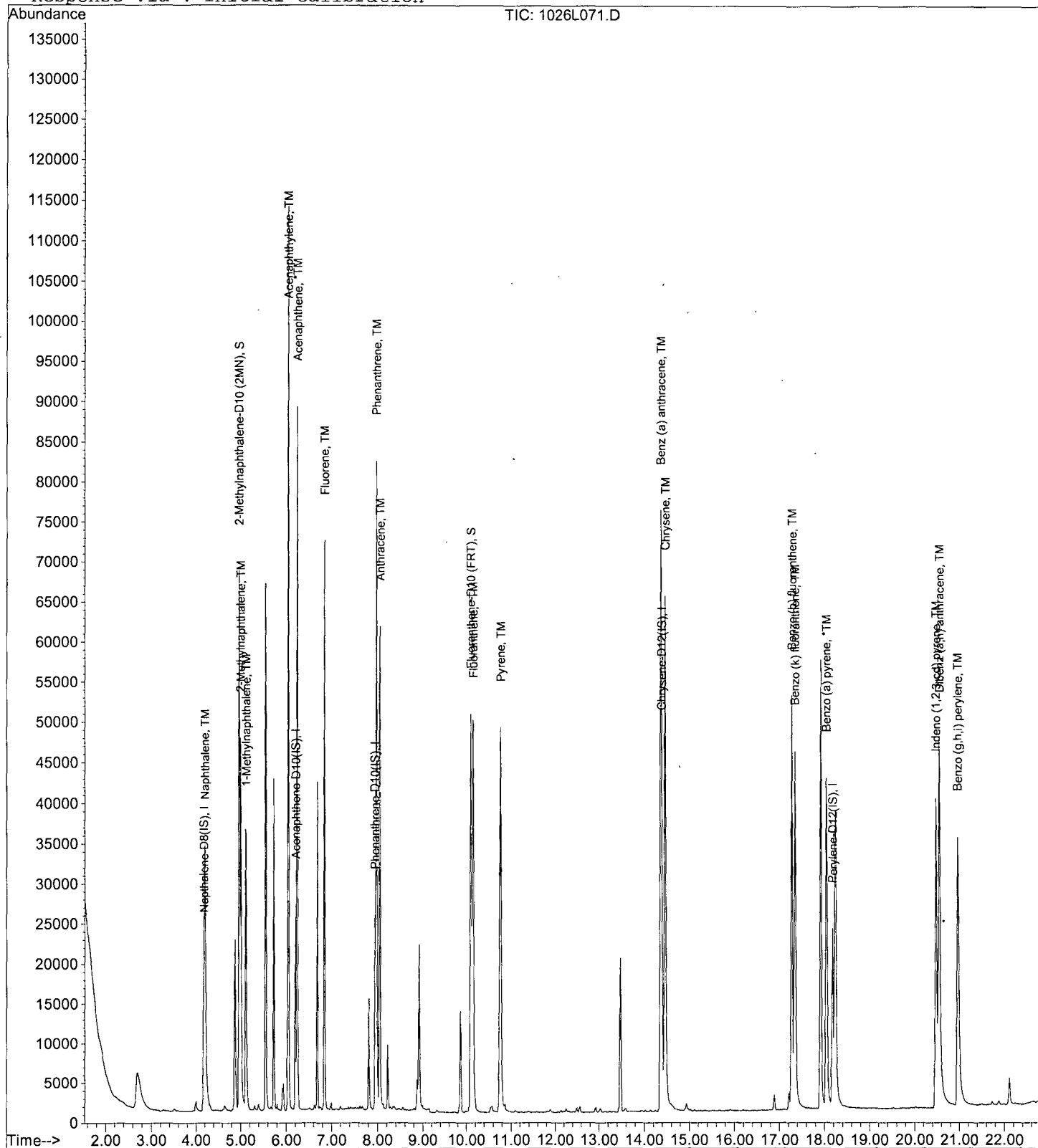
Data File : M:\LINUS\DATA\L181026\1026L071.D  
Acq On : 1 Nov 18 13:53  
Sample : 181030A LCS-2 1/800  
Misc :

Vial: 71  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 1 13:31 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L072.D Vial: 72  
 Acq On : 1 Nov 18 14:22 Operator: MA  
 Sample : 181030A LCSD-2 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 1 14:10 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	30893	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	14273	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.94	188	26521	2.50000	ppb	0.00
17) Chrysene-D12 (IS)	14.38	240	36959	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	34601	2.50000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	3.33	82	127	0.03395	ppb	-0.02
Spiked Amount 6.250			Recovery =	0.544%		
4) 2-Methylnaphthalene-D10 (2)	4.96	152	66421	5.82476	ppb	0.00
Spiked Amount 6.250			Recovery =	93.200%		
8) Surrogate Recovery (FBP)	5.40	172	29	0.00390	ppb	-0.04
Spiked Amount 6.250			Recovery =	0.064%		
15) Fluoranthene-D10 (FRT)	10.10	212	85090	6.43827	ppb	0.00
Spiked Amount 6.250			Recovery =	103.008%		
19) Surrogate Recovery (TPH)	11.39	244	143	0.01509	ppb	0.02
Spiked Amount 6.250			Recovery =	0.240%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	4.20	128	58871	5.76153	ppb	99
5) 2-Methylnaphthalene	5.00	142	36291	5.75104	ppb	99
6) 1-Methylnaphthalene	5.12	142	35530	5.58877	ppb	96
9) Acenaphthylene	6.04	152	115923	5.91825	ppb	100
10) Acenaphthene	6.24	154	33607	5.63452	ppb	100
11) Fluorene	6.84	166	41721	6.06506	ppb	100
13) Phenanthrene	7.98	178	61010	6.18686	ppb	100
14) Anthracene	8.05	178	57368	6.19901	ppb	100
16) Fluoranthene	10.15	202	92172	6.41953	ppb	97
18) Pyrene	10.76	202	94767	6.28672	ppb	99
20) Benz (a) anthracene	14.36	228	80452	6.33407	ppb	100
21) Chrysene	14.46	228	81304	5.97205	ppb	100
22) Indeno (1,2,3-cd) pyrene	20.47	276	60500	6.03351	ppb	95
24) Benzo (b) fluoranthene	17.27	252	77005	6.47213	ppb	99
25) Benzo (k) fluoranthene	17.34	252	83820	6.30961	ppb	100
26) Benzo (a) pyrene	18.03	252	68614	6.59965	ppb	99
27) Dibenz (a,h) anthracene	20.54	278	64457	6.36201	ppb	99
28) Benzo (g,h,i) perylene	20.96	276	66743	6.51177	ppb	97

(#) = qualifier out of range (m) = manual integration  
 1026L072.D L1026.M Wed Nov 07 12:31:17 2018

Quantitation Report

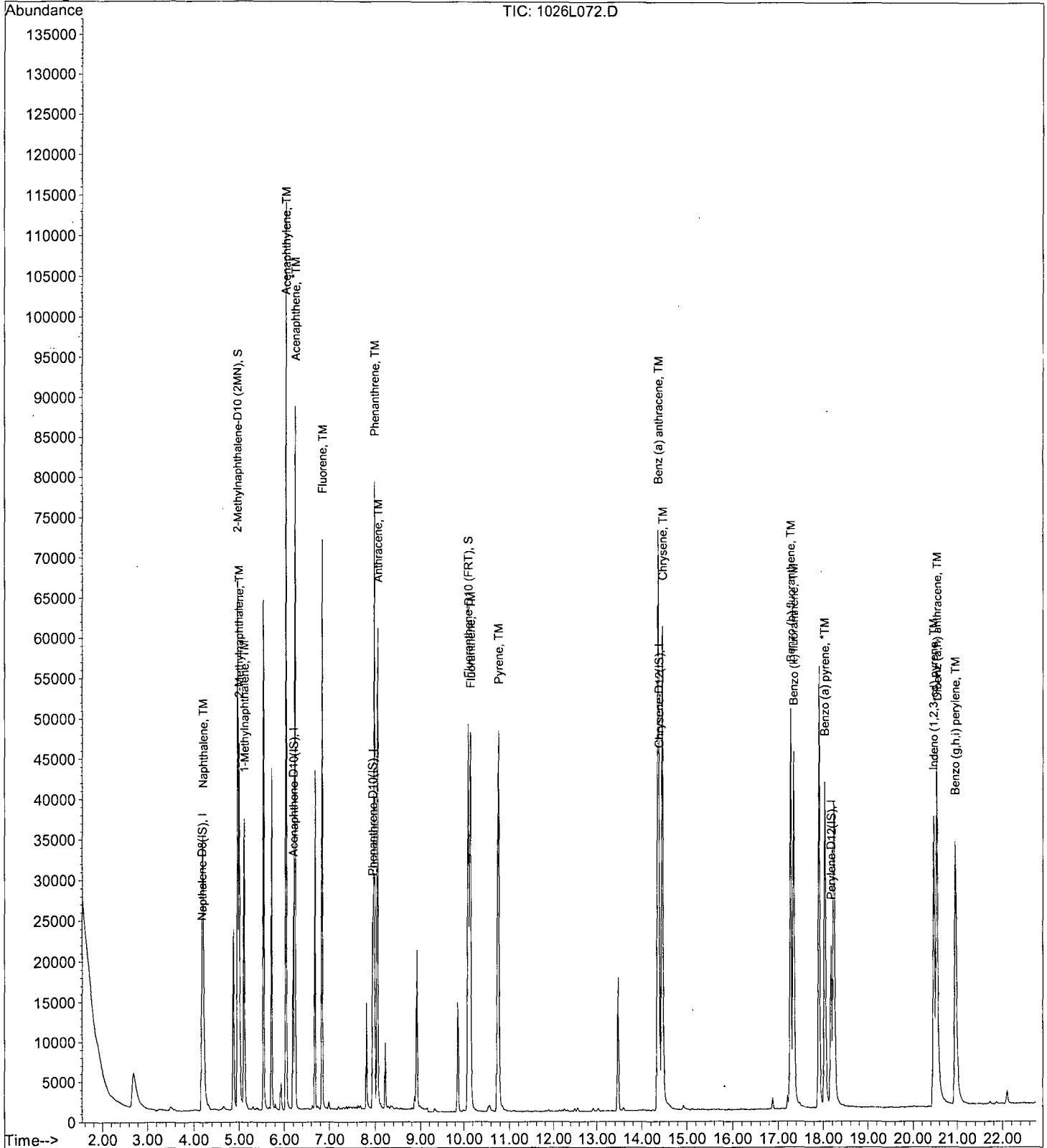
Data File : M:\LINUS\DATA\L181026\1026L072.D  
Acq On : 1 Nov 18 14:22  
Sample : 181030A LCSD-2 1/800  
Misc :

Vial: 72  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 1 14:10 2018

Quant Results File: L1026.RES

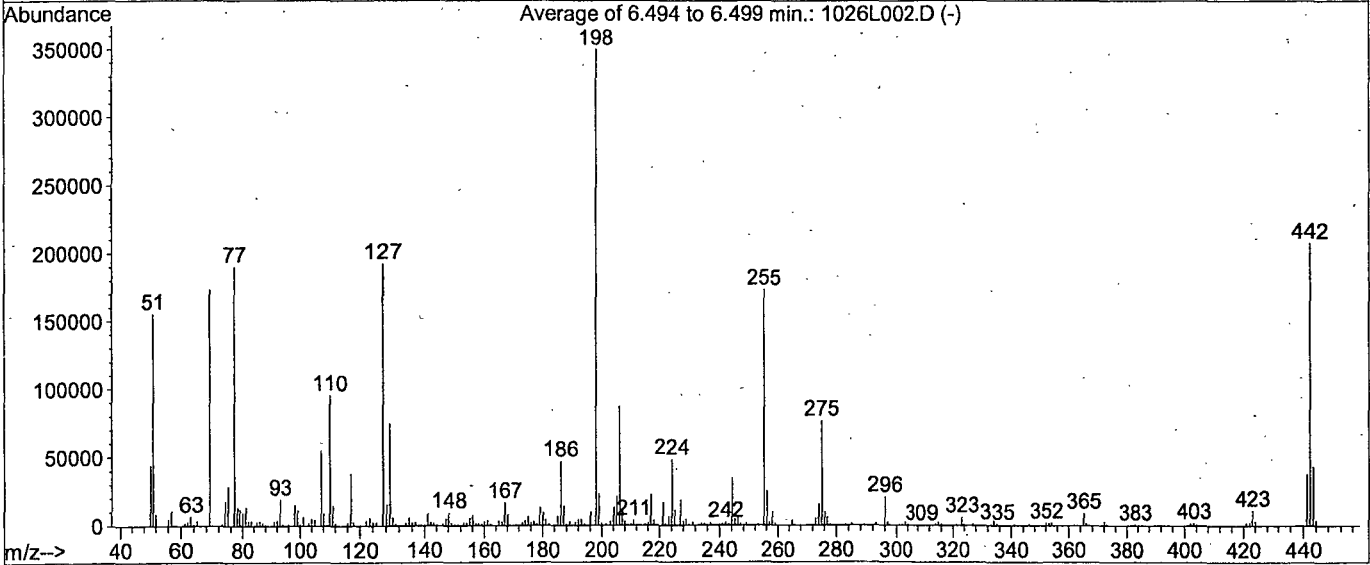
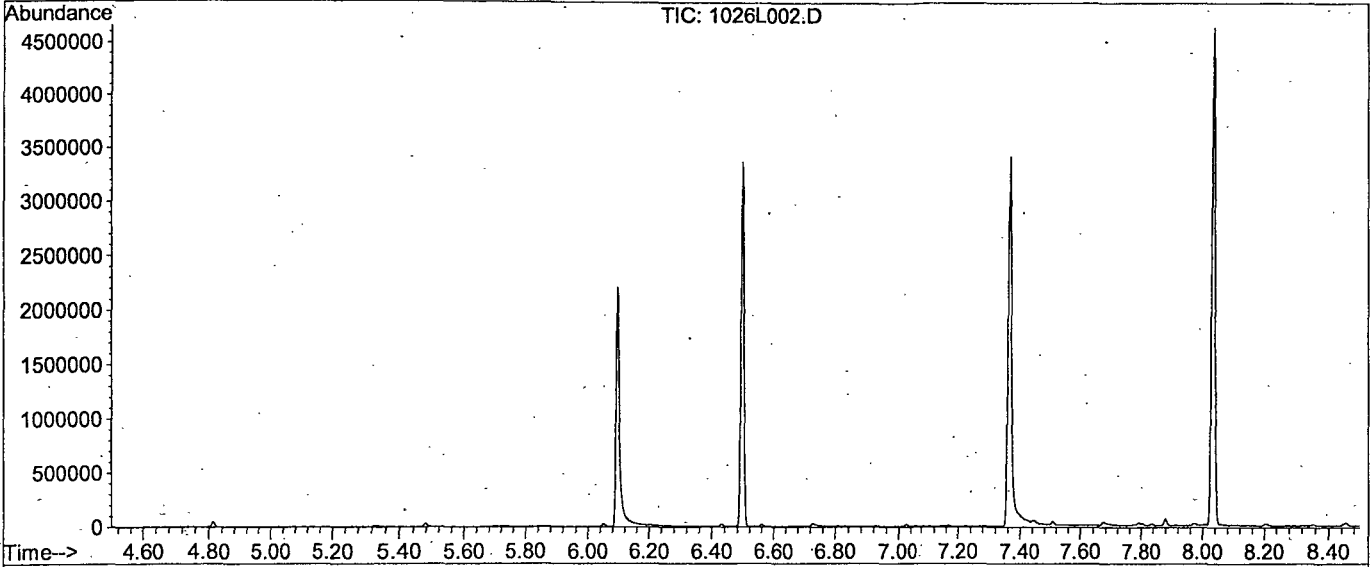
Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L002.D  
 Acq On : 26 Oct 18 12:05  
 Sample : SV Tune 03/07/18  
 Misc :

Vial: 2  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270



AutoFind: Scans 1570, 1571, 1572; Background Corrected with Scan 1561

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	44.4	155594	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.3	527	PASS
127	198	10	80	55.0	192576	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	350165	PASS
199	198	5	9	6.5	22893	PASS
275	198	10	60	21.8	76453	PASS
365	198	1	100	2.6	9171	PASS
441	442	0.01	24	18.1	37424	PASS
442	198	50	150	59.1	206955	PASS
443	442	15	24	20.7	42821	PASS

Data File Name: 1026L002.D  
Data File Path: M:\LINUS\DATA\181026\  
Operator: MA  
Date Acquired: 26 Oct 2018 12:05  
Method File: DFTPP2.M  
Sample Name: SV Tune 03/07/18  
Vial Number: 2  
Instrument Name: Linus

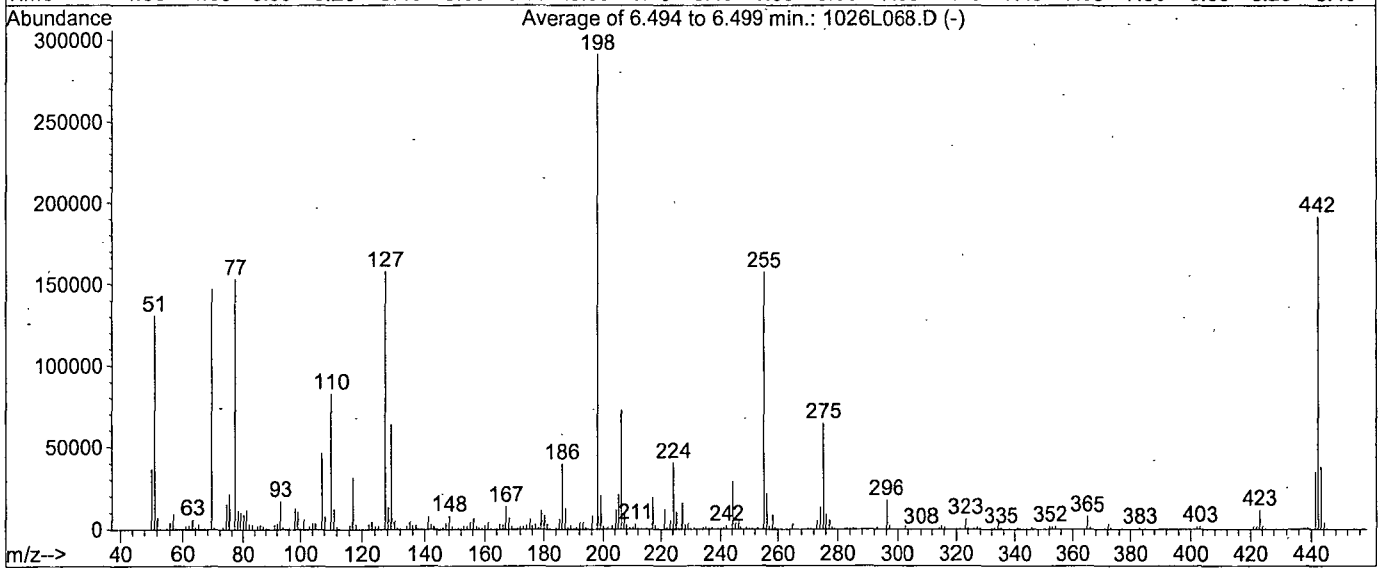
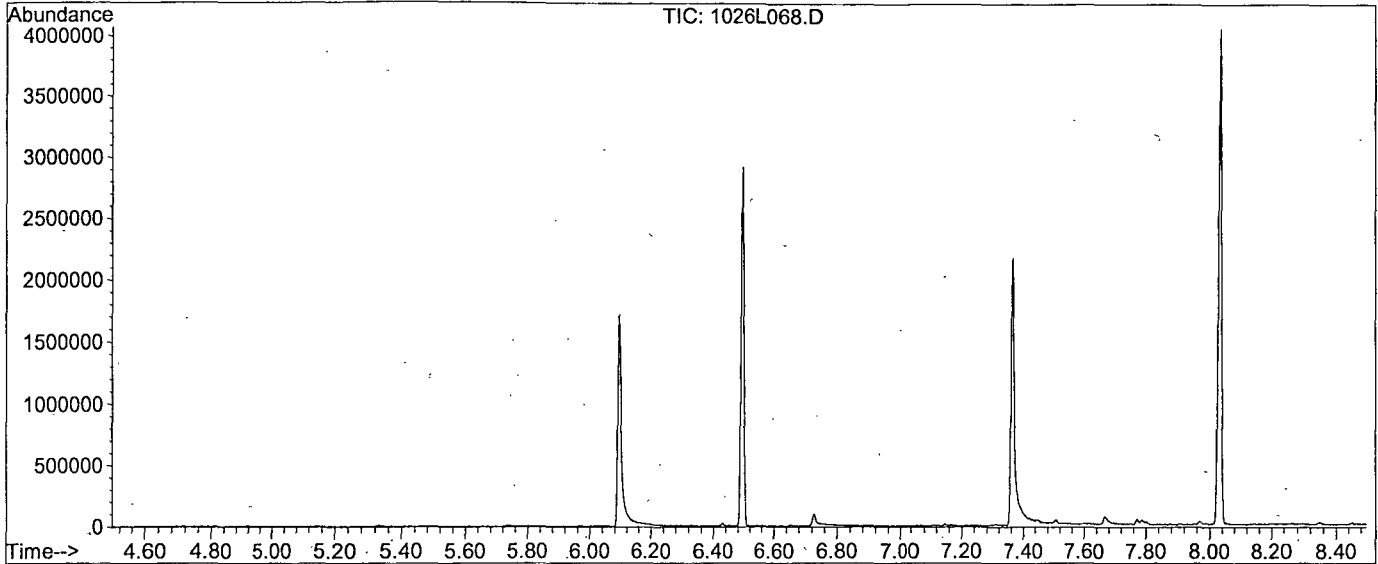
#	Name	Ret Time	Target Response
1)	DDT	8.04	32874800
2)	DDD	7.79	219957
3)	DDE	7.91	378113

Breakdown 1.79

Data File : M:\LINUS\DATA\L181026\1026L068.D  
 Acq On : 1 Nov 18 12:32  
 Sample : SV TUNE 03/07/18  
 Misc :

Vial: 75  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270



AutoFind: Scans 1570, 1571, 1572; Background Corrected with Scan 1561

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	44.8	130652	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	1104	PASS
127	198	10	80	54.2	158024	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	291413	PASS
199	198	5	9	7.0	20272	PASS
275	198	10	60	22.1	64445	PASS
365	198	1	100	2.7	7872	PASS
441	442	0.01	24	18.1	34571	PASS
442	198	50	150	65.7	191317	PASS
443	442	15	24	19.8	37952	PASS

Data File Name: 1026L068.D  
Data File Path: M:\LINUS\DATA\181026\  
Operator: MA  
Date Acquired: 1 Nov 18 12:32  
Method File: DFTPP2.M  
Sample Name: SV TUNE 03/07/18  
Vial Number: 75  
Instrument Name: Linus

#	Name	Ret Time	Target Response
1)	DDT	8.04	28159000
2)	DDD	7.79	261472
3)	DDE	7.92	0

Breakdown 0.92

Name of Final Standard PAH SIM Stock (Ampule)

Prep'd By (Initials) GA

Prep Date 10/26/18

Exp Date 10/26/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc. (range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270D PAH SIM	O2SI	110780-01	200 ug/mL	353450-39732	08/12/20	1000 uL	1mL	NA	200ug/mL

Name of Final Standard SIM Curve

Prep'd By (Initials) GA

Prep Date 10/26/18

Exp Date 06/01/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc. (range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1.0 ug/mL SIM	APPL	SIM 1.0	1.0 ug/mL	10/26/18	06/01/19	10 uL	100uL	MC 56258 90uL	0.1 ug/mL
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
1.0 ug/mL SIM	APPL	SIM 1.0	1.0 ug/mL	10/26/18	06/01/19	20 uL	100uL	MC 56258 80uL	0.2 ug/mL
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
5.0 ug/mL SIM	APPL	SIM 5.0	5.0 ug/mL	10/26/18	06/01/19	10 uL	100uL	MC 56258 90uL	0.5 ug/mL



SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
5.0 ug/mL SIM	APPL	SIM 5.0	5.0 ug/mL	10/26/18	06/01/19	20 uL	100uL	MC 56258 80 uL	1.0 ug/mL
SV Internal Standard	APPL	SIM IS	100 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
PAH SIM	APPL	SIM STOCK	100 ug/mL	10/26/18	10/26/19	5 uL	200uL	MC 56258 190 uL	5.0 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	06/07/18	06/01/19	5 uL	*	*	*
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	4 uL	*	*	*
PAH SIM	APPL	SIM STOCK	200 ug/mL	10/26/18	10/26/19	5 uL	100 uL	MC 56258 90 uL	10 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	06/07/18	06/01/19	5 uL	*	*	*
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
PAH SIM	APPL	SIM STOCK	200	10/26/18	10/26/19	25 uL	100uL	MC 56258 50 uL	50 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	06/07/18	06/01/19	25 uL	*	*	*
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
PAH SIM	APPL	SIM STOCK	200 ug/mL	10/26/18	10/26/19	50 uL	100uL	na	100 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	06/07/18	06/01/19	50 uL	*	*	*
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*

Name of Final Standard 8270 PAH SIM Second Source

Prep'd By (Initials) GA

Prep Date 10/26/18  
Exp Date 10/26/19

Initial Standard Information	Final Standard Information
------------------------------	----------------------------

Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with	Exp Date	Aliquot from Stock	Final Volume	Final Solvent	Final Standard Conc (range)
				QA #				(or APPL Lot#)	
				(or reference to APPL prep date)				(or APPL Prep Date)	
PAH SIMPCP	o2si	110780-01 SS	200 ug/mL	06/25/18	03/24/19	5 uL	200uL	MC 56258 195uL	5 ug/mL
SV Internal Standard	APPL		2000 ug/mL	06/25/18	06/25/19	4 uL	*	*	*

Name of  
Final  
Standard

**SIM 2S Surrogate**

Prep'd By (Initials)

**GA**

Prep Date **06/07/18**

Exp Date **06/01/19**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
SIM Surrogate Mix	Restek	33913	2000 ug/mL	A0131716-38553 & 38554	06/01/19 06/07/19	250 uL	5 mL	Acetone #030817A	100 ug/mL
8270 B/N surrog mix	Restek	31086	5000 ug/mL	A0135243-39162	06/04/19	100 uL	*	*	*

Name of

Final

Standard SIM 2nd Source Ampule

Prep'd By (Initials)

GA

Prep Date 06/25/18

Exp Date 03/24/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent+ Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270D PAH SIM	O2SI	110780-02 SS	200 ug/mL	G34-327639-38583	03/24/19	1 mL	na	na	200 ug/mL

Name of

Final

Standard 8270 SIM PAH Internal Standard

Prep'd By (Initials)

GA

Prep Date 06/25/18

Exp Date 06/25/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent+ Lot# (or APPL Prep Date)	Final Standard Conc (range)
SV Internal Standard	Restek	31206	2000 ug/mL	A0130603-38561	06/25/19	350 uL	5,600 uL	MC 56258 5,250 uL	125 ug/mL

Name of

Final

Standard

SIM Surrogate

Prep'd By (Initials)

MA

Prep Date 09/27/18

Exp Date 09/27/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Sim Surrogate Deuterated	Restek	33913	2000 ug/mL	A0131718-39321	09/27/19	1250 uL	25 mL	Acetone #030817A	100 ug/mL

Name of

Final

Standard

PAH SIM Spike (Ampules)

Prep'd By (Initials)

MA

Prep Date 09/27/19

Exp Date 03/24/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270D PAH SIM	O2SI	110780-01 SS	200 ug/mL	G34-327639-38585	03/24/19	2 mL	2 mL	NA	200ug/mL

Name of Final Standard **Semivolatile (SV) Tuning Solution**  
 Prep Date **03/07/18**  
 Exp Date **03/07/19**

Prep'd By (Initials)

GA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38878	03/07/19	1,250 uL	25 mL	MC #56258	50 ug/mL

# Organic Extraction Worksheet

<b>Method</b>	Continuous Liquid/Liquid SVOC 3520C	<b>Extraction Set</b>	181030A	<b>Extraction Method</b>	LIQ003	<b>Units</b>	mL
Spiked ID 1	8270T Spike 10-9-18 EXP 10-9-19	Surrogate ID 1	8270 Surrogate 9-2718 EXP 3-27-19				
Spiked ID 2	Sim Spike 10-26-18 EXP 10-26-19	Surrogate ID 2	SIM Surrogate 9-27-18 EXP 9-27-19				
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC: NO					
Spiked ID 7		Ext. Start Time:	10/30/18 16:00	10/31/18 13:35			
Spiked ID 8		Ext. End Time:	10/31/18 10:15	10/31/18 07:45, 10:55			
		GC Requires Extract By:	11/01/18 0:00				
pH1	2	10/30/18 1:50:00 PM	Water Bath Temp Criteria 76 °C				
pH2	14	10/31/18 1:00:00 PM					
pH3							

Spiked By: KY

Date 10/30/18

Witnessed By: DL

Date 10/30/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	181030A Blk			1,0.050	1,2	800	1	2/1	10/30/18 14:00	
					equip	E-HP51 E-WB5				
2	181030A LCS-1	0.250	1	1	1	800	1	2/1	10/30/18 14:00	
					equip	E-HP50 E-WB5				
3	181030A LCS-2	0.0250	2	0.050	2	800	1	2/1	10/30/18 14:00	
					equip	E-HP49 E-WB5				
4	181030A LCSD-1	0.250	1	1	1	800	1	2/1	10/30/18 14:00	
					equip	E-HP48 E-WB5				
5	181030A LCSD-2	0.0250	2	0.050	2	800	1	2/1	10/30/18 14:00	
					equip	E-HP47 E-WB5				
6	AZ81599 AZ81599W01			0.050	1,2	800	1	2/1	10/30/18 14:00	87202
					equip	E-HP30 E-WB5				
7	AZ81676 AZ81676W10			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87219
					equip	E-HP29 E-WB5				
8	AZ81677 AZ81677W10			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87219
					equip	E-HP28 E-WB5				
9	AZ81678 AZ81678W12			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87219
					equip	E-HP27 E-WB5				
10	AZ81840 AZ81840W12			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87238
					equip	E-HP26 E-WB5				
11	AZ81841 AZ81841W12			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87238
					equip	E-HP25 E-WB5				
12	AZ81842 AZ81842W13			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87238
					equip	E-HP17 E-WB5				
13	AZ81901 AZ81901W13			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87248
					equip	E-HP16 E-WB5				
14	AZ81903 AZ81903W12			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87248
					equip	E-HP15 E-WB5				

*Ky 11/02/18*

Solvent and Lot#	
PH Strips	HC 727135
Dichloromethane (DCM)	58059
1+1 H2SO4	73-18
10N NaOH	10-17-18
Filter Paper	400147
Acidified Na2SO4	10-2-18
B. Na2SO4	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	<i>MA</i>
Date	11/1/18
Time	12:00
Refrigerator	GC-L

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	11/02/18 11:58:33 AM

Reviewed By: *Ky* 352 Date *11/2/18*

## Injection Log

Directory: M:\LINUS\DATA\L181026\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1026L002.D	1	SV Tune 03/07/18		26 Oct 18 12:05
2	3	1026L003.D	1	5 SIM 10/26/18		26 Oct 18 12:21
3	4	1026L004.D	1	0.1 SIM 10/26/18		26 Oct 18 12:50
4	5	1026L005.D	1	0.2 SIM 10/26/18		26 Oct 18 13:20
5	6	1026L006.D	1	0.5 SIM 10/26/18		26 Oct 18 13:49
6	7	1026L007.D	1	1 SIM 10/26/18		26 Oct 18 14:18
7	8	1026L008.D	1	10 SIM 10/26/18		26 Oct 18 14:47
8	9	1026L009.D	1	50 SIM 10/26/18		26 Oct 18 15:16
9	10	1026L010.D	1	100 SIM 10/26/18		26 Oct 18 15:46
10	11	1026L011.D	1	SS SIM 10/26/18		26 Oct 18 16:46
11	75	1026L068.D	1	SV TUNE 03/07/18		1 Nov 18 12:32
12	69	1026L069.D	1	5 SIM 10/26/18 (2)		1 Nov 18 12:49
13	70	1026L070.D	1.25	181030A BLK 1/800		1 Nov 18 13:24
14	71	1026L071.D	1.25	181030A LCS-2 1/800		1 Nov 18 13:53
15	72	1026L072.D	1.25	181030A LCSD-2 1/800		1 Nov 18 14:22
16	73	1026L073.D	1.25	AZ81676W10 1/800		1 Nov 18 14:51
17	74	1026L074.D	1.25	AZ81677W10 1/800		1 Nov 18 15:21
18	75	1026L075.D	1.25	AZ81678W12 1/800		1 Nov 18 15:50
19	82	1026L082.D	1	5 SIM 10/26/18 (1)		1 Nov 18 19:14



**ORGANICS**  
**Calibration Data**

**APPL, INC.**

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/25/18 \_\_\_\_\_  
Instrument: Yoda \_\_\_\_\_

Initials: \_\_\_\_\_

		1025Y003.D	1025Y004.D	1025Y005.D	1025Y006.D	1025Y007.D	1025Y008.D	1025Y008.D	1025Y010.D	1025Y011.D								
	Compound	4	5	10	20	40	50	60	80	100		Avg	%RSD	Type	r	Q	MRF	
1	I 1,4-dichlorobenzene-D4(1S)	ISTD																
2	1,4-Dioxane		0.0822	0.1238	0.1391	0.1156	0.1243	0.1314	0.1253	0.1327		0.12	14					
3	TM n-Nitrosodimethylamine		0.3198	0.2893	0.2895	0.3170	0.3428	0.3386	0.3157	0.3599		0.32	7.7	TM				
4	TM Pyridine		0.3797	0.5088	0.4370	0.4560	0.5069	0.5219	0.5126	0.5246		0.48	11	TM				
5	S 2-Fluorophenol (S)		1.447	1.474	1.688	1.589	1.666	1.585	1.555	1.571		1.6	5.3	S				
6	S Phenol-D6 (S)		1.848	1.901	2.093	1.850	1.941	1.809	1.755	1.750		1.9	6.0	S				
7	*TM Phenol		2.649	2.757	2.820	2.486	2.402	2.436	2.265	2.182		2.5	9.1	*TM			0.800	
8	TM Aniline		1.872	2.001	2.114	1.977	2.005	2.023	1.975	2.017		2.0	3.4	TM				
9	TM Bis (2-chloroethyl) ether		1.334	1.348	1.369	1.245	1.271	1.275	1.240	1.376		1.3	4.3	TM			0.700	
10	TM 2-Chlorophenol		1.995	2.029	2.057	1.877	1.897	1.907	1.873	1.933		1.9	3.7	TM			0.800	
11	TM 1,3-DCB		2.064	2.156	2.189	1.949	1.933	1.958	1.933	1.942		2.0	5.3	TM				
12	*TM 1,4-DCB		2.127	2.156	2.182	2.007	1.906	1.971	1.865	1.938		2.0	6.0	*TM				
13	TM Benzyl alcohol		1.244	1.292	1.329	1.211	1.238	1.259	1.212	1.289		1.3	3.3	TM				
14	TM 1,2-DCB		2.064	2.054	2.067	1.841	1.835	1.876	1.767	1.846		1.9	6.4	TM				
15	TM 2-Methylphenol		1.555	1.604	1.632	1.546	1.494	1.520	1.483	1.561		1.5	3.3	TM			0.700	
16	TM Bis (2-chloroisopropyl) ether		2.542	2.584	2.616	2.402	2.400	2.441	2.390	2.420		2.5	3.7	TM			0.010	
17	TML Acetophenone		2.636	2.769	2.633	2.030	1.890	1.910	1.779	1.861		2.2	19	TML	0.996		0.010	
18	TML 3&4-Methylphenol		2.070	2.176	2.020	1.546	1.435	1.452	1.356	1.396		1.7	20	TML	0.996		0.600	
19	**TM n-Nitrosodi-n-propylamine		1.400	1.477	1.415	1.143	1.166	1.186	1.188	1.329		1.3	10	**TM			0.500	
20	TM Hexachloroethane		0.7574	0.7950	0.8050	0.7314	0.7379	0.7578	0.7366	0.7504		0.76	3.6	TM			0.300	
21	I Naphthalene-D8(1S)	ISTD																
22	S Nitrobenzene-D5(S)		0.4083	0.4328	0.4683	0.4505	0.5001	0.4407	0.4451	0.4657		0.45	6.0	S				
23	TM Nitrobenzene		0.5001	0.5181	0.5139	0.4909	0.4970	0.4779	0.4713	0.4888		0.49	3.3	TM			0.200	
24	TM Isophorone		0.8652	0.9168	0.9152	0.8551	0.8760	0.8490	0.8400	0.8786		0.87	3.3	TM			0.400	
25	*TM 2-Nitrophenol		0.2370	0.2591	0.2642	0.2517	0.2554	0.2460	0.2442	0.2519		0.25	3.5	*TM			0.100	
26	TM 2,4-Dimethylphenol		0.4374	0.4462	0.4431	0.4177	0.4120	0.4072	0.3948	0.4061		0.42	4.6	TM			0.200	
27	TML Benzoic acid		0.2022	0.2740	0.3308	0.3563	0.3897	0.3820	0.3935	0.4031		0.34	21	TML	0.999			
28	TM Bis (2-chloroethoxy) methane		0.5234	0.5360	0.5173	0.4794	0.4853	0.4705	0.4613	0.4659		0.49	5.9	TM			0.300	
29	*TM 2,4-Dichlorophenol		0.3791	0.3980	0.3911	0.3686	0.3717	0.3607	0.3482	0.3483		0.37	4.9	*TM			0.200	
30	TM 1,2,4-Trichlorobenzene		0.4195	0.4275	0.4109	0.3795	0.3707	0.3651	0.3531	0.3536		0.38	7.8	TM				
31	TM 3,4-Dimethylphenol		0.5794	0.6067	0.6052	0.5594	0.5653	0.5568	0.5402	0.5433		0.57	4.5	TM				
32	TM Naphthalene		1.432	1.426	1.383	1.288	1.252	1.247	1.168	1.168		1.3	8.2	TM			0.700	
33	TM 4-Chloroaniline		0.5582	0.5734	0.5561	0.4843	0.4698	0.4632	0.4030	0.3734		0.49	15	TM			0.010	
34	TM 2,6-Dichlorophenol		0.3835	0.3879	0.3836	0.3390	0.3259	0.3250	0.2935	0.2753		0.34	13	TM				
35	TM Hexachloropropene		0.2398	0.2604	0.2721	0.2579	0.2649	0.2671	0.2525	0.2433		0.26	4.4	TM				

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/25/18  
Instrument: Yoda

Initials: \_\_\_\_\_

	Compound	4	5	10	20	40	50	60	80	100		Avg	%RSD	Type	q
36	*TM Hexachlorobutadiene		0.2194	0.2297	0.2245	0.2132	0.2082	0.2127	0.1994	0.1969		0.21	5.4	*TM	0.010
37	TM Caprolactum		0.2182	0.2291	0.2384	0.2265	0.2344	0.2268	0.2261	0.2162		0.23	3.3	TM	0.010
38	*TM 4-Chloro-3-methylphenol		0.3843	0.4096	0.4194	0.3872	0.4022	0.4004	0.3860	0.3952		0.40	3.1	*TM	0.200
39	TM 2-Methylnaphthalene		0.8747	0.8997	0.8766	0.8068	0.7983	0.7982	0.7535	0.7265		0.82	7.6	TM	0.400
40	TM 1-Methylnaphthalene		0.8803	0.9151	0.8942	0.8003	0.7852	0.7648	0.7475	0.7263		0.81	8.9	TM	
41	I Acenaphthene-D10(IS)	ISTD													
42	**TML Hexachlorocyclopentadiene		0.2159	0.3254	0.3835	0.4140	0.4334	0.4200	0.4194	0.4411		0.38	20	**TML	0.999
43	TM 1,2,4,5-Tetrachlorobenzene		0.8104	0.8379	0.8315	0.7526	0.7314	0.7034	0.6664	0.6536		0.75	9.7	TM	0.010
44	*TM 2,4,6-Trichlorophenol		0.5013	0.5549	0.5603	0.5238	0.5316	0.5292	0.4979	0.5107		0.53	4.4	*TM	0.200
45	TM 2,4,5-Trichlorophenol		0.5702	0.5761	0.5952	0.5475	0.5488	0.5482	0.5295	0.5413		0.56	3.9	TM	0.200
46	S 2-Fluorobiphenyl(S)		1.730	1.770	1.821	1.654	1.746	1.617	1.492	1.508		1.7	7.3	S	
47	TM 1,1'-Biphenyl		2.164	2.234	2.170	1.970	1.876	1.856	1.726	1.715		2.0	10	TM	0.010
48	TM 2-Chloronaphthalene		1.645	1.734	1.725	1.553	1.541	1.482	1.409	1.423		1.6	8.1	TM	0.800
49	TM 2-Nitroaniline		0.4862	0.5502	0.5567	0.5429	0.5556	0.5517	0.5173	0.5586		0.54	4.7	TM	0.010
50	TM Dimethyl phthalate		1.834	1.964	1.919	1.801	1.797	1.794	1.657	1.744		1.8	5.3	TM	0.010
51	TM 2,6-DNT		0.3555	0.4320	0.4418	0.4252	0.4354	0.4318	0.3994	0.4280		0.42	6.8	TM	0.200
52	TM Acenaphthylene		2.628	2.725	2.759	2.574	2.482	2.505	2.231	2.278		2.5	7.6	TM	0.900
53	TM 3-Nitroaniline		0.4276	0.4910	0.5106	0.4724	0.4809	0.4713	0.4422	0.4489		0.47	5.8	TM	0.010
54	*TM Acenaphthene		1.672	1.755	1.670	1.499	1.475	1.481	1.337	1.337		1.5	10	*TM	0.900
55	**TML 2,4-Dinitrophenol		0.0575	0.1232	0.2043	0.2314	0.2592	0.2656	0.2764	0.3061		0.22	39	**TML	0.996
56	**TM 4-Nitrophenol		0.2721	0.3257	0.3588	0.3653	0.3883	0.3983	0.3717	0.4143		0.36	12	**TM	0.010
57	TM Dibenzofuran		2.464	2.496	2.382	2.140	2.009	1.938	1.732	1.711		2.1	15	TM	0.800
58	TM 2,4-DNT		0.5229	0.5883	0.6057	0.5566	0.5362	0.5170	0.4678	0.4705		0.53	9.4	TM	0.200
59	TM 2,3,4,6-Tetrachlorophenol		0.4433	0.4757	0.4924	0.4726	0.4709	0.4494	0.4249	0.4491		0.46	4.7	TM	0.010
60	TM Diethyl phthalate		1.848	1.924	1.892	1.742	1.716	1.664	1.554	1.624		1.7	7.6	TM	0.010
61	TML 4-Chlorophenyl phenyl ether			0.9404	0.8997	0.7607	0.7053	0.6720	0.6051	0.6241		0.74	18	TML	0.995
62	TML Fluorene			2.000	1.919	1.630	1.529	1.450	1.327	1.370		1.6	16	TML	0.996
63	TM 4-Nitroaniline		0.4708	0.5200	0.5209	0.4799	0.4968	0.4725	0.4585	0.4920		0.49	4.7	TM	0.010
64	S 2,4,6-Tribromophenol(S)		0.1910	0.2126	0.2272	0.2105	0.2163	0.1901	0.1828	0.1843		0.20	8.3	S	
65	I Phenanthrene-D10(IS)	ISTD													
66	TML 4,6-Dinitro-2-methylphenol		0.1094	0.1601	0.1895	0.1922	0.2012	0.1993	0.1924	0.2094		0.18	18	TML	0.998
67	TM Diphenyl amine			0.8355	0.7939	0.6850	0.6482	0.6583	0.5640	0.5753		0.68	15	TM	
68	*TM n-Nitrosodiphenylamine			0.8355	0.7939	0.6850	0.6482	0.6583	0.5640	0.5753		0.68	15	*TM	0.010
69	TM 1,2-Diphenylhydrazine		1.082	1.106	1.079	1.022	1.024	1.028	1.102	1.154		1.1	4.4	TM	
70	TM 4-Bromophenyl phenyl ether		0.2805	0.2921	0.2891	0.2738	0.2714	0.2723	0.2524	0.2464		0.27	5.9	TM	0.100

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/25/18  
Instrument: Yoda

Initials: \_\_\_\_\_

		Compound	4	5	10	20	40	50	60	80	100		Avg	%RSD	Type		Q
71	TM	Hexachlorobenzene		0.2989	0.3163	0.3096	0.2849	0.2823	0.2843	0.2563	0.2582		0.29	7.6	TM		0.100
72	TM	Atrazine		0.2274	0.2463	0.2447	0.2494	0.2533	0.2614	0.2438	0.2652		0.25	4.7	TM		0.010
73	*TM	Pentachlorophenol		0.1194	0.1595	0.1803	0.1856	0.1959	0.1970	0.1843	0.1954		0.18	15	*TM		0.050
74	TM	Phenanthrene		1.535	1.556	1.520	1.405	1.341	1.354	1.219	1.247		1.4	9.3	TM		0.700
75	TM	Anthracene		1.534	1.630	1.567	1.432	1.388	1.397	1.243	1.306		1.4	9.2	TM		0.700
76	TM	Carbazol		1.404	1.474	1.412	1.345	1.333	1.342	1.200	1.232		1.3	6.8	TM		0.010
77	TM	Di-n-butylphthalate		1.532	1.684	1.676	1.561	1.557	1.587	1.423	1.418		1.6	6.4	TM		0.010
78	*TM	Fluoranthene		1.599	1.650	1.618	1.482	1.469	1.488	1.311	1.376		1.5	7.9	*TM		0.600
79	I	Chrysene-D12(IS)	ISTD														
80	TM	Benzidine		0.5023	0.5729	0.5988	0.5688	0.5785	0.5804	0.5559	0.5905		0.57	5.2	TM		
81	TM	Pyrene		1.683	1.748	1.756	1.652	1.621	1.636	1.522	1.607		1.7	4.6	TM		0.600
82	S	Terphenyl-D14(S)		1.048	1.090	1.144	1.063	1.110	1.026	0.9763	1.014		1.1	5.2	S		
83	TM	Butyl benzylphthalate		0.6875	0.7381	0.7719	0.7507	0.7445	0.7677	0.7085	0.7378		0.74	3.9	TM		0.010
84	TM	3,3'-Dichlorobenzidine		0.5153	0.5780	0.6107	0.5565	0.5493	0.5524	0.4833	0.4652		0.54	9.0	TM		0.010
85	TM	Benz (a) anthracene		1.567	1.601	1.607	1.369	1.289	1.333	1.201	1.269		1.4	12	TM		0.800
86	TM	Bis (2-ethylhexyl) phthalate		0.9717	1.060	1.058	0.9322	0.8742	0.8932	0.7888	0.8442		0.93	11	TM		0.010
87	TM	Chrysene		1.555	1.591	1.559	1.488	1.422	1.434	1.363	1.407		1.5	5.6	TM		0.700
88	*TM	Di-n-octylphthalate		1.513	1.697	1.766	1.768	1.785	1.794	1.743	1.735		1.7	5.3	*TM		0.010
89	I	Perylene-D12(IS)	ISTD														
90	TM	Benzo (b) fluoranthene		1.425	1.508	1.620	1.418	1.596	1.597	1.382	1.444		1.5	6.3	TM		0.700
91	TM	Benzo (k) fluoranthene		1.477	1.531	1.459	1.477	1.380	1.372	1.365	1.366		1.4	4.6	TM		0.700
92	*TM	Benzo (a) pyrene	1.218	1.317	1.395	1.423	1.374	1.394	1.417	1.346	1.389		1.4	4.7	*TM		0.700
93	TM	Indeno (1,2,3-cd) pyrene		1.504	1.545	1.624	1.566	1.626	1.628	1.542	1.602		1.6	3.0	TM		0.500
94	TM	Dibenz (a,h) anthracene	1.180	1.287	1.350	1.426	1.364	1.388	1.416	1.318	1.348		1.3	5.6	TM		0.400
95	TM	Benzo (g,h,i) perylene		1.187	1.277	1.320	1.302	1.267	1.324	1.228	1.334		1.3	4.0	TM		0.500
96																	
97																	
98																	
99																	
100																	
101																	
102																	
103																	
104																	
105																	

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y003.D Vial: 3  
 Acq On : 25 Oct 18 11:33 Operator: MA  
 Sample : 4ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 25 14:51 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	299628	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1229134	40.00000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	646866	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1199000	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1206033	40.00000	ppb	-0.01
89) Perylene-D12 (IS)	15.81	264	1213261	40.00000	ppb	-0.01

System Monitoring Compounds

5) 2-Fluorophenol (S)	0.00	112	0d	0.00000	ppb	
Spiked Amount 200.000			Recovery =	0.000%		
6) Phenol-D6 (S)	0.00	99	0d	0.00000	ppb	
Spiked Amount 200.000			Recovery =	0.000%		
22) Nitrobenzene-D5 (S)	0.00	82	0d	0.00000	ppb	
Spiked Amount 100.000			Recovery =	0.000%		
46) 2-Fluorobiphenyl (S)	0.00	172	0d	0.00000	ppb	
Spiked Amount 100.000			Recovery =	0.000%		
64) 2,4,6-Tribromophenol (S)	0.00	330	0d	0.00000	ppb	
Spiked Amount 200.000			Recovery =	0.000%		
82) Terphenyl-D14 (S)	0.00	244	0d	0.00000	ppb	
Spiked Amount 100.000			Recovery =	0.000%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
92) Benzo (a) pyrene	15.72	252	147763	3.60635	ppb	99
94) Dibenz (a,h) anthracene	17.86	278	143132	3.53686	ppb	97

Quantitation Report

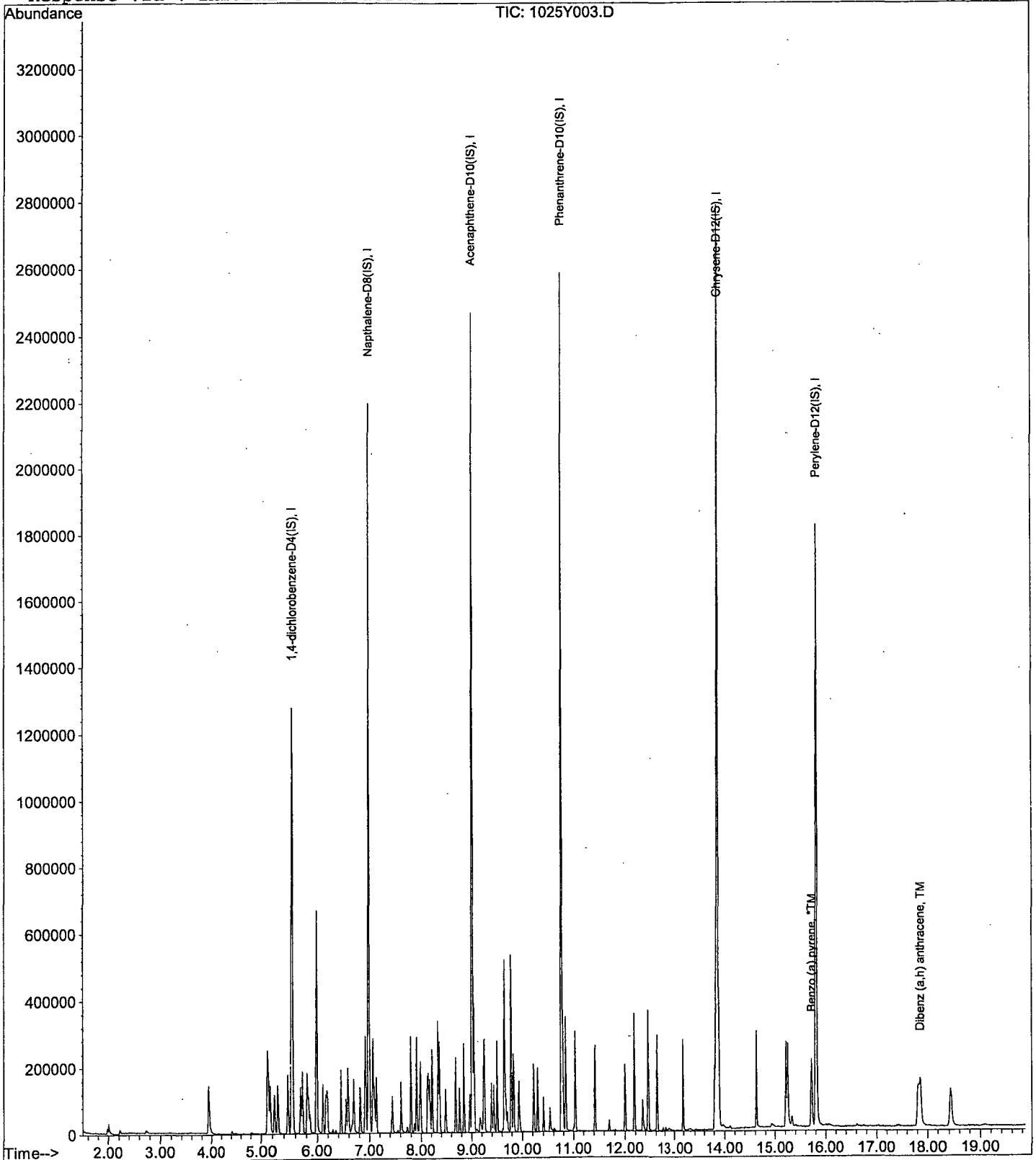
Data File : M:\YODA\DATA\Y181025\1025Y003.D  
Acq On : 25 Oct 18 11:33  
Sample : 4ug/mL 8270 10/18/18  
Misc :

Vial: 3  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 14:51 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y004.D  
 Acq On : 25 Oct 18 12:01  
 Sample : 5ug/mL 8270 10/18/18  
 Misc :

Vial: 4  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:18:52 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	278188	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1122051	40.00000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	578178	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1088043	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1091993	40.00000	ppb	-0.01
89) Perylene-D12 (IS)	15.81	264	1129669	40.00000	ppb	-0.01

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.94	112	100605	9.16892	ppb	0.00
Spiked Amount	200.000		Recovery	=	4.585%	
6) Phenol-D6 (S)	5.11	99	128510	9.87603	ppb	-0.01
Spiked Amount	200.000		Recovery	=	4.938%	
22) Nitrobenzene-D5 (S)	6.16	82	57273	4.46786	ppb	-0.01
Spiked Amount	100.000		Recovery	=	4.468%	
46) 2-Fluorobiphenyl (S)	8.22	172	125033	5.15520	ppb	0.00
Spiked Amount	100.000		Recovery	=	5.155%	
64) 2,4,6-Tribromophenol (S)	9.94	330	27611	9.22660	ppb	-0.01
Spiked Amount	200.000		Recovery	=	4.614%	
82) Terphenyl-D14 (S)	12.62	244	143015	4.87537	ppb	0.00
Spiked Amount	100.000		Recovery	=	4.875%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	286	0.32856		# 1
3) n-Nitrosodimethylamine	1.98	42	11122	5.29803	ppb	88
4) Pyridine	2.00	79	13205	4.04187	ppb	93
7) Phenol	5.13	94	92128	5.29994	ppb	90
8) Aniline	5.16	66	65079m	4.91096	ppb	90
9) Bis (2-chloroethyl) ether	5.23	63	46381	5.10745	ppb	99
10) 2-Chlorophenol	5.29	128	69377	5.18850	ppb	95
11) 1,3-DCB	5.47	146	71761	5.08967	ppb	99
12) 1,4-DCB	5.56	146	73967	5.25936	ppb	94
13) Benzyl alcohol	5.69	108	43273	5.00475	ppb	93
14) 1,2-DCB	5.73	146	71757	5.38435	ppb	97
15) 2-Methylphenol	5.81	107	54087	5.07631	ppb	98
16) Bis (2-chloroisopropyl) et	5.84	45	88410	5.18241	ppb	94
17) Acetophenone	6.00	105	91662	1.39902	ppb	# 70
18) 3&4-Methylphenol	5.99	107	143966	-0.94497	ppb	95
19) n-Nitrosodi-n-propylamine	5.99	70	48666	5.49385	ppb	84
20) Hexachloroethane	6.11	117	26338	4.96713	ppb	95
23) Nitrobenzene	6.19	77	70137	4.98866	ppb	98
24) Isophorone	6.45	82	121351	4.91369	ppb	98
25) 2-Nitrophenol	6.54	139	33236	4.72719	ppb	92
26) 2,4-Dimethylphenol	6.58	122	61342	5.19136	ppb	91
27) Benzoic acid	6.67	105	28356	8.65338	ppb	97
28) Bis (2-chloroethoxy) metha	6.69	93	73409	5.27571	ppb	98
29) 2,4-Dichlorophenol	6.82	162	53167	5.07562	ppb	96
30) 1,2,4-Trichlorobenzene	6.91	180	58841	5.40711	ppb	97
31) 3,4-Dimethylphenol	6.92	107	81264	5.08114	ppb	95
32) Napthalene	7.01	128	200847	5.51654	ppb	99
33) 4-Chloroaniline	7.06	127	78291	6.25637	ppb	97
34) 2,6-Dichlorophenol	7.07	162	53793	5.59344	ppb	98
35) Hexachloropropene	7.10	213	33627	4.60585	ppb	99
36) Hexachlorobutadiene	7.14	225	30779	5.08021	ppb	98
37) Caprolactum	7.44	55	30607	4.78098	ppb	92

(#) = qualifier out of range (m) = manual integration  
 1025Y004.D Y1025NC.M Thu Oct 25 17:29:36 2018

Data File : M:\YODA\DATA\Y181025\1025Y004.D Vial: 4  
 Acq On : 25 Oct 18 12:01 Operator: MA  
 Sample : 5ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:18:52 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.62	107	53898	4.81193	ppb	98
39) 2-Methylnaphthalene	7.80	142	122686	5.30010	ppb	97
40) 1-Methylnaphthalene	7.92	142	123467	5.36805	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	15604	2.63514	ppb	97
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	58570	5.36480	ppb	98
44) 2,4,6-Trichlorophenol	8.12	196	36228	4.75527	ppb	99
45) 2,4,5-Trichlorophenol	8.17	196	41210	5.05470	ppb	96
47) 1,1'-Biphenyl	8.34	154	156378	5.47366	ppb	98
48) 2-Chloronaphthalene	8.36	162	118878	5.19543	ppb	98
49) 2-Nitroaniline	8.48	65	35139	4.54088	ppb	92
50) Dimethyl phthalate	8.69	163	132551	5.03002	ppb	100
51) 2,6-DNT	8.77	165	25692	4.26612	ppb	96
52) Acenaphthylene	8.85	152	189919	5.22472	ppb	99
53) 3-Nitroaniline	8.97	138	30903	4.67170	ppb	99
54) Acenaphthene	9.05	154	120819	5.48632	ppb	99
55) 2,4-Dinitrophenol	9.10	184	4155	10.81735	ppb	89
56) 4-Nitrophenol	9.17	65	19665	3.80378	ppb	94
57) Dibenzofuran	9.25	168	178096	5.81314	ppb	92
58) 2,4-DNT	9.24	165	37792	4.90083	ppb	96
59) 2,3,4,6-Tetrachlorophenol	9.39	232	32036	4.80719	ppb	98
60) Diethyl phthalate	9.50	149	133569	5.26630	ppb	98
61) 4-Chlorophenyl phenyl ethe	9.65	204	66152	5.51360	ppb	87
62) Fluorene	9.65	166	140557	5.50594	ppb	99
63) 4-Nitroaniline	9.68	138	34026	4.92384	ppb	89
66) 4,6-Dinitro-2-methylphenol	9.71	198	14879	2.87402	ppb	91
67) Diphenyl amine	9.79	169	225337	0.75658	ppb	98
68) n-Nitrosodiphenylamine	9.79	169	225337	0.75658	ppb	98
69) 1,2-Diphenylhydrazine	9.84	77	147118	5.01547	ppb #	87
70) 4-Bromophenyl phenyl ether	10.23	248	38148	5.05604	ppb	92
71) Hexachlorobenzene	10.29	284	40649	5.12754	ppb	87
72) Atrazine	10.41	200	15461	2.26716	ppb	96
73) Pentachlorophenol	10.54	266	16240	3.32294	ppb	98
74) Phenanthrene	10.79	178	208757	5.42894	ppb	99
75) Anthracene	10.84	178	208619	5.28612	ppb	99
76) Carbazol	11.04	167	190968	5.17629	ppb	99
77) Di-n-butylphthalate	11.43	149	208356	4.90798	ppb	98
78) Fluoranthene	12.18	202	217445	5.29783	ppb	98
80) Benzidine	12.35	184	68565	9.38814	ppb	95
81) Pyrene	12.45	202	229771	5.09317	ppb	99
83) Butyl benzylphthalate	13.19	149	93840	4.68621	ppb	88
84) 3,3'-Dichlorobenzidine	13.81	252	70332	5.31300	ppb	96
85) Benz (a) anthracene	13.85	228	213920	5.55631	ppb	99
86) Bis (2-ethylhexyl) phthala	13.84	149	132632	5.17822	ppb	98
87) Chrysene	13.89	228	212313	5.22319	ppb	98
88) Di-n-octylphthalate	14.62	149	206541	4.38443	ppb	97
90) Benzo (b) fluoranthene	15.21	252	201251	4.74884	ppb	98
91) Benzo (k) fluoranthene	15.25	252	208523	5.23139	ppb	98
92) Benzo (a) pyrene	15.72	252	185959	4.84407	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.81	276	212368	4.76071	ppb	97
94) Dibenz (a,h) anthracene	17.85	278	181728	4.79755	ppb	97
95) Benzo (g,h,i) perylene	18.44	276	167646	4.61279	ppb	95

(#) = qualifier out of range (m) = manual integration  
 1025Y004.D Y1025NC.M Thu Oct 25 17:29:36 2018



Quantitation Report

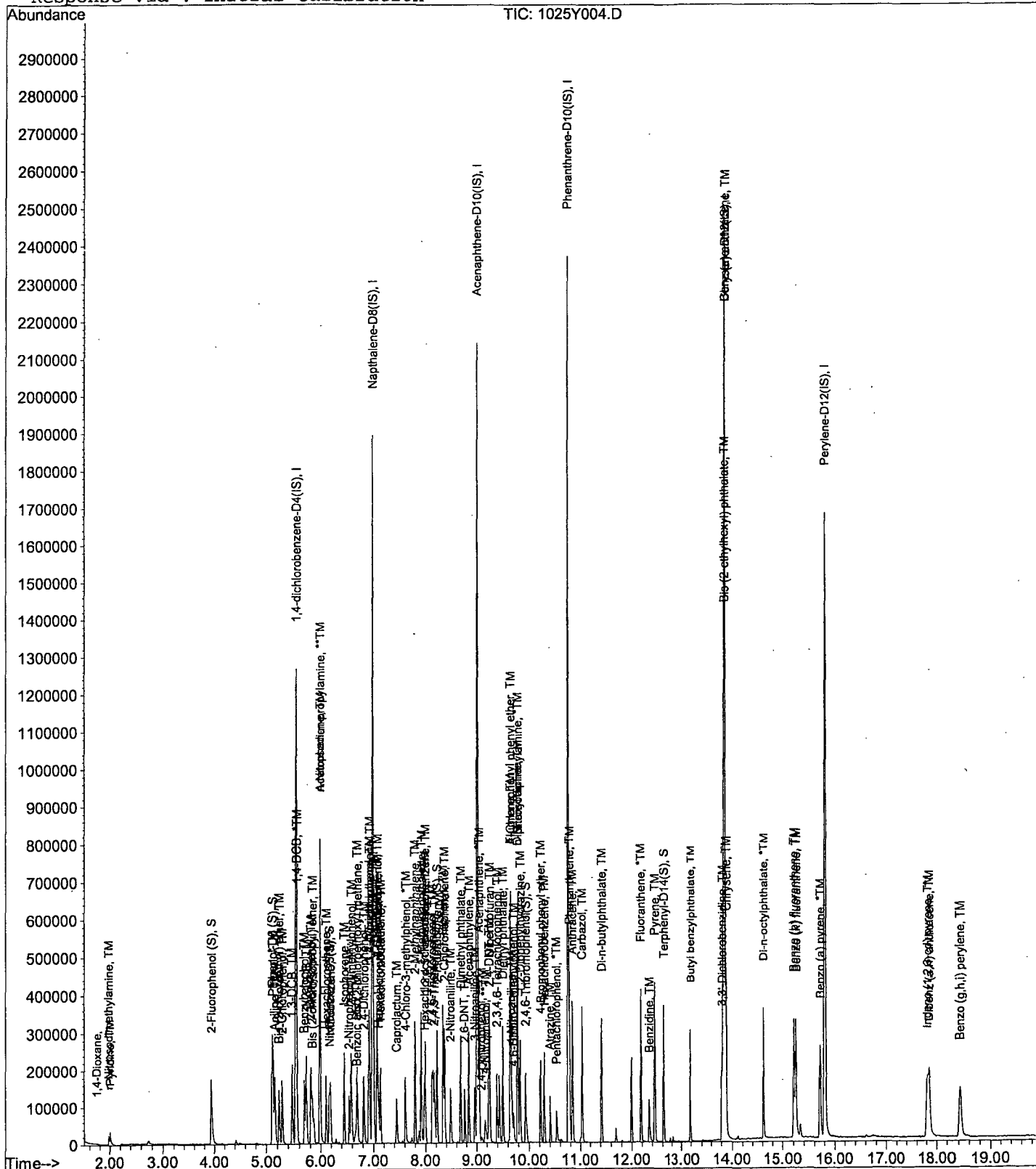
Data File : M:\YODA\DATA\Y181025\1025Y004.D  
Acq On : 25 Oct 18 12:01  
Sample : 5ug/mL 8270 10/18/18  
Misc :

Vial: 4  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration

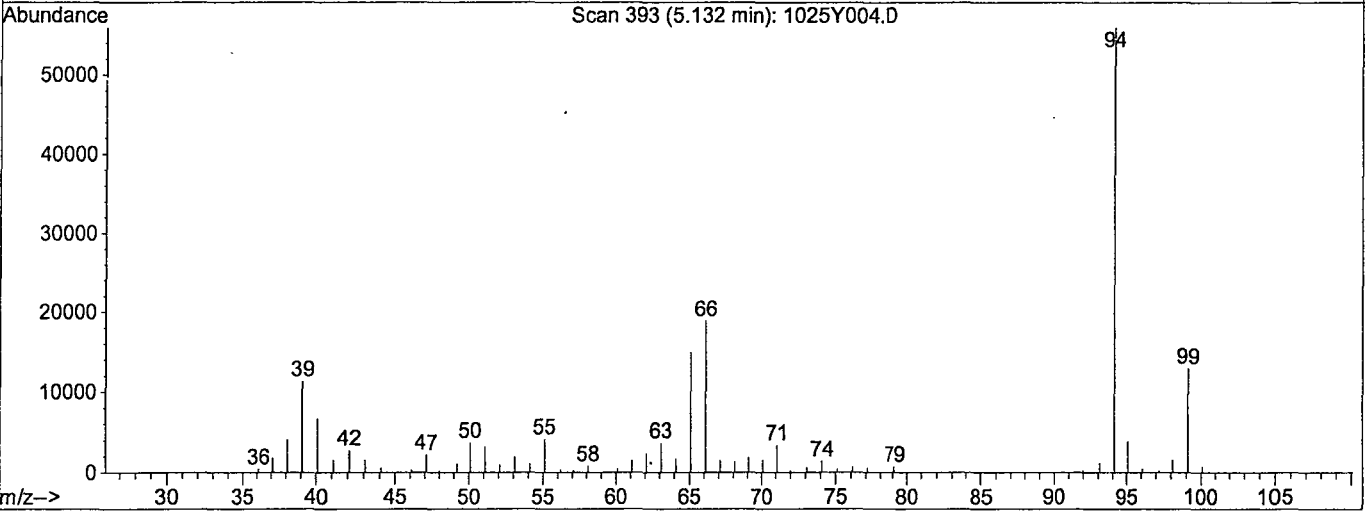
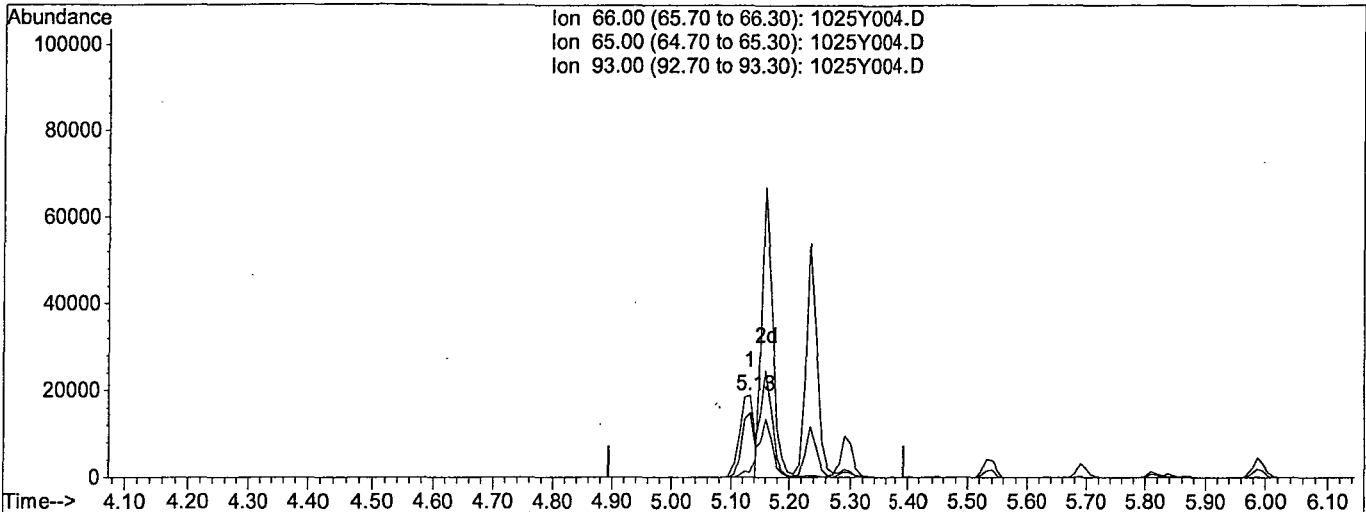


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y004.D  
 Acq On : 25 Oct 18 12:01  
 Sample : 5ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:22 2018

Vial: 4  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y004.D

(8) Aniline (TM)

5.13min 2.4771ppb

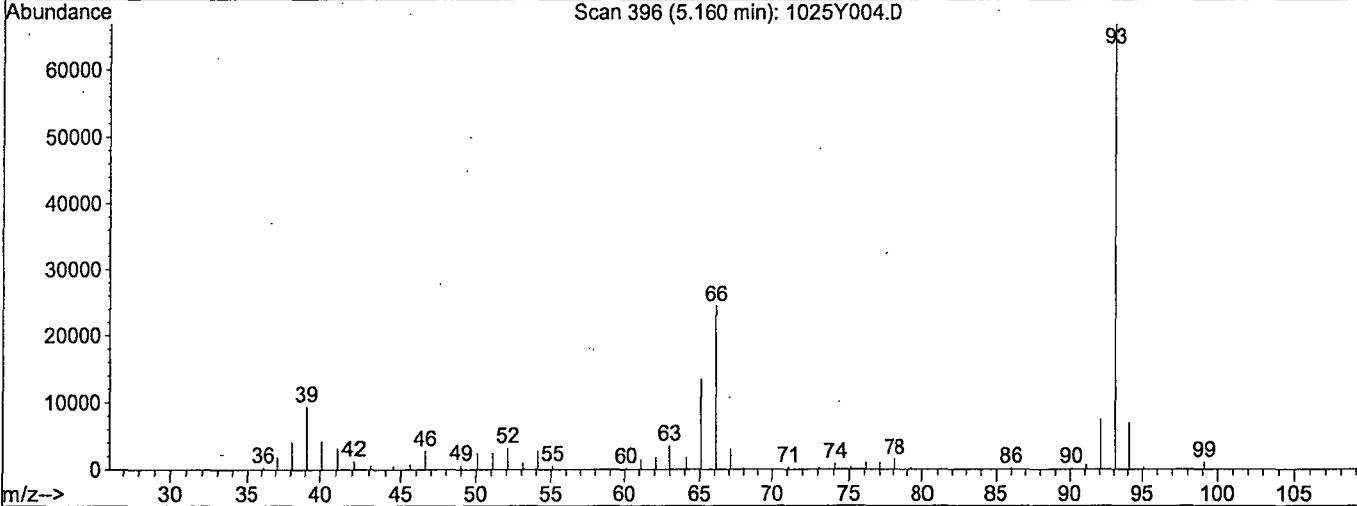
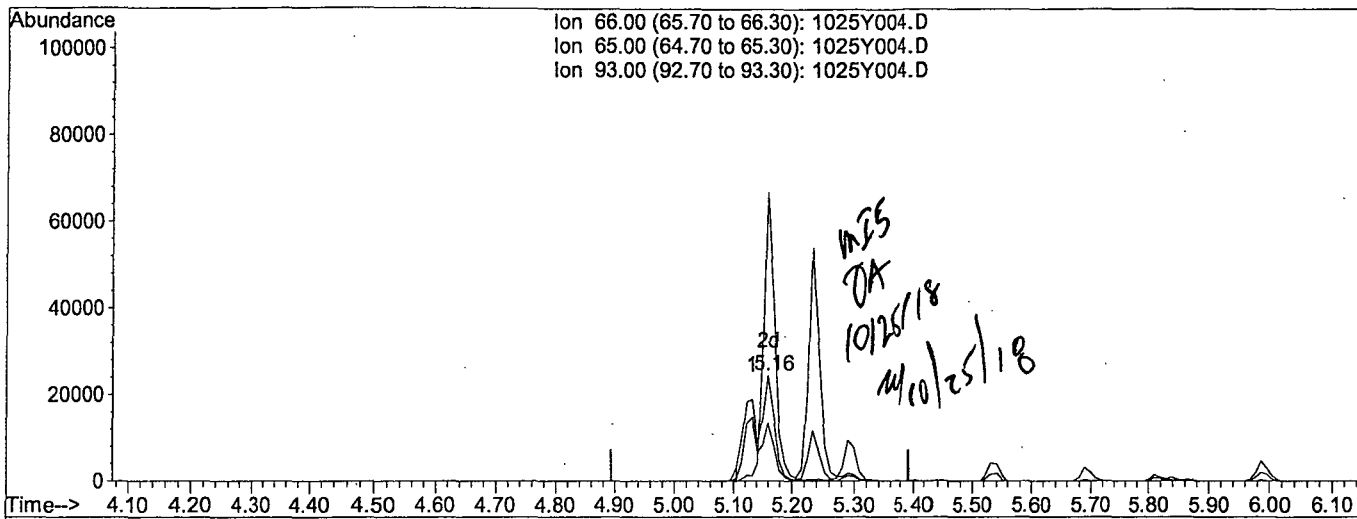
response 32826

Ion	Exp%	Act%
66.00	100	100
65.00	73.00	78.83
93.00	16.80	6.35#
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y004.D Vial: 4  
 Acq On : 25 Oct 18 12:01 Operator: MA  
 Sample : 5ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Oct 25 16:40 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y004.D

(8) Aniline (TM)  
 5.16min 4.9110ppb m  
 response 65079

Ion	Exp%	Act%
66.00	100	100
65.00	73.00	54.86
93.00	16.80	272.63#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y005.D  
 Acq On : 25 Oct 18 12:28  
 Sample : 10ug/mL 8270 10/18/18  
 Misc :

Vial: 5  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	300232	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1230861	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.01	164	631811	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1201882	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1205751	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	1240435	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	221221	18.94214	ppb	0.00
Spiked Amount	200.000		Recovery	=	9.471%	
6) Phenol-D6 (S)	5.12	99	285328	20.43888	ppb	0.00
Spiked Amount	200.000		Recovery	=	10.220%	
22) Nitrobenzene-D5 (S)	6.16	82	133193	9.62807	ppb	0.00
Spiked Amount	100.000		Recovery	=	9.628%	
46) 2-Fluorobiphenyl (S)	8.22	172	279602	10.54906	ppb	0.00
Spiked Amount	100.000		Recovery	=	10.549%	
64) 2,4,6-Tribromophenol (S)	9.94	330	67164	20.84527	ppb	0.00
Spiked Amount	200.000		Recovery	=	10.423%	
82) Terphenyl-D14 (S)	12.63	244	328589	10.22856	ppb	0.00
Spiked Amount	100.000		Recovery	=	10.229%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.75	58	929	1.00388		# 28
3) n-Nitrosodimethylamine	1.98	42	21711	9.58170	ppb	99
4) Pyridine	2.00	79	38193	11.37249	ppb	91
7) Phenol	5.13	94	206906	11.03338	ppb	94
8) Aniline	5.16	66	150183m	11.67874	ppb	1
9) Bis (2-chloroethyl) ether	5.24	63	101174	10.45077	ppb	98
10) 2-Chlorophenol	5.29	128	152294	10.56163	ppb	96
11) 1,3-DCB	5.47	146	161803	10.67379	ppb	98
12) 1,4-DCB	5.56	146	161804	10.65348	ppb	98
13) Benzyl alcohol	5.69	108	96968	10.53145	ppb	98
14) 1,2-DCB	5.73	146	154175	10.69843	ppb	97
15) 2-Methylphenol	5.81	107	120382	10.45634	ppb	97
16) Bis (2-chloroisopropyl) et	5.84	45	193925	10.62578	ppb	95
17) Acetophenone	6.00	105	207799	11.04127	ppb	# 65
18) 3&4-Methylphenol	5.99	107	326662	21.50272	ppb	93
19) n-Nitrosodi-n-propylamine	5.99	70	110886	11.82806	ppb	86
20) Hexachloroethane	6.11	117	59671	10.51312	ppb	97
23) Nitrobenzene	6.19	77	159416	10.46426	ppb	99
24) Isophorone	6.45	82	282118	10.56547	ppb	99
25) 2-Nitrophenol	6.55	139	79727	10.50448	ppb	95
26) 2,4-Dimethylphenol	6.58	122	137297	10.66244	ppb	96
27) Benzoic acid	6.66	105	84326	10.81134	ppb	98
28) Bis (2-chloroethoxy) metha	6.69	93	164934	10.84663	ppb	99
29) 2,4-Dichlorophenol	6.81	162	122464	10.68123	ppb	99
30) 1,2,4-Trichlorobenzene	6.92	180	131536	11.07691	ppb	96
31) 3,4-Dimethylphenol	6.93	107	186695	10.80192	ppb	99
32) Napthalene	7.01	128	438668	10.94097	ppb	99
33) 4-Chloroaniline	7.07	127	176444	12.30075	ppb	96
34) 2,6-Dichlorophenol	7.07	162	119365	11.19004	ppb	99
35) Hexachloropropene	7.10	213	80130	10.15063	ppb	99
36) Hexachlorobutadiene	7.13	225	70672	10.70159	ppb	98
37) Caprolactum	7.46	55	70487	10.16881	ppb	93

(#) = qualifier out of range (m) = manual integration  
 1025Y005.D Y1025NC.M Thu Oct 25 17:29:46 2018

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y005.D  
 Acq On : 25 Oct 18 12:28  
 Sample : 10ug/mL 8270 10/18/18  
 Misc :

Vial: 5  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.61	107	126043	10.41989	ppb	93
39) 2-Methylnaphthalene	7.80	142	276842	10.92661	ppb	99
40) 1-Methylnaphthalene	7.92	142	281584	11.16023	ppb	99
42) Hexachlorocyclopentadiene	7.98	237	51397	8.90604	ppb	96
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	132348	11.12180	ppb	97
44) 2,4,6-Trichlorophenol	8.12	196	87652	10.65793	ppb	97
45) 2,4,5-Trichlorophenol	8.17	196	90992	10.31238	ppb	99
47) 1,1'-Biphenyl	8.34	154	352803	11.35842	ppb	98
48) 2-Chloronaphthalene	8.36	162	273861	10.99149	ppb	100
49) 2-Nitroaniline	8.49	65	86904	10.47296	ppb	98
50) Dimethyl phthalate	8.69	163	310155	10.89603	ppb	99
51) 2,6-DNT	8.76	165	68241	10.69622	ppb	# 76
52) Acenaphthylene	8.85	152	430423	10.88350	ppb	99
53) 3-Nitroaniline	8.97	138	77548	10.73814	ppb	98
54) Acenaphthene	9.05	154	277166	11.51060	ppb	99
55) 2,4-Dinitrophenol	9.10	184	19452	9.77773	ppb	89
56) 4-Nitrophenol	9.16	65	51446	9.82417	ppb	99
57) Dibenzofuran	9.26	168	394310	11.63004	ppb	90
58) 2,4-DNT	9.24	165	92929	11.08363	ppb	89
59) 2,3,4,6-Tetrachlorophenol	9.40	232	75143	10.45294	ppb	98
60) Diethyl phthalate	9.51	149	303842	10.93776	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.66	204	148543	11.35154	ppb	85
62) Fluorene	9.66	166	315913	11.62498	ppb	99
63) 4-Nitroaniline	9.68	138	82137	10.94297	ppb	88
66) 4,6-Dinitro-2-methylphenol	9.71	198	48093	9.38585	ppb	93
67) Diphenyl amine	9.79	169	502110	20.34500	ppb	99
68) n-Nitrosodiphenylamine	9.79	169	502110	20.34500	ppb	99
69) 1,2-Diphenylhydrazine	9.83	77	332208	10.55674	ppb	96
70) 4-Bromophenyl phenyl ether	10.23	248	87774	10.64034	ppb	# 88
71) Hexachlorobenzene	10.30	284	95045	10.83471	ppb	# 86
72) Atrazine	10.41	200	36997	5.22448	ppb	98
73) Pentachlorophenol	10.53	266	47918	9.18154	ppb	95
74) Phenanthrene	10.79	178	467458	10.98724	ppb	99
75) Anthracene	10.84	178	489721	11.24781	ppb	99
76) Carbazol	11.04	167	442898	10.88274	ppb	99
77) Di-n-butylphthalate	11.43	149	506128	10.95897	ppb	99
78) Fluoranthene	12.18	202	495904	10.93795	ppb	97
80) Benzidine	12.34	184	172692	13.26912	ppb	# 97
81) Pyrene	12.45	202	527058	10.66163	ppb	99
83) Butyl benzylphthalate	13.18	149	222487	10.19998	ppb	93
84) 3,3'-Dichlorobenzidine	13.81	252	174217	11.76697	ppb	98
85) Benz (a) anthracene	13.85	228	482577	11.32071	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	319582	11.52940	ppb	97
87) Chrysene	13.89	228	479657	10.67126	ppb	99
88) Di-n-octylphthalate	14.62	149	511451	10.09760	ppb	100
90) Benzo (b) fluoranthene	15.22	252	467753	10.21786	ppb	98
91) Benzo (k) fluoranthene	15.25	252	474686	10.98227	ppb	98
92) Benzo (a) pyrene	15.72	252	432472	10.35493	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.82	276	479114	9.97285	ppb	96
94) Dibenz (a,h) anthracene	17.85	278	418696	10.15110	ppb	97
95) Benzo (g,h,i) perylene	18.43	276	396150	10.06399	ppb	96

(#) = qualifier out of range (m) = manual integration  
 1025Y005.D Y1025NC.M Thu Oct 25 17:29:44 2018

Quantitation Report

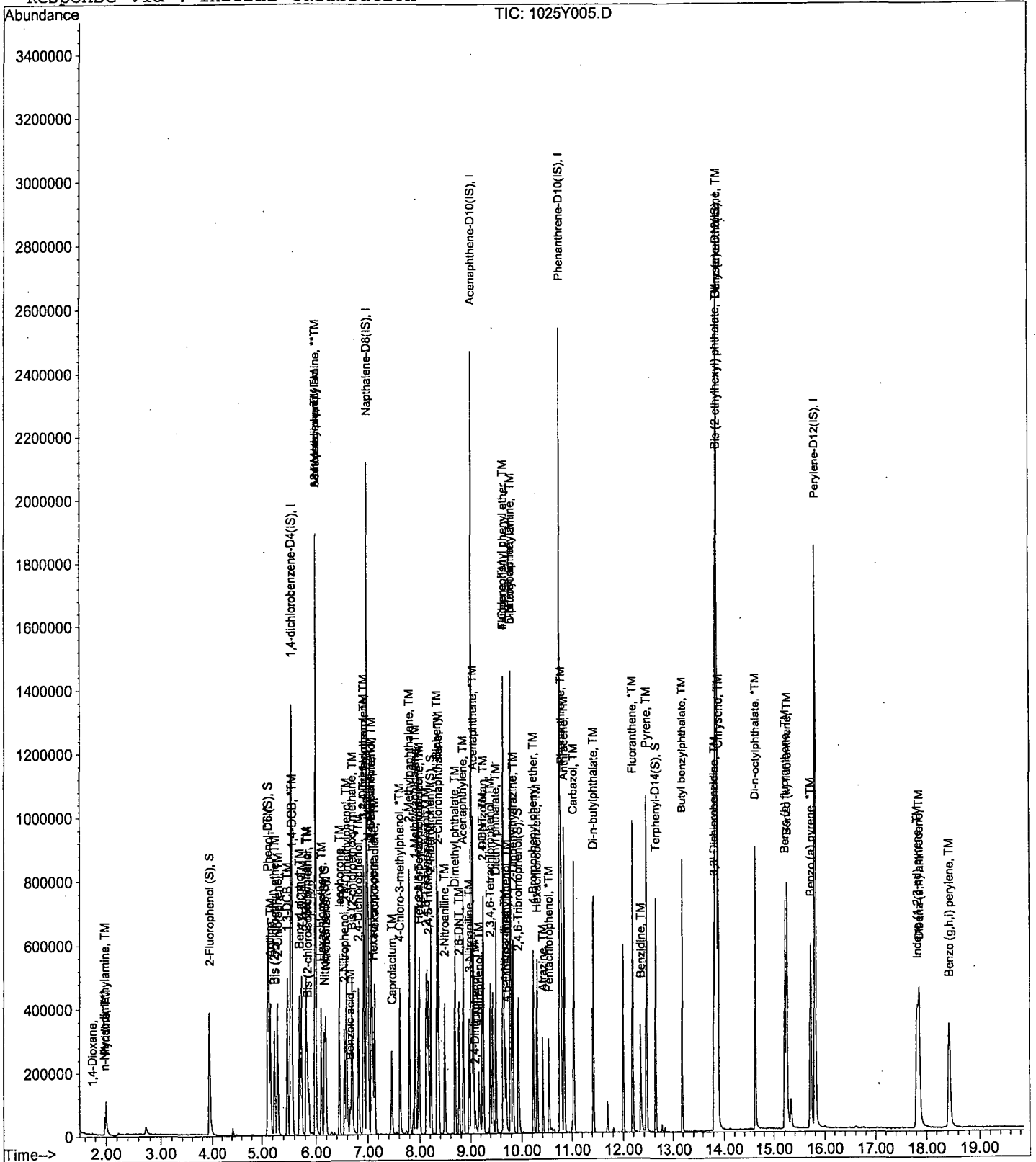
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Acq On : 25 Oct 18 12:28  
Sample : 10ug/mL 8270 10/18/18  
Misc :

Vial: 5  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration

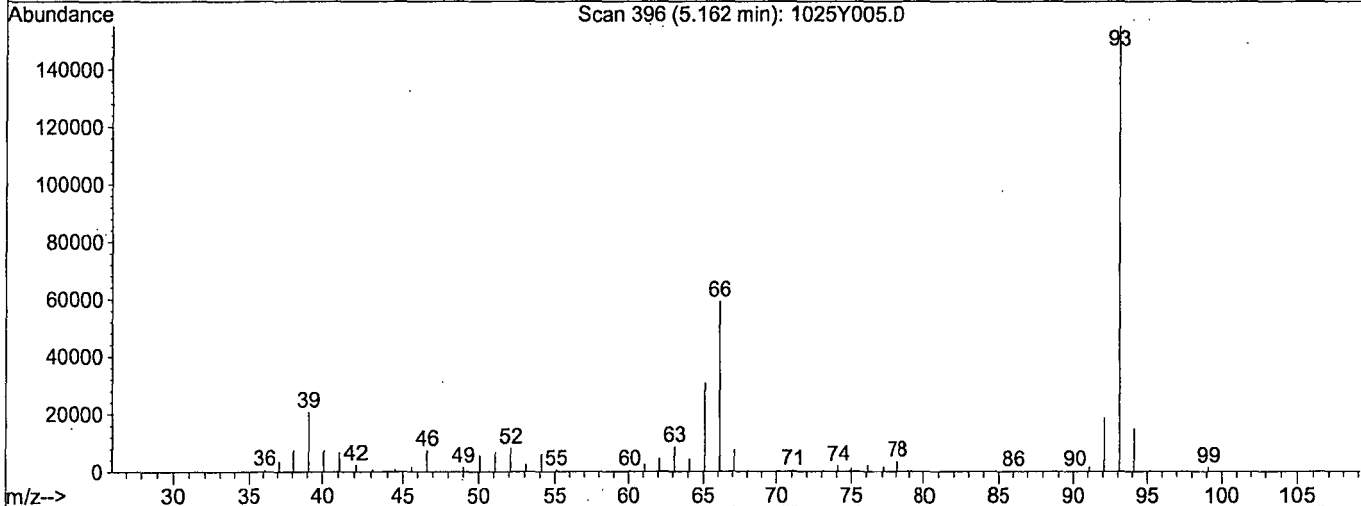
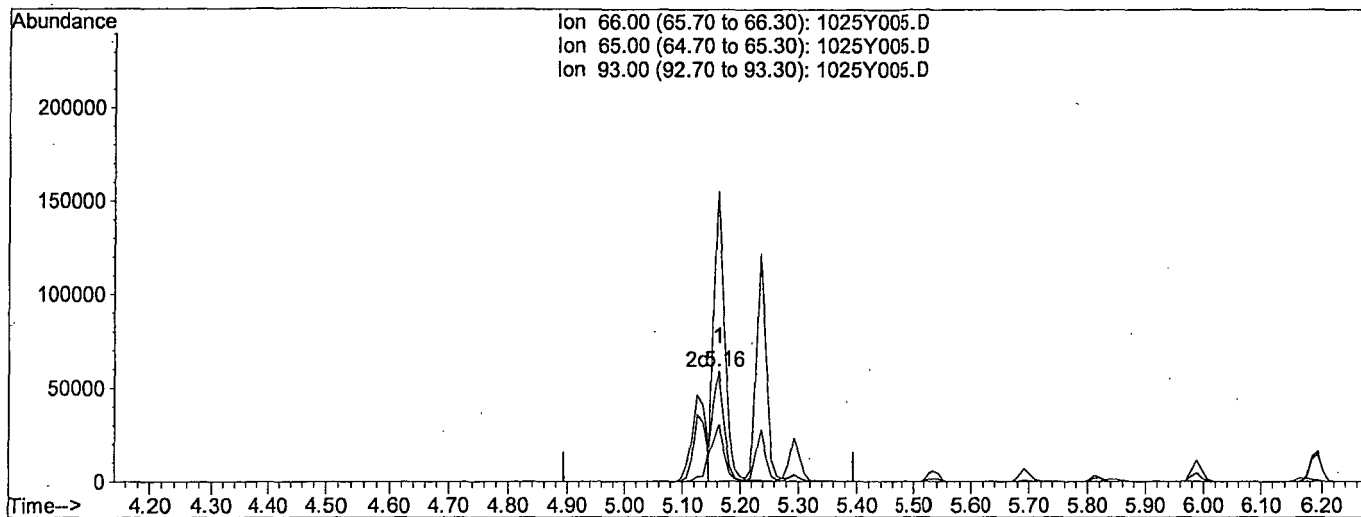


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y005.D  
 Acq On : 25 Oct 18 12:28  
 Sample : 10ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 14:36 2018

Vial: 5  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y005.D

(8) Aniline (TM)

5.16min 6.2649ppb

response 80563

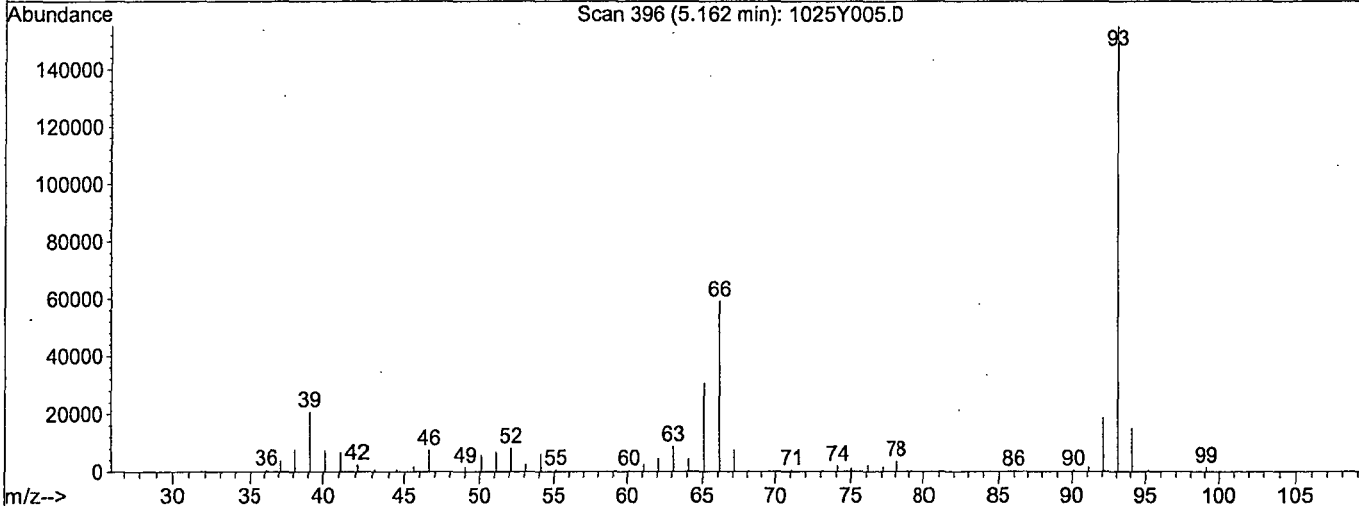
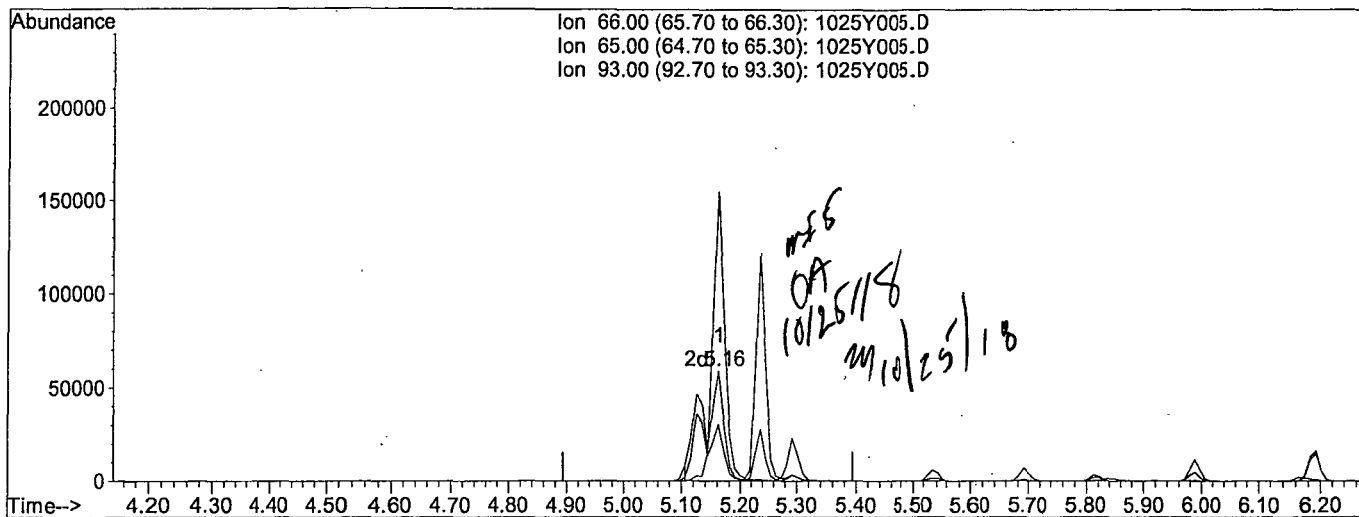
Ion	Exp%	Act%
66.00	100	100
65.00	73.00	50.79#
93.00	16.80	258.44#
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y005.D  
 Acq On : 25 Oct 18 12:28  
 Sample : 10ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:40 2018

Vial: 5  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y005.D

(8) Aniline (TM)

5.16min 11.6787ppb m

response 150183

Ion	Exp%	Act%
66.00	100	100
65.00	73.00	51.84
93.00	16.80	262.84#
0.00	0.00	0.00



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y006.D Vial: 6  
 Acq On : 25 Oct 18 12:56 Operator: MA  
 Sample : 20ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 25 16:41 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	290382	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1223444	40.00000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	629900	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1204770	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1181082	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	1220701	40.00000	ppb	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol (S)	3.94	112	490073	43.37727	ppb	0.00
Spiked Amount 200.000			Recovery =	21.689%		
6) Phenol-D6 (S)	5.11	99	607802	45.05458	ppb	-0.01
Spiked Amount 200.000			Recovery =	22.528%		
22) Nitrobenzene-D5 (S)	6.17	82	286469	20.83144	ppb	0.00
Spiked Amount 100.000			Recovery =	20.831%		
46) 2-Fluorobiphenyl (S)	8.22	172	573636	21.68875	ppb	0.00
Spiked Amount 100.000			Recovery =	21.689%		
64) 2,4,6-Tribromophenol (S)	9.94	330	143138	44.65770	ppb	-0.01
Spiked Amount 200.000			Recovery =	22.329%		
82) Terphenyl-D14 (S)	12.62	244	675637	21.47388	ppb	0.00
Spiked Amount 100.000			Recovery =	21.474%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	2020	2.21754		95
3) n-Nitrosodimethylamine	1.98	42	42026	19.06529	ppb	96
4) Pyridine	1.99	79	63452	19.10237	ppb	92
7) Phenol	5.13	94	409389	22.56257	ppb	91
8) Aniline	5.16	66	306972m	25.94663	ppb	92
9) Bis (2-chloroethyl) ether	5.23	63	198837	21.22817	ppb	99
10) 2-Chlorophenol	5.29	128	298595	21.37682	ppb	95
11) 1,3-DCB	5.47	146	317791	21.68657	ppb	99
12) 1,4-DCB	5.56	146	316843	21.58129	ppb	99
13) Benzyl alcohol	5.70	108	192921	21.56642	ppb	94
14) 1,2-DCB	5.73	146	300114	21.53440	ppb	99
15) 2-Methylphenol	5.82	107	237023	21.28708	ppb	97
16) Bis (2-chloroisopropyl) et	5.84	45	379752	21.51483	ppb	95
17) Acetophenone	6.00	105	382272	24.76023	ppb	80
18) 3&4-Methylphenol	5.99	107	586631	50.98185	ppb	95
19) n-Nitrosodi-n-propylamine	6.00	70	205387	22.64950	ppb	86
20) Hexachloroethane	6.11	117	116876	21.29903	ppb	97
23) Nitrobenzene	6.19	77	314344	20.77440	ppb	97
24) Isophorone	6.45	82	559872	21.08450	ppb	96
25) 2-Nitrophenol	6.54	139	161628	21.33251	ppb	94
26) 2,4-Dimethylphenol	6.59	122	271081	21.19767	ppb	96
27) Benzoic acid	6.69	105	202378	20.35540	ppb	97
28) Bis (2-chloroethoxy) metha	6.69	93	316442	20.92408	ppb	100
29) 2,4-Dichlorophenol	6.82	162	239229	21.04386	ppb	95
30) 1,2,4-Trichlorobenzene	6.91	180	251353	21.31809	ppb	98
31) 3,4-Dimethylphenol	6.92	107	370196	21.57853	ppb	99
32) Naphthalene	7.01	128	845753	21.25336	ppb	100
33) 4-Chloroaniline	7.07	127	340170	23.24506	ppb	94
34) 2,6-Dichlorophenol	7.07	162	234656	22.23655	ppb	97
35) Hexachloropropene	7.10	213	166441	21.28804	ppb	98
36) Hexachlorobutadiene	7.14	225	137304	20.94525	ppb	100
37) Caprolactum	7.47	55	145853	21.26970	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1025Y006.D Y1025NC.M Thu Oct 25 17:29:47 2018

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y006.D  
 Acq On : 25 Oct 18 12:56  
 Sample : 20ug/mL 8270 10/18/18  
 Misc :

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:41 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.62	107	256526	21.38628	ppb	99
39) 2-Methylnaphthalene	7.80	142	536219	21.36229	ppb	98
40) 1-Methylnaphthalene	7.92	142	547012	21.77716	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	120772	21.00856	ppb	98
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	261867	22.08838	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	176463	21.55275	ppb	98
45) 2,4,5-Trichlorophenol	8.18	196	187473	21.41641	ppb	98
47) 1,1'-Biphenyl	8.34	154	683309	22.07949	ppb	98
48) 2-Chloronaphthalene	8.37	162	543325	21.89555	ppb	96
49) 2-Nitroaniline	8.48	65	175336	21.17902	ppb	96
50) Dimethyl phthalate	8.69	163	604425	21.31030	ppb	99
51) 2,6-DNT	8.77	165	139132	21.81691	ppb	94
52) Acenaphthylene	8.86	152	869059	22.09946	ppb	99
53) 3-Nitroaniline	8.97	138	160814	22.21857	ppb	98
54) Acenaphthene	9.05	154	525829	21.82990	ppb	99
55) 2,4-Dinitrophenol	9.10	184	64350	20.18899	ppb	90
56) 4-Nitrophenol	9.16	65	113018	21.37567	ppb	98
57) Dibenzofuran	9.25	168	750248	22.14745	ppb	93
58) 2,4-DNT	9.24	165	190755	22.75923	ppb	95
59) 2,3,4,6-Tetrachlorophenol	9.39	232	155081	21.62025	ppb	96
60) Diethyl phthalate	9.51	149	595935	21.52627	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.65	204	283357	21.76006	ppb	90
62) Fluorene	9.65	166	604520	22.33864	ppb	99
63) 4-Nitroaniline	9.68	138	164058	21.74134	ppb	96
66) 4,6-Dinitro-2-methylphenol	9.72	198	114155	22.13697	ppb #	81
67) Diphenyl amine	9.79	169	956412	38.77147	ppb	99
68) n-Nitrosodiphenylamine	9.79	169	956412	38.77147	ppb	99
69) 1,2-Diphenylhydrazine	9.84	77	649971	20.60106	ppb	92
70) 4-Bromophenyl phenyl ether	10.23	248	174149	21.07741	ppb	93
71) Hexachlorobenzene	10.29	284	186511	21.24507	ppb	91
72) Atrazine	10.41	200	73704	10.39108	ppb	96
73) Pentachlorophenol	10.54	266	108637	20.77287	ppb	98
74) Phenanthrene	10.79	178	915505	21.55342	ppb	99
75) Anthracene	10.85	178	943897	21.63629	ppb	99
76) Carbazol	11.04	167	850675	20.89859	ppb	100
77) Di-n-butylphthalate	11.43	149	1009471	21.85094	ppb	99
78) Fluoranthene	12.19	202	974932	21.45718	ppb	98
80) Benzidine	12.35	184	353619	23.38081	ppb	99
81) Pyrene	12.46	202	1037225	21.42193	ppb	99
83) Butyl benzylphthalate	13.19	149	455845	21.34257	ppb	93
84) 3,3'-Dichlorobenzidine	13.82	252	360616	24.23295	ppb	98
85) Benz (a) anthracene	13.85	228	948804	22.72143	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	624664	23.08335	ppb	99
87) Chrysene	13.90	228	920508	20.92565	ppb	100
88) Di-n-octylphthalate	14.62	149	1042686	21.03047	ppb	94
90) Benzo (b) fluoranthene	15.22	252	988569	21.92385	ppb	99
91) Benzo (k) fluoranthene	15.26	252	890455	20.93840	ppb	99
92) Benzo (a) pyrene	15.72	252	868827	21.10545	ppb	98
93) Indeno (1,2,3-cd) pyrene	17.82	276	991343	21.01223	ppb	98
94) Dibenz (a,h) anthracene	17.87	278	870568	21.47174	ppb	99
95) Benzo (g,h,i) perylene	18.44	276	805511	20.82183	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y006.D Y1025NC.M Thu Oct 25 17:29:48 2018

Quantitation Report

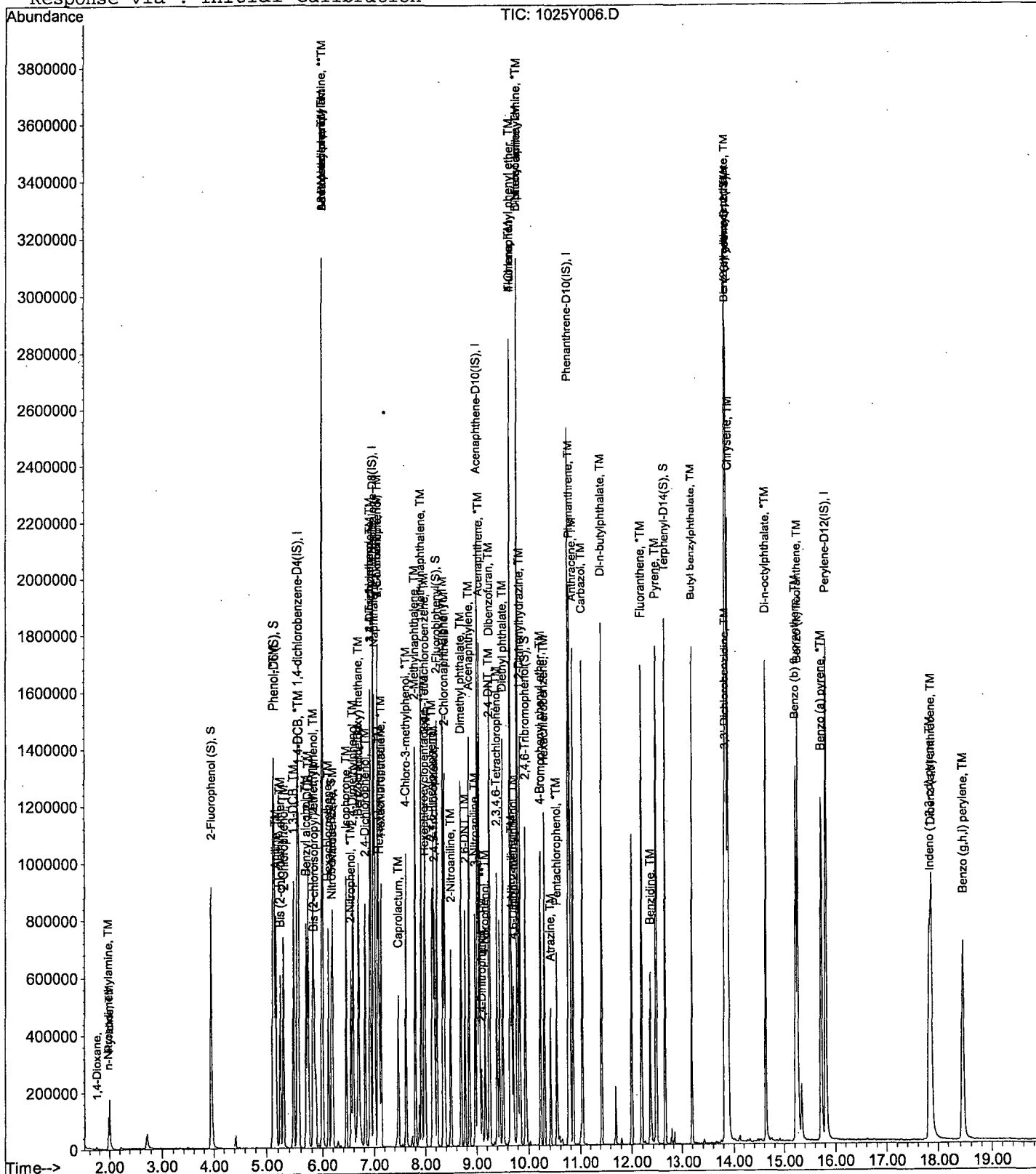
Data File : M:\YODA\DATA\Y181025\1025Y006.D  
Acq On : 25 Oct 18 12:56  
Sample : 20ug/mL 8270 10/18/18  
Misc :

Vial: 6  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:41 2018

Quant Results File: Y1025NC.RES

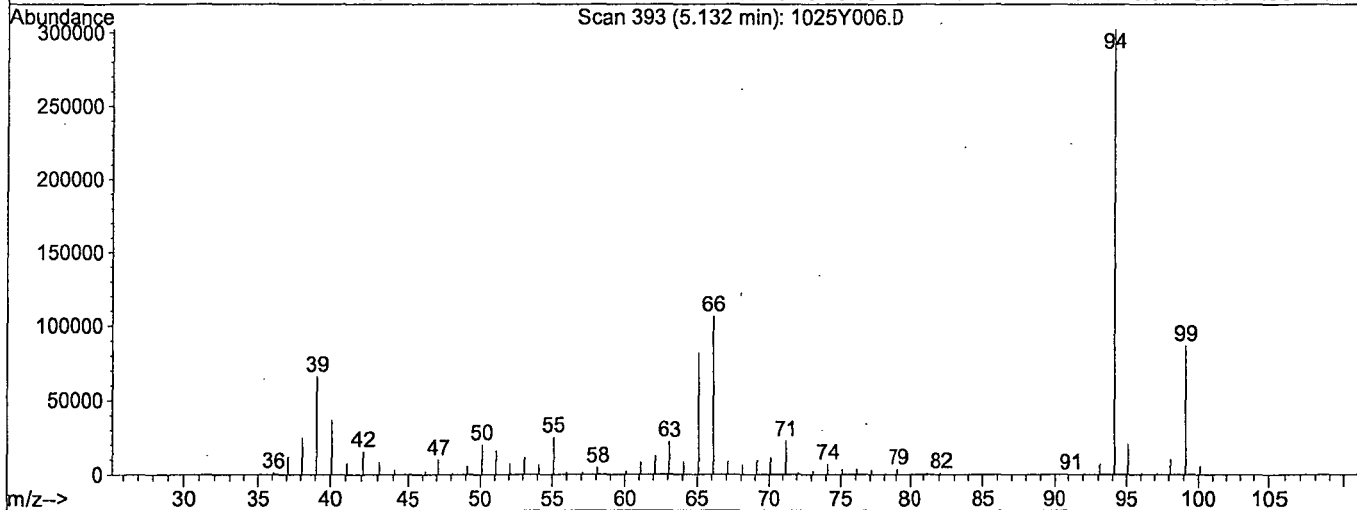
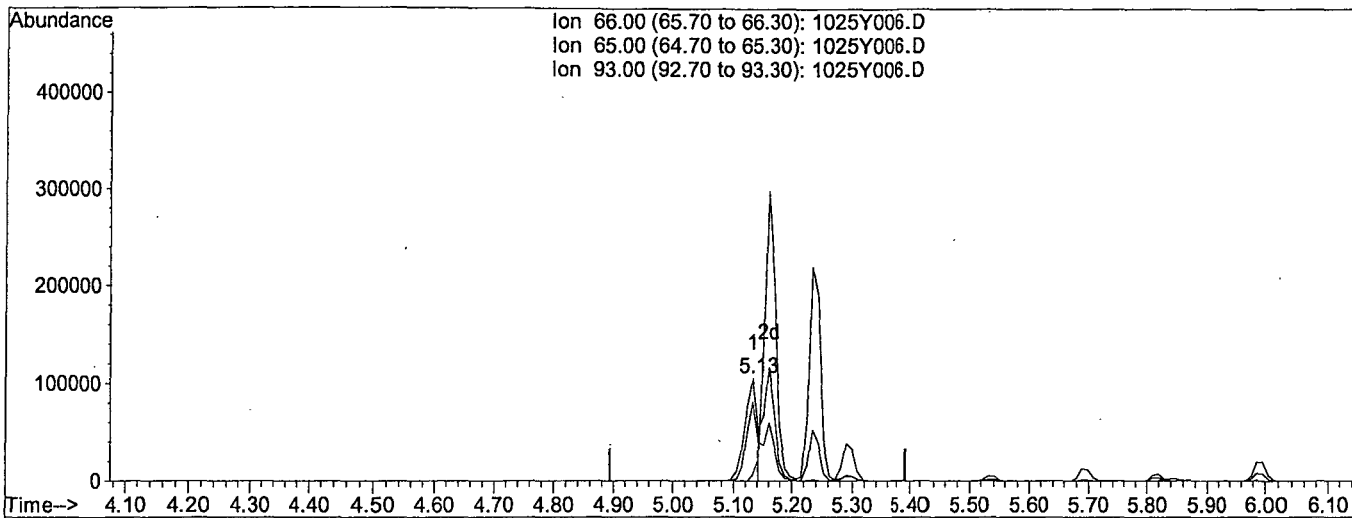
Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y006.D Vial: 6  
 Acq On : 25 Oct 18 12:56 Operator: MA  
 Sample : 20ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Oct 25 14:36 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y006.D

(8) Aniline (TM)

5.13min 13.2238ppb

response 156450

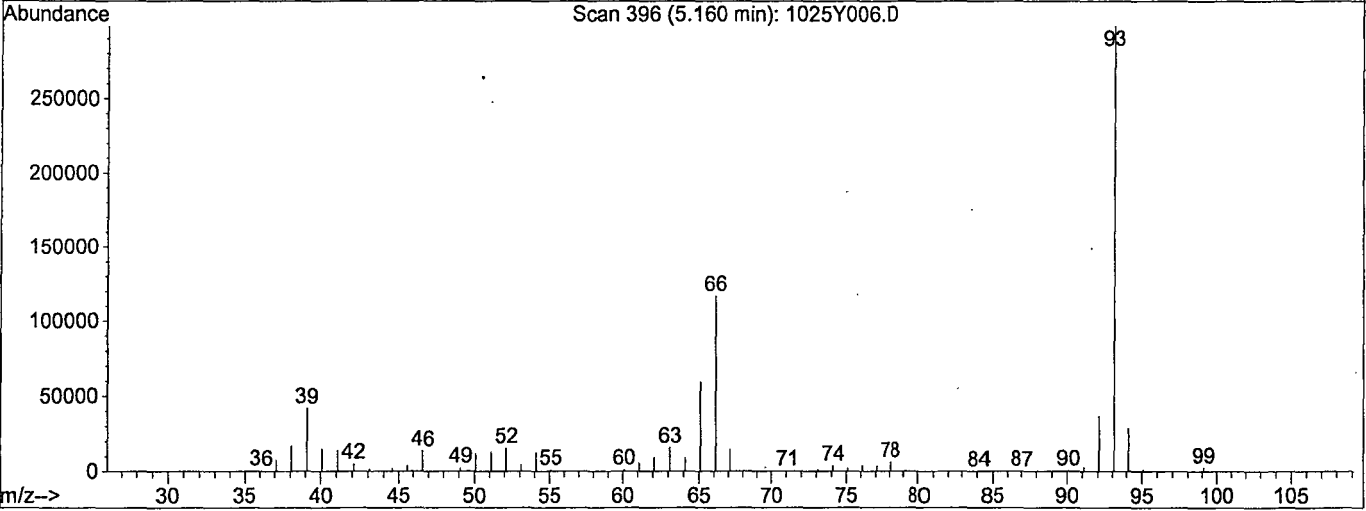
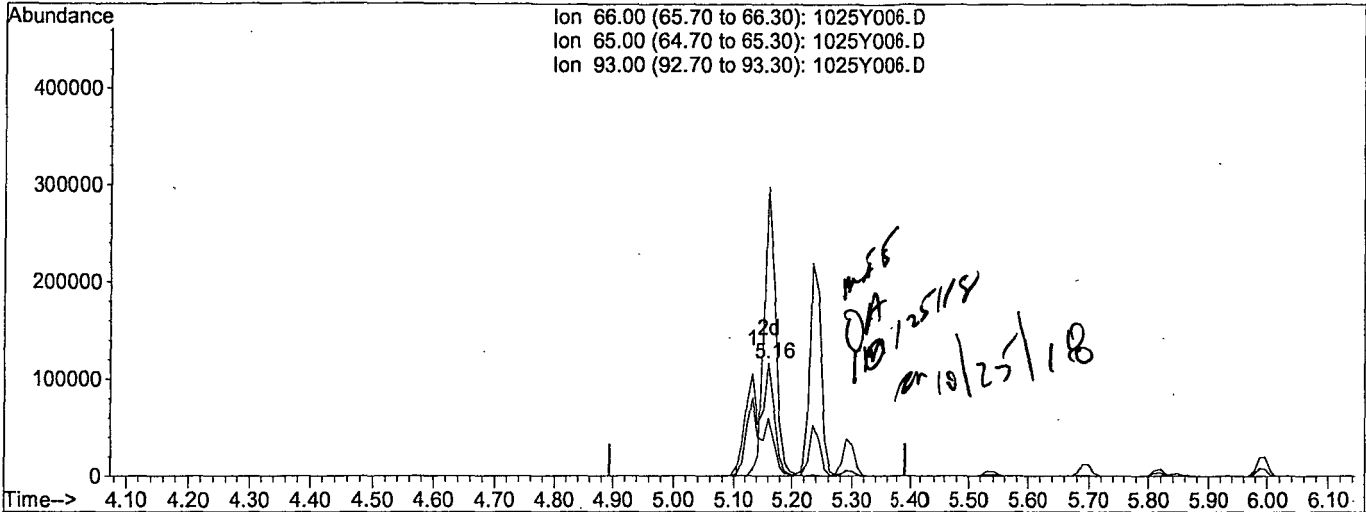
Ion	Exp%	Act%
66.00	100	100
65.00	73.00	76.89
93.00	16.80	6.73#
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y006.D  
 Acq On : 25 Oct 18 12:56  
 Sample : 20ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:41 2018

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y006.D

(8) Aniline (TM)  
 5.16min 25.9466ppb m  
 response 306972

Ion	Exp%	Act%
66.00	100	100
65.00	73.00	50.95#
93.00	16.80	255.04#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y007.D  
 Acq On : 25 Oct 18 13:24  
 Sample : 40ug/mL 8270 10/18/18  
 Misc :

Vial: 7  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 14:36 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	318018	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1294060	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	666705	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1245079	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1191788	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1280764	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.94	112	1010384	81.59307	ppb	0.00
Spiked Amount	200.000			Recovery =	40.797%	
6) Phenol-D6 (S)	5.12	99	1176481	79.46738	ppb	0.00
Spiked Amount	200.000			Recovery =	39.734%	
22) Nitrobenzene-D5 (S)	6.17	82	582928	40.21356	ppb	0.00
Spiked Amount	100.000			Recovery =	40.214%	
46) 2-Fluorobiphenyl (S)	8.22	172	1102793	39.41556	ppb	0.00
Spiked Amount	100.000			Recovery =	39.416%	
64) 2,4,6-Tribromophenol (S)	9.95	330	280665	82.93676	ppb	0.00
Spiked Amount	200.000			Recovery =	41.469%	
82) Terphenyl-D14 (S)	12.62	244	1266713	39.94442	ppb	0.00
Spiked Amount	100.000			Recovery =	39.944%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	3677	3.67592		97
3) n-Nitrosodimethylamine	1.98	42	100802	41.95571	ppb	100
4) Pyridine	1.99	79	145029	40.25904	ppb	93
7) Phenol	5.14	94	790588	39.71079	ppb	95
8) Aniline	5.14	66	628810	51.73854	ppb	97
9) Bis (2-chloroethyl) ether	5.24	63	395928	38.56012	ppb	97
10) 2-Chlorophenol	5.30	128	596775	38.87640	ppb	99
11) 1,3-DCB	5.48	146	619939	38.52312	ppb	100
12) 1,4-DCB	5.56	146	638372	39.61299	ppb	98
13) Benzyl alcohol	5.70	108	385142	39.26432	ppb	99
14) 1,2-DCB	5.73	146	585503	38.26801	ppb	99
15) 2-Methylphenol	5.82	107	491626	40.21265	ppb	98
16) Bis (2-chloroisopropyl) et	5.85	45	763870	39.43313	ppb	93
17) Acetophenone	6.01	105	645527	40.38143	ppb	81
18) 3&4-Methylphenol	6.00	107	983419	85.13996	ppb	98
19) n-Nitrosodi-n-propylamine	6.01	70	363553	36.40816	ppb	88
20) Hexachloroethane	6.11	117	232599	38.58005	ppb	97
23) Nitrobenzene	6.19	77	635205	39.86102	ppb	93
24) Isophorone	6.46	82	1106500	39.50287	ppb	98
25) 2-Nitrophenol	6.55	139	325742	40.65749	ppb	99
26) 2,4-Dimethylphenol	6.59	122	540521	40.09089	ppb	97
27) Benzoic acid	6.72	105	461041	39.47378	ppb	97
28) Bis (2-chloroethoxy) metha	6.70	93	620310	38.99171	ppb	99
29) 2,4-Dichlorophenol	6.82	162	476984	39.83231	ppb	98
30) 1,2,4-Trichlorobenzene	6.92	180	491077	39.55043	ppb	98
31) 3,4-Dimethylphenol	6.93	107	723882	39.94000	ppb	97
32) Naphthalene	7.01	128	1667378	39.74317	ppb	100
33) 4-Chloroaniline	7.07	127	626753	39.96712	ppb	98
34) 2,6-Dichlorophenol	7.08	162	438666	39.45736	ppb	98
35) Hexachloropropene	7.10	213	333703	40.48736	ppb	99
36) Hexachlorobutadiene	7.14	225	275831	39.98878	ppb	96
37) Caprolactum	7.49	55	293160	40.49900	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y007.D Y1025NC.M Thu Oct 25 17:29:51 2018

## Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y007.D  
 Acq On : 25 Oct 18 13:24  
 Sample : 40ug/mL 8270 10/18/18  
 Misc :

Vial: 7  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 14:36 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.62	107	501052	39.54708	ppb	94
39) 2-Methylnaphthalene	7.81	142	1044016	39.57169	ppb	100
40) 1-Methylnaphthalene	7.92	142	1035684	39.08276	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	276017	45.51106	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	501748	39.97453	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	349193	40.28802	ppb	97
45) 2,4,5-Trichlorophenol	8.18	196	365033	39.44211	ppb	96
47) 1,1'-Biphenyl	8.34	154	1313687	40.19664	ppb	99
48) 2-Chloronaphthalene	8.37	162	1035114	39.42092	ppb	99
49) 2-Nitroaniline	8.49	65	361980	41.26398	ppb	95
50) Dimethyl phthalate	8.70	163	1200934	40.05736	ppb	100
51) 2,6-DNT	8.77	165	283467	41.88994	ppb	# 77
52) Acenaphthylene	8.86	152	1716029	41.20615	ppb	99
53) 3-Nitroaniline	8.98	138	314968	40.87729	ppb	96
54) Acenaphthene	9.06	154	999581	39.22237	ppb	100
55) 2,4-Dinitrophenol	9.10	184	154249	39.02320	ppb	98
56) 4-Nitrophenol	9.17	65	243516	43.12342	ppb	99
57) Dibenzofuran	9.25	168	1426743	39.85636	ppb	98
58) 2,4-DNT	9.25	165	371114	41.78144	ppb	96
59) 2,3,4,6-Tetrachlorophenol	9.40	232	315102	41.51349	ppb	97
60) Diethyl phthalate	9.51	149	1161119	39.70067	ppb	98
61) 4-Chlorophenyl phenyl ethe	9.65	204	507141	36.80762	ppb	96
62) Fluorene	9.66	166	1086613	37.92570	ppb	99
63) 4-Nitroaniline	9.70	138	319922	39.79147	ppb	89
66) 4,6-Dinitro-2-methylphenol	9.73	198	239355	44.72343	ppb	# 79
67) Diphenyl amine	9.80	169	1705706	67.00904	ppb	98
68) n-Nitrosodiphenylamine	9.80	169	1705706	67.00904	ppb	98
69) 1,2-Diphenylhydrazine	9.84	77	1272463	39.16968	ppb	99
70) 4-Bromophenyl phenyl ether	10.23	248	340841	40.13013	ppb	97
71) Hexachlorobenzene	10.29	284	354740	39.28942	ppb	98
72) Atrazine	10.41	200	155235	21.33653	ppb	97
73) Pentachlorophenol	10.54	266	231100	42.95095	ppb	99
74) Phenanthrene	10.79	178	1749355	40.00535	ppb	100
75) Anthracene	10.85	178	1782539	39.68801	ppb	99
76) Carbazol	11.05	167	1675104	40.06149	ppb	99
77) Di-n-butylphthalate	11.43	149	1943518	40.76549	ppb	100
78) Fluoranthene	12.19	202	1845733	39.45176	ppb	99
80) Benzidine	12.35	184	677888	41.42354	ppb	100
81) Pyrene	12.46	202	1968970	40.26998	ppb	100
83) Butyl benzylphthalate	13.19	149	894703	41.54886	ppb	98
84) 3,3'-Dichlorobenzidine	13.82	252	663209	42.95692	ppb	99
85) Benz (a) anthracene	13.86	228	1631151	38.51858	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1111031	40.66159	ppb	99
87) Chrysene	13.90	228	1773653	40.13804	ppb	99
88) Di-n-octylphthalate	14.63	149	2107342	42.13889	ppb	98
90) Benzo (b) fluoranthene	15.22	252	1816648	37.99937	ppb	99
91) Benzo (k) fluoranthene	15.27	252	1891672	42.87610	ppb	99
92) Benzo (a) pyrene	15.73	252	1759365	40.70527	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.83	276	2006266	40.51838	ppb	98
94) Dibenz (a,h) anthracene	17.88	278	1746636	40.99599	ppb	98
95) Benzo (g,h,i) perylene	18.46	276	1666927	41.10992	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y007.D Y1025NC.M Thu Oct 25 17:29:52 2018

Quantitation Report

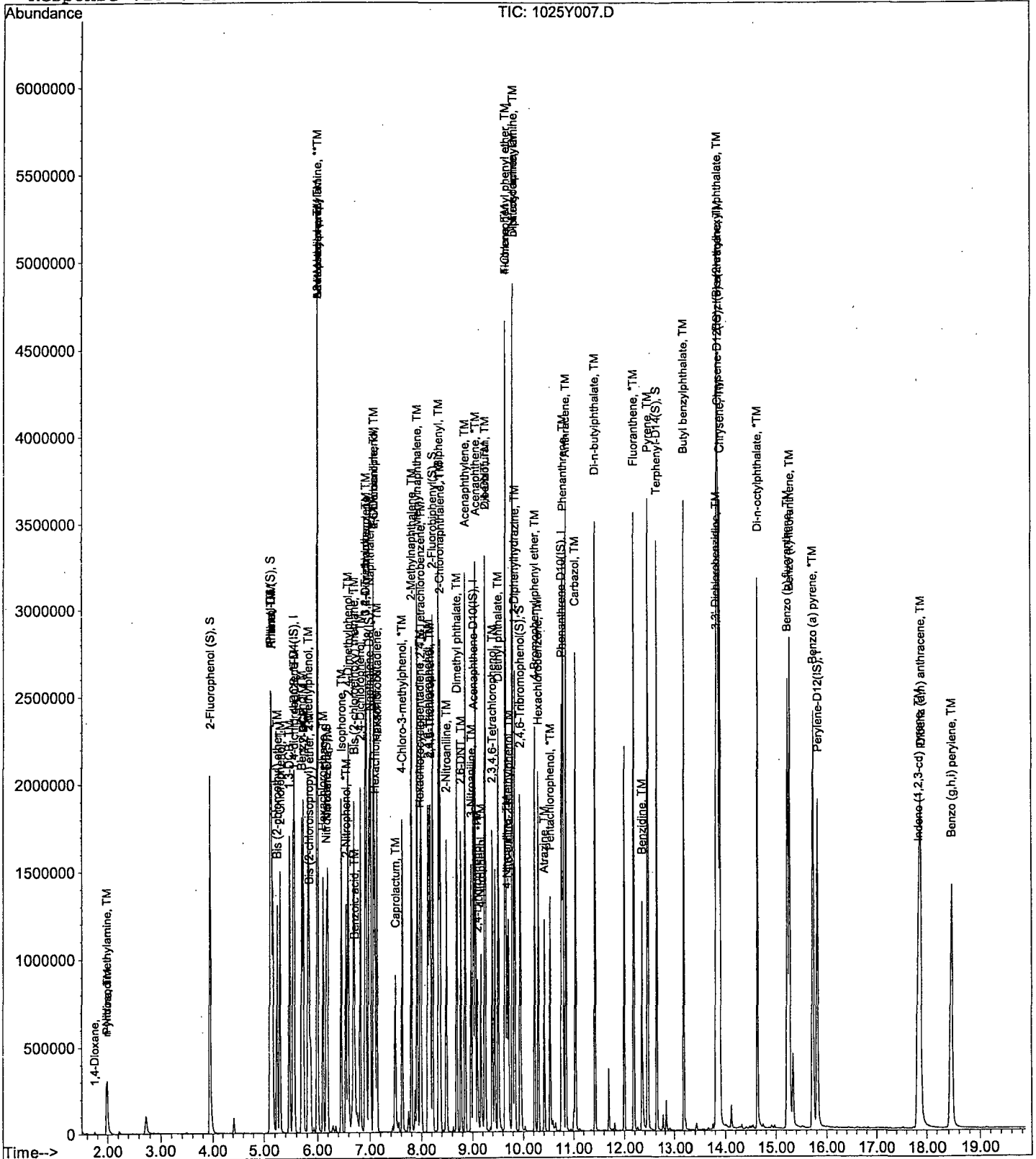
Data File : M:\YODA\DATA\Y181025\1025Y007.D  
Acq On : 25 Oct 18 13:24  
Sample : 40ug/mL 8270 10/18/18  
Misc :

Vial: 7  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 14:36 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y008.D  
 Acq On : 25 Oct 18 13:52  
 Sample : 50ug/mL 8270 10/18/18  
 Misc :

Vial : 8  
 Operator : MA  
 Inst : Yoda  
 Multiplr : 1.00

Quant Time: Oct 25 16:06 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	354562	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1447172	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	756305	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1417504	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1348063	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1457106	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	1476673	105.59151	ppb	0.00
Spiked Amount	200.000			Recovery =	52.796%	
6) Phenol-D6 (S)	5.13	99	1720681	103.75090	ppb	0.00
Spiked Amount	200.000			Recovery =	51.876%	
22) Nitrobenzene-D5 (S)	6.17	82	904668	54.71817	ppb	0.00
Spiked Amount	100.000			Recovery =	54.718%	
46) 2-Fluorobiphenyl (S)	8.23	172	1650975	52.03860	ppb	0.00
Spiked Amount	100.000			Recovery =	52.039%	
64) 2,4,6-Tribromophenol (S)	9.95	330	409016	104.48747	ppb	0.00
Spiked Amount	200.000			Recovery =	52.244%	
82) Terphenyl-D14 (S)	12.63	244	1869638	51.62897	ppb	0.00
Spiked Amount	100.000			Recovery =	51.629%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	5509	4.96554		100
3) n-Nitrosodimethylamine	1.98	42	151913	56.77704	ppb	100
4) Pyridine	1.99	79	224654	53.95160	ppb	100
7) Phenol	5.14	94	1064541	48.04938	ppb	100
8) Aniline	5.14	66	888774	52.62143	ppb	100
9) Bis (2-chloroethyl) ether	5.25	63	563104	48.65181	ppb	100
10) 2-Chlorophenol	5.30	128	840944	49.34459	ppb	100
11) 1,3-DCB	5.48	146	856664	47.67136	ppb	100
12) 1,4-DCB	5.56	146	844788	47.12906	ppb	100
13) Benzyl alcohol	5.70	108	548899	49.80860	ppb	100
14) 1,2-DCB	5.73	146	813072	47.86788	ppb	100
15) 2-Methylphenol	5.82	107	662132	48.75806	ppb	100
16) Bis (2-chloroisopropyl) et	5.84	45	1063565	48.91484	ppb	100
17) Acetophenone	6.01	105	837712	48.57460	ppb	100
18) 3&4-Methylphenol	6.01	107	1271955	96.38878	ppb	100
19) n-Nitrosodi-n-propylamine	6.01	70	516912	45.78402	ppb	100
20) Hexachloroethane	6.11	117	327022	48.38896	ppb	100
23) Nitrobenzene	6.20	77	899117	49.58439	ppb	100
24) Isophorone	6.47	82	1584593	49.74787	ppb	100
25) 2-Nitrophenol	6.56	139	461968	50.94462	ppb	100
26) 2,4-Dimethylphenol	6.59	122	745372	48.90901	ppb	100
27) Benzoic acid	6.74	105	705002	52.14223	ppb	100
28) Bis (2-chloroethoxy) metha	6.70	93	877816	48.91333	ppb	100
29) 2,4-Dichlorophenol	6.82	162	672319	49.76393	ppb	100
30) 1,2,4-Trichlorobenzene	6.92	180	670646	47.78272	ppb	100
31) 3,4-Dimethylphenol	6.94	107	1022611	49.57535	ppb	100
32) Napthalene	7.01	128	2265416	48.24380	ppb	100
33) 4-Chloroaniline	7.08	127	849844	52.65530	ppb	100
34) 2,6-Dichlorophenol	7.08	162	589534	47.52855	ppb	100
35) Hexachloropropene	7.10	213	479179	50.88754	ppb	100
36) Hexachlorobutadiene	7.14	225	376623	48.19772	ppb	100
37) Caprolactum	7.51	55	424032	51.35549	ppb	100

(#) = qualifier out of range (m) = manual integration  
 1025Y008.D Y1025NC.M Thu Oct 25 17:29:55 2018

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y008.D  
 Acq On : 25 Oct 18 13:52  
 Sample : 50ug/mL 8270 10/18/18  
 Misc :

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:06 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	727515	50.35943	ppb	100
39) 2-Methylnaphthalene	7.81	142	1444015	48.36749	ppb	100
40) 1-Methylnaphthalene	7.92	142	1420373	47.88072	ppb	100
42) Hexachlorocyclopentadiene	7.98	237	409755	52.90002	ppb	100
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	691484	48.42004	ppb	100
44) 2,4,6-Trichlorophenol	8.13	196	502528	50.42615	ppb	100
45) 2,4,5-Trichlorophenol	8.19	196	518787	48.64596	ppb	100
47) 1,1'-Biphenyl	8.35	154	1773411	47.45435	ppb	100
48) 2-Chloronaphthalene	8.37	162	1456928	48.67684	ppb	100
49) 2-Nitroaniline	8.50	65	525275	51.89217	ppb	100
50) Dimethyl phthalate	8.70	163	1698457	49.27260	ppb	100
51) 2,6-DNT	8.78	165	411620	52.25122	ppb	100
52) Acenaphthylene	8.86	152	2346114	49.34103	ppb	100
53) 3-Nitroaniline	8.98	138	454608	52.53829	ppb	100
54) Acenaphthene	9.06	154	1394818	48.42040	ppb	100
55) 2,4-Dinitrophenol	9.10	184	245054m	50.15466	ppb	100
56) 4-Nitrophenol	9.17	65	367119	54.28665	ppb	100
57) Dibenzofuran	9.26	168	1899351	47.39435	ppb	100
58) 2,4-DNT	9.25	165	506947	50.25700	ppb	100
59) 2,3,4,6-Tetrachlorophenol	9.41	232	445166	51.06694	ppb	100
60) Diethyl phthalate	9.53	149	1622457	48.90323	ppb	100
61) 4-Chlorophenyl phenyl ethe	9.66	204	666818	42.48780	ppb	100
62) Fluorene	9.67	166	1445397	43.28437	ppb	100
63) 4-Nitroaniline	9.70	138	469650	51.95553	ppb	100
66) 4,6-Dinitro-2-methylphenol	9.73	198	356560	52.86526	ppb	100
67) Diphenyl amine	9.80	169	2296953	87.01306	ppb	100
68) n-Nitrosodiphenylamine	9.80	169	2296953	87.01306	ppb	100
69) 1,2-Diphenylhydrazine	9.84	77	1815288	47.50217	ppb	100
70) 4-Bromophenyl phenyl ether	10.23	248	480817	48.91480	ppb	100
71) Hexachlorobenzene	10.30	284	500118	48.42322	ppb	100
72) Atrazine	10.42	200	224418	25.25951	ppb	100
73) Pentachlorophenol	10.54	266	347169	54.52541	ppb	100
74) Phenanthrene	10.80	178	2376811	47.44496	ppb	100
75) Anthracene	10.85	178	2459721	47.83999	ppb	100
76) Carbazol	11.05	167	2362634	49.15594	ppb	100
77) Di-n-butylphthalate	11.43	149	2759688	49.89746	ppb	100
78) Fluoranthene	12.19	202	2602957	48.67849	ppb	100
80) Benzidine	12.35	184	974885	52.83900	ppb	100
81) Pyrene	12.46	202	2732069	49.05629	ppb	100
83) Butyl benzylphthalate	13.19	149	1254571	50.75033	ppb	100
84) 3,3'-Dichlorobenzidine	13.82	252	925602	56.63971	ppb	100
85) Benz (a) anthracene	13.86	228	2171520	45.68871	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1473034	46.58588	ppb	100
87) Chrysene	13.91	228	2396929	47.76659	ppb	100
88) Di-n-octylphthalate	14.63	149	3007984	51.72394	ppb	100
90) Benzo (b) fluoranthene	15.24	252	2907202	53.18449	ppb	100
91) Benzo (k) fluoranthene	15.27	252	2512664	48.86356	ppb	100
92) Benzo (a) pyrene	15.74	252	2538131	51.25869	ppb	100
93) Indeno (1,2,3-cd) pyrene	17.85	276	2961769	51.47471	ppb	100
94) Dibenz (a,h) anthracene	17.90	278	2528524	51.75953	ppb	100
95) Benzo (g,h,i) perylene	18.48	276	2308238	49.24625	ppb	100

Quantitation Report

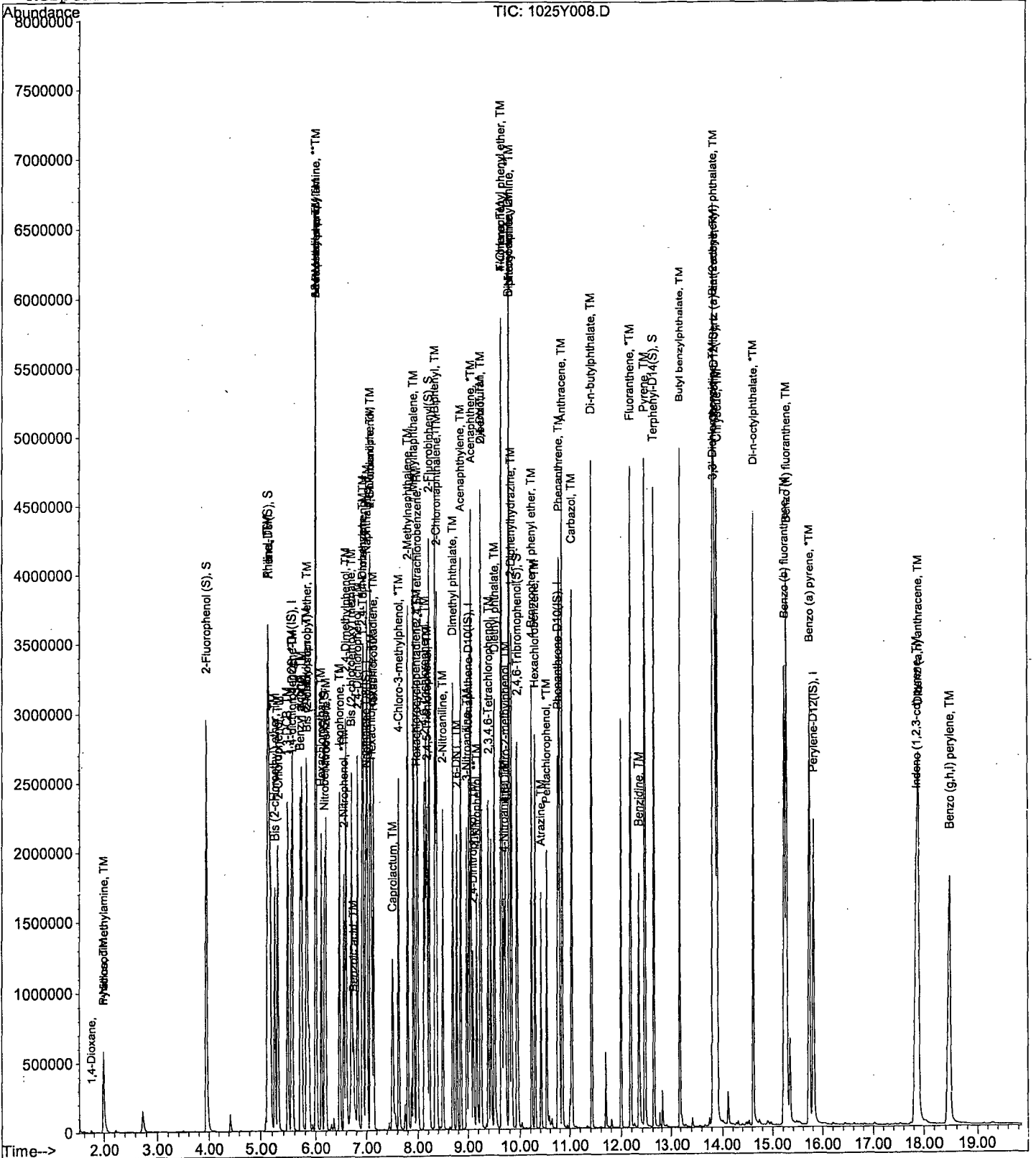
Data File : M:\YODA\DATA\Y181025\1025Y008.D  
Acq On : 25 Oct 18 13:52  
Sample : 50ug/mL 8270 10/18/18  
Misc :

Vial : 8  
Operator : MA  
Inst : Yoda  
Multiplr : 1.00

Quant Time: Oct 25 16:06 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration

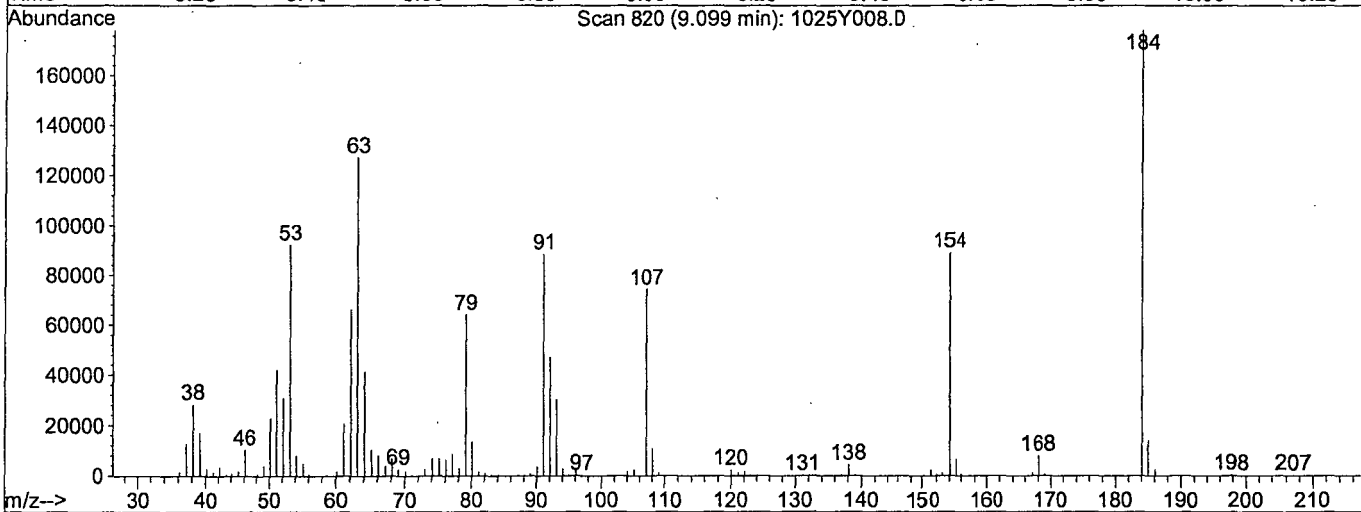
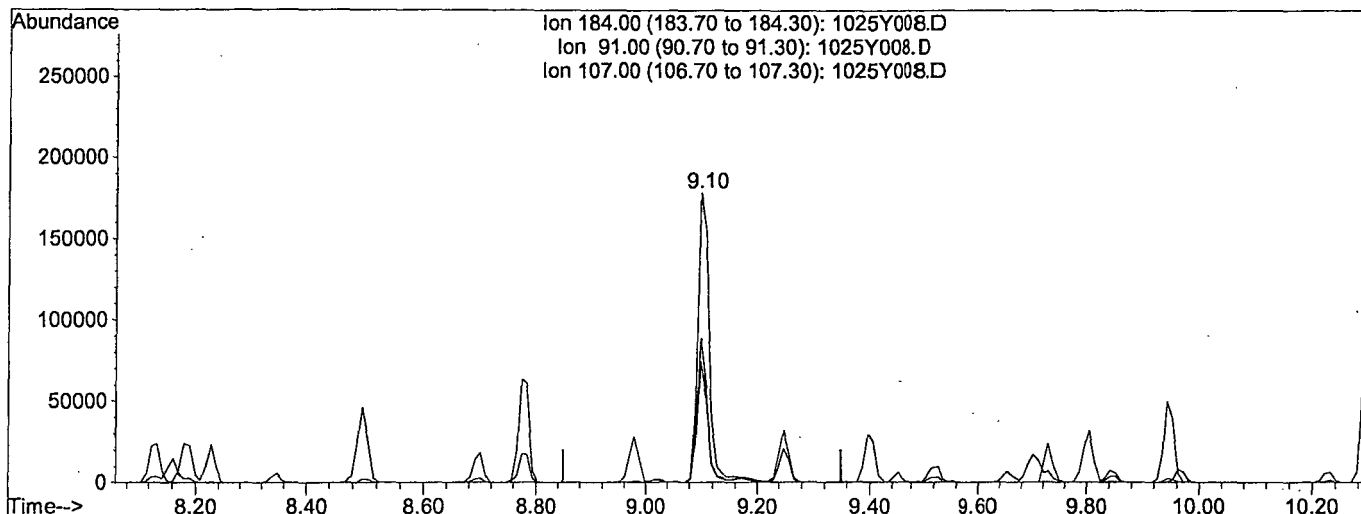


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y008.D  
 Acq On : 25 Oct 18 13:52  
 Sample : 50ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:05 2018

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y008.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.10min 51.9258ppb

response 255966

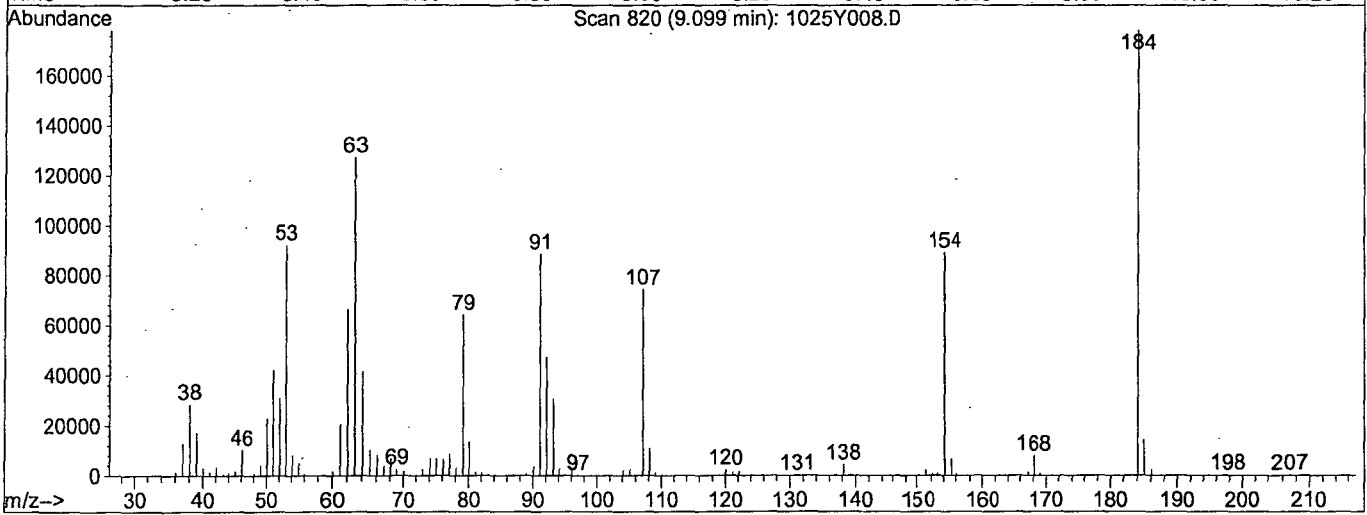
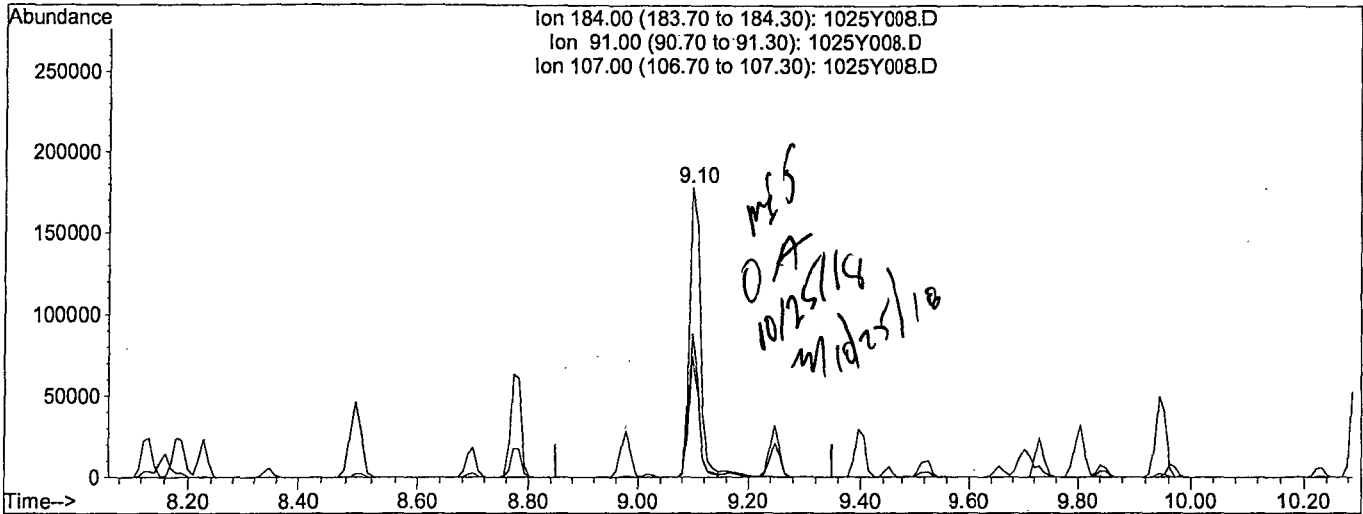
Ion	Exp%	Act%
184.00	100	100
91.00	49.60	49.43
107.00	41.70	41.63
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y008.D  
 Acq On : 25 Oct 18 13:52  
 Sample : 50ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:06 2018

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y008.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.10min 50.1547ppb m

response 245054

Ion	Exp%	Act%
184.00	100	100
91.00	49.60	49.62
107.00	41.70	41.66
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y009.D  
 Acq On : 25 Oct 18 14:20  
 Sample : 60ug/mL 8270 10/18/18  
 Misc :

Vial: 9  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 14:37 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	293806	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1248682	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	652245	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1164642	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1106655	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1177661	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	1396667	122.48622	ppb	0.00
Spiked Amount 200.000			Recovery =	61.243%		
6) Phenol-D6 (S)	5.13	99	1594801	116.90180	ppb	0.00
Spiked Amount 200.000			Recovery =	58.451%		
22) Nitrobenzene-D5 (S)	6.17	82	825428	59.27506	ppb	0.00
Spiked Amount 100.000			Recovery =	59.275%		
46) 2-Fluorobiphenyl (S)	8.23	172	1582354	58.14903	ppb	0.00
Spiked Amount 100.000			Recovery =	58.149%		
64) 2,4,6-Tribromophenol (S)	9.95	330	371964	113.05507	ppb	0.00
Spiked Amount 200.000			Recovery =	56.528%		
82) Terphenyl-D14 (S)	12.63	244	1703605	58.20318	ppb	0.00
Spiked Amount 100.000			Recovery =	58.203%		

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.74	58	5793	6.28250		100
3) n-Nitrosodimethylamine	1.98	42	149211	66.20974	ppb	97
4) Pyridine	1.99	79	230010	68.76896	ppb	97
7) Phenol	5.14	94	1073485	58.39068	ppb	100
8) Aniline	5.14	66	891646	78.33248	ppb	98
9) Bis (2-chloroethyl) ether	5.25	63	561785	59.31722	ppb	99
10) 2-Chlorophenol	5.30	128	840318	59.22259	ppb	99
11) 1,3-DCB	5.47	146	862977	58.23576	ppb	97
12) 1,4-DCB	5.56	146	868709	58.41076	ppb	99
13) Benzyl alcohol	5.70	108	554988	61.26081	ppb	98
14) 1,2-DCB	5.73	146	826738	58.75003	ppb	99
15) 2-Methylphenol	5.82	107	669956	59.07720	ppb	100
16) Bis (2-chloroisopropyl) et	5.84	45	1075872	60.01871	ppb	98
17) Acetophenone	6.01	105	841702	59.44702	ppb	99
18) 3&4-Methylphenol	6.00	107	1279902	126.01420	ppb	95
19) n-Nitrosodi-n-propylamine	6.01	70	522780	56.69937	ppb	100
20) Hexachloroethane	6.11	117	333986	60.18057	ppb	98
23) Nitrobenzene	6.20	77	895128	58.18511	ppb	97
24) Isophorone	6.47	82	1590281	58.83296	ppb	99
25) 2-Nitrophenol	6.56	139	460698	59.50766	ppb	99
26) 2,4-Dimethylphenol	6.59	122	762771	58.45886	ppb	98
27) Benzoic acid	6.74	105	715553	60.93105	ppb	99
28) Bis (2-chloroethoxy) metha	6.70	93	881224	57.41215	ppb	100
29) 2,4-Dichlorophenol	6.82	162	675506	58.35074	ppb	97
30) 1,2,4-Trichlorobenzene	6.92	180	683818	57.06262	ppb	100
31) 3,4-Dimethylphenol	6.94	107	1042901	59.54141	ppb	97
32) Napthalene	7.01	128	2334914	57.66174	ppb	100
33) 4-Chloroaniline	7.08	127	867604	57.11266	ppb	99
34) 2,6-Dichlorophenol	7.08	162	608644	56.88494	ppb	98
35) Hexachloropropene	7.10	213	500316	63.00156	ppb	99
36) Hexachlorobutadiene	7.14	225	398396	59.86365	ppb	98
37) Caprolactum	7.51	55	424783	60.68288	ppb	99

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y009.D  
 Acq On : 25 Oct 18 14:20  
 Sample : 60ug/mL 8270 10/18/18  
 Misc :

Vial: 9  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 14:37 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	750028	61.30869	ppb	99
39) 2-Methylnaphthalene	7.81	142	1495064	58.81028	ppb	98
40) 1-Methylnaphthalene	7.92	142	1432507	56.10503	ppb	100
42) Hexachlorocyclopentadiene	7.98	237	410897	69.33167	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	688197	56.07063	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	517705	61.08937	ppb	98
45) 2,4,5-Trichlorophenol	8.19	196	536388	59.30011	ppb	96
47) 1,1'-Biphenyl	8.35	154	1815555	56.74467	ppb	98
48) 2-Chloronaphthalene	8.38	162	1449816	56.58564	ppb	99
49) 2-Nitroaniline	8.50	65	539736	62.69933	ppb	100
50) Dimethyl phthalate	8.70	163	1754748	59.83504	ppb	100
51) 2,6-DNT	8.77	165	422472	63.65250	ppb	# 75
52) Acenaphthylene	8.86	152	2451242	59.95919	ppb	100
53) 3-Nitroaniline	8.98	138	461146	61.05255	ppb	100
54) Acenaphthene	9.06	154	1448610	58.25587	ppb	99
55) 2,4-Dinitrophenol	9.10	184	259866	63.34565	ppb	98
56) 4-Nitrophenol	9.17	65	389637	70.06067	ppb	98
57) Dibenzofuran	9.26	168	1896443	54.21534	ppb	100
58) 2,4-DNT	9.25	165	505838	58.23970	ppb	100
59) 2,3,4,6-Tetrachlorophenol	9.41	232	439665	59.01996	ppb	99
60) Diethyl phthalate	9.53	149	1628330	56.91407	ppb	100
61) 4-Chlorophenyl phenyl ethe	9.66	204	657494	49.02602	ppb	99
62) Fluorene	9.67	166	1418764	50.80577	ppb	97
63) 4-Nitroaniline	9.70	138	462291	58.53451	ppb	99
66) 4,6-Dinitro-2-methylphenol	9.73	198	348204	69.36668	ppb	97
67) Diphenyl amine	9.80	169	2300014	96.66443	ppb	99
68) n-Nitrosodiphenylamine	9.80	169	2300014	96.66443	ppb	99
69) 1,2-Diphenylhydrazine	9.84	77	1795234	59.03507	ppb	97
70) 4-Bromophenyl phenyl ether	10.23	248	475767	59.90641	ppb	99
71) Hexachlorobenzene	10.30	284	496642	58.87254	ppb	98
72) Atrazine	10.42	200	228362	33.43771	ppb	99
73) Pentachlorophenol	10.54	266	344131	68.32703	ppb	98
74) Phenanthrene	10.79	178	2365130	57.80814	ppb	99
75) Anthracene	10.85	178	2441122	58.20836	ppb	99
76) Carbazol	11.05	167	2344070	59.83596	ppb	99
77) Di-n-butylphthalate	11.43	149	2772662	62.10556	ppb	100
78) Fluoranthene	12.19	202	2600184	59.54929	ppb	99
80) Benzidine	12.35	184	963474	61.92708	ppb	100
81) Pyrene	12.46	202	2715143	59.80369	ppb	99
83) Butyl benzylphthalate	13.19	149	1274449	63.53586	ppb	97
84) 3,3'-Dichlorobenzidine	13.82	252	917019	63.04532	ppb	98
85) Benz (a) anthracene	13.86	228	2213433	56.50387	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1482746	58.54499	ppb	99
87) Chrysene	13.91	228	2380062	58.01700	ppb	99
88) Di-n-octylphthalate	14.63	149	2977998	63.97074	ppb	99
90) Benzo (b) fluoranthene	15.24	252	2821204	64.75998	ppb	99
91) Benzo (k) fluoranthene	15.27	252	2422949	59.15190	ppb	99
92) Benzo (a) pyrene	15.74	252	2503225	63.04372	ppb	100
93) Indeno (1,2,3-cd) pyrene	17.85	276	2876167	63.21338	ppb	98
94) Dibenz (a,h) anthracene	17.90	278	2501158	63.84752	ppb	98
95) Benzo (g,h,i) perylene	18.48	276	2339552	62.64681	ppb	100

Quantitation Report

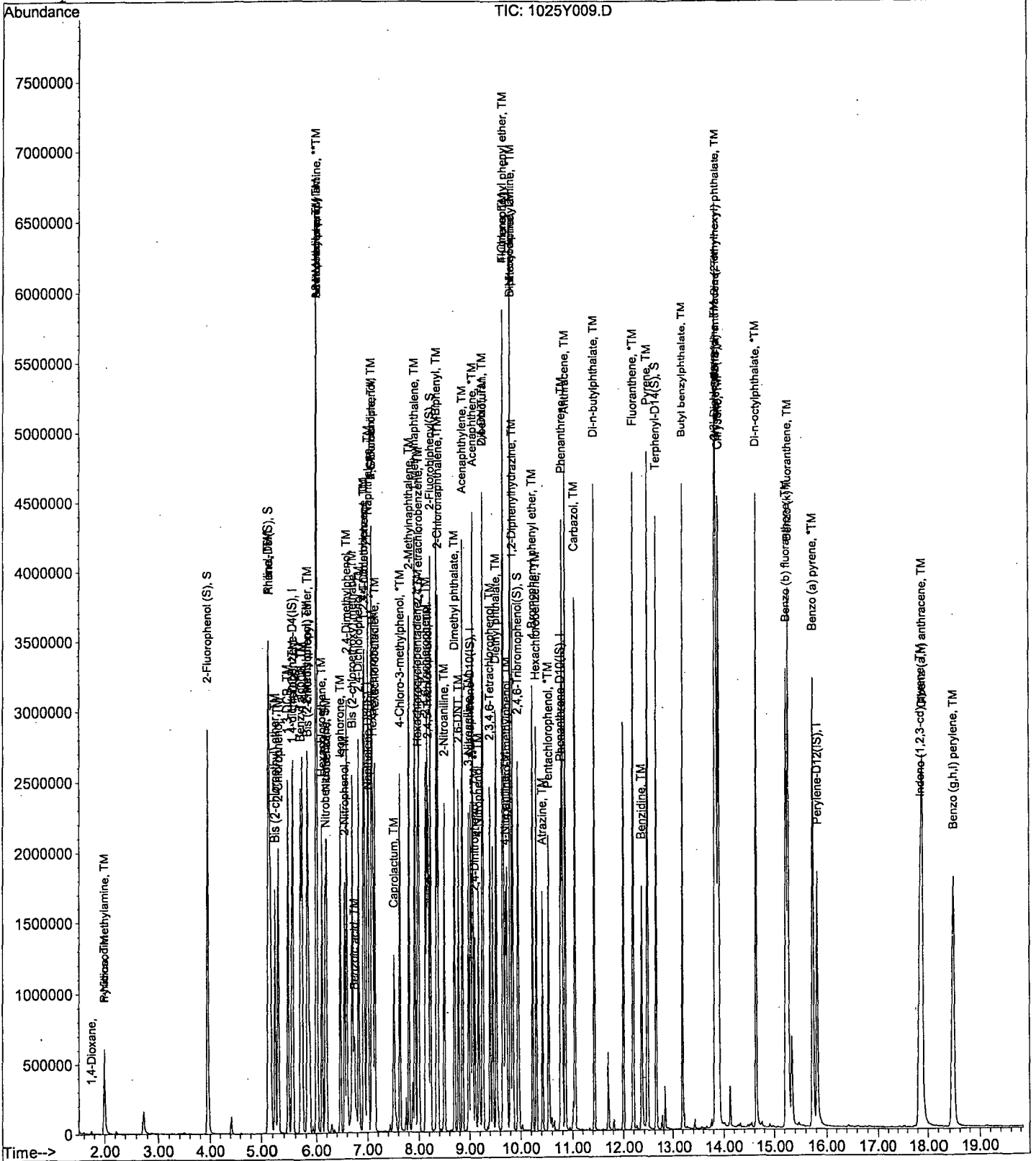
Data File : M:\YODA\DATA\Y181025\1025Y009.D  
Acq On : 25 Oct 18 14:20  
Sample : 60ug/mL 8270 10/18/18  
Misc :

Vial: 9  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 14:37 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration





Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y010.D Vial: 10  
 Acq On : 25 Oct 18 14:48 Operator: MA  
 Sample : 80ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 25 16:52 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:49:58 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	298120	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1239535	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	679471	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.77	188	1264268	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.88	240	1132125	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1266945	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.96	112	1854398	158.30900	ppb	0.00
Spiked Amount	200.000					
Recovery						79.155%
6) Phenol-D6 (S)	5.13	99	2092472	150.26876	ppb	0.00
Spiked Amount	200.000					
Recovery						75.135%
22) Nitrobenzene-D5 (S)	6.18	82	1103339	78.87091	ppb	0.00
Spiked Amount	100.000					
Recovery						78.871%
46) 2-Fluorobiphenyl (S)	8.23	172	2027051	71.56952	ppb	0.00
Spiked Amount	100.000					
Recovery						71.570%
64) 2,4,6-Tribromophenol (S)	9.95	330	496953	144.92168	ppb	0.00
Spiked Amount	200.000					
Recovery						72.461%
82) Terphenyl-D14 (S)	12.63	244	2210595	73.76127	ppb	0.00
Spiked Amount	100.000					
Recovery						73.761%

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.75	58	7469	8.22729		100
3) n-Nitrosodimethylamine	1.98	42	188228	78.54209	ppb	93
4) Pyridine	1.99	79	305613	85.25855	ppb	97
7) Phenol	5.15	94	1350491	72.49504	ppb	90
8) Aniline	5.15	66	1177499	78.82457	ppb	# 79
9) Bis (2-chloroethyl) ether	5.25	63	739454	75.89814	ppb	97
10) 2-Chlorophenol	5.30	128	1116753	77.00027	ppb	98
11) 1,3-DCB	5.48	146	1152459	76.72072	ppb	99
12) 1,4-DCB	5.56	146	1112078	73.89992	ppb	99
13) Benzyl alcohol	5.71	108	722446	76.97596	ppb	97
14) 1,2-DCB	5.73	146	1053574	73.67599	ppb	99
15) 2-Methylphenol	5.83	107	884052	76.55747	ppb	98
16) Bis (2-chloroisopropyl) et	5.85	45	1425097	77.27618	ppb	94
17) Acetophenone	6.01	105	1060989	76.55394	ppb	95
18) 3&4-Methylphenol	6.01	107	1616444	154.33994	ppb	97
19) n-Nitrosodi-n-propylamine	6.04	70	708491	73.80154	ppb	84
20) Hexachloroethane	6.11	117	439196	77.64569	ppb	98
23) Nitrobenzene	6.20	77	1168448	76.21313	ppb	95
24) Isophorone	6.47	82	2082503	76.84727	ppb	97
25) 2-Nitrophenol	6.56	139	605413	77.77800	ppb	94
26) 2,4-Dimethylphenol	6.60	122	978659	75.09293	ppb	97
27) Benzoic acid	6.77	105	975401	79.71615	ppb	98
28) Bis (2-chloroethoxy) metha	6.70	93	1143577	74.95029	ppb	99
29) 2,4-Dichlorophenol	6.83	162	863229	75.14672	ppb	96
30) 1,2,4-Trichlorobenzene	6.92	180	875412	73.37796	ppb	98
31) 3,4-Dimethylphenol	6.94	107	1339179	75.87829	ppb	97
32) Napthalene	7.02	128	2895411	72.12380	ppb	100
33) 4-Chloroaniline	7.08	127	998989	64.32820	ppb	99
34) 2,6-Dichlorophenol	7.08	162	727703	69.22702	ppb	97
35) Hexachloropropene	7.10	213	625852	78.51222	ppb	99
36) Hexachlorobutadiene	7.14	225	494379	74.90339	ppb	98
37) Caprolactum	7.53	55	560419	79.68248	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1025Y010.D Y1025NC.M Thu Oct 25 17:30:09 2018

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y010.D  
 Acq On : 25 Oct 18 14:48  
 Sample : 80ug/mL 8270 10/18/18  
 Misc :

Vial: 10  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:52 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:49:58 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	956899	77.58053	ppb	94
39) 2-Methylnaphthalene	7.81	142	1868075	73.80573	ppb	100
40) 1-Methylnaphthalene	7.92	142	1853126	73.44569	ppb	99
42) Hexachlorocyclopentadiene	7.98	237	570005	77.91883	ppb	100
43) 1,2,4,5-Tetrachlorobenzene	8.00	216	905579	71.23286	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	676658	75.70139	ppb	99
45) 2,4,5-Trichlorophenol	8.19	196	719566	76.03629	ppb	95
47) 1,1'-Biphenyl	8.35	154	2344956	70.29834	ppb	98
48) 2-Chloronaphthalene	8.37	162	1914231	72.05630	ppb	98
49) 2-Nitroaniline	8.50	65	702929	76.64566	ppb	97
50) Dimethyl phthalate	8.70	163	2251234	73.07697	ppb	99
51) 2,6-DNT	8.78	165	542814	76.33175	ppb	84
52) Acenaphthylene	8.86	152	3031289	70.73584	ppb	99
53) 3-Nitroaniline	8.99	138	600894	75.56813	ppb	94
54) Acenaphthene	9.06	154	1816835	69.98732	ppb	99
55) 2,4-Dinitrophenol	9.11	184	375675	79.60657	ppb	90
56) 4-Nitrophenol	9.18	65	505067	82.17869	ppb	99
57) Dibenzofuran	9.27	168	2353797	65.69856	ppb	98
58) 2,4-DNT	9.26	165	635665	70.19014	ppb	85
59) 2,3,4,6-Tetrachlorophenol	9.41	232	577445	73.93248	ppb	95
60) Diethyl phthalate	9.53	149	2112448	71.24348	ppb	98
61) 4-Chlorophenyl phenyl ethe	9.66	204	822358	58.29531	ppb	96
62) Fluorene	9.67	166	1803473	60.82365	ppb	98
63) 4-Nitroaniline	9.71	138	623093	75.02411	ppb	98
66) 4,6-Dinitro-2-methylphenol	9.74	198	486468	76.25103	ppb	94
67) Diphenyl amine	9.81	169	2851981	129.17108	ppb	99
68) n-Nitrosodiphenylamine	9.81	169	2851981	129.17108	ppb	99
69) 1,2-Diphenylhydrazine	9.85	77	2787284	82.06122	ppb	92
70) 4-Bromophenyl phenyl ether	10.23	248	638296	74.17645	ppb	94
71) Hexachlorobenzene	10.31	284	648074	71.60657	ppb	91
72) Atrazine	10.43	200	308193	39.17258	ppb	97
73) Pentachlorophenol	10.54	266	466031	83.21870	ppb	99
74) Phenanthrene	10.80	178	3082481	69.80685	ppb	99
75) Anthracene	10.85	178	3141722	69.16738	ppb	100
76) Carbazol	11.05	167	3035131	71.50811	ppb	98
77) Di-n-butylphthalate	11.43	149	3598995	73.23157	ppb	99
78) Fluoranthene	12.19	202	3315365	69.96256	ppb	99
80) Benzidine	12.35	184	1258627	78.22096	ppb	99
81) Pyrene	12.46	202	3445765	73.63892	ppb	100
83) Butyl benzylphthalate	13.19	149	1604258	76.76735	ppb	94
84) 3,3'-Dichlorobenzidine	13.83	252	1094222	71.75135	ppb	96
85) Benz (a) anthracene	13.86	228	2719656	68.42029	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1785958	68.01314	ppb	99
87) Chrysene	13.91	228	3086091	73.80016	ppb	99
88) Di-n-octylphthalate	14.63	149	3946319	80.82281	ppb	96
90) Benzo (b) fluoranthene	15.24	252	3501392	73.75617	ppb	99
91) Benzo (k) fluoranthene	15.28	252	3457887	76.44268	ppb	99
92) Benzo (a) pyrene	15.75	252	3410020	78.95777	ppb	98
93) Indeno (1,2,3-cd) pyrene	17.86	276	3907142	78.08684	ppb	98
94) Dibenz (a,h) anthracene	17.91	278	3338407	78.55102	ppb	99
95) Benzo (g,h,i) perylene	18.49	276	3111904	76.75911	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y010.D Y1025NC.M Thu Oct 25 17:30:09 2018

Quantitation Report

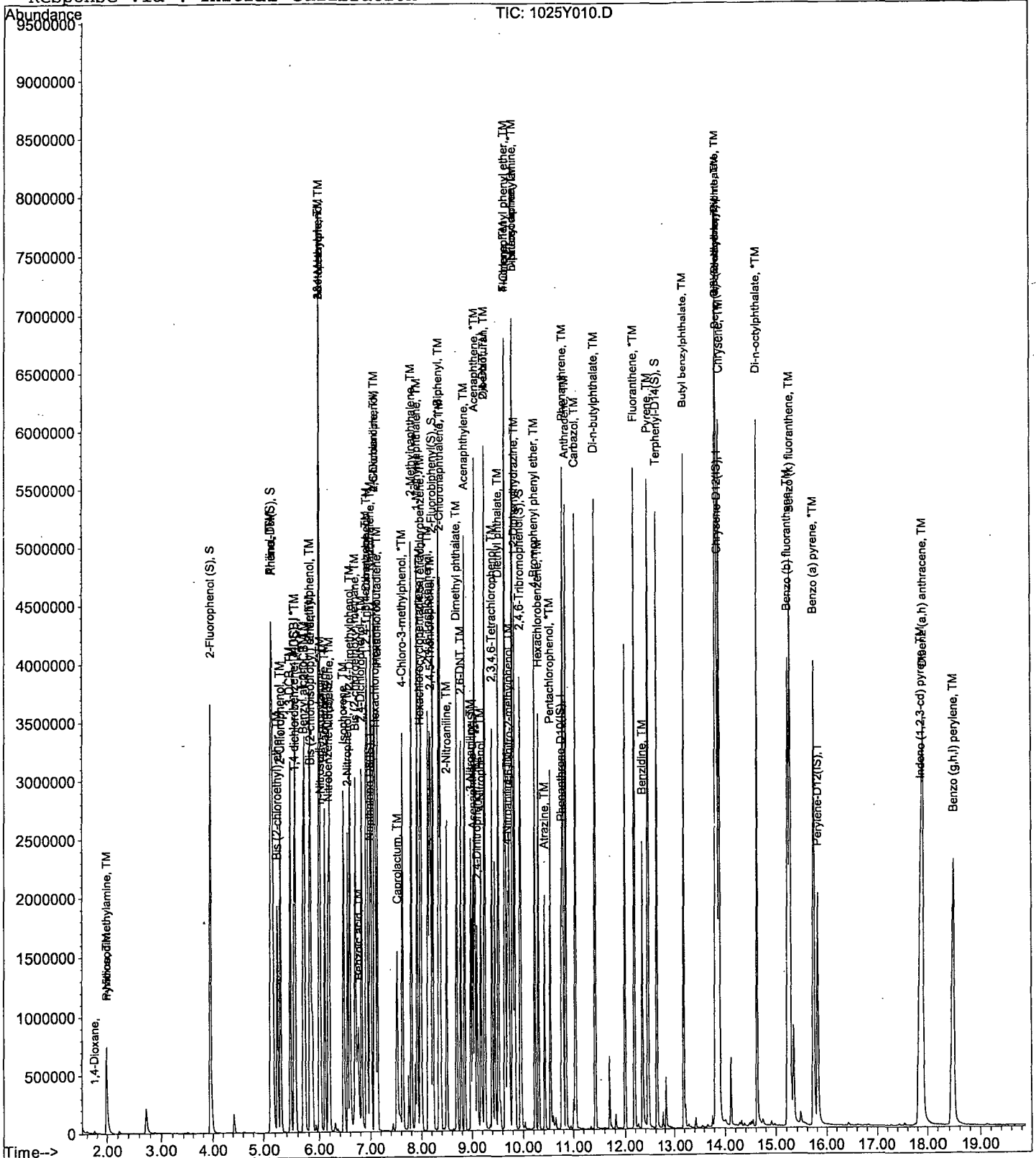
Data File : M:\YODA\DATA\Y181025\1025Y010.D  
Acq On : 25 Oct 18 14:48  
Sample : 80ug/mL 8270 10/18/18  
Misc :

Vial: 10  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:52 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration

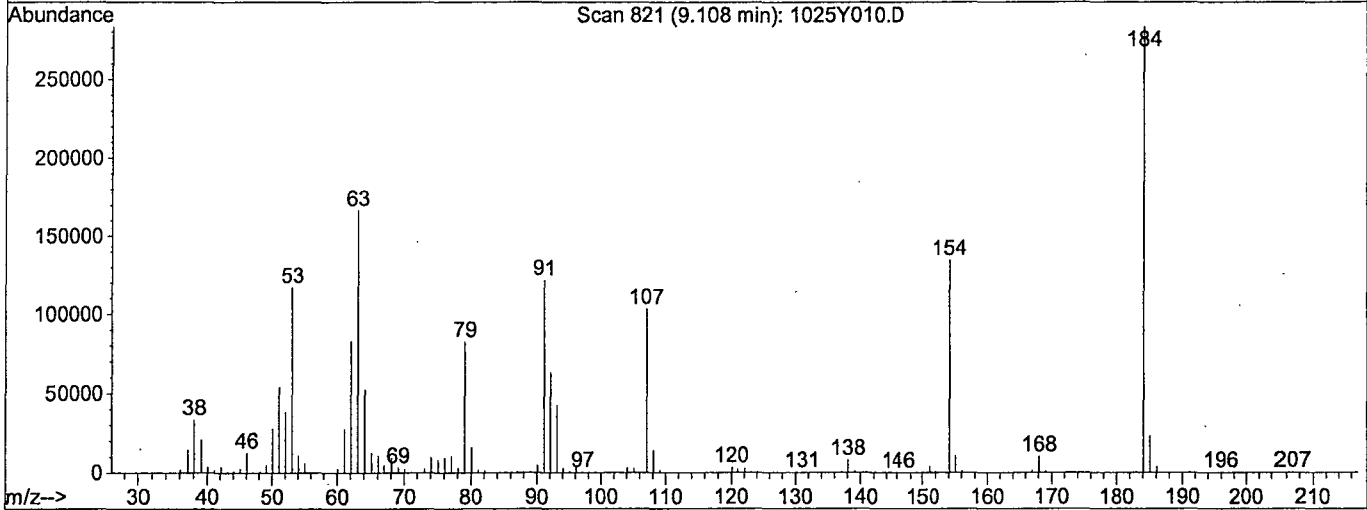
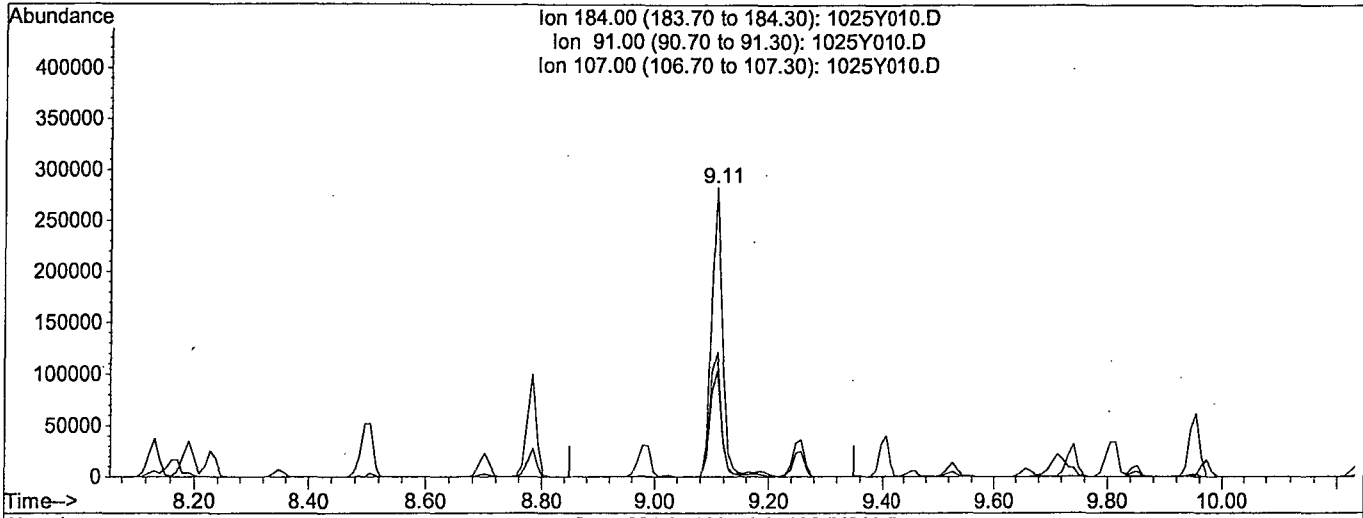


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y010.D  
 Acq On : 25 Oct 18 14:48  
 Sample : 80ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 14:57 2018

Vial: 10  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y010.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.11min 85.8731ppb

response 375675

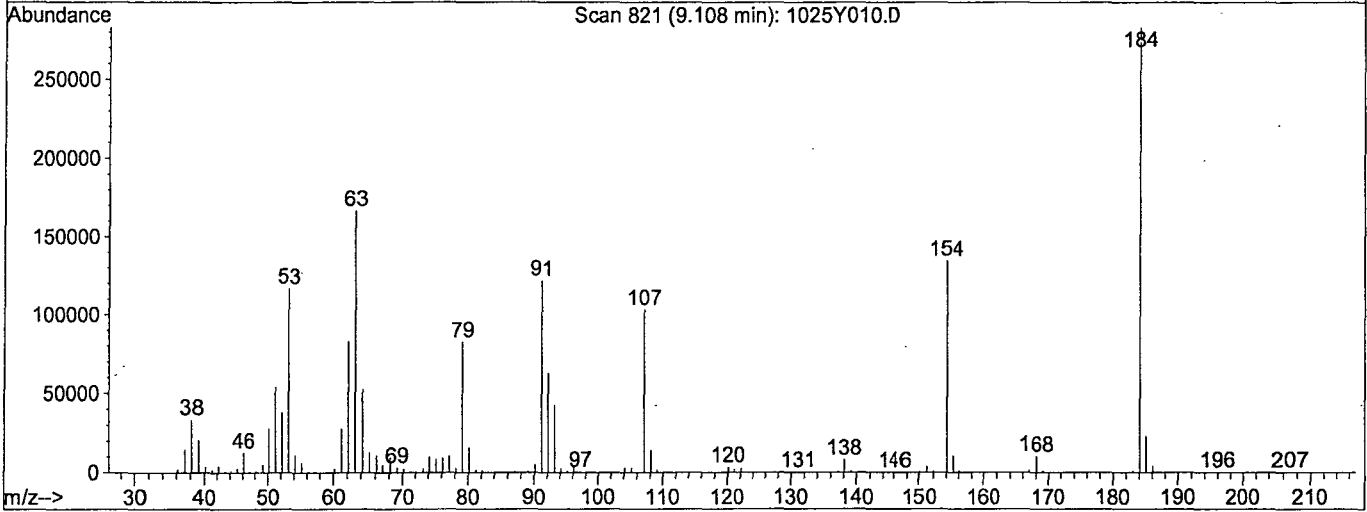
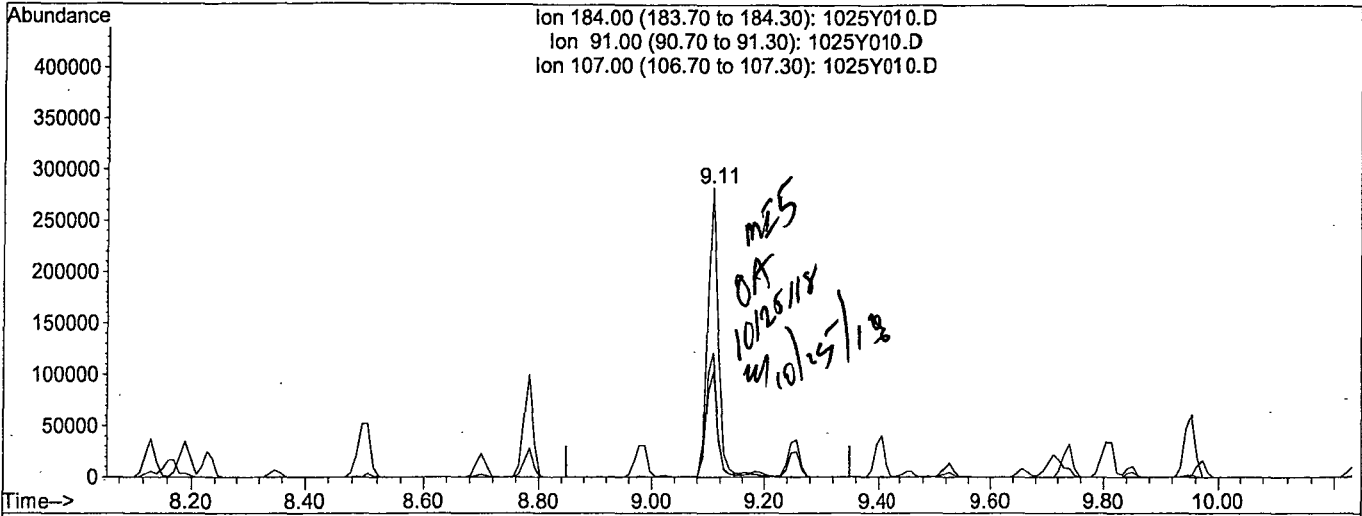
Ion	Exp%	Act%
184.00	100	100
91.00	49.40	42.52
107.00	41.60	36.24
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y010.D  
 Acq On : 25 Oct 18 14:48  
 Sample : 80ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:07 2018

Vial: 10  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y010.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.11min 83.1604ppb m

response 362746

Ion	Exp%	Act%
184.00	100	100
91.00	49.40	43.01
107.00	41.60	36.48
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y011.D  
 Acq On : 25 Oct 18 15:16  
 Sample : 100ug/mL 8270 10/18/18  
 Misc :

Vial: 11  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:53 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:49:58 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	284116	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1206900	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	630021	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.77	188	1170815	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.88	240	1050283	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.83	264	1174261	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	2232374	199.97009	ppb	0.00
Spiked Amount	200.000		Recovery =		99.985%	
6) Phenol-D6 (S)	5.14	99	2486343	187.35510	ppb	0.02
Spiked Amount	200.000		Recovery =		93.677%	
22) Nitrobenzene-D5 (S)	6.18	82	1404992	103.15000	ppb	0.00
Spiked Amount	100.000		Recovery =		103.150%	
46) 2-Fluorobiphenyl (S)	8.23	172	2374842	90.43031	ppb	0.00
Spiked Amount	100.000		Recovery =		90.430%	
64) 2,4,6-Tribromophenol (S)	9.96	330	580689	182.63228	ppb	0.00
Spiked Amount	200.000		Recovery =		91.316%	
82) Terphenyl-D14 (S)	12.63	244	2662866	95.77596	ppb	0.00
Spiked Amount	100.000		Recovery =		95.776%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	9424	10.89244		97
3) n-Nitrosodimethylamine	1.99	42	255611	111.91625	ppb	89
4) Pyridine	1.99	79	372623	109.07650	ppb	94
7) Phenol	5.16	94	1549550	87.28058	ppb	# 76
8) Aniline	5.16	66	1432837	100.66741	ppb	# 64
9) Bis (2-chloroethyl) ether	5.25	63	977421	105.26816	ppb	99
10) 2-Chlorophenol	5.31	128	1373185	99.34811	ppb	99
11) 1,3-DCB	5.48	146	1379732	96.37788	ppb	96
12) 1,4-DCB	5.56	146	1376578	95.98535	ppb	98
13) Benzyl alcohol	5.71	108	915255	102.32629	ppb	98
14) 1,2-DCB	5.74	146	1311460	96.23021	ppb	100
15) 2-Methylphenol	5.83	107	1108446	100.72092	ppb	99
16) Bis (2-chloroisopropyl) et	5.85	45	1719168	97.81714	ppb	98
17) Acetophenone	6.01	105	1321707	101.91311	ppb	98
18) 3&4-Methylphenol	6.01	107	1983222	202.55082	ppb	97
19) n-Nitrosodi-n-propylamine	6.04	70	944036	103.18464	ppb	84
20) Hexachloroethane	6.12	117	533036	98.88056	ppb	90
23) Nitrobenzene	6.21	77	1474935	98.80542	ppb	97
24) Isophorone	6.48	82	2650980	100.47008	ppb	97
25) 2-Nitrophenol	6.56	139	760170	100.30054	ppb	98
26) 2,4-Dimethylphenol	6.60	122	1225289	96.55920	ppb	98
27) Benzoic acid	6.78	105	1216248	101.08222	ppb	99
28) Bis (2-chloroethoxy) metha	6.71	93	1405755	94.62481	ppb	99
29) 2,4-Dichlorophenol	6.83	162	1050994	93.96622	ppb	98
30) 1,2,4-Trichlorobenzene	6.92	180	1066906	91.84739	ppb	98
31) 3,4-Dimethylphenol	6.94	107	1639376	95.39926	ppb	97
32) Napthalene	7.02	128	3525329	90.18941	ppb	100
33) 4-Chloroaniline	7.08	127	1126570	74.50516	ppb	95
34) 2,6-Dichlorophenol	7.09	162	830763	81.16824	ppb	97
35) Hexachloropropene	7.11	213	734181	94.59241	ppb	99
36) Hexachlorobutadiene	7.14	225	594034	92.43581	ppb	99
37) Caprolactum	7.55	55	652243	95.24604	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y011.D Y1025NC.M Thu Oct 25 17:30:09 2018

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y011.D Vial: 11  
 Acq On : 25 Oct 18 15:16 Operator: MA  
 Sample : 100ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 25 16:53 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:49:58 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.64	107	1192402	99.28802	ppb	93
39) 2-Methylnaphthalene	7.81	142	2192026	88.94652	ppb	99
40) 1-Methylnaphthalene	7.93	142	2191424	89.20214	ppb	100
42) Hexachlorocyclopentadiene	7.98	237	694700	101.54904	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	8.00	216	1029526	87.33881	ppb	99
44) 2,4,6-Trichlorophenol	8.14	196	804453	97.06244	ppb	99
45) 2,4,5-Trichlorophenol	8.20	196	852583	97.16344	ppb	94
47) 1,1'-Biphenyl	8.35	154	2701619	87.34748	ppb	98
48) 2-Chloronaphthalene	8.38	162	2241776	91.00929	ppb	97
49) 2-Nitroaniline	8:50	65	879824	103.46365	ppb	99
50) Dimethyl phthalate	8.71	163	2746250	96.14260	ppb	99
51) 2,6-DNT	8.79	165	674065	102.22847	ppb	92
52) Acenaphthylene	8.86	152	3588460	90.31007	ppb	100
53) 3-Nitroaniline	8.98	138	707065	95.89943	ppb	96
54) Acenaphthene	9.07	154	2106539	87.51637	ppb	99
55) 2,4-Dinitrophenol	9.11	184	482121	106.69190	ppb	91
56) 4-Nitrophenol	9.19	65	652587	114.51556	ppb	98
57) Dibenzofuran	9.26	168	2694490	81.11092	ppb	92
58) 2,4-DNT	9.25	165	741133	88.25917	ppb	85
59) 2,3,4,6-Tetrachlorophenol	9.41	232	707425	97.68344	ppb	99
60) Diethyl phthalate	9.53	149	2557601	93.02674	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.66	204	983024	75.15410	ppb	99
62) Fluorene	9.67	166	2158535	81.29619	ppb	99
63) 4-Nitroaniline	9.73	138	774941	100.63117	ppb	96
66) 4,6-Dinitro-2-methylphenol	9.75	198	613024	102.84739	ppb	98
67) Diphenyl amine	9.81	169	3367607	164.69899	ppb	99
68) n-Nitrosodiphenylamine	9.81	169	3367607	164.69899	ppb	99
69) 1,2-Diphenylhydrazine	9.85	77	3378849	107.41783	ppb	97
70) 4-Bromophenyl phenyl ether	10.24	248	721364	90.52099	ppb	96
71) Hexachlorobenzene	10.30	284	755752	90.16925	ppb	97
72) Atrazine	10.43	200	388070	53.26235	ppb	97
73) Pentachlorophenol	10.54	266	571860	110.26730	ppb	100
74) Phenanthrene	10.80	178	3649628	89.24771	ppb	100
75) Anthracene	10.86	178	3823882	90.90525	ppb	99
76) Carbazol	11.06	167	3605924	91.73716	ppb	98
77) Di-n-butylphthalate	11.44	149	4150806	91.20117	ppb	99
78) Fluoranthene	12.20	202	4026512	91.75172	ppb	99
80) Benzidine	12.35	184	1550386	103.86135	ppb	99
81) Pyrene	12.47	202	4219684	97.20526	ppb	100
83) Butyl benzylphthalate	13.20	149	1937337	99.92992	ppb	97
84) 3,3'-Dichlorobenzidine	13.83	252	1221498	86.33869	ppb	99
85) Benz (a) anthracene	13.87	228	3331112	90.33337	ppb	99
86) Bis (2-ethylhexyl) phthala	13.85	149	2216578	90.98979	ppb	100
87) Chrysene	13.91	228	3694086	95.22338	ppb	100
88) Di-n-octylphthalate	14.64	149	4556807	100.59826	ppb	96
90) Benzo (b) fluoranthene	15.25	252	4238332	96.32649	ppb	100
91) Benzo (k) fluoranthene	15.29	252	4010562	95.65848	ppb	99
92) Benzo (a) pyrene	15.75	252	4077181	101.85705	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.88	276	4702968	101.41071	ppb	98
94) Dibenz (a,h) anthracene	17.92	278	3956359	100.43877	ppb	99
95) Benzo (g,h,i) perylene	18.51	276	3916077	104.21928	ppb	99

Quantitation Report

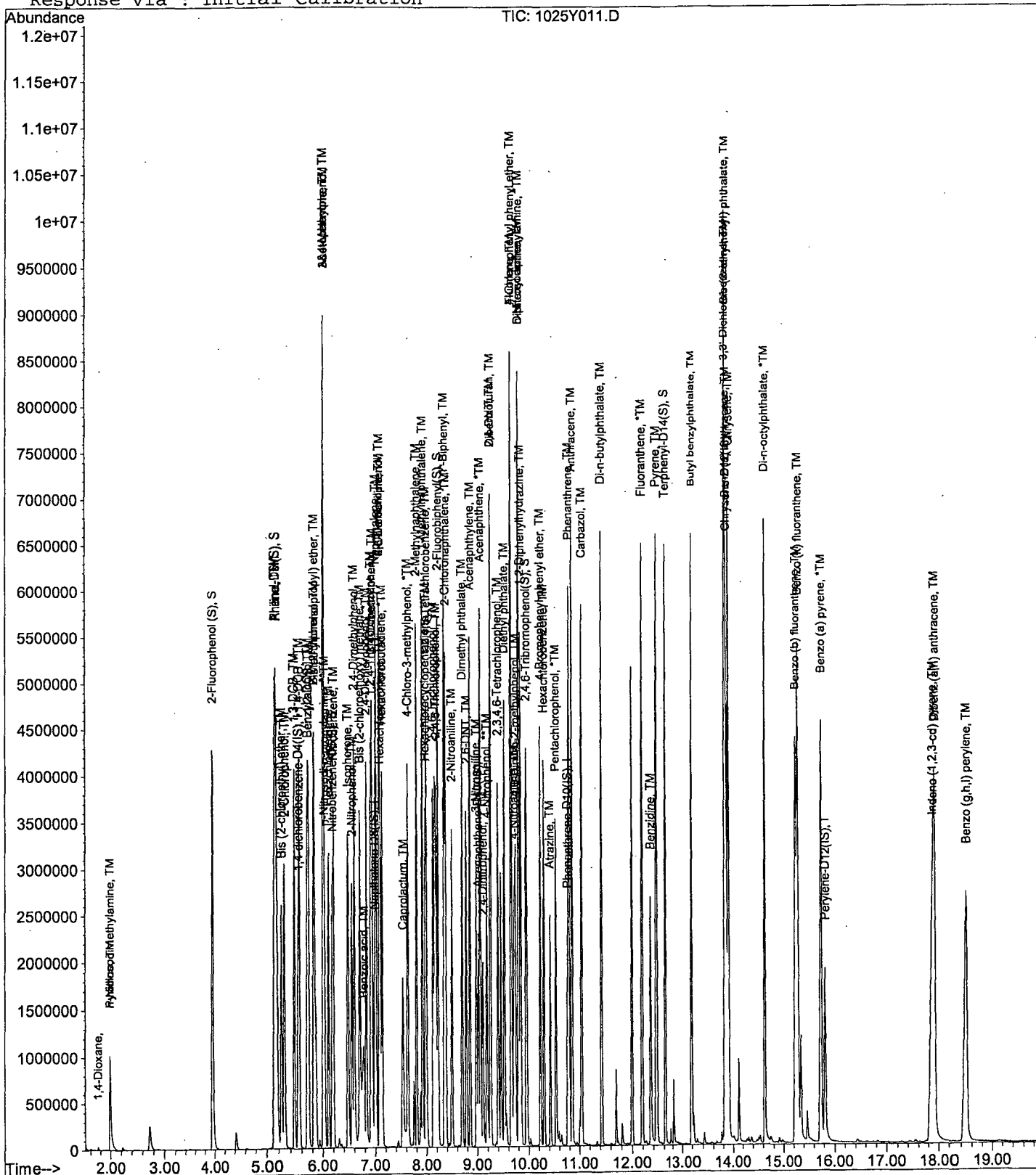
Data File : M:\YODA\DATA\Y181025\1025Y011.D  
Acq On : 25 Oct 18 15:16  
Sample : 100ug/mL 8270 10/18/18  
Misc :

Vial: 11  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:53 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



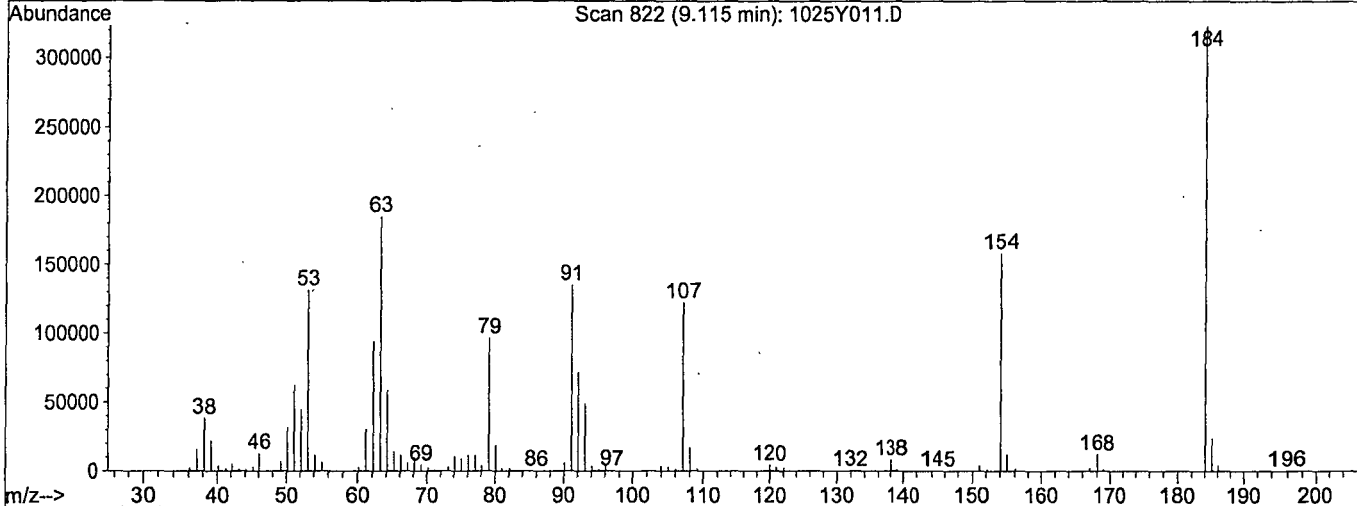
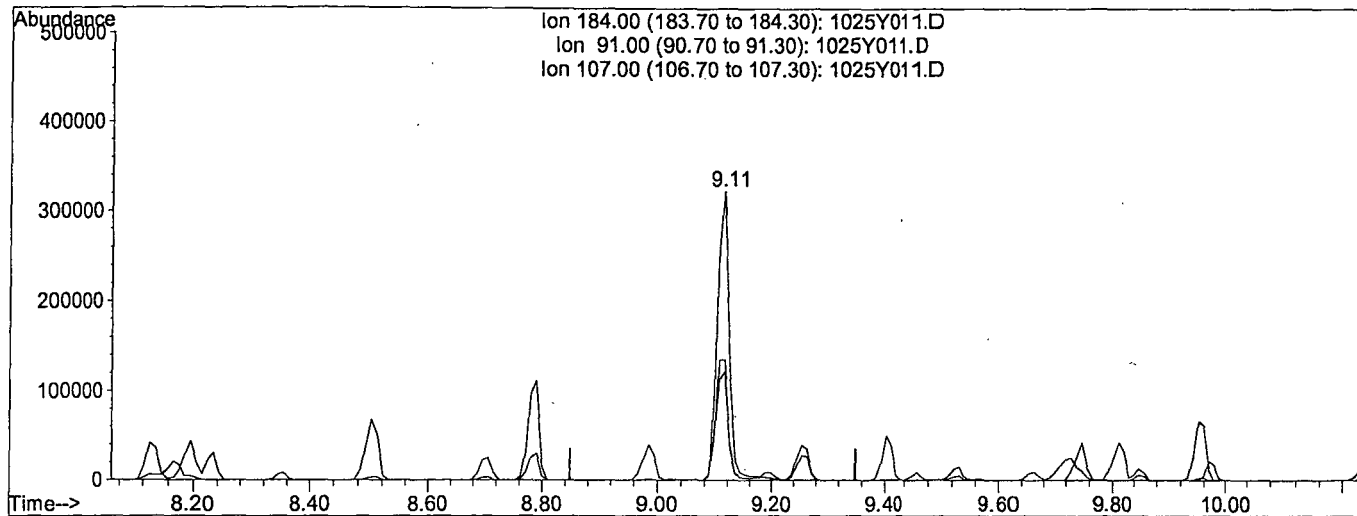


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y011.D  
 Acq On : 25 Oct 18 15:16  
 Sample : 100ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 15:40 2018

Vial: 11  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y011.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.11min 109.9277ppb

response 482121

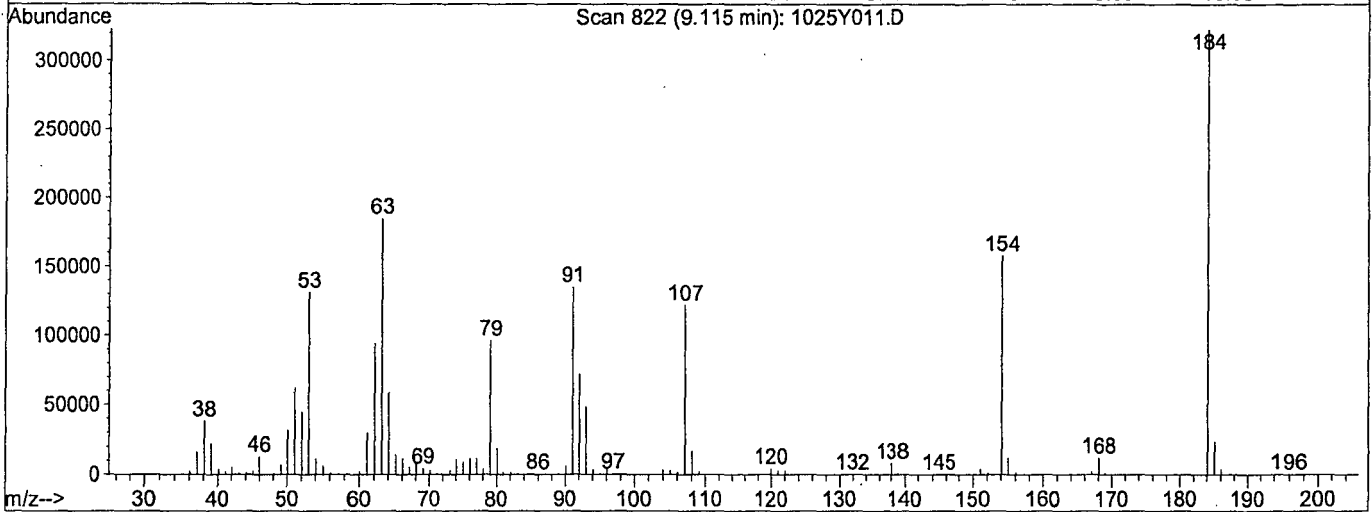
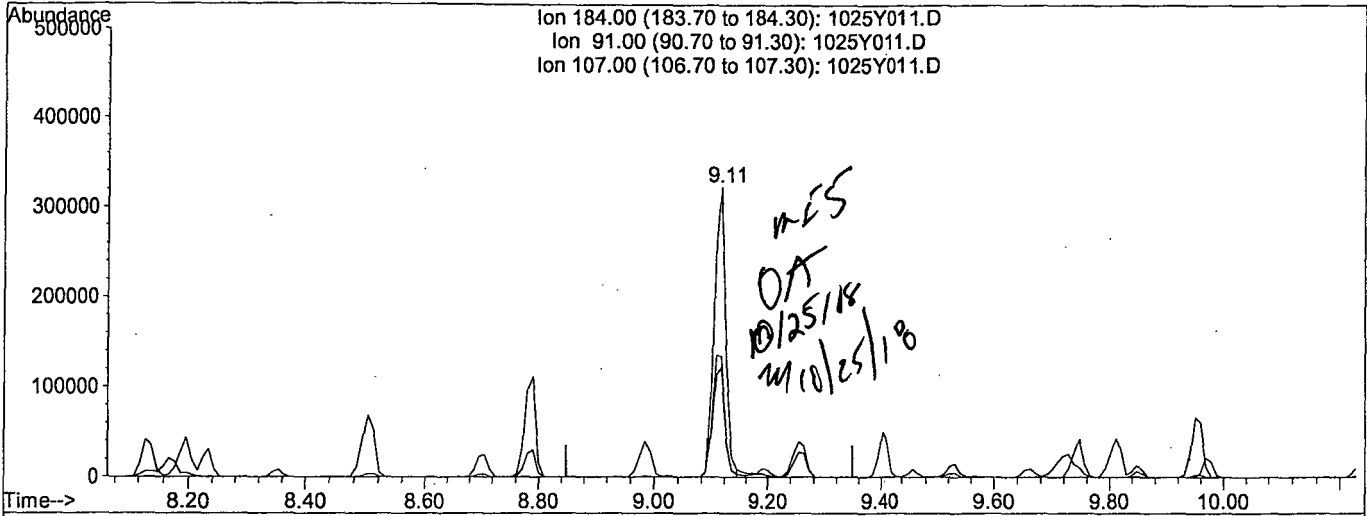
Ion	Exp%	Act%
184.00	100	100
91.00	49.40	41.47
107.00	41.60	37.69
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y011.D  
 Acq On : 25 Oct 18 15:16  
 Sample : 100ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:09 2018

Vial: 11  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y011.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.11min 106.3390ppb m

response 465055

Ion	Exp%	Act%
184.00	100	100
91.00	49.40	41.76
107.00	41.60	37.76
0.00	0.00	0.00

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/25/18

Matrix: \_\_\_\_\_

Instrument: Yoda

Initial Cal. Date: 10/25/18

Data File: 1025Y012.D

	Compound	MEAN	CCRF	%D	%Drift
1	1,4-Dioxane	0.1218	0.1244	2.1	
2	TM n-Nitrosodimethylamine	0.3216	0.2589	19	TM
3	TM Pyridine	0.4810	0.4013	17	TM
4	*TM Phenol	2.499	2.403	3.8	*TM
5	TM Aniline	1.998	1.731	13	TM
6	TM Bis (2-chloroethyl) ether	1.307	1.201	8.1	TM
7	TM 2-Chlorophenol	1.946	1.718	12	TM
8	TM 1,3-DCB	2.015	1.784	11	TM
9	*TM 1,4-DCB	2.019	1.787	12	*TM
10	TM Benzyl alcohol	1.259	1.076	15	TM
11	TM 1,2-DCB	1.919	1.715	11	TM
12	TM 2-Methylphenol	1.549	1.367	12	TM
13	TM Bis (2-chloroisopropyl) ether	2.474	2.177	12	TM
14	TML Acetophenone	2.188	1.706	22	TML 13
15	TML 3&4-Methylphenol	1.681	1.327	21	TML 11
16	**TM n-Nitrosodi-n-propylamine	1.288	1.064	17	**TM
17	TM Hexachloroethane	0.7589	0.6864	9.6	TM
18	TM Nitrobenzene	0.4947	0.4496	9.1	TM
19	TM Isophorone	0.8745	0.7852	10	TM
20	*TM 2-Nitrophenol	0.2512	0.2231	11	*TM
21	TM 2,4-Dimethylphenol	0.4206	0.3656	13	TM
22	TML Benzoic acid	0.3415	0.3452	1.1	TML 9.2
23	TM Bis (2-chloroethoxy) methane	0.4924	0.4719	4.2	TM
24	*TM 2,4-Dichlorophenol	0.3707	0.3294	11	*TM
25	TM 1,2,4-Trichlorobenzene	0.3850	0.3326	14	TM
26	TM 3,4-Dimethylphenol	0.5695	0.4899	14	TM
27	TM Naphthalene	1.295	1.098	15	TM
28	TM 4-Chloroaniline	0.4852	0.4064	16	TM
29	TM 2,6-Dichlorophenol	0.3392	0.2872	15	TM
30	TM Hexachloropropene	0.2572	0.2341	9.0	TM
31	*TM Hexachlorobutadiene	0.2130	0.1890	11	*TM
32	TM Caprolactum	0.2270	0.2016	11	TM
33	*TM 4-Chloro-3-methylphenol	0.3980	0.3571	10	*TM
34	TM 2-Methylnaphthalene	0.8168	0.6740	17	TM
35	TM 1-Methylnaphthalene	0.8142	0.6890	15	TM
36	**TML Hexachlorocyclopentadiene	0.3816	0.4093	7.3	**TML 2.8
37	TM 1,2,4,5-Tetrachlorobenzene	0.7484	0.6277	16	TM
38	*TM 2,4,6-Trichlorophenol	0.5262	0.4695	11	*TM
39	TM 2,4,5-Trichlorophenol	0.5571	0.4836	13	TM
40	TM 1,1'-Biphenyl	1.964	1.652	16	TM

Average

12.2

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y012.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	2-Chloronaphthalene	1.564	1.389	11	TM
42	TM	2-Nitroaniline	0.5399	0.4821	11	TM
43	TM	Dimethyl phthalate	1.814	1.613	11	TM
44	TM	2,6-DNT	0.4186	0.3880	7.3	TM
45	TM	Acenaphthylene	2.523	2.168	14	TM
46	TM	3-Nitroaniline	0.4681	0.4202	10	TM
47	*TM	Acenaphthene	1.528	1.272	17	*TM
48	**TML	2,4-Dinitrophenol	0.2155	0.2397	11	**TML 9.2
49	**TM	4-Nitrophenol	0.3618	0.3499	3.3	**TM
50	TM	Dibenzofuran	2.109	1.730	18	TM
51	TM	2,4-DNT	0.5331	0.4841	9.2	TM
52	TM	2,3,4,6-Tetrachlorophenol	0.4598	0.4180	9.1	TM
53	TM	Diethyl phthalate	1.746	1.531	12	TM
54	TML	4-Chlorophenyl phenyl ether	0.7439	0.6243	16	TML 10
55	TML	Fluorene	1.604	1.340	16	TML 11
56	TM	4-Nitroaniline	0.4889	0.4338	11	TM
57	TML	4,6-Dinitro-2-methylphenol	0.1817	0.1817	0.00	TML 7.9
58	TM	Diphenyl amine	0.6800	0.5607	18	TM
59	*TM	n-Nitrosodiphenylamine	0.6800	0.5607	18	*TM
60	TM	1,2-Diphenylhydrazine	1.075	0.9477	12	TM
61	TM	4-Bromophenyl phenyl ether	0.2723	0.2417	11	TM
62	TM	Hexachlorobenzene	0.2863	0.2508	12	TM
63	TM	Atrazine	0.2489	0.2399	3.6	TM
64	*TM	Pentachlorophenol	0.1772	0.1717	3.1	*TM
65	TM	Phenanthrene	1.397	1.162	17	TM
66	TM	Anthracene	1.437	1.228	15	TM
67	TM	Carbazol	1.343	1.179	12	TM
68	TM	Di-n-butylphthalate	1.555	1.410	9.3	TM
69	*TM	Fluoranthene	1.499	1.316	12	*TM
70	TM	Benzidine	0.5685	0.5475	3.7	TM
71	TM	Pyrene	1.653	1.493	9.7	TM
72	TM	Butyl benzylphthalate	0.7384	0.7010	5.1	TM
73	TM	3,3'-Dichlorobenzidine	0.5388	0.5024	6.8	TM
74	TM	Benz (a) anthracene	1.404	1.159	18	TM
75	TM	Bis (2-ethylhexyl) phthalate	0.9278	0.8150	12	TM
76	TM	Chrysene	1.477	1.320	11	TM
77	*TM	Di-n-octylphthalate	1.725	1.640	4.9	*TM
78	TM	Benzo (b) fluoranthene	1.499	1.283	14	TM
79	TM	Benzo (k) fluoranthene	1.428	1.271	11	TM
80	*TM	Benzo (a) pyrene	1.364	1.231	9.7	*TM

Average

10.9

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y012.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	Indeno (1,2,3-cd) pyrene	1.580	1.378	13	TM
82	TM	Dibenz (a,h) anthracene	1.342	1.207	10	TM
83	TM	Benzo (g,h,i) perylene	1.280	1.124	12	TM
84						
85						
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117						
118						
119						
120		Average			11.7	

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y012.D Vial: 12  
 Acq On : 25 Oct 18 15:44 Operator: MA  
 Sample : SS- 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 25 16:58 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	386868	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1656168	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	862976	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.77	188	1603520	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.88	240	1476646	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.83	264	1648401	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	0.00	112	0	0.00000	ppb	
Spiked Amount	200.000					
			Recovery	=	0.000%	
6) Phenol-D6 (S)	0.00	99	0	0.00000	ppb	
Spiked Amount	200.000					
			Recovery	=	0.000%	
22) Nitrobenzene-D5 (S)	6.11	82	83944	4.49109	ppb	-0.07
Spiked Amount	100.000					
			Recovery	=	4.491%	
46) 2-Fluorobiphenyl (S)	8.22	172	136	0.00378	ppb	0.00
Spiked Amount	100.000					
			Recovery	=	0.004%	
64) 2,4,6-Tribromophenol (S)	0.00	330	0	0.00000	ppb	
Spiked Amount	200.000					
			Recovery	=	0.000%	
82) Terphenyl-D14 (S)	12.62	244	747	0.01911	ppb	0.00
Spiked Amount	100.000					
			Recovery	=	0.019%	

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.74	58	6016	5.10659		95
3) n-Nitrosodimethylamine	1.98	42	125217	40.26334	ppb	92
4) Pyridine	1.99	79	194063	41.71931	ppb	92
7) Phenol	5.14	94	1162248	48.07770	ppb	94
8) Aniline	5.17	66	837054m	43.31498	ppb	94
9) Bis (2-chloroethyl) ether	5.24	63	580808	45.93893	ppb	99
10) 2-Chlorophenol	5.30	128	830627	44.13361	ppb	97
11) 1,3-DCB	5.47	146	862923	44.26776	ppb	98
12) 1,4-DCB	5.56	146	864003	44.24378	ppb	99
13) Benzyl alcohol	5.70	108	520550	42.74059	ppb	100
14) 1,2-DCB	5.73	146	829434	44.69625	ppb	98
15) 2-Methylphenol	5.83	107	660841	44.09964	ppb	100
16) Bis (2-chloroisopropyl) et	5.85	45	1052745	43.98987	ppb	94
17) Acetophenone	6.00	105	824838	43.45115	ppb	95
18) 3&4-Methylphenol	6.00	107	1283819	89.25332	ppb	98
19) n-Nitrosodi-n-propylamine	6.00	70	514399	41.29139	ppb	98
20) Hexachloroethane	6.12	117	331921	45.21911	ppb	87
23) Nitrobenzene	6.20	77	930745	45.43657	ppb	99
24) Isophorone	6.47	82	1625471	44.89277	ppb	98
25) 2-Nitrophenol	6.55	139	461761	44.39936	ppb	92
26) 2,4-Dimethylphenol	6.60	122	756913	43.46783	ppb	96
27) Benzoic acid	6.75	105	714663	45.40513	ppb	99
28) Bis (2-chloroethoxy) metha	6.70	93	976896	47.91932	ppb	99
29) 2,4-Dichlorophenol	6.83	162	682004	44.43502	ppb	96
30) 1,2,4-Trichlorobenzene	6.92	180	688647	43.20203	ppb	99
31) 3,4-Dimethylphenol	6.93	107	1014136	43.00605	ppb	99
32) Napthalene	7.02	128	2272459	42.36614	ppb	100
33) 4-Chloroaniline	7.08	127	841244	41.87769	ppb	97
34) 2,6-Dichlorophenol	7.08	162	594483	42.32679	ppb	98
35) Hexachloropropene	7.11	213	484652	45.50405	ppb	97
36) Hexachlorobutadiene	7.14	225	391221	44.36270	ppb	99
37) Caprolactum	7.52	55	417379	44.41554	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1025Y012.D Y1025NC.M Thu Oct 25 17:30:10 2018

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y012.D  
 Acq On : 25 Oct 18 15:44  
 Sample : SS- 8270 10/18/18  
 Misc :

Vial: 12  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:58 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	739202	44.85431	ppb	97
39) 2-Methylnaphthalene	7.81	142	1395302	41.25897	ppb	99
40) 1-Methylnaphthalene	7.92	142	1426411	42.31170	ppb	99
42) Hexachlorocyclopentadiene	7.98	237	441562	48.60381	ppb	98
43) 1,2,4,5-Tetrachlorobenzene	8.00	216	677153	41.93852	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	506412	44.60780	ppb	97
45) 2,4,5-Trichlorophenol	8.19	196	521633	43.39978	ppb	98
47) 1,1'-Biphenyl	8.34	154	1782334	42.06992	ppb	98
48) 2-Chloronaphthalene	8.37	162	1498212	44.40410	ppb	98
49) 2-Nitroaniline	8.49	65	520087	44.65029	ppb	96
50) Dimethyl phthalate	8.70	163	1740390	44.48142	ppb	99
51) 2,6-DNT	8.78	165	418526	46.33923	ppb	88
52) Acenaphthylene	8.85	152	2338312	42.96223	ppb	99
53) 3-Nitroaniline	8.98	138	453228	44.87761	ppb	94
54) Acenaphthene	9.06	154	1371833	41.60805	ppb	100
55) 2,4-Dinitrophenol	9.10	184	258568	45.38445	ppb	89
56) 4-Nitrophenol	9.17	65	377398	48.34839	ppb	94
57) Dibenzofuran	9.26	168	1866460	41.01831	ppb	98
58) 2,4-DNT	9.25	165	522235	45.40315	ppb	98
59) 2,3,4,6-Tetrachlorophenol	9.40	232	450896	45.45412	ppb	95
60) Diethyl phthalate	9.52	149	1651997	43.86727	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.65	204	673453	44.86290	ppb	97
62) Fluorene	9.66	166	1445945	44.38941	ppb	99
63) 4-Nitroaniline	9.71	138	467969	44.36467	ppb	91
66) 4,6-Dinitro-2-methylphenol	9.73	198	364179	46.03995	ppb	95
67) Diphenyl amine	9.80	169	2247708	82.45409	ppb	99
68) n-Nitrosodiphenylamine	9.80	169	2247708	82.45409	ppb	99
69) 1,2-Diphenylhydrazine	9.85	77	1899544	44.09312	ppb	94
70) 4-Bromophenyl phenyl ether	10.23	248	484488	44.39067	ppb	92
71) Hexachlorobenzene	10.30	284	502790	43.80056	ppb	92
72) Atrazine	10.42	200	240392	24.09041	ppb	98
73) Pentachlorophenol	10.53	266	344170	48.45559	ppb	98
74) Phenanthrene	10.79	178	2328547	41.57645	ppb	100
75) Anthracene	10.86	178	2461509	42.72674	ppb	99
76) Carbazol	11.05	167	2363833	43.90959	ppb	98
77) Di-n-butylphthalate	11.43	149	2826248	45.34111	ppb	99
78) Fluoranthene	12.19	202	2638457	43.89844	ppb	98
80) Benzidine	12.34	184	1010610	48.15348	ppb	99
81) Pyrene	12.47	202	2755960	45.15571	ppb	99
83) Butyl benzylphthalate	13.19	149	1293875	47.46928	ppb	93
84) 3,3'-Dichlorobenzidine	13.83	252	927314	46.61970	ppb	98
85) Benz (a) anthracene	13.86	228	2138564	41.24879	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1504349	43.92262	ppb	99
87) Chrysene	13.90	228	2436471	44.67122	ppb	100
88) Di-n-octylphthalate	14.63	149	3027268	47.53469	ppb	96
90) Benzo (b) fluoranthene	15.23	252	2644578	42.81628	ppb	99
91) Benzo (k) fluoranthene	15.28	252	2618826	44.49658	ppb	100
92) Benzo (a) pyrene	15.73	252	2536913	45.14799	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.85	276	2840172	43.62729	ppb	97
94) Dibenz (a,h) anthracene	17.90	278	2486583	44.96871	ppb	98
95) Benzo (g,h,i) perylene	18.48	276	2316893	43.92428	ppb	99

Quantitation Report

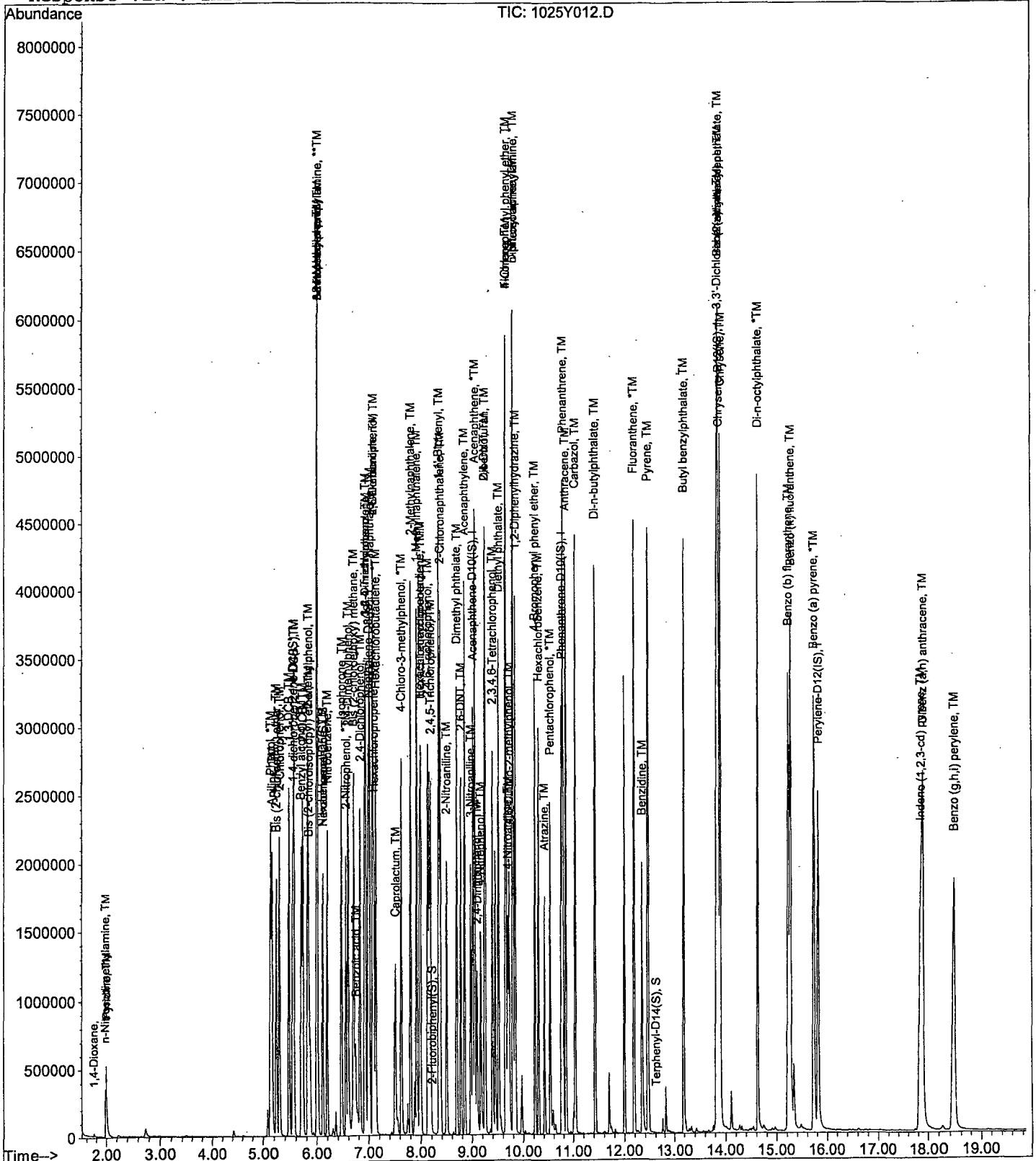
Data File : M:\YODA\DATA\Y181025\1025Y012.D  
Acq On : 25 Oct 18 15:44  
Sample : SS- 8270 10/18/18  
Misc :

Vial: 12  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:58 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



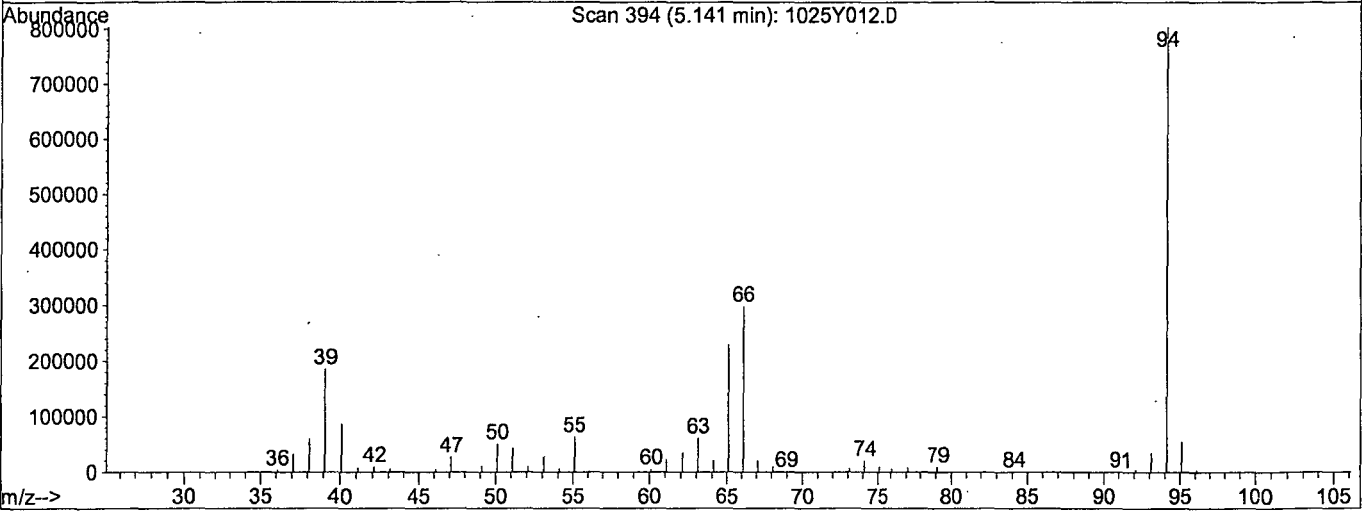
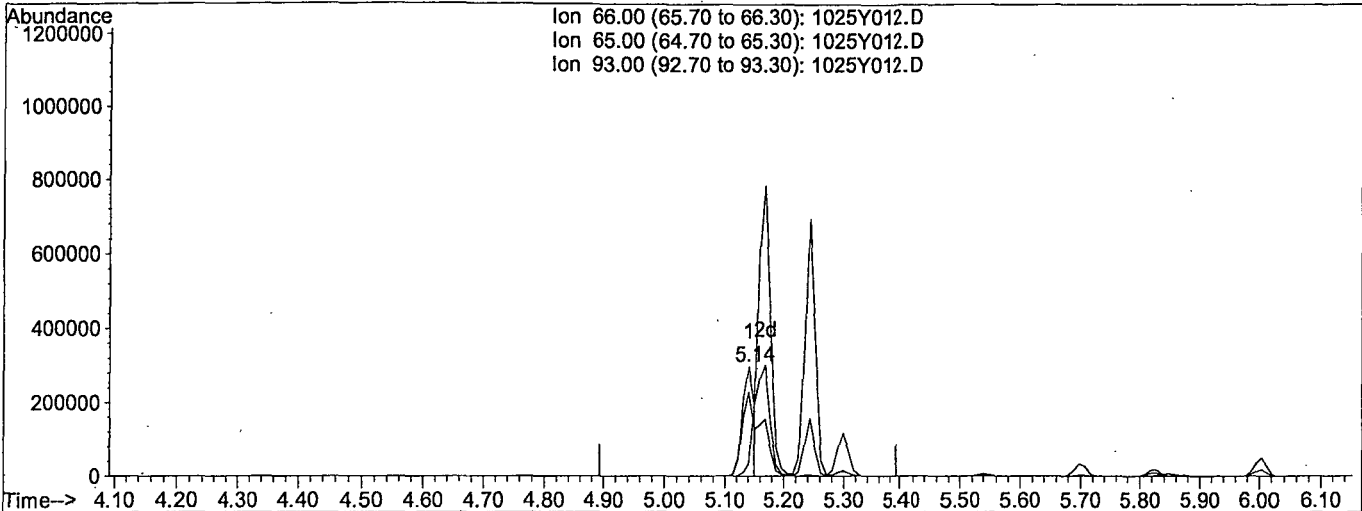


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y012.D  
 Acq On : 25 Oct 18 15:44  
 Sample : SS- 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:57 2018

Vial: 12  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y012.D

(8) Aniline (TM)

5.14min 22.0314ppb

response 425752

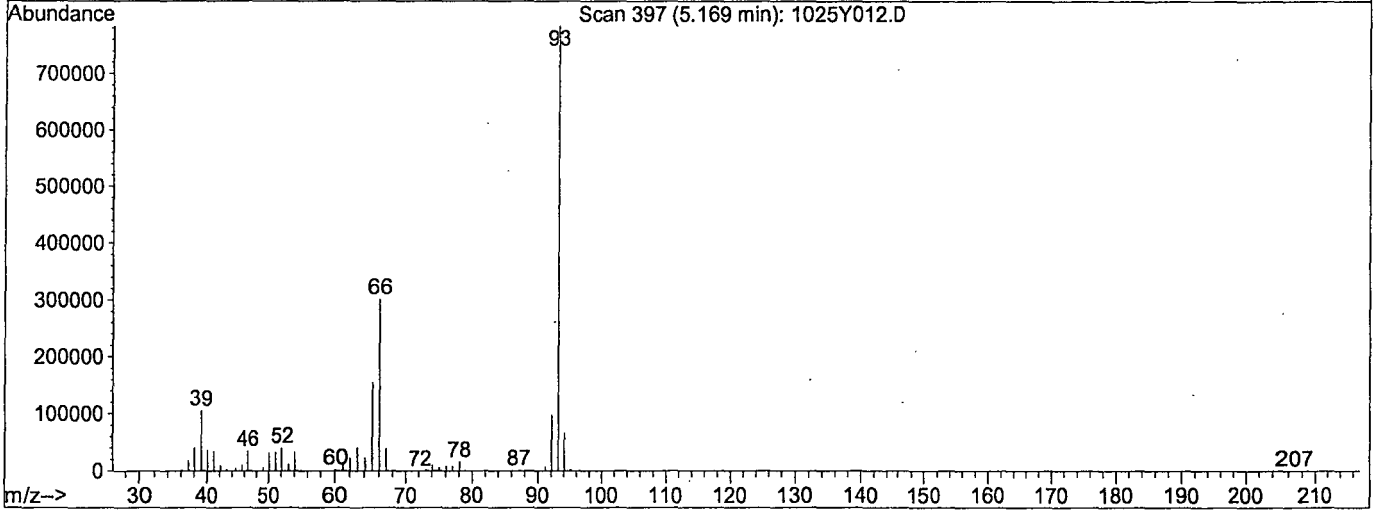
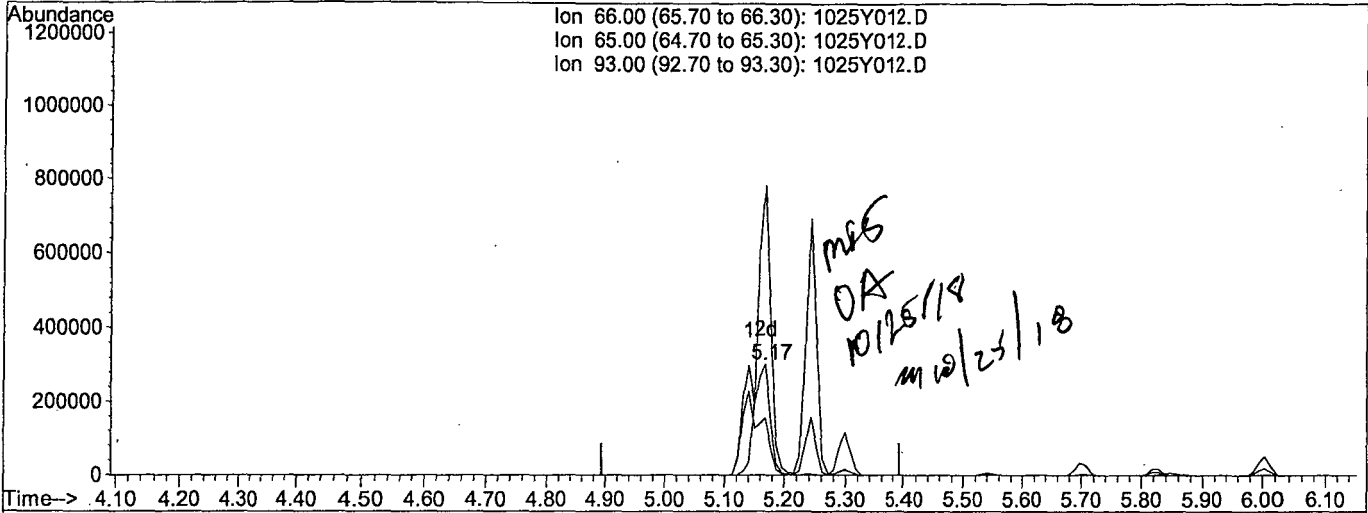
Ion	Exp%	Act%
66.00	100	100
65.00	73.00	76.70
93.00	16.80	11.42#
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y012.D  
 Acq On : 25 Oct 18 15:44  
 Sample : SS- 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:58 2018

Vial: 12  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y012.D

(8) Aniline (TM)

5.17min 43.3150ppb m

response 837054

Ion	Exp%	Act%
66.00	100	100
65.00	73.00	51.40
93.00	16.80	259.64#
0.00	0.00	0.00

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 1 Nov 18 11:46  
Instrument: Yoda  
Initial Cal. Date: 10/25/18  
Data File: 1025Y101.D

	Compound	MEAN	CCRF	%D	%Drift
1 I	1,4-dichlorobenzene-D4(IS)	ISTD			I
2	1,4-Dioxane	0.1218	0.1695	39	*NT
3 TM	n-Nitrosodimethylamine	0.3216	0.3329	3.5	TM
4 TM	Pyridine	0.4810	0.5086	5.7	TM
5 S	2-Fluorophenol (S)	1.572	1.503	4.4	S
6 S	Phenol-D6 (S)	1.868	1.827	2.2	S
7 *TM	Phenol	2.499	2.748	9.9	*TM
8 TM	Aniline	1.998	2.223	11	TM
9 TM	Bis (2-chloroethyl) ether	1.307	1.388	6.1	TM
10 TM	2-Chlorophenol	1.946	2.027	4.2	TM
11 TM	1,3-DCB	2.015	2.108	4.6	TM
12 *TM	1,4-DCB	2.019	2.138	5.9	*TM
13 TM	Benzyl alcohol	1.259	1.356	7.7	TM
14 TM	1,2-DCB	1.919	2.010	4.8	TM
15 TM	2-Methylphenol	1.549	1.671	7.8	TM
16 TM	Bis (2-chloroisopropyl) ether	2.474	2.679	8.3	TM
17 TML	Acetophenone	2.188	2.163	1.2	TML 13
18 TML	3&4-Methylphenol	1.681	1.663	1.1	TML 15
19 **TM	n-Nitrosodi-n-propylamine	1.288	1.306	1.4	**TM
20 TM	Hexachloroethane	0.7589	0.7984	5.2	TM
21 I	Napthalene-D8(IS)	ISTD			I
22 S	Nitrobenzene-D5(S)	0.4514	0.4451	1.4	S
23 TM	Nitrobenzene	0.4947	0.5485	11	TM
24 TM	Isophorone	0.8745	0.9602	9.8	TM
25 *TM	2-Nitrophenol	0.2512	0.2732	8.7	*TM
26 TM	2,4-Dimethylphenol	0.4206	0.4593	9.2	TM
27 TML	Benzoic acid	0.3415	0.4230	24	TML 9.6
28 TM	Bis (2-chloroethoxy) methane	0.4924	0.5292	7.5	TM
29 *TM	2,4-Dichlorophenol	0.3707	0.4057	9.4	*TM
30 TM	1,2,4-Trichlorobenzene	0.3850	0.4134	7.4	TM
31 TM	3,4-Dimethylphenol	0.5695	0.6311	11	TM
32 TM	Napthalene	1.295	1.394	7.6	TM
33 TM	4-Chloroaniline	0.4852	0.5109	5.3	TM
34 TM	2,6-Dichlorophenol	0.3392	0.3741	10	TM
35 TM	Hexachloropropene	0.2572	0.2869	12	TM
36 *TM	Hexachlorobutadiene	0.2130	0.2342	9.9	*TM
37 TM	Caprolactum	0.2270	0.2604	15	TM
38 *TM	4-Chloro-3-methylphenol	0.3980	0.4398	11	*TM
39 TM	2-Methylnapthalene	0.8168	0.9001	10	TM
40 TM	1-Methylnapthalene	0.8142	0.8817	8.3	TM

Average

8.5

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 1 Nov 18 11:46  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y101.D

	Compound	MEAN	CCRF	%D	%Drift	
41	I Acenaphthene-D10(IS)	ISTD			I	
42	**TML Hexachlorocyclopentadiene	0.3816	0.4343	14	**TML	2.8
43	TM 1,2,4,5-Tetrachlorobenzene	0.7484	0.8117	8.5	TM	
44	*TM 2,4,6-Trichlorophenol	0.5262	0.5772	9.7	*TM	
45	TM 2,4,5-Trichlorophenol	0.5571	0.6009	7.9	TM	
46	S 2-Fluorobiphenyl(S)	1.667	1.621	2.8	S	
47	TM 1,1'-Biphenyl	1.964	2.110	7.4	TM	
48	TM 2-Chloronaphthalene	1.564	1.682	7.5	TM	
49	TM 2-Nitroaniline	0.5399	0.6061	12	TM	
50	TM Dimethyl phthalate	1.814	1.953	7.7	TM	
51	TM 2,6-DNT	0.4186	0.4558	8.9	TM	
52	TM Acenaphthylene	2.523	2.735	8.4	TM	
53	TM 3-Nitroaniline	0.4681	0.5133	9.7	TM	
54	*TM Acenaphthene	1.528	1.628	6.5	*TM	
55	**TML 2,4-Dinitrophenol	0.2155	0.2740	27	**TML	1.7
56	**TM 4-Nitrophenol	0.3618	0.4136	14	**TM	
57	TM Dibenzofuran	2.109	2.247	6.5	TM	
58	TM 2,4-DNT	0.5331	0.5924	11	TM	
59	TM 2,3,4,6-Tetrachlorophenol	0.4598	0.5133	12	TM	
60	TM Diethyl phthalate	1.746	1.909	9.4	TM	
61	TML 4-Chlorophenyl phenyl ether	0.7439	0.7926	6.5	TML	20
62	TML Fluorene	1.604	1.711	6.7	TML	19
63	TM 4-Nitroaniline	0.4889	0.5302	8.4	TM	
64	S 2,4,6-Tribromophenol(S)	0.2019	0.1933	4.3	S	
65	I Phenanthrene-D10(IS)	ISTD			I	
66	TML 4,6-Dinitro-2-methylphenol	0.1817	0.2109	16	TML	6.1
67	TM Diphenyl amine	0.6800	0.7310	7.5	TM	
68	*TM n-Nitrosodiphenylamine	0.6800	0.7310	7.5	*TM	
69	TM 1,2-Diphenylhydrazine	1.075	1.146	6.7	TM	
70	TM 4-Bromophenyl phenyl ether	0.2723	0.2955	8.6	TM	
71	TM Hexachlorobenzene	0.2863	0.3060	6.9	TM	
72	TM Atrazine	0.2489	0.2673	7.4	TM	
73	*TM Pentachlorophenol	0.1772	0.2091	18	*TM	
74	TM Phenanthrene	1.397	1.519	8.7	TM	
75	TM Anthracene	1.437	1.543	7.3	TM	
76	TM Carbazol	1.343	1.481	10	TM	
77	TM Di-n-butylphthalate	1.555	1.708	9.9	TM	
78	*TM Fluoranthene	1.499	1.641	9.5	*TM	
79	I Chrysene-D12(IS)	ISTD			I	
80	TM Benzidine	0.5685	0.5817	2.3	TM	
Average				9.3		

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 1 Nov 18 11:46  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y101.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	Pyrene	1.653	1.773	7.2	TM
82	S	Terphenyl-D14(S)	1.059	1.039	1.8	S
83	TM	Butyl benzylphthalate	0.7384	0.8174	11	TM
84	TM	3,3'-Dichlorobenzidine	0.5388	0.5988	11	TM
85	TM	Benz (a) anthracene	1.404	1.471	4.7	TM
86	TM	Bis (2-ethylhexyl) phthalate	0.9278	1.009	8.8	TM
87	TM	Chrysene	1.477	1.601	8.4	TM
88	*TM	Di-n-octylphthalate	1.725	1.938	12	*TM
89	I	Perylene-D12(IS)	ISTD			I
90	TM	Benzo (b) fluoranthene	1.499	1.714	14	TM
91	TM	Benzo (k) fluoranthene	1.428	1.549	8.5	TM
92	*TM	Benzo (a) pyrene	1.364	1.561	14	*TM
93	TM	Indeno (1,2,3-cd) pyrene	1.580	1.768	12	TM
94	TM	Dibenz (a,h) anthracene	1.342	1.551	16	TM
95	TM	Benzo (g,h,i) perylene	1.280	1.444	13	TM
96						
97						
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119						
120						

Average

10.2

Data File : M:\YODA\DATA\Y181025\1025Y101.D Vial: 1  
 Acq On : 1 Nov 18 11:46 Operator: MA  
 Sample : 50ug/mL 8270 10/18/18 (2) Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Nov 1 12:00 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.53	152	297290	40.00000	ppb	-0.01
21) Naphthalene-D8 (IS)	6.98	136	1211775	40.00000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	634714	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1183258	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1135513	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1173289	40.00000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol (S)	3.94	112	1117004	95.62428	ppb	0.00
Spiked Amount	200.000					
Recovery				47.812%		
6) Phenol-D6 (S)	5.12	99	1357977	97.79402	ppb	0.00
Spiked Amount	200.000					
Recovery				48.897%		
22) Nitrobenzene-D5 (S)	6.17	82	674224	49.30022	ppb	0.00
Spiked Amount	100.000					
Recovery				49.300%		
46) 2-Fluorobiphenyl (S)	8.22	172	1286346	48.61990	ppb	0.00
Spiked Amount	100.000					
Recovery				48.620%		
64) 2,4,6-Tribromophenol (S)	9.95	330	306698	95.74626	ppb	0.00
Spiked Amount	200.000					
Recovery				47.873%		
82) Terphenyl-D14 (S)	12.62	244	1475268	49.07862	ppb	0.00
Spiked Amount	100.000					
Recovery				49.079%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	6298	6.95678		91
3) n-Nitrosodimethylamine	1.97	42	123706	51.76304	ppb	91
4) Pyridine	1.99	79	189005	52.87498	ppb	95
7) Phenol	5.14	94	1021038	54.96286	ppb	98
8) Aniline	5.14	66	825911	55.61608	ppb #	93
9) Bis (2-chloroethyl) ether	5.24	63	515644	53.07387	ppb	97
10) 2-Chlorophenol	5.29	128	753252	52.08183	ppb	95
11) 1,3-DCB	5.47	146	783259	52.28817	ppb	98
12) 1,4-DCB	5.56	146	794540	52.94626	ppb	98
13) Benzyl alcohol	5.70	108	503860	53.83571	ppb	97
14) 1,2-DCB	5.73	146	747007	52.38373	ppb	98
15) 2-Methylphenol	5.82	107	620959	53.92417	ppb	99
16) Bis (2-chloroisopropyl) et	5.84	45	995634	54.13919	ppb	97
17) Acetophenone	6.00	105	803689	56.70516	ppb	94
18) 3&4-Methylphenol	6.00	107	1235621	115.17459	ppb	95
19) n-Nitrosodi-n-propylamine	6.00	70	485486	50.71292	ppb	97
20) Hexachloroethane	6.11	117	296694	52.59913	ppb	95
23) Nitrobenzene	6.19	77	830835	55.43346	ppb	92
24) Isophorone	6.46	82	1454382	54.89820	ppb	96
25) 2-Nitrophenol	6.55	139	413748	54.37230	ppb	100
26) 2,4-Dimethylphenol	6.59	122	695713	54.60527	ppb	97
27) Benzoic acid	6.74	105	640776	54.80417	ppb	97
28) Bis (2-chloroethoxy) metha	6.70	93	801621	53.74199	ppb	100
29) 2,4-Dichlorophenol	6.82	162	614496	54.71922	ppb	98
30) 1,2,4-Trichlorobenzene	6.92	180	626215	53.69247	ppb	99
31) 3,4-Dimethylphenol	6.93	107	955958	55.40571	ppb	100
32) Naphthalene	7.01	128	2111865	53.81104	ppb	99
33) 4-Chloroaniline	7.07	127	773891	52.65298	ppb	99
34) 2,6-Dichlorophenol	7.08	162	566699	55.14558	ppb	98
35) Hexachloropropene	7.10	213	434613	55.77058	ppb	99
36) Hexachlorobutadiene	7.14	225	354718	54.97452	ppb	98
37) Caprolactum	7.51	55	394361	57.35625	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y101.D Y1025NC.M Thu Nov 01 18:06:05 2018

Data File : M:\YODA\DATA\Y181025\1025Y101.D Vial: 1  
 Acq On : 1 Nov 18 11:46 Operator: MA  
 Sample : 50ug/mL 8270 10/18/18 (2) Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Nov 1 12:00 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	666221	55.25121	ppb	99
39) 2-Methylnaphthalene	7.80	142	1363400	55.10054	ppb	99
40) 1-Methylnaphthalene	7.92	142	1335502	54.14305	ppb	100
42) Hexachlorocyclopentadiene	7.97	237	344605	51.40397	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	643960	54.22578	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	457975	54.84907	ppb	98
45) 2,4,5-Trichlorophenol	8.19	196	476729	53.92805	ppb	99
47) 1,1'-Biphenyl	8.34	154	1674036	53.72396	ppb	98
48) 2-Chloronaphthalene	8.37	162	1334104	53.76011	ppb	100
49) 2-Nitroaniline	8.49	65	480900	56.13370	ppb	100
50) Dimethyl phthalate	8.70	163	1549731	53.85290	ppb	100
51) 2,6-DNT	8.78	165	361611	54.43631	ppb	98
52) Acenaphthylene	8.86	152	2169571	54.19745	ppb	100
53) 3-Nitroaniline	8.98	138	407241	54.82582	ppb	97
54) Acenaphthene	9.06	154	1291459	53.25708	ppb	99
55) 2,4-Dinitrophenol	9.10	184	217350	50.84951	ppb	97
56) 4-Nitrophenol	9.17	65	328185	57.16389	ppb	97
57) Dibenzofuran	9.25	168	1782794	53.26977	ppb	99
58) 2,4-DNT	9.25	165	470003	55.55732	ppb	97
59) 2,3,4,6-Tetrachlorophenol	9.40	232	407278	55.82239	ppb	99
60) Diethyl phthalate	9.52	149	1514444	54.67706	ppb	100
61) 4-Chlorophenyl phenyl ethe	9.65	204	628870	59.89642	ppb	98
62) Fluorene	9.66	166	1357186	59.31613	ppb	98
63) 4-Nitroaniline	9.70	138	420650	54.22028	ppb	99
66) 4,6-Dinitro-2-methylphenol	9.73	198	311911	53.03203	ppb	93
67) Diphenyl amine	9.80	169	2162463	107.50184	ppb	100
68) n-Nitrosodiphenylamine	9.80	169	2162463	107.50184	ppb	100
69) 1,2-Diphenylhydrazine	9.84	77	1695571	53.33747	ppb	99
70) 4-Bromophenyl phenyl ether	10.23	248	437136	54.27755	ppb	99
71) Hexachlorobenzene	10.29	284	452662	53.43946	ppb	99
72) Atrazine	10.42	200	197650	26.84206	ppb	97
73) Pentachlorophenol	10.54	266	309297	59.01216	ppb	99
74) Phenanthrene	10.80	178	2246396	54.35552	ppb	99
75) Anthracene	10.85	178	2281500	53.66780	ppb	99
76) Carbazol	11.05	167	2191030	55.15512	ppb	100
77) Di-n-butylphthalate	11.43	149	2526356	54.92516	ppb	100
78) Fluoranthene	12.19	202	2427776	54.73973	ppb	100
80) Benzidine	12.35	184	825611	51.15685	ppb	100
81) Pyrene	12.46	202	2516603	53.62147	ppb	99
83) Butyl benzylphthalate	13.19	149	1160264	55.35558	ppb	99
84) 3,3'-Dichlorobenzidine	13.82	252	849867	55.56200	ppb	98
85) Benz (a) anthracene	13.86	228	2087278	52.35444	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1432432	54.38735	ppb	99
87) Chrysene	13.91	228	2273158	54.19765	ppb	99
88) Di-n-octylphthalate	14.63	149	2750182	56.15720	ppb	100
90) Benzo (b) fluoranthene	15.23	252	2514138	57.18729	ppb	99
91) Benzo (k) fluoranthene	15.27	252	2272144	54.23926	ppb	99
92) Benzo (a) pyrene	15.73	252	2289672	57.24849	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.85	276	2592373	55.94598	ppb	96
94) Dibenz (a,h) anthracene	17.90	278	2274408	57.78747	ppb	99
95) Benzo (g,h,i) perylene	18.48	276	2117191	56.39188	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y101.D Y1025NC.M Thu Nov 01 18:06:06 2018

Quantitation Report

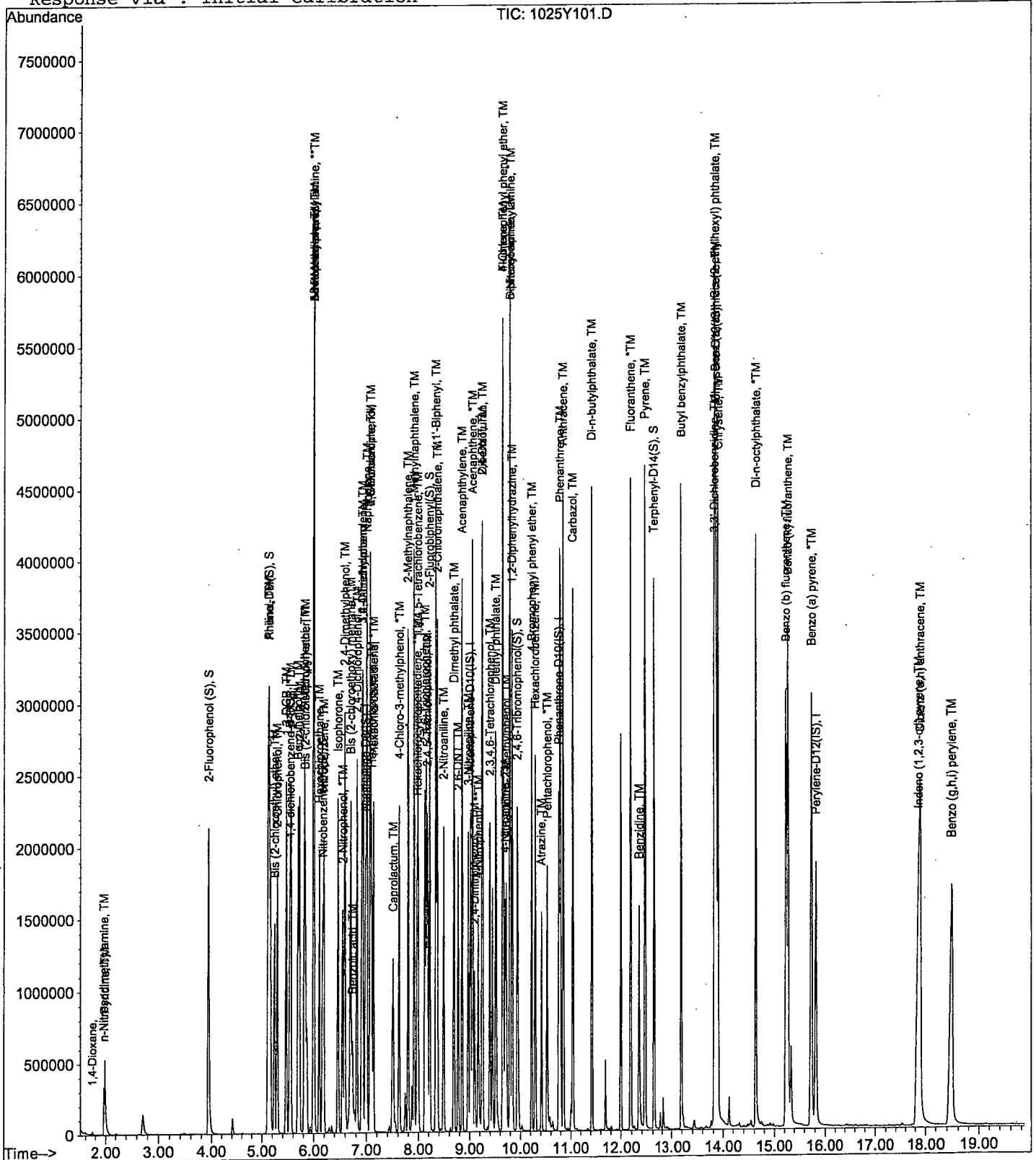
Data File : M:\YODA\DATA\Y181025\1025Y101.D  
Acq On : 1 Nov 18 11:46  
Sample : 50ug/mL 8270 10/18/18 (2)  
Misc :

Vial: 1  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 12:00 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration





Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Ending Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 1 Nov 18 19:36  
Instrument: Yoda  
Initial Cal. Date: 10/25/18  
Data File: 1025Y117.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I
2		1,4-Dioxane	0.1218	0.1365	12	
3	TM	n-Nitrosodimethylamine	0.3216	0.3575	11	TM
4	TM	Pyridine	0.4810	0.4817	0.16	TM
5	S	2-Fluorophenol (S)	1.572	1.450	7.7	S
6	S	Phenol-D6 (S)	1.868	1.684	9.9	S
7	*TM*	Phenol	2.499	2.510	0.42	*TM
8	TM	Aniline	1.998	2.121	6.1	TM
9	TM	Bis (2-chloroethyl) ether	1.307	1.370	4.8	TM
10	TM	2-Chlorophenol	1.946	2.003	2.9	TM
11	TM	1,3-DCB	2.015	2.101	4.2	TM
12	*TM	1,4-DCB	2.019	1.971	2.4	*TM
13	TM	Benzyl alcohol	1.259	1.343	6.6	TM
14	TM	1,2-DCB	1.919	1.917	0.07	TM
15	TM	2-Methylphenol	1.549	1.624	4.8	TM
16	TM	Bis (2-chloroisopropyl) ether	2.474	2.639	6.6	TM
17	TML	Acetophenone	2.188	1.831	16	TML 5.8
18	TML	3&4-Methylphenol	1.681	1.376	18	TML 7.0
19	**TM	n-Nitrosodi-n-propylamine	1.288	1.231	4.4	**TM
20	TM	Hexachloroethane	0.7589	0.7701	1.5	TM
21	I	Napthalene-D8(IS)	ISTD			I
22	S	Nitrobenzene-D5(S)	0.4514	0.4804	6.4	S
23	TM	Nitrobenzene	0.4947	0.5960	20	TM
24	TM	Isophorone	0.8745	1.013	16	TM
25	*TM	2-Nitrophenol	0.2512	0.2949	17	*TM
26	TM	2,4-Dimethylphenol	0.4206	0.4870	16	TM
27	TML	Benzoic acid	0.3415	0.4199	23	TML 8.9
28	TM	Bis (2-chloroethoxy) methane	0.4924	0.5158	4.8	TM
29	*TM	2,4-Dichlorophenol	0.3707	0.3895	5.1	*TM
30	TM	1,2,4-Trichlorobenzene	0.3850	0.3918	1.8	TM
31	TM	3,4-Dimethylphenol	0.5695	0.6102	7.1	TM
32	TM	Naphthalene	1.295	1.322	2.0	TM
33	TM	4-Chloroaniline	0.4852	0.4479	7.7	TM
34	TM	2,6-Dichlorophenol	0.3392	0.3284	3.2	TM
35	TM	Hexachloropropene	0.2572	0.2787	8.3	TM
36	*TM	Hexachlorobutadiene	0.2130	0.2238	5.1	*TM
37	TM	Caprolactum	0.2270	0.2622	16	TM
38	*TM	4-Chloro-3-methylphenol	0.3980	0.4325	8.7	*TM
39	TM	2-Methylnaphthalene	0.8168	0.8387	2.7	TM
40	TM	1-Methylnaphthalene	0.8142	0.8327	2.3	TM

Average

7.7

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 1 Nov 18 19:36  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y117.D

		Compound	MEAN	CCRF	%D	%Drift
41	I	Acenaphthene-D10(IS)	ISTD			I
42	**TML	Hexachlorocyclopentadiene	0.3816	0.4393	15	**TML 3.9
43	TM	1,2,4,5-Tetrachlorobenzene	0.7484	0.7314	2.3	TM
44	*TM	2,4,6-Trichlorophenol	0.5262	0.5541	5.3	*TM
45	TM	2,4,5-Trichlorophenol	0.5571	0.5801	4.1	TM
46	S	2-Fluorobiphenyl(S)	1.667	1.526	8.5	S
47	TM	1,1'-Biphenyl	1.964	1.938	1.3	TM
48	TM	2-Chloronaphthalene	1.564	1.586	1.4	TM
49	TM	2-Nitroaniline	0.5399	0.6025	12	TM
50	TM	Dimethyl phthalate	1.814	1.873	3.3	TM
51	TM	2,6-DNT	0.4186	0.4516	7.9	TM
52	TM	Acenaphthylene	2.523	2.580	2.3	TM
53	TM	3-Nitroaniline	0.4681	0.4966	6.1	TM
54	*TM	Acenaphthene	1.528	1.483	3.0	*TM
55	**TML	2,4-Dinitrophenol	0.2155	0.3030	41	**TML 11
56	**TM	4-Nitrophenol	0.3618	0.4369	21	**TM
57	TM	Dibenzofuran	2.109	1.997	5.3	TM
58	TM	2,4-DNT	0.5331	0.5283	0.90	TM
59	TM	2,3,4,6-Tetrachlorophenol	0.4598	0.4864	5.8	TM
60	TM	Diethyl phthalate	1.746	1.805	3.4	TM
61	TML	4-Chlorophenyl phenyl ether	0.7439	0.6908	7.1	TML 1.6
62	TML	Fluorene	1.604	1.522	5.1	TML 3.4
63	TM	4-Nitroaniline	0.4889	0.5297	8.3	TM
64	S	2,4,6-Tribromophenol(S)	0.2019	0.1867	7.5	S
65	I	Phenanthrene-D10(IS)	ISTD			I
66	TML	4,6-Dinitro-2-methylphenol	0.1817	0.2130	17	TML 7.1
67	TM	Diphenyl amine	0.6800	0.6425	5.5	TM
68	*TM	n-Nitrosodiphenylamine	0.6800	0.6425	5.5	*TM
69	TM	1,2-Diphenylhydrazine	1.075	1.282	19	TM
70	TM	4-Bromophenyl phenyl ether	0.2723	0.2772	1.8	TM
71	TM	Hexachlorobenzene	0.2863	0.2860	0.12	TM
72	TM	Atrazine	0.2489	0.2659	6.8	TM
73	*TM	Pentachlorophenol	0.1772	0.2058	16	*TM
74	TM	Phenanthrene	1.397	1.382	1.1	TM
75	TM	Anthracene	1.437	1.457	1.4	TM
76	TM	Carbazol	1.343	1.401	4.3	TM
77	TM	Di-n-butylphthalate	1.555	1.629	4.8	TM
78	*TM	Fluoranthene	1.499	1.515	1.1	*TM
79	I	Chrysene-D12(IS)	ISTD			I
80	TM	Benzidine	0.5685	0.5568	2.1	TM

Average

7.1

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 1 Nov 18 19:36  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y117.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	Pyrene	1.653	1.748	5.7	TM
82	S	Terphenyl-D14(S)	1.059	1.001	5.5	S
83	TM	Butyl benzylphthalate	0.7384	0.8119	10.0	TM
84	TM	3,3'-Dichlorobenzidine	0.5388	0.5487	1.8	TM
85	TM	Benz (a) anthracene	1.404	1.344	4.3	TM
86	TM	Bis (2-ethylhexyl) phthalate	0.9278	0.9010	2.9	TM
87	TM	Chrysene	1.477	1.526	3.3	TM
88	*TM	Di-n-octylphthalate	1.725	1.906	10	*TM
89	I	Perylene-D12(IS)	ISTD			I
90	TM	Benzo (b) fluoranthene	1.499	1.527	1.9	TM
91	TM	Benzo (k) fluoranthene	1.428	1.432	0.28	TM
92	*TM	Benzo (a) pyrene	1.364	1.461	7.1	*TM
93	TM	Indeno (1,2,3-cd) pyrene	1.580	1.636	3.6	TM
94	TM	Dibenz (a,h) anthracene	1.342	1.399	4.3	TM
95	TM	Benzo (g,h,i) perylene	1.280	1.356	5.9	TM
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120						

Average

4.8

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y117.D  
 Acq On : 1 Nov 18 19:36  
 Sample : 50ug/mL 8270 10/18/18 (2)  
 Misc :

Vial: 17  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Nov 2 8:25 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	414395	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1562731	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	835105	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.77	188	1566958	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.88	240	1436803	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.83	264	1634152	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.94	112	1502511	92.27773	ppb	0.00
Spiked Amount 200.000			Recovery =	46.139%		
6) Phenol-D6 (S)	5.13	99	1744854	90.14565	ppb	0.00
Spiked Amount 200.000			Recovery =	45.073%		
22) Nitrobenzene-D5 (S)	6.17	82	938466	53.21095	ppb	0.00
Spiked Amount 100.000			Recovery =	53.211%		
46) 2-Fluorobiphenyl (S)	8.22	172	1592837	45.75774	ppb	0.00
Spiked Amount 100.000			Recovery =	45.758%		
64) 2,4,6-Tribromophenol (S)	9.95	330	389848	92.50031	ppb	0.00
Spiked Amount 200.000			Recovery =	46.250%		
82) Terphenyl-D14 (S)	12.62	244	1797298	47.25377	ppb	0.00
Spiked Amount 100.000			Recovery =	47.254%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	7070	5.60261		90
3) n-Nitrosodimethylamine	1.98	42	185167	55.58510	ppb	96
4) Pyridine	1.99	79	249526	50.07933	ppb	94
7) Phenol	5.15	94	1300177	50.21063	ppb	87
8) Aniline	5.15	66	1098623	53.07397	ppb	# 68
9) Bis (2-chloroethyl) ether	5.24	63	709433	52.38512	ppb	99
10) 2-Chlorophenol	5.30	128	1037342	51.45573	ppb	97
11) 1,3-DCB	5.47	146	1088299	52.12092	ppb	96
12) 1,4-DCB	5.56	146	1021042	48.81226	ppb	100
13) Benzyl alcohol	5.71	108	695462	53.30890	ppb	98
14) 1,2-DCB	5.73	146	993139	49.96290	ppb	100
15) 2-Methylphenol	5.83	107	841290	52.41216	ppb	98
16) Bis (2-chloroisopropyl) et	5.84	45	1366753	53.31726	ppb	94
17) Acetophenone	6.01	105	948652	47.09714	ppb	92
18) 3&4-Methylphenol	6.01	107	1425439	93.00678	ppb	97
19) n-Nitrosodi-n-propylamine	6.03	70	637834	47.79862	ppb	86
20) Hexachloroethane	6.11	117	398931	50.73800	ppb	98
23) Nitrobenzene	6.20	77	1164296	60.23631	ppb	95
24) Isophorone	6.47	82	1978184	57.90073	ppb	97
25) 2-Nitrophenol	6.55	139	576126	58.70797	ppb	93
26) 2,4-Dimethylphenol	6.60	122	951376	57.90211	ppb	96
27) Benzoic acid	6.77	105	820237	54.42568	ppb	100
28) Bis (2-chloroethoxy) metha	6.70	93	1007563	52.37869	ppb	98
29) 2,4-Dichlorophenol	6.83	162	760831	52.53477	ppb	96
30) 1,2,4-Trichlorobenzene	6.92	180	765318	50.88264	ppb	98
31) 3,4-Dimethylphenol	6.93	107	1191964	53.56938	ppb	98
32) Napthalene	7.01	128	2582195	51.01901	ppb	100
33) 4-Chloroaniline	7.07	127	875004	46.16267	ppb	96
34) 2,6-Dichlorophenol	7.08	162	641427	48.39977	ppb	98
35) Hexachloropropene	7.10	213	544334	54.16337	ppb	99
36) Hexachlorobutadiene	7.14	225	437266	52.54867	ppb	100
37) Caprolactum	7.53	55	512170	57.76153	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y117.D Y1025NC.M Fri Nov 02 08:25:05 2018

Data File : M:\YODA\DATA\Y181025\1025Y117.D Vial: 17  
 Acq On : 1 Nov 18 19:36 Operator: MA  
 Sample : 50ug/mL 8270 10/18/18 (2) Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Nov 2 8:25 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	844838	54.32937	ppb	94
39) 2-Methylnaphthalene	7.81	142	1638358	51.34275	ppb	100
40) 1-Methylnaphthalene	7.92	142	1626638	51.13601	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	458595	51.96093	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	763471	48.86259	ppb	98
44) 2,4,6-Trichlorophenol	8.13	196	578421	52.65123	ppb	99
45) 2,4,5-Trichlorophenol	8.19	196	605575	52.06526	ppb	93
47) 1,1'-Biphenyl	8.34	154	2023530	49.35713	ppb	98
48) 2-Chloronaphthalene	8.37	162	1655829	50.71343	ppb	97
49) 2-Nitroaniline	8.49	65	628922	55.79595	ppb	94
50) Dimethyl phthalate	8.70	163	1955046	51.63530	ppb	100
51) 2,6-DNT	8.78	165	471440	53.93994	ppb #	81
52) Acenaphthylene	8.86	152	2692796	51.12643	ppb	99
53) 3-Nitroaniline	8.99	138	518363	53.04014	ppb	96
54) Acenaphthene	9.06	154	1547604	48.50579	ppb	99
55) 2,4-Dinitrophenol	9.11	184	316248	55.47731	ppb	94
56) 4-Nitrophenol	9.18	65	456104	60.38150	ppb	97
57) Dibenzofuran	9.26	168	2084753	47.34469	ppb	96
58) 2,4-DNT	9.25	165	551500	49.54766	ppb #	79
59) 2,3,4,6-Tetrachlorophenol	9.40	232	507758	52.89459	ppb	96
60) Diethyl phthalate	9.52	149	1884557	51.71282	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.65	204	721098	50.80015	ppb	93
62) Fluorene	9.66	166	1588487	51.69928	ppb	99
63) 4-Nitroaniline	9.71	138	552982	54.17374	ppb	96
66) 4,6-Dinitro-2-methylphenol	9.74	198	417136	53.53098	ppb	96
67) Diphenyl amine	9.81	169	2517074	94.48988	ppb	98
68) n-Nitrosodiphenylamine	9.81	169	2517074	94.48988	ppb	98
69) 1,2-Diphenylhydrazine	9.84	77	2511661	59.66224	ppb	98
70) 4-Bromophenyl phenyl ether	10.23	248	542903	50.90354	ppb	92
71) Hexachlorobenzene	10.30	284	560189	49.93955	ppb	90
72) Atrazine	10.42	200	260437	26.70815	ppb	97
73) Pentachlorophenol	10.54	266	403130	58.08086	ppb	99
74) Phenanthrene	10.80	178	2706410	49.45076	ppb	99
75) Anthracene	10.85	178	2854694	50.70782	ppb	100
76) Carbazol	11.05	167	2743782	52.15659	ppb	98
77) Di-n-butylphthalate	11.43	149	3191544	52.39619	ppb	99
78) Fluoranthene	12.19	202	2967949	50.53271	ppb	100
80) Benzidine	12.35	184	999955	48.96702	ppb	99
81) Pyrene	12.46	202	3139808	52.87155	ppb	100
83) Butyl benzylphthalate	13.19	149	1458140	54.97923	ppb	95
84) 3,3'-Dichlorobenzidine	13.82	252	985465	50.91702	ppb	97
85) Benz (a) anthracene	13.86	228	2414527	47.86303	ppb	99
86) Bis (2-ethylhexyl) phthala	13.84	149	1618282	48.55936	ppb	99
87) Chrysene	13.91	228	2740519	51.63908	ppb	99
88) Di-n-octylphthalate	14.63	149	3423300	55.24384	ppb	97
90) Benzo (b) fluoranthene	15.23	252	3118297	50.92610	ppb	99
91) Benzo (k) fluoranthene	15.28	252	2925497	50.14066	ppb	99
92) Benzo (a) pyrene	15.74	252	2984032	53.56816	ppb	98
93) Indeno (1,2,3-cd) pyrene	17.86	276	3341985	51.78315	ppb	97
94) Dibenz (a,h) anthracene	17.91	278	2858171	52.13941	ppb	99
95) Benzo (g,h,i) perylene	18.49	276	2769337	52.95962	ppb	100

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

1025Y117.D Y1025NC.M Fri Nov 02 08:25:06 2018

Quantitation Report

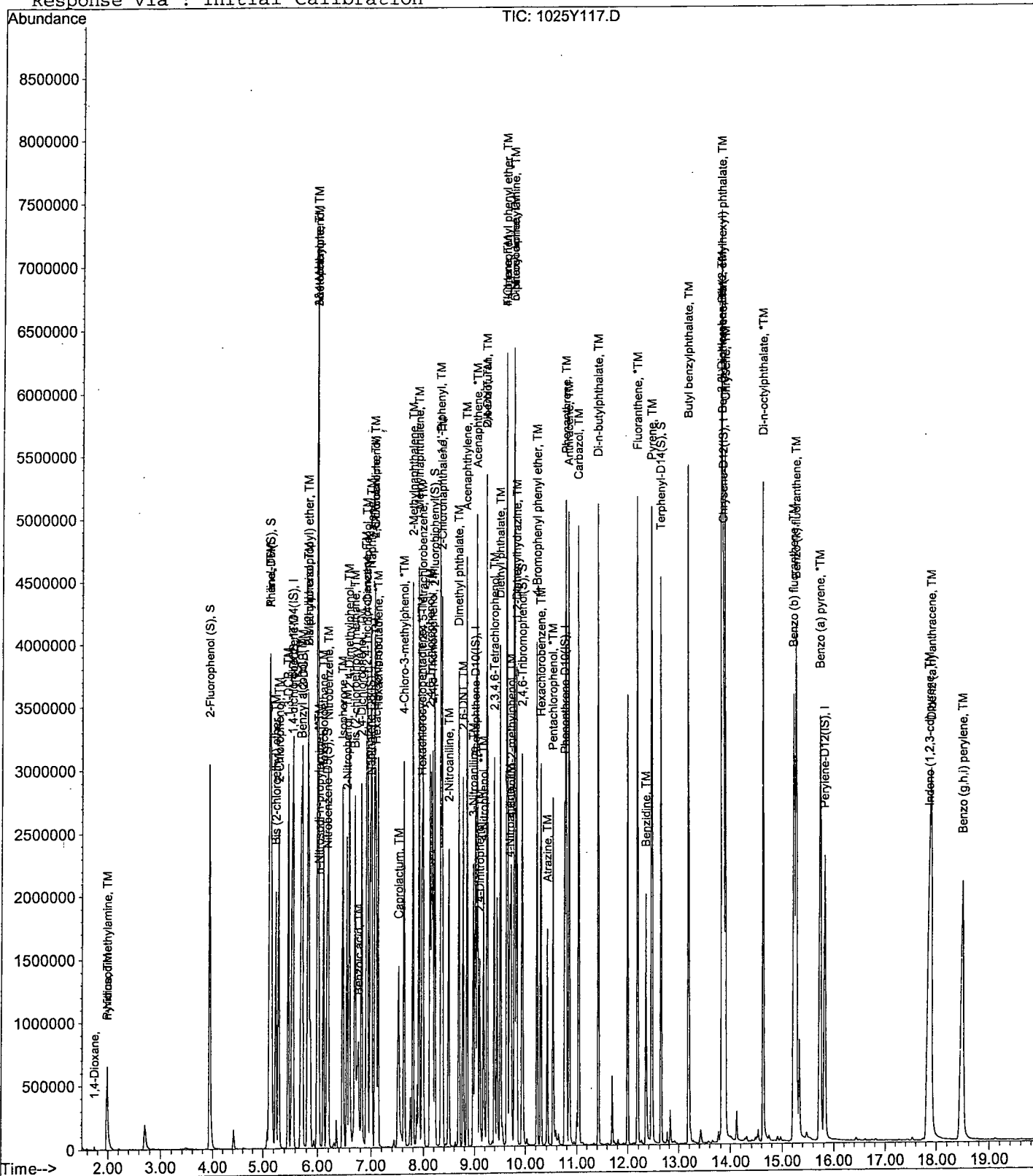
Data File : M:\YODA\DATA\Y181025\1025Y117.D  
Acq On : 1 Nov 18 19:36  
Sample : 50ug/mL 8270 10/18/18 (2)  
Misc :

Vial: 17  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 2 8:25 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : M:\YODA\DATA\Y181025\1025Y109.D  
 Acq On : 1 Nov 18 15:54  
 Sample : AZ81676W10 1/800  
 Misc :

Vial: 9  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Nov 2 8:36 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.53	152	253383	40.0000	ppb	-0.01
21) Napthalene-D8 (IS)	6.98	136	985786	40.0000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	488419	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	942647	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	906759	40.0000	ppb	-0.01
89) Perylene-D12 (IS)	15.81	264	891410	40.0000	ppb	-0.01

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	1672527	209.9904	ppb	0.00
Spiked Amount 250.000			Recovery =	83.996%		
6) Phenol-D6 (S)	5.12	99	2084542	220.1625	ppb	0.00
Spiked Amount 250.000			Recovery =	88.065%		
22) Nitrobenzene-D5 (S)	6.17	82	1128055	126.7431	ppb	0.00
Spiked Amount 125.000			Recovery =	101.394%		
46) 2-Fluorobiphenyl (S)	8.22	172	1763150	108.2533	ppb	0.00
Spiked Amount 125.000			Recovery =	86.602%		
64) 2,4,6-Tribromophenol (S)	9.94	330	445737	226.0399	ppb	-0.01
Spiked Amount 250.000			Recovery =	90.416%		
82) Terphenyl-D14 (S)	12.62	244	1898678	98.8742	ppb	0.00
Spiked Amount 125.000			Recovery =	79.099%		

Target Compounds

Qvalue



Quantitation Report

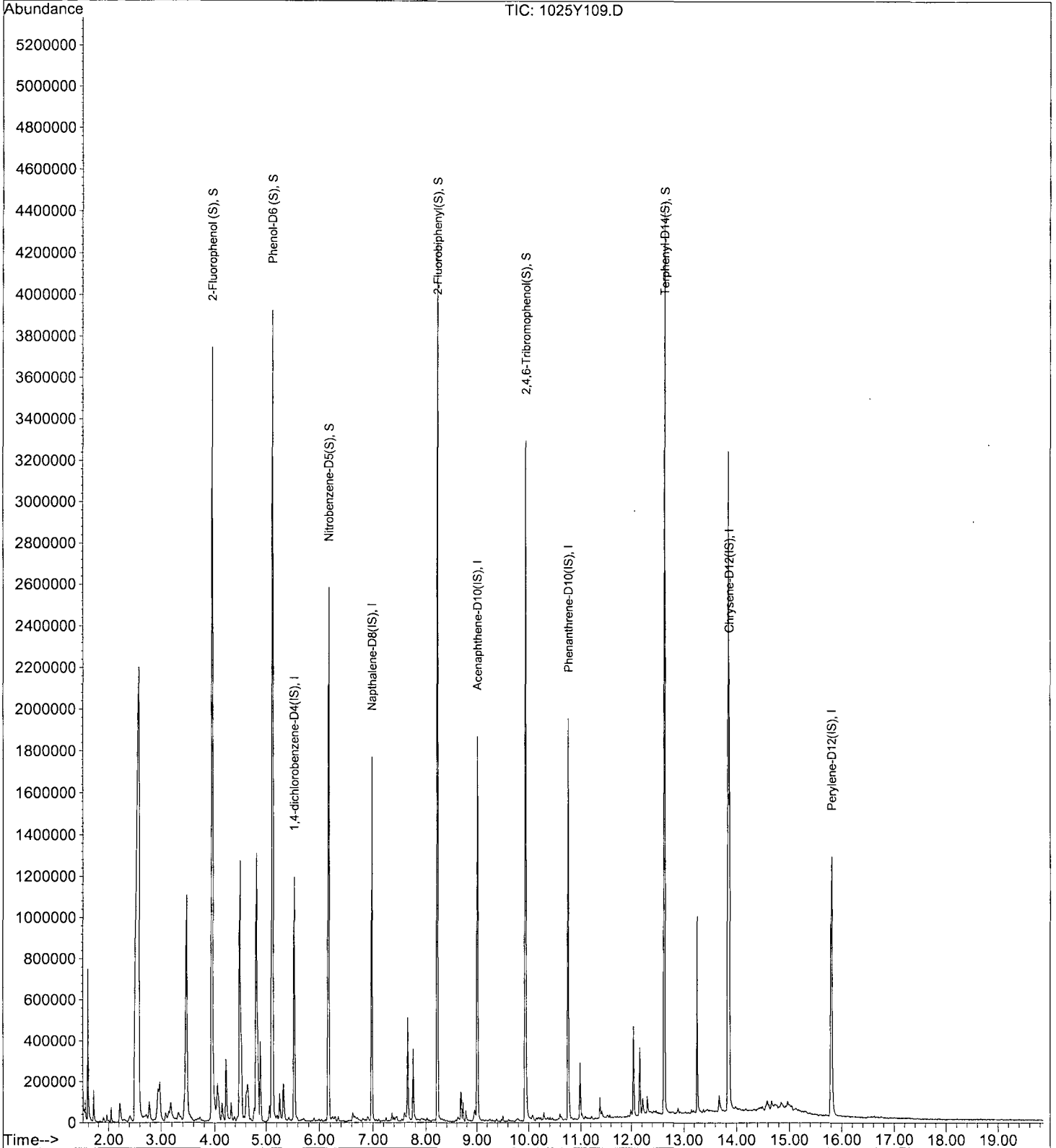
Data File : M:\YODA\DATA\Y181025\1025Y109.D  
Acq On : 1 Nov 18 15:54  
Sample : AZ81676W10 1/800  
Misc :

Vial: 9  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Nov 2 8:36 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



## LSC Area Percent Report

Data File : M:\YODA\DATA\Y181025\1025Y109.D  
 Acq On : 1 Nov 18 15:54  
 Sample : AZ81676W10 1/800  
 Misc :  
 MS Integration Params: LSCINT.P

Vial: 9  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25000

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.002  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

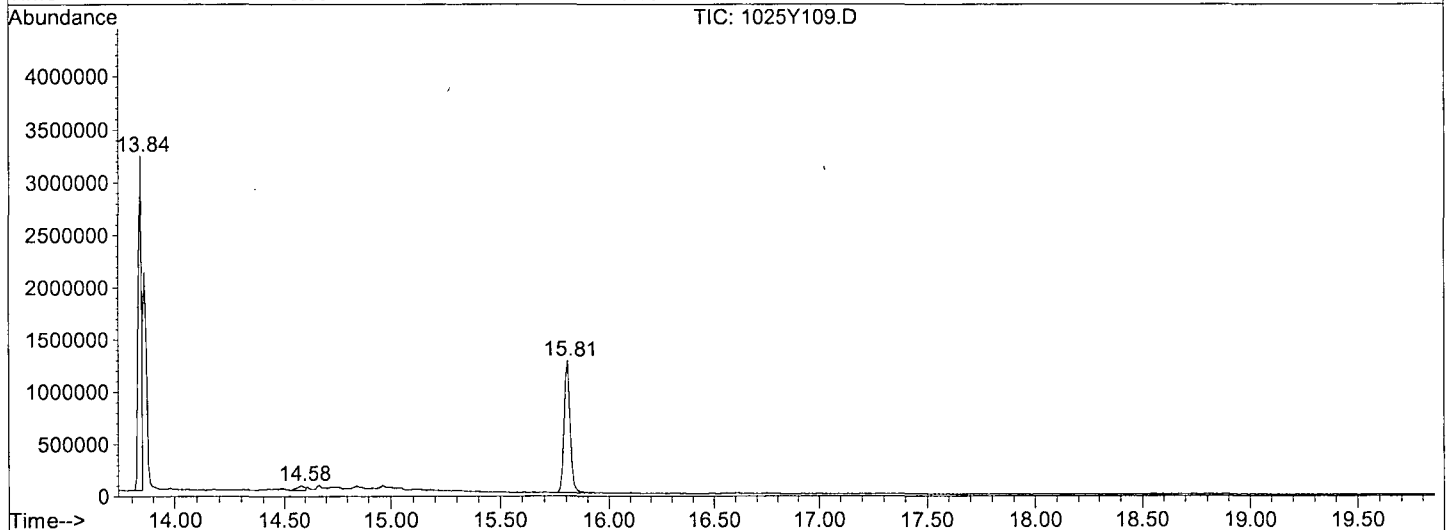
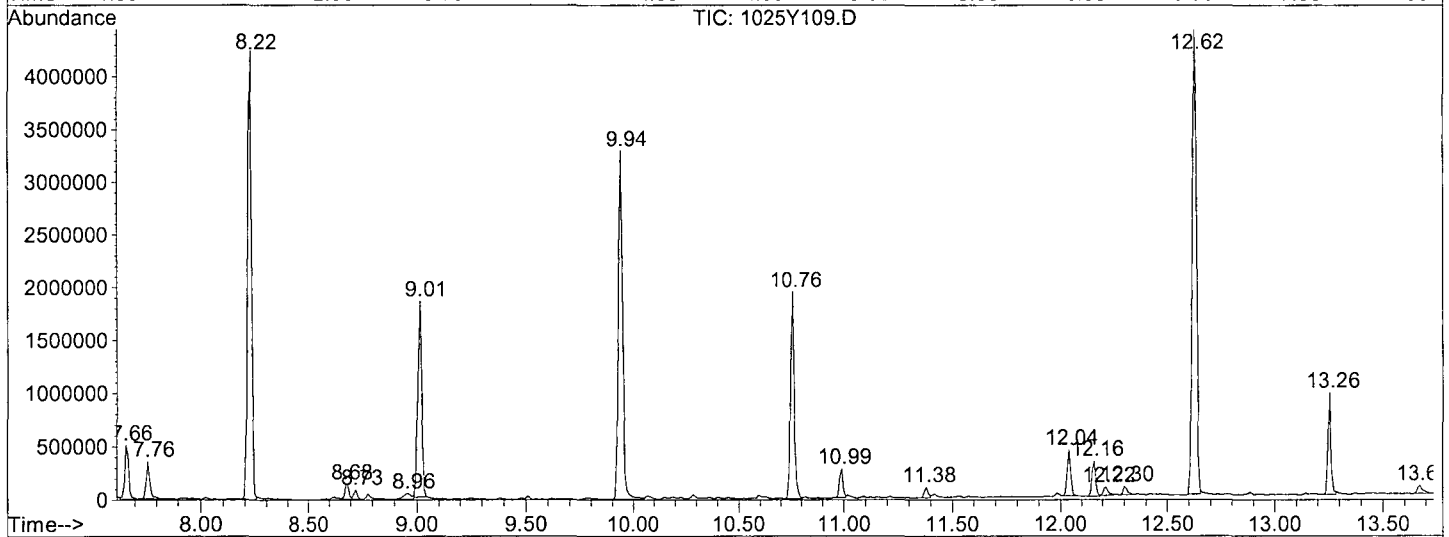
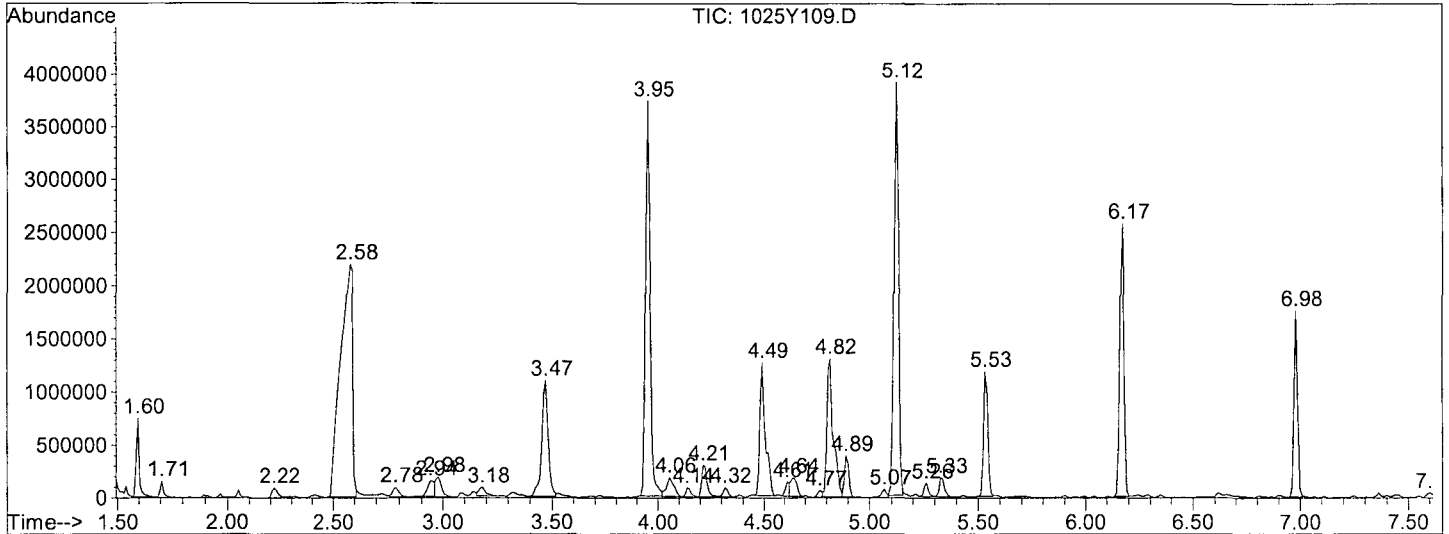
If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	1.596	9	12	21	rVB	741120	1428518	758069	8.74%	1.078%
2	1.707	21	24	32	rVB	153628	760917	171487	1.98%	0.244%
3	2.218	76	79	84	rBV2	93895	631305	188682	2.17%	0.268%
4	2.580	107	118	121	rBV	2190378	9468202	8675664	100.00%	12.332%
5	2.784	137	140	147	rVB	89796	777046	166520	1.92%	0.237%
6	2.942	152	157	159	rBV2	149091	734003	341149	3.93%	0.485%
7	2.979	159	161	170	rVB	188935	1464555	347862	4.01%	0.494%
8	3.183	180	183	191	rVB2	81110	940073	183410	2.11%	0.261%
9	3.471	206	214	219	rBV	1093655	2917767	2189605	25.24%	3.112%
10	3.954	262	266	273	rBV	3723592	6803108	5891861	67.91%	8.375%
11	4.056	273	277	283	rVB4	180202	1140175	439806	5.07%	0.625%
12	4.139	283	286	292	rVB2	83626	641169	140283	1.62%	0.199%
13	4.214	292	294	302	rBV	297276	1285278	500877	5.77%	0.712%
14	4.316	302	305	309	rVB	84496	526969	129614	1.49%	0.184%
15	4.492	320	324	331	rVV2	1251826	3027884	2348001	27.06%	3.338%
16	4.613	334	337	338	rVV2	130943	433481	189555	2.18%	0.269%
17	4.641	338	340	345	rVB3	173443	1034165	366190	4.22%	0.521%
18	4.771	350	354	355	rBV2	62000	363515	94701	1.09%	0.135%
19	4.817	355	359	365	rVV3	1301084	3337901	2657615	30.63%	3.778%
20	4.891	365	367	371	rVB	388391	1095108	522770	6.03%	0.743%
21	5.068	378	386	388	rBV3	75346	656070	130641	1.51%	0.186%
22	5.123	388	392	395	rBV	3902256	6346171	5780399	66.63%	8.217%
23	5.263	404	407	411	rBV	123922	611356	178940	2.06%	0.254%
24	5.328	411	414	419	rVB	176945	749299	289903	3.34%	0.412%
25	5.532	433	436	440	rBV	1179058	2032703	1583002	18.25%	2.250%
26	6.172	501	505	508	rBV	2571308	3766812	3310643	38.16%	4.706%
27	6.980	589	592	595	rBV	1758832	2533111	2033165	23.44%	2.890%
28	7.602	655	659	662	rBV2	39010	464691	89668	1.03%	0.127%
29	7.658	662	665	671	rVV	503266	1183791	649686	7.49%	0.924%
30	7.760	673	676	683	rVV	347396	1001771	428479	4.94%	0.609%
31	8.224	722	726	729	rBV	4240566	5699956	5265173	60.69%	7.484%
32	8.679	773	775	778	rVV	140746	492988	189848	2.19%	0.270%
33	8.725	778	780	784	rVB	89549	512082	98800	1.14%	0.140%
34	8.957	798	805	808	rBV3	53184	677935	140633	1.62%	0.200%
35	9.013	808	811	814	rVB	1838860	2822522	2195964	25.31%	3.121%
36	9.941	907	911	923	rBV	3288177	5554165	4577911	52.77%	6.507%
37	10.758	995	999	1004	rBV	1945036	3003856	2485574	28.65%	3.533%
38	10.990	1021	1024	1026	rBV	270983	632663	317535	3.66%	0.451%
39	11.380	1063	1066	1068	rBV	99969	414296	124237	1.43%	0.177%
40	12.040	1134	1137	1140	rVV	431644	889671	482126	5.56%	0.685%
41	12.160	1147	1150	1153	rBV	332175	837902	417078	4.81%	0.593%
42	12.216	1153	1156	1160	rVV	76579	581574	127093	1.46%	0.181%
43	12.299	1163	1165	1170	rBV2	82532	580365	113263	1.31%	0.161%
44	12.624	1197	1200	1203	rBV	4394923	6595479	5802090	66.88%	8.247%
45	13.256	1265	1268	1271	rBV	957411	1325207	908892	10.48%	1.292%

LSC Report - Integrated Chromatogram

File : M:\YODA\DATA\Y181025\1025Y109.D  
 Operator : MA  
 Acquired : 1 Nov 18 15:54 using AcqMethod SVOC416  
 Instrument : Yoda  
 Sample Name: AZ81676W10 1/800  
 Misc Info :  
 Vial Number: 9  
 Quant File : Y1025NC.RES (RTE Integrator)



## Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y109.D Vial: 9  
 Acq On : 1 Nov 18 15:54 Operator: MA  
 Sample : AZ81676W10 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 1 Benzenesulfothioic acid, S-p Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.04	9.70 ppb	482126	Phenanthrene-D10 (IS)	10.76

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzenesulfothioic acid, S-phenyl	250	C12H10O2S2	001212-08-4	91
2		ACRYLONITRILE, 2-PHENYLSULFONE-	193	C9H7NO2S	000000-00-0	35
3		Benzenesulfonamide, N-hydroxy-	173	C6H7NO3S	000599-71-3	32
4		Benzene, 1,1'-[1,2-ethenediylbis(su	308	C14H12O4S2	000963-15-5	23
5		Benzene, (ethenylsulfonyl)-	168	C8H8O2S	005535-48-8	22

\*\*\*\*\*  
 Peak Number 2 Hexanedioic acid, dioctyl este Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.26	12.61 ppb	908892	Chrysene-D12 (IS)	13.86

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	91
2		Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	80
3		Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	78
4		DI-(2-ETHYLHEXYL) ESTER OF ADIPIC A	370	C22H42O4	000000-00-0	72
5		Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	53

Tentatively Identified Compound (LSC) summary

Operator ID: MA Date Acquired: 1 Nov 18 15:54  
Data File: M:\YODA\DATA\Y181025\1025Y109.D  
Name: AZ81676W10 1/800  
Misc:  
Method: M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title: EPA 8270C  
Library Searched: M:\DATABASE\WILEY138.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Benzenesulfonothioic	12.04	9.7	ppb	482126	ISTD04	10.76	2485570	40.0
Hexanedioic acid, di	13.26	12.6	ppb	908892	ISTD05	13.86	3604740	40.0

1025Y109.D Y1025NC.M Wed Nov 07 07:30:30 2018

Data File : M:\YODA\DATA\Y181025\1025Y110.D Vial: 10  
 Acq On : 1 Nov 18 16:21 Operator: MA  
 Sample : AZ81677W10 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Time: Nov 2 8:35 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.53	152	279576	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1149253	40.0000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	573726	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1115500	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1094160	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	1053584	40.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol (S)	3.95	112	1465642	166.7753	ppb	0.00
Spiked Amount 250.000			Recovery =	66.710%		
6) Phenol-D6 (S)	5.13	99	1894692	181.3631	ppb	0.00
Spiked Amount 250.000			Recovery =	72.545%		
22) Nitrobenzene-D5 (S)	6.17	82	1006780	97.0277	ppb	0.00
Spiked Amount 125.000			Recovery =	77.622%		
46) 2-Fluorobiphenyl (S)	8.23	172	1696967	88.6979	ppb	0.00
Spiked Amount 125.000			Recovery =	70.958%		
64) 2,4,6-Tribromophenol (S)	9.94	330	417529	180.2524	ppb	0.00
Spiked Amount 250.000			Recovery =	72.101%		
82) Terphenyl-D14 (S)	12.63	244	1896035	81.8256	ppb	0.00
Spiked Amount 125.000			Recovery =	65.461%		

Target Compounds Qvalue

Quantitation Report

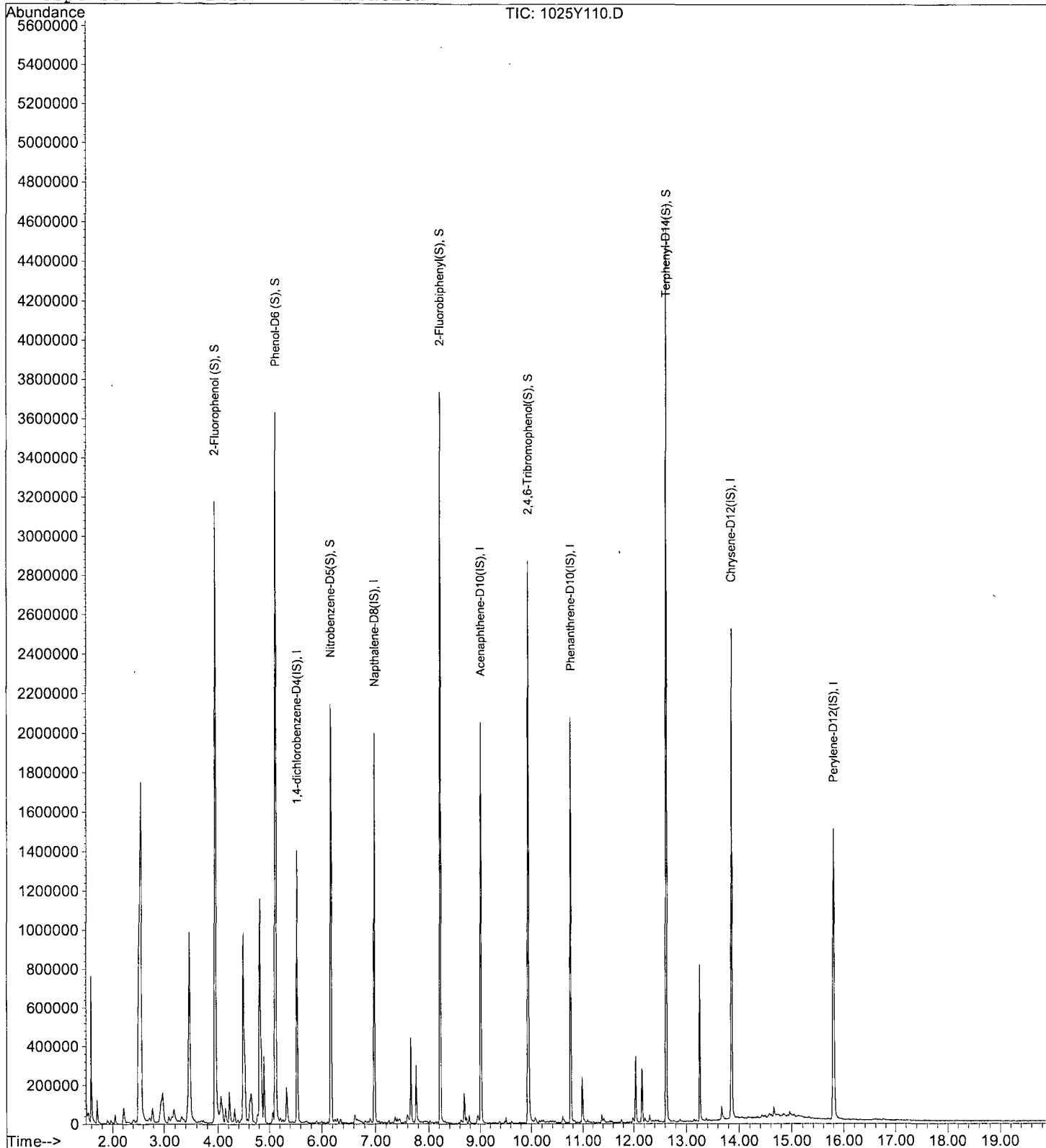
Data File : M:\YODA\DATA\Y181025\1025Y110.D  
Acq On : 1 Nov 18 16:21  
Sample : AZ81677W10 1/800  
Misc :

Vial: 10  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Nov 2 8:35 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



LSC Area Percent Report

Data File : M:\YODA\DATA\Y181025\1025Y110.D  
 Acq On : 1 Nov 18 16:21  
 Sample : AZ81677W10 1/800  
 Misc :  
 MS Integration Params: LSCINT.P

Vial: 10  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25000

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.002  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

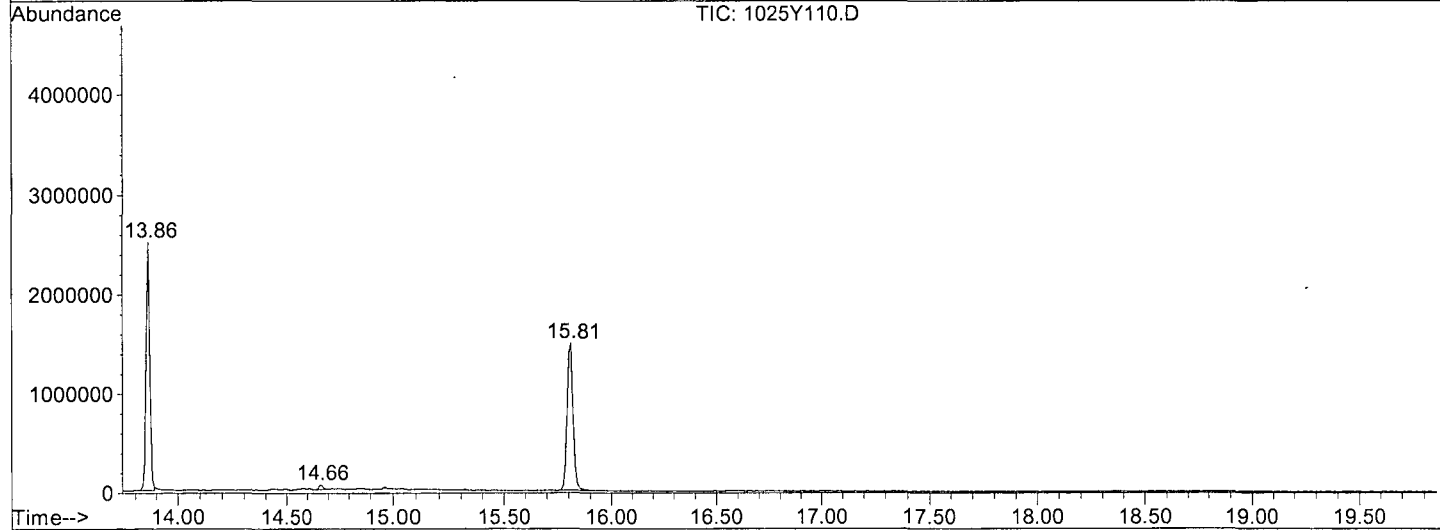
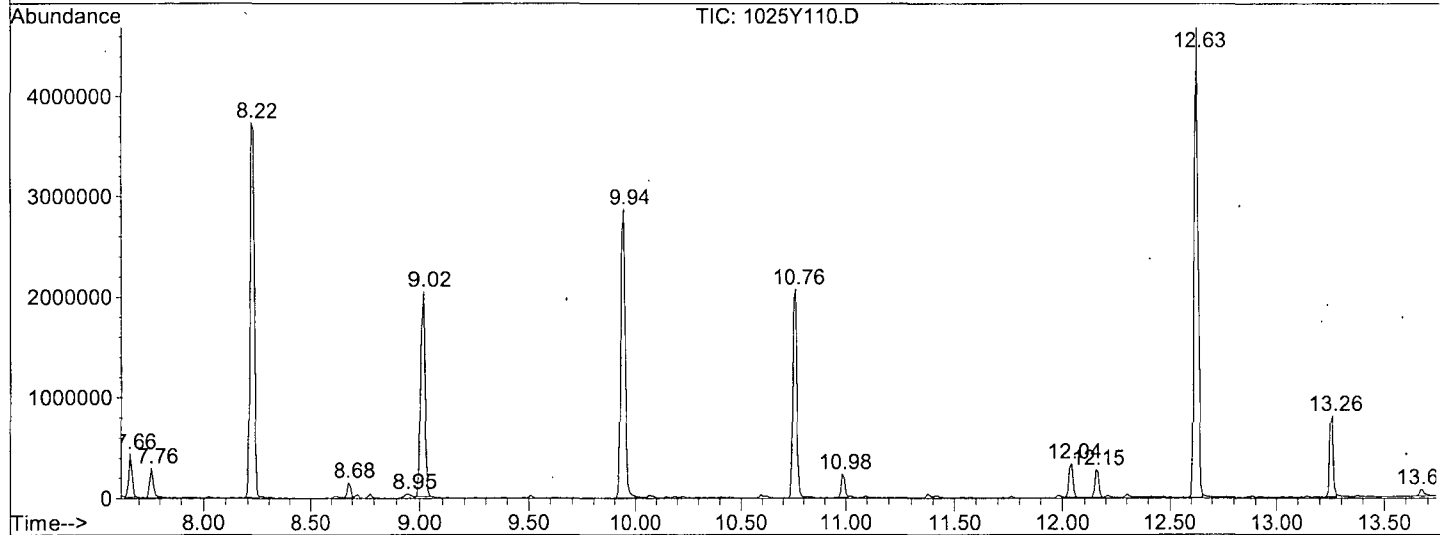
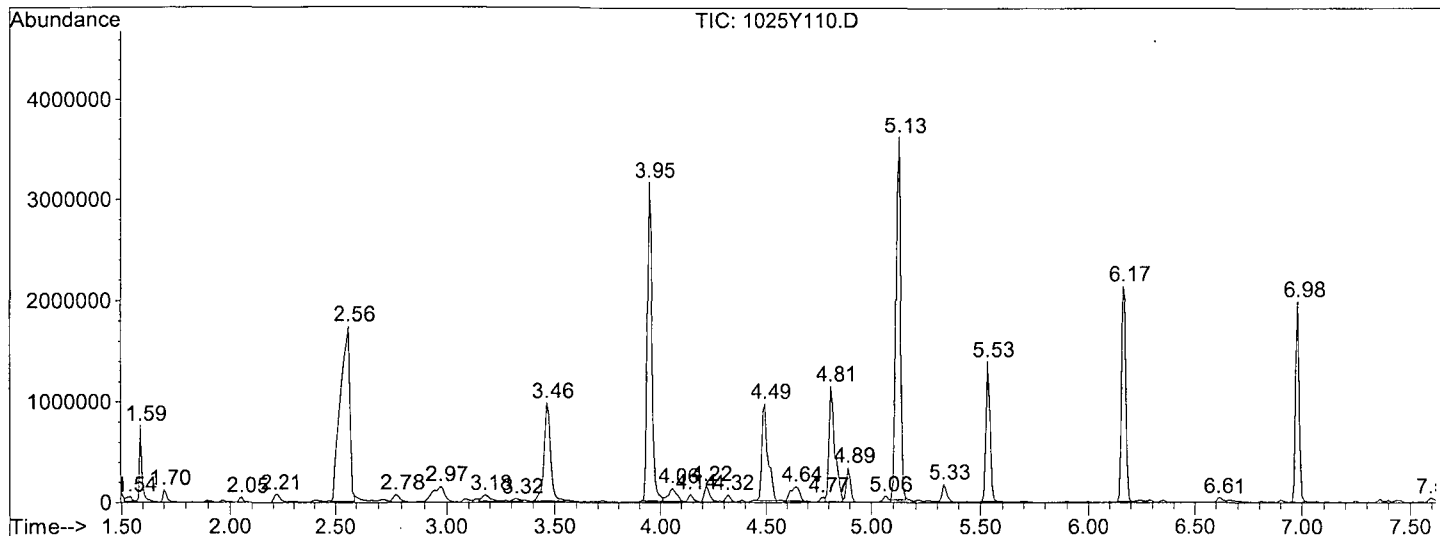
If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	1.542	3	6	9	rVB2	46157	347693	78770	1.35%	0.124%
2	1.589	9	11	21	rVB	757635	1224285	683466	11.75%	1.076%
3	1.700	21	23	33	rVB2	123292	605214	165611	2.85%	0.261%
4	2.053	58	61	70	rVB	48265	464351	70704	1.22%	0.111%
5	2.210	75	78	84	rBV2	81098	476968	181146	3.12%	0.285%
6	2.563	107	116	119	rBV	1737859	6070420	5525654	95.03%	8.695%
7	2.777	136	139	147	rVB	73077	575707	145160	2.50%	0.228%
8	2.972	151	160	169	rVB3	155423	1202295	566331	9.74%	0.891%
9	3.176	179	182	190	rVB2	60933	610080	150500	2.59%	0.237%
10	3.325	194	198	201	rBV2	25842	314957	62362	1.07%	0.098%
11	3.464	205	213	222	rBV	978432	2617028	2020718	34.75%	3.180%
12	3.947	261	265	272	rBV	3158908	5546318	5096088	87.64%	8.020%
13	4.058	272	277	283	rVB3	131776	865206	360945	6.21%	0.568%
14	4.141	283	286	291	rVB	73669	408840	118725	2.04%	0.187%
15	4.216	291	294	300	rBV2	157728	574615	263784	4.54%	0.415%
16	4.318	302	305	309	rVB	69458	361359	103590	1.78%	0.163%
17	4.494	320	324	330	rVB2	966333	2463351	1990179	34.23%	3.132%
18	4.643	334	340	345	rVB5	144661	871282	444420	7.64%	0.699%
19	4.773	350	354	355	rBV2	47316	251688	82179	1.41%	0.129%
20	4.810	355	358	364	rVV2	1150224	2684573	2194856	37.75%	3.454%
21	4.893	364	367	371	rVB	340572	754742	456082	7.84%	0.718%
22	5.061	380	385	388	rBV3	55644	373075	105479	1.81%	0.166%
23	5.126	388	392	395	rBV	3606280	5886205	5263151	90.51%	8.282%
24	5.330	411	414	419	rVB	177928	573473	269859	4.64%	0.425%
25	5.534	433	436	441	rBV	1390465	2195939	1754167	30.17%	2.760%
26	6.165	501	504	508	rBV	2135076	3341700	2967946	51.04%	4.671%
27	6.611	550	552	556	rBV	42507	305459	87634	1.51%	0.138%
28	6.982	588	592	595	rBV	1987956	2626846	2377103	40.88%	3.741%
29	7.595	655	658	662	rBV2	41569	335245	95575	1.64%	0.150%
30	7.660	662	665	668	rVB	425798	701341	466143	8.02%	0.734%
31	7.762	673	676	684	rBV	293578	796312	373451	6.42%	0.588%
32	8.217	722	725	729	rBV	3729756	5400062	5055761	86.95%	7.956%
33	8.681	773	775	778	rBV	146860	386614	175057	3.01%	0.275%
34	8.950	797	804	807	rBV3	43218	431987	104521	1.80%	0.164%
35	9.015	807	811	814	rBV	2032474	2849732	2577675	44.33%	4.056%
36	9.944	907	911	921	rBV	2868367	4974909	4256963	73.21%	6.699%
37	10.761	995	999	1004	rBV	2072526	3203457	2848185	48.98%	4.482%
38	10.983	1021	1023	1026	rBV	232736	521599	291250	5.01%	0.458%
39	12.042	1133	1137	1140	rVB	334197	670991	425804	7.32%	0.670%
40	12.153	1146	1149	1153	rBV	273368	612897	368933	6.34%	0.581%
41	12.627	1196	1200	1203	rBV	4677541	6097749	5814676	100.00%	9.150%
42	13.258	1265	1268	1270	rBV	804962	1206944	953737	16.40%	1.501%
43	13.666	1309	1312	1319	rBV	68189	505995	122879	2.11%	0.193%
44	13.861	1328	1333	1336	rBV	2502158	33999425	3066418	52.74%	4.825%
45	14.660	1417	1419	1424	rBV2	49026	396186	79410	1.37%	0.125%



File : M:\YODA\DATA\Y181025\1025Y110.D  
Operator : MA  
Acquired : 1 Nov 18 16:21 using AcqMethod SVOC416  
Instrument : Yoda  
Sample Name: AZ81677W10 1/800  
Misc Info :  
Vial Number: 10  
Quant File : Y1025NC.RES (RTE Integrator)



Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y110.D Vial: 10  
 Acq On : 1 Nov 18 16:21 Operator: MA  
 Sample : AZ81677W10 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 1 Benzene, methyl- Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.21	5.16 ppb	181146	1,4-dichlorobenzene-D4 (IS)	5.53

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzene, methyl-	92	C7H8	000108-88-3	87
2		Benzene, methyl-	92	C7H8	000108-88-3	87
3		Benzene, methyl-	92	C7H8	000108-88-3	87
4		Benzene, methyl-	92	C7H8	000108-88-3	87
5		Benzene, methyl-	92	C7H8	000108-88-3	81

\*\*\*\*\*  
 Peak Number 2 Disulfide, diphenyl Concentration Rank 18

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.98	5.11 ppb	291250	Phenanthrene-D10 (IS)	10.76

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Disulfide, diphenyl	218	C12H10S2	000882-33-7	97
2		Disulfide, diphenyl	218	C12H10S2	000882-33-7	91
3		Disulfide, diphenyl	218	C12H10S2	000882-33-7	64
4		Disulfide, diphenyl	218	C12H10S2	000882-33-7	60
5		Benzenesulfinothioic acid, S-phenyl	234	C12H10OS2	001208-20-4	42

\*\*\*\*\*  
 Peak Number 3 Benzenesulfonylthioic acid, S-p Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.04	7.48 ppb	425804	Phenanthrene-D10 (IS)	10.76

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzenesulfonylthioic acid, S-phenyl	250	C12H10O2S2	001212-08-4	94
2		Benzenesulfonamide, N-hydroxy-	173	C6H7NO3S	000599-71-3	72
3		2-PHENYL-2-OXO-2-PHOSPHA-3-OXA-8,9.	250	C13H15O3P	055816-83-6	43
4		Benzene, (ethenylsulfonyl)-	168	C8H8O2S	005535-48-8	38
5		2-PROPENOIC ACID, 3-PHENYLSULFON-,	226	C10H10O4S	000000-00-0	35

Tentatively Identified Compound (LSC) summary

Operator ID: MA Date Acquired: 1 Nov 18 16:21  
Data File: M:\YODA\DATA\Y181025\1025Y110.D  
Name: AZ81677W10 1/800  
Misc:  
Method: M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title: EPA 8270C  
Library Searched: M:\DATABASE\WILEY138.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Benzene, methyl-	2.21	5.2	ppb	181146	ISTD01	5.53	1754170	40.0
Disulfide, diphenyl	10.98	5.1	ppb	291250	ISTD04	10.76	2848190	40.0
Benzenesulfonothioic	12.04	7.5	ppb	425804	ISTD04	10.76	2848190	40.0

1025Y110.D Y1025NC.M Wed Nov 07 07:34:06 2018

Data File : M:\YODA\DATA\Y181025\1025Y111.D  
 Acq On : 1 Nov 18 16:49  
 Sample : AZ81678W12 1/800  
 Misc :

Vial: 11  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Nov 2 8:35 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.53	152	274760	40.0000	ppb	-0.01
21) Napthalene-D8 (IS)	6.98	136	1101885	40.0000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	584402	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1140160	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1146140	40.0000	ppb	-0.01
89) Perylene-D12 (IS)	15.81	264	1068067	40.0000	ppb	-0.01

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	1591697	184.2938	ppb	0.00
Spiked Amount	250.000					
			Recovery	=	73.718%	
6) Phenol-D6 (S)	5.12	99	1962180	191.1153	ppb	0.00
Spiked Amount	250.000					
			Recovery	=	76.446%	
22) Nitrobenzene-D5 (S)	6.17	82	1030147	103.5475	ppb	0.00
Spiked Amount	125.000					
			Recovery	=	82.838%	
46) 2-Fluorobiphenyl (S)	8.22	172	1758617	90.2410	ppb	0.00
Spiked Amount	125.000					
			Recovery	=	72.193%	
64) 2,4,6-Tribromophenol (S)	9.94	330	437971	185.6234	ppb	-0.01
Spiked Amount	250.000					
			Recovery	=	74.249%	
82) Terphenyl-D14 (S)	12.62	244	1941016	79.9678	ppb	0.00
Spiked Amount	125.000					
			Recovery	=	63.974%	

Target Compounds

Qvalue

Quantitation Report

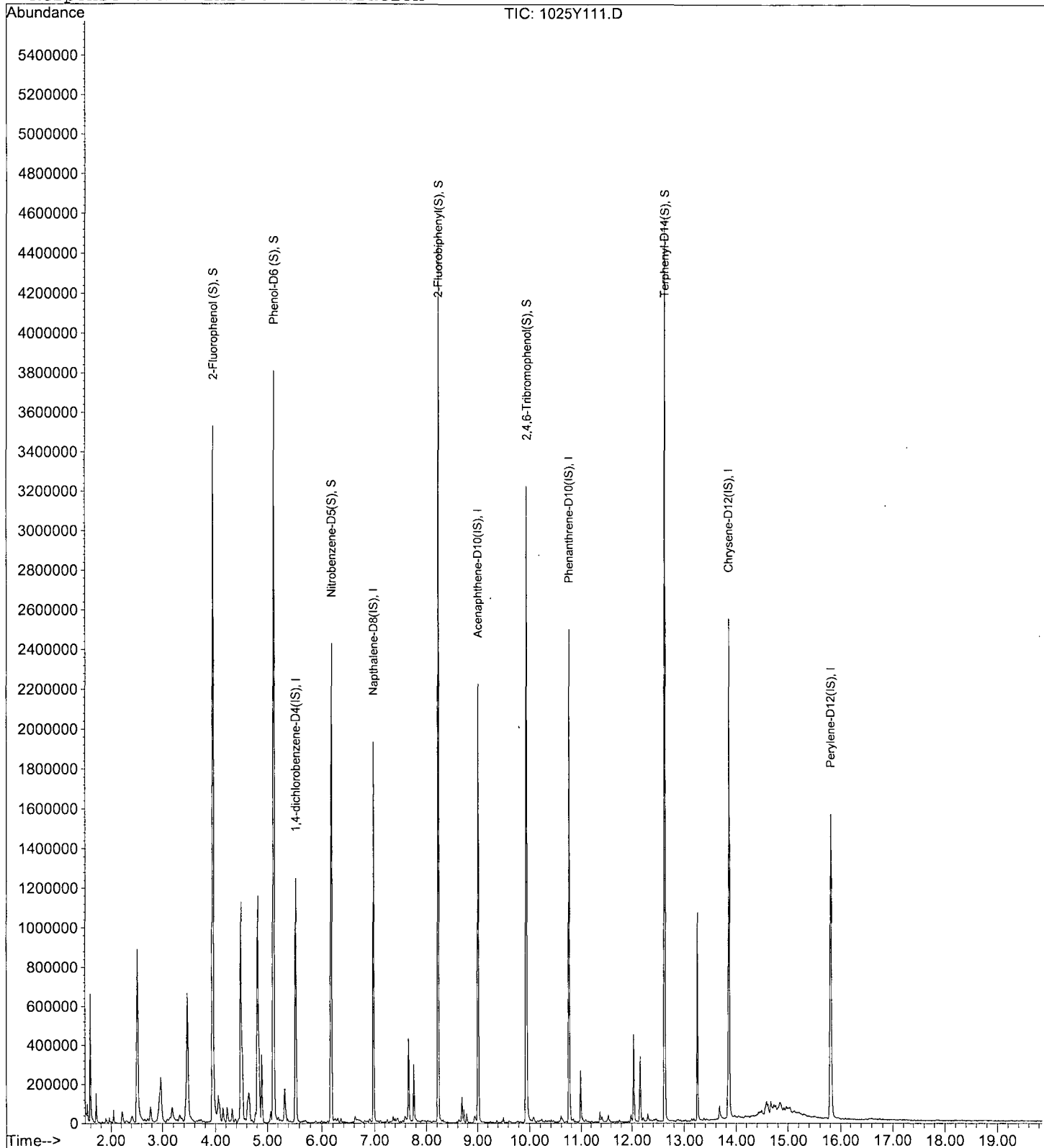
Data File : M:\YODA\DATA\Y181025\1025Y111.D  
Acq On : 1 Nov 18 16:49  
Sample : AZ81678W12 1/800  
Misc :

Vial: 11  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Nov 2 8:35 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



LSC Area Percent Report

Data File : M:\YODA\DATA\Y181025\1025Y111.D  
 Acq On : 1 Nov 18 16:49  
 Sample : AZ81678W12 1/800  
 Misc :  
 MS Integration Params: LSCINT.P

Vial: 11  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25000

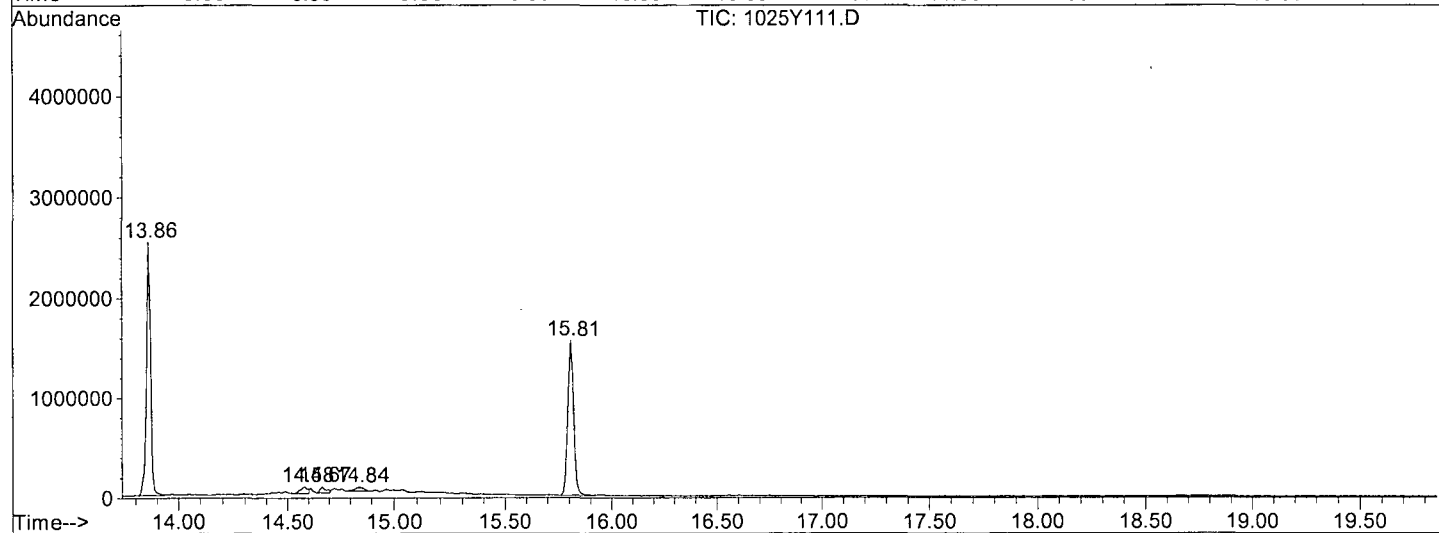
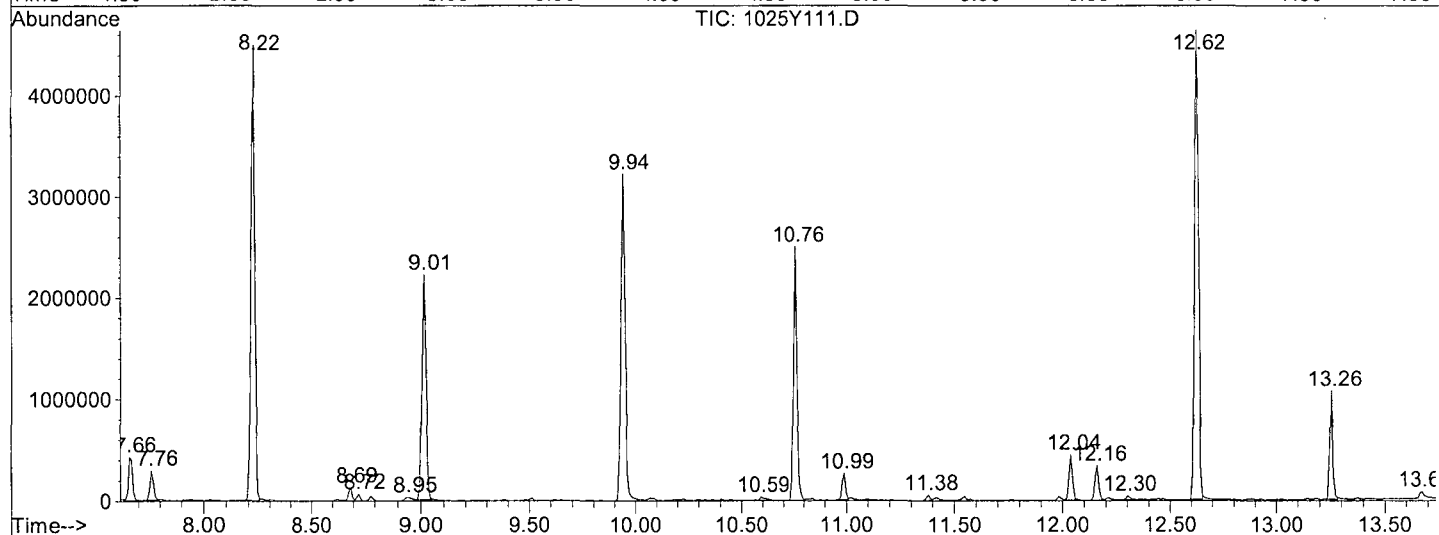
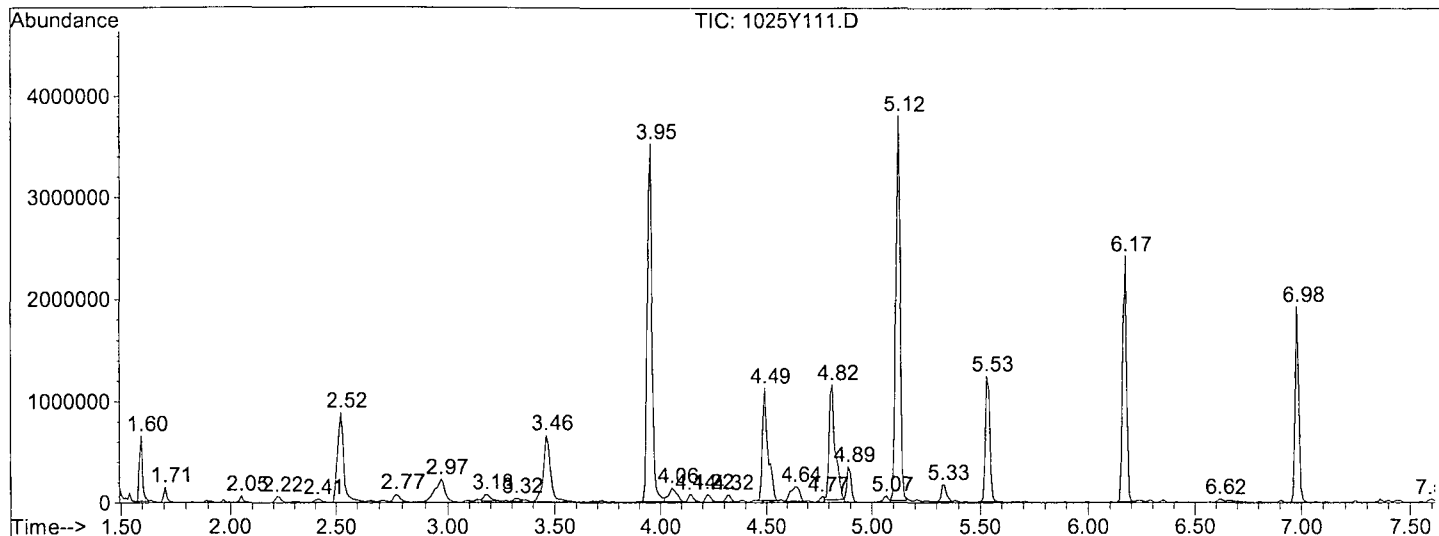
Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.002  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	1.595	10	12	16	rBV	649242	1652589	688485	11.65%	1.110%
2	1.707	21	24	34	rVB	150691	735107	169190	2.86%	0.273%
3	2.050	59	61	66	rVB	65638	398284	62500	1.06%	0.101%
4	2.217	76	79	85	rBV2	60188	524919	129287	2.19%	0.208%
5	2.412	95	100	107	rBV4	32641	609376	89391	1.51%	0.144%
6	2.523	107	112	125	rBV	884107	2656069	1864952	31.56%	3.007%
7	2.774	136	139	147	rVB	78293	688718	151034	2.56%	0.244%
8	2.969	147	160	170	rVB3	226735	1743326	726543	12.29%	1.172%
9	3.183	180	183	190	rVB2	67486	697106	152176	2.57%	0.245%
10	3.322	195	198	201	rVV2	32220	354011	67869	1.15%	0.109%
11	3.461	205	213	229	rVB	659759	2578358	1505275	25.47%	2.427%
12	3.953	261	266	273	rBV	3520432	6212954	5651050	95.62%	9.113%
13	4.055	273	277	283	rVV3	133799	925759	349807	5.92%	0.564%
14	4.139	283	286	292	rVB	73213	541098	134787	2.28%	0.217%
15	4.222	292	295	300	rBV	75889	494116	132075	2.23%	0.213%
16	4.315	302	305	309	rVB	68363	429023	111202	1.88%	0.179%
17	4.492	320	324	331	rVV2	1109886	2628973	2075622	35.12%	3.347%
18	4.640	334	340	345	rVB4	144948	962213	452728	7.66%	0.730%
19	4.770	350	354	355	rBV2	52263	295588	79526	1.35%	0.128%
20	4.816	355	359	365	rVB2	1132325	2736055	2181355	36.91%	3.518%
21	4.891	365	367	371	rVB	345151	929641	464391	7.86%	0.749%
22	5.067	375	386	388	rBV3	58720	661441	109905	1.86%	0.177%
23	5.123	388	392	396	rBV	3792480	6037369	5503487	93.12%	8.875%
24	5.327	411	414	419	rVB	164897	644603	272790	4.62%	0.440%
25	5.531	433	436	442	rVB	1237935	2195703	1710763	28.95%	2.759%
26	6.172	501	505	508	rBV	2420273	3404260	3044546	51.51%	4.910%
27	6.617	550	553	556	rBV	33281	326335	63358	1.07%	0.102%
28	6.980	589	592	600	rVB	1926593	3031260	2302705	38.96%	3.713%
29	7.592	656	658	662	rBV	29065	355400	66574	1.13%	0.107%
30	7.657	662	665	671	rVB	423066	992111	565851	9.57%	0.912%
31	7.759	673	676	680	rBV	288684	672292	352720	5.97%	0.569%
32	8.224	722	726	729	rBV	4489010	5584435	5247379	88.79%	8.462%
33	8.688	773	776	778	rBV	127412	378157	147027	2.49%	0.237%
34	8.725	778	780	783	rVB	65744	330443	70874	1.20%	0.114%
35	8.948	797	804	808	rBV4	34588	557916	90567	1.53%	0.146%
36	9.013	808	811	815	rBV	2212213	3162930	2638446	44.64%	4.255%
37	9.941	907	911	919	rBV	3219671	4966891	4388708	74.26%	7.077%
38	10.591	979	981	989	rVB2	33287	520883	70482	1.19%	0.114%
39	10.758	995	999	1004	rBV	2497633	3376239	2977811	50.39%	4.802%
40	10.990	1021	1024	1026	rBV	258056	545049	299239	5.06%	0.483%
41	11.380	1063	1066	1068	rBV	53278	281385	63921	1.08%	0.103%
42	12.039	1134	1137	1140	rVV	441120	775811	475315	8.04%	0.766%
43	12.160	1147	1150	1154	rBV	334234	774598	406246	6.87%	0.655%
44	12.299	1161	1165	1170	rBV2	37581	462731	60042	1.02%	0.097%
45	12.624	1197	1200	1203	rBV	4631202	6568993	5910089	100.00%	9.530%

File : M:\YODA\DATA\Y181025\1025Y111.D  
 Operator : MA  
 Acquired : 1 Nov 18 16:49 using AcqMethod SVOC416  
 Instrument : Yoda  
 Sample Name: AZ81678W12 1/800  
 Misc Info :  
 Vial Number: 11  
 Quant File : Y1025NC.RES (RTE Integrator)



## Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y111.D Vial: 11  
 Acq On : 1 Nov 18 16:49 Operator: MA  
 Sample : AZ81678W12 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 1 Disulfide, diphenyl Concentration Rank 16

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.99	5.02 ppb	299239	Phenanthrene-D10 (IS)	10.76

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Disulfide, diphenyl	218	C12H10S2	000882-33-7	98
2		Disulfide, diphenyl	218	C12H10S2	000882-33-7	94
3		Benzenesulfinothioic acid, S-phenyl	234	C12H10OS2	001208-20-4	72
4		Disulfide, diphenyl	218	C12H10S2	000882-33-7	68
5		THIENO(3,2-B:4,5-B')DIPYRIDINE 5,5-	218	C10H6N2O2S	034898-63-0	59

\*\*\*\*\*  
 Peak Number 2 Benzenesulfonothioic acid, S-p Concentration Rank 12

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.04	7.98 ppb	475315	Phenanthrene-D10 (IS)	10.76

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzenesulfonothioic acid, S-phenyl	250	C12H10O2S2	001212-08-4	95
2		Benzenesulfonamide, N-hydroxy-	173	C6H7NO3S	000599-71-3	56
3		2-PHENYL-2-OXO-2-PHOSPHA-3-OXA-8,9.	250	C13H15O3P	055816-83-6	38
4		Benzene, (ethenylsulfonyl)-	168	C8H8O2S	005535-48-8	38
5		ACRYLONITRILE, 2-PHENYLSULFONE-	193	C9H7NO2S	000000-00-0	35



Tentatively Identified Compound (LSC) summary

Operator ID: MA      Date Acquired: 1 Nov 18 16:49  
 Data File: M:\YODA\DATA\Y181025\1025Y111.D  
 Name: AZ81678W12 1/800  
 Misc:  
 Method: M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title: EPA 8270C  
 Library Searched: M:\DATABASE\WILEY138.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Disulfide, diphenyl	10.99	5.0	ppb	299239	ISTD04	10.76	2977810	40.0
Benzenesulfonothioic	12.04	8.0	ppb	475315	ISTD04	10.76	2977810	40.0

1025Y111.D Y1025NC.M Wed Nov 07 07:37:43 2018

Data File : M:\YODA\DATA\Y181025\1025Y106.D  
 Acq On : 1 Nov 18 14:30  
 Sample : 181030A BLK 1/800  
 Misc :

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Nov 2 8:37 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	287396	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1151481	40.0000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	562079	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1065879	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1035335	40.0000	ppb	-0.01
89) Perylene-D12 (IS)	15.81	264	1031345	40.0000	ppb	-0.01

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	1731628	191.6804	ppb	0.00
Spiked Amount 250.000						
						Recovery = 76.672%
6) Phenol-D6 (S)	5.12	99	2035408	189.5313	ppb	0.00
Spiked Amount 250.000						
						Recovery = 75.812%
22) Nitrobenzene-D5 (S)	6.17	82	1070349	102.9545	ppb	0.00
Spiked Amount 125.000						
						Recovery = 82.363%
46) 2-Fluorobiphenyl (S)	8.22	172	1881178	100.3638	ppb	0.00
Spiked Amount 125.000						
						Recovery = 80.291%
64) 2,4,6-Tribromophenol (S)	9.94	330	420269	185.1949	ppb	-0.01
Spiked Amount 250.000						
						Recovery = 74.078%
82) Terphenyl-D14 (S)	12.63	244	1880780	85.7789	ppb	0.00
Spiked Amount 125.000						
						Recovery = 68.623%

Target Compounds

Qvalue

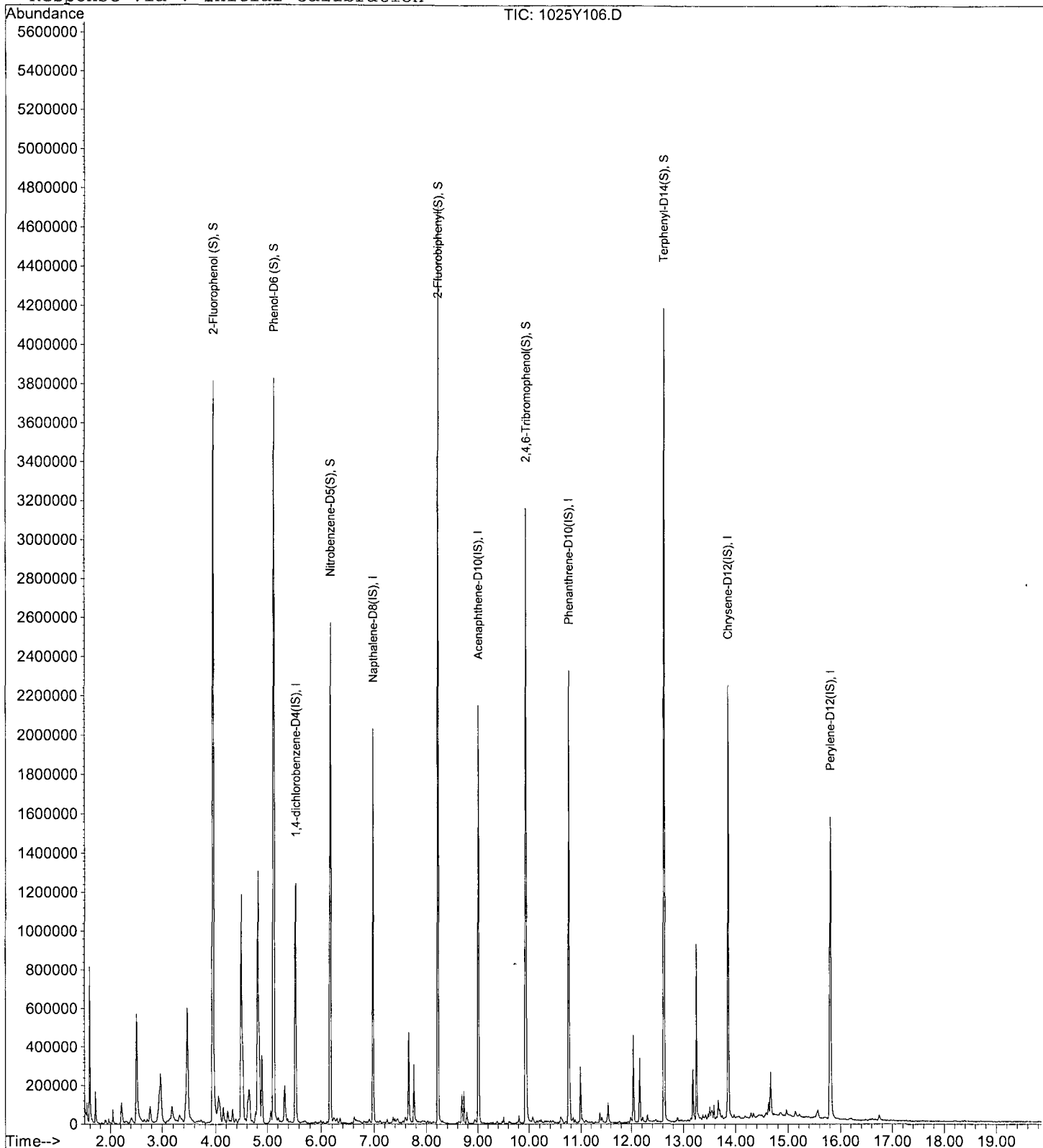
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Acq On : 1 Nov 18 14:30  
Sample : 181030A BLK 1/800  
Misc :

Vial: 6  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Nov 2 8:37 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Tentatively Identified Compound (LSC) summary

Operator ID: MA Date Acquired: 1 Nov 18 14:30  
 Data File: M:\YODA\DATA\Y181025\1025Y106.D  
 Name: 181030A BLK 1/800  
 Misc:  
 Method: M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title: EPA 8270C  
 Library Searched: M:\DATABASE\WILEY138.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
3-Penten-2-ol	1.60	20.8	ppb	743867	ISTD01	5.54	1785910	40.0
Acetic acid, ethyl e	2.51	29.5	ppb	1053400	ISTD01	5.54	1785910	40.0
2-Pentanone, 4-hydro	3.46	40.3	ppb	1439110	ISTD01	5.54	1785910	40.0
Cyclohexane, (1,2,2-	4.64	13.9	ppb	495802	ISTD01	5.54	1785910	40.0
Decane, 3,3,4-trimet	4.82	72.5	ppb	2589210	ISTD01	5.54	1785910	40.0
Benzene, 1,2,4-trime	5.34	7.8	ppb	277192	ISTD01	5.54	1785910	40.0
SULFONE, CHLORO PHEN	7.67	12.5	ppb	596020	ISTD02	6.98	2384250	40.0
Disulfide, diphenyl	10.99	5.1	ppb	295978	ISTD04	10.76	2922730	40.0
1,2-Benzenedicarboxy	13.19	5.5	ppb	324538	ISTD05	13.86	2975730	40.0

1025Y106.D Y1025NC.M Wed Nov 07 07:26:01 2018

LSC Area Percent Report

Data File : M:\YODA\DATA\Y181025\1025Y106.D  
 Acq On : 1 Nov 18 14:30  
 Sample : 181030A BLK 1/800  
 Misc :  
 MS Integration Params: LSCINT.P

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25000

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.002  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

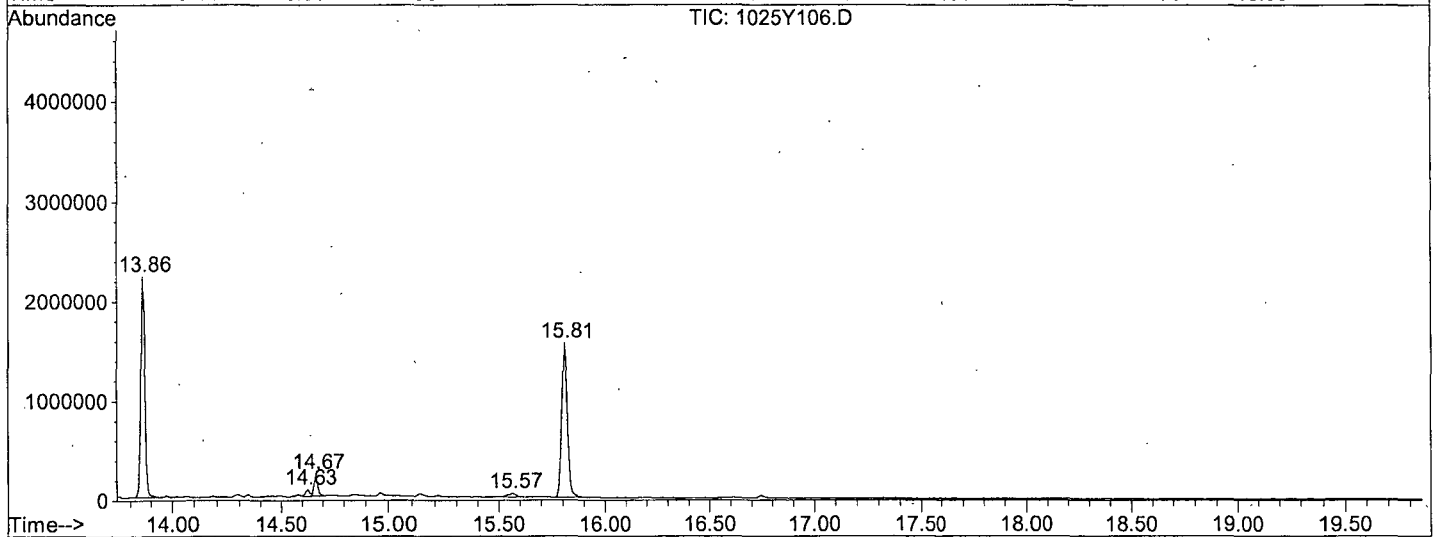
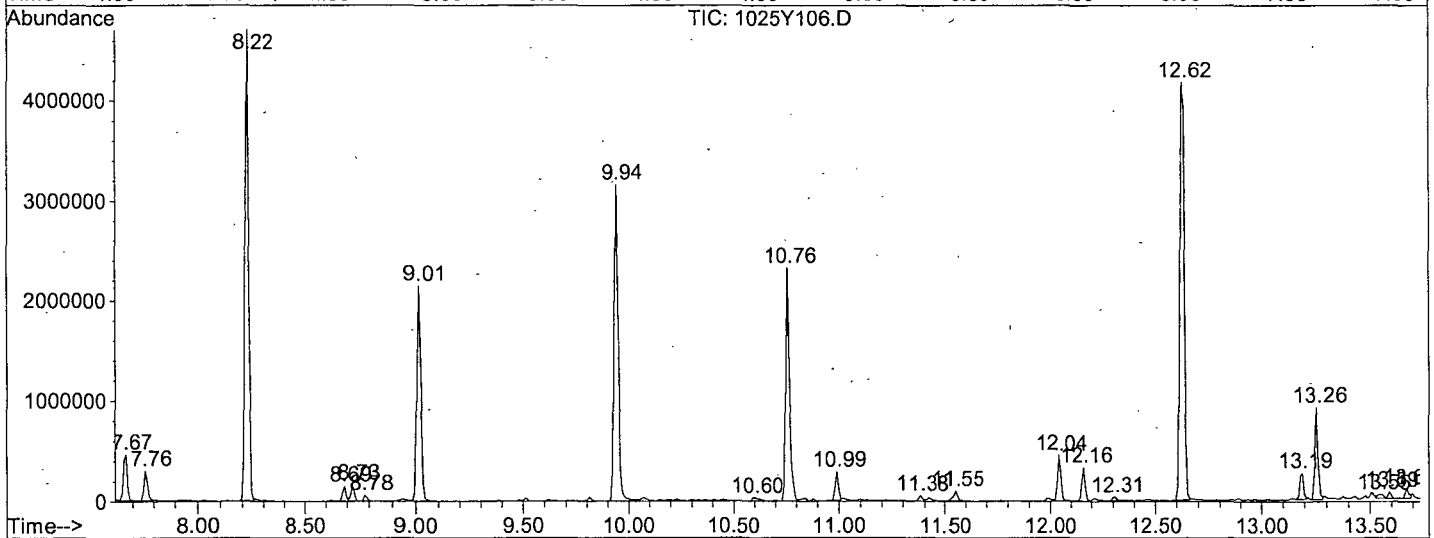
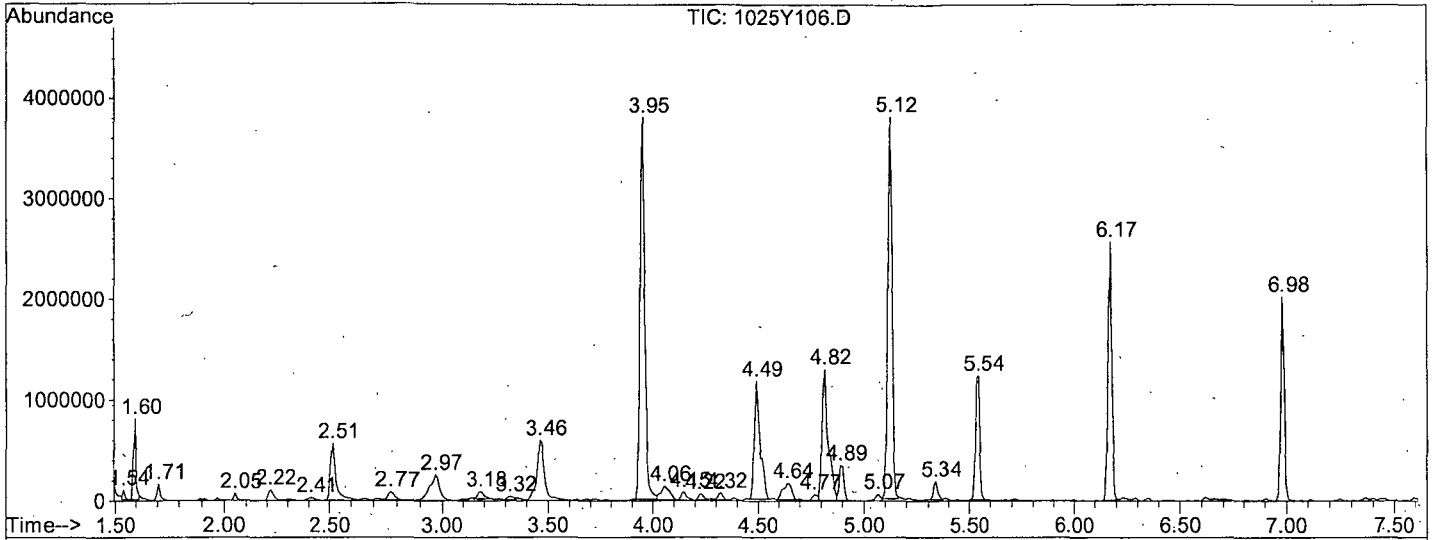
If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	1.540	5	6	10	rVB	94577	463958	67704	1.13%	0.108%
2	1.595	10	12	14	rBV	800000	1385814	743867	12.37%	1.183%
3	1.707	22	24	34	rVB	164458	984532	181085	3.01%	0.288%
4	2.050	59	61	65	rBV	71781	397298	66976	1.11%	0.107%
5	2.217	75	79	84	rBV3	110659	658536	216342	3.60%	0.344%
6	2.412	95	100	107	rBV4	29560	685119	81226	1.35%	0.129%
7	2.514	108	111	125	rBV	563259	2144497	1053403	17.52%	1.675%
8	2.774	136	139	146	rVB	84164	722844	161282	2.68%	0.256%
9	2.969	151	160	170	rVB2	255291	1800062	803366	13.36%	1.278%
10	3.183	179	183	190	rVB	74922	796110	173395	2.88%	0.276%
11	3.322	195	198	201	rBV2	33682	401691	70556	1.17%	0.112%
12	3.461	206	213	229	rVB	594199	2655982	1439109	23.93%	2.289%
13	3.953	262	266	273	rBV	3800978	7016709	6013912	100.00%	9.564%
14	4.056	273	277	283	rVV4	133863	1057088	377044	6.27%	0.600%
15	4.148	283	287	292	rVB	79779	620149	146807	2.44%	0.233%
16	4.223	292	295	299	rBV	59572	468717	107968	1.80%	0.172%
17	4.325	303	306	309	rVB	68920	457046	110915	1.84%	0.176%
18	4.492	320	324	331	rVV2	1167248	2885173	2254973	37.50%	3.586%
19	4.640	334	340	345	rVB4	165884	1089736	495802	8.24%	0.788%
20	4.770	350	354	356	rBV2	59024	417055	112267	1.87%	0.179%
21	4.817	356	359	365	rVV3	1300121	3713085	2589214	43.05%	4.118%
22	4.891	365	367	372	rVB	348673	1074175	509931	8.48%	0.811%
23	5.067	379	386	388	rBV2	65120	558595	108691	1.81%	0.173%
24	5.123	388	392	396	rBV	3807313	6202576	5644908	93.86%	8.977%
25	5.337	411	415	419	rVB	181865	710023	277192	4.61%	0.441%
26	5.541	433	437	442	rVB	1231986	2318805	1785908	29.70%	2.840%
27	6.172	501	505	508	rBV	2562207	3542699	3145855	52.31%	5.003%
28	6.980	589	592	596	rBV	2022283	2859852	2384246	39.65%	3.792%
29	7.667	662	666	669	rVV	459453	981534	596020	9.91%	0.948%
30	7.760	673	676	680	rBV	296092	725209	362358	6.03%	0.576%
31	8.224	722	726	729	rBV	4699533	5936015	5554437	92.36%	8.833%
32	8.688	773	776	778	rBV	144970	426513	162286	2.70%	0.258%
33	8.725	778	780	783	rVB	165549	509928	173604	2.89%	0.276%
34	8.781	783	786	792	rVB	59132	518132	69524	1.16%	0.111%
35	9.013	808	811	815	rBV	2140880	3066569	2552540	42.44%	4.059%
36	9.941	907	911	919	rBV	3155756	4887180	4244503	70.58%	6.750%
37	10.600	979	982	989	rVB4	31169	589209	77254	1.28%	0.123%
38	10.758	996	999	1004	rBV	2320286	3620781	2922726	48.60%	4.648%
39	10.990	1021	1024	1026	rBV	282939	562823	295978	4.92%	0.471%
40	11.380	1063	1066	1068	rBV	52893	312747	60331	1.00%	0.096%
41	11.547	1080	1084	1086	rBV2	99126	453951	133172	2.21%	0.212%
42	12.039	1134	1137	1140	rVB	448288	818117	487892	8.11%	0.776%
43	12.160	1147	1150	1153	rBV	330339	720438	383675	6.38%	0.610%
44	12.309	1163	1166	1176	rBV2	35583	7449408	62996	1.05%	0.100%
45	12.624	1197	1200	1204	rBV	4173208	6462472	5842501	97.15%	9.291%

LSC Report - Integrated Chromatogram

File : M:\YODA\DATA\Y181025\1025Y106.D  
 Operator : MA  
 Acquired : 1 Nov 18 14:30 using AcqMethod SVOC416  
 Instrument : Yoda  
 Sample Name: 181030A BLK 1/800  
 Misc Info :  
 Vial Number: 6  
 Quant File :Y1025NC.RES (RTE Integrator)



Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y106.D Vial: 6  
 Acq On : 1 Nov 18 14:30 Operator: MA  
 Sample : 181030A BLK 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 1 3-Penten-2-ol Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.60	20.83 ppb	743867	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Penten-2-ol	86	C5H10O	001569-50-2	86
2	Furan, tetrahydro-2-(methoxymethyl)	116	C6H12O2	019354-27-9	72
3	3-Buten-2-ol, 2-methyl-	86	C5H10O	000115-18-4	64
4	3-Penten-2-ol	86	C5H10O	001569-50-2	59
5	Pentane, 2-bromo-	150	C5H11Br	000107-81-3	50

\*\*\*\*\*  
 Peak Number 2 Acetic acid, ethyl ester Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.51	29.49 ppb	1053400	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetic acid, ethyl ester	88	C4H8O2	000141-78-6	43
2	Acetic acid, ethyl ester	88	C4H8O2	000141-78-6	37
3	1,4-Butanediol, diacetate	174	C8H14O4	000628-67-1	28
4	Acetic acid, pentyl ester	130	C7H14O2	000628-63-7	28
5	Acetic acid, pentyl ester	130	C7H14O2	000628-63-7	25

\*\*\*\*\*  
 Peak Number 3 2-Pentanone, 4-hydroxy-4-methyl Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.46	40.29 ppb	1439110	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	50
3	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	47
4	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	47
5	2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	42

Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y106.D Vial: 6  
 Acq On : 1 Nov 18 14:30 Operator: MA  
 Sample : 181030A BLK 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 4 Cyclohexane, (1,2,2-trimethylb Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.64	13.88 ppb	495802	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclohexane, (1,2,2-trimethylbutyl)	182	C13H26	061142-21-0	72
2	Decane, 3,3,4-trimethyl-	184	C13H28	049622-18-6	64
3	Heptane, 4-methyl-	114	C8H18	000589-53-7	59
4	Pentane, 3-ethyl-	100	C7H16	000617-78-7	59
5	Hexane, 2,3-dimethyl-	114	C8H18	000584-94-1	45

\*\*\*\*\*  
 Peak Number 5 Decane, 3,3,4-trimethyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.82	72.49 ppb	2589210	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Decane, 3,3,4-trimethyl-	184	C13H28	049622-18-6	78
2	1-Butanol, 3-methyl-, carbonate (2:	202	C11H22O3	002050-95-5	56
3	Hexane, 3,3,4-trimethyl-	128	C9H20	016747-31-2	56
4	Hexane, 2,3-dimethyl-	114	C8H18	000584-94-1	56
5	1-Hexene, 4,5-dimethyl-	112	C8H16	016106-59-5	43

\*\*\*\*\*  
 Peak Number 6 Benzene, 1,2,4-trimethyl- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.34	7.76 ppb	277192	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	97
2	Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	97
3	Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	97
4	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	97
5	Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	95



Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y106.D Vial: 6  
 Acq On : 1 Nov 18 14:30 Operator: MA  
 Sample : 181030A BLK 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 7 SULFONE, CHLORO PHENYL Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.67	12.50 ppb	596020	Napthalene-D8 (IS)	6.98

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		SULFONE, CHLORO PHENYL	176	C6H5ClO2S	000000-00-0	96
2		Phenol, 4-hexyl-	178	C12H18O	002446-69-7	64
3		Benzenesulfonyl chloride	176	C6H5ClO2S	000098-09-9	49
4		Benzenesulfonyl chloride	176	C6H5ClO2S	000098-09-9	43
5		4-BENZOLSULFONAMIDE-1,2,4-TRIAZOL	224	C8H8N4O2S	029982-62-5	38

\*\*\*\*\*  
 Peak Number 8 Disulfide, diphenyl Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.99	5.06 ppb	295978	Phenanthrene-D10 (IS)	10.76

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Disulfide, diphenyl	218	C12H10S2	000882-33-7	98
2		Disulfide, diphenyl	218	C12H10S2	000882-33-7	94
3		Disulfide, diphenyl	218	C12H10S2	000882-33-7	74
4		Benzenesulfinothioic acid, S-phenyl	234	C12H10OS2	001208-20-4	43
5		Disulfide, diphenyl	218	C12H10S2	000882-33-7	30

\*\*\*\*\*  
 Peak Number 9 1,2-Benzenedicarboxylic acid, Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.19	5.45 ppb	324538	Chrysene-D12 (IS)	13.86

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		1,2-Benzenedicarboxylic acid, butyl	312	C19H20O4	000085-68-7	98
2		1,2-Benzenedicarboxylic acid, butyl	312	C19H20O4	000085-68-7	91
3		1,2-Benzenedicarboxylic acid, butyl	312	C19H20O4	000085-68-7	90
4		1,2-Benzenedicarboxylic acid, butyl	312	C19H20O4	000085-68-7	59
5		1,2-Benzenedicarboxylic acid, butyl	312	C19H20O4	000085-68-7	52

Data File : M:\YODA\DATA\Y181025\1025Y107.D  
 Acq On : 1 Nov 18 14:58  
 Sample : 181030A LCS-1 1/800  
 Misc :

Vial: 7  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Nov 1 18:17 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.53	152	295514	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1197711	40.0000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	643161	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1223743	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1158737	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1207182	40.0000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.96	112	1699347	182.9396	ppb	0.00
Spiked Amount	250.000		Recovery	=	73.176%	
6) Phenol-D6 (S)	5.13	99	2034870	184.2760	ppb	0.00
Spiked Amount	250.000		Recovery	=	73.710%	
22) Nitrobenzene-D5 (S)	6.17	82	1065046	98.4902	ppb	0.00
Spiked Amount	125.000		Recovery	=	78.792%	
46) 2-Fluorobiphenyl (S)	8.23	172	1833663	85.4957	ppb	0.00
Spiked Amount	125.000		Recovery	=	68.397%	
64) 2,4,6-Tribromophenol (S)	9.95	330	461663	177.7888	ppb	0.00
Spiked Amount	250.000		Recovery	=	71.116%	
82) Terphenyl-D14 (S)	12.63	244	2032192	82.8139	ppb	0.00
Spiked Amount	125.000		Recovery	=	66.251%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	3991	5.5437		91
3) n-Nitrosodimethylamine	1.97	42	94839	49.9032	ppb	87
4) Pyridine	1.99	79	105162	36.9954	ppb	98
7) Phenol	5.14	94	670334	45.3765	ppb	99
8) Aniline	5.14	66	590739	50.0236	ppb	# 95
9) Bis (2-chloroethyl) ether	5.24	63	386405	50.0133	ppb	96
10) 2-Chlorophenol	5.29	128	520682	45.2721	ppb	93
11) 1,3-DCB	5.47	146	452580	37.9932	ppb	98
12) 1,4-DCB	5.55	146	458086	38.3865	ppb	98
13) Benzyl alcohol	5.70	108	348583	46.8359	ppb	95
14) 1,2-DCB	5.73	146	446472	39.3712	ppb	99
15) 2-Methylphenol	5.82	107	423621	46.2605	ppb	99
16) Bis (2-chloroisopropyl) et	5.84	45	708371	48.4379	ppb	96
17) Acetophenone	6.00	105	604511	51.8064	ppb	98
18) 3&4-Methylphenol	6.00	107	891726	99.9273	ppb	99
19) n-Nitrosodi-n-propylamine	6.00	70	339802	44.6355	ppb	100
20) Hexachloroethane	6.11	117	156367	34.8600	ppb	91
23) Nitrobenzene	6.19	77	597720	50.4353	ppb	94
24) Isophorone	6.46	82	1033353	49.3297	ppb	99
25) 2-Nitrophenol	6.55	139	289988	48.1950	ppb	91
26) 2,4-Dimethylphenol	6.59	122	413027	40.9980	ppb	93
27) Benzoic acid	6.72	105	386232	43.5866	ppb	96
28) Bis (2-chloroethoxy) metha	6.69	93	641583	54.3973	ppb	99
29) 2,4-Dichlorophenol	6.82	162	426649	48.0476	ppb	96
30) 1,2,4-Trichlorobenzene	6.92	180	382319	41.4568	ppb	99
31) 3,4-Dimethylphenol	6.93	107	633889	46.4632	ppb	99
32) Napthalene	7.01	128	1433125	46.1816	ppb	100
33) 4-Chloroaniline	7.07	127	370564	31.8850	ppb	98
34) 2,6-Dichlorophenol	7.08	162	415044	51.0778	ppb	99
35) Hexachloropropene	7.10	213	224347	36.4085	ppb	98
36) Hexachlorobutadiene	7.13	225	194038	38.0316	ppb	97
37) Caprolactum	7.49	55	264967	48.7370	ppb	99

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

1025Y107.D Y1025NC.M Fri Nov 02 15:07:01 2018

Data File : M:\YODA\DATA\Y181025\1025Y107.D  
 Acq On : 1 Nov 18 14:58  
 Sample : 181030A LCS-1 1/800  
 Misc :

Vial: 7  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Nov 1 18:17 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.62	107	469807	49.2746	ppb	95
39) 2-Methylnaphthalene	7.80	142	915975	46.8162	ppb	100
40) 1-Methylnaphthalene	7.92	142	935162	47.9474	ppb	98
42) Hexachlorocyclopentadiene	7.98	237	84676	18.1987	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	432729	44.9502	ppb	98
44) 2,4,6-Trichlorophenol	8.12	196	321187	47.4519	ppb	99
45) 2,4,5-Trichlorophenol	8.18	196	337211	47.0558	ppb	95
47) 1,1'-Biphenyl	8.34	154	1198555	47.4493	ppb	97
48) 2-Chloronaphthalene	8.37	162	930575	46.2584	ppb	98
49) 2-Nitroaniline	8.50	65	344488	49.6034	ppb	90
50) Dimethyl phthalate	8.69	163	1207549	51.7638	ppb	99
51) 2,6-DNT	8.77	165	254304	47.2246	ppb	86
52) Acenaphthylene	8.85	152	1531739	47.2018	ppb	100
53) 3-Nitroaniline	8.97	138	263130	43.6991	ppb	93
54) Acenaphthene	9.05	154	920378	46.8200	ppb	99
55) 2,4-Dinitrophenol	9.10	184	152528	46.7630	ppb	# 80
56) 4-Nitrophenol	9.17	65	231569	49.7567	ppb	100
57) Dibenzofuran	9.26	168	1339672	49.3795	ppb	94
58) 2,4-DNT	9.25	165	344180	50.1874	ppb	95
59) 2,3,4,6-Tetrachlorophenol	9.40	232	271369	45.8824	ppb	96
60) Diethyl phthalate	9.52	149	1122068	49.9735	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.65	204	487202	54.0358	ppb	100
62) Fluorene	9.66	166	1014637	51.5370	ppb	97
63) 4-Nitroaniline	9.69	138	292584	46.5222	ppb	98
66) 4,6-Dinitro-2-methylphenol	9.72	198	221717	46.5485	ppb	95
67) Diphenyl amine	9.80	169	1596613	95.9326	ppb	100
68) n-Nitrosodiphenylamine	9.80	169	1596613	95.9326	ppb	100
69) 1,2-Diphenylhydrazine	9.84	77	1224311	46.5487	ppb	94
70) 4-Bromophenyl phenyl ether	10.23	248	326243	48.9603	ppb	92
71) Hexachlorobenzene	10.30	284	326511	46.5892	ppb	92
72) Atrazine	10.42	200	148116	24.3120	ppb	95
73) Pentachlorophenol	10.53	266	213504	49.2347	ppb	98
74) Phenanthrene	10.79	178	1628328	47.6210	ppb	99
75) Anthracene	10.85	178	1685659	47.9250	ppb	99
76) Carbazol	11.04	167	1577373	47.9923	ppb	100
77) Di-n-butylphthalate	11.43	149	1919745	50.4452	ppb	98
78) Fluoranthene	12.18	202	1777879	48.4502	ppb	98
80) Benzidine	12.35	184	179702	13.6395	ppb	99
81) Pyrene	12.45	202	1855644	48.4324	ppb	100
83) Butyl benzylphthalate	13.18	149	864773	50.5387	ppb	92
84) 3,3'-Dichlorobenzidine	13.82	252	465026	37.2410	ppb	94
85) Benz (a) anthracene	13.85	228	1562127	47.9962	ppb	99
86) Bis (2-ethylhexyl) phthala	13.84	149	1105700	51.4255	ppb	97
87) Chrysene	13.90	228	1613210	47.1150	ppb	100
88) Di-n-octylphthalate	14.62	149	2072330	51.8347	ppb	96
90) Benzo (b) fluoranthene	15.23	252	1704382	47.0999	ppb	99
91) Benzo (k) fluoranthene	15.26	252	1698239	49.2514	ppb	99
92) Benzo (a) pyrene	15.73	252	1560771	47.4102	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.84	276	1733061	45.4389	ppb	98
94) Dibenz (a,h) anthracene	17.88	278	1583510	48.8797	ppb	99
95) Benzo (g,h,i) perylene	18.47	276	1568024	50.7401	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y107.D Y1025NC.M Fri Nov 02 15:07:01 2018

Quantitation Report

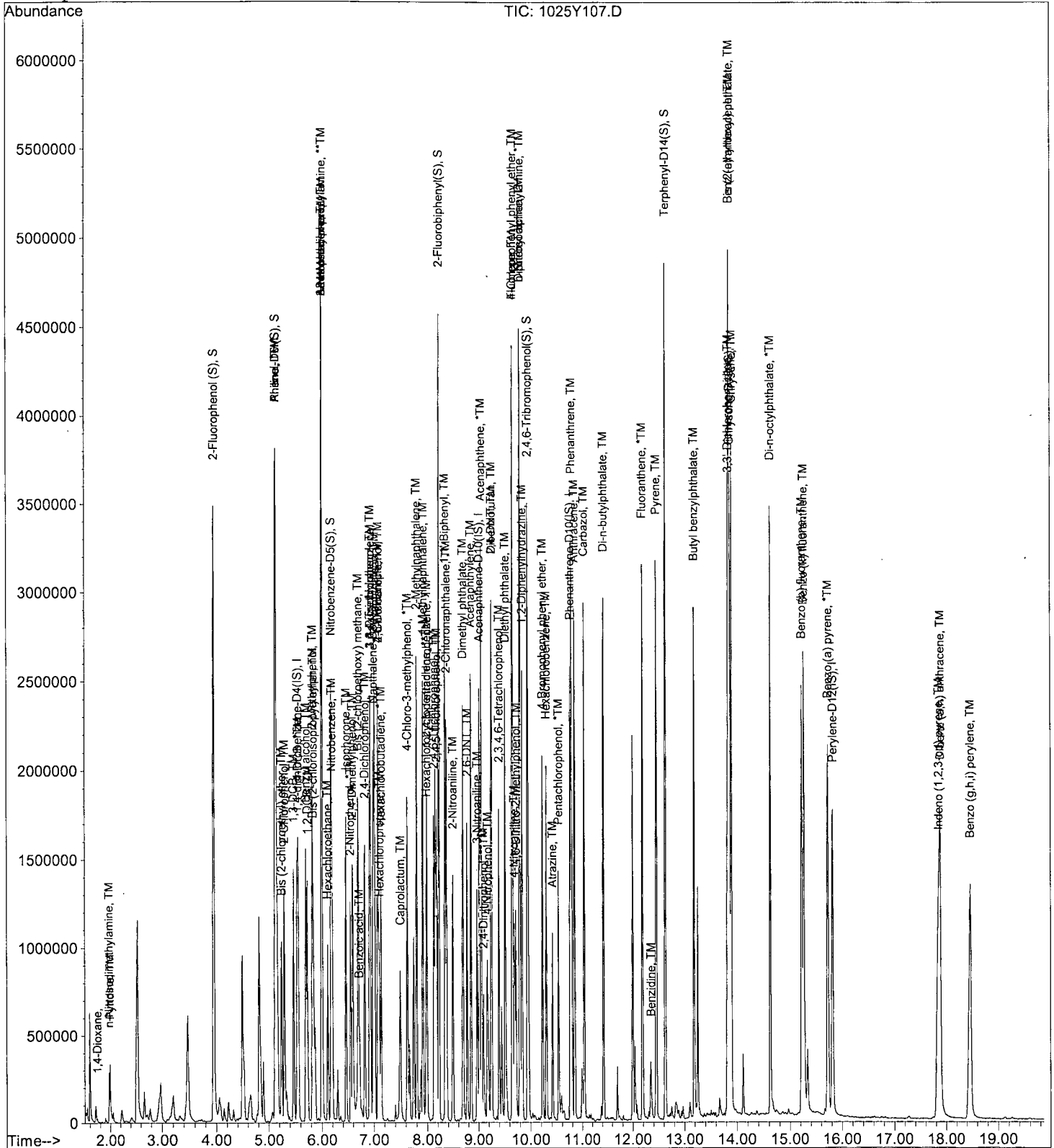
Data File : M:\YODA\DATA\Y181025\1025Y107.D  
Acq On : 1 Nov 18 14:58  
Sample : 181030A LCS-1 1/800  
Misc :

Vial: 7  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Nov 1 18:17 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y181025\1025Y108.D  
 Acq On : 1 Nov 18 15:26  
 Sample : 181030A LCSD-1 1/800  
 Misc :

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Nov 1 18:17 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	265874	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1075014	40.0000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	590010	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1147633	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1081719	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	1100761	40.0000	ppb	-0.01

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	1776256	212.5365	ppb	0.00
Spiked Amount	250.000		Recovery	=	85.014%	
6) Phenol-D6 (S)	5.13	99	2072425	208.5994	ppb	0.00
Spiked Amount	250.000		Recovery	=	83.440%	
22) Nitrobenzene-D5 (S)	6.17	82	1074762	110.7324	ppb	0.00
Spiked Amount	125.000		Recovery	=	88.586%	
46) 2-Fluorobiphenyl (S)	8.22	172	1845264	93.7872	ppb	0.00
Spiked Amount	125.000		Recovery	=	75.030%	
64) 2,4,6-Tribromophenol (S)	9.95	330	472789	198.4755	ppb	0.00
Spiked Amount	250.000		Recovery	=	79.390%	
82) Terphenyl-D14 (S)	12.62	244	2031935	88.6990	ppb	0.00
Spiked Amount	125.000		Recovery	=	70.959%	

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.74	58	4199	6.4828		83
3) n-Nitrosodimethylamine	1.97	42	92856	54.3067	ppb	86
4) Pyridine	2.00	79	59758	23.3662	ppb	88
7) Phenol	5.14	94	662064	49.8129	ppb	97
8) Aniline	5.14	66	545892	51.3793	ppb	96
9) Bis (2-chloroethyl) ether	5.24	63	386115	55.5472	ppb	99
10) 2-Chlorophenol	5.30	128	518497	50.1080	ppb	100
11) 1,3-DCB	5.47	146	449227	41.9159	ppb	98
12) 1,4-DCB	5.56	146	469759	43.7531	ppb	96
13) Benzyl alcohol	5.70	108	344694	51.4765	ppb	97
14) 1,2-DCB	5.73	146	448668	43.9756	ppb	99
15) 2-Methylphenol	5.82	107	438670	53.2443	ppb	99
16) Bis (2-chloroisopropyl) et	5.84	45	702801	53.4145	ppb	96
17) Acetophenone	6.00	105	610243	59.0451	ppb	98
18) 3&4-Methylphenol	6.00	107	924442	117.6966	ppb	97
19) n-Nitrosodi-n-propylamine	6.00	70	340205	49.6703	ppb	95
20) Hexachloroethane	6.11	117	161726	40.0741	ppb	93
23) Nitrobenzene	6.19	77	591648	55.6210	ppb	93
24) Isophorone	6.46	82	1030590	54.8130	ppb	98
25) 2-Nitrophenol	6.55	139	294757	54.5788	ppb	96
26) 2,4-Dimethylphenol	6.59	122	486561	53.8096	ppb	95
27) Benzoic acid	6.73	105	454352	55.6853	ppb	96
28) Bis (2-chloroethoxy) metha	6.70	93	639417	60.4014	ppb	99
29) 2,4-Dichlorophenol	6.82	162	429379	53.8740	ppb	98
30) 1,2,4-Trichlorobenzene	6.92	180	389859	47.0994	ppb	99
31) 3,4-Dimethylphenol	6.93	107	662340	54.0897	ppb	99
32) Napthalene	7.01	128	1424481	51.1422	ppb	100
33) 4-Chloroaniline	7.07	127	236676	22.6890	ppb	98
34) 2,6-Dichlorophenol	7.07	162	421551	57.7998	ppb	98
35) Hexachloropropene	7.10	213	230297	41.6398	ppb	99
36) Hexachlorobutadiene	7.14	225	203754	44.4941	ppb	99
37) Caprolactum	7.49	55	263697	54.0393	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1025Y108.D Y1025NC.M Fri Nov 02 15:07:04 2018

Data File : M:\YODA\DATA\Y181025\1025Y108.D  
 Acq On : 1 Nov 18 15:26  
 Sample : 181030A LCSD-1 1/800  
 Misc :

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Nov 1 18:17 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.62	107	468069	54.6955	ppb	91
39) 2-Methylnaphthalene	7.80	142	919305	52.3492	ppb	100
40) 1-Methylnaphthalene	7.92	142	915116	52.2748	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	89490	20.4405	ppb	97
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	440415	49.8698	ppb	98
44) 2,4,6-Trichlorophenol	8.13	196	321908	51.8427	ppb	98
45) 2,4,5-Trichlorophenol	8.18	196	334732	50.9177	ppb	94
47) 1,1'-Biphenyl	8.34	154	1176322	50.7643	ppb	99
48) 2-Chloronaphthalene	8.37	162	947166	51.3246	ppb	98
49) 2-Nitroaniline	8.49	65	338535	53.1375	ppb	94
50) Dimethyl phthalate	8.70	163	1178215	55.0562	ppb	99
51) 2,6-DNT	8.77	165	256432	51.9096	ppb	# 80
52) Acenaphthylene	8.86	152	1519944	51.0577	ppb	100
53) 3-Nitroaniline	8.97	138	197361	35.7292	ppb	96
54) Acenaphthene	9.05	154	940482	52.1526	ppb	99
55) 2,4-Dinitrophenol	9.10	184	161943	52.7179	ppb	90
56) 4-Nitrophenol	9.17	65	242589	56.8202	ppb	99
57) Dibenzofuran	9.25	168	1343077	53.9646	ppb	95
58) 2,4-DNT	9.25	165	349185	55.5041	ppb	91
59) 2,3,4,6-Tetrachlorophenol	9.39	232	280591	51.7154	ppb	93
60) Diethyl phthalate	9.51	149	1123126	54.5267	ppb	100
61) 4-Chlorophenyl phenyl ethe	9.65	204	483628	59.5895	ppb	93
62) Fluorene	9.65	166	1027429	58.1417	ppb	100
63) 4-Nitroaniline	9.69	138	276397	47.9074	ppb	99
66) 4,6-Dinitro-2-methylphenol	9.72	198	223979	49.8985	ppb	95
67) Diphenyl amine	9.79	169	1402163	89.8364	ppb	99
68) n-Nitrosodiphenylamine	9.79	169	1402163	89.8364	ppb	99
69) 1,2-Diphenylhydrazine	9.84	77	1203777	48.8033	ppb	95
70) 4-Bromophenyl phenyl ether	10.23	248	320290	51.2547	ppb	97
71) Hexachlorobenzene	10.29	284	328145	49.9275	ppb	94
72) Atrazine	10.42	200	121357	21.2408	ppb	97
73) Pentachlorophenol	10.54	266	221096	54.3667	ppb	99
74) Phenanthrene	10.79	178	1622539	50.5986	ppb	99
75) Anthracene	10.85	178	1657377	50.2459	ppb	99
76) Carbazol	11.04	167	1551166	50.3248	ppb	100
77) Di-n-butylphthalate	11.43	149	1858842	52.0842	ppb	99
78) Fluoranthene	12.19	202	1750958	50.8811	ppb	99
81) Pyrene	12.46	202	1828814	51.1306	ppb	99
83) Butyl benzylphthalate	13.19	149	877024	54.9040	ppb	94
84) 3,3'-Dichlorobenzidine	13.82	252	272866	23.4080	ppb	96
85) Benz (a) anthracene	13.85	228	1574730	51.8283	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1120197	55.8092	ppb	97
87) Chrysene	13.90	228	1630420	51.0080	ppb	100
88) Di-n-octylphthalate	14.62	149	2022856	54.1997	ppb	95
90) Benzo (b) fluoranthene	15.22	252	1676170	50.7984	ppb	99
91) Benzo (k) fluoranthene	15.26	252	1700218	54.0760	ppb	98
92) Benzo (a) pyrene	15.73	252	1552568	51.7206	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.84	276	1699367	48.8631	ppb	98
94) Dibenz (a,h) anthracene	17.88	278	1557346	52.7196	ppb	98
95) Benzo (g,h,i) perylene	18.46	276	1532042	54.3687	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y108.D Y1025NC.M Fri Nov 02 15:07:05 2018

Quantitation Report

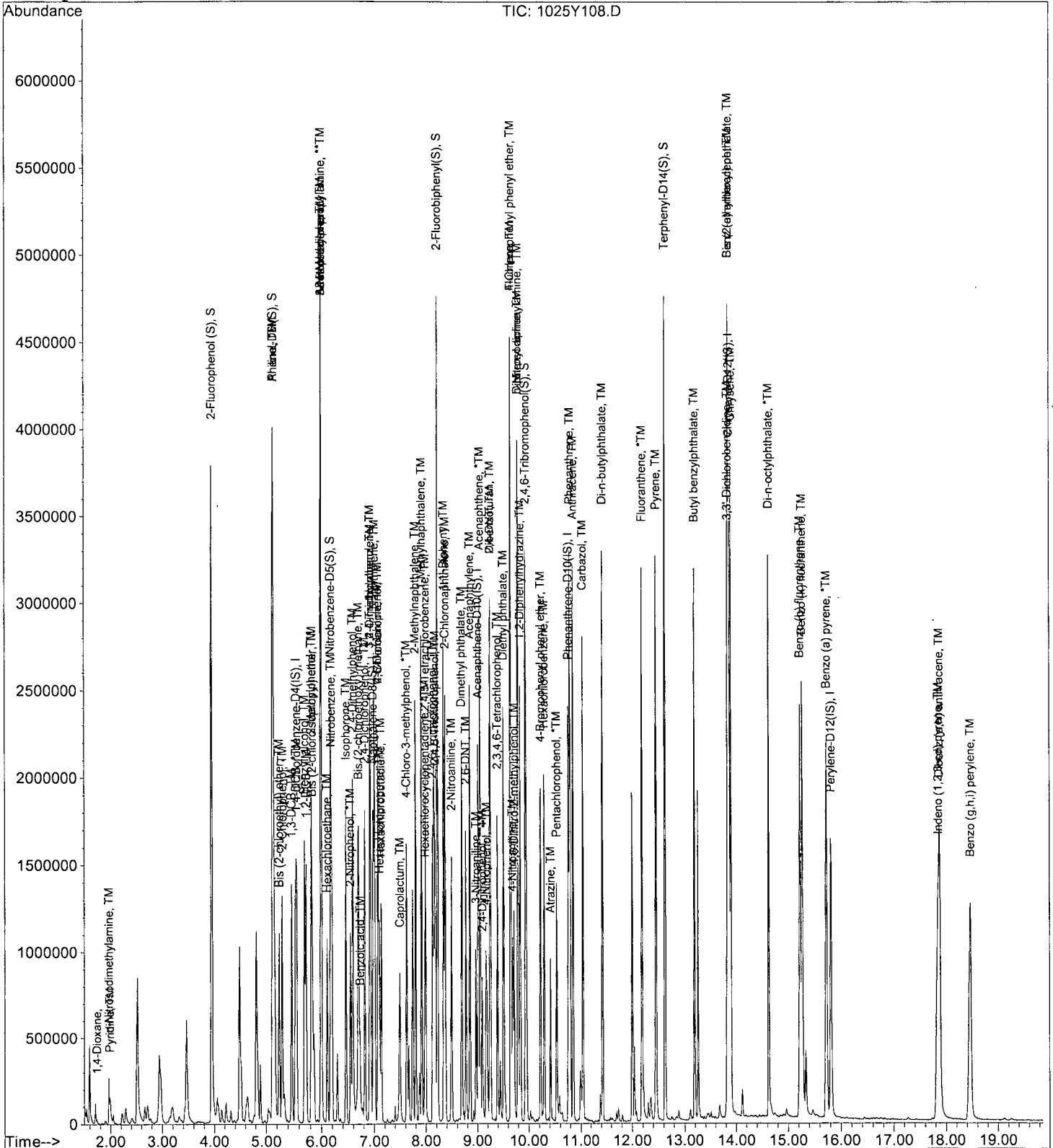
Data File : M:\YODA\DATA\Y181025\1025Y108.D  
 Acq On : 1 Nov 18 15:26  
 Sample : 181030A LCSD-1 1/800  
 Misc :

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Nov 1 18:17 2018

Quant Results File: Y1025NC.RES

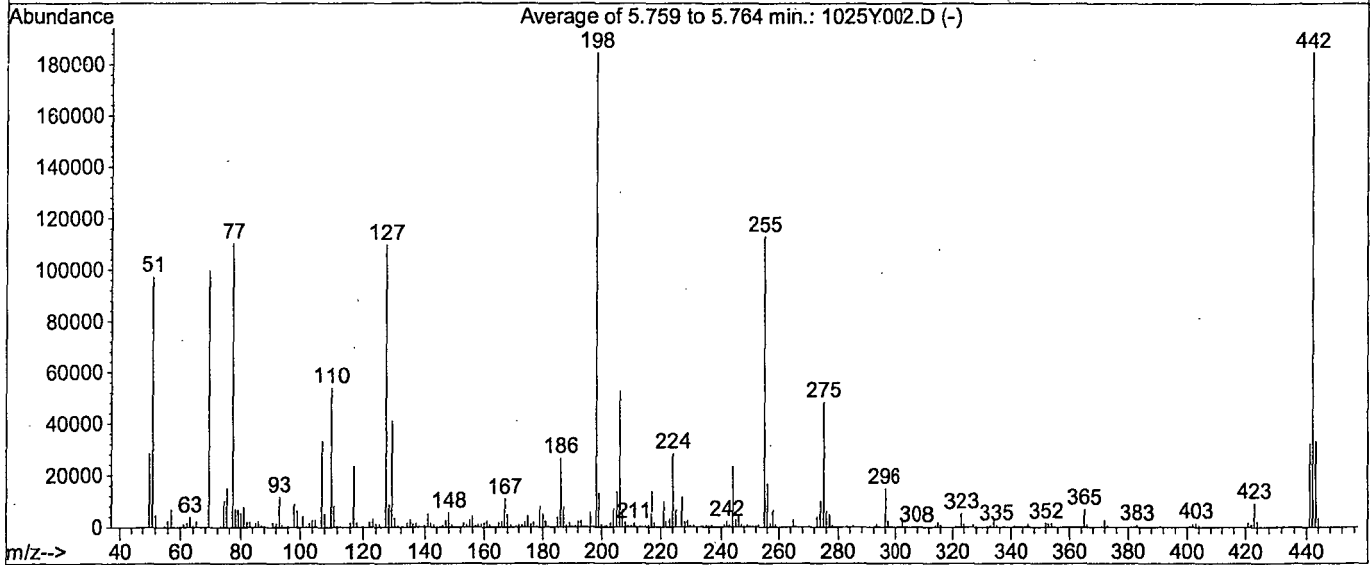
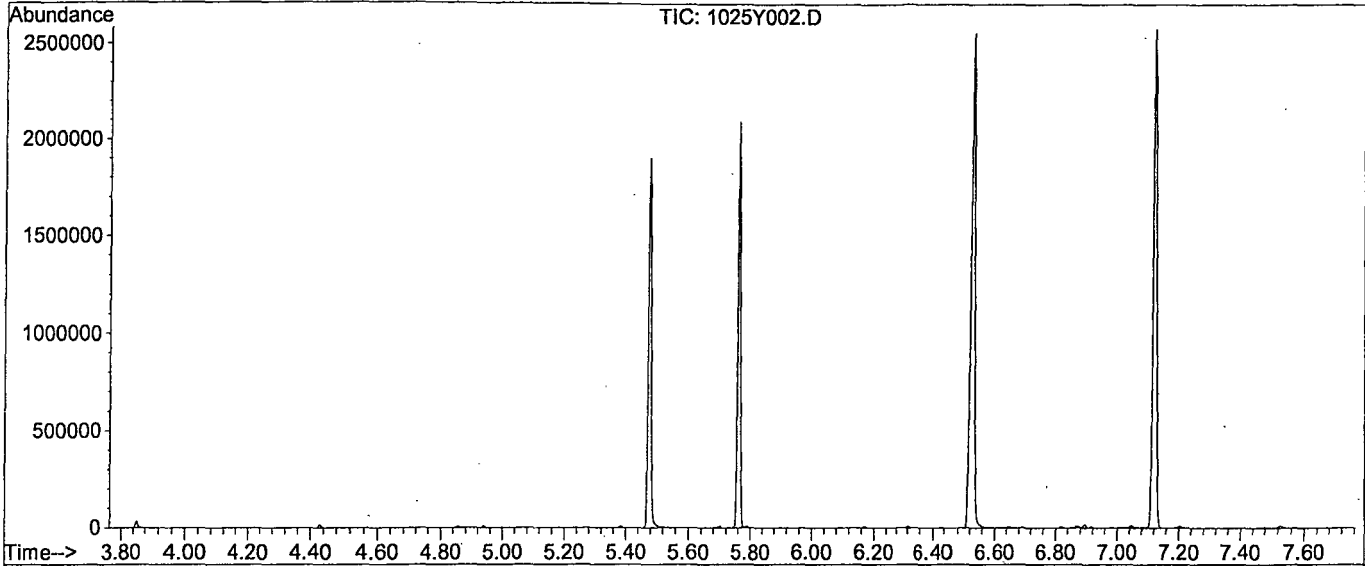
Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration



Data File : M:\YODA\DATA\Y181025\1025Y002.D  
 Acq On : 25 Oct 18 11:17  
 Sample : SV Tune 03/07/18  
 Misc :

Vial: 2  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C



AutoFind: Scans 870, 871, 872; Background Corrected with Scan 862

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	52.8	97467	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.4	371	PASS
127	198	10	80	59.4	109768	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	184661	PASS
199	198	5	9	7.1	13044	PASS
275	198	10	60	26.1	48283	PASS
365	198	1	100	3.7	6805	PASS
441	442	0.01	24	17.3	32043	PASS
442	198	50	150	100.0	184749	PASS
443	442	15	24	17.8	32880	PASS



Data File Name: 1025Y002.D  
Data File Path: M:\YODA\DATA\Y181025\  
Operator: MA  
Date Acquired: 25 Oct 2018 11:17  
Method File: DFTPP2.M  
Sample Name: SV Tune 03/07/18  
Vial Number: 2  
Instrument Name: Yoda

#	Name	Ret Time	Target Response
1)	DDT	7.13	19507100
2)	DDD	6.93	122658
3)	DDE	7.09	0

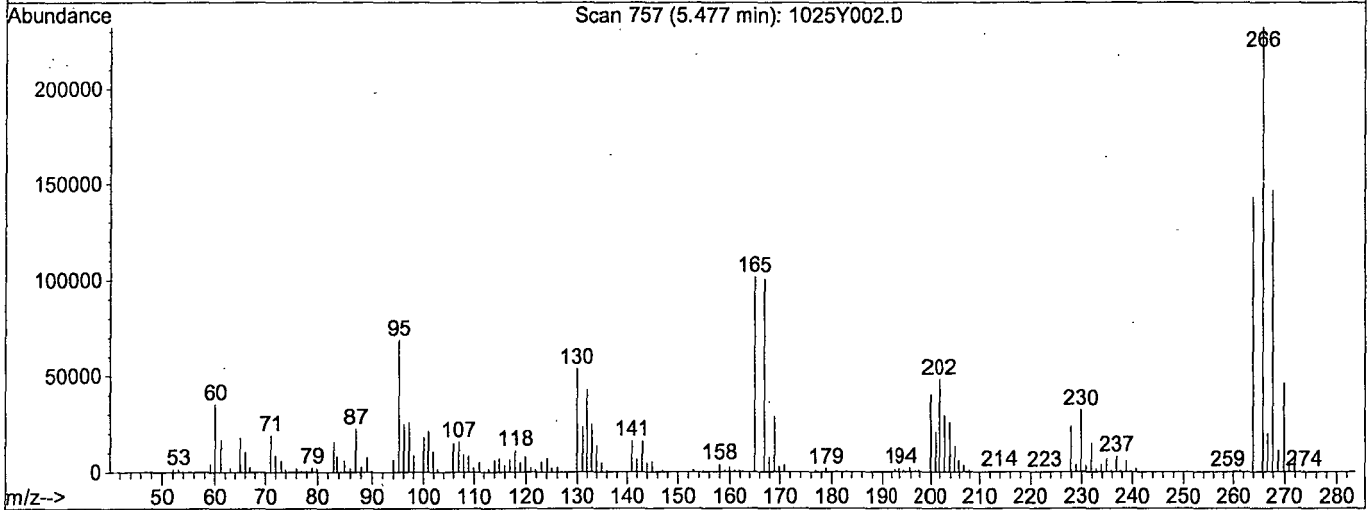
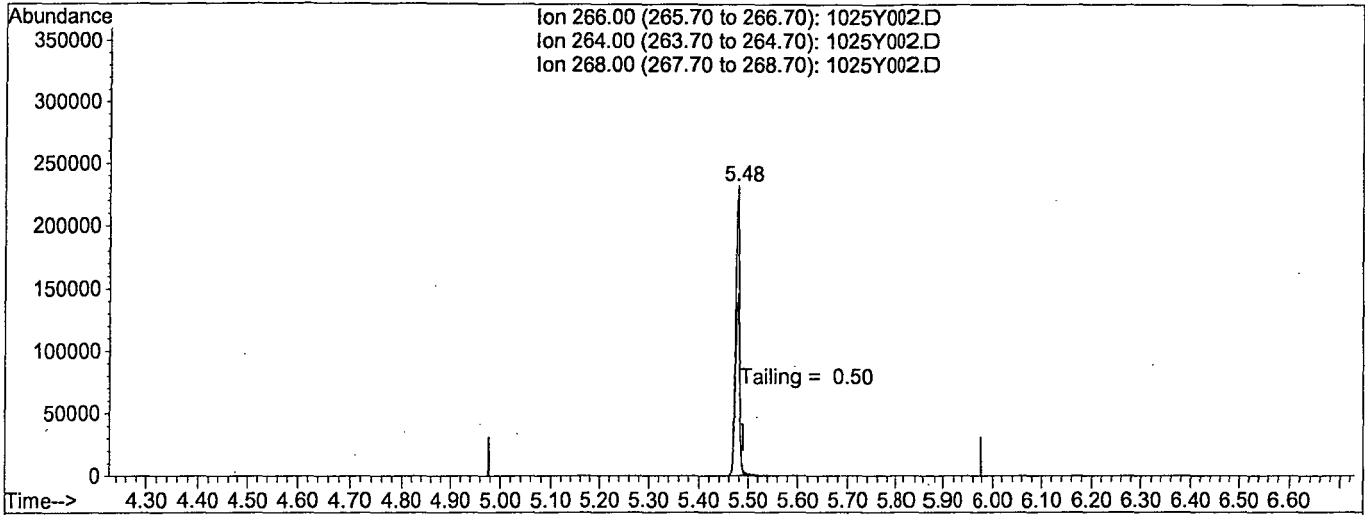
Breakdown 0.62

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y002.D  
 Acq On : 25 Oct 18 11:17  
 Sample : SV Tune 03/07/18  
 Misc :  
 Quant Time: Oct 25 13:10 2018

Vial: 2  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Oct 25 09:06:57 2018  
 Response via : Single Level Calibration



TIC: 1025Y002.D

(5) Pentachlorophenol

5.48min 0.0000

response 1348374

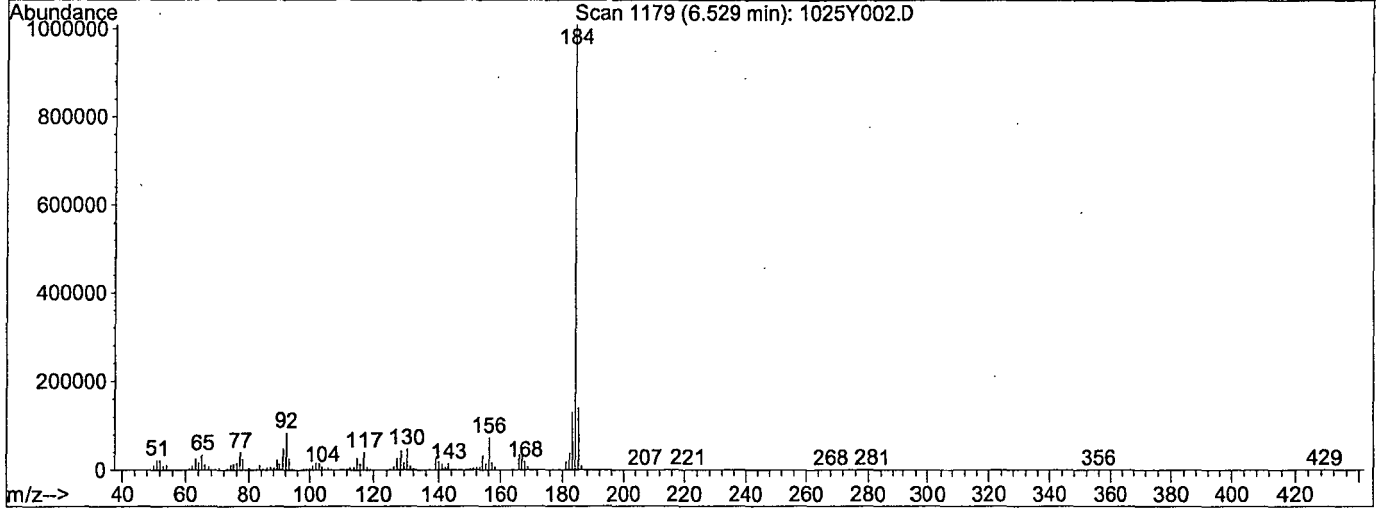
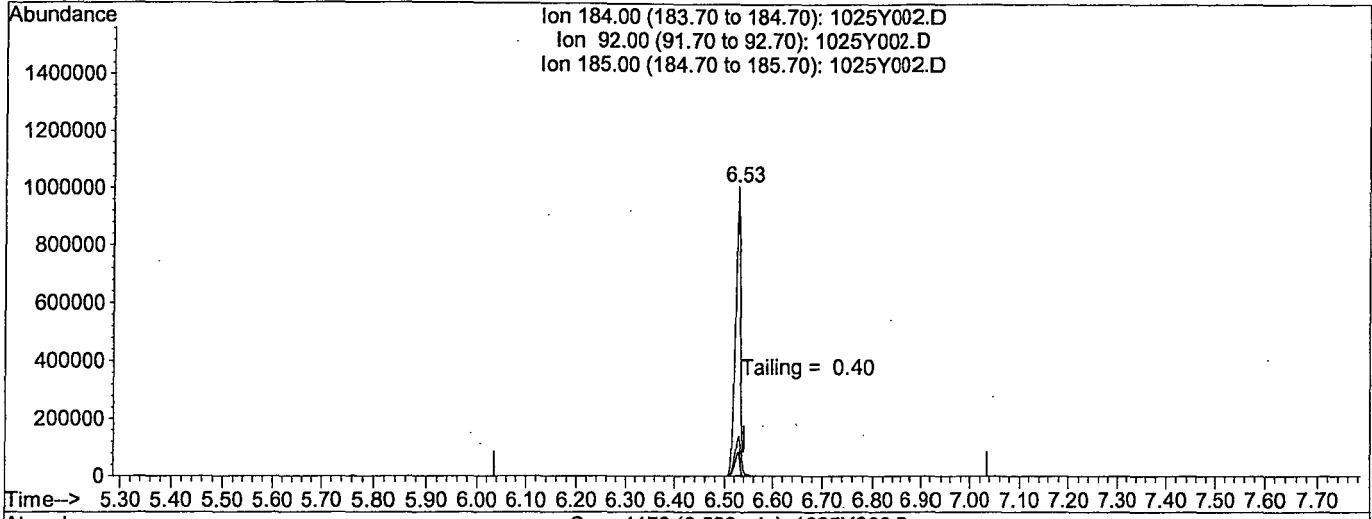
Ion	Exp%	Act%
266.00	100	100
264.00	57.80	62.08
268.00	63.30	62.31
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y002.D  
 Acq On : 25 Oct 18 11:17  
 Sample : SV Tune 03/07/18  
 Misc :  
 Quant Time: Oct 25 13:10 2018

Vial: 2  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Oct 25 09:06:57 2018  
 Response via : Single Level Calibration



TIC: 1025Y002.D

(6) Benzidine

6.53min 0.0000

response 7252222

Ion	Exp%	Act%
184.00	100	100
92.00	7.80	8.06
185.00	14.30	14.29
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y181025\1025Y100.D

Vial: 100

Acq On : 1 Nov 18 11:31

Operator: MA

Sample : SV TUNE 03/07/18

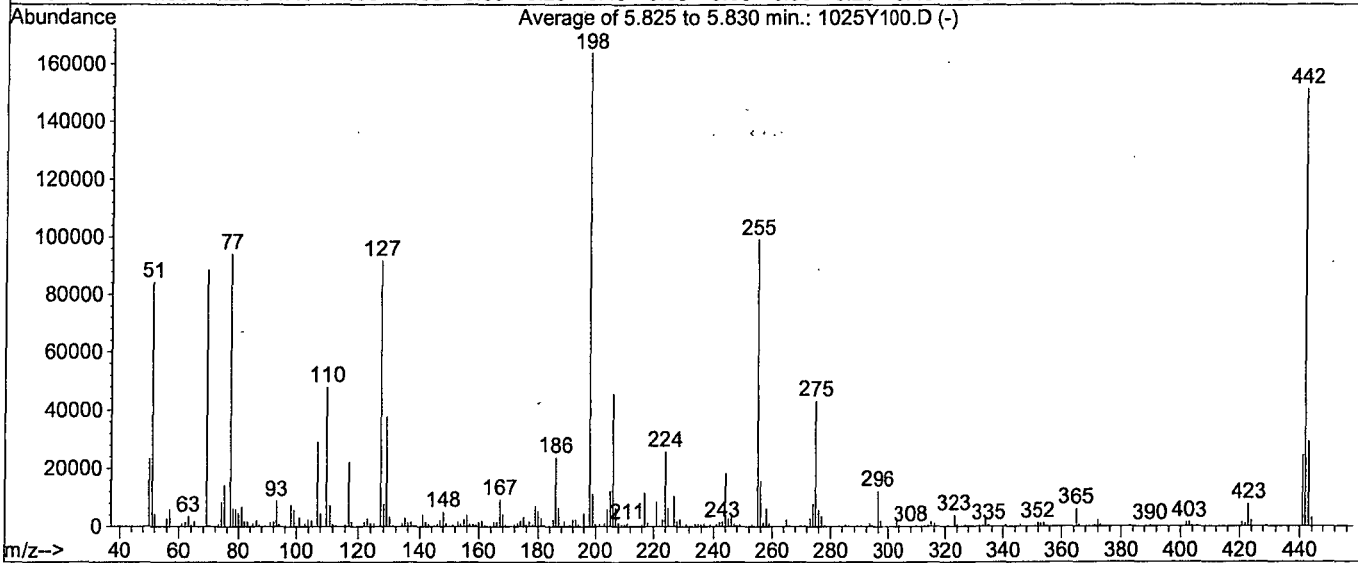
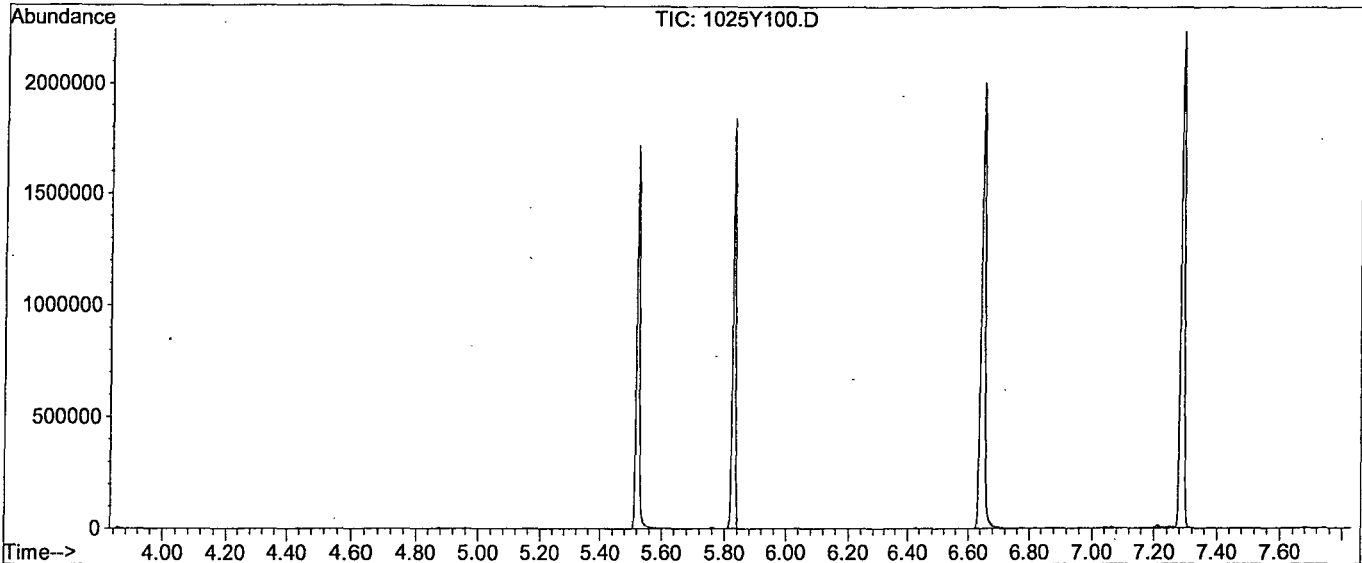
Inst : Yoda

Misc :

Multiplr: 1.00

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)

Title : EPA 8270C



AutoFind: Scans 897, 898, 899; Background Corrected with Scan 887

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	51.4	84285	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	516	PASS
127	198	10	80	56.0	91755	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	163840	PASS
199	198	5	9	6.8	11217	PASS
275	198	10	60	26.4	43173	PASS
365	198	1	100	3.7	6091	PASS
441	442	0.01	24	16.2	24499	PASS
442	198	50	150	92.3	151203	PASS
443	442	15	24	19.3	29144	PASS

Data File Name: 1025Y100.D  
Data File Path: M:\YODA\DATA\Y181025\  
Operator: MA  
Date Acquired: 1 Nov 18 11:31  
Method File: DFTPP2.M  
Sample Name: SV TUNE 03/07/18  
Vial Number: 100  
Instrument Name: Yoda

#	Name	Ret Time	Target Response
1)	DDT	7.29	17175500
2)	DDD	7.06	0
3)	DDE	7.24	0

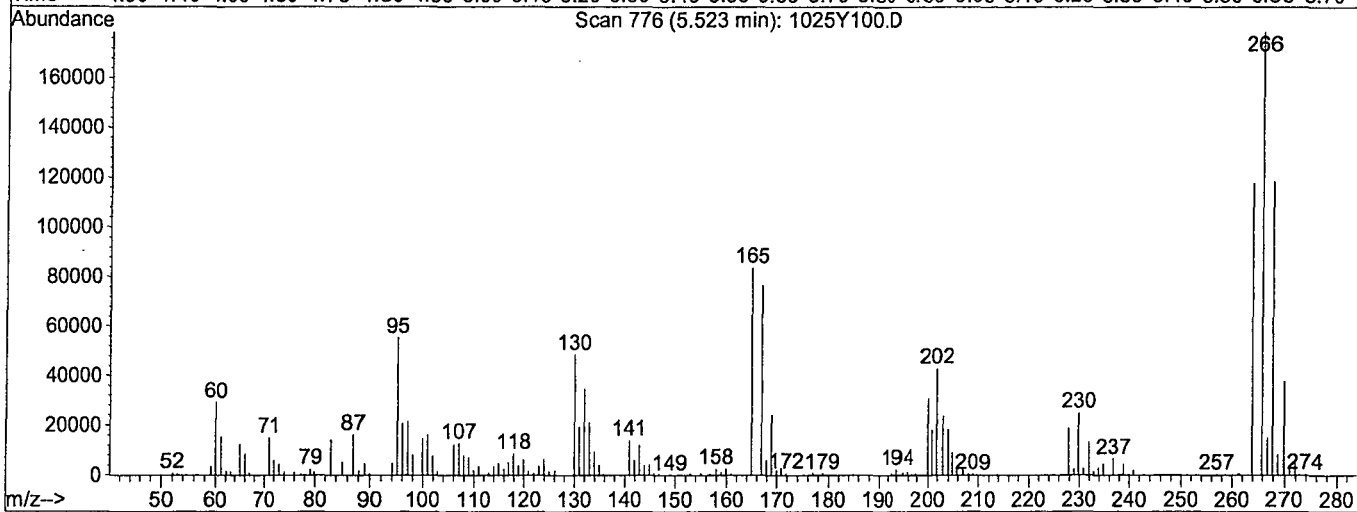
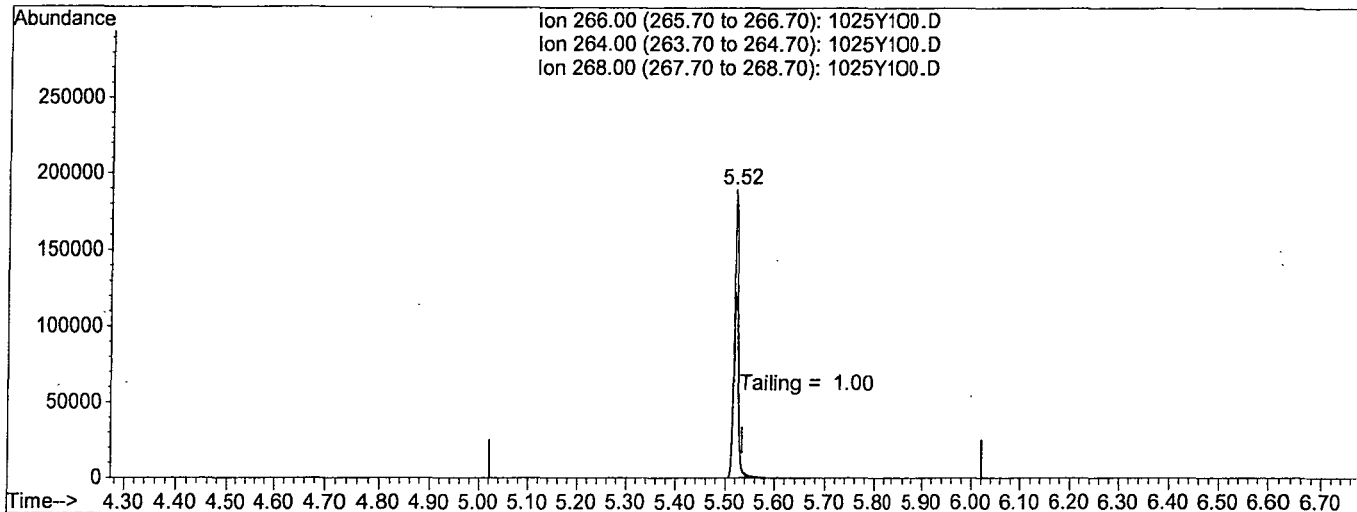
Breakdown 0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y100.D  
 Acq On : 1 Nov 18 11:31  
 Sample : SV TUNE 03/07/18  
 Misc :  
 Quant Time: Nov 1 18:04 2018

Vial: 100  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Nov 01 18:04:42 2018  
 Response via : Single Level Calibration



TIC: 1025Y100.D

(5) Pentachlorophenol

5.52min 0.0000

response 1181168

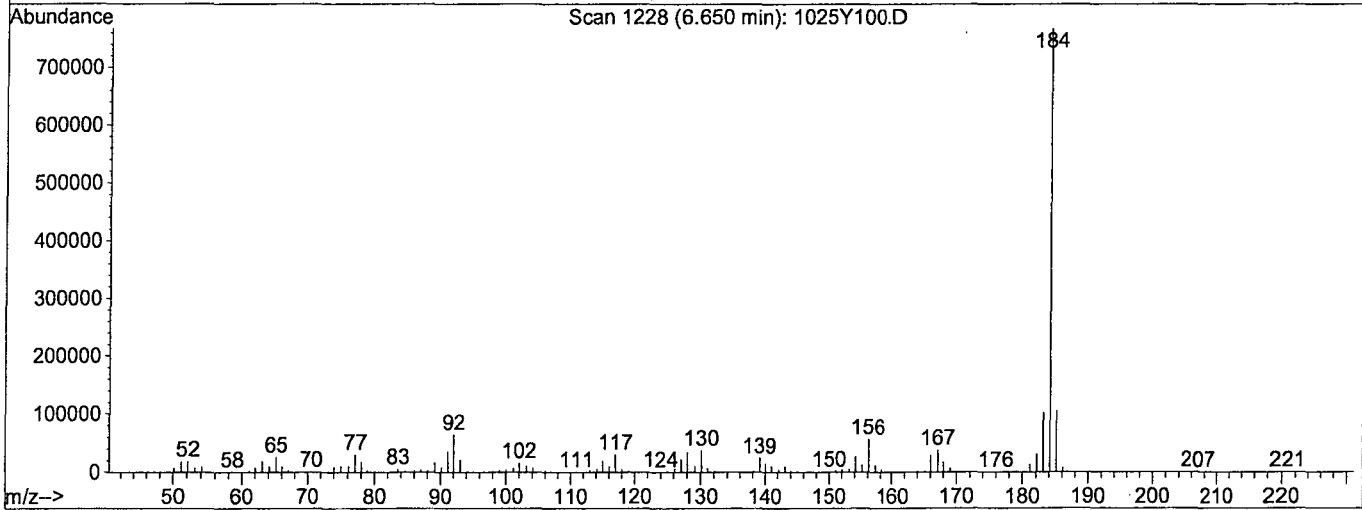
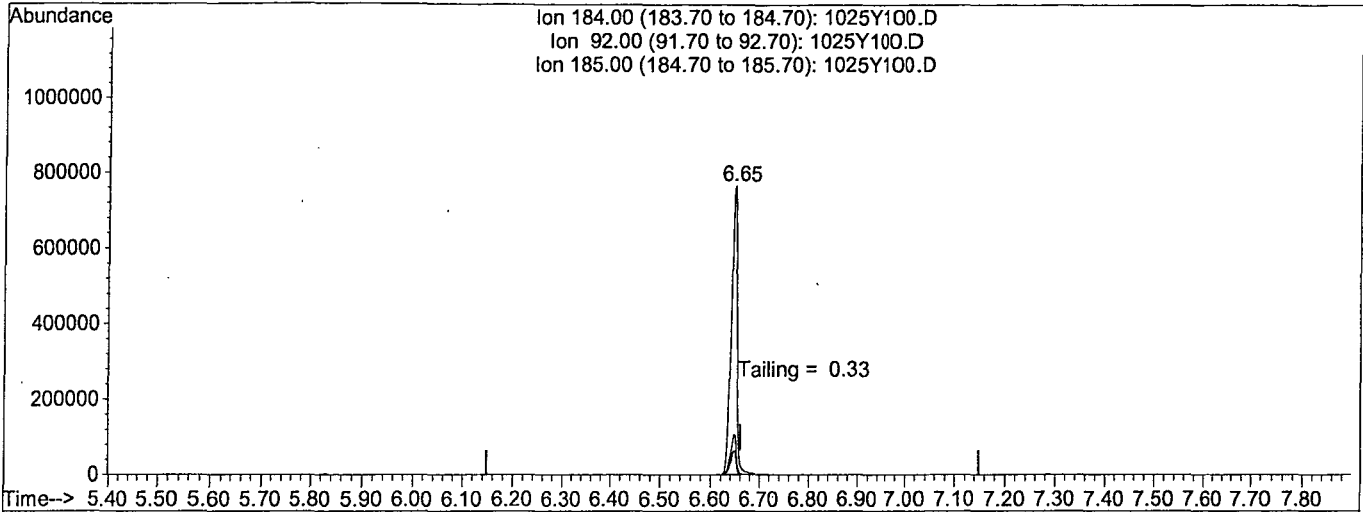
Ion	Exp%	Act%
266.00	100	100
264.00	64.60	64.29
268.00	59.20	64.15
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y100.D  
 Acq On : 1 Nov 18 11:31  
 Sample : SV TUNE 03/07/18  
 Misc :  
 Quant Time: Nov 1 18:04 2018

Vial: 100  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Nov 01 18:04:42 2018  
 Response via : Single Level Calibration



TIC: 1025Y100.D

(6) Benzidine

6.65min 0.0000

response 6439666

Ion	Exp%	Act%
184.00	100	100
92.00	8.40	8.02
185.00	13.70	13.97
0.00	0.00	0.00

Name of Final Standard 8270 Full Scan Standard Curve  
 Prep Date 10/18/18  
 Exp Date 12/19/18

Prep'd By (Initials)

OA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	4 uL	200uL	MC 56258 192uL	4 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	4 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	5 uL	200uL	MC 56258 190uL	5 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	5 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	5 uL	100uL	MC 56258 90uL	10 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	5 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	10 uL	100uL	MC 56258 80 uL	20 ug/mL



8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	20 uL	100uL	MC 56258 60 uL	40 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	20 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	50 uL	200 uL	MC 56258 100 uL	50 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	30 uL	100uL	MC 56258 40 uL	60 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	30 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	40 uL	100uL	MC 56258 20 uL	80 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	40 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	50 uL	100uL	na	100 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*

Name of  
Final

Standard 8270 Full Scan Second Source

Prep'd By (Initials)

OA

Prep Date 10/18/19

Exp Date 02/16/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 SS Stock	o2si	8270 SS Stock	200 ug/mL	04/19/18	04/19/19	50 uL	200uL	MC 56258 150uL	50 ug/mL
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	4 uL	*	*	*

8270 Full Scan Stock						
	12/19/17 -GA					
8270 Source Stock						
Exp:	12/19/18					
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
Absolute	10001	2000	012317-38399 012317-38400	12/19/17	12/19/18	2000
Absolute	10002	2000	062216-37964 062216-37965	12/19/17	12/19/18	2000
Absolute	10004	2000	012516-38188 012516-38508	12/19/17	12/19/18	2000
Absolute	10005	2000	110314-38248 110314-38249	12/19/17	12/19/18	2000
Absolute	10006	2000	021717-38253 021717-38254	12/19/17	12/19/18	2000
Absolute	10007	2000	080116-38258 080116-38259	12/19/17	12/19/18	2000
Absolute	10018	2000	090216-38192 090216-38192	12/19/17	12/19/18	2000
Absolute	70023	1000	091217-038263 091217-038264	12/19/17	12/19/18	2000
Absolute	82705	2000	041217-38268 041217-38269	12/19/17	12/19/18	2000
Absolute	94552	various	102017-38402 102017-38403	12/19/17	12/19/18	2000
				Final Vol.		20000

G34

G34

Name of Final Standard 8270 Surrogate 200/400 ppm  
 Prep Date 06/13/18  
 Exp Date 05/29/19

Prep'd By (Initials) GA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 Acid Surrogate Mix	Restek	33029	10,000 ug/mL	A0130078-38378	05/29/19	200 uL	5 mL	MC 56258	400 ug/mL
8270 B/N Surrogate Mix	Restek	31086	5000 ug/mL	A0130555-38549	06/04/19	200 uL	*	*	200 ug/mL

Name of  
Final,  
Standard **8270 SS STOCK**

Prep'd By (Initials)

OA

Prep Date 04/19/18

Exp Date 04/19/19

Initial Standard Information					Final Standard Information				
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Alliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
	Absolute	10001	2000	G34-081717-38180	04/19/19	1.0 mL	10 mL	NA	2000 ug/mL
	Absolute	10002	2000	G34-020217-38183	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10004	2000	010815-38824	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10005	2000	041317-37803	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10006	2000	011718-38826	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10007	2000	020515-38828	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10018	2000	G34-030216-38198	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	70023	1000	013118-38829	04/19/19	1.0 mL	*	*	1000 ug/mL
	Absolute	82705	2000	090617-38831	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	94552	various	013118-38824	04/19/19	1.0 mL	*	*	various

Name of  
 Final **8270 Surrogate 100/200**  
 Standard **ppm**

Prep'd By (Initials) **GA**

Prep Date **09/07/18**  
 Exp Date **03/07/19**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 Acid Surrogate Mix	Restek	33029	10,000 ug/mL	A0132399-38918 & A0132399 39394	07/11/2019 09/07/19	5.0 mL	250 mL	Acetone #030817A	200 ug/mL
8270 B/N Surrogate Mix	Restek	31086	5000 ug/mL	A0135243-39164 & 39165	08/09/19 09/07/19	5.0 mL	250 mL	*	100 ug/mL

Name of  
Final  
Standard

8270 Full Scan Spike

Prep'd By (Initials)

OA

Prep Date 09/20/18

Exp Date 09/20/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA# (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc.(range)
10001	Absolute	10001	2000	051018-39432	09/20/19	1.0 mL	10 mL	NA	2000 ug/mL
10002	Absolute	10002	2000	051018-39438	09/20/19	1.0 mL			2000 ug/mL
10004	Absolute	10004	2000	071618-39442	09/20/19	1.0 mL			2000 ug/mL
10005	Absolute	10005	2000	110314-38938	09/20/19	1.0 mL			2000 ug/mL
10006	Absolute	10006	2000	071318-39448	09/20/19	1.0 mL			2000 ug/mL
10007	Absolute	10007	2000	080116-38946	09/20/19	1.0 mL			2000 ug/mL
10018	Absolute	10018	2000	062718-39453	09/20/19	1.0 mL			2000 ug/mL
70023	Absolute	70023	1000	620818-39488	09/20/19	1.0 mL			1000 ug/mL
82705	Absolute	82705	2000	090617-39227	09/20/19	1.0 mL			2000 ug/mL
94552	Absolute	94552	various	102017-38956	09/20/19	1.0 mL			various

Name of Final Standard 8270 Internal Standard (Ampule)  
 Prep Date 10/11/18  
 Exp Date 10/11/19

Prep'd By (Initials)

GA

Initial Standard Information					Final Standard Information				
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatiles Internal Standard	Restek	31206	2mg/mL	A0138585 - 39541 39542	10/11/19	2 mL	2 mL	NA	2mg/mL



Name of  
 Final  
 Standard Semivolatile (SV) Tuning Solution  
 Prep Date 03/07/18  
 Exp Date 03/07/19

Prep'd By (Initials)

GA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38878	03/07/19	1,250 uL	25 mL	MC #56258	50 ug/mL

# Organic Extraction Worksheet

<b>Method</b>	Continuous Liquid/Liquid SVOC 3520C	<b>Extraction Set</b>	181030A	<b>Extraction Method</b>	LIQ003	<b>Units</b>	mL
Spiked ID 1	8270T Spike 10-9-18 EXP 10-9-19	Surrogate ID 1	8270 Surrogate 9-2718 EXP 3-27-19				
Spiked ID 2	Sim Spike 10-26-18 EXP 10-26-19	Surrogate ID 2	SIM Surrogate 9-27-18 EXP 9-27-19				
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC: NO					
Spiked ID 7		Ext. Start Time:	10/30/18 16:00, 10/31/18 13:15				
Spiked ID 8		Ext. End Time:	10/31/18 10:15, 10/31/18 07:45, 10:55				
		GC Requires Extract By:	11/01/18 0:00				
		pH1	2	10/30/18 1:50:00 PM	Water Bath Temp Criteria 76 °C		
		pH2	14	10/31/18 1:00:00 PM			
		pH3					

Spiked By: KY

Date 10/30/18

Witnessed By: DL

Date 10/30/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	181030A Bk			1,0.050	1,2	800	1	2/1	10/30/18 14:00	
					equip	E-HP51 E-WB5				
2	181030A LCS-1	0.250	1	1	1	800	1	2/1	10/30/18 14:00	
					equip	E-HP50 E-WB5				
3	181030A LCS-2	0.0250	2	0.050	2	800	1	2/1	10/30/18 14:00	
					equip	E-HP49 E-WB5				
4	181030A LCS-1	0.250	1	1	1	800	1	2/1	10/30/18 14:00	
					equip	E-HP48 E-WB5				
5	181030A LCS-2	0.0250	2	0.050	2	800	1	2/1	10/30/18 14:00	
					equip	E-HP47 E-WB5				
6	AZ81599 AZ81599W01			0.050	1,2	800	1	2/1	10/30/18 14:00	87202
					equip	E-HP30 E-WB5				
7	AZ81676 AZ81676W10			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87219
					equip	E-HP29 E-WB5				
8	AZ81677 AZ81677W10			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87219
					equip	E-HP28 E-WB5				
9	AZ81678 AZ81678W12			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87219
					equip	E-HP27 E-WB5				
10	AZ81840 AZ81840W12			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87238
					equip	E-HP26 E-WB5				
11	AZ81841 AZ81841W12			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87238
					equip	E-HP25 E-WB5				
12	AZ81842 AZ81842W13			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87238
					equip	E-HP17 E-WB5				
13	AZ81901 AZ81901W13			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87248
					equip	E-HP16 E-WB5				
14	AZ81903 AZ81903W12			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87248
					equip	E-HP15 E-WB5				

*Ky 11/02/18*

Solvent and Lot#	
PH Strips	HC 727135
Dichloromethane (DCM)	58059
1+1 H2SO4	73-18
10N NaOH	10-17-18
Filter Paper	400147
Acidified Na2SO4	10-2-18
B. Na2SO4	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	MA
Date	11/1/18
Time	12:00
Refrigerator	GC-C

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	11/02/18 11:58:33 AM

Reviewed By: *Ky* 467 Date *11/2/18*

## Injection Log

Directory: M:\YODA\DATA\Y181025\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	1025Y002.D	1	SV Tune 03/07/18		25 Oct 18 11:17
3	1025Y003.D	1	4ug/mL 8270 10/18/18		25 Oct 18 11:33
4	1025Y004.D	1	5ug/mL 8270 10/18/18		25 Oct 18 12:01
5	1025Y005.D	1	10ug/mL 8270 10/18/18		25 Oct 18 12:28
6	1025Y006.D	1	20ug/mL 8270 10/18/18		25 Oct 18 12:56
7	1025Y007.D	1	40ug/mL 8270 10/18/18		25 Oct 18 13:24
8	1025Y008.D	1	50ug/mL 8270 10/18/18		25 Oct 18 13:52
9	1025Y009.D	1	60ug/mL 8270 10/18/18		25 Oct 18 14:20
10	1025Y010.D	1	80ug/mL 8270 10/18/18		25 Oct 18 14:48
11	1025Y011.D	1	100ug/mL 8270 10/18/18		25 Oct 18 15:16
12	1025Y012.D	1	SS- 8270 10/18/18		25 Oct 18 15:44
100	1025Y100.D	1	SV TUNE 03/07/18		1 Nov 18 11:31
1	1025Y101.D	1	50ug/mL 8270 10/18/18 (2)		1 Nov 18 11:46
6	1025Y106.D	1.25	181030A BLK 1/800		1 Nov 18 14:30
7	1025Y107.D	1.25	181030A LCS-1 1/800		1 Nov 18 14:58
8	1025Y108.D	1.25	181030A LCSD-1 1/800		1 Nov 18 15:26
9	1025Y109.D	1.25	AZ81676W10 1/800		1 Nov 18 15:54
10	1025Y110.D	1.25	AZ81677W10 1/800		1 Nov 18 16:21
11	1025Y111.D	1.25	AZ81678W12 1/800		1 Nov 18 16:49
17	1025Y117.D	1	50ug/mL 8270 10/18/18 (2)		1 Nov 18 19:36

**ORGANICS  
Calibration Data**

**APPL, INC.**

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 08/01/18  
Instrument: Yoda

Initials: \_\_\_\_\_

0801Y003.D    0801Y005.D    0801Y006.D    0801Y007.D    0801Y004.D    0801Y008.D    0801Y009.D    0801Y010.D

	Compound	1	2	3	4	5	6	7	8			Avg	%RSD	Type	r <sup>2</sup>	Q	MRF
1	I 1,4-dichlorobenzene-D4(IS)																
2	TML 2-(2-Methoxyethoxy)ethanol	0.1397	0.2559	0.2135	0.2096	0.2114	0.2268	0.2198	0.2224			0.21	15	TML	0.998		
3	I Napthalene-D8(IS)																
4	I Acenaphthene-D10(IS)																
5	I Phenanthrene-D10(IS)																
6	I Chrysene-D12(IS)																
7	I Perylene-D12(IS)																
8																	
9																	
10																	
11																	
12																	
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35																	

Data File : M:\YODA\DATA\Y180801M\0801Y003.D  
 Acq On : 1 Aug 18 15:09  
 Sample : 50ug/ml MEE 08/01/18  
 Misc : soil

Vial: 3  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	423228	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1672731	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	846835	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1554428	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1480723	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1510378	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.90	45	73888	40.09311	ppb	92

Quantitation Report

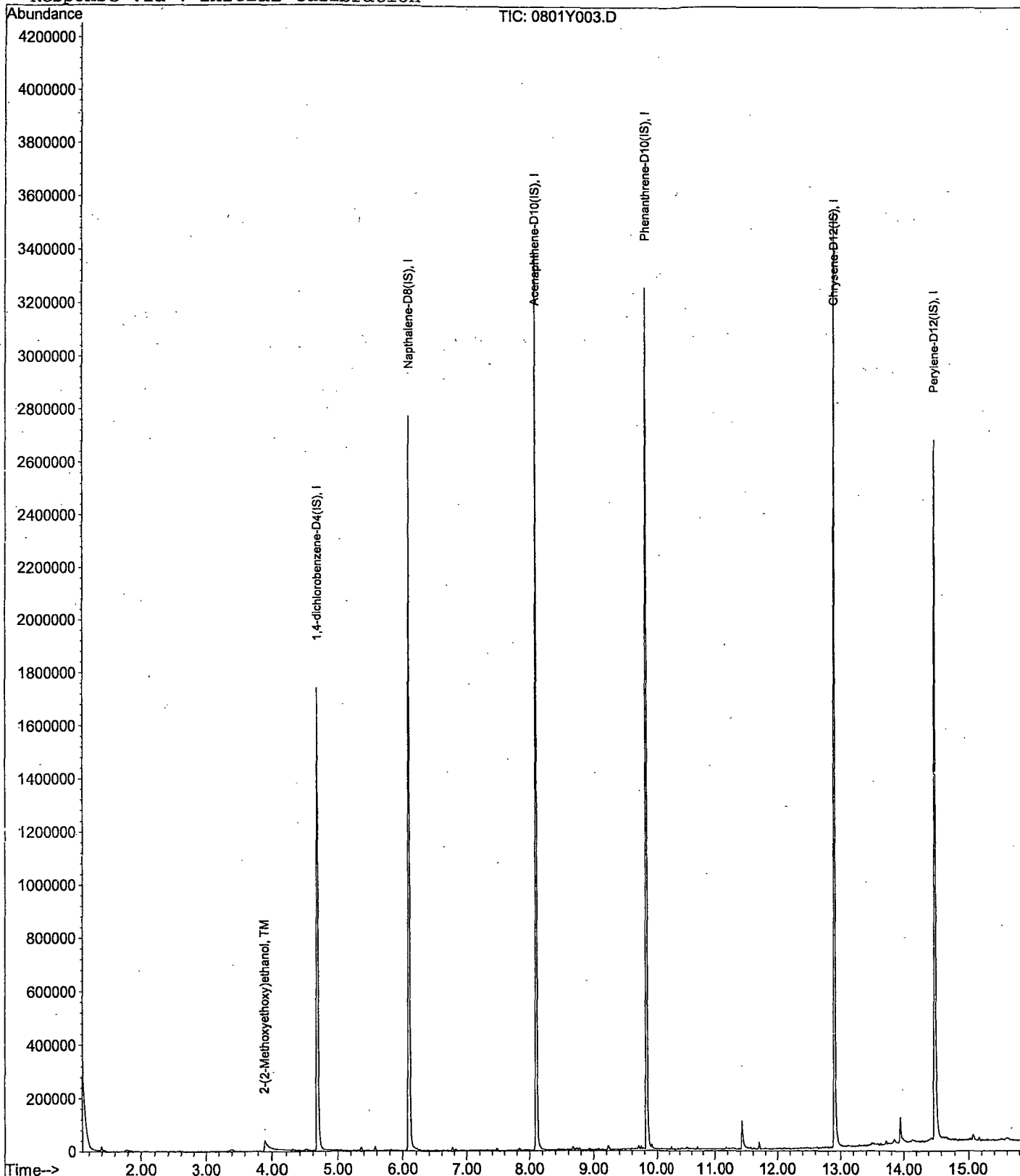
Data File : M:\YODA\DATA\Y180801M\0801Y003.D  
Acq On : 1 Aug 18 15:09  
Sample : 50ug/ml MEE 08/01/18  
Misc : soil

Vial: 3  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y004.D Vial: 4  
 Acq On : 1 Aug 18 15:34 Operator: MA  
 Sample : 500ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	444036	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1697285	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	865268	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.83	188	1608326	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1531073	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1598774	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.88	45	1173343	482.22697	ppb	99



Quantitation Report

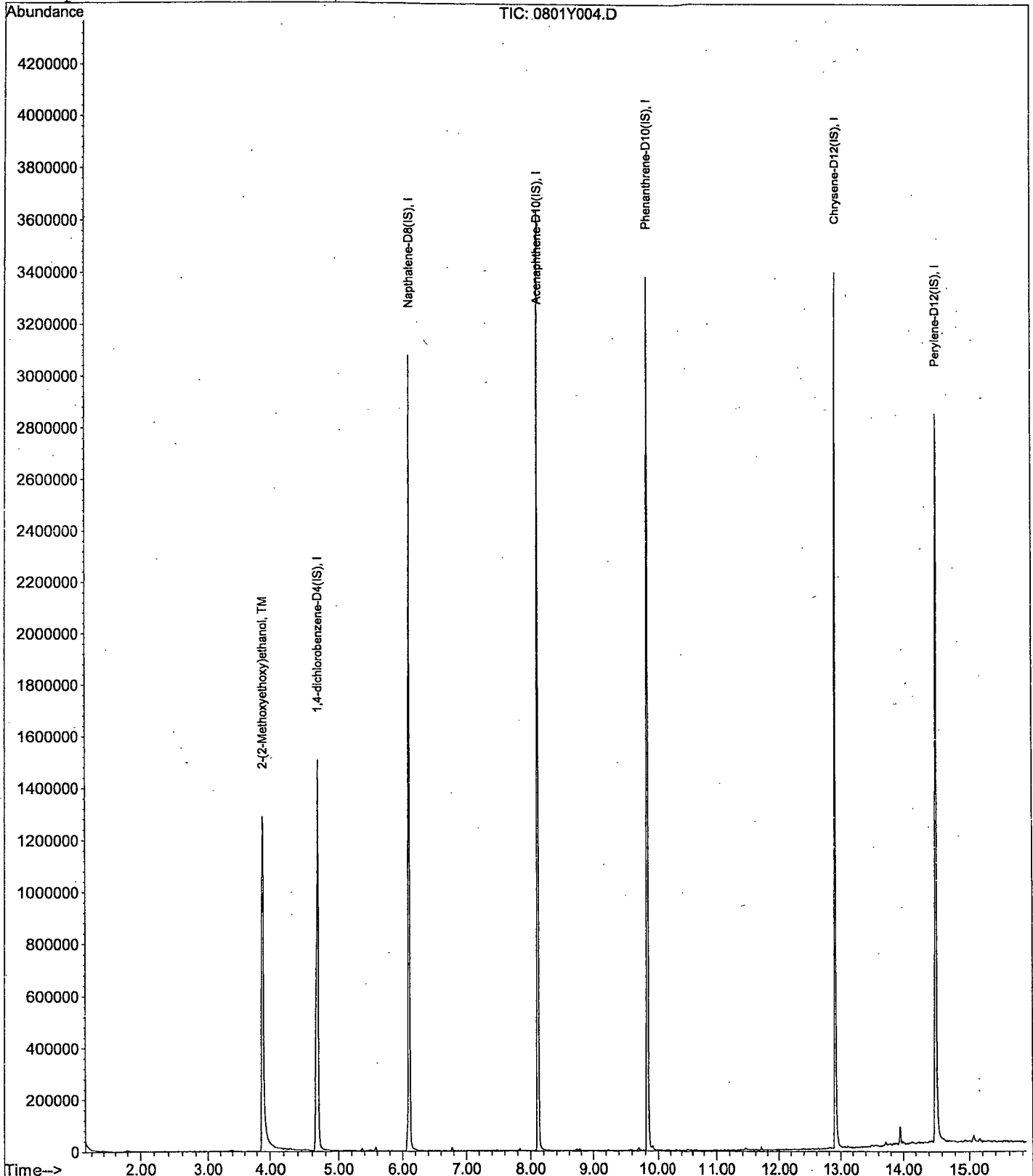
Data File : M:\YODA\DATA\Y180801M\0801Y004.D  
Acq On : 1 Aug 18 15:34  
Sample : 500ug/ml MEE 08/01/18  
Misc : soil

Vial: 4  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y005.D Vial: 5  
 Acq On : 1 Aug 18 16:26 Operator: MA  
 Sample : 100ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	412018	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1553432	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	800497	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1436197	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1368694	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1351563	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.87	45	263617	123.44322	ppb	99

Quantitation Report

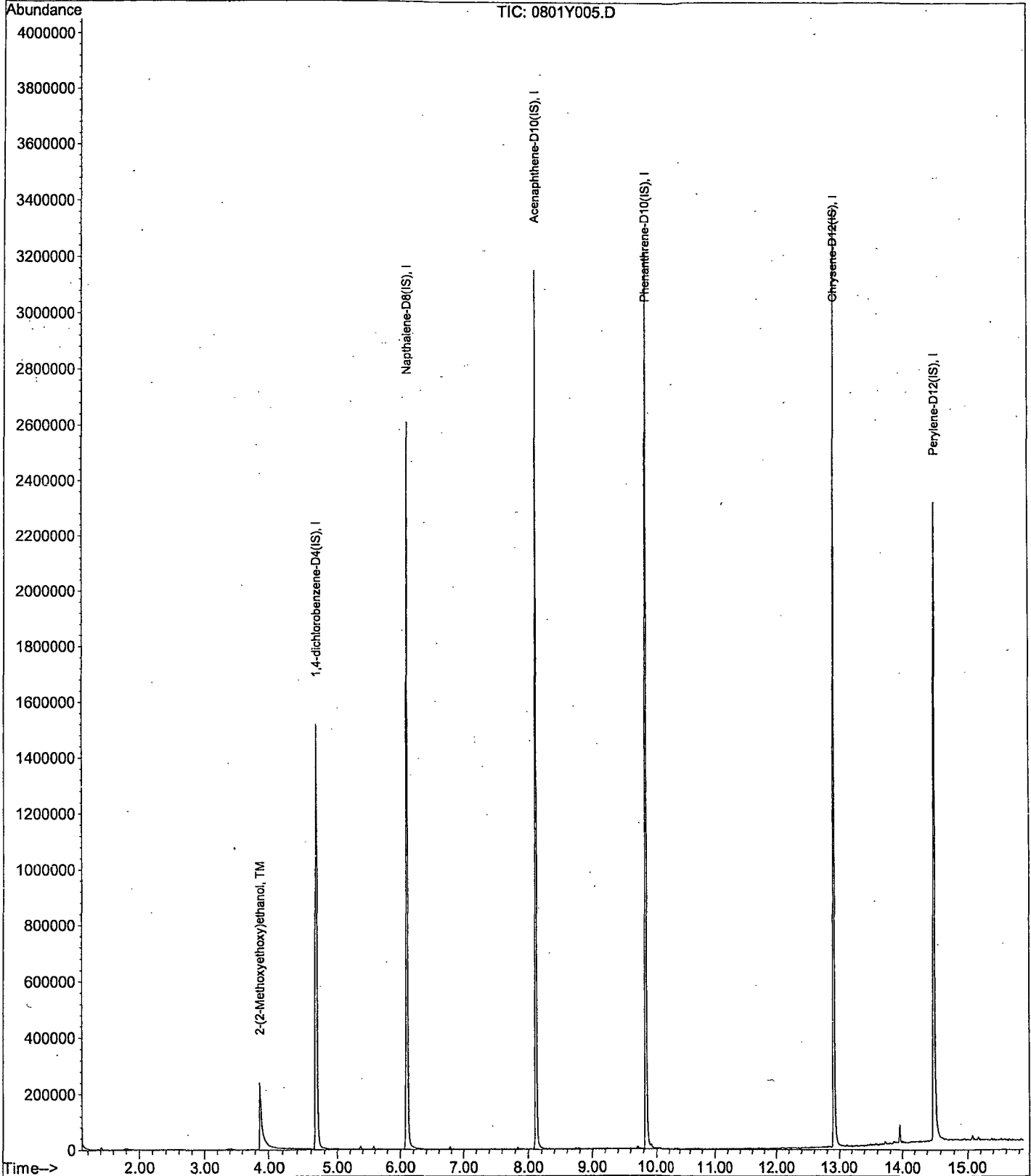
Data File : M:\YODA\DATA\Y180801M\0801Y005.D  
Acq On : 1 Aug 18 16:26  
Sample : 100ug/ml MEE 08/01/18  
Misc : soil

Vial: 5  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y006.D Vial: 6  
 Acq On : 1 Aug 18 16:51 Operator: MA  
 Sample : 200ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	408598	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1570821	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	801658	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1450305	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1375178	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1308796	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.87	45	436085	200.02396	ppb	98

Quantitation Report

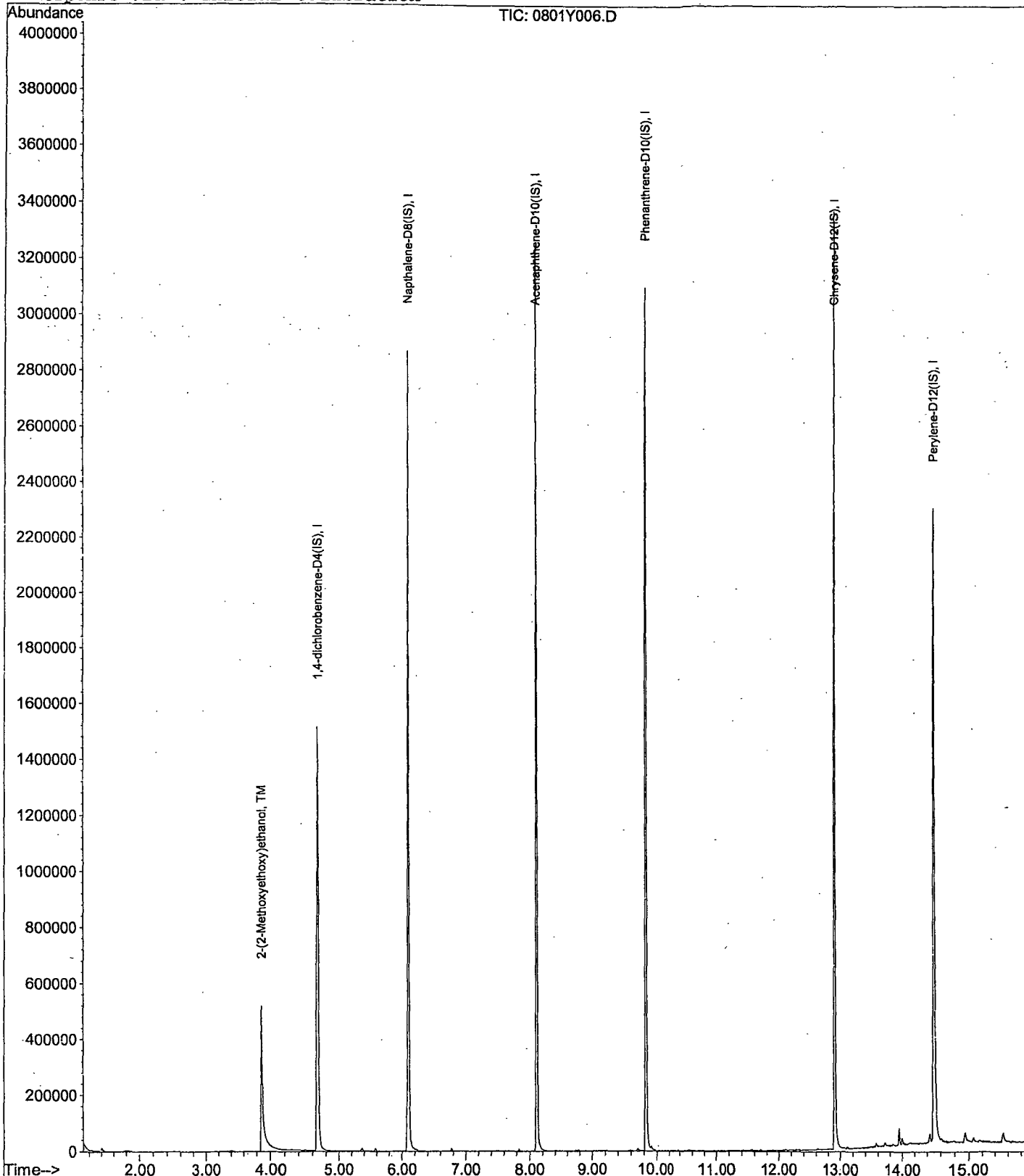
Data File : M:\YODA\DATA\Y180801M\0801Y006.D  
Acq On : 1 Aug 18 16:51  
Sample : 200ug/ml MEE 08/01/18  
Misc : soil

Vial: 6  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y007.D                   Vial: 7  
 Acq On : 1 Aug 18 17:16                                   Operator: MA  
 Sample : 400ug/ml MEE 08/01/18                         Inst : Yoda  
 Misc : soil                                               Multiplr: 1.00

Quant Time: Aug 2 9:28 2018                           Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	404706	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1558208	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	769410	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.83	188	1420741	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1352975	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.50	264	1257373	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.87	45	848145	384.27446	ppb	97

Quantitation Report

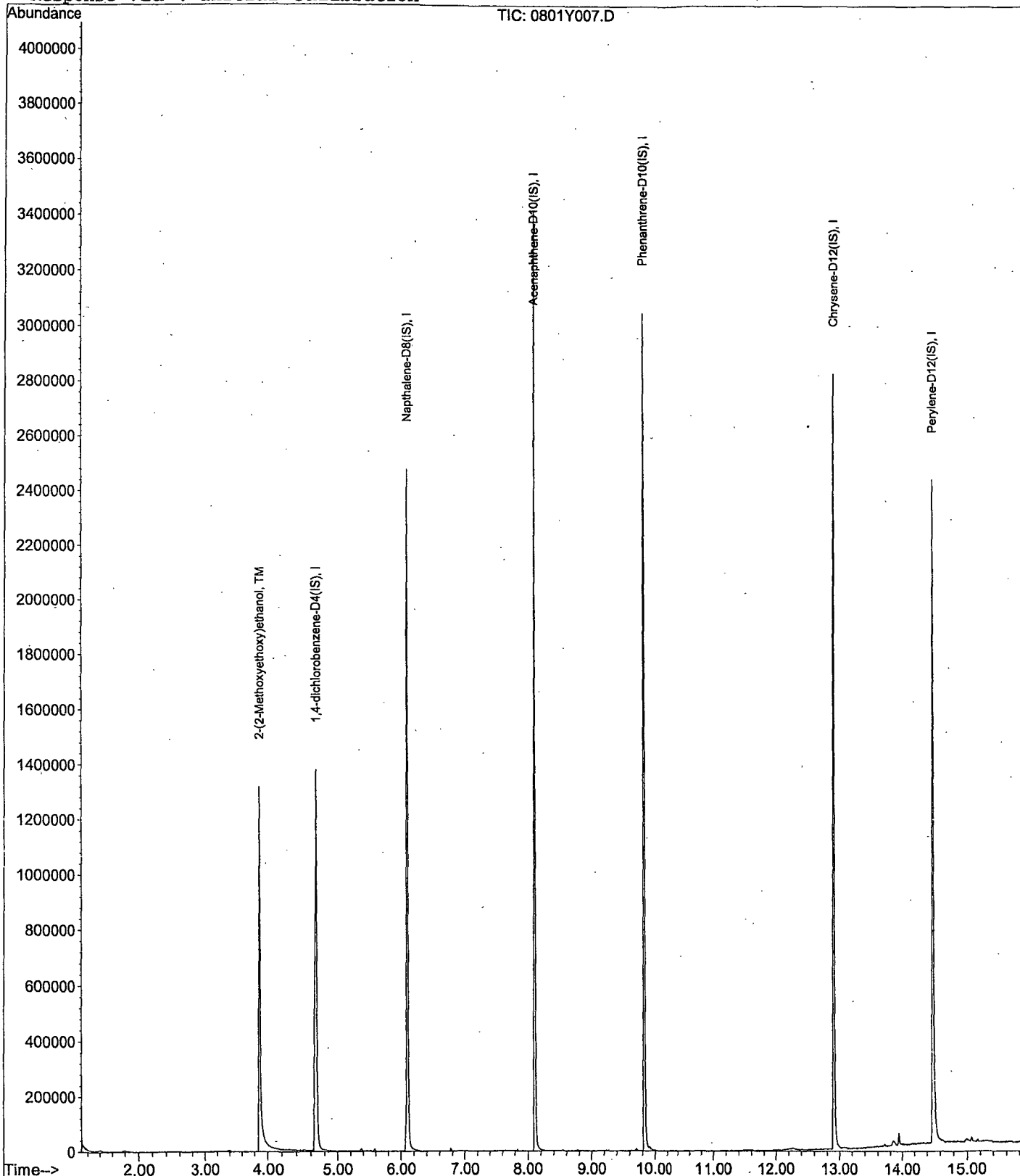
Data File : M:\YODA\DATA\Y180801M\0801Y007.D  
Acq On : 1 Aug 18 17:16  
Sample : 400ug/ml MEE 08/01/18  
Misc : soil

Vial: 7  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y008.D Vial: 8  
 Acq On : 1 Aug 18 17:41 Operator: MA  
 Sample : 600ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QI	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.69	152	405475	40.00000	ppb	0.01
3) Napthalene-D8 (IS)	6.11	136	1552965	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	796436	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.83	188	1490717	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.90	240	1398690	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.50	264	1658322	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QI	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.91	45	1379331	618.26307	ppb	97



Quantitation Report

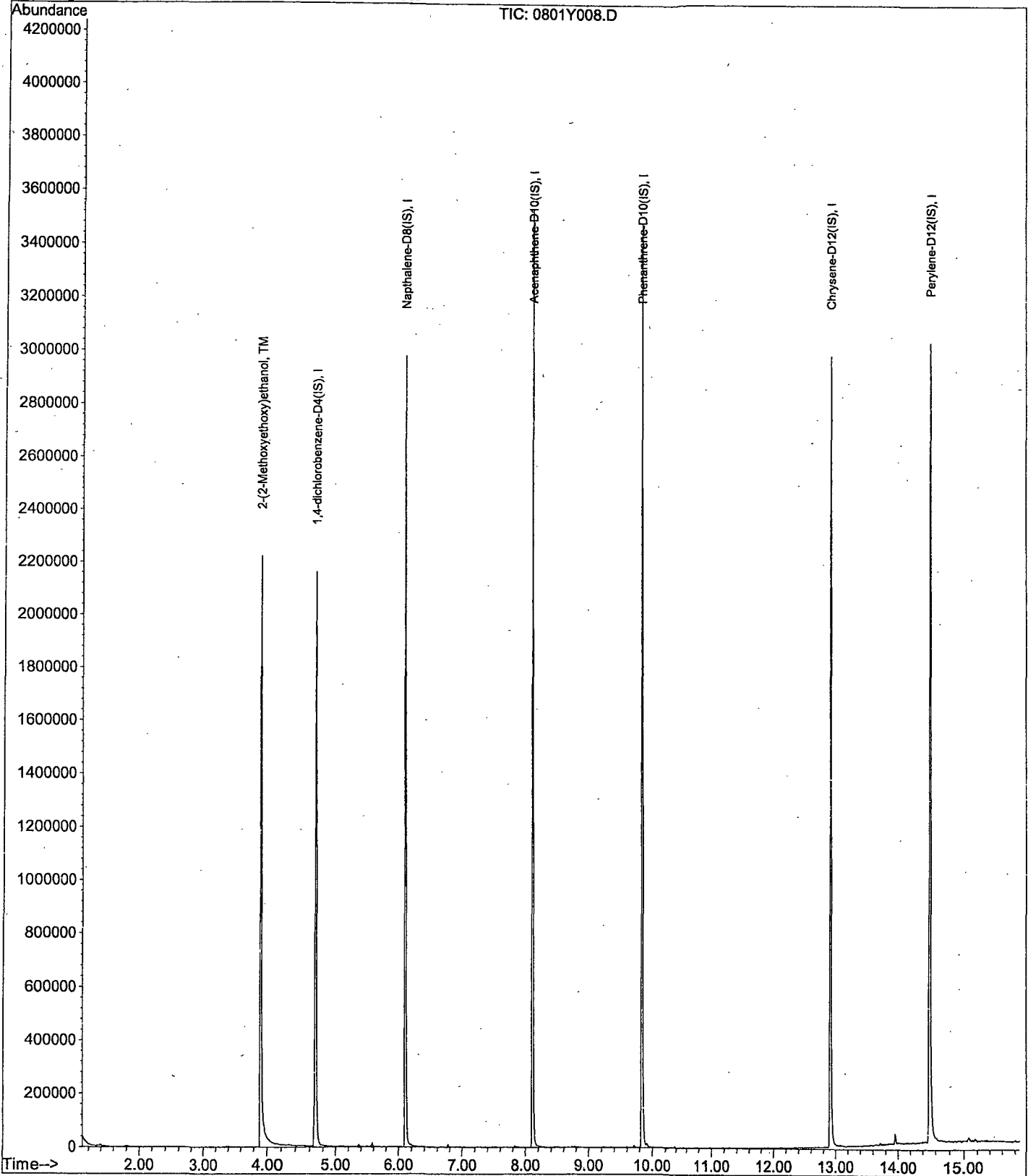
Data File : M:\YODA\DATA\Y180801M\0801Y008.D  
Acq On : 1 Aug 18 17:41  
Sample : 600ug/ml MEE 08/01/18  
Misc : soil

Vial: 8  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y009.D Vial: 9  
 Acq On : 1 Aug 18 18:06 Operator: MA  
 Sample : 800ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.69	152	408320	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1525383	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	796830	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1438835	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1358221	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1353471	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.92	45	1795349	796.55050	ppb	98

Quantitation Report

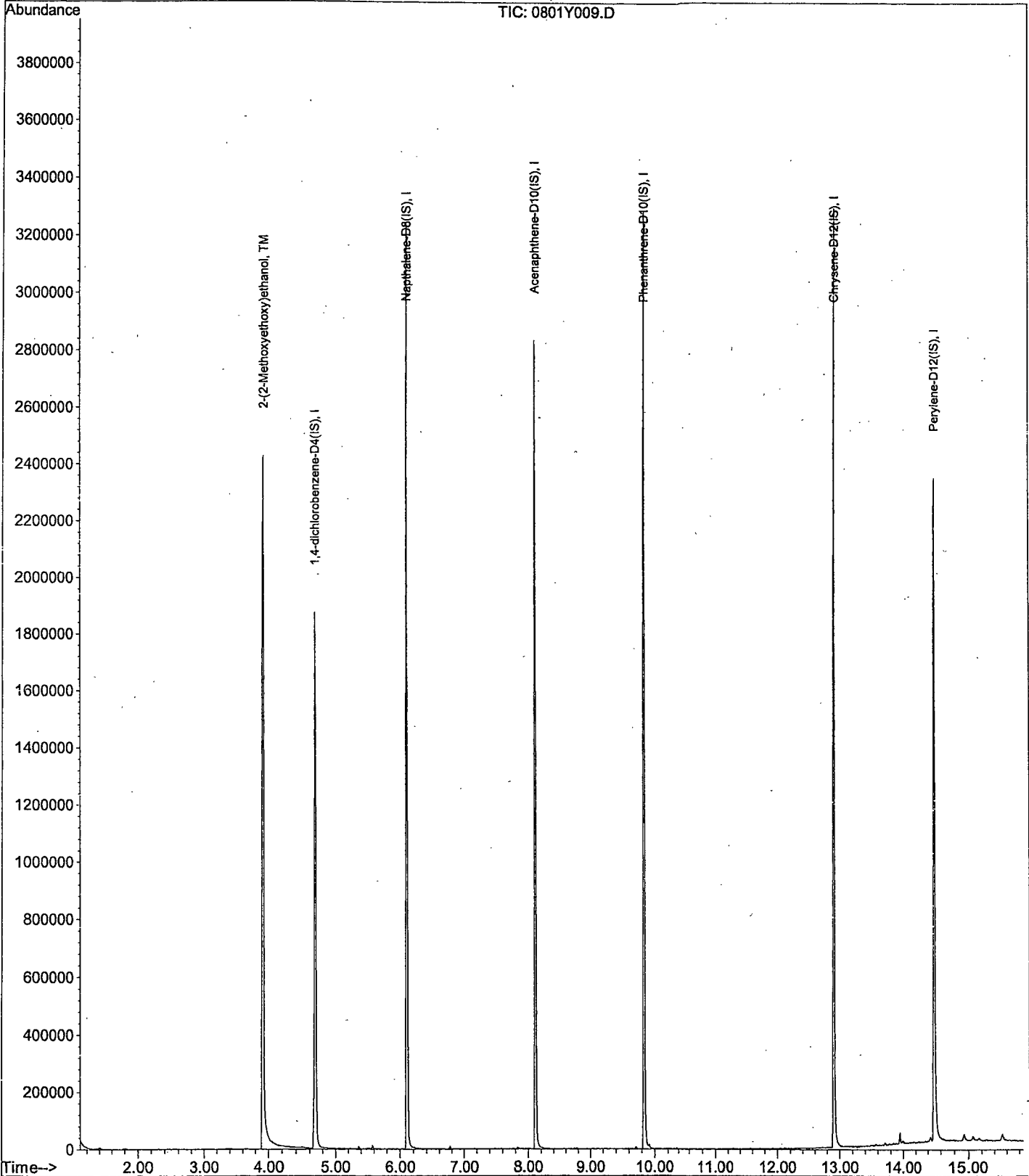
Data File : M:\YODA\DATA\Y180801M\0801Y009.D  
Acq On : 1 Aug 18 18:06  
Sample : 800ug/ml MEE 08/01/18  
Misc : soil

Vial: 9  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y010.D Vial: 10  
 Acq On : 1 Aug 18 18:31 Operator: MA  
 Sample : 1000ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.69	152	405400	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1531861	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	798997	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1470941	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1395838	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1333379	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.93	45	2254478	1005.12472	ppb	97

Quantitation Report

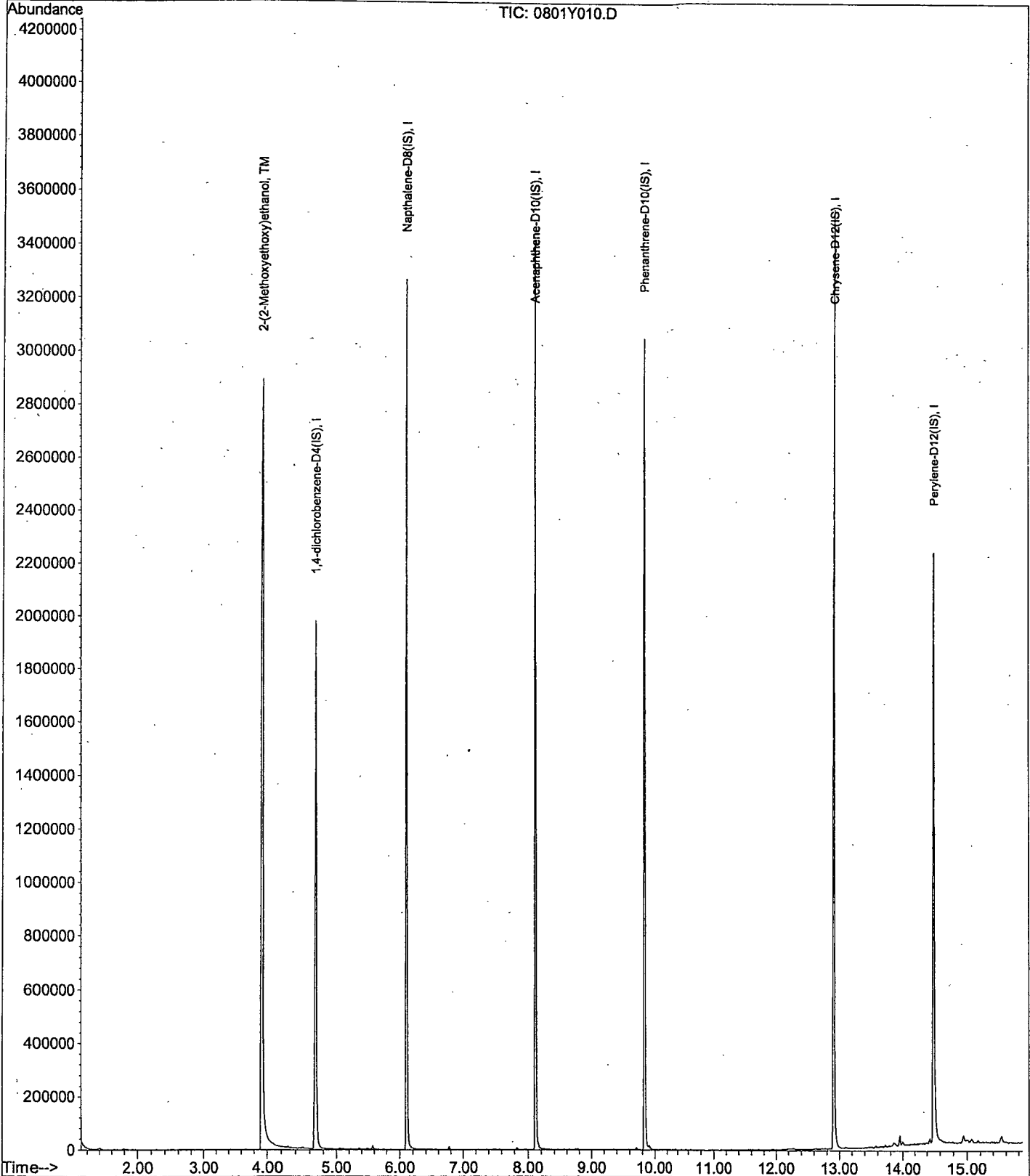
Data File : M:\YODA\DATA\Y180801M\0801Y010.D  
Acq On : 1 Aug 18 18:31  
Sample : 1000ug/ml MEE 08/01/18  
Misc : soil

Vial: 10  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



2MEE  
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 1 Aug 18 18:55

Matrix: \_\_\_\_\_

Instrument: Yoda

Initial Cal. Date: 08/01/18

Data File: 0801Y011.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TML	2-(2-Methoxyethoxy)ethanol	0.2124	0.2617	23	TML	19
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
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30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							

Average

23.0

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y011.D Vial: 11  
 Acq On : 1 Aug 18 18:55 Operator: MA  
 Sample : SS ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:31 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:29:28 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	402794	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1509521	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	769368	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1397959	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1355134	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1392217	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.89	45	1317418	594.78167	ppb	98

$$Algo = \frac{(1317418 + 0.0492) \times 40}{0.22 \times 402794} = 594.7 \quad MA \quad 8/2/18$$

Quantitation Report

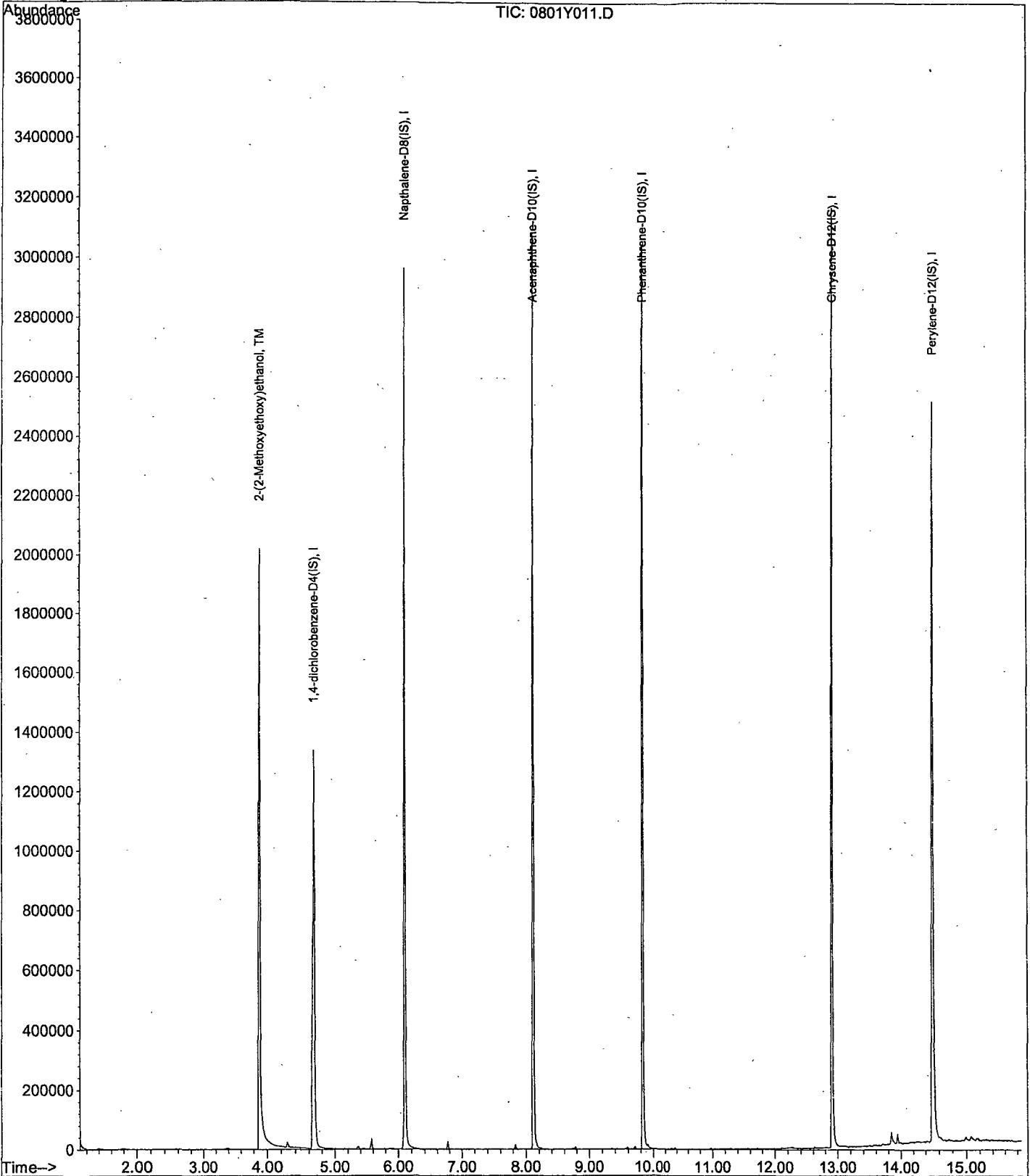
Data File : M:\YODA\DATA\Y180801M\0801Y011.D  
Acq On : 1 Aug 18 18:55  
Sample : SS ug/ml MEE 08/01/18  
Misc : soil

Vial: 11  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:31 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration





2MEE  
EPA 8270

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/31/18  
Instrument: Yoda  
Initial Cal. Date: 08/01/18  
Data File: 0801Y070.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TML	2-(2-Methoxyethoxy)ethanol	0.2124	0.2493	17	TML	13
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
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27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40		Average			17.0		

Data File : M:\YODA\DATA\Y180801M\0801Y070.D Vial: 70  
 Acq On : 31 Oct 18 6:51 Operator: MA  
 Sample : 500ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:19 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	357281	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1484912	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	759796	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1392264	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1474563	40.00000	ppb	0.00
7) Perylene-D12 (IS)	15.43	264	2044915	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	4.49	45	1113167	567.00588	ppb	100

Quantitation Report

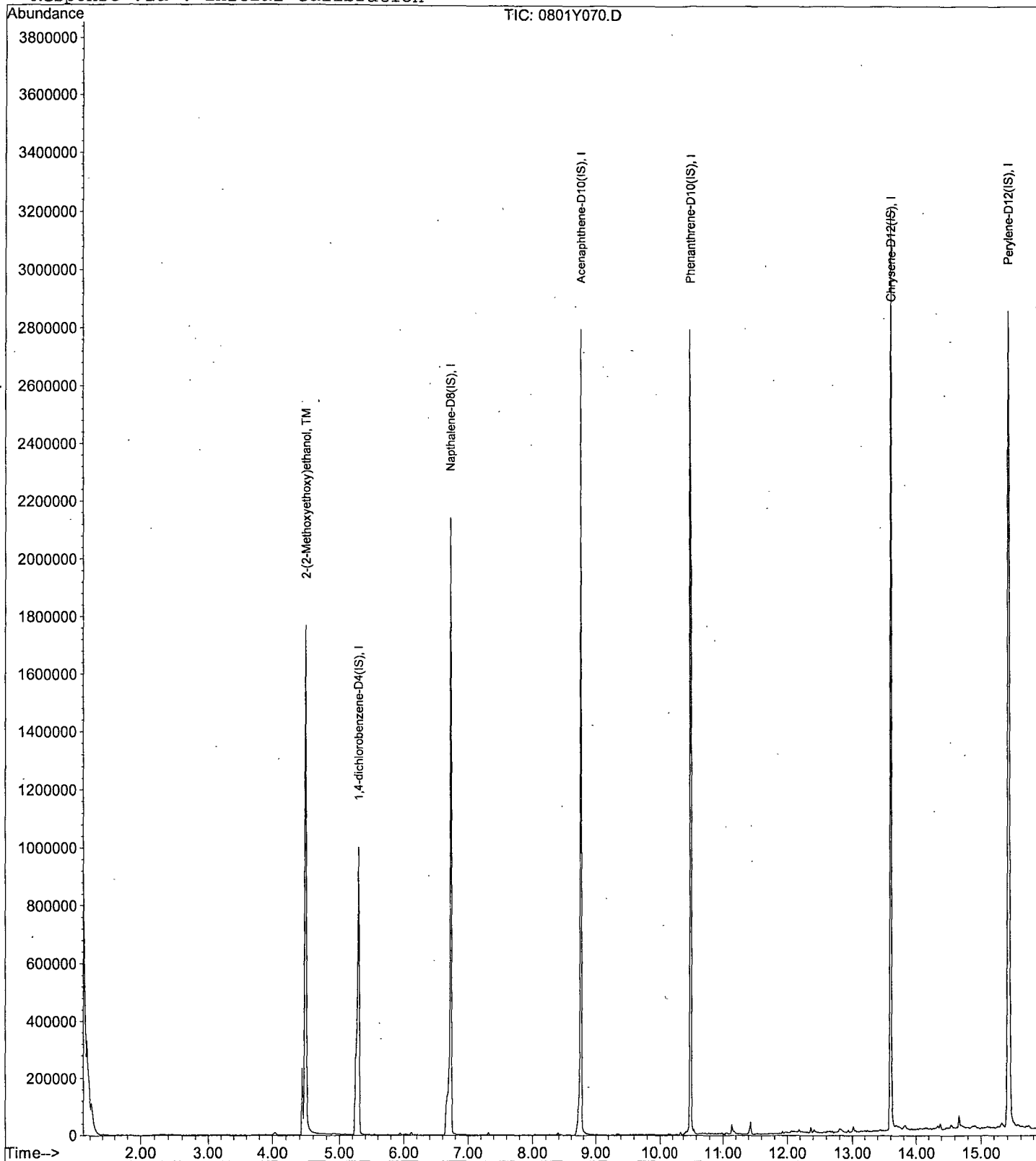
Data File : M:\YODA\DATA\Y180801M\0801Y070.D  
Acq On : 31 Oct 18 6:51  
Sample : 500ug/ml MEE 08/01/18  
Misc : soil

Vial: 70  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:19 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



2MEE  
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/31/18

Matrix: \_\_\_\_\_

Instrument: Yoda

Initial Cal. Date: 08/01/18

Data File: 0801Y098.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TML	2-(2-Methoxyethoxy)ethanol	0.2124	0.2077	2.2	TML	5.2
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
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27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40		Average			2.2		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y098.D Vial: 98  
 Acq On : 31 Oct 18 18:12 Operator: MA  
 Sample : 500ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:17 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.31	152	387693	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1637394	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	845559	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1555868	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1391754	40.00000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1264016	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	4.50	45	1006670	474.00632	ppb	98

Quantitation Report

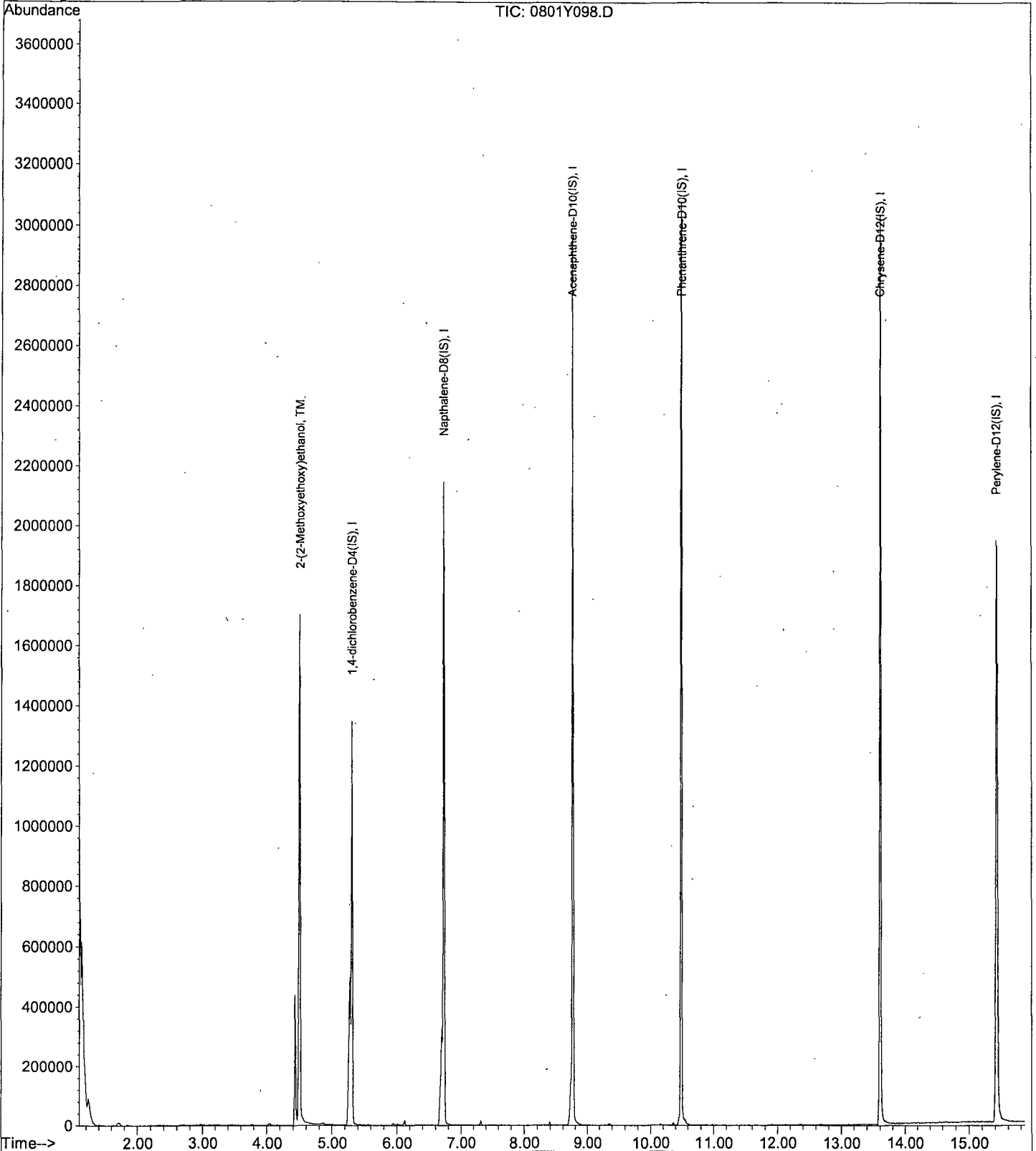
Data File : M:\YODA\DATA\Y180801M\0801Y098.D  
Acq On : 31 Oct 18 18:12  
Sample : 500ug/ml MEE 08/01/18  
Misc : soil

Vial: 98  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:17 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : M:\YODA\DATA\Y180801M\0801Y087.D Vial: 87  
 Acq On : 31 Oct 18 13:52 Operator: MA  
 Sample : AZ81676W08 2/490 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	367848	40.0000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1466409	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	767726	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1440005	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1356718	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1323168	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue



Quantitation Report

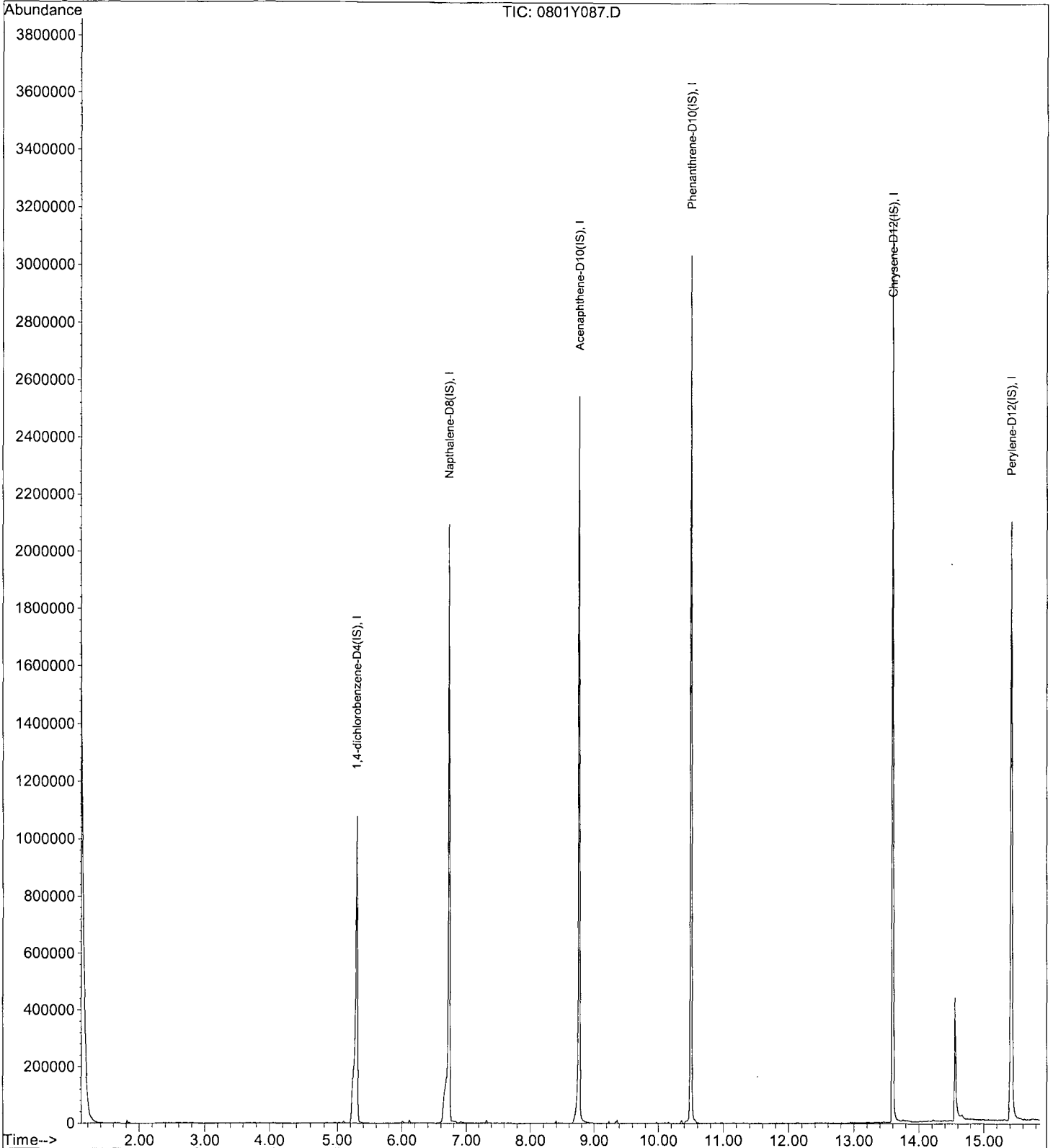
Data File : M:\YODA\DATA\Y180801M\0801Y087.D  
Acq On : 31 Oct 18 13:52  
Sample : AZ81676W08 2/490  
Misc : soil

Vial: 87  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y088.D Vial: 88  
 Acq On : 31 Oct 18 14:16 Operator: MA  
 Sample : AZ81677W09 2/450 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	345977	40.0000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1401036	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	748190	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1416760	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1312959	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1293289	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Quantitation Report

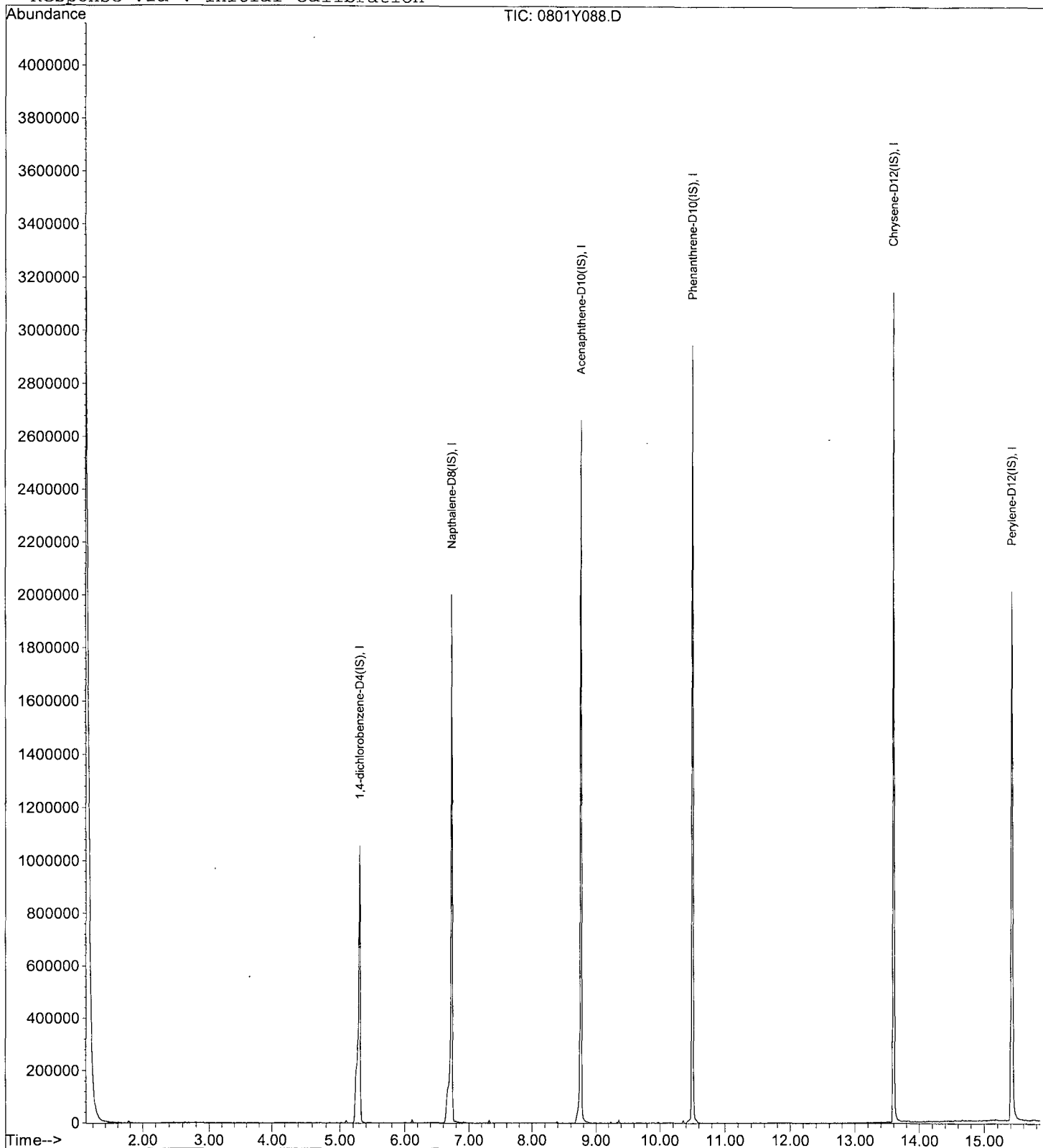
Data File : M:\YODA\DATA\Y180801M\0801Y088.D  
Acq On : 31 Oct 18 14:16  
Sample : AZ81677W09 2/450  
Misc : soil

Vial: 88  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y089.D Vial: 89  
 Acq On : 31 Oct 18 14:40 Operator: MA  
 Sample : AZ81678W09 2/500 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.31	152	351444	40.0000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1387260	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	756332	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1446334	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1247601	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1210746	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Quantitation Report

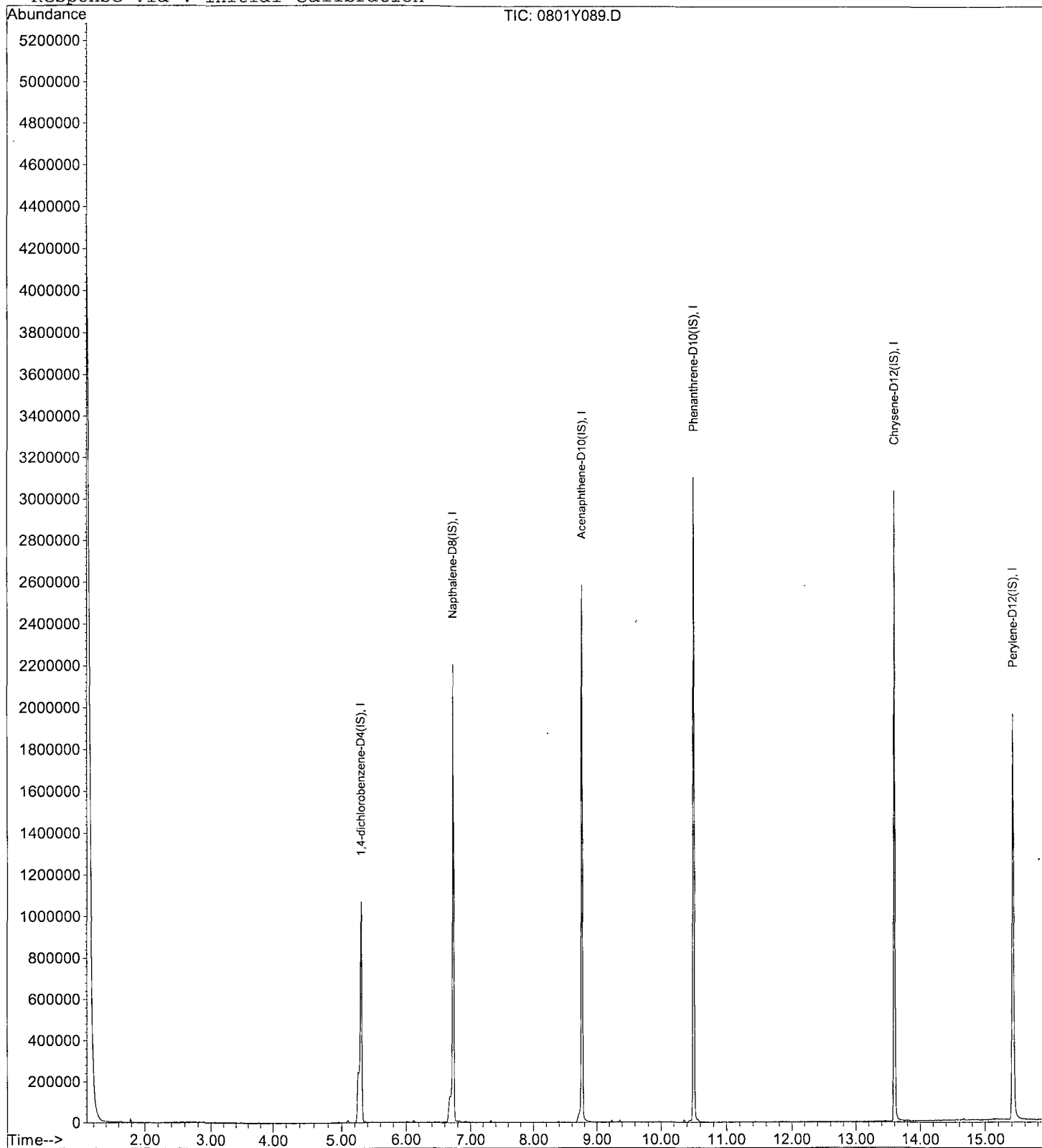
Data File : M:\YODA\DATA\Y180801M\0801Y089.D  
Acq On : 31 Oct 18 14:40  
Sample : AZ81678W09 2/500  
Misc : soil

Vial: 89  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y079.D Vial: 79  
 Acq On : 31 Oct 18 10:43 Operator: MA  
 Sample : 181029A Blk 2/500 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.31	152	233584	40.0000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1284274	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	664335	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1204751	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1112334	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1097799	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Quantitation Report

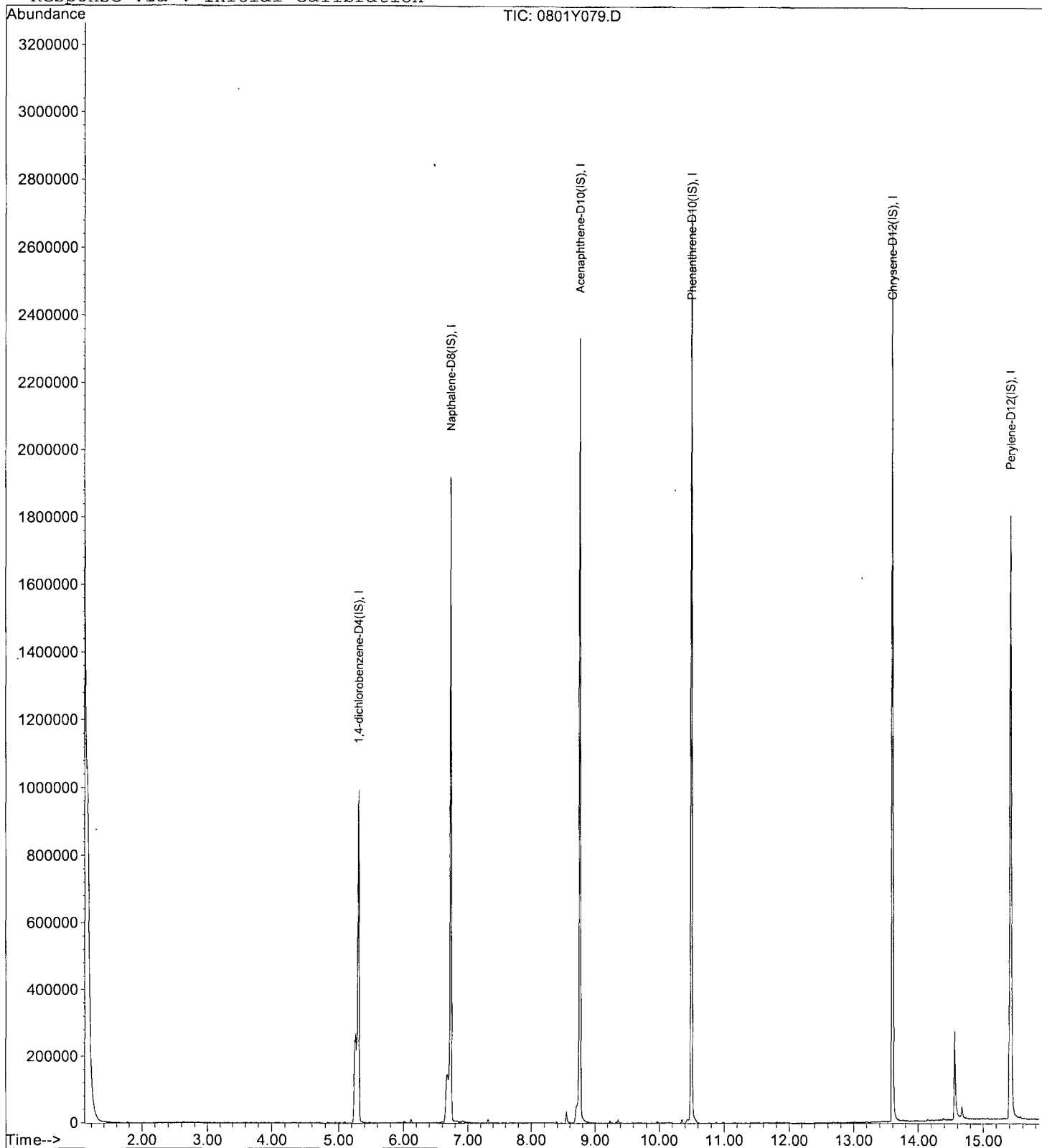
Data File : M:\YODA\DATA\Y180801M\0801Y079.D  
Acq On : 31 Oct 18 10:43  
Sample : 181029A Blk 2/500  
Misc : soil

Vial: 79  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y080.D Vial: 80  
 Acq On : 31 Oct 18 11:07 Operator: MA  
 Sample : 181029A LCS-1 2/500 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	392175	40.0000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1594599	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	819390	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1395149	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1241785	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1311326	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	4.48	45	140476	72.9889	ppb	98



Quantitation Report

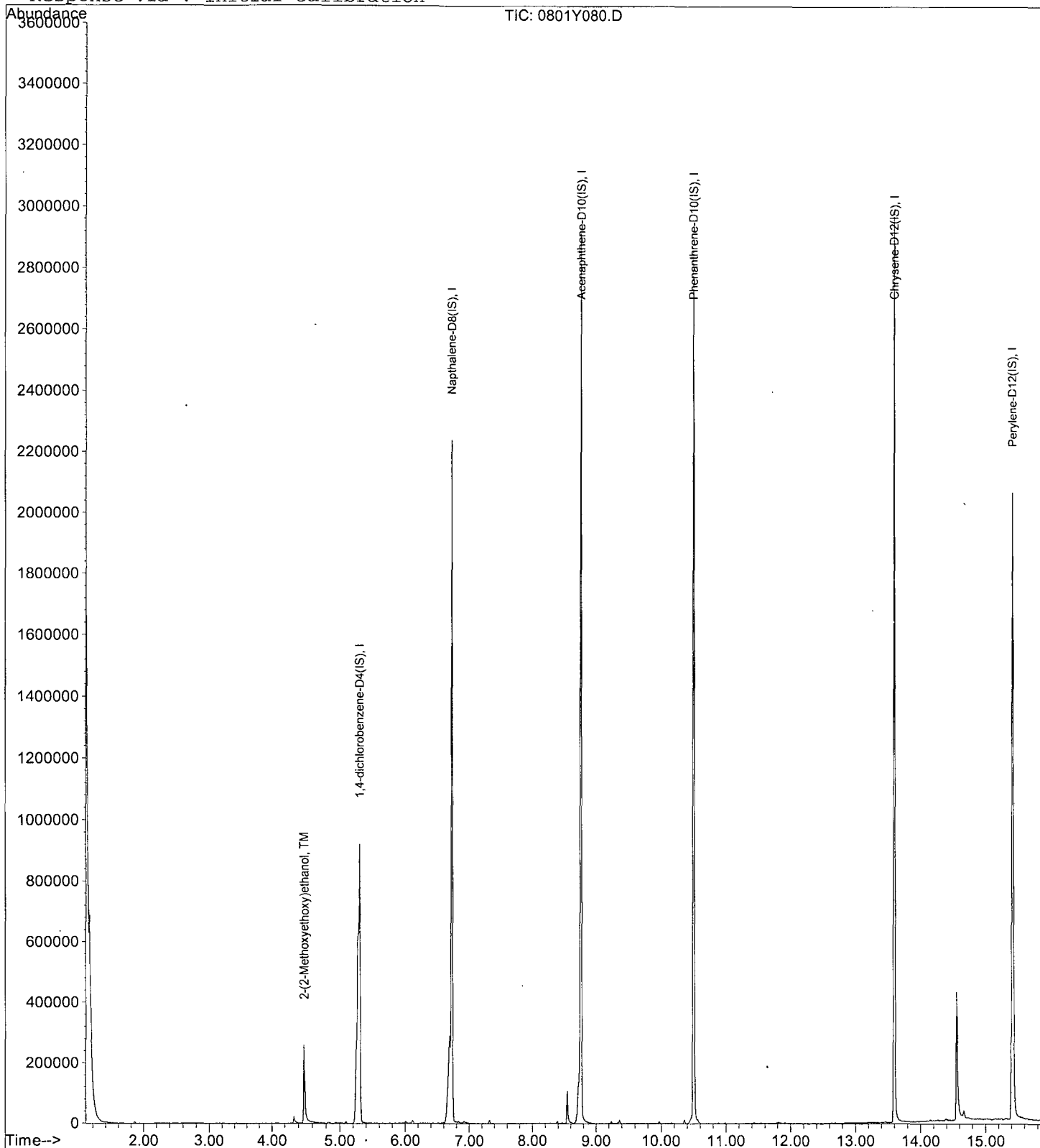
Data File : M:\YODA\DATA\Y180801M\0801Y080.D  
Acq On : 31 Oct 18 11:07  
Sample : 181029A LCS-1 2/500  
Misc : soil

Vial: 80  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y097.D Vial: 97  
 Acq On : 31 Oct 18 17:49 Operator: MA  
 Sample : 181029A LCSD-1 2/500 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.31	152	353234	40.0000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1396888	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	700025	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1287861	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1186080	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1218318	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.51	45	159843	89.8862	ppb	100

Quantitation Report

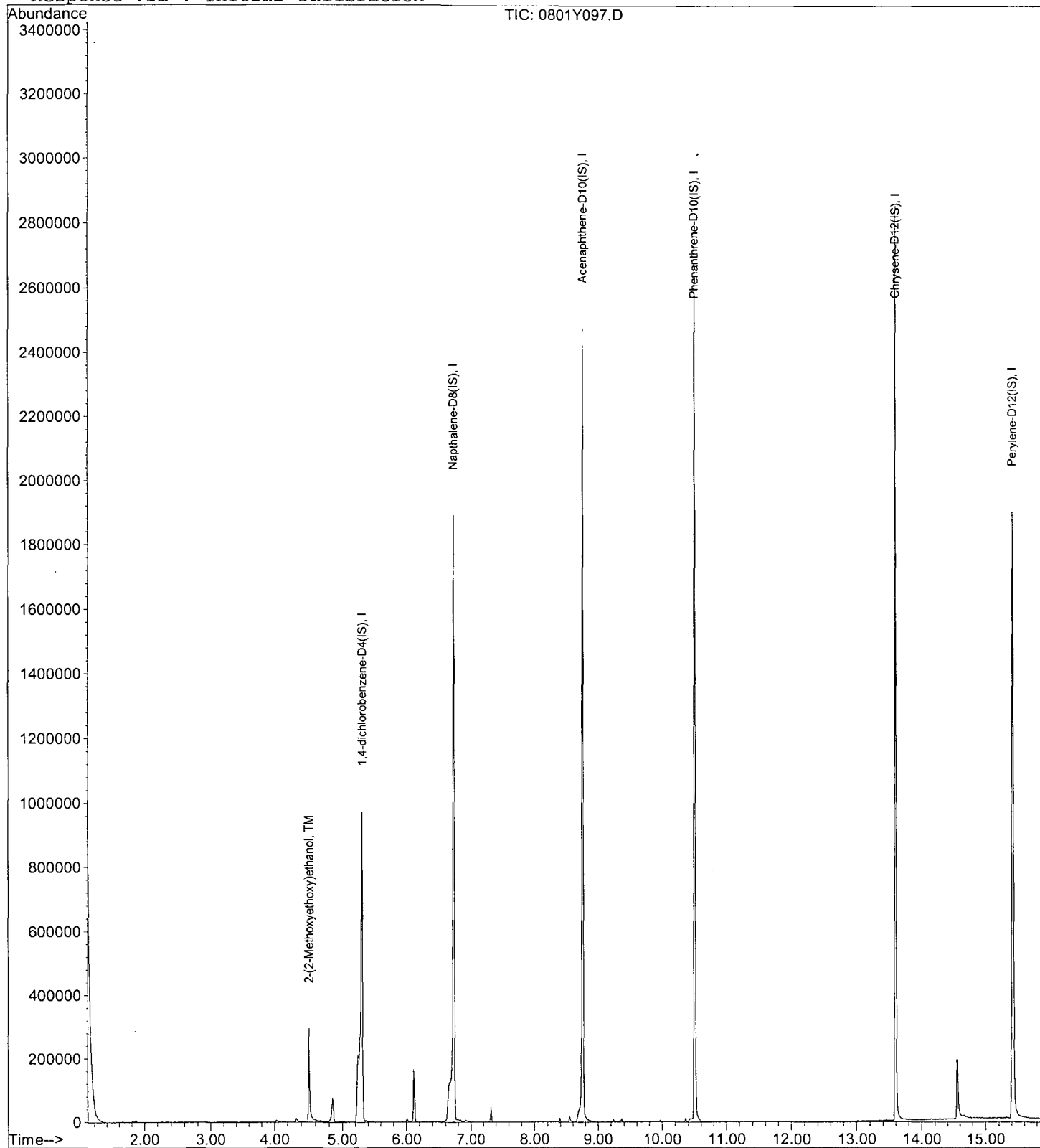
Data File : M:\YODA\DATA\Y180801M\0801Y097.D  
Acq On : 31 Oct 18 17:49  
Sample : 181029A LCSD-1 2/500  
Misc : soil

Vial: 97  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

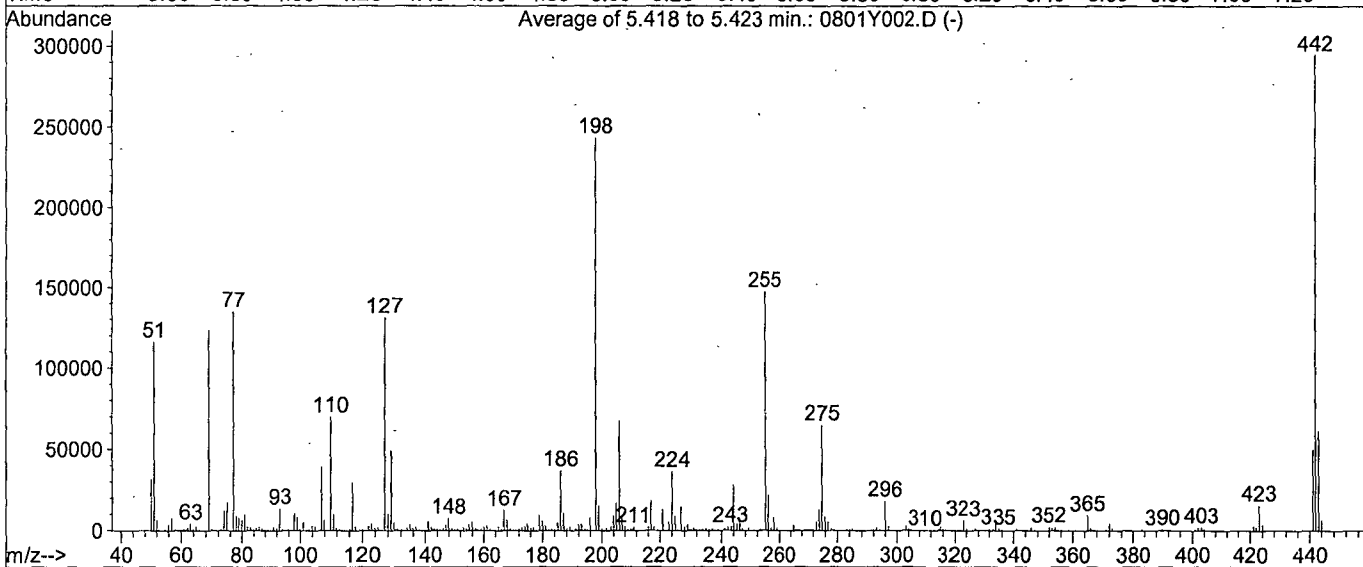
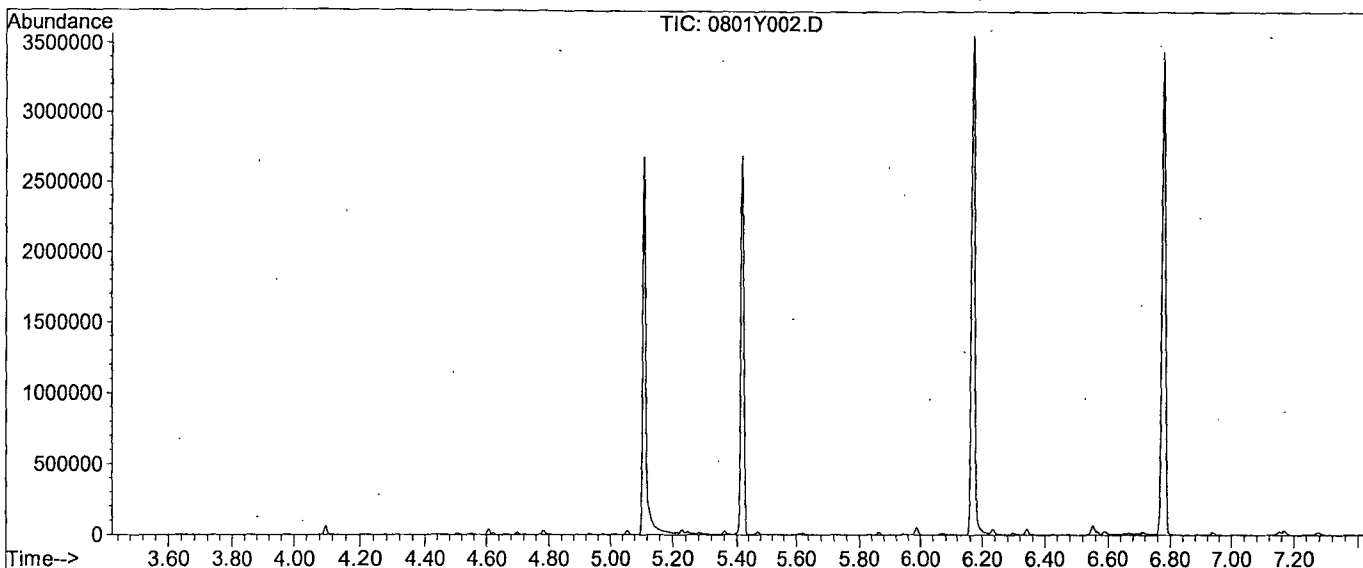
Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y002.D  
 Acq On : 1 Aug 18 14:52  
 Sample : SV Tune 03/07/18  
 Misc :

Vial: 2  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C



AutoFind: Scans 732, 733, 734; Background Corrected with Scan 723

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	47.8	116235	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	582	PASS
127	198	10	80	53.9	131100	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	243285	PASS
199	198	5	9	6.3	15320	PASS
275	198	10	60	26.6	64613	PASS
365	198	1	100	3.8	9226	PASS
441	442	0.01	24	16.8	49651	PASS
442	198	50	150	121.2	294869	PASS
443	442	15	24	20.7	61115	PASS

Data File Name: 0801Y002.D  
Data File Path: M:\YODA\DATA\Y180801\  
Operator: MA  
Date Acquired: 1 Aug 18 14:52  
Method File: DFTPP2.M  
Sample Name: SV Tune 03/07/18  
Vial Number: 2  
Instrument Name: Yoda

#	Name	Ret Time	Target Response
1)	DDT	6.66	26824100
2)	DDD	6.46	639080
3)	DDE	6.55	564547

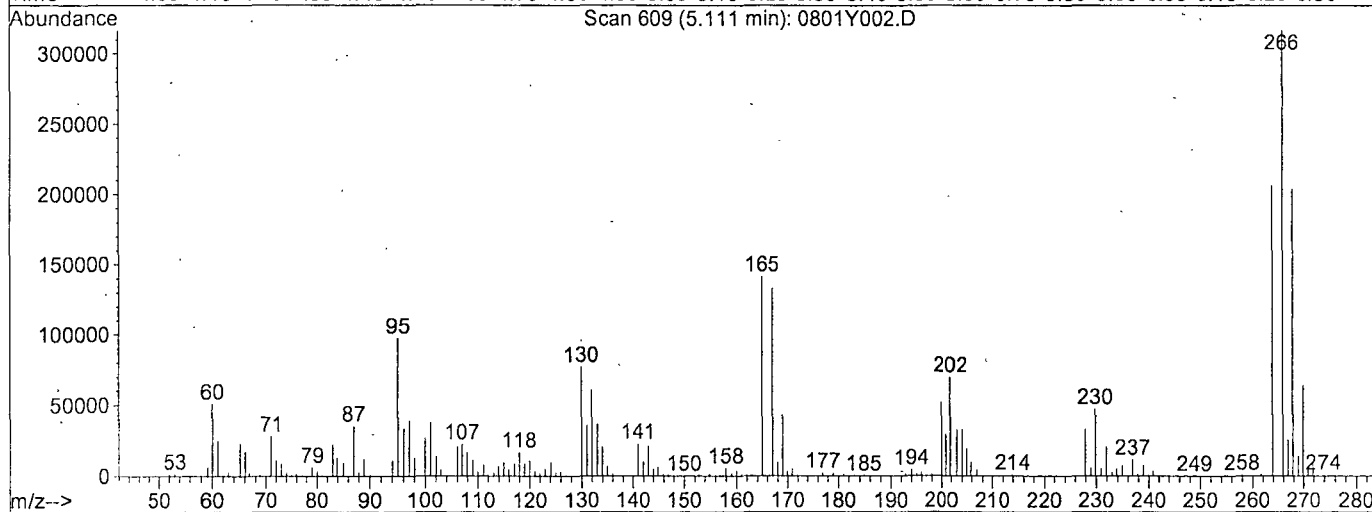
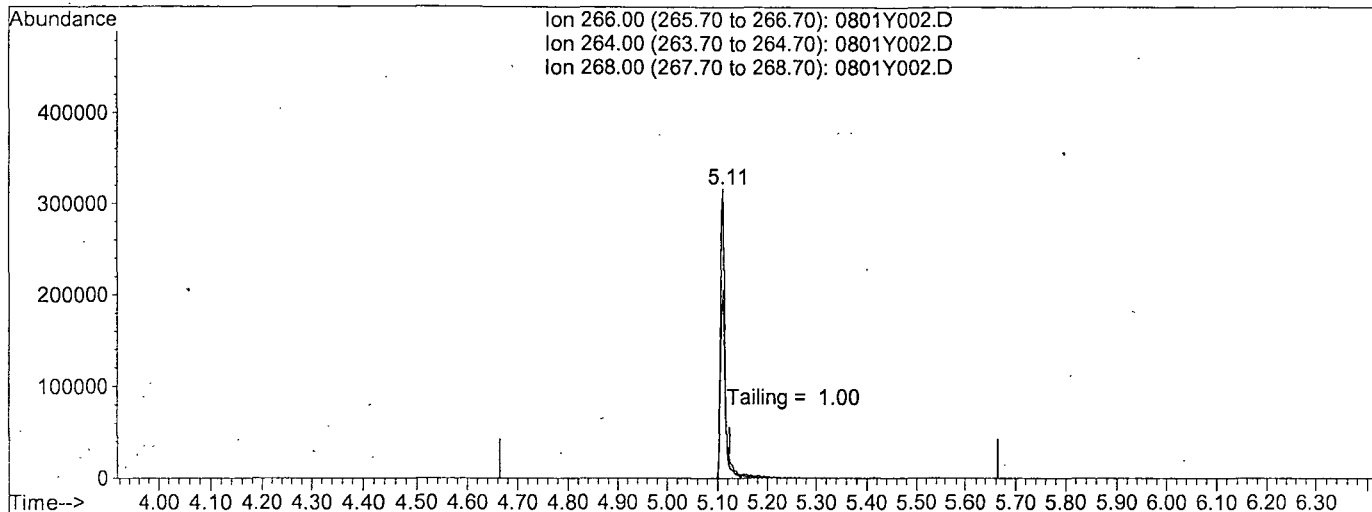
Breakdown 4.29

Quantitation Report

Data File : M:\YODA\DATA\Y180801\0801Y002.D  
 Acq On : 1 Aug 18 14:52  
 Sample : SV Tune 03/07/18  
 Misc :  
 Quant Time: Aug 1 14:55 2018

Vial: 2  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y180716\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Wed Jul 25 12:12:29 2018  
 Response via : Single Level Calibration



TIC: 0801Y002.D

(5) Pentachlorophenol

5.11min 0.0000 m

response 1984014

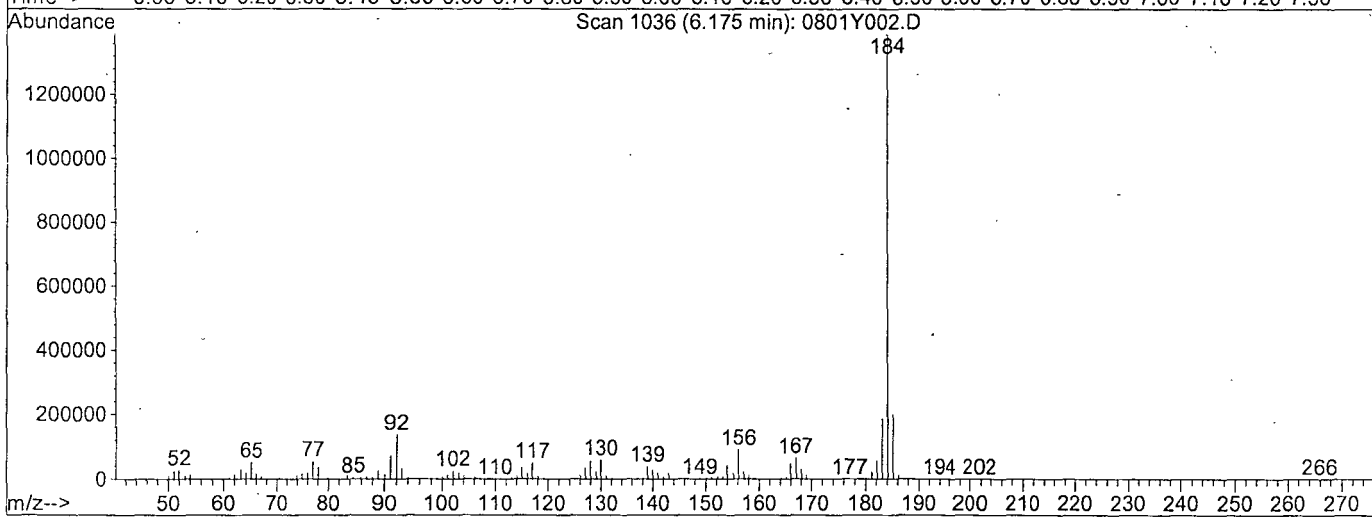
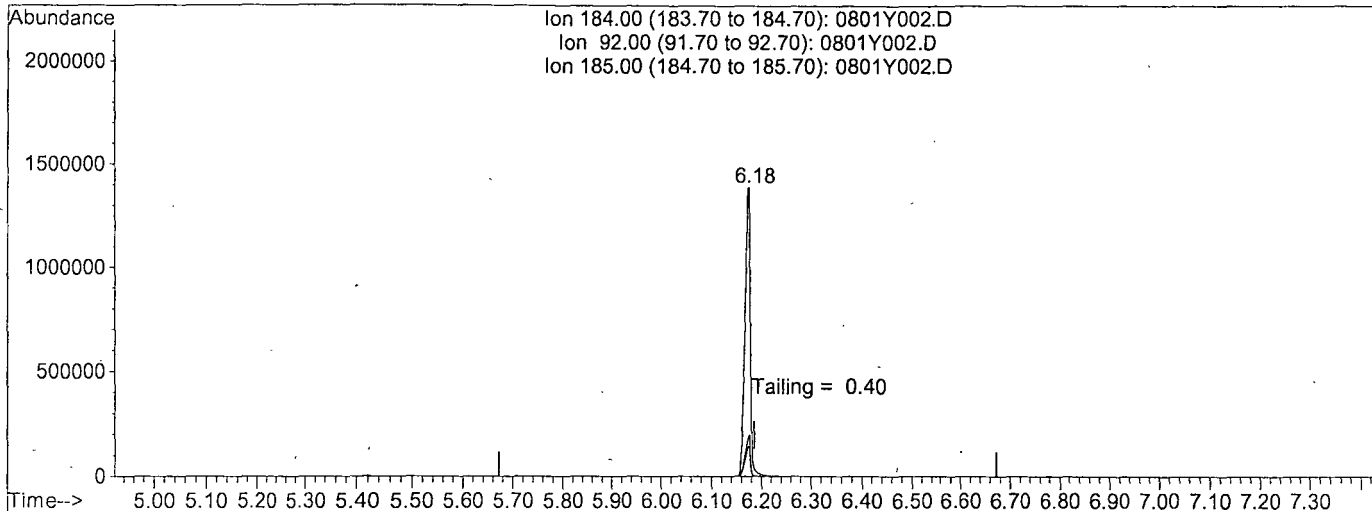
Ion	Exp%	Act%
266.00	100	100
264.00	64.20	64.17
268.00	61.30	65.81
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y180801\0801Y002.D  
 Acq On : 1 Aug 18 14:52  
 Sample : SV Tune 03/07/18  
 Misc :  
 Quant Time: Aug 1 14:55 2018

Vial: 2  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y180716\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Wed Jul 25 12:12:29 2018  
 Response via : Single Level Calibration



TIC: 0801Y002.D

(6) Benzidine

6.17min 0.0000

response 10907511

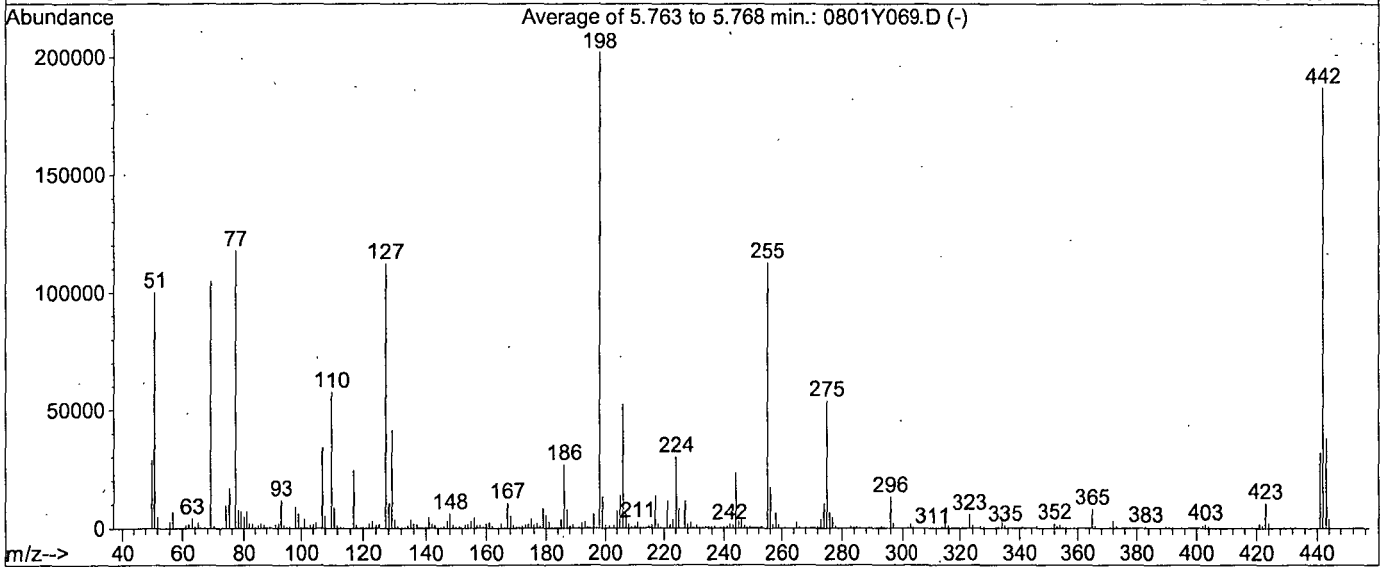
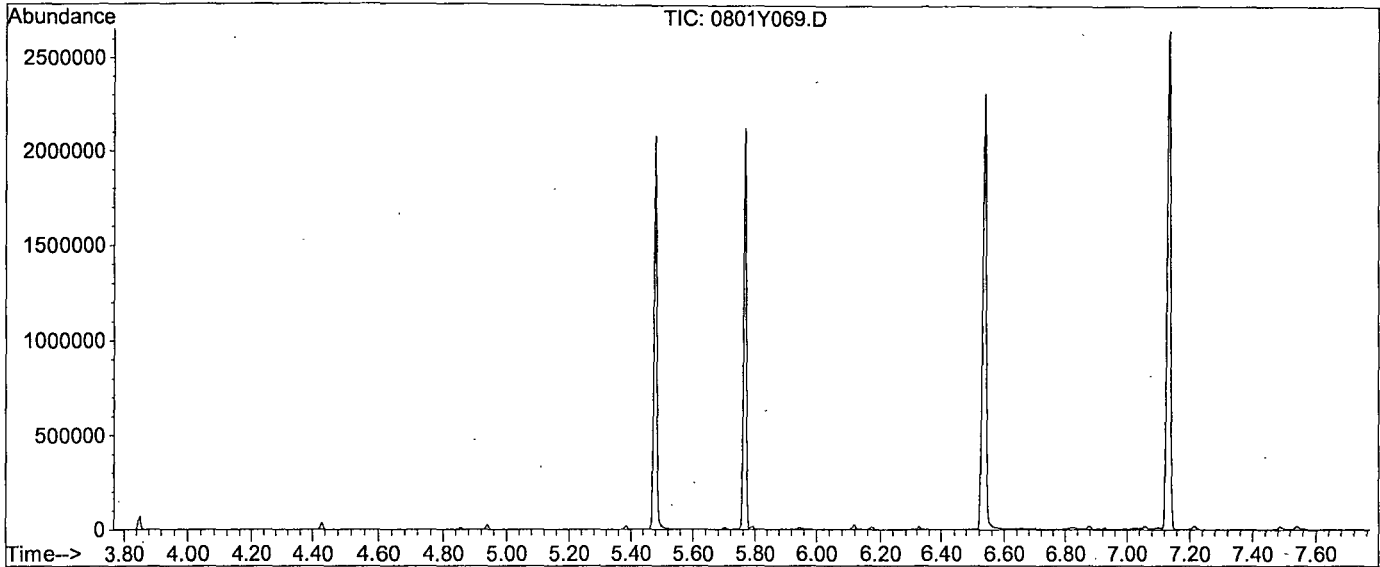
Ion	Exp%	Act%
184.00	100	100
92.00	10.20	9.66
185.00	14.00	13.74
0.00	0.00	0.00

DFTPP

Data File : M:\YODA\DATA\Y180801M\0801Y069.D  
 Acq On : 31 Oct 18 6:36  
 Sample : SV TUNE 03/07/18  
 Misc : soil

Vial: 69  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C



AutoFind: Scans 871, 872, 873; Background Corrected with Scan 863

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	49.6	100069	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	760	PASS
127	198	10	80	55.5	112144	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	201941	PASS
199	198	5	9	6.5	13143	PASS
275	198	10	60	26.6	53648	PASS
365	198	1	100	3.9	7927	PASS
441	442	0.01	24	17.1	31907	PASS
442	198	50	150	92.6	186987	PASS
443	442	15	24	20.3	37923	PASS



Data File Name: 0801Y069.D  
Data File Path: M:\YODA\DATA\Y180801M\  
Operator: MA  
Date Acquired: 31 Oct 2018 06:36  
Method File: DFTPP2.M  
Sample Name: SV TUNE 03/07/18  
Vial Number: 69  
Instrument Name: Yoda

#	Name	Ret Time	Target Response
1)	DDT	7.13	19429200
2)	DDD	6.93	114381
3)	DDE	7.06	0

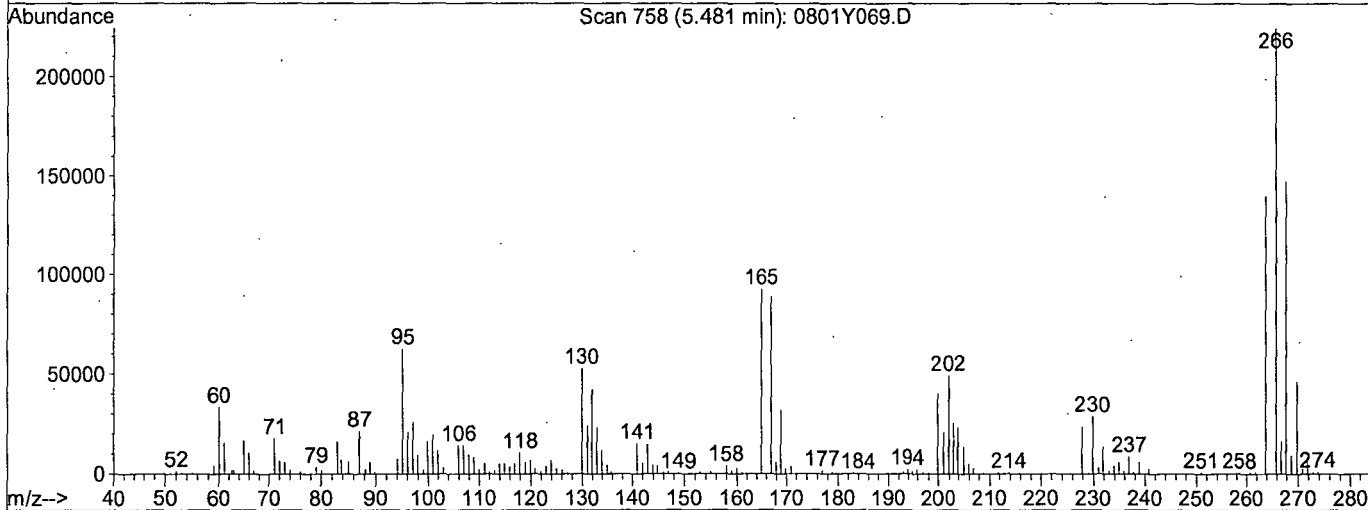
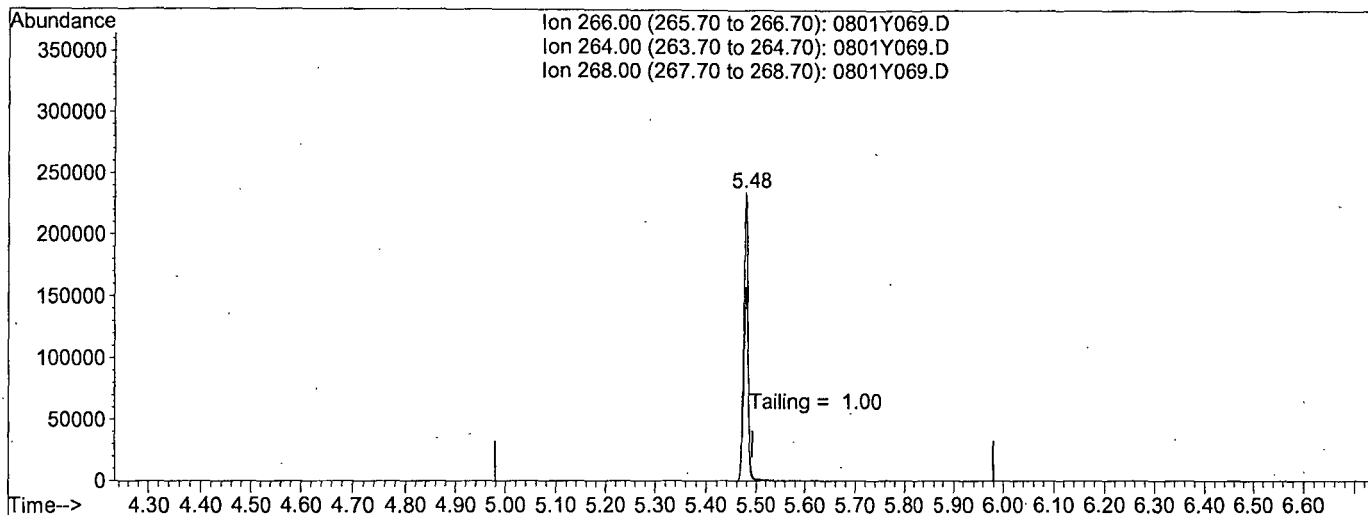
Breakdown 0.59

Quantitation Report

Data File : M:\YODA\DATA\Y180801M\0801Y069.D  
 Acq On : 31 Oct 18 6:36  
 Sample : SV TUNE 03/07/18  
 Misc : soil  
 Quant Time: Oct 31 6:16 2018

Vial: 69  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y180801M\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Wed Oct 31 07:16:04 2018  
 Response via : Single Level Calibration



TIC: 0801Y069.D

(5) Pentachlorophenol

5.48min 0.0000

response 1468963

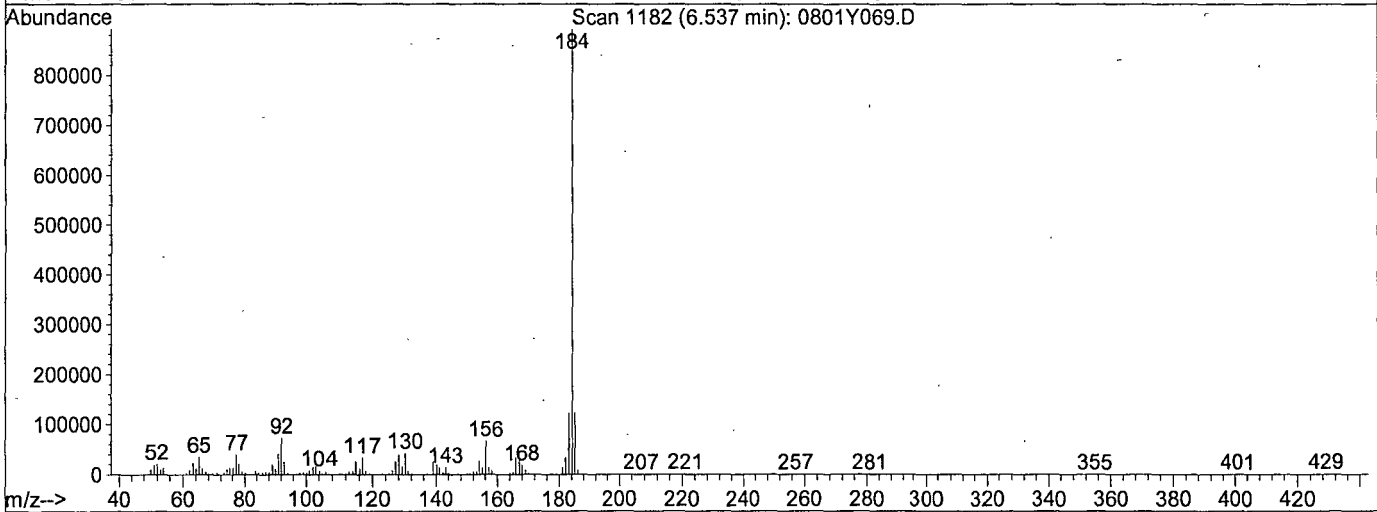
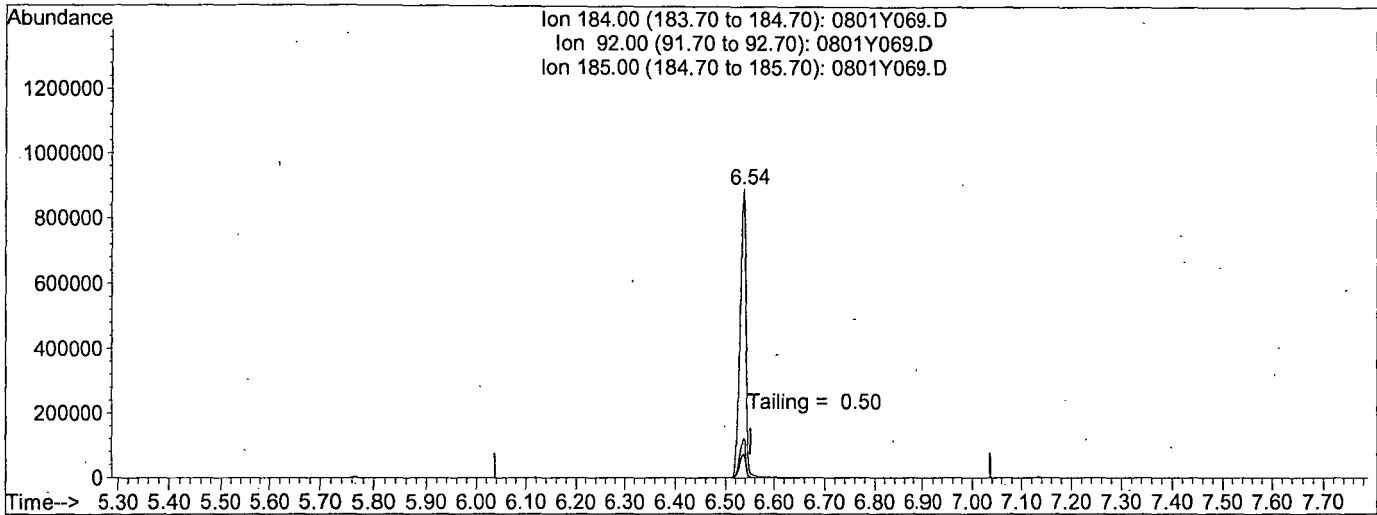
Ion	Exp%	Act%
266.00	100	100
264.00	64.70	64.44
268.00	67.10	64.99
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y180801M\0801Y069.D  
 Acq On : 31 Oct 18 6:36  
 Sample : SV TUNE 03/07/18  
 Misc : soil  
 Quant Time: Oct 31 6:16 2018

Vial: 69  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y180801M\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Wed Oct 31 07:16:04 2018  
 Response via : Single Level Calibration



TIC: 0801Y069.D

(6) Benzidine

6.54min 0.0000

response 7364167

Ion	Exp%	Act%
184.00	100	100
92.00	8.10	8.27
185.00	13.70	14.03
0.00	0.00	0.00

Name of  
Final  
Standard  
Prep Date  
Exp Date

MEE Curve

Prep'd By (Initials)

GA

08/01/18

11/10/18

Initial Standard Information						Final Standard Information			
MEE M STD Stock	APPL		200 ug/mL	07/27/18	11/1018	5 uL	200uL	Methanol 195uL	50 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	4 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/1018	5 uL	100uL	Methanol 95uL	100 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/1018	10 uL	100uL	Methanol 90 uL	200 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/1018	20 uL	100uL	Methanol 80 uL	400 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/1018	50 uL	200 uL	Methanol 150 uL	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	4 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/1018	30 uL	100uL	Methanol 70 uL	600 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/1018	40 uL	100uL	Methanol 60 uL	800 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/1018	50 uL	100uL	Methanol 50uL	1000 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*

# Organic Extraction Worksheet

<b>Method</b>	Solid Phase Extraction of 2MEE in Water	<b>Extraction Set</b>	180727A	<b>Extraction Method</b>	MWE2MEE	<b>Units</b>	mL
Spiked ID 1	Diethylene Glycol 7-25-18 EXP 10-3-18	Surrogate ID 1					
Spiked ID 2	MEE 10320ug/MI 5-22-17 EXP 8-4-18	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		NO			
Spiked ID 7		Ext. Start Time:		07/27/18 10:55			
Spiked ID 8		Ext. End Time:		07/30/18 12:00			

STANDARD PREPARATION MA 11/5/18

GC Requires Extract By:	07/31/18 0:00
pH1	
pH2	
pH3	

Water Bath Temp Criteria

Spiked By: DL

Date 07/27/18

Witnessed By: RP

Date 07/27/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1 180727A Blk				NA	NA	500	2	7	07/27/18 10:55	
2 180727A LCS-1		0.040	1	NA	NA	500	2	7	07/27/18 10:55	
3 180727A SS		0.097	2	NA	NA	500	2	7	07/27/18 10:55	
4 AZ76727 MS-1	AZ76727W14	0.040	1	NA	NA	500	2	7	07/27/18 10:55	86359
5 AZ76727 MSD-1	AZ76727W15	0.040	1	NA	NA	500	2	7	07/27/18 10:55	86359
6 AZ76727	AZ76727W13			NA	NA	500	2	7	07/27/18 10:55	86359
7 AZ76728	AZ76728W05			NA	NA	500	2	7	07/27/18 10:55	86359
8 AZ76730	AZ76730W08			NA	NA	490	2	7	07/27/18 10:55	86359
9 AZ76732	AZ76732W05			NA	NA	500	2	7	07/27/18 10:55	86359
10 AZ76733	AZ76733W04			NA	NA	500	2	7	07/27/18 10:55	86359
11 AZ76734	AZ76734W04			NA	NA	480	2	7	07/27/18 10:55	86359
12 AZ76760	AZ76760W09			NA	NA	500	2	7	07/27/18 10:55	86367
13 AZ76762	AZ76762W09			NA	NA	500	2	7	07/27/18 10:55	86367
14 AZ76764	AZ76764W09			NA	NA	500	2	7	07/27/18 10:55	86367
15 AZ76766	AZ76766W09			NA	NA	490	2	7	07/27/18 10:55	86367
16 AZ76768	AZ76768W08			NA	NA	500	2	7	07/27/18 10:55	86367

<b>Solvent and Lot#</b>	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	8099704
PH Strip	HC613865
Di Water	7-27-18
Dichloromethane	57278
Methanol	121417A

<b>Extraction COC Transfer</b>	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

<b>Technician's Initials</b>	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	07/30/18 7:00:03 AM

Reviewed By: 518 Date

# Organic Extraction Worksheet












<b>Method</b>	Solid Phase Extraction of 2MEE in Water	<b>Extraction Set</b>	180727A	<b>Extraction Method</b>	MWE2MEE	<b>Units</b>	mL
Spiked ID 1	Diethylene Glycol 7-25-18 EXP 10-3-18	Surrogate ID 1		Surrogate ID 1			
Spiked ID 2	MEE 10320ug/ML 5-22-17 EXP 8-4-18	Surrogate ID 2		Surrogate ID 2			
Spiked ID 3		Surrogate ID 3		Surrogate ID 3			
Spiked ID 4		Surrogate ID 4		Surrogate ID 4			
Spiked ID 5		Surrogate ID 5		Surrogate ID 5			
Spiked ID 6		Sufficient Vol for Matrix QC:		NO			
Spiked ID 7		Ext. Start Time:		07/27/18 10:55			
Spiked ID 8		Ext. End Time:		07/30/18 12:00			
		GC Requires Extract By:		07/31/18 0:00			
		pH1				Water Bath Temp Criteria	
		pH2					
		pH3					

Spiked By: DL

Date 07/27/18

Witnessed By: RP

Date 07/27/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ76879 	AZ76879W08 		NA	NA	500	2	7	07/27/18 10:55	86376
					equip					
18	AZ76880 	AZ76880W05 		NA	NA	490	2	7	07/27/18 10:55	86376
					equip					
19	AZ76882 	AZ76882W08 		NA	NA	500	2	7	07/27/18 10:55	86376
					equip					
20	AZ76884 	AZ76884W09 		NA	NA	500	2	7	07/27/18 10:55	86376
					equip					
21	AZ76886 	AZ76886W09 		NA	NA	500	2	7	07/27/18 10:55	86376
					equip					
22	M Std 		1	1	NA	500	2	7	07/27/18 10:55	
					equip					

<b>Solvent and Lot#</b>
ENVI-Carb Plus 400MG/1ML
Reverible Tube Lot: 8099704
PH Strip HC613865
Di Water 7-27-18
Dichloromethane 57278
Methanol 121417A

<b>Extraction COC Transfer</b>
Extraction lab employee Initials KY
GC analyst's initials
Date
Time
Refrigerator

	<b>Technician's Initials</b>
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	07/30/18 7:00:03 AM

Reviewed By: 519 Date

Name of  
Final  
Standard Diethylene Glycol

Prep'd By (Initials) GA

Prep Date 07/25/18

Exp Date 11/10/18

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Diethylene glycol monomethyl ether	AccuStand ard	72273	2000 ug/mL	21610100 7-37330 and 37331	10/03/18	2.0 mL	4 mL	Methanol #042317C	1000 ug/mL

Given to Extraction to do **MEE M STD Stock** (used for ICAL) Final concentration 2000ug/L  
 APPL re-certified diethylene glycol monomethyl ether lot 216101007-37330 and 37331 and extended the expiration date to 11/10/18 per verification with a second source from ChemService lot 7079100-39417 Inj on Yoda 0801Y064

Methoxyethoxyethanol-Neat (MEE) SS Stock: 5/22/17-R.H. ex: 08/04/18						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MEE	Neat 99.5%	HEM SERVICE	0.1032g	10 mL	10320 ug/ml	MC
		Cat: N-12404-1G				#56258
		Lot: 5259000-37082				
		OP: 09/27/16				
		EXP: 08/04/18				

0.097ml were spiked in 500ml of water and extracted on 06/07/17. Final concentration is 2000ug

APPL re-certified MEE SS stock Lot 5259000-37082 and extended the expiration date to 8/04/18 per verification with a different source Accu Standards Lot # 216101007-37334,5 injected on 05/04/18



Name of Final Standard 8270 Internal Standard (Ampule)  
 Prep Date 06/22/18  
 Exp Date 06/22/19

Prep'd By (Initials) OA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent+ Lot# (or APPL Prep Date)	Final Standard Conc (range)
EPA 8270 Semivolatiles Internal Standard	RESTEK	CRM48902	2000 ug/mL	A0130603-38562	06/22/19	1000 uL	1 mL	NA	100ug/mL

# Organic Extraction Worksheet

















<b>Method</b>	Solid Phase Extraction of 2MEE in Water	<b>Extraction Set</b>	181029A	<b>Extraction Method</b>	MWE2MEE	<b>Units</b>	mL
Spiked ID 1	Diethylene Glycol 7-25-18 EXP 10-3-18	Surrogate ID 1					
Spiked ID 2	2MEE SS STK 8-3-18 EXP 8-3-19	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		YES			
Spiked ID 7		Ext. Start Time:		10/29/18 13:50			
Spiked ID 8		Ext. End Time:		10/30/18 16:10			
				GC Requires Extract By:		10/30/18 0:00	
				pH1		Water Bath Temp Criteria	
				pH2			
				pH3			

Spiked By: KY

Date 10/29/18

Witnessed By: DL

Date 10/29/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	181029A Bk			NA	NA	500	2	7	10/29/18 13:50	
										
					equip					
2	181029A LCS-1	0.040	1	NA	NA	500	2	7	10/29/18 13:50	LOQ
										
					equip					
3	181029A LCSD-1	0.040	1	NA	NA	500	2	7	10/29/18 13:50	
										
					equip					
4	181029A SS	0.097	2	NA	NA	500	2	7	10/29/18 13:50	
										
					equip					
5	AZ77514 AZ77514W01	0.040	1	NA	NA	500	2	7	10/29/18 13:50	86492 LOD
										
					equip					
6	AZ81584 MS-1 AZ81584W17	0.040	1	NA	NA	460	2	7	10/29/18 13:50	87198
										
					equip					
7	AZ81584 MSD-1 AZ81584W14	0.040	1	NA	NA	460	2	7	10/29/18 13:50	87198
										
					equip					
8	AZ81584 AZ81584W12			NA	NA	500	2	7	10/29/18 13:50	87198
										
					equip					
9	AZ81585 AZ81585W05			NA	NA	500	2	7	10/29/18 13:50	87198
										
					equip					
10	AZ81587 AZ81587W09			NA	NA	500	2	7	10/29/18 13:50	87198
										
					equip					
11	AZ81636 AZ81636W09			NA	NA	470	2	7	10/29/18 13:50	87212
										
					equip					
12	AZ81638 AZ81638W05			NA	NA	490	2	7	10/29/18 13:50	87212
										
					equip					
13	AZ81640 AZ81640W08			NA	NA	480	2	7	10/29/18 13:50	87212
										
					equip					
14	AZ81642 AZ81642W09			NA	NA	500	2	7	10/29/18 13:50	87212
										
					equip					
15	AZ81644 AZ81644W09			NA	NA	490	2	7	10/29/18 13:50	87212
										
					equip					
16	AZ81676 AZ81676W08			NA	NA	490	2	7	10/29/18 13:50	87219
										
					equip					

<b>Solvent and Lot#</b>	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	10699801
PH Strip	HC 727135
Di Water	10-29-18
Dichloromethane	58059
Methanol	58055

<b>Extraction COC Transfer</b>	
Extraction lab employee Initials	KY
GC analyst's initials	JA
Date	10/30/18
Time	17:11
Refrigerator	BC-C

<b>Technician's Initials</b>	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	10/29/18 2:20:25 PM

Reviewed By: *KY* 523 Date 10/31/18

# Organic Extraction Worksheet









<b>Method</b>	Solid Phase Extraction of 2MEE in Water	<b>Extraction Set</b>	181029A	<b>Extraction Method</b>	MWE2MEE	<b>Units</b>	mL
Spiked ID 1	Diethylene Glycol 7-25-18 EXP 10-3-18		Surrogate ID 1				
Spiked ID 2	2MEE SS STK 8-3-18 EXP 8-3-19		Surrogate ID 2				
Spiked ID 3			Surrogate ID 3				
Spiked ID 4			Surrogate ID 4				
Spiked ID 5			Surrogate ID 5				
Spiked ID 6			Sufficient Vol for Matrix QC:		YES		
Spiked ID 7			Ext. Start Time:	10/29/18 13:50			
Spiked ID 8			Ext. End Time:	10/30/18 16:10			
			GC Requires Extract By:	10/30/18 0:00			
			pH1			Water Bath Temp Criteria	
			pH2				
			pH3				

Spiked By: KY

Date 10/29/18

Witnessed By: DL

Date 10/29/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ81677 			NA	NA	450	2	7	10/29/18 13:50	87219
					equip					
18	AZ81678 			NA	NA	500	2	7	10/29/18 13:50	87219
					equip					
19	AZ81840 			NA	NA	470	2	7	10/29/18 13:50	87238
					equip					
20	AZ81841 			NA	NA	450	2	7	10/29/18 13:50	87238
					equip					
21	AZ81842 			NA	NA	500	2	7	10/29/18 13:50	87238
					equip					
22	AZ81901 			NA	NA	450	2	7	10/29/18 13:50	87248
					equip					
23	AZ81903 			NA	NA	500	2	7	10/29/18 13:50	87248
					equip					
24	M Std 	1	1	NA	NA	500	2	7	10/29/18 13:50	
					equip					

*Ks 10/31/18*

<b>Solvent and Lot#</b>	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	10699801
PH Strip	HC 727135
Di Water	10-29-18
Dichloromethane	58059
Methanol	58055

<b>Extraction COC Transfer</b>	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

	<b>Technician's Initials</b>
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	10/29/18 2:20:25 PM

Reviewed By: *Ks* 524 Date 10/31/18

## Injection Log

Directory: M:\YODA\DATA\Y180801M\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	0801Y002.D	1	SV Tune 03/07/18		1 Aug 18 14:52
3	0801Y003.D	1	50ug/ml MEE 08/01/18	soil	1 Aug 18 15:09
4	0801Y004.D	1	500ug/ml MEE 08/01/18	soil	1 Aug 18 15:34
5	0801Y005.D	1	100ug/ml MEE 08/01/18	soil	1 Aug 18 16:26
6	0801Y006.D	1	200ug/ml MEE 08/01/18	soil	1 Aug 18 16:51
7	0801Y007.D	1	400ug/ml MEE 08/01/18	soil	1 Aug 18 17:16
8	0801Y008.D	1	600ug/ml MEE 08/01/18	soil	1 Aug 18 17:41
9	0801Y009.D	1	800ug/ml MEE 08/01/18	soil	1 Aug 18 18:06
10	0801Y010.D	1	1000ug/ml MEE 08/01/18	soil	1 Aug 18 18:31
11	0801Y011.D	1	SS ug/ml MEE 08/01/18	soil	1 Aug 18 18:55
69	0801Y069.D	1	SV TUNE 03/07/18	soil	31 Oct 18 6:36
70	0801Y070.D	1	500ug/ml MEE 08/01/18	soil	31 Oct 18 6:51
79	0801Y079.D	1	181029A Blk 2/500	soil	31 Oct 18 10:43
80	0801Y080.D	1	181029A LCS-1 2/500	soil	31 Oct 18 11:07
87	0801Y087.D	1	AZ81676W08 2/490	soil	31 Oct 18 13:52
88	0801Y088.D	1	AZ81677W09 2/450	soil	31 Oct 18 14:16
89	0801Y089.D	1	AZ81678W09 2/500	soil	31 Oct 18 14:40
97	0801Y097.D	1	181029A LCSD-1 2/500	soil	31 Oct 18 17:49
98	0801Y098.D	1	500ug/ml MEE 08/01/18	soil	31 Oct 18 18:12

**ORGANICS**  
**Calibration Data**

**APPL, INC.**

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

**Form 6**  
**Initial Calibration**

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Initial Cal. Date: 10/26/18

Matrix: \_\_\_\_\_

Instrument: Loki

Initials: \_\_\_\_\_

1026L03.D    1026L04.D    1026L05.D    1026L06.D    1026L07.D    1026L08.D    1026L09.D    1026L10.D    1026L11.D

1	Compound	1	2	3	4	5	6	7	8	9	Avg	%RSD	Type	r <sup>2</sup>	Q	MRF	
1	I Fluorobenzene (IS)																
2	TM Dichlorodifluoromethane	0.3148	0.3083	0.3862	0.3998	0.3562	0.3441	0.3582	0.3535	0.3568	0.35	8.3	TM				
3	TM Freon 114	0.2357	0.2821	0.2441	0.2512	0.2202	0.2173	0.2452	0.2407	0.2443	0.24	7.8	TM				
4	TM**L Chloromethane		0.5960	0.5078	0.3825	0.4286	0.3769	0.3694	0.3650	0.3455	0.42	21	TM**L	1.000			
5	TM* Vinyl chloride	0.3170	0.3128	0.3381	0.3142	0.3661	0.3458	0.3371	0.3275	0.3212	0.33	5.3	TM*				
6	TML Bromomethane		0.3885	0.3273	0.2972	0.2950	0.2809	0.2689	0.2483	0.2169	0.29	18	TML	0.996			
7	TM Chloroethane		0.1792	0.2064	0.1883	0.2092	0.1801	0.1813	0.1778		0.19	7.1	TM				
8	TM Dichlorofluoromethane		0.6533	0.4609	0.4837	0.4897	0.4950	0.4833	0.4733	0.4653	0.50	13	TM				
9	TM Trichlorofluoromethane	0.4769	0.4503	0.4418	0.3978	0.4371	0.4195	0.4243	0.4200	0.4002	0.43	5.8	TM				
10	TM Acrolein	0.0369	0.0293	0.0296	0.0280	0.0296	0.0283				0.03	11	TM				
11	TML Acetone			0.4527	0.2599	0.1798	0.1310	0.1171	0.1116	0.0986	0.19	66	TML	0.999			
12	TM Freon-113	0.2349	0.2213	0.2188	0.2418	0.2244	0.2032	0.2267	0.2203	0.2143	0.22	5.0	TM				
13	TM* 1,1-DCE	0.1228	0.1220	0.1149	0.0868	0.0963	0.0946	0.0944	0.0900	0.0905	0.10	14	TM*				
14	TM t-Butanol	0.0392	0.0394	0.0362	0.0331	0.0318	0.0324				0.04	9.7	TM				
15	TM Acetonitrile	0.0536	0.0529	0.0514	0.0482	0.0502	0.0482				0.05	4.5	TM				
16	TM Methyl Acetate		0.3365	0.3169	0.2815	0.2702	0.2568	0.2597	0.2491	0.2460	0.28	12	TM				
17	TML Iodomethane		0.0684	0.0667	0.0736	0.0809	0.0923	0.1171	0.1290	0.1351	0.10	29	TML	0.999			
18	TML Acrylonitrile		0.2102	0.1400	0.1551	0.1105	0.1104	0.1083	0.1066	0.1021	0.13	29	TML	1.000			
19	TM Methylene chloride			0.3950	0.3366	0.3261	0.3154	0.3040	0.2987	0.2883	0.32	11	TM				
20	TM Carbon disulfide	0.9698	0.7915	0.8278	0.7763	0.7375	0.7425	0.7371	0.7276	0.7137	0.78	10	TM				
21	TM Methyl t-butyl ether (MtBE)	0.9313	0.8014	0.8261	0.7534	0.7726	0.7629	0.7586	0.7531	0.7289	0.79	7.7	TM				
22	TM Trans-1,2-DCE		0.3117	0.3266	0.2805	0.2810	0.2720	0.2803	0.2656	0.2616	0.28	8.0	TM				
23	TM Diisopropyl Ether			0.8819	0.8847	0.8525	0.8201	0.7667	0.8213	0.7914	0.83	5.3	TM				
24	TM** 1,1-DCA	0.7059	0.5711	0.5910	0.5579	0.5448	0.5468	0.5266	0.5161	0.4967	0.56	11	TM**				
25	TM Vinyl Acetate		0.2480	0.2267	0.1997	0.2149	0.1844	0.1786	0.1904	0.1770	0.20	13	TM				
26	TM Ethyl tert Butyl Ether	0.7477	0.7065	0.7158	0.7107	0.6876	0.7159	0.7059	0.7337	0.7501	0.72	2.9	TM				
27	TM MEK (2-Butanone)			0.1672	0.1446	0.1562	0.1386	0.1396	0.1459	0.1369	0.15	7.5	TM				
28	TM Cis-1,2-DCE	0.3116	0.3538	0.3400	0.3256	0.3153	0.3200	0.3206	0.3183	0.3186	0.32	4.2	TM				
29	TML 2,2-Dichloropropane		0.5125	0.4669	0.4268	0.4063	0.4047	0.3967	0.3885	0.3805	0.42	11	TML	1.000			
30	TM* Chloroform	0.6630	0.5476	0.5435	0.5231	0.5685	0.5593	0.5471	0.5342	0.5114	0.56	7.9	TM*				
31	TM Bromochloromethane	0.1709	0.2153	0.1814	0.1700	0.1802	0.1824	0.1762	0.1698	0.1547	0.18	9.2	TM				
32	SL Dibromofluoromethane(S)	1.176	1.034	0.7332	0.7070	0.7145	0.7260	0.6447	0.6433		0.80	25	SL	0.996			
33	TM 1,1,1-TCA	0.5148	0.4238	0.4737	0.4354	0.4410	0.4287	0.4350	0.4222	0.4133	0.44	7.2	TM				
34	TM Cyclohexane			0.2078	0.1912	0.1663	0.1784	0.1835	0.1823	0.1898	0.19	6.9	TM				
35	TM 1,1-Dichloropropene	0.3864	0.3537	0.3361	0.3341	0.3128	0.3102	0.3286	0.3354	0.3426	0.34	6.7	TM				

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

**Form 6**  
**Initial Calibration**

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/26/18 \_\_\_\_\_  
Instrument: Loki \_\_\_\_\_

Initials: \_\_\_\_\_

	Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type	Q	MRF
36	TM 2,2,4-Trimethylpentane	0.6042	0.6487	0.5862	0.5905	0.5698	0.5759	0.6284	0.6377	0.6730		0.61	5.8	TM		
37	SL 1,2-DCA-D4(S)	1.286	1.123	0.8001	0.7833	0.7777	0.7999	0.7131	0.7091	0.6575		0.85	25	SL	0.998	
38	TM Carbon Tetrachloride	0.3763	0.3614	0.3638	0.3492	0.3512	0.3543	0.3776	0.3712	0.3666		0.36	2.9	TM		
39	TM Tert Amyl Methyl Ether	0.6177	0.6314	0.6498	0.5839	0.6273	0.6628	0.6915	0.7184	0.7338		0.66	7.5	TM		
40	TM 1,2-DCA	0.4401	0.4207	0.4008	0.4028	0.4126	0.4226	0.4052	0.4065	0.3851		0.41	3.8	TM		
41	TM Benzene	1.395	1.152	1.145	1.085	1.082	1.146	1.142	1.136	1.121		1.2	8.1	TM		
42	TM TCE		0.1660	0.1446	0.1349	0.1419	0.1340	0.1355	0.1372	0.1400		0.14	7.4	TM		
43	TM 2-Pentanone	0.2084	0.2061	0.2089	0.1994	0.2102	0.2130					0.21	2.2	TM		
44	TM* 1,2-Dichloropropane	0.3236	0.3173	0.3095	0.3115	0.3144	0.3091	0.3077	0.3080	0.2929		0.31	2.7	TM*		
45	TM Bromodichloromethane	0.5163	0.4537	0.4611	0.4120	0.4421	0.4440	0.4353	0.4321	0.4147		0.45	7.0	TM		
46	TM Methyl Cyclohexane	0.3514	0.3347	0.2869	0.2782	0.2830	0.2833	0.3142	0.3244	0.3584		0.31	10.0	TM		
47	TM Dibromomethane	0.3020	0.2158	0.2364	0.2294	0.2313	0.2284	0.2261	0.2193	0.2107		0.23	12	TM		
48	TM 2-Chloroethyl vinyl ether													TM		
49	TM MIBK (methyl isobutyl ketone)			0.2532	0.2798	0.2838	0.2566	0.2955	0.2698	0.2759		0.27	5.5	TM		
50	TM 1-Bromo-2-chloroethane	0.2484	0.2199	0.2231	0.2271	0.2136	0.2246	0.2279	0.2262	0.2194		0.23	4.3	TM		
51	TM Cis-1,3-Dichloropropene	0.4821	0.4236	0.4547	0.4220	0.4571	0.4546	0.4626	0.4728	0.4831		0.46	4.9	TM		
52	TM* Toluene	1.312	1.091	1.119	1.115	1.185	1.217	1.244	1.249	1.246		1.2	6.3	TM*		
53	TM Trans-1,3-Dichloropropene	0.5110	0.3740	0.4057	0.4068	0.4226	0.4312	0.4356	0.4396	0.4407		0.43	8.7	TM		
54	TM 1,1,2-TCA	0.2937	0.2753	0.2720	0.2529	0.2730	0.2730	0.2607	0.2587	0.2489		0.27	5.1	TM		
55	TM 2-Hexanone			0.1783	0.1667	0.1752	0.1674	0.1668	0.1761	0.1828		0.17	3.7	TM		
56	I Chlorobenzene-D5 (IS)															
57	SL Toluene-D8(S)	3.750	3.328	2.362	2.318	2.368	2.594	2.431	2.395	2.355		2.7	20	SL	0.999	
58	TM 1,2-EDB	0.3600	0.2646	0.3409	0.2984	0.3281	0.3476	0.3419	0.3354	0.3323		0.33	8.9	TM		
59	TM Tetrachloroethene	0.3344	0.3432	0.3569	0.3607	0.3506	0.3651	0.3694	0.3504	0.3650		0.36	3.2	TM		
60	TM 1-Chlorohexane		0.2322	0.2285	0.2498	0.2356	0.2598	0.2965	0.3096			0.26	12	TM		
61	TM 1,1,1,2-Tetrachloroethane	0.3552	0.3563	0.3444	0.3514	0.3437	0.3528	0.3476	0.3335	0.3362		0.35	2.3	TM		
62	TML m&p-Xylene		0.3787	0.4099	0.4166	0.4619	0.5317	0.5852	0.6357	0.6783		0.51	22	TML	0.999	
63	TM o-Xylene	0.3903	0.3659	0.3500	0.3750	0.3841	0.4375	0.4707	0.4895	0.5342		0.42	15	TM		
64	TML Styrene		0.2686	0.3364	0.3542	0.3722	0.4588	0.5175	0.5397	0.5910		0.43	26	TML	0.999	
65	S 4-Bromofluorobenzene(S)			0.7519	0.7516	0.7990	0.8844	0.8527	0.8376			0.81	6.7	S		
66	TM 1,3-Dichloropropane	0.5354	0.4636	0.4669	0.4827	0.4872	0.5285	0.5229	0.5158	0.5195		0.50	5.5	TM		
67	TM Dibromochloromethane	0.4324	0.3113	0.4029	0.3365	0.3639	0.3810	0.3765	0.3694	0.3719		0.37	9.4	TM		
68	TM** Chlorobenzene	0.9607	0.7883	0.8161	0.8233	0.8193	0.8663	0.8671	0.8458	0.8687		0.85	5.8	TM**		
69	TM* Ethylbenzene	1.163	1.088	1.078	1.064	1.113	1.202	1.320	1.355	1.437		1.2	11	TM*		
70	TM** Bromoform	0.1987	0.2913	0.2985	0.2773	0.2786	0.2949	0.2988	0.2830	0.2879		0.28	11	TM**		

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

**Form 6**  
**Initial Calibration**

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/26/18  
Instrument: Loki

Initials: \_\_\_\_\_

	Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type	Q	MRF
71	I 1,4-Dichlorobenzene-D (IS)															
72	TM Isopropylbenzene	1.870	1.850	1.627	1.744	1.674	1.904	2.023	2.163	2.131		1.9	10	TM		
73	TM** 1,1,2,2-Tetrachloroethane	1.045	0.9958	0.8852	0.8489	0.7870	0.8337	0.8253	0.7797	0.7091		0.86	12	TM**		
74	TM 1,2,3-Trichloropropane	0.3099	0.2379	0.2451	0.2395	0.2523	0.2482	0.2496	0.2405	0.2193		0.25	9.9	TM		
75	TM t-1,4-Dichloro-2-Butene	0.2303	0.1788	0.1967	0.1504	0.1658	0.1680	0.1668	0.1656	0.1613		0.18	14	TM		
76	TM Bromobenzene	0.8174	0.7285	0.6800	0.6860	0.6995	0.7271	0.7170	0.7005	0.6337		0.71	7.0	TM		
77	TM n-Propylbenzene	1.405	1.334	1.341	1.264	1.291	1.487	1.610	1.706	1.677		1.5	12	TM		
78	TM 4-Ethyltoluene	1.773	1.623	1.471	1.507	1.625	1.937	2.084	2.185	2.102		1.8	15	TM		
79	TM 2-Chlorotoluene	1.676	1.432	1.262	1.411	1.418	1.592	1.653	1.672	1.556		1.5	9.5	TM		
80	TML 1,3,5-Trimethylbenzene		0.8476	0.7770	0.7844	0.9177	1.107	1.226	1.261	1.194		1.0	20	TML	0.999	
81	TM 4-Chlorotoluene	1.634	1.634	1.557	1.490	1.657	1.891	1.959	1.949	1.824		1.7	10	TM		
82	TM Tert-Butylbenzene	1.395	1.248	1.252	1.199	1.248	1.409	1.513	1.574	1.564		1.4	11	TM		
83	TML 1,2,4-Trimethylbenzene		1.317	1.259	1.251	1.404	1.697	1.856	1.969	1.916		1.6	19	TML	1.000	
84	TM Sec-Butylbenzene	1.921	1.798	1.683	1.687	1.795	2.078	2.299	2.371	2.338		2.0	14	TM		
85	TM p-Isopropyltoluene	1.899	1.705	1.647	1.618	1.664	1.901	2.070	2.097	2.077		1.9	11	TM		
86	TM Benzyl Chloride	1.222	0.9699	0.9031	0.7696	0.9273	0.8973	0.8998	0.9110	0.9551		0.94	13	TM		
87	TM 1,3-DCB	1.424	1.254	1.226	1.136	1.205	1.298	1.293	1.272	1.205		1.3	6.4	TM		
88	TM 1,4-DCB	1.590	1.395	1.307	1.267	1.277	1.371	1.372	1.316	1.249		1.3	7.7	TM		
89	TM n-Butylbenzene	1.827	1.465	1.383	1.362	1.378	1.537	1.643	1.742	1.803		1.6	12	TM		
90	TM 1,2-DCB	1.214	1.324	1.183	1.124	1.185	1.251	1.234	1.230	1.217		1.2	4.5	TM		
91	TM Hexachloroethane	0.4458	0.4906	0.4143	0.3765	0.4135	0.3953	0.3937	0.3885	0.3635		0.41	9.5	TM		
92	TM 1,2-Dibromo-3-chloropropane	0.1592	0.1874	0.1863	0.1602	0.1475	0.1458	0.1432	0.1480	0.1459		0.16	11	TM		
93	TM 1,2,4-Trichlorobenzene	0.8766	0.6216	0.6663	0.6530	0.6630	0.7293	0.7532	0.7938	0.8803		0.74	13	TM		
94	TM Hexachlorobutadiene	0.5074	0.4480	0.3992	0.4339	0.3895	0.3944	0.4063	0.4062	0.4206		0.42	8.7	TM		
95	TML Naphthalene		1.355	1.272	1.202	1.284	1.491	1.618	1.854	2.086		1.5	21	TML	0.997	
96	TM 1,2,3-Trichlorobenzene	0.4343	0.4403	0.3727	0.3183	0.3926	0.4250	0.4450	0.4458	0.5106		0.42	13	TM		
97																
98																
99																
100																
101																
102																
103																
104																
105																



Data File : M:\LOKI\DATA\181026\1026L03.D  
 Acq On : 26 Oct 18 10:28  
 Sample : 0.3ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 2  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	501632	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	505856	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	246016	25.0000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	3.85	111	117998	6.2738	ppb	0.00
Spiked Amount	25.000		Recovery	=	25.096%	
37) 1,2-DCA-D4(S)	4.35	65	129064	5.7026	ppb	0.00
Spiked Amount	25.000		Recovery	=	22.812%	
57) Toluene-D8(S)	6.90	98	379189	7.8558	ppb	0.00
Spiked Amount	25.000		Recovery	=	31.424%	
65) 4-Bromofluorobenzene(S)	9.83	95	123814	7.5276	ppb	0.00
Spiked Amount	25.000		Recovery	=	30.112%	
Target Compounds						
2) Dichlorodifluoromethane	0.73	85	1895	0.2675	ppb	Qvalue 91
3) Freon 114	0.79	85	1419	0.2919	ppb	98
4) Chloromethane	0.78	50	3495	-0.3935	ppb #	41
5) Vinyl chloride	0.87	62	1908	0.2872	ppb #	38
6) Bromomethane	1.04	94	2264	-1.6348	ppb	92
7) Chloroethane	1.09	64	1056	0.2786	ppb	99
9) Trichlorofluoromethane	1.24	101	2871	0.3329	ppb	85
10) Acrolein	1.49	56	7406	12.1836	ppb #	97
11) Acetone	1.59	43	7183	-0.5304	ppb #	80
12) Freon-113	1.56	101	1414	0.3162	ppb #	86
13) 1,1-DCE	1.55	63	739	0.3634	ppb #	43
14) t-Butanol	2.04	59	7870	11.0944	ppb	96
15) Acetonitrile	1.78	41	10755	10.5605	ppb	97
16) Methyl Acetate	1.84	43	3121	0.5613	ppb #	83
17) Iodomethane	1.64	142	490	1.8011	ppb #	63
19) Methylene chloride	1.89	84	4282	0.6598	ppb #	68
20) Carbon disulfide	1.68	76	5838	0.3728	ppb #	92
21) Methyl t-butyl ether (MtBE)	2.15	73	5606	0.3547	ppb #	91
22) Trans-1,2-DCE	2.11	96	2401	0.4200	ppb	91
23) Diisopropyl Ether	2.63	45	5547	0.3326	ppb #	79
24) 1,1-DCA	2.49	63	4249	0.3769	ppb #	91
25) Vinyl Acetate	2.63	43	1630	0.4012	ppb #	96
26) Ethyl tert Butyl Ether	3.06	59	4501	0.3118	ppb	96
27) MEK (2-Butanone)	3.25	43	1735	0.5882	ppb	91
28) Cis-1,2-DCE	3.16	96	1876	0.2878	ppb	95
30) Chloroform	3.63	83	3991	0.3582	ppb #	73
31) Bromochloromethane	3.46	128	1029	0.2883	ppb #	65
33) 1,1,1-TCA	3.84	97	3099	0.3486	ppb	91
34) Cyclohexane	3.90	41	1818	0.4881	ppb #	75
35) 1,1-Dichloropropene	4.11	75	2326	0.3432	ppb #	76
36) 2,2,4-Trimethylpentane	4.61	57	3637	0.2958	ppb #	16
38) Carbon Tetrachloride	4.09	117	2265	0.3105	ppb	100
39) Tert Amyl Methyl Ether	4.70	73	3718	0.2819	ppb #	96
40) 1,2-DCA	4.47	62	2649	0.3214	ppb #	77
41) Benzene	4.41	78	8398	0.3621	ppb	98
42) TCE	5.37	95	1216	0.4275	ppb #	71
43) 2-Pentanone	5.71	43	41996	10.0791	ppb	95
44) 1,2-Dichloropropane	5.63	63	1948	0.3127	ppb #	86
45) Bromodichloromethane	6.04	83	3108	0.3475	ppb #	78

(#) = qualifier out of range (m) = manual integration  
 1026L03.D L1026W.M Mon Oct 29 06:55:09 2018

Data File : M:\LOKI\DATA\181026\1026L03.D  
 Acq On : 26 Oct 18 10:28  
 Sample : 0.3ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 2  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Methyl Cyclohexane	5.58	83	2115	0.3370	ppb	91
47) Dibromomethane	5.79	93	1818	0.3884	ppb #	65
49) MIBK (methyl isobutyl ket	6.89	43	4769	0.8690	ppb #	1
50) 1-Bromo-2-chloroethane	6.38	63	1495	0.3303	ppb	94
51) Cis-1,3-Dichloropropene	6.61	75	2902	0.3165	ppb	97
52) Toluene	6.98	91	7895	0.3286	ppb	88
53) Trans-1,3-Dichloropropene	7.29	75	3076	0.3568	ppb #	76
54) 1,1,2-TCA	7.47	83	1768	0.3293	ppb	87
55) 2-Hexanone	7.83	43	1819	0.5230	ppb #	67
58) 1,2-EDB	7.98	107	2185	0.3296	ppb	90
59) Tetrachloroethene	7.60	166	2030	0.2825	ppb	87
60) 1-Chlorohexane	8.60	91	1769	0.3377	ppb	84
61) 1,1,1,2-Tetrachloroethane	8.66	131	2156	0.3072	ppb	92
62) m&p-Xylene	8.85	91	5300	3.2147	ppb	96
63) o-Xylene	9.27	106	2369	0.2775	ppb	66
64) Styrene	9.29	104	2418	1.7354	ppb	91
66) 1,3-Dichloropropane	7.65	76	3250	0.3196	ppb	88
67) Dibromochloromethane	7.89	129	2625	0.3490	ppb #	66
68) Chlorobenzene	8.55	112	5832	0.3388	ppb	94
69) Ethylbenzene	8.71	91	7058	0.2901	ppb	96
70) Bromoform	9.45	173	1206	0.2138	ppb #	30
72) Isopropylbenzene	9.69	105	5522	0.2973	ppb	99
73) 1,1,1,2-Tetrachloroethane	10.03	83	3085	0.3660	ppb	91
74) 1,2,3-Trichloropropane	10.05	110	915	0.3732	ppb	86
75) t-1,4-Dichloro-2-Butene	10.10	53	680	0.3927	ppb #	58
76) Bromobenzene	9.96	156	2413	0.3454	ppb	88
77) n-Propylbenzene	10.13	91	4148	0.2892	ppb	100
78) 4-Ethyltoluene	10.26	105	5234	0.2935	ppb	99
79) 2-Chlorotoluene	10.19	91	4947	0.3309	ppb	91
80) 1,3,5-Trimethylbenzene	10.34	105	2787	0.5182	ppb	95
81) 4-Chlorotoluene	10.32	91	4825	0.2829	ppb	95
82) Tert-Butylbenzene	10.68	119	4119	0.3038	ppb #	77
83) 1,2,4-Trimethylbenzene	10.73	105	3953	0.8287	ppb	86
84) Sec-Butylbenzene	10.91	105	5672	0.2887	ppb	98
85) p-Isopropyltoluene	11.09	119	5605	0.3074	ppb #	86
86) Benzyl Chloride	11.25	91	3607	0.3902	ppb	98
87) 1,3-DCB	11.00	146	4205	0.3400	ppb #	77
88) 1,4-DCB	11.09	146	4694	0.3535	ppb #	91
89) n-Butylbenzene	11.52	91	5395	0.3489	ppb #	89
90) 1,2-DCB	11.48	146	3584	0.2990	ppb	86
91) Hexachloroethane	11.74	117	1316	0.3269	ppb	88
92) 1,2-Dibromo-3-chloropropan	12.31	75	470	0.3020	ppb #	76
93) 1,2,4-Trichlorobenzene	13.20	180	2588	0.3566	ppb	85
94) Hexachlorobutadiene	13.41	225	1498	0.3600	ppb #	60
95) Naphthalene	13.45	128	4880	2.1993	ppb	96
96) 1,2,3-Trichlorobenzene	13.71	180	1282	0.3098	ppb	97

Quantitation Report

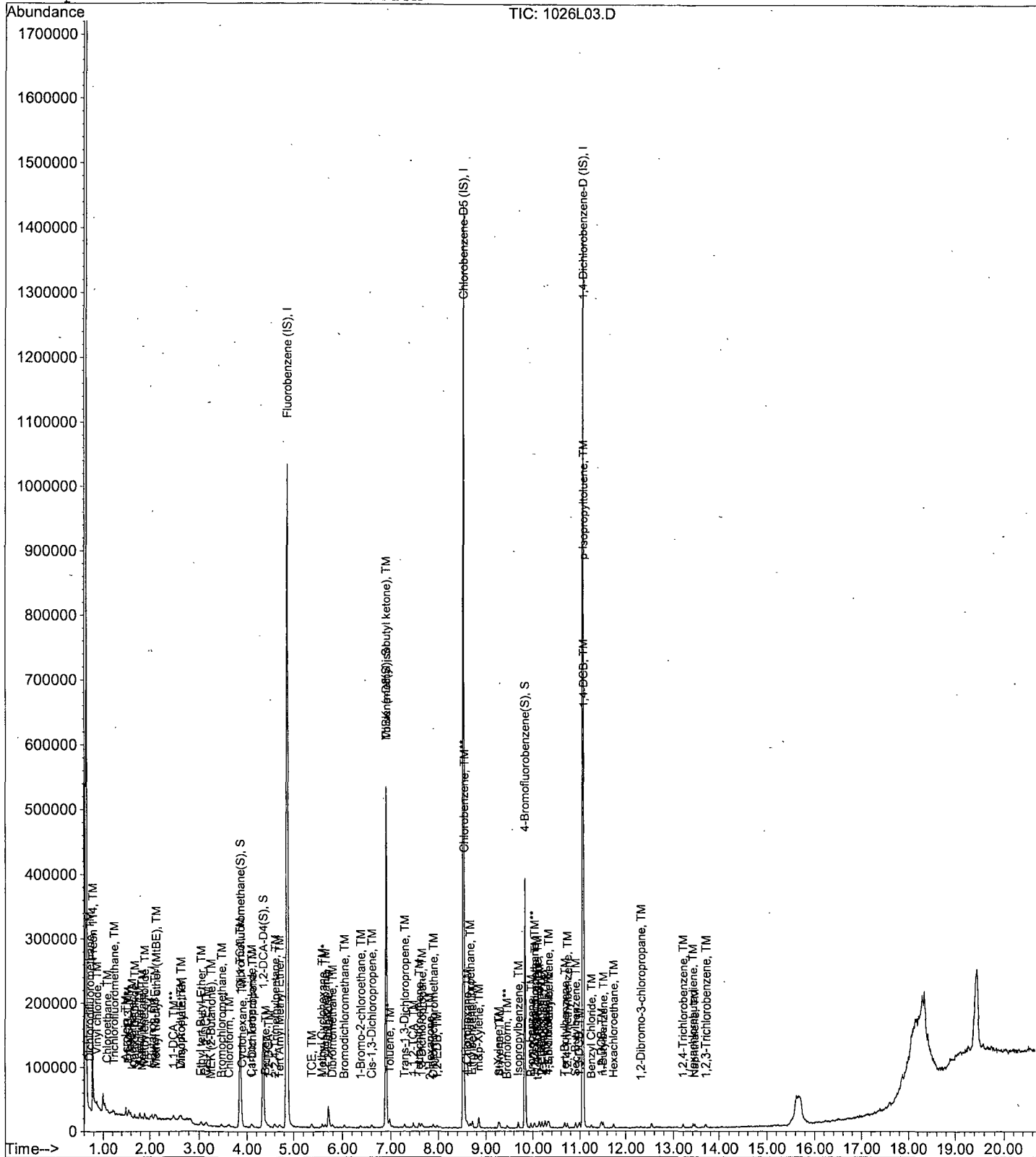
Data File : M:\LOKI\DATA\181026\1026L03.D  
 Acq On : 26 Oct 18 10:28  
 Sample : 0.3ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 2  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L04.D  
 Acq On : 26 Oct 18 10:57  
 Sample : 0.5ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	513856	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	505216	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	239616	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	106270	5.1037	ppb	0.00
Spiked Amount 25.000			Recovery =	20.416%		
37) 1,2-DCA-D4(S)	4.35	65	115366	4.4216	ppb	0.00
Spiked Amount 25.000			Recovery =	17.688%		
57) Toluene-D8(S)	6.90	98	336267	6.9754	ppb	0.00
Spiked Amount 25.000			Recovery =	27.900%		
65) 4-Bromofluorobenzene(S)	9.83	95	109990	6.6956	ppb	0.00
Spiked Amount 25.000			Recovery =	26.784%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	3168	0.4365	ppb	90
3) Freon 114	0.79	85	2899	0.5821	ppb	98
5) Vinyl chloride	0.87	62	3215	0.4724	ppb #	52
6) Bromomethane	1.03	94	3895	-1.2809	ppb	82
7) Chloroethane	1.09	64	1931	0.4973	ppb	87
8) Dichlorofluoromethane	1.21	67	6714	0.6526	ppb	92
9) Trichlorofluoromethane	1.24	101	4628	0.5239	ppb	90
10) Acrolein	1.49	56	15073	24.2066	ppb #	100
12) Freon-113	1.56	101	2274	0.4964	ppb	88
13) 1,1-DCE	1.55	63	1254	0.6019	ppb #	56
14) t-Butanol	2.04	59	20238	27.8511	ppb	93
15) Acetonitrile	1.78	41	27169	26.0431	ppb	92
16) Methyl Acetate	1.84	43	3458	0.6072	ppb	98
17) Iodomethane	1.64	142	703	1.8728	ppb	85
18) Acrylonitrile	2.26	52	2113	0.1630	ppb #	7
19) Methylene chloride	1.90	84	5175	0.7784	ppb	78
20) Carbon disulfide	1.68	76	8134	0.5071	ppb #	90
21) Methyl t-butyl ether (MtBE)	2.14	73	8236	0.5088	ppb #	85
22) Trans-1,2-DCE	2.11	96	3203	0.5470	ppb	96
23) Diisopropyl Ether	2.64	45	12562	0.7353	ppb #	88
24) 1,1-DCA	2.49	63	5869	0.5082	ppb #	92
25) Vinyl Acetate	2.61	43	2528	0.6075	ppb #	91
26) Ethyl tert Butyl Ether	3.05	59	7261	0.4911	ppb	90
27) MEK (2-Butanone)	3.24	43	2561	0.8476	ppb	100
28) Cis-1,2-DCE	3.16	96	3636	0.5445	ppb	96
29) 2,2-Dichloropropane	3.14	77	5267	0.2195	ppb #	90
30) Chloroform	3.62	83	5628	0.4931	ppb	91
31) Bromochloromethane	3.46	128	2213	0.6053	ppb	81
33) 1,1,1-TCA	3.83	97	4355	0.4782	ppb	100
34) Cyclohexane	3.90	41	2786	0.7302	ppb #	74
35) 1,1-Dichloropropene	4.12	75	3635	0.5236	ppb	95
36) 2,2,4-Trimethylpentane	4.62	57	6667	0.5294	ppb #	20
38) Carbon Tetrachloride	4.08	117	3714	0.4971	ppb	80
39) Tert Amyl Methyl Ether	4.70	73	6489	0.4802	ppb #	96
40) 1,2-DCA	4.47	62	4324	0.5122	ppb #	76
41) Benzene	4.42	78	11838	0.4982	ppb	95
42) TCE	5.37	95	1706	0.5855	ppb	92
43) 2-Pentanone	5.71	43	106101	24.8587	ppb	98
44) 1,2-Dichloropropane	5.65	63	3261	0.5110	ppb #	86

Data File : M:\LOKI\DATA\181026\1026L04.D  
 Acq On : 26 Oct 18 10:57  
 Sample : 0.5ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) Bromodichloromethane	6.04	83	4663	0.5090	ppb	# 78
46) Methyl Cyclohexane	5.58	83	3440	0.5352	ppb	75
47) Dibromomethane	5.80	93	2218	0.4626	ppb	82
49) MIBK (methyl isobutyl ket	6.85	43	5152	0.9165	ppb	# 77
50) 1-Bromo-2-chloroethane	6.37	63	2260	0.4874	ppb	97
51) Cis-1,3-Dichloropropene	6.61	75	4353	0.4635	ppb	93
52) Toluene	6.98	91	11217	0.4557	ppb	95
53) Trans-1,3-Dichloropropene	7.29	75	3844	0.4352	ppb	88
54) 1,1,2-TCA	7.48	83	2829	0.5144	ppb	83
55) 2-Hexanone	7.83	43	2034	0.5709	ppb	94
58) 1,2-EDB	7.98	107	2674	0.4038	ppb	90
59) Tetrachloroethene	7.60	166	3468	0.4833	ppb	86
60) 1-Chlorohexane	8.60	91	2346	0.4485	ppb	89
61) 1,1,1,2-Tetrachloroethane	8.67	131	3600	0.5137	ppb	78
62) m&p-Xylene	8.85	91	7652	3.3859	ppb	92
63) o-Xylene	9.27	106	3697	0.4336	ppb	92
64) Styrene	9.30	104	2714	1.7603	ppb	97
66) 1,3-Dichloropropane	7.65	76	4684	0.4613	ppb	83
67) Dibromochloromethane	7.89	129	3145	0.4186	ppb	93
68) Chlorobenzene	8.55	112	7965	0.4633	ppb	# 90
69) Ethylbenzene	8.71	91	10996	0.4526	ppb	96
70) Bromoform	9.45	173	2943	0.5224	ppb	88
72) Isopropylbenzene	9.69	105	8867	0.4902	ppb	93
73) 1,1,2,2-Tetrachloroethane	10.03	83	4772	0.5812	ppb	98
74) 1,2,3-Trichloropropane	10.05	110	1140	0.4774	ppb	89
75) t-1,4-Dichloro-2-Butene	10.08	53	857	0.5081	ppb	# 62
76) Bromobenzene	9.96	156	3491	0.5130	ppb	81
77) n-Propylbenzene	10.13	91	6393	0.4577	ppb	94
78) 4-Ethyltoluene	10.27	105	7780	0.4480	ppb	97
79) 2-Chlorotoluene	10.19	91	6863	0.4714	ppb	95
80) 1,3,5-Trimethylbenzene	10.34	105	4062	0.6346	ppb	95
81) 4-Chlorotoluene	10.32	91	7830	0.4714	ppb	100
82) Tert-Butylbenzene	10.67	119	5979	0.4527	ppb	94
83) 1,2,4-Trimethylbenzene	10.73	105	6310	0.9613	ppb	97
84) Sec-Butylbenzene	10.91	105	8618	0.4503	ppb	90
85) p-Isopropyltoluene	11.08	119	8172	0.4601	ppb	# 89
86) Benzyl Chloride	11.25	91	4648	0.5162	ppb	99
87) 1,3-DCB	10.99	146	6009	0.4988	ppb	88
88) 1,4-DCB	11.09	146	6684	0.5168	ppb	95
89) n-Butylbenzene	11.52	91	7023	0.4664	ppb	# 91
90) 1,2-DCB	11.48	146	6344	0.5434	ppb	87
91) Hexachloroethane	11.74	117	2351	0.5996	ppb	# 73
92) 1,2-Dibromo-3-chloropropan	12.31	75	898	0.5923	ppb	# 53
93) 1,2,4-Trichlorobenzene	13.20	180	2979	0.4215	ppb	96
94) Hexachlorobutadiene	13.41	225	2147	0.5298	ppb	82
95) Naphthalene	13.45	128	6494	2.2861	ppb	99
96) 1,2,3-Trichlorobenzene	13.71	180	2110	0.5235	ppb	96

Quantitation Report

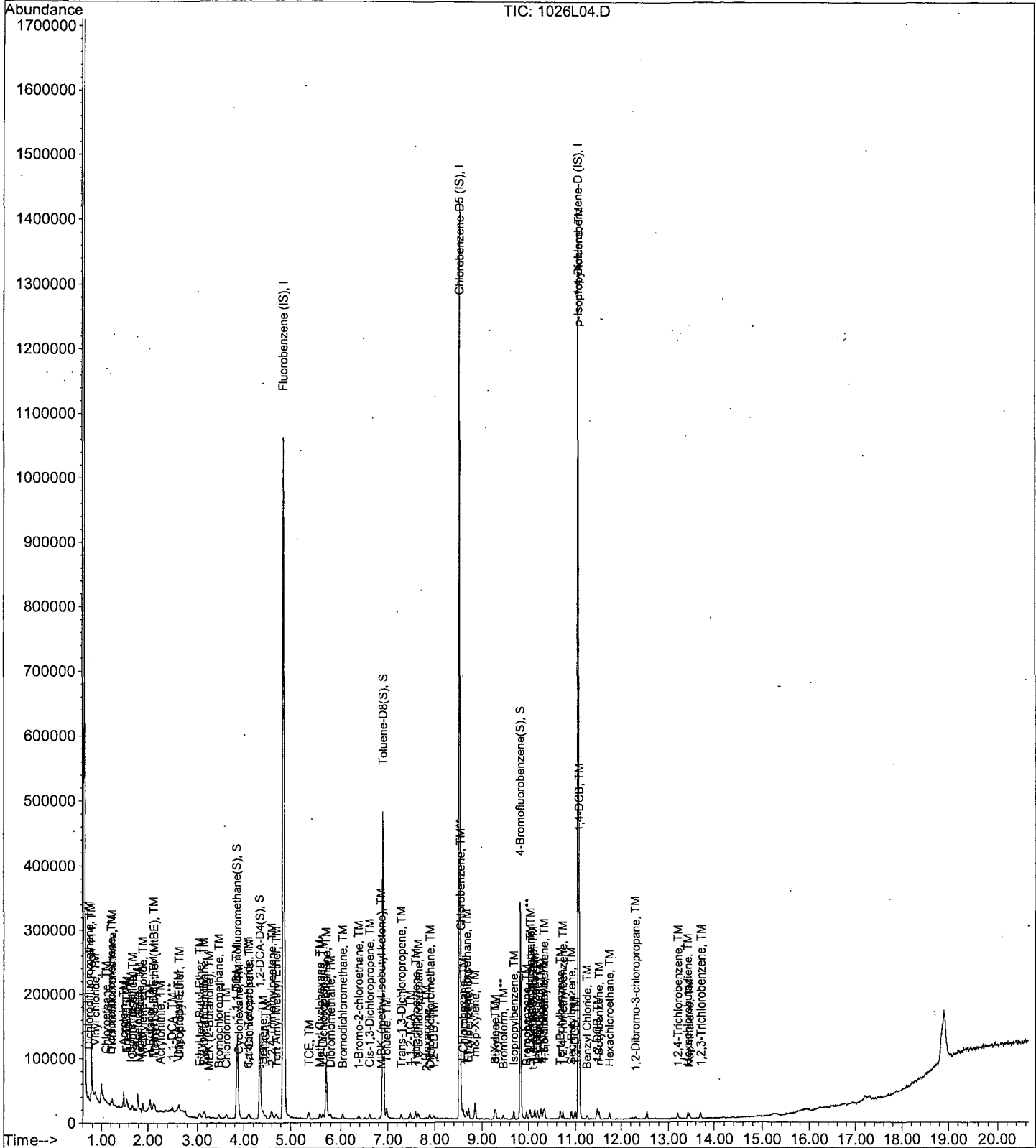
Data File : M:\LOKI\DATA\181026\1026L04.D  
Acq On : 26 Oct 18 10:57  
Sample : 0.5ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 3  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L05.D  
 Acq On : 26 Oct 18 11:25  
 Sample : 1.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 4  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.86	96	505920	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	497728	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	254912	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Dibromofluoromethane (S)	3.86	111	148372	8.6635	ppb	0.00
Spiked Amount				25.000		
Recovery				=	34.656%	
37) 1,2-DCA-D4 (S)	4.35	65	161909	8.1545	ppb	0.00
Spiked Amount				25.000		
Recovery				=	32.616%	
57) Toluene-D8 (S)	6.90	98	470130	9.8990	ppb	0.00
Spiked Amount				25.000		
Recovery				=	39.596%	
65) 4-Bromofluorobenzene (S)	9.83	95	149696	9.2498	ppb	0.00
Spiked Amount				25.000		
Recovery				=	37.000%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.72	85	7815	1.0937	ppb	92
3) Freon 114	0.79	85	4939	1.0072	ppb	91
4) Chloromethane	0.81	50	10276	0.5740	ppb	92
5) Vinyl chloride	0.87	62	6843	1.0212	ppb	85
6) Bromomethane	1.03	94	6400	-0.6957	ppb	89
7) Chloroethane	1.09	64	4177	1.0925	ppb	95
8) Dichlorofluoromethane	1.21	67	9912	0.9785	ppb	100
9) Trichlorofluoromethane	1.24	101	8940	1.0279	ppb	90
10) Acrolein	1.49	56	29924	48.8106	ppb	97
11) Acetone	1.60	43	9162	0.4627	ppb	99
12) Freon-113	1.56	101	4428	0.9818	ppb	96
13) 1,1-DCE	1.55	63	2326	1.1340	ppb	# 75
14) t-Butanol	2.05	59	36698	51.2951	ppb	100
15) Acetonitrile	1.78	41	51986	50.6134	ppb	94
16) Methyl Acetate	1.84	43	6414	1.1439	ppb	92
17) Iodomethane	1.64	142	1350	2.1110	ppb	# 91
18) Acrylonitrile	2.10	52	2894	0.5581	ppb	# 65
19) Methylene chloride	1.89	84	7994	1.2213	ppb	96
20) Carbon disulfide	1.68	76	16752	1.0607	ppb	98
21) Methyl t-butyl ether (MtBE)	2.14	73	16717	1.0489	ppb	95
22) Trans-1,2-DCE	2.11	96	6609	1.1463	ppb	91
23) Diisopropyl Ether	2.63	45	17847	1.0610	ppb	# 87
24) 1,1-DCA	2.49	63	11959	1.0518	ppb	94
25) Vinyl Acetate	2.63	43	4588	1.1198	ppb	# 97
26) Ethyl tert Butyl Ether	3.05	59	14485	0.9951	ppb	94
27) MEK (2-Butanone)	3.24	43	3383	1.1372	ppb	90
28) Cis-1,2-DCE	3.16	96	6881	1.0466	ppb	77
29) 2,2-Dichloropropane	3.14	77	9448	0.7741	ppb	# 89
30) Chloroform	3.62	83	10999	0.9788	ppb	97
31) Bromochloromethane	3.46	128	3670	1.0195	ppb	83
33) 1,1,1-TCA	3.83	97	9586	1.0691	ppb	# 71
34) Cyclohexane	3.88	41	4205	1.1195	ppb	82
35) 1,1-Dichloropropene	4.10	75	6802	0.9951	ppb	88
36) 2,2,4-Trimethylpentane	4.61	57	11863	0.9567	ppb	# 21
38) Carbon Tetrachloride	4.09	117	7362	1.0008	ppb	91
39) Tert Amyl Methyl Ether	4.71	73	13150	0.9885	ppb	# 95
40) 1,2-DCA	4.47	62	8111	0.9759	ppb	# 88
41) Benzene	4.41	78	23172	0.9906	ppb	92
42) TCE	5.37	95	2926	1.0200	ppb	91

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

Data File : M:\LOKI\DATA\181026\1026L05.D  
 Acq On : 26 Oct 18 11:25  
 Sample : 1.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	211886	50.4220	ppb	99
44) 1,2-Dichloropropane	5.64	63	6264	0.9970	ppb #	86
45) Bromodichloromethane	6.04	83	9332	1.0346	ppb #	86
46) Methyl Cyclohexane	5.59	83	5806	0.9174	ppb	98
47) Dibromomethane	5.79	93	4783	1.0133	ppb	95
49) MIBK (methyl isobutyl ket	6.85	43	5121	0.9253	ppb	97
50) 1-Bromo-2-chloroethane	6.37	63	4515	0.9891	ppb	99
51) Cis-1,3-Dichloropropene	6.61	75	9202	0.9951	ppb	95
52) Toluene	6.98	91	22652	0.9347	ppb	85
53) Trans-1,3-Dichloropropene	7.29	75	8210	0.9441	ppb	93
54) 1,1,2-TCA	7.48	83	5504	1.0165	ppb	97
55) 2-Hexanone	7.83	43	3609	1.0289	ppb #	86
58) 1,2-EDB	7.98	107	6787	1.0404	ppb	95
59) Tetrachloroethene	7.60	166	7105	1.0051	ppb	90
60) 1-Chlorohexane	8.60	91	4549	0.8827	ppb	87
61) 1,1,1,2-Tetrachloroethane	8.67	131	6857	0.9931	ppb	99
62) m&p-Xylene	8.85	91	16320	4.0326	ppb	97
63) o-Xylene	9.27	106	6969	0.8297	ppb	99
64) Styrene	9.29	104	6697	2.1008	ppb	91
66) 1,3-Dichloropropane	7.65	76	9295	0.9291	ppb	92
67) Dibromochloromethane	7.89	129	8021	1.0837	ppb	99
68) Chlorobenzene	8.55	112	16248	0.9594	ppb	92
69) Ethylbenzene	8.71	91	21454	0.8963	ppb	92
70) Bromoform	9.45	173	5943	1.0708	ppb	98
72) Isopropylbenzene	9.69	105	16589	0.8620	ppb	94
73) 1,1,2,2-Tetrachloroethane	10.03	83	9026	1.0334	ppb #	92
74) 1,2,3-Trichloropropane	10.04	110	2499	0.9837	ppb	95
75) t-1,4-Dichloro-2-Butene	10.10	53	2006	1.1180	ppb	82
76) Bromobenzene	9.96	156	6934	0.9578	ppb	97
77) n-Propylbenzene	10.13	91	13678	0.9205	ppb	93
78) 4-Ethyltoluene	10.26	105	14994	0.8116	ppb	93
79) 2-Chlorotoluene	10.19	91	12865	0.8306	ppb	95
80) 1,3,5-Trimethylbenzene	10.34	105	7923	0.9272	ppb	99
81) 4-Chlorotoluene	10.32	91	15878	0.8986	ppb	91
82) Tert-Butylbenzene	10.67	119	12770	0.9089	ppb	99
83) 1,2,4-Trimethylbenzene	10.73	105	12840	1.2717	ppb	82
84) Sec-Butylbenzene	10.91	105	17162	0.8430	ppb	96
85) p-Isopropyltoluene	11.08	119	16797	0.8889	ppb	88
86) Benzyl Chloride	11.25	91	9208	0.9613	ppb #	86
87) 1,3-DCB	10.99	146	12498	0.9753	ppb	94
88) 1,4-DCB	11.09	146	13322	0.9683	ppb	97
89) n-Butylbenzene	11.52	91	14099	0.8801	ppb	97
90) 1,2-DCB	11.48	146	12059	0.9710	ppb	89
91) Hexachloroethane	11.74	117	4224	1.0127	ppb	90
92) 1,2-Dibromo-3-chloropropan	12.31	75	1900	1.1781	ppb #	73
93) 1,2,4-Trichlorobenzene	13.20	180	6794	0.9035	ppb	98
94) Hexachlorobutadiene	13.41	225	4070	0.9440	ppb	94
95) Naphthalene	13.45	128	12974	2.5702	ppb	92
96) 1,2,3-Trichlorobenzene	13.71	180	3800	0.8863	ppb #	95



Quantitation Report

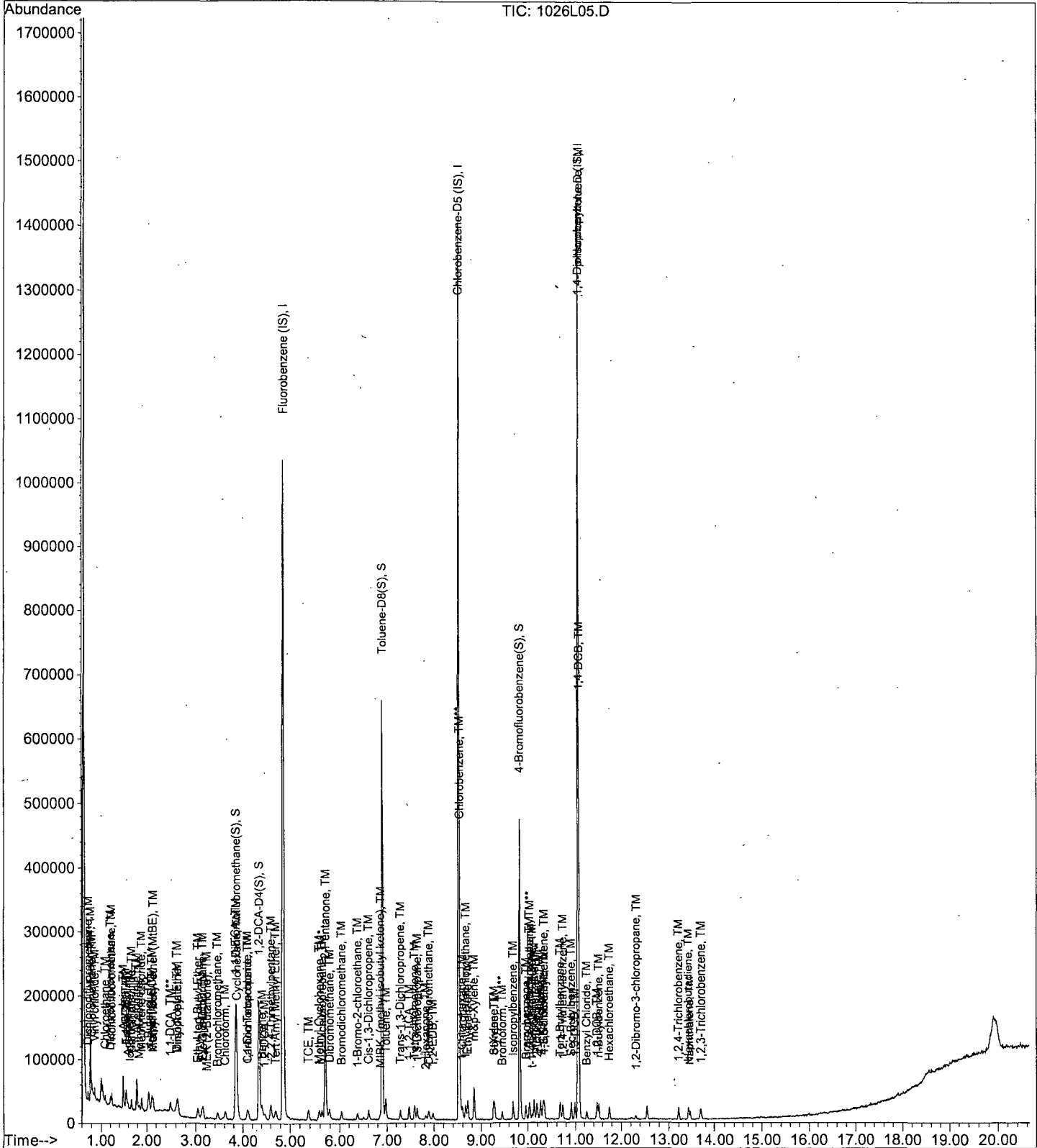
Data File : M:\LOKI\DATA\181026\1026L05.D  
 Acq On : 26 Oct 18 11:25  
 Sample : 1.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L06.D  
 Acq On : 26 Oct 18 11:54  
 Sample : 2.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 5  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.86	96	528768	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	515904	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	268608	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Dibromofluoromethane(S)	3.85	111	149525	8.2316	ppb	0.00
Spiked Amount 25.000			Recovery =	32.928%		
37) 1,2-DCA-D4(S)	4.35	65	165668	7.8919	ppb	0.00
Spiked Amount 25.000			Recovery =	31.568%		
57) Toluene-D8(S)	6.90	98	478316	9.7165	ppb	0.00
Spiked Amount 25.000			Recovery =	38.864%		
65) 4-Bromofluorobenzene(S)	9.83	95	155110	9.2467	ppb	0.00
Spiked Amount 25.000			Recovery =	36.988%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	16912	2.2646	ppb	91
3) Freon 114	0.79	85	10627	2.0736	ppb	79
4) Chloromethane	0.81	50	16195	1.3220	ppb	96
5) Vinyl chloride	0.87	62	13293	1.8981	ppb	84
6) Bromomethane	1.03	94	12382	0.5470	ppb	99
7) Chloroethane	1.09	64	7967	1.9938	ppb	97
8) Dichlorofluoromethane	1.21	67	20463	1.9328	ppb	97
9) Trichlorofluoromethane	1.24	101	16828	1.8513	ppb	94
10) Acrolein	1.49	56	44406	69.3031	ppb	# 94
11) Acetone	1.60	43	10993	1.1649	ppb	# 85
12) Freon-113	1.56	101	10230	2.1703	ppb	90
13) 1,1-DCE	1.55	63	3670	1.7119	ppb	94
14) t-Butanol	2.05	59	52587	70.3281	ppb	99
15) Acetonitrile	1.78	41	76479	71.2423	ppb	91
16) Methyl Acetate	1.84	43	11909	2.0320	ppb	90
17) Iodomethane	1.64	142	3115	2.7014	ppb	94
18) Acrylonitrile	2.10	52	6560	2.2009	ppb	74
19) Methylene chloride	1.89	84	14238	2.0813	ppb	95
20) Carbon disulfide	1.68	76	32838	1.9894	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	31870	1.9132	ppb	95
22) Trans-1,2-DCE	2.11	96	11865	1.9691	ppb	95
23) Diisopropyl Ether	2.63	45	37423	2.1286	ppb	92
24) 1,1-DCA	2.49	63	23600	1.9859	ppb	95
25) Vinyl Acetate	2.63	43	8448	1.9728	ppb	# 96
26) Ethyl tert Butyl Ether	3.05	59	30063	1.9760	ppb	93
27) MEK (2-Butanone)	3.24	43	6116	1.9671	ppb	98
28) Cis-1,2-DCE	3.16	96	13775	2.0046	ppb	87
29) 2,2-Dichloropropane	3.13	77	18055	1.7923	ppb	97
30) Chloroform	3.62	83	22127	1.8840	ppb	96
31) Bromochloromethane	3.46	128	7193	1.9118	ppb	89
33) 1,1,1-TCA	3.83	97	18420	1.9655	ppb	97
34) Cyclohexane	3.90	41	8087	2.0599	ppb	98
35) 1,1-Dichloropropene	4.12	75	14135	1.9785	ppb	93
36) 2,2,4-Trimethylpentane	4.60	57	24980	1.9275	ppb	# 55
38) Carbon Tetrachloride	4.10	117	14770	1.9211	ppb	91
39) Tert Amyl Methyl Ether	4.71	73	24701	1.7765	ppb	# 93
40) 1,2-DCA	4.46	62	17038	1.9614	ppb	# 89
41) Benzene	4.41	78	45902	1.8775	ppb	98
42) TCE	5.37	95	5706	1.9032	ppb	97

(#) = qualifier out of range (m) = manual integration  
 1026L06.D L1026W.M Mon Oct 29 06:55:21 2018

Data File : M:\LOKI\DATA\181026\1026L06.D  
 Acq On : 26 Oct 18 11:54  
 Sample : 2.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 5  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	316951	72.1650	ppb	100
44) 1,2-Dichloropropane	5.64	63	13178	2.0069	ppb #	94
45) Bromodichloromethane	6.04	83	17430	1.8489	ppb	97
46) Methyl Cyclohexane	5.59	83	11768	1.7791	ppb	97
47) Dibromomethane	5.79	93	9702	1.9665	ppb	90
49) MIBK (methyl isobutyl ket	6.85	43	11834	2.0458	ppb #	90
50) 1-Bromo-2-chloroethane	6.37	63	9606	2.0134	ppb	100
51) Cis-1,3-Dichloropropene	6.61	75	17851	1.8471	ppb	96
52) Toluene	6.98	91	47158	1.8618	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	17208	1.8934	ppb	89
54) 1,1,2-TCA	7.48	83	10698	1.8904	ppb	97
55) 2-Hexanone	7.83	43	7052	1.9235	ppb	99
58) 1,2-EDB	7.98	107	12314	1.8211	ppb	95
59) Tetrachloroethene	7.60	166	14887	2.0317	ppb	90
60) 1-Chlorohexane	8.60	91	10310	1.9301	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.66	131	14504	2.0267	ppb	86
62) m&p-Xylene	8.85	91	34392	5.2743	ppb	98
63) o-Xylene	9.27	106	15479	1.7778	ppb	88
64) Styrene	9.29	104	14618	2.7275	ppb	96
66) 1,3-Dichloropropane	7.65	76	19922	1.9212	ppb	94
67) Dibromochloromethane	7.89	129	13887	1.8102	ppb	97
68) Chlorobenzene	8.55	112	33981	1.9358	ppb	98
69) Ethylbenzene	8.71	91	43926	1.7704	ppb	97
70) Bromoform	9.45	173	11445	1.9894	ppb	97
72) Isopropylbenzene	9.69	105	37467	1.8477	ppb	95
73) 1,1,2,2-Tetrachloroethane	10.03	83	18241	1.9819	ppb	91
74) 1,2,3-Trichloropropane	10.04	110	5147	1.9227	ppb	92
75) t-1,4-Dichloro-2-Butene	10.09	53	3231	1.7089	ppb #	75
76) Bromobenzene	9.96	156	14742	1.9326	ppb	89
77) n-Propylbenzene	10.13	91	27152	1.7341	ppb	100
78) 4-Ethyltoluene	10.26	105	32383	1.6634	ppb	93
79) 2-Chlorotoluene	10.19	91	30329	1.8583	ppb	96
80) 1,3,5-Trimethylbenzene	10.34	105	16856	1.5829	ppb	92
81) 4-Chlorotoluene	10.31	91	32027	1.7201	ppb	100
82) Tert-Butylbenzene	10.67	119	25759	1.7399	ppb	98
83) 1,2,4-Trimethylbenzene	10.73	105	26887	1.9140	ppb	99
84) Sec-Butylbenzene	10.91	105	36246	1.6896	ppb	98
85) p-Isopropyltoluene	11.08	119	34770	1.7463	ppb	98
86) Benzyl Chloride	11.25	91	16537	1.6384	ppb #	89
87) 1,3-DCB	10.99	146	24403	1.8072	ppb	98
88) 1,4-DCB	11.09	146	27234	1.8786	ppb	95
89) n-Butylbenzene	11.52	91	29260	1.7334	ppb	95
90) 1,2-DCB	11.48	146	24155	1.8457	ppb	93
91) Hexachloroethane	11.75	117	8091	1.8409	ppb	90
92) 1,2-Dibromo-3-chloropropan	12.31	75	3442	2.0254	ppb #	84
93) 1,2,4-Trichlorobenzene	13.20	180	14033	1.7710	ppb	99
94) Hexachlorobutadiene	13.41	225	9324	2.0524	ppb	92
95) Naphthalene	13.45	128	25823	3.1105	ppb #	90
96) 1,2,3-Trichlorobenzene	13.71	180	6840	1.5139	ppb	99

Quantitation Report

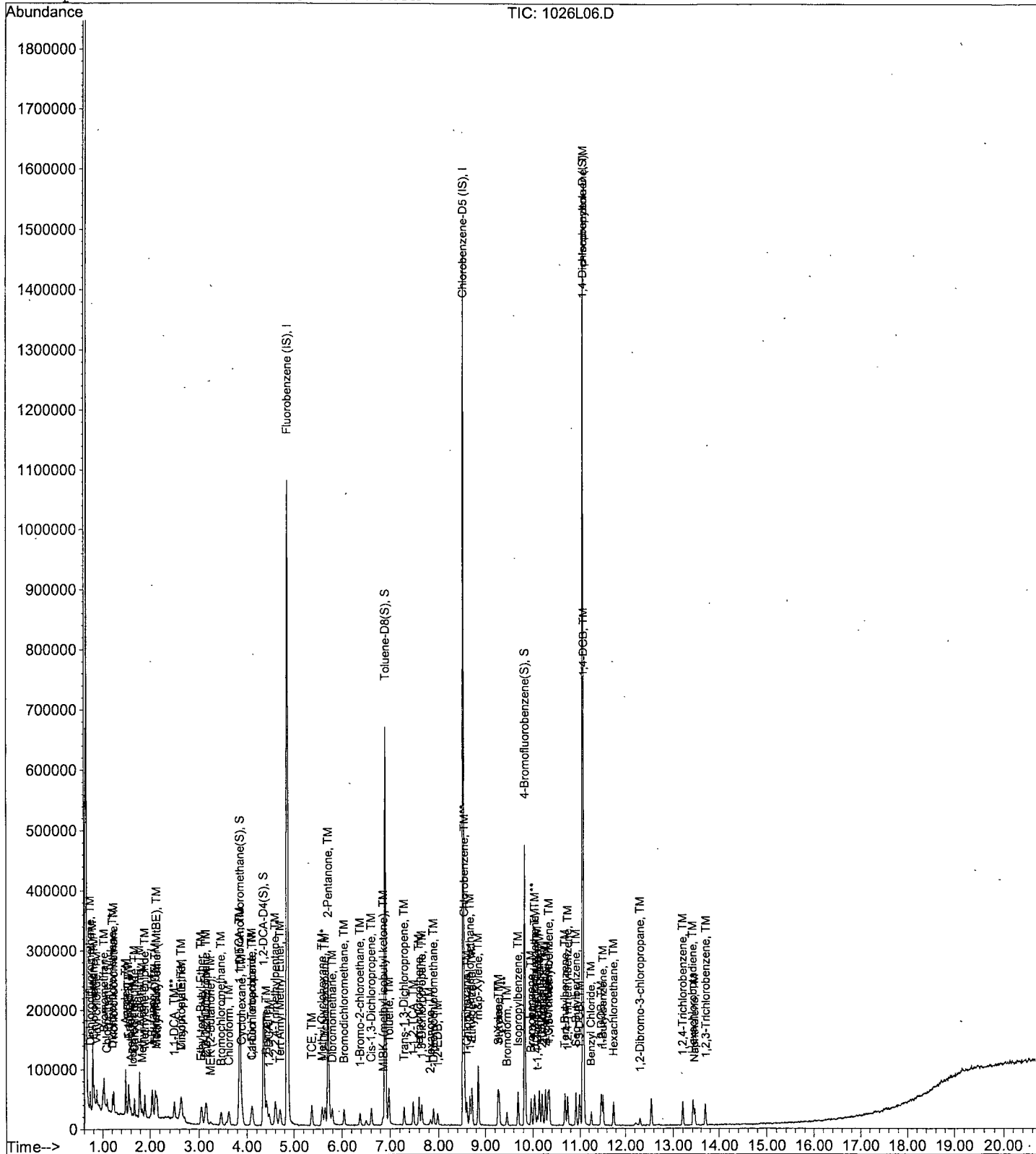
Data File : M:\LOKI\DATA\181026\1026L06.D  
Acq On : 26 Oct 18 11:54  
Sample : 2.0ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 5  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L07.D  
 Acq On : 26 Oct 18 12:22  
 Sample : 5.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 6  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	500096	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	496128	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	275392	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.86	111	357287	26.0037	ppb	0.00
Spiked Amount	25.000		Recovery	=	104.016%	
37) 1,2-DCA-D4(S)	4.35	65	388947	26.0419	ppb	0.00
Spiked Amount	25.000		Recovery	=	104.168%	
57) Toluene-D8(S)	6.90	98	1174648	24.8129	ppb	0.00
Spiked Amount	25.000		Recovery	=	99.252%	
65) 4-Bromofluorobenzene(S)	9.83	95	396415	24.5737	ppb	0.00
Spiked Amount	25.000		Recovery	=	98.296%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	35624	5.0436	ppb	95
3) Freon 114	0.79	85	22026	4.5442	ppb	99
4) Chloromethane	0.81	50	42866	5.3161	ppb	98
5) Vinyl chloride	0.87	62	36614	5.5279	ppb	99
6) Bromomethane	1.03	94	29487	4.6497	ppb	99
7) Chloroethane	1.09	64	20925	5.5369	ppb	98
8) Dichlorofluoromethane	1.21	67	48975	4.8910	ppb	97
9) Trichlorofluoromethane	1.24	101	43721	5.0856	ppb	96
10) Acrolein	1.49	56	59261	97.7894	ppb	# 99
11) Acetone	1.60	43	17986	5.1410	ppb	91
12) Freon-113	1.56	101	22440	5.0337	ppb	92
13) 1,1-DCE	1.55	63	9631	4.7501	ppb	91
14) t-Butanol	2.05	59	63668	90.0292	ppb	99
15) Acetonitrile	1.79	41	100503	98.9888	ppb	97
16) Methyl Acetate	1.84	43	27026	4.8759	ppb	100
17) Iodomethane	1.63	142	8089	4.5855	ppb	94
18) Acrylonitrile	2.10	52	11052	4.5827	ppb	88
19) Methylene chloride	1.90	84	32618	5.0415	ppb	93
20) Carbon disulfide	1.68	76	73767	4.7251	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	77279	4.9051	ppb	98
22) Trans-1,2-DCE	2.11	96	28104	4.9314	ppb	96
23) Diisopropyl Ether	2.63	45	85262	5.1277	ppb	99
24) 1,1-DCA	2.50	63	54489	4.8481	ppb	99
25) Vinyl Acetate	2.63	43	21489	5.3058	ppb	100
26) Ethyl tert Butyl Ether	3.05	59	68776	4.7796	ppb	94
27) MEK (2-Butanone)	3.24	43	15625	5.3137	ppb	95
28) Cis-1,2-DCE	3.15	96	31539	4.8529	ppb	98
29) 2,2-Dichloropropane	3.13	77	40641	4.8939	ppb	98
30) Chloroform	3.62	83	56857	5.1185	ppb	93
31) Bromochloromethane	3.46	128	18026	5.0658	ppb	98
33) 1,1,1-TCA	3.84	97	44105	4.9760	ppb	92
34) Cyclohexane	3.90	41	16598	4.4702	ppb	94
35) 1,1-Dichloropropene	4.11	75	31289	4.6307	ppb	95
36) 2,2,4-Trimethylpentane	4.61	57	56990	4.6497	ppb	# 76
38) Carbon Tetrachloride	4.09	117	35125	4.8306	ppb	97
39) Tert Amyl Methyl Ether	4.70	73	62739	4.7710	ppb	# 93
40) 1,2-DCA	4.47	62	41264	5.0226	ppb	93
41) Benzene	4.41	78	108250	4.6814	ppb	98
42) TCE	5.37	95	14194	5.0056	ppb	89

(#) = qualifier out of range (m) = manual integration  
 1026L07.D L1026W.M Mon Oct 29 06:55:25 2018

Data File : M:\LOKI\DATA\181026\1026L07.D  
 Acq On : 26 Oct 18 12:22  
 Sample : 5.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 6  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	420781	101.2984	ppb	98
44) 1,2-Dichloropropane	5.64	63	31448	5.0639	ppb	99
45) Bromodichloromethane	6.04	83	44221	4.9596	ppb	96
46) Methyl Cyclohexane	5.58	83	28307	4.5249	ppb	96
47) Dibromomethane	5.79	93	23137	4.9586	ppb	87
49) MIBK (methyl isobutyl ket	6.85	43	28137	5.1430	ppb	94
50) 1-Bromo-2-chloroethane	6.37	63	21368	4.7355	ppb	97
51) Cis-1,3-Dichloropropene	6.61	75	45720	5.0019	ppb	95
52) Toluene	6.98	91	118547	4.9487	ppb	98
53) Trans-1,3-Dichloropropene	7.29	75	42272	4.9178	ppb	98
54) 1,1,2-TCA	7.48	83	27307	5.1019	ppb	98
55) 2-Hexanone	7.83	43	17526	5.0546	ppb	98
58) 1,2-EDB	7.98	107	32552	5.0059	ppb	99
59) Tetrachloroethene	7.60	166	34790	4.9372	ppb	96
60) 1-Chlorohexane	8.60	91	23375	4.5504	ppb	94
61) 1,1,1,2-Tetrachloroethane	8.67	131	34108	4.9560	ppb	91
62) m&p-Xylene	8.85	91	91672	9.6039	ppb	97
63) o-Xylene	9.27	106	38109	4.5515	ppb	89
64) Styrene	9.29	104	36928	4.6691	ppb	94
66) 1,3-Dichloropropane	7.65	76	48341	4.8477	ppb	98
67) Dibromochloromethane	7.89	129	36107	4.8943	ppb	94
68) Chlorobenzene	8.55	112	81296	4.8159	ppb	95
69) Ethylbenzene	8.71	91	110477	4.6302	ppb	94
70) Bromoform	9.45	173	27649	4.9976	ppb	92
72) Isopropylbenzene	9.69	105	92204	4.4350	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	43347	4.5937	ppb	97
74) 1,2,3-Trichloropropane	10.04	110	13899	5.0642	ppb	95
75) t-1,4-Dichloro-2-Butene	10.09	53	9134	4.7121	ppb	90
76) Bromobenzene	9.96	156	38530	4.9266	ppb	94
77) n-Propylbenzene	10.13	91	71128	4.4308	ppb	98
78) 4-Ethyltoluene	10.26	105	89515	4.4847	ppb	99
79) 2-Chlorotoluene	10.19	91	78089	4.6667	ppb	96
80) 1,3,5-Trimethylbenzene	10.34	105	50544	4.0836	ppb	98
81) 4-Chlorotoluene	10.31	91	91283	4.7818	ppb	98
82) Tert-Butylbenzene	10.67	119	68712	4.5269	ppb	97
83) 1,2,4-Trimethylbenzene	10.73	105	77345	4.2485	ppb	98
84) Sec-Butylbenzene	10.91	105	98860	4.4947	ppb	98
85) p-Isopropyltoluene	11.08	119	91671	4.4907	ppb	98
86) Benzyl Chloride	11.25	91	51074	4.9354	ppb	99
87) 1,3-DCB	10.99	146	66347	4.7924	ppb	95
88) 1,4-DCB	11.09	146	70330	4.7318	ppb	94
89) n-Butylbenzene	11.52	91	75877	4.3842	ppb	95
90) 1,2-DCB	11.48	146	65287	4.8658	ppb	97
91) Hexachloroethane	11.74	117	22777	5.0546	ppb	91
92) 1,2-Dibromo-3-chloropropan	12.31	75	8125	4.6632	ppb	92
93) 1,2,4-Trichlorobenzene	13.20	180	36516	4.4950	ppb	95
94) Hexachlorobutadiene	13.41	225	21452	4.6056	ppb	96
95) Naphthalene	13.45	128	70733	5.0297	ppb	96
96) 1,2,3-Trichlorobenzene	13.71	180	21624	4.6683	ppb	93

Quantitation Report

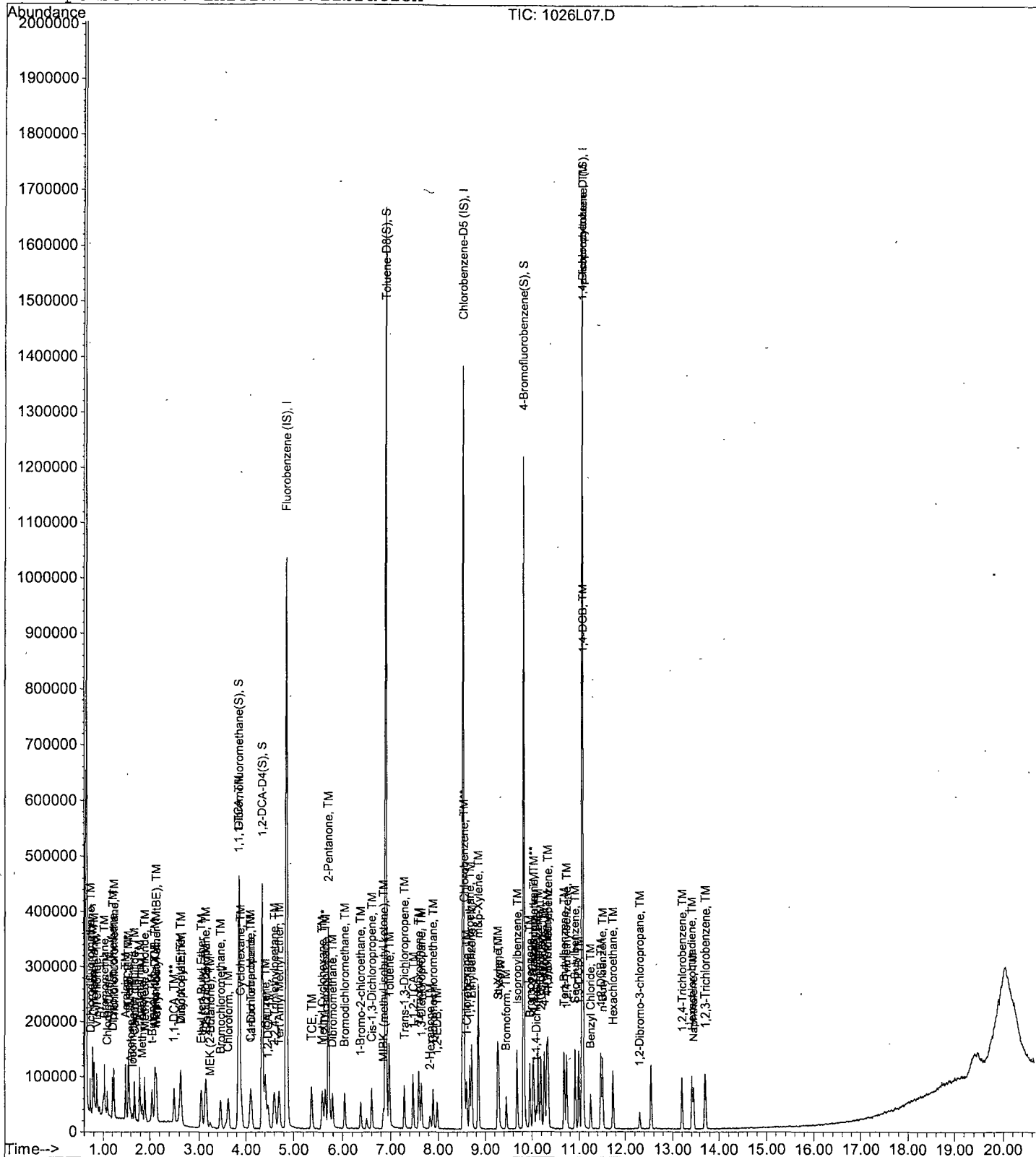
Data File : M:\LOKI\DATA\181026\1026L07.D  
Acq On : 26 Oct 18 12:22  
Sample : 5.0ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 6  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L08.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 10ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 7  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	526592	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	505536	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	278912	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	382323	26.4812	ppb	0.00
Spiked Amount	25.000		Recovery	= 105.924%		
37) 1,2-DCA-D4(S)	4.35	65	421224	26.9079	ppb	0.00
Spiked Amount	25.000		Recovery	= 107.632%		
57) Toluene-D8(S)	6.90	98	1311127	27.1804	ppb	0.00
Spiked Amount	25.000		Recovery	= 108.720%		
65) 4-Bromofluorobenzene(S)	9.83	95	447107	27.2003	ppb	0.00
Spiked Amount	25.000		Recovery	= 108.800%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	72472	9.7443	ppb	96
3) Freon 114	0.79	85	45764	8.9665	ppb	92
4) Chloromethane	0.81	50	79537	10.0526	ppb	99
5) Vinyl chloride	0.87	62	72846	10.4448	ppb	98
6) Bromomethane	1.03	94	59255	10.8319	ppb	97
7) Chloroethane	1.09	64	37935	9.5328	ppb	97
8) Dichlorofluoromethane	1.21	67	104273	9.8895	ppb	97
9) Trichlorofluoromethane	1.24	101	88360	9.7609	ppb	97
10) Acrolein	1.49	56	74598	116.9039	ppb #	98
11) Acetone	1.59	43	27603	9.4519	ppb	95
12) Freon-113	1.56	101	42796	9.1169	ppb	99
13) 1,1-DCE	1.54	63	19928	9.3342	ppb	97
14) t-Butanol	2.05	59	85501	114.8187	ppb	100
15) Acetonitrile	1.79	41	126977	118.7713	ppb	96
16) Methyl Acetate	1.84	43	54083	9.2664	ppb	97
17) Iodomethane	1.64	142	19448	8.3882	ppb	90
18) Acrylonitrile	2.10	52	23249	10.0007	ppb	94
19) Methylene chloride	1.90	84	66430	9.7509	ppb	97
20) Carbon disulfide	1.68	76	156404	9.5144	ppb	100
21) Methyl t-butyl ether (MtBE)	2.14	73	160687	9.6861	ppb	97
22) Trans-1,2-DCE	2.11	96	57297	9.5481	ppb	99
23) Diisopropyl Ether	2.63	45	172733	9.8656	ppb	94
24) 1,1-DCA	2.49	63	115174	9.7319	ppb	98
25) Vinyl Acetate	2.63	43	38835	9.1062	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	150801	9.9527	ppb	98
27) MEK (2-Butanone)	3.23	43	29194	9.4286	ppb	88
28) Cis-1,2-DCE	3.16	96	67403	9.8494	ppb	99
29) 2,2-Dichloropropane	3.13	77	85249	10.2004	ppb	98
30) Chloroform	3.62	83	117806	10.0718	ppb	97
31) Bromochloromethane	3.46	128	38417	10.2530	ppb	100
33) 1,1,1-TCA	3.83	97	90290	9.6741	ppb	93
34) Cyclohexane	3.89	41	37569	9.6090	ppb	97
35) 1,1-Dichloropropene	4.11	75	65346	9.1845	ppb	95
36) 2,2,4-Trimethylpentane	4.61	57	121315	9.3997	ppb	89
38) Carbon Tetrachloride	4.09	117	74629	9.7471	ppb	97
39) Tert Amyl Methyl Ether	4.70	73	139607	10.0822	ppb	98
40) 1,2-DCA	4.47	62	89015	10.2896	ppb	95
41) Benzene	4.41	78	241301	9.9104	ppb	99
42) TCE	5.37	95	28216	9.4500	ppb	97

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



Data File : M:\LOKI\DATA\181026\1026L08.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 10ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 7  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	561343	128.3375	ppb	98
44) 1,2-Dichloropropane	5.64	63	65117	9.9578	ppb	97
45) Bromodichloromethane	6.04	83	93532	9.9622	ppb	98
46) Methyl Cyclohexane	5.58	83	59683	9.0603	ppb	98
47) Dibromomethane	5.79	93	48104	9.7906	ppb	86
49) MIBK (methyl isobutyl ket	6.85	43	54041	9.3809	ppb	95
50) 1-Bromo-2-chloroethane	6.37	63	47312	9.9575	ppb	98
51) Cis-1,3-Dichloropropene	6.61	75	95750	9.9483	ppb	97
52) Toluene	6.97	91	256455	10.1669	ppb	98
53) Trans-1,3-Dichloropropene	7.29	75	90828	10.0350	ppb	95
54) 1,1,2-TCA	7.47	83	57502	10.2028	ppb	96
55) 2-Hexanone	7.82	43	35499	9.7230	ppb	98
58) 1,2-EDB	7.98	107	70287	10.6077	ppb	96
59) Tetrachloroethene	7.60	166	73834	10.2831	ppb	95
60) 1-Chlorohexane	8.60	91	52527	10.0351	ppb	100
61) 1,1,1,2-Tetrachloroethane	8.67	131	71337	10.1726	ppb	97
62) m&p-Xylene	8.85	91	215023	18.4221	ppb	100
63) o-Xylene	9.27	106	88477	10.3704	ppb	91
64) Styrene	9.29	104	92784	9.2645	ppb	98
66) 1,3-Dichloropropane	7.65	76	106876	10.5183	ppb	95
67) Dibromochloromethane	7.89	129	77052	10.2500	ppb	96
68) Chlorobenzene	8.55	112	175169	10.1837	ppb	99
69) Ethylbenzene	8.71	91	243015	9.9955	ppb	96
70) Bromoform	9.45	173	59638	10.5791	ppb	100
72) Isopropylbenzene	9.69	105	212410	10.0879	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	93008	9.7321	ppb	91
74) 1,2,3-Trichloropropane	10.04	110	27685	9.9599	ppb	92
75) t-1,4-Dichloro-2-Butene	10.09	53	18738	9.5446	ppb	96
76) Bromobenzene	9.96	156	81119	10.2412	ppb	99
77) n-Propylbenzene	10.13	91	165888	10.2033	ppb	98
78) 4-Ethyltoluene	10.26	105	216107	10.6904	ppb	99
79) 2-Chlorotoluene	10.19	91	177648	10.4825	ppb	97
80) 1,3,5-Trimethylbenzene	10.34	105	123512	9.4522	ppb	99
81) 4-Chlorotoluene	10.31	91	210980	10.9126	ppb	99
82) Tert-Butylbenzene	10.67	119	157165	10.2238	ppb	98
83) 1,2,4-Trimethylbenzene	10.73	105	189355	9.3894	ppb	97
84) Sec-Butylbenzene	10.91	105	231854	10.4084	ppb	100
85) p-Isopropyltoluene	11.08	119	212102	10.2591	ppb	98
86) Benzyl Chloride	11.25	91	100111	9.5519	ppb	98
87) 1,3-DCB	10.99	146	144789	10.3264	ppb	98
88) 1,4-DCB	11.09	146	152999	10.1638	ppb	97
89) n-Butylbenzene	11.52	91	171481	9.7832	ppb	98
90) 1,2-DCB	11.48	146	139587	10.2721	ppb	97
91) Hexachloroethane	11.74	117	44106	9.6643	ppb	89
92) 1,2-Dibromo-3-chloropropan	12.31	75	16267	9.2183	ppb	94
93) 1,2,4-Trichlorobenzene	13.20	180	81368	9.8897	ppb	96
94) Hexachlorobutadiene	13.41	225	44004	9.3282	ppb	92
95) Naphthalene	13.45	128	166397	9.0872	ppb	100
96) 1,2,3-Trichlorobenzene	13.71	180	47416	10.1072	ppb	98

Quantitation Report

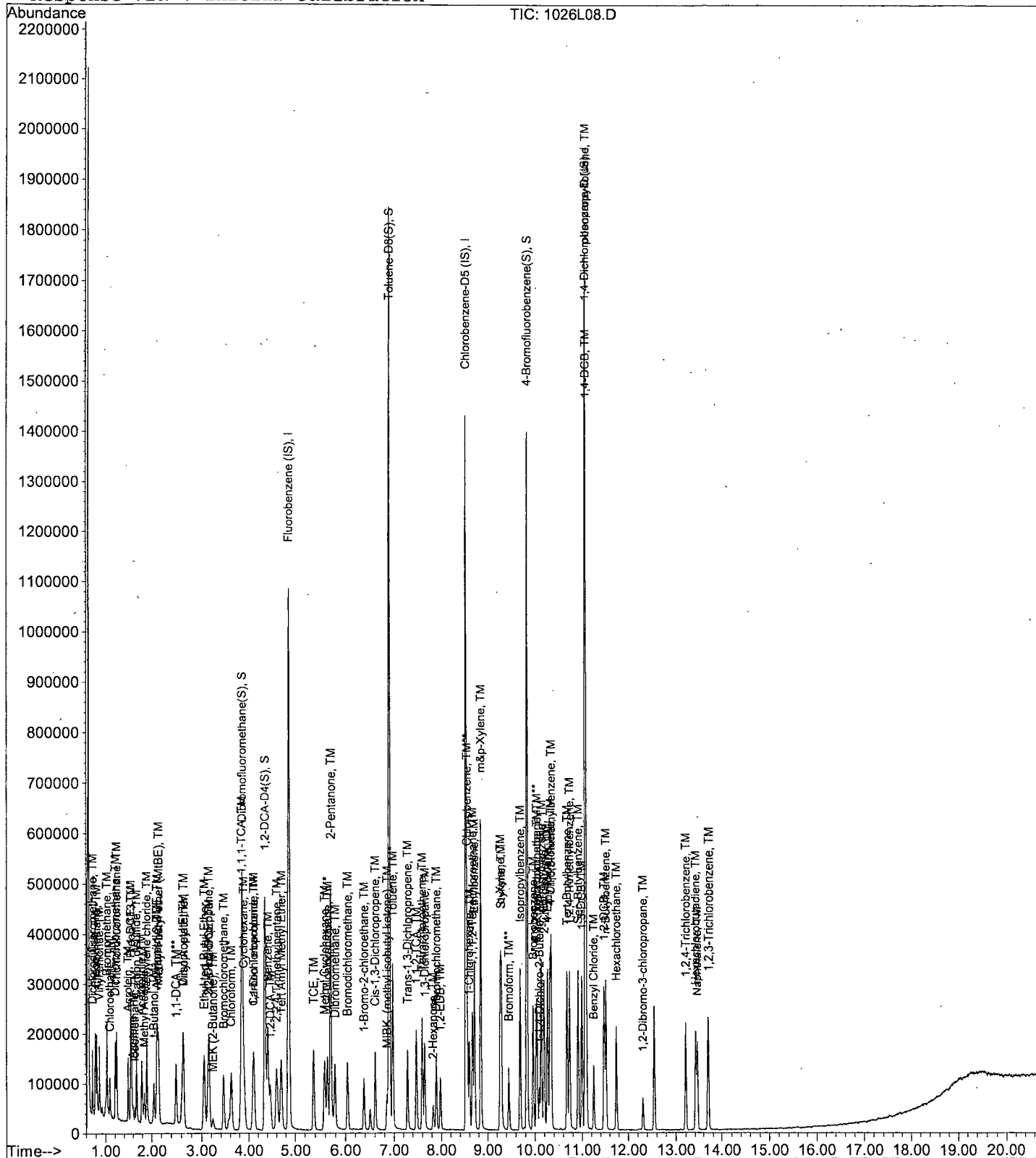
Data File : M:\LOKI\DATA\181026\1026L08.D  
Acq On : 26 Oct 18 12:50  
Sample : 10ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 7  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L09.D  
 Acq On : 26 Oct 18 13:19  
 Sample : 20ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 8  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	538688	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	513856	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	292416	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	694433	49.6646	ppb	0.00
Spiked Amount	25.000		Recovery	= 198.660%		
37) 1,2-DCA-D4(S)	4.35	65	768279	51.3835	ppb	0.00
Spiked Amount	25.000		Recovery	= 205.536%		
57) Toluene-D8(S)	6.90	98	2497738	50.9412	ppb	0.00
Spiked Amount	25.000		Recovery	= 203.764%		
65) 4-Bromofluorobenzene(S)	9.83	95	876354	52.4509	ppb	0.00
Spiked Amount	25.000		Recovery	= 209.804%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	154368	20.2896	ppb	96
3) Freon 114	0.79	85	105676	20.2401	ppb	92
4) Chloromethane	0.81	50	159183	20.5267	ppb	100
5) Vinyl chloride	0.87	62	145292	20.3644	ppb	99
6) Bromomethane	1.03	94	115660	22.6256	ppb	98
7) Chloroethane	1.09	64	78152	19.1981	ppb	98
8) Dichlorofluoromethane	1.20	67	208270	19.3092	ppb	100
9) Trichlorofluoromethane	1.23	101	182837	19.7440	ppb	98
10) Acrolein	1.49	56	146004	223.6678	ppb #	95
11) Acetone	1.60	43	50452	20.2570	ppb #	86
12) Freon-113	1.56	101	97702	20.3462	ppb	94
13) 1,1-DCE	1.55	63	40664	18.6191	ppb	93
14) t-Butanol	2.05	59	164176	215.5203	ppb	97
15) Acetonitrile	1.79	41	247127	225.9662	ppb	98
16) Methyl Acetate	1.84	43	111921	18.7455	ppb	98
17) Iodomethane	1.64	142	50456	18.7817	ppb	87
18) Acrylonitrile	2.10	52	46666	20.4383	ppb	91
19) Methylene chloride	1.89	84	131009	18.7982	ppb	94
20) Carbon disulfide	1.68	76	317658	18.8898	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	326935	19.2649	ppb	99
22) Trans-1,2-DCE	2.11	96	120782	19.6754	ppb	97
23) Diisopropyl Ether	2.64	45	330504	18.4529	ppb	100
24) 1,1-DCA	2.49	63	226918	18.7435	ppb	97
25) Vinyl Acetate	2.63	43	76981	17.6455	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	304202	19.6262	ppb	98
27) MEK (2-Butanone)	3.23	43	60166	18.9951	ppb	88
28) Cis-1,2-DCE	3.15	96	138155	19.7348	ppb	98
29) 2,2-Dichloropropane	3.13	77	170975	20.4358	ppb #	95
30) Chloroform	3.62	83	235766	19.7042	ppb	96
31) Bromochloromethane	3.46	128	75919	19.8068	ppb	93
33) 1,1,1-TCA	3.83	97	187473	19.6357	ppb	93
34) Cyclohexane	3.90	41	79094	19.7755	ppb	90
35) 1,1-Dichloropropene	4.11	75	141599	19.4552	ppb	94
36) 2,2,4-Trimethylpentane	4.61	57	270812	20.5119	ppb	94
38) Carbon Tetrachloride	4.09	117	162724	20.7757	ppb	96
39) Tert Amyl Methyl Ether	4.70	73	297986	21.0368	ppb	98
40) 1,2-DCA	4.47	62	174615	19.7311	ppb	97
41) Benzene	4.41	78	492266	19.7636	ppb	100
42) TCE	5.36	95	58400	19.1199	ppb	95

Data File : M:\LOKI\DATA\181026\1026L09.D  
 Acq On : 26 Oct 18 13:19  
 Sample : 20ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 8  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	1192715	266.5625	ppb	99
44) 1,2-Dichloropropane	5.64	63	132596	19.8216	ppb	99
45) Bromodichloromethane	6.04	83	187599	19.5327	ppb	99
46) Methyl Cyclohexane	5.58	83	135421	20.0962	ppb	98
47) Dibromomethane	5.79	93	97440	19.3866	ppb	92
49) MIBK (methyl isobutyl ket	6.85	43	127877	21.6995	ppb	93
50) 1-Bromo-2-chloroethane	6.37	63	98216	20.2069	ppb	100
51) Cis-1,3-Dichloropropene	6.61	75	199338	20.2458	ppb	96
52) Toluene	6.97	91	536079	20.7751	ppb	97
53) Trans-1,3-Dichloropropene	7.29	75	187734	20.2758	ppb	98
54) 1,1,2-TCA	7.47	83	112358	19.4884	ppb	98
55) 2-Hexanone	7.82	43	72028	19.2850	ppb	95
58) 1,2-EDB	7.98	107	140567	20.8708	ppb	98
59) Tetrachloroethene	7.59	166	151835	20.8041	ppb	94
60) 1-Chlorohexane	8.60	91	121903	22.9121	ppb	96
61) 1,1,1,2-Tetrachloroethane	8.67	131	142907	20.0484	ppb	97
62) m&p-Xylene	8.85	91	481159	37.1550	ppb	100
63) o-Xylene	9.27	106	193489	22.3117	ppb	99
64) Styrene	9.29	104	212736	18.9714	ppb	96
66) 1,3-Dichloropropane	7.65	76	214943	20.8113	ppb	98
67) Dibromochloromethane	7.89	129	154783	20.2569	ppb	99
68) Chlorobenzene	8.55	112	356456	20.3875	ppb	100
69) Ethylbenzene	8.71	91	542807	21.9647	ppb	96
70) Bromoform	9.45	173	122818	21.4337	ppb	100
72) Isopropylbenzene	9.69	105	473198	21.4355	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	193070	19.2693	ppb	95
74) 1,2,3-Trichloropropane	10.04	110	58401	20.0399	ppb	95
75) t-1,4-Dichloro-2-Butene	10.09	53	39021	18.9583	ppb	97
76) Bromobenzene	9.96	156	167724	20.1972	ppb	98
77) n-Propylbenzene	10.13	91	376640	22.0962	ppb	98
78) 4-Ethyltoluene	10.26	105	487551	23.0043	ppb	99
79) 2-Chlorotoluene	10.19	91	386663	21.7623	ppb	99
80) 1,3,5-Trimethylbenzene	10.34	105	286848	20.5936	ppb	100
81) 4-Chlorotoluene	10.31	91	458250	22.6077	ppb	100
82) Tert-Butylbenzene	10.67	119	353963	21.9623	ppb	98
83) 1,2,4-Trimethylbenzene	10.73	105	434178	19.7978	ppb	96
84) Sec-Butylbenzene	10.91	105	537842	23.0297	ppb	100
85) p-Isopropyltoluene	11.08	119	484282	22.3424	ppb	99
86) Benzyl Chloride	11.25	91	210494	19.1565	ppb	99
87) 1,3-DCB	10.99	146	302382	20.5701	ppb	99
88) 1,4-DCB	11.09	146	320873	20.3314	ppb	96
89) n-Butylbenzene	11.52	91	384279	20.9112	ppb	98
90) 1,2-DCB	11.48	146	288789	20.2703	ppb	99
91) Hexachloroethane	11.75	117	92091	19.2467	ppb	94
92) 1,2-Dibromo-3-chloropropan	12.31	75	33496	18.1051	ppb	96
93) 1,2,4-Trichlorobenzene	13.20	180	176202	20.4271	ppb	96
94) Hexachlorobutadiene	13.41	225	95041	19.2169	ppb	98
95) Naphthalene	13.45	128	378527	17.4216	ppb	99
96) 1,2,3-Trichlorobenzene	13.71	180	104104	21.1660	ppb	99

Quantitation Report

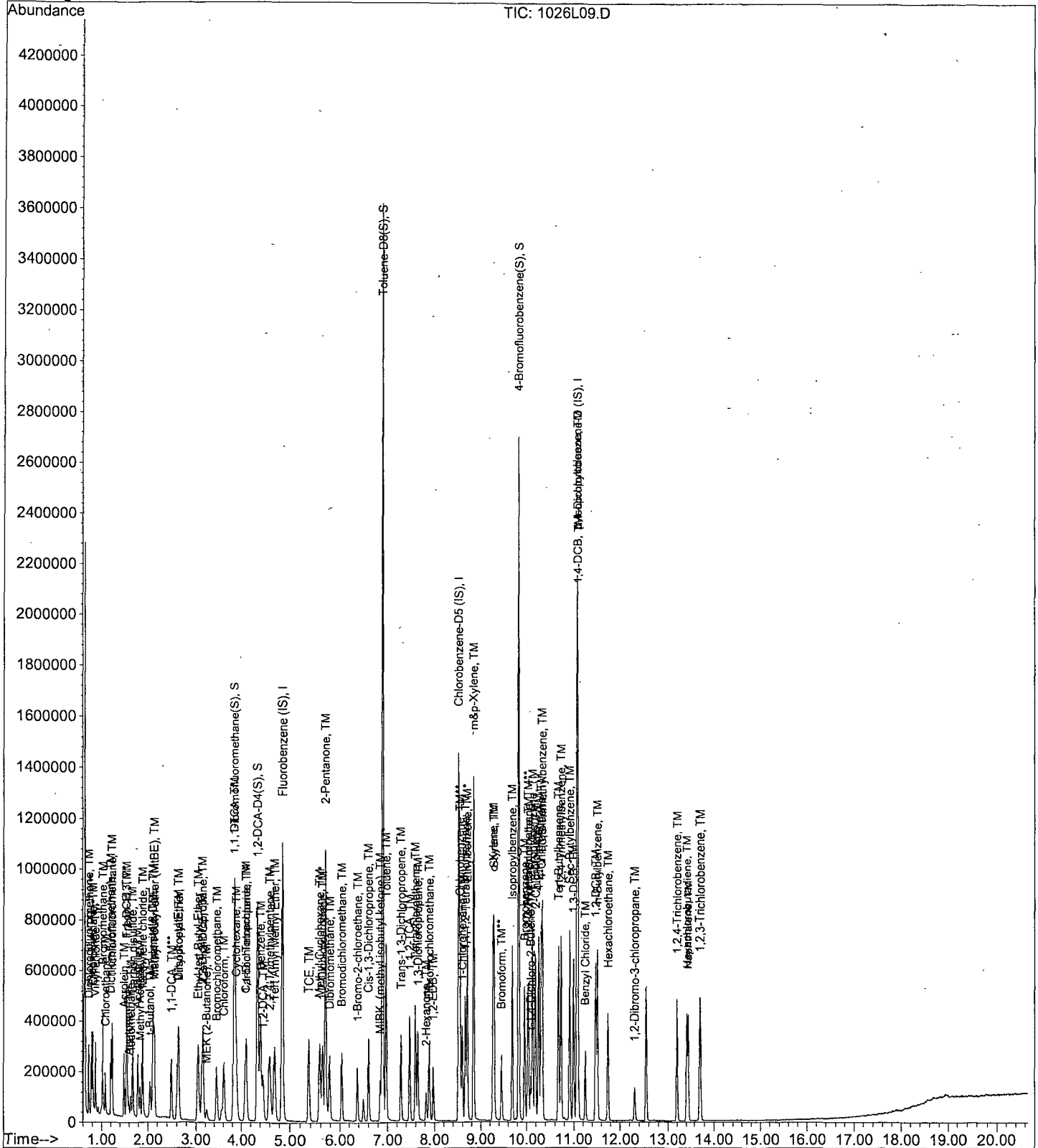
Data File : M:\LOKI\DATA\181026\1026L09.D  
 Acq On : 26 Oct 18 13:19  
 Sample : 20ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 8  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L10.D Vial: 9  
 Acq On : 26 Oct 18 13:47 Operator: PM,DG,SV,CMM,KV  
 Sample : 40ug/L VOC STD 18/10/26 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018 Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	553216	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	542016	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	306688	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	711689	49.5550	ppb	0.00
Spiked Amount	25.000		Recovery	=	198.220%	
37) 1,2-DCA-D4(S)	4.35	65	784592	51.0722	ppb	0.00
Spiked Amount	25.000		Recovery	=	204.288%	
57) Toluene-D8(S)	6.90	98	2595482	50.1845	ppb	0.00
Spiked Amount	25.000		Recovery	=	200.736%	
65) 4-Bromofluorobenzene(S)	9.83	95	907950	51.5186	ppb	0.00
Spiked Amount	25.000		Recovery	=	206.076%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	312896	40.0460	ppb	99
3) Freon 114	0.79	85	213056	39.7349	ppb	90
4) Chloromethane	0.81	50	322973	41.4305	ppb	99
5) Vinyl chloride	0.87	62	289916	39.5680	ppb	98
6) Bromomethane	1.03	94	220002	43.7441	ppb	97
7) Chloroethane	1.09	64	157403	37.6508	ppb	100
8) Dichlorofluoromethane	1.20	67	419264	37.8503	ppb	98
9) Trichlorofluoromethane	1.23	101	371728	39.0877	ppb	98
10) Acrolein	1.49	56	108301	161.5526	ppb	# 98
11) Acetone	1.60	43	98821	42.5209	ppb	# 88
12) Freon-113	1.56	101	195033	39.5485	ppb	94
13) 1,1-DCE	1.54	63	79680	35.5255	ppb	94
14) t-Butanol	2.05	59	122907	157.1078	ppb	96
15) Acetonitrile	1.79	41	180728	160.9131	ppb	98
16) Methyl Acetate	1.84	43	220509	35.9629	ppb	98
17) Iodomethane	1.63	142	114208	39.4431	ppb	92
18) Acrylonitrile	2.10	52	94322	41.0458	ppb	91
19) Methylene chloride	1.89	84	264380	36.9391	ppb	95
20) Carbon disulfide	1.68	76	643979	37.2892	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	666599	38.2483	ppb	98
22) Trans-1,2-DCE	2.11	96	235075	37.2882	ppb	97
23) Diisopropyl Ether	2.63	45	726988	39.5236	ppb	96
24) 1,1-DCA	2.50	63	456778	36.7392	ppb	98
25) Vinyl Acetate	2.63	43	168468	37.6020	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	649461	40.8009	ppb	97
27) MEK (2-Butanone)	3.23	43	129152	39.7039	ppb	90
28) Cis-1,2-DCE	3.15	96	281784	39.1945	ppb	98
29) 2,2-Dichloropropane	3.13	77	343917	40.4635	ppb	96
30) Chloroform	3.62	83	472850	38.4808	ppb	92
31) Bromochloromethane	3.46	128	150291	38.1803	ppb	95
33) 1,1,1-TCA	3.83	97	373675	38.1105	ppb	95
34) Cyclohexane	3.90	41	161374	39.2880	ppb	85
35) 1,1-Dichloropropene	4.11	75	296818	39.7108	ppb	93
36) 2,2,4-Trimethylpentane	4.61	57	564455	41.6303	ppb	95
38) Carbon Tetrachloride	4.09	117	328542	40.8448	ppb	96
39) Tert Amyl Methyl Ether	4.70	73	635878	43.7120	ppb	97
40) 1,2-DCA	4.46	62	360243	39.6377	ppb	95
41) Benzene	4.41	78	1005113	39.2938	ppb	99
42) TCE	5.37	95	121400	38.7020	ppb	95

Data File : M:\LOKI\DATA\181026\1026L10.D  
 Acq On : 26 Oct 18 13:47  
 Sample : 40ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 9  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	875854	190.6060	ppb	98
44) 1,2-Dichloropropane	5.64	63	272621	39.6835	ppb	99
45) Bromodichloromethane	6.04	83	382481	38.7780	ppb	99
46) Methyl Cyclohexane	5.59	83	287160	41.4948	ppb	99
47) Dibromomethane	5.79	93	194078	37.5997	ppb	90
49) MIBK (methyl isobutyl ket	6.85	43	238819	39.4611	ppb	92
50) 1-Bromo-2-chloroethane	6.37	63	200192	40.1058	ppb	100
51) Cis-1,3-Dichloropropene	6.61	75	418570	41.3957	ppb	98
52) Toluene	6.97	91	1105755	41.7270	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	389231	40.9342	ppb	100
54) 1,1,2-TCA	7.47	83	228943	38.6671	ppb	97
55) 2-Hexanone	7.82	43	156193	40.7214	ppb	98
58) 1,2-EDB	7.98	107	290829	40.9377	ppb	97
59) Tetrachloroethene	7.60	166	303873	39.4729	ppb	98
60) 1-Chlorohexane	8.60	91	268497	47.8431	ppb	92
61) 1,1,1,2-Tetrachloroethane	8.67	131	289246	38.4701	ppb	99
62) m&p-Xylene	8.85	91	1102533	77.3955	ppb	100
63) o-Xylene	9.27	106	424480	46.4048	ppb	97
64) Styrene	9.29	104	468032	37.9042	ppb	99
66) 1,3-Dichloropropane	7.65	76	447303	41.0588	ppb	98
67) Dibromochloromethane	7.89	129	320346	39.7464	ppb	95
68) Chlorobenzene	8.55	112	733514	39.7737	ppb	99
69) Ethylbenzene	8.71	91	1175141	45.0816	ppb	97
70) Bromoform	9.45	173	245442	40.6081	ppb	100
72) Isopropylbenzene	9.69	105	1061428	45.8443	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	382594	36.4078	ppb	95
74) 1,2,3-Trichloropropane	10.04	110	118004	38.6079	ppb	97
75) t-1,4-Dichloro-2-Butene	10.09	53	81237	37.6323	ppb	92
76) Bromobenzene	9.96	156	343750	39.4678	ppb	98
77) n-Propylbenzene	10.13	91	837376	46.8398	ppb	97
78) 4-Ethyltoluene	10.26	105	1072183	48.2350	ppb	99
79) 2-Chlorotoluene	10.19	91	820320	44.0209	ppb	99
80) 1,3,5-Trimethylbenzene	10.34	105	618820	42.0595	ppb	99
81) 4-Chlorotoluene	10.31	91	956370	44.9868	ppb	99
82) Tert-Butylbenzene	10.67	119	772262	45.6867	ppb	98
83) 1,2,4-Trimethylbenzene	10.73	105	966025	41.3026	ppb	96
84) Sec-Butylbenzene	10.91	105	1163305	47.4932	ppb	99
85) p-Isopropyltoluene	11.08	119	1028910	45.2598	ppb	99
86) Benzyl Chloride	11.25	91	447039	38.7906	ppb	99
87) 1,3-DCB	10.99	146	623996	40.4732	ppb	99
88) 1,4-DCB	11.09	146	645934	39.0235	ppb	97
89) n-Butylbenzene	11.52	91	854784	44.3499	ppb	97
90) 1,2-DCB	11.48	146	603500	40.3887	ppb	98
91) Hexachloroethane	11.75	117	190651	37.9911	ppb	94
92) 1,2-Dibromo-3-chloropropan	12.31	75	72631	37.4312	ppb	96
93) 1,2,4-Trichlorobenzene	13.20	180	389525	43.0561	ppb	97
94) Hexachlorobutadiene	13.41	225	199340	38.4300	ppb	96
95) Naphthalene	13.45	128	909888	37.3934	ppb	98
96) 1,2,3-Trichlorobenzene	13.71	180	218752	42.4061	ppb	100

Quantitation Report

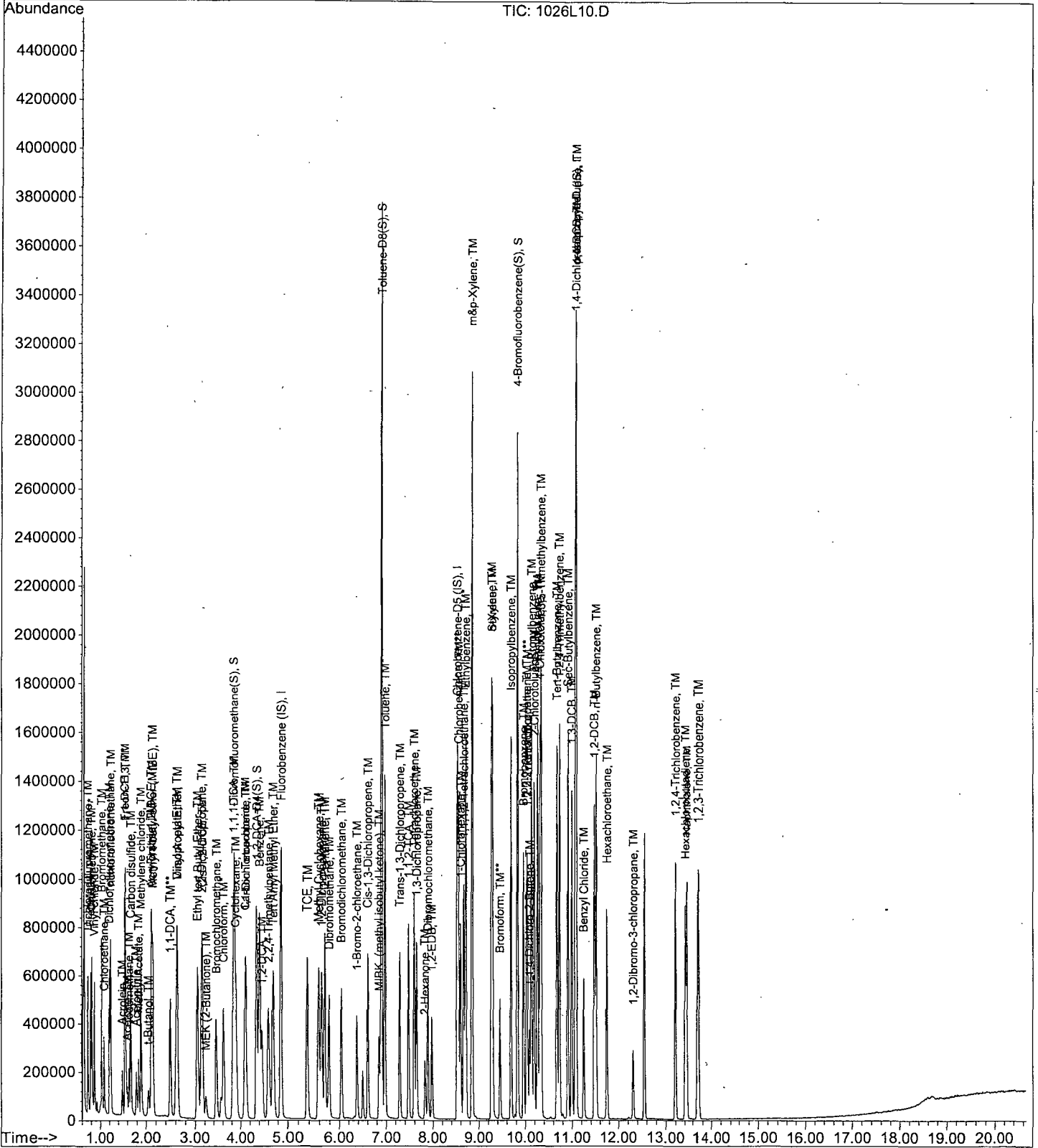
Data File : M:\LOKI\DATA\181026\1026L10.D  
 Acq On : 26 Oct 18 13:47  
 Sample : 40ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 9  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration





Data File : M:\LOKI\DATA\181026\1026L11.D Vial: 10  
 Acq On : 26 Oct 18 14:16 Operator: PM,DG,SV,CMM,KV  
 Sample : 100ug/L VOC STD 18/10/26 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018 Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.86	96	543168	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	516992	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	330368	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Dibromofluoromethane(S)	3.85	111	1288990	94.2941	ppb	0.00
Spiked Amount 25.000			Recovery = 377.176%			
37) 1,2-DCA-D4 (S)	4.35	65	1428480	98.4238	ppb	0.00
Spiked Amount 25.000			Recovery = 393.696%			
57) Toluene-D8 (S)	6.90	98	4870231	98.7255	ppb	0.00
Spiked Amount 25.000			Recovery = 394.900%			
65) 4-Bromofluorobenzene(S)	9.83	95	1754528	104.3737	ppb	0.00
Spiked Amount 25.000			Recovery = 417.496%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.72	85	775296	101.0620	ppb	97
3) Freon 114	0.79	85	530727	100.8115	ppb	91
4) Chloromethane	0.81	50	751116	99.3644	ppb	99
5) Vinyl chloride	0.87	62	697865	97.0073	ppb	99
6) Bromomethane	1.03	94	470846	97.8958	ppb	100
7) Chloroethane	1.08	64	246296	60.0038	ppb	99
8) Dichlorofluoromethane	1.20	67	1011038	92.9628	ppb	100
9) Trichlorofluoromethane	1.22	101	869492	93.1195	ppb	98
10) Acrolein	1.49	56	119522	181.5891	ppb	# 95
11) Acetone	1.60	43	214134	99.0110	ppb	90
12) Freon-113	1.55	101	465612	96.1626	ppb	95
13) 1,1-DCE	1.54	63	196529	89.2438	ppb	98
14) t-Butanol	2.07	59	154831	201.5763	ppb	98
15) Acetonitrile	1.79	41	198553	180.0540	ppb	97
16) Methyl Acetate	1.84	43	534374	88.7635	ppb	96
17) Iodomethane	1.63	142	293504	100.6163	ppb	92
18) Acrylonitrile	2.10	52	221865	99.5171	ppb	94
19) Methylene chloride	1.89	84	626293	89.1243	ppb	92
20) Carbon disulfide	1.67	76	1550711	91.4539	ppb	98
21) Methyl t-butyl ether (MtBE)	2.14	73	1583614	92.5459	ppb	98
22) Trans-1,2-DCE	2.11	96	568103	91.7809	ppb	98
23) Diisopropyl Ether	2.64	45	1719467	95.2103	ppb	98
24) 1,1-DCA	2.49	63	1079130	88.4014	ppb	98
25) Vinyl Acetate	2.64	43	384458	87.3982	ppb	# 99
26) Ethyl tert Butyl Ether	3.05	59	1629892	104.2884	ppb	99
27) MEK (2-Butanone)	3.23	43	297432	93.1280	ppb	91
28) Cis-1,2-DCE	3.15	96	692193	98.0611	ppb	98
29) 2,2-Dichloropropane	3.13	77	826674	99.7205	ppb	97
30) Chloroform	3.62	83	1111028	92.0886	ppb	93
31) Bromochloromethane	3.46	128	336164	86.9798	ppb	94
33) 1,1,1-TCA	3.83	97	898007	93.2805	ppb	93
34) Cyclohexane	3.89	41	412380	102.2549	ppb	83
35) 1,1-Dichloropropene	4.11	75	744290	101.4193	ppb	94
36) 2,2,4-Trimethylpentane	4.61	57	1462269	109.8419	ppb	88
38) Carbon Tetrachloride	4.09	117	796507	100.8546	ppb	96
39) Tert Amyl Methyl Ether	4.70	73	1594044	111.6060	ppb	95
40) 1,2-DCA	4.46	62	835170	93.5940	ppb	94
41) Benzene	4.41	78	2434775	96.9458	ppb	100
42) TCE	5.36	95	304192	98.7695	ppb	96

(#) = qualifier out of range (m) = manual integration  
 1026L11.D L1026W.M Mon Oct 29 06:55:40 2018

Data File : M:\LOKI\DATA\181026\1026L11.D  
 Acq On : 26 Oct 18 14:16  
 Sample : 100ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 10  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	958198	212.3835	ppb	100
44) 1,2-Dichloropropane	5.64	63	637973	94.5831	ppb	99
45) Bromodichloromethane	6.04	83	901140	93.0525	ppb	100
46) Methyl Cyclohexane	5.58	83	778712	114.6060	ppb	99
47) Dibromomethane	5.79	93	457827	90.3379	ppb	91
49) MIBK (methyl isobutyl ket	6.85	43	599499	100.8903	ppb	93
50) 1-Bromo-2-chloroethane	6.37	63	476608	97.2483	ppb	99
51) Cis-1,3-Dichloropropene	6.61	75	1049793	105.7430	ppb	98
52) Toluene	6.97	91	2706244	104.0124	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	957584	102.5690	ppb	98
54) 1,1,2-TCA	7.47	83	540684	93.0075	ppb	96
55) 2-Hexanone	7.82	43	397453	105.5378	ppb	95
58) 1,2-EDB	7.98	107	687129	101.4034	ppb	98
59) Tetrachloroethene	7.60	166	754773	102.7901	ppb	96
60) 1-Chlorohexane	8.60	91	727935	135.9882	ppb	89
61) 1,1,1,2-Tetrachloroethane	8.67	131	695184	96.9358	ppb	97
62) m&p-Xylene	8.85	91	2805200	201.7306	ppb	99
63) o-Xylene	9.27	106	1104769	126.6208	ppb	97
64) Styrene	9.29	104	1222144	101.1023	ppb	97
66) 1,3-Dichloropropane	7.65	76	1074255	103.3809	ppb	97
67) Dibromochloromethane	7.89	129	768983	100.0284	ppb	97
68) Chlorobenzene	8.55	112	1796449	102.1248	ppb	99
69) Ethylbenzene	8.71	91	2972354	119.5470	ppb	96
70) Bromoform	9.45	173	595426	103.2810	ppb	97
72) Isopropylbenzene	9.69	105	2815956	112.9066	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	937001	82.7742	ppb	95
74) 1,2,3-Trichloropropane	10.04	110	289809	88.0218	ppb	95
75) t-1,4-Dichloro-2-Butene	10.09	53	213174	91.6726	ppb	96
76) Bromobenzene	9.96	156	837446	89.2599	ppb	99
77) n-Propylbenzene	10.13	91	2215814	115.0607	ppb	97
78) 4-Ethyltoluene	10.26	105	2778255	116.0285	ppb	98
79) 2-Chlorotoluene	10.19	91	2055810	102.4135	ppb	99
80) 1,3,5-Trimethylbenzene	10.34	105	1577835	99.1665	ppb	100
81) 4-Chlorotoluene	10.31	91	2410773	105.2723	ppb	100
82) Tert-Butylbenzene	10.67	119	2066769	113.5052	ppb	99
83) 1,2,4-Trimethylbenzene	10.73	105	2532211	99.6147	ppb	96
84) Sec-Butylbenzene	10.91	105	3089057	117.0747	ppb	99
85) p-Isopropyltoluene	11.08	119	2744042	112.0534	ppb	99
86) Benzyl Chloride	11.25	91	1262087	101.6644	ppb	98
87) 1,3-DCB	10.99	146	1592038	95.8601	ppb	99
88) 1,4-DCB	11.09	146	1650079	92.5427	ppb	97
89) n-Butylbenzene	11.51	91	2383099	114.7829	ppb	98
90) 1,2-DCB	11.48	146	1608094	99.9064	ppb	99
91) Hexachloroethane	11.75	117	480289	88.8473	ppb	95
92) 1,2-Dibromo-3-chloropropan	12.31	75	192835	92.2564	ppb	97
93) 1,2,4-Trichlorobenzene	13.20	180	1163249	119.3633	ppb	97
94) Hexachlorobutadiene	13.41	225	555782	99.4670	ppb	97
95) Naphthalene	13.44	128	2756349	101.6013	ppb	98
96) 1,2,3-Trichlorobenzene	13.71	180	674688	121.4166	ppb	99

Quantitation Report

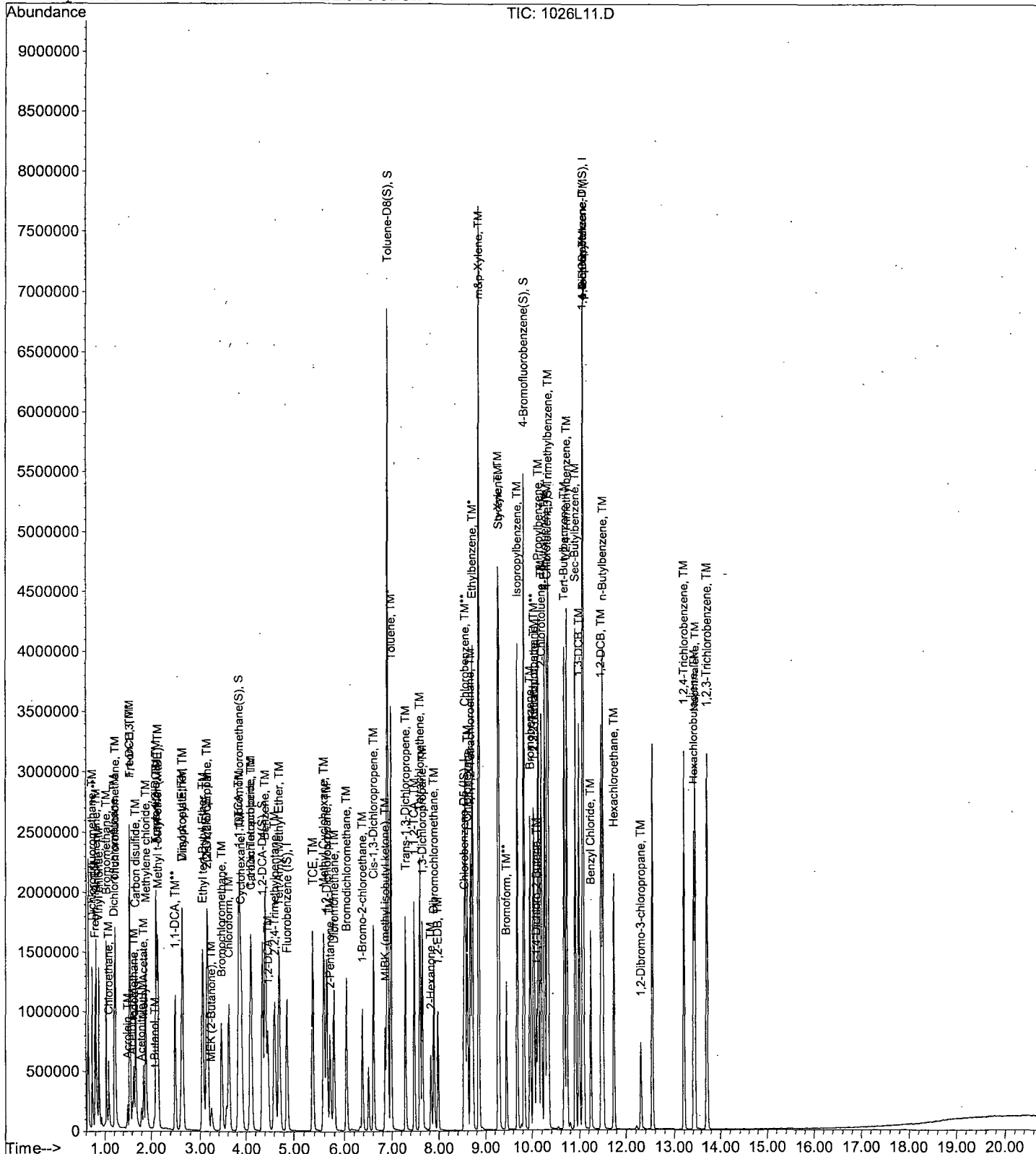
Data File : M:\LOKI\DATA\181026\1026L11.D  
Acq On : 26 Oct 18 14:16  
Sample : 100ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 10  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

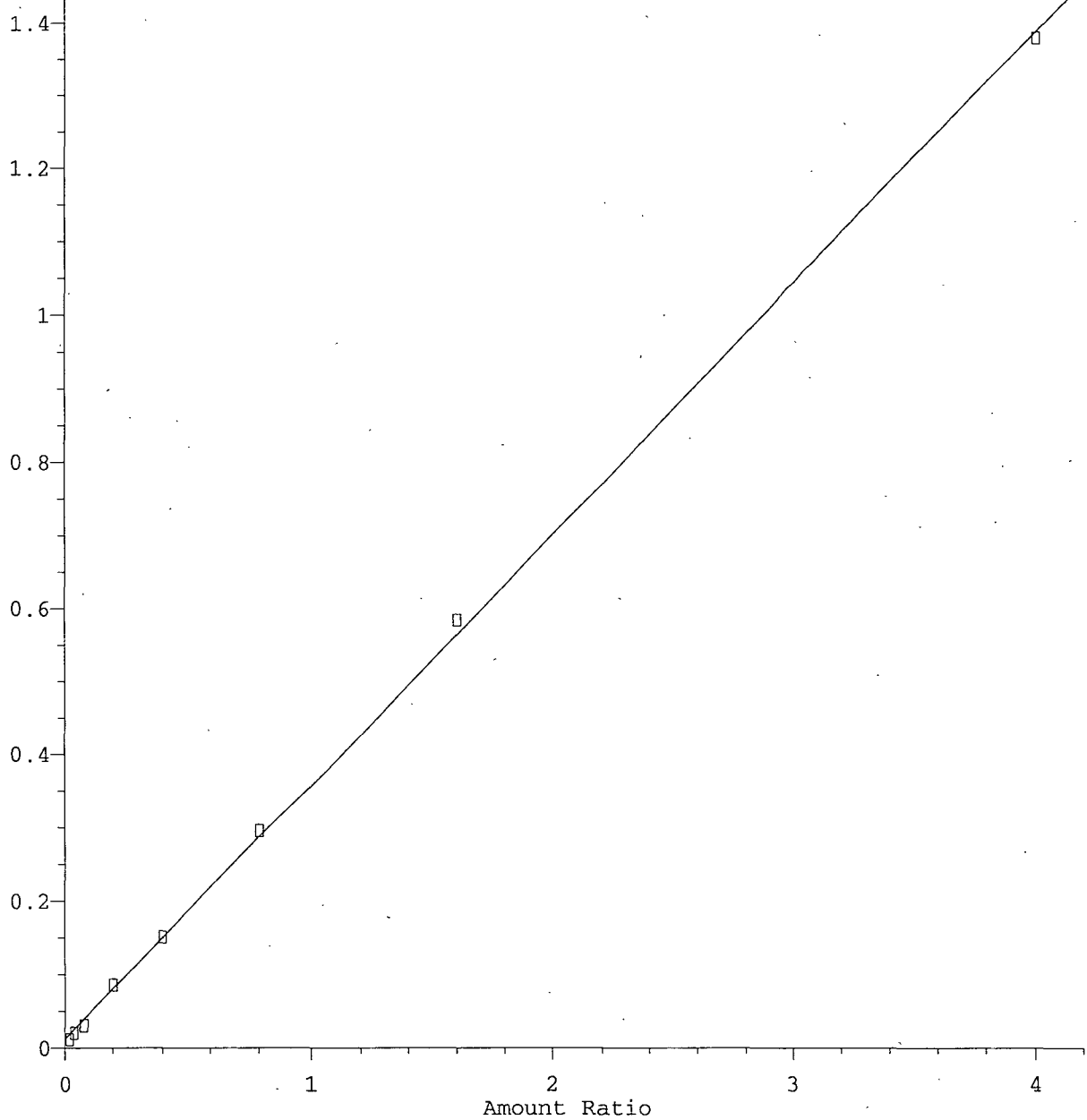
Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Chloromethane

Response Ratio

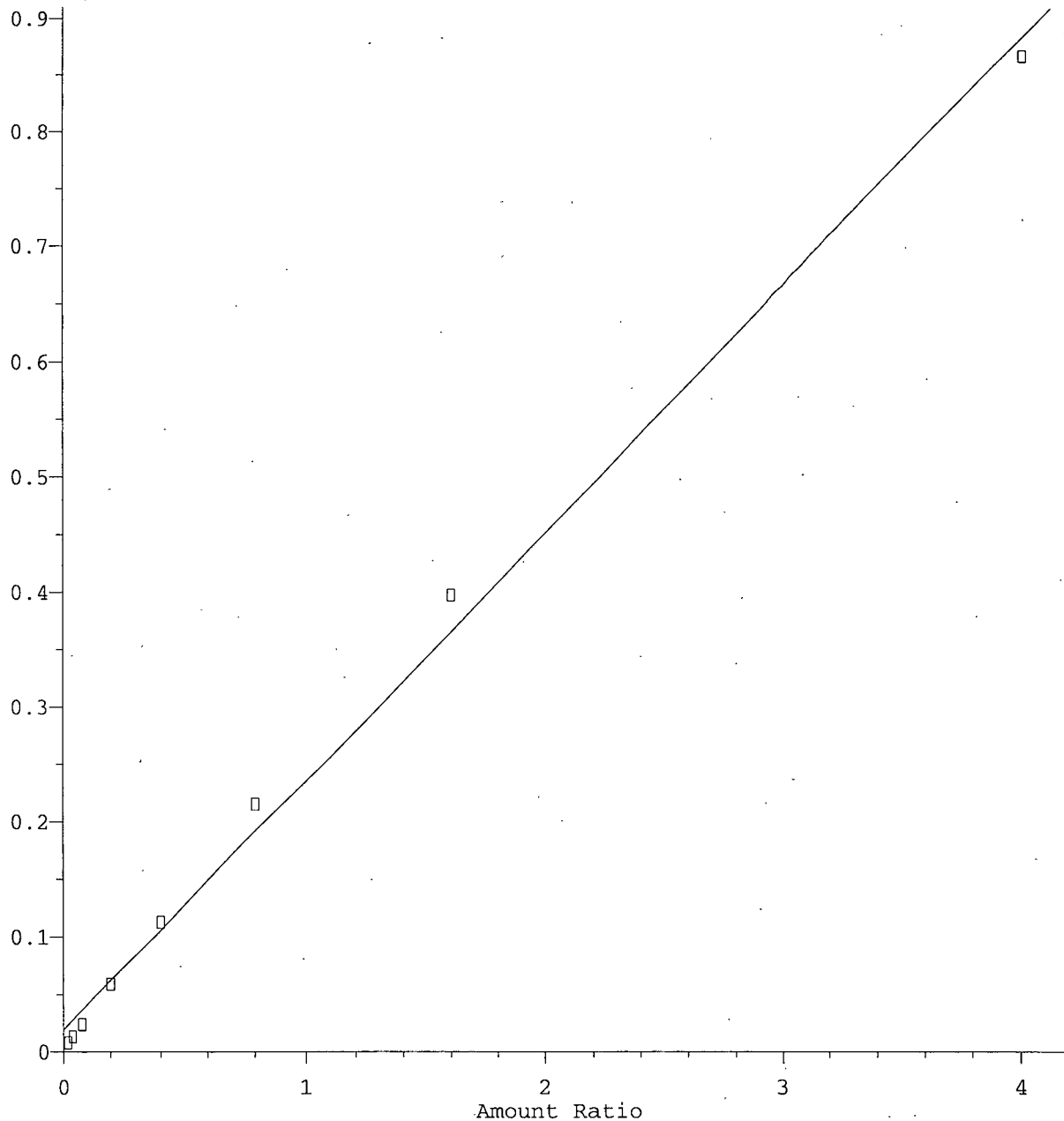


Resp Ratio = 3.45e-001 \* Amt + 1.24e-002  
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

Bromomethane

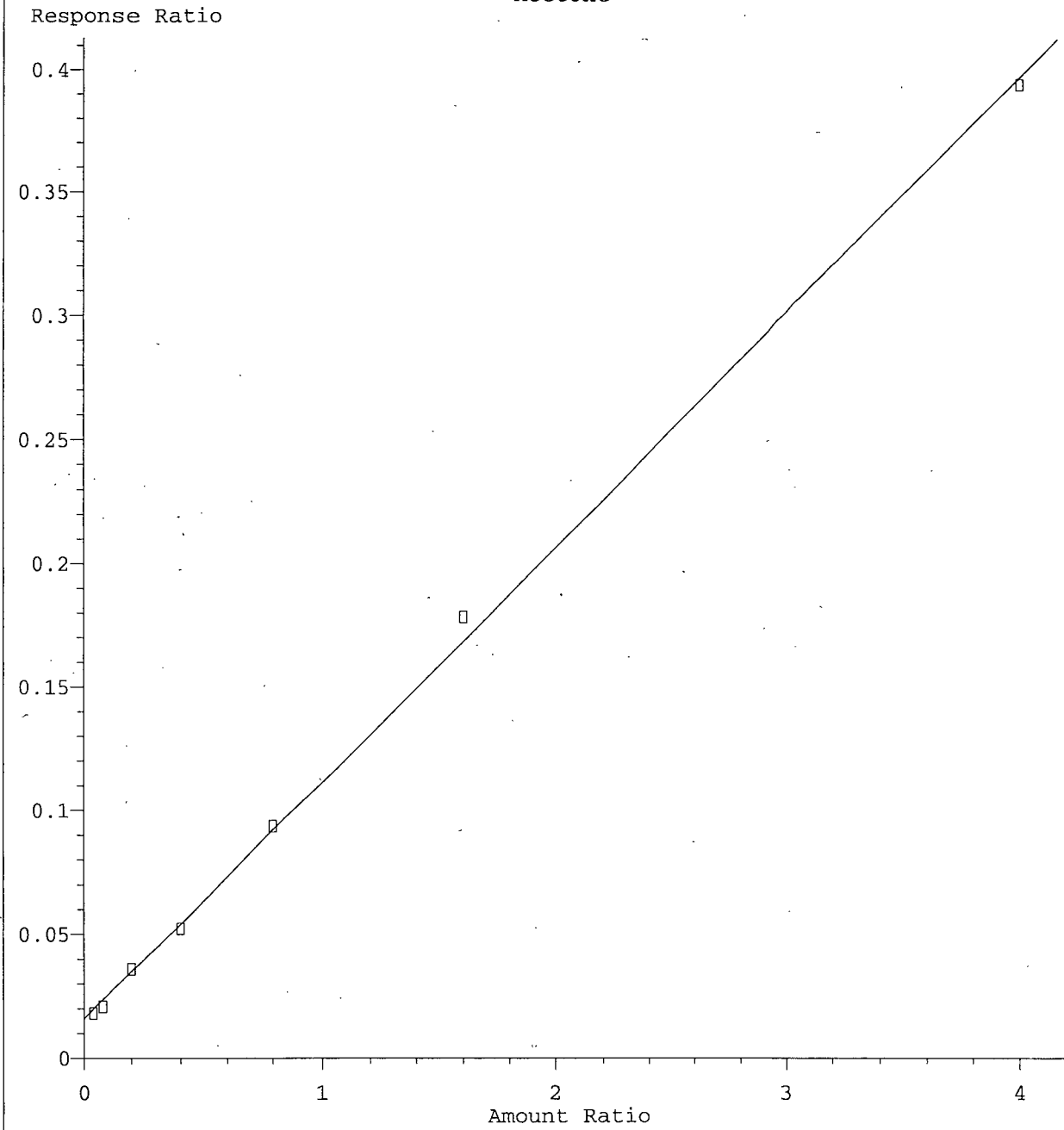
Response Ratio



Resp Ratio = 2.17e-001 \* Amt + 1.87e-002  
Coef of Det (r^2) = 0.996 Curve Fit: Linear

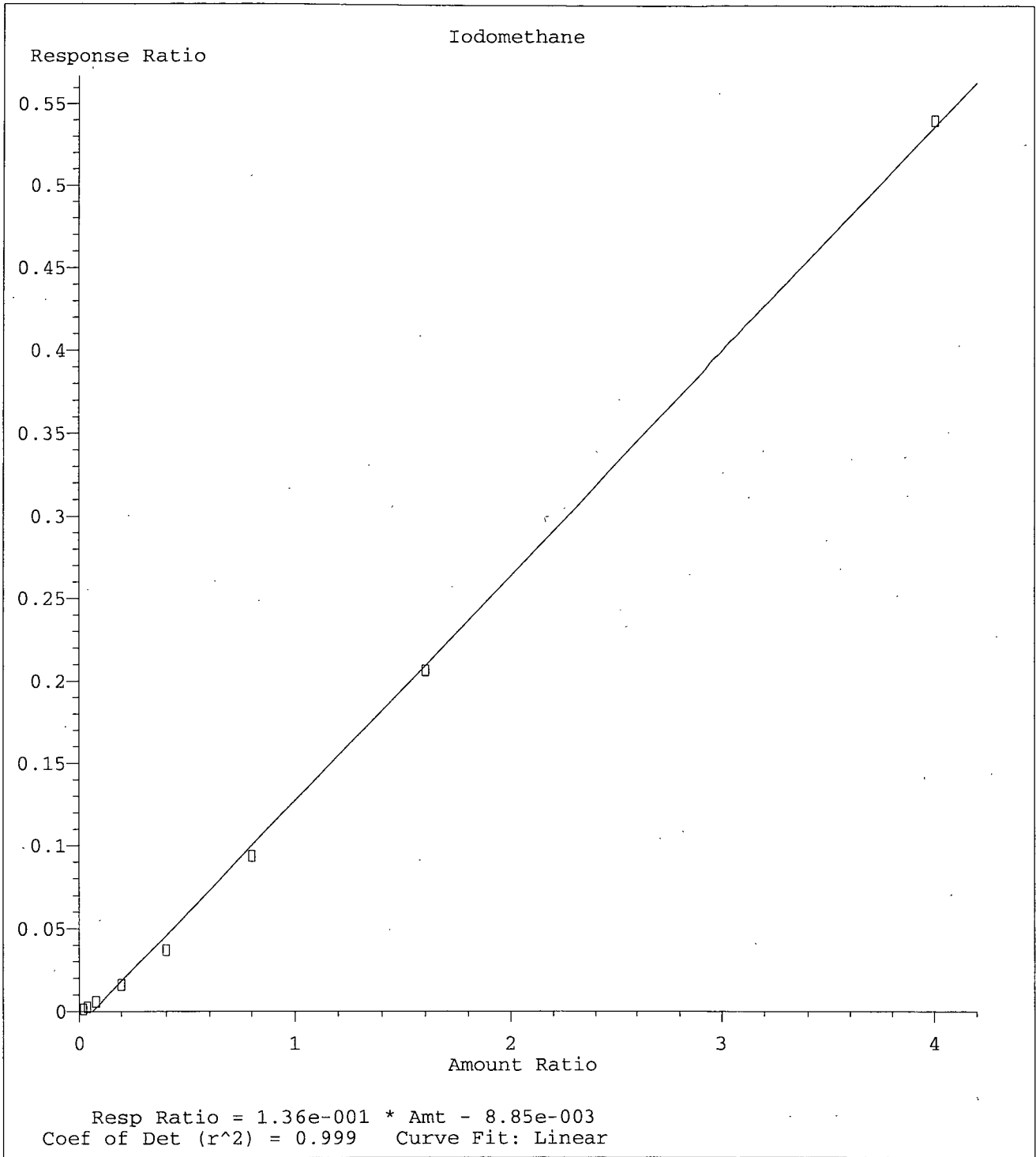
Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

Acetone



Resp Ratio =  $9.54 \times 10^{-2} \times \text{Amt} + 1.63 \times 10^{-2}$   
Coef of Det ( $r^2$ ) = 0.999    Curve Fit: Linear

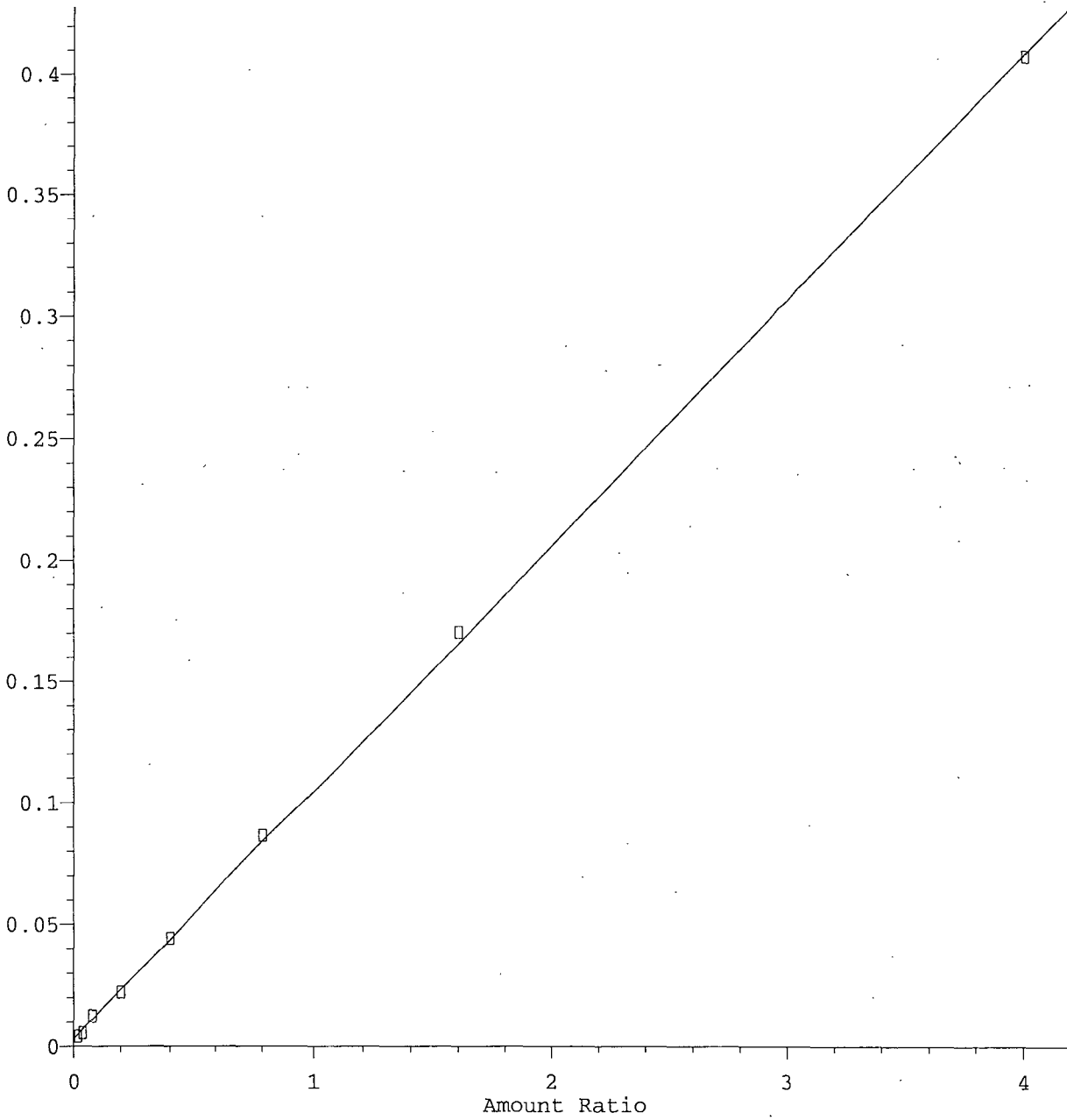
Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018



Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

Acrylonitrile

Response Ratio



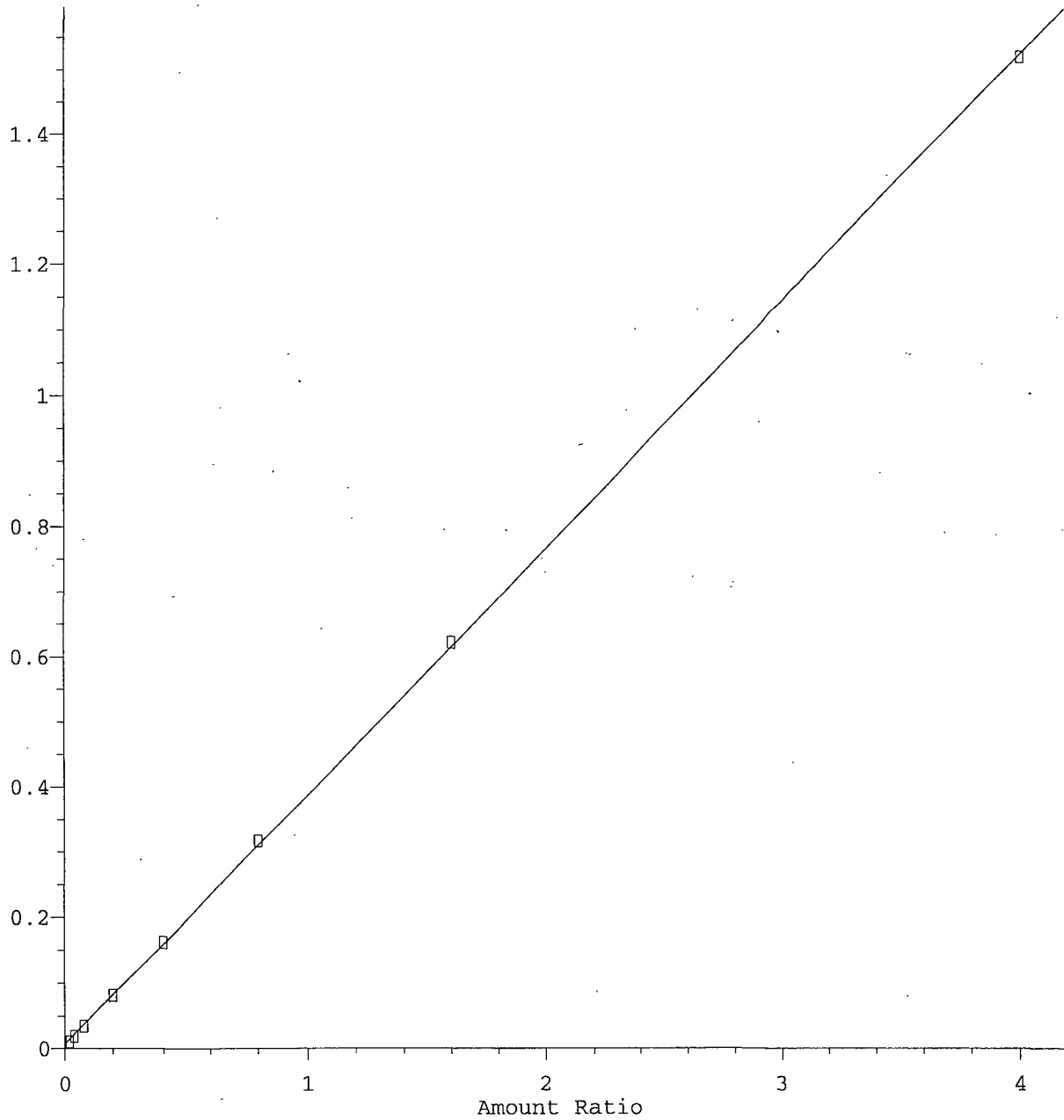
Resp Ratio = 1.02e-001 \* Amt + 3.45e-003  
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018



2,2-Dichloropropane

Response Ratio

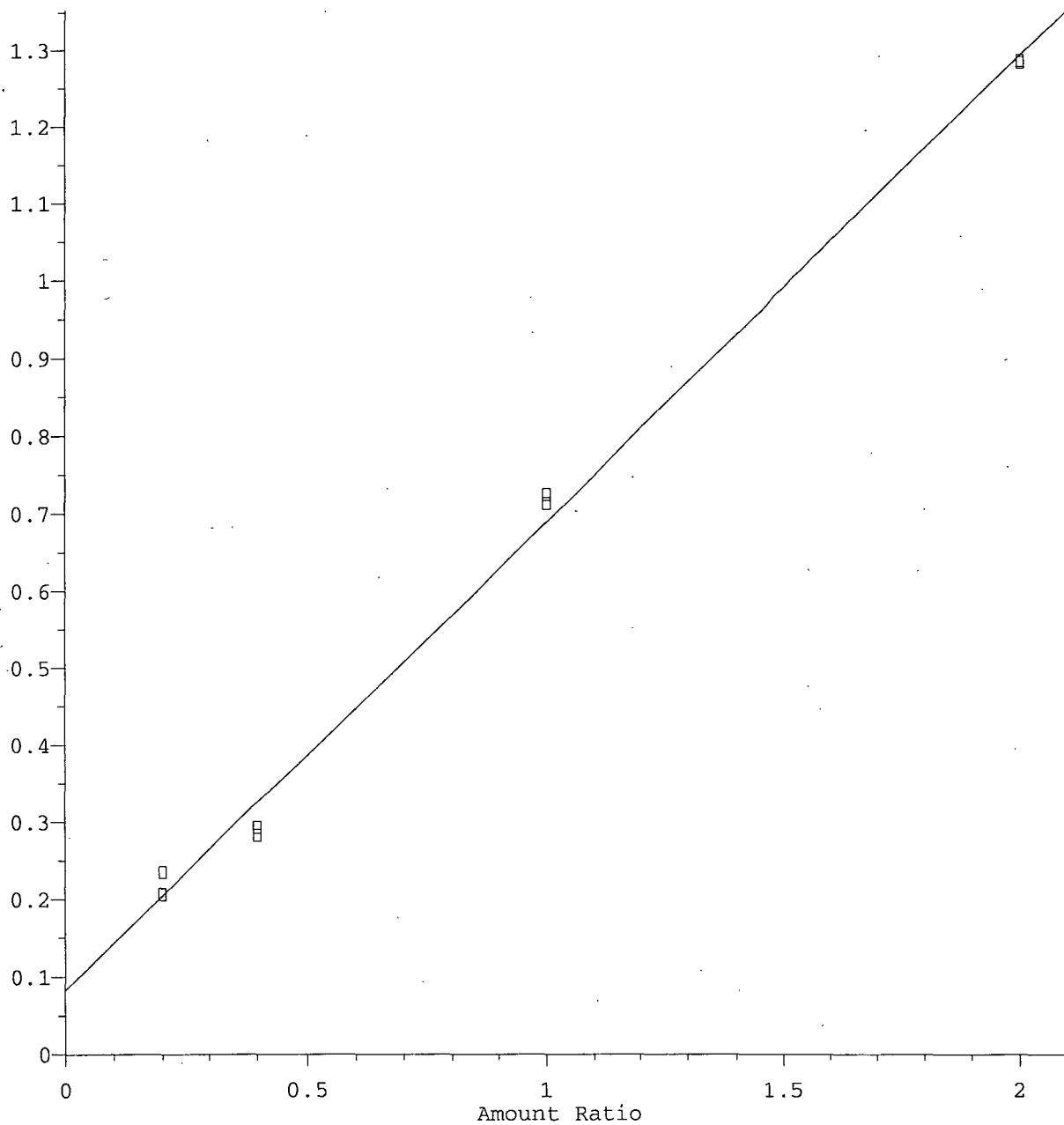


Resp Ratio = 3.80e-001 \* Amt + 6.91e-003  
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

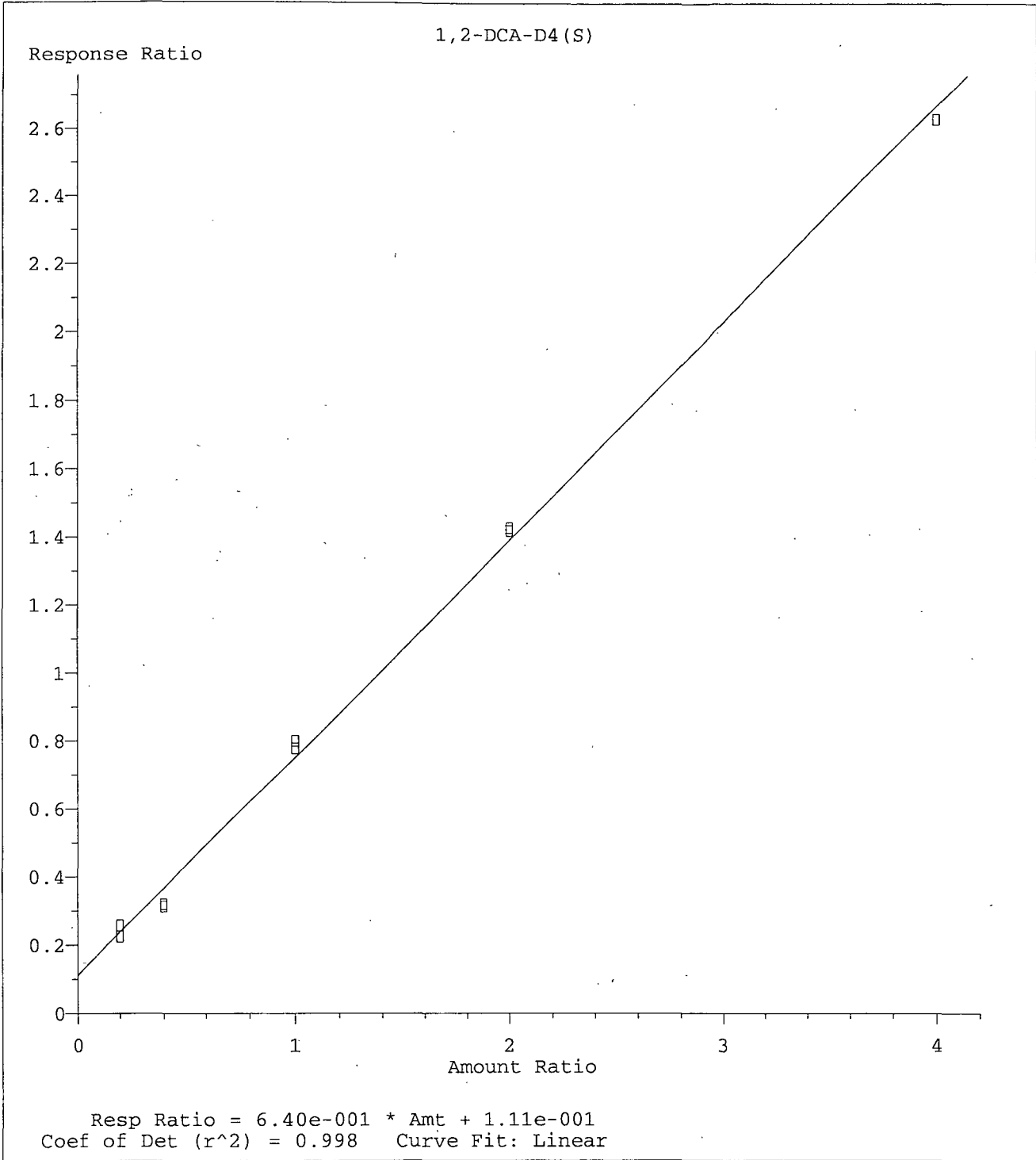
Dibromofluoromethane(S)

Response Ratio

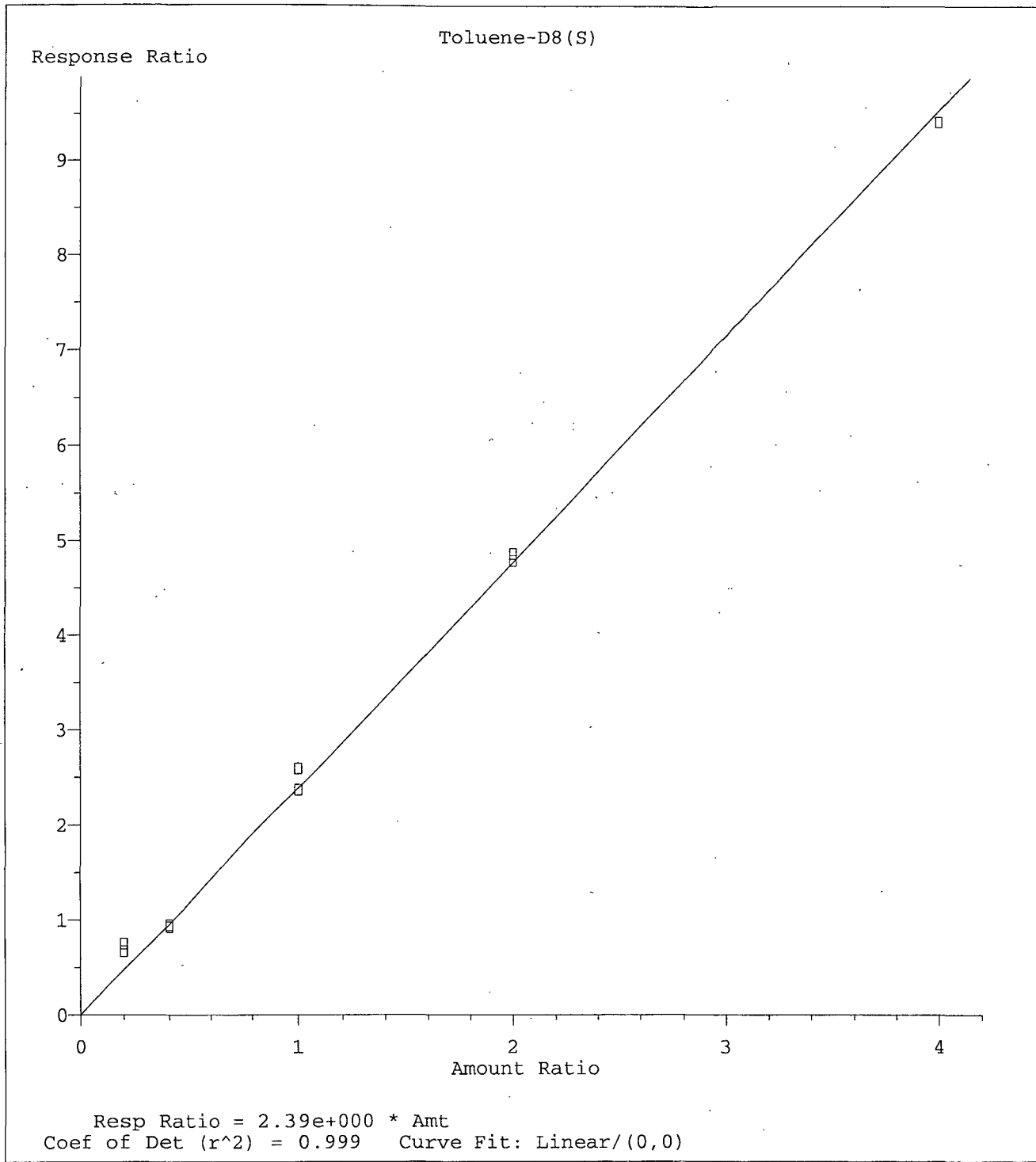


Resp Ratio = 6.07e-001 \* Amt + 8.28e-002  
Coef of Det (r^2) = 0.996 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018



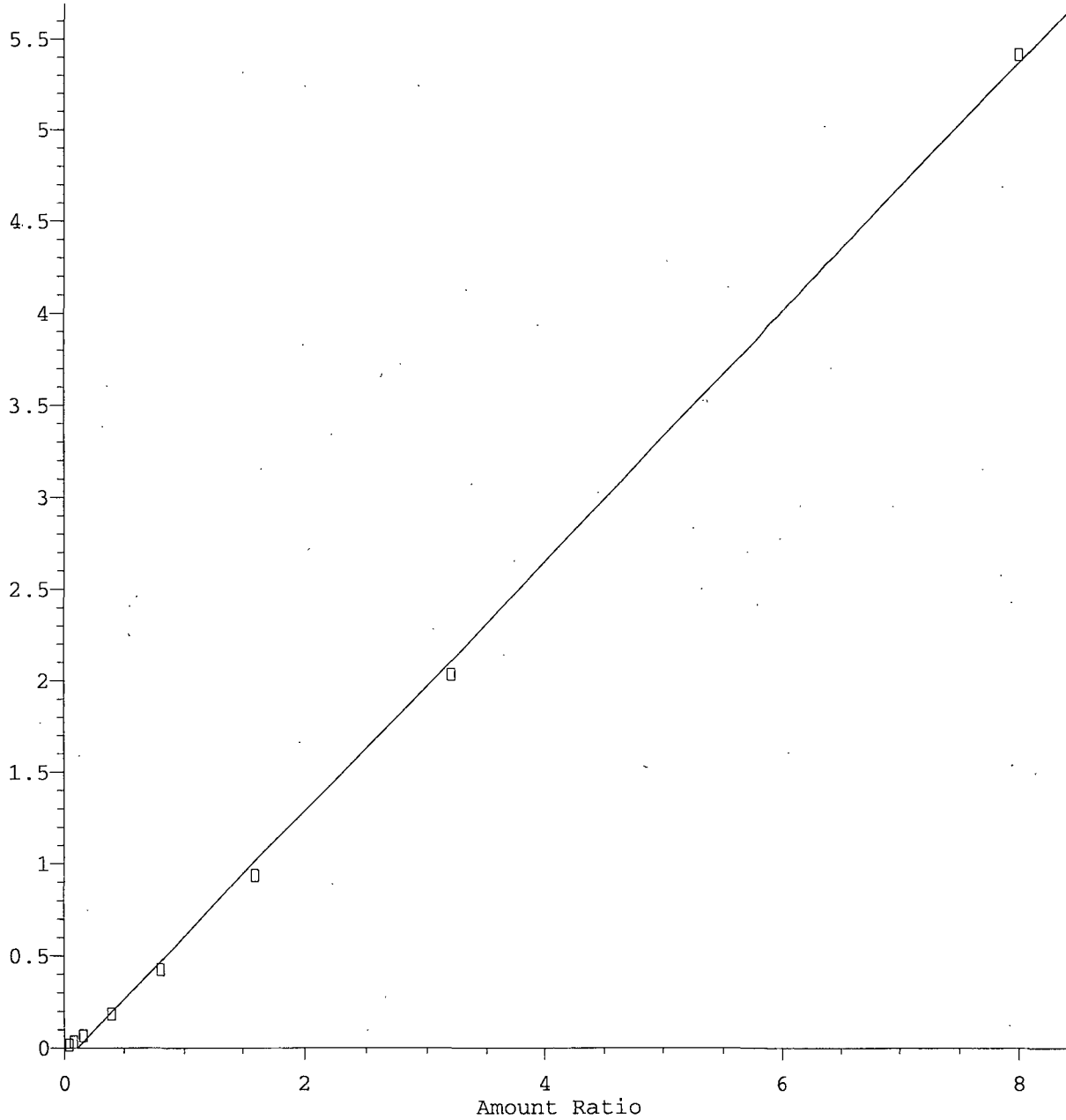
Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018



Method Name: M:\LOKI\DATA\181026\L1026W.M  
 Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

m&p-Xylene

Response Ratio

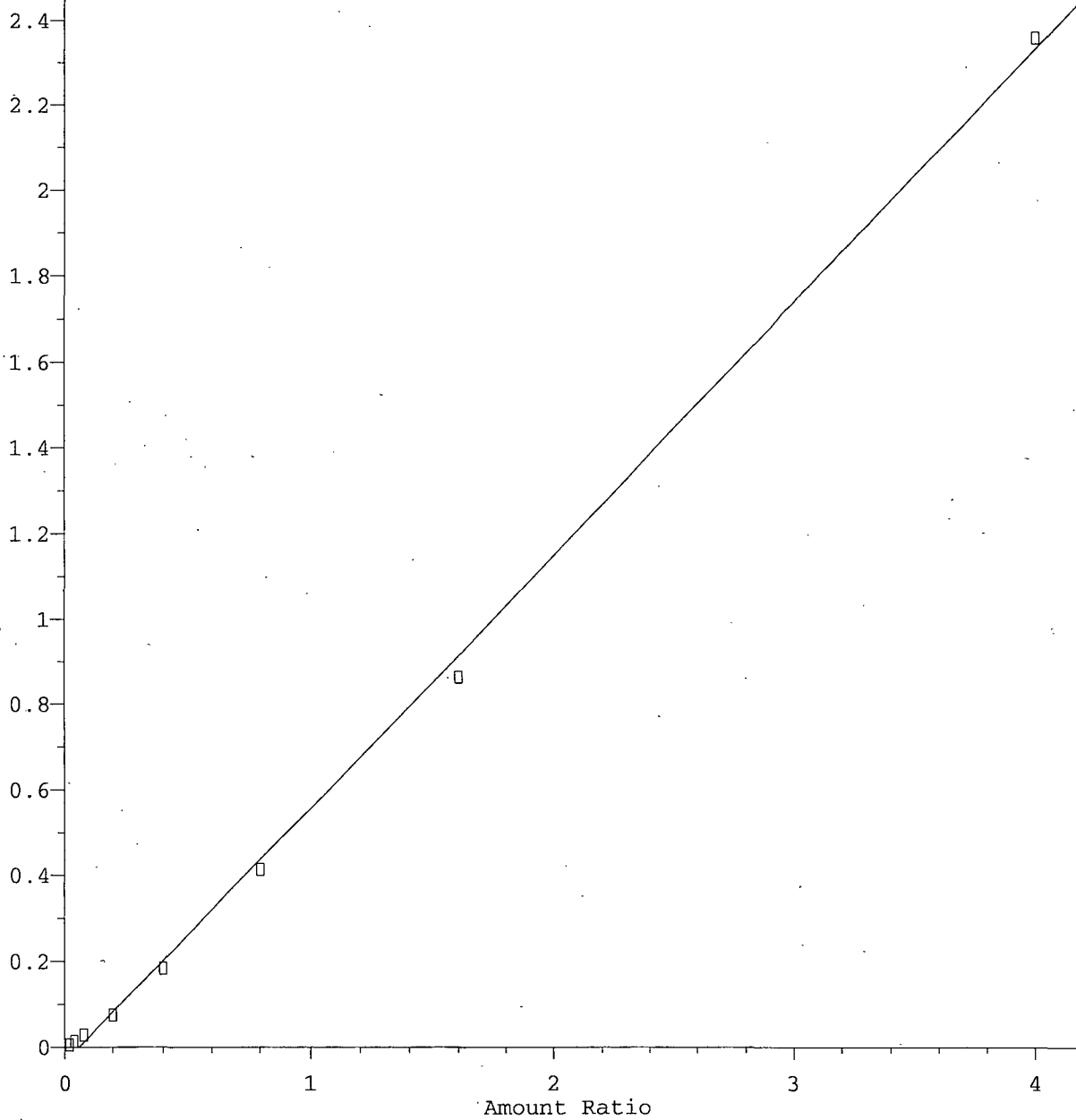


Resp Ratio = 6.82e-001 \* Amt - 7.72e-002  
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

Styrene

Response Ratio

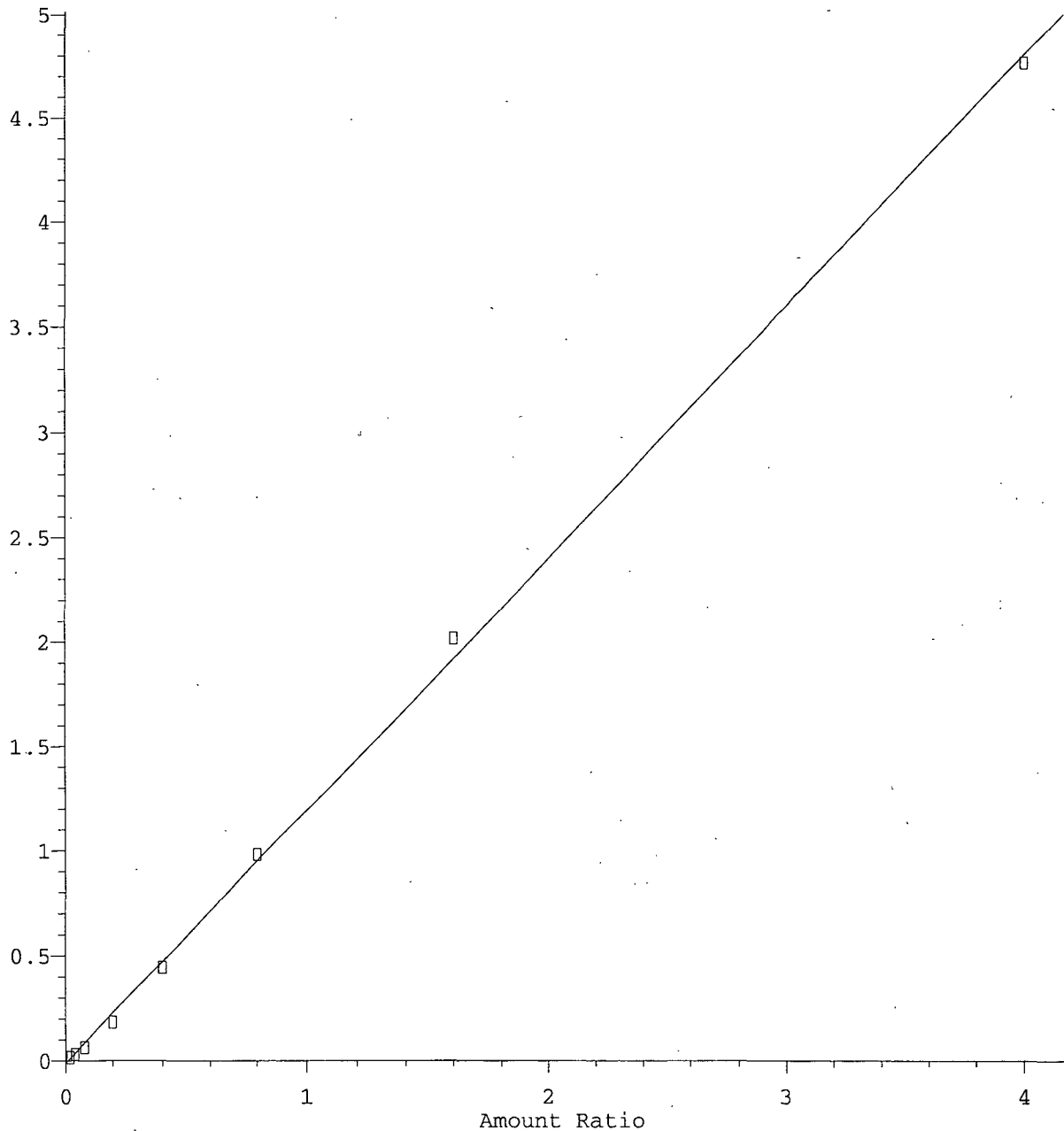


Resp Ratio =  $5.94e-001 * Amt - 3.64e-002$   
Coef of Det ( $r^2$ ) = 0.999 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

1,3,5-Trimethylbenzene

Response Ratio

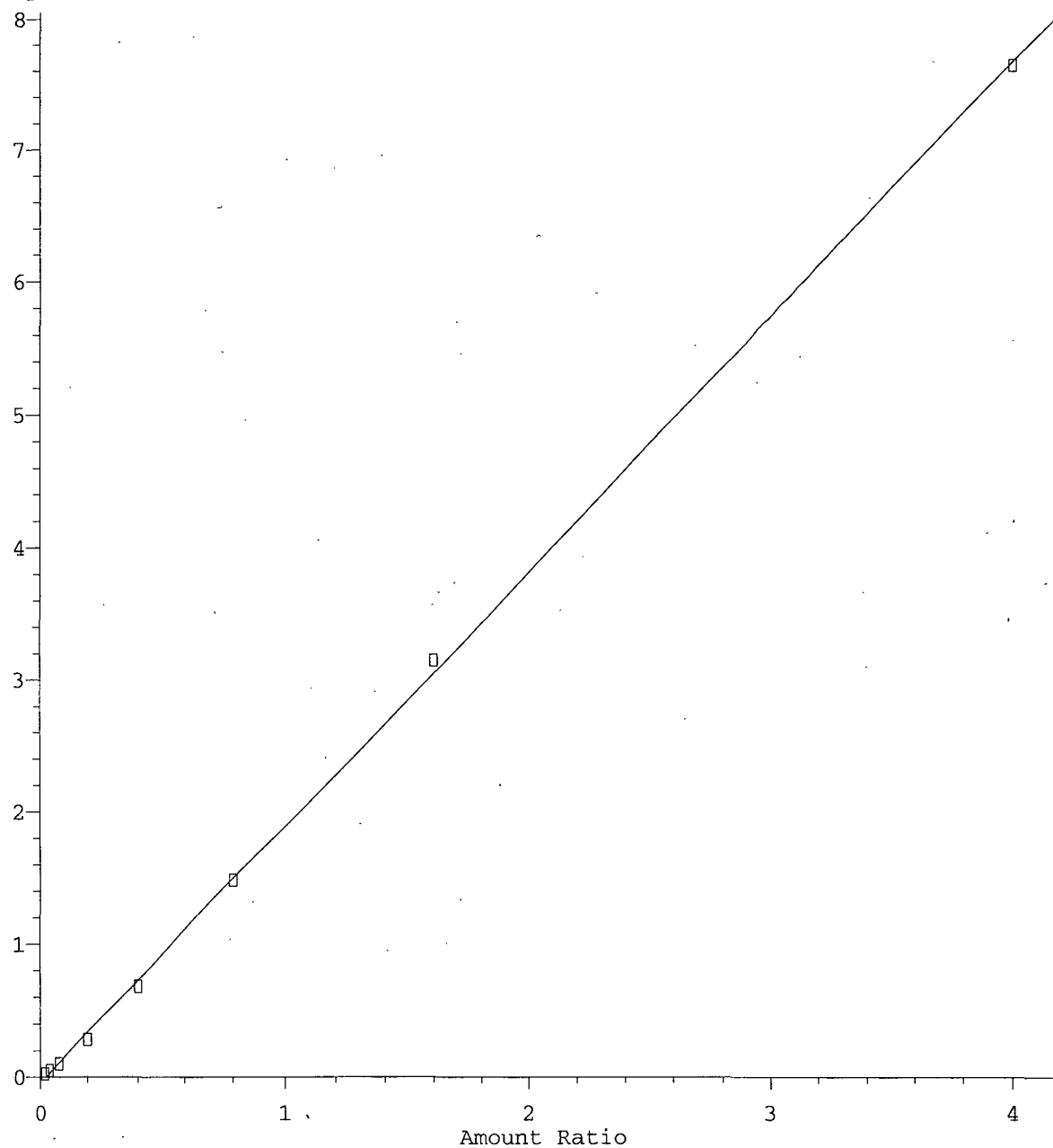


Resp Ratio = 1.21e+000 \* Amt - 1.37e-002  
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

1,2,4-Trimethylbenzene

Response Ratio



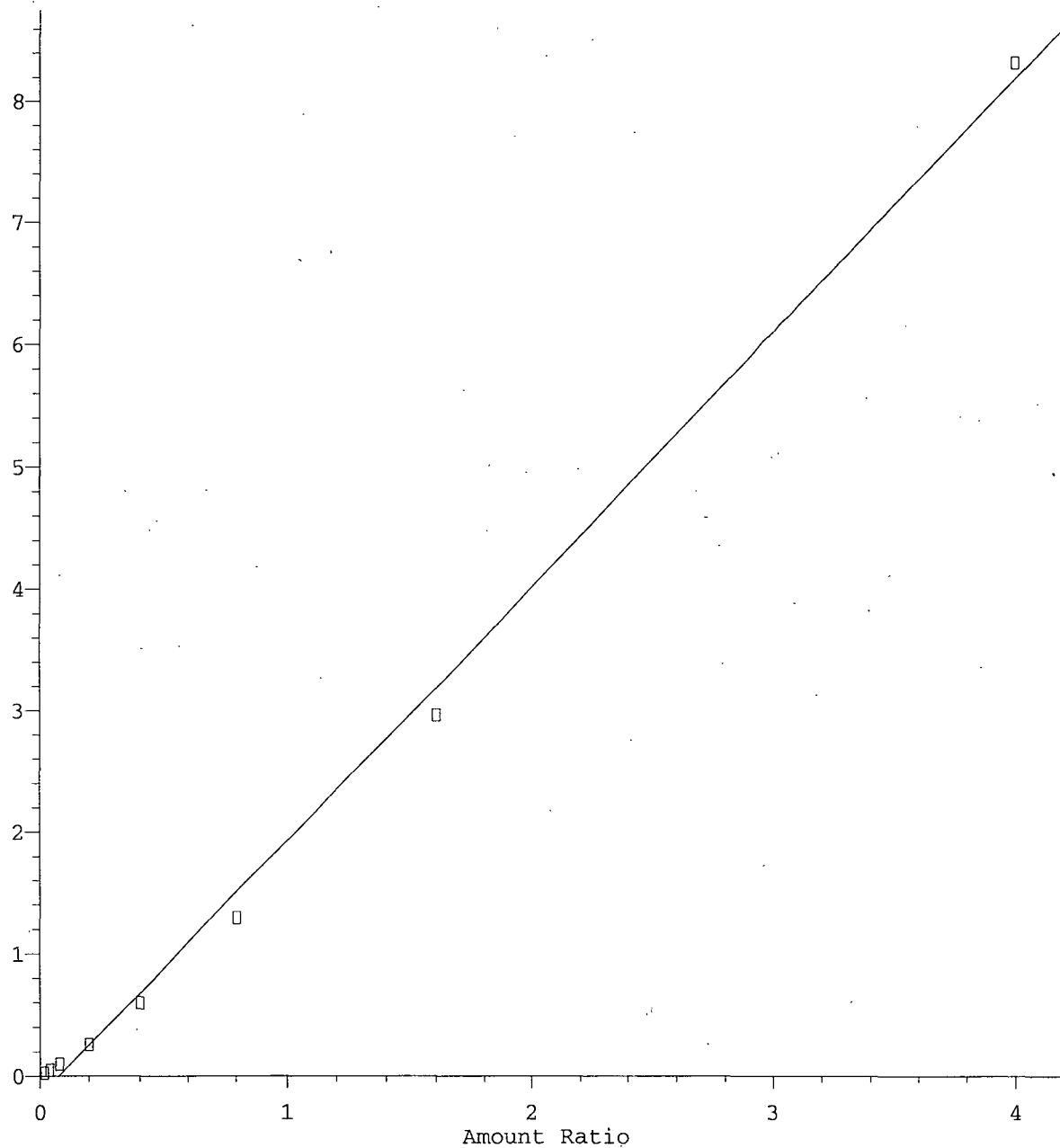
Resp Ratio = 1.94e+000 \* Amt - 4.81e-002  
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018



Naphthalene

Response Ratio



Resp Ratio = 2.09e+000 \* Amt - 1.64e-001  
Coef of Det (r^2) = 0.997 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/26/18  
Instrument: Loki  
Initial Cal. Date: 10/26/18  
Data File: 1026L13.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TM	Dichlorodifluoromethane	0.3531	0.3825	8.3	TM	
2	TM	Freon 114	0.2423	0.2449	1.1	TM	
3	TM**L	Chloromethane	0.4215	0.3746	11	TM**L	0.34
4	TM*	Vinyl chloride	0.3311	0.3527	6.5	TM*	
5	TML	Bromomethane	0.2904	0.2842	2.1	TML	9.6
6	TM	Chloroethane	0.1889	0.1965	4.0	TM	
7	TM	Dichlorofluoromethane	0.5006	0.4997	0.18	TM	
8	TM	Trichlorofluoromethane	0.4298	0.4254	1.0	TM	
9	TM	Acrolein	0.0303	0.0302	0.47	TM	
10	TML	Acetone	0.1930	0.1300	33	TML	6.6
11	TM	Freon-113	0.2229	0.2214	0.64	TM	
12	TM*	1,1-DCE	0.1014	0.0913	9.9	TM*	
13	TM	t-Butanol	0.0354	0.0343	3.0	TM	
14	TM	Acetonitrile	0.0508	0.0495	2.5	TM	
15	TM	Methyl Acetate	0.2771	0.2675	3.5	TM	
16	TML	Iodomethane	0.0954	0.1092	14	TML	3.8
17	TML	Acrylonitrile	0.1304	0.1169	10	TML	6.4
18	TM	Methylene chloride	0.3234	0.3125	3.4	TM	
19	TM	Carbon disulfide	0.7804	0.7664	1.8	TM	
20	TM	Methyl t-butyl ether (MtBE)	0.7876	0.7571	3.9	TM	
21	TM	Trans-1,2-DCE	0.2849	0.2868	0.66	TM	
22	TM	Diisopropyl Ether	0.8312	0.7964	4.2	TM	
23	TM**	1,1-DCA	0.5618	0.5545	1.3	TM**	
24	TM	Vinyl Acetate	0.2025	0.1795	11	TM	
25	TM	Ethyl tert Butyl Ether	0.7193	0.6923	3.8	TM	
26	TM	MEK (2-Butanone)	0.1470	0.1460	0.69	TM	
27	TM	Cis-1,2-DCE	0.3249	0.3365	3.6	TM	
28	TML	2,2-Dichloropropane	0.4229	0.3954	6.5	TML	0.44
29	TM*	Chloroform	0.5553	0.5538	0.27	TM*	
30	TM	Bromochloromethane	0.1779	0.1788	0.49	TM	
31	TM	1,1,1-TCA	0.4431	0.4356	1.7	TM	
32	TM	Cyclohexane	0.1856	0.1777	4.2	TM	
33	TM	1,1-Dichloropropene	0.3378	0.3290	2.6	TM	
34	TM	2,2,4-Trimethylpentane	0.6127	0.6099	0.46	TM	
35	TM	Carbon Tetrachloride	0.3635	0.3782	4.0	TM	
36	TM	Tert Amyl Methyl Ether	0.6574	0.6626	0.79	TM	
37	TM	1,2-DCA	0.4107	0.4188	2.0	TM	
38	TM	Benzene	1.156	1.144	1.0	TM	
39	TM	TCE	0.1418	0.1393	1.7	TM	
40	TM	2-Pentanone	0.2077	0.2224	7.1	TM	
					Average	4.5	

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/26/18  
Instrument: Loki  
Cal. Date: 10/26/18  
Data File: 1026L13.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM*	1,2-Dichloropropane	0.3105	0.2989	3.7	TM*
42	TM	Bromodichloromethane	0.4457	0.4440	0.40	TM
43	TM	Methyl Cyclohexane	0.3127	0.2942	5.9	TM
44	TM	Dibromomethane	0.2333	0.2222	4.7	TM
45	TM	2-Chloroethyl vinyl ether	0.0000	0.0072	0.00	TM
46	TM	MIBK (methyl isobutyl ketone)	0.2735	0.2791	2.0	TM
47	TM	1-Bromo-2-chloroethane	0.2256	0.2259	0.16	TM
48	TM	Cis-1,3-Dichloropropene	0.4569	0.4508	1.3	TM
49	TM*	Toluene	1.198	1.230	2.7	TM*
50	TM	Trans-1,3-Dichloropropene	0.4297	0.4293	0.08	TM
51	TM	1,1,2-TCA	0.2676	0.2558	4.4	TM
52	TM	2-Hexanone	0.1733	0.1724	0.54	TM
53	TM	1,2-EDB	0.3277	0.3372	2.9	TM
54	TM	Tetrachloroethene	0.3551	0.3825	7.7	TM
55	TM	1-Chlorohexane	0.2589	0.2826	9.2	TM
56	TM	1,1,1,2-Tetrachloroethane	0.3468	0.3487	0.55	TM
57	TML	m&p-Xylene	0.5122	0.5414	5.7	TML 6.5
58	TM	o-Xylene	0.4219	0.4511	6.9	TM
59	TML	Styrene	0.4298	0.4568	6.3	TML 7.7
60	TM	1,3-Dichloropropane	0.5025	0.5168	2.9	TM
61	TM	Dibromochloromethane	0.3717	0.3793	2.0	TM
62	TM**	Chlorobenzene	0.8506	0.8765	3.0	TM**
63	TM*	Ethylbenzene	1.202	1.252	4.2	TM*
64	TM**	Bromoform	0.2788	0.3004	7.8	TM**
65	TM	Isopropylbenzene	1.887	2.022	7.1	TM
66	TM**	1,1,2,2-Tetrachloroethane	0.8566	0.8545	0.25	TM**
67	TM	1,2,3-Trichloropropane	0.2492	0.2646	6.2	TM
68	TM	t-1,4-Dichloro-2-Butene	0.1760	0.1684	4.3	TM
69	TM	Bromobenzene	0.7100	0.7286	2.6	TM
70	TM	n-Propylbenzene	1.457	1.507	3.4	TM
71	TM	4-Ethyltoluene	1.812	2.028	12	TM
72	TM	2-Chlorotoluene	1.519	1.659	9.2	TM
73	TML	1,3,5-Trimethylbenzene	1.014	1.136	12	TML 3.1
74	TM	4-Chlorotoluene	1.733	1.921	11	TM
75	TM	Tert-Butylbenzene	1.378	1.515	9.9	TM
76	TML	1,2,4-Trimethylbenzene	1.584	1.727	9.0	TML 4.6
77	TM	Sec-Butylbenzene	1.997	2.209	11	TM
78	TM	p-Isopropyltoluene	1.853	2.013	8.6	TM
79	TM	Benzyl Chloride	0.9394	0.9057	3.6	TM
80	TM	1,3-DCB	1.257	1.343	6.9	TM

Average

5.1

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/26/18  
Instrument: Loki  
Cal. Date: 10/26/18  
Data File: 1026L13.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	1,4-DCB	1.349	1.378	2.1	TM
82	TM	n-Butylbenzene	1.571	1.623	3.3	TM
83	TM	1,2-DCB	1.218	1.281	5.2	TM
84	TM	Hexachloroethane	0.4091	0.4041	1.2	TM
85	TM	1,2-Dibromo-3-chloropropane	0.1582	0.1591	0.60	TM
86	TM	1,2,4-Trichlorobenzene	0.7375	0.7713	4.6	TM
87	TM	Hexachlorobutadiene	0.4228	0.4311	2.0	TM
88	TML	Naphthalene	1.520	1.633	7.4	TML 2.4
89	TM	1,2,3-Trichlorobenzene	0.4205	0.4406	4.8	TM
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Average

3.5

Data File : M:\LOKI\DATA\181026\1026L13.D  
 Acq On : 26 Oct 18 15:13  
 Sample : (SS)10ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 12  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.86	96	545024	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	523328	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	283520	25.0000	ppb	0.00

System Monitoring Compounds

32) Dibromofluoromethane (S)	3.86	111	352671	23.2303	ppb	0.00
Spiked Amount	25.000		Recovery	= 92.920%		
37) 1,2-DCA-D4 (S)	4.35	65	390993	23.6831	ppb	0.00
Spiked Amount	25.000		Recovery	= 94.732%		
57) Toluene-D8 (S)	6.90	98	1206160	24.1543	ppb	0.00
Spiked Amount	25.000		Recovery	= 96.616%		
65) 4-Bromofluorobenzene (S)	9.83	95	425669	25.0157	ppb	0.00
Spiked Amount	25.000		Recovery	= 100.064%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	83384	10.8323	ppb	96
3) Freon 114	0.79	85	53383	10.1056	ppb	96
4) Chloromethane	0.81	50	81668	9.9657	ppb	96
5) Vinyl chloride	0.87	62	76900	10.6531	ppb	96
6) Bromomethane	1.03	94	61954	10.9642	ppb	99
7) Chloroethane	1.09	64	42841	10.4016	ppb	100
8) Dichlorofluoromethane	1.21	67	108934	9.9821	ppb	98
9) Trichlorofluoromethane	1.23	101	92745	9.8988	ppb	98
10) Acrolein	1.49	56	82168	124.4123	ppb	# 92
11) Acetone	1.60	43	28345	9.3442	ppb	# 87
12) Freon-113	1.56	101	48272	9.9356	ppb	96
13) 1,1-DCE	1.55	63	19912	9.0112	ppb	94
14) t-Butanol	2.05	59	93403	121.1884	ppb	99
15) Acetonitrile	1.79	41	134865	121.8833	ppb	99
16) Methyl Acetate	1.84	43	58323	9.6549	ppb	100
17) Iodomethane	1.64	142	23808	9.6249	ppb	93
18) Acrylonitrile	2.10	52	25488	10.6433	ppb	89
19) Methylene chloride	1.89	84	68133	9.6626	ppb	94
20) Carbon disulfide	1.68	76	167090	9.8207	ppb	100
21) Methyl t-butyl ether (MtBE)	2.14	73	165051	9.6127	ppb	98
22) Trans-1,2-DCE	2.11	96	62519	10.0660	ppb	95
23) Diisopropyl Ether	2.63	45	173630	9.5815	ppb	97
24) 1,1-DCA	2.50	63	120886	9.8692	ppb	99
25) Vinyl Acetate	2.63	43	39134	8.8660	ppb	99
26) Ethyl tert Butyl Ether	3.06	59	150932	9.6245	ppb	99
27) MEK (2-Butanone)	3.24	43	31826	9.9310	ppb	88
28) Cis-1,2-DCE	3.16	96	73368	10.3585	ppb	98
29) 2,2-Dichloropropane	3.14	77	86208	9.9559	ppb	98
30) Chloroform	3.62	83	120736	9.9732	ppb	94
31) Bromochloromethane	3.46	128	38970	10.0488	ppb	97
33) 1,1,1-TCA	3.83	97	94957	9.8301	ppb	93
34) Cyclohexane	3.90	41	38750	9.5758	ppb	85
35) 1,1-Dichloropropene	4.11	75	71721	9.7397	ppb	92
36) 2,2,4-Trimethylpentane	4.61	57	132970	9.9544	ppb	92
38) Carbon Tetrachloride	4.10	117	82446	10.4039	ppb	92
39) Tert Amyl Methyl Ether	4.71	73	144454	10.0794	ppb	98
40) 1,2-DCA	4.47	62	91293	10.1960	ppb	95
41) Benzene	4.41	78	249399	9.8965	ppb	99
42) TCE	5.37	95	30368	9.8267	ppb	95

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

Data File : M:\LOKI\DATA\181026\1026L13.D  
 Acq On : 26 Oct 18 15:13  
 Sample : (SS)10ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 12  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	606197	133.9053	ppb	98
44) 1,2-Dichloropropane	5.64	63	65171	9.6291	ppb	100
45) Bromodichloromethane	6.04	83	96789	9.9605	ppb	99
46) Methyl Cyclohexane	5.59	83	64129	9.4060	ppb	92
47) Dibromomethane	5.79	93	48448	9.5271	ppb	95
49) MIBK (methyl isobutyl ket	6.85	43	60838	10.2036	ppb	94
50) 1-Bromo-2-chloroethane	6.37	63	49256	10.0161	ppb	96
51) Cis-1,3-Dichloropropene	6.61	75	98286	9.8664	ppb	98
52) Toluene	6.98	91	268083	10.2685	ppb	98
53) Trans-1,3-Dichloropropene	7.29	75	93600	9.9916	ppb	99
54) 1,1,2-TCA	7.48	83	55773	9.5613	ppb	99
55) 2-Hexanone	7.82	43	37585	9.9462	ppb	97
58) 1,2-EDB	7.98	107	70581	10.2899	ppb	98
59) Tetrachloroethene	7.60	166	80077	10.7734	ppb	93
60) 1-Chlorohexane	8.60	91	59150	10.9162	ppb	93
61) 1,1,1,2-Tetrachloroethane	8.67	131	72995	10.0551	ppb	96
62) m&p-Xylene	8.85	91	226652	18.7066	ppb	98
63) o-Xylene	9.27	106	94435	10.6924	ppb	96
64) Styrene	9.29	104	95624	9.2302	ppb	96
66) 1,3-Dichloropropane	7.65	76	108192	10.2858	ppb	98
67) Dibromochloromethane	7.89	129	79404	10.2037	ppb	95
68) Chlorobenzene	8.55	112	183474	10.3039	ppb	98
69) Ethylbenzene	8.71	91	262144	10.4157	ppb	98
70) Bromoform	9.45	173	62881	10.7751	ppb	98
72) Isopropylbenzene	9.69	105	229274	10.7118	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.03	83	96907	9.9753	ppb	96
74) 1,2,3-Trichloropropane	10.04	110	30011	10.6212	ppb	97
75) t-1,4-Dichloro-2-Butene	10.09	53	19101	9.5714	ppb	100
76) Bromobenzene	9.96	156	82625	10.2618	ppb	98
77) n-Propylbenzene	10.13	91	170944	10.3434	ppb	100
78) 4-Ethyltoluene	10.26	105	230039	11.1946	ppb	99
79) 2-Chlorotoluene	10.19	91	188103	10.9190	ppb	97
80) 1,3,5-Trimethylbenzene	10.34	105	128832	9.6917	ppb	99
81) 4-Chlorotoluene	10.31	91	217908	11.0878	ppb	97
82) Tert-Butylbenzene	10.67	119	171788	10.9934	ppb	97
83) 1,2,4-Trimethylbenzene	10.73	105	195827	9.5418	ppb	97
84) Sec-Butylbenzene	10.91	105	250499	11.0626	ppb	100
85) p-Isopropyltoluene	11.08	119	228305	10.8634	ppb	99
86) Benzyl Chloride	11.25	91	102709	9.6406	ppb	97
87) 1,3-DCB	10.99	146	152351	10.6892	ppb	99
88) 1,4-DCB	11.09	146	156239	10.2104	ppb	98
89) n-Butylbenzene	11.52	91	184019	10.3279	ppb	98
90) 1,2-DCB	11.48	146	145260	10.5158	ppb	98
91) Hexachloroethane	11.74	117	45825	9.8778	ppb	95
92) 1,2-Dibromo-3-chloropropan	12.31	75	18046	10.0602	ppb	97
93) 1,2,4-Trichlorobenzene	13.20	180	87469	10.4584	ppb	96
94) Hexachlorobutadiene	13.41	225	48894	10.1963	ppb	97
95) Naphthalene	13.45	128	185141	9.7609	ppb	97
96) 1,2,3-Trichlorobenzene	13.71	180	49968	10.4781	ppb	98

Quantitation Report

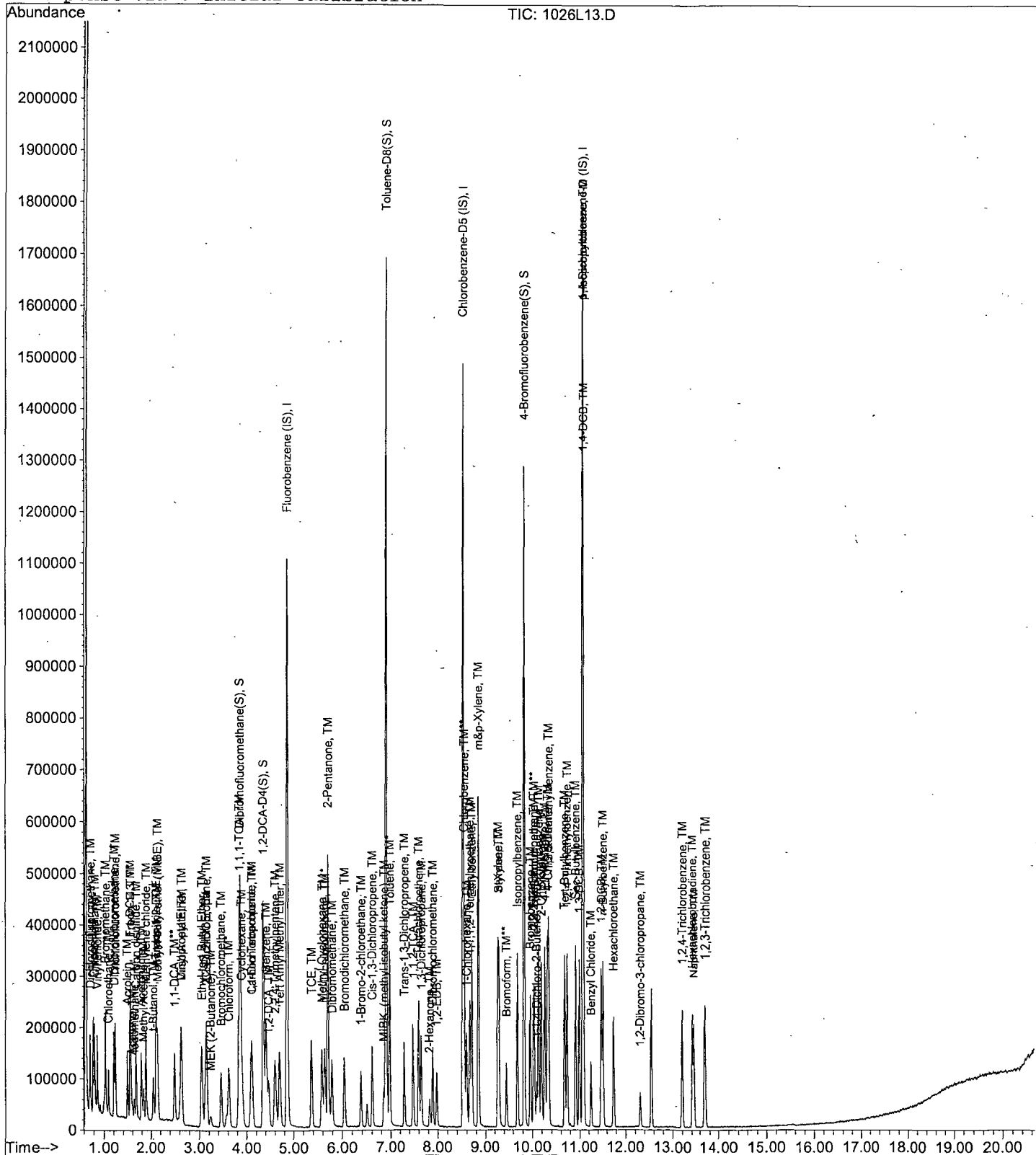
Data File : M:\LOKI\DATA\181026\1026L13.D  
 Acq On : 26 Oct 18 15:13  
 Sample : (SS)10ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 12  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/26/18

Matrix: \_\_\_\_\_

Instrument: Loki

Initial Cal. Date: 10/26/18

Data File: 1026L15.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Fluorobenzene (IS)	ISTD			I
2	TM	Dichlorodifluoromethane	0.3531	0.3734	5.8	TM
3	TM	Freon 114	0.2423	0.2501	3.2	TM
4	TM**L	Chloromethane	0.4215	0.4134	1.9	TM**L 11
5	TM*	Vinyl chloride	0.3311	0.3502	5.8	TM*
6	TML	Bromomethane	0.2904	0.2726	6.1	TML 4.3
7	TM	Chloroethane	0.1889	0.1837	2.8	TM
8	TM	Dichlorofluoromethane	0.5006	0.5007	0.02	TM
9	TM	Trichlorofluoromethane	0.4298	0.4224	1.7	TM
10	TM	Acrolein	0.0303	0.0270	11	TM
11	TML	Acetone	0.1930	0.1437	26	TML 7.8
12	TM	Freon-113	0.2229	0.2339	5.0	TM
13	TM*	1,1-DCE	0.1014	0.0867	14	TM*
14	TM	t-Butanol	0.0354	0.0327	7.6	TM
15	TM	Acetonitrile	0.0508	0.0476	6.2	TM
16	TM	Methyl Acetate	0.2771	0.2521	9.0	TM
17	TML	Iodomethane	0.0954	0.1028	7.8	TML 8.5
18	TML	Acrylonitrile	0.1304	0.1060	19	TML 4.3
19	TM	Methylene chloride	0.3234	0.2971	8.1	TM
20	TM	Carbon disulfide	0.7804	0.7556	3.2	TM
21	TM	Methyl t-butyl ether (MtBE)	0.7876	0.7324	7.0	TM
22	TM	Trans-1,2-DCE	0.2849	0.2754	3.3	TM
23	TM	Diisopropyl Ether	0.8312	0.8204	1.3	TM
24	TM**	1,1-DCA	0.5618	0.5331	5.1	TM**
25	TM	Vinyl Acetate	0.2025	0.1806	11	TM
26	TM	Ethyl tert Butyl Ether	0.7193	0.7354	2.2	TM
27	TM	MEK (2-Butanone)	0.1470	0.1464	0.38	TM
28	TM	Cis-1,2-DCE	0.3249	0.3252	0.10	TM
29	TML	2,2-Dichloropropane	0.4229	0.4030	4.7	TML 1.5
30	TM*	Chloroform	0.5553	0.5664	2.0	TM*
31	TM	Bromochloromethane	0.1779	0.1817	2.2	TM
32	SL	Dibromofluoromethane(S)	0.7974	0.6672	16	SL 3.8
33	TM	1,1,1-TCA	0.4431	0.4457	0.60	TM
34	TM	Cyclohexane	0.1856	0.1936	4.3	TM
35	TM	1,1-Dichloropropene	0.3378	0.3402	0.73	TM
36	TM	2,2,4-Trimethylpentane	0.6127	0.6149	0.36	TM
37	SL	1,2-DCA-D4(S)	0.8500	0.7264	15	SL 3.9
38	TM	Carbon Tetrachloride	0.3635	0.3859	6.2	TM
39	TM	Tert Amyl Methyl Ether	0.6574	0.6529	0.68	TM
40	TM	1,2-DCA	0.4107	0.4283	4.3	TM

Average

5.9



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/26/18

Matrix: 0

Instrument: Loki

Cal. Date: 10/26/18

Data File: 1026L15.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	Benzene	1.156	1.170	1.2	TM
42	TM	TCE	0.1418	0.1460	3.0	TM
43	TM	2-Pentanone	0.2077	0.2207	6.3	TM
44	TM*	1,2-Dichloropropane	0.3105	0.3060	1.4	TM*
45	TM	Bromodichloromethane	0.4457	0.4473	0.35	TM
46	TM	Methyl Cyclohexane	0.3127	0.3116	0.37	TM
47	TM	Dibromomethane	0.2333	0.2203	5.5	TM
48	TM	2-Chloroethyl vinyl ether	0.0000	0.0004	0.00	TM
49	TM	MIBK (methyl isobutyl ketone)	0.2735	0.2624	4.0	TM
50	TM	1-Bromo-2-chloroethane	0.2256	0.2275	0.85	TM
51	TM	Cis-1,3-Dichloropropene	0.4569	0.4530	0.86	TM
52	TM*	Toluene	1.198	1.240	3.6	TM*
53	TM	Trans-1,3-Dichloropropene	0.4297	0.4229	1.6	TM
54	TM	1,1,2-TCA	0.2676	0.2707	1.2	TM
55	TM	2-Hexanone	0.1733	0.1625	6.3	TM
56	I	Chlorobenzene-D5 (IS)	ISTD			I
57	SL	Toluene-D8(S)	2.655	2.310	13	SL 3.2
58	TM	1,2-EDB	0.3277	0.3240	1.1	TM
59	TM	Tetrachloroethene	0.3551	0.3744	5.4	TM
60	TM	1-Chlorohexane	0.2589	0.2661	2.8	TM
61	TM	1,1,1,2-Tetrachloroethane	0.3468	0.3405	1.8	TM
62	TML	m&p-Xylene	0.5122	0.5326	4.0	TML 7.8
63	TM	o-Xylene	0.4219	0.4474	6.0	TM
64	TML	Styrene	0.4298	0.4588	6.8	TML 7.4
65	S	4-Bromofluorobenzene(S)	0.8129	0.8075	0.67	S
66	TM	1,3-Dichloropropane	0.5025	0.5137	2.2	TM
67	TM	Dibromochloromethane	0.3717	0.3674	1.2	TM
68	TM**	Chlorobenzene	0.8506	0.8648	1.7	TM**
69	TM*	Ethylbenzene	1.202	1.240	3.1	TM*
70	TM**	Bromoform	0.2788	0.2810	0.79	TM**
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
72	TM	Isopropylbenzene	1.887	1.916	1.5	TM
73	TM**	1,1,2,2-Tetrachloroethane	0.8566	0.7904	7.7	TM**
74	TM	1,2,3-Trichloropropane	0.2492	0.2492	0.01	TM
75	TM	t-1,4-Dichloro-2-Butene	0.1760	0.1512	14	TM
76	TM	Bromobenzene	0.7100	0.6921	2.5	TM
77	TM	n-Propylbenzene	1.457	1.507	3.4	TM
78	TM	4-Ethyltoluene	1.812	1.939	7.0	TM
79	TM	2-Chlorotoluene	1.519	1.571	3.4	TM
80	TML	1,3,5-Trimethylbenzene	1.014	1.105	8.9	TML 5.7

Average

3.6

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/26/18

Matrix: 0

Instrument: Loki

Cal. Date: 10/26/18

Data File: 1026L15.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	4-Chlorotoluene	1.733	1.851	6.8	TM
82	TM	Tert-Butylbenzene	1.378	1.421	3.1	TM
83	TML	1,2,4-Trimethylbenzene	1.584	1.658	4.7	TML 8.1
84	TM	Sec-Butylbenzene	1.997	2.143	7.3	TM
85	TM	p-Isopropyltoluene	1.853	1.926	3.9	TM
86	TM	Benzyl Chloride	0.9394	0.7946	15	TM
87	TM	1,3-DCB	1.257	1.283	2.1	TM
88	TM	1,4-DCB	1.349	1.336	1.0	TM
89	TM	n-Butylbenzene	1.571	1.534	2.3	TM
90	TM	1,2-DCB	1.218	1.232	1.1	TM
91	TM	Hexachloroethane	0.4091	0.3909	4.5	TM
92	TM	1,2-Dibromo-3-chloropropane	0.1582	0.1390	12	TM
93	TM	1,2,4-Trichlorobenzene	0.7375	0.7148	3.1	TM
94	TM	Hexachlorobutadiene	0.4228	0.4085	3.4	TM
95	TML	Naphthalene	1.520	1.450	4.6	TML 11
96	TM	1,2,3-Trichlorobenzene	0.4205	0.4315	2.6	TM
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Average

4.8

Data File : M:\LOKI\DATA\181026\1026L15.D  
 Acq On : 26 Oct 18 16:10  
 Sample : 181026A CCV 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 14  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	527680	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	519296	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	292864	25.0000	ppb	0.00

System Monitoring Compounds

32) Dibromofluoromethane(S)	3.86	111	352088	24.0604	ppb	0.00
Spiked Amount	25.000		Recovery	=	96.240%	
37) 1,2-DCA-D4(S)	4.35	65	383326	24.0368	ppb	0.00
Spiked Amount	25.000		Recovery	=	96.148%	
57) Toluene-D8(S)	6.90	98	1199485	24.2071	ppb	0.00
Spiked Amount	25.000		Recovery	=	96.828%	
65) 4-Bromofluorobenzene(S)	9.83	95	419317	24.8337	ppb	0.00
Spiked Amount	25.000		Recovery	=	99.336%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.72	85	78816	10.5754	ppb	98
3) Freon 114	0.79	85	52779	10.3196	ppb	90
4) Chloromethane	0.81	50	87247	11.0894	ppb	99
5) Vinyl chloride	0.87	62	73918	10.5766	ppb	96
6) Bromomethane	1.03	94	57532	10.4282	ppb	99
7) Chloroethane	1.09	64	38772	9.7231	ppb	100
8) Dichlorofluoromethane	1.21	67	105679	10.0022	ppb	99
9) Trichlorofluoromethane	1.24	101	89163	9.8293	ppb	94
10) Acrolein	1.49	56	71309	111.5192	ppb	98
11) Acetone	1.59	43	30340	10.7826	ppb	91
12) Freon-113	1.56	101	49379	10.4975	ppb	93
13) 1,1-DCE	1.55	63	18304	8.5558	ppb	88
14) t-Butanol	2.04	59	86207	115.5281	ppb	100
15) Acetonitrile	1.78	41	125548	117.1925	ppb	98
16) Methyl Acetate	1.84	43	53204	9.0970	ppb	97
17) Iodomethane	1.64	142	21696	9.1547	ppb	93
18) Acrylonitrile	2.10	52	22379	9.5732	ppb	89
19) Methylene chloride	1.90	84	62706	9.1853	ppb	95
20) Carbon disulfide	1.68	76	159486	9.6818	ppb	100
21) Methyl t-butyl ether (MtBE)	2.14	73	154594	9.2996	ppb	99
22) Trans-1,2-DCE	2.11	96	58136	9.6679	ppb	97
23) Diisopropyl Ether	2.64	45	173169	9.8702	ppb	99
24) 1,1-DCA	2.50	63	112522	9.4883	ppb	98
25) Vinyl Acetate	2.63	43	38115	8.9189	ppb	100
26) Ethyl tert Butyl Ether	3.05	59	155231	10.2240	ppb	100
27) MEK (2-Butanone)	3.23	43	30908	9.9616	ppb	90
28) Cis-1,2-DCE	3.16	96	68645	10.0102	ppb	98
29) 2,2-Dichloropropane	3.14	77	85057	10.1545	ppb	94
30) Chloroform	3.62	83	119555	10.2003	ppb	94
31) Bromochloromethane	3.46	128	38356	10.2156	ppb	92
33) 1,1,1-TCA	3.83	97	94082	10.0596	ppb	90
34) Cyclohexane	3.90	41	40866	10.4307	ppb	86
35) 1,1-Dichloropropene	4.12	75	71815	10.0730	ppb	93
36) 2,2,4-Trimethylpentane	4.60	57	129794	10.0360	ppb	91
38) Carbon Tetrachloride	4.10	117	81443	10.6151	ppb	95
39) Tert Amyl Methyl Ether	4.70	73	137818	9.9325	ppb	99
40) 1,2-DCA	4.46	62	90409	10.4291	ppb	99
41) Benzene	4.41	78	246914	10.1200	ppb	97
42) TCE	5.37	95	30824	10.3021	ppb	97

Data File : M:\LOKI\DATA\181026\1026L15.D  
 Acq On : 26 Oct 18 16:10  
 Sample : 181026A CCV 10ug/L  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 14  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	582295	132.8532	ppb	98
44) 1,2-Dichloropropane	5.64	63	64580	9.8554	ppb	99
45) Bromodichloromethane	6.04	83	94409	10.0349	ppb	99
46) Methyl Cyclohexane	5.59	83	65767	9.9633	ppb	96
47) Dibromomethane	5.79	93	46505	9.4456	ppb	97
49) MIBK (methyl isobutyl ket	6.85	43	55394	9.5959	ppb	97
50) 1-Bromo-2-chloroethane	6.37	63	48016	10.0849	ppb	98
51) Cis-1,3-Dichloropropene	6.61	75	95614	9.9136	ppb	98
52) Toluene	6.97	91	261832	10.3587	ppb	97
53) Trans-1,3-Dichloropropene	7.29	75	89270	9.8426	ppb	97
54) 1,1,2-TCA	7.47	83	57137	10.1171	ppb	99
55) 2-Hexanone	7.82	43	34290	9.3724	ppb	98
58) 1,2-EDB	7.98	107	67301	9.8879	ppb	97
59) Tetrachloroethene	7.60	166	77774	10.5448	ppb	96
60) 1-Chlorohexane	8.60	91	55283	10.2818	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.67	131	70725	9.8181	ppb	99
62) m&p-Xylene	8.85	91	221250	18.4486	ppb	99
63) o-Xylene	9.27	106	92940	10.6049	ppb	96
64) Styrene	9.29	104	95304	9.2640	ppb	97
66) 1,3-Dichloropropane	7.65	76	106711	10.2238	ppb	94
67) Dibromochloromethane	7.89	129	76321	9.8837	ppb	94
68) Chlorobenzene	8.55	112	179629	10.1663	ppb	99
69) Ethylbenzene	8.71	91	257555	10.3128	ppb	95
70) Bromoform	9.45	173	58366	10.0791	ppb	100
72) Isopropylbenzene	9.69	105	224503	10.1542	ppb	100
73) 1,1,2,2-Tetrachloroethane	10.03	83	92589	9.2267	ppb	98
74) 1,2,3-Trichloropropane	10.04	110	29189	10.0007	ppb	92
75) t-1,4-Dichloro-2-Butene	10.09	53	17710	8.5912	ppb	84
76) Bromobenzene	9.96	156	81075	9.7481	ppb	97
77) n-Propylbenzene	10.13	91	176576	10.3433	ppb	97
78) 4-Ethyltoluene	10.26	105	227113	10.6996	ppb	97
79) 2-Chlorotoluene	10.19	91	184062	10.3436	ppb	99
80) 1,3,5-Trimethylbenzene	10.34	105	129408	9.4322	ppb	98
81) 4-Chlorotoluene	10.31	91	216880	10.6834	ppb	100
82) Tert-Butylbenzene	10.67	119	166492	10.3145	ppb	95
83) 1,2,4-Trimethylbenzene	10.73	105	194242	9.1872	ppb	95
84) Sec-Butylbenzene	10.91	105	251031	10.7324	ppb	98
85) p-Isopropyltoluene	11.08	119	225607	10.3925	ppb	98
86) Benzyl Chloride	11.25	91	93086	8.4585	ppb	98
87) 1,3-DCB	10.99	146	150296	10.2085	ppb	98
88) 1,4-DCB	11.09	146	156477	9.8996	ppb	98
89) n-Butylbenzene	11.52	91	179732	9.7655	ppb	96
90) 1,2-DCB	11.48	146	144276	10.1113	ppb	100
91) Hexachloroethane	11.75	117	45787	9.5547	ppb	97
92) 1,2-Dibromo-3-chloropropan	12.31	75	16279	8.7856	ppb	94
93) 1,2,4-Trichlorobenzene	13.20	180	83741	9.6932	ppb	96
94) Hexachlorobutadiene	13.41	225	47853	9.6609	ppb	96
95) Naphthalene	13.45	128	169894	8.8903	ppb	99
96) 1,2,3-Trichlorobenzene	13.71	180	50552	10.2623	ppb	96

Quantitation Report

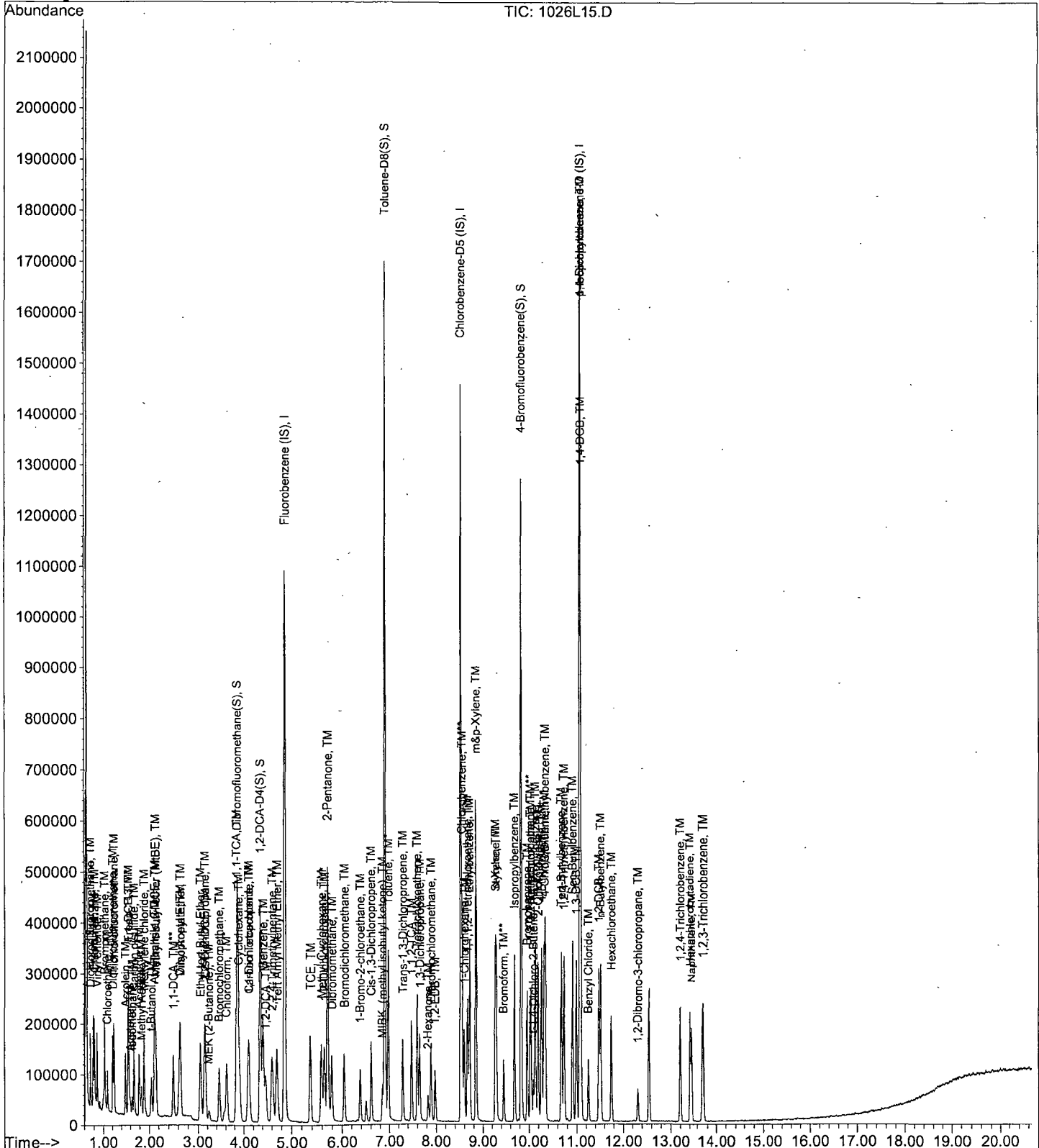
Data File : M:\LOKI\DATA\181026\1026L15.D  
 Acq On : 26 Oct 18 16:10  
 Sample : 181026A CCV 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 14  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/27/18  
Instrument: Loki  
Initial Cal. Date: 10/26/18  
Data File: 1026L37.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Dichlorodifluoromethane	0.3531	0.3966	12	TM	
3	TM	Freon 114	0.2423	0.2685	11	TM	
4	TM**L	Chloromethane	0.4215	0.4159	1.3	TM**L	12
5	TM*	Vinyl chloride	0.3311	0.3710	12	TM*	
6	TML	Bromomethane	0.2904	0.3001	3.3	TML	17
7	TM	Chloroethane	0.1889	0.2078	10.0	TM	
8	TM	Dichlorofluoromethane	0.5006	0.5391	7.7	TM	
9	TM	Trichlorofluoromethane	0.4298	0.4738	10	TM	
10	TM	Acrolein	0.0303	0.0286	5.5	TM	
11	TML	Acetone	0.1930	0.1505	22	TML	15
12	TM	Freon-113	0.2229	0.2454	10	TM	
13	TM*	1,1-DCE	0.1014	0.0989	2.4	TM*	
14	TM	t-Butanol	0.0354	0.0332	6.0	TM	
15	TM	Acetonitrile	0.0508	0.0515	1.4	TM	
16	TM	Methyl Acetate	0.2771	0.2886	4.2	TM	
17	TML	Iodomethane	0.0954	0.0913	4.3	TML	17
18	TML	Acrylonitrile	0.1304	0.1125	14	TML	2.1
19	TM	Methylene chloride	0.3234	0.3381	4.5	TM	
20	TM	Carbon disulfide	0.7804	0.8138	4.3	TM	
21	TM	Methyl t-butyl ether (MtBE)	0.7876	0.7842	0.43	TM	
22	TM	Trans-1,2-DCE	0.2849	0.2980	4.6	TM	
23	TM	Diisopropyl Ether	0.8312	0.8862	6.6	TM	
24	TM**	1,1-DCA	0.5618	0.6055	7.8	TM**	
25	TM	Vinyl Acetate	0.2025	0.2099	3.6	TM	
26	TM	Ethyl tert Butyl Ether	0.7193	0.6890	4.2	TM	
27	TM	MEK (2-Butanone)	0.1470	0.1358	7.6	TM	
28	TM	Cis-1,2-DCE	0.3249	0.3345	2.9	TM	
29	TML	2,2-Dichloropropane	0.4229	0.3406	19	TML	15
30	TM*	Chloroform	0.5553	0.5955	7.2	TM*	
31	TM	Bromochloromethane	0.1779	0.1908	7.3	TM	
32	SL	Dibromofluoromethane(S)	0.7974	0.7386	7.4	SL	8.0
33	TM	1,1,1-TCA	0.4431	0.4583	3.4	TM	
34	TM	Cyclohexane	0.1856	0.1915	3.1	TM	
35	TM	1,1-Dichloropropene	0.3378	0.3198	5.3	TM	
36	TM	2,2,4-Trimethylpentane	0.6127	0.5390	12	TM	
37	SL	1,2-DCA-D4(S)	0.8500	0.8327	2.0	SL	13
38	TM	Carbon Tetrachloride	0.3635	0.4047	11	TM	
39	TM	Tert Amyl Methyl Ether	0.6574	0.6181	6.0	TM	
40	TM	1,2-DCA	0.4107	0.4374	6.5	TM	

Average

7.0

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/27/18  
Instrument: Loki  
Cal. Date: 10/26/18  
Data File: 1026L37.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	Benzene	1.156	1.166	0.83	TM
42	TM	TCE	0.1418	0.1391	1.9	TM
43	TM	2-Pentanone	0.2077	0.2100	1.2	TM
44	TM*	1,2-Dichloropropane	0.3105	0.3233	4.1	TM*
45	TM	Bromodichloromethane	0.4457	0.4678	5.0	TM
46	TM	Methyl Cyclohexane	0.3127	0.2781	11	TM
47	TM	Dibromomethane	0.2333	0.2468	5.8	TM
48	TM	2-Chloroethyl vinyl ether	0.0000	0.0008	0.00	TM
49	TM	MIBK (methyl isobutyl ketone)	0.2735	0.2633	3.7	TM
50	TM	1-Bromo-2-chloroethane	0.2256	0.2192	2.8	TM
51	TM	Cis-1,3-Dichloropropene	0.4569	0.4202	8.0	TM
52	TM*	Toluene	1.198	1.249	4.3	TM*
53	TM	Trans-1,3-Dichloropropene	0.4297	0.4090	4.8	TM
54	TM	1,1,2-TCA	0.2676	0.2711	1.3	TM
55	TM	2-Hexanone	0.1733	0.1523	12	TM
56	I	Chlorobenzene-D5 (IS)	ISTD			I
57	SL	Toluene-D8(S)	2.655	2.476	6.7	SL 3.8
58	TM	1,2-EDB	0.3277	0.3233	1.3	TM
59	TM	Tetrachloroethene	0.3551	0.3807	7.2	TM
60	TM	1-Chlorohexane	0.2589	0.2543	1.8	TM
61	TM	1,1,1,2-Tetrachloroethane	0.3468	0.3578	3.2	TM
62	TML	m&p-Xylene	0.5122	0.5110	0.24	TML 11
63	TM	o-Xylene	0.4219	0.4143	1.8	TM
64	TML	Styrene	0.4298	0.4252	1.1	TML 13
65	S	4-Bromofluorobenzene(S)	0.8129	0.8428	3.7	S
66	TM	1,3-Dichloropropane	0.5025	0.5369	6.8	TM
67	TM	Dibromochloromethane	0.3717	0.3897	4.8	TM
68	TM**	Chlorobenzene	0.8506	0.8483	0.27	TM**
69	TM*	Ethylbenzene	1.202	1.155	3.9	TM*
70	TM**	Bromoform	0.2788	0.2874	3.1	TM**
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
72	TM	Isopropylbenzene	1.887	1.720	8.9	TM
73	TM**	1,1,2,2-Tetrachloroethane.	0.8566	0.7846	8.4	TM**
74	TM	1,2,3-Trichloropropane	0.2492	0.2599	4.3	TM
75	TM	t-1,4-Dichloro-2-Butene	0.1760	0.1356	23	TM
76	TM	Bromobenzene	0.7100	0.6741	5.1	TM
77	TM	n-Propylbenzene	1.457	1.351	7.3	TM
78	TM	4-Ethyltoluene	1.812	1.705	5.9	TM
79	TM	2-Chlorotoluene	1.519	1.511	0.53	TM
80	TML	1,3,5-Trimethylbenzene	1.014	1.036	2.1	TML 11

Average

4.7

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/27/18

Matrix: 0

Instrument: Loki

Cal. Date: 10/26/18

Data File: 1026L37.D

		Compound	MEAN	CCRF	%D	%Drift	
81	TM	4-Chlorotoluene	1.733	1.773	2.3	TM	
82	TM	Tert-Butylbenzene	1.378	1.306	5.2	TM	
83	TML	1,2,4-Trimethylbenzene	1.584	1.447	8.6	TML	19
84	TM	Sec-Butylbenzene	1.997	1.967	1.5	TM	
85	TM	p-Isopropyltoluene	1.853	1.774	4.3	TM	
86	TM	Benzyl Chloride	0.9394	0.5320	43	TM	
87	TM	1,3-DCB	1.257	1.220	2.9	TM	
88	TM	1,4-DCB	1.349	1.318	2.3	TM	
89	TM	n-Butylbenzene	1.571	1.345	14	TM	
90	TM	1,2-DCB	1.218	1.157	5.0	TM	
91	TM	Hexachloroethane	0.4091	0.3853	5.8	TM	
92	TM	1,2-Dibromo-3-chloropropane	0.1582	0.1327	16	TM	
93	TM	1,2,4-Trichlorobenzene	0.7375	0.6248	15	TM	
94	TM	Hexachlorobutadiene	0.4228	0.3857	8.8	TM	
95	TML	Naphthalene	1.520	1.181	22	TML	24
96	TM	1,2,3-Trichlorobenzene	0.4205	0.3559	15	TM	
97							
98							
99							
100							
101							
102							
103							
104							
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113							
114							
115							
116							
117							
118							
119							
120							

Average

10.7



Data File : M:\LOKI\DATA\181026\1026L37.D  
 Acq On : 27 Oct 18 2:35  
 Sample : Ending CCV 10ug/L 10/26/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 36  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:48 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	441984	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	425344	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	248128	25.0000	ppb	0.00
<b>System Monitoring Compounds</b>						
32) Dibromofluoromethane(S)	3.85	111	326460	26.9996	ppb	0.00
Spiked Amount	25.000		Recovery	=	108.000%	
37) 1,2-DCA-D4(S)	4.35	65	368023	28.1880	ppb	0.00
Spiked Amount	25.000		Recovery	=	112.752%	
57) Toluene-D8(S)	6.90	98	1053246	25.9509	ppb	0.00
Spiked Amount	25.000		Recovery	=	103.804%	
65) 4-Bromofluorobenzene(S)	9.83	95	358497	25.9215	ppb	0.00
Spiked Amount	25.000		Recovery	=	103.684%	
<b>Target Compounds</b>						
2) Dichlorodifluoromethane	0.73	85	70120	11.2328	ppb	Qvalue 99
3) Freon 114	0.79	85	47473	11.0819	ppb	81
4) Chloromethane	0.81	50	73534	11.1642	ppb	100
5) Vinyl chloride	0.87	62	65592	11.2050	ppb	100
6) Bromomethane	1.03	94	53054	11.6987	ppb	97
7) Chloroethane	1.09	64	36729	10.9966	ppb	98
8) Dichlorofluoromethane	1.21	67	95312	10.7700	ppb	96
9) Trichlorofluoromethane	1.24	101	83763	11.0244	ppb	95
10) Acrolein	1.49	56	63290	118.1693	ppb	# 98
11) Acetone	1.59	43	26607	11.4906	ppb	# 88
12) Freon-113	1.56	101	43384	11.0113	ppb	93
13) 1,1-DCE	1.54	63	17488	9.7593	ppb	97
14) t-Butanol	2.05	59	73426	117.4787	ppb	94
15) Acetonitrile	1.78	41	113785	126.8058	ppb	97
16) Methyl Acetate	1.84	43	51026	10.4162	ppb	94
17) Iodomethane	1.64	142	16144	8.3138	ppb	93
18) Acrylonitrile	2.10	52	19896	10.2133	ppb	98
19) Methylene chloride	1.89	84	59778	10.4541	ppb	92
20) Carbon disulfide	1.68	76	143878	10.4278	ppb	98
21) Methyl t-butyl ether (MtBE)	2.14	73	138643	9.9571	ppb	99
22) Trans-1,2-DCE	2.11	96	52679	10.4590	ppb	98
23) Diisopropyl Ether	2.63	45	156673	10.6613	ppb	95
24) 1,1-DCA	2.50	63	107040	10.7760	ppb	98
25) Vinyl Acetate	2.63	43	37101	10.3649	ppb	# 99
26) Ethyl tert Butyl Ether	3.05	59	121808	9.5781	ppb	97
27) MEK (2-Butanone)	3.23	43	24002	9.2357	ppb	92
28) Cis-1,2-DCE	3.16	96	59131	10.2947	ppb	91
29) 2,2-Dichloropropane	3.14	77	60212	8.5117	ppb	# 92
30) Chloroform	3.62	83	105280	10.7239	ppb	93
31) Bromochloromethane	3.46	128	33737	10.7276	ppb	100
33) 1,1,1-TCA	3.83	97	81032	10.3442	ppb	92
34) Cyclohexane	3.90	41	33848	10.3145	ppb	98
35) 1,1-Dichloropropene	4.11	75	56538	9.4677	ppb	# 92
36) 2,2,4-Trimethylpentane	4.61	57	95296	8.7972	ppb	# 83
38) Carbon Tetrachloride	4.09	117	71556	11.1347	ppb	91
39) Tert Amyl Methyl Ether	4.70	73	109280	9.4028	ppb	94
40) 1,2-DCA	4.46	62	77333	10.6504	ppb	94
41) Benzene	4.41	78	206068	10.0834	ppb	100
42) TCE	5.37	95	24584	9.8097	ppb	96

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

Data File : M:\LOKI\DATA\181026\1026L37.D  
 Acq On : 27 Oct 18 2:35  
 Sample : Ending CCV 10ug/L 10/26/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 36  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:48 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	464183	126.4394	ppb	99
44) 1,2-Dichloropropane	5.64	63	57163	10.4149	ppb	97
45) Bromodichloromethane	6.04	83	82709	10.4958	ppb	96
46) Methyl Cyclohexane	5.58	83	49169	8.8930	ppb	93
47) Dibromomethane	5.79	93	43624	10.5784	ppb	84
49) MIBK (methyl isobutyl ket	6.85	43	46557	9.6288	ppb	98
50) 1-Bromo-2-chloroethane	6.37	63	38760	9.7192	ppb	97
51) Cis-1,3-Dichloropropene	6.61	75	74296	9.1969	ppb	99
52) Toluene	6.98	91	220881	10.4329	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	72302	9.5174	ppb	95
54) 1,1,2-TCA	7.48	83	47929	10.1321	ppb	94
55) 2-Hexanone	7.83	43	26934	8.7892	ppb	95
58) 1,2-EDB	7.98	107	55009	9.8671	ppb	97
59) Tetrachloroethene	7.60	166	64779	10.7229	ppb	94
60) 1-Chlorohexane	8.60	91	43261	9.8231	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.67	131	60883	10.3187	ppb	98
62) m&p-Xylene	8.85	91	173888	17.8166	ppb	97
63) o-Xylene	9.27	106	70494	9.8204	ppb	96
64) Styrene	9.29	104	72344	8.6979	ppb	97
66) 1,3-Dichloropropane	7.65	76	91345	10.6847	ppb	92
67) Dibromochloromethane	7.89	129	66311	10.4842	ppb	94
68) Chlorobenzene	8.55	112	144334	9.9731	ppb	98
69) Ethylbenzene	8.71	91	196570	9.6095	ppb	98
70) Bromoform	9.45	173	48904	10.3105	ppb	94
72) Isopropylbenzene	9.69	105	170721	9.1139	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.03	83	77874	9.1595	ppb	99
74) 1,2,3-Trichloropropane	10.04	110	25794	10.4308	ppb	82
75) t-1,4-Dichloro-2-Butene	10.09	53	13457	7.7051	ppb	79
76) Bromobenzene	9.96	156	66901	9.4941	ppb	96
77) n-Propylbenzene	10.13	91	134105	9.2717	ppb	98
78) 4-Ethyltoluene	10.26	105	169233	9.4102	ppb	100
79) 2-Chlorotoluene	10.19	91	149973	9.9474	ppb	97
80) 1,3,5-Trimethylbenzene	10.34	105	102824	8.8634	ppb	99
81) 4-Chlorotoluene	10.31	91	175942	10.2294	ppb	98
82) Tert-Butylbenzene	10.67	119	129664	9.4812	ppb	94
83) 1,2,4-Trimethylbenzene	10.73	105	143639	8.0977	ppb	98
84) Sec-Butylbenzene	10.91	105	195236	9.8519	ppb	97
85) p-Isopropyltoluene	11.08	119	176057	9.5722	ppb	98
86) Benzyl Chloride	11.25	91	52803	5.6632	ppb	97
87) 1,3-DCB	10.99	146	121095	9.7081	ppb	98
88) 1,4-DCB	11.09	146	130837	9.7699	ppb	93
89) n-Butylbenzene	11.52	91	133524	8.5628	ppb	99
90) 1,2-DCB	11.47	146	114812	9.4971	ppb	100
91) Hexachloroethane	11.74	117	38237	9.4178	ppb	96
92) 1,2-Dibromo-3-chloropropan	12.31	75	13170	8.3892	ppb	97
93) 1,2,4-Trichlorobenzene	13.20	180	62017	8.4729	ppb	97
94) Hexachlorobutadiene	13.41	225	38284	9.1225	ppb	93
95) Naphthalene	13.45	128	117236	7.6050	ppb	100
96) 1,2,3-Trichlorobenzene	13.71	180	35328	8.4648	ppb	96

Quantitation Report

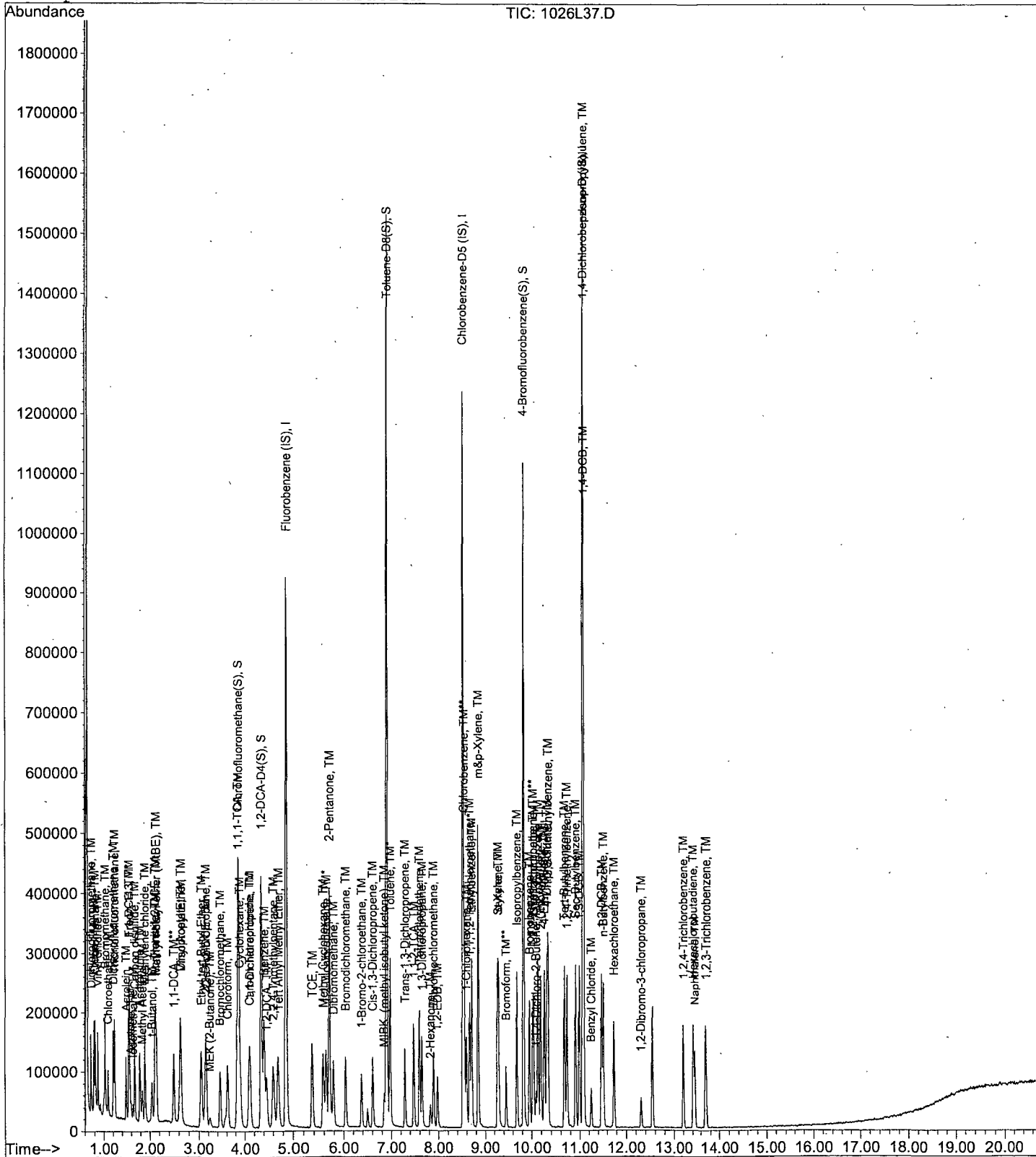
Data File : M:\LOKI\DATA\181026\1026L37.D  
Acq On : 27 Oct 18 2:35  
Sample : Ending CCV 10ug/L 10/26/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 36  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:48 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/29/18  
Instrument: Loki  
Initial Cal. Date: 10/26/18  
Data File: 1029L14.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Fluorobenzene (IS)	ISTD			I
2	TM	Dichlorodifluoromethane	0.3531	0.3377	4.4	TM
3	TM	Freon 114	0.2423	0.2237	7.7	TM
4	TM**L	Chloromethane	0.4215	0.3809	9.6	TM**L 1.5
5	TM*	Vinyl chloride	0.3311	0.3340	0.87	TM*
6	TML	Bromomethane	0.2904	0.2748	5.4	TML 5.3
7	TM	Chloroethane	0.1889	0.1769	6.4	TM
8	TM	Dichlorofluoromethane	0.5006	0.4720	5.7	TM
9	TM	Trichlorofluoromethane	0.4298	0.3871	9.9	TM
10	TM	Acrolein	0.0303	0.0250	17	TM
11	TML	Acetone	0.1930	0.1217	37	TML 15
12	TM	Freon-113	0.2229	0.1940	13	TM
13	TM*	1,1-DCE	0.1014	0.0834	18	TM*
14	TM	t-Butanol	0.0354	0.0327	7.6	TM
15	TM	Acetonitrile	0.0508	0.0463	8.8	TM
16	TM	Methyl Acetate	0.2771	0.2525	8.9	TM
17	TML	Iodomethane	0.0954	0.0696	27	TML 33 nt
18	TML	Acrylonitrile	0.1304	0.1058	19	TML 4.5
19	TM	Methylene chloride	0.3234	0.3013	6.9	TM
20	TM	Carbon disulfide	0.7804	0.6685	14	TM
21	TM	Methyl t-butyl ether (MtBE)	0.7876	0.6978	11	TM
22	TM	Trans-1,2-DCE	0.2849	0.2567	9.9	TM
23	TM	Diisopropyl Ether	0.8312	0.7756	6.7	TM
24	TM**	1,1-DCA	0.5618	0.5066	9.8	TM**
25	TM	Vinyl Acetate	0.2025	0.1923	5.0	TM
26	TM	Ethyl tert Butyl Ether	0.7193	0.6410	11	TM
27	TM	MEK (2-Butanone)	0.1470	0.1365	7.1	TM
28	TM	Cis-1,2-DCE	0.3249	0.3055	6.0	TM
29	TML	2,2-Dichloropropane	0.4229	0.4051	4.2	TML 2.1
30	TM*	Chloroform	0.5553	0.5381	3.1	TM*
31	TM	Bromochloromethane	0.1779	0.1778	0.06	TM
32	SL	Dibromofluoromethane(S)	0.7974	0.6984	12	SL 1.4
33	TM	1,1,1-TCA	0.4431	0.4276	3.5	TM
34	TM	Cyclohexane	0.1856	0.1586	15	TM
35	TM	1,1-Dichloropropene	0.3378	0.2804	17	TM
36	TM	2,2,4-Trimethylpentane	0.6127	0.4948	19	TM
37	SL	1,2-DCA-D4(S)	0.8500	0.7715	9.2	SL 3.2
38	TM	Carbon Tetrachloride	0.3635	0.3487	4.1	TM
39	TM	Tert Amyl Methyl Ether	0.6574	0.5875	11	TM
40	TM	1,2-DCA	0.4107	0.3948	3.9	TM

Average

10.1

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/29/18  
Instrument: Loki  
Cal. Date: 10/26/18  
Data File: 1029L14.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM	Benzene	1.156	1.046	9.5	TM	
42	TM	TCE	0.1418	0.1282	9.6	TM	
43	TM	2-Pentanone	0.2077	0.2007	3.3	TM	
44	TM*	1,2-Dichloropropane	0.3105	0.2902	6.5	TM*	
45	TM	Bromodichloromethane	0.4457	0.4249	4.7	TM	
46	TM	Methyl Cyclohexane	0.3127	0.2297	27	TM	
47	TM	Dibromomethane	0.2333	0.2184	6.4	TM	
48	TM	2-Chloroethyl vinyl ether	0.0000	0.0058	0.00	TM	
49	TM	MIBK (methyl isobutyl ketone)	0.2735	0.2512	8.2	TM	
50	TM	1-Bromo-2-chloroethane	0.2256	0.2203	2.3	TM	
51	TM	Cis-1,3-Dichloropropene	0.4569	0.3856	16	TM	
52	TM*	Toluene	1.198	1.133	5.4	TM*	
53	TM	Trans-1,3-Dichloropropene	0.4297	0.4026	6.3	TM	
54	TM	1,1,2-TCA	0.2676	0.2561	4.3	TM	
55	TM	2-Hexanone	0.1733	0.1537	11	TM	
56	I	Chlorobenzene-D5 (IS)	ISTD			I	
57	SL	Toluene-D8(S)	2.655	2.483	6.5	SL	0.69
58	TM	1,2-EDB	0.3277	0.3097	5.5	TM	
59	TM	Tetrachloroethene	0.3551	0.3609	1.6	TM	
60	TM	1-Chlorohexane	0.2589	0.2521	2.6	TM	
61	TM	1,1,1,2-Tetrachloroethane	0.3468	0.3684	6.2	TM	
62	TML	m&p-Xylene	0.5122	0.4988	2.6	TML	13
63	TM	o-Xylene	0.4219	0.3790	10	TM	
64	TML	Styrene	0.4298	0.3823	11	TML	20
65	S	4-Bromofluorobenzene(S)	0.8129	0.8488	4.4	S	
66	TM	1,3-Dichloropropane	0.5025	0.5171	2.9	TM	
67	TM	Dibromochloromethane	0.3717	0.3572	3.9	TM	
68	TM**	Chlorobenzene	0.8506	0.8247	3.0	TM**	
69	TM*	Ethylbenzene	1.202	1.173	2.5	TM*	
70	TM**	Bromoform	0.2788	0.2955	6.0	TM**	
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
72	TM	Isopropylbenzene	1.887	1.660	12	TM	
73	TM**	1,1,2,2-Tetrachloroethane	0.8566	0.8315	2.9	TM**	
74	TM	1,2,3-Trichloropropane	0.2492	0.2386	4.2	TM	
75	TM	t-1,4-Dichloro-2-Butene	0.1760	0.1633	7.2	TM	
76	TM	Bromobenzene	0.7100	0.6690	5.8	TM	
77	TM	n-Propylbenzene	1.457	1.330	8.8	TM	
78	TM	4-Ethyltoluene	1.812	1.661	8.3	TM	
79	TM	2-Chlorotoluene	1.519	1.435	5.5	TM	
80	TML	1,3,5-Trimethylbenzene	1.014	1.010	0.39	TML	13

Average

6.4

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/29/18  
Instrument: Loki  
Cal. Date: 10/26/18  
Data File: 1029L14.D

		Compound	MEAN	CCRF	%D	%Drift	
81	TM	4-Chlorotoluene	1.733	1.681	3.0	TM	
82	TM	Tert-Butylbenzene	1.378	1.151	16	TM	
83	TML	1,2,4-Trimethylbenzene	1.584	1.356	14	TML	24 nt
84	TM	Sec-Butylbenzene	1.997	1.822	8.8	TM	
85	TM	p-Isopropyltoluene	1.853	1.672	9.8	TM	
86	TM	Benzyl Chloride	0.9394	0.8277	12	TM	
87	TM	1,3-DCB	1.257	1.193	5.1	TM	
88	TM	1,4-DCB	1.349	1.218	9.8	TM	
89	TM	n-Butylbenzene	1.571	1.350	14	TM	
90	TM	1,2-DCB	1.218	1.154	5.3	TM	
91	TM	Hexachloroethane	0.4091	0.3783	7.5	TM	
92	TM	1,2-Dibromo-3-chloropropane	0.1582	0.1361	14	TM	
93	TM	1,2,4-Trichlorobenzene	0.7375	0.5901	20	TM	
94	TM	Hexachlorobutadiene	0.4228	0.3432	19	TM	
95	TML	Naphthalene	1.520	1.142	25	TML	26 nt
96	TM	1,2,3-Trichlorobenzene	0.4205	0.3409	19	TM	
97							
98							
99							
100							
101							
102							
103							
104							
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106							
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112							
113							
114							
115							
116							
117							
118							
119							
120							

Average

12.6

Data File : M:\LOKI\DATA\181026\1029L14.D  
 Acq On : 29 Oct 18 15:04  
 Sample : 181029A CCV 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 9  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 8:57 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	526528	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	475328	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	277824	25.0000	ppb	0.00

System Monitoring Compounds

32) Dibromofluoromethane(S)	3.85	111	367722	25.3431	ppb	0.00
Spiked Amount	25.000		Recovery	=	101.372%	
37) 1,2-DCA-D4 (S)	4.35	65	406215	25.7978	ppb	0.00
Spiked Amount	25.000		Recovery	=	103.192%	
57) Toluene-D8 (S)	6.90	98	1180360	25.1735	ppb	0.00
Spiked Amount	25.000		Recovery	=	100.692%	
65) 4-Bromofluorobenzene(S)	9.83	95	403482	26.1063	ppb	0.00
Spiked Amount	25.000		Recovery	=	104.424%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.72	85	71120	9.5637	ppb	97
3) Freon 114	0.79	85	47122	9.2337	ppb	97
4) Chloromethane	0.81	50	80231	10.1495	ppb	99
5) Vinyl chloride	0.87	62	70341	10.0868	ppb	98
6) Bromomethane	1.03	94	57867	10.5292	ppb	98
7) Chloroethane	1.09	64	37250	9.3618	ppb	99
8) Dichlorofluoromethane	1.21	67	99406	9.4290	ppb	99
9) Trichlorofluoromethane	1.24	101	81527	9.0072	ppb	96
10) Acrolein	1.49	56	65837	103.1869	ppb	100
11) Acetone	1.60	43	25641	8.4773	ppb	91
12) Freon-113	1.56	101	40856	8.7046	ppb	99
13) 1,1-DCE	1.54	63	17560	8.2260	ppb	96
14) t-Butanol	2.05	59	86044	115.5619	ppb	99
15) Acetonitrile	1.78	41	121862	114.0007	ppb	97
16) Methyl Acetate	1.84	43	53172	9.1114	ppb	99
17) Iodomethane	1.63	142	14666	6.7251	ppb	87
18) Acrylonitrile	2.10	52	22290	9.5545	ppb	96
19) Methylene chloride	1.89	84	63449	9.3144	ppb	98
20) Carbon disulfide	1.68	76	140790	8.5656	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	146968	8.8602	ppb	98
22) Trans-1,2-DCE	2.11	96	54067	9.0109	ppb	95
23) Diisopropyl Ether	2.63	45	163354	9.3311	ppb	97
24) 1,1-DCA	2.49	63	106692	9.0163	ppb	98
25) Vinyl Acetate	2.63	43	40510	9.5001	ppb	# 98
26) Ethyl tert Butyl Ether	3.05	59	135004	8.9112	ppb	94
27) MEK (2-Butanone)	3.23	43	28753	9.2873	ppb	# 74
28) Cis-1,2-DCE	3.16	96	64343	9.4034	ppb	95
29) 2,2-Dichloropropane	3.14	77	85322	10.2109	ppb	94
30) Chloroform	3.62	83	113325	9.6899	ppb	92
31) Bromochloromethane	3.45	128	37441	9.9937	ppb	90
33) 1,1,1-TCA	3.83	97	90057	9.6503	ppb	93
34) Cyclohexane	3.89	41	33397	8.5429	ppb	95
35) 1,1-Dichloropropene	4.11	75	59060	8.3020	ppb	94
36) 2,2,4-Trimethylpentane	4.61	57	104201	8.0747	ppb	# 82
38) Carbon Tetrachloride	4.09	117	73449	9.5941	ppb	94
39) Tert Amyl Methyl Ether	4.70	73	123736	8.9371	ppb	95
40) 1,2-DCA	4.46	62	83143	9.6120	ppb	# 92
41) Benzene	4.41	78	220235	9.0463	ppb	99
42) TCE	5.36	95	27000	9.0438	ppb	90

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

Data File : M:\LOKI\DATA\181026\1029L14.D  
 Acq On : 29 Oct 18 15:04  
 Sample : 181029A CCV 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 9  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 8:57 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	528446	120.8311	ppb	100
44) 1,2-Dichloropropane	5.64	63	61129	9.3491	ppb	99
45) Bromodichloromethane	6.04	83	89497	9.5336	ppb	100
46) Methyl Cyclohexane	5.59	83	48386	7.3462	ppb	90
47) Dibromomethane	5.79	93	46002	9.3639	ppb	91
49) MIBK (methyl isobutyl ket	6.85	43	52906	9.1850	ppb	95
50) 1-Bromo-2-chloroethane	6.37	63	46400	9.7668	ppb	100
51) Cis-1,3-Dichloropropene	6.61	75	81217	8.4393	ppb	98
52) Toluene	6.97	91	238573	9.4592	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	84789	9.3690	ppb	98
54) 1,1,2-TCA	7.47	83	53947	9.5731	ppb	98
55) 2-Hexanone	7.82	43	32381	8.8700	ppb	95
58) 1,2-EDB	7.98	107	58887	9.4520	ppb	98
59) Tetrachloroethene	7.60	166	68619	10.1641	ppb	97
60) 1-Chlorohexane	8.60	91	47933	9.7394	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.67	131	70043	10.6228	ppb	99
62) m&p-Xylene	8.85	91	189684	17.4589	ppb	99
63) o-Xylene	9.27	106	72060	8.9829	ppb	99
64) Styrene	9.29	104	72680	7.9743	ppb	100
66) 1,3-Dichloropropane	7.65	76	98309	10.2900	ppb	96
67) Dibromochloromethane	7.89	129	67907	9.6075	ppb	97
68) Chlorobenzene	8.55	112	156805	9.6954	ppb	99
69) Ethylbenzene	8.71	91	222965	9.7536	ppb	96
70) Bromoform	9.45	173	56193	10.6014	ppb	97
72) Isopropylbenzene	9.69	105	184511	8.7972	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.03	83	92407	9.7071	ppb	92
74) 1,2,3-Trichloropropane	10.04	110	26519	9.5778	ppb	94
75) t-1,4-Dichloro-2-Butene	10.09	53	18151	9.2818	ppb	96
76) Bromobenzene	9.96	156	74344	9.4227	ppb	98
77) n-Propylbenzene	10.13	91	147776	9.1249	ppb	97
78) 4-Ethyltoluene	10.26	105	184574	9.1662	ppb	99
79) 2-Chlorotoluene	10.19	91	159520	9.4497	ppb	97
80) 1,3,5-Trimethylbenzene	10.34	105	112288	8.6516	ppb	99
81) 4-Chlorotoluene	10.31	91	186836	9.7017	ppb	99
82) Tert-Butylbenzene	10.67	119	127903	8.3528	ppb	95
83) 1,2,4-Trimethylbenzene	10.73	105	150696	7.6266	ppb	95
84) Sec-Butylbenzene	10.91	105	202443	9.1236	ppb	97
85) p-Isopropyltoluene	11.08	119	185779	9.0211	ppb	97
86) Benzyl Chloride	11.25	91	91987	8.8112	ppb	99
87) 1,3-DCB	10.99	146	132532	9.4893	ppb	97
88) 1,4-DCB	11.09	146	135317	9.0244	ppb	99
89) n-Butylbenzene	11.52	91	150076	8.5956	ppb	96
90) 1,2-DCB	11.47	146	128242	9.4741	ppb	97
91) Hexachloroethane	11.75	117	42039	9.2475	ppb	95
92) 1,2-Dibromo-3-chloropropan	12.31	75	15126	8.6052	ppb	91
93) 1,2,4-Trichlorobenzene	13.20	180	65581	8.0021	ppb	95
94) Hexachlorobutadiene	13.41	225	38140	8.1168	ppb	96
95) Naphthalene	13.45	128	126865	7.4158	ppb	100
96) 1,2,3-Trichlorobenzene	13.71	180	37888	8.1078	ppb	97



Quantitation Report

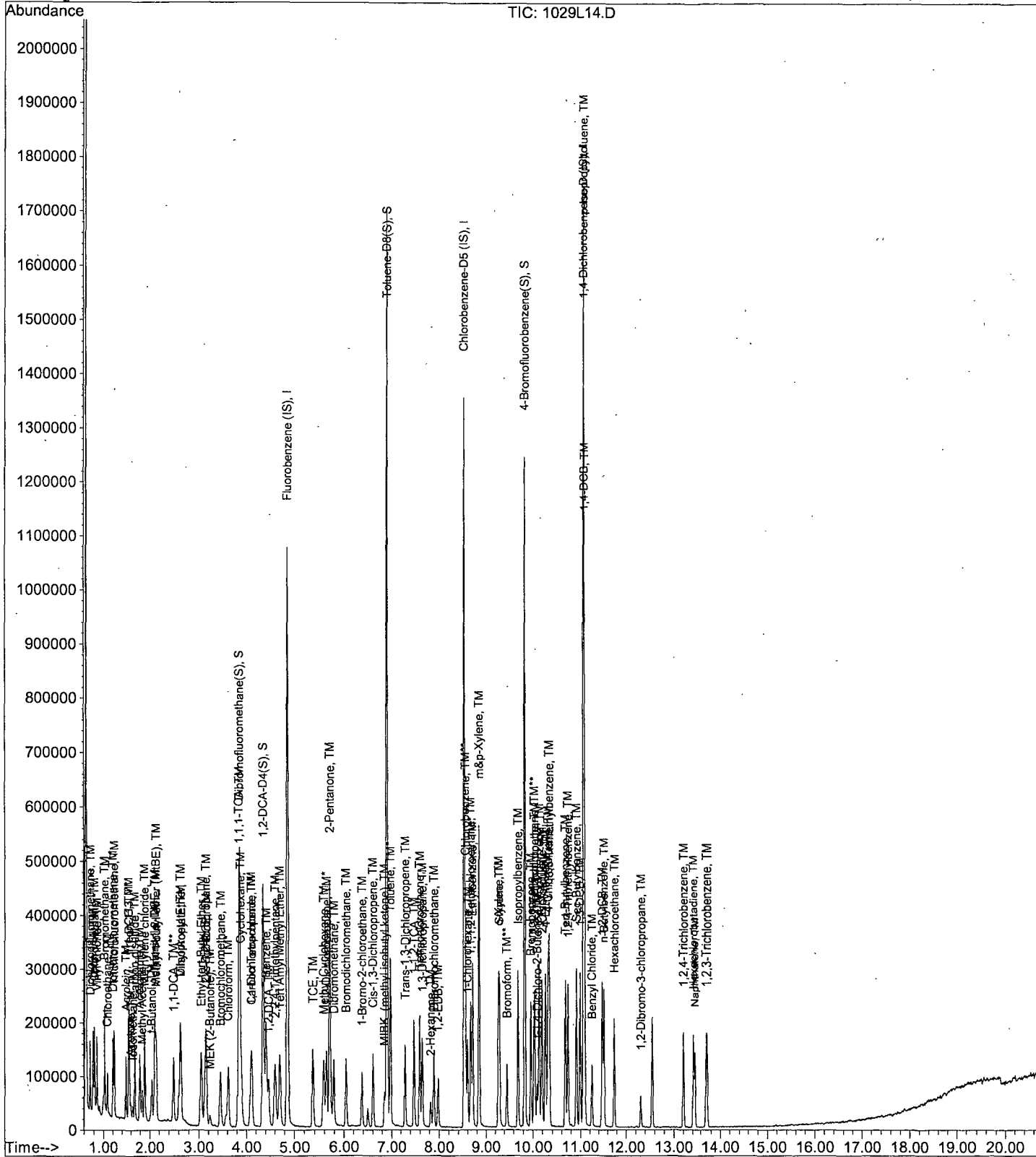
Data File : M:\LOKI\DATA\181026\1029L14.D  
Acq On : 29 Oct 18 15:04  
Sample : 181029A CCV 10ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 9  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 8:57 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 08:56:51 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/30/18

Matrix: \_\_\_\_\_

Instrument: Loki

Initial Cal. Date: 10/26/18

Data File: 1029L36.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Fluorobenzene (IS)	ISTD			I
2	TM	Dichlorodifluoromethane	0.3531	0.3990	13	TM
3	TM	Freon 114	0.2423	0.2702	12	TM
4	TM**L	Chloromethane	0.4215	0.4223	0.19	TM**L 13
5	TM*	Vinyl chloride	0.3311	0.3646	10	TM*
6	TML	Bromomethane	0.2904	0.2959	1.9	TML 15
7	TM	Chloroethane	0.1889	0.1941	2.7	TM
8	TM	Dichlorofluoromethane	0.5006	0.5643	13	TM
9	TM	Trichlorofluoromethane	0.4298	0.4583	6.6	TM
10	TM	Acrolein	0.0303	0.0257	15	TM
11	TML	Acetone	0.1930	0.1296	33	TML 7.0
12	TM	Freon-113	0.2229	0.2363	6.0	TM
13	TM*	1,1-DCE	0.1014	0.1076	6.2	TM*
14	TM	t-Butanol	0.0354	0.0291	18	TM
15	TM	Acetonitrile	0.0508	0.0499	1.7	TM
16	TM	Methyl Acetate	0.2771	0.2698	2.6	TM
17	TML	Iodomethane	0.0954	0.1022	7.2	TML 8.8
18	TML	Acrylonitrile	0.1304	0.1150	12	TML 4.6
19	TM	Methylene chloride	0.3234	0.3599	11	TM
20	TM	Carbon disulfide	0.7804	0.8006	2.6	TM
21	TM	Methyl t-butyl ether (MtBE)	0.7876	0.7637	3.0	TM
22	TM	Trans-1,2-DCE	0.2849	0.3020	6.0	TM
23	TM	Diisopropyl Ether	0.8312	0.8940	7.6	TM
24	TM**	1,1-DCA	0.5618	0.6043	7.5	TM**
25	TM	Vinyl Acetate	0.2025	0.2192	8.2	TM
26	TM	Ethyl tert Butyl Ether	0.7193	0.7014	2.5	TM
27	TM	MEK (2-Butanone)	0.1470	0.1428	2.9	TM
28	TM	Cis-1,2-DCE	0.3249	0.3370	3.7	TM
29	TML	2,2-Dichloropropane	0.4229	0.3761	11	TML 5.5
30	TM*	Chloroform	0.5553	0.6013	8.3	TM*
31	TM	Bromochloromethane	0.1779	0.1877	5.5	TM
32	SL	Dibromofluoromethane(S)	0.7974	0.7445	6.6	SL 9.0
33	TM	1,1,1-TCA	0.4431	0.4725	6.6	TM
34	TM	Cyclohexane	0.1856	0.1774	4.5	TM
35	TM	1,1-Dichloropropene	0.3378	0.3212	4.9	TM
36	TM	2,2,4-Trimethylpentane	0.6127	0.5034	18	TM
37	SL	1,2-DCA-D4(S)	0.8500	0.8475	0.29	SL 15
38	TM	Carbon Tetrachloride	0.3635	0.4124	13	TM
39	TM	Tert Amyl Methyl Ether	0.6574	0.6084	7.5	TM
40	TM	1,2-DCA	0.4107	0.4393	7.0	TM

Average

7.9

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Loki  
Cal. Date: 10/26/18  
Data File: 1029L36.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	Benzene	1.156	1.167	0.98	TM
42	TM	TCE	0.1418	0.1405	0.89	TM
43	TM	2-Pentanone	0.2077	0.1887	9.1	TM
44	TM*	1,2-Dichloropropane	0.3105	0.3320	7.0	TM*
45	TM	Bromodichloromethane	0.4457	0.4671	4.8	TM
46	TM	Methyl Cyclohexane	0.3127	0.2672	15	TM
47	TM	Dibromomethane	0.2333	0.2389	2.4	TM
48	TM	2-Chloroethyl vinyl ether	0.0000	0.0059	0.00	TM
49	TM	MIBK (methyl isobutyl ketone)	0.2735	0.2364	14	TM
50	TM	1-Bromo-2-chloroethane	0.2256	0.2273	0.78	TM
51	TM	Cis-1,3-Dichloropropene	0.4569	0.4270	6.6	TM
52	TM*	Toluene	1.198	1.257	5.0	TM*
53	TM	Trans-1,3-Dichloropropene	0.4297	0.4212	2.0	TM
54	TM	1,1,2-TCA	0.2676	0.2770	3.5	TM
55	TM	2-Hexanone	0.1733	0.1477	15	TM
56	I	Chlorobenzene-D5 (IS)	ISTD			I
57	SL	Toluene-D8(S)	2.655	2.573	3.1	SL 4.6
58	TM	1,2-EDB	0.3277	0.3387	3.4	TM
59	TM	Tetrachloroethene	0.3551	0.3884	9.4	TM
60	TM	1-Chlorohexane	0.2589	0.2609	0.79	TM
61	TM	1,1,1,2-Tetrachloroethane	0.3468	0.3922	13	TM
62	TML	m&p-Xylene	0.5122	0.5323	3.9	TML 7.8
63	TM	o-Xylene	0.4219	0.4275	1.3	TM
64	TML	Styrene	0.4298	0.4435	3.2	TML 9.9
65	S	4-Bromofluorobenzene(S)	0.8129	0.8853	8.9	S
66	TM	1,3-Dichloropropane	0.5025	0.5207	3.6	TM
67	TM	Dibromochloromethane	0.3717	0.3855	3.7	TM
68	TM**	Chlorobenzene	0.8506	0.8961	5.3	TM**
69	TM*	Ethylbenzene	1.202	1.221	1.5	TM*
70	TM**	Bromoform	0.2788	0.2952	5.9	TM**
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
72	TM	Isopropylbenzene	1.887	1.893	0.29	TM
73	TM**	1,1,2,2-Tetrachloroethane	0.8566	0.8165	4.7	TM**
74	TM	1,2,3-Trichloropropane	0.2492	0.2545	2.1	TM
75	TM	t-1,4-Dichloro-2-Butene	0.1760	0.1435	18	TM
76	TM	Bromobenzene	0.7100	0.7159	0.84	TM
77	TM	n-Propylbenzene	1.457	1.479	1.5	TM
78	TM	4-Ethyltoluene	1.812	1.874	3.4	TM
79	TM	2-Chlorotoluene	1.519	1.630	7.3	TM
80	TML	1,3,5-Trimethylbenzene	1.014	1.086	7.1	TML 7.2

Average

5.2

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Loki  
Cal. Date: 10/26/18  
Data File: 1029L36.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	4-Chlorotoluene	1.733	1.891	9.1	TM
82	TM	Tert-Butylbenzene	1.378	1.407	2.1	TM
83	TML	1,2,4-Trimethylbenzene	1.584	1.572	0.76	TML 13
84	TM	Sec-Butylbenzene	1.997	2.070	3.7	TM
85	TM	p-Isopropyltoluene	1.853	1.889	1.9	TM
86	TM	Benzyl Chloride	0.9394	0.5899	37	TM
87	TM	1,3-DCB	1.257	1.335	6.2	TM
88	TM	1,4-DCB	1.349	1.407	4.3	TM
89	TM	n-Butylbenzene	1.571	1.455	7.4	TM
90	TM	1,2-DCB	1.218	1.240	1.8	TM
91	TM	Hexachloroethane	0.4091	0.4210	2.9	TM
92	TM	1,2-Dibromo-3-chloropropane	0.1582	0.1354	14	TM
93	TM	1,2,4-Trichlorobenzene	0.7375	0.6796	7.9	TM
94	TM	Hexachlorobutadiene	0.4228	0.4160	1.6	TM
95	TML	Naphthalene	1.520	1.181	22	TML 24
96	TM	1,2,3-Trichlorobenzene	0.4205	0.3758	11	TM
97						
98						
99						
100						
101						
102						
103						
104						
105						
106						
107						
108						
109						
110						
111						
112						
113						
114						
115						
116						
117						
118						
119						
120						

Average

8.4

Data File : M:\LOKI\DATA\181026\1029L36.D  
 Acq On : 30 Oct 18 1:30  
 Sample : Ending CCV 8260 10ug/L  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 31  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 9:04 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 08:56:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.86	96	444992	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	418432	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	233600	25.0000	ppb	0.00
<b>System Monitoring Compounds</b>						
32) Dibromofluoromethane (S)	3.85	111	331296	27.2414	ppb	0.00
Spiked Amount	25.000		Recovery	=	108.964%	
37) 1,2-DCA-D4 (S)	4.35	65	377136	28.7684	ppb	0.00
Spiked Amount	25.000		Recovery	=	115.072%	
57) Toluene-D8 (S)	6.90	98	1076612	26.1380	ppb	0.00
Spiked Amount	25.000		Recovery	=	104.552%	
65) 4-Bromofluorobenzene (S)	9.83	95	370448	27.2281	ppb	0.00
Spiked Amount	25.000		Recovery	=	108.912%	
<b>Target Compounds</b>						
2) Dichlorodifluoromethane	0.73	85	71016	11.2995	ppb	96
3) Freon 114	0.79	85	48099	11.1521	ppb	86
4) Chloromethane	0.81	50	75161	11.3477	ppb	98
5) Vinyl chloride	0.87	62	64905	11.0127	ppb	96
6) Bromomethane	1.03	94	52663	11.5037	ppb	95
7) Chloroethane	1.09	64	34548	10.2737	ppb	99
8) Dichlorofluoromethane	1.21	67	100444	11.2732	ppb	99
9) Trichlorofluoromethane	1.24	101	81572	10.6635	ppb	95
10) Acrolein	1.49	56	57072	105.8393	ppb	# 98
11) Acetone	1.59	43	23069	9.3008	ppb	97
12) Freon-113	1.56	101	42067	10.6049	ppb	94
13) 1,1-DCE	1.55	63	19152	10.6157	ppb	91
14) t-Butanol	2.04	59	64714	102.8399	ppb	95
15) Acetonitrile	1.78	41	110985	122.8493	ppb	97
16) Methyl Acetate	1.84	43	48022	9.7367	ppb	98
17) Iodomethane	1.64	142	18200	9.1151	ppb	95
18) Acrylonitrile	2.10	52	20474	10.4577	ppb	91
19) Methylene chloride	1.89	84	64070	11.1290	ppb	94
20) Carbon disulfide	1.68	76	142513	10.2591	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	135939	9.6969	ppb	97
22) Trans-1,2-DCE	2.11	96	53763	10.6021	ppb	97
23) Diisopropyl Ether	2.63	45	159125	10.7550	ppb	97
24) 1,1-DCA	2.49	63	107555	10.7547	ppb	97
25) Vinyl Acetate	2.63	43	39008	10.8240	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	124842	9.7503	ppb	99
27) MEK (2-Butanone)	3.23	43	25416	9.7136	ppb	92
28) Cis-1,2-DCE	3.15	96	59985	10.3728	ppb	95
29) 2,2-Dichloropropane	3.14	77	66948	9.4474	ppb	98
30) Chloroform	3.62	83	107035	10.8290	ppb	95
31) Bromochloromethane	3.46	128	33408	10.5511	ppb	97
33) 1,1,1-TCA	3.83	97	84098	10.6630	ppb	92
34) Cyclohexane	3.89	41	31568	9.5547	ppb	94
35) 1,1-Dichloropropene	4.11	75	57165	9.5080	ppb	93
36) 2,2,4-Trimethylpentane	4.61	57	89596	8.2151	ppb	# 80
38) Carbon Tetrachloride	4.09	117	73399	11.3443	ppb	95
39) Tert Amyl Methyl Ether	4.70	73	108293	9.2549	ppb	94
40) 1,2-DCA	4.47	62	78195	10.6963	ppb	96
41) Benzene	4.41	78	207771	10.0980	ppb	98
42) TCE	5.37	95	25008	9.9114	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1029L36.D L1026W.M Tue Oct 30 09:07:30 2018

Data File : M:\LOKI\DATA\181026\1029L36.D  
 Acq On : 30 Oct 18 1:30  
 Sample : Ending CCV 8260 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 31  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 9:04 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 08:56:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	419749	113.5631	ppb	97
44) 1,2-Dichloropropane	5.64	63	59101	10.6952	ppb	99
45) Bromodichloromethane	6.04	83	83147	10.4801	ppb	99
46) Methyl Cyclohexane	5.59	83	47552	8.5424	ppb	94
47) Dibromomethane	5.79	93	42518	10.2406	ppb	86
49) MIBK (methyl isobutyl ket	6.85	43	42082	8.6445	ppb	92
50) 1-Bromo-2-chloroethane	6.37	63	40464	10.0779	ppb	100
51) Cis-1,3-Dichloropropene	6.61	75	76005	9.3448	ppb	98
52) Toluene	6.97	91	223736	10.4963	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	74971	9.8020	ppb	100
54) 1,1,2-TCA	7.47	83	49301	10.3517	ppb	96
55) 2-Hexanone	7.82	43	26292	8.5217	ppb	94
58) 1,2-EDB	7.98	107	56686	10.3359	ppb	96
59) Tetrachloroethene	7.60	166	65012	10.9392	ppb	95
60) 1-Chlorohexane	8.60	91	43666	10.0788	ppb	92
61) 1,1,1,2-Tetrachloroethane	8.66	131	65640	11.3087	ppb	99
62) m&p-Xylene	8.85	91	178190	18.4410	ppb	100
63) o-Xylene	9.27	106	71552	10.1324	ppb	99
64) Styrene	9.29	104	74224	9.0054	ppb	96
66) 1,3-Dichloropropane	7.65	76	87153	10.3627	ppb	98
67) Dibromochloromethane	7.89	129	64525	10.3704	ppb	99
68) Chlorobenzene	8.55	112	149980	10.5344	ppb	96
69) Ethylbenzene	8.71	91	204281	10.1514	ppb	95
70) Bromoform	9.45	173	49402	10.5876	ppb	99
72) Isopropylbenzene	9.69	105	176869	10.0293	ppb	97
73) 1,1,2,2-Tetrachloroethane	10.03	83	76297	9.5321	ppb	95
74) 1,2,3-Trichloropropane	10.04	110	23777	10.2132	ppb	88
75) t-1,4-Dichloro-2-Butene	10.09	53	13408	8.1544	ppb	93
76) Bromobenzene	9.96	156	66897	10.0840	ppb	96
77) n-Propylbenzene	10.13	91	138176	10.1473	ppb	95
78) 4-Ethyltoluene	10.26	105	175133	10.3439	ppb	100
79) 2-Chlorotoluene	10.19	91	152291	10.7294	ppb	98
80) 1,3,5-Trimethylbenzene	10.34	105	101472	9.2772	ppb	96
81) 4-Chlorotoluene	10.31	91	176704	10.9126	ppb	99
82) Tert-Butylbenzene	10.67	119	131469	10.2111	ppb	97
83) 1,2,4-Trimethylbenzene	10.73	105	146850	8.7402	ppb	97
84) Sec-Butylbenzene	10.91	105	193394	10.3659	ppb	99
85) p-Isopropyltoluene	11.08	119	176518	10.1941	ppb	99
86) Benzyl Chloride	11.25	91	55118	6.2791	ppb	98
87) 1,3-DCB	10.99	146	124754	10.6234	ppb	100
88) 1,4-DCB	11.09	146	131438	10.4252	ppb	98
89) n-Butylbenzene	11.52	91	135949	9.2605	ppb	97
90) 1,2-DCB	11.47	146	115905	10.1838	ppb	96
91) Hexachloroethane	11.74	117	39336	10.2910	ppb	95
92) 1,2-Dibromo-3-chloropropan	12.31	75	12650	8.5591	ppb	95
93) 1,2,4-Trichlorobenzene	13.20	180	63499	9.2149	ppb	93
94) Hexachlorobutadiene	13.41	225	38868	9.8377	ppb	97
95) Naphthalene	13.45	128	110384	7.6056	ppb	98
96) 1,2,3-Trichlorobenzene	13.71	180	35112	8.9363	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1029L36.D L1026W.M Tue Oct 30 09:07:31 2018

Quantitation Report

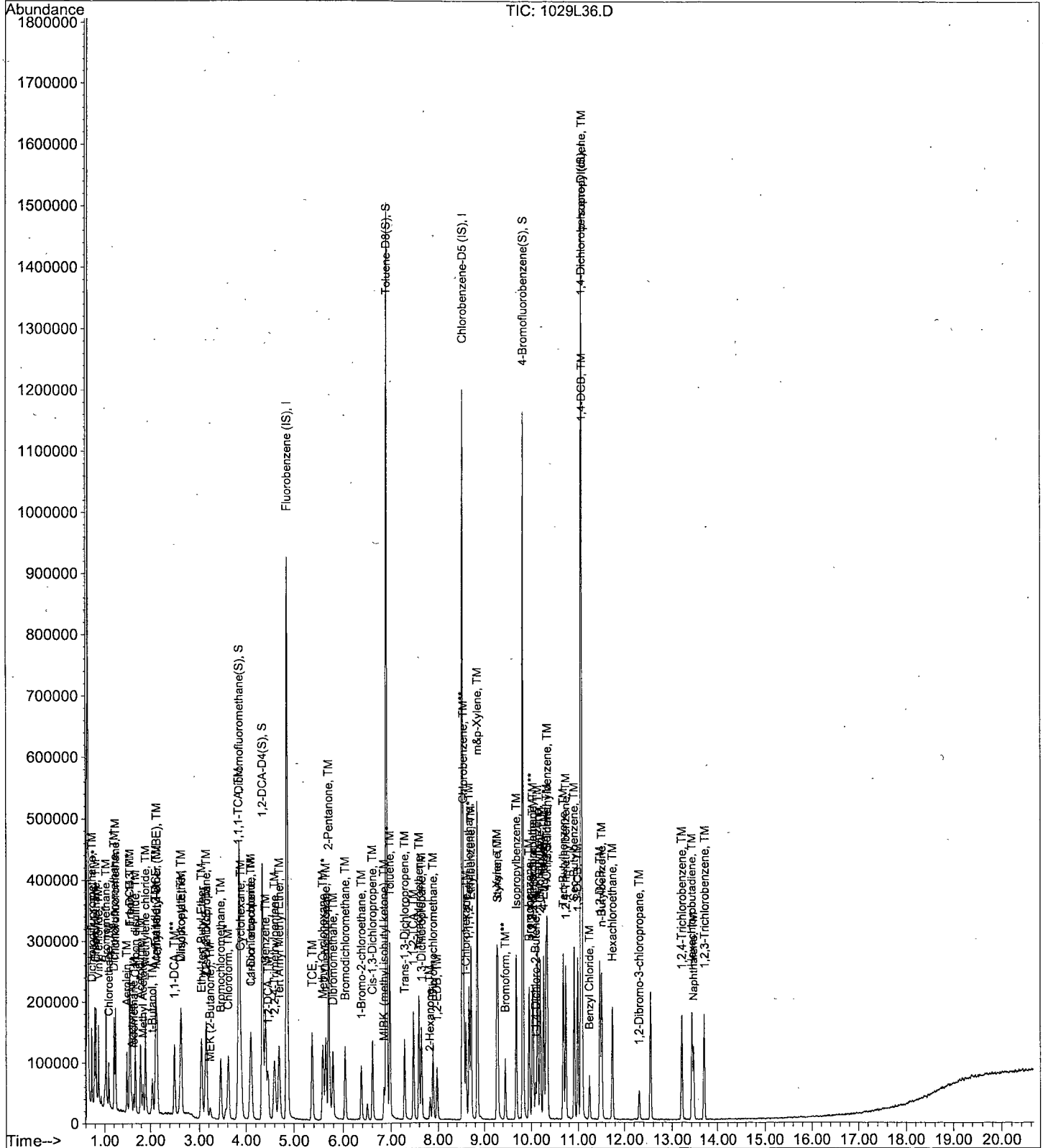
Data File : M:\LOKI\DATA\181026\1029L36.D  
Acq On : 30 Oct 18 1:30  
Sample : Ending CCV 8260 10ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 31  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 9:04 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 08:56:51 2018  
Response via : Initial Calibration



**ORGANICS**

**Raw Data**

**APPL, INC.**



Data File : M:\LOKI\DATA\181026\1026L23.D Vial: 22  
 Acq On : 26 Oct 18 19:57 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81673W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 29 7:07 2018 Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	506432	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	460032	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	214976	25.0000	ppb	0.00
<b>System Monitoring Compounds</b>						
32) Dibromofluoromethane (S)	3.86	111	365112	26.2719	ppb	0.00
Spiked Amount	25.000					
					Recovery = 105.088%	
37) 1,2-DCA-D4 (S)	4.35	65	397986	26.3591	ppb	0.00
Spiked Amount	25.000					
					Recovery = 105.436%	
57) Toluene-D8 (S)	6.90	98	1159676	26.4187	ppb	0.00
Spiked Amount	25.000					
					Recovery = 105.676%	
65) 4-Bromofluorobenzene (S)	9.83	95	375939	25.1330	ppb	0.00
Spiked Amount	25.000					
					Recovery = 100.532%	

Target Compounds Qvalue

Quantitation Report

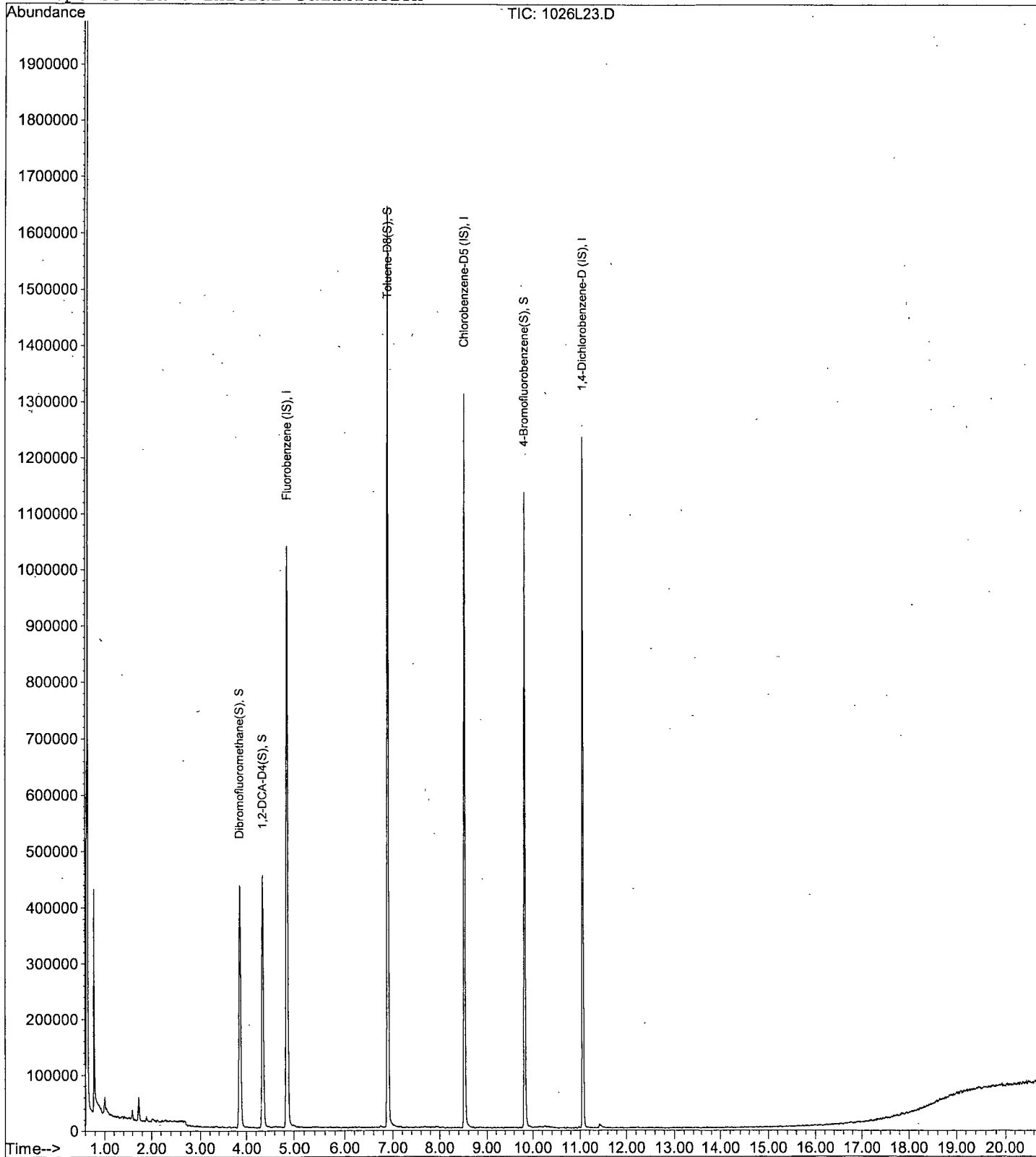
Data File : M:\LOKI\DATA\181026\1026L23.D  
Acq On : 26 Oct 18 19:57  
Sample : AZ81673W01  
Misc : IS&S 9/28/18, 8/23/18

Vial: 22  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 7:07 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L25.D  
 Acq On : 26 Oct 18 20:54  
 Sample : AZ81674W01  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 24  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 7:08 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	476288	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	447872	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	218368	25.0000	ppb	0.00
<b>System Monitoring Compounds</b>						
32) Dibromofluoromethane(S)	3.86	111	339675	25.9516	ppb	0.00
Spiked Amount	25.000		Recovery	=	103.808%	
37) 1,2-DCA-D4(S)	4.35	65	373177	26.2673	ppb	0.00
Spiked Amount	25.000		Recovery	=	105.068%	
57) Toluene-D8(S)	6.90	98	1046665	24.4916	ppb	0.00
Spiked Amount	25.000		Recovery	=	97.968%	
65) 4-Bromofluorobenzene(S)	9.83	95	341307	23.4372	ppb	0.00
Spiked Amount	25.000		Recovery	=	93.748%	

Target Compounds

Qvalue

Quantitation Report

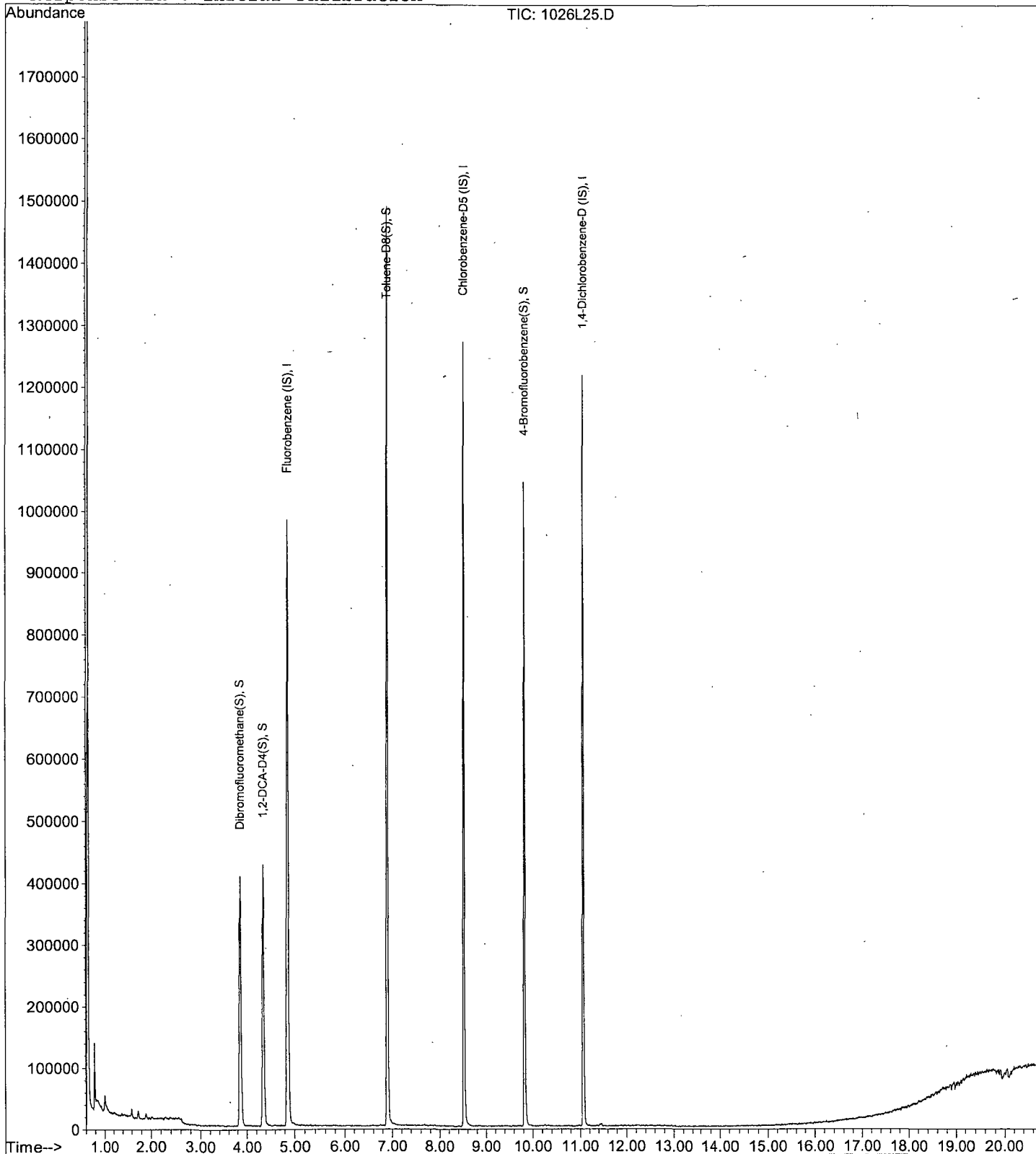
Data File : M:\LOKI\DATA\181026\1026L25.D  
Acq On : 26 Oct 18 20:54  
Sample : AZ81674W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 24  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 7:08 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L24.D  
 Acq On : 26 Oct 18 20:25  
 Sample : AZ81675W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 23  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 7:08 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	500160	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	484800	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	239808	25.0000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	3.85	111	350822	25.4678	ppb	0.00
Spiked Amount	25.000		Recovery	=	101.872%	
37) 1,2-DCA-D4(S)	4.35	65	383918	25.6451	ppb	0.00
Spiked Amount	25.000		Recovery	=	102.580%	
57) Toluene-D8(S)	6.90	98	1098252	23.7412	ppb	0.00
Spiked Amount	25.000		Recovery	=	94.964%	
65) 4-Bromofluorobenzene(S)	9.83	95	353061	22.3976	ppb	0.00
Spiked Amount	25.000		Recovery	=	89.592%	

Target Compounds

Qvalue

Quantitation Report

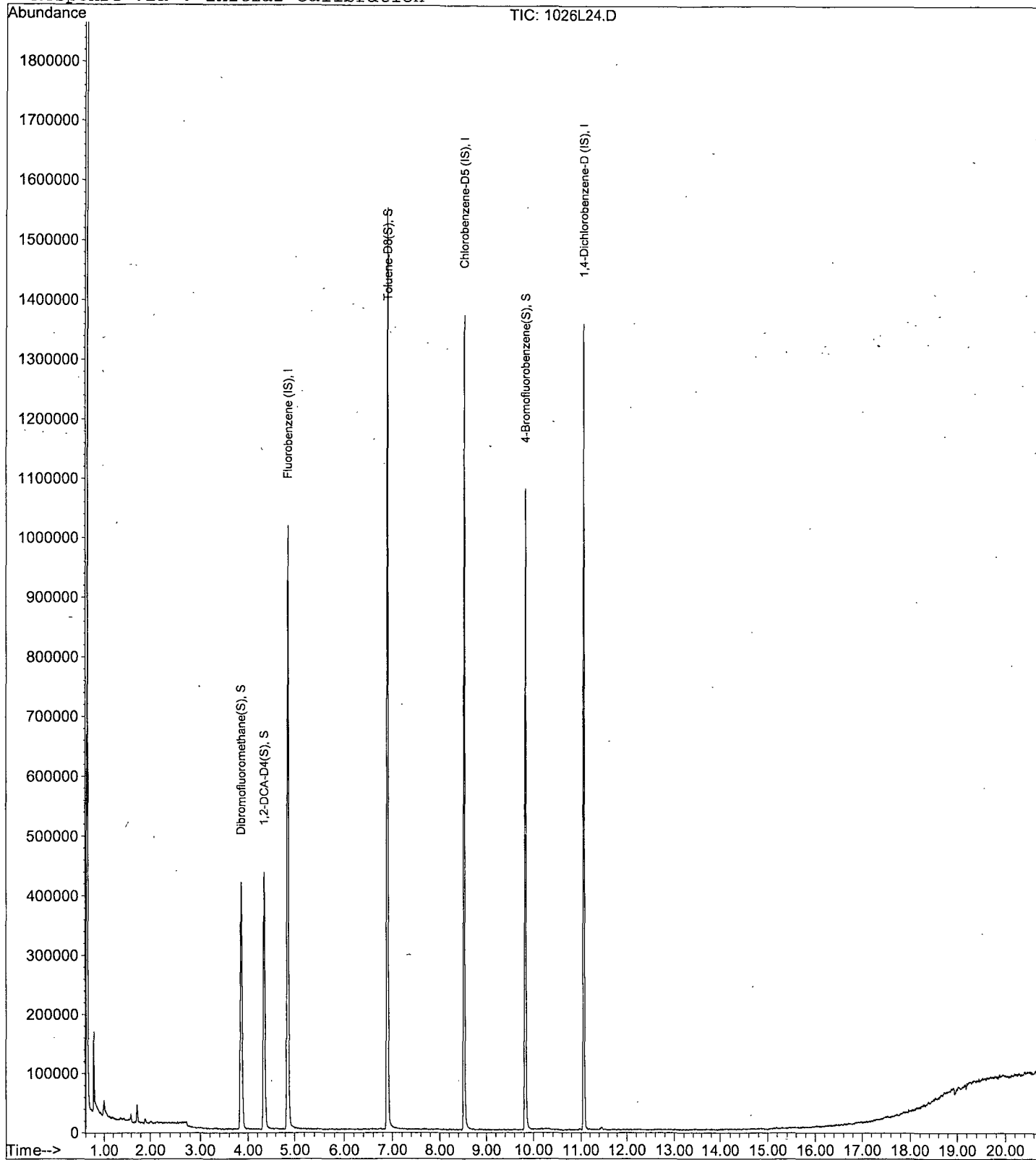
Data File : M:\LOKI\DATA\181026\1026L24.D  
Acq On : 26 Oct 18 20:25  
Sample : AZ81675W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 23  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 7:08 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L29.D  
 Acq On : 26 Oct 18 22:48  
 Sample : AZ81676W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 28  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 7:11 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	463936	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	425856	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	200640	25.0000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	3.86	111	350224	27.6696	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	110.680%
37) 1,2-DCA-D4(S)	4.35	65	380244	27.6778	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	110.712%
57) Toluene-D8(S)	6.90	98	998177	24.5645	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	98.260%
65) 4-Bromofluorobenzene(S)	9.83	95	303985	21.9535	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	87.816%

Target Compounds Qvalue

Quantitation Report

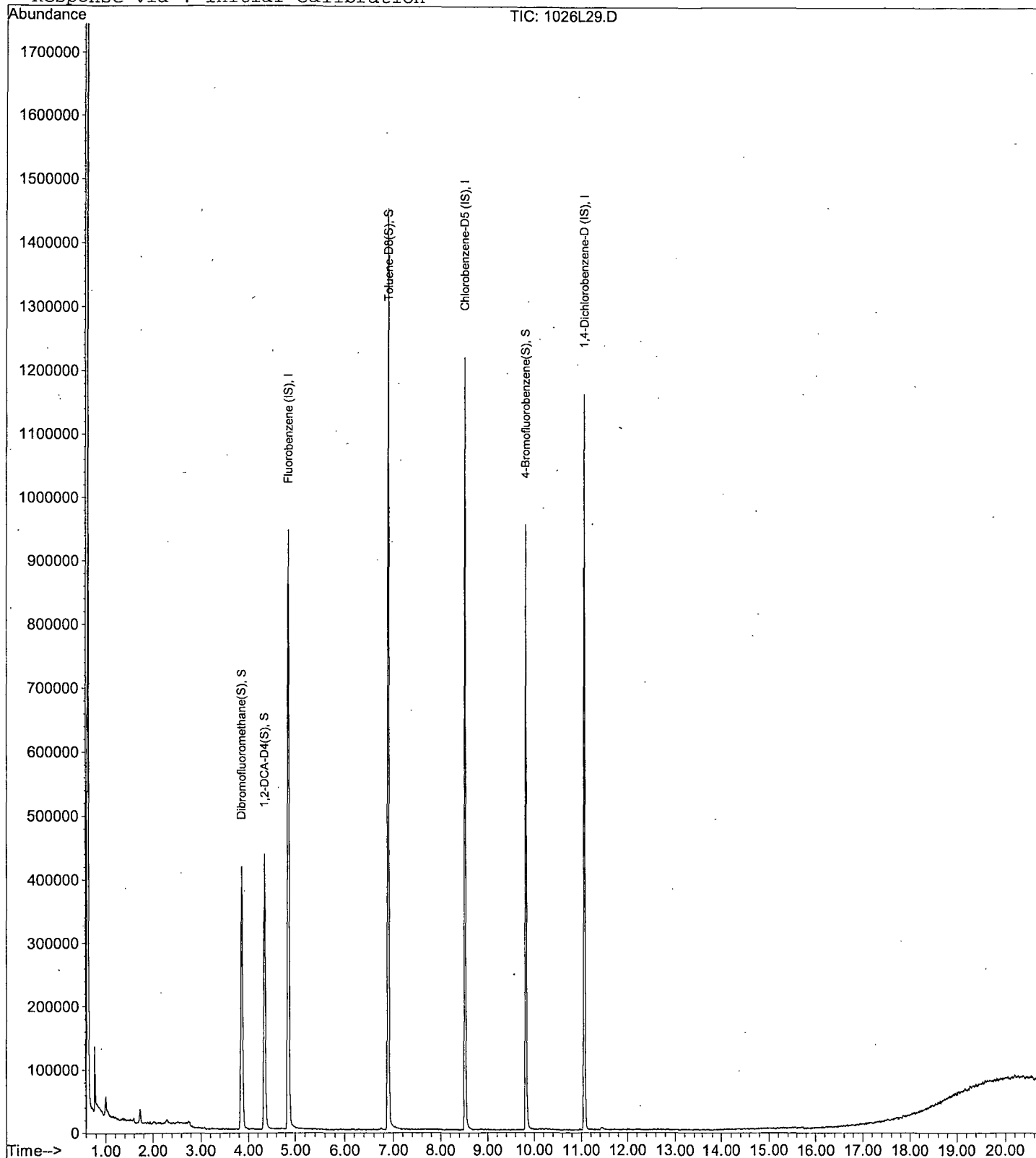
Data File : M:\LOKI\DATA\181026\1026L29.D  
Acq On : 26 Oct 18 22:48  
Sample : AZ81676W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 28  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 7:11 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181026\1026L28.D Vial: 27  
 Acq On : 26 Oct 18 22:19 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81677W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 29 7:11 2018 Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	459328	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	430336	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	222528	25.0000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	3.86	111	360982	28.9457	ppb	0.00
Spiked Amount	25.000		Recovery	=	115.784%	
37) 1,2-DCA-D4(S)	4.35	65	392685	29.0576	ppb	0.00
Spiked Amount	25.000		Recovery	=	116.232%	
57) Toluene-D8(S)	6.90	98	1115741	27.1719	ppb	0.00
Spiked Amount	25.000		Recovery	=	108.688%	
65) 4-Bromofluorobenzene(S)	9.83	95	349950	25.0100	ppb	0.00
Spiked Amount	25.000		Recovery	=	100.040%	

Target Compounds Qvalue

Quantitation Report

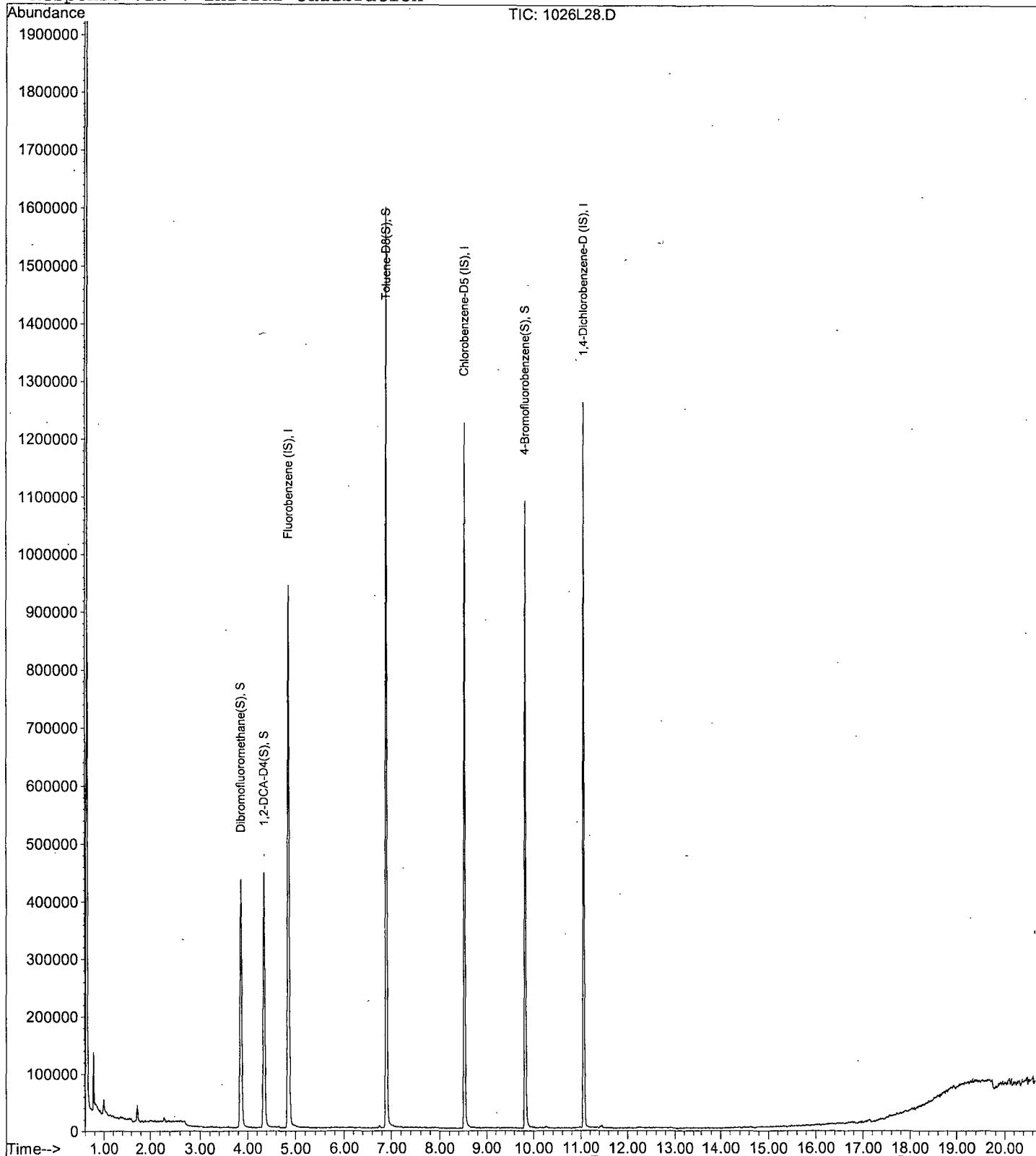
Data File : M:\LOKI\DATA\181026\1026L28.D  
Acq On : 26 Oct 18 22:19  
Sample : AZ81677W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 27  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 7:11 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L22.D Vial: 17  
 Acq On : 29 Oct 18 18:51 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81678W02 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 9:06 2018 Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 08:56:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	458240	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	440320	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	211968	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.86	111	358106	28.7641	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	115.056%
37) 1,2-DCA-D4(S)	4.35	65	390429	28.9445	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	115.780%
57) Toluene-D8(S)	6.90	98	1056804	24.2793	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	97.116%
65) 4-Bromofluorobenzene(S)	9.83	95	310483	21.6862	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	86.744%

Target Compounds Qvalue

Quantitation Report

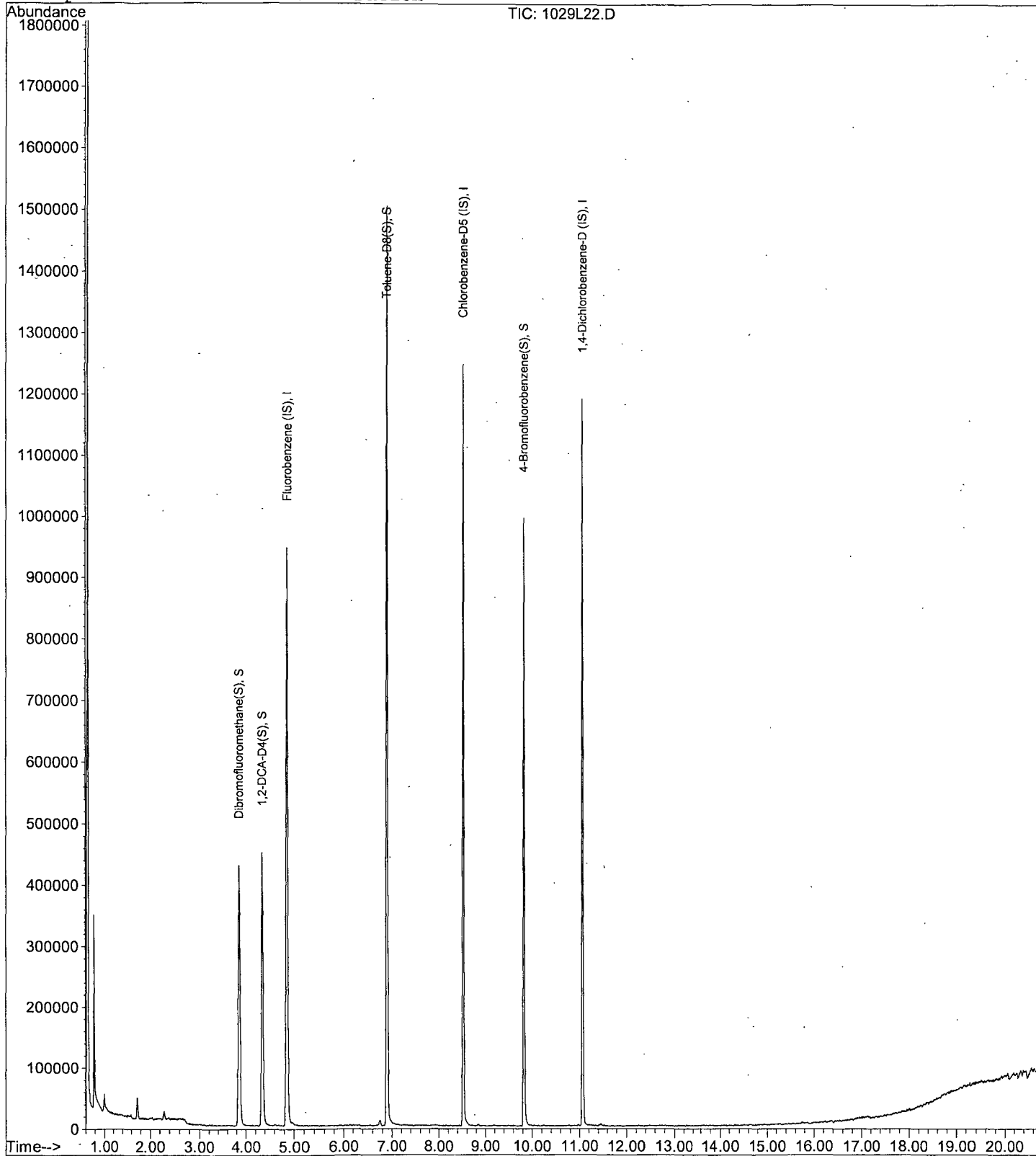
Data File : M:\LOKI\DATA\181026\1029L22.D  
Acq On : 29 Oct 18 18:51  
Sample : AZ81678W02  
Misc : IS&S 9/28/18,8/23/18

Vial: 17  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 9:06 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 08:56:51 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L22.D  
 Acq On : 26 Oct 18 19:29  
 Sample : 181026A blk  
 Misc : IS&S 9/28/18,8/23/18

Vial: 21  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 7:00 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:35:57 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	513152	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	455680	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	230720	25.0000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	3.86	111	356692	25.2076	ppb	0.00
Spiked Amount	25.000					
					Recovery = 100.832%	
37) 1,2-DCA-D4(S)	4.35	65	389913	25.3422	ppb	0.00
Spiked Amount	25.000					
					Recovery = 101.368%	
57) Toluene-D8(S)	6.90	98	1029352	23.6738	ppb	0.00
Spiked Amount	25.000					
					Recovery = 94.696%	
65) 4-Bromofluorobenzene(S)	9.83	95	325339	21.9579	ppb	0.00
Spiked Amount	25.000					
					Recovery = 87.832%	

Target Compounds

Qvalue

Quantitation Report

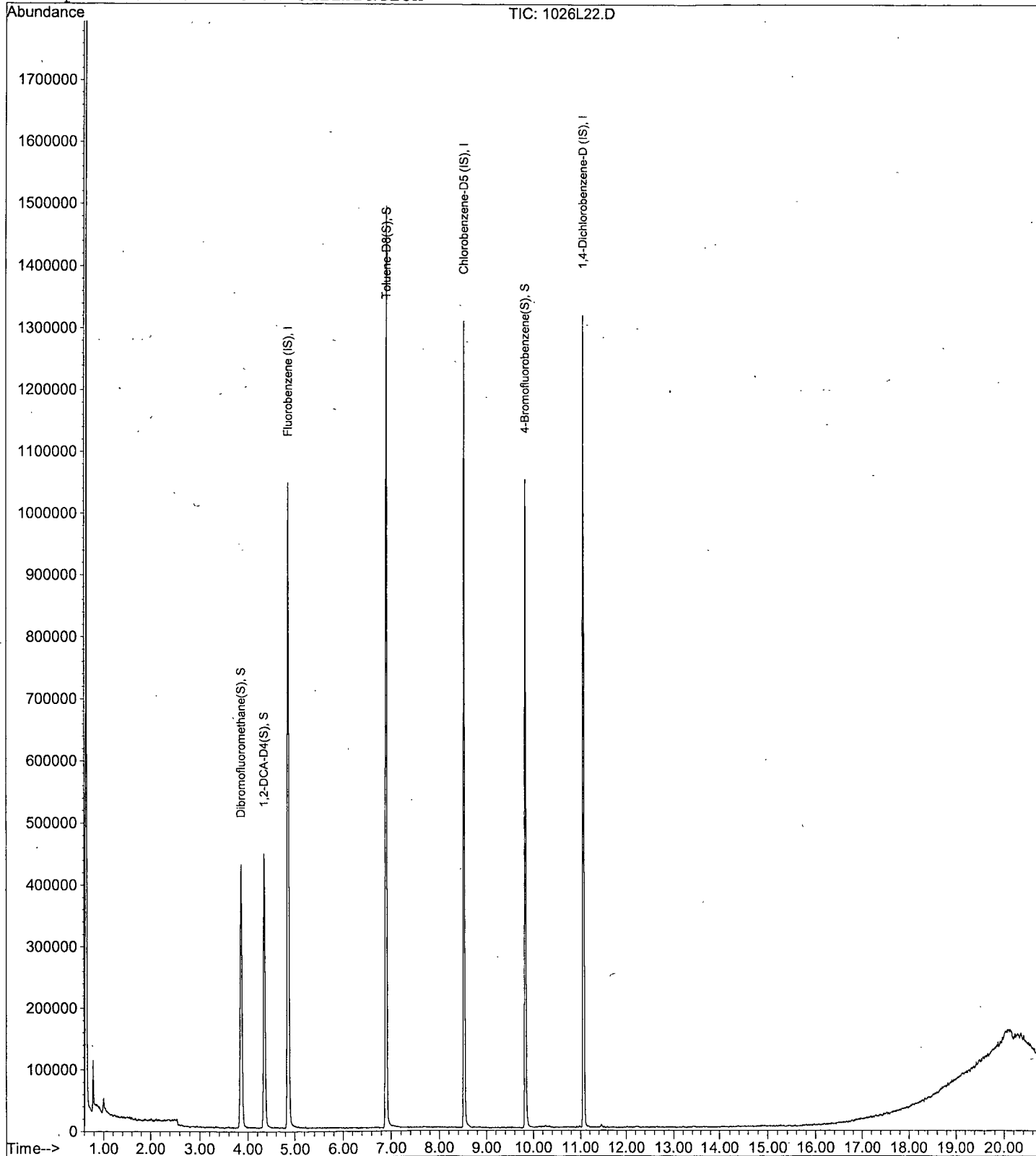
Data File : M:\LOKI\DATA\181026\1026L22.D  
Acq On : 26 Oct 18 19:29  
Sample : 181026A blk  
Misc : IS&S 9/28/18,8/23/18

Vial: 21  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 7:00 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L21.D  
 Acq On : 29 Oct 18 18:23  
 Sample : 181029A BLK  
 Misc : IS&S 9/28/18,8/23/18

Vial: 16  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 9:05 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 08:56:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	444416	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	409664	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	204480	25.0000	ppb	0.00
<b>System Monitoring Compounds</b>						
32) Dibromofluoromethane(S)	3.85	111	345802	28.6250	ppb	0.00
Spiked Amount	25.000		Recovery	=	114.500%	
37) 1,2-DCA-D4(S)	4.35	65	378966	28.9722	ppb	0.00
Spiked Amount	25.000		Recovery	=	115.888%	
57) Toluene-D8(S)	6.90	98	970025	23.9328	ppb	0.00
Spiked Amount	25.000		Recovery	=	95.732%	
65) 4-Bromofluorobenzene(S)	9.83	95	305500	22.9350	ppb	0.00
Spiked Amount	25.000		Recovery	=	91.740%	

Target Compounds Qvalue

Quantitation Report

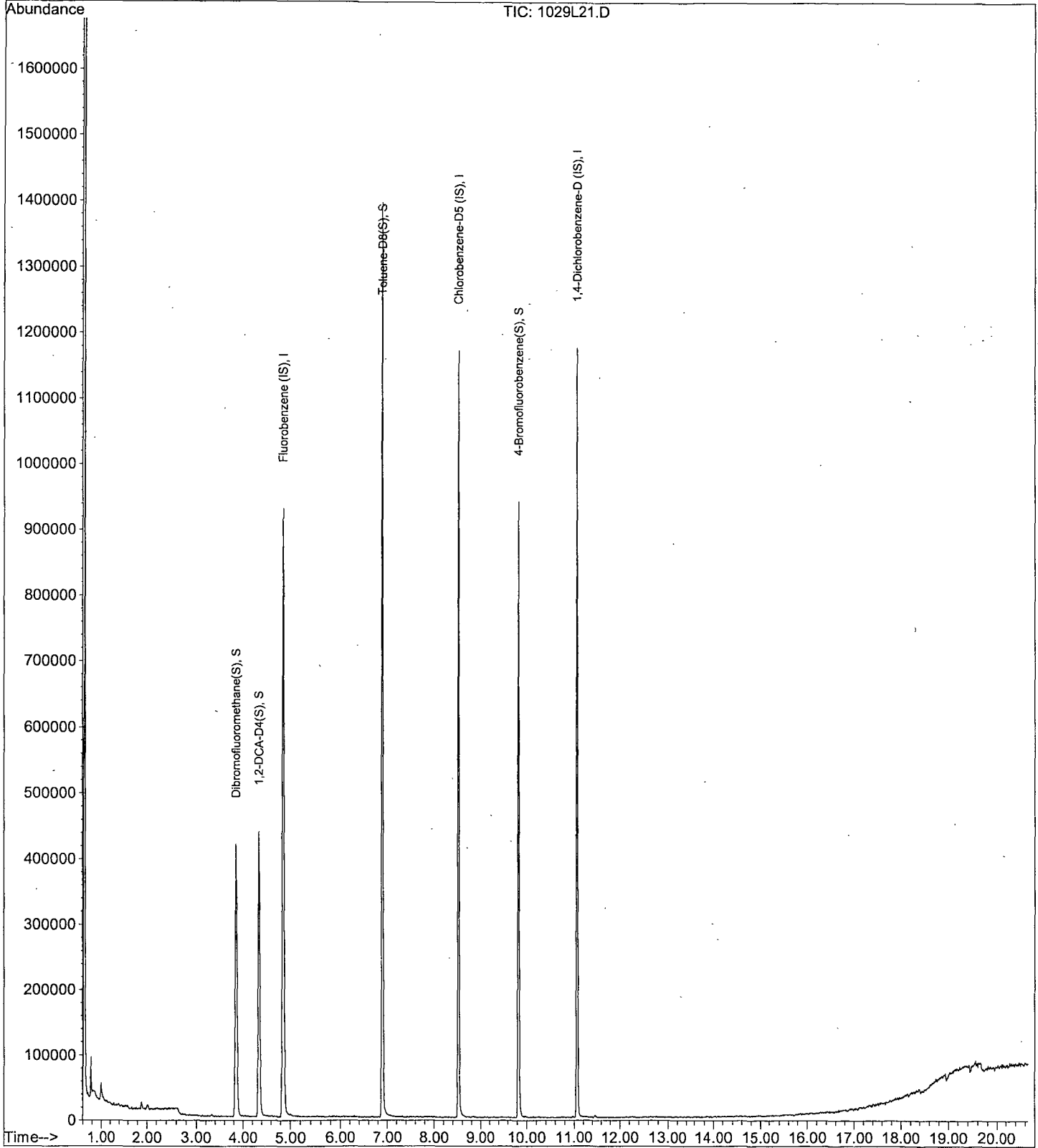
Data File : M:\LOKI\DATA\181026\1029L21.D  
Acq On : 29 Oct 18 18:23  
Sample : 181029A BLK  
Misc : IS&S 9/28/18, 8/23/18

Vial: 16  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 9:05 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 08:56:51 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181026\1026L16.D  
 Acq On : 26 Oct 18 16:38  
 Sample : 181026A LCS 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 15  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	522752	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	525184	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	292672	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	361849	25.0882	ppb	0.00
Spiked Amount	25.000		Recovery	=	100.352%	
37) 1,2-DCA-D4(S)	4.35	65	397129	25.3363	ppb	0:00
Spiked Amount	25.000		Recovery	=	101.344%	
57) Toluene-D8(S)	6.90	98	1234586	24.6362	ppb	0.00
Spiked Amount	25.000		Recovery	=	98.544%	
65) 4-Bromofluorobenzene(S)	9.83	95	433327	25.3757	ppb	0.00
Spiked Amount	25.000		Recovery	=	101.504%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	81872	11.0890	ppb	97
3) Freon 114	0.79	85	53439	10.5472	ppb	95
4) Chloromethane	0.81	50	84897	10.8764	ppb	100
5) Vinyl chloride	0.87	62	74723	10.7926	ppb	96
6) Bromomethane	1.03	94	57951	10.6394	ppb	97
7) Chloroethane	1.09	64	38459	9.7355	ppb	96
8) Dichlorofluoromethane	1.21	67	103031	9.8435	ppb	100
9) Trichlorofluoromethane	1.24	101	89315	9.9389	ppb	93
10) Acrolein	1.49	56	70980	112.0512	ppb	# 95
11) Acetone	1.59	43	27770	9.6365	ppb	90
12) Freon-113	1.56	101	47791	10.2557	ppb	96
13) 1,1-DCE	1.55	63	19968	9.4216	ppb	96
14) t-Butanol	2.04	59	78840	106.6514	ppb	99
15) Acetonitrile	1.78	41	119937	113.0103	ppb	99
16) Methyl Acetate	1.84	43	52885	9.1277	ppb	99
17) Iodomethane	1.64	142	22800	9.6126	ppb	96
18) Acrylonitrile	2.10	52	24301	10.5749	ppb	97
19) Methylene chloride	1.89	84	63883	9.4459	ppb	93
20) Carbon disulfide	1.68	76	156358	9.5814	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	153808	9.3395	ppb	100
22) Trans-1,2-DCE	2.11	96	58205	9.7707	ppb	95
23) Diisopropyl Ether	2.63	45	168113	9.6723	ppb	97
24) 1,1-DCA	2.49	63	111292	9.4730	ppb	97
25) Vinyl Acetate	2.63	43	38177	9.0177	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	161923	10.7653	ppb	94
27) MEK (2-Butanone)	3.23	43	31304	10.1843	ppb	91
28) Cis-1,2-DCE	3.16	96	70334	10.3532	ppb	96
29) 2,2-Dichloropropane	3.13	77	84556	10.1915	ppb	98
30) Chloroform	3.62	83	117745	10.1406	ppb	92
31) Bromochloromethane	3.46	128	37832	10.1710	ppb	92
33) 1,1,1-TCA	3.83	97	96249	10.3883	ppb	95
34) Cyclohexane	3.90	41	42477	10.9441	ppb	95
35) 1,1-Dichloropropene	4.11	75	71759	10.1600	ppb	93
36) 2,2,4-Trimethylpentane	4.61	57	129557	10.1121	ppb	94
38) Carbon Tetrachloride	4.10	117	80946	10.6498	ppb	99
39) Tert Amyl Methyl Ether	4.70	73	139296	10.1336	ppb	99
40) 1,2-DCA	4.46	62	89707	10.4457	ppb	96
41) Benzene	4.41	78	247703	10.2480	ppb	100
42) TCE	5.37	95	32088	10.8257	ppb	95

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

Data File : M:\LOKI\DATA\181026\1026L16.D  
 Acq On : 26 Oct 18 16:38  
 Sample : 181026A LCS 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 15  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	561241	129.2568	ppb	99
44) 1,2-Dichloropropane	5.64	63	68208	10.5071	ppb	99
45) Bromodichloromethane	6.04	83	94898	10.1820	ppb	100
46) Methyl Cyclohexane	5.58	83	65733	10.0520	ppb	93
47) Dibromomethane	5.79	93	47029	9.6421	ppb	93
49) MIBK (methyl isobutyl ket	6.85	43	58115	10.1622	ppb	# 91
50) 1-Bromo-2-chloroethane	6.37	63	46112	9.7763	ppb	95
51) Cis-1,3-Dichloropropene	6.61	75	96536	10.1036	ppb	97
52) Toluene	6.97	91	262372	10.4779	ppb	97
53) Trans-1,3-Dichloropropene	7.29	75	89963	10.0125	ppb	98
54) 1,1,2-TCA	7.47	83	54744	9.7847	ppb	95
55) 2-Hexanone	7.82	43	33347	9.2006	ppb	99
58) 1,2-EDB	7.98	107	69949	10.1617	ppb	98
59) Tetrachloroethene	7.60	166	79423	10.6476	ppb	92
60) 1-Chlorohexane	8.60	91	54754	10.0692	ppb	97
61) 1,1,1,2-Tetrachloroethane	8.67	131	72520	9.9544	ppb	94
62) m&p-Xylene	8.85	91	222036	18.3283	ppb	99
63) o-Xylene	9.27	106	91786	10.3558	ppb	100
64) Styrene	9.29	104	91568	8.8777	ppb	97
66) 1,3-Dichloropropane	7.65	76	106922	10.1291	ppb	95
67) Dibromochloromethane	7.89	129	76503	9.7962	ppb	99
68) Chlorobenzene	8.55	112	178806	10.0062	ppb	99
69) Ethylbenzene	8.71	91	252911	10.0133	ppb	97
70) Bromoform	9.45	173	59113	10.0936	ppb	98
72) Isopropylbenzene	9.69	105	223959	10.1363	ppb	100
73) 1,1,2,2-Tetrachloroethane	10.03	83	84716	8.4477	ppb	92
74) 1,2,3-Trichloropropane	10.04	110	27517	9.4340	ppb	97
75) t-1,4-Dichloro-2-Butene	10.09	53	18163	8.8168	ppb	99
76) Bromobenzene	9.96	156	80284	9.6593	ppb	97
77) n-Propylbenzene	10.13	91	170688	10.0049	ppb	99
78) 4-Ethyltoluene	10.26	105	212211	10.0041	ppb	98
79) 2-Chlorotoluene	10.19	91	178925	10.0615	ppb	98
80) 1,3,5-Trimethylbenzene	10.34	105	120234	8.7892	ppb	100
81) 4-Chlorotoluene	10.31	91	201962	9.9551	ppb	99
82) Tert-Butylbenzene	10.67	119	163490	10.1352	ppb	97
83) 1,2,4-Trimethylbenzene	10.73	105	189720	8.9933	ppb	98
84) Sec-Butylbenzene	10.91	105	250212	10.7044	ppb	99
85) p-Isopropyltoluene	11.08	119	221478	10.2090	ppb	99
86) Benzyl Chloride	11.25	91	93145	8.4695	ppb	99
87) 1,3-DCB	10.99	146	147149	10.0014	ppb	97
88) 1,4-DCB	11.09	146	155733	9.8590	ppb	96
89) n-Butylbenzene	11.52	91	179985	9.7856	ppb	98
90) 1,2-DCB	11.48	146	142079	9.9639	ppb	99
91) Hexachloroethane	11.75	117	45105	9.4185	ppb	89
92) 1,2-Dibromo-3-chloropropan	12.31	75	15584	8.4160	ppb	90
93) 1,2,4-Trichlorobenzene	13.20	180	82966	9.6098	ppb	96
94) Hexachlorobutadiene	13.41	225	47122	9.5195	ppb	98
95) Naphthalene	13.45	128	167629	8.8025	ppb	99
96) 1,2,3-Trichlorobenzene	13.71	180	47872	9.7246	ppb	99

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

Quantitation Report

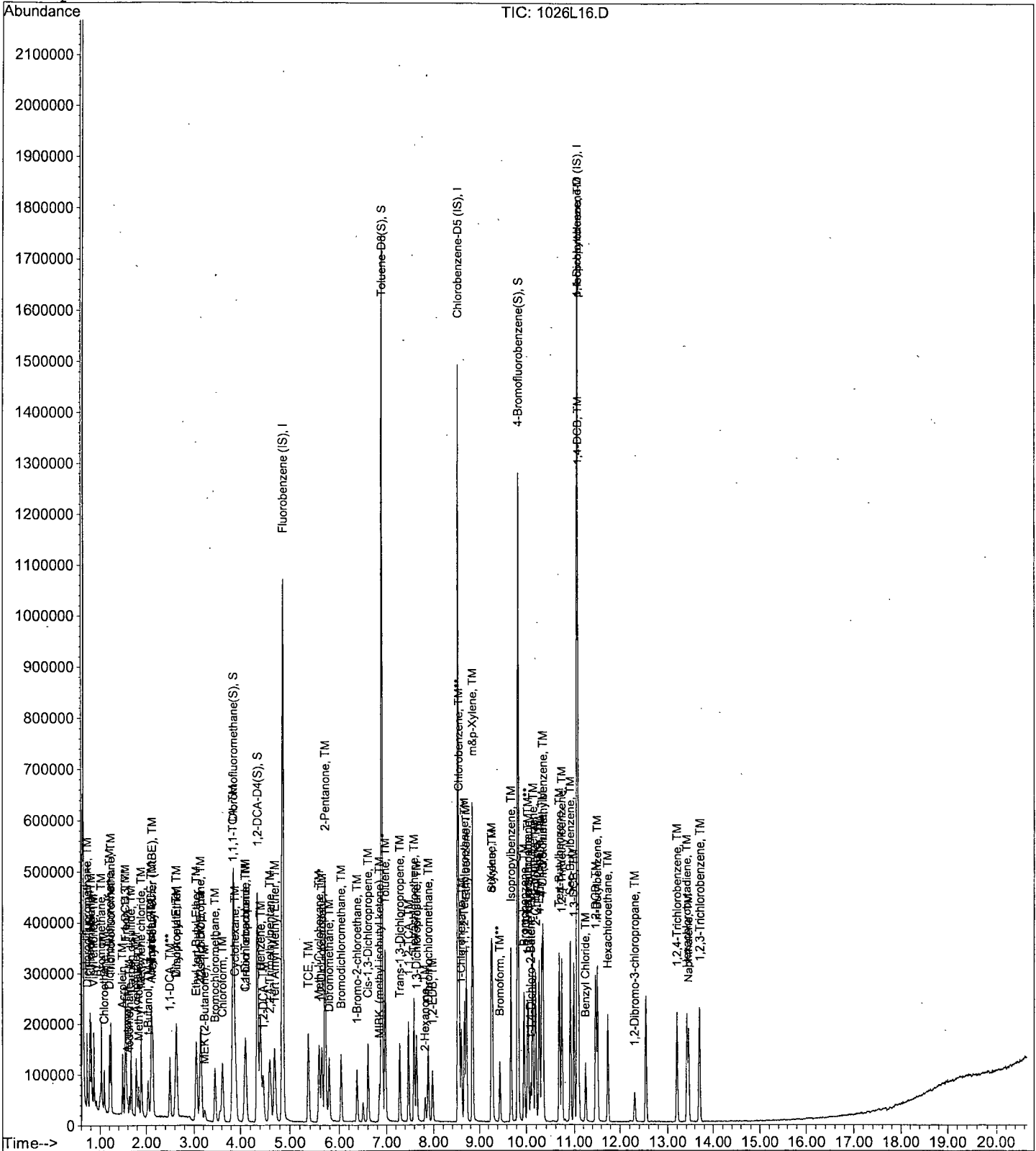
Data File : M:\LOKI\DATA\181026\1026L16.D  
Acq On : 26 Oct 18 16:38  
Sample : 181026A LCS 10ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 15  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L17.D  
 Acq On : 26 Oct 18 17:06  
 Sample : 181026A LCSD 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 16  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	528256	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	513920	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	288384	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.86	111	375233	25.8344	ppb	0.00
Spiked Amount 25.000			Recovery = 103.336%			
37) 1,2-DCA-D4 (S)	4.35	65	410036	25.9818	ppb	0.00
Spiked Amount 25.000			Recovery = 103.928%			
57) Toluene-D8(S)	6.90	98	1274485	25.9898	ppb	0.00
Spiked Amount 25.000			Recovery = 103.960%			
65) 4-Bromofluorobenzene(S)	9.83	95	443913	26.5654	ppb	0.00
Spiked Amount 25.000			Recovery = 106.260%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.72	85	81720	10.9531	ppb	98
3) Freon 114	0.79	85	51535	10.0654	ppb	93
4) Chloromethane	0.81	50	83841	10.6088	ppb	99
5) Vinyl chloride	0.87	62	76823	10.9803	ppb	99
6) Bromomethane	1.03	94	57822	10.4779	ppb	99
7) Chloroethane	1.09	64	38638	9.6789	ppb	97
8) Dichlorofluoromethane	1.21	67	105102	9.9367	ppb	99
9) Trichlorofluoromethane	1.24	101	88348	9.7288	ppb	96
10) Acrolein	1.49	56	73953	115.5281	ppb	# 95
11) Acetone	1.60	43	31205	11.1952	ppb	94
12) Freon-113	1.56	101	45606	9.6849	ppb	97
13) 1,1-DCE	1.54	63	19064	8.9013	ppb	99
14) t-Butanol	2.05	59	85308	114.1987	ppb	98
15) Acetonitrile	1.79	41	120898	112.7289	ppb	99
16) Methyl Acetate	1.84	43	51886	8.8619	ppb	95
17) Iodomethane	1.64	142	24024	9.9538	ppb	89
18) Acrylonitrile	2.10	52	22217	9.4865	ppb	86
19) Methylene chloride	1.89	84	63647	9.3129	ppb	97
20) Carbon disulfide	1.68	76	159451	9.6692	ppb	100
21) Methyl t-butyl ether (MtBE)	2.14	73	159804	9.6025	ppb	99
22) Trans-1,2-DCE	2.11	96	59046	9.8086	ppb	98
23) Diisopropyl Ether	2.63	45	174515	9.9360	ppb	100
24) 1,1-DCA	2.50	63	114341	9.6311	ppb	99
25) Vinyl Acetate	2.63	43	40416	9.4471	ppb	100
26) Ethyl tert Butyl Ether	3.05	59	151826	9.9888	ppb	98
27) MEK (2-Butanone)	3.23	43	31822	10.2449	ppb	88
28) Cis-1,2-DCE	3.16	96	72509	10.5621	ppb	96
29) 2,2-Dichloropropane	3.14	77	84803	10.1113	ppb	97
30) Chloroform	3.62	83	121427	10.3487	ppb	94
31) Bromochloromethane	3.46	128	38531	10.2510	ppb	91
33) 1,1,1-TCA	3.83	97	97302	10.3926	ppb	89
34) Cyclohexane	3.90	41	41242	10.5152	ppb	92
35) 1,1-Dichloropropene	4.11	75	71618	10.0344	ppb	95
36) 2,2,4-Trimethylpentane	4.61	57	127978	9.8848	ppb	89
38) Carbon Tetrachloride	4.09	117	81147	10.5650	ppb	99
39) Tert Amyl Methyl Ether	4.70	73	144802	10.4244	ppb	# 95
40) 1,2-DCA	4.47	62	90692	10.4504	ppb	95
41) Benzene	4.41	78	245835	10.0648	ppb	98
42) TCE	5.37	95	30480	10.1761	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1026L17.D L1026W.M Mon Oct 29 06:59:29 2018

Data File : M:\LOKI\DATA\181026\1026L17.D  
 Acq On : 26 Oct 18 17:06  
 Sample : 181026A LCSD 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 16  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	595654	135.7529	ppb	99
44) 1,2-Dichloropropane	5.64	63	65845	10.0375	ppb	100
45) Bromodichloromethane	6.04	83	97730	10.3766	ppb	98
46) Methyl Cyclohexane	5.59	83	64324	9.7340	ppb	90
47) Dibromomethane	5.79	93	48463	9.8326	ppb	93
49) MIBK (methyl isobutyl ket	6.85	43	63220	10.9397	ppb	96
50) 1-Bromo-2-chloroethane	6.37	63	47608	9.9883	ppb	97
51) Cis-1,3-Dichloropropene	6.61	75	96346	9.9786	ppb	95
52) Toluene	6.98	91	269533	10.6517	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	87797	9.6696	ppb	97
54) 1,1,2-TCA	7.47	83	54026	9.5558	ppb	94
55) 2-Hexanone	7.82	43	36927	10.0822	ppb	99
58) 1,2-EDB	7.98	107	70323	10.4400	ppb	95
59) Tetrachloroethene	7.60	166	76515	10.4826	ppb	92
60) 1-Chlorohexane	8.60	91	56814	10.6771	ppb	97
61) 1,1,1,2-Tetrachloroethane	8.67	131	73372	10.2921	ppb	94
62) m&p-Xylene	8.85	91	217889	18.3722	ppb	99
63) o-Xylene	9.27	106	83454	9.6221	ppb	96
64) Styrene	9.29	104	85824	8.5679	ppb	99
66) 1,3-Dichloropropane	7.65	76	110669	10.7139	ppb	94
67) Dibromochloromethane	7.89	129	78323	10.2491	ppb	98
68) Chlorobenzene	8.55	112	178420	10.2035	ppb	99
69) Ethylbenzene	8.71	91	240214	9.7191	ppb	97
70) Bromoform	9.45	173	56688	9.8917	ppb	96
72) Isopropylbenzene	9.69	105	227171	10.4345	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.03	83	95703	9.6852	ppb	95
74) 1,2,3-Trichloropropane	10.04	110	28276	9.8384	ppb	95
75) t-1,4-Dichloro-2-Butene	10.09	53	19895	9.8011	ppb	99
76) Bromobenzene	9.96	156	80517	9.8314	ppb	95
77) n-Propylbenzene	10.13	91	169856	10.1042	ppb	99
78) 4-Ethyltoluene	10.26	105	225202	10.7744	ppb	100
79) 2-Chlorotoluene	10.19	91	185359	10.5783	ppb	99
80) 1,3,5-Trimethylbenzene	10.34	105	127296	9.4227	ppb	99
81) 4-Chlorotoluene	10.31	91	219332	10.9720	ppb	99
82) Tert-Butylbenzene	10.67	119	167072	10.5112	ppb	98
83) 1,2,4-Trimethylbenzene	10.73	105	193023	9.2657	ppb	96
84) Sec-Butylbenzene	10.91	105	244048	10.5959	ppb	100
85) p-Isopropyltoluene	11.08	119	228520	10.6902	ppb	98
86) Benzyl Chloride	11.25	91	91932	8.4835	ppb	99
87) 1,3-DCB	10.99	146	148286	10.2285	ppb	99
88) 1,4-DCB	11.09	146	157716	10.1330	ppb	96
89) n-Butylbenzene	11.52	91	172579	9.5225	ppb	98
90) 1,2-DCB	11.48	146	136230	9.6957	ppb	99
91) Hexachloroethane	11.74	117	42328	8.9701	ppb	94
92) 1,2-Dibromo-3-chloropropan	12.31	75	16155	8.8541	ppb	97
93) 1,2,4-Trichlorobenzene	13.20	180	83945	9.8678	ppb	97
94) Hexachlorobutadiene	13.41	225	49116	10.0699	ppb	98
95) Naphthalene	13.44	128	169440	8.9792	ppb	99
96) 1,2,3-Trichlorobenzene	13.71	180	46704	9.6284	ppb	97

Quantitation Report

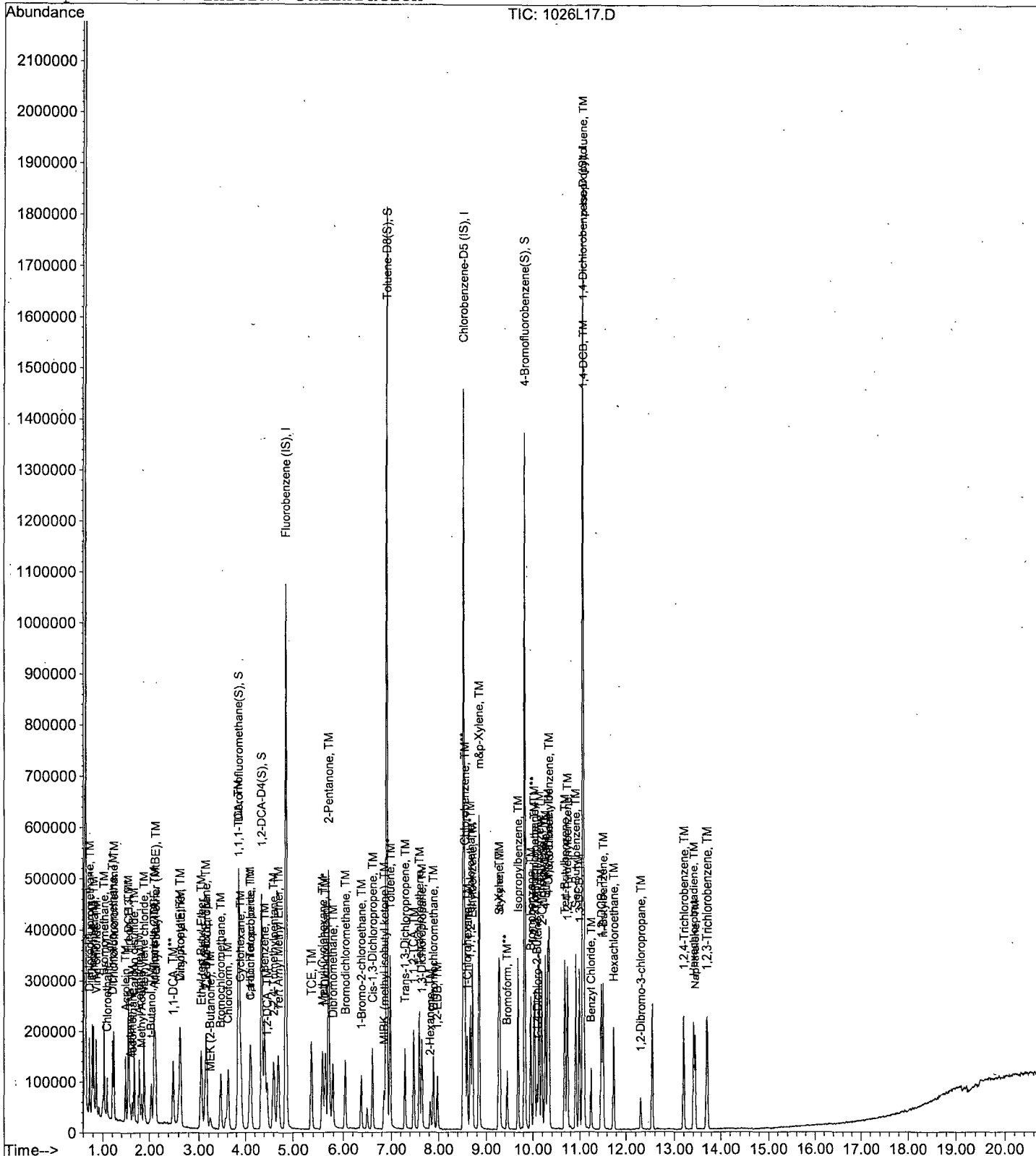
Data File : M:\LOKI\DATA\181026\1026L17.D  
Acq On : 26 Oct 18 17:06  
Sample : 181026A LCSD 10ug/L  
Misc : IS&S 9/28/18, 8/23/18

Vial: 16  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L15.D  
 Acq On : 29 Oct 18 15:33  
 Sample : 181029A LCS 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 10  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 9:04 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 08:56:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	498048	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	442240	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	241152	25.0000	ppb	0.00

System Monitoring Compounds

32) Dibromofluoromethane(S)	3.85	111	357960	26.1803	ppb	0.00
Spiked Amount	25.000		Recovery	=	104.720%	
37) 1,2-DCA-D4(S)	4.35	65	401552	27.1559	ppb	0.00
Spiked Amount	25.000		Recovery	=	108.624%	
57) Toluene-D8(S)	6.90	98	1100152	25.2211	ppb	0.00
Spiked Amount	25.000		Recovery	=	100.884%	
65) 4-Bromofluorobenzene(S)	9.83	95	376797	26.2038	ppb	0.00
Spiked Amount	25.000		Recovery	=	104.816%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.72	85	73456	10.4426	ppb	96
3) Freon 114	0.79	85	49419	10.2375	ppb	87
4) Chloromethane	0.81	50	83576	11.2682	ppb	98
5) Vinyl chloride	0.87	62	72527	10.9950	ppb	98
6) Bromomethane	1.03	94	59658	11.6696	ppb	100
7) Chloroethane	1.09	64	36210	9.6208	ppb	97
8) Dichlorofluoromethane	1.21	67	100580	10.0859	ppb	99
9) Trichlorofluoromethane	1.23	101	83697	9.7757	ppb	96
10) Acrolein	1.49	56	66521	110.2208	ppb	# 100
11) Acetone	1.60	43	24268	8.4846	ppb	91
12) Freon-113	1.56	101	42575	9.5896	ppb	97
13) 1,1-DCE	1.55	63	18064	8.9460	ppb	92
14) t-Butanol	2.05	59	85636	121.5909	ppb	97
15) Acetonitrile	1.78	41	124679	123.3056	ppb	97
16) Methyl Acetate	1.84	43	52611	9.5308	ppb	96
17) Iodomethane	1.64	142	16960	7.8607	ppb	91
18) Acrylonitrile	2.10	52	23708	10.8489	ppb	93
19) Methylene chloride	1.89	84	63794	9.9006	ppb	97
20) Carbon disulfide	1.68	76	148191	9.5314	ppb	97
21) Methyl t-butyl ether (MtBE)	2.14	73	147991	9.4321	ppb	98
22) Trans-1,2-DCE	2.11	96	53275	9.3867	ppb	91
23) Diisopropyl Ether	2.64	45	165124	9.9716	ppb	96
24) 1,1-DCA	2.50	63	109868	9.8157	ppb	100
25) Vinyl Acetate	2.63	43	39670	9.8351	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	133449	9.3123	ppb	95
27) MEK (2-Butanone)	3.23	43	27904	9.5284	ppb	90
28) Cis-1,2-DCE	3.16	96	64856	10.0203	ppb	98
29) 2,2-Dichloropropane	3.14	77	82994	10.5131	ppb	# 95
30) Chloroform	3.62	83	111929	10.1178	ppb	96
31) Bromochloromethane	3.46	128	36667	10.3468	ppb	89
33) 1,1,1-TCA	3.84	97	90236	10.2224	ppb	96
34) Cyclohexane	3.89	41	32269	8.7264	ppb	96
35) 1,1-Dichloropropene	4.11	75	62177	9.2400	ppb	92
36) 2,2,4-Trimethylpentane	4.60	57	104435	8.5556	ppb	# 82
38) Carbon Tetrachloride	4.09	117	77167	10.6562	ppb	95
39) Tert Amyl Methyl Ether	4.70	73	125733	9.6006	ppb	94
40) 1,2-DCA	4.46	62	82469	10.0792	ppb	93
41) Benzene	4.41	78	227532	9.8804	ppb	98
42) TCE	5.37	95	27168	9.6205	ppb	96

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

Data File : M:\LOKI\DATA\181026\1029L15.D  
 Acq On : 29 Oct 18 15:33  
 Sample : 181029A LCS 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 10  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 9:04 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 08:56:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	518044	125.2262	ppb	99
44) 1,2-Dichloropropane	5.64	63	58291	9.4249	ppb	98
45) Bromodichloromethane	6.04	83	87963	9.9060	ppb	99
46) Methyl Cyclohexane	5.58	83	47802	7.6725	ppb	87
47) Dibromomethane	5.79	93	43084	9.2714	ppb	94
49) MIBK (methyl isobutyl ket	6.85	43	50993	9.3591	ppb	# 93
50) 1-Bromo-2-chloroethane	6.37	63	41824	9.3070	ppb	98
51) Cis-1,3-Dichloropropene	6.61	75	81589	8.9628	ppb	99
52) Toluene	6.98	91	226210	9.4819	ppb	97
53) Trans-1,3-Dichloropropene	7.29	75	76966	8.9909	ppb	95
54) 1,1,2-TCA	7.47	83	50097	9.3983	ppb	98
55) 2-Hexanone	7.82	43	27981	8.1030	ppb	96
58) 1,2-EDB	7.98	107	59914	10.3364	ppb	90
59) Tetrachloroethene	7.60	166	66893	10.6498	ppb	93
60) 1-Chlorohexane	8.60	91	46058	10.0586	ppb	94
61) 1,1,1,2-Tetrachloroethane	8.67	131	64233	10.4705	ppb	97
62) m&p-Xylene	8.85	91	183808	18.0663	ppb	99
63) o-Xylene	9.27	106	74265	9.9505	ppb	96
64) Styrene	9.29	104	74352	8.6154	ppb	99
66) 1,3-Dichloropropane	7.65	76	92321	10.3863	ppb	95
67) Dibromochloromethane	7.89	129	69862	10.6236	ppb	93
68) Chlorobenzene	8.55	112	153182	10.1800	ppb	99
69) Ethylbenzene	8.71	91	213196	10.0240	ppb	99
70) Bromoform	9.45	173	53279	10.8037	ppb	98
72) Isopropylbenzene	9.69	105	180423	9.9104	ppb	100
73) 1,1,2,2-Tetrachloroethane	10.03	83	86355	10.4508	ppb	94
74) 1,2,3-Trichloropropane	10.04	110	25266	10.5129	ppb	96
75) t-1,4-Dichloro-2-Butene	10.09	53	17829	10.5036	ppb	95
76) Bromobenzene	9.96	156	70792	10.3369	ppb	99
77) n-Propylbenzene	10.13	91	140595	10.0016	ppb	98
78) 4-Ethyltoluene	10.26	105	182910	10.4650	ppb	98
79) 2-Chlorotoluene	10.19	91	154591	10.5503	ppb	98
80) 1,3,5-Trimethylbenzene	10.34	105	104800	9.2813	ppb	99
81) 4-Chlorotoluene	10.31	91	182713	10.9304	ppb	99
82) Tert-Butylbenzene	10.67	119	134954	10.1535	ppb	95
83) 1,2,4-Trimethylbenzene	10.73	105	154636	8.9030	ppb	95
84) Sec-Butylbenzene	10.91	105	201314	10.4525	ppb	99
85) p-Isopropyltoluene	11.08	119	182518	10.2105	ppb	97
86) Benzyl Chloride	11.25	91	86751	9.5733	ppb	97
87) 1,3-DCB	10.99	146	127305	10.5012	ppb	100
88) 1,4-DCB	11.09	146	137051	10.5300	ppb	97
89) n-Butylbenzene	11.52	91	147402	9.7263	ppb	98
90) 1,2-DCB	11.48	146	118773	10.1090	ppb	99
91) Hexachloroethane	11.74	117	40501	10.2640	ppb	94
92) 1,2-Dibromo-3-chloropropan	12.31	75	14400	9.4380	ppb	87
93) 1,2,4-Trichlorobenzene	13.20	180	67101	9.4327	ppb	95
94) Hexachlorobutadiene	13.41	225	39646	9.7203	ppb	91
95) Naphthalene	13.45	128	129715	8.3862	ppb	99
96) 1,2,3-Trichlorobenzene	13.71	180	38816	9.5696	ppb	99



Quantitation Report

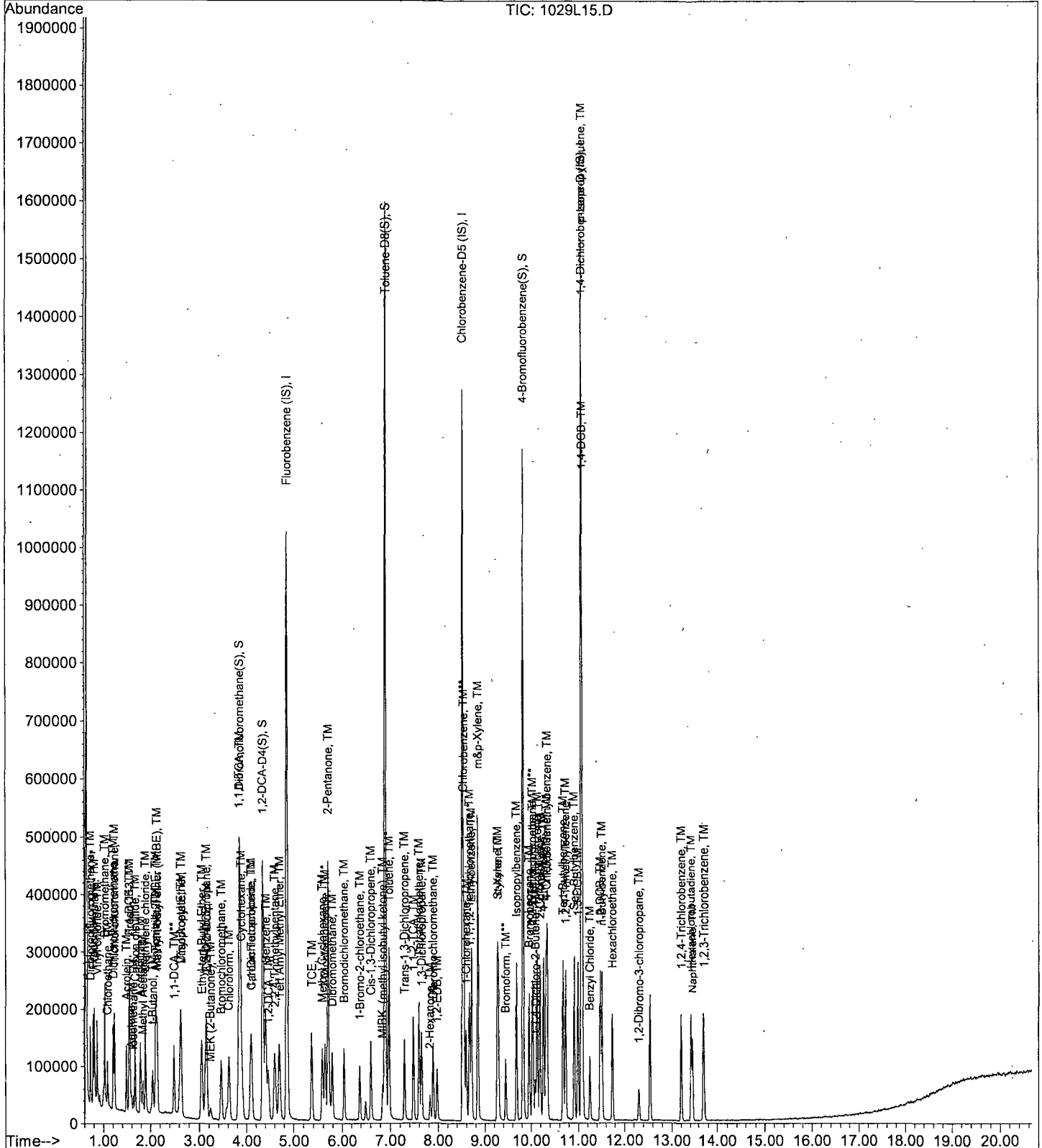
Data File : M:\LOKI\DATA\181026\1029L15.D  
Acq On : 29 Oct 18 15:33  
Sample : 181029A LCS 10ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 10  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 9:04 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 08:56:51 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L16.D  
 Acq On : 29 Oct 18 16:01  
 Sample : 181029A LCSD 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 11  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 9:04 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 08:56:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	476864	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	478464	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	257408	25.0000	ppb	0.00

System Monitoring Compounds

32) Dibromofluoromethane(S)	3.85	111	344607	26.3420	ppb	0.00
Spiked Amount	25.000		Recovery	=	105.368%	
37) 1,2-DCA-D4 (S)	4.35	65	382068	26.9589	ppb	0.00
Spiked Amount	25.000		Recovery	=	107.836%	
57) Toluene-D8 (S)	6.90	98	1128347	23.8298	ppb	0.00
Spiked Amount	25.000		Recovery	=	95.320%	
65) 4-Bromofluorobenzene(S)	9.83	95	387897	24.9334	ppb	0.00
Spiked Amount	25.000		Recovery	=	99.732%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	71592	10.6298	ppb	94
3) Freon 114	0.79	85	49064	10.6155	ppb	91
4) Chloromethane	0.81	50	73065	10.2105	ppb	99
5) Vinyl chloride	0.87	62	64253	10.1734	ppb	98
6) Bromomethane	1.03	94	51607	10.3351	ppb	99
7) Chloroethane	1.09	64	35150	9.7541	ppb	99
8) Dichlorofluoromethane	1.21	67	98040	10.2680	ppb	100
9) Trichlorofluoromethane	1.24	101	79792	9.7336	ppb	97
10) Acrolein	1.49	56	64366	111.3879	ppb	100
11) Acetone	1.59	43	26539	10.2995	ppb	# 84
12) Freon-113	1.56	101	43314	10.1894	ppb	96
13) 1,1-DCE	1.55	63	19624	10.1503	ppb	97
14) t-Butanol	2.05	59	80880	119.9395	ppb	100
15) Acetonitrile	1.78	41	121026	125.0100	ppb	99
16) Methyl Acetate	1.84	43	54262	10.2665	ppb	99
17) Iodomethane	1.64	142	18424	8.7003	ppb	88
18) Acrylonitrile	2.10	52	20989	9.9675	ppb	91
19) Methylene chloride	1.89	84	63049	10.2197	ppb	92
20) Carbon disulfide	1.68	76	141410	9.4993	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	144383	9.6109	ppb	97
22) Trans-1,2-DCE	2.11	96	52655	9.6896	ppb	95
23) Diisopropyl Ether	2.63	45	151560	9.5590	ppb	100
24) 1,1-DCA	2.50	63	107965	10.0741	ppb	97
25) Vinyl Acetate	2.63	43	36100	9.3476	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	133257	9.7120	ppb	96
27) MEK (2-Butanone)	3.23	43	27142	9.6800	ppb	91
28) Cis-1,2-DCE	3.15	96	63014	10.1683	ppb	96
29) 2,2-Dichloropropane	3.13	77	81227	10.7565	ppb	# 94
30) Chloroform	3.62	83	113892	10.7526	ppb	93
31) Bromochloromethane	3.46	128	37133	10.9438	ppb	98
33) 1,1,1-TCA	3.83	97	89779	10.6225	ppb	89
34) Cyclohexane	3.90	41	35425	10.0054	ppb	89
35) 1,1-Dichloropropene	4.11	75	61371	9.5254	ppb	94
36) 2,2,4-Trimethylpentane	4.60	57	108808	9.3098	ppb	88
38) Carbon Tetrachloride	4.09	117	75523	10.8924	ppb	97
39) Tert Amyl Methyl Ether	4.70	73	121301	9.6737	ppb	92
40) 1,2-DCA	4.47	62	83922	10.7124	ppb	100
41) Benzene	4.41	78	220474	9.9992	ppb	97
42) TCE	5.37	95	27208	10.0626	ppb	92

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

Data File : M:\LOKI\DATA\181026\1029L16.D  
 Acq On : 29 Oct 18 16:01  
 Sample : 181029A LCSD 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 11  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 9:04 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 08:56:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	524743	132.4804	ppb	99
44) 1,2-Dichloropropane	5.64	63	59806	10.0994	ppb	98
45) Bromodichloromethane	6.04	83	86427	10.1654	ppb	99
46) Methyl Cyclohexane	5.58	83	51129	8.5711	ppb	86
47) Dibromomethane	5.79	93	45284	10.1778	ppb	91
49) MIBK (methyl isobutyl ket	6.85	43	54668	10.4793	ppb	98
50) 1-Bromo-2-chloroethane	6.37	63	45560	10.5887	ppb	99
51) Cis-1,3-Dichloropropene	6.61	75	87410	10.0288	ppb	98
52) Toluene	6.97	91	241429	10.5693	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	78370	9.5616	ppb	97
54) 1,1,2-TCA	7.47	83	54905	10.7579	ppb	99
55) 2-Hexanone	7.82	43	31566	9.5473	ppb	99
58) 1,2-EDB	7.98	107	64341	10.2597	ppb	91
59) Tetrachloroethene	7.60	166	67661	9.9565	ppb	97
60) 1-Chlorohexane	8.60	91	46625	9.4116	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.66	131	67413	10.1569	ppb	97
62) m&p-Xylene	8.85	91	188089	17.2408	ppb	99
63) o-Xylene	9.27	106	80575	9.9786	ppb	96
64) Styrene	9.29	104	78128	8.4117	ppb	100
66) 1,3-Dichloropropane	7.65	76	99903	10.3883	ppb	96
67) Dibromochloromethane	7.89	129	70530	9.9132	ppb	98
68) Chlorobenzene	8.55	112	163024	10.0139	ppb	96
69) Ethylbenzene	8.71	91	222615	9.6745	ppb	95
70) Bromoform	9.45	173	56180	10.5295	ppb	99
72) Isopropylbenzene	9.69	105	188846	9.7180	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	91155	10.3350	ppb	93
74) 1,2,3-Trichloropropane	10.04	110	25976	10.1257	ppb	100
75) t-1,4-Dichloro-2-Butene	10.09	53	17212	9.4998	ppb	92
76) Bromobenzene	9.96	156	76671	10.4883	ppb	99
77) n-Propylbenzene	10.13	91	150016	9.9979	ppb	99
78) 4-Ethyltoluene	10.26	105	196578	10.5367	ppb	98
79) 2-Chlorotoluene	10.19	91	164616	10.5250	ppb	96
80) 1,3,5-Trimethylbenzene	10.34	105	112752	9.3527	ppb	98
81) 4-Chlorotoluene	10.31	91	193207	10.8282	ppb	100
82) Tert-Butylbenzene	10.67	119	140494	9.9028	ppb	95
83) 1,2,4-Trimethylbenzene	10.73	105	162944	8.7968	ppb	93
84) Sec-Butylbenzene	10.91	105	215030	10.4595	ppb	97
85) p-Isopropyltoluene	11.08	119	197702	10.3615	ppb	99
86) Benzyl Chloride	11.25	91	82220	8.5003	ppb	99
87) 1,3-DCB	10.99	146	132695	10.2545	ppb	96
88) 1,4-DCB	11.09	146	145281	10.4574	ppb	97
89) n-Butylbenzene	11.52	91	154874	9.5739	ppb	98
90) 1,2-DCB	11.47	146	127479	10.1647	ppb	97
91) Hexachloroethane	11.74	117	41937	9.9567	ppb	94
92) 1,2-Dibromo-3-chloropropan	12.31	75	16073	9.8692	ppb	85
93) 1,2,4-Trichlorobenzene	13.20	180	65304	8.6003	ppb	98
94) Hexachlorobutadiene	13.41	225	41114	9.4437	ppb	96
95) Naphthalene	13.45	128	141754	8.5391	ppb	99
96) 1,2,3-Trichlorobenzene	13.71	180	43008	9.9335	ppb	98

Quantitation Report

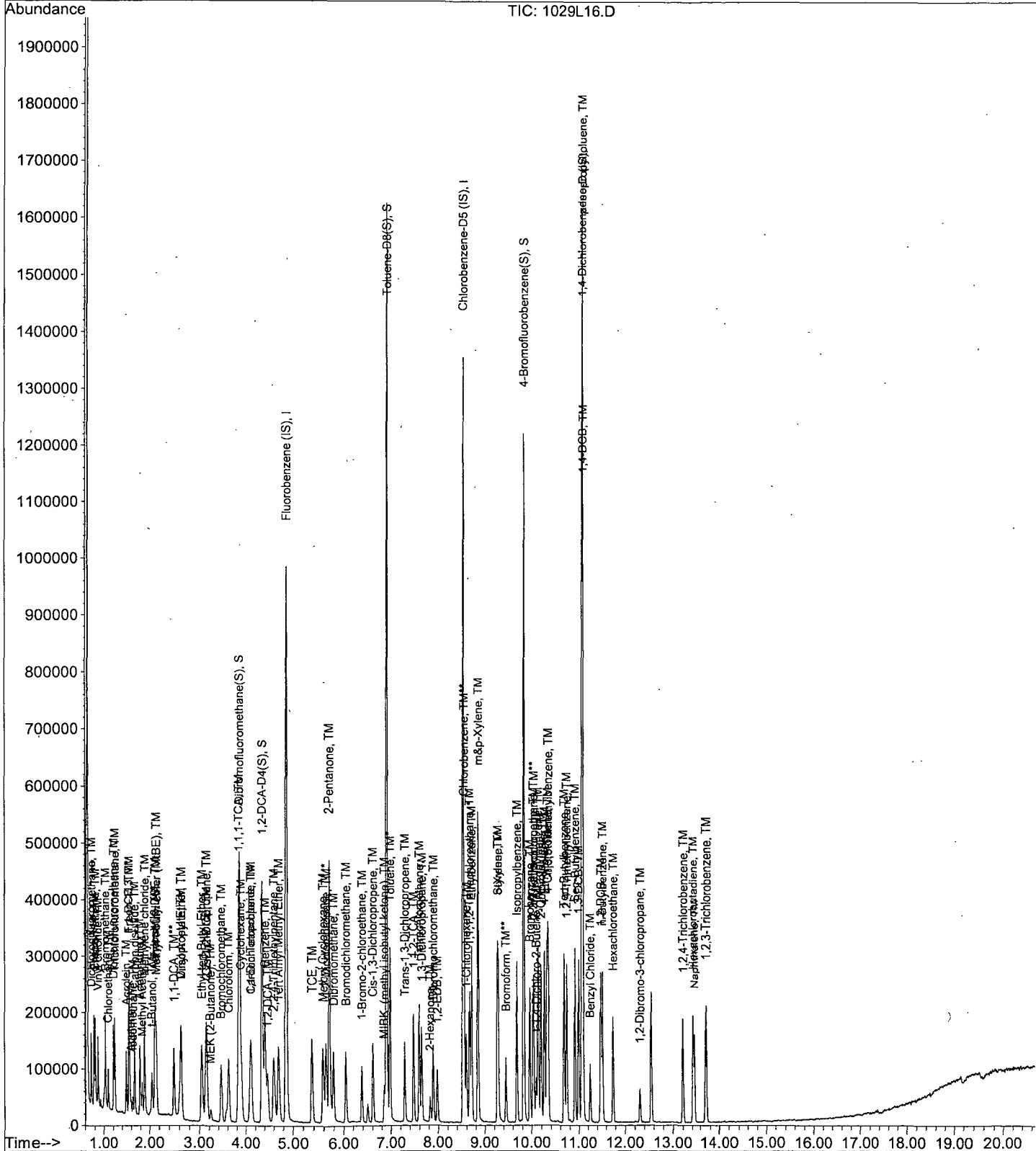
Data File : M:\LOKI\DATA\181026\1029L16.D  
Acq On : 29 Oct 18 16:01  
Sample : 181029A LCSD 10ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 11  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 9:04 2018

Quant Results File: L1026W.RES

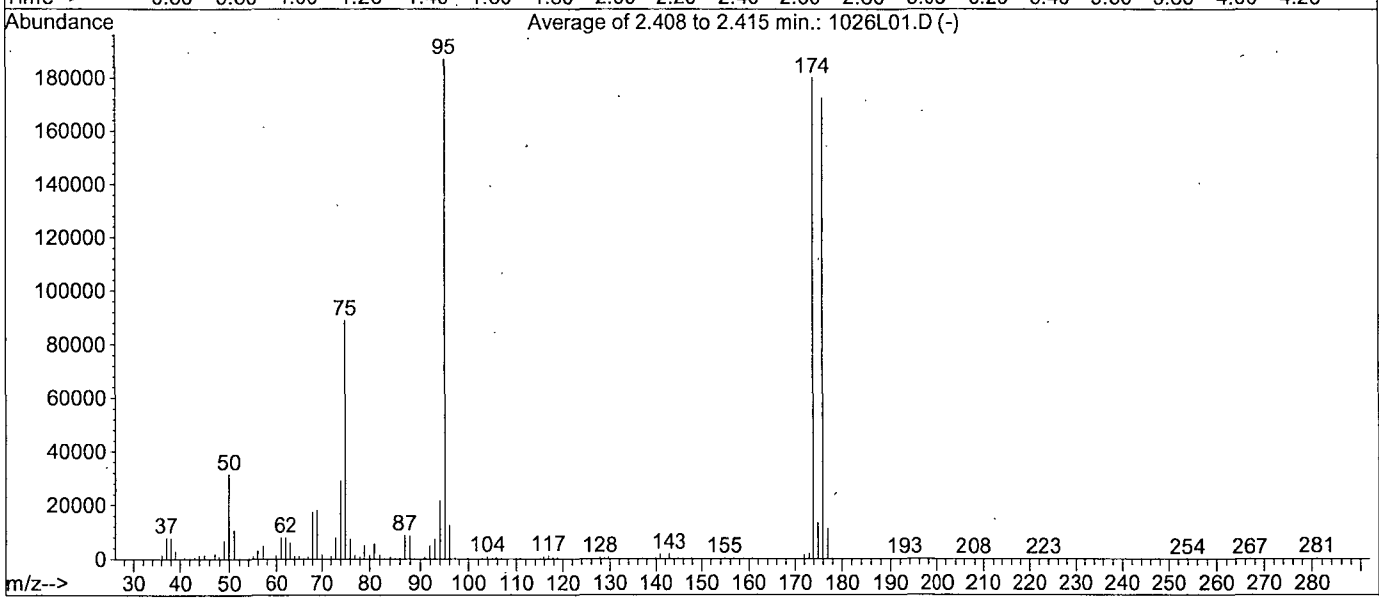
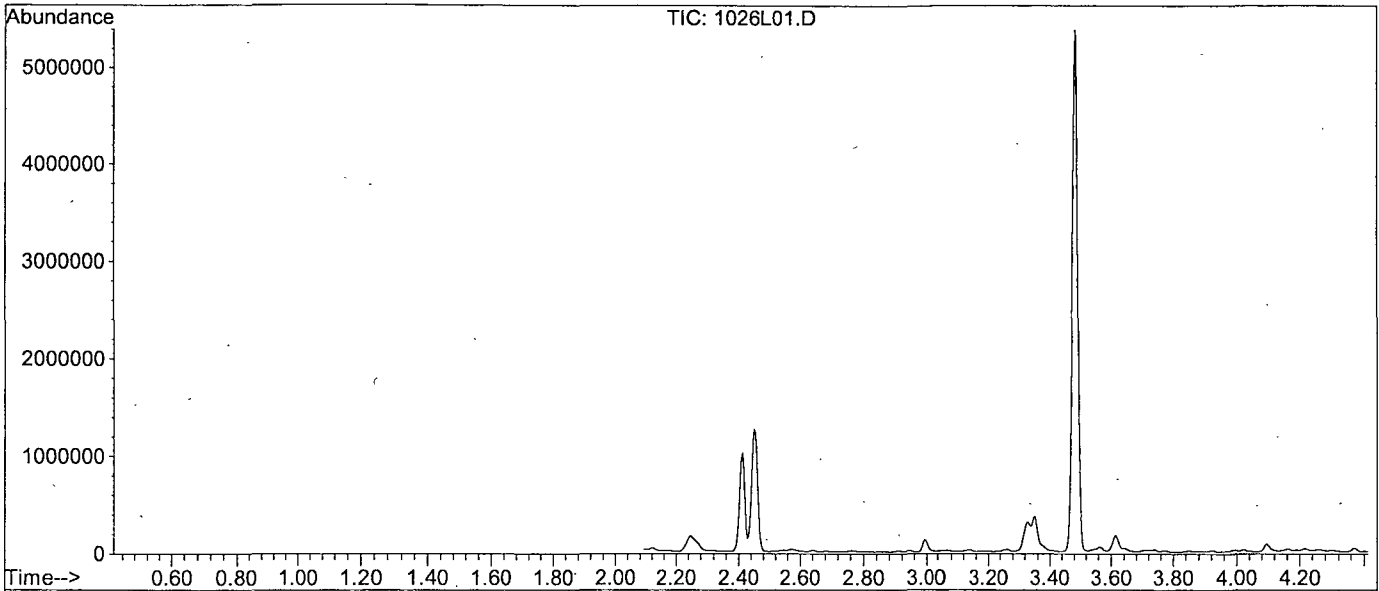
Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 08:56:51 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L01.D  
 Acq On : 26 Oct 18 9:38  
 Sample : 25ug/L BFB STD 9/2/18  
 Misc : 2ul

Vial: 1  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B



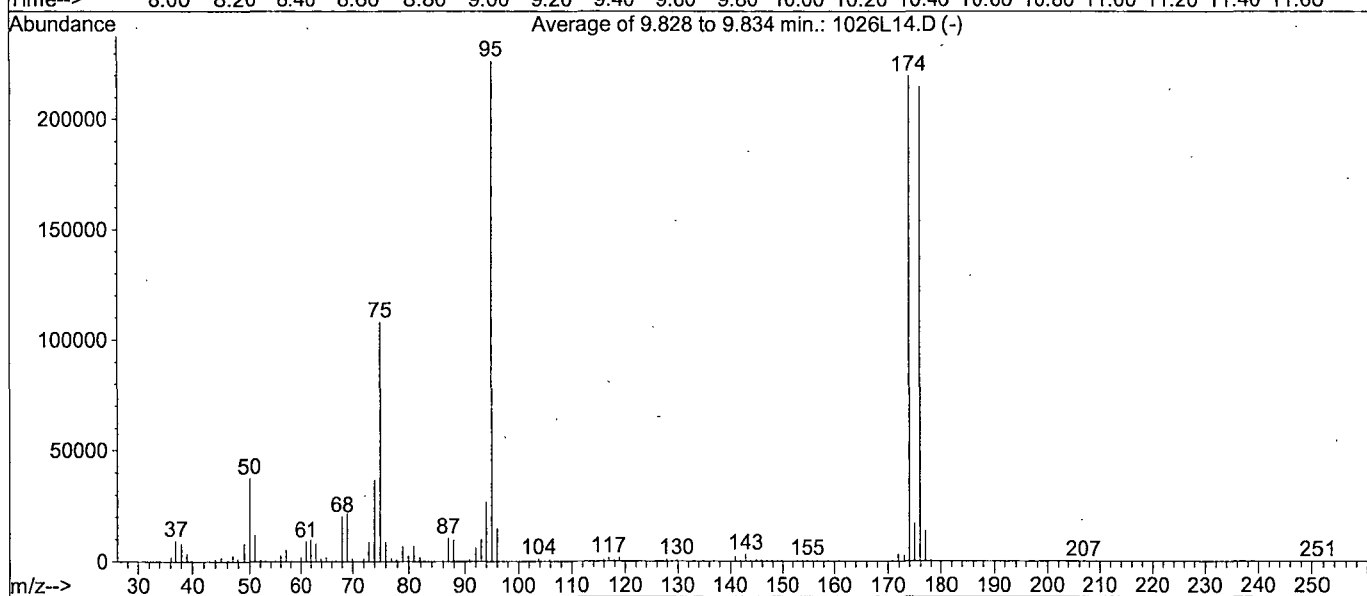
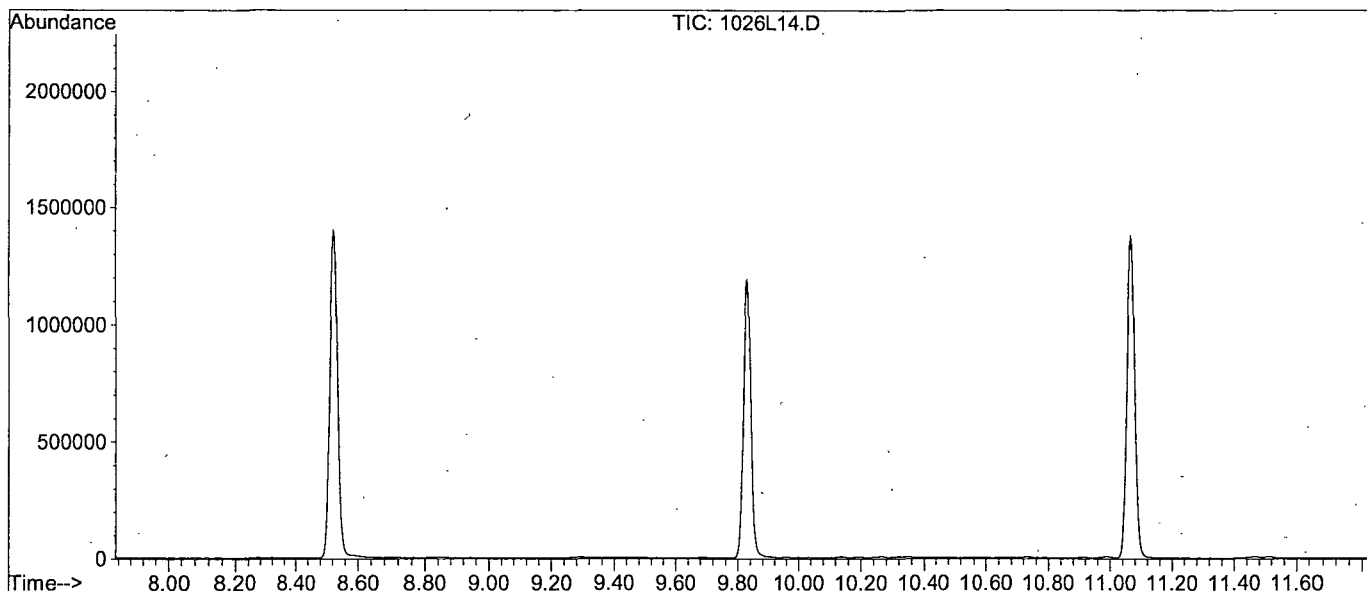
Spectrum Information: Average of 2.408 to 2.415 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.9	31573	PASS
75	95	30	60	47.6	89033	PASS
95	95	100	100	100.0	187079	PASS
96	95	5	9	6.7	12460	PASS
173	174	0.00	2	1.1	2004	PASS
174	95	50	100	96.3	180096	PASS
175	174	5	9	7.5	13440	PASS
176	174	95	101	95.8	172544	PASS
177	176	5	9	6.5	11238	PASS

Data File : M:\LOKI\DATA\181026\1026L14.D  
 Acq On : 26 Oct 18 15:41  
 Sample : 25ug/L BFB STD 9/2/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 13  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B



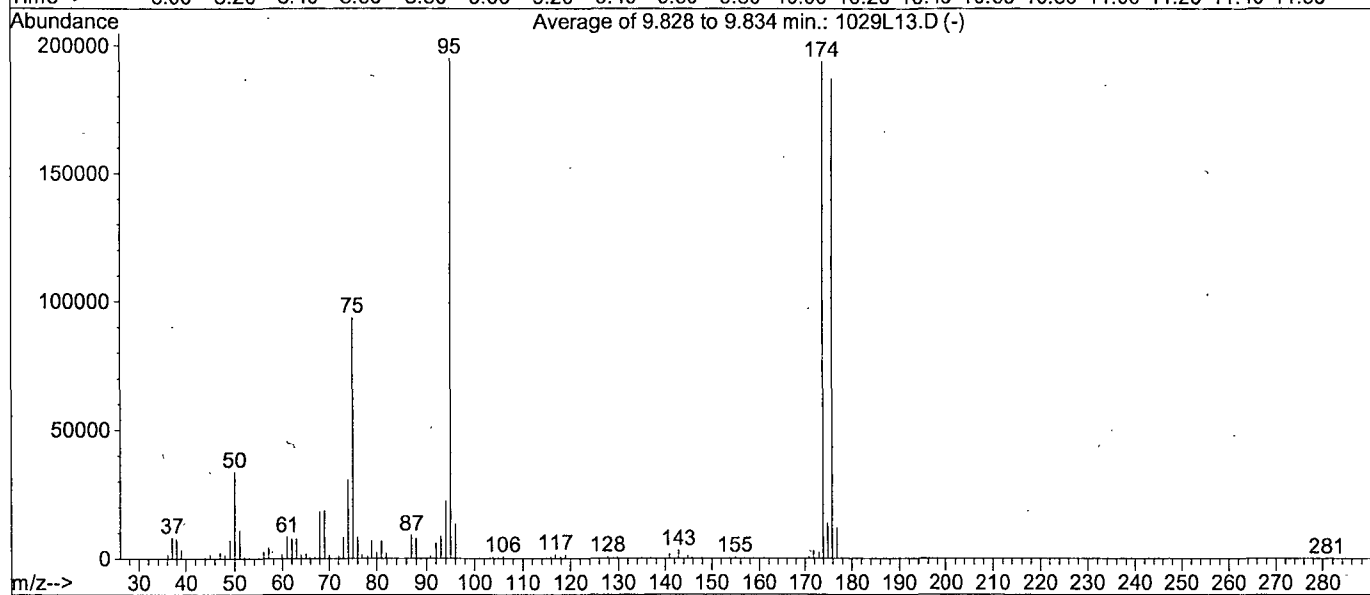
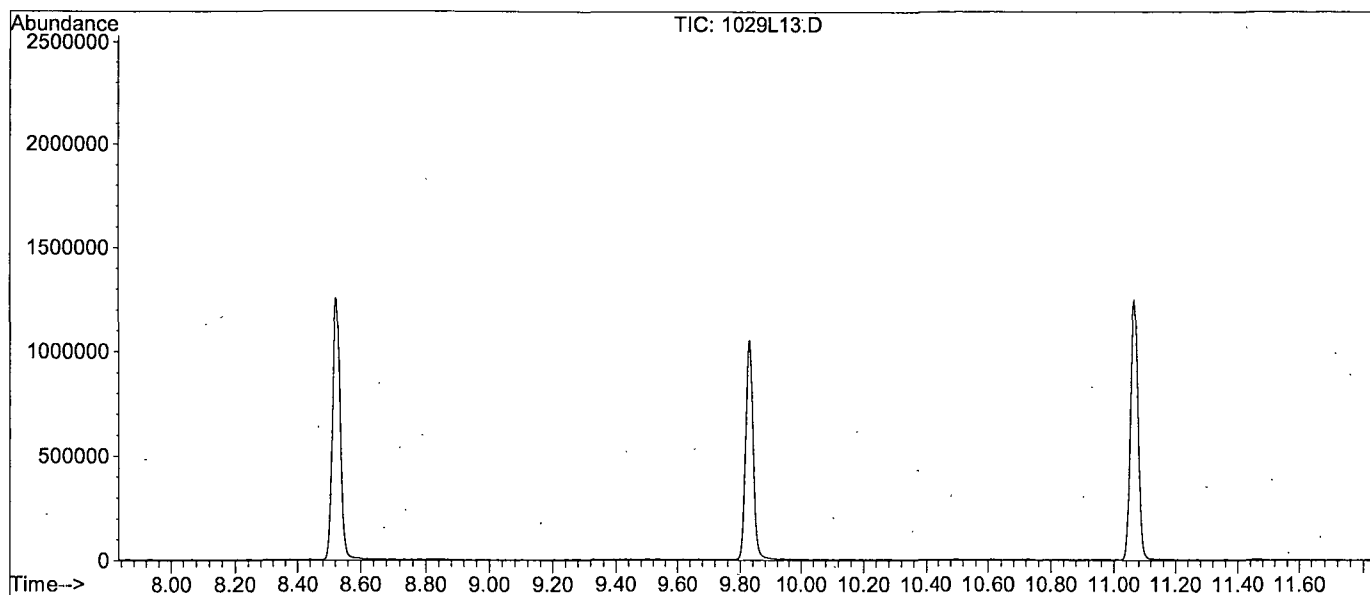
AutoFind: Scans 2873, 2874, 2875; Background Corrected with Scan 2858

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.5	37333	PASS
75	95	30	60	47.7	107952	PASS
95	95	100	100	100.0	226453	PASS
96	95	5	9	6.5	14818	PASS
173	174	0.00	2	1.2	2691	PASS
174	95	50	100	97.0	219648	PASS
175	174	5	9	7.7	16889	PASS
176	174	95	101	97.9	214997	PASS
177	176	5	9	6.3	13512	PASS

Data File : M:\LOKI\DATA\181026\1029L13.D  
 Acq On : 29 Oct 18 14:36  
 Sample : 25ug/L BFB STD 9/2/18  
 Misc : IS&S 9/28/18,8/23/18

Vial: 8  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Method : M:\LOKI\DATA\180915\LALLW.M (RTE Integrator)  
 Title : METHOD 8260B



Spectrum Information: Average of 9.828 to 9.834 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	33877	PASS
75	95	30	60	48.0	93627	PASS
95	95	100	100	100.0	194944	PASS
96	95	5	9	7.0	13581	PASS
173	174	0.00	2	1.3	2555	PASS
174	95	50	100	99.4	193685	PASS
175	174	5	9	7.2	13899	PASS
176	174	95	101	96.5	186987	PASS
177	176	5	9	6.4	12030	PASS

### Loki 8260 Standard Prep

Loki 8260 Water Calibration Curve										
0.3ug/L										
Prepared By (Initials): <u>DG</u>										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.3ug/L	5	Prepared 10/23/18	10/31/18	N/A	3uL	50mL	P&T Water	0.3
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	3uL			0.3
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	3uL			0.3
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	2uL			10
0.5ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.5ug/L	5	Prepared 10/23/18	10/31/18	N/A	5uL	50mL	P&T Water	0.5
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	5uL			0.5
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	5uL			0.5
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	5uL			25
1.0ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	1.0ug/L	5	Prepared 10/23/18	10/31/18	N/A	10uL	50mL	P&T Water	1
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	10uL			1
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	10uL			1
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	10uL			50
2.0ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	2.0ug/L	5	Prepared 10/23/18	10/31/18	N/A	20uL	50mL	P&T Water	2
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	20uL			2
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	20uL			2
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	15uL			75
5ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	5ug/L	50	Prepared 10/23/18	12/22/18	N/A	5uL	50mL	P&T Water	5
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	5uL			5
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	5uL			5
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	5uL			5
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	20uL			100
10ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	10ug/L	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	25uL			125



20ug/L													
Prepared: 10/26/18													
Expires: 11/25/18													
Initial Standard Information						Final Standard Information							
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)			
VOA STD. 7	Various	20ug/L	50	Prepared 10/23/18	12/22/18	N/A	20uL	50mL	P&T Water	20			
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	20uL			20			
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	20uL			20			
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	20uL			20			
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	30uL			150			
40ug/L													
Prepared: 10/26/18													
Expires: 11/25/18													
Initial Standard Information						Final Standard Information							
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)			
VOA STD. 7	Various	40ug/L	50	Prepared 10/23/18	12/22/18	N/A	40uL	50mL	P&T Water	40			
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	40uL			40			
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40			
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40			
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	35uL			175			
100ug/L													
Prepared: 10/26/18													
Expires: 11/25/18													
Initial Standard Information						Final Standard Information							
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)			
VOA STD. 7	Various	100ug/L	50	Prepared 10/23/18	12/22/18	N/A	100uL	50mL	P&T Water	100			
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	100uL			100			
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	100uL			100			
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	100uL			100			
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	40uL			200			
Loki 8260 Water Second Source (SS)													
Prepared: 10/26/18													
Expires: 11/25/18													
Initial Standard Information						Final Standard Information							
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)			
VOA STD. 4	Phenova	8260 Water SS	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10			
VOA STD. 5	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10			
VOA STD. 6	Various		50	Prepared 10/23/18	10/31/18	N/A	10uL			10			
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	25uL			250			
8260 Water Continuing Calibrations (CCV)/ Lab Control Spikes (LCS)													
Prepared: 10/26/18													
Expires: 10/27/18													
Initial Standard Information						Final Standard Information							
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)			
VOA STD. 7	Various	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10			
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	10uL			10			
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10			
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10			
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	25uL			125			
LCS (X4 Ketones)													
Prepared: 10/26/18													
Expires: 10/27/18													
Initial Standard Information						Final Standard Information							
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)			
VOA STD. 7	Various	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10			
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	10uL			10			
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10			
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40			
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	25uL			125			

Initial Standard Information							Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)	
<b>Loki 8260 Water Surrogate</b>											
Prepared: 09/28/18							Prepared By (Initials): DG				
Expires: 04/02/19											
Methanol Lot No: 57159											
8260 Surrogate Solution	O2SI	120002-01	2,000	275545-36334	09/28/19	04/02/19	375uL	15mL	Methanol	50	
<b>Loki 8260 Water Internal Standard</b>											
Prepared: 09/28/18							Prepared By (Initials): DG				
Expires: 06/29/19											
Methanol Lot No: 57159											
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)	
Internal Standard Solution	O2SI	120004-02	2,000	326533-38434	06/29/19	04/27/21	375uL	15mL	Methanol	50	

**Primary and Secondary Working Standards**

Primary Standards										
VOA STD 7										
Prepared: 10/23/18 C										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Prepared By (Initials): PC										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses STD	Phenova	ALO-101206	2,000	CL12418-39660	09/13/19	04/30/23	100uL	4mL	Methanol	50
Hexachloroethane	Absolute	70199	1,000	071317-39700	09/04/19	05/14/28	200uL			50
Benzyl Chloride	O2SI	020228-02	1,000	041918-39343	09/04/19	04/19/19	200uL			50
VOA STD 8										
Prepared: 10/23/18 D										
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Prepared By (Initials): PC										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Additions STD	Phenova	ALO-101206	2,000	CL12622-39323	06/20/19	05/31/20	100uL	4mL	Methanol	50
VOC's-54 COMP	Phenova	ALO-101200	2,000	CL12490-39490	06/20/19	05/30/20	100uL			50
Vinyl Acetate	Phenova	ALO-101228	2,000	CL12805-39766	09/06/19	10/31/18	100uL			50
VOA STD TBA										
Prepared: 10/23/18 E										
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Prepared By (Initials): PC										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOC Mix	Phenova	ALO-130176	2,000	CL12228-39680	09/06/19	08/31/28	500uL	4mL	Methanol	250
Acrolein	Phenova	ALO-101224	5,000	CL12863-39768	09/06/19	10/31/18	200uL			250
VOA STD 1										
Prepared: 10/23/18 F										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Prepared By (Initials): PC										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
2-CEVE	O2SI	020145-02	2,000	292247-38407	09/06/19	11/12/19	50	2mL	Methanol	50
VOA STD 2										
Prepared: 10/23/18 G										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Prepared By (Initials): PC										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
HSL's Ketone Solution	O2SI	121020-05	2,000	CL12729-39663	10/17/19	08/01/28	100	4mL	Methanol	50
VOA STD 9										
Prepared: 10/23/18 H										
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Prepared By (Initials): PC										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 7	O2SI	VOA STD. 9	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5
VOA STD. 8	O2SI		50	Prepared 10/23/18	10/31/18	N/A	200uL			5
VOA STD. 10										
Prepared: 10/23/18 I										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Prepared By (Initials): PC										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 1	O2SI	VOA STD. 10	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5
VOA STD. 12										
Prepared: 10/23/18 J										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Prepared By (Initials): PC										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 2	O2SI	VOA STD. 12	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5

Second Source (SS) Standards											
VOA STD. 3											
Prepared: 10/23/18 K											
Expires: 12/22/18											
Methanol Lot No. 907702-202404											
Prepared By (Initials): PC											
Initial Standard Information						Final Standard Information					
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)	
Ketones Standard	Phenova	ALO-101211	2,000	CL12730-39669	07/25/19	08/01/28	50uL	2mL	Methanol	50	
VOA STD. 5											
Prepared: 10/23/18 L											
Expires: 12/22/18											
Methanol Lot No. 907702-202404											
Prepared By (Initials): PC											
Initial Standard Information						Final Standard Information					
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)	
8260 Gases (SS)	Phenova	ALO-101206	2,000	CL12417-39649	09/13/19	04/30/23	50uL	2mL	Methanol	50	
2-CEVE (SS)	O2SI	020145-02-02-SS	2,000	71018-39539	06/20/19	11/12/19	50uL			50	
VOA STD. 6											
Prepared: 10/23/18 M											
Expires: 10/31/18											
Methanol Lot No. 907702-202404											
Prepared By (Initials): PC											
Initial Standard Information						Final Standard Information					
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)	
502.2 Calibration STD. (54-compounds)	Phenova	ALO-101200	2,000	CL12489-39484	06/20/19	05/31/23	50uL	2mL	Methanol	50	
Vinyl Acetate	Phenova	ALO-101228	1,000	CL12869-39767	09/06/19	10/31/18	50uL			50	
Hexachloroethane	O2SI	020049-02	1,000	218051281	06/20/19	05/14/28	50uL			50	
VOA STD. TBA											
Prepared: 10/23/18 N											
Expires: 10/31/18											
Methanol Lot No. 907702-202404											
Prepared By (Initials): PC											
Initial Standard Information						Final Standard Information					
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)	
Custom VOA Mix (4-3)	Phenova	ALO-130179	2,000	CL12228-39309	08/13/19	08/31/20	250uL	2mL	Methanol	250	
Acrolein	Phenova	ALO-101224	5,000	CL12868-39769	09/06/19	10/31/18	100uL			250	
VOA STD. 0											
Prepared: 10/23/18 O											
Expires: 12/22/18											
Methanol Lot No. 907702-202404											
Prepared By (Initials): PC											
Initial Standard Information						Final Standard Information					
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)	
VOA Addition STD.	Phenova	ALO-130175	2,000	CL12230-39138	07/25/19	01/31/20	50uL	2mL	Methanol	50	
BFB Tune											
Prepared: 08/29/18											
Expires: 08/07/19											
Methanol Lot No. 9077-202404											
Prepared By (Initials): PC											
Initial Standard Information						Final Standard Information					
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)	
4-Bromofluorobenzene	O2SI	020135-03	2,500	320514-38965	08/07/19	09/03/20	20uL	2mL	Methanol	25	

## Injection Log

Directory: M:\LOK\DATA\181026\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1026L01.D	1	25ug/L BFB STD 9/2/18	2ul	26 Oct 18 9:38
2	2	1026L03.D	1	0.3ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 10:28
3	3	1026L04.D	1	0.5ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 10:57
4	4	1026L05.D	1	1.0ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 11:25
5	5	1026L06.D	1	2.0ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 11:54
6	6	1026L07.D	1	5.0ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 12:22
7	7	1026L08.D	1	10ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 12:50
8	8	1026L09.D	1	20ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 13:19
9	9	1026L10.D	1	40ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 13:47
10	10	1026L11.D	1	100ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 14:16
11	12	1026L13.D	1	(SS)10ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 15:13
12	13	1026L14.D	1	25ug/L BFB STD 9/2/18	IS&S 9/28/18,8/23/18	26 Oct 18 15:41
13	14	1026L15.D	1	181026A CCV 10ug/L	IS&S 9/28/18,8/23/18	26 Oct 18 16:10
14	15	1026L16.D	1	181026A LCS 10ug/L	IS&S 9/28/18,8/23/18	26 Oct 18 16:38
15	16	1026L17.D	1	181026A LCSD 10ug/L	IS&S 9/28/18,8/23/18	26 Oct 18 17:06
16	21	1026L22.D	1	181026A blk	IS&S 9/28/18,8/23/18	26 Oct 18 19:29
17	22	1026L23.D	1	AZ81673W01	IS&S 9/28/18,8/23/18	26 Oct 18 19:57
18	23	1026L24.D	1	AZ81675W01	IS&S 9/28/18,8/23/18	26 Oct 18 20:25
19	24	1026L25.D	1	AZ81674W01	IS&S 9/28/18,8/23/18	26 Oct 18 20:54
20	27	1026L28.D	1	AZ81677W01	IS&S 9/28/18,8/23/18	26 Oct 18 22:19
21	28	1026L29.D	1	AZ81676W01	IS&S 9/28/18,8/23/18	26 Oct 18 22:48
22	36	1026L37.D	1	Ending CCV 10ug/L 10/26/18	IS&S 9/28/18,8/23/18	27 Oct 18 2:35
23	8	1029L13.D	1	25ug/L BFB STD 9/2/18	IS&S 9/28/18,8/23/18	29 Oct 18 14:36
24	9	1029L14.D	1	181029A CCV 10ug/L	IS&S 9/28/18,8/23/18	29 Oct 18 15:04
25	10	1029L15.D	1	181029A LCS 10ug/L	IS&S 9/28/18,8/23/18	29 Oct 18 15:33
26	11	1029L16.D	1	181029A LCSD 10ug/L	IS&S 9/28/18,8/23/18	29 Oct 18 16:01
27	16	1029L21.D	1	181029A BLK	IS&S 9/28/18,8/23/18	29 Oct 18 18:23
28	17	1029L22.D	1	AZ81678W02	IS&S 9/28/18,8/23/18	29 Oct 18 18:51
29	31	1029L36.D	1	Ending CCV 8260 10ug/L	IS&S 9/28/18,8/23/18	30 Oct 18 1:30

**ORGANICS**  
**Calibration Data**

**APPL, INC.**

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

**Form 6**  
**Initial Calibration**

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Initial Cal. Date: 10/26/18

Matrix: \_\_\_\_\_

Instrument: Loki

Initials: \_\_\_\_\_

1026L03.D    1026L04.D    1026L05.D    1026L06.D    1026L07.D    1026L08.D    1026L09.D    1026L10.D    1026L11.D

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type	r <sup>2</sup>	Q	MRF
1	I	Fluorobenzene (IS)																
2	TM	Dichlorodifluoromethane	0.3148	0.3083	0.3862	0.3998	0.3562	0.3441	0.3582	0.3535	0.3568		0.35	8.3	TM			
3	TM	Freon 114	0.2357	0.2821	0.2441	0.2512	0.2202	0.2173	0.2452	0.2407	0.2443		0.24	7.8	TM			
4	TM**L	Chloromethane		0.5960	0.5078	0.3825	0.4286	0.3769	0.3694	0.3650	0.3455		0.42	21	TM**L	1.000		
5	TM*	Vinyl chloride	0.3170	0.3128	0.3381	0.3142	0.3661	0.3458	0.3371	0.3275	0.3212		0.33	5.3	TM*			
6	TML	Bromomethane		0.3885	0.3273	0.2972	0.2950	0.2809	0.2689	0.2483	0.2169		0.29	18	TML	0.996		
7	TM	Chloroethane		0.1792	0.2064	0.1883	0.2092	0.1801	0.1813	0.1778			0.19	7.1	TM			
8	TM	Dichlorofluoromethane		0.6533	0.4609	0.4837	0.4897	0.4950	0.4833	0.4733	0.4653		0.50	13	TM			
9	TM	Trichlorofluoromethane	0.4769	0.4503	0.4418	0.3978	0.4371	0.4195	0.4243	0.4200	0.4002		0.43	5.8	TM			
10	TM	Acrolein	0.0369	0.0293	0.0296	0.0280	0.0296	0.0283					0.03	11	TM			
11	TML	Acetone			0.4527	0.2599	0.1798	0.1310	0.1171	0.1116	0.0986		0.19	66	TML	0.999		
12	TM	Freon-113	0.2349	0.2213	0.2188	0.2418	0.2244	0.2032	0.2267	0.2203	0.2143		0.22	5.0	TM			
13	TM*	1,1-DCE	0.1228	0.1220	0.1149	0.0868	0.0963	0.0946	0.0944	0.0900	0.0905		0.10	14	TM*			
14	TM	t-Butanol	0.0392	0.0394	0.0362	0.0331	0.0318	0.0324					0.04	9.7	TM			
15	TM	Acetonitrile	0.0536	0.0529	0.0514	0.0482	0.0502	0.0482					0.05	4.5	TM			
16	TM	Methyl Acetate		0.3365	0.3169	0.2815	0.2702	0.2568	0.2597	0.2491	0.2460		0.28	12	TM			
17	TML	Iodomethane		0.0684	0.0667	0.0736	0.0809	0.0923	0.1171	0.1290	0.1351		0.10	29	TML	0.999		
18	TML	Acrylonitrile		0.2102	0.1400	0.1551	0.1105	0.1104	0.1083	0.1066	0.1021		0.13	29	TML	1.000		
19	TM	Methylene chloride			0.3950	0.3366	0.3261	0.3154	0.3040	0.2987	0.2883		0.32	11	TM			
20	TM	Carbon disulfide	0.9698	0.7915	0.8278	0.7763	0.7375	0.7425	0.7371	0.7276	0.7137		0.78	10	TM			
21	TM	Methyl t-butyl ether (MIBE)	0.9313	0.8014	0.8261	0.7534	0.7726	0.7629	0.7586	0.7531	0.7289		0.79	7.7	TM			
22	TM	Trans-1,2-DCE		0.3117	0.3266	0.2805	0.2810	0.2720	0.2803	0.2656	0.2616		0.28	8.0	TM			
23	TM	Diisopropyl Ether			0.8819	0.8847	0.8525	0.8201	0.7667	0.8213	0.7914		0.83	5.3	TM			
24	TM**	1,1-DCA	0.7059	0.5711	0.5910	0.5579	0.5448	0.5468	0.5266	0.5161	0.4967		0.56	11	TM**			
25	TM	Vinyl Acetate		0.2480	0.2267	0.1997	0.2149	0.1844	0.1786	0.1904	0.1770		0.20	13	TM			
26	TM	Ethyl tert Butyl Ether	0.7477	0.7065	0.7158	0.7107	0.6876	0.7159	0.7059	0.7337	0.7501		0.72	2.9	TM			
27	TM	MEK (2-Butanone)			0.1672	0.1446	0.1562	0.1386	0.1396	0.1459	0.1369		0.15	7.5	TM			
28	TM	Cis-1,2-DCE	0.3116	0.3538	0.3400	0.3256	0.3153	0.3200	0.3206	0.3183	0.3186		0.32	4.2	TM			
29	TML	2,2-Dichloropropane		0.5125	0.4669	0.4268	0.4063	0.4047	0.3967	0.3885	0.3805		0.42	11	TML	1.000		
30	TM*	Chloroform	0.6630	0.5476	0.5435	0.5231	0.5685	0.5593	0.5471	0.5342	0.5114		0.56	7.9	TM*			
31	TM	Bromochloromethane	0.1709	0.2153	0.1814	0.1700	0.1802	0.1824	0.1762	0.1698	0.1547		0.18	9.2	TM			
32	SL	Dibromofluoromethane(S)	1.176	1.034	0.7332	0.7070	0.7145	0.7260	0.6447	0.6433			0.80	25	SL	0.996		
33	TM	1,1,1-TCA	0.5148	0.4238	0.4737	0.4354	0.4410	0.4287	0.4350	0.4222	0.4133		0.44	7.2	TM			
34	TM	Cyclohexane			0.2078	0.1912	0.1663	0.1784	0.1835	0.1823	0.1898		0.19	6.9	TM			
35	TM	1,1-Dichloropropene	0.3864	0.3537	0.3361	0.3341	0.3128	0.3102	0.3286	0.3354	0.3426		0.34	6.7	TM			

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

**Form 6**  
**Initial Calibration**

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/26/18  
Instrument: Loki

Initials: \_\_\_\_\_

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type	Q	MRF
36	TM	2,2,4-Trimethylpentane	0.6042	0.6487	0.5862	0.5905	0.5698	0.5759	0.6284	0.6377	0.6730		0.61	5.8	TM		
37	SL	1,2-DCA-D4(S)	1.286	1.123	0.8001	0.7833	0.7777	0.7999	0.7131	0.7091	0.6575		0.85	25	SL	0.998	
38	TM	Carbon Tetrachloride	0.3763	0.3614	0.3638	0.3492	0.3512	0.3543	0.3776	0.3712	0.3666		0.36	2.9	TM		
39	TM	Tert Amyl Methyl Ether	0.6177	0.6314	0.6498	0.5839	0.6273	0.6628	0.6915	0.7184	0.7338		0.66	7.5	TM		
40	TM	1,2-DCA	0.4401	0.4207	0.4008	0.4028	0.4126	0.4226	0.4052	0.4065	0.3851		0.41	3.8	TM		
41	TM	Benzene	1.395	1.152	1.145	1.085	1.082	1.146	1.142	1.136	1.121		1.2	8.1	TM		
42	TM	TCE		0.1660	0.1446	0.1349	0.1419	0.1340	0.1355	0.1372	0.1400		0.14	7.4	TM		
43	TM	2-Pentanone	0.2084	0.2061	0.2089	0.1994	0.2102	0.2130					0.21	2.2	TM		
44	TM*	1,2-Dichloropropane	0.3236	0.3173	0.3095	0.3115	0.3144	0.3091	0.3077	0.3080	0.2929		0.31	2.7	TM*		
45	TM	Bromodichloromethane	0.5163	0.4537	0.4611	0.4120	0.4421	0.4440	0.4353	0.4321	0.4147		0.45	7.0	TM		
46	TM	Methyl Cyclohexane	0.3514	0.3347	0.2869	0.2782	0.2830	0.2833	0.3142	0.3244	0.3584		0.31	10.0	TM		
47	TM	Dibromomethane	0.3020	0.2158	0.2364	0.2294	0.2313	0.2284	0.2261	0.2193	0.2107		0.23	12	TM		
48	TM	2-Chloroethyl vinyl ether													TM		
49	TM	MIBK (methyl isobutyl ketone)			0.2532	0.2798	0.2838	0.2566	0.2955	0.2698	0.2759		0.27	5.5	TM		
50	TM	1-Bromo-2-chloroethane	0.2484	0.2199	0.2231	0.2271	0.2136	0.2246	0.2279	0.2262	0.2194		0.23	4.3	TM		
51	TM	Cis-1,3-Dichloropropene	0.4821	0.4236	0.4547	0.4220	0.4571	0.4546	0.4626	0.4728	0.4831		0.46	4.9	TM		
52	TM*	Toluene	1.312	1.091	1.119	1.115	1.185	1.217	1.244	1.249	1.246		1.2	6.3	TM*		
53	TM	Trans-1,3-Dichloropropene	0.5110	0.3740	0.4057	0.4068	0.4226	0.4312	0.4356	0.4396	0.4407		0.43	8.7	TM		
54	TM	1,1,2-TCA	0.2937	0.2753	0.2720	0.2529	0.2730	0.2730	0.2607	0.2587	0.2489		0.27	5.1	TM		
55	TM	2-Hexanone			0.1783	0.1667	0.1752	0.1674	0.1668	0.1761	0.1828		0.17	3.7	TM		
56	I	Chlorobenzene-D5 (IS)															
57	SL	Toluene-D8(S)	3.750	3.328	2.362	2.318	2.368	2.594	2.431	2.395	2.355		2.7	20	SL	0.999	
58	TM	1,2-EDB	0.3600	0.2646	0.3409	0.2984	0.3281	0.3476	0.3419	0.3354	0.3323		0.33	8.9	TM		
59	TM	Tetrachloroethene	0.3344	0.3432	0.3569	0.3607	0.3506	0.3651	0.3694	0.3504	0.3650		0.36	3.2	TM		
60	TM	1-Chlorohexane		0.2322	0.2285	0.2498	0.2356	0.2598	0.2965	0.3096			0.26	12	TM		
61	TM	1,1,1,2-Tetrachloroethane	0.3552	0.3563	0.3444	0.3514	0.3437	0.3528	0.3476	0.3335	0.3362		0.35	2.3	TM		
62	TML	m&p-Xylene		0.3787	0.4099	0.4166	0.4619	0.5317	0.5852	0.6357	0.6783		0.51	22	TML	0.999	
63	TM	o-Xylene	0.3903	0.3659	0.3500	0.3750	0.3841	0.4375	0.4707	0.4895	0.5342		0.42	15	TM		
64	TML	Styrene		0.2686	0.3364	0.3542	0.3722	0.4588	0.5175	0.5397	0.5910		0.43	26	TML	0.999	
65	S	4-Bromofluorobenzene(S)			0.7519	0.7516	0.7990	0.8844	0.8527	0.8376			0.81	6.7	S		
66	TM	1,3-Dichloropropane	0.5354	0.4636	0.4669	0.4827	0.4872	0.5285	0.5229	0.5158	0.5195		0.50	5.5	TM		
67	TM	Dibromochloromethane	0.4324	0.3113	0.4029	0.3365	0.3639	0.3810	0.3765	0.3694	0.3719		0.37	9.4	TM		
68	TM**	Chlorobenzene	0.9607	0.7883	0.8161	0.8233	0.8193	0.8663	0.8671	0.8458	0.8687		0.85	5.8	TM**		
69	TM*	Ethylbenzene	1.163	1.088	1.078	1.064	1.113	1.202	1.320	1.355	1.437		1.2	11	TM*		
70	TM**	Bromoform	0.1987	0.2913	0.2985	0.2773	0.2786	0.2949	0.2988	0.2830	0.2879		0.28	11	TM**		



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

**Form 6**  
**Initial Calibration**

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/26/18  
Instrument: Loki

Initials: \_\_\_\_\_

	Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type	Q	MRF
71	I	1,4-Dichlorobenzene-D (IS)														
72	TM	Isopropylbenzene	1.870	1.850	1.627	1.744	1.674	1.904	2.023	2.163	2.131	1.9	10	TM		
73	TM**	1,1,2,2-Tetrachloroethane	1.045	0.9958	0.8852	0.8489	0.7870	0.8337	0.8253	0.7797	0.7091	0.86	12	TM**		
74	TM	1,2,3-Trichloropropane	0.3099	0.2379	0.2451	0.2395	0.2523	0.2482	0.2496	0.2405	0.2193	0.25	9.9	TM		
75	TM	t-1,4-Dichloro-2-Butene	0.2303	0.1788	0.1967	0.1504	0.1658	0.1680	0.1668	0.1656	0.1613	0.18	14	TM		
76	TM	Bromobenzene	0.8174	0.7285	0.6800	0.6860	0.6995	0.7271	0.7170	0.7005	0.6337	0.71	7.0	TM		
77	TM	n-Propylbenzene	1.405	1.334	1.341	1.264	1.291	1.487	1.610	1.706	1.677	1.5	12	TM		
78	TM	4-Ethyltoluene	1.773	1.623	1.471	1.507	1.625	1.937	2.084	2.185	2.102	1.8	15	TM		
79	TM	2-Chlorotoluene	1.676	1.432	1.262	1.411	1.418	1.592	1.653	1.672	1.556	1.5	9.5	TM		
80	TML	1,3,5-Trimethylbenzene		0.8476	0.7770	0.7844	0.9177	1.107	1.226	1.261	1.194	1.0	20	TML	0.999	
81	TM	4-Chlorotoluene	1.634	1.634	1.557	1.490	1.657	1.891	1.959	1.949	1.824	1.7	10	TM		
82	TM	Tert-Butylbenzene	1.395	1.248	1.252	1.199	1.248	1.409	1.513	1.574	1.564	1.4	11	TM		
83	TML	1,2,4-Trimethylbenzene		1.317	1.259	1.251	1.404	1.697	1.856	1.969	1.916	1.6	19	TML	1.000	
84	TM	Sec-Butylbenzene	1.921	1.798	1.683	1.687	1.795	2.078	2.299	2.371	2.338	2.0	14	TM		
85	TM	p-Isopropyltoluene	1.899	1.705	1.647	1.618	1.664	1.901	2.070	2.097	2.077	1.9	11	TM		
86	TM	Benzyl Chloride	1.222	0.9699	0.9031	0.7696	0.9273	0.8973	0.8998	0.9110	0.9551	0.94	13	TM		
87	TM	1,3-DCB	1.424	1.254	1.226	1.136	1.205	1.298	1.293	1.272	1.205	1.3	6.4	TM		
88	TM	1,4-DCB	1.590	1.395	1.307	1.267	1.277	1.371	1.372	1.316	1.249	1.3	7.7	TM		
89	TM	n-Butylbenzene	1.827	1.465	1.383	1.362	1.378	1.537	1.643	1.742	1.803	1.6	12	TM		
90	TM	1,2-DCB	1.214	1.324	1.183	1.124	1.185	1.251	1.234	1.230	1.217	1.2	4.5	TM		
91	TM	Hexachloroethane	0.4458	0.4906	0.4143	0.3765	0.4135	0.3953	0.3937	0.3885	0.3635	0.41	9.5	TM		
92	TM	1,2-Dibromo-3-chloropropane	0.1592	0.1874	0.1863	0.1602	0.1475	0.1458	0.1432	0.1480	0.1459	0.16	11	TM		
93	TM	1,2,4-Trichlorobenzene	0.8766	0.6216	0.6663	0.6530	0.6630	0.7293	0.7532	0.7938	0.8803	0.74	13	TM		
94	TM	Hexachlorobutadiene	0.5074	0.4480	0.3992	0.4339	0.3895	0.3944	0.4063	0.4062	0.4206	0.42	8.7	TM		
95	TML	Naphthalene		1.355	1.272	1.202	1.284	1.491	1.618	1.854	2.086	1.5	21	TML	0.997	
96	TM	1,2,3-Trichlorobenzene	0.4343	0.4403	0.3727	0.3183	0.3926	0.4250	0.4450	0.4458	0.5106	0.42	13	TM		
97																
98																
99																
100																
101																
102																
103																
104																
105																

Data File : M:\LOKI\DATA\181026\1026L03.D  
 Acq On : 26 Oct 18 10:28  
 Sample : 0.3ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 2  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method: M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	501632	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	505856	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	246016	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	117998	6.2738	ppb	0.00
Spiked Amount 25.000			Recovery =	25.096%		
37) 1,2-DCA-D4(S)	4.35	65	129064	5.7026	ppb	0.00
Spiked Amount 25.000			Recovery =	22.812%		
57) Toluene-D8(S)	6.90	98	379189	7.8558	ppb	0.00
Spiked Amount 25.000			Recovery =	31.424%		
65) 4-Bromofluorobenzene(S)	9.83	95	123814	7.5276	ppb	0.00
Spiked Amount 25.000			Recovery =	30.112%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	1895	0.2675	ppb	91
3) Freon 114	0.79	85	1419	0.2919	ppb	98
4) Chloromethane	0.78	50	3495	-0.3935	ppb #	41
5) Vinyl chloride	0.87	62	1908	0.2872	ppb #	38
6) Bromomethane	1.04	94	2264	-1.6348	ppb	92
7) Chloroethane	1.09	64	1056	0.2786	ppb	99
9) Trichlorofluoromethane	1.24	101	2871	0.3329	ppb	85
10) Acrolein	1.49	56	7406	12.1836	ppb #	97
11) Acetone	1.59	43	7183	-0.5304	ppb #	80
12) Freon-113	1.56	101	1414	0.3162	ppb #	86
13) 1,1-DCE	1.55	63	739	0.3634	ppb #	43
14) t-Butanol	2.04	59	7870	11.0944	ppb	96
15) Acetonitrile	1.78	41	10755	10.5605	ppb	97
16) Methyl Acetate	1.84	43	3121	0.5613	ppb #	83
17) Iodomethane	1.64	142	490	1.8011	ppb #	63
19) Methylene chloride	1.89	84	4282	0.6598	ppb #	68
20) Carbon disulfide	1.68	76	5838	0.3728	ppb #	92
21) Methyl t-butyl ether (MtBE)	2.15	73	5606	0.3547	ppb #	91
22) Trans-1,2-DCE	2.11	96	2401	0.4200	ppb	91
23) Diisopropyl Ether	2.63	45	5547	0.3326	ppb #	79
24) 1,1-DCA	2.49	63	4249	0.3769	ppb #	91
25) Vinyl Acetate	2.63	43	1630	0.4012	ppb #	96
26) Ethyl tert Butyl Ether	3.06	59	4501	0.3118	ppb	96
27) MEK (2-Butanone)	3.25	43	1735	0.5882	ppb	91
28) Cis-1,2-DCE	3.16	96	1876	0.2878	ppb	95
30) Chloroform	3.63	83	3991	0.3582	ppb #	73
31) Bromochloromethane	3.46	128	1029	0.2883	ppb #	65
33) 1,1,1-TCA	3.84	97	3099	0.3486	ppb	91
34) Cyclohexane	3.90	41	1818	0.4881	ppb #	75
35) 1,1-Dichloropropene	4.11	75	2326	0.3432	ppb #	76
36) 2,2,4-Trimethylpentane	4.61	57	3637	0.2958	ppb #	16
38) Carbon Tetrachloride	4.09	117	2265	0.3105	ppb	100
39) Tert Amyl Methyl Ether	4.70	73	3718	0.2819	ppb #	96
40) 1,2-DCA	4.47	62	2649	0.3214	ppb #	77
41) Benzene	4.41	78	8398	0.3621	ppb	98
42) TCE	5.37	95	1216	0.4275	ppb #	71
43) 2-Pentanone	5.71	43	41996	10.0791	ppb	95
44) 1,2-Dichloropropane	5.63	63	1948	0.3127	ppb #	86
45) Bromodichloromethane	6.04	83	3108	0.3475	ppb #	78

Data File : M:\LOKI\DATA\181026\1026L03.D  
 Acq On : 26 Oct 18 10:28  
 Sample : 0.3ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 2  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Methyl Cyclohexane	5.58	83	2115	0.3370	ppb	91
47) Dibromomethane	5.79	93	1818	0.3884	ppb #	65
49) MIBK (methyl isobutyl ket	6.89	43	4769	0.8690	ppb #	1
50) 1-Bromo-2-chloroethane	6.38	63	1495	0.3303	ppb	94
51) Cis-1,3-Dichloropropene	6.61	75	2902	0.3165	ppb	97
52) Toluene	6.98	91	7895	0.3286	ppb	88
53) Trans-1,3-Dichloropropene	7.29	75	3076	0.3568	ppb #	76
54) 1,1,2-TCA	7.47	83	1768	0.3293	ppb	87
55) 2-Hexanone	7.83	43	1819	0.5230	ppb #	67
58) 1,2-EDB	7.98	107	2185	0.3296	ppb	90
59) Tetrachloroethene	7.60	166	2030	0.2825	ppb	87
60) 1-Chlorohexane	8.60	91	1769	0.3377	ppb	84
61) 1,1,1,2-Tetrachloroethane	8.66	131	2156	0.3072	ppb	92
62) m&p-Xylene	8.85	91	5300	3.2147	ppb	96
63) o-Xylene	9.27	106	2369	0.2775	ppb	66
64) Styrene	9.29	104	2418	1.7354	ppb	91
66) 1,3-Dichloropropane	7.65	76	3250	0.3196	ppb	88
67) Dibromochloromethane	7.89	129	2625	0.3490	ppb #	66
68) Chlorobenzene	8.55	112	5832	0.3388	ppb	94
69) Ethylbenzene	8.71	91	7058	0.2901	ppb	96
70) Bromoform	9.45	173	1206	0.2138	ppb #	30
72) Isopropylbenzene	9.69	105	5522	0.2973	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.03	83	3085	0.3660	ppb	91
74) 1,2,3-Trichloropropane	10.05	110	915	0.3732	ppb	86
75) t-1,4-Dichloro-2-Butene	10.10	53	680	0.3927	ppb #	58
76) Bromobenzene	9.96	156	2413	0.3454	ppb	88
77) n-Propylbenzene	10.13	91	4148	0.2892	ppb	100
78) 4-Ethyltoluene	10.26	105	5234	0.2935	ppb	99
79) 2-Chlorotoluene	10.19	91	4947	0.3309	ppb	91
80) 1,3,5-Trimethylbenzene	10.34	105	2787	0.5182	ppb	95
81) 4-Chlorotoluene	10.32	91	4825	0.2829	ppb	95
82) Tert-Butylbenzene	10.68	119	4119	0.3038	ppb #	77
83) 1,2,4-Trimethylbenzene	10.73	105	3953	0.8287	ppb	86
84) Sec-Butylbenzene	10.91	105	5672	0.2887	ppb	98
85) p-Isopropyltoluene	11.09	119	5605	0.3074	ppb #	86
86) Benzyl Chloride	11.25	91	3607	0.3902	ppb	98
87) 1,3-DCB	11.00	146	4205	0.3400	ppb #	77
88) 1,4-DCB	11.09	146	4694	0.3535	ppb #	91
89) n-Butylbenzene	11.52	91	5395	0.3489	ppb #	89
90) 1,2-DCB	11.48	146	3584	0.2990	ppb	86
91) Hexachloroethane	11.74	117	1316	0.3269	ppb	88
92) 1,2-Dibromo-3-chloropropan	12.31	75	470	0.3020	ppb #	76
93) 1,2,4-Trichlorobenzene	13.20	180	2588	0.3566	ppb	85
94) Hexachlorobutadiene	13.41	225	1498	0.3600	ppb #	60
95) Naphthalene	13.45	128	4880	2.1993	ppb	96
96) 1,2,3-Trichlorobenzene	13.71	180	1282	0.3098	ppb	97

Quantitation Report

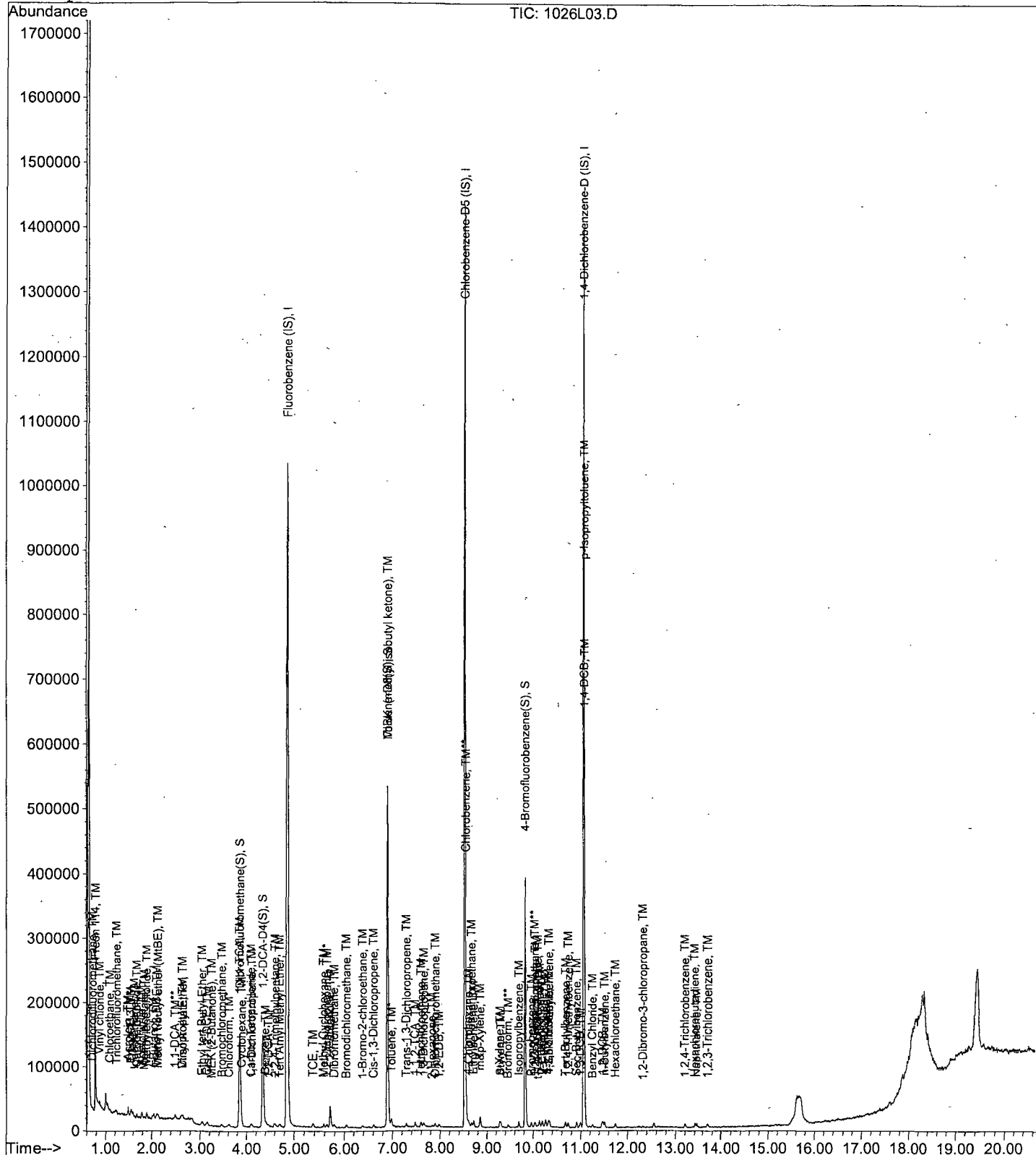
Data File : M:\LOKI\DATA\181026\1026L03.D  
Acq On : 26 Oct 18 10:28  
Sample : 0.3ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 2  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L04.D  
 Acq On : 26 Oct 18 10:57  
 Sample : 0.5ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 3  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	513856	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	505216	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	239616	25.0000	ppb	0.00

System Monitoring Compounds

32) Dibromofluoromethane(S)	3.85	111	106270	5.1037	ppb	0.00
Spiked Amount	25.000		Recovery	=	20.416%	
37) 1,2-DCA-D4(S)	4.35	65	115366	4.4216	ppb	0.00
Spiked Amount	25.000		Recovery	=	17.688%	
57) Toluene-D8(S)	6.90	98	336267	6.9754	ppb	0.00
Spiked Amount	25.000		Recovery	=	27.900%	
65) 4-Bromofluorobenzene(S)	9.83	95	109990	6.6956	ppb	0.00
Spiked Amount	25.000		Recovery	=	26.784%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	3168	0.4365	ppb	90
3) Freon 114	0.79	85	2899	0.5821	ppb	98
5) Vinyl chloride	0.87	62	3215	0.4724	ppb #	52
6) Bromomethane	1.03	94	3895	-1.2809	ppb	82
7) Chloroethane	1.09	64	1931	0.4973	ppb	87
8) Dichlorofluoromethane	1.21	67	6714	0.6526	ppb	92
9) Trichlorofluoromethane	1.24	101	4628	0.5239	ppb	90
10) Acrolein	1.49	56	15073	24.2066	ppb #	100
12) Freon-113	1.56	101	2274	0.4964	ppb	88
13) 1,1-DCE	1.55	63	1254	0.6019	ppb #	56
14) t-Butanol	2.04	59	20238	27.8511	ppb	93
15) Acetonitrile	1.78	41	27169	26.0431	ppb	92
16) Methyl Acetate	1.84	43	3458	0.6072	ppb	98
17) Iodomethane	1.64	142	703	1.8728	ppb	85
18) Acrylonitrile	2.26	52	2113	0.1630	ppb #	7
19) Methylene chloride	1.90	84	5175	0.7784	ppb	78
20) Carbon disulfide	1.68	76	8134	0.5071	ppb #	90
21) Methyl t-butyl ether (MtBE)	2.14	73	8236	0.5088	ppb #	85
22) Trans-1,2-DCE	2.11	96	3203	0.5470	ppb	96
23) Diisopropyl Ether	2.64	45	12562	0.7353	ppb #	88
24) 1,1-DCA	2.49	63	5869	0.5082	ppb #	92
25) Vinyl Acetate	2.61	43	2528	0.6075	ppb #	91
26) Ethyl tert Butyl Ether	3.05	59	7261	0.4911	ppb	90
27) MEK (2-Butanone)	3.24	43	2561	0.8476	ppb	100
28) Cis-1,2-DCE	3.16	96	3636	0.5445	ppb	96
29) 2,2-Dichloropropane	3.14	77	5267	0.2195	ppb #	90
30) Chloroform	3.62	83	5628	0.4931	ppb	91
31) Bromochloromethane	3.46	128	2213	0.6053	ppb	81
33) 1,1,1-TCA	3.83	97	4355	0.4782	ppb	100
34) Cyclohexane	3.90	41	2786	0.7302	ppb #	74
35) 1,1-Dichloropropene	4.12	75	3635	0.5236	ppb	95
36) 2,2,4-Trimethylpentane	4.62	57	6667	0.5294	ppb #	20
38) Carbon Tetrachloride	4.08	117	3714	0.4971	ppb	80
39) Tert Amyl Methyl Ether	4.70	73	6489	0.4802	ppb #	96
40) 1,2-DCA	4.47	62	4324	0.5122	ppb #	76
41) Benzene	4.42	78	11838	0.4982	ppb	95
42) TCE	5.37	95	1706	0.5855	ppb	92
43) 2-Pentanone	5.71	43	106101	24.8587	ppb	98
44) 1,2-Dichloropropane	5.65	63	3261	0.5110	ppb #	86

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

Data File : M:\LOKI\DATA\181026\1026L04.D  
 Acq On : 26 Oct 18 10:57  
 Sample : 0.5ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) Bromodichloromethane	6.04	83	4663	0.5090	ppb	# 78
46) Methyl Cyclohexane	5.58	83	3440	0.5352	ppb	75
47) Dibromomethane	5.80	93	2218	0.4626	ppb	82
49) MIBK (methyl isobutyl ket	6.85	43	5152	0.9165	ppb	# 77
50) 1-Bromo-2-chloroethane	6.37	63	2260	0.4874	ppb	97
51) Cis-1,3-Dichloropropene	6.61	75	4353	0.4635	ppb	93
52) Toluene	6.98	91	11217	0.4557	ppb	95
53) Trans-1,3-Dichloropropene	7.29	75	3844	0.4352	ppb	88
54) 1,1,2-TCA	7.48	83	2829	0.5144	ppb	83
55) 2-Hexanone	7.83	43	2034	0.5709	ppb	94
58) 1,2-EDB	7.98	107	2674	0.4038	ppb	90
59) Tetrachloroethene	7.60	166	3468	0.4833	ppb	86
60) 1-Chlorohexane	8.60	91	2346	0.4485	ppb	89
61) 1,1,1,2-Tetrachloroethane	8.67	131	3600	0.5137	ppb	78
62) m&p-Xylene	8.85	91	7652	3.3859	ppb	92
63) o-Xylene	9.27	106	3697	0.4336	ppb	92
64) Styrene	9.30	104	2714	1.7603	ppb	97
66) 1,3-Dichloropropane	7.65	76	4684	0.4613	ppb	83
67) Dibromochloromethane	7.89	129	3145	0.4186	ppb	93
68) Chlorobenzene	8.55	112	7965	0.4633	ppb	# 90
69) Ethylbenzene	8.71	91	10996	0.4526	ppb	96
70) Bromoform	9.45	173	2943	0.5224	ppb	88
72) Isopropylbenzene	9.69	105	8867	0.4902	ppb	93
73) 1,1,2,2-Tetrachloroethane	10.03	83	4772	0.5812	ppb	98
74) 1,2,3-Trichloropropane	10.05	110	1140	0.4774	ppb	89
75) t-1,4-Dichloro-2-Butene	10.08	53	857	0.5081	ppb	# 62
76) Bromobenzene	9.96	156	3491	0.5130	ppb	81
77) n-Propylbenzene	10.13	91	6393	0.4577	ppb	94
78) 4-Ethyltoluene	10.27	105	7780	0.4480	ppb	97
79) 2-Chlorotoluene	10.19	91	6863	0.4714	ppb	95
80) 1,3,5-Trimethylbenzene	10.34	105	4062	0.6346	ppb	95
81) 4-Chlorotoluene	10.32	91	7830	0.4714	ppb	100
82) Tert-Butylbenzene	10.67	119	5979	0.4527	ppb	94
83) 1,2,4-Trimethylbenzene	10.73	105	6310	0.9613	ppb	97
84) Sec-Butylbenzene	10.91	105	8618	0.4503	ppb	90
85) p-Isopropyltoluene	11.08	119	8172	0.4601	ppb	# 89
86) Benzyl Chloride	11.25	91	4648	0.5162	ppb	99
87) 1,3-DCB	10.99	146	6009	0.4988	ppb	88
88) 1,4-DCB	11.09	146	6684	0.5168	ppb	95
89) n-Butylbenzene	11.52	91	7023	0.4664	ppb	# 91
90) 1,2-DCB	11.48	146	6344	0.5434	ppb	87
91) Hexachloroethane	11.74	117	2351	0.5996	ppb	# 73
92) 1,2-Dibromo-3-chloropropan	12.31	75	898	0.5923	ppb	# 53
93) 1,2,4-Trichlorobenzene	13.20	180	2979	0.4215	ppb	96
94) Hexachlorobutadiene	13.41	225	2147	0.5298	ppb	82
95) Naphthalene	13.45	128	6494	2.2861	ppb	99
96) 1,2,3-Trichlorobenzene	13.71	180	2110	0.5235	ppb	96

Quantitation Report

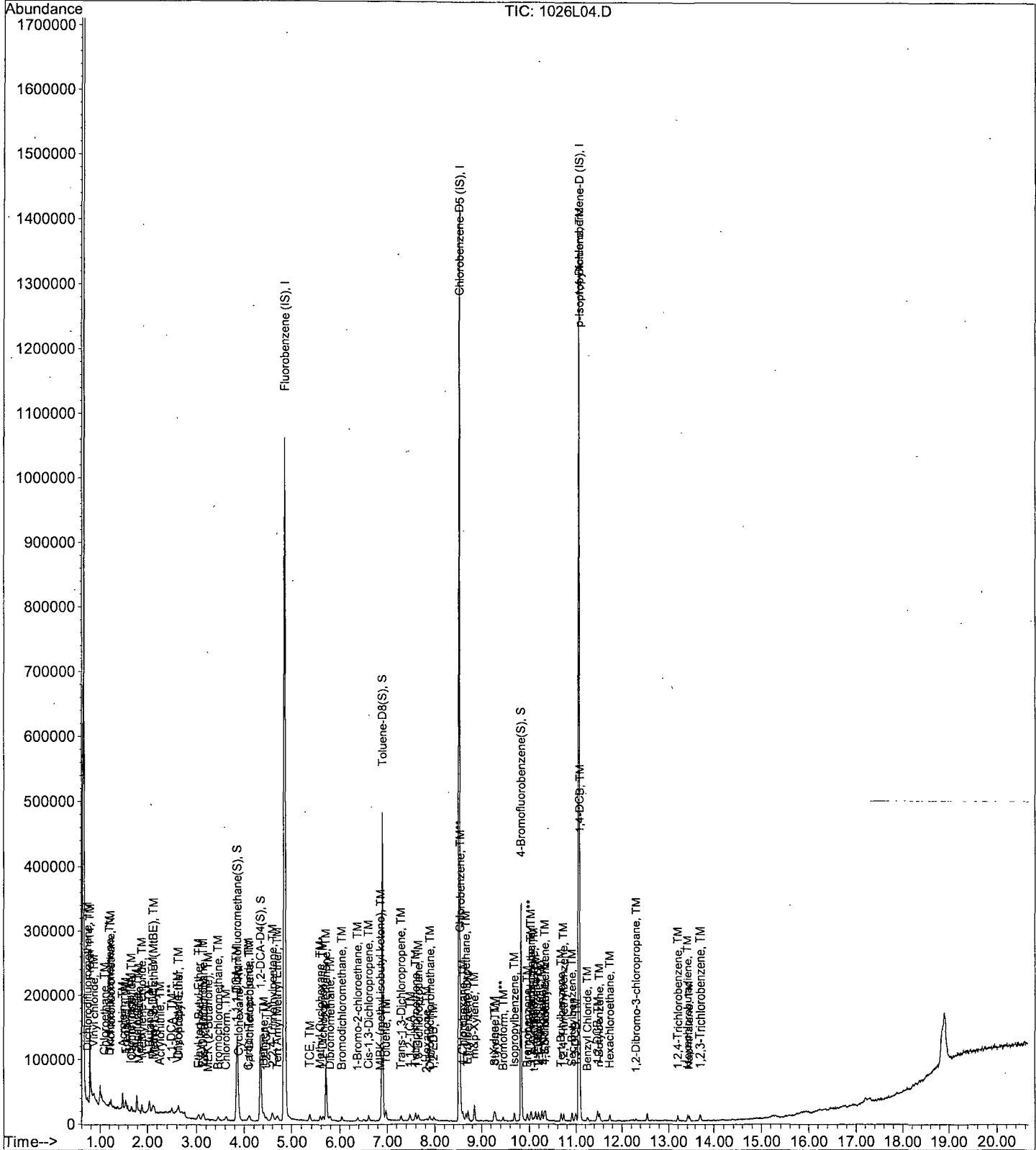
Data File : M:\LOKI\DATA\181026\1026L04.D  
 Acq On : 26 Oct 18 10:57  
 Sample : 0.5ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L05.D  
 Acq On : 26 Oct 18 11:25  
 Sample : 1.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	505920	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	497728	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	254912	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.86	111	148372	8.6635	ppb	0.00
Spiked Amount	25.000		Recovery	=	34.656%	
37) 1,2-DCA-D4 (S)	4.35	65	161909	8.1545	ppb	0.00
Spiked Amount	25.000		Recovery	=	32.616%	
57) Toluene-D8 (S)	6.90	98	470130	9.8990	ppb	0.00
Spiked Amount	25.000		Recovery	=	39.596%	
65) 4-Bromofluorobenzene(S)	9.83	95	149696	9.2498	ppb	0.00
Spiked Amount	25.000		Recovery	=	37.000%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.72	85	7815	1.0937	ppb	92
3) Freon 114	0.79	85	4939	1.0072	ppb	91
4) Chloromethane	0.81	50	10276	0.5740	ppb	92
5) Vinyl chloride	0.87	62	6843	1.0212	ppb	85
6) Bromomethane	1.03	94	6400	-0.6957	ppb	89
7) Chloroethane	1.09	64	4177	1.0925	ppb	95
8) Dichlorofluoromethane	1.21	67	9912	0.9785	ppb	100
9) Trichlorofluoromethane	1.24	101	8940	1.0279	ppb	90
10) Acrolein	1.49	56	29924	48.8106	ppb	97
11) Acetone	1.60	43	9162	0.4627	ppb	99
12) Freon-113	1.56	101	4428	0.9818	ppb	96
13) 1,1-DCE	1.55	63	2326	1.1340	ppb	# 75
14) t-Butanol	2.05	59	36698	51.2951	ppb	100
15) Acetonitrile	1.78	41	51986	50.6134	ppb	94
16) Methyl Acetate	1.84	43	6414	1.1439	ppb	92
17) Iodomethane	1.64	142	1350	2.1110	ppb	# 91
18) Acrylonitrile	2.10	52	2894	0.5581	ppb	# 65
19) Methylene chloride	1.89	84	7994	1.2213	ppb	96
20) Carbon disulfide	1.68	76	16752	1.0607	ppb	98
21) Methyl t-butyl ether (MtBE)	2.14	73	16717	1.0489	ppb	95
22) Trans-1,2-DCE	2.11	96	6609	1.1463	ppb	91
23) Diisopropyl Ether	2.63	45	17847	1.0610	ppb	# 87
24) 1,1-DCA	2.49	63	11959	1.0518	ppb	94
25) Vinyl Acetate	2.63	43	4588	1.1198	ppb	# 97
26) Ethyl tert Butyl Ether	3.05	59	14485	0.9951	ppb	94
27) MEK (2-Butanone)	3.24	43	3383	1.1372	ppb	90
28) Cis-1,2-DCE	3.16	96	6881	1.0466	ppb	77
29) 2,2-Dichloropropane	3.14	77	9448	0.7741	ppb	# 89
30) Chloroform	3.62	83	10999	0.9788	ppb	97
31) Bromochloromethane	3.46	128	3670	1.0195	ppb	83
33) 1,1,1-TCA	3.83	97	9586	1.0691	ppb	# 71
34) Cyclohexane	3.88	41	4205	1.1195	ppb	82
35) 1,1-Dichloropropene	4.10	75	6802	0.9951	ppb	88
36) 2,2,4-Trimethylpentane	4.61	57	11863	0.9567	ppb	# 21
38) Carbon Tetrachloride	4.09	117	7362	1.0008	ppb	91
39) Tert Amyl Methyl Ether	4.71	73	13150	0.9885	ppb	# 95
40) 1,2-DCA	4.47	62	8111	0.9759	ppb	# 88
41) Benzene	4.41	78	23172	0.9906	ppb	92
42) TCE	5.37	95	2926	1.0200	ppb	91

(#) = qualifier out of range (m) = manual integration  
 1026L05.D L1026W.M Mon Oct 29 06:55:17 2018



Data File : M:\LOKI\DATA\181026\1026L05.D  
 Acq On : 26 Oct 18 11:25  
 Sample : 1.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	211886	50.4220	ppb	99
44) 1,2-Dichloropropane	5.64	63	6264	0.9970	ppb #	86
45) Bromodichloromethane	6.04	83	9332	1.0346	ppb #	86
46) Methyl Cyclohexane	5.59	83	5806	0.9174	ppb	98
47) Dibromomethane	5.79	93	4783	1.0133	ppb	95
49) MIBK (methyl isobutyl ket	6.85	43	5121	0.9253	ppb	97
50) 1-Bromo-2-chloroethane	6.37	63	4515	0.9891	ppb	99
51) Cis-1,3-Dichloropropene	6.61	75	9202	0.9951	ppb	95
52) Toluene	6.98	91	22652	0.9347	ppb	85
53) Trans-1,3-Dichloropropene	7.29	75	8210	0.9441	ppb	93
54) 1,1,2-TCA	7.48	83	5504	1.0165	ppb	97
55) 2-Hexanone	7.83	43	3609	1.0289	ppb #	86
58) 1,2-EDB	7.98	107	6787	1.0404	ppb	95
59) Tetrachloroethene	7.60	166	7105	1.0051	ppb	90
60) 1-Chlorohexane	8.60	91	4549	0.8827	ppb	87
61) 1,1,1,2-Tetrachloroethane	8.67	131	6857	0.9931	ppb	99
62) m&p-Xylene	8.85	91	16320	4.0326	ppb	97
63) o-Xylene	9.27	106	6969	0.8297	ppb	99
64) Styrene	9.29	104	6697	2.1008	ppb	91
66) 1,3-Dichloropropane	7.65	76	9295	0.9291	ppb	92
67) Dibromochloromethane	7.89	129	8021	1.0837	ppb	99
68) Chlorobenzene	8.55	112	16248	0.9594	ppb	92
69) Ethylbenzene	8.71	91	21454	0.8963	ppb	92
70) Bromoform	9.45	173	5943	1.0708	ppb	98
72) Isopropylbenzene	9.69	105	16589	0.8620	ppb	94
73) 1,1,2,2-Tetrachloroethane	10.03	83	9026	1.0334	ppb #	92
74) 1,2,3-Trichloropropane	10.04	110	2499	0.9837	ppb	95
75) t-1,4-Dichloro-2-Butene	10.10	53	2006	1.1180	ppb	82
76) Bromobenzene	9.96	156	6934	0.9578	ppb	97
77) n-Propylbenzene	10.13	91	13678	0.9205	ppb	93
78) 4-Ethyltoluene	10.26	105	14994	0.8116	ppb	93
79) 2-Chlorotoluene	10.19	91	12865	0.8306	ppb	95
80) 1,3,5-Trimethylbenzene	10.34	105	7923	0.9272	ppb	99
81) 4-Chlorotoluene	10.32	91	15878	0.8986	ppb	91
82) Tert-Butylbenzene	10.67	119	12770	0.9089	ppb	99
83) 1,2,4-Trimethylbenzene	10.73	105	12840	1.2717	ppb	82
84) Sec-Butylbenzene	10.91	105	17162	0.8430	ppb	96
85) p-Isopropyltoluene	11.08	119	16797	0.8889	ppb	88
86) Benzyl Chloride	11.25	91	9208	0.9613	ppb #	86
87) 1,3-DCB	10.99	146	12498	0.9753	ppb	94
88) 1,4-DCB	11.09	146	13322	0.9683	ppb	97
89) n-Butylbenzene	11.52	91	14099	0.8801	ppb	97
90) 1,2-DCB	11.48	146	12059	0.9710	ppb	89
91) Hexachloroethane	11.74	117	4224	1.0127	ppb	90
92) 1,2-Dibromo-3-chloropropan	12.31	75	1900	1.1781	ppb #	73
93) 1,2,4-Trichlorobenzene	13.20	180	6794	0.9035	ppb	98
94) Hexachlorobutadiene	13.41	225	4070	0.9440	ppb	94
95) Naphthalene	13.45	128	12974	2.5702	ppb	92
96) 1,2,3-Trichlorobenzene	13.71	180	3800	0.8863	ppb #	95

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

Quantitation Report

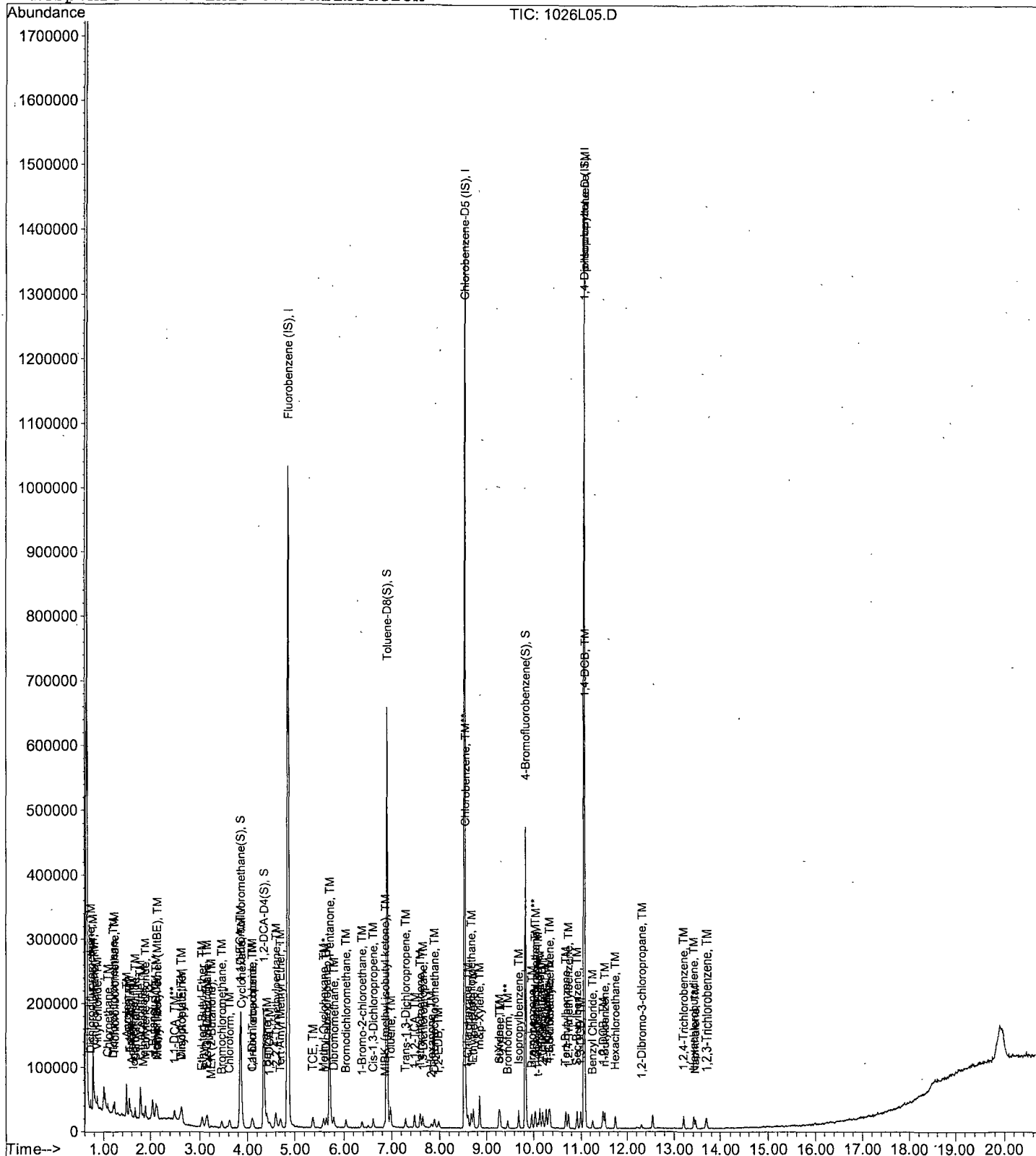
Data File : M:\LOKI\DATA\181026\1026L05.D  
Acq On : 26 Oct 18 11:25  
Sample : 1.0ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 4  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L06.D  
 Acq On : 26 Oct 18 11:54  
 Sample : 2.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 5  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	528768	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	515904	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	268608	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	149525	8.2316	ppb	0.00
Spiked Amount	25.000		Recovery	=	32.928%	
37) 1,2-DCA-D4(S)	4.35	65	165668	7.8919	ppb	0.00
Spiked Amount	25.000		Recovery	=	31.568%	
57) Toluene-D8(S)	6.90	98	478316	9.7165	ppb	0.00
Spiked Amount	25.000		Recovery	=	38.864%	
65) 4-Bromofluorobenzene(S)	9.83	95	155110	9.2467	ppb	0.00
Spiked Amount	25.000		Recovery	=	36.988%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	16912	2.2646	ppb	91
3) Freon 114	0.79	85	10627	2.0736	ppb	79
4) Chloromethane	0.81	50	16195	1.3220	ppb	96
5) Vinyl chloride	0.87	62	13293	1.8981	ppb	84
6) Bromomethane	1.03	94	12382	0.5470	ppb	99
7) Chloroethane	1.09	64	7967	1.9938	ppb	97
8) Dichlorofluoromethane	1.21	67	20463	1.9328	ppb	97
9) Trichlorofluoromethane	1.24	101	16828	1.8513	ppb	94
10) Acrolein	1.49	56	44406	69.3031	ppb	# 94
11) Acetone	1.60	43	10993	1.1649	ppb	# 85
12) Freon-113	1.56	101	10230	2.1703	ppb	90
13) 1,1-DCE	1.55	63	3670	1.7119	ppb	94
14) t-Butanol	2.05	59	52587	70.3281	ppb	99
15) Acetonitrile	1.78	41	76479	71.2423	ppb	91
16) Methyl Acetate	1.84	43	11909	2.0320	ppb	90
17) Iodomethane	1.64	142	3115	2.7014	ppb	94
18) Acrylonitrile	2.10	52	6560	2.2009	ppb	74
19) Methylene chloride	1.89	84	14238	2.0813	ppb	95
20) Carbon disulfide	1.68	76	32838	1.9894	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	31870	1.9132	ppb	95
22) Trans-1,2-DCE	2.11	96	11865	1.9691	ppb	95
23) Diisopropyl Ether	2.63	45	37423	2.1286	ppb	92
24) 1,1-DCA	2.49	63	23600	1.9859	ppb	95
25) Vinyl Acetate	2.63	43	8448	1.9728	ppb	# 96
26) Ethyl tert Butyl Ether	3.05	59	30063	1.9760	ppb	93
27) MEK (2-Butanone)	3.24	43	6116	1.9671	ppb	98
28) Cis-1,2-DCE	3.16	96	13775	2.0046	ppb	87
29) 2,2-Dichloropropane	3.13	77	18055	1.7923	ppb	97
30) Chloroform	3.62	83	22127	1.8840	ppb	96
31) Bromochloromethane	3.46	128	7193	1.9118	ppb	89
33) 1,1,1-TCA	3.83	97	18420	1.9655	ppb	97
34) Cyclohexane	3.90	41	8087	2.0599	ppb	98
35) 1,1-Dichloropropene	4.12	75	14135	1.9785	ppb	93
36) 2,2,4-Trimethylpentane	4.60	57	24980	1.9275	ppb	# 55
38) Carbon Tetrachloride	4.10	117	14770	1.9211	ppb	91
39) Tert Amyl Methyl Ether	4.71	73	24701	1.7765	ppb	# 93
40) 1,2-DCA	4.46	62	17038	1.9614	ppb	# 89
41) Benzene	4.41	78	45902	1.8775	ppb	98
42) TCE	5.37	95	5706	1.9032	ppb	97

Data File : M:\LOKI\DATA\181026\1026L06.D  
 Acq On : 26 Oct 18 11:54  
 Sample : 2.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 5  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	316951	72.1650	ppb	100
44) 1,2-Dichloropropane	5.64	63	13178	2.0069	ppb #	94
45) Bromodichloromethane	6.04	83	17430	1.8489	ppb	97
46) Methyl Cyclohexane	5.59	83	11768	1.7791	ppb	97
47) Dibromomethane	5.79	93	9702	1.9665	ppb	90
49) MIBK (methyl isobutyl ket	6.85	43	11834	2.0458	ppb #	90
50) 1-Bromo-2-chloroethane	6.37	63	9606	2.0134	ppb	100
51) Cis-1,3-Dichloropropene	6.61	75	17851	1.8471	ppb	96
52) Toluene	6.98	91	47158	1.8618	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	17208	1.8934	ppb	89
54) 1,1,2-TCA	7.48	83	10698	1.8904	ppb	97
55) 2-Hexanone	7.83	43	7052	1.9235	ppb	99
58) 1,2-EDB	7.98	107	12314	1.8211	ppb	95
59) Tetrachloroethene	7.60	166	14887	2.0317	ppb	90
60) 1-Chlorohexane	8.60	91	10310	1.9301	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.66	131	14504	2.0267	ppb	86
62) m&p-Xylene	8.85	91	34392	5.2743	ppb	98
63) o-Xylene	9.27	106	15479	1.7778	ppb	88
64) Styrene	9.29	104	14618	2.7275	ppb	96
66) 1,3-Dichloropropane	7.65	76	19922	1.9212	ppb	94
67) Dibromochloromethane	7.89	129	13887	1.8102	ppb	97
68) Chlorobenzene	8.55	112	33981	1.9358	ppb	98
69) Ethylbenzene	8.71	91	43926	1.7704	ppb	97
70) Bromoform	9.45	173	11445	1.9894	ppb	97
72) Isopropylbenzene	9.69	105	37467	1.8477	ppb	95
73) 1,1,2,2-Tetrachloroethane	10.03	83	18241	1.9819	ppb	91
74) 1,2,3-Trichloropropane	10.04	110	5147	1.9227	ppb	92
75) t-1,4-Dichloro-2-Butene	10.09	53	3231	1.7089	ppb #	75
76) Bromobenzene	9.96	156	14742	1.9326	ppb	89
77) n-Propylbenzene	10.13	91	27152	1.7341	ppb	100
78) 4-Ethyltoluene	10.26	105	32383	1.6634	ppb	93
79) 2-Chlorotoluene	10.19	91	30329	1.8583	ppb	96
80) 1,3,5-Trimethylbenzene	10.34	105	16856	1.5829	ppb	92
81) 4-Chlorotoluene	10.31	91	32027	1.7201	ppb	100
82) Tert-Butylbenzene	10.67	119	25759	1.7399	ppb	98
83) 1,2,4-Trimethylbenzene	10.73	105	26887	1.9140	ppb	99
84) Sec-Butylbenzene	10.91	105	36246	1.6896	ppb	98
85) p-Isopropyltoluene	11.08	119	34770	1.7463	ppb	98
86) Benzyl Chloride	11.25	91	16537	1.6384	ppb #	89
87) 1,3-DCB	10.99	146	24403	1.8072	ppb	98
88) 1,4-DCB	11.09	146	27234	1.8786	ppb	95
89) n-Butylbenzene	11.52	91	29260	1.7334	ppb	95
90) 1,2-DCB	11.48	146	24155	1.8457	ppb	93
91) Hexachloroethane	11.75	117	8091	1.8409	ppb	90
92) 1,2-Dibromo-3-chloropropan	12.31	75	3442	2.0254	ppb #	84
93) 1,2,4-Trichlorobenzene	13.20	180	14033	1.7710	ppb	99
94) Hexachlorobutadiene	13.41	225	9324	2.0524	ppb	92
95) Naphthalene	13.45	128	25823	3.1105	ppb #	90
96) 1,2,3-Trichlorobenzene	13.71	180	6840	1.5139	ppb	99

Quantitation Report

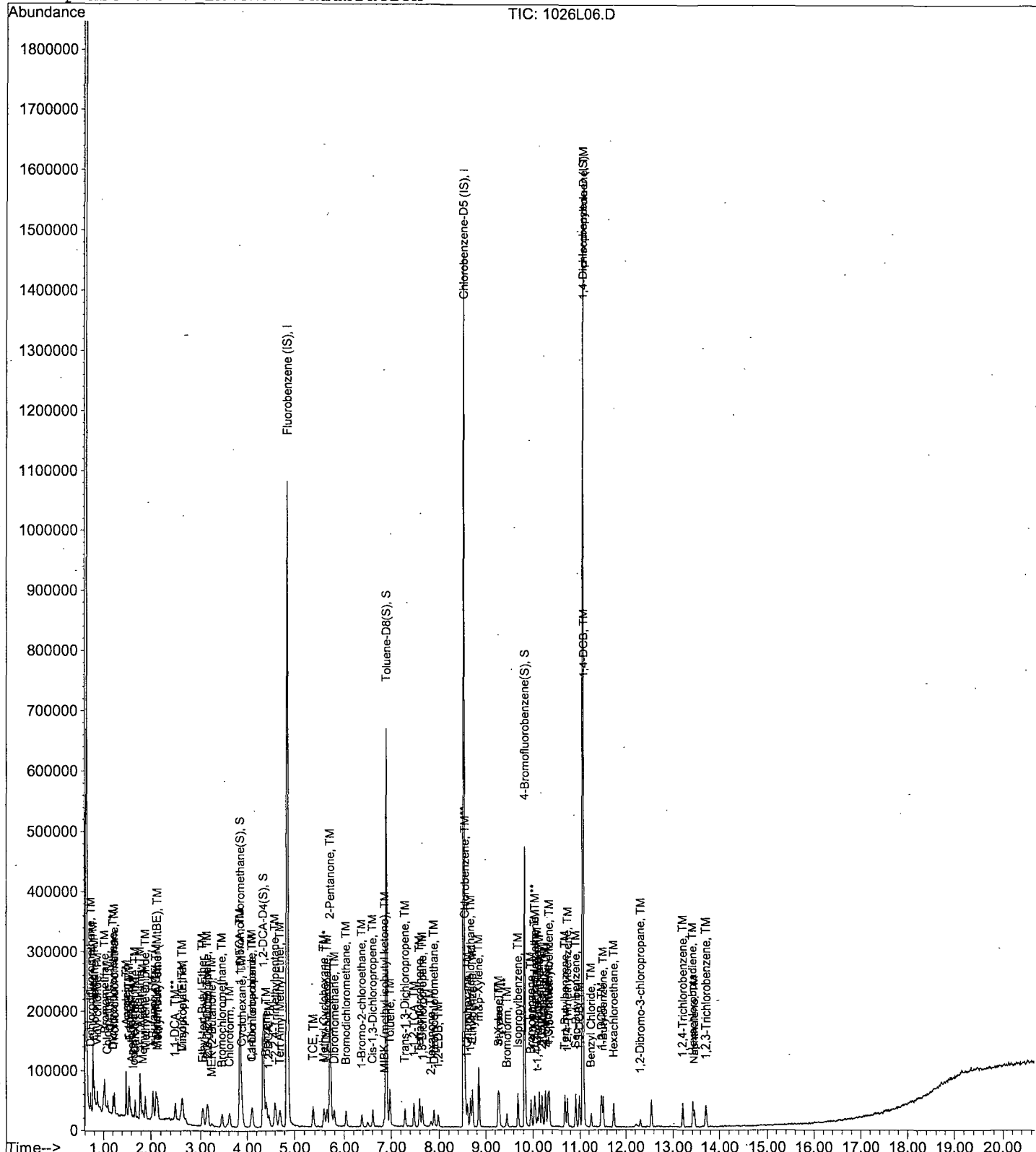
Data File : M:\LOKI\DATA\181026\1026L06.D  
Acq On : 26 Oct 18 11:54  
Sample : 2.0ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 5  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L07.D  
 Acq On : 26 Oct 18 12:22  
 Sample : 5.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 6  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	500096	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	496128	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	275392	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.86	111	357287	26.0037	ppb	0.00
Spiked Amount	25.000		Recovery	=	104.016%	
37) 1,2-DCA-D4(S)	4.35	65	388947	26.0419	ppb	0.00
Spiked Amount	25.000		Recovery	=	104.168%	
57) Toluene-D8(S)	6.90	98	1174648	24.8129	ppb	0.00
Spiked Amount	25.000		Recovery	=	99.252%	
65) 4-Bromofluorobenzene(S)	9.83	95	396415	24.5737	ppb	0.00
Spiked Amount	25.000		Recovery	=	98.296%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	35624	5.0436	ppb	95
3) Freon 114	0.79	85	22026	4.5442	ppb	99
4) Chloromethane	0.81	50	42866	5.3161	ppb	98
5) Vinyl chloride	0.87	62	36614	5.5279	ppb	99
6) Bromomethane	1.03	94	29487	4.6497	ppb	99
7) Chloroethane	1.09	64	20925	5.5369	ppb	98
8) Dichlorofluoromethane	1.21	67	48975	4.8910	ppb	97
9) Trichlorofluoromethane	1.24	101	43721	5.0856	ppb	96
10) Acrolein	1.49	56	59261	97.7894	ppb	# 99
11) Acetone	1.60	43	17986	5.1410	ppb	91
12) Freon-113	1.56	101	22440	5.0337	ppb	92
13) 1,1-DCE	1.55	63	9631	4.7501	ppb	91
14) t-Butanol	2.05	59	63668	90.0292	ppb	99
15) Acetonitrile	1.79	41	100503	98.9888	ppb	97
16) Methyl Acetate	1.84	43	27026	4.8759	ppb	100
17) Iodomethane	1.63	142	8089	4.5855	ppb	94
18) Acrylonitrile	2.10	52	11052	4.5827	ppb	88
19) Methylene chloride	1.90	84	32618	5.0415	ppb	93
20) Carbon disulfide	1.68	76	73767	4.7251	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	77279	4.9051	ppb	98
22) Trans-1,2-DCE	2.11	96	28104	4.9314	ppb	96
23) Diisopropyl Ether	2.63	45	85262	5.1277	ppb	99
24) 1,1-DCA	2.50	63	54489	4.8481	ppb	99
25) Vinyl Acetate	2.63	43	21489	5.3058	ppb	100
26) Ethyl tert Butyl Ether	3.05	59	68776	4.7796	ppb	94
27) MEK (2-Butanone)	3.24	43	15625	5.3137	ppb	95
28) Cis-1,2-DCE	3.15	96	31539	4.8529	ppb	98
29) 2,2-Dichloropropane	3.13	77	40641	4.8939	ppb	98
30) Chloroform	3.62	83	56857	5.1185	ppb	93
31) Bromochloromethane	3.46	128	18026	5.0658	ppb	98
33) 1,1,1-TCA	3.84	97	44105	4.9760	ppb	92
34) Cyclohexane	3.90	41	16598	4.4702	ppb	94
35) 1,1-Dichloropropene	4.11	75	31289	4.6307	ppb	95
36) 2,2,4-Trimethylpentane	4.61	57	56990	4.6497	ppb	# 76
38) Carbon Tetrachloride	4.09	117	35125	4.8306	ppb	97
39) Tert Amyl Methyl Ether	4.70	73	62739	4.7710	ppb	# 93
40) 1,2-DCA	4.47	62	41264	5.0226	ppb	93
41) Benzene	4.41	78	108250	4.6814	ppb	98
42) TCE	5.37	95	14194	5.0056	ppb	89

Data File : M:\LOKI\DATA\181026\1026L07.D  
 Acq On : 26 Oct 18 12:22  
 Sample : 5.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 6  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	420781	101.2984	ppb	98
44) 1,2-Dichloropropane	5.64	63	31448	5.0639	ppb	99
45) Bromodichloromethane	6.04	83	44221	4.9596	ppb	96
46) Methyl Cyclohexane	5.58	83	28307	4.5249	ppb	96
47) Dibromomethane	5.79	93	23137	4.9586	ppb	87
49) MIBK (methyl isobutyl ket	6.85	43	28137	5.1430	ppb	94
50) 1-Bromo-2-chloroethane	6.37	63	21368	4.7355	ppb	97
51) Cis-1,3-Dichloropropene	6.61	75	45720	5.0019	ppb	95
52) Toluene	6.98	91	118547	4.9487	ppb	98
53) Trans-1,3-Dichloropropene	7.29	75	42272	4.9178	ppb	98
54) 1,1,2-TCA	7.48	83	27307	5.1019	ppb	98
55) 2-Hexanone	7.83	43	17526	5.0546	ppb	98
58) 1,2-EDB	7.98	107	32552	5.0059	ppb	99
59) Tetrachloroethene	7.60	166	34790	4.9372	ppb	96
60) 1-Chlorohexane	8.60	91	23375	4.5504	ppb	94
61) 1,1,1,2-Tetrachloroethane	8.67	131	34108	4.9560	ppb	91
62) m&p-Xylene	8.85	91	91672	9.6039	ppb	97
63) o-Xylene	9.27	106	38109	4.5515	ppb	89
64) Styrene	9.29	104	36928	4.6691	ppb	94
66) 1,3-Dichloropropane	7.65	76	48341	4.8477	ppb	98
67) Dibromochloromethane	7.89	129	36107	4.8943	ppb	94
68) Chlorobenzene	8.55	112	81296	4.8159	ppb	95
69) Ethylbenzene	8.71	91	110477	4.6302	ppb	94
70) Bromoform	9.45	173	27649	4.9976	ppb	92
72) Isopropylbenzene	9.69	105	92204	4.4350	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	43347	4.5937	ppb	97
74) 1,2,3-Trichloropropane	10.04	110	13899	5.0642	ppb	95
75) t-1,4-Dichloro-2-Butene	10.09	53	9134	4.7121	ppb	90
76) Bromobenzene	9.96	156	38530	4.9266	ppb	94
77) n-Propylbenzene	10.13	91	71128	4.4308	ppb	98
78) 4-Ethyltoluene	10.26	105	89515	4.4847	ppb	99
79) 2-Chlorotoluene	10.19	91	78089	4.6667	ppb	96
80) 1,3,5-Trimethylbenzene	10.34	105	50544	4.0836	ppb	98
81) 4-Chlorotoluene	10.31	91	91283	4.7818	ppb	98
82) Tert-Butylbenzene	10.67	119	68712	4.5269	ppb	97
83) 1,2,4-Trimethylbenzene	10.73	105	77345	4.2485	ppb	98
84) Sec-Butylbenzene	10.91	105	98860	4.4947	ppb	98
85) p-Isopropyltoluene	11.08	119	91671	4.4907	ppb	98
86) Benzyl Chloride	11.25	91	51074	4.9354	ppb	99
87) 1,3-DCB	10.99	146	66347	4.7924	ppb	95
88) 1,4-DCB	11.09	146	70330	4.7318	ppb	94
89) n-Butylbenzene	11.52	91	75877	4.3842	ppb	95
90) 1,2-DCB	11.48	146	65287	4.8658	ppb	97
91) Hexachloroethane	11.74	117	22777	5.0546	ppb	91
92) 1,2-Dibromo-3-chloropropan	12.31	75	8125	4.6632	ppb	92
93) 1,2,4-Trichlorobenzene	13.20	180	36516	4.4950	ppb	95
94) Hexachlorobutadiene	13.41	225	21452	4.6056	ppb	96
95) Naphthalene	13.45	128	70733	5.0297	ppb	96
96) 1,2,3-Trichlorobenzene	13.71	180	21624	4.6683	ppb	93

Quantitation Report

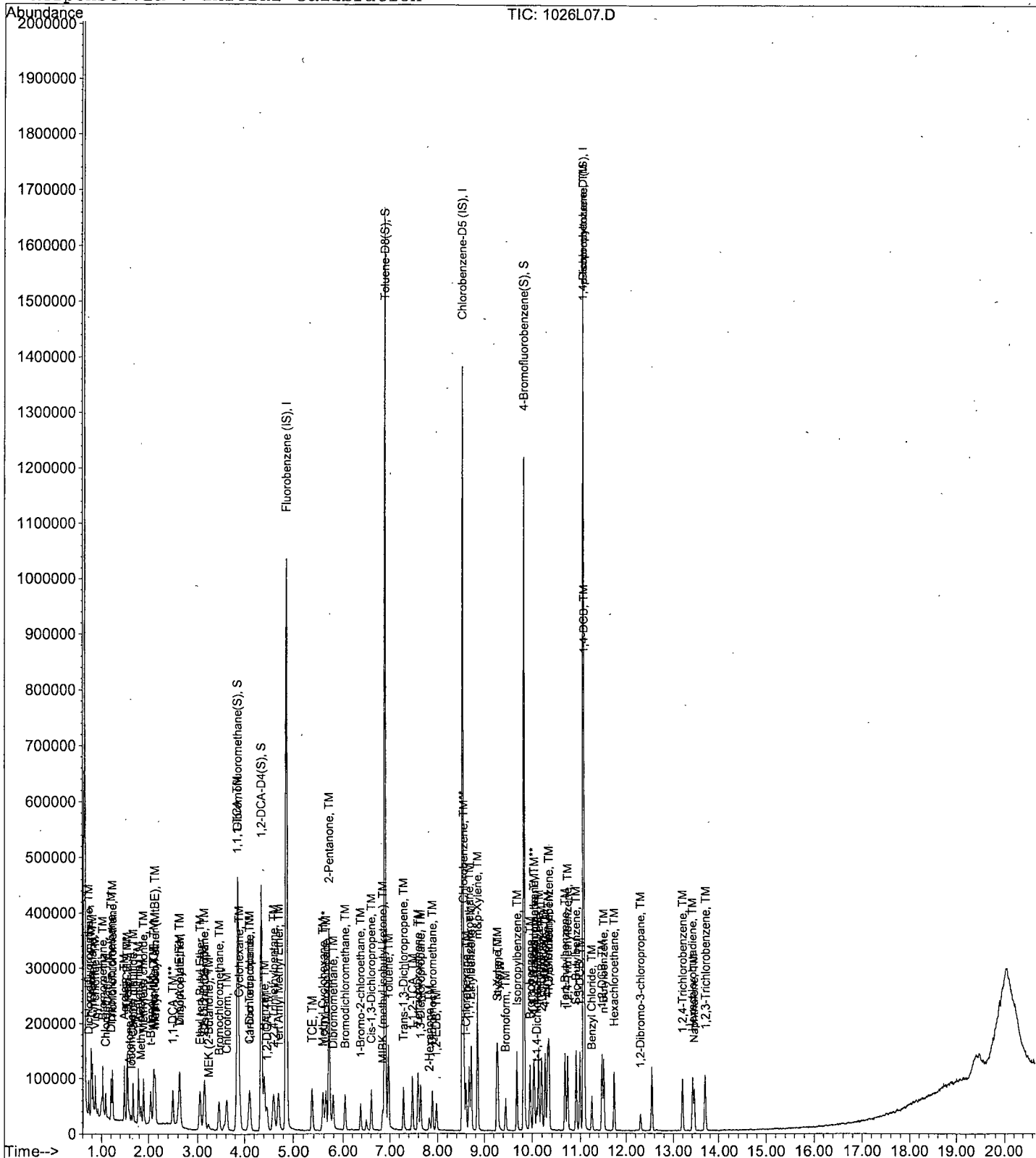
Data File : M:\LOKI\DATA\181026\1026L07.D  
 Acq On : 26 Oct 18 12:22  
 Sample : 5.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 6  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration





Data File : M:\LOKI\DATA\181026\1026L08.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 10ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 7  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.86	96	526592	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	505536	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	278912	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Dibromofluoromethane(S)	3.85	111	382323	26.4812	ppb	0.00
Spiked Amount 25.000			Recovery = 105.924%			
37) 1,2-DCA-D4(S)	4.35	65	421224	26.9079	ppb	0.00
Spiked Amount 25.000			Recovery = 107.632%			
57) Toluene-D8(S)	6.90	98	1311127	27.1804	ppb	0.00
Spiked Amount 25.000			Recovery = 108.720%			
65) 4-Bromofluorobenzene(S)	9.83	95	447107	27.2003	ppb	0.00
Spiked Amount 25.000			Recovery = 108.800%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	72472	9.7443	ppb	96
3) Freon 114	0.79	85	45764	8.9665	ppb	92
4) Chloromethane	0.81	50	79537	10.0526	ppb	99
5) Vinyl chloride	0.87	62	72846	10.4448	ppb	98
6) Bromomethane	1.03	94	59255	10.8319	ppb	97
7) Chloroethane	1.09	64	37935	9.5328	ppb	97
8) Dichlorofluoromethane	1.21	67	104273	9.8895	ppb	97
9) Trichlorofluoromethane	1.24	101	88360	9.7609	ppb	97
10) Acrolein	1.49	56	74598	116.9039	ppb #	98
11) Acetone	1.59	43	27603	9.4519	ppb	95
12) Freon-113	1.56	101	42796	9.1169	ppb	99
13) 1,1-DCE	1.54	63	19928	9.3342	ppb	97
14) t-Butanol	2.05	59	85501	114.8187	ppb	100
15) Acetonitrile	1.79	41	126977	118.7713	ppb	96
16) Methyl Acetate	1.84	43	54083	9.2664	ppb	97
17) Iodomethane	1.64	142	19448	8.3882	ppb	90
18) Acrylonitrile	2.10	52	23249	10.0007	ppb	94
19) Methylene chloride	1.90	84	66430	9.7509	ppb	97
20) Carbon disulfide	1.68	76	156404	9.5144	ppb	100
21) Methyl t-butyl ether (MtBE)	2.14	73	160687	9.6861	ppb	97
22) Trans-1,2-DCE	2.11	96	57297	9.5481	ppb	99
23) Diisopropyl Ether	2.63	45	172733	9.8656	ppb	94
24) 1,1-DCA	2.49	63	115174	9.7319	ppb	98
25) Vinyl Acetate	2.63	43	38835	9.1062	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	150801	9.9527	ppb	98
27) MEK (2-Butanone)	3.23	43	29194	9.4286	ppb	88
28) Cis-1,2-DCE	3.16	96	67403	9.8494	ppb	99
29) 2,2-Dichloropropane	3.13	77	85249	10.2004	ppb	98
30) Chloroform	3.62	83	117806	10.0718	ppb	97
31) Bromochloromethane	3.46	128	38417	10.2530	ppb	100
33) 1,1,1-TCA	3.83	97	90290	9.6741	ppb	93
34) Cyclohexane	3.89	41	37569	9.6090	ppb	97
35) 1,1-Dichloropropene	4.11	75	65346	9.1845	ppb	95
36) 2,2,4-Trimethylpentane	4.61	57	121315	9.3997	ppb	89
38) Carbon Tetrachloride	4.09	117	74629	9.7471	ppb	97
39) Tert Amyl Methyl Ether	4.70	73	139607	10.0822	ppb	98
40) 1,2-DCA	4.47	62	89015	10.2896	ppb	95
41) Benzene	4.41	78	241301	9.9104	ppb	99
42) TCE	5.37	95	28216	9.4500	ppb	97

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

Data File : M:\LOKI\DATA\181026\1026L08.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 10ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 7  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	561343	128.3375	ppb	98
44) 1,2-Dichloropropane	5.64	63	65117	9.9578	ppb	97
45) Bromodichloromethane	6.04	83	93532	9.9622	ppb	98
46) Methyl Cyclohexane	5.58	83	59683	9.0603	ppb	98
47) Dibromomethane	5.79	93	48104	9.7906	ppb	86
49) MIBK (methyl isobutyl ket	6.85	43	54041	9.3809	ppb	95
50) 1-Bromo-2-chloroethane	6.37	63	47312	9.9575	ppb	98
51) Cis-1,3-Dichloropropene	6.61	75	95750	9.9483	ppb	97
52) Toluene	6.97	91	256455	10.1669	ppb	98
53) Trans-1,3-Dichloropropene	7.29	75	90828	10.0350	ppb	95
54) 1,1,2-TCA	7.47	83	57502	10.2028	ppb	96
55) 2-Hexanone	7.82	43	35499	9.7230	ppb	98
58) 1,2-EDB	7.98	107	70287	10.6077	ppb	96
59) Tetrachloroethene	7.60	166	73834	10.2831	ppb	95
60) 1-Chlorohexane	8.60	91	52527	10.0351	ppb	100
61) 1,1,1,2-Tetrachloroethane	8.67	131	71337	10.1726	ppb	97
62) m&p-Xylene	8.85	91	215023	18.4221	ppb	100
63) o-Xylene	9.27	106	88477	10.3704	ppb	91
64) Styrene	9.29	104	92784	9.2645	ppb	98
66) 1,3-Dichloropropane	7.65	76	106876	10.5183	ppb	95
67) Dibromochloromethane	7.89	129	77052	10.2500	ppb	96
68) Chlorobenzene	8.55	112	175169	10.1837	ppb	99
69) Ethylbenzene	8.71	91	243015	9.9955	ppb	96
70) Bromoform	9.45	173	59638	10.5791	ppb	100
72) Isopropylbenzene	9.69	105	212410	10.0879	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	93008	9.7321	ppb	91
74) 1,2,3-Trichloropropane	10.04	110	27685	9.9599	ppb	92
75) t-1,4-Dichloro-2-Butene	10.09	53	18738	9.5446	ppb	96
76) Bromobenzene	9.96	156	81119	10.2412	ppb	99
77) n-Propylbenzene	10.13	91	165888	10.2033	ppb	98
78) 4-Ethyltoluene	10.26	105	216107	10.6904	ppb	99
79) 2-Chlorotoluene	10.19	91	177648	10.4825	ppb	97
80) 1,3,5-Trimethylbenzene	10.34	105	123512	9.4522	ppb	99
81) 4-Chlorotoluene	10.31	91	210980	10.9126	ppb	99
82) Tert-Butylbenzene	10.67	119	157165	10.2238	ppb	98
83) 1,2,4-Trimethylbenzene	10.73	105	189355	9.3894	ppb	97
84) Sec-Butylbenzene	10.91	105	231854	10.4084	ppb	100
85) p-Isopropyltoluene	11.08	119	212102	10.2591	ppb	98
86) Benzyl Chloride	11.25	91	100111	9.5519	ppb	98
87) 1,3-DCB	10.99	146	144789	10.3264	ppb	98
88) 1,4-DCB	11.09	146	152999	10.1638	ppb	97
89) n-Butylbenzene	11.52	91	171481	9.7832	ppb	98
90) 1,2-DCB	11.48	146	139587	10.2721	ppb	97
91) Hexachloroethane	11.74	117	44106	9.6643	ppb	89
92) 1,2-Dibromo-3-chloropropan	12.31	75	16267	9.2183	ppb	94
93) 1,2,4-Trichlorobenzene	13.20	180	81368	9.8897	ppb	96
94) Hexachlorobutadiene	13.41	225	44004	9.3282	ppb	92
95) Naphthalene	13.45	128	166397	9.0872	ppb	100
96) 1,2,3-Trichlorobenzene	13.71	180	47416	10.1072	ppb	98

Quantitation Report

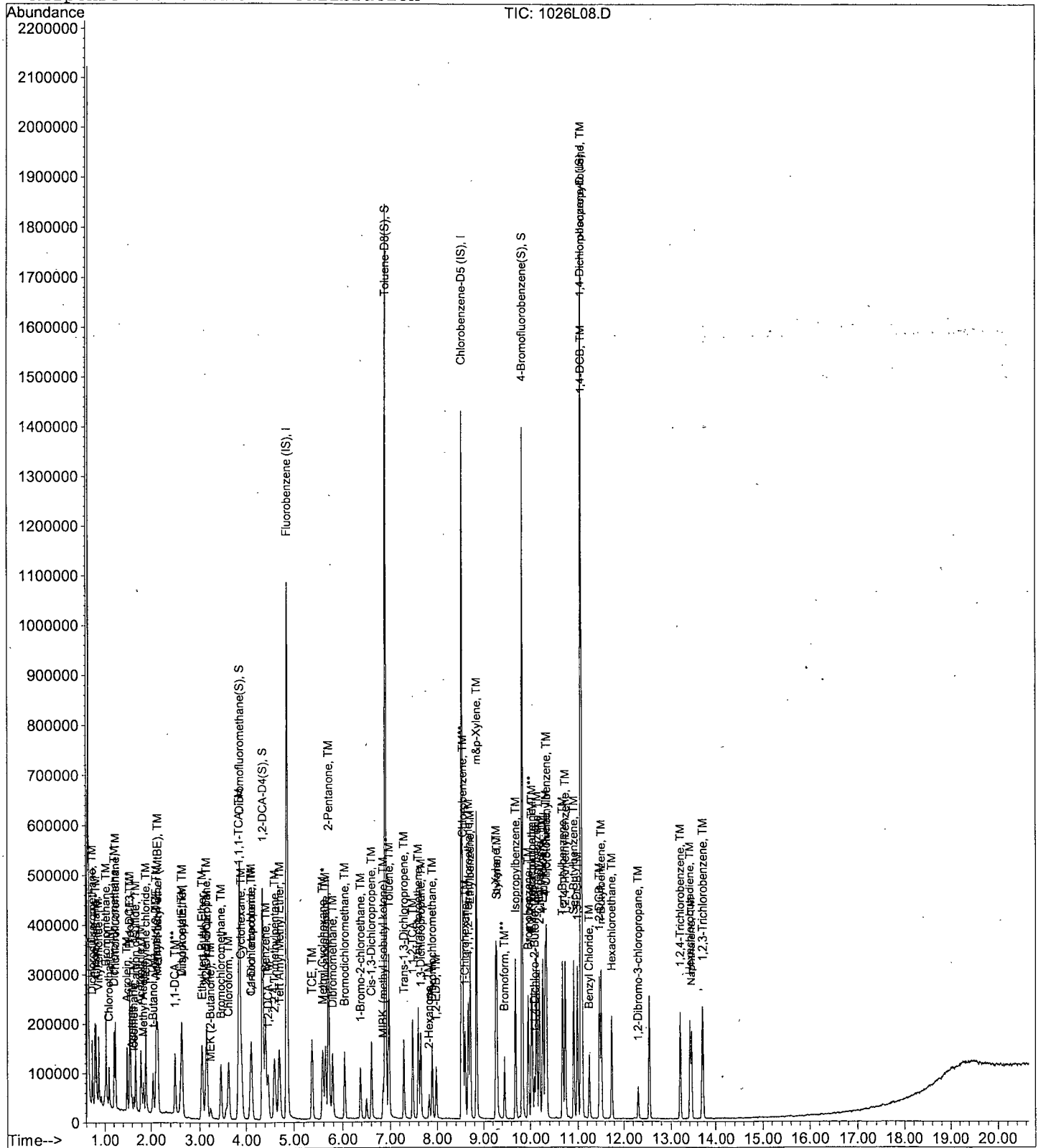
Data File : M:\LOKI\DATA\181026\1026L08.D  
Acq On : 26 Oct 18 12:50  
Sample : 10ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 7  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L09.D  
 Acq On : 26 Oct 18 13:19  
 Sample : 20ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 8  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	538688	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	513856	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	292416	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	694433	49.6646	ppb	0.00
Spiked Amount 25.000			Recovery = 198.660%			
37) 1,2-DCA-D4 (S)	4.35	65	768279	51.3835	ppb	0.00
Spiked Amount 25.000			Recovery = 205.536%			
57) Toluene-D8 (S)	6.90	98	2497738	50.9412	ppb	0.00
Spiked Amount 25.000			Recovery = 203.764%			
65) 4-Bromofluorobenzene(S)	9.83	95	876354	52.4509	ppb	0.00
Spiked Amount 25.000			Recovery = 209.804%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	154368	20.2896	ppb	96
3) Freon 114	0.79	85	105676	20.2401	ppb	92
4) Chloromethane	0.81	50	159183	20.5267	ppb	100
5) Vinyl chloride	0.87	62	145292	20.3644	ppb	99
6) Bromomethane	1.03	94	115660	22.6256	ppb	98
7) Chloroethane	1.09	64	78152	19.1981	ppb	98
8) Dichlorofluoromethane	1.20	67	208270	19.3092	ppb	100
9) Trichlorofluoromethane	1.23	101	182837	19.7440	ppb	98
10) Acrolein	1.49	56	146004	223.6678	ppb #	95
11) Acetone	1.60	43	50452	20.2570	ppb #	86
12) Freon-113	1.56	101	97702	20.3462	ppb	94
13) 1,1-DCE	1.55	63	40664	18.6191	ppb	93
14) t-Butanol	2.05	59	164176	215.5203	ppb	97
15) Acetonitrile	1.79	41	247127	225.9662	ppb	98
16) Methyl Acetate	1.84	43	111921	18.7455	ppb	98
17) Iodomethane	1.64	142	50456	18.7817	ppb	87
18) Acrylonitrile	2.10	52	46666	20.4383	ppb	91
19) Methylene chloride	1.89	84	131009	18.7982	ppb	94
20) Carbon disulfide	1.68	76	317658	18.8898	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	326935	19.2649	ppb	99
22) Trans-1,2-DCE	2.11	96	120782	19.6754	ppb	97
23) Diisopropyl Ether	2.64	45	330504	18.4529	ppb	100
24) 1,1-DCA	2.49	63	226918	18.7435	ppb	97
25) Vinyl Acetate	2.63	43	76981	17.6455	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	304202	19.6262	ppb	98
27) MEK (2-Butanone)	3.23	43	60166	18.9951	ppb	88
28) Cis-1,2-DCE	3.15	96	138155	19.7348	ppb	98
29) 2,2-Dichloropropane	3.13	77	170975	20.4358	ppb #	95
30) Chloroform	3.62	83	235766	19.7042	ppb	96
31) Bromochloromethane	3.46	128	75919	19.8068	ppb	93
33) 1,1,1-TCA	3.83	97	187473	19.6357	ppb	93
34) Cyclohexane	3.90	41	79094	19.7755	ppb	90
35) 1,1-Dichloropropene	4.11	75	141599	19.4552	ppb	94
36) 2,2,4-Trimethylpentane	4.61	57	270812	20.5119	ppb	94
38) Carbon Tetrachloride	4.09	117	162724	20.7757	ppb	96
39) Tert Amyl Methyl Ether	4.70	73	297986	21.0368	ppb	98
40) 1,2-DCA	4.47	62	174615	19.7311	ppb	97
41) Benzene	4.41	78	492266	19.7636	ppb	100
42) TCE	5.36	95	58400	19.1199	ppb	95

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

Data File : M:\LOKI\DATA\181026\1026L09.D  
 Acq On : 26 Oct 18 13:19  
 Sample : 20ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 8  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	1192715	266.5625	ppb	99
44) 1,2-Dichloropropane	5.64	63	132596	19.8216	ppb	99
45) Bromodichloromethane	6.04	83	187599	19.5327	ppb	99
46) Methyl Cyclohexane	5.58	83	135421	20.0962	ppb	98
47) Dibromomethane	5.79	93	97440	19.3866	ppb	92
49) MIBK (methyl isobutyl ket	6.85	43	127877	21.6995	ppb	93
50) 1-Bromo-2-chloroethane	6.37	63	98216	20.2069	ppb	100
51) Cis-1,3-Dichloropropene	6.61	75	199338	20.2458	ppb	96
52) Toluene	6.97	91	536079	20.7751	ppb	97
53) Trans-1,3-Dichloropropene	7.29	75	187734	20.2758	ppb	98
54) 1,1,2-TCA	7.47	83	112358	19.4884	ppb	98
55) 2-Hexanone	7.82	43	72028	19.2850	ppb	95
58) 1,2-EDB	7.98	107	140567	20.8708	ppb	98
59) Tetrachloroethene	7.59	166	151835	20.8041	ppb	94
60) 1-Chlorohexane	8.60	91	121903	22.9121	ppb	96
61) 1,1,1,2-Tetrachloroethane	8.67	131	142907	20.0484	ppb	97
62) m&p-Xylene	8.85	91	481159	37.1550	ppb	100
63) o-Xylene	9.27	106	193489	22.3117	ppb	99
64) Styrene	9.29	104	212736	18.9714	ppb	96
66) 1,3-Dichloropropane	7.65	76	214943	20.8113	ppb	98
67) Dibromochloromethane	7.89	129	154783	20.2569	ppb	99
68) Chlorobenzene	8.55	112	356456	20.3875	ppb	100
69) Ethylbenzene	8.71	91	542807	21.9647	ppb	96
70) Bromoform	9.45	173	122818	21.4337	ppb	100
72) Isopropylbenzene	9.69	105	473198	21.4355	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	193070	19.2693	ppb	95
74) 1,2,3-Trichloropropane	10.04	110	58401	20.0399	ppb	95
75) t-1,4-Dichloro-2-Butene	10.09	53	39021	18.9583	ppb	97
76) Bromobenzene	9.96	156	167724	20.1972	ppb	98
77) n-Propylbenzene	10.13	91	376640	22.0962	ppb	98
78) 4-Ethyltoluene	10.26	105	487551	23.0043	ppb	99
79) 2-Chlorotoluene	10.19	91	386663	21.7623	ppb	99
80) 1,3,5-Trimethylbenzene	10.34	105	286848	20.5936	ppb	100
81) 4-Chlorotoluene	10.31	91	458250	22.6077	ppb	100
82) Tert-Butylbenzene	10.67	119	353963	21.9623	ppb	98
83) 1,2,4-Trimethylbenzene	10.73	105	434178	19.7978	ppb	96
84) Sec-Butylbenzene	10.91	105	537842	23.0297	ppb	100
85) p-Isopropyltoluene	11.08	119	484282	22.3424	ppb	99
86) Benzyl Chloride	11.25	91	210494	19.1565	ppb	99
87) 1,3-DCB	10.99	146	302382	20.5701	ppb	99
88) 1,4-DCB	11.09	146	320873	20.3314	ppb	96
89) n-Butylbenzene	11.52	91	384279	20.9112	ppb	98
90) 1,2-DCB	11.48	146	288789	20.2703	ppb	99
91) Hexachloroethane	11.75	117	92091	19.2467	ppb	94
92) 1,2-Dibromo-3-chloropropan	12.31	75	33496	18.1051	ppb	96
93) 1,2,4-Trichlorobenzene	13.20	180	176202	20.4271	ppb	96
94) Hexachlorobutadiene	13.41	225	95041	19.2169	ppb	98
95) Naphthalene	13.45	128	378527	17.4216	ppb	99
96) 1,2,3-Trichlorobenzene	13.71	180	104104	21.1660	ppb	99

Quantitation Report

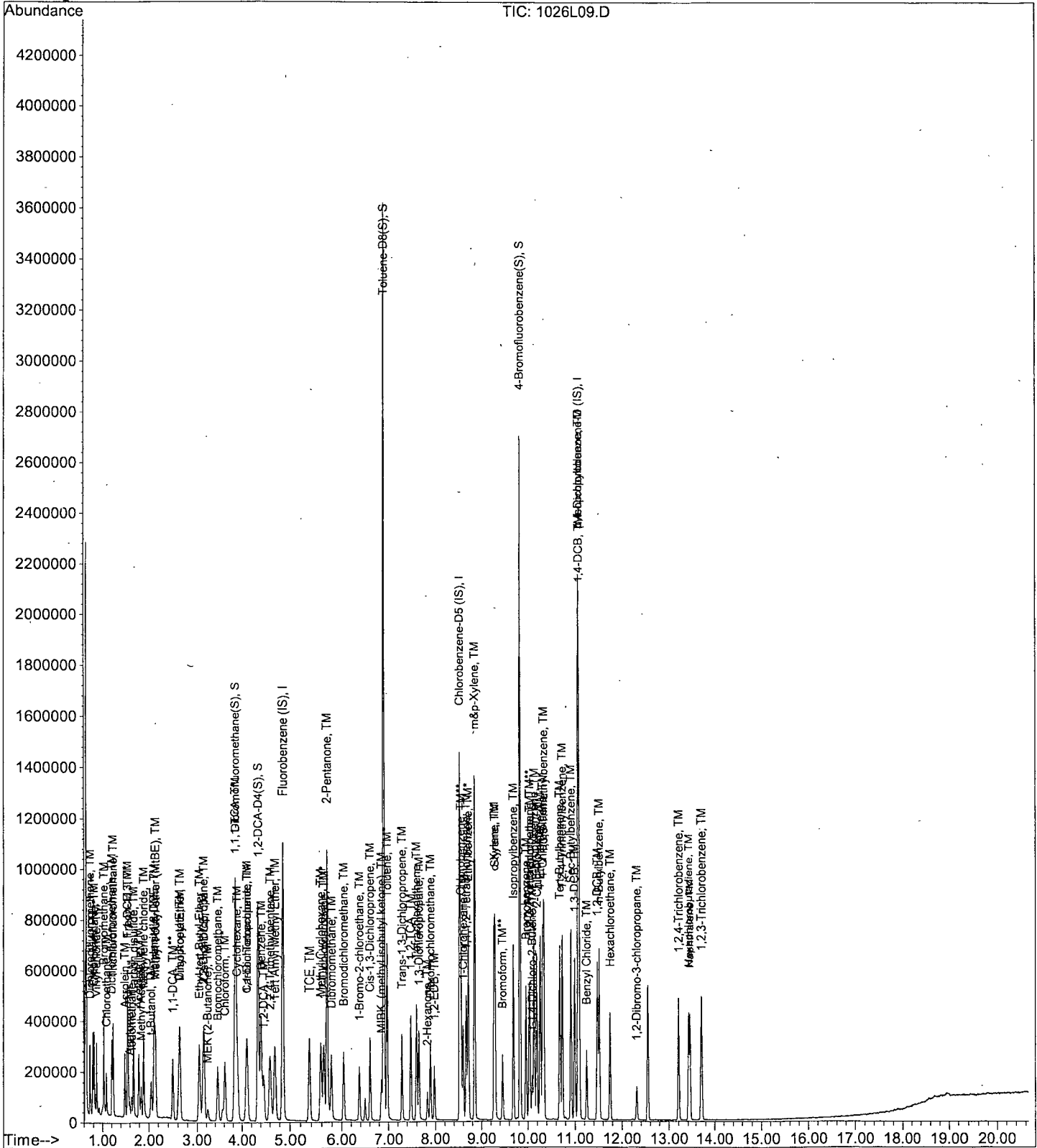
Data File : M:\LOKI\DATA\181026\1026L09.D  
Acq On : 26 Oct 18 13:19  
Sample : 20ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18, 8/23/18

Vial: 8  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181026\1026L10.D  
 Acq On : 26 Oct 18 13:47  
 Sample : 40ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 9  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	553216	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	542016	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	306688	25.0000	ppb	0.00

System Monitoring Compounds

32) Dibromofluoromethane(S)	3.85	111	711689	49.5550	ppb	0.00
Spiked Amount	25.000		Recovery	=	198.220%	
37) 1,2-DCA-D4(S)	4.35	65	784592	51.0722	ppb	0.00
Spiked Amount	25.000		Recovery	=	204.288%	
57) Toluene-D8(S)	6.90	98	2595482	50.1845	ppb	0.00
Spiked Amount	25.000		Recovery	=	200.736%	
65) 4-Bromofluorobenzene(S)	9.83	95	907950	51.5186	ppb	0.00
Spiked Amount	25.000		Recovery	=	206.076%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	312896	40.0460	ppb	99
3) Freon 114	0.79	85	213056	39.7349	ppb	90
4) Chloromethane	0.81	50	322973	41.4305	ppb	99
5) Vinyl chloride	0.87	62	289916	39.5680	ppb	98
6) Bromomethane	1.03	94	220002	43.7441	ppb	97
7) Chloroethane	1.09	64	157403	37.6508	ppb	100
8) Dichlorofluoromethane	1.20	67	419264	37.8503	ppb	98
9) Trichlorofluoromethane	1.23	101	371728	39.0877	ppb	98
10) Acrolein	1.49	56	108301	161.5526	ppb #	98
11) Acetone	1.60	43	98821	42.5209	ppb #	88
12) Freon-113	1.56	101	195033	39.5485	ppb	94
13) 1,1-DCE	1.54	63	79680	35.5255	ppb	94
14) t-Butanol	2.05	59	122907	157.1078	ppb	96
15) Acetonitrile	1.79	41	180728	160.9131	ppb	98
16) Methyl Acetate	1.84	43	220509	35.9629	ppb	98
17) Iodomethane	1.63	142	114208	39.4431	ppb	92
18) Acrylonitrile	2.10	52	94322	41.0458	ppb	91
19) Methylene chloride	1.89	84	264380	36.9391	ppb	95
20) Carbon disulfide	1.68	76	643979	37.2892	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	666599	38.2483	ppb	98
22) Trans-1,2-DCE	2.11	96	235075	37.2882	ppb	97
23) Diisopropyl Ether	2.63	45	726988	39.5236	ppb	96
24) 1,1-DCA	2.50	63	456778	36.7392	ppb	98
25) Vinyl Acetate	2.63	43	168468	37.6020	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	649461	40.8009	ppb	97
27) MEK (2-Butanone)	3.23	43	129152	39.7039	ppb	90
28) Cis-1,2-DCE	3.15	96	281784	39.1945	ppb	98
29) 2,2-Dichloropropane	3.13	77	343917	40.4635	ppb	96
30) Chloroform	3.62	83	472850	38.4808	ppb	92
31) Bromochloromethane	3.46	128	150291	38.1803	ppb	95
33) 1,1,1-TCA	3.83	97	373675	38.1105	ppb	95
34) Cyclohexane	3.90	41	161374	39.2880	ppb	85
35) 1,1-Dichloropropene	4.11	75	296818	39.7108	ppb	93
36) 2,2,4-Trimethylpentane	4.61	57	564455	41.6303	ppb	95
38) Carbon Tetrachloride	4.09	117	328542	40.8448	ppb	96
39) Tert Amyl Methyl Ether	4.70	73	635878	43.7120	ppb	97
40) 1,2-DCA	4.46	62	360243	39.6377	ppb	95
41) Benzene	4.41	78	1005113	39.2938	ppb	99
42) TCE	5.37	95	121400	38.7020	ppb	95

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

Data File : M:\LOKI\DATA\181026\1026L10.D  
 Acq On : 26 Oct 18 13:47  
 Sample : 40ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 9  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	875854	190.6060	ppb	98
44) 1,2-Dichloropropane	5.64	63	272621	39.6835	ppb	99
45) Bromodichloromethane	6.04	83	382481	38.7780	ppb	99
46) Methyl Cyclohexane	5.59	83	287160	41.4948	ppb	99
47) Dibromomethane	5.79	93	194078	37.5997	ppb	90
49) MIBK (methyl isobutyl ket	6.85	43	238819	39.4611	ppb	92
50) 1-Bromo-2-chloroethane	6.37	63	200192	40.1058	ppb	100
51) Cis-1,3-Dichloropropene	6.61	75	418570	41.3957	ppb	98
52) Toluene	6.97	91	1105755	41.7270	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	389231	40.9342	ppb	100
54) 1,1,2-TCA	7.47	83	228943	38.6671	ppb	97
55) 2-Hexanone	7.82	43	156193	40.7214	ppb	98
58) 1,2-EDB	7.98	107	290829	40.9377	ppb	97
59) Tetrachloroethene	7.60	166	303873	39.4729	ppb	98
60) 1-Chlorohexane	8.60	91	268497	47.8431	ppb	92
61) 1,1,1,2-Tetrachloroethane	8.67	131	289246	38.4701	ppb	99
62) m&p-Xylene	8.85	91	1102533	77.3955	ppb	100
63) o-Xylene	9.27	106	424480	46.4048	ppb	97
64) Styrene	9.29	104	468032	37.9042	ppb	99
66) 1,3-Dichloropropane	7.65	76	447303	41.0588	ppb	98
67) Dibromochloromethane	7.89	129	320346	39.7464	ppb	95
68) Chlorobenzene	8.55	112	733514	39.7737	ppb	99
69) Ethylbenzene	8.71	91	1175141	45.0816	ppb	97
70) Bromoform	9.45	173	245442	40.6081	ppb	100
72) Isopropylbenzene	9.69	105	1061428	45.8443	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	382594	36.4078	ppb	95
74) 1,2,3-Trichloropropane	10.04	110	118004	38.6079	ppb	97
75) t-1,4-Dichloro-2-Butene	10.09	53	81237	37.6323	ppb	92
76) Bromobenzene	9.96	156	343750	39.4678	ppb	98
77) n-Propylbenzene	10.13	91	837376	46.8398	ppb	97
78) 4-Ethyltoluene	10.26	105	1072183	48.2350	ppb	99
79) 2-Chlorotoluene	10.19	91	820320	44.0209	ppb	99
80) 1,3,5-Trimethylbenzene	10.34	105	618820	42.0595	ppb	99
81) 4-Chlorotoluene	10.31	91	956370	44.9868	ppb	99
82) Tert-Butylbenzene	10.67	119	772262	45.6867	ppb	98
83) 1,2,4-Trimethylbenzene	10.73	105	966025	41.3026	ppb	96
84) Sec-Butylbenzene	10.91	105	1163305	47.4932	ppb	99
85) p-Isopropyltoluene	11.08	119	1028910	45.2598	ppb	99
86) Benzyl Chloride	11.25	91	447039	38.7906	ppb	99
87) 1,3-DCB	10.99	146	623996	40.4732	ppb	99
88) 1,4-DCB	11.09	146	645934	39.0235	ppb	97
89) n-Butylbenzene	11.52	91	854784	44.3499	ppb	97
90) 1,2-DCB	11.48	146	603500	40.3887	ppb	98
91) Hexachloroethane	11.75	117	190651	37.9911	ppb	94
92) 1,2-Dibromo-3-chloropropan	12.31	75	72631	37.4312	ppb	96
93) 1,2,4-Trichlorobenzene	13.20	180	389525	43.0561	ppb	97
94) Hexachlorobutadiene	13.41	225	199340	38.4300	ppb	96
95) Naphthalene	13.45	128	909888	37.3934	ppb	98
96) 1,2,3-Trichlorobenzene	13.71	180	218752	42.4061	ppb	100



Quantitation Report

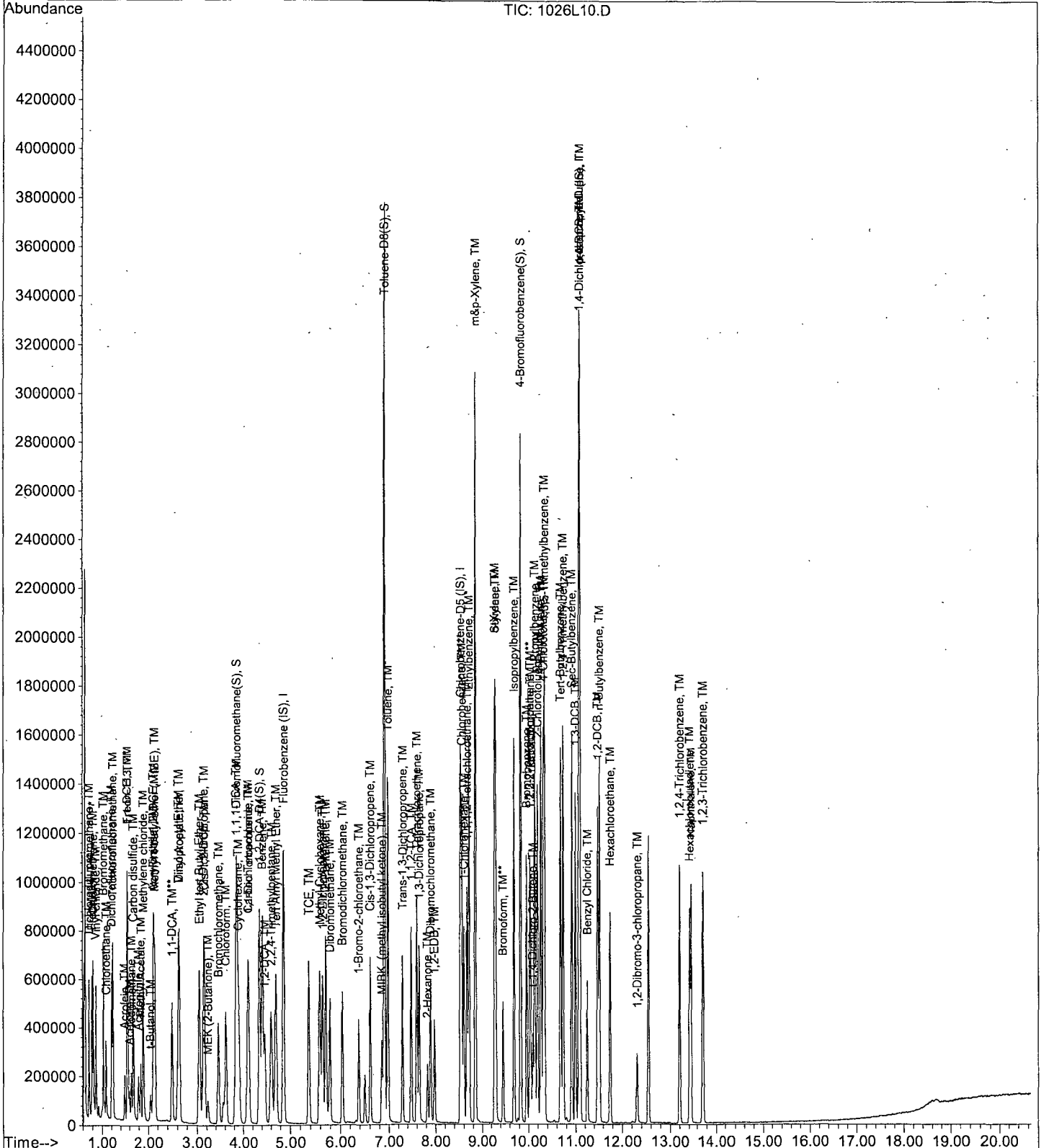
Data File : M:\LOKI\DATA\181026\1026L10.D  
 Acq On : 26 Oct 18 13:47  
 Sample : 40ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 9  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L11.D  
 Acq On : 26 Oct 18 14:16  
 Sample : 100ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 10  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	543168	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	516992	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	330368	25.0000	ppb	0.00

System Monitoring Compounds

32) Dibromofluoromethane (S)	3.85	111	1288990	94.2941	ppb	0.00
Spiked Amount	25.000		Recovery	=	377.176%	
37) 1,2-DCA-D4 (S)	4.35	65	1428480	98.4238	ppb	0.00
Spiked Amount	25.000		Recovery	=	393.696%	
57) Toluene-D8 (S)	6.90	98	4870231	98.7255	ppb	0.00
Spiked Amount	25.000		Recovery	=	394.900%	
65) 4-Bromofluorobenzene (S)	9.83	95	1754528	104.3737	ppb	0.00
Spiked Amount	25.000		Recovery	=	417.496%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.72	85	775296	101.0620	ppb	97
3) Freon 114	0.79	85	530727	100.8115	ppb	91
4) Chloromethane	0.81	50	751116	99.3644	ppb	99
5) Vinyl chloride	0.87	62	697865	97.0073	ppb	99
6) Bromomethane	1.03	94	470846	97.8958	ppb	100
7) Chloroethane	1.08	64	246296	60.0038	ppb	99
8) Dichlorofluoromethane	1.20	67	1011038	92.9628	ppb	100
9) Trichlorofluoromethane	1.22	101	869492	93.1195	ppb	98
10) Acrolein	1.49	56	119522	181.5891	ppb	# 95
11) Acetone	1.60	43	214134	99.0110	ppb	90
12) Freon-113	1.55	101	465612	96.1626	ppb	95
13) 1,1-DCE	1.54	63	196529	89.2438	ppb	98
14) t-Butanol	2.07	59	154831	201.5763	ppb	98
15) Acetonitrile	1.79	41	198553	180.0540	ppb	97
16) Methyl Acetate	1.84	43	534374	88.7635	ppb	96
17) Iodomethane	1.63	142	293504	100.6163	ppb	92
18) Acrylonitrile	2.10	52	221865	99.5171	ppb	94
19) Methylene chloride	1.89	84	626293	89.1243	ppb	92
20) Carbon disulfide	1.67	76	1550711	91.4539	ppb	98
21) Methyl t-butyl ether (MtBE)	2.14	73	1583614	92.5459	ppb	98
22) Trans-1,2-DCE	2.11	96	568103	91.7809	ppb	98
23) Diisopropyl Ether	2.64	45	1719467	95.2103	ppb	98
24) 1,1-DCA	2.49	63	1079130	88.4014	ppb	98
25) Vinyl Acetate	2.64	43	384458	87.3982	ppb	# 99
26) Ethyl tert Butyl Ether	3.05	59	1629892	104.2884	ppb	99
27) MEK (2-Butanone)	3.23	43	297432	93.1280	ppb	91
28) Cis-1,2-DCE	3.15	96	692193	98.0611	ppb	98
29) 2,2-Dichloropropane	3.13	77	826674	99.7205	ppb	97
30) Chloroform	3.62	83	1111028	92.0886	ppb	93
31) Bromochloromethane	3.46	128	336164	86.9798	ppb	94
33) 1,1,1-TCA	3.83	97	898007	93.2805	ppb	93
34) Cyclohexane	3.89	41	412380	102.2549	ppb	83
35) 1,1-Dichloropropene	4.11	75	744290	101.4193	ppb	94
36) 2,2,4-Trimethylpentane	4.61	57	1462269	109.8419	ppb	88
38) Carbon Tetrachloride	4.09	117	796507	100.8546	ppb	96
39) Tert Amyl Methyl Ether	4.70	73	1594044	111.6060	ppb	95
40) 1,2-DCA	4.46	62	835170	93.5940	ppb	94
41) Benzene	4.41	78	2434775	96.9458	ppb	100
42) TCE	5.36	95	304192	98.7695	ppb	96

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

Data File : M:\LOKI\DATA\181026\1026L11.D  
 Acq On : 26 Oct 18 14:16  
 Sample : 100ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 10  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	958198	212.3835	ppb	100
44) 1,2-Dichloropropane	5.64	63	637973	94.5831	ppb	99
45) Bromodichloromethane	6.04	83	901140	93.0525	ppb	100
46) Methyl Cyclohexane	5.58	83	778712	114.6060	ppb	99
47) Dibromomethane	5.79	93	457827	90.3379	ppb	91
49) MIBK (methyl isobutyl ket	6.85	43	599499	100.8903	ppb	93
50) 1-Bromo-2-chloroethane	6.37	63	476608	97.2483	ppb	99
51) Cis-1,3-Dichloropropene	6.61	75	1049793	105.7430	ppb	98
52) Toluene	6.97	91	2706244	104.0124	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	957584	102.5690	ppb	98
54) 1,1,2-TCA	7.47	83	540684	93.0075	ppb	96
55) 2-Hexanone	7.82	43	397453	105.5378	ppb	95
58) 1,2-EDB	7.98	107	687129	101.4034	ppb	98
59) Tetrachloroethene	7.60	166	754773	102.7901	ppb	96
60) 1-Chlorohexane	8.60	91	727935	135.9882	ppb	89
61) 1,1,1,2-Tetrachloroethane	8.67	131	695184	96.9358	ppb	97
62) m&p-Xylene	8.85	91	2805200	201.7306	ppb	99
63) o-Xylene	9.27	106	1104769	126.6208	ppb	97
64) Styrene	9.29	104	1222144	101.1023	ppb	97
66) 1,3-Dichloropropane	7.65	76	1074255	103.3809	ppb	97
67) Dibromochloromethane	7.89	129	768983	100.0284	ppb	97
68) Chlorobenzene	8.55	112	1796449	102.1248	ppb	99
69) Ethylbenzene	8.71	91	2972354	119.5470	ppb	96
70) Bromoform	9.45	173	595426	103.2810	ppb	97
72) Isopropylbenzene	9.69	105	2815956	112.9066	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	937001	82.7742	ppb	95
74) 1,2,3-Trichloropropane	10.04	110	289809	88.0218	ppb	95
75) t-1,4-Dichloro-2-Butene	10.09	53	213174	91.6726	ppb	96
76) Bromobenzene	9.96	156	837446	89.2599	ppb	99
77) n-Propylbenzene	10.13	91	2215814	115.0607	ppb	97
78) 4-Ethyltoluene	10.26	105	2778255	116.0285	ppb	98
79) 2-Chlorotoluene	10.19	91	2055810	102.4135	ppb	99
80) 1,3,5-Trimethylbenzene	10.34	105	1577835	99.1665	ppb	100
81) 4-Chlorotoluene	10.31	91	2410773	105.2723	ppb	100
82) Tert-Butylbenzene	10.67	119	2066769	113.5052	ppb	99
83) 1,2,4-Trimethylbenzene	10.73	105	2532211	99.6147	ppb	96
84) Sec-Butylbenzene	10.91	105	3089057	117.0747	ppb	99
85) p-Isopropyltoluene	11.08	119	2744042	112.0534	ppb	99
86) Benzyl Chloride	11.25	91	1262087	101.6644	ppb	98
87) 1,3-DCB	10.99	146	1592038	95.8601	ppb	99
88) 1,4-DCB	11.09	146	1650079	92.5427	ppb	97
89) n-Butylbenzene	11.51	91	2383099	114.7829	ppb	98
90) 1,2-DCB	11.48	146	1608094	99.9064	ppb	99
91) Hexachloroethane	11.75	117	480289	88.8473	ppb	95
92) 1,2-Dibromo-3-chloropropan	12.31	75	192835	92.2564	ppb	97
93) 1,2,4-Trichlorobenzene	13.20	180	1163249	119.3633	ppb	97
94) Hexachlorobutadiene	13.41	225	555782	99.4670	ppb	97
95) Naphthalene	13.44	128	2756349	101.6013	ppb	98
96) 1,2,3-Trichlorobenzene	13.71	180	674688	121.4166	ppb	99

Quantitation Report

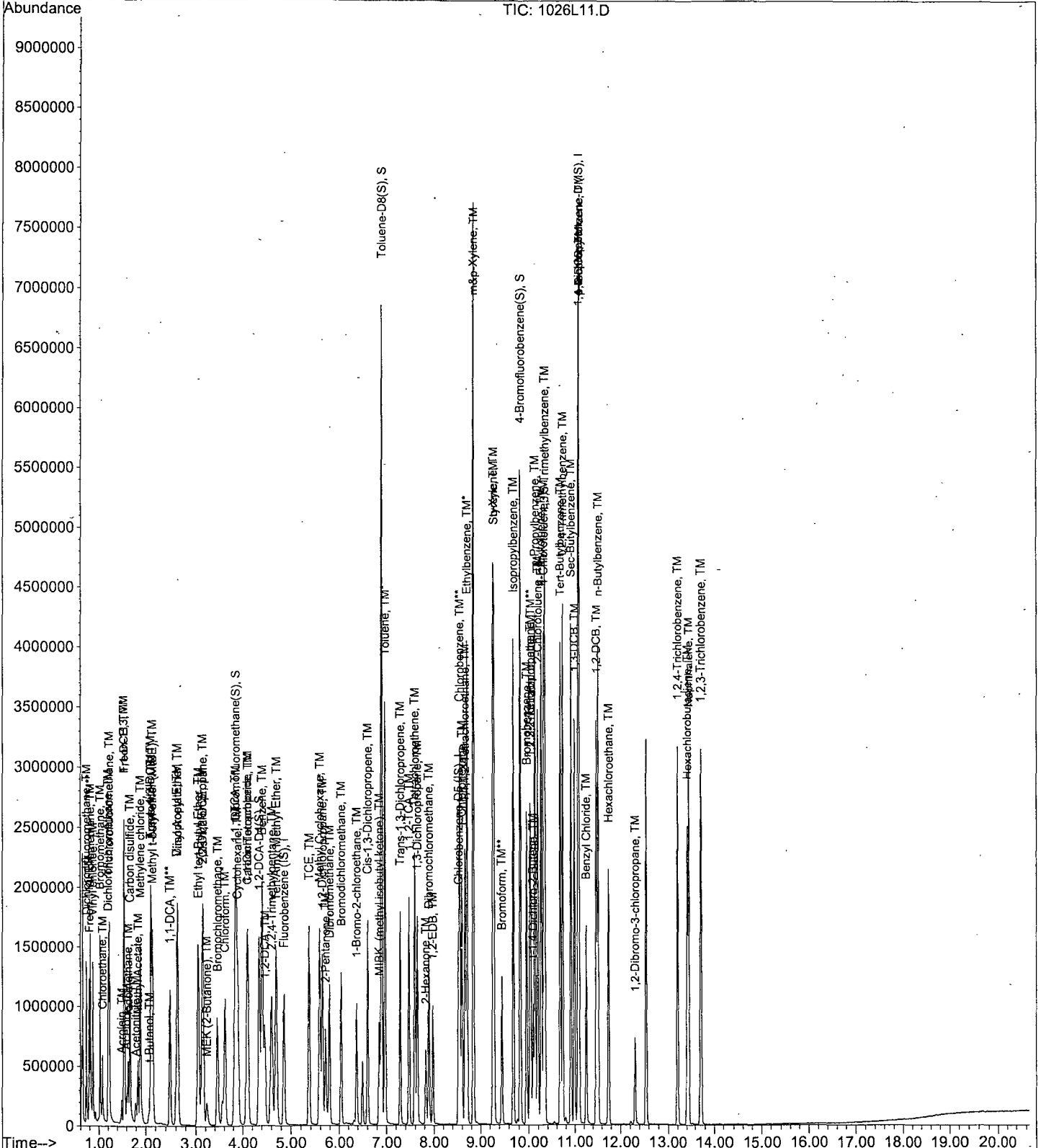
Data File : M:\LOKI\DATA\181026\1026L11.D  
Acq On : 26 Oct 18 14:16  
Sample : 100ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18, 8/23/18

Vial: 10  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

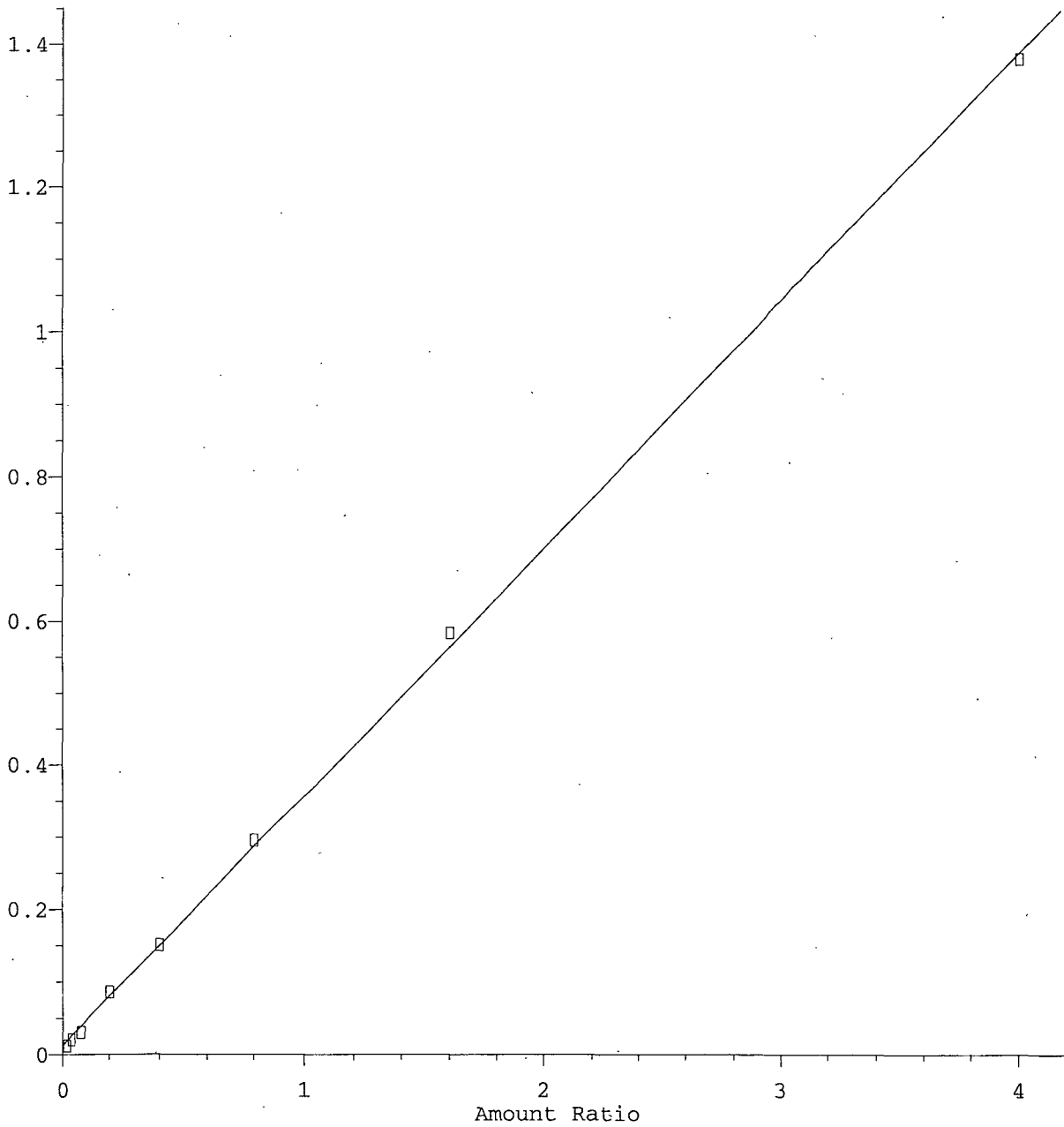
Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Chloromethane

Response Ratio

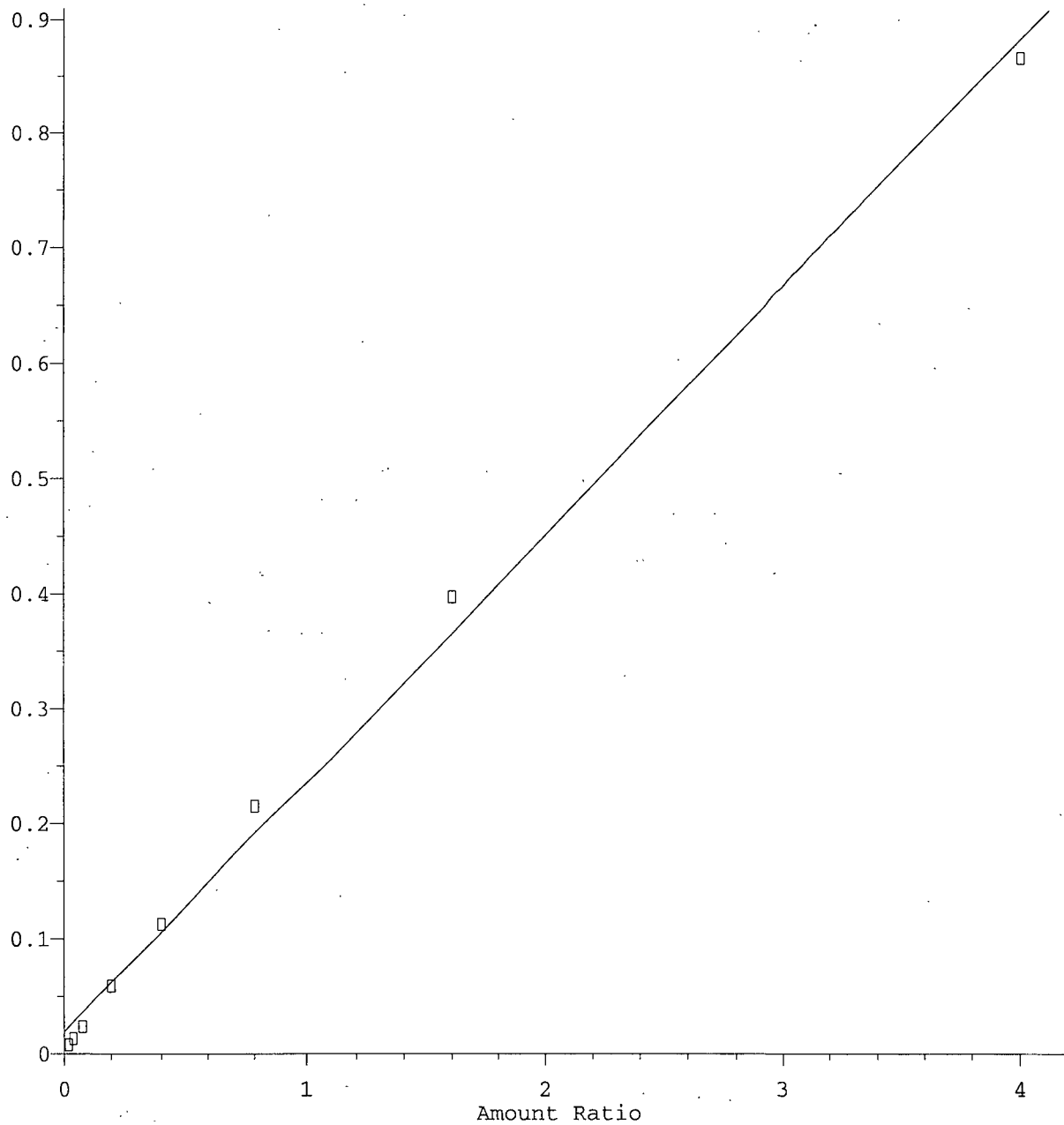


Resp Ratio = 3.45e-001 \* Amt + 1.24e-002  
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

Bromomethane

Response Ratio

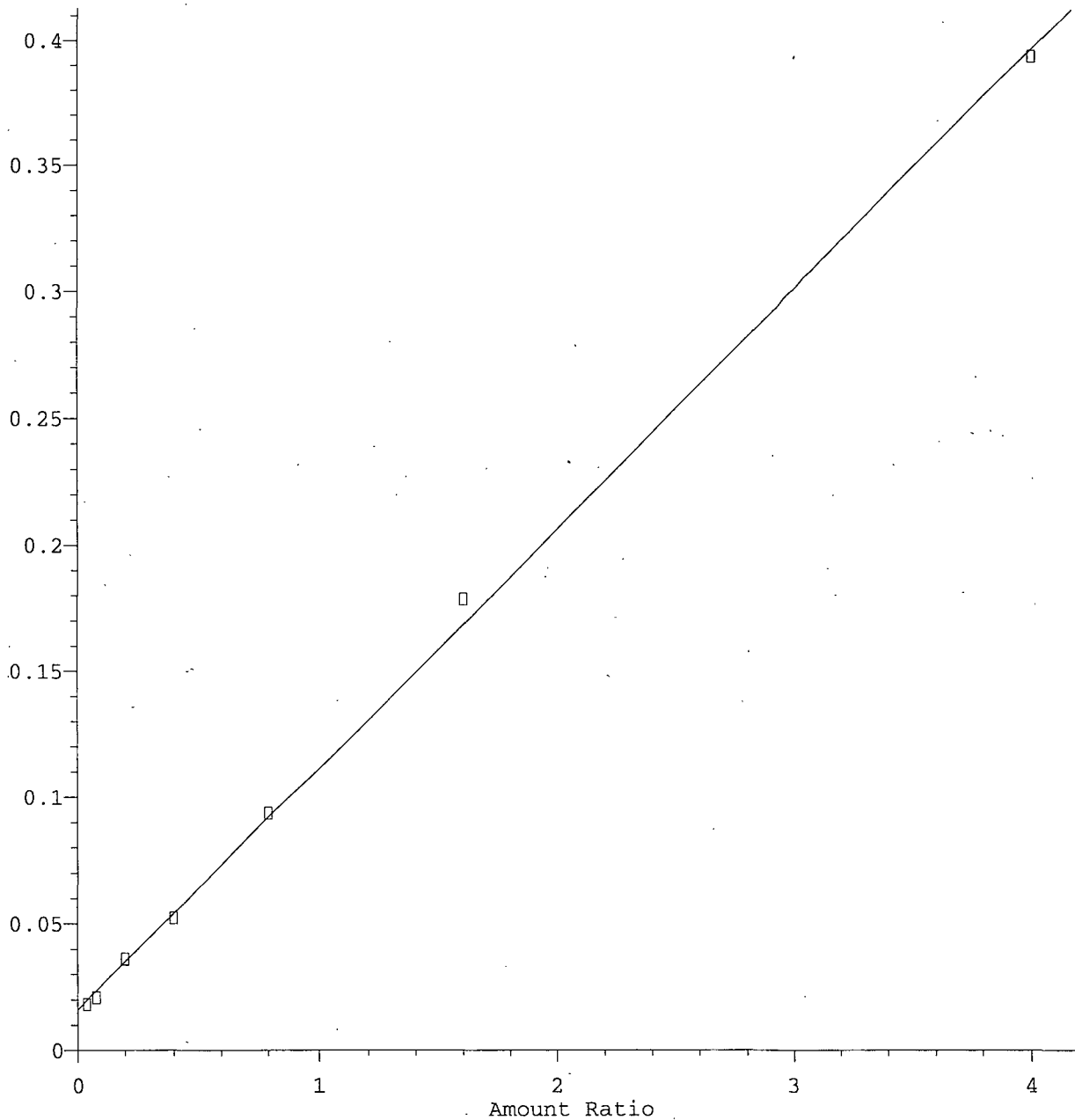


Resp Ratio =  $2.17e-001 * Amt + 1.87e-002$   
Coef of Det ( $r^2$ ) = 0.996 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

Acetone

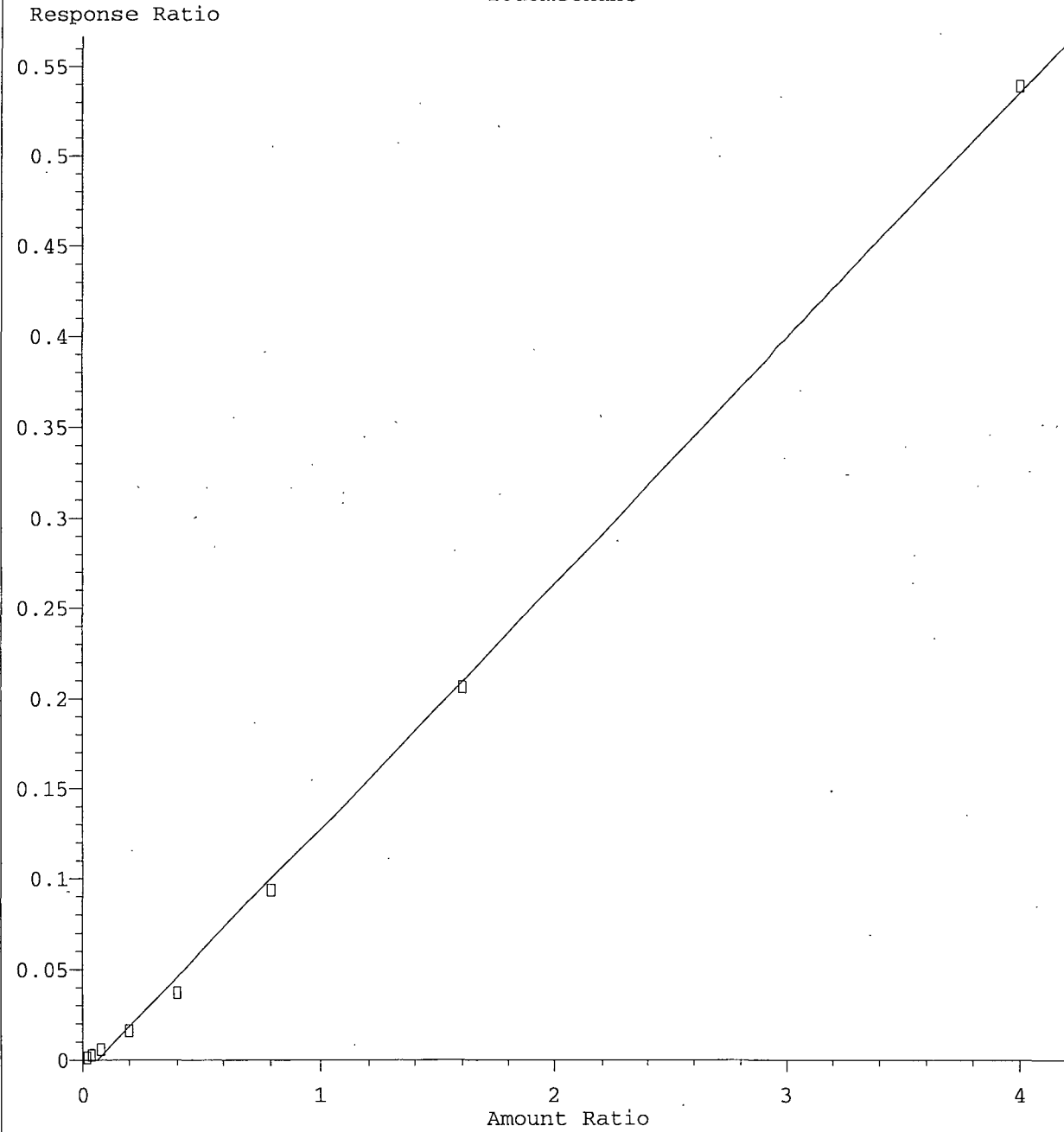
Response Ratio



Resp Ratio =  $9.54e-002 * Amt + 1.63e-002$   
Coef of Det ( $r^2$ ) = 0.999 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

Iodomethane



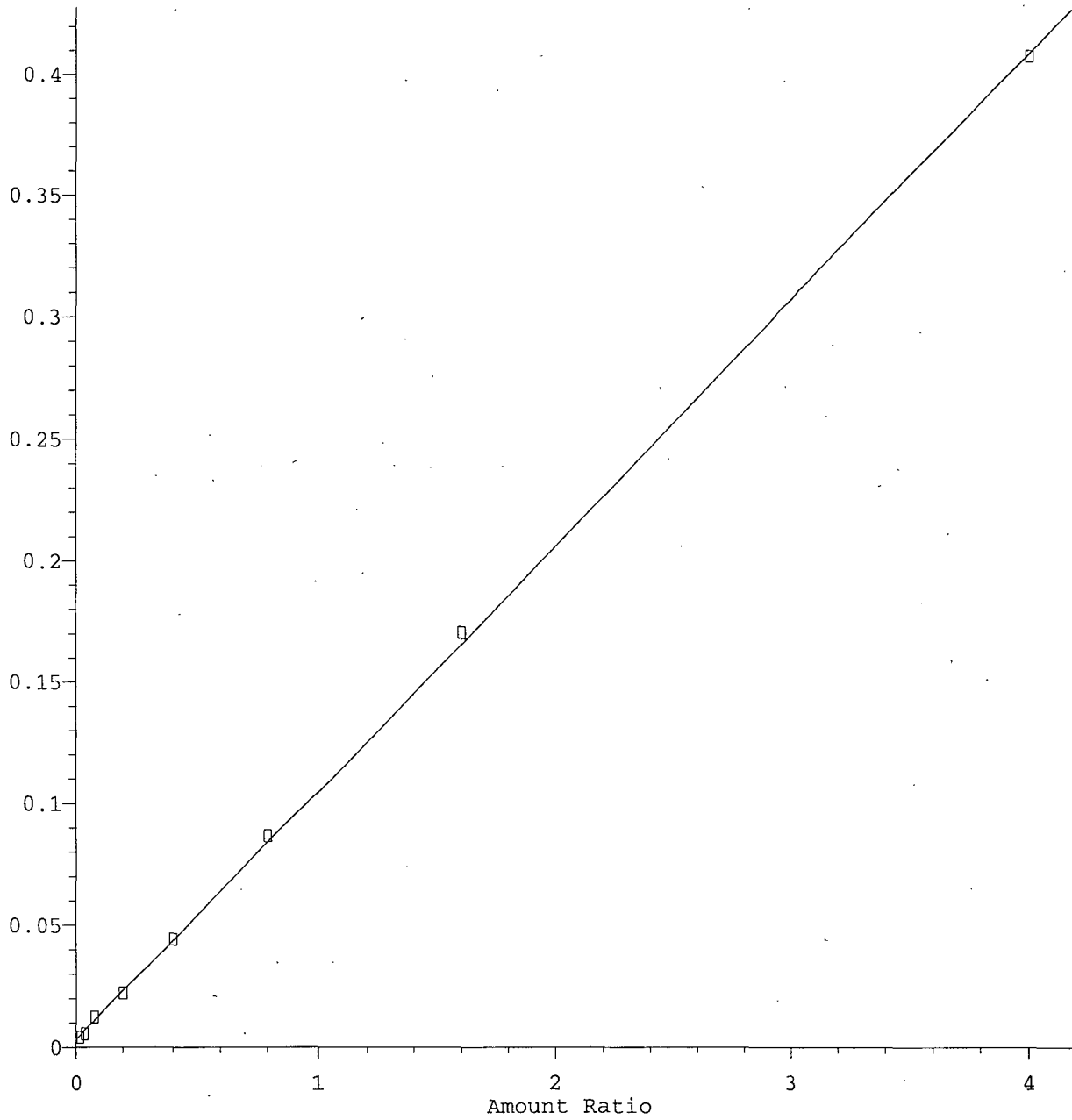
Resp Ratio = 1.36e-001 \* Amt - 8.85e-003  
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018



Acrylonitrile

Response Ratio

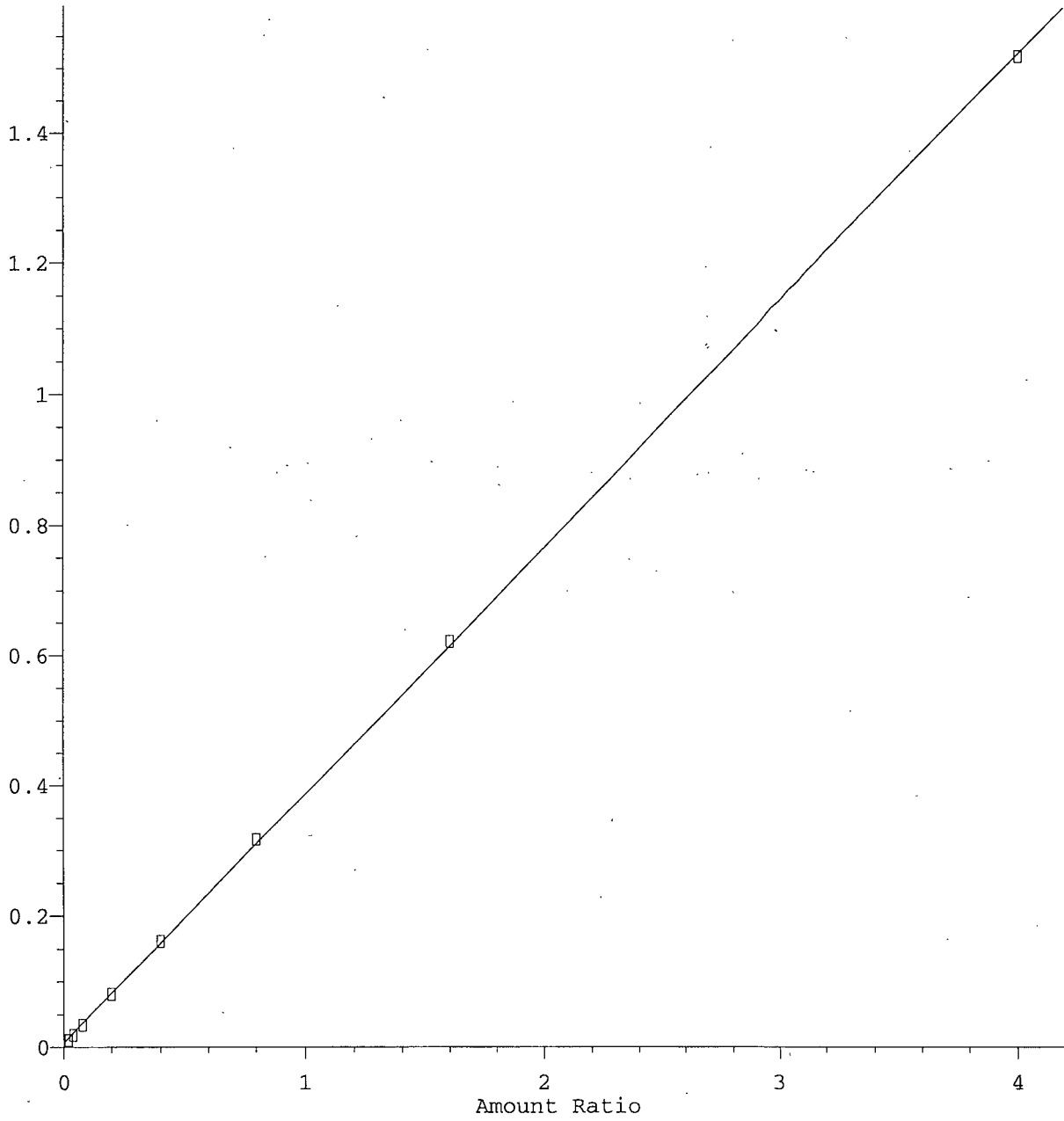


Resp Ratio = 1.02e-001 \* Amt + 3.45e-003  
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

2,2-Dichloropropane

Response Ratio

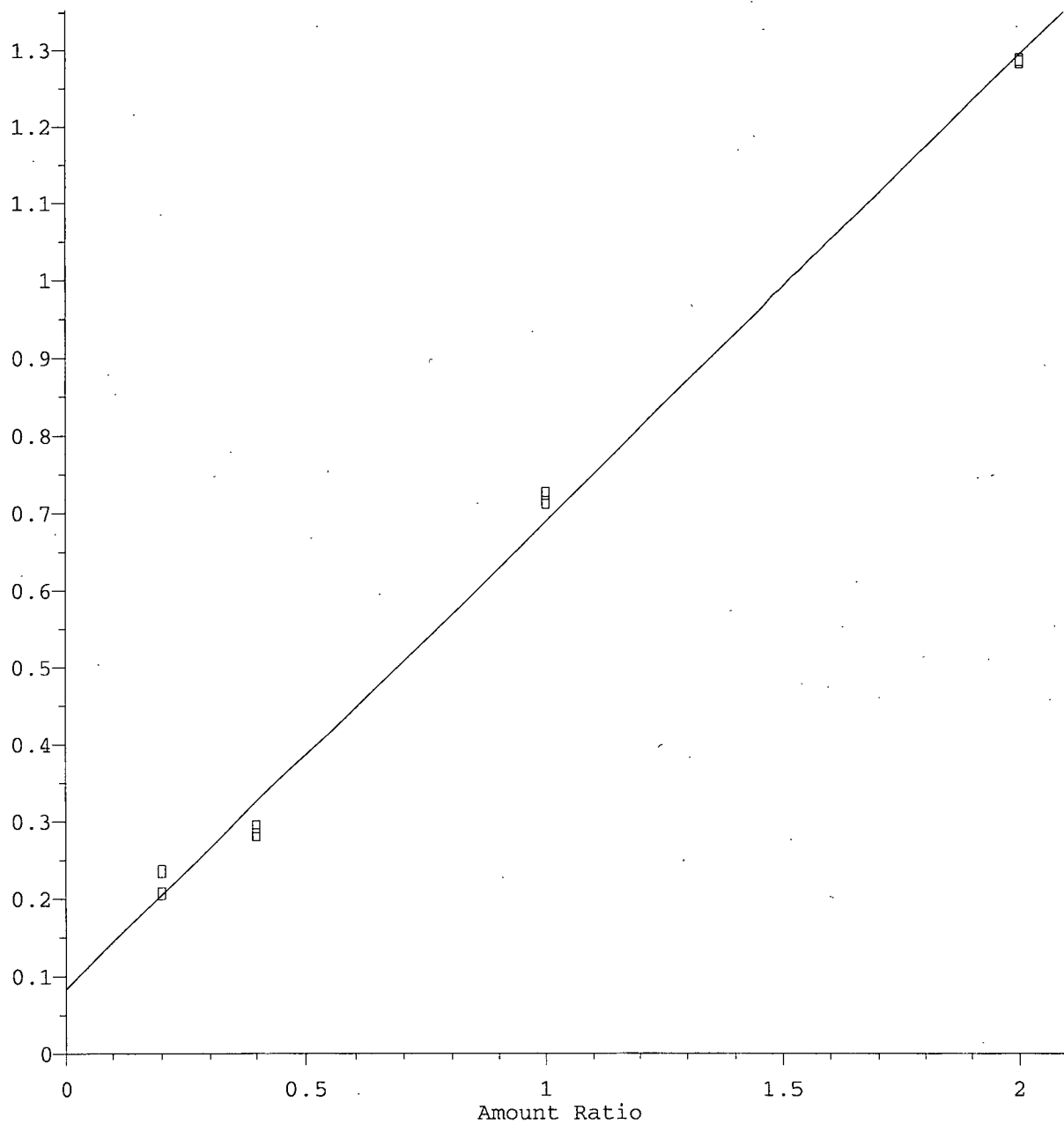


Resp Ratio = 3.80e-001 \* Amt + 6.91e-003  
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

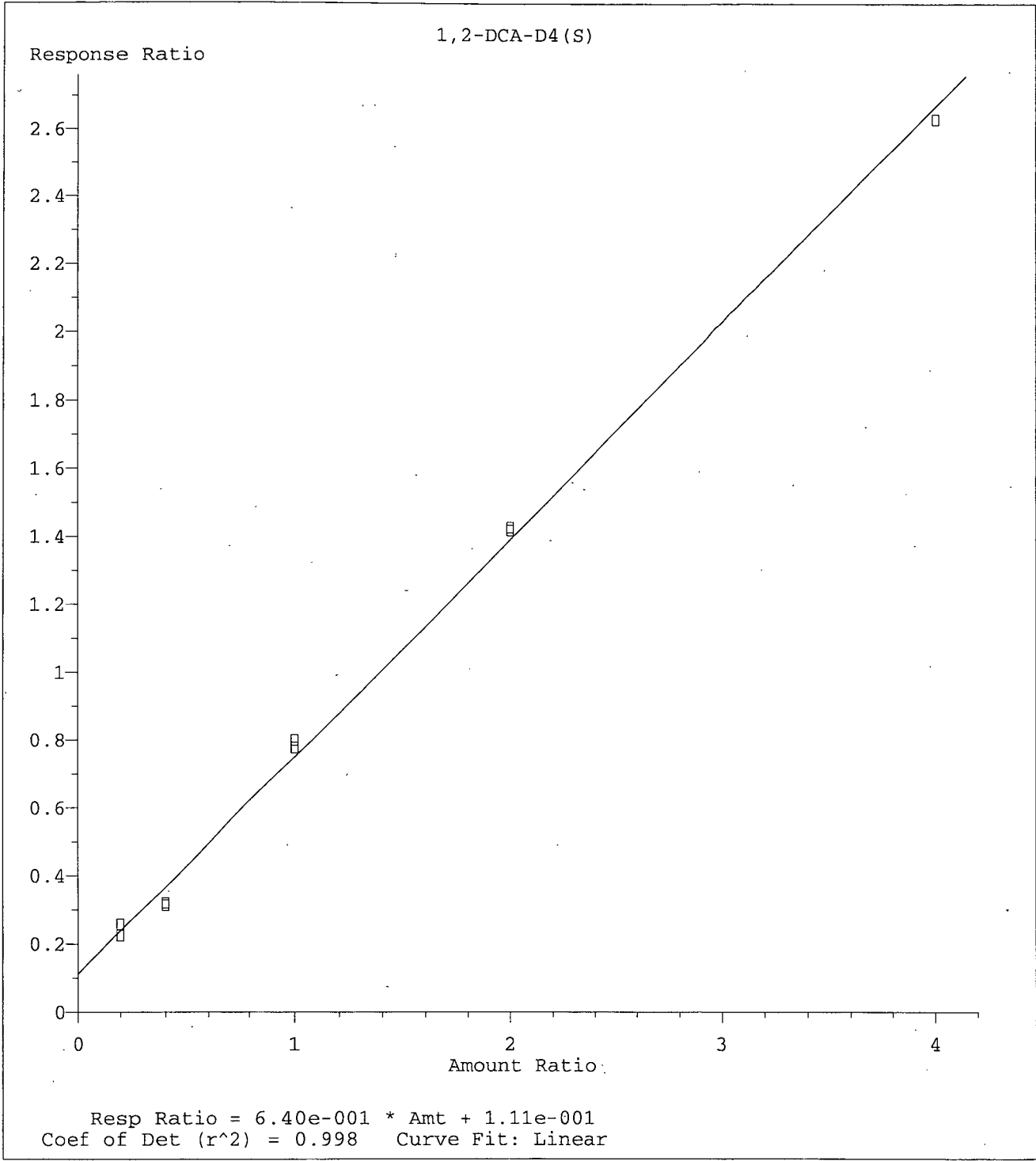
Dibromofluoromethane (S)

Response Ratio



Resp Ratio = 6.07e-001 \* Amt + 8.28e-002  
Coef of Det (r^2) = 0.996 Curve Fit: Linear

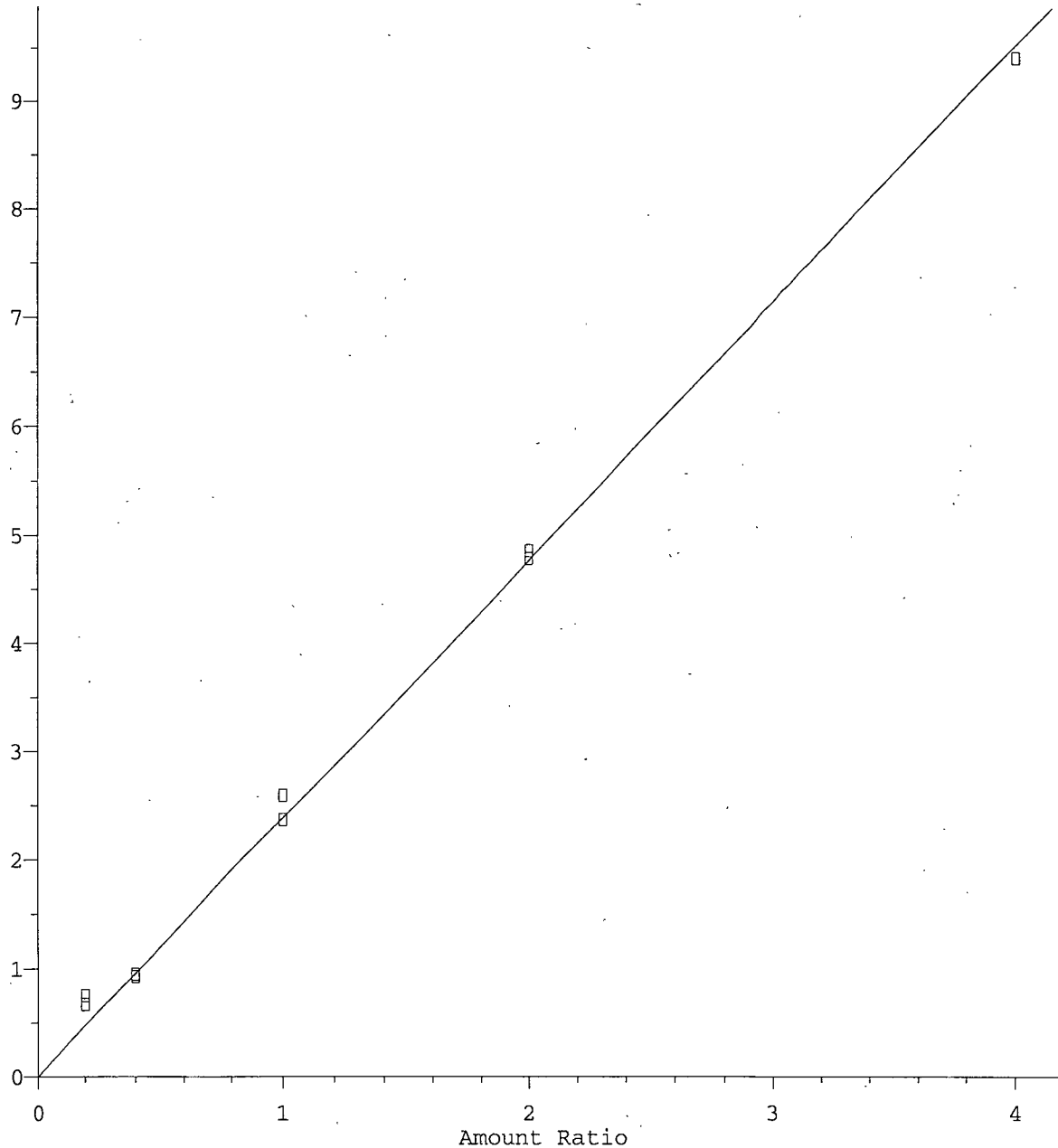
Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018



Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

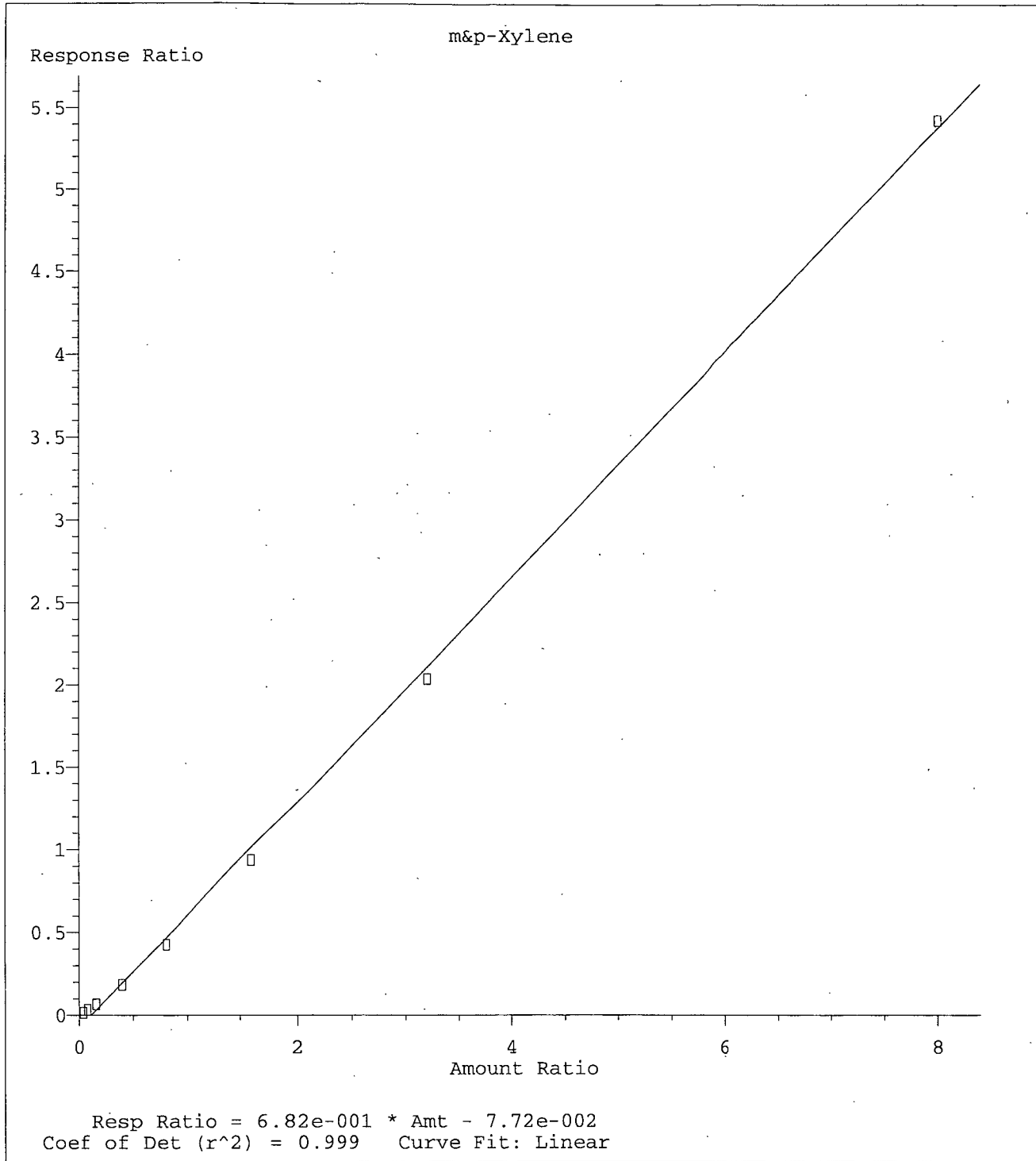
Toluene-D8(S)

Response Ratio



Resp Ratio = 2.39e+000 \* Amt  
Coef of Det (r<sup>2</sup>) = 0.999 Curve Fit: Linear/(0,0)

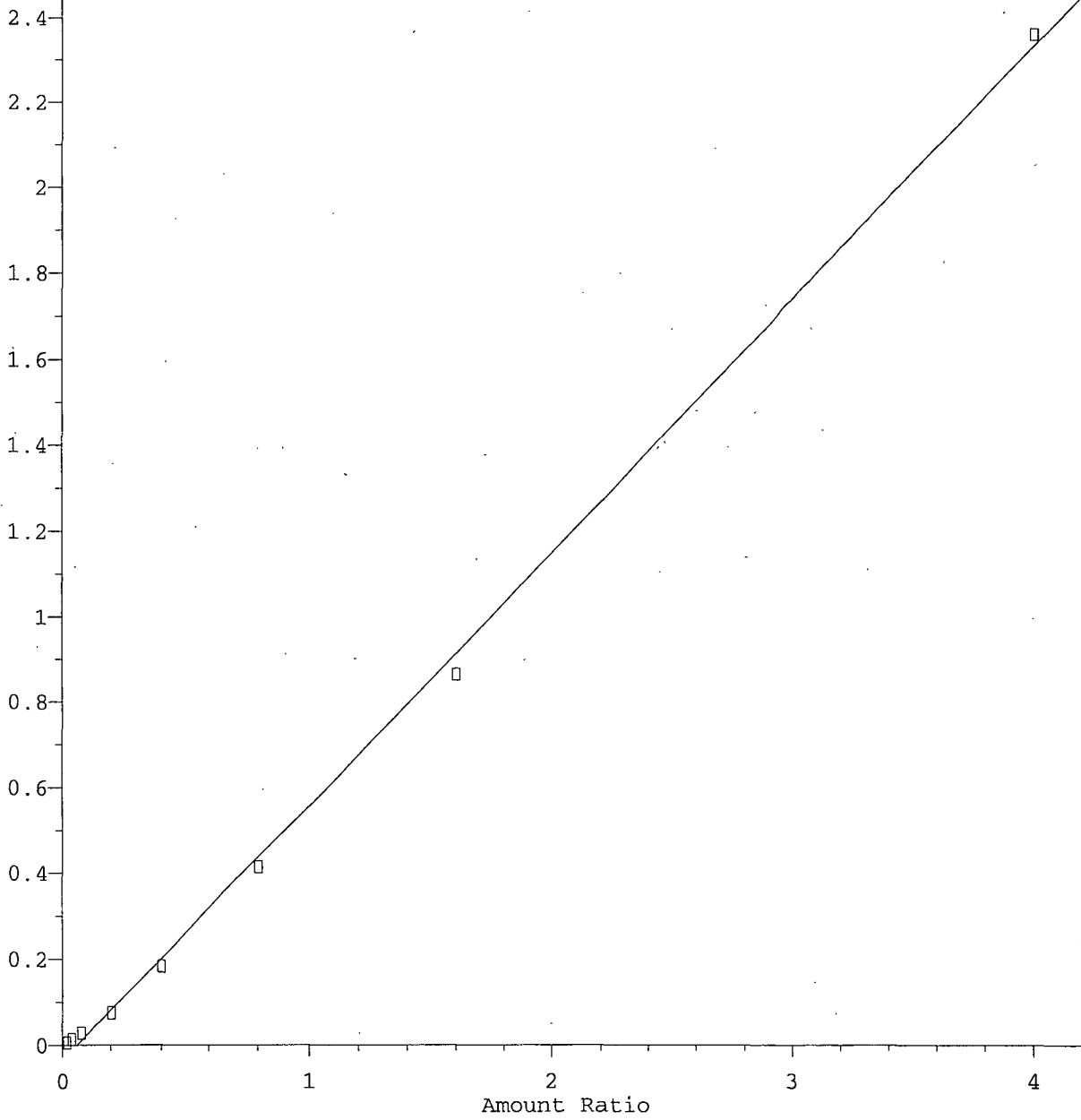
Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018



Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

Styrene

Response Ratio

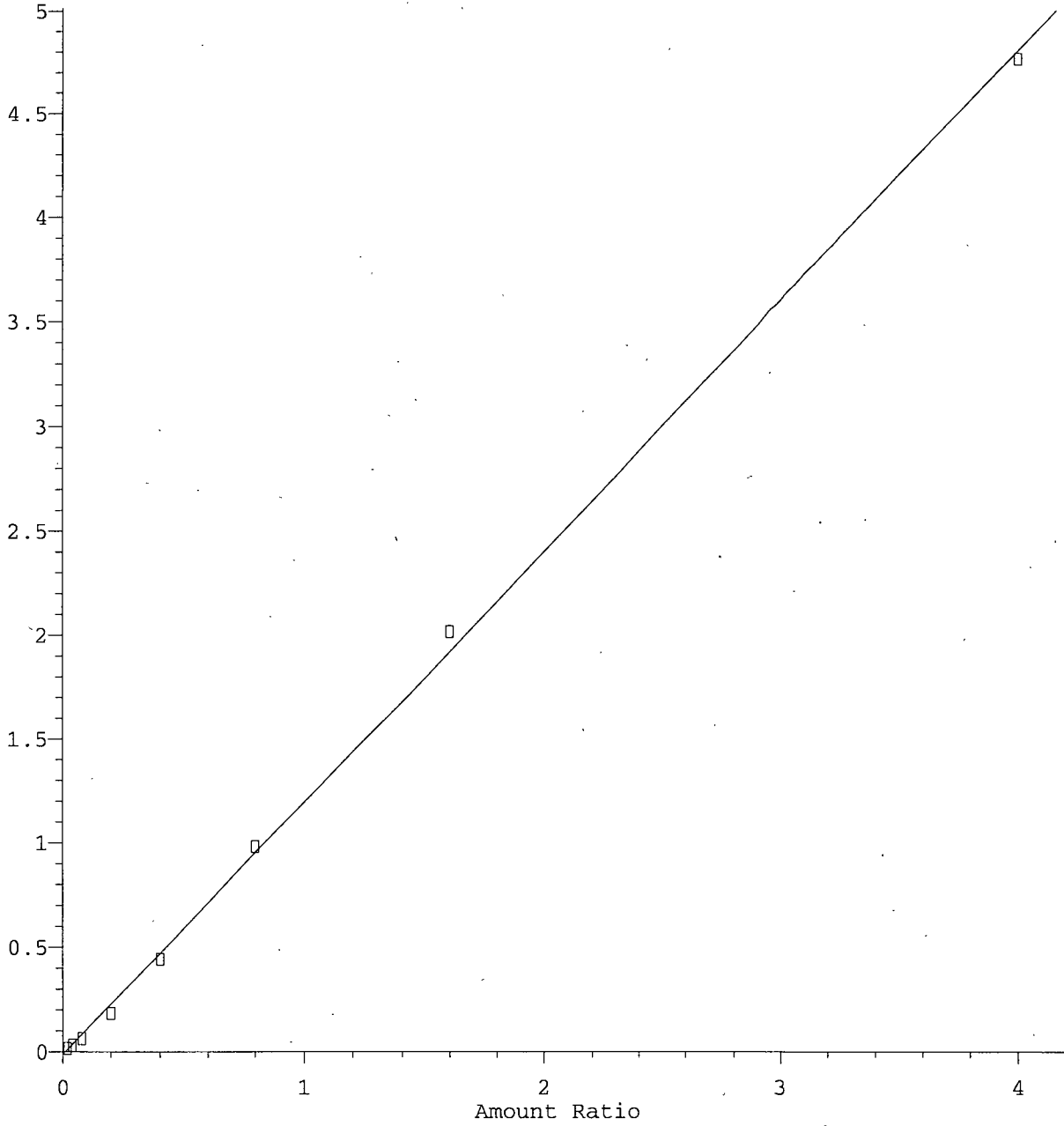


Resp Ratio =  $5.94e-001 * Amt - 3.64e-002$   
Coef of Det ( $r^2$ ) = 0.999 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

1,3,5-Trimethylbenzene

Response Ratio



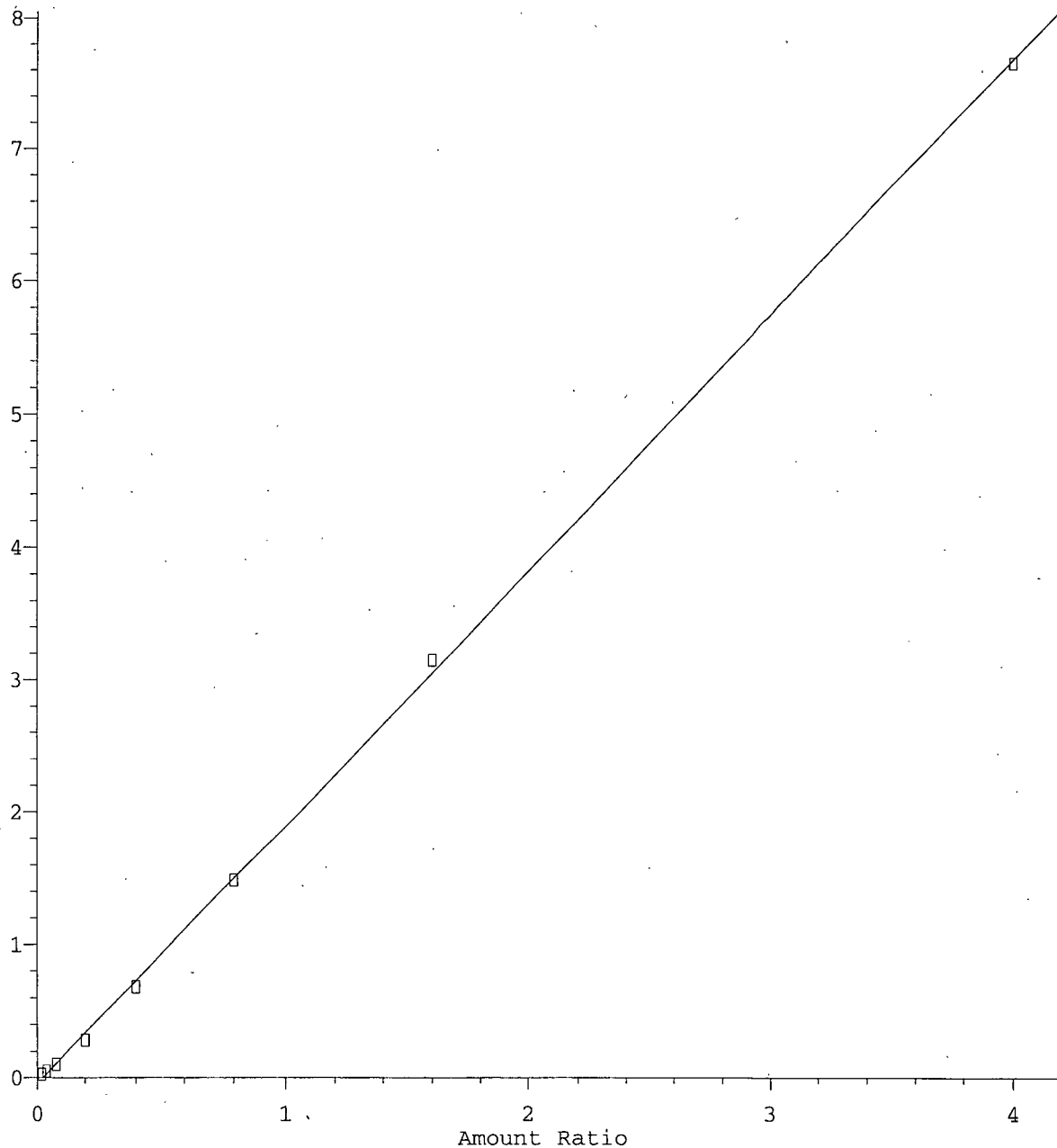
Resp Ratio = 1.21e+000 \* Amt - 1.37e-002  
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018



1,2,4-Trimethylbenzene

Response Ratio

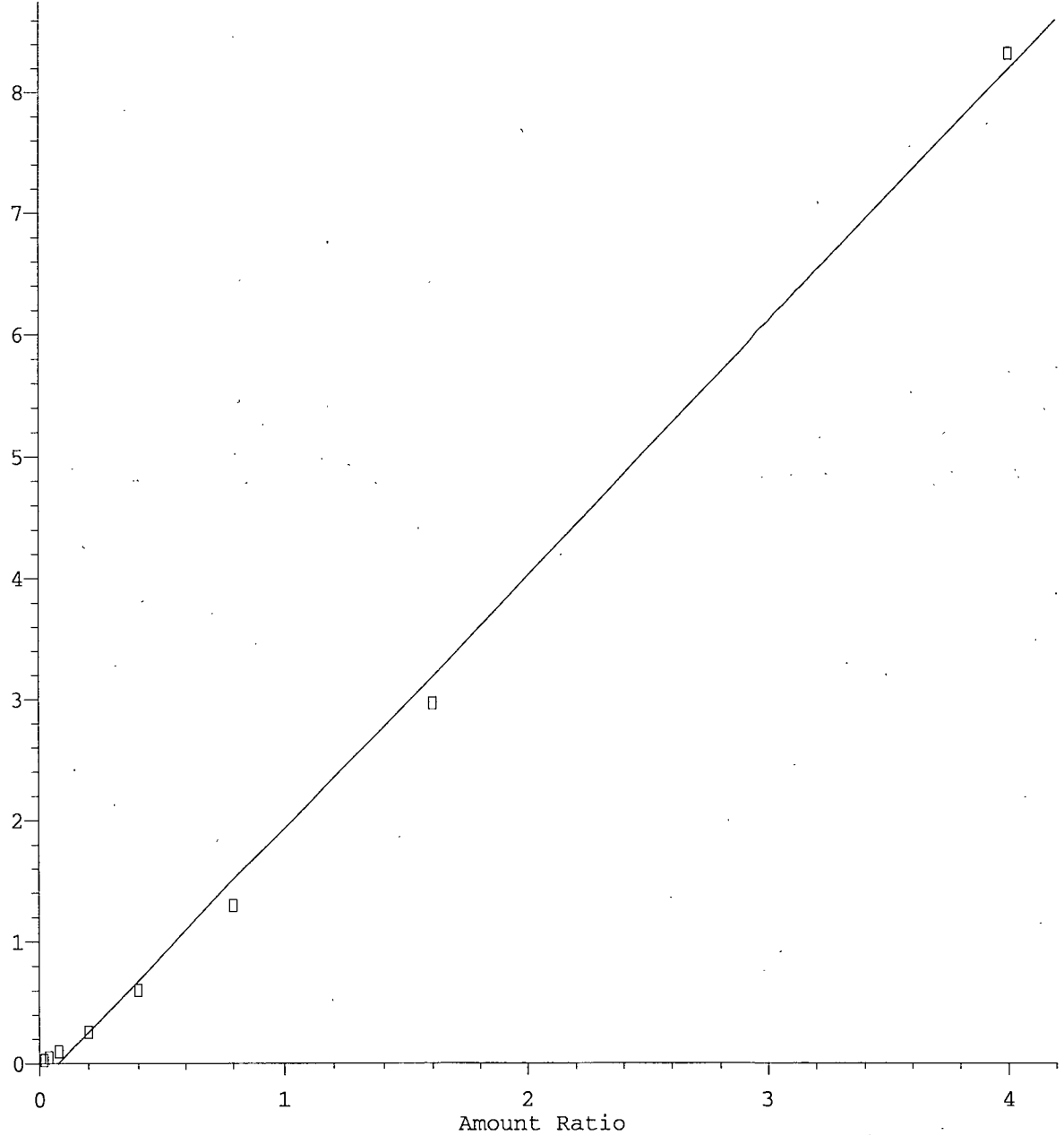


Resp Ratio = 1.94e+000 \* Amt - 4.81e-002  
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

Naphthalene

Response Ratio



Resp Ratio = 2.09e+000 \* Amt - 1.64e-001  
Coef of Det (r^2) = 0.997 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

**Form 6**  
**Initial Calibration**

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/29/18  
Instrument: Loki

Initials: \_\_\_\_\_

1029L06.D    1029L07.D    1029L08.D    1029L09.D    1029L10.D    1029L11.D    1029L12.D

	Compound	1	2	3	4	5	6	7			Avg	%RSD	Type	r <sup>2</sup>	Q	MRF
1	I Fluorobenzene (IS)															
2	TMHBL Gasoline C6-C10	13.6	5.820	3.119	1.266	0.8131	0.6987	0.6450			3.7	128	TMHBL	0.999		
3	I Chlorobenzene-D5 (IS)															
4	I 1,4-Dichlorobenzene-D (IS)															
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
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Data File : M:\LOKI\DATA\181026\1029L06.D Vial: 1  
 Acq On : 29 Oct 18 11:16 Operator: PM,DG,SV,CMM,KV  
 Sample : 20ug/L GAS STD 10/29/18 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 50.00

Quant Time: Oct 30 6:54 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 06:41:57 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	914501	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1251501	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1190902	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	9958266m	23.2218	ppb	100

Quantitation Report

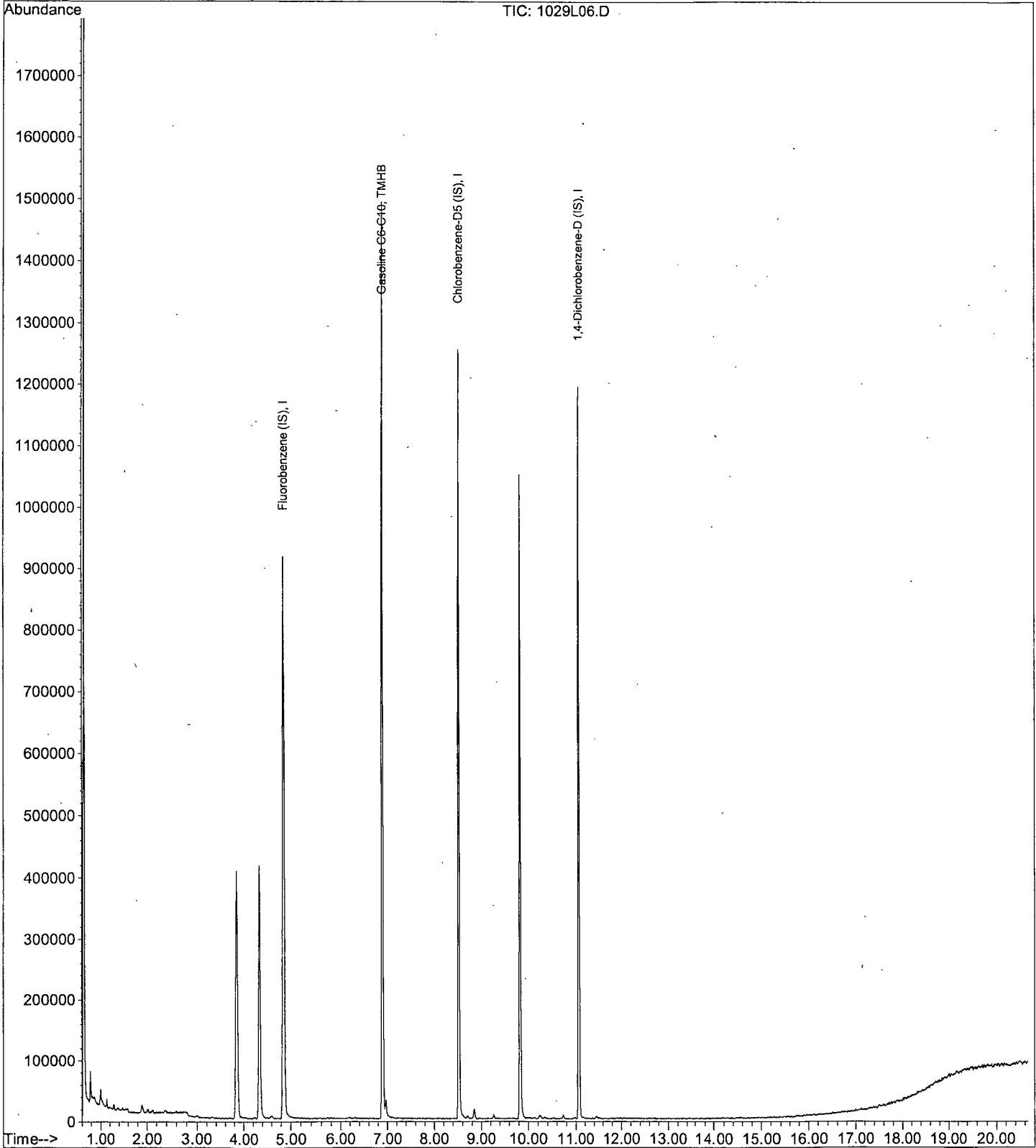
Data File : M:\LOKI\DATA\181026\1029L06.D  
Acq On : 29 Oct 18 11:16  
Sample : 20ug/L GAS STD 10/29/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 1  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 50.00

Quant Time: Oct 30 6:54 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L07.D Vial: 2  
 Acq On : 29 Oct 18 11:45 Operator: PM,DG,SV,CMM,KV  
 Sample : 50ug/L GAS STD 10/29/18 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 6:57 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 06:41:57 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	949396	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1244787	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1142138	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	11050558m	53.6272	ppb	100

Quantitation Report

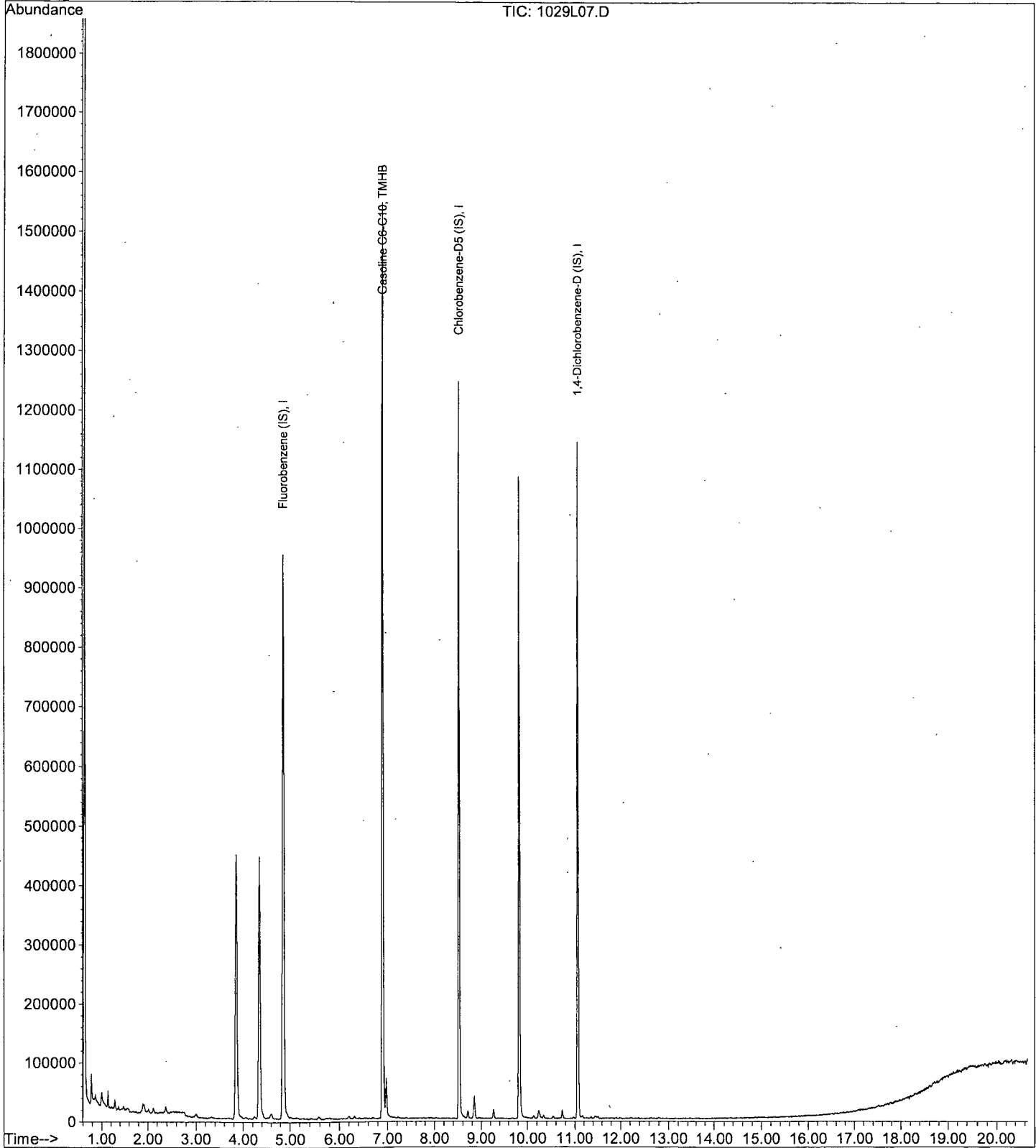
Data File : M:\LOKI\DATA\181026\1029L07.D  
Acq On : 29 Oct 18 11:45  
Sample : 50ug/L GAS STD 10/29/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 2  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 6:57 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L08.D Vial: 3  
 Acq On : 29 Oct 18 12:13 Operator: PM,DG,SV,CMM,KV  
 Sample : 100ug/L GAS STD 10/29/18 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 6:58 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 06:41:57 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	955627	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1266285	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1303457	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	11923729m	112.9931	ppb	100



Quantitation Report

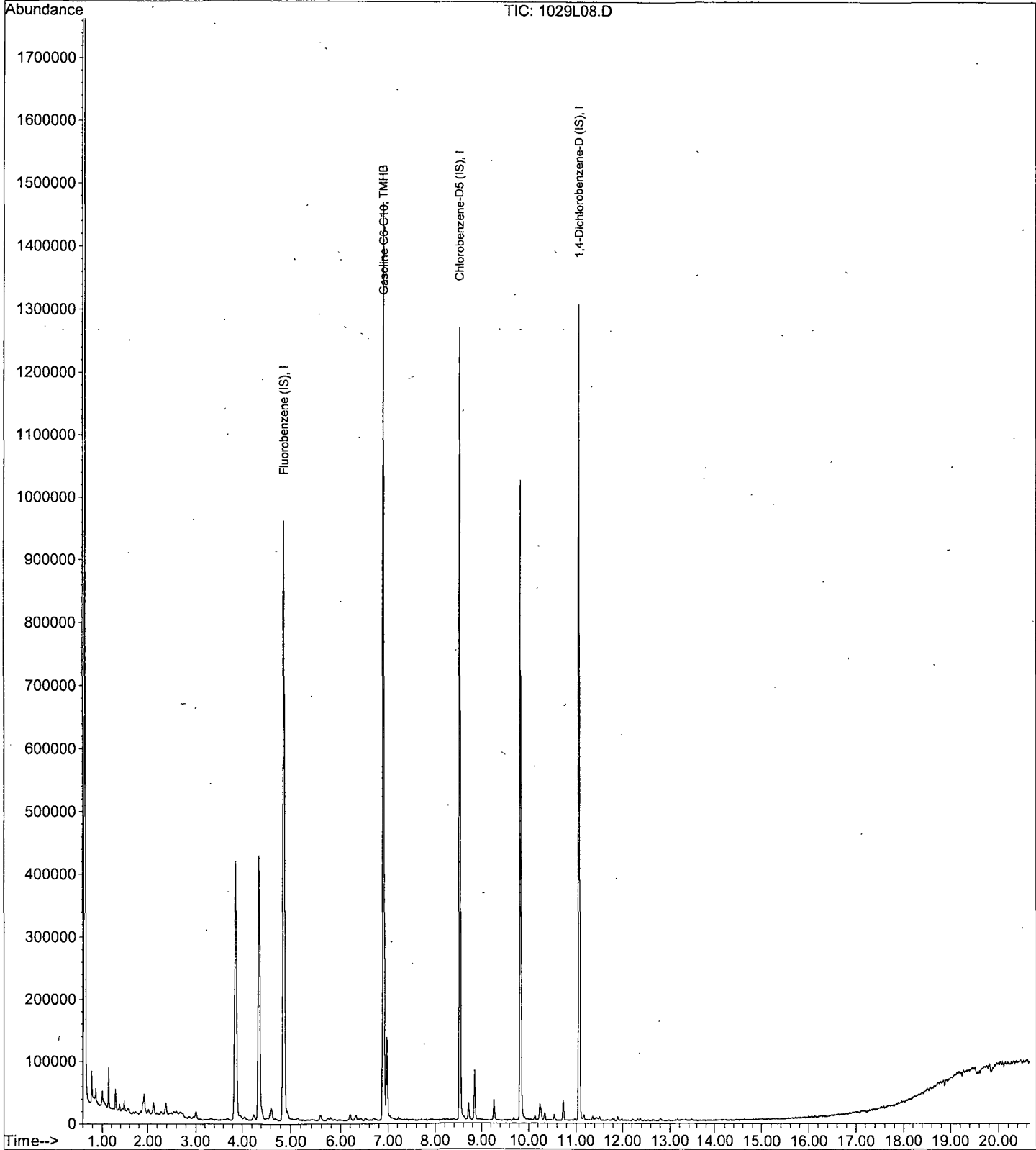
Data File : M:\LOKI\DATA\181026\1029L08.D  
Acq On : 29 Oct 18 12:13  
Sample : 100ug/L GAS STD 10/29/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 3  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 6:58 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L09.D  
Acq On : 29 Oct 18 12:42  
Sample : 300ug/L GAS STD 10/29/18  
Misc : IS&S 9/28/18, 8/23/18

Vial: 4  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 6:59 2018

Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 06:41:57 2018  
Response via : Initial Calibration  
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	973491	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1314393	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1338683	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	14791231m	305.4859	ppb	100

Quantitation Report

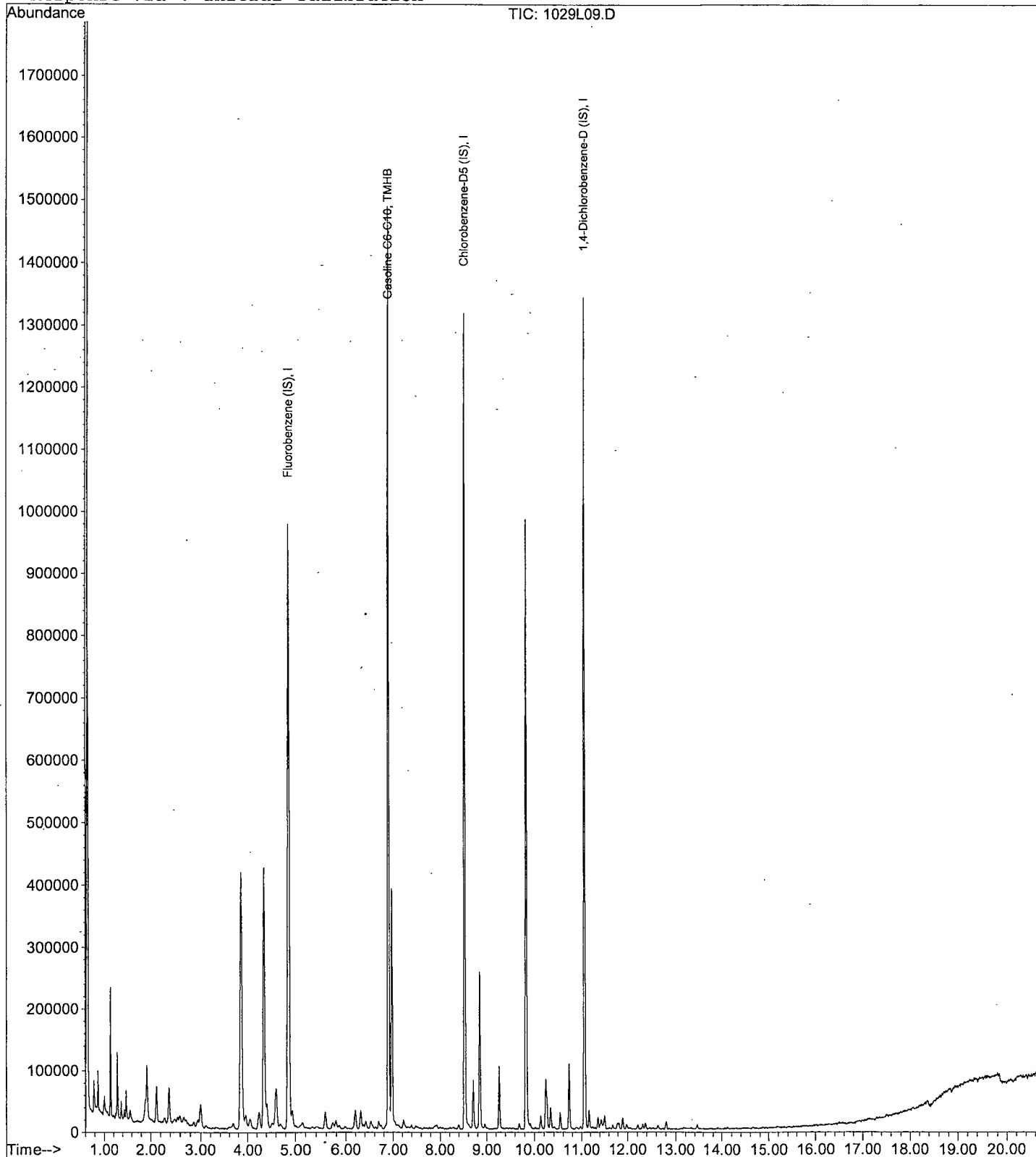
Data File : M:\LOKI\DATA\181026\1029L09.D  
Acq On : 29 Oct 18 12:42  
Sample : 300ug/L GAS STD 10/29/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 4  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 6:59 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L10.D Vial: 5  
 Acq On : 29 Oct 18 13:10 Operator: PM, DG, SV, CMM, KV  
 Sample : 600ug/L GAS STD 10/29/18 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:00 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 06:41:57 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	984070	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1268164	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1403205	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	19202778m	611.5632	ppb	100

Quantitation Report

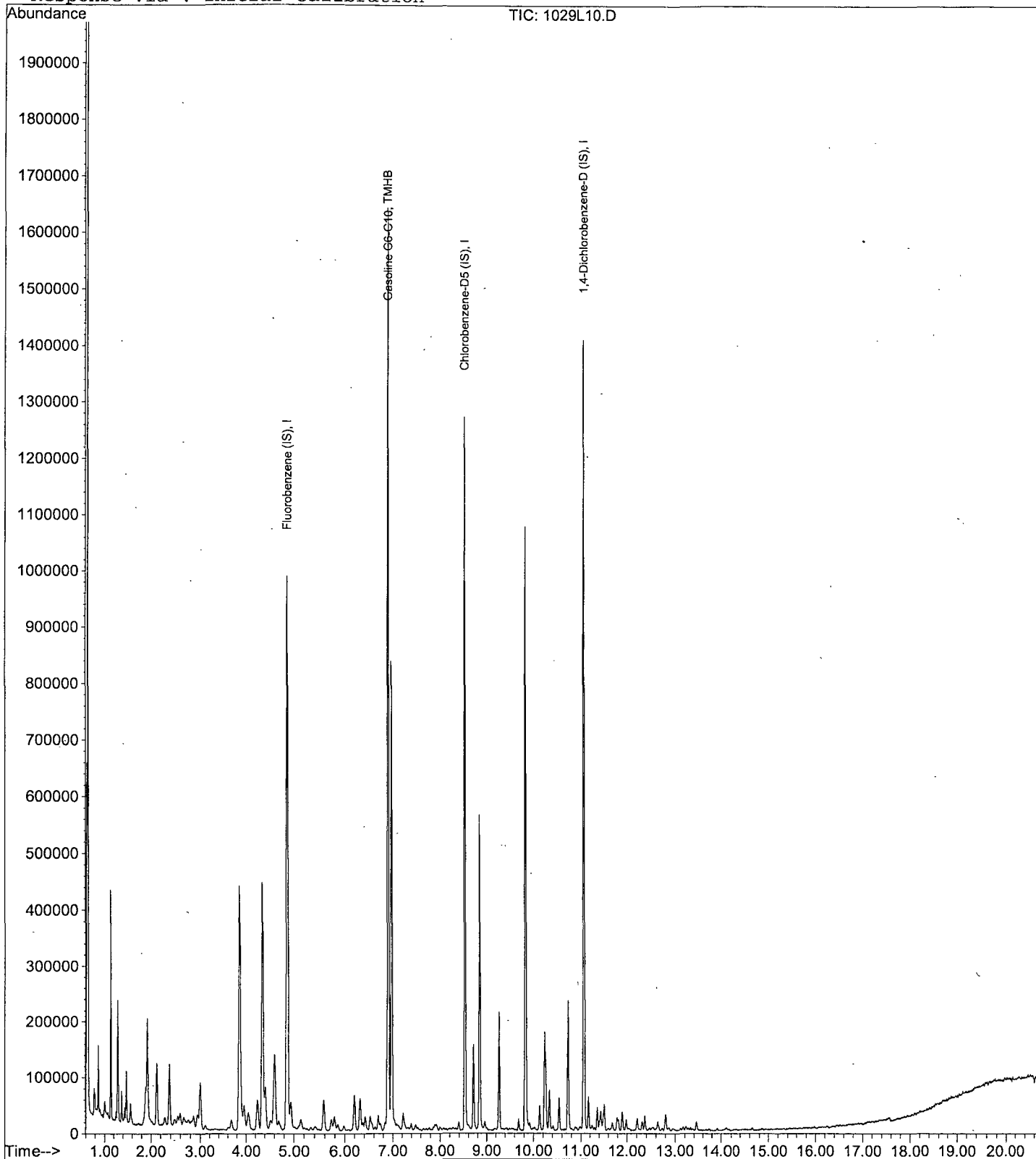
Data File : M:\LOKI\DATA\181026\1029L10.D  
Acq On : 29 Oct 18 13:10  
Sample : 600ug/L GAS STD 10/29/18  
Misc : IS&S 9/28/18, 8/23/18

Vial: 5  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:00 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L11.D Vial: 6  
 Acq On : 29 Oct 18 13:39 Operator: PM, DG, SV, CMM, KV  
 Sample : 800ug/L GAS STD 10/29/18 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:01 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 06:41:57 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	1011270	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1305553	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1333848	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	22611900m	813.2429	ppb	100

Quantitation Report

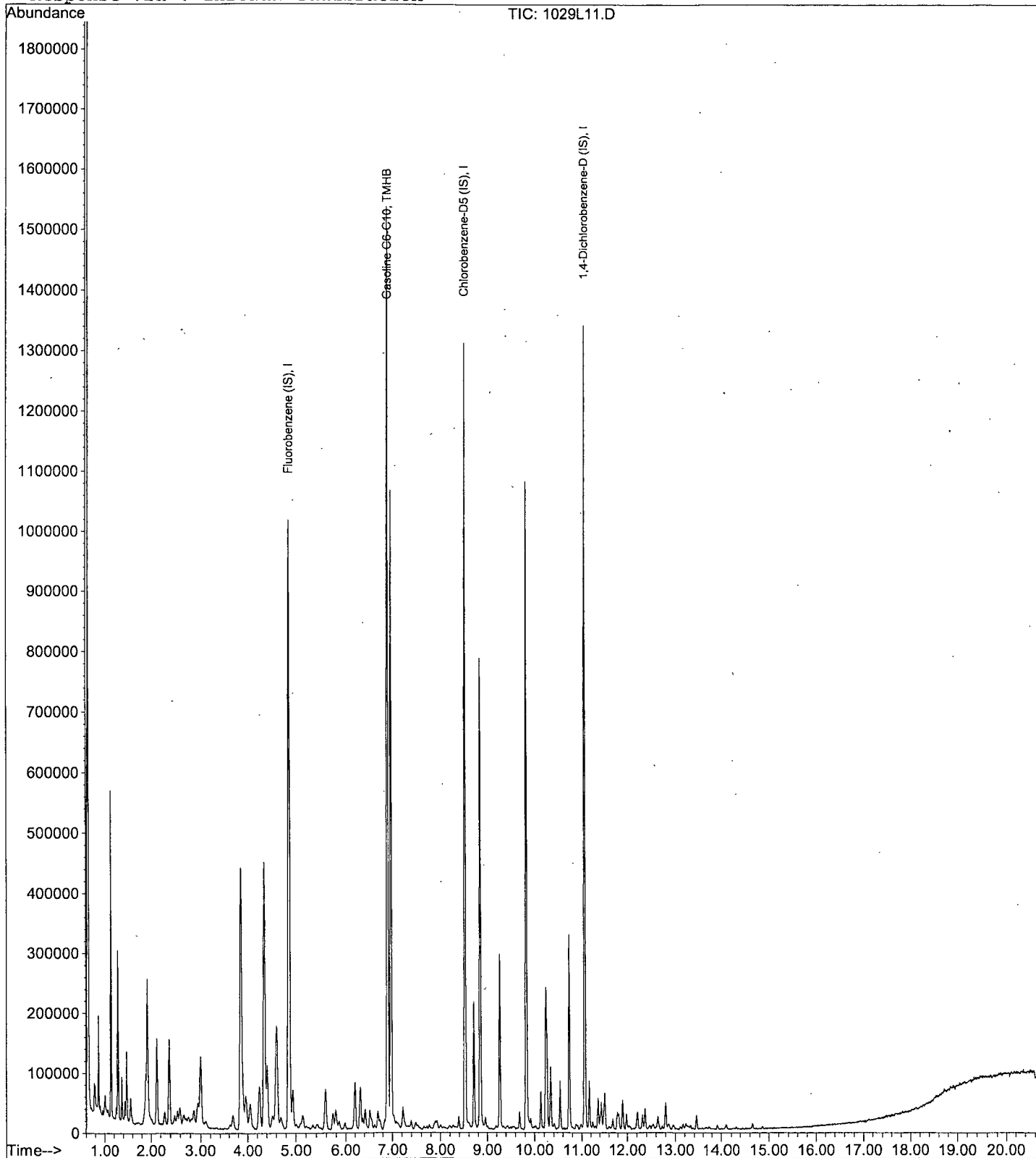
Data File : M:\LOKI\DATA\181026\1029L11.D  
Acq On : 29 Oct 18 13:39  
Sample : 800ug/L GAS STD 10/29/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 6  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:01 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L12.D Vial: 7  
 Acq On : 29 Oct 18 14:07 Operator: PM,DG,SV,CMM,KV  
 Sample : 1000ug/L GAS STD 10/29/18 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:02 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 06:41:57 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	958810	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1255164	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1358704	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	24738349m	1057.0770	ppb	100



Quantitation Report

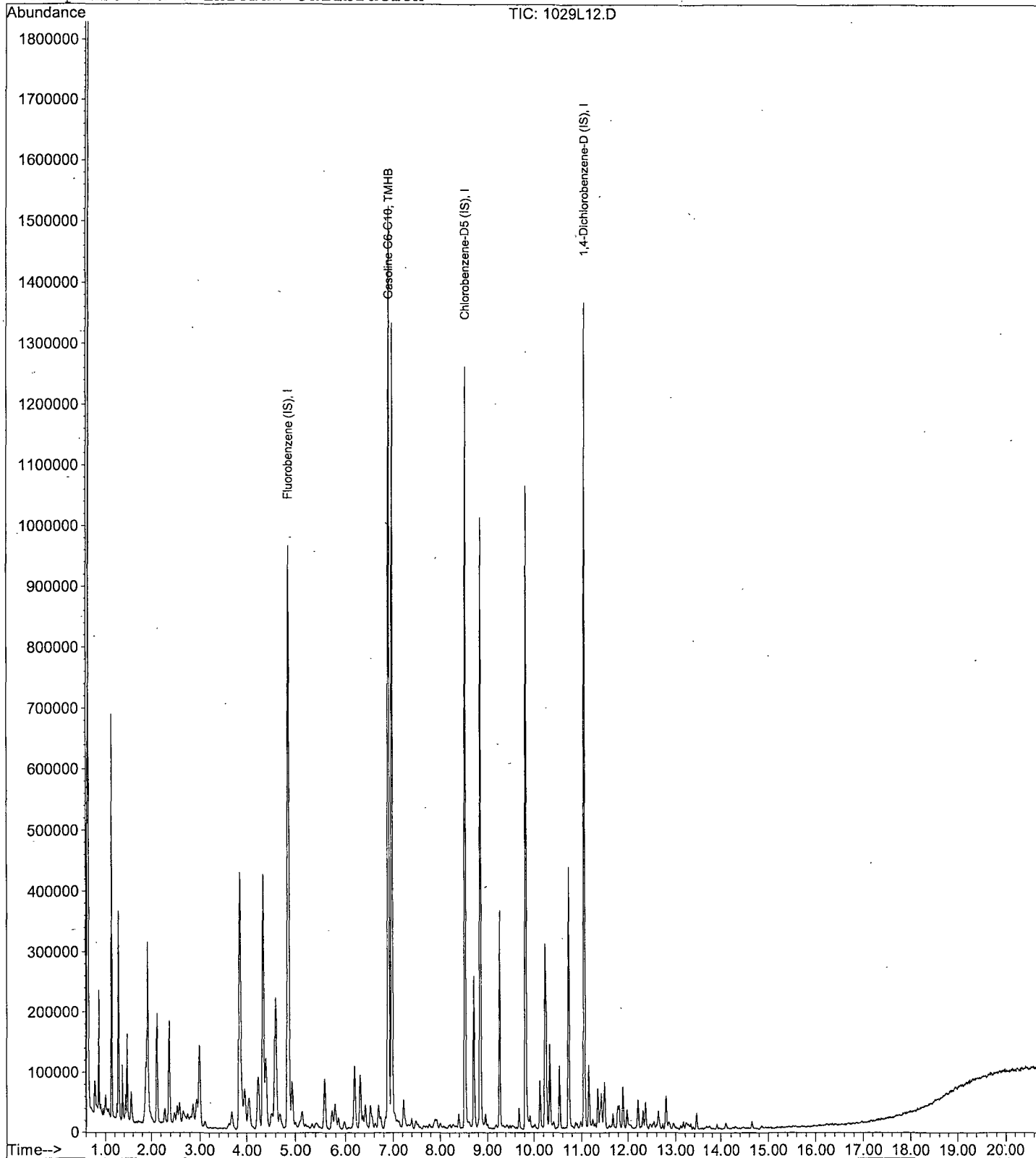
Data File : M:\LOKI\DATA\181026\1029L12.D  
Acq On : 29 Oct 18 14:07  
Sample : 1000ug/L GAS STD 10/29/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 7  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:02 2018

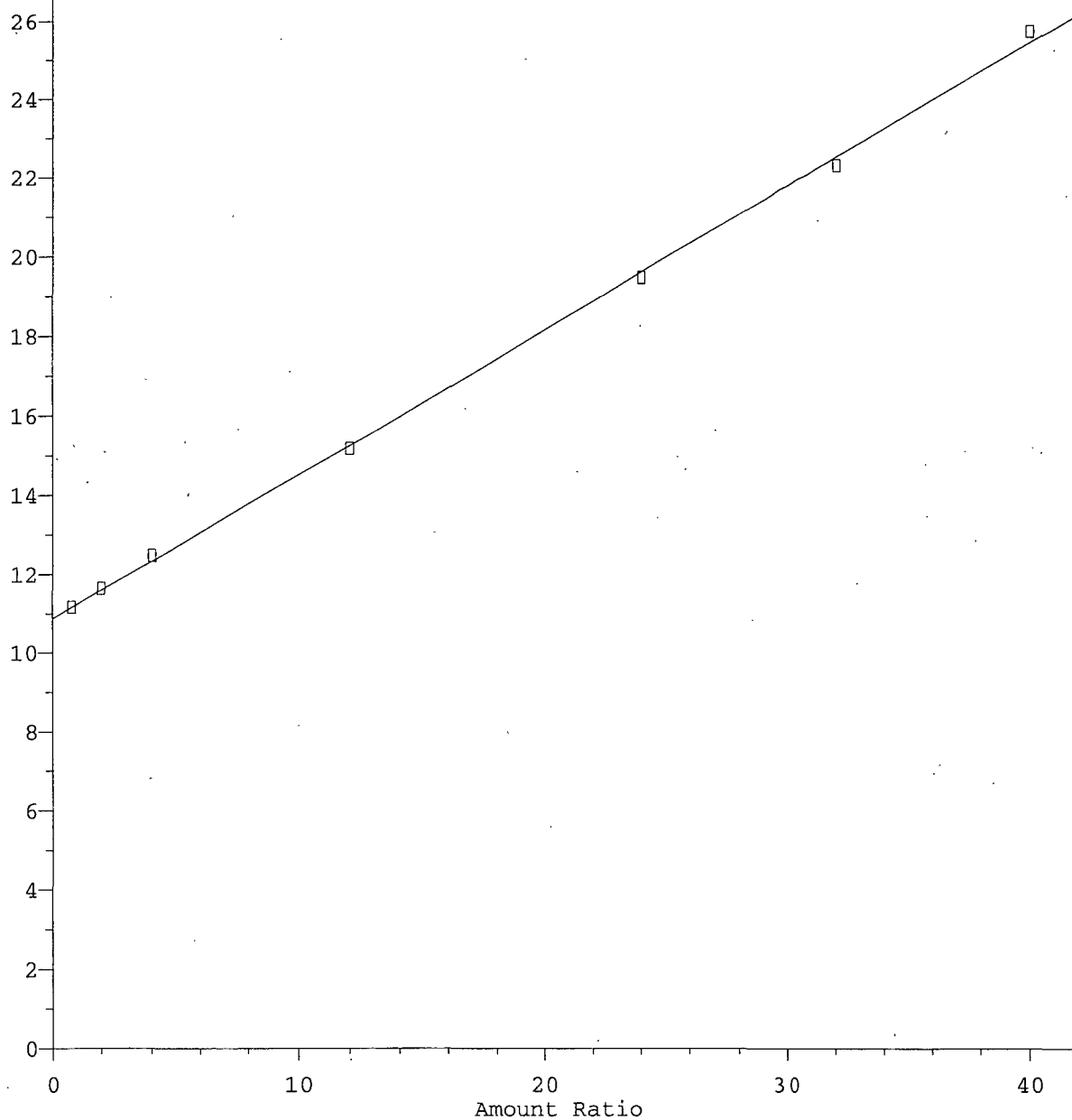
Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Gasoline C6-C10

Response Ratio



Resp Ratio = 3.66e-001 \* Amt + 1.09e+001  
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: M:\LOKI\DATA\180915\LGAS1029.M  
Calibration Table Last Updated: Tue Oct 30 07:46:13 2018

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/29/18  
Instrument: Loki  
Initial Cal. Date: 10/29/18  
Data File: 1029L17.D

	Compound	MEAN	CCRF	%D	%Drift
1	TMHB Gasoline C6-C10	3.760	1.304	65	TMHBL 8.6
2					
3					
4					
5					
6					
7					
8					
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25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40	Average			65.0	

Data File : M:\LOKI\DATA\181026\1029L17.D Vial: 12  
 Acq On : 29 Oct 18 16:29 Operator: PM,DG,SV,CMM,KV  
 Sample : (SS)300ug/L GAS STD 10/29/18 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:47 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:46:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	978885	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1336205	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1313561	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	15313535m	325.6686	ppb	100

Quantitation Report

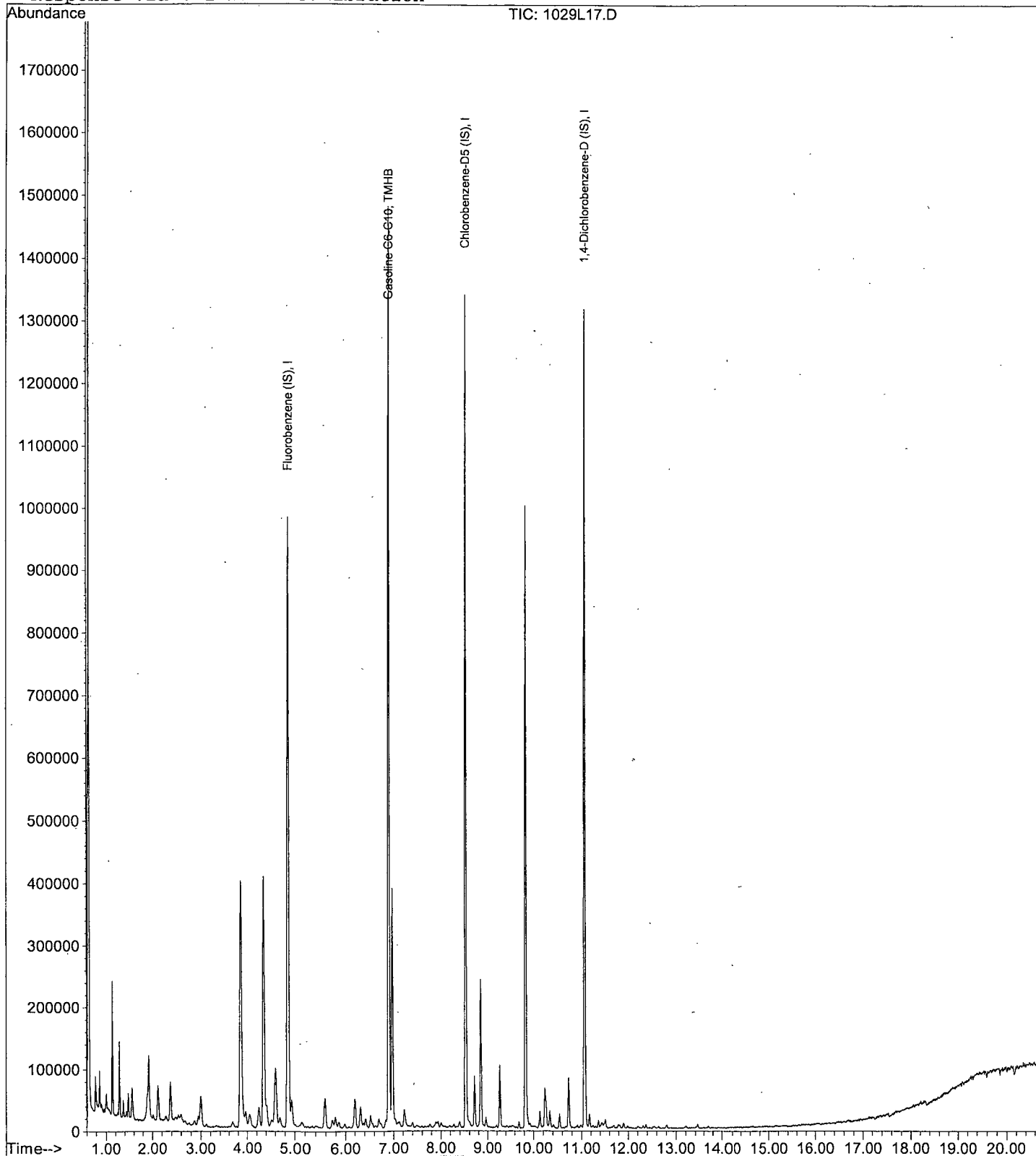
Data File : M:\LOKI\DATA\181026\1029L17.D  
Acq On : 29 Oct 18 16:29  
Sample : (SS)300ug/L GAS STD 10/29/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 12  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:47 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:46:13 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/30/18

Matrix: \_\_\_\_\_

Instrument: Loki

Initial Cal. Date: 10/29/18

Data File: 1029L37.D

		Compound	MEAN	CCRF	%D		%Drift
1		Fluorobenzene (IS)	ISTD				
2	TMHB	Gasoline C6-C10	3.760	1.293	66	TMHBL	5.6
3		Chlorobenzene-D5 (IS)	ISTD				
4		1,4-Dichlorobenzene-D (IS)	ISTD				
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
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27							
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29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							

Average

66.0

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Loki  
Initial Cal. Date: 10/26/18  
Data File: 1029L37.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	SL	Dibromofluoromethane(S)	0.7974	0.7776	2.5	SL	14
3	SL	1,2-DCA-D4(S)	0.8500	0.8722	2.6	SL	19
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	SL	Toluene-D8(S)	2.655	2.449	7.8	SL	2.7
6	S	4-Bromofluorobenzene(S)	0.8129	0.7966	2.0	S	
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
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31							
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33							
34							
35							
36							
37							
38							
39							
40							

Average

3.7

Data File : M:\LOKI\DATA\181026\1029L37.D Vial: 32  
 Acq On : 30 Oct 18 1:58 Operator: PM,DG,SV,CMM,KV  
 Sample : Ending CCV 8260 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:52 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:46:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	868220	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1171437	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1148058	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	13470233m	316.8553	ppb	100



Data File : M:\LOKI\DATA\181026\1029L37.D Vial: 32  
 Acq On : 30 Oct 18 1:58 Operator: PM,DG,SV,CMM,KV  
 Sample : Ending CCV 8260 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 9:14 2018 Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	417600	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	406080	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	202048	25.0000	ppb	0.00
<b>System Monitoring Compounds</b>						
2) Dibromofluoromethane(S)	3.85	111	324722	28.6039	ppb	0.00
Spiked Amount	25.000					
					Recovery = 114.416%	
3) 1,2-DCA-D4(S)	4.35	65	364220	29.7322	ppb	0.00
Spiked Amount	25.000					
					Recovery = 118.928%	
5) Toluene-D8(S)	6.90	98	994582	25.6680	ppb	0.00
Spiked Amount	25.000					
					Recovery = 102.672%	
6) 4-Bromofluorobenzene(S)	9.83	95	323472	24.4985	ppb	0.00
Spiked Amount	25.000					
					Recovery = 97.996%	

Target Compounds Qvalue

Quantitation Report

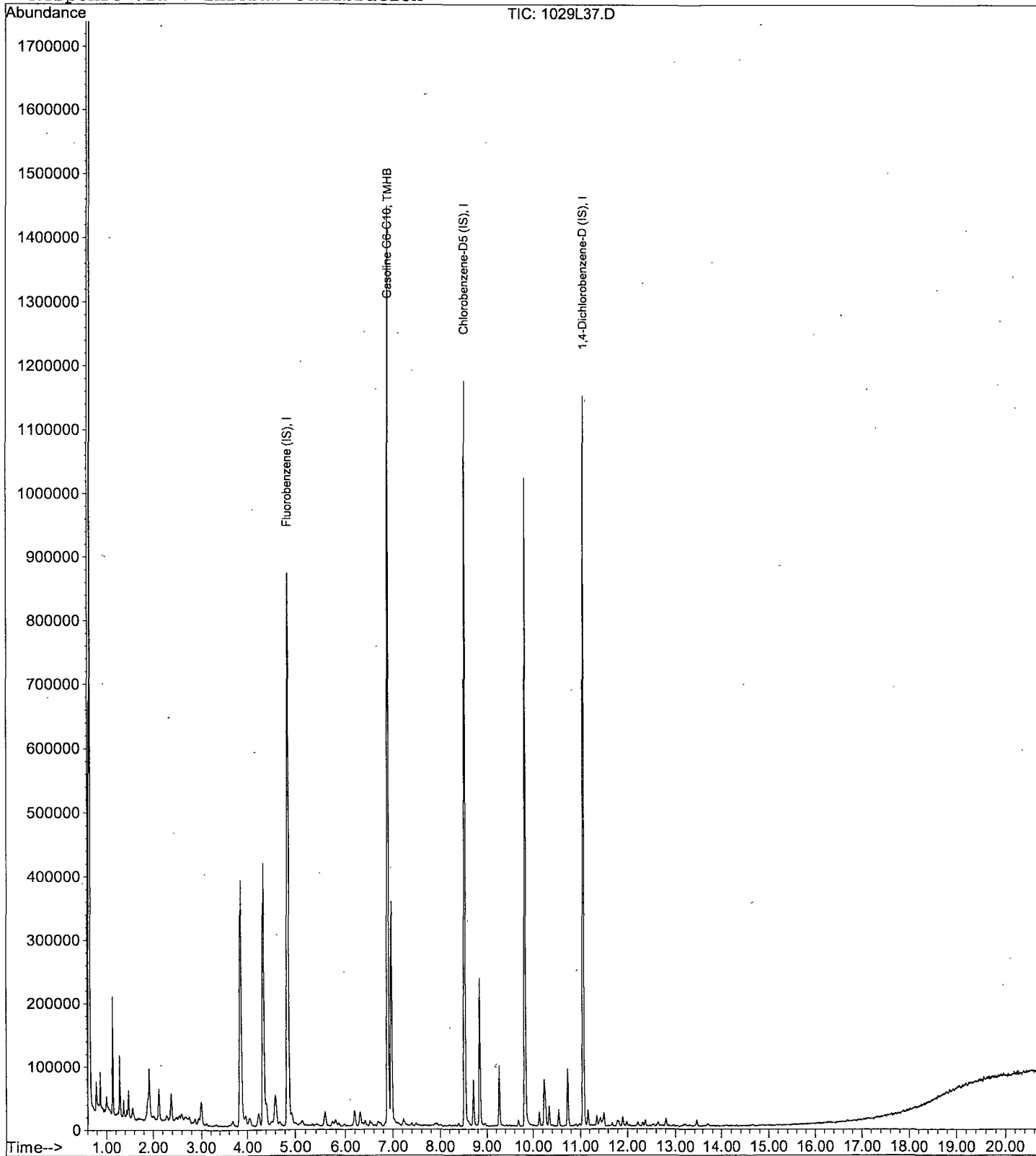
Data File : M:\LOKI\DATA\181026\1029L37.D  
Acq On : 30 Oct 18 1:58  
Sample : Ending CCV 8260 300ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 32  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:52 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:46:13 2018  
Response via : Initial Calibration



# **ORGANICS**

## **Raw Data**

**APPL, INC.**

Data File : M:\LOKI\DATA\181026\1029L27.D Vial: 22  
 Acq On : 29 Oct 18 21:14 Operator: PM, DG, SV, CMM, KV  
 Sample : AZ81673W02 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:19 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:05:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	872719	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1157997	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1061323	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181026\1029L27.D Vial: 22  
 Acq On : 29 Oct 18 21:14 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81673W02 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 9:14 2018 Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.86	96	416256	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	406592	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	190208	25.0000	ppb	0.00
<b>System Monitoring Compounds</b>						
2) Dibromofluoromethane(S)	3.86	111	329304	29.1605	ppb	0.00
Spiked Amount	25.000					
					Recovery = 116.640%	
3) 1,2-DCA-D4 (S)	4.35	65	375983	30.9466	ppb	0.00
Spiked Amount	25.000					
					Recovery = 123.788%	
5) Toluene-D8 (S)	6.90	98	971961	25.0526	ppb	0.00
Spiked Amount	25.000					
					Recovery = 100.212%	
6) 4-Bromofluorobenzene (S)	9.83	95	300464	22.7273	ppb	0.00
Spiked Amount	25.000					
					Recovery = 90.908%	

Target Compounds Qvalue

Quantitation Report

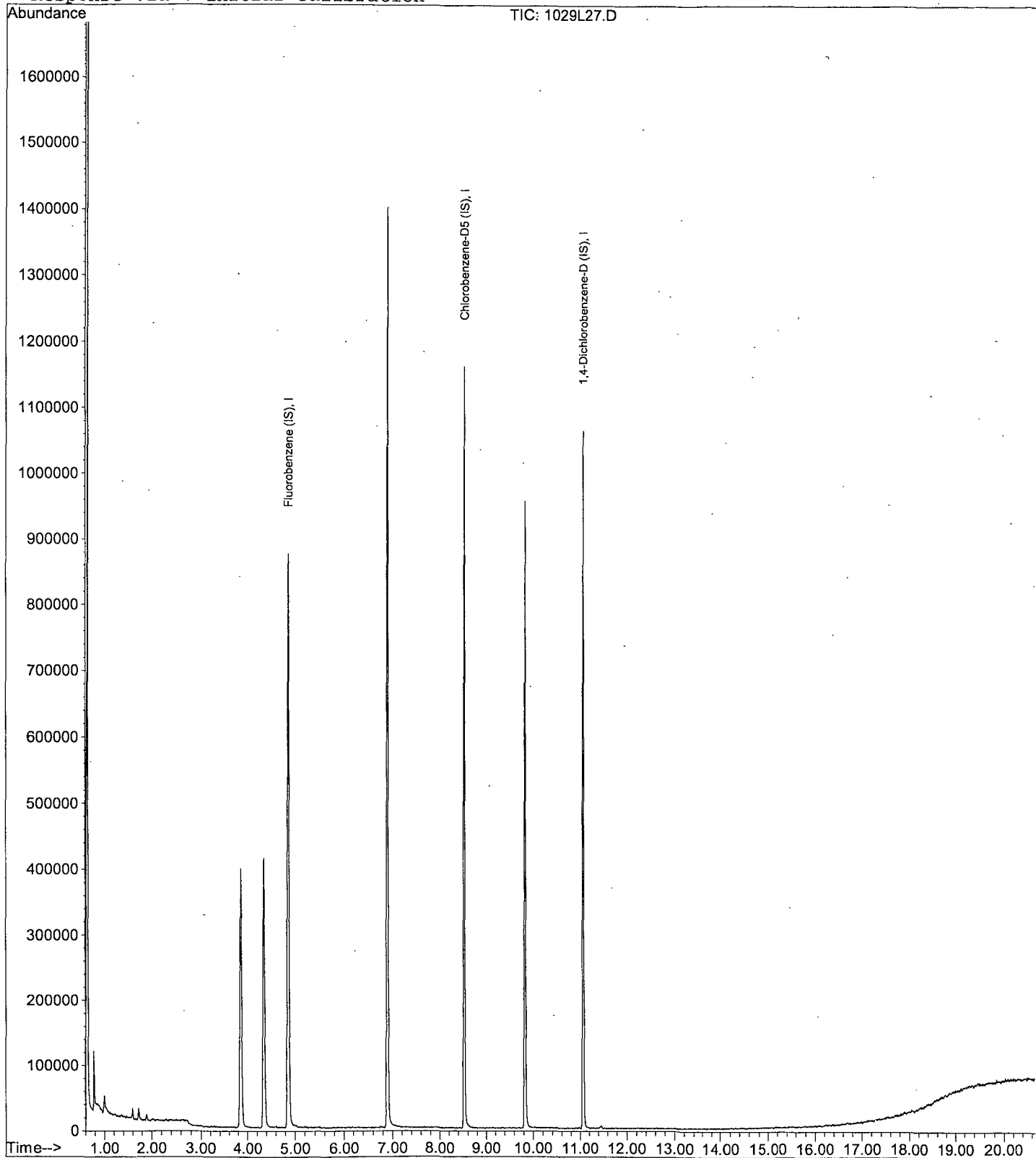
Data File : M:\LOKI\DATA\181026\1029L27.D  
Acq On : 29 Oct 18 21:14  
Sample : AZ81673W02  
Misc : IS&S 9/28/18,8/23/18

Vial: 22  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:19 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L26.D Vial: 21  
 Acq On : 29 Oct 18 20:45 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81674W02 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:19 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:05:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	809138	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1128040	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1060657	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181026\1029L26.D  
 Acq On : 29 Oct 18 20:45  
 Sample : AZ81674W02  
 Misc : IS&S 9/28/18,8/23/18  
 MS Integration Params: LSCINT.P  
 Quant Time: Oct 30 9:53 2018

Vial: 21  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00000

Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 09:51:22 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	391680	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	396352	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	186496	25.0000	ppb	0.00

System Monitoring Compounds

2) Dibromofluoromethane(S)	3.85	111	301594	28.2914	ppb	0.00
Spiked Amount	25.000		Recovery	= 113.164%		
3) 1,2-DCA-D4(S)	4.35	65	338297	29.4013	ppb	0.00
Spiked Amount	25.000		Recovery	= 117.604%		
5) Toluene-D8(S)	6.90	98	866016	22.8986	ppb	0.00
Spiked Amount	25.000		Recovery	= 91.596%		
6) 4-Bromofluorobenzene(S)	9.83	95	272387	21.9173	ppb	0.00
Spiked Amount	25.000		Recovery	= 87.668%		

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration  
 1029L26.D LSUR1026.M Tue Oct 30 09:53:27 2018



Quantitation Report

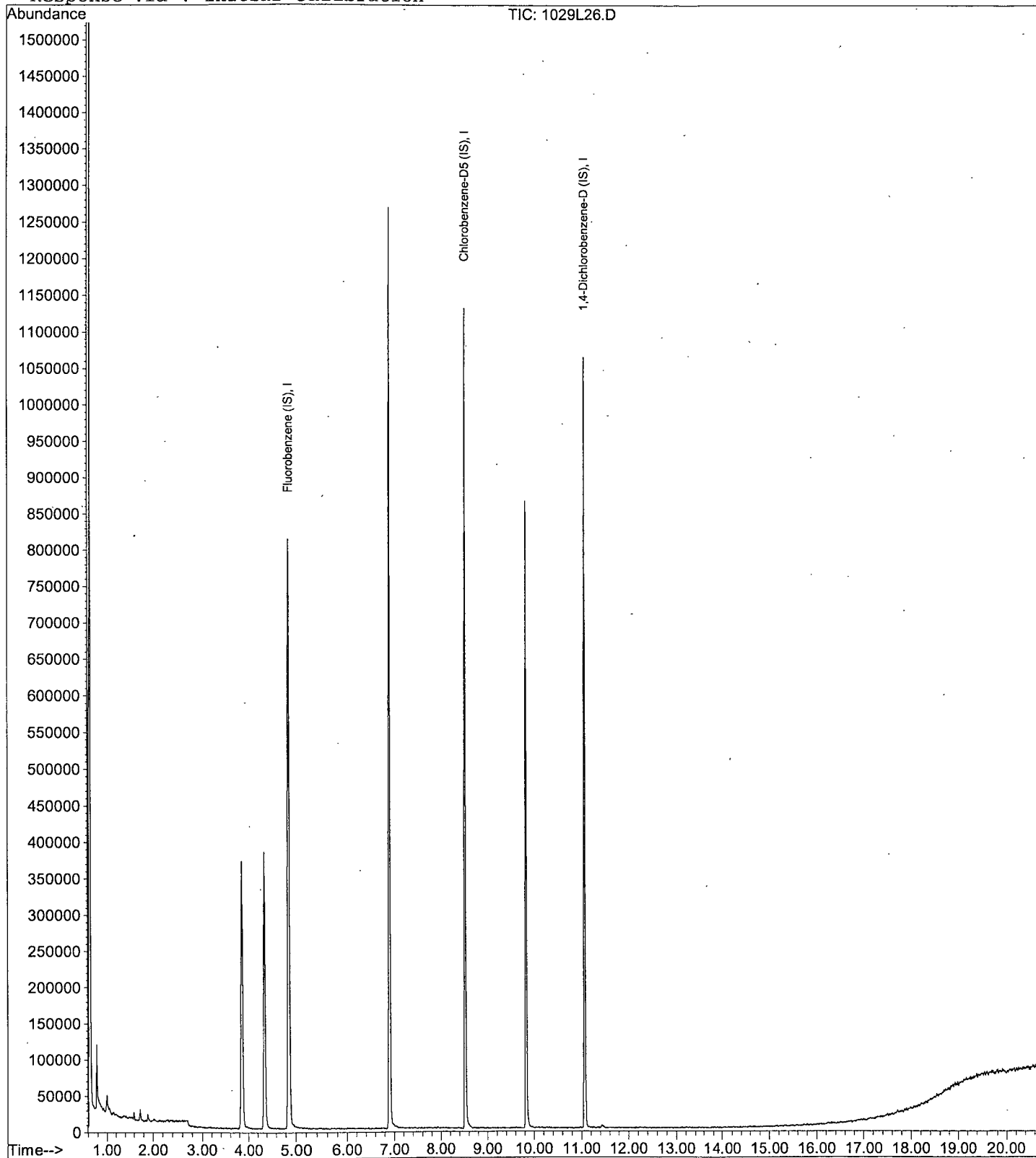
Data File : M:\LOKI\DATA\181026\1029L26.D  
Acq On : 29 Oct 18 20:45  
Sample : AZ81674W02  
Misc : IS&S 9/28/18, 8/23/18

Vial: 21  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:19 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L25.D Vial: 20  
 Acq On : 29 Oct 18 20:17 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81675W02 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:19 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:05:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	862840	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1167778	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1062368	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181026\1029L25.D Vial: 20  
 Acq On : 29 Oct 18 20:17 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81675W02 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 9:14 2018 Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.86	96	415296	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	409600	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	184128	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.86	111	322261	28.5375	ppb	0.00
Spiked Amount	25.000		Recovery	= 114.152%		
3) 1,2-DCA-D4(S)	4.35	65	355642	29.1141	ppb	0.00
Spiked Amount	25.000		Recovery	= 116.456%		
5) Toluene-D8(S)	6.90	98	925733	23.6859	ppb	0.00
Spiked Amount	25.000		Recovery	= 94.744%		
6) 4-Bromofluorobenzene(S)	9.83	95	283716	21.3029	ppb	0.00
Spiked Amount	25.000		Recovery	= 85.212%		

Target Compounds Qvalue

Quantitation Report

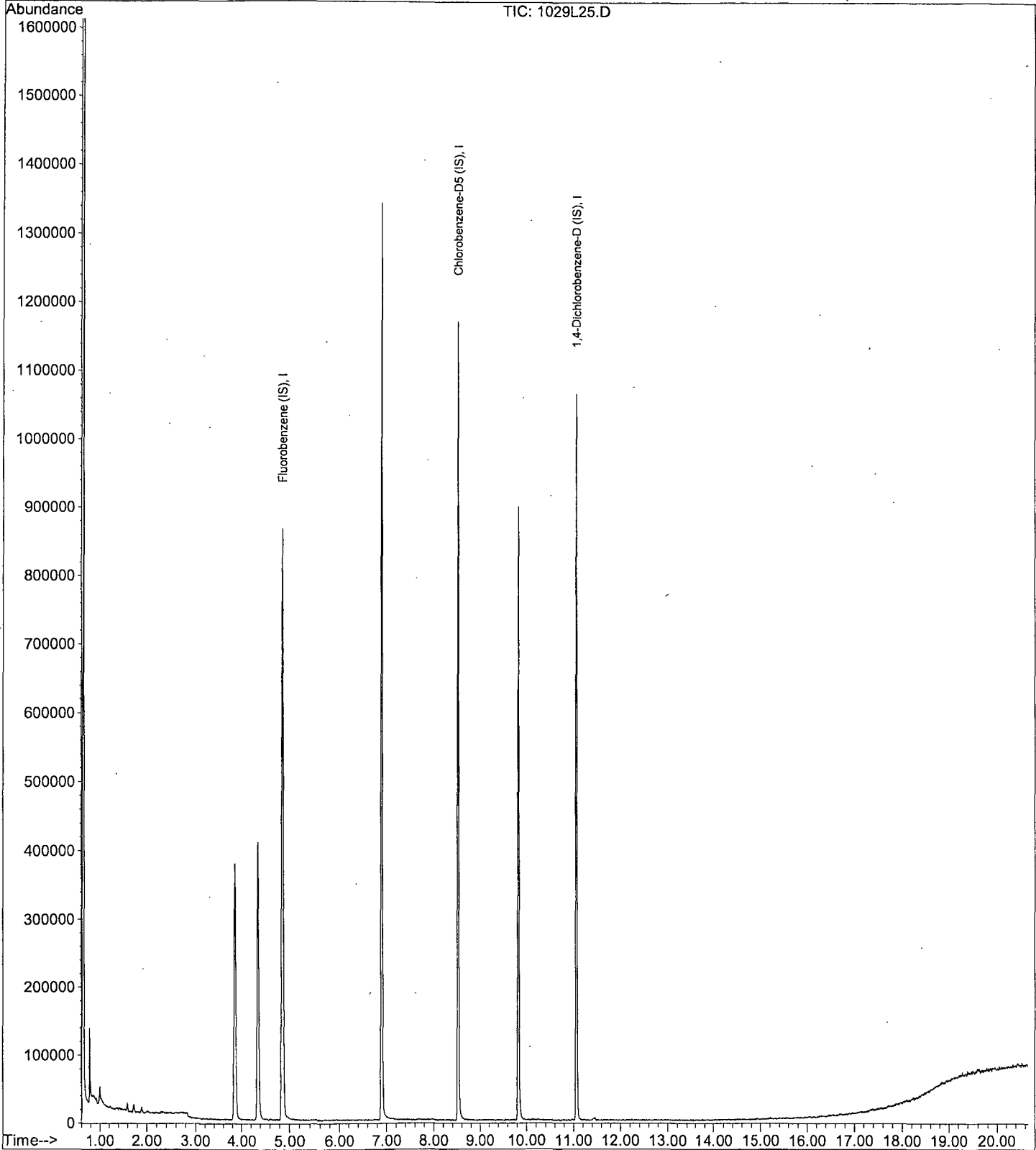
Data File : M:\LOKI\DATA\181026\1029L25.D  
Acq On : 29 Oct 18 20:17  
Sample : AZ81675W02  
Misc : IS&S 9/28/18, 8/23/18

Vial: 20  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:19 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L24.D Vial: 19  
 Acq On : 29 Oct 18 19:48 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81676W02 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:19 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:05:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	824507	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1141964	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1026505	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181026\1029L24.D Vial: 19  
 Acq On : 29 Oct 18 19:48 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81676W02 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 9:14 2018 Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	397440	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	401856	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	179392	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.86	111	314253	29.1433	ppb	0.00
Spiked Amount	25.000					
					Recovery = 116.572%	
3) 1,2-DCA-D4(S)	4.35	65	356825	30.7340	ppb	0.00
Spiked Amount	25.000					
					Recovery = 122.936%	
5) Toluene-D8(S)	6.90	98	921530	24.0327	ppb	0.00
Spiked Amount	25.000					
					Recovery = 96.132%	
6) 4-Bromofluorobenzene(S)	9.83	95	285193	21.8264	ppb	0.00
Spiked Amount	25.000					
					Recovery = 87.304%	

Target Compounds Qvalue

Quantitation Report

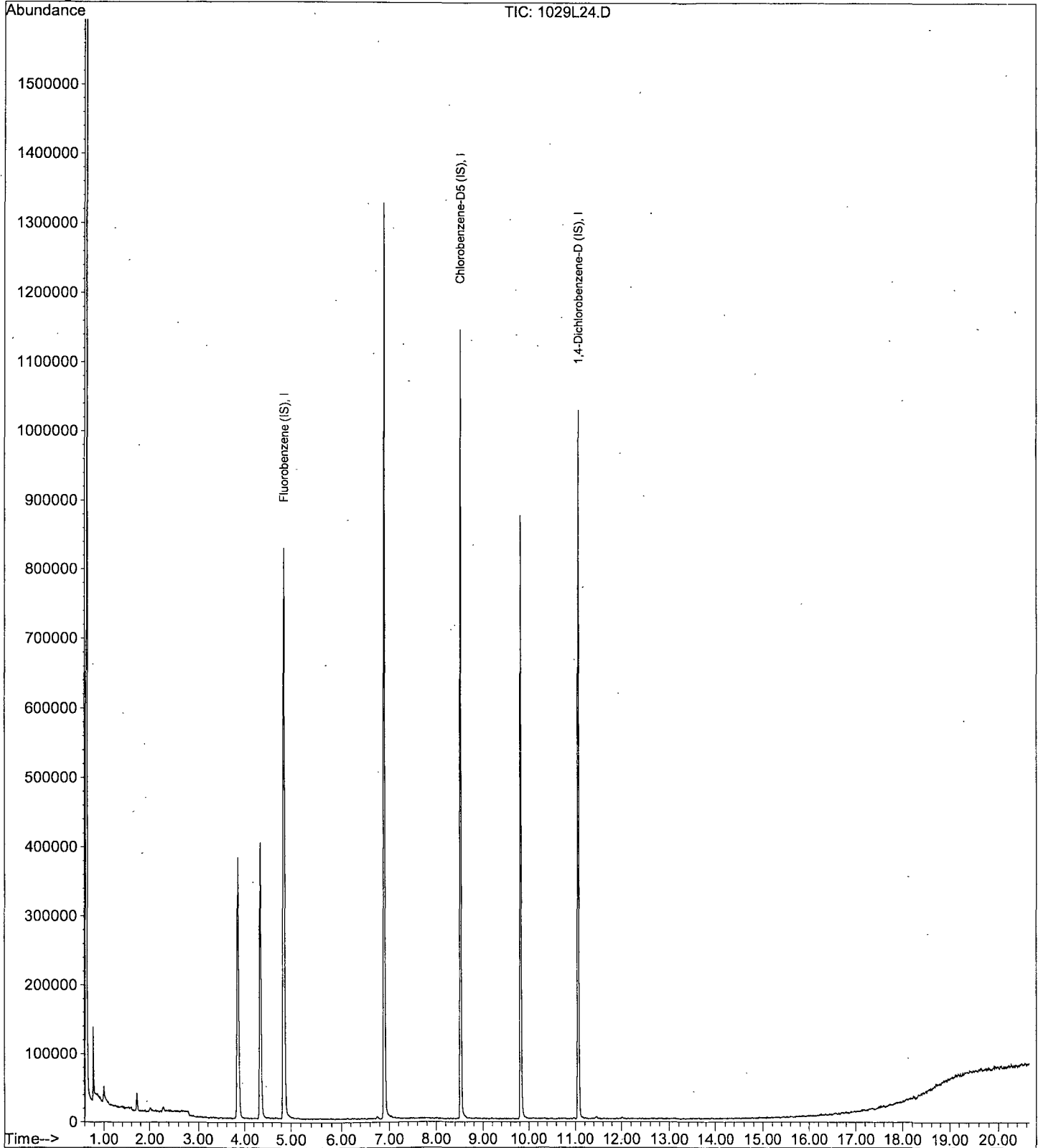
Data File : M:\LOKI\DATA\181026\1029L24.D  
Acq On : 29 Oct 18 19:48  
Sample : AZ81676W02  
Misc : IS&S 9/28/18, 8/23/18

Vial: 19  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:19 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L23.D Vial: 18  
 Acq On : 29 Oct 18 19:20 Operator: PM, DG, SV, CMM, KV  
 Sample : AZ81677W02 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:18 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:05:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	897470	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1139204	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1118795	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue



Data File : M:\LOKI\DATA\181026\1029L23.D Vial: 18  
 Acq On : 29 Oct 18 19:20 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81677W02 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 9:14 2018 Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	431104	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	397568	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	197632	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.85	111	344566	29.4962	ppb	0.00
Spiked Amount	25.000			Recovery	= 117.984%	
3) 1,2-DCA-D4(S)	4.35	65	378867	29.9923	ppb	0.00
Spiked Amount	25.000			Recovery	= 119.968%	
5) Toluene-D8(S)	6.90	98	949822	25.0377	ppb	0.00
Spiked Amount	25.000			Recovery	= 100.152%	
6) 4-Bromofluorobenzene(S)	9.83	95	290467	22.4698	ppb	0.00
Spiked Amount	25.000			Recovery	= 89.880%	

Target Compounds Qvalue

Quantitation Report

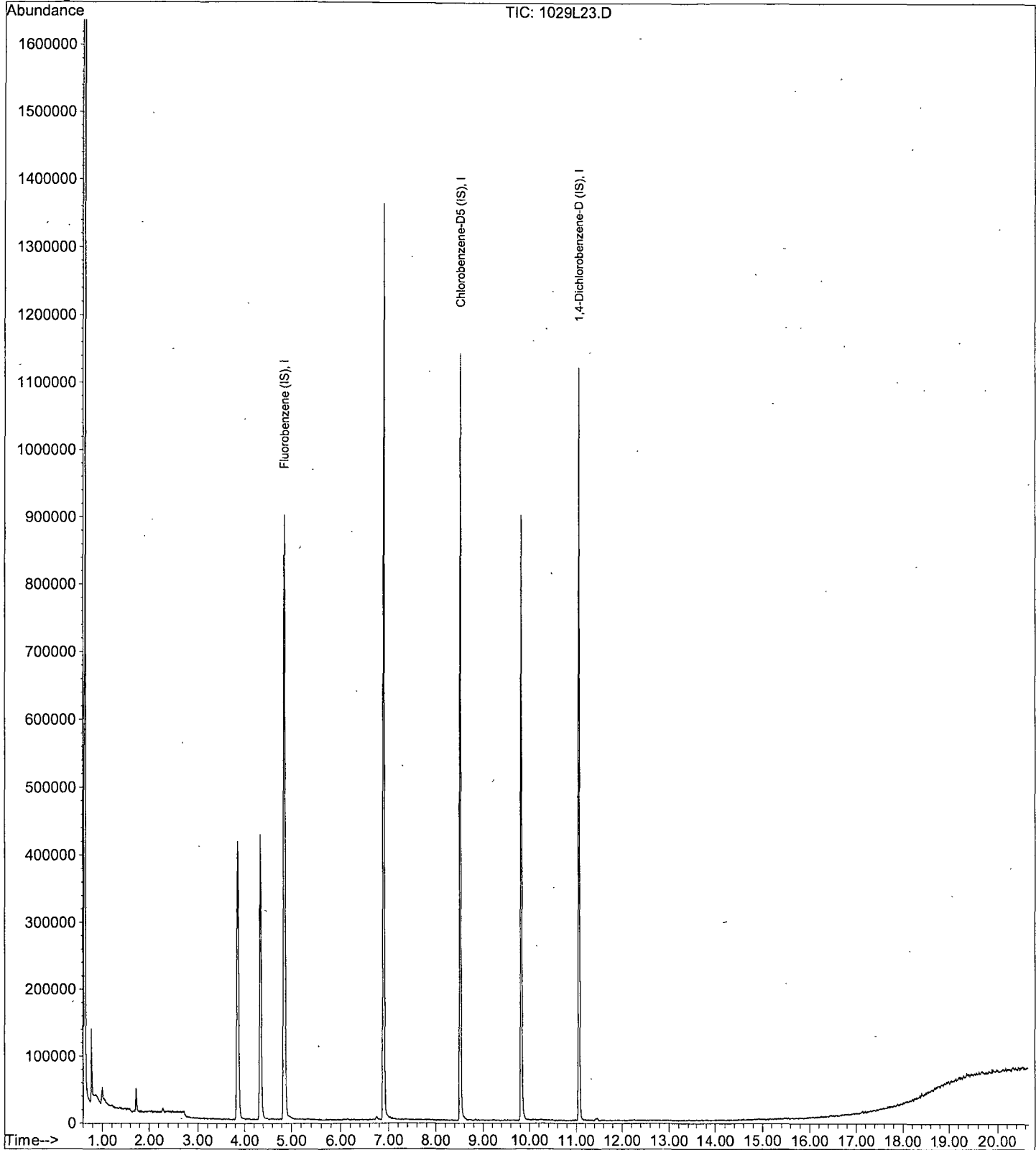
Data File : M:\LOKI\DATA\181026\1029L23.D  
Acq On : 29 Oct 18 19:20  
Sample : AZ81677W02  
Misc : IS&S 9/28/18,8/23/18

Vial: 18  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:18 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L22.D Vial: 17  
Acq On : 29 Oct 18 18:51 Operator: PM,DG,SV,CMM,KV  
Sample : AZ81678W02 Inst : Loki  
Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:18 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration  
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	943434	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1244767	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1188425	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181026\1029L22.D Vial: 17  
 Acq On : 29 Oct 18 18:51 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81678W02 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 9:14 2018 Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.86	96	458240	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	440320	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	211968	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.86	111	358106	28.7641	ppb	0.00
Spiked Amount	25.000					
					Recovery = 115.056%	
3) 1,2-DCA-D4 (S)	4.35	65	390429	28.9445	ppb	0.00
Spiked Amount	25.000					
					Recovery = 115.780%	
5) Toluene-D8 (S)	6.90	98	1056804	25.1530	ppb	0.00
Spiked Amount	25.000					
					Recovery = 100.612%	
6) 4-Bromofluorobenzene(S)	9.83	95	310483	21.6862	ppb	0.00
Spiked Amount	25.000					
					Recovery = 86.744%	

Target Compounds Qvalue

Quantitation Report

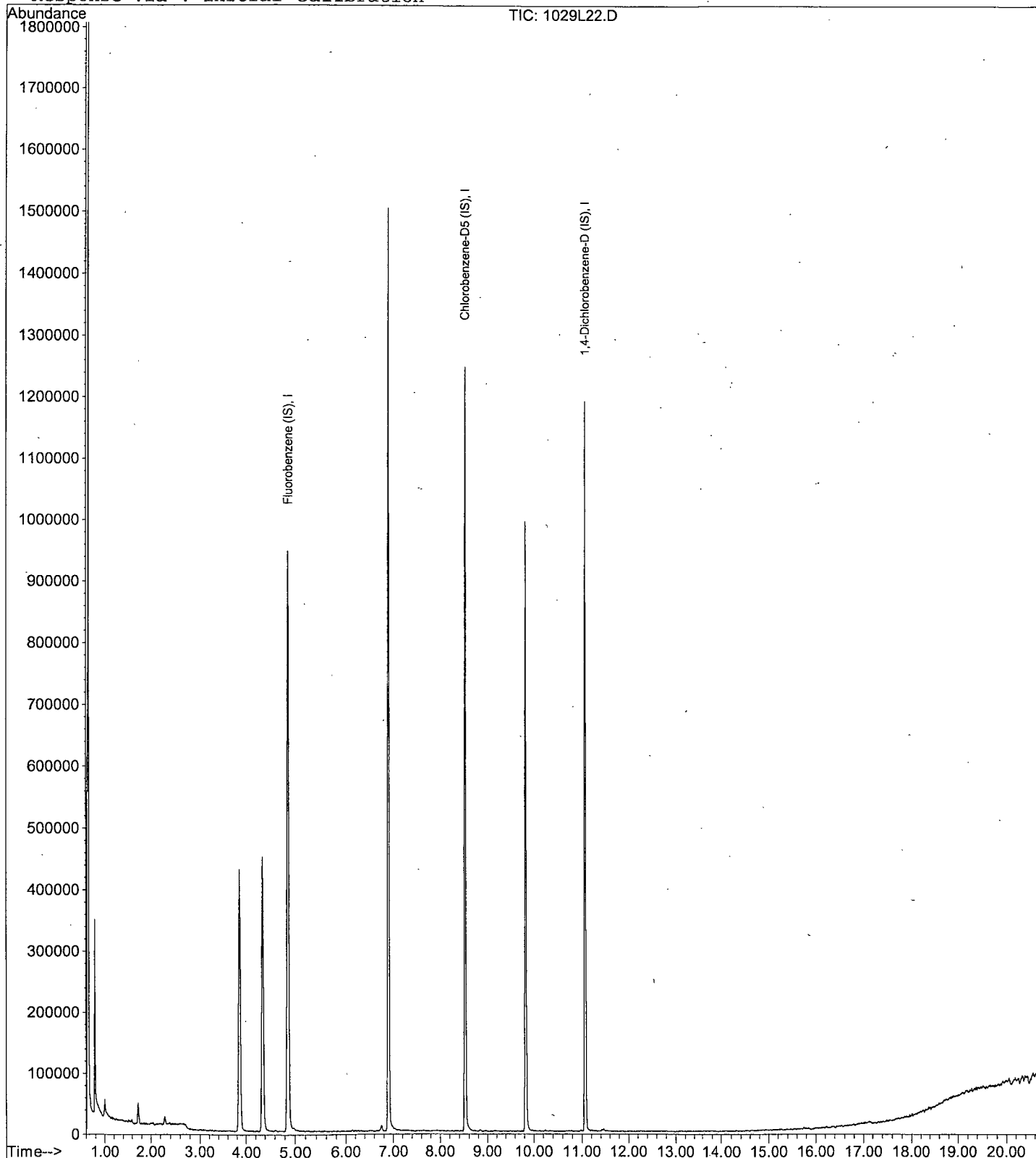
Data File : M:\LOKI\DATA\181026\1029L22.D  
Acq On : 29 Oct 18 18:51  
Sample : AZ81678W02  
Misc : IS&S 9/28/18,8/23/18

Vial: 17  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:18 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:46:13 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L21.D Vial: 16  
 Acq On : 29 Oct 18 18:23 Operator: PM,DG,SV,CMM,KV  
 Sample : 181029A BLK Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:18 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:05:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth.: L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	927190	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1169042	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1173707	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181026\1029L21.D Vial: 16  
 Acq On : 29 Oct 18 18:23 Operator: PM,DG,SV,CMM,KV  
 Sample : 181029A BLK Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 9:14 2018 Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	444416	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	409664	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	204480	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.85	111	345802	28.6250	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	114.500%
3) 1,2-DCA-D4 (S)	4.35	65	378966	28.9722	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	115.888%
5) Toluene-D8 (S)	6.90	98	970025	24.8152	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	99.260%
6) 4-Bromofluorobenzene(S)	9.83	95	305500	22.9350	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	91.740%

Target Compounds Qvalue

Quantitation Report

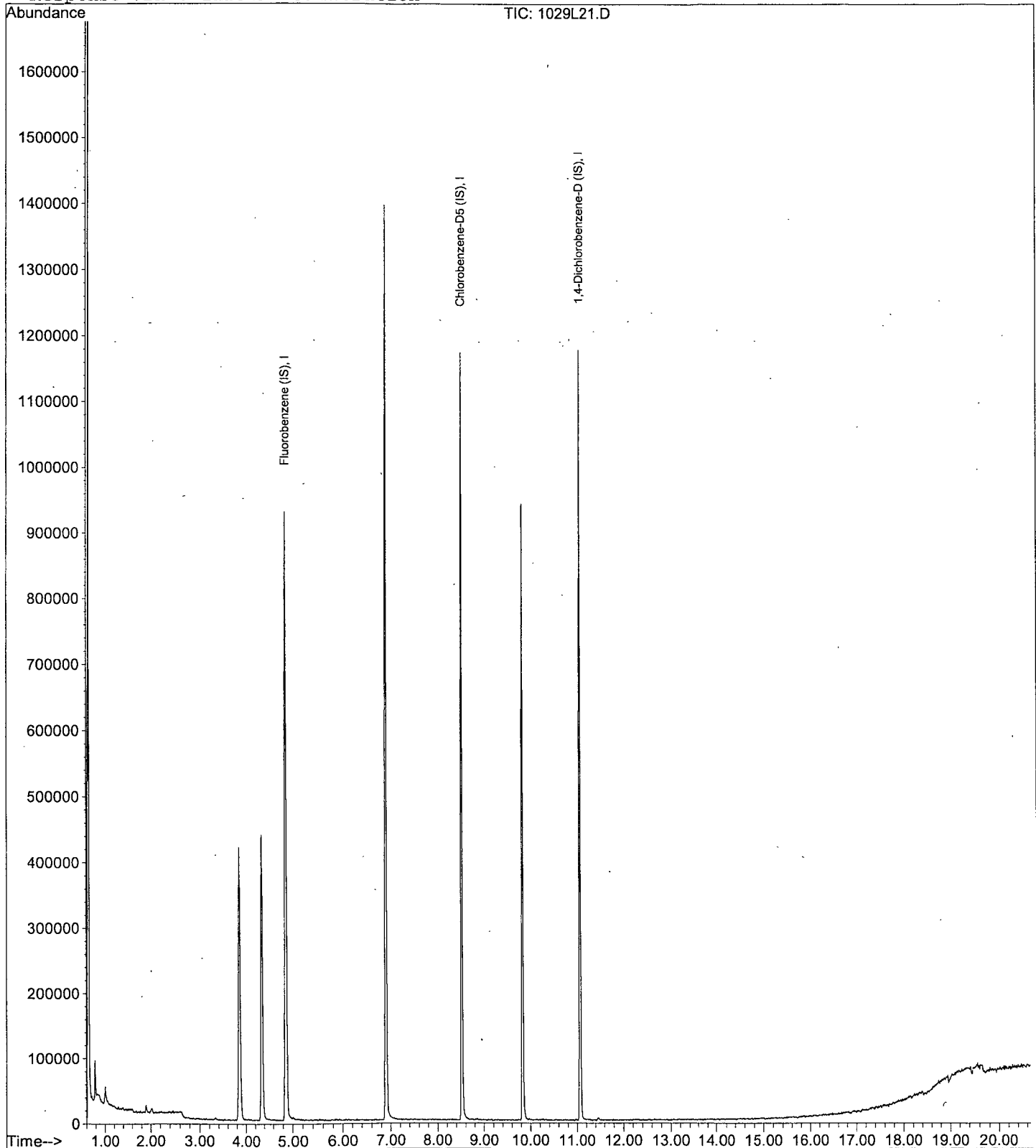
Data File : M:\LOKI\DATA\181026\1029L21.D  
Acq On : 29 Oct 18 18:23  
Sample : 181029A BLK  
Misc : IS&S 9/28/18,8/23/18

Vial: 16  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:18 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181026\1029L19.D Vial: 14  
 Acq On : 29 Oct 18 17:26 Operator: PM,DG,SV,CMM,KV  
 Sample : 181029A LCS 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:50 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:46:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	992331	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1295248	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1337612	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	15416156m	318.2567	ppb	100

Data File : M:\LOKI\DATA\181026\1029L19.D Vial: 14  
 Acq On : 29 Oct 18 17:26 Operator: PM,DG,SV,CMM,KV  
 Sample : 181029A LCS 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 9:14 2018 Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	482880	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	451776	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	240960	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.86	111	362305	27.4803	ppb	0.00
Spiked Amount	25.000		Recovery	=	109.920%	
3) 1,2-DCA-D4(S)	4.35	65	396806	27.7616	ppb	0.00
Spiked Amount	25.000		Recovery	=	111.048%	
5) Toluene-D8(S)	6.90	98	1108503	25.7144	ppb	0.00
Spiked Amount	25.000		Recovery	=	102.856%	
6) 4-Bromofluorobenzene(S)	9.83	95	362595	24.6839	ppb	0.00
Spiked Amount	25.000		Recovery	=	98.736%	

Target Compounds Qvalue

Quantitation Report

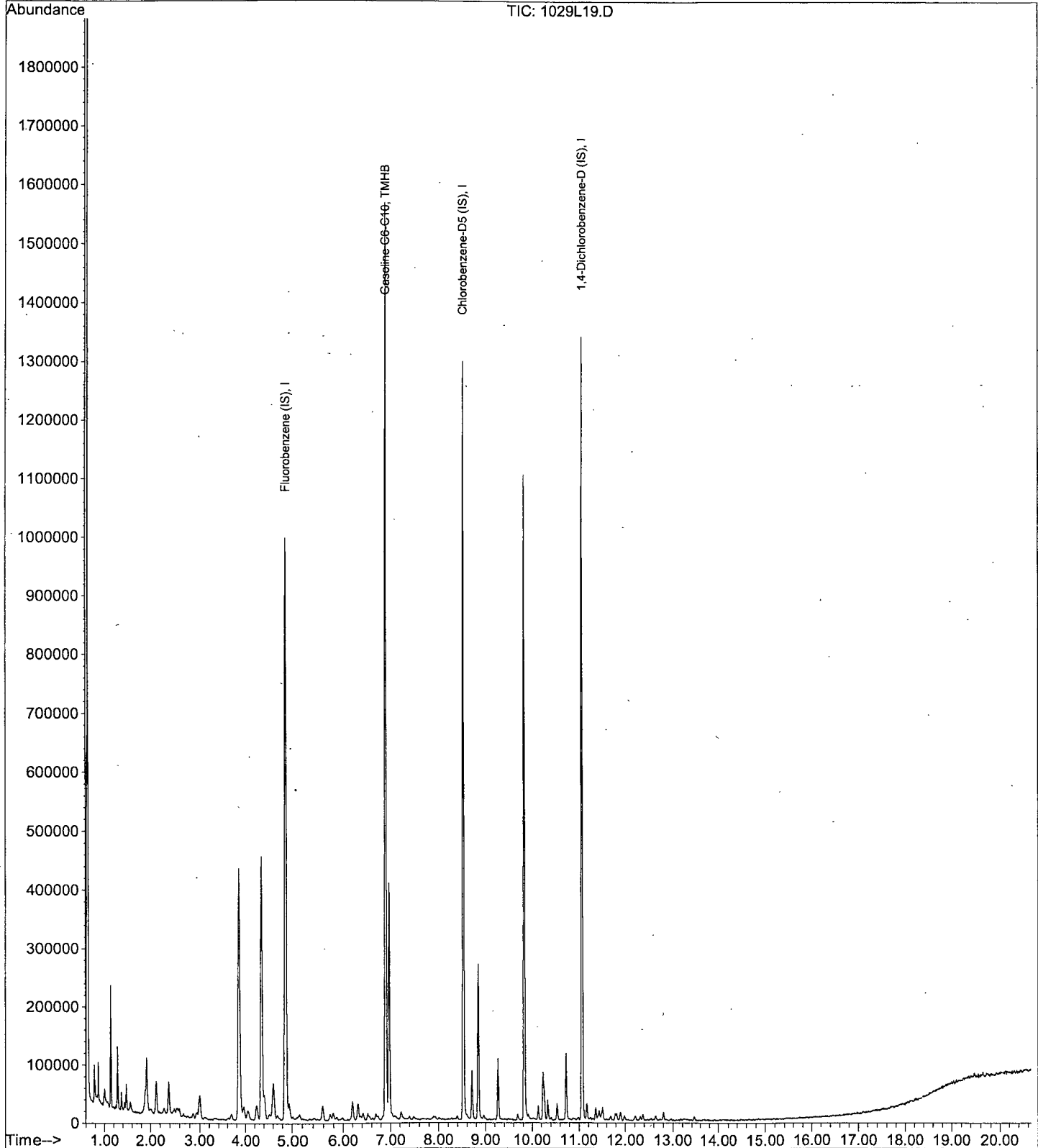
Data File : M:\LOKI\DATA\181026\1029L19.D  
Acq On : 29 Oct 18 17:26  
Sample : 181029A LCS 300ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 14  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:50 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:46:13 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L20.D Vial: 15  
 Acq On : 29 Oct 18 17:55 Operator: PM,DG,SV,CMM,KV  
 Sample : 181029A LCSD 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:51 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:46:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	982488	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1290411	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1367207	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	15211837m	314.6845	ppb	100

Data File : M:\LOKI\DATA\181026\1029L20.D  
 Acq On : 29 Oct 18 17:55  
 Sample : 181029A LCSD 300ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 15  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 9:14 2018

Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.86	96	479872	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	447872	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	241536	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.85	111	353225	26.8949	ppb	0.00
Spiked Amount	25.000		Recovery	=	107.580%	
3) 1,2-DCA-D4 (S)	4.35	65	389273	27.3494	ppb	0.00
Spiked Amount	25.000		Recovery	=	109.396%	
5) Toluene-D8 (S)	6.90	98	1109087	25.9523	ppb	0.00
Spiked Amount	25.000		Recovery	=	103.808%	
6) 4-Bromofluorobenzene(S)	9.83	95	344599	23.6633	ppb	0.00
Spiked Amount	25.000		Recovery	=	94.652%	

Target Compounds

Qvalue

Quantitation Report

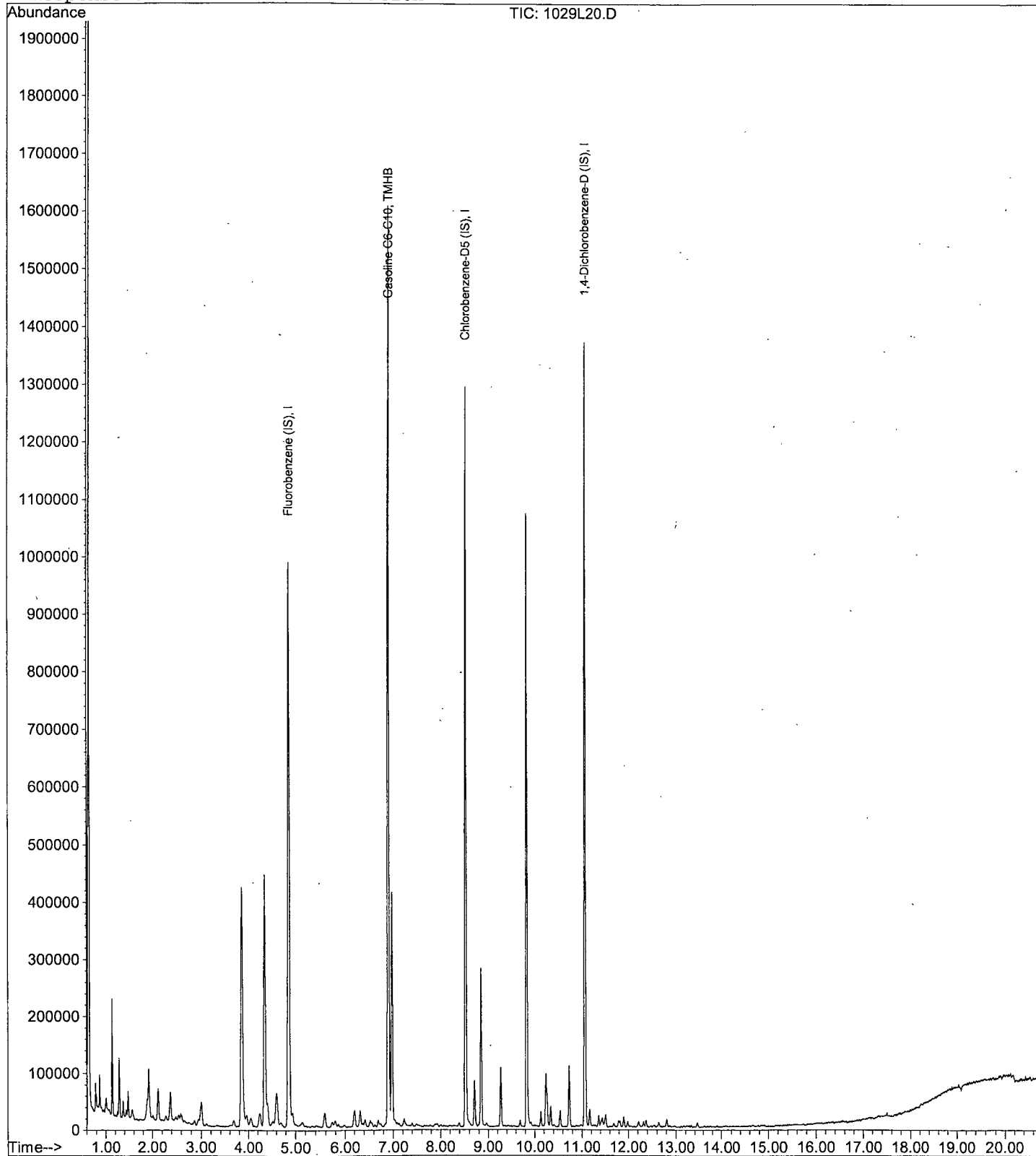
Data File : M:\LOKI\DATA\181026\1029L20.D  
Acq On : 29 Oct 18 17:55  
Sample : 181029A LCSD 300ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 15  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:51 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:46:13 2018  
Response via : Initial Calibration



### Loki Gas Standard Prep

Gas Primary Working Standard										
Prepared: 09/11/18						Prepared By (Initials): <u>CMM</u>				
Expires: 04/27/19										
Methanol Lot No. 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
50,000ug/mL Gas STD	Restek	30205	50,000	A092370-36126	04/27/19	01/31/20	80uL	2mL	Methanol	2,000
Gas Second Source (SS) Working Standard										
Prepared: 04/27/18						Prepared By (Initials): <u>PC</u>				
Expires: 04/27/19										
Methanol Lot No. 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Gasoline (5,000ppm)	O2SI	020246-06	5,000	G34-325261-38383	04/27/19	07/23/20	200uL	500uL	Methanol	2,000
Loki Gas Calibration Curve										
Prepared: 10/29/18						Prepared By (Initials): <u>PC</u>				
Expires: 12/28/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA Gasses Standards	Phenova	20ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	1uL	100mL	P&T Water	20
VOA Gasses Standards	Phenova	50ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	2.5uL	100mL	P&T Water	50
VOA Gasses Standards	Phenova	100ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	5uL	100mL	P&T Water	100
VOA Gasses Standards	Phenova	300ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	15uL	100mL	P&T Water	300
VOA Gasses Standards	Phenova	600ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	30uL	100mL	P&T Water	600
VOA Gasses Standards	Phenova	800ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	40uL	100mL	P&T Water	800
VOA Gasses Standards	Phenova	1,000ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	50uL	100mL	P&T Water	1,000
Loki Gas Second Source										
Prepared: 10/29/18						Prepared By (Initials): <u>PC</u>				
Expires: 12/28/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
50,000ug/mL Gas STD	Phenova	SS 300ug/L	2,000	Prepared 04/27/18	04/27/19	N/A	15uL	100mL	P&T Water	300
Loki Gas Continuing Calibrations/Lab Control Spikes										
Prepared: 10/29/18						Prepared By (Initials): <u>PC</u>				
Expires: 10/30/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses Standards	Phenova	300ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	15uL	100mL	P&T Water	300

Sheet1

GASOLINE							
<b>09/12/18</b>							
Gasoline 2000ug/ml PRIMARY SOURCE							
Supplier	ID #		ug/ml	Lot #	Date	Exp.	
Restek		Unleaded Gasoline	50,000	A092370-36126	04/27/18F-KV	01/31/20	80
J.T BAKER		Purge & Trap MeOH		9077	09/06/18	09/06/19	1920
<b>04/27/18</b>							
Gasoline 2000ug/ml SECONDARY SOURCE							
Supplier	ID #		Conc.	Lot #	Date	Exp.	
O2SI	020246-06	Unleaded Gasoline	5,000	G34-325261-38383	04/27/18E-KV	07/23/20	200
OMNISOLV		Purge & Trap MeOH		57159-MX0480-1	04/20/18	04/20/19	300



**Primary and Secondary Working Standards**

Primary Standards										
VOA STD 7										
Prepared: 10/23/18 C										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Prepared By (Initials): PC										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses STD	Phenova	ALO-101206	2,000	CL12418-39660	09/13/19	04/30/23	100uL	4mL	Methanol	50
Hexachloroethane	Absolute	70199	1,000	071317-39700	09/04/19	05/14/28	200uL			50
Benzyl Chloride	O2SI	020228-02	1,000	041918-39343	09/04/19	04/19/19	200uL			50
VOA STD 8										
Prepared: 10/23/18 D										
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Prepared By (Initials): PC										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Additions STD	Phenova	ALO-101206	2,000	CL12622-39323	06/20/19	05/31/20	100uL	4mL	Methanol	50
VOC's-54 COMP	Phenova	ALO-101200	2,000	CL12490-39490	06/20/19	05/30/20	100uL			50
Vinyl Acetate	Phenova	ALO-101228	2,000	CL12805-39766	09/06/19	10/31/18	100uL			50
VOA STD TBA										
Prepared: 10/23/18 E										
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Prepared By (Initials): PC										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOC Mix	Phenova	ALO-130176	2,000	CL12228-39680	09/06/19	08/31/28	500uL	4mL	Methanol	250
Acrolein	Phenova	ALO-101224	5,000	CL12863-39768	09/06/19	10/31/18	200uL			250
VOA STD 1										
Prepared: 10/23/18 F										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Prepared By (Initials): PC										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
2-CEVE	O2SI	020145-02	2,000	292247-38407	09/06/19	11/12/19	50	2mL	Methanol	50
VOA STD 2										
Prepared: 10/23/18 G										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Prepared By (Initials): PC										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
HSL's Ketone Solution	O2SI	121020-05	2,000	CL12729-39663	10/17/19	08/01/28	100	4mL	Methanol	50
VOA STD 9										
Prepared: 10/23/18 H										
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Prepared By (Initials): PC										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 7	O2SI	VOA STD. 9	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5
VOA STD. 8	O2SI		50	Prepared 10/23/18	10/31/18	N/A	200uL			5
VOA STD. 10										
Prepared: 10/23/18 I										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Prepared By (Initials): PC										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 1	O2SI	VOA STD. 10	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5
VOA STD. 12										
Prepared: 10/23/18 J										
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Prepared By (Initials): PC										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 2	O2SI	VOA STD. 12	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5

Second Source (SS) Standards											
VOA STD. 3											
Prepared: 10/23/18 K											
Expires: 12/22/18											
Methanol Lot No. 907702-202404											
Prepared By (Initials): PC											
Initial Standard Information							Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)	
Ketones Standard	Phenova	ALO-101211	2,000	CL12730-39669	07/25/19	08/01/28	50uL	2mL	Methanol	50	
VOA STD. 5											
Prepared: 10/23/18 L											
Expires: 12/22/18											
Methanol Lot No. 907702-202404											
Prepared By (Initials): PC											
Initial Standard Information							Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)	
8260 Gases (SS)	Phenova	ALO-101206	2,000	CL12417-39649	09/13/19	04/30/23	50uL	2mL	Methanol	50	
2-CEVE (SS)	O2SI	020145-02-02-SS	2,000	71018-39539	06/20/19	11/12/19	50uL			50	
VOA STD. 6											
Prepared: 10/23/18 M											
Expires: 10/31/18											
Methanol Lot No. 907702-202404											
Prepared By (Initials): PC											
Initial Standard Information							Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)	
502.2 Calibration STD. (54-compounds)	Phenova	ALO-101200	2,000	CL12489-39484	06/20/19	05/31/23	50uL	2mL	Methanol	50	
Vinyl Acetate	Phenova	ALO-101228	1,000	CL12869-39767	09/06/19	10/31/18	50uL			50	
Hexachloroethane	O2SI	020049-02	1,000	218051281	06/20/19	05/14/28	50uL			50	
VOA STD. TBA											
Prepared: 10/23/18 N											
Expires: 10/31/18											
Methanol Lot No. 907702-202404											
Prepared By (Initials): PC											
Initial Standard Information							Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)	
Custom VOA Mix (4-3)	Phenova	ALO-130179	2,000	CL12228-39309	08/13/19	08/31/20	250uL	2mL	Methanol	250	
Acrolein	Phenova	ALO-101224	5,000	CL12868-39769	09/06/19	10/31/18	100uL			250	
VOA STD. O											
Prepared: 10/23/18 O											
Expires: 12/22/18											
Methanol Lot No. 907702-202404											
Prepared By (Initials): PC											
Initial Standard Information							Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)	
VOA Addition STD.	Phenova	ALO-130175	2,000	CL12230-39138	07/25/19	01/31/20	50uL	2mL	Methanol	50	
BFB Tune											
Prepared: 08/29/18											
Expires: 08/07/19											
Methanol Lot No. 9077-202404											
Prepared By (Initials): PC											
Initial Standard Information							Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)	
4-Bromofluorobenzene	O2SI	020135-03	2,500	320514-38965	08/07/19	09/03/20	20uL	2mL	Methanol	25	

## Loki 8260 Standard Prep

Loki 8260 Water Calibration Curve										
<b>0.3ug/L</b>						Prepared By (Initials): <u>DG</u>				
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.3ug/L	5	Prepared 10/23/18	10/31/18	N/A	3uL	50mL	P&T Water	0.3
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	3uL			0.3
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	3uL			0.3
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	2uL			10
<b>0.5ug/L</b>										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.5ug/L	5	Prepared 10/23/18	10/31/18	N/A	5uL	50mL	P&T Water	0.5
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	5uL			0.5
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	5uL			0.5
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	5uL			25
<b>1.0ug/L</b>										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	1.0ug/L	5	Prepared 10/23/18	10/31/18	N/A	10uL	50mL	P&T Water	1
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	10uL			1
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	10uL			1
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	10uL			50
<b>2.0ug/L</b>										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	2.0ug/L	5	Prepared 10/23/18	10/31/18	N/A	20uL	50mL	P&T Water	2
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	20uL			2
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	20uL			2
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	15uL			75
<b>5ug/L</b>										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	5ug/L	50	Prepared 10/23/18	12/22/18	N/A	5uL	50mL	P&T Water	5
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	5uL			5
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	5uL			5
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	5uL			5
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	20uL			100
<b>10ug/L</b>										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	10ug/L	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	25uL			125

20ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	20ug/L	50	Prepared 10/23/18	12/22/18	N/A	20uL	50mL	P&T Water	20
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	20uL			20
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	20uL			20
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	20uL			20
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	30uL			150
40ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	40ug/L	50	Prepared 10/23/18	12/22/18	N/A	40uL	50mL	P&T Water	40
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	40uL			40
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	35uL			175
100ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	100ug/L	50	Prepared 10/23/18	12/22/18	N/A	100uL	50mL	P&T Water	100
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	100uL			100
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	100uL			100
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	100uL			100
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	40uL			200
Loki 8260 Water Second Source (SS)										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 4	Phenova	8260 Water SS	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 5	Phenova		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 6	Various		50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	25uL			250
8260 Water Continuing Calibrations (CCV)/ Lab Control Spikes (LCS)										
Prepared: 10/26/18										
Expires: 10/27/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	25uL			125
LCS (X4 Ketones)										
Prepared: 10/26/18										
Expires: 10/27/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	25uL			125

<b>Loki 8260 Water Surrogate</b>										
Prepared: 09/28/18						Prepared By (Initials): <u>DG</u>				
Expires: 04/02/19										
Methanol Lot No: 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260 Surrogate Solution	O2SI	120002-01	2,000	275545-36334	09/28/19	04/02/19	375uL	15mL	Methanol	50
<b>Loki 8260 Water Internal Standard</b>										
Prepared: 09/28/18						Prepared By (Initials): <u>DG</u>				
Expires: 06/29/19										
Methanol Lot No: 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Internal Standard Solution	O2SI	120004-02	2,000	326533-38434	06/29/19	04/27/21	375uL	15mL	Methanol	50

## Injection Log

Directory: M:\LOK\DATA\181026\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1026L03.D	1	0.3ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 10:28
2	3	1026L04.D	1	0.5ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 10:57
3	4	1026L05.D	1	1.0ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 11:25
4	5	1026L06.D	1	2.0ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 11:54
5	6	1026L07.D	1	5.0ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 12:22
6	7	1026L08.D	1	10ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 12:50
7	8	1026L09.D	1	20ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 13:19
8	9	1026L10.D	1	40ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 13:47
9	10	1026L11.D	1	100ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 14:16
10	1	1029L06.D	1	20ug/L GAS STD 10/29/18	IS&S 9/28/18,8/23/18	29 Oct 18 11:16
11	2	1029L07.D	1	50ug/L GAS STD 10/29/18	IS&S 9/28/18,8/23/18	29 Oct 18 11:45
12	3	1029L08.D	1	100ug/L GAS STD 10/29/18	IS&S 9/28/18,8/23/18	29 Oct 18 12:13
13	4	1029L09.D	1	300ug/L GAS STD 10/29/18	IS&S 9/28/18,8/23/18	29 Oct 18 12:42
14	5	1029L10.D	1	600ug/L GAS STD 10/29/18	IS&S 9/28/18,8/23/18	29 Oct 18 13:10
15	6	1029L11.D	1	800ug/L GAS STD 10/29/18	IS&S 9/28/18,8/23/18	29 Oct 18 13:39
16	7	1029L12.D	1	1000ug/L GAS STD 10/29/18	IS&S 9/28/18,8/23/18	29 Oct 18 14:07
17	12	1029L17.D	1	(SS)300ug/L GAS STD 10/29/18	IS&S 9/28/18,8/23/18	29 Oct 18 16:29
18	14	1029L19.D	1	181029A LCS 300ug/L	IS&S 9/28/18,8/23/18	29 Oct 18 17:26
19	15	1029L20.D	1	181029A LCSD 300ug/L	IS&S 9/28/18,8/23/18	29 Oct 18 17:55
20	16	1029L21.D	1	181029A BLK	IS&S 9/28/18,8/23/18	29 Oct 18 18:23
21	17	1029L22.D	1	AZ81678W02	IS&S 9/28/18,8/23/18	29 Oct 18 18:51
22	18	1029L23.D	1	AZ81677W02	IS&S 9/28/18,8/23/18	29 Oct 18 19:20
23	19	1029L24.D	1	AZ81676W02	IS&S 9/28/18,8/23/18	29 Oct 18 19:48
24	20	1029L25.D	1	AZ81675W02	IS&S 9/28/18,8/23/18	29 Oct 18 20:17
25	21	1029L26.D	1	AZ81674W02	IS&S 9/28/18,8/23/18	29 Oct 18 20:45
26	22	1029L27.D	1	AZ81673W02	IS&S 9/28/18,8/23/18	29 Oct 18 21:14
27	32	1029L37.D	1	Ending CCV 8260 300ug/L	IS&S 9/28/18,8/23/18	30 Oct 18 1:58

**ORGANICS**  
**Calibration Data**

**APPL, INC.**

**Form 6**  
**Initial Calibration**

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Initial Cal. Date: 10/29/18

Matrix: \_\_\_\_\_

Instrument: 7890

Initials: \_\_\_\_\_

18102900.D    18102901.D    18102903.D    18102904.D    18102905.D    18102906.D    18102907.D

	Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r <sup>2</sup>	Q
1	ATML Methane	19615	9373	10954	15702	14030	13431	10703				13401	26	ATM	0.996	
2	ATM Ethane	14917	8316	8621	12025	10728	10915	8329				10550	23	ATM		*
3	ATM Ethene	12812	7388	7413	10412	9206	9538	7250				9145	22	ATM		*
4																
5																
6																
7																
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35																

2.038643



Data File : G:\ROCKY\DATA\181029RS\18102900.D Vial: 1  
 Acq On : 29 Oct 18 10:29 Operator: cmm  
 Sample : RSK Std 1 10/29/18 Inst : 7890  
 Misc : 125uL from RSK Std 3 Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:07 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:05:00 2018  
 Response via : Multiple Level Calibration

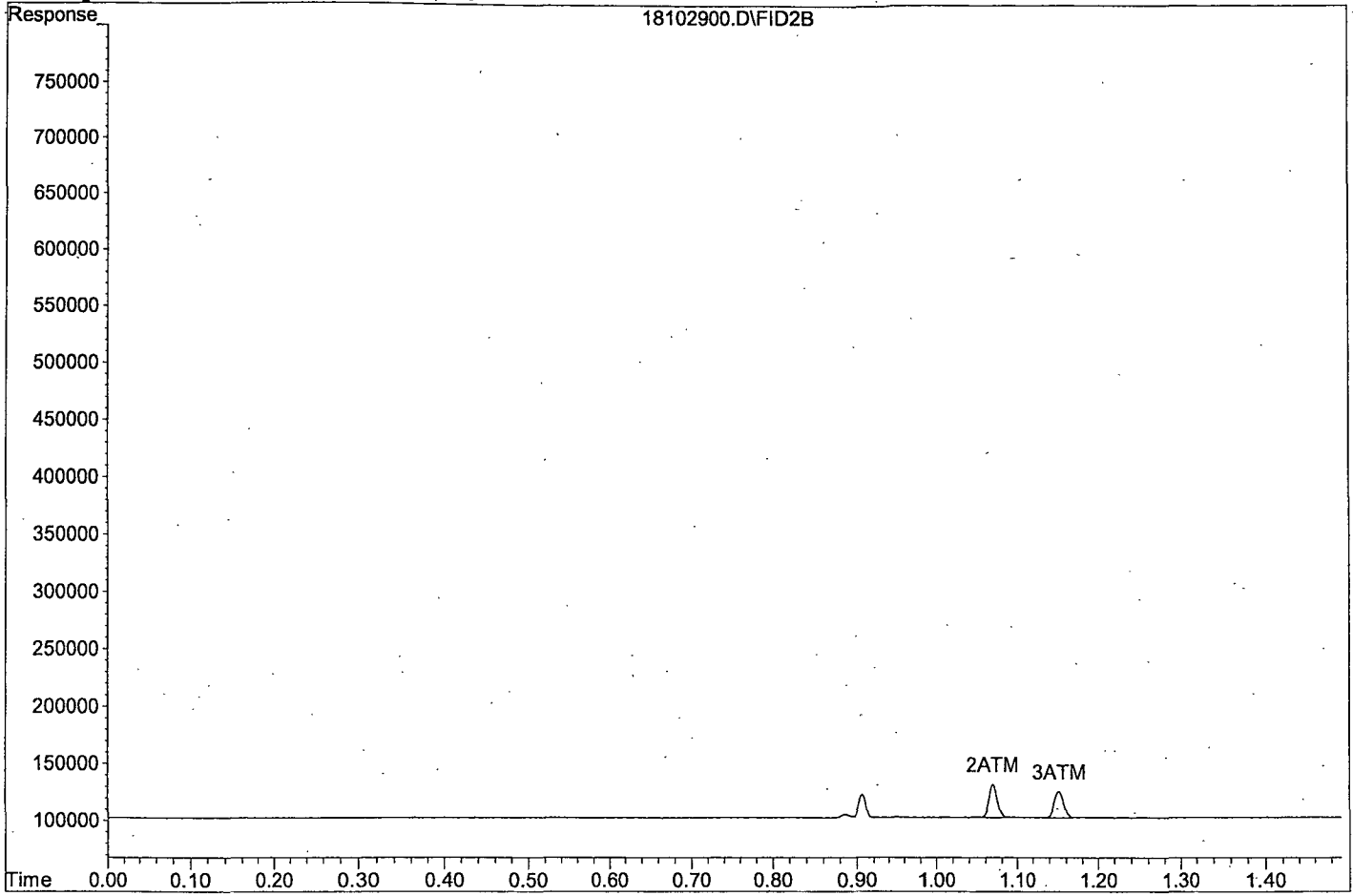
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
2) ATM Ethane	1.07	29163	5.528 ppb
3) ATM Ethene	1.15	23381	5.113 ppb
Target Compounds			
1) ATM Methane	0.91	20400	N.D. ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102900.D

Sample : RSK Std 1 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102901.D Vial: 2  
 Acq On : 29 Oct 18 10:32 Operator: cmm  
 Sample : RSK Std 2 10/29/18 Inst : 7890  
 Misc : 250uL from RSK Std 3 Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:07 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:05:00 2018  
 Response via : Multiple Level Calibration

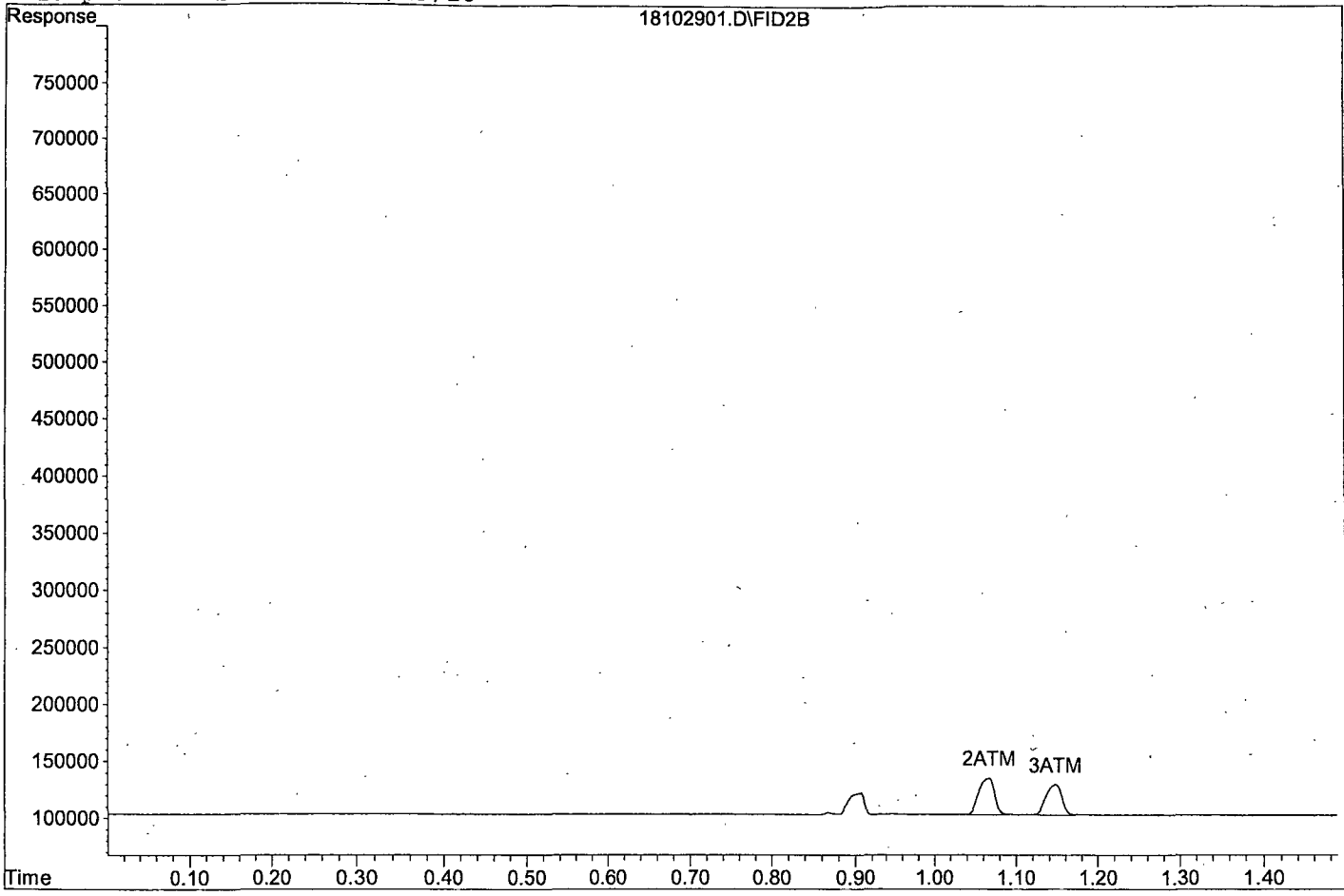
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
2) ATM Ethane	1.07	32474	6.156 ppb
3) ATM Ethene	1.15	26966	5.897 ppb
Target Compounds			
1) ATM Methane	0.91	19495	N.D. ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102901.D

Sample : RSK Std 2 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102903.D Vial: 4  
 Acq On : 29 Oct 18 10:40 Operator: cmm  
 Sample : RSK Std 3 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:07 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:05:00 2018  
 Response via : Multiple Level Calibration

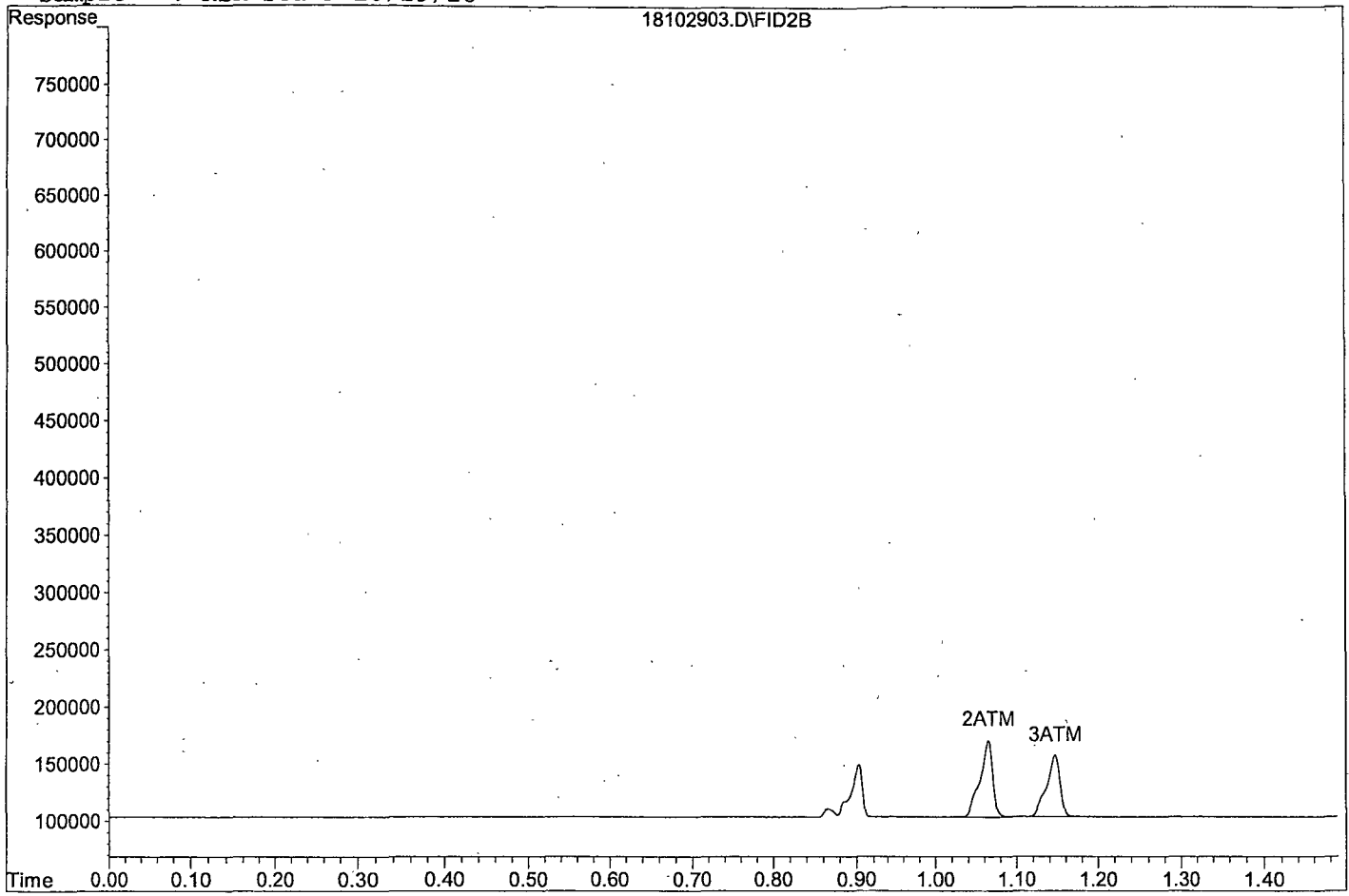
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
2) ATM Ethane	1.07	67242	12.747 ppb
3) ATM Ethene	1.15	54115	11.834 ppb
Target Compounds			
1) ATM Methane	0.90	45677	N.D. ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102903.D

Sample : RSK Std 3 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102904.D Vial: 5  
 Acq On : 29 Oct 18 10:42 Operator: cmm  
 Sample : RSK Std 4 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:02 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:02:34 2018  
 Response via : Multiple Level Calibration

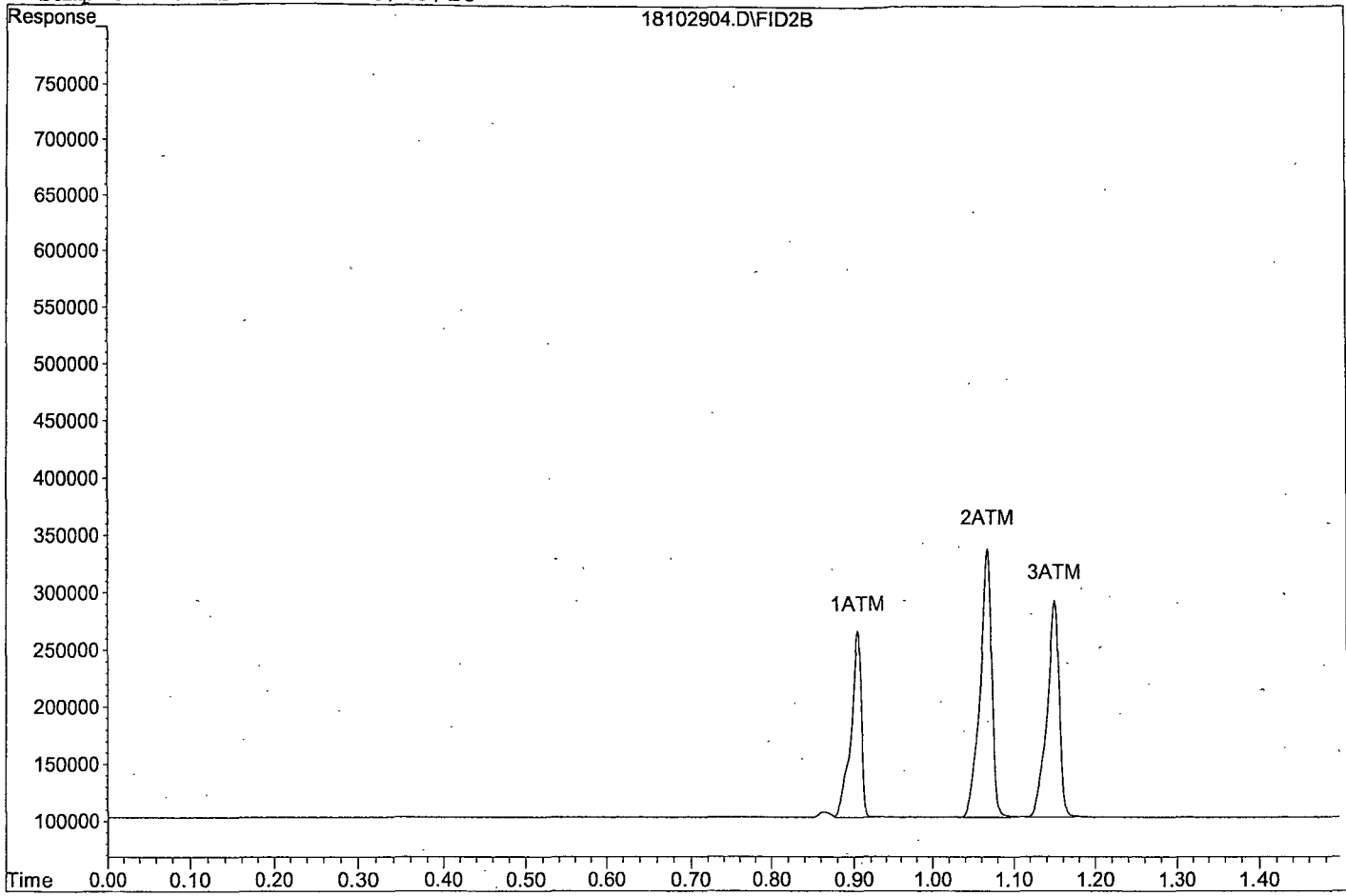
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.91	163698	17.293 ppb
2) ATM Ethane	1.07	235032	44.556 ppb
3) ATM Ethene	1.15	189804	41.508 ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102904.D

Sample : RSK Std 4 10/29/18





Data File : G:\ROCKY\DATA\181029RS\18102905.D Vial: 6  
 Acq On : 29 Oct 18 10:44 Operator: cmm  
 Sample : RSK Std 5 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:02 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:02:34 2018  
 Response via : Multiple Level Calibration

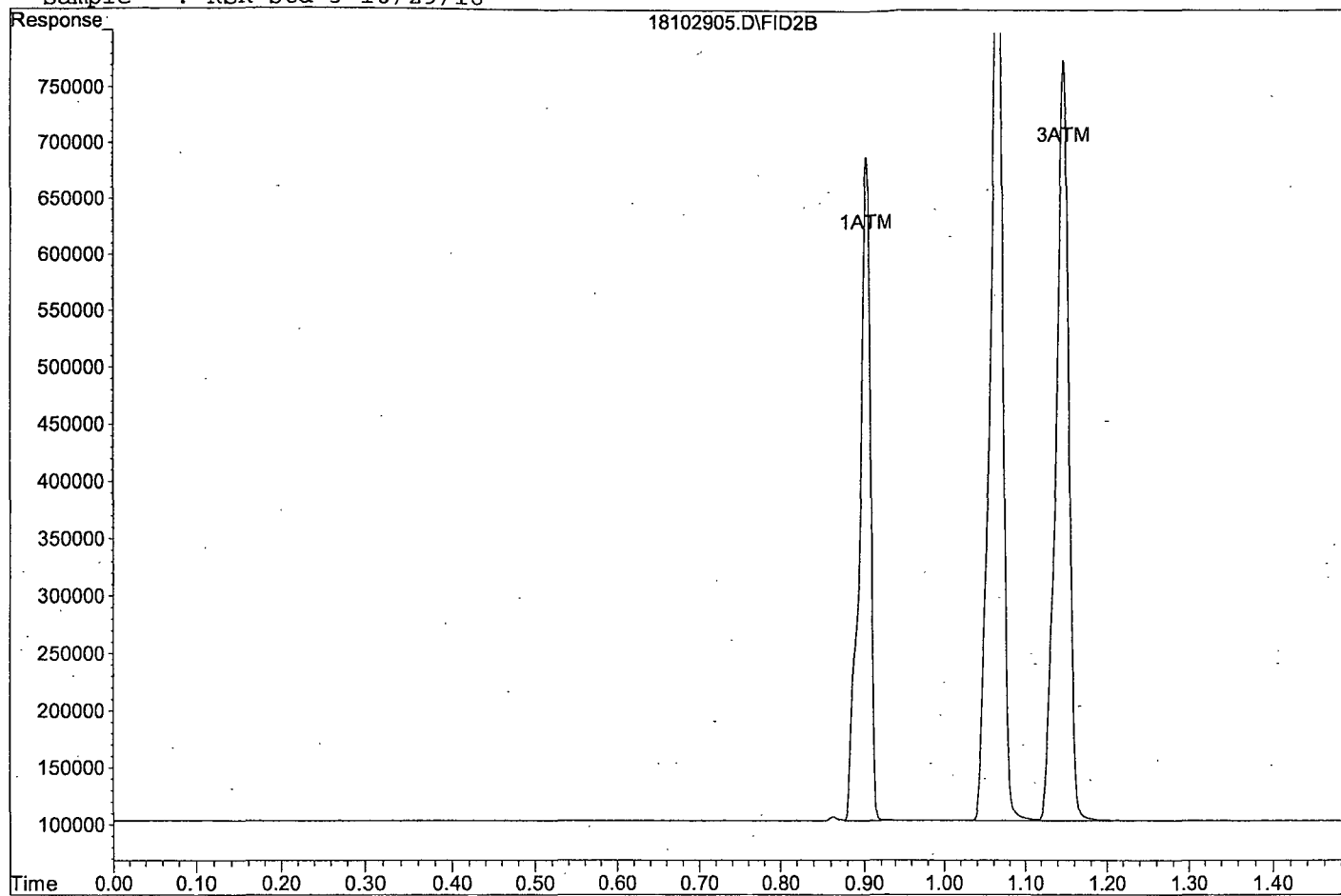
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.90	585044	96.247 ppb
2) ATM Ethane	1.07	838627	158.980 ppb
3) ATM Ethene	1.15	671284	146.802 ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102905.D

Sample : RSK Std 5 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102906.D Vial: 7  
 Acq On : 29 Oct 18 10:47 Operator: cmm  
 Sample : RSK Std 6 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:02 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:02:34 2018  
 Response via : Multiple Level Calibration

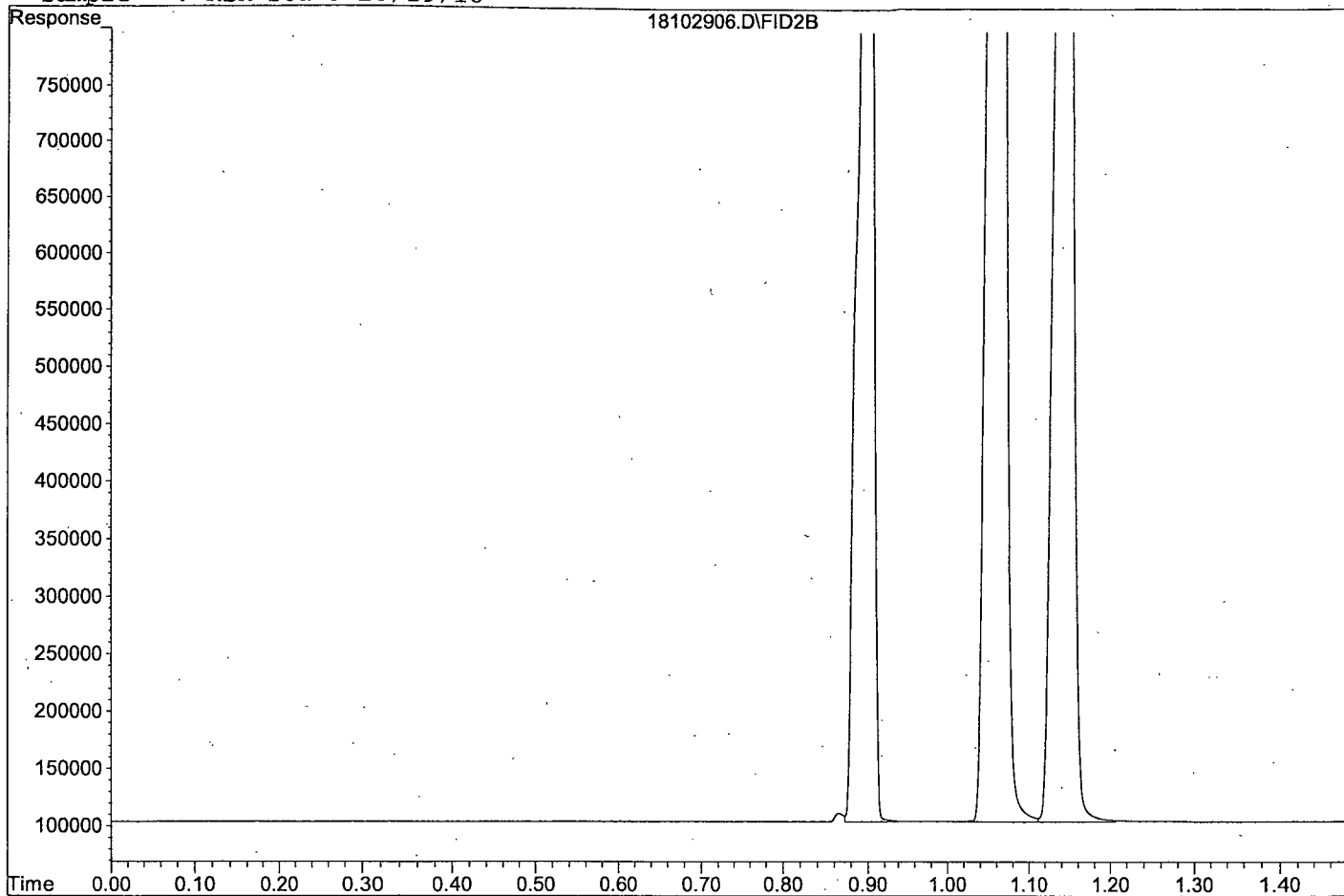
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.90	1400165	248.989 ppb
2) ATM Ethane	1.06	2133368	404.427 ppb
3) ATM Ethene	1.15	1738763	380.248 ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102906.D

Sample : RSK Std 6 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102907.D Vial: 8  
 Acq On : 29 Oct 18 10:49 Operator: cmm  
 Sample : RSK Std 7 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:02 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:02:34 2018  
 Response via : Multiple Level Calibration

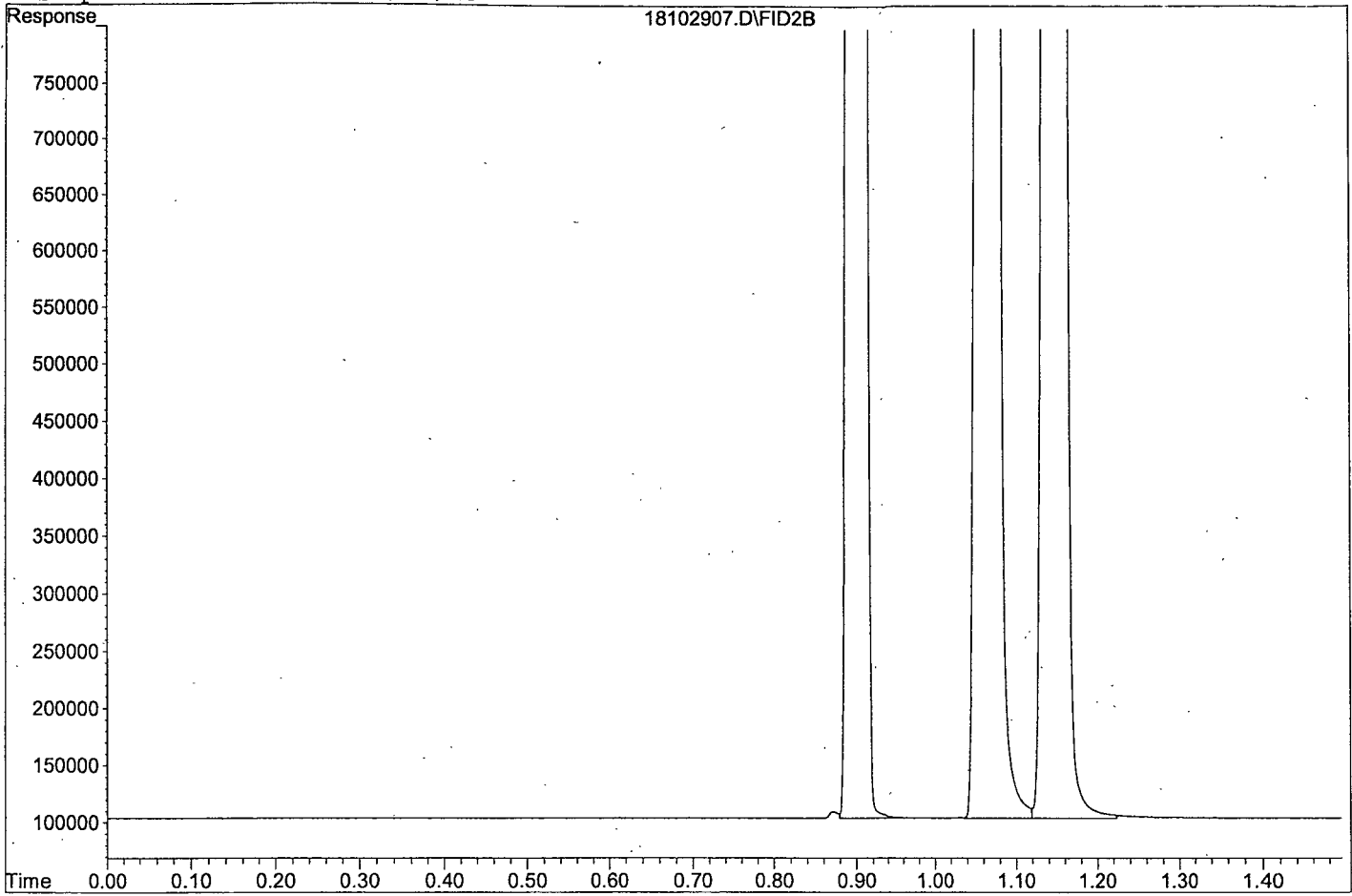
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

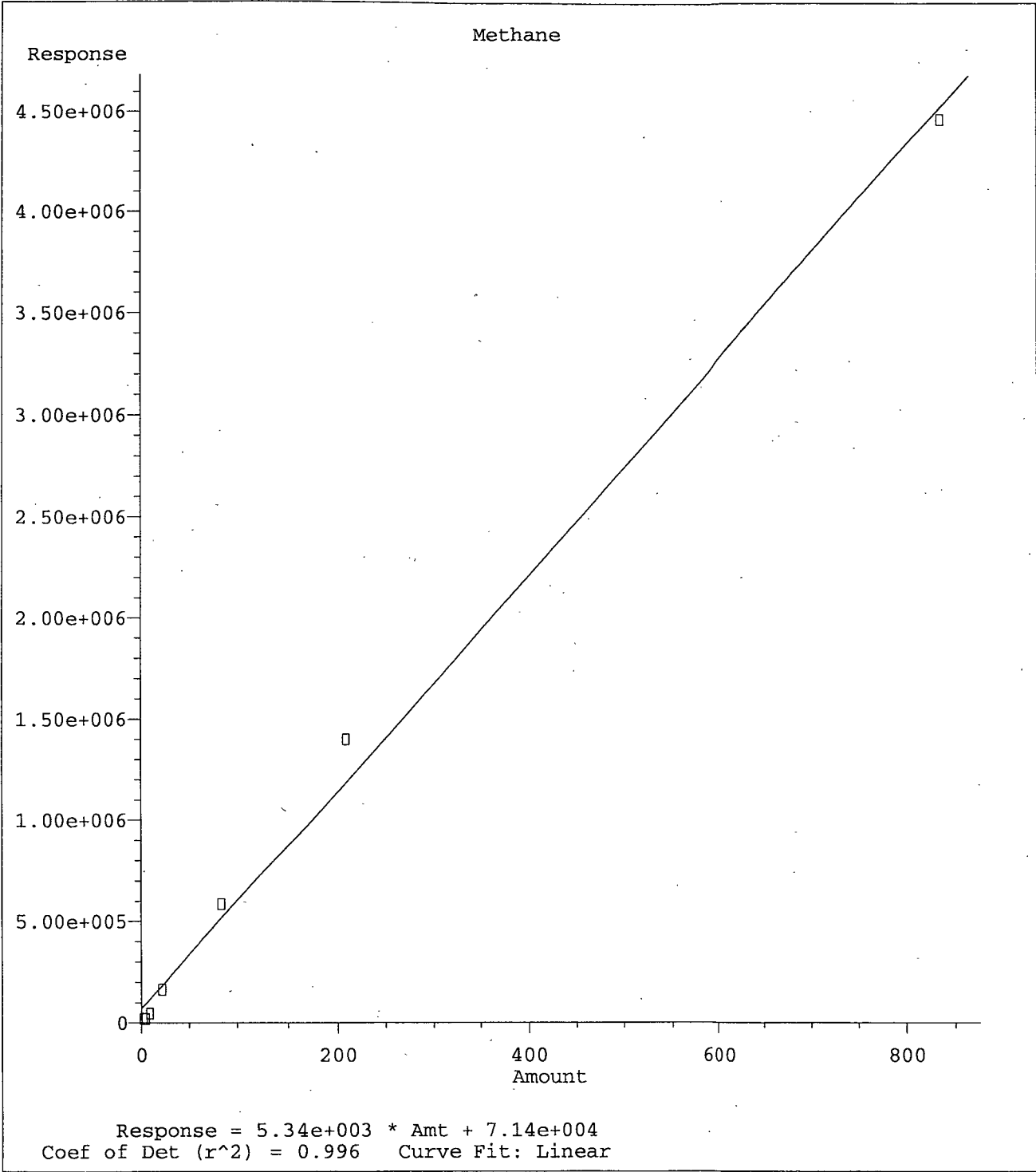
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.91	4462952	822.912 ppb
2) ATM Ethane	1.07	6510961	1234.297 ppb
3) ATM Ethene	1.15	5286849	1156.173 ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102907.D

Sample : RSK Std 7 10/29/18





Method Name: G:\ROCKY\DATA\181029RS\RSK1029.M  
Calibration Table Last Updated: Mon Oct 29 11:05:00 2018

RSK 175  
RSK 175

Form 7

### Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/29/18  
Instrument: 7890  
Initial Cal. Date: 10/29/18  
Data File: 18102908.D

		Compound	MEAN	CCRF	%D	%Drift	
1	ATML	Methane	13401	11162	17	ATML	11
2	ATM	Ethane	10550	8709	17	ATM	
3	ATM	Ethene	9145	7473	18	ATM	
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39							
40							

Average

17.3



Data File : G:\ROCKY\DATA\181029RS\18102908.D Vial: 9  
 Acq On : 29 Oct 18 10:51 Operator: cmm  
 Sample : SS RSK Std 5 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:05 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:05:00 2018  
 Response via : Multiple Level Calibration

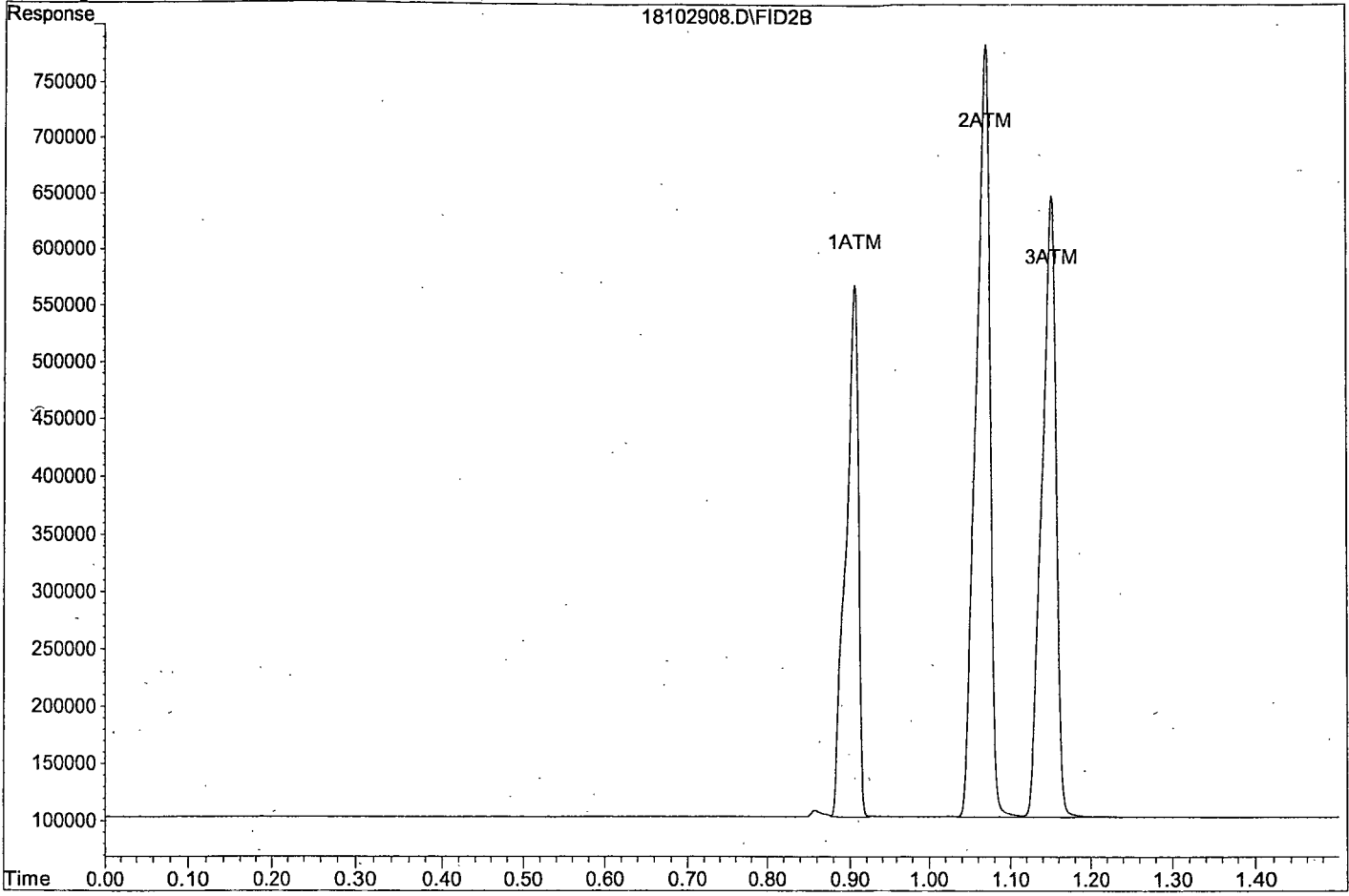
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.91	465450	73.837 ppb
2) ATM Ethane	1.07	680794	129.060 ppb
3) ATM Ethene	1.15	544918	119.167 ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102908.D

Sample : SS RSK Std 5 10/29/18



RSK 175  
RSK 175

Form 7  
Ending Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/29/18  
Instrument: 7890  
Initial Cal. Date: 10/29/18  
Data File: 18102933.D

		Compound	MEAN	CCRF	%D	%Drift	
1	ATML	Methane	13401	9911	26	ATML	23
2	ATM	Ethane	10550	7617	28	ATM	*nt
3	ATM	Ethene	9145	6406	30	ATM	*nt
4							
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39							
40							

Average

28.0

Data File : G:\ROCKY\DATA\181029RS\18102933.D Vial: 14  
 Acq On : 29 Oct 18 14:11 Operator: cmm  
 Sample : Ending CCV RSK Std 5 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 14:13 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 14:13:45 2018  
 Response via : Multiple Level Calibration

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

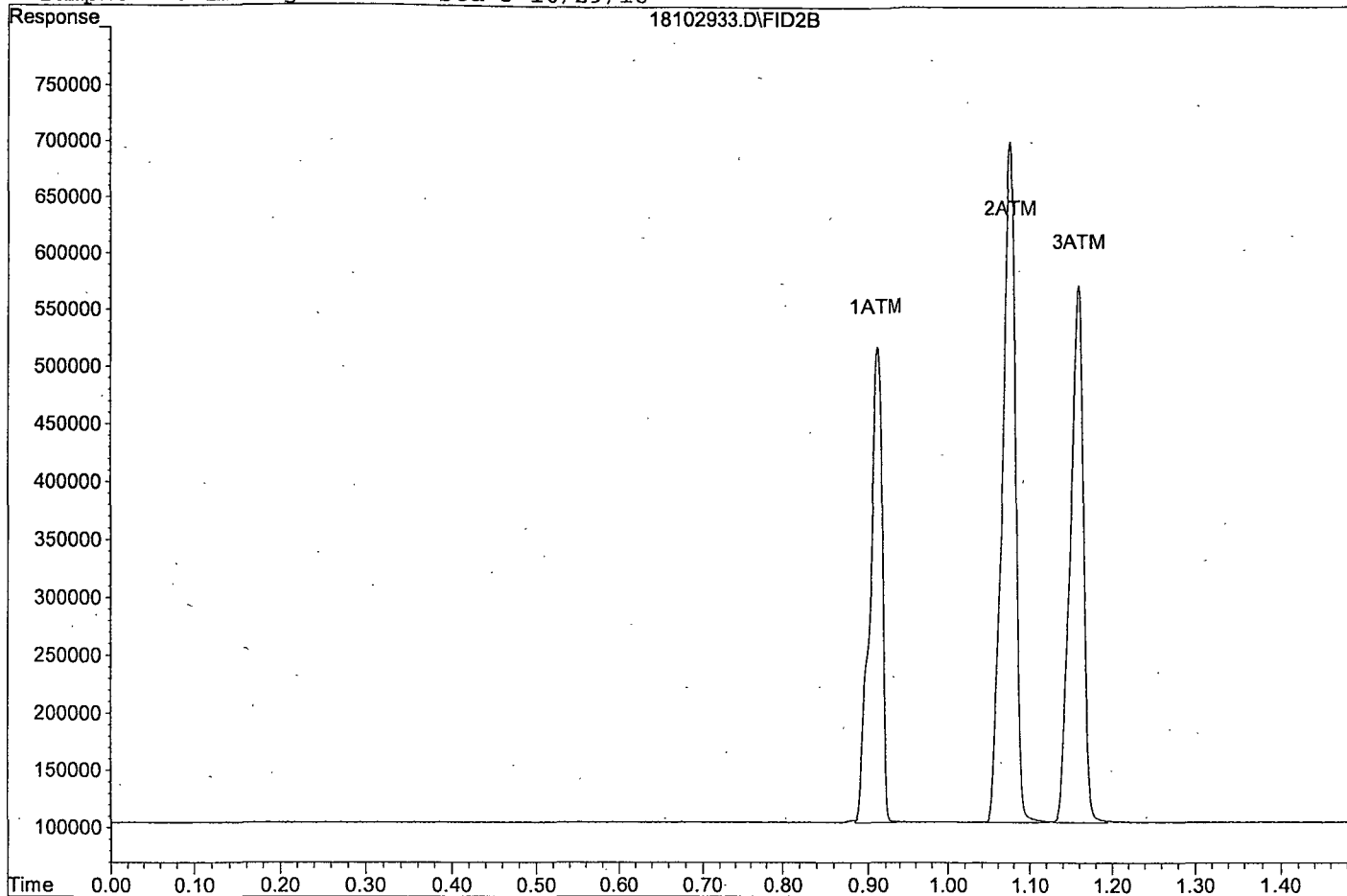
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.91	413269	64.059 ppb
2) ATM Ethane	1.08	595427	112.876 ppb
3) ATM Ethene	1.16	467149	102.160 ppb

Target Compounds

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102933.D

Sample : Ending CCV RSK Std 5 10/29/18



**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : G:\ROCKY\DATA\181029RS\18102918.D Vial: 1  
 Acq On : 29 Oct 18 12:37 Operator: cmm  
 Sample : AZ81673W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 12:40 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
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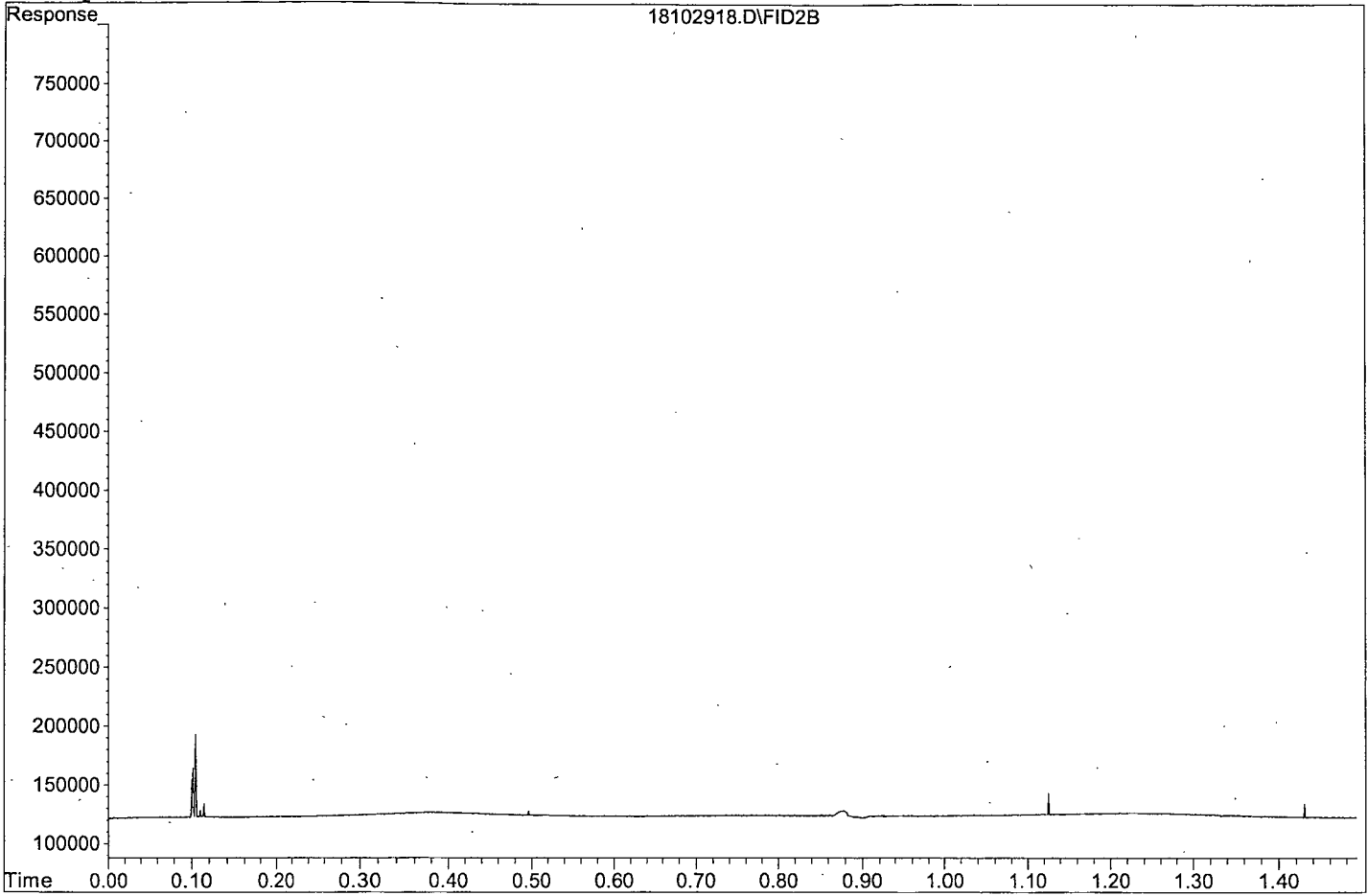
Target Compounds

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

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102918.D

Sample : AZ81673W04





Data File : G:\ROCKY\DATA\181029RS\18102919.D Vial: 2  
 Acq On : 29 Oct 18 12:39 Operator: cmm  
 Sample : AZ81674W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 12:51 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
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Target Compounds

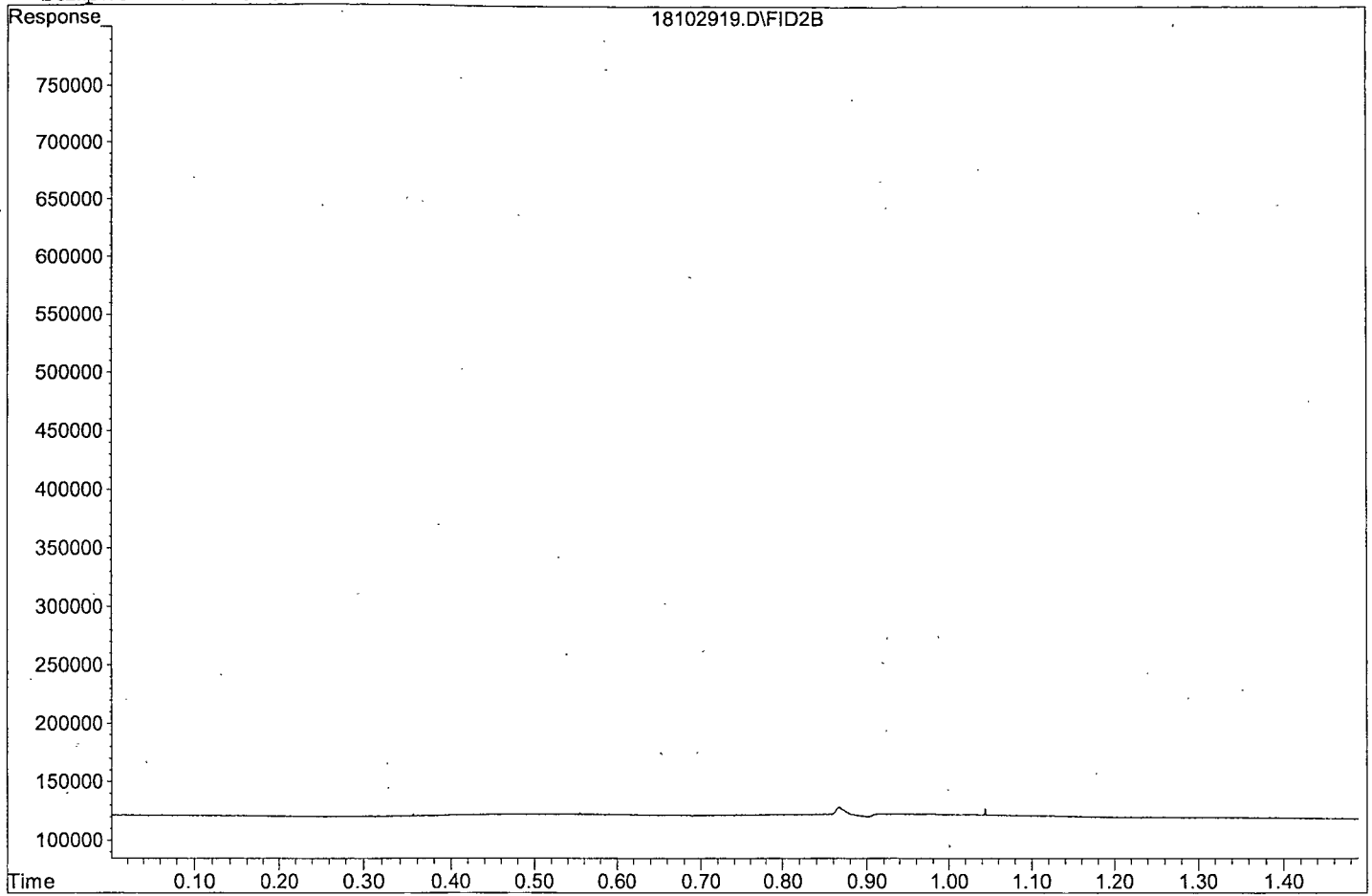
Target Compounds

1) ATM Methane	0.00	0	N.D.	ppb d
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102919.D

Sample : AZ81674W04



Data File : G:\ROCKY\DATA\181029RS\18102920.D Vial: 1  
 Acq On : 29 Oct 18 13:41 Operator: cmm  
 Sample : AZ81675W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 13:44 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
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Target Compounds

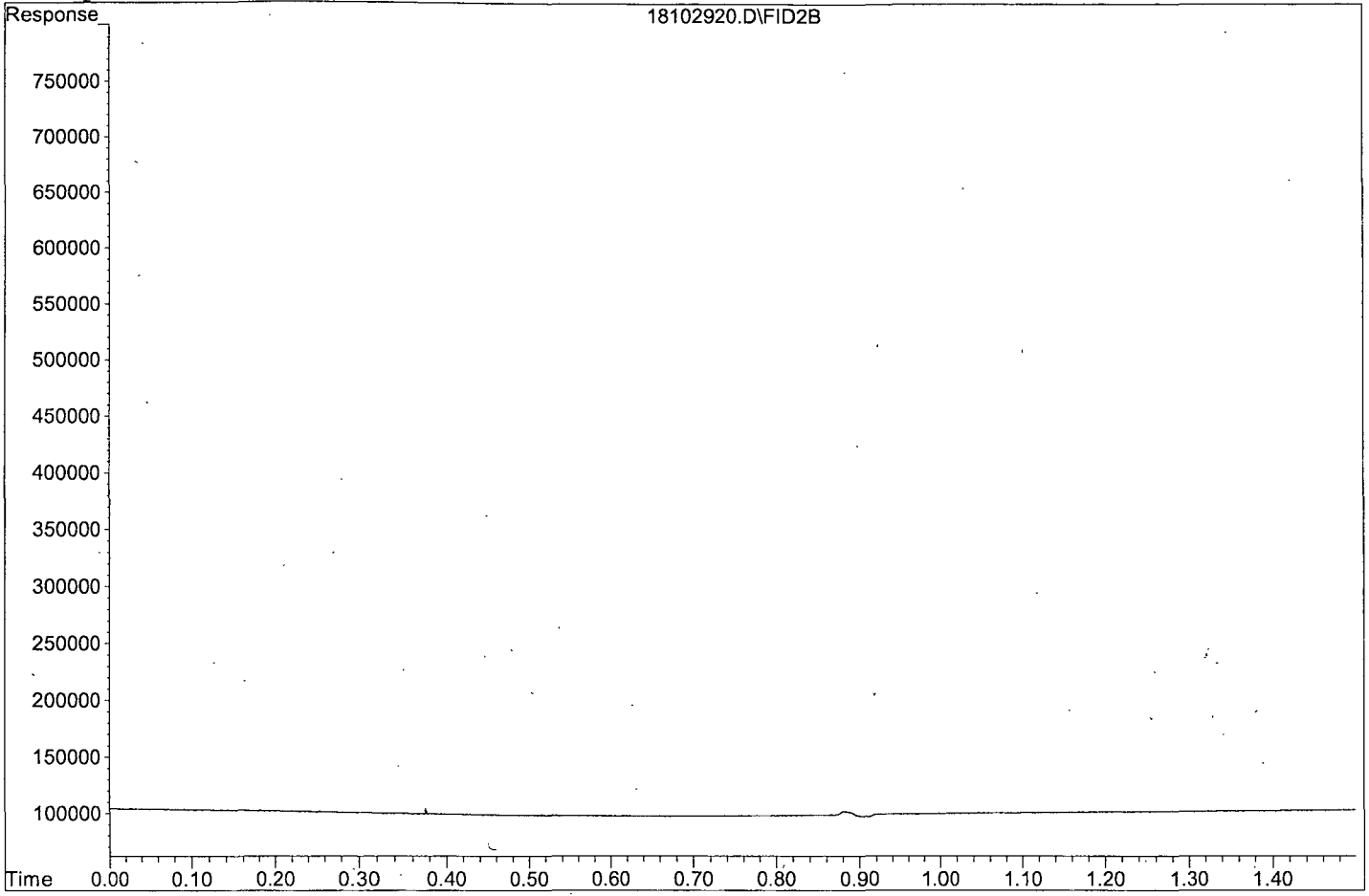
Target Compounds

1) ATM Methane	0.00	0	N.D.	ppb d
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102920.D

Sample : AZ81675W04



Data File : G:\ROCKY\DATA\181029RS\18102921.D Vial: 2  
 Acq On : 29 Oct 18 13:43 Operator: cmm  
 Sample : AZ81676W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 13:46 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
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Target Compounds

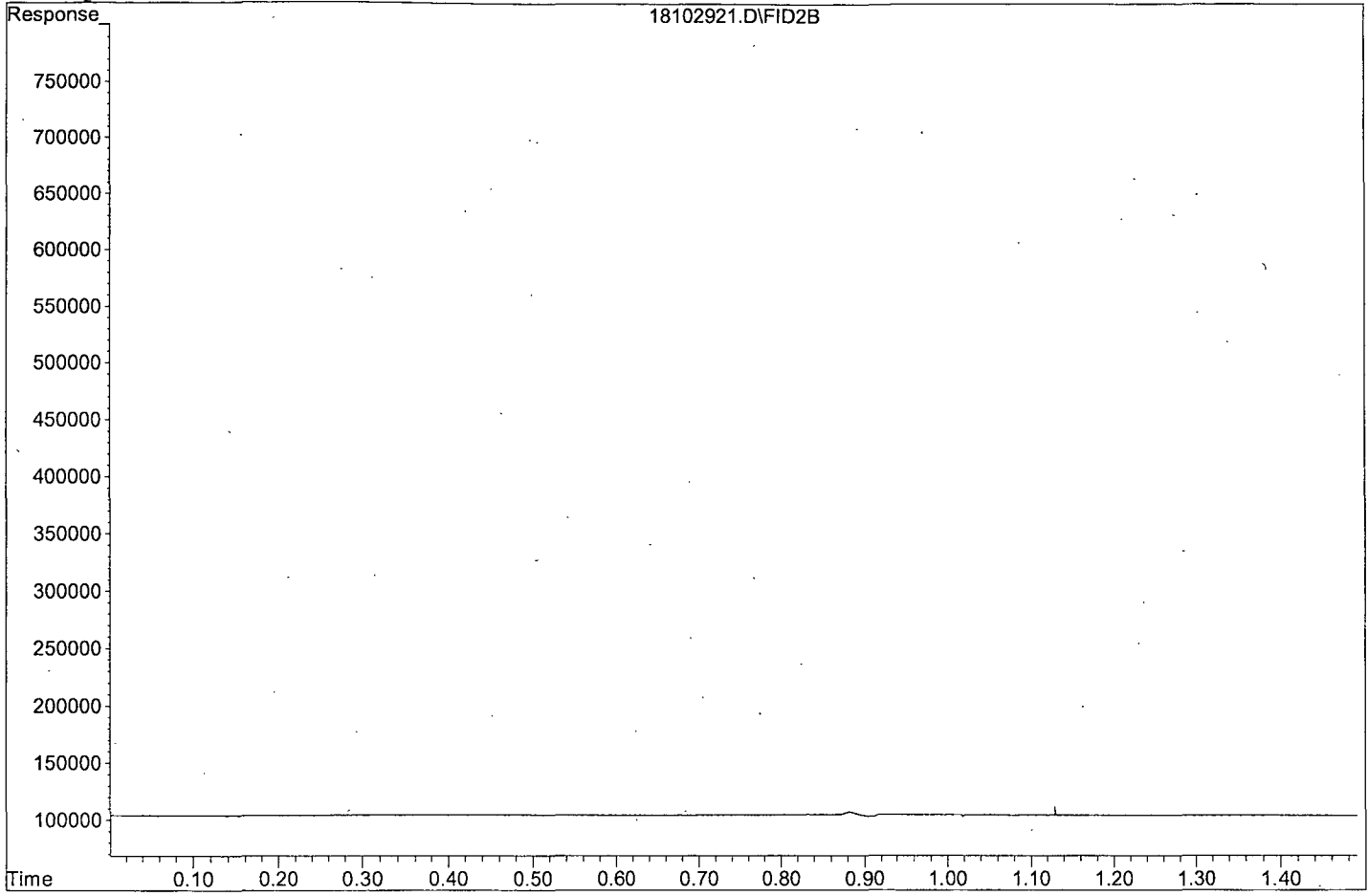
Target Compounds

1) ATM Methane	0.00	0	N.D.	ppb d
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethenè	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102921.D

Sample : AZ81676W04



Data File : G:\ROCKY\DATA\181029RS\18102922.D Vial: 3  
 Acq On : 29 Oct 18 13:45 Operator: cmm  
 Sample : AZ81677W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 13:49 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
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Target Compounds

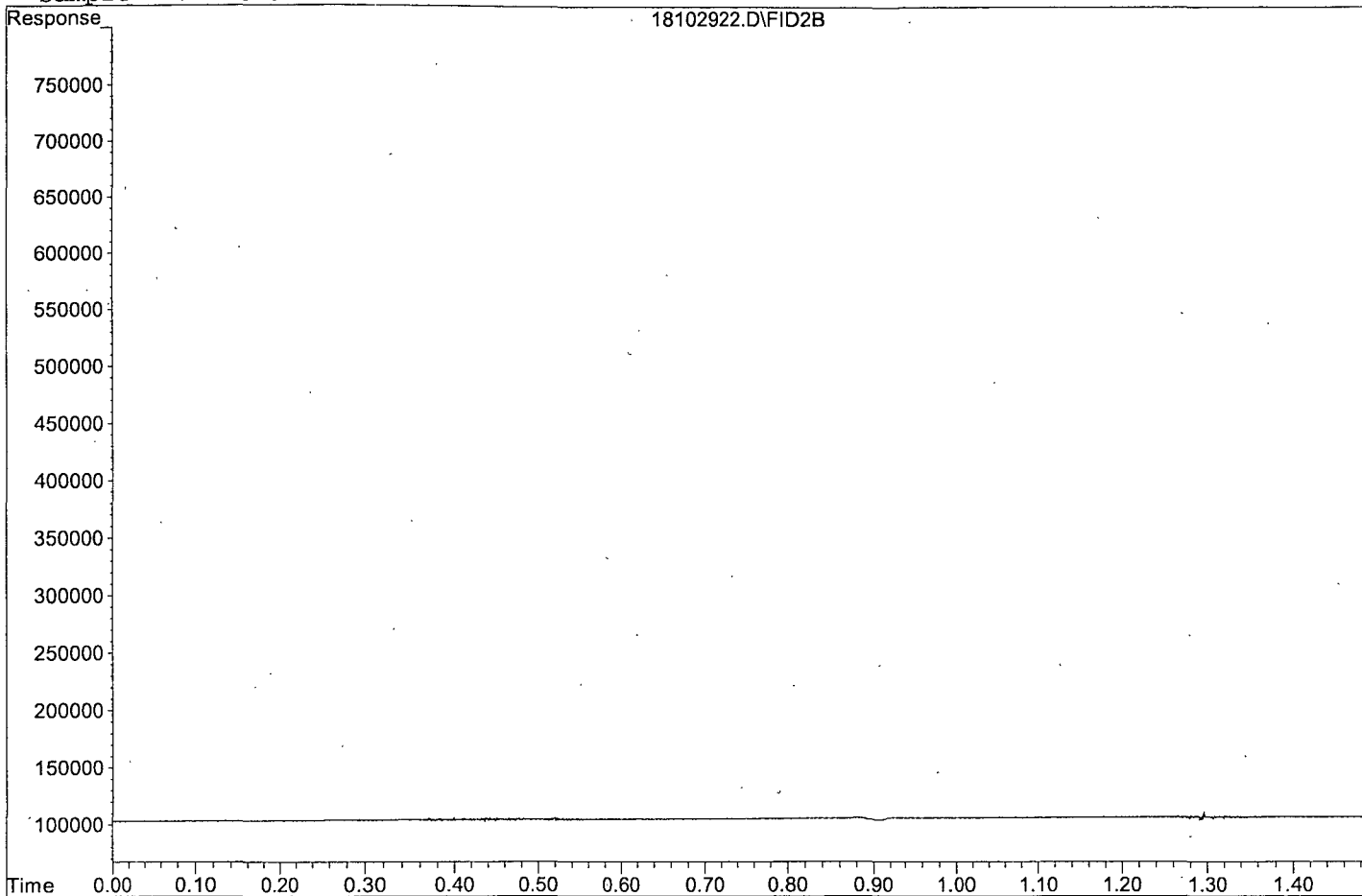
Target Compounds

1) ATM Methane	0.00	0	N.D.	ppb d
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102922.D

Sample : AZ81677W04





Data File : G:\ROCKY\DATA\181029RS\18102923.D Vial: 4  
 Acq On : 29 Oct 18 13:48 Operator: cmm  
 Sample : AZ81678W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 13:50 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
----------	------	----------	------	-------

Target Compounds

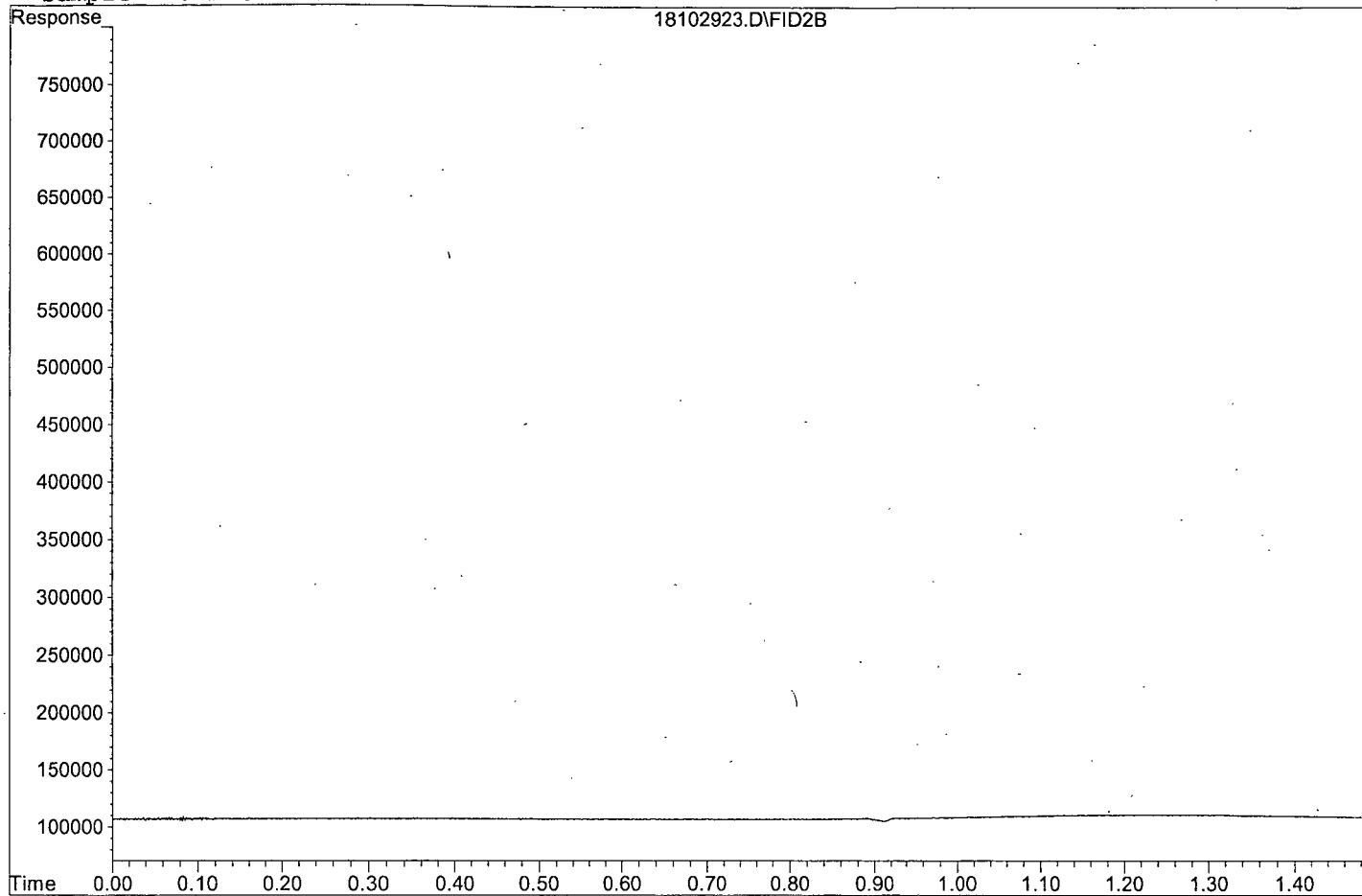
Target Compounds

1) ATM Methane	0.00	0	N.D.	ppb d
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102923.D

Sample : AZ81678W04



Data File : G:\ROCKY\DATA\181029RS\18102912.D Vial: 3  
 Acq On : 29 Oct 18 11:34 Operator: cmm  
 Sample : 181029A Blk Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:37 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
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Target Compounds

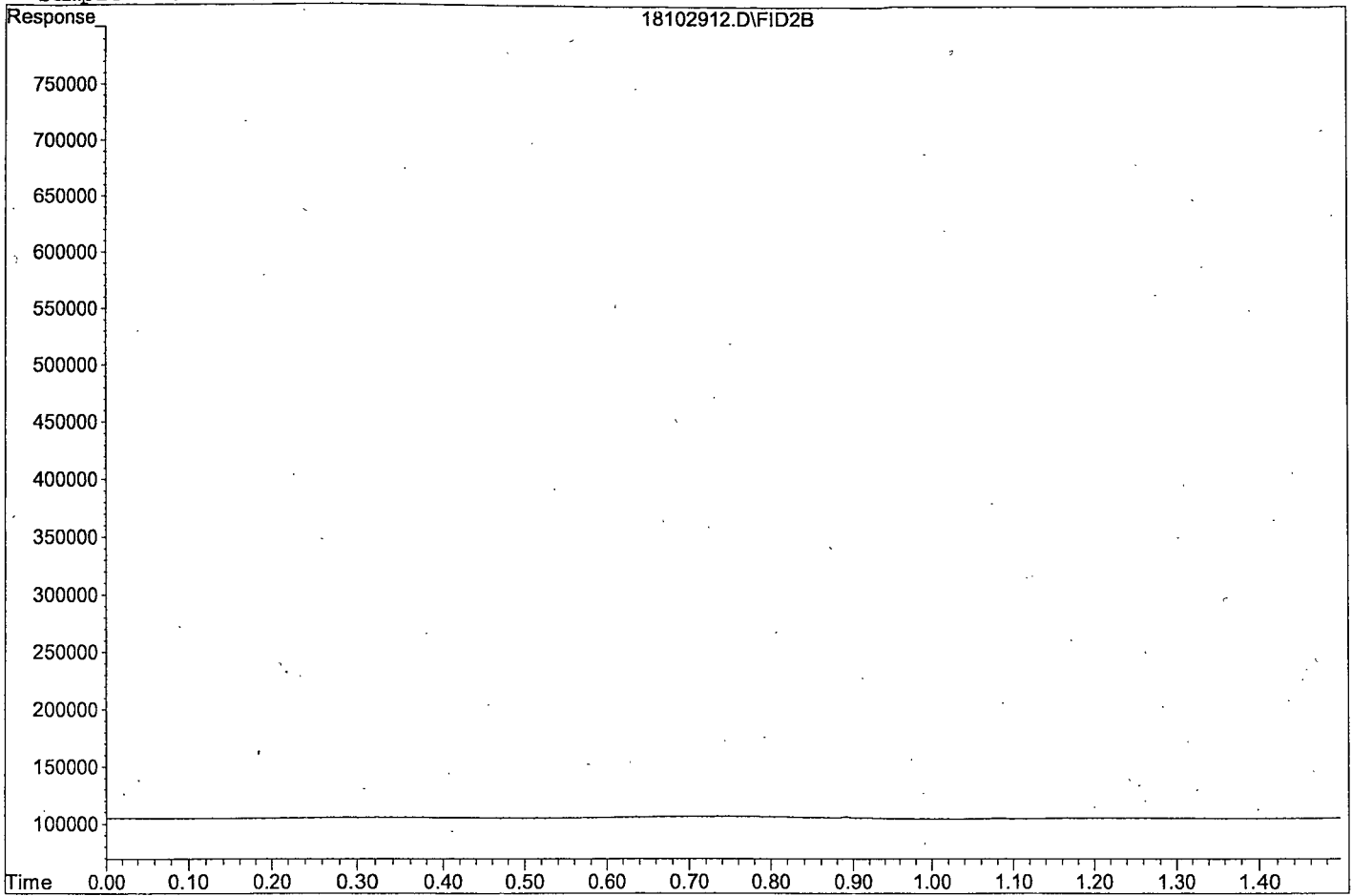
Target Compounds

1) ATM Methane	0.00	0	N.D.	ppb d
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102912.D

Sample : 181029A Blk



Data File : G:\ROCKY\DATA\181029RS\18102910.D Vial: 1  
 Acq On : 29 Oct 18 11:29 Operator: cmm  
 Sample : 181029A LCS RSK Std 5 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:31 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

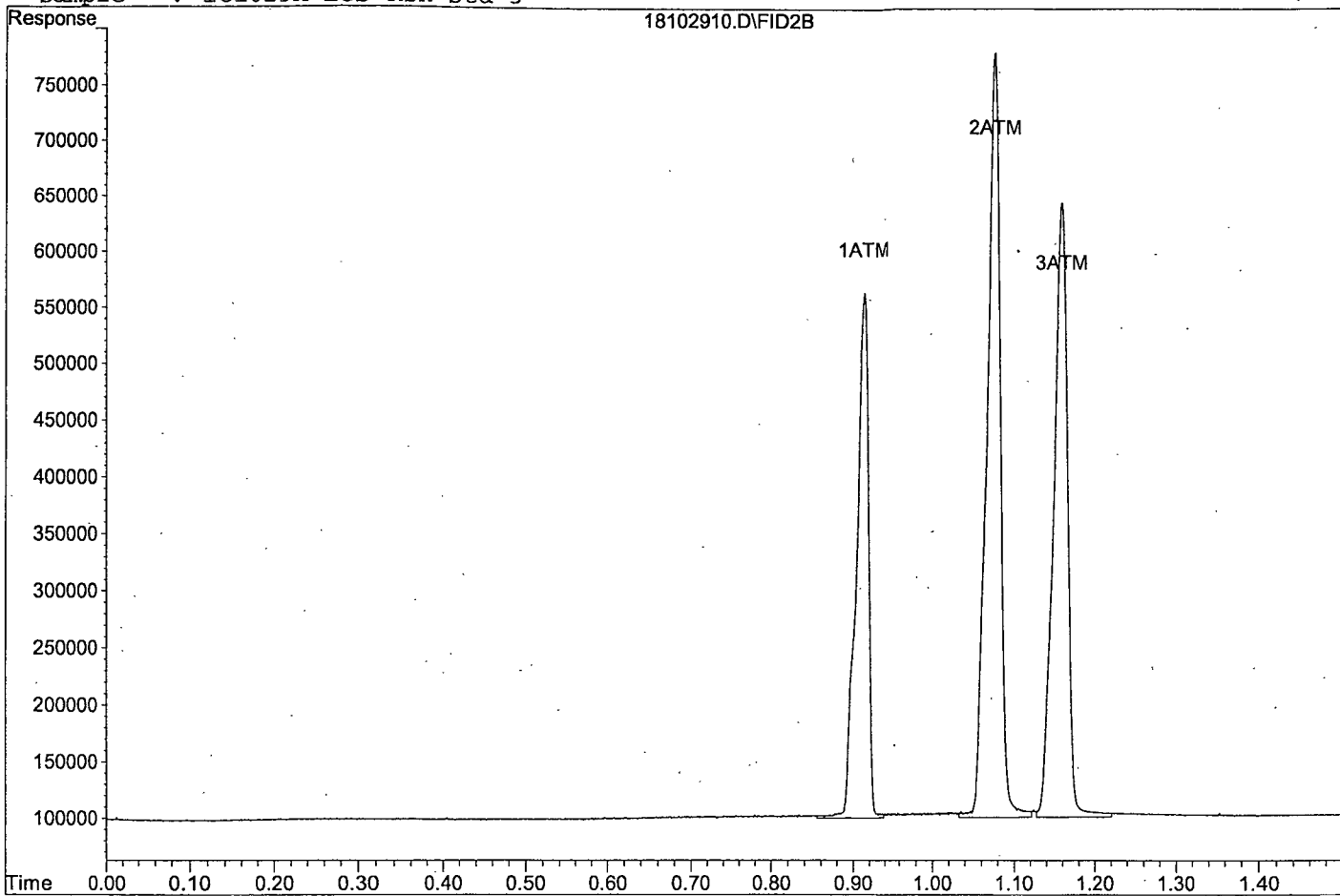
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.92	463602	73.490 ppb
2) ATM Ethane	1.08	679858	128.882 ppb
3) ATM Ethene	1.16	543114	118.773 ppb

Target Compounds

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102910.D

Sample : 181029A LCS RSK Std 5



Data File : G:\ROCKY\DATA\181029RS\18102911.D Vial: 2  
 Acq On : 29 Oct 18 11:32 Operator: cmm  
 Sample : 181029A LCSD RSK Std 5 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:34 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:31:39 2018  
 Response via : Multiple Level Calibration

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

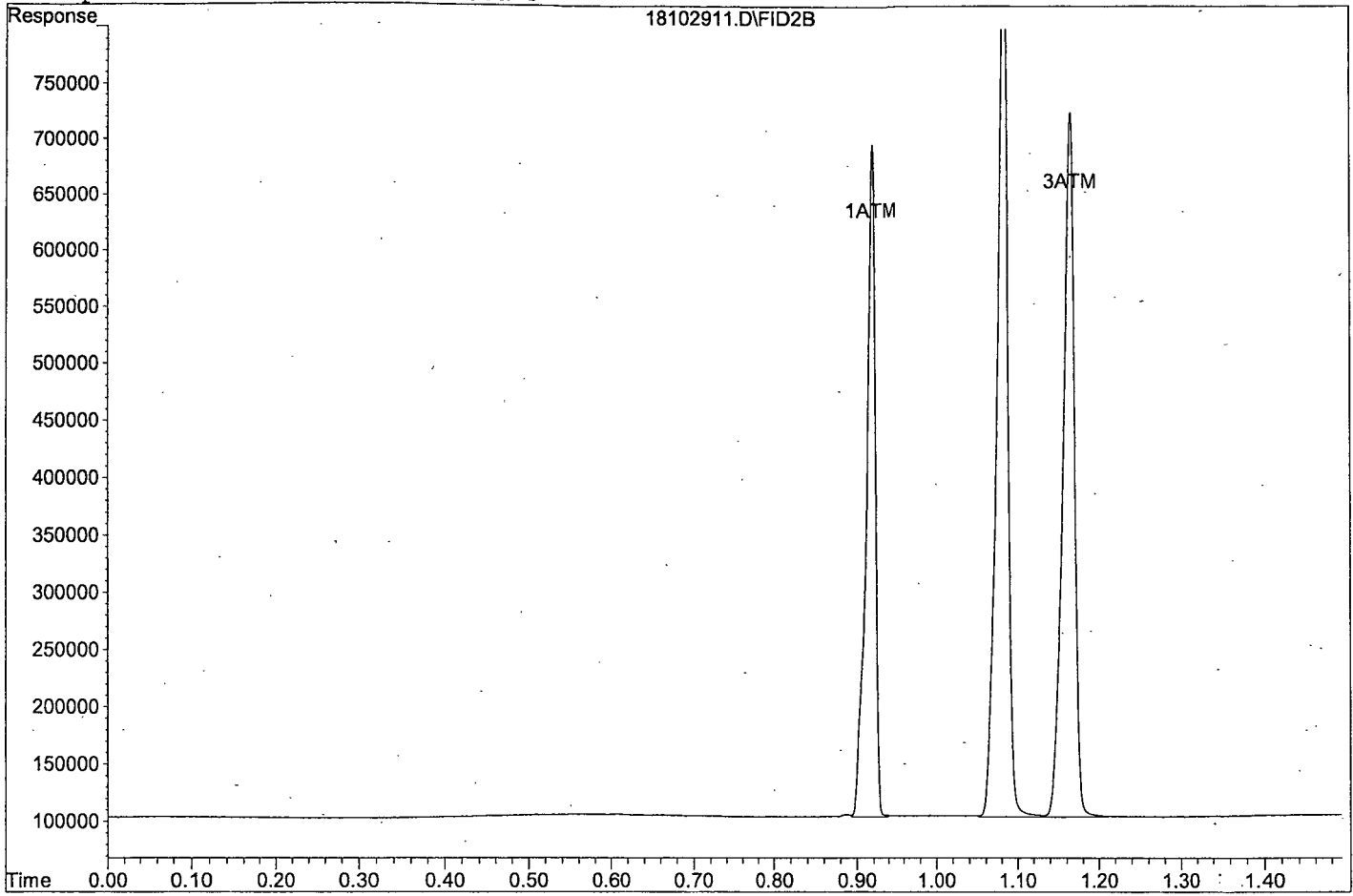
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.92	591178	97.396 ppb
2) ATM Ethane	1.08	790708	149.896 ppb
3) ATM Ethene	1.16	619673	135.515 ppb

Target Compounds

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102911.D

Sample : 181029A LCSD RSK Std 5





**Primary Source Stock Standard 10,000ppmV**

Manufacturer Exp Date 09-21-2021

RSK Gas Mix (Scott Mini-Mix) Cat.# X04NI97CP140001, Lot # 16-401303031-1

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

**RSK Calibration Curve (prepared in 1.0 L Tedlar Bags at room temp)****Expires 12/24/18****CMM 08/05/18**

Analyte	Conc Std 1 (1/2 = LOD) (ug/L)	Conc Std 2 (LOQ Chk) (ug/L)	Conc Std 3 (ug/L)	Conc Std 4 (ug/L)	Conc Std 5 (ug/L)	Conc Std 6 (ug/L)	Conc Std 7 (ug/L)
Methane (MW 16.04)	2.08	4.16	8.34	20.85	83.40	208.5	834.0
Ethane (MW 30.07)	3.91	7.81	15.6	39.09	156.35	390.9	1563.5
Ethene (MW 28.05)	3.65	7.30	14.6	36.46	145.84	364.6	1458.4
Stock Source	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC0 06L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410
Stock Conc (ppmv)	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV
Stock Aliquot (mL)	0.010	0.020	0.040	0.100	0.400	1.00	4.00
Final Volume P&T Water	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL

**Second Source Stock Standard 10,000ppmV**

Manufacturer Exp date 09/21/2021

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

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

**Second Source****Expires 10/29/18****CMM 10/29/18**

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

**CCV/LCS/LCSD****CMM 10/29/18**

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

## Injection Log

Directory: G:\ROCKY\DATA\181029RS\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	18102900.D	1	RSK Std 1 10/29/18	125uL from RSK Std 3	29 Oct 18 10:29
2	2	18102901.D	1	RSK Std 2 10/29/18	250uL from RSK Std 3	29 Oct 18 10:32
3	4	18102903.D	1	RSK Std 3 10/29/18		29 Oct 18 10:40
4	5	18102904.D	1	RSK Std 4 10/29/18		29 Oct 18 10:42
5	6	18102905.D	1	RSK Std 5 10/29/18		29 Oct 18 10:44
6	7	18102906.D	1	RSK Std 6 10/29/18		29 Oct 18 10:47
7	8	18102907.D	1	RSK Std 7 10/29/18		29 Oct 18 10:49
8	9	18102908.D	1	SS RSK Std 5 10/29/18		29 Oct 18 10:51
9	1	18102910.D	1	181029A LCS RSK Std 5		29 Oct 18 11:29
10	2	18102911.D	1	181029A LCSD RSK Std 5		29 Oct 18 11:32
11	3	18102912.D	1	181029A Blk		29 Oct 18 11:34
12	1	18102918.D	1	AZ81673W04		29 Oct 18 12:37
13	2	18102919.D	1	AZ81674W04		29 Oct 18 12:39
14	1	18102920.D	1	AZ81675W04		29 Oct 18 13:41
15	2	18102921.D	1	AZ81676W04		29 Oct 18 13:43
16	3	18102922.D	1	AZ81677W04		29 Oct 18 13:45
17	4	18102923.D	1	AZ81678W04		29 Oct 18 13:48
18	14	18102933.D	1	Ending CCV RSK Std 5 10/29/18		29 Oct 18 14:11

**INORGANIC ANALYSIS**  
**Calibration Data**

**APPL, INC.**

A.P.P.L. INC.  
2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

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

ARF No: 87219 SDG: 87219

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 06/15/18

Analyte	Calibration Verification									M
	True ICV	Found 12:31	%R(1)	True CCV1	Found 12:08	%R(1)	True CCV1	Found 12:15	%R(1)	
Ferrous Iron	3	3.16507	106	4	3.93495	98.4	4	3.96495	99.1	

A.P.P.L. INC.

3

BLANKS

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

Contract: AECOM

ARF No.: 87219

SDG: 87219

Preparation Blank Matrix (soil/water): water

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

Analyte	Calibration Blanks										M
	ICB 06/15/18 12:32	C	CCB 10/25/18 12:08	C	CCB 10/25/18 12:15	C		C		C	
Ferrous Iron	1.000	U	1.000	U	1.000	U					

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: \_\_\_\_\_

ARF No: \_\_\_\_\_ SDG: \_\_\_\_\_

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: \_\_\_\_\_

Analysis Date: 09/24/18

Analyte	Calibration Verification									M
	True ICV	Found 11:51	%R(1)	True	Found	%R(1)	True	Found	%R(1)	
bromide	12.5	12.7618	102							
chloride	20	18.7141	93.6							
fluoride	2.5	2.3808	95.2							
Nitrate(NO3)	22.1	21.9977	99.5							
Nitrate(NO3)-N	5	4.9672	99.3							
Nitrite(NO2)	9.98	10.2042	102							
Nitrite(NO2)-N	3.04	3.1067	102							
phosphate-p	5	4.9649	99.3							
sulfate	20	19.129	95.6							

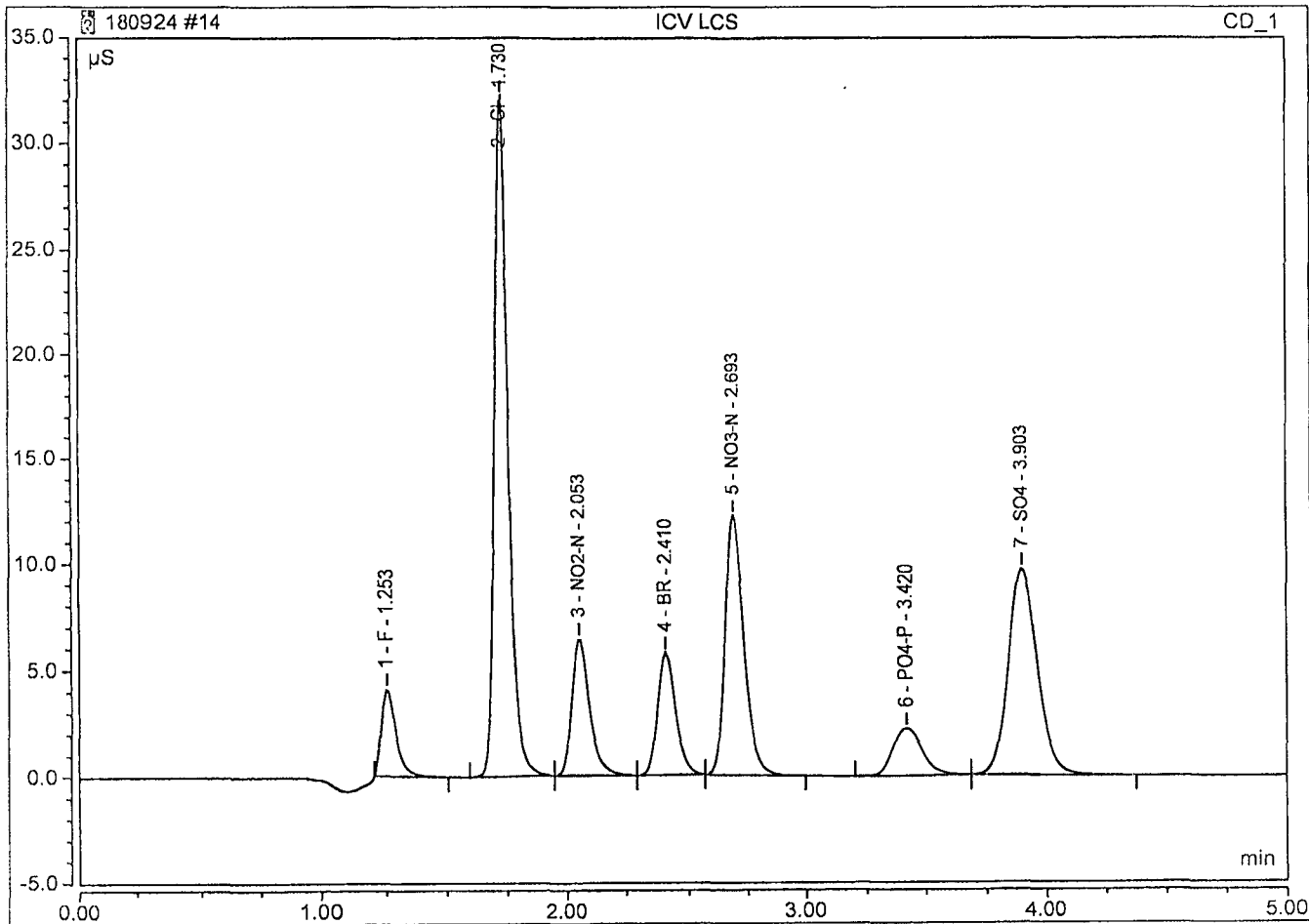
(1) Control Limits: 90-110

ILM02.0

Peak Integration Report

Sample Name:	ICV LCS	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:51	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.25	F	BMB	0.271	4.107	2.3807
2	1.73	Cl	BMB	2.043	32.215	18.7141
3	2.05	NO2-N	BMB	0.562	6.419	3.1067
4	2.41	BR	BMB	0.480	5.743	12.7618
5	2.69	NO3-N	BMB	1.141	12.194	4.9672
6	3.42	PO4-P	BMB	0.319	2.256	4.9649
7	3.90	SO4	BMB	1.364	9.663	19.1290
TOTAL:				6.18	72.60	66.02



Algorithm Check: HH 180926  
 $y = \text{Peak Area}$   
 $x = \text{mg/L NO}_3\text{-N}$   
 $y = .2308 x - .0053$   
 $y = 1.141 \therefore x = 4.966 \checkmark$

BLANKS

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

Contract: \_\_\_\_\_

ARF No.: \_\_\_\_\_

SDG: \_\_\_\_\_

Preparation Blank Matrix (soil/water): water

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

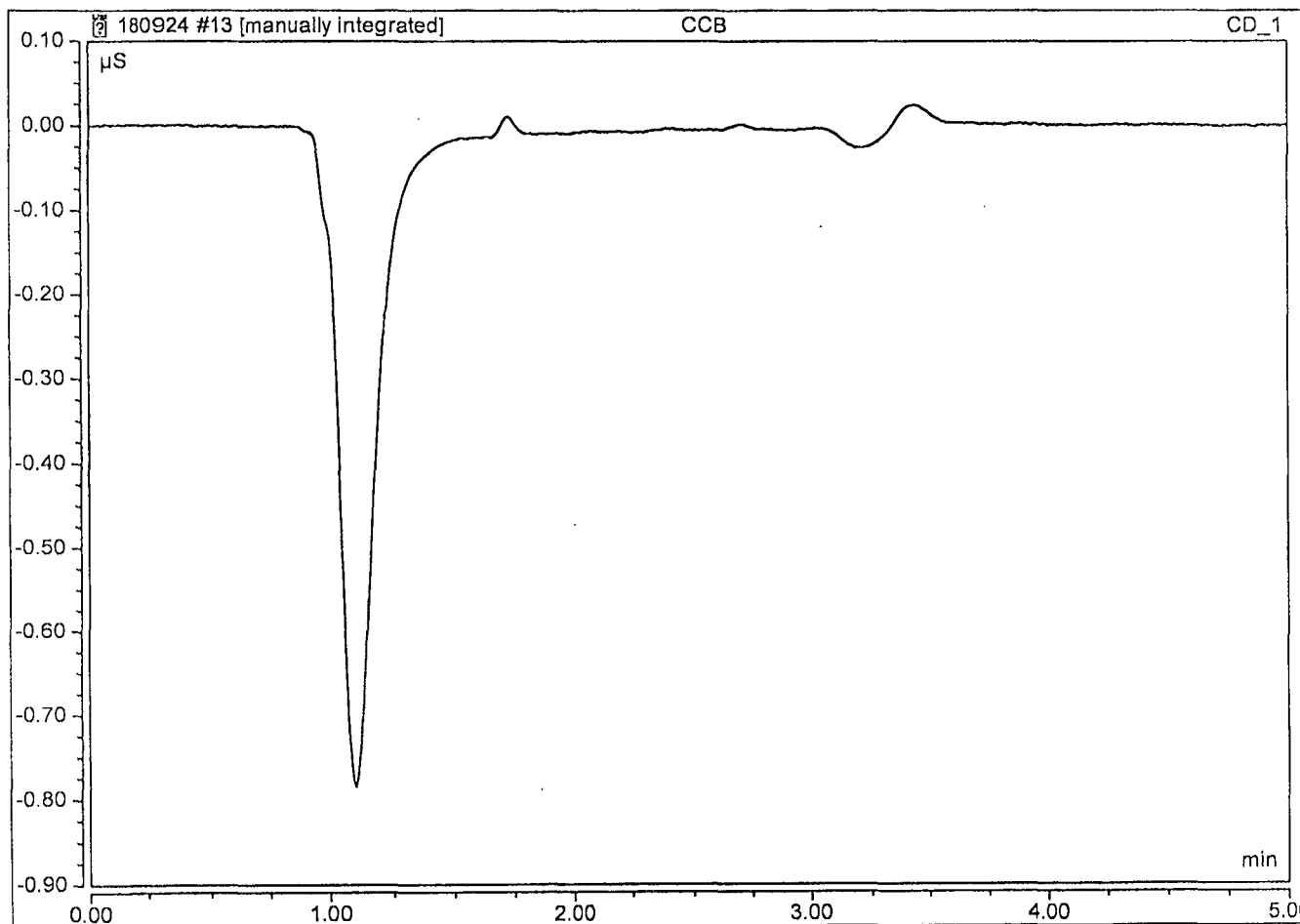
Analyte	Calibration Blanks										M
	CCB 09/24/18 11:43	C		C		C		C		C	
bromide	.500	U									
chloride	1.000	U									
fluoride	.100	U									
Nitrate(NO3)	.500	U									
Nitrate(NO3)-N	.200	U									
Nitrite(NO2)	.300	U									
Nitrite(NO2)-N	.100	U									
phosphate-p	.200	U									
sulfate	1.000	U									



### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:43	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00



## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOMARF No: 87238 SDG: 87238Initial Calibration Source: CPIContinuing Calibration Source: Environmental ExpressAnalysis Date: 10/26/18

Analyte	Calibration Verification									M
	True CCV1	Found 9:42	%R(1)	True CCV1	Found 11:05	%R(1)	True CCV1	Found 12:07	%R(1)	
chloride	25	23.9479	95.8	25	24.1223	96.5	25	24.045	96.2	
Nitrate(NO3)	22.1	21.8803	99.0	22.1	21.9286	99.2	22.1	21.9445	99.3	
sulfate	25	24.505	98.0	25	24.6738	98.7	25	24.5937	98.4	

INITIAL AND CONTINUING CALIBRATION VERIFICATION

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

ARF No: 87238 SDG: 87238

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

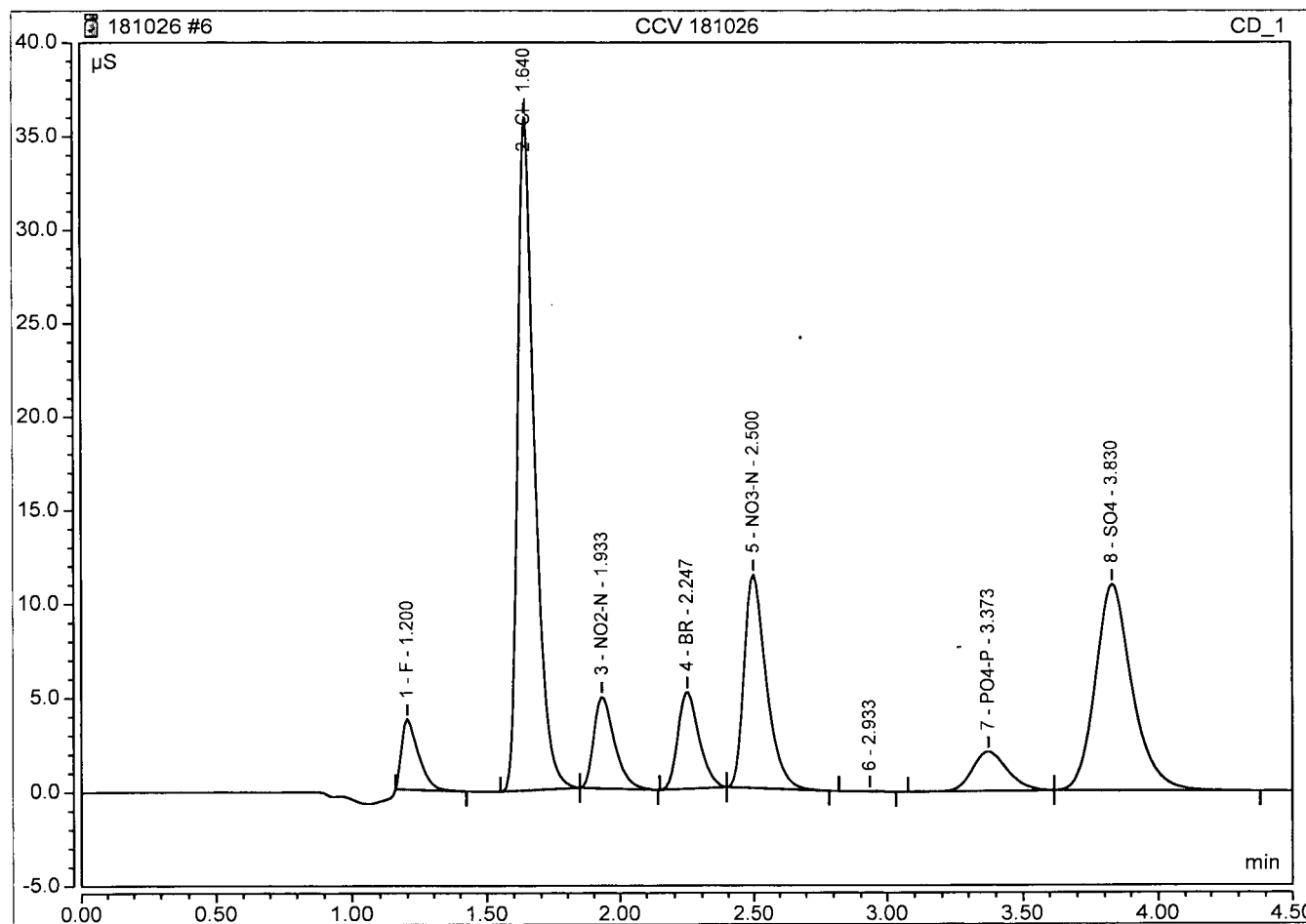
Analysis Date: 10/26/18

Analyte	Calibration Verification									M
	True CCV1	Found 13:02	%R(1)	True	Found	%R(1)	True	Found	%R(1)	
chloride	25	23.8949	95.6							
Nitrate(NO3)	22.1	21.7063	98.2							
sulfate	25	25.5379	102							

### Peak Integration Report

Sample Name:	CCV 181026	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 09:42	Run Time:	4.50

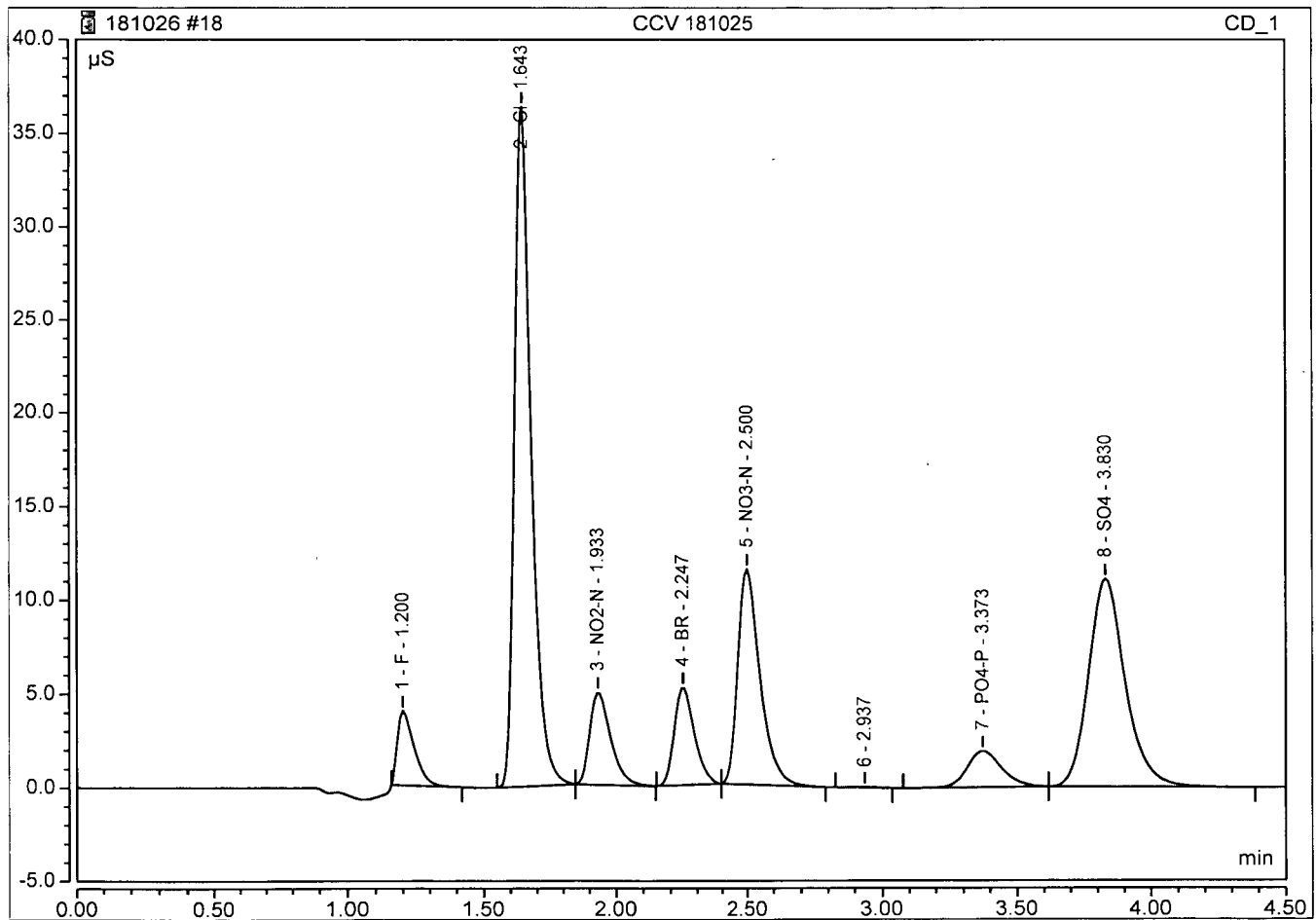
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.20	F	BMB	0.272	3.728	2.3878
2	1.64	Cl	BMB	2.621	35.926	23.9479
3	1.93	NO2-N	BMB	0.447	4.876	2.4751
4	2.25	BR	BMB	0.461	5.151	12.2479
5	2.50	NO3-N	BMB	1.135	11.332	4.9407
7	3.37	PO4-P	BMB	0.311	2.092	4.8385
8	3.83	SO4	BMB	1.750	10.938	24.5050
TOTAL:				7.00	74.04	75.34



### Peak Integration Report

Sample Name:	CCV 181025	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 11:05	Run Time:	4.50

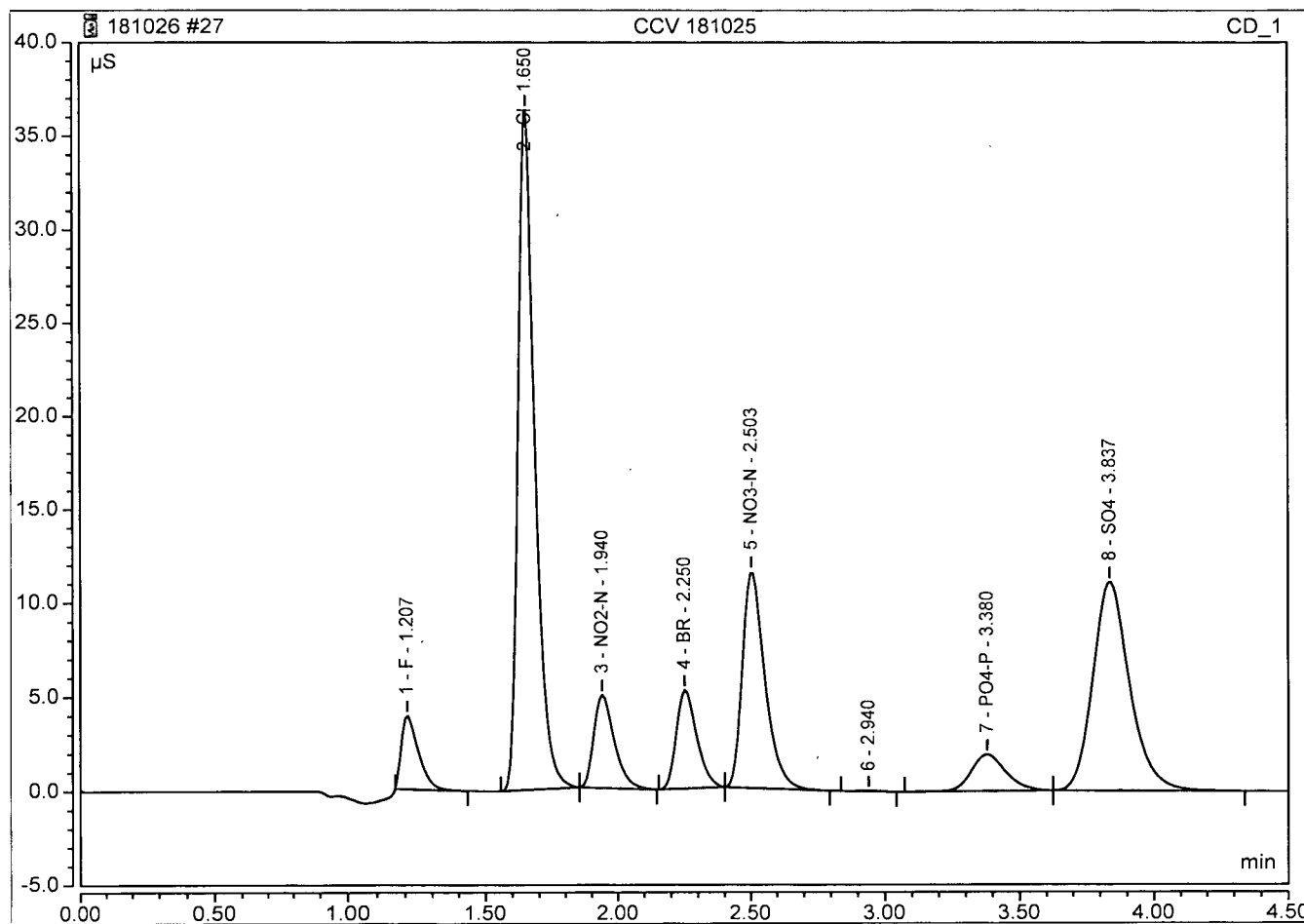
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.20	F	BMB	0.290	3.981	2.5368
2	1.64	Cl	BMB	2.641	36.347	24.1223
3	1.93	NO <sub>2</sub> -N	BMB	0.450	4.937	2.4885
4	2.25	BR	BMB	0.462	5.220	12.2971
5	2.50	NO <sub>3</sub> -N	BMB	1.137	11.475	4.9515
7	3.37	PO <sub>4</sub> -P	BMB	0.288	1.939	4.4980
8	3.83	SO <sub>4</sub>	BMB	1.762	11.094	24.6738
TOTAL:				7.03	74.99	75.57



### Peak Integration Report

Sample Name:	CCV 181025	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 12:07	Run Time:	4.50

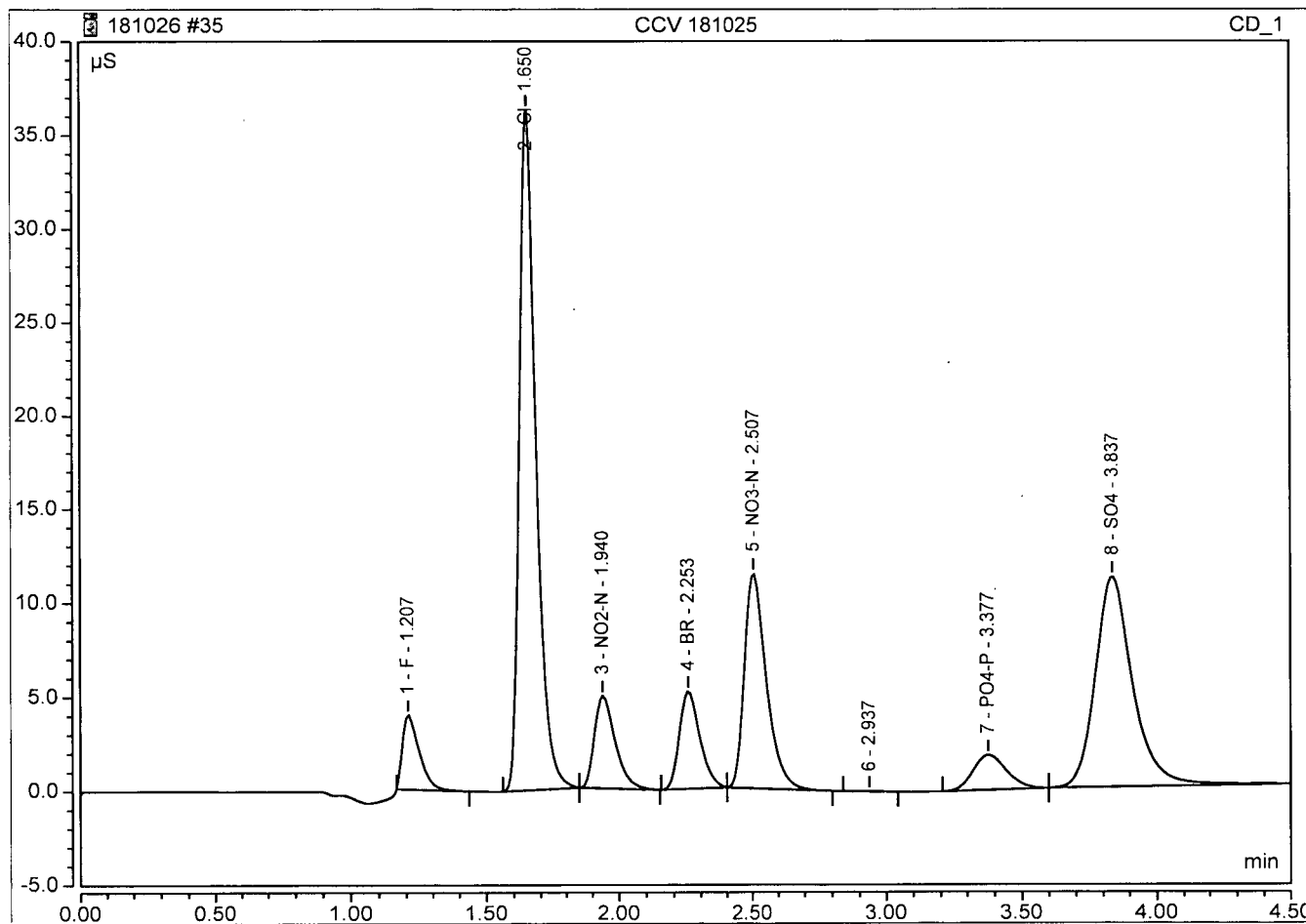
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.21	F	BMB	0.286	3.918	2.5078
2	1.65	Cl	BMB	2.632	36.301	24.0450
3	1.94	NO <sub>2</sub> -N	BMB	0.449	4.945	2.4839
4	2.25	BR	BMB	0.463	5.231	12.3053
5	2.50	NO <sub>3</sub> -N	BMB	1.138	11.503	4.9551
7	3.38	PO <sub>4</sub> -P	BMB	0.290	1.957	4.5248
8	3.84	SO <sub>4</sub>	BMB	1.756	11.081	24.5937
TOTAL:				7.01	74.94	75.42



### Peak Integration Report

Sample Name:	CCV 181025	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 13:02	Run Time:	4.50

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.21	F	BMB	0.288	3.964	2.5241
2	1.65	Cl	BMB	2.616	36.309	23.8949
3	1.94	NO <sub>2</sub> -N	BMB	0.445	4.930	2.4640
4	2.25	BR	BMB	0.457	5.193	12.1598
5	2.51	NO <sub>3</sub> -N	BMB	1.126	11.426	4.9014
7	3.38	PO <sub>4</sub> -P	BMB	0.263	1.865	4.1330
8	3.84	SO <sub>4</sub>	BMB	1.824	11.176	25.5379
TOTAL:				7.02	74.86	75.62



A.P.P.L. INC.

3

BLANKS

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

Contract: AECOM

ARF No.: 87238

SDG: 87238

Preparation Blank Matrix (soil/water): water

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

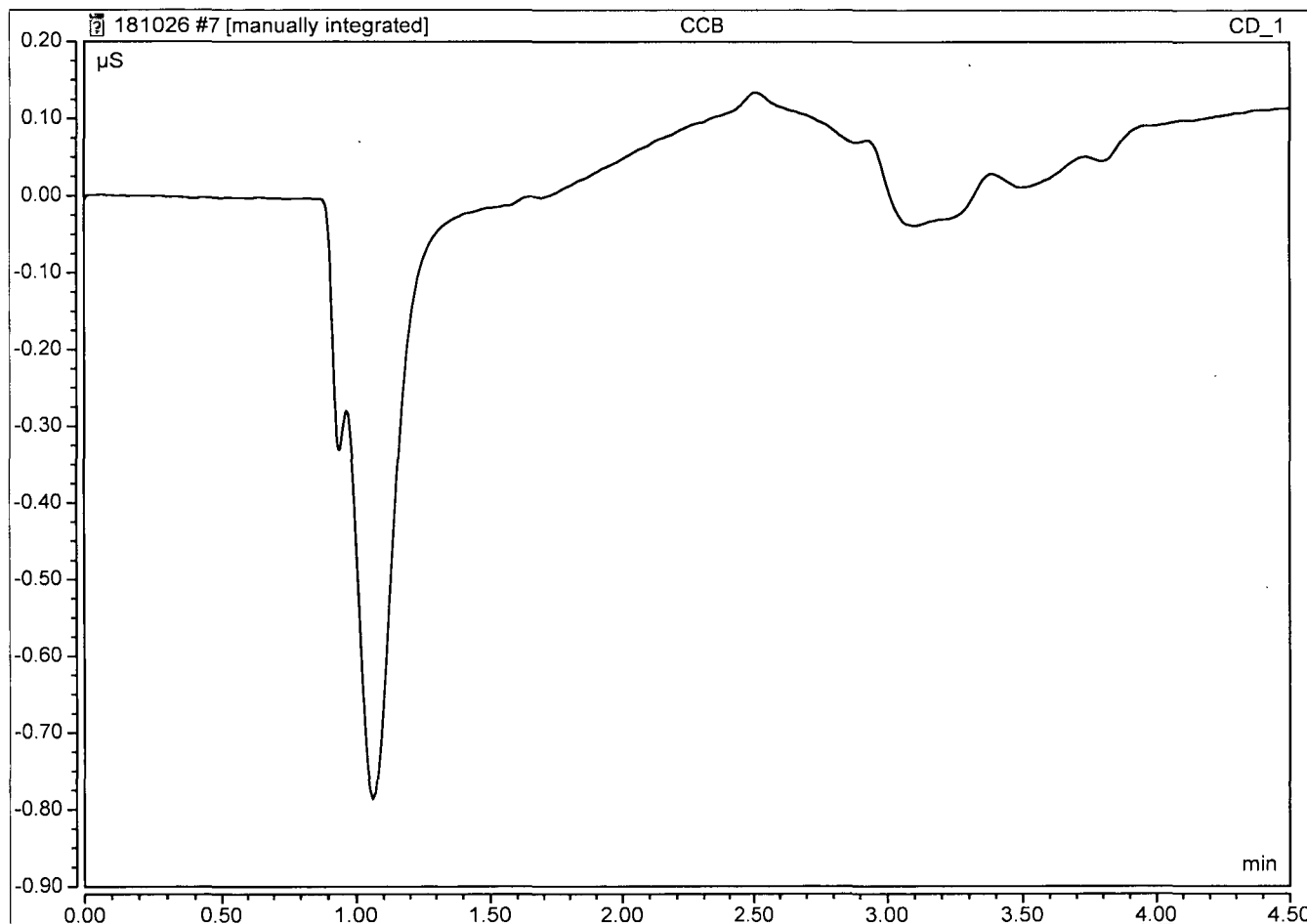
Analyte	Calibration Blanks										M
	CCB	C	CCB	C	CCB	C	CCB	C		C	
	10/26/18 09:49		10/26/18 11:11		10/26/18 12:14		10/26/18 13:09				
chloride	1.000	U	1.000	U	1.000	U	1.000	U			
Nitrate(NO3)	.500	U	.500	U	.500	U	.500	U			
sulfate	1.000	U	1.000	U	1.000	U	1.000	U			



### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 09:49	Run Time:	4.50

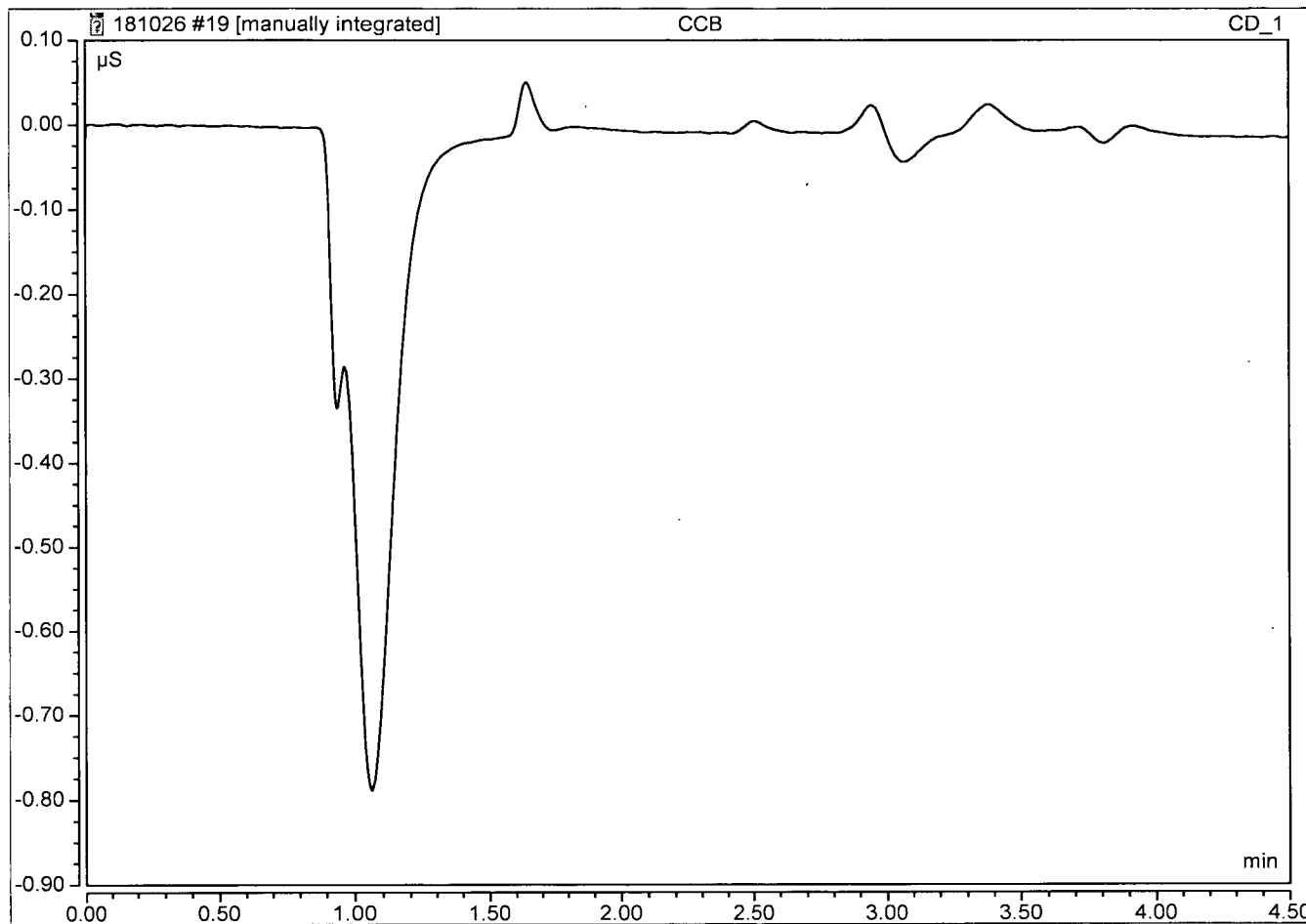
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00



### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 11:11	Run Time:	4.50

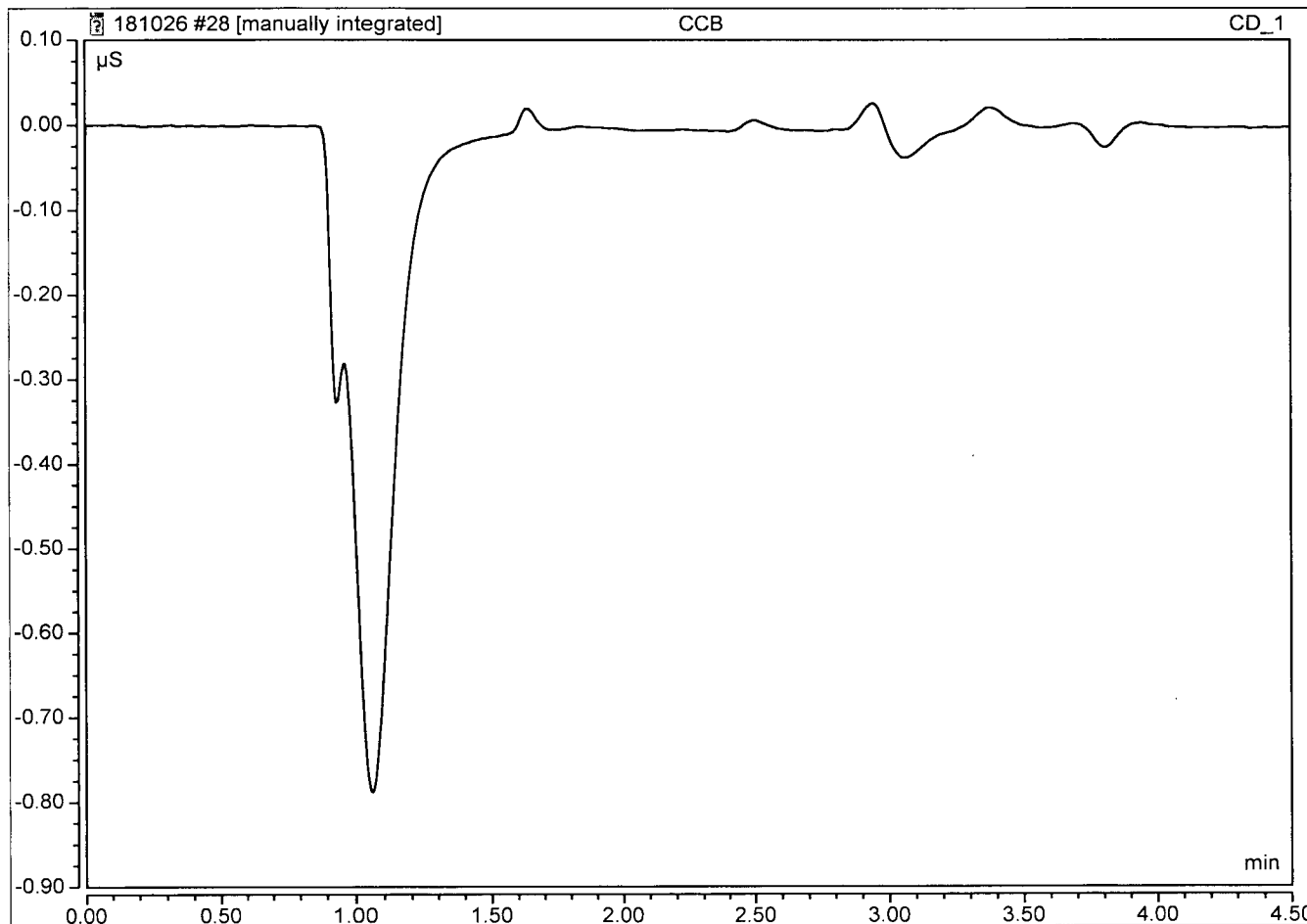
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00



### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 12:14	Run Time:	4.50

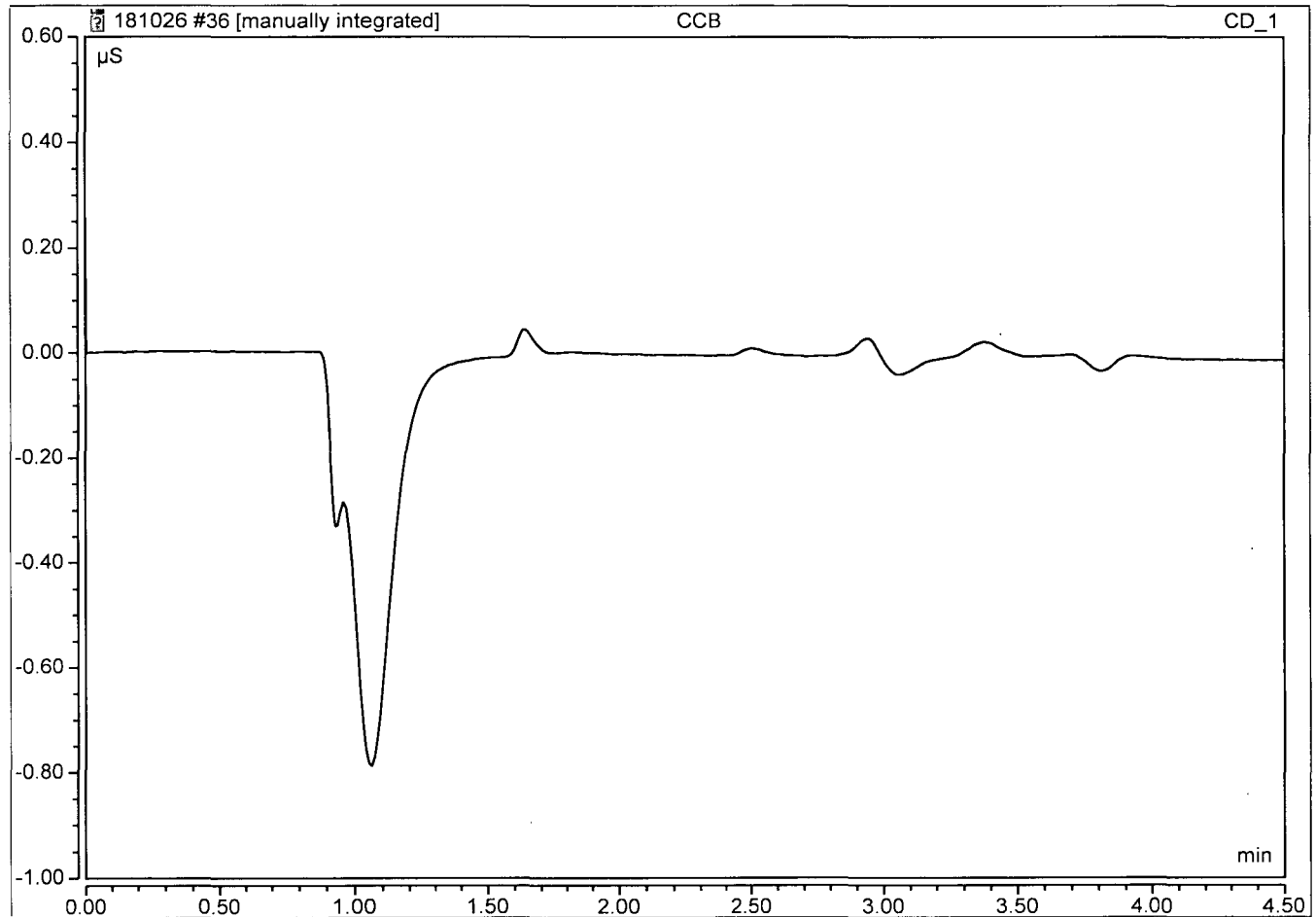
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00



### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 13:09	Run Time:	4.50

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00



A.P.P.L. INC.  
2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

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

ARF No: 87219 SDG: 87219

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

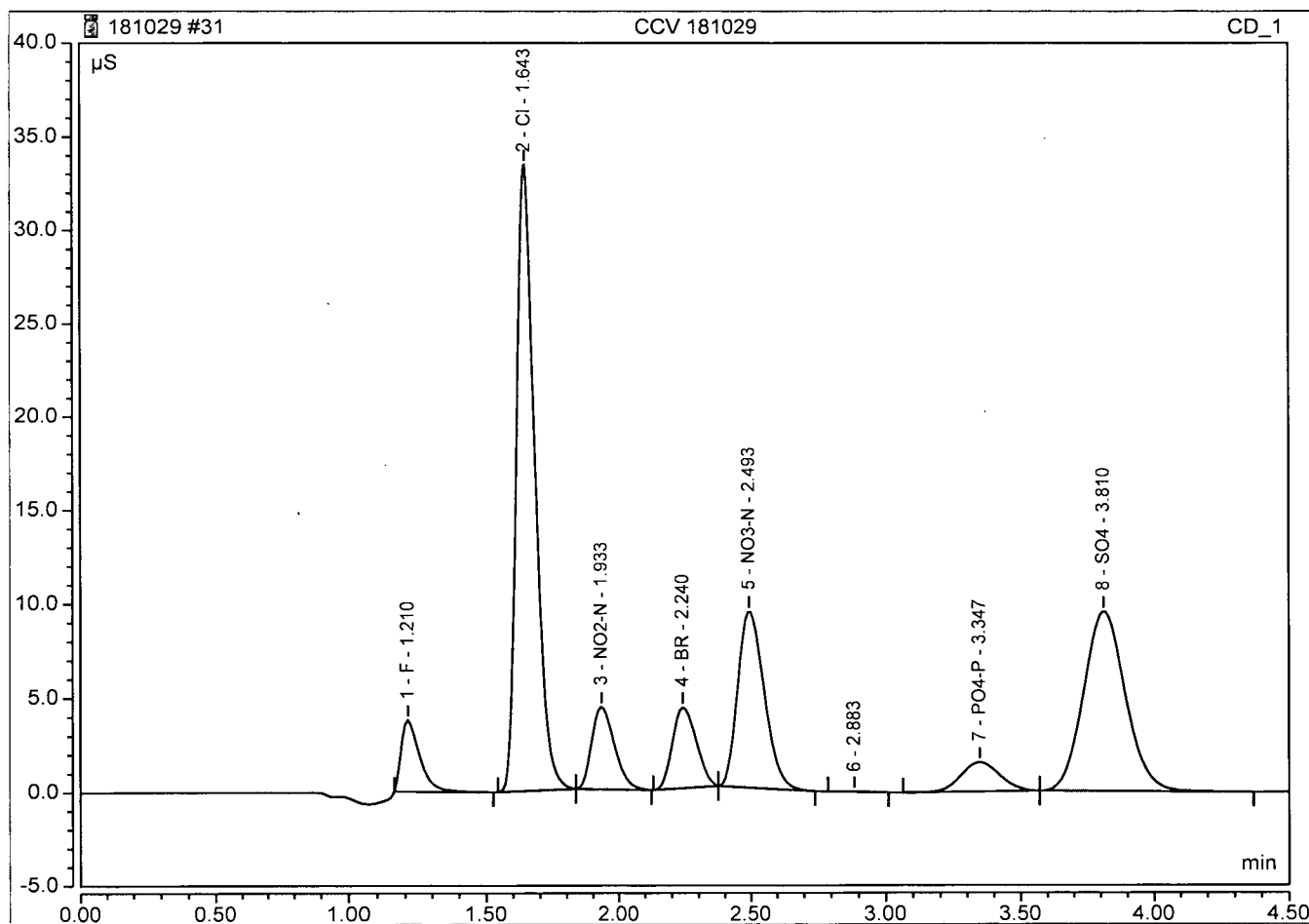
Analysis Date: 10/29/18

Analyte	Calibration Verification									M
	True CCV1	Found 11:09	%R(1)	True CCV1	Found 12:05	%R(1)	True	Found	%R(1)	
chloride	25	24.0839	96.3	25	24.084	96.3				

### Peak Integration Report

Sample Name:	CCV 181029	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	29-Oct-2018 / 11:09	Run Time:	4.50

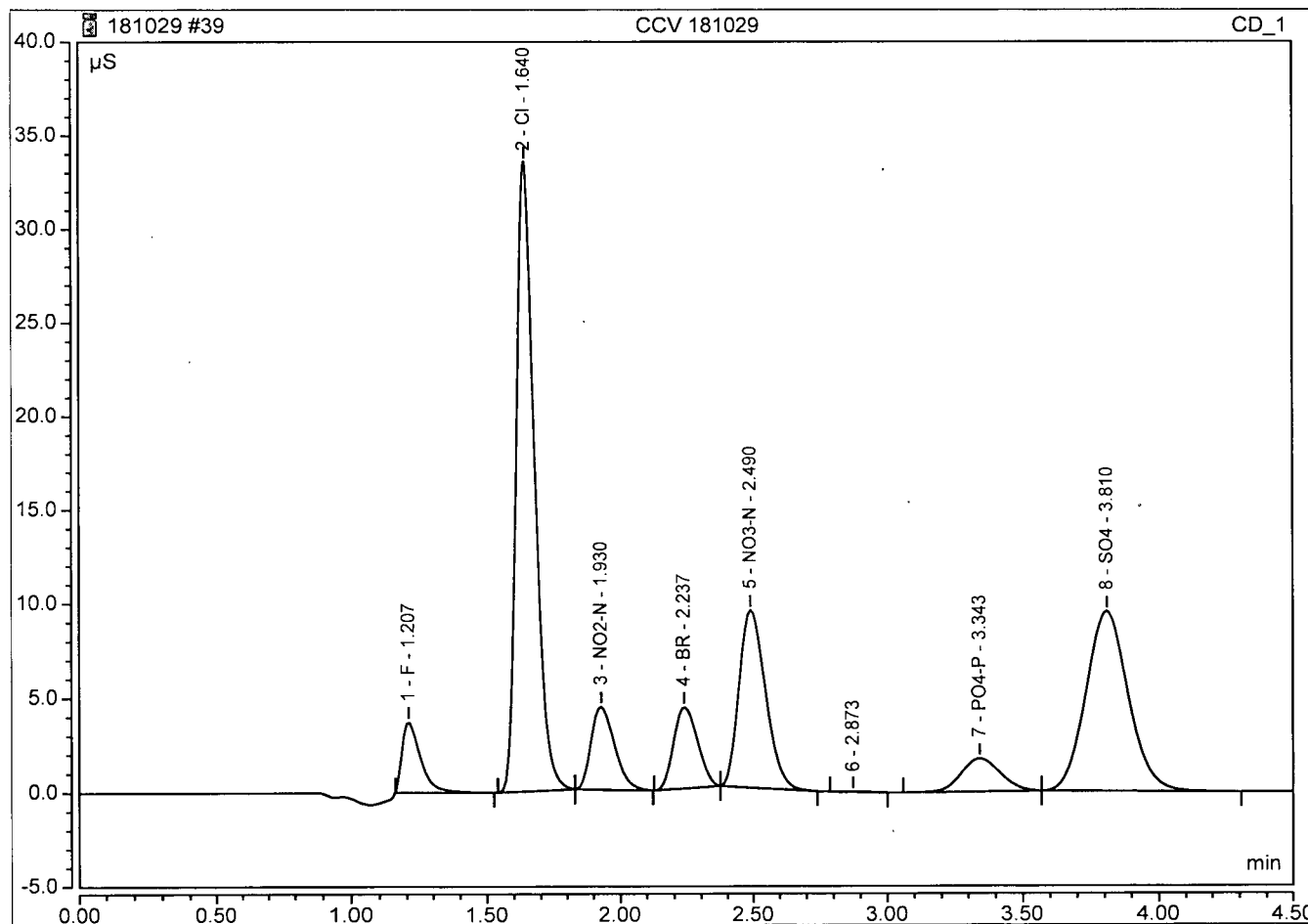
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.21	F	BMB	0.304	3.814	2.6544
2	1.64	Cl	BMB	2.636	33.442	24.0839
3	1.93	NO <sub>2</sub> -N	BMB	0.447	4.378	2.4720
4	2.24	BR	BMB	0.444	4.304	11.8079
5	2.49	NO <sub>3</sub> -N	BMB	1.105	9.365	4.8126
7	3.35	PO <sub>4</sub> -P	BMB	0.262	1.563	4.1086
8	3.81	SO <sub>4</sub>	BMB	1.742	9.546	24.4018
TOTAL:				6.94	66.41	74.34



### Peak Integration Report

Sample Name:	CCV 181029	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	29-Oct-2018 / 12:05	Run Time:	4.50

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.21	F	BMB	0.300	3.729	2.6204
2	1.64	Cl	BMB	2.636	33.514	24.0840
3	1.93	NO2-N	BMB	0.448	4.390	2.4785
4	2.24	BR	BMB	0.444	4.310	11.8084
5	2.49	NO3-N	BMB	1.105	9.395	4.8118
7	3.34	PO4-P	BMB	0.292	1.748	4.5542
8	3.81	SO4	BMB	1.733	9.522	24.2760
TOTAL:				6.96	66.61	74.63



A.P.P.L. INC.

3

BLANKS

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

Contract: AECOM

ARF No.: 87219

SDG: 87219

Preparation Blank Matrix (soil/water): water

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

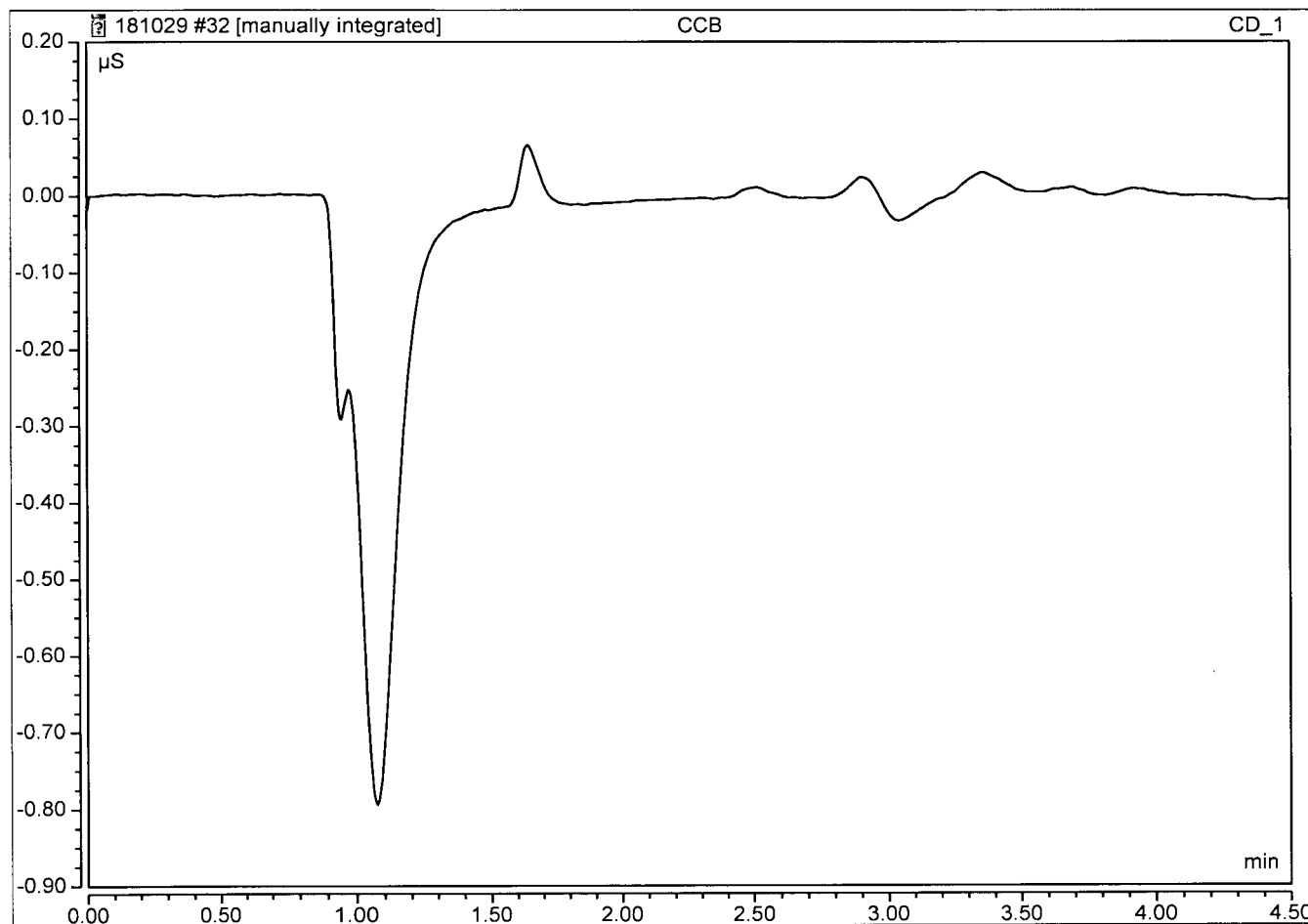
Analyte	Calibration Blanks										M
	CCB 10/29/18 11:16	C	CCB 10/29/18 12:11	C		C		C		C	
chloride	1.000	U	1.000	U							



### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	29-Oct-2018 / 11:16	Run Time:	4.50

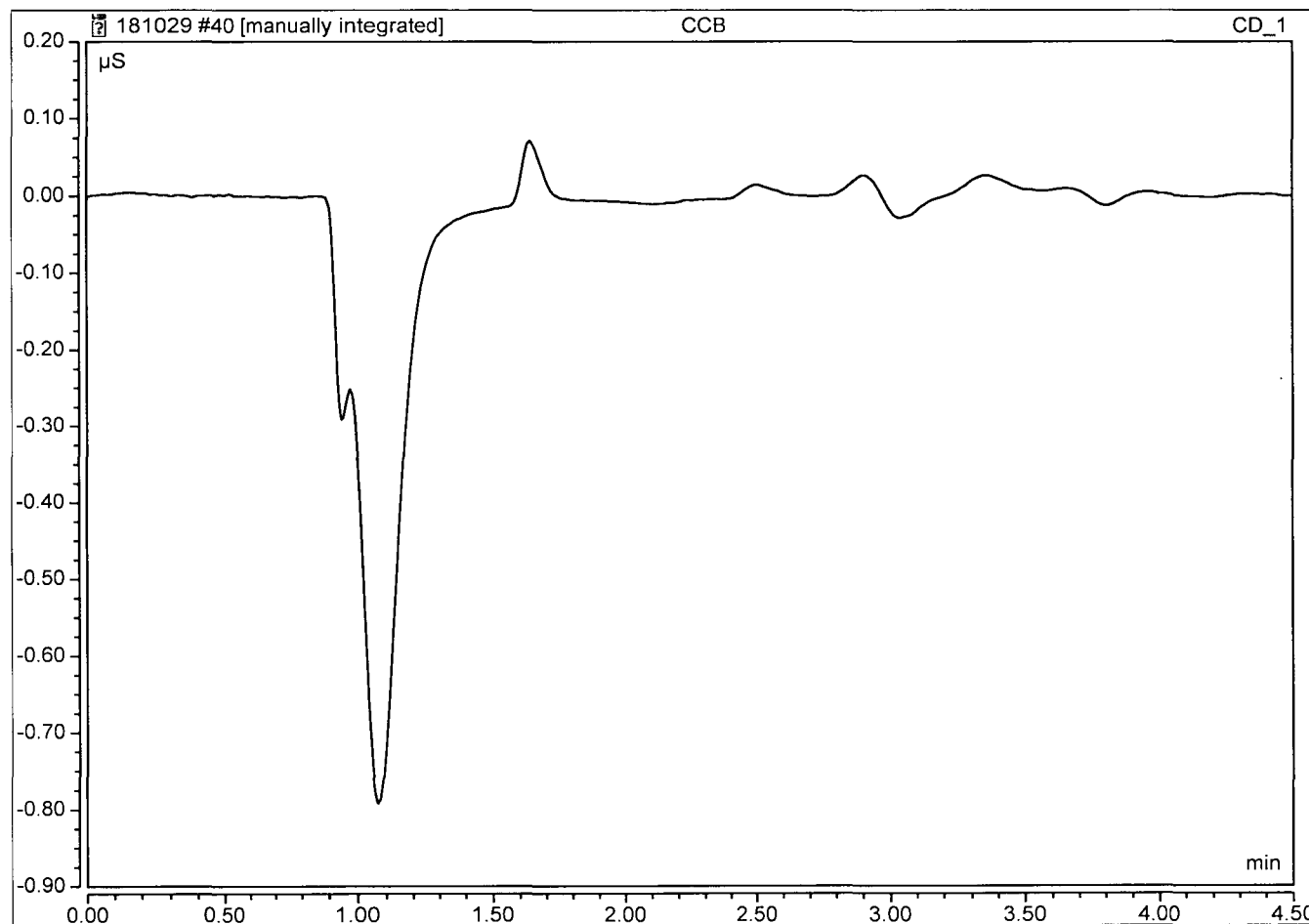
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}^*\text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00



### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	29-Oct-2018 / 12:11	Run Time:	4.50

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00



A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

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

ARF No: 87219 SDG: 87219

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 10/30/18

Analyte	Calibration Verification									M
	True ICV	Found 14:32	%R(1)	True CCV1	Found 15:04	%R(1)	True CCV1	Found 15:14	%R(1)	
TOXN	3	3.0057	100	3	2.9472	98.2	3	2.9304	97.7	

A.P.P.L. INC.

3

BLANKS

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

Contract: AECOM

ARF No.: 87219

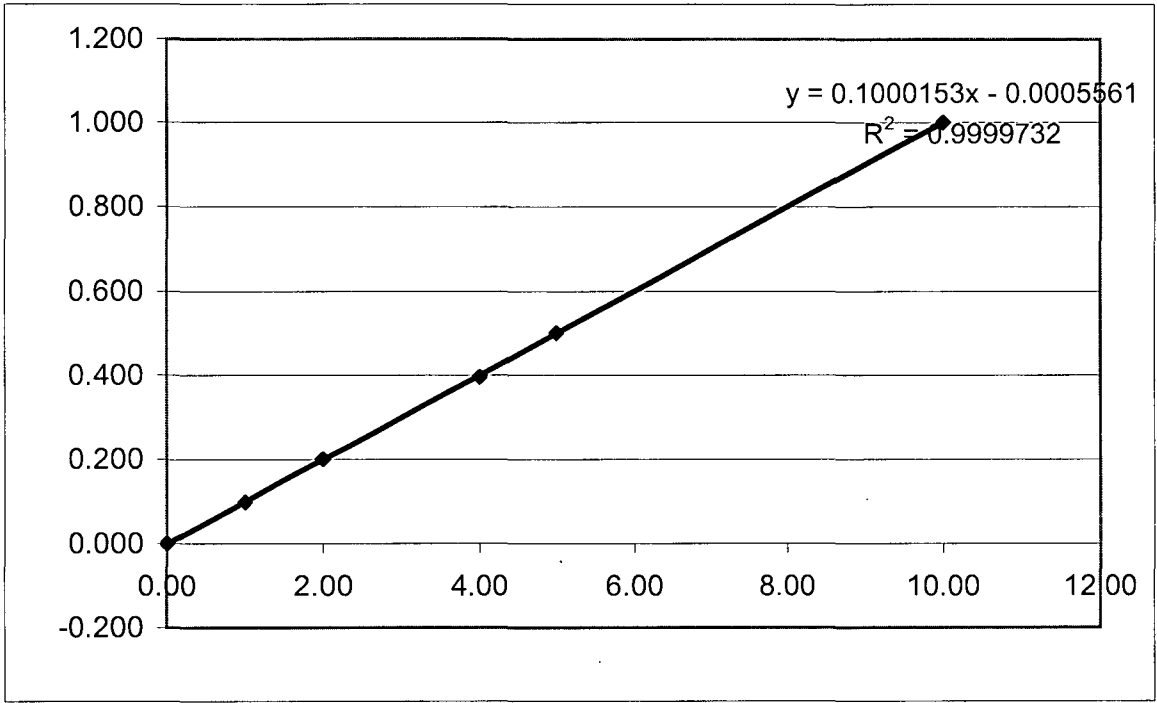
SDG: 87219

Preparation Blank Matrix (soil/water): water

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

Analyte	Calibration Blanks										M
	ICB 10/30/18 14:34	C	CCB 10/30/18 15:06	C	CCB 10/30/18 15:15	C		C		C	
TOXN	.100	U	.100	U	.100	U					

181025 Ferrous Iron



X	Y
0.00	0.000
1.00	0.099
2.00	0.201
4.00	0.396
5.00	0.501
10.00	1.000

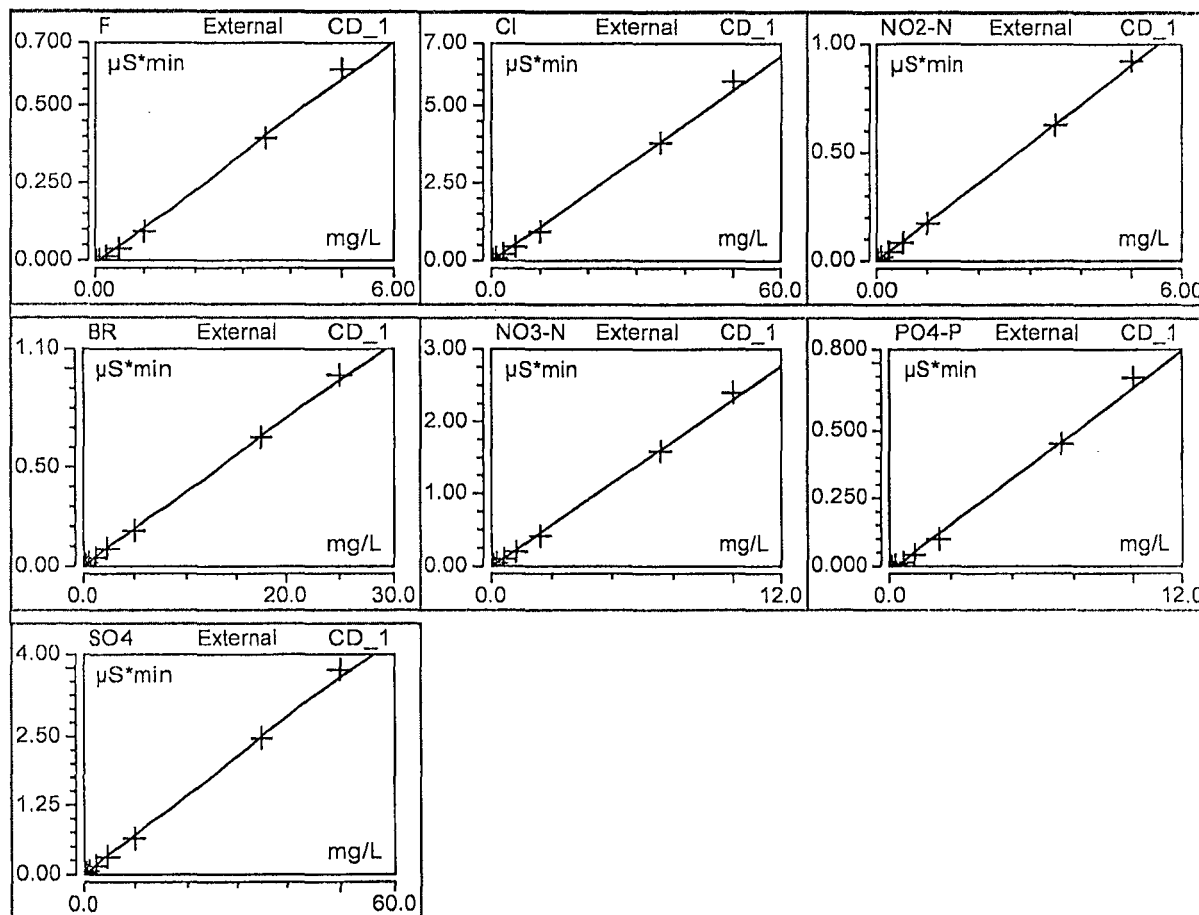
Algorithm Check  
 reading (y)= 0.310  
 dilution= 1  
 result (x)=   
 3.10508596

HH 10/31/18 14:10

### Calibration Batch Report

Sequence:	180924	Injection Volume:	25.00
Instrument Method:	Anions IM	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:36	Run Time:	5

Calibration Summary						
Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Coeff.Det. %
F	Area	Lin, WithOffset, 1/A	6	-0.013904	0.119725	99.34
Cl	Area	Lin, WithOffset, 1/A	7	-0.023621	0.110450	99.36
NO2-N	Area	Lin, WithOffset, 1/A	7	-0.001107	0.181176	99.92
BR	Area	Lin, WithOffset, 1/A	7	-0.000715	0.037662	99.88
NO3-N	Area	Lin, WithOffset, 1/A	7	-0.005336	0.230793	99.68
PO4-P	Area	Lin, WithOffset, 1/A	6	-0.015615	0.067471	99.04
SO4	Area	Lin, WithOffset, 1/A	7	-0.008285	0.071734	99.71

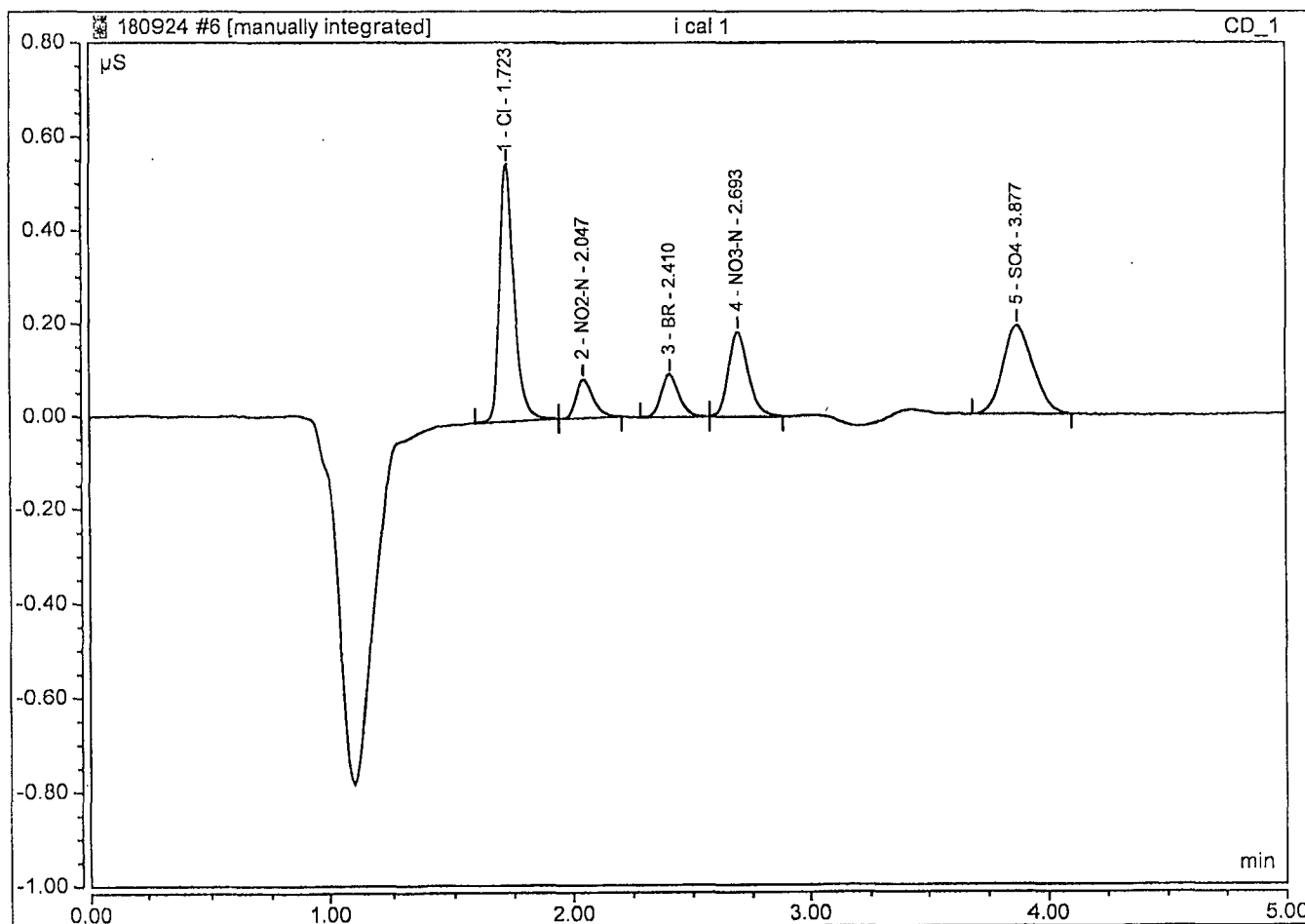


Injection Name	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1
	F	Cl	NO2-N	BR	NO3-N	PO4-P	SO4
ical 1	n.a.	0.5622	0.0441	0.2341	0.1016	n.a.	0.5074
ical 2	0.135	0.9959	0.1035	0.4942	0.1991	0.2894	0.9909
ical 3	0.220	2.1289	0.2368	1.1823	0.4535	0.4157	2.2625
ical 4	0.427	4.2154	0.4726	2.3380	0.8947	0.8302	4.4921
ical 5	0.889	8.5779	0.9575	4.7219	1.8093	1.6962	9.0988
ical 6	3.410	34.7347	3.4715	17.2981	6.9001	6.9186	34.5706
ical 7	5.269	52.6849	5.1040	25.6813	10.4216	10.5499	51.9777

### Peak Integration Report

Sample Name:	i cal 1	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 10:51	Run Time:	5.00

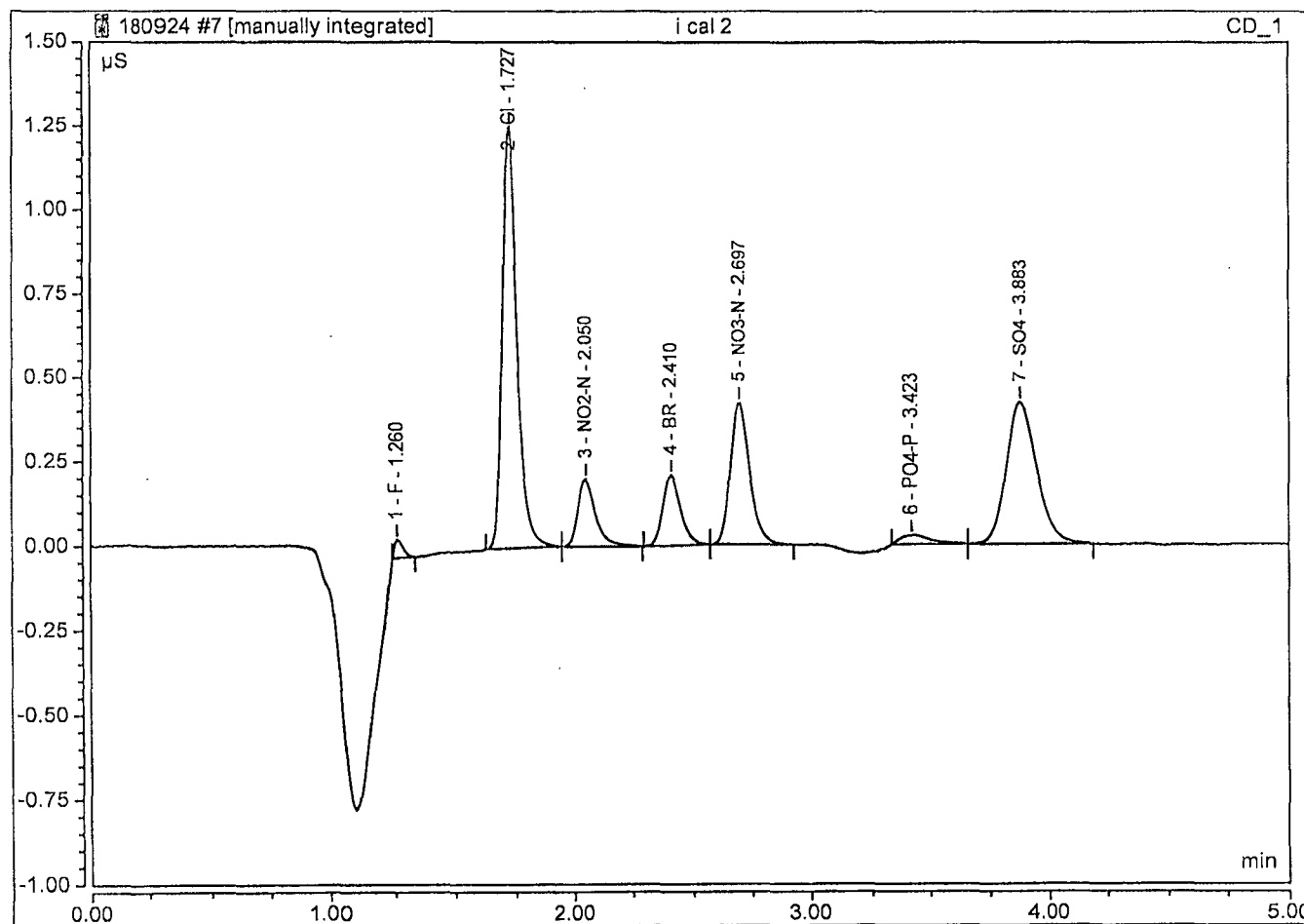
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.72	Cl	BMB	0.038	0.553	0.5622
2	2.05	NO2-N	BMB	0.007	0.083	0.0441
3	2.41	BR	BMB	0.008	0.093	0.2341
4	2.69	NO3-N	BMB	0.018	0.184	0.1016
5	3.88	SO4	BMB	0.028	0.192	0.5074
TOTAL:				0.10	1.10	1.45



### Peak Integration Report

Sample Name:	i cal 2	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 10:59	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB*	0.002	0.053	0.1347
2	1.73	Cl	BMB	0.086	1.253	0.9959
3	2.05	NO2-N	BMB	0.018	0.200	0.1035
4	2.41	BR	BMB	0.018	0.209	0.4942
5	2.70	NO3-N	BMB	0.041	0.418	0.1991
6	3.42	PO4-P	BMB*	0.004	0.027	0.2894
7	3.88	SO4	bMB*	0.063	0.420	0.9909
TOTAL:				0.23	2.58	3.21



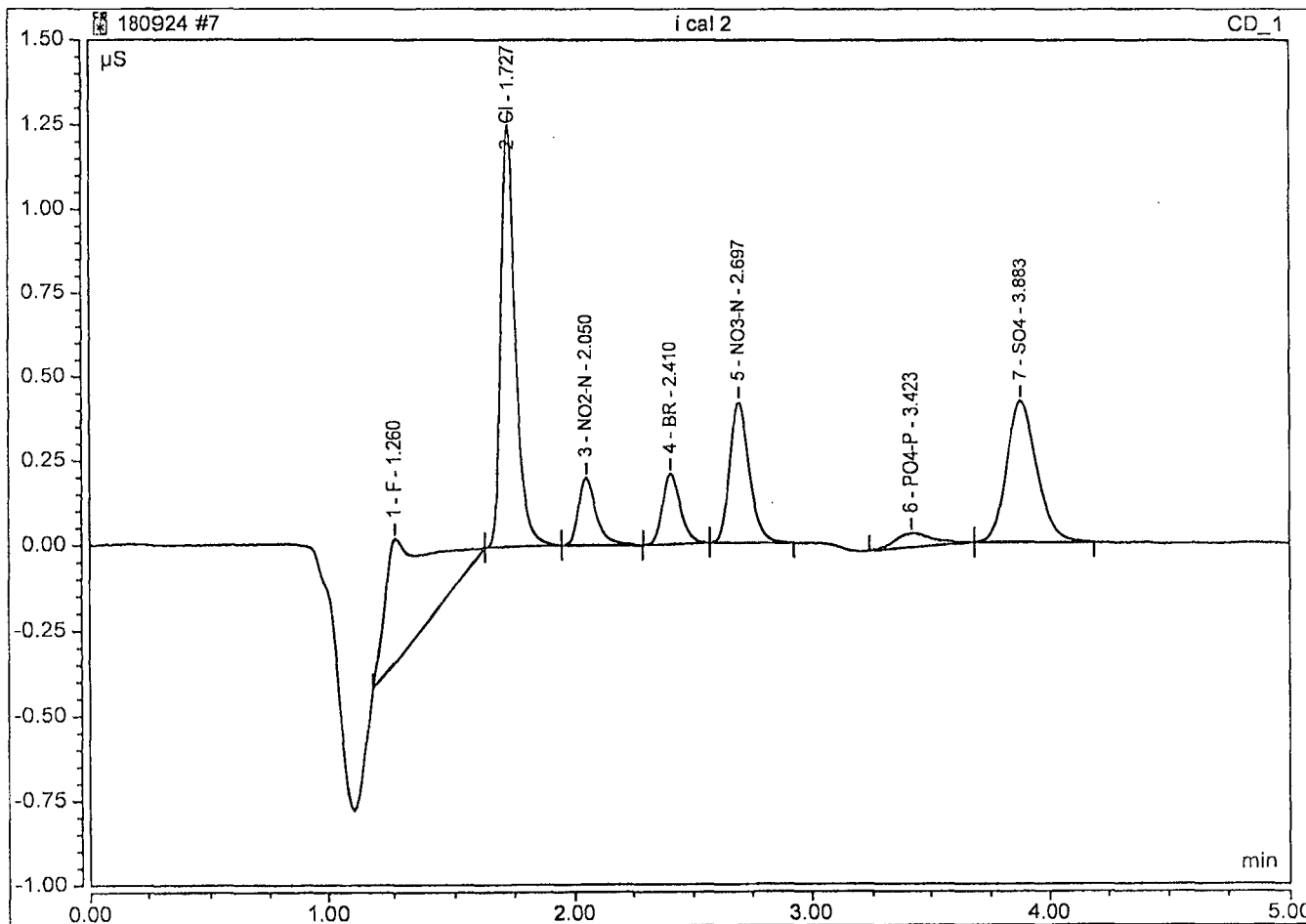
F M: 1 180926 HH  
 PO<sub>4</sub> M: 1 180926 HH  
 JR 09-26-18



### Peak Integration Report

Sample Name:	I cal 2	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 10:59	Run Time:	5.00

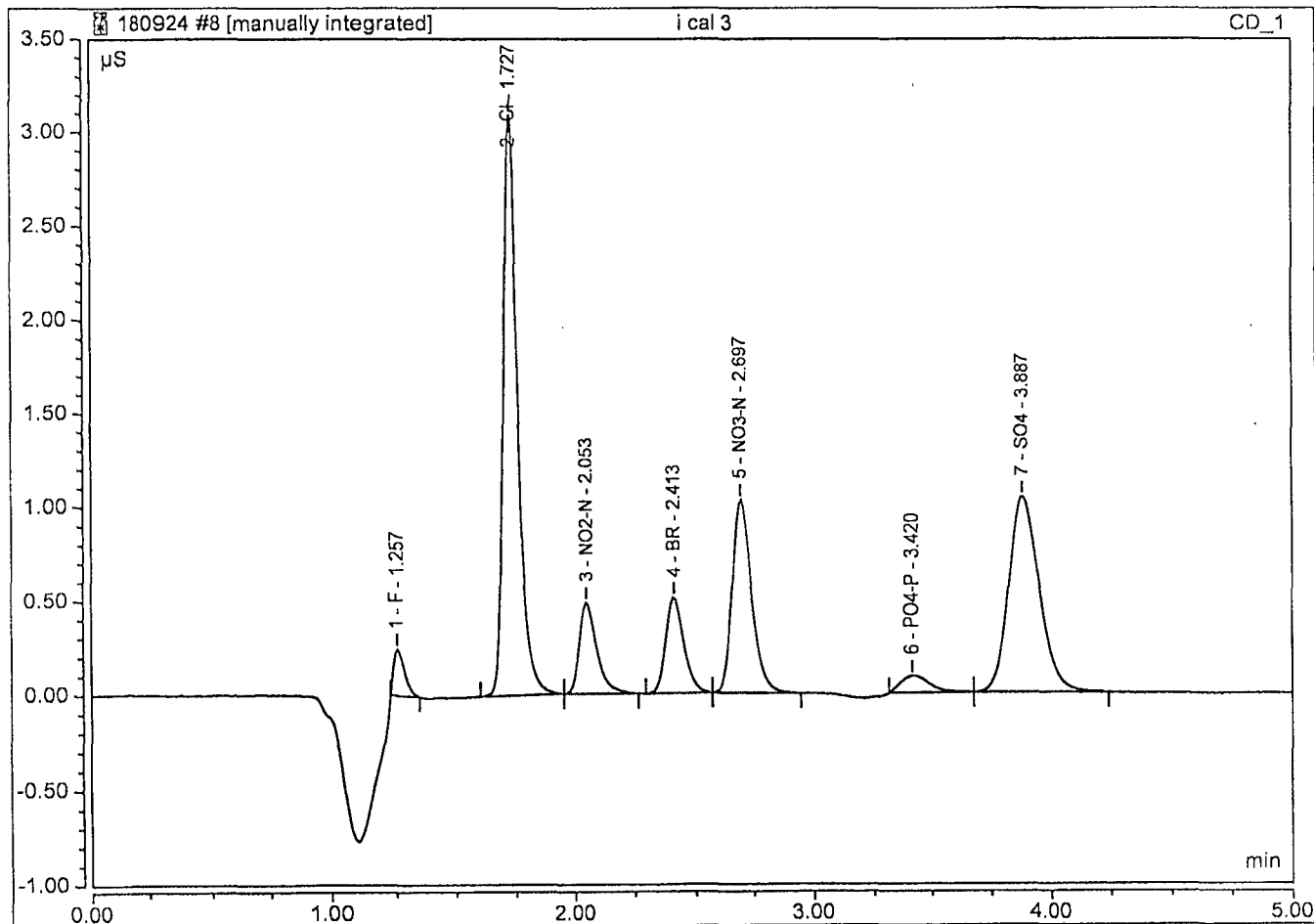
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB	0.075	0.362	0.7410
2	1.73	Cl	BMB	0.086	1.253	0.9959
3	2.05	NO2-N	BMB	0.018	0.200	0.1035
4	2.41	BR	BMB	0.018	0.209	0.4942
5	2.70	NO3-N	BMB	0.041	0.418	0.1991
6	3.42	PO4-P	BMB	0.008	0.040	0.3441
7	3.88	SO4	BMB	0.063	0.419	0.9886
TOTAL:				0.31	2.90	3.87



### Peak Integration Report

Sample Name:	i cal 3	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:06	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB*	0.012	0.245	0.2204
2	1.73	Cl	BMB	0.212	3.095	2.1289
3	2.05	NO2-N	BMB	0.042	0.484	0.2368
4	2.41	BR	BMB	0.044	0.508	1.1823
5	2.70	NO3-N	BMB	0.099	1.026	0.4535
6	3.42	PO4-P	BMB*	0.012	0.090	0.4157
7	3.89	SO4	BMB	0.154	1.039	2.2625
TOTAL:				0.58	6.49	6.90



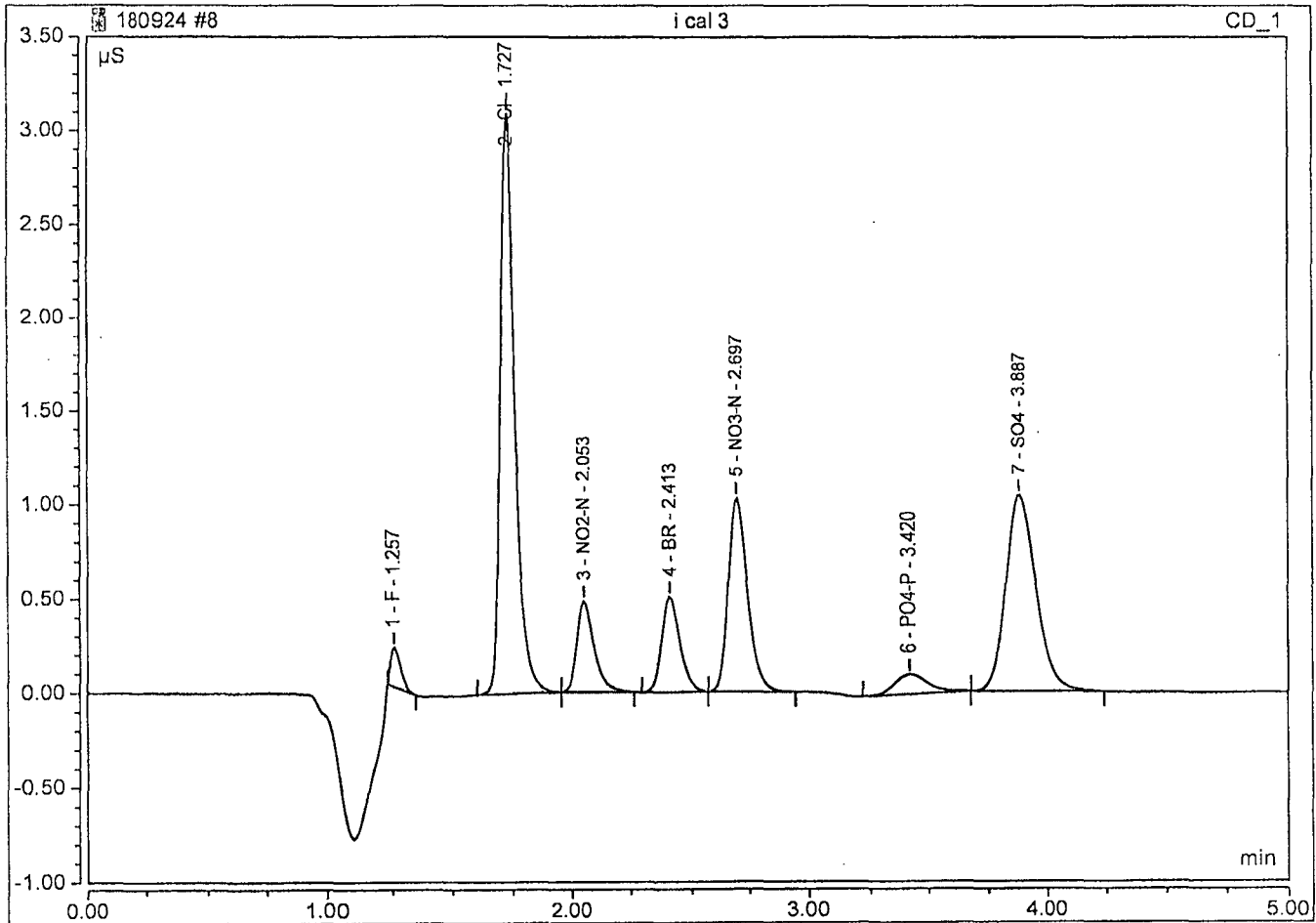
F M:1 180926 HH  
 PO4 M:1 180926 HH

JR 09-26-18

### Peak Integration Report

Sample Name:	i cal 3	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:06	Run Time:	5.00

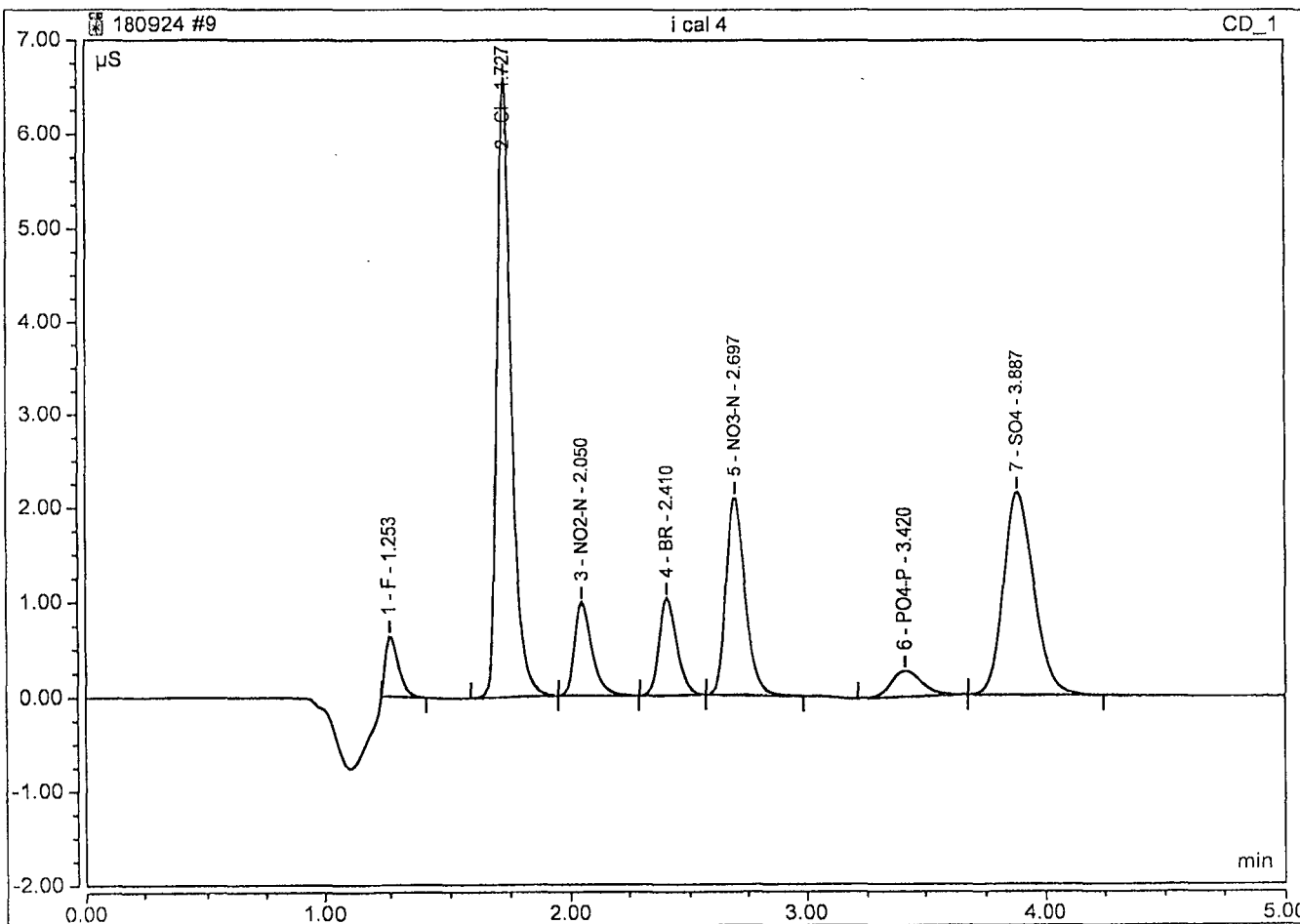
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB	0.010	0.207	0.1969
2	1.73	Cl	BMB	0.212	3.095	2.1289
3	2.05	NO2-N	BMB	0.042	0.484	0.2368
4	2.41	BR	BMB	0.044	0.508	1.1823
5	2.70	NO3-N	BMB	0.099	1.026	0.4535
6	3.42	PO4-P	BMB	0.017	0.105	0.4781
7	3.89	SO4	BMB	0.154	1.039	2.2625
TOTAL:				0.58	6.46	6.94



### Peak Integration Report

Sample Name:	i cal 4	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:14	Run Time:	5.00

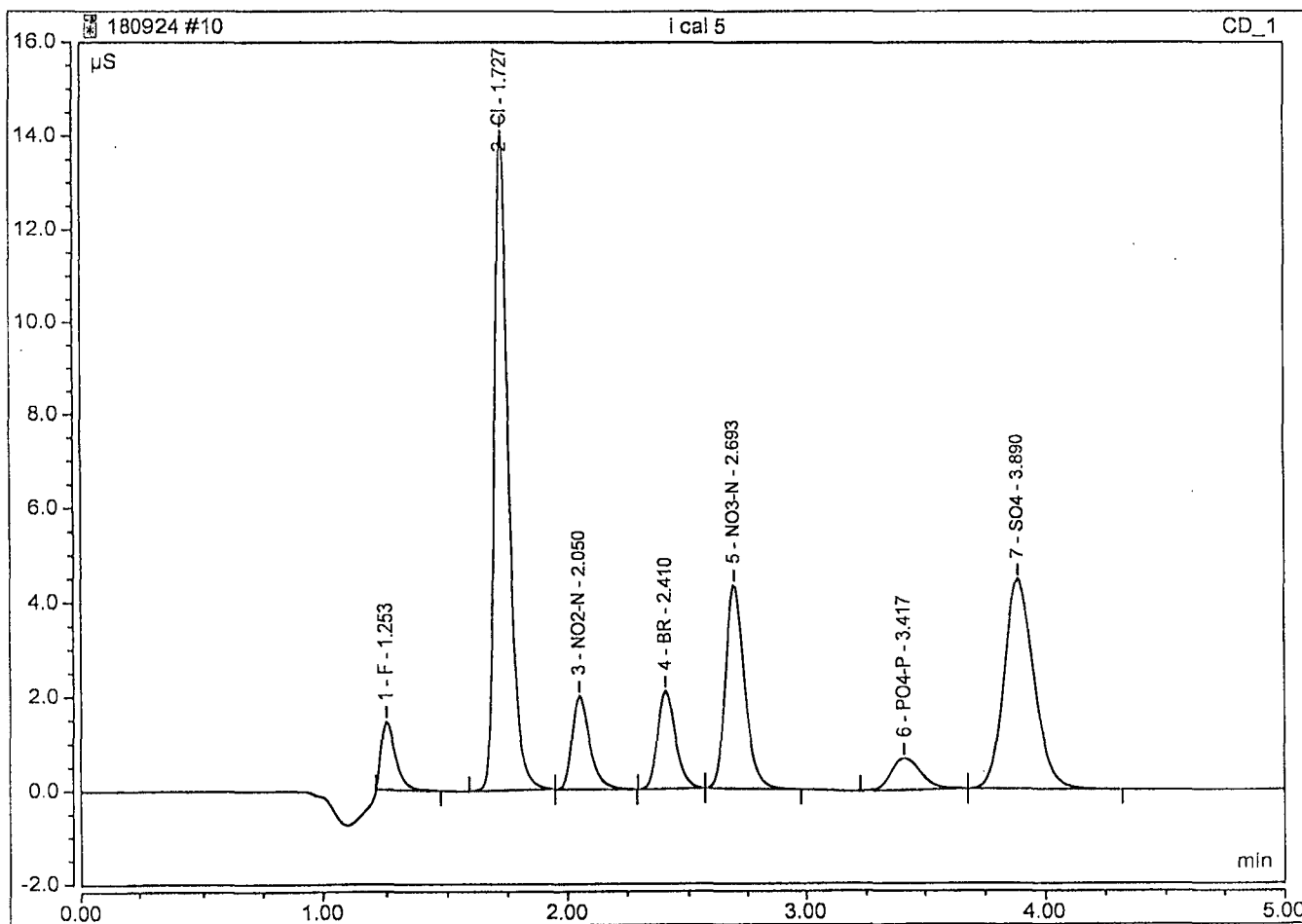
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.25	F	BMB	0.037	0.633	0.4272
2	1.73	Cl	BMB	0.442	6.587	4.2154
3	2.05	NO2-N	BMB	0.085	0.978	0.4726
4	2.41	BR	BMB	0.087	1.020	2.3380
5	2.70	NO3-N	BMB	0.201	2.080	0.8947
6	3.42	PO4-P	BMB	0.040	0.267	0.8302
7	3.89	SO4	BMB	0.314	2.135	4.4921
TOTAL:				1.21	13.70	13.67



### Peak Integration Report

Sample Name:	I cal 5	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:21	Run Time:	5.00

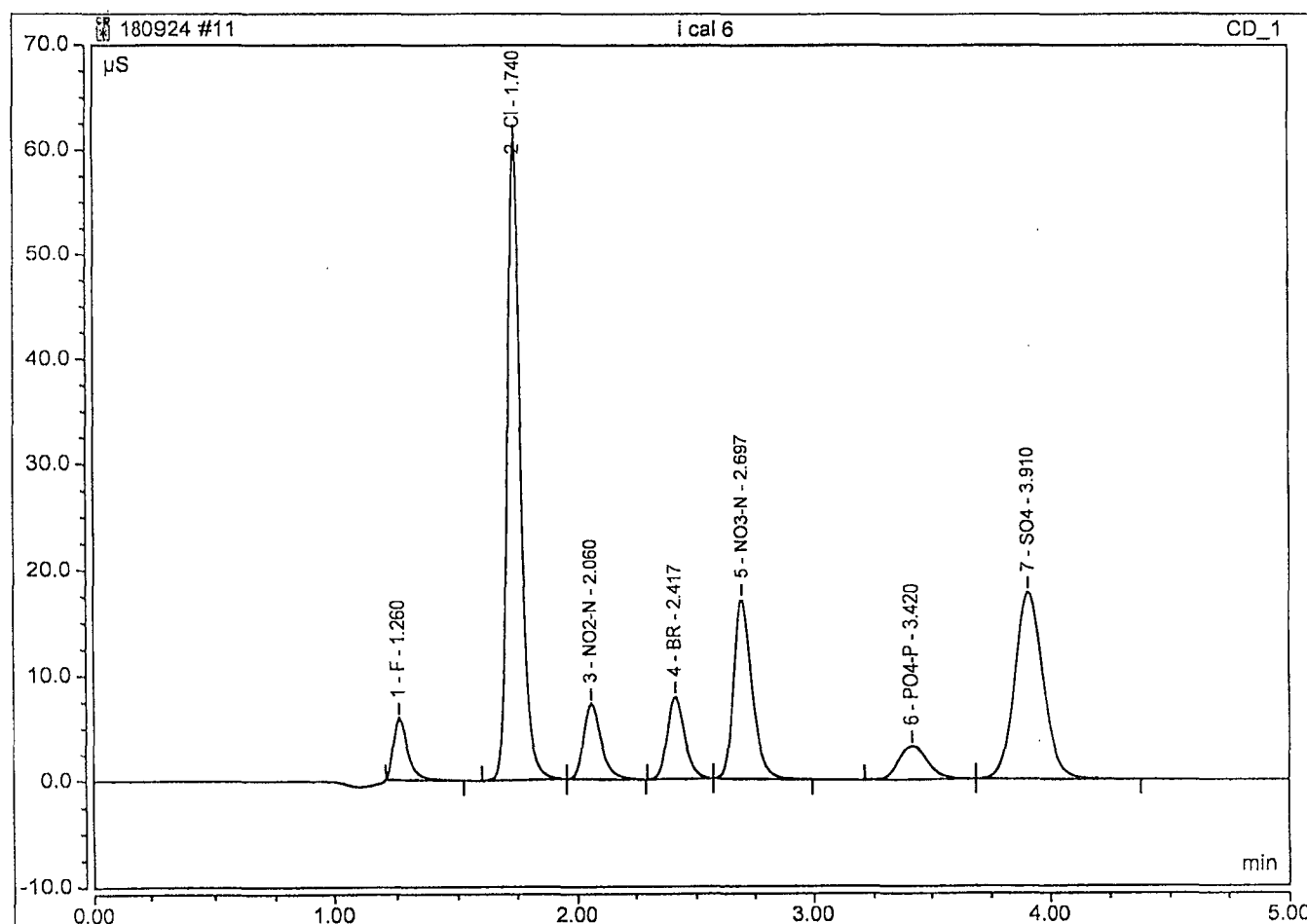
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.25	F	BMB	0.093	1.455	0.8893
2	1.73	Cl	BMB	0.924	14.090	8.5779
3	2.05	NO2-N	BMB	0.172	1.985	0.9575
4	2.41	BR	BMB	0.177	2.085	4.7219
5	2.69	NO3-N	BMB	0.412	4.323	1.8093
6	3.42	PO4-P	BMB	0.099	0.678	1.6962
7	3.89	SO4	BMB	0.644	4.443	9.0988
TOTAL:				2.52	29.06	27.75



### Peak Integration Report

Sample Name:	i cal 6	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:28	Run Time:	5.00

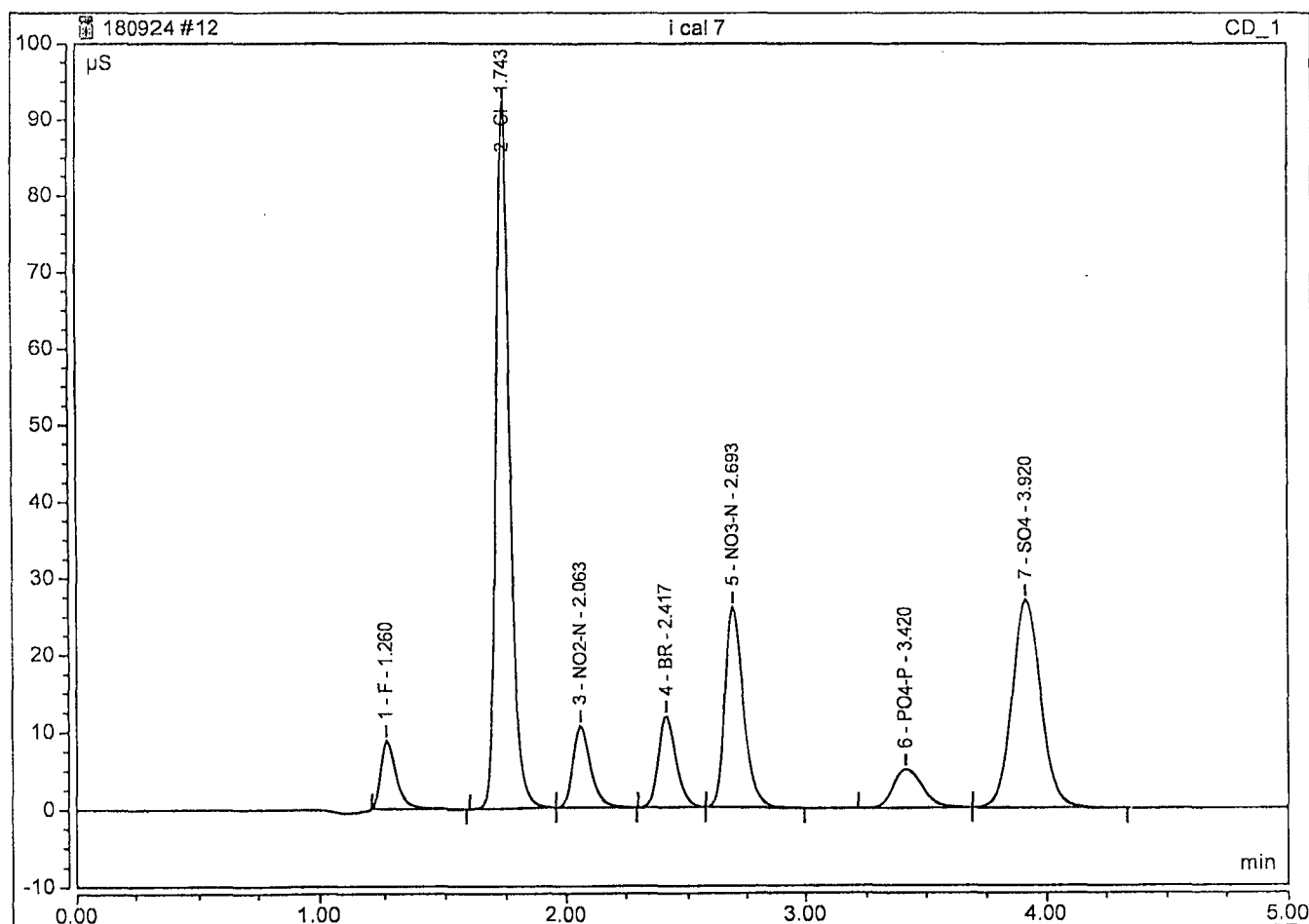
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB	0.394	5.883	3.4098
2	1.74	Cl	BMB	3.813	60.935	34.7347
3	2.06	NO2-N	BMB	0.628	7.206	3.4715
4	2.42	BR	BMB	0.651	7.839	17.2981
5	2.70	NO3-N	BMB	1.587	17.063	6.9001
6	3.42	PO4-P	BMB	0.451	3.196	6.9186
7	3.91	SO4	BMB	2.472	17.710	34.5706
TOTAL:				10.00	119.83	107.30



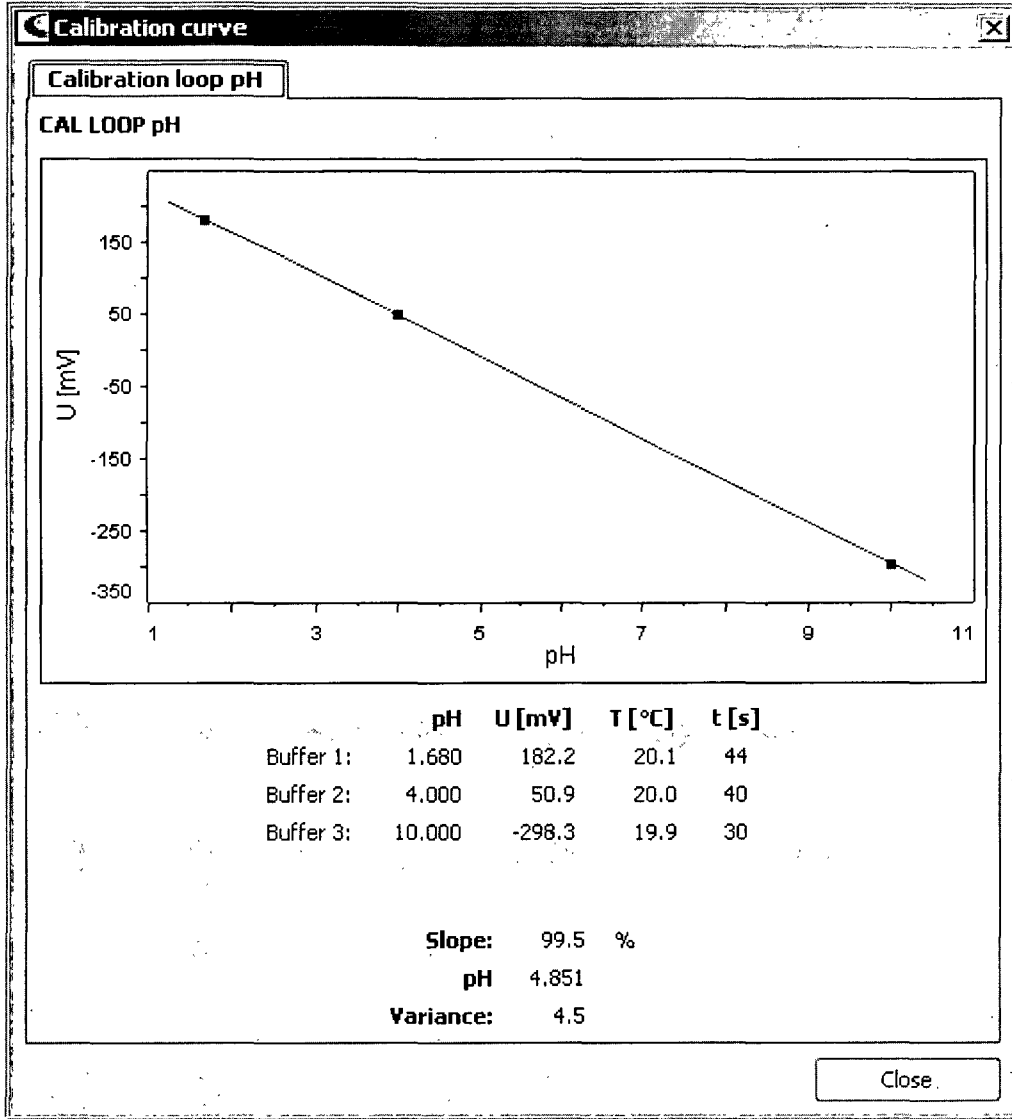
### Peak Integration Report

Sample Name:	i cal 7	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:36	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}^*\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB	0.617	8.838	5.2687
2	1.74	Cl	BMB	5.795	92.222	52.6849
3	2.06	NO2-N	BMB	0.924	10.519	5.1040
4	2.42	BR	BMB	0.966	11.770	25.6813
5	2.69	NO3-N	BMB	2.400	25.942	10.4216
6	3.42	PO4-P	BMB	0.696	4.987	10.5499
7	3.92	SO4	BMB	3.720	26.940	51.9777
TOTAL:				15.12	181.22	161.69



Tiamo Calibration Curve 181029A





**INORGANIC ANALYSIS**  
**Raw Data**

**APPL, INC.**

**SPECTROPHOTOMETRIC ANALYSIS (Ferrous Iron)**

Method: SM3500Fe  
 Analyte: Ferrous Iron  
 Analyst: HH  
 Units: mg/L  
 QCG: 181025  
 Notes:  
 Final Volume: 50mL

Instrument: GENESYS 10UV  
 Raw Spec: abs. @ 510nm  
 R-Squared: 0.99997  
 Reagent (lot#): COLORIZING REAGENT (181024)  
 BUFFER (09/19/18)

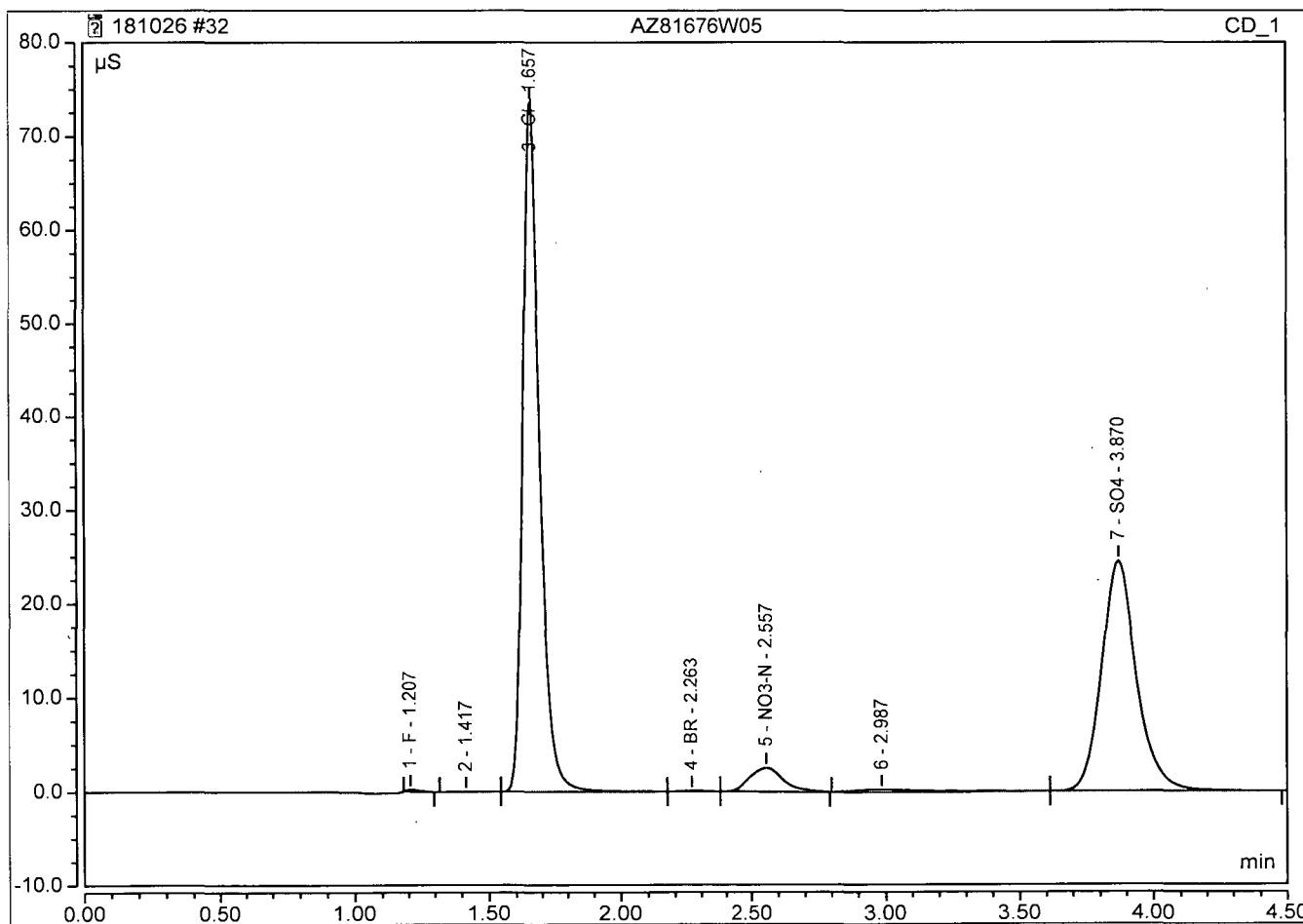
Analyst Completes Formula Locked Cells
-------------------------------------------

Date	Time	APPL ID	DF	Raw Result	SubSample Amt	Raw BLK	Calc Conc	Result	QC True	QC%	Row Complete
06/15/18	12:27	0 HH 180615	1	0.000	25mL						
06/15/18	12:27	1	1	0.099	25mL						
06/15/18	12:28	2	1	0.201	25mL						
06/15/18	12:28	3	1	0.396	25mL						
06/15/18	12:29	4	1	0.501	25mL						
06/15/18	12:30	5	1	1.000	25mL						
06/15/18	12:31	180615A ICV	1	0.316	25mL		3.17	3.17	3.000	105.5%	#NAME?
06/15/18	12:32	180615A ICB	1	0.000	25mL		0.01	0.01			#NAME?
10/25/18	12:08 PM	CCV 4.0 181025	1	0.393			3.93	3.935	4.000	98.4%	#NAME?
10/25/18	12:08	CCB 181025	1	0.000			0.01	0.006			#NAME?
10/25/18	12:09	181025A LCS	1	0.310			3.11	3.105	3.000	103.5%	#NAME?
10/25/18	12:10	181025A LCSD	1	0.310			3.11	3.105	3.000	103.5%	#NAME?
10/25/18	12:10	AZ81676W07	1	0.013			0.14	0.136			#REF!
10/25/18	12:11	AZ81677W07	1	0.013			0.14	0.136			#REF!
10/25/18	12:12	AZ81678W07	1	0.012			0.13	0.126			
10/25/18	12:12	AZ81676W07 MS	1	0.333			3.34	3.335	3.13	106.7%	
10/25/18	12:13	AZ81676W07 DUP	1	0.013			0.14	0.136	3.13	4.3%	
10/25/18	12:15	CCV 4.0 181025	1	0.396			3.96	3.965	4.00	99.1%	
10/25/18	12:15 PM	CCB 181025	1	0.001			0.02	0.016			

### Peak Integration Report

Sample Name:	AZ81676W05	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 12:41	Run Time:	4.50

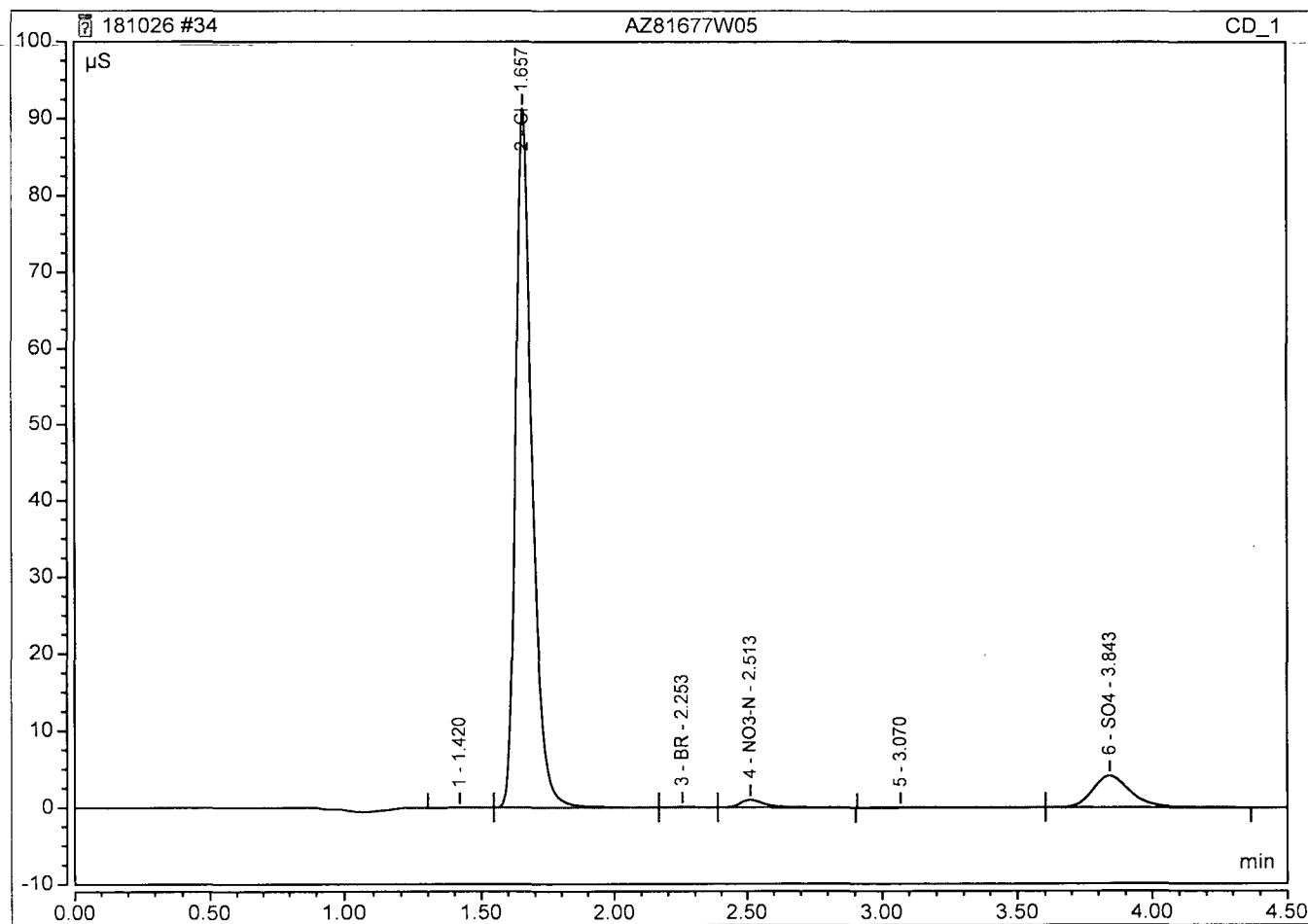
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.21	F	BMB	0.011	0.200	0.2073
3	1.66	Cl	BMB	5.493	73.584	49.9427
4	2.26	BR	BMB	0.007	0.068	0.1918
5	2.56	NO3-N	BMB	0.363	2.514	1.5945
7	3.87	SO4	BMB	3.685	24.442	51.4902
TOTAL:				9.56	100.81	103.43



### Peak Integration Report

Sample Name:	AZ81677W05	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 12:55	Run Time:	4.50

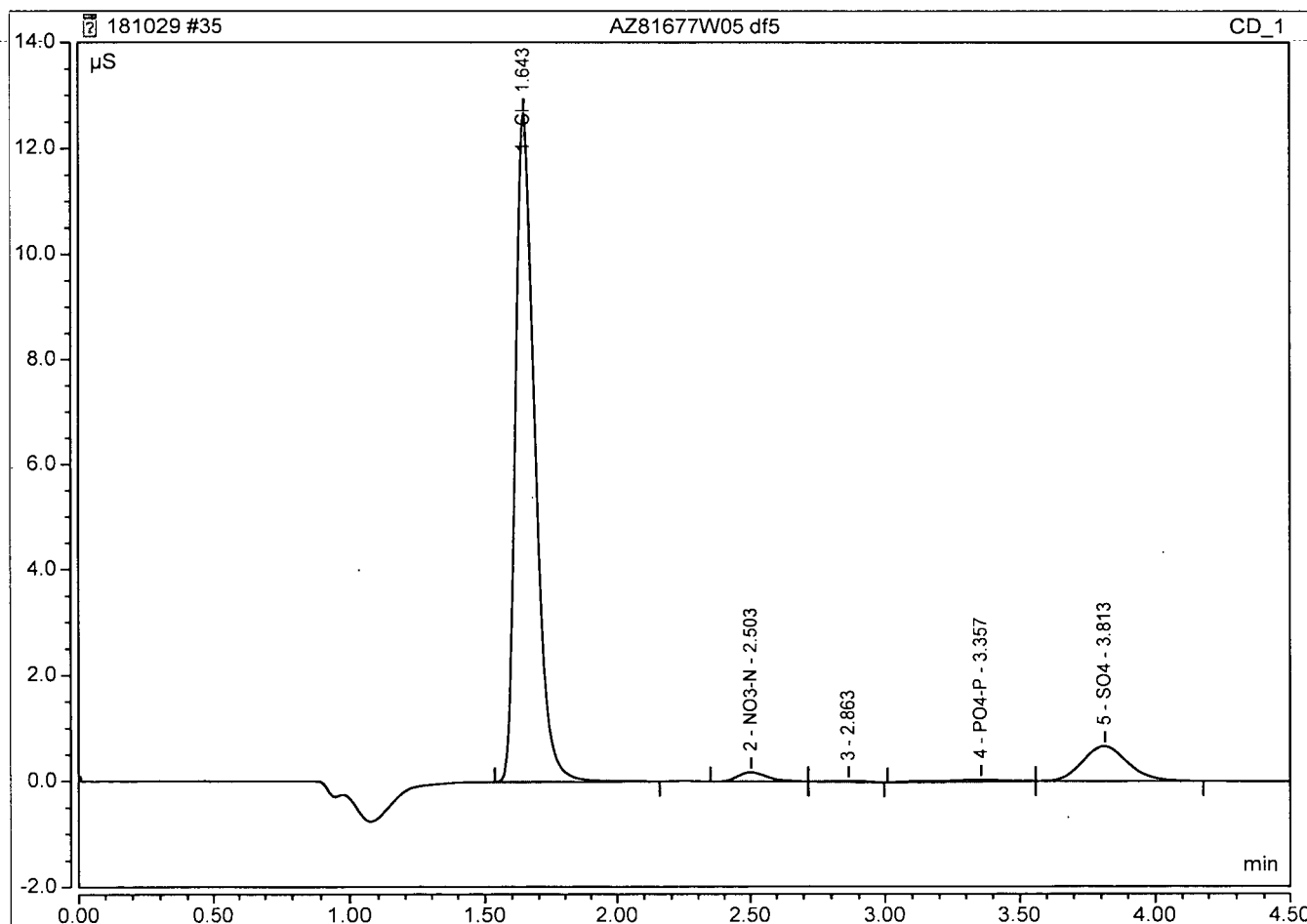
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
2	1.66	Cl	BMB	6.517	91.318	59.2208
3	2.25	BR	BMB	0.006	0.074	0.1911
4	2.51	NO3-N	BMB	0.113	0.994	0.5140
6	3.84	SO4	BMB	0.659	4.080	9.2957
TOTAL:				7.30	96.47	69.22



### Peak Integration Report

Sample Name:	AZ81677W05 df5	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	5.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	29-Oct-2018 / 11:37	Run Time:	4.50

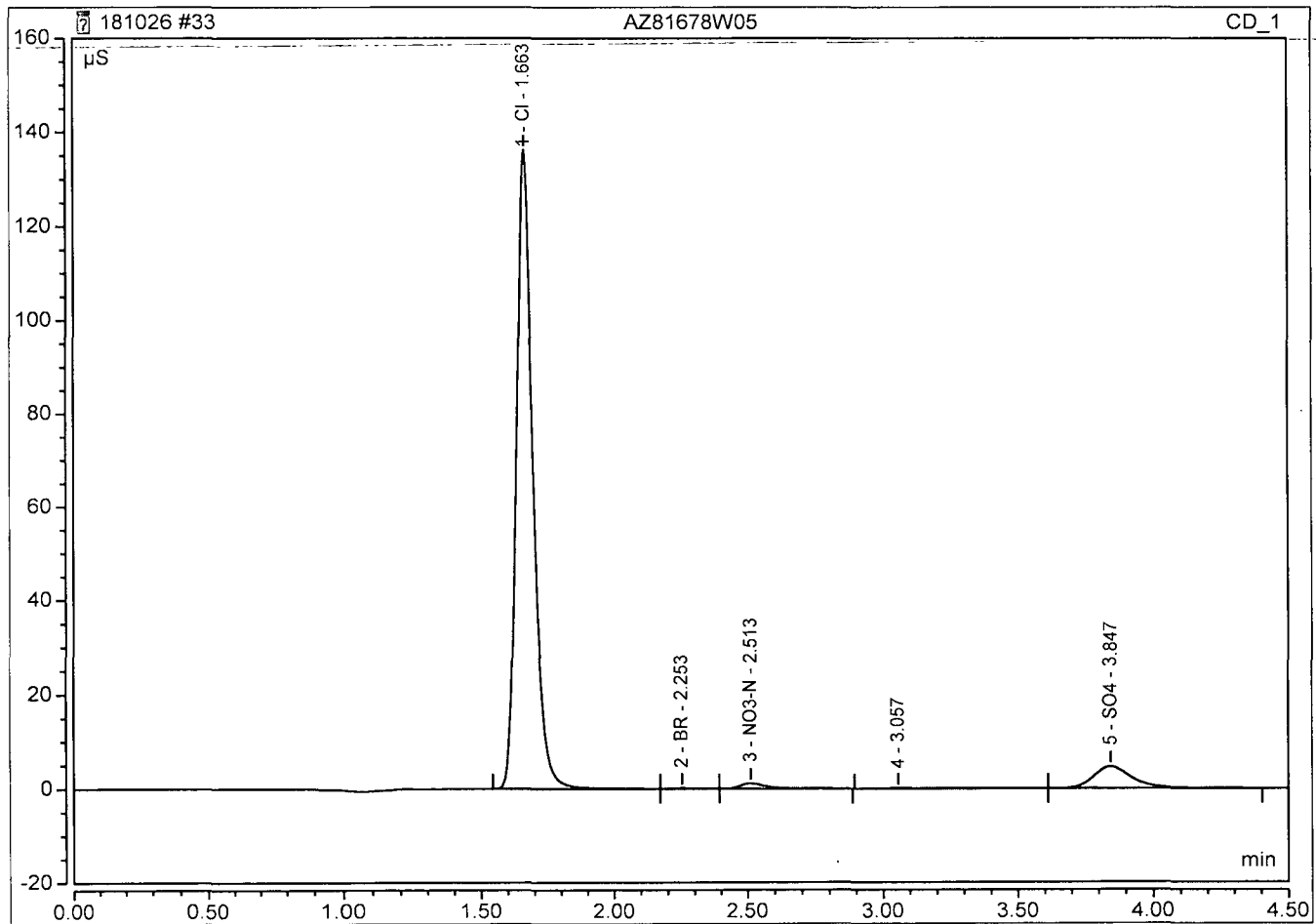
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.64	Cl	BMB	1.053	12.683	48.7264
2	2.50	NO3-N	BMB	0.022	0.172	0.5818
4	3.36	PO4-P	BMB	0.010	0.038	1.9323
5	3.81	SO4	BMB	0.127	0.663	9.4491
TOTAL:				1.21	13.56	60.69



### Peak Integration Report

Sample Name:	AZ81678W05	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 12:48	Run Time:	4.50

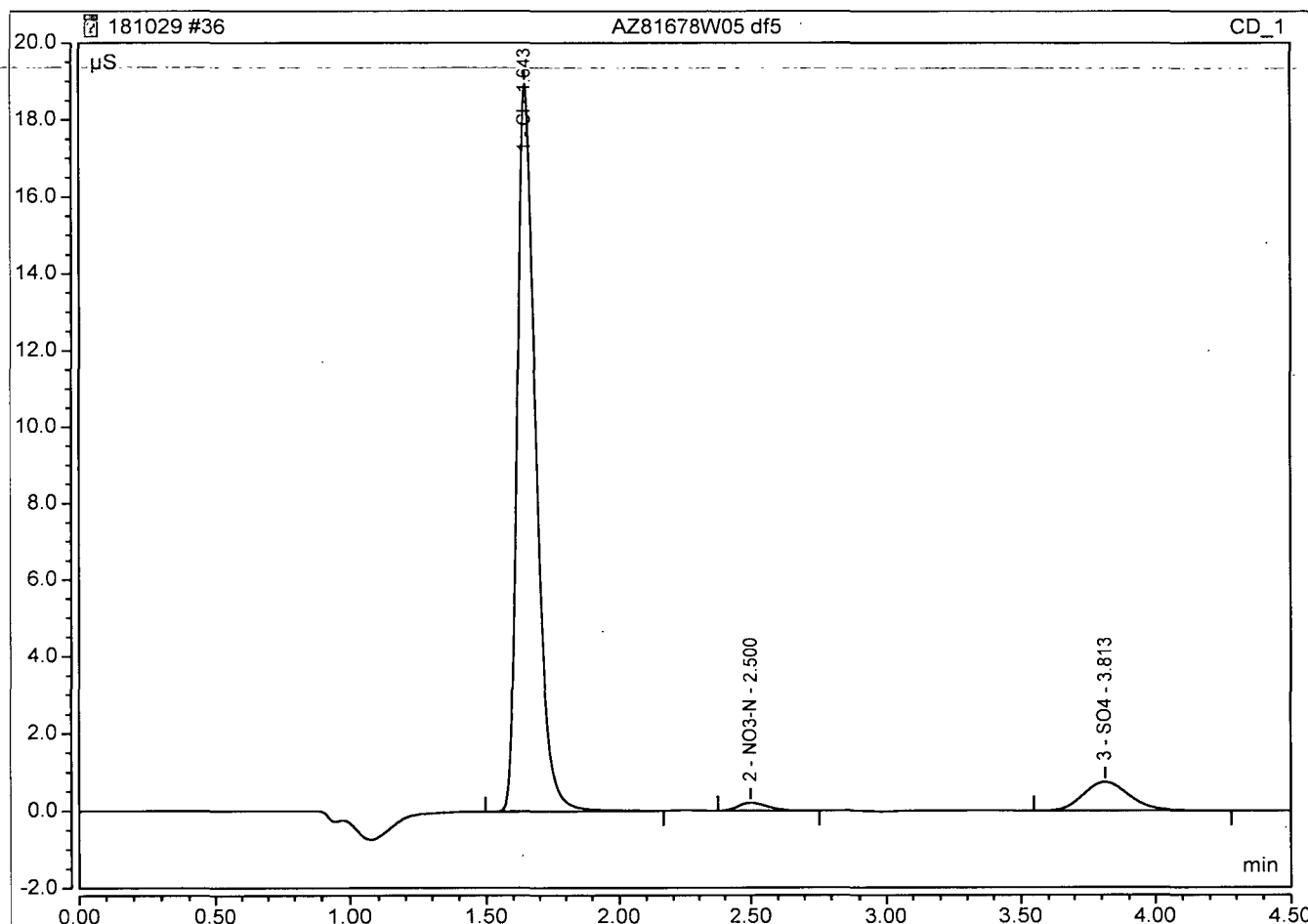
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.66	Cl	BMB	9.721	136.101	88.2258
2	2.25	BR	BMB	0.009	0.103	0.2580
3	2.51	NO3-N	BMB	0.130	1.140	0.5860
5	3.85	SO4	BMB	0.745	4.637	10.5012
TOTAL:				10.60	141.98	99.57



### Peak Integration Report

Sample Name:	AZ81678W05 df5	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	5.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	29-Oct-2018 / 11:44	Run Time:	4.50

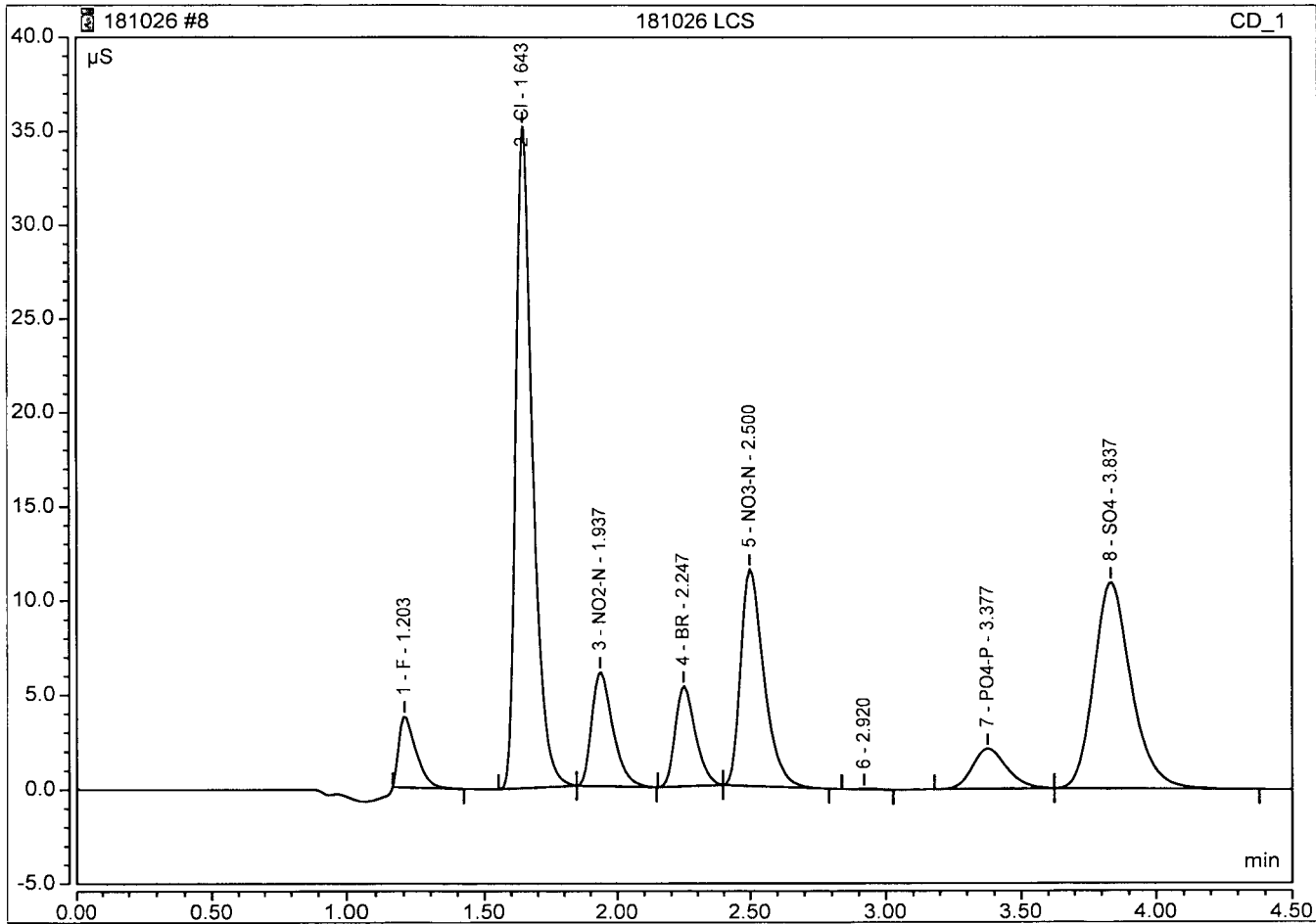
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.64	Cl	BMB	1.551	18.955	71.2625
2	2.50	NO3-N	BMB	0.026	0.206	0.6692
3	3.81	SO4	BMB	0.146	0.748	10.7213
TOTAL:				1.72	19.91	82.65



**Peak Integration Report**

Sample Name:	181026 LCS	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 09:56	Run Time:	4.50

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.20	F	BMB	0.277	3.769	2.4302
2	1.64	Cl	BMB	2.566	35.178	23.4493
3	1.94	NO2-N	BMB	0.556	6.044	3.0746
4	2.25	BR	BMB	0.472	5.298	12.5420
5	2.50	NO3-N	BMB	1.145	11.474	4.9857
7	3.38	PO4-P	BMB	0.312	2.121	4.8520
8	3.84	SO4	BMB	1.735	10.919	24.3052
TOTAL:				7.06	74.80	75.64



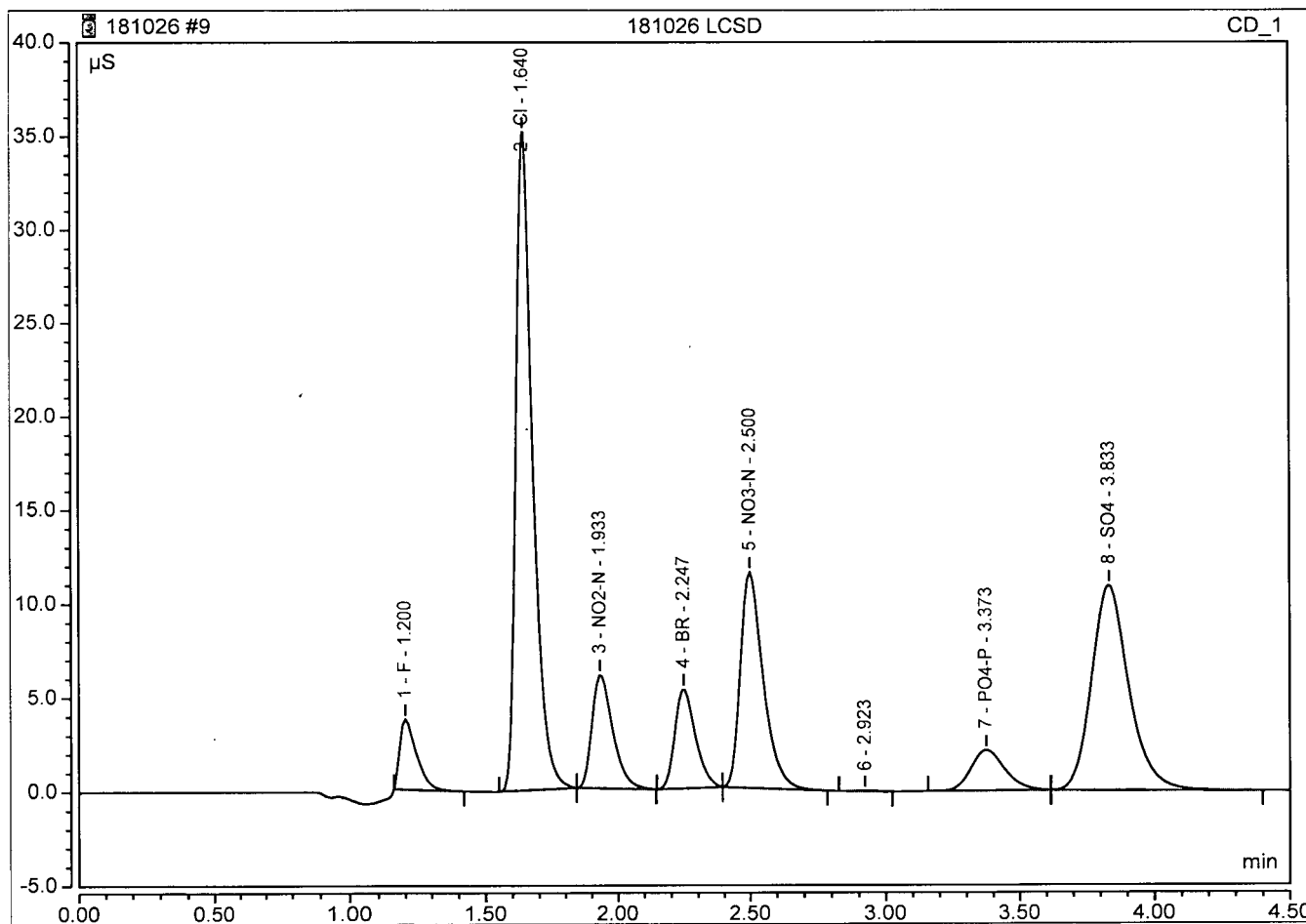
Algorithm Check: HH 181030  
 $y = \text{Peak Area}$   
 $x = \text{mg/L Br}$   
 $y = .0377x - .0007$   
 $y = .472 \therefore x = 12.53 \checkmark$



### Peak Integration Report

Sample Name:	181026 LCSD	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 10:03	Run Time:	4.50

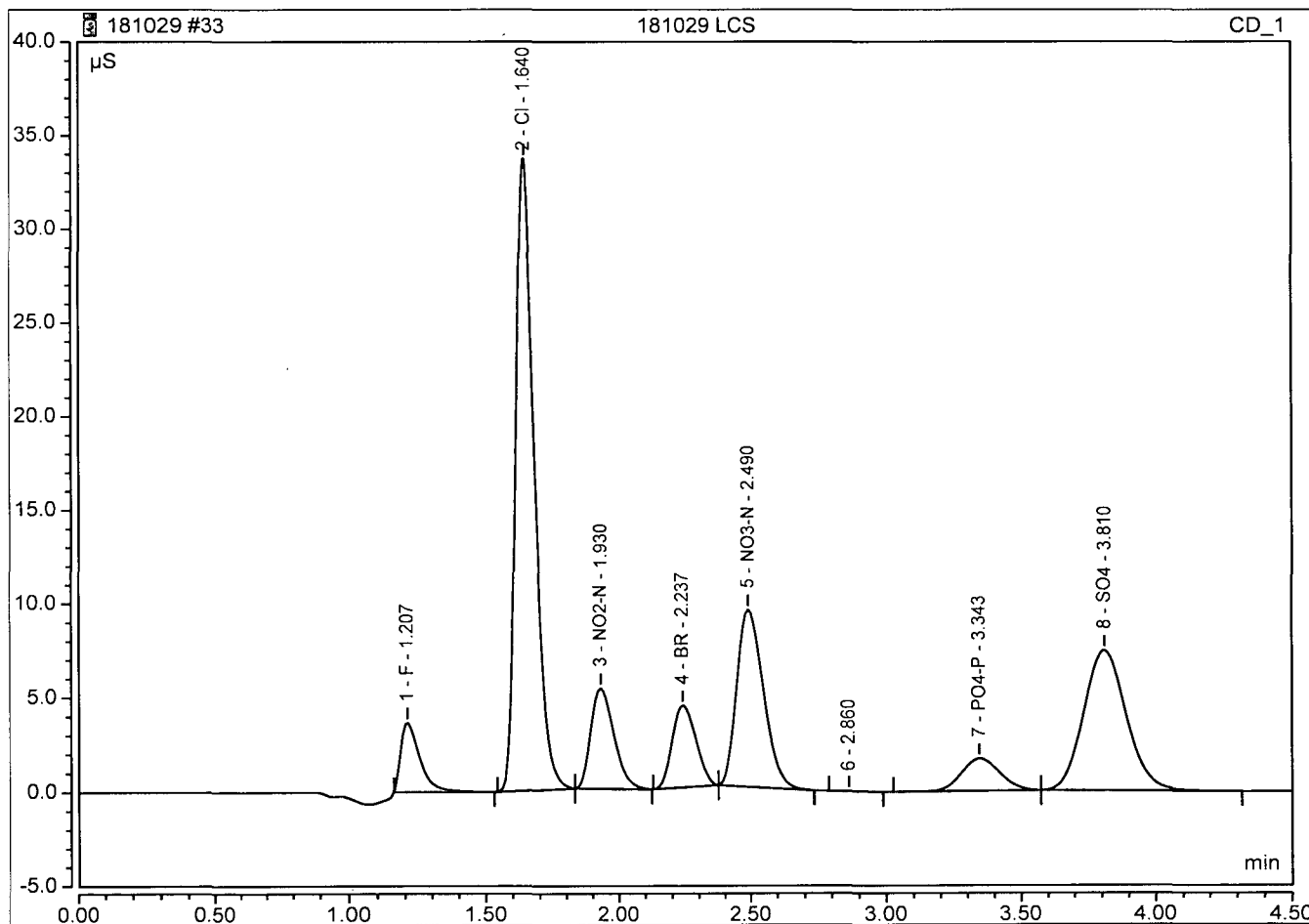
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.20	F	BMB	0.274	3.749	2.4063
2	1.64	Cl	BMB	2.566	35.165	23.4475
3	1.93	NO2-N	BMB	0.557	6.046	3.0786
4	2.25	BR	BMB	0.471	5.292	12.5341
5	2.50	NO3-N	BMB	1.145	11.478	4.9826
7	3.37	PO4-P	BMB	0.319	2.174	4.9658
8	3.83	SO4	BMB	1.738	10.907	24.3397
TOTAL:				7.07	74.81	75.75



### Peak Integration Report

Sample Name:	181029 LCS	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	29-Oct-2018 / 11:23	Run Time:	4.50

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.21	F	BMB	0.299	3.669	2.6096
2	1.64	Cl	BMB	2.656	33.670	24.2629
3	1.93	NO2-N	BMB	0.545	5.322	3.0135
4	2.24	BR	BMB	0.449	4.350	11.9382
5	2.49	NO3-N	BMB	1.109	9.393	4.8262
7	3.34	PO4-P	BMB	0.287	1.720	4.4855
8	3.81	SO4	BMB	1.360	7.433	19.0807
TOTAL:				6.70	65.56	70.22

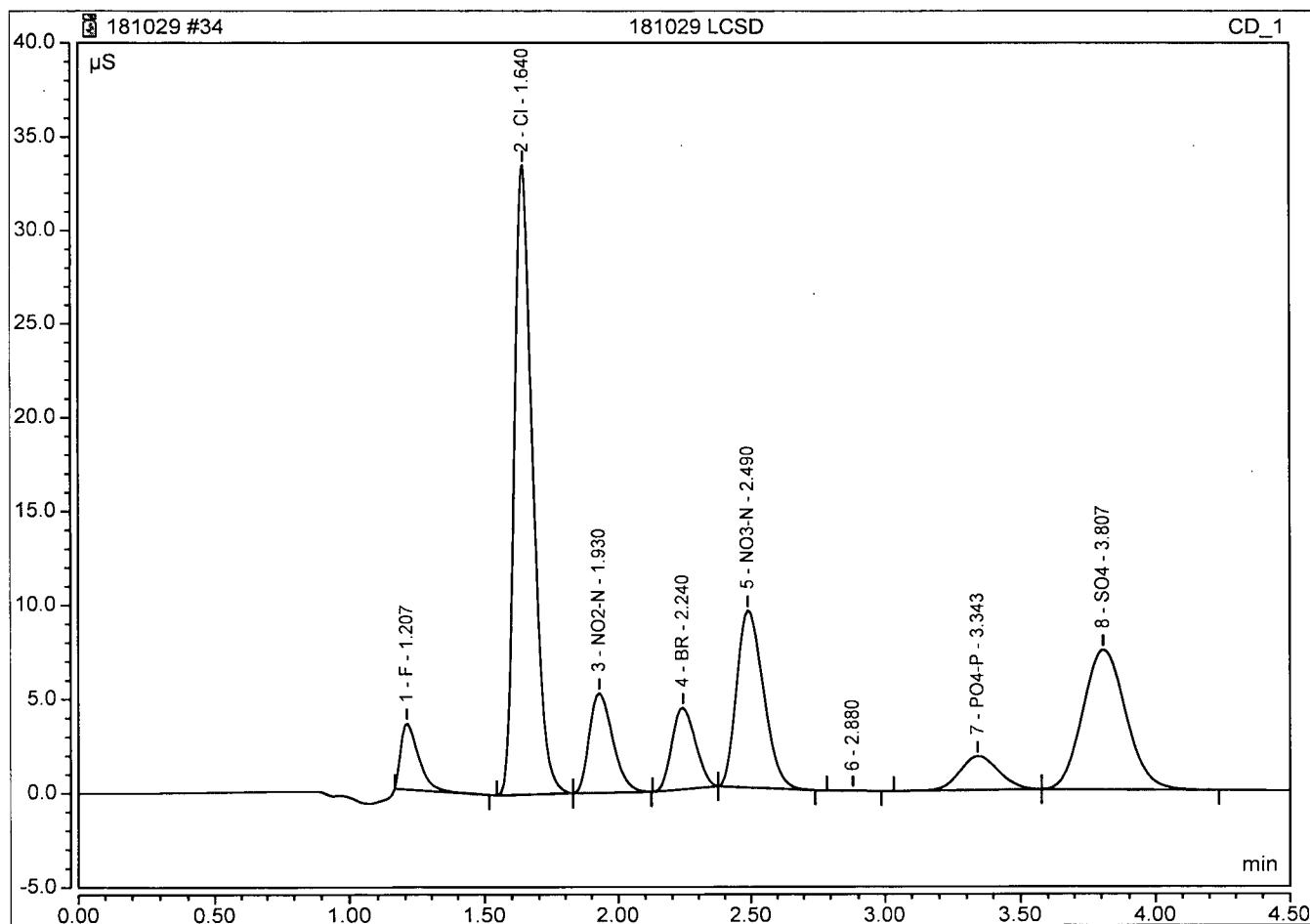


Algorithm Check: HH 181030  
 $y = \text{Peak Area}$   
 $x = \text{mg/L Br}$   
 $y = .0377x - .0007$   
 $y = 4.49 \therefore x = 11.93 \checkmark$

### Peak Integration Report

Sample Name:	181029 LCSD	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	29-Oct-2018 / 11:30	Run Time:	4.50

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.21	F	BMB	0.276	3.524	2.4183
2	1.64	Cl	BMB	2.634	33.565	24.0628
3	1.93	NO <sub>2</sub> -N	BMB	0.543	5.308	3.0029
4	2.24	BR	BMB	0.449	4.349	11.9501
5	2.49	NO <sub>3</sub> -N	BMB	1.112	9.416	4.8419
7	3.34	PO <sub>4</sub> -P	BMB	0.305	1.830	4.7569
8	3.81	SO <sub>4</sub>	BMB	1.359	7.440	19.0563
TOTAL:				6.68	65.43	70.09



## Metrohm 814/809 Titrand Data

Sample ID	Analysis Date/Time	Method	Titration Volume		OH	CO3	HCO3	Total Alk	Unit	Sample Vol	N	Batch	Initials
			(to 8.3)	(total)									
181029A BLK	2018-10-29 13:29:02 UTC-8	Alkalinity	0.000	0.056	0.00	0.00	2.24	2.24	mg/L	25 mL	0.0200	181029A	AR
AZ81678W05	2018-10-29 13:23:08 UTC-8	Alkalinity	0.000	1.904	0.00	0.00	76.16	76.16	mg/L	25 mL	0.0200	181029A	AR
AZ81677W05	2018-10-29 13:17:45 UTC-8	Alkalinity	0.000	1.616	0.00	0.00	64.64	64.64	mg/L	25 mL	0.0200	181029A	AR
AZ81676W05	2018-10-29 13:05:16 UTC-8	Alkalinity	0.000	6.668	0.00	0.00	266.72	266.72	mg/L	25 mL	0.0200	181029A	AR
181029A LCSD	2018-10-29 10:42:19 UTC-8	Alkalinity	0.000	5.790	0.00	0.00	231.60	231.60	mg/L	25 mL	0.0200	181029A	AR
181029A LCS	2018-10-29 10:32:42 UTC-8	Alkalinity	0.000	5.876	0.00	0.00	235.04	235.04	mg/L	25 mL	0.0200	181029A	AR

# AQ2 Tray Report



**Serial Number:** 190170  
**Software Version:** 2.1.0  
**Report Requested By:** Joel  
**Date & Time:** 2018-10-30 15:18:17  
**Tray Number:** 93  
**Tray Name:** 181030A TOXN

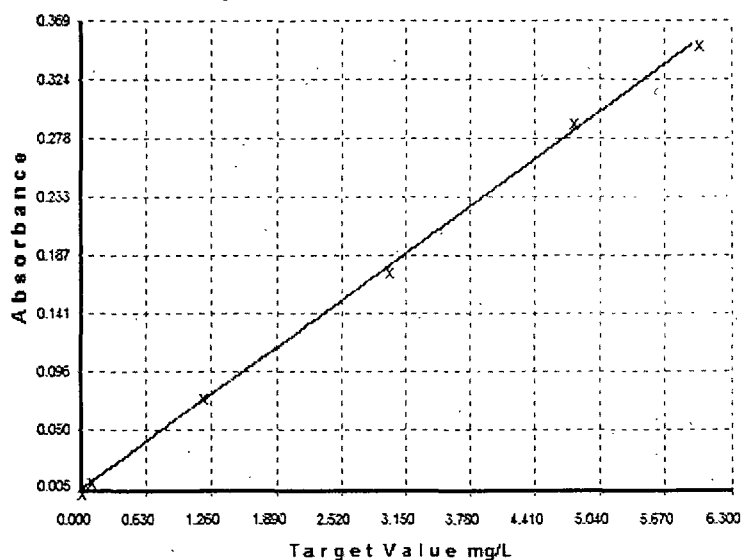
## TOXN

### Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0047	-0.0454	0.0000	
S90	0.0142	0.1183	0.1000	18.29
S91	0.0799	1.2507	1.2000	4.23
S92	0.1773	2.9314	3.0000	-2.29
S93	0.2918	4.9058	4.8000	2.20
S94	0.3517	5.9392	6.0000	-1.01
S0	0.0054	-0.0339	0.0000	

**Polynomial Order:** 1  
**Correlation Coefficient:** 0.9996  
**Carryover(%):** 0.2  
**Calibration equation:**  $y = bx + a$   
**y =:** Concentration mg/L  
**x =:** Measured absorbance  
**a =:** -1.270205E-001  
**b =:** 1.724661E+001  
**Date & Time:** 2018-10-30 14:29:48

### Calibration Graph



## Reagents

Name	Batch	Prepared By	Expiry Date
NO3 W Buffer	Algorithm Check	Joel	
Sulfa-NEDD	$y = 17.25x - 0.13$ $y = 3.00$	Joel	
		JR	
		11-9-18	

## Test Results

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	S1	Standard 1	0.0047			0.004732			JR	2018-10-30 14:16:00
	S90	Standard 90	0.0142			0.014223			JR	2018-10-30 14:18:20
	S91	Standard 91	0.0799			0.079884			JR	2018-10-30 14:20:37
	S92	Standard 92	0.1773			0.177333			JR	2018-10-30 14:22:55
	S93	Standard 93	0.2918			0.291817			JR	2018-10-30 14:25:13
	S94	Standard 94	0.3517			0.351734			JR	2018-10-30 14:27:31
	S0	Standard 0	0.0054			0.005402			JR	2018-10-30 14:29:48
2	ICV	ICV	3.0057	mg/L	✓	0.181641			JR	2018-10-30 14:32:06
3	ICB	ICB	-0.0254	mg/L		0.005891			JR	2018-10-30 14:34:24
	CCV	CCV	2.8860	mg/L		0.174701			JR	2018-10-30 14:36:42
	CCB	CCB	-0.0265	mg/L		0.005827			JR	2018-10-30 14:39:01
4	U1	181030A BLK	-0.0376	mg/L		0.005183			JR	2018-10-30 14:41:19
5	U2	181030A LCS	2.9834	mg/L		0.180348			JR	2018-10-30 14:43:37
6	U3	181030A LCSD	2.9608	mg/L		0.179040			JR	2018-10-30 14:45:57
7	U4	AZ81584W10	0.5379	mg/L		0.038552			JR	2018-10-30 14:48:15
8	U5	AZ81584W10 MS	3.0498	mg/L		0.184200			JR	2018-10-30 14:50:33
9	U6	AZ81584W10 MSD	3.1202	mg/L		0.188282			JR	2018-10-30 14:52:51

10	U7	AZ81587W06	0.2006	mg/L	0.018995	JR	2018-10-30 14:55:10
11	U8	AZ81636W06	0.7206	mg/L	0.049149	JR	2018-10-30 14:57:28
12	U9	AZ81640W06	-0.0014	mg/L	0.007286	JR	2018-10-30 14:59:47
13	U10	AZ81642W06	0.9302	mg/L	0.061297	JR	2018-10-30 15:02:05
	CCV	CCV	2.9472	mg/L	0.178253	JR	2018-10-30 15:04:24
	CCB	CCB	-0.0167	mg/L	0.006395	JR	2018-10-30 15:06:43
14	U11	AZ81644W06	0.5641	mg/L	0.040070	JR	2018-10-30 15:07:51
15	U12	AZ81676W06	1.5066	mg/L	0.094721	JR	2018-10-30 15:08:47
16	U13	AZ81677W06	0.4253	mg/L	0.032026	JR	2018-10-30 15:09:44
17	U14	AZ81678W06	0.4665	mg/L	0.034416	JR	2018-10-30 15:10:40
18	U15	AZ81840W06	0.0293	mg/L	0.009062	JR	2018-10-30 15:11:36
19	U16	AZ81841W06	1.8760	mg/L	0.116141	JR	2018-10-30 15:12:33
20	U17	AZ81842W06	1.9744	mg/L	0.121846	JR	2018-10-30 15:13:29
	CCV	CCV	2.9304	mg/L	0.177276	JR	2018-10-30 15:14:25
	CCB	CCB	-0.0243	mg/L	0.005956	JR	2018-10-30 15:15:22

Method Ferrous Iron Standards Prep'd By (Initials) HH  
 Prep Date 06/15/18  
 Exp Date 06/15/19

Stock Label	Supplier	Batch Number	Exp Date	Aliquot from Stock	Final Volume	Solvent	Ferrous Iron Concentration
Ferrous Ammonium Sulfate	J.T.Baker	0000184592	08/21/20	0.351	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L
Ferrous Sulfate	Mallinckrodt	Lot 5056 KDRX	NA	0.249	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L

Method Ferrous Iron CCV/LCS/MS/ICV Prep'd By (Initials) HH  
 Prep Date See Injection Log  
 Exp Date 24 Hours

Initial Standard Information	Supplier	Batch Number	Exp Date	Final Standard Information			
Ferrous Iron CCV	J.T.Baker	0000184592	06/14/19	500uL	25mL	Deionized water	4mg/L
Ferrous Iron LCS	Mallinckrodt	Lot 5056 KDRX	06/14/19	375uL	25mL	Deionized water	3mg/L

Method Ferrous Iron Calibration Curve Prep'd By (Initials) HH  
 Prep Date 06/15/18  
 Exp Date 06/16/18

Final Standard Information

Point Label	Supplier	Batch Number	Exp Date	Aliquot from Stock	Final Volume	Solvent	Ferrous Iron Concentration
0 HH 180615	J.T.Baker	0000184592	06/14/19	0	25mL	Deionized water	0mg/L
1	J.T.Baker	0000184592	06/14/19	0.125	25mL	Deionized water	1mg/L
2	J.T.Baker	0000184592	06/14/19	0.25	25mL	Deionized water	2mg/L
3	J.T.Baker	0000184592	06/14/19	0.5	25mL	Deionized water	4mg/L
4	J.T.Baker	0000184592	06/14/19	0.625	25mL	Deionized water	5mg/L
5	J.T.Baker	0000184592	06/14/19	1.25	25mL	Deionized water	10mg/L
Ferrous Iron ICV	Mallinckrodt	Lot 5056 KDRX	06/14/19	375uL	25mL	Deionized water	3mg/L

Anion Chromatography Working Standard									
Prep Date: 09/24/18					Prep'd By (Initials): HH				
Exp Date: 09/25/18									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000µg/mL in H2O	o2si	O2SI-062002-01-01	1000	142626-24-38407	04/20/19	125 uL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O	o2si	O2SI-062004-01-01	1000	142626-24-38408	04/20/19	125 uL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	250 uL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	250 uL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	250 uL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-6372-39521	12/31/21	625 uL	25 mL	Millipore Water	12.5
Sulfate Standard	Ultra Scientific	ICC-006	1000	G34-CR-2905-39056	07/31/21	1250 uL	25 mL	Millipore Water	25

Anion Chromatography Calibration Curve									
Prep Date: 09/24/18					Prep'd By (Initials): HH				
Exp Date: 09/25/18									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/mL)	Reference To APPL Prep Date	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc. Range (µg/mL)
Anion Chromatography Working Standard	Varries	ICal1	5.0-50.0	Prepared 09/24/18	09/25/18	8 µL	1000 µL	Millipore Water	0.08-0.40
Anion Chromatography Working Standard	Varries	ICal2	5.0-50.0	Prepared 09/24/18	09/25/18	20 µL	1000 µL	Millipore Water	0.1-1.0
Anion Chromatography Working Standard	Varries	ICal3	5.0-50.0	Prepared 09/24/18	09/25/18	50 µL	1000 µL	Millipore Water	0.25-2.5
Anion Chromatography Working Standard	Varries	ICal4	5.0-50.0	Prepared 09/24/18	09/25/18	100 µL	1000 µL	Millipore Water	0.5-5.0
Anion Chromatography Working Standard	Varries	ICal5	5.0-50.0	Prepared 09/24/18	09/25/18	200 µL	1000 µL	Millipore Water	1.0-10.0
Anion Chromatography Working Standard	Varries	ICal6	5.0-50.0	Prepared 09/24/18	09/25/18	700 µL	1000 µL	Millipore Water	3.5-35.0
Anion Chromatography Working Standard	Varries	ICal7	5.0-50.0	Prepared 09/24/18	09/25/18	1000 µL	1000 µL	Millipore Water	5.0-50.0

Anion Chromatography LCS/ICV									
Prep Date: See Injection Log					Prep'd By (Initials): HH				
Exp Date: 24 hours after prep									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Fluoride	Inorganic Ventures	ICF1	993-999	K2-F652018-38331	10/19/18	62.5 µL	25 mL	Millipore Water	2.5
Nitrite	Inorganic Ventures	ICNO21	993-1001	M2-NOX660562-38333	10/19/18	250 µL	25 mL	Millipore Water	3.04
Chloride	Inorganic Ventures	ICCL1	995-1001	N2CL664868-39036	04/16/19	500 µL	25 mL	Millipore Water	20
O-Phosphate as P	Inorganic Ventures	IPPO41	1001-1009	M2-POX655826-38334	10/19/18	125 µL	25 mL	Millipore Water	5
Nitrate as N	Inorganic Ventures	ICNNO31	994-1002	N2-NOX667147-39509	09/12/19	125 µL	25 mL	Millipore Water	5
Ion Chromatography Bromide Standard	CPI International	4400-IC8M	1000	161681-8-39539	02/06/20	312.5 µL	25 mL	Millipore Water	12.5
Sulfate	Inorganic Ventures	ICSO41	998-1006	N2-SOX664928-39508	08/13/19	500 µL	25 mL	Millipore Water	20

Anion Chromatography CCV									
Prep Date: See Injection Log					Prep'd By (Initials): HH				
Exp Date: 24 hours after prep									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000µg/mL in H2O	o2si	O2SI-062002-01-01	1000	142626-24-38407	04/20/19	62.5 µL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O	o2si	O2SI-062004-01-01	1000	142626-24-38408	04/20/19	62.5 µL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	125 µL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	125 µL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-6372-39521	12/31/21	312.5 µL	25 mL	Millipore Water	12.5
Sulfate Standard	Ultra Scientific	ICC-006	1000	G34-CR-2905-39056	07/31/21	625 µL	25 mL	Millipore Water	25



Anion Chromatography Working Standard									
Prep Date: 10/23/18					Prep'd By (Initials): HH				
Exp Date: 10/24/18									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000µg/mL in H2O	o2si	O2SI-062002-01-01	1000	142626-24-38407	04/20/19	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O	o2si	O2SI-062004-01-01	1000	142626-24-38408	04/20/19	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	250 µL	25 mL	Millipore Water	50
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	250 µL	25 mL	Millipore Water	10
Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	250 µL	25 mL	Millipore Water	10
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	625 µL	25 mL	Millipore Water	25
Sulfate Standard	Ultra Scientific	ICC-006	1000	G34-CR-2905-39056	07/31/21	1250 µL	25 mL	Millipore Water	50

Anion Chromatography Calibration Curve									
Prep Date: 10/23/18					Prep'd By (Initials): HH				
Exp Date: 10/24/18									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/mL)	Reference To APPL Prep Date	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Conc. Range (µg/mL)
Anion Chromatography Working Standard	Varries	ICal1	5.0-50.0	Prepared 10/23/18	10/24/18	200 µL	25000 µL	Millipore Water	0.08-0.40
Anion Chromatography Working Standard	Varries	ICal2	5.0-50.0	Prepared 10/23/18	10/24/18	20 µL	1000 µL	Millipore Water	0.1-1.0
Anion Chromatography Working Standard	Varries	ICal3	5.0-50.0	Prepared 10/23/18	10/24/18	50 µL	1000 µL	Millipore Water	0.25-2.5
Anion Chromatography Working Standard	Varries	ICal4	5.0-50.0	Prepared 10/23/18	10/24/18	100 µL	1000 µL	Millipore Water	0.5-5.0
Anion Chromatography Working Standard	Varries	ICal5	5.0-50.0	Prepared 10/23/18	10/24/18	200 µL	1000 µL	Millipore Water	1.0-10.0
Anion Chromatography Working Standard	Varries	ICal6	5.0-50.0	Prepared 10/23/18	10/24/18	700 µL	1000 µL	Millipore Water	3.5-35.0
Anion Chromatography Working Standard	Varries	ICal7	5.0-50.0	Prepared 10/23/18	10/24/18	1000 µL	1000 µL	Millipore Water	5.0-50.0

Anion Chromatography LCS/ICV									
Prep Date: See injection Log					Prep'd By (Initials): HH				
Exp Date: 24 hours after prep									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Fluoride	Inorganic Ventures	ICF1	993-999	K-F652018-39801	10/23/19	62.5 µL	25 mL	Millipore Water	2.5
Nitrite	Inorganic Ventures	ICNO21	993-1001	M2-NOX660562-39802	10/23/19	250 µL	25 mL	Millipore Water	3.04
Chloride	Inorganic Ventures	ICCL1	995-1001	N2CL664868-39036	04/16/19	500 µL	25 mL	Millipore Water	20
O-Phosphate as P	Inorganic Ventures	IPPO41	1001-1009	M2-POX655826-39803	10/23/19	125 µL	25 mL	Millipore Water	5
Nitrate as N	Inorganic Ventures	ICNNO31	994-1002	N2-NOX667147-39510	10/23/19	125 µL	25 mL	Millipore Water	5
Ion Chromatography Bromide Standard	CPI International	4400-IC8M	995-1005	16H087-37320	01/15/19	312.5 µL	25 mL	Millipore Water	12.5
Sulfate	Inorganic Ventures	ICSO41	998-1006	K2-SOX01111-38875	08/13/19	500 µL	25 mL	Millipore Water	20

Anion Chromatography CCV									
Prep Date: See injection Log					Prep'd By (Initials): HH				
Exp Date: 24 hours after prep									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000µg/mL in H2O	o2si	O2SI-062002-01-01	1000	142626-24-38407	04/20/19	62.5 µL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O	o2si	O2SI-062004-01-01	1000	142626-24-38408	04/20/19	62.5 µL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	125 µL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	125 µL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	312.5 µL	25 mL	Millipore Water	12.5
Sulfate Standard	Ultra Scientific	ICC-006	1000	G34-CR-2905-39056	07/31/21	625 µL	25 mL	Millipore Water	25

**Tiamo Alkalinity Standard Prep**

Prep'd By (Initials): AR

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Unit	Conc	Lot Number - QA Number	Prep/Opened	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc
Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	J.T.Baker	NA	NA	167828	NA	NA	PURCHASED	NA	NA	NA
0.10N Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	J.T.Baker	Normality	0.1N	167828	09/05/18	09/05/19	3ml	1L	DI	0.10N
0.02N Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	J.T.Baker	Normality	0.02N	167828	10/24/18	10/24/19	200mL	1L	DI	0.02N
Inorganic Spike(NaHCO <sub>3</sub> )	BDH	NA	NA	1575C510	10/18/18	08/14/20	PURCHASED	NA	NA	NA
Inorganic Spike Solution	BDH	Milligrams/Liters	250mg/L	1575C510	10/18/18	10/18/19	3.5g	500mL	DI	250mg/L
Standarizing Solution(NaCO <sub>3</sub> )	J.T.Baker	Normality	1N	178494	07/25/17	07/25/19	PURCHASED	NA	NA	NA

## Nitrite

### High Point @ 1.5 mg/L

0.075 mL NO<sub>2</sub> O<sub>2</sub>Si lot 142626-24 – 38408 exp: 04/20/19  
50 mL DI Water

### CCV @ 0.75 mg/L

0.0375 mL NO<sub>2</sub> O<sub>2</sub>Si lot 142626-24 – 38408 exp: 4/20/19  
50 mL DI Water

### ICV/LCS @ 0.73 mg/L

0.12mL NO<sub>2</sub> Inorganic Ventures lot M2-NOX660562 – 38802 exp: 10/23/19  
50 mL DI Water

### 1 mg/L NO<sub>2</sub>

400 uL of High point and 200 uL of DI made directly into a sample cup

Prep 10/23/18  
Exp 10/30/18  
JR

## Nitrate/TOXN

### High Point @ 6 mg/L

0.30 mL NO<sub>3</sub> O<sub>2</sub>Si lot 880117-4 – 39577 exp: 02/21/20  
50 mL DI Water

### CCV @ 3.0 mg/L

0.15 mL NO<sub>3</sub> O<sub>2</sub>Si lot 880117-4 – 39577 exp: 02/21/20  
50 mL DI Water

### ICV/LCS @ 3.0 mg/L

0.150 mL NO<sub>3</sub> Inorganic Ventures lot M2-NOX667147 – 39510 exp: 10/23/18  
50 mL DI Water

### 1 mg/L NO<sub>3</sub>

100 uL of High point and 500 uL of DI made directly into a sample cup

### MS @ 2.5 mg/L NO<sub>3</sub> and 0.73 mg/L NO<sub>2</sub>

0.125 mL NO<sub>3</sub> Inorganic Ventures lot M2-NOX667147 – 39510 M2-NOX667147 – 39510 and 0.12mL  
M2-NOX660562 – 38802 exp: 10/23/19  
Final volume 50 mL of sample

Prep 10/23/18  
Exp 10/30/18  
JR

# SM3500FeB Injection Log

Directory: I:\Spec Sheets\Ferrous Iron (Fe2)\

RunID	Injected	Sample Name	Misc Info	FileName	Multiplier
2	15 Jun 2018 12:27	0 HH 180615		Upload Temp	1.
1	15 Jun 2018 12:27	1		Upload Temp	1.
3	15 Jun 2018 12:28	2		Upload Temp	1.
4	15 Jun 2018 12:28	3		Upload Temp	1.
5	15 Jun 2018 12:29	4		Upload Temp	1.
6	15 Jun 2018 12:30	5		Upload Temp	1.
7	15 Jun 2018 12:31	180615A ICV		Upload Temp	1.
8	15 Jun 2018 12:32	180615A ICB		Upload Temp	1.
10	25 Oct 2018 12:08	CCV 4.0 181025		Upload Temp	1.
9	25 Oct 2018 12:08	CCB 181025		Upload Temp	1.
11	25 Oct 2018 12:09	181025A LCS		Upload Temp	1.
12	25 Oct 2018 12:10	181025A LCSD		Upload Temp	1.
13	25 Oct 2018 12:10	AZ81676W07		Upload Temp	1.
14	25 Oct 2018 12:11	AZ81677W07		Upload Temp	1.
15	25 Oct 2018 12:12	AZ81676W07 MS		Upload Temp	1.
16	25 Oct 2018 12:12	AZ81678W07		Upload Temp	1.
17	25 Oct 2018 12:13	AZ81676W07 DUP		Upload Temp	1.
19	25 Oct 2018 12:15	CCB 181025		Upload Temp	1.
18	25 Oct 2018 12:15	CCV 4.0 181025		Upload Temp	1.

# EPA 9056A Injection Log

Directory: I:\Dionex\Charlie\

UnID	Injected		Sample Name	Misc Info	FileName	Multiplier
	24 Sep 2018	10:51	i cal 1		Anions	1.
	24 Sep 2018	10:59	i cal 2		Anions	1.
	24 Sep 2018	11:06	i cal 3		Anions	1.
	24 Sep 2018	11:14	i cal 4		Anions	1.
0	24 Sep 2018	11:21	i cal 5		Anions	1.
1	24 Sep 2018	11:28	i cal 6		Anions	1.
2	24 Sep 2018	11:36	i cal 7		Anions	1.
3	24 Sep 2018	11:43	CCB		Anions	1.
4	24 Sep 2018	11:51	ICV LCS		Anions	1.

# EPA 300.0 Injection Log

Directory: I:\Dionex\Charlie\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
6	26 Oct 2018	09:42	CCV 181026		Anions	1.
7	26 Oct 2018	09:49	CCB		Anions	1.
8	26 Oct 2018	09:56	181026 LCS		Anions	1.
9	26 Oct 2018	10:03	181026 LCSD		Anions	1.
18	26 Oct 2018	11:05	CCV 181025		Anions	1.
19	26 Oct 2018	11:11	CCB		Anions	1.
27	26 Oct 2018	12:07	CCV 181025		Anions	1.
28	26 Oct 2018	12:14	CCB		Anions	1.
32	26 Oct 2018	12:41	AZ81676W05		Anions	1.
33	26 Oct 2018	12:48	AZ81678W05		Anions	1.
34	26 Oct 2018	12:55	AZ81677W05		Anions	1.
35	26 Oct 2018	13:02	CCV 181025		Anions	1.
36	26 Oct 2018	13:09	CCB		Anions	1.

# EPA 300.0 Injection Log

Directory: I:\Dionex\Charlie\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
31	29 Oct 2018	11:09	CCV 181029		Anions	1.
32	29 Oct 2018	11:16	CCB		Anions	1.
33	29 Oct 2018	11:23	181029 LCS		Anions	1.
34	29 Oct 2018	11:30	181029 LCSD		Anions	1.
35	29 Oct 2018	11:37	AZ81677W05 df5		Anions	5.
36	29 Oct 2018	11:44	AZ81678W05 df5		Anions	5.
39	29 Oct 2018	12:05	CCV 181029		Anions	1.
40	29 Oct 2018	12:11	CCB		Anions	1.

# SM 2320B Injection Log

Directory: I:\Tiamo\EXPORT\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	29 Oct 2018	10:32	181029A LCS		181029A1_A	1.
2	29 Oct 2018	10:42	181029A LCSD		181029A1_A	1.
19	29 Oct 2018	13:05	AZ81676W05		181029A1_A	1.
20	29 Oct 2018	13:17	AZ81677W05		181029A1_A	1.
21	29 Oct 2018	13:23	AZ81678W05		181029A1_A	1.
22	29 Oct 2018	13:29	181029A BLK		181029A1_A	1.



# EPA 353.2 Injection Log

Directory: I:\EVE\Export\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	30 Oct 2018	14:16	Standard 1 TOXN/NO3		181030A TO	1.
2	30 Oct 2018	14:18	Standard 90 TOXN/NO3		181030A TO	1.
3	30 Oct 2018	14:20	Standard 91 TOXN/NO3		181030A TO	1.
4	30 Oct 2018	14:22	Standard 92 TOXN/NO3		181030A TO	1.
5	30 Oct 2018	14:25	Standard 93 TOXN/NO3		181030A TO	1.
6	30 Oct 2018	14:27	Standard 94 TOXN/NO3		181030A TO	1.
7	30 Oct 2018	14:29	Standard 0 TOXN/NO3		181030A TO	1.
8	30 Oct 2018	14:32	ICV TOXN/NO3		181030A TO	1.
9	30 Oct 2018	14:34	ICB TOXN/NO3		181030A TO	1.
12	30 Oct 2018	14:41	181030A BLK TOXN/NO3		181030A TO	1.
13	30 Oct 2018	14:43	181030A LCS TOXN/NO3		181030A TO	1.
14	30 Oct 2018	14:45	181030A LCSD TOXN/NO3		181030A TO	1.
22	30 Oct 2018	15:04	CCV TOXN/NO3		181030A TO	1.
23	30 Oct 2018	15:06	CCB TOXN/NO3		181030A TO	1.
25	30 Oct 2018	15:08	AZ81676W06 TOXN/NO3		181030A TO	1.
26	30 Oct 2018	15:09	AZ81677W06 TOXN/NO3		181030A TO	1.
27	30 Oct 2018	15:10	AZ81678W06 TOXN/NO3		181030A TO	1.
31	30 Oct 2018	15:14	CCV TOXN/NO3		181030A TO	1.
32	30 Oct 2018	15:15	CCB TOXN/NO3		181030A TO	1.



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

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

## Data Validatable Report

November 15, 2018

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, Hawaii 96813

Attn: Margie Pascua

Title: Report of Data: Case 87238

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

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

Dear Ms. Pascua:

Six water samples were received October 26, 2018. Written results for the requested analyses are being provided on this November 15, 2018.

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

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

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

Paula McCartney, Laboratory Director  
APPL, Inc.

PM/lac  
Enclosure  
cc: File

Number of pages in this report: 880

Data Validation Package  
for  
60481245 CIV 0053 Red Hill Fuel Storage  
APPL SDG 87238

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# CASE NARRATIVE

# Case Narrative

ARF: 87238

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

## Sample Receipt Information:

Six water samples were received October 26, 2018, at 3.0°C, 2.5°C, and 3.0°C. The sample group was assigned Analytical Request Form (ARF) number 87238.

## Sample Preparation and Analysis Information:

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

For the EPA 8270D SIM analysis, the samples were extracted according to EPA method 3520C.

For the EPA 8270D Phenol analysis, the samples were extracted according to EPA method 3520C. The samples were screened for Tentatively Identified Compounds (TICs).

For the APPL SOP ANA2MEE analysis, the samples were extracted according to EPA method 3535.

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

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

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

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

## Analytical Exceptions, Deviations and Abnormalities.

**EPA 8015B:** In the 181029A method blank, Diesel (C10-C24) and Oil (C24-C40) were detected at concentration greater than the LOQ. Corrective action: All of the samples were re-extracted and re-analyzed. Both sets of data are reported.

In the 181029A LCS, Oil (C24-C40) recovered above the 113% upper control limit. Corrective action: All of the samples were re-extracted and re-analyzed. Both sets of data are reported.

**APPL SOP ANA2MEE:** In the lab control spikes, the RPD exceeded the 20% limit at 20.7%. All spike recoveries were acceptable.

**EPA 8260B:** The surrogates 1,2-Dichloroethane-d4 and Dibromofluoromethane recovered above the upper control limit in four samples. Corrective action: None, no target compound was detected in the samples. The client was notified.

The surrogate Toluene-d8 recovered below the 89% lower control limit for the 181030AL  
LCSD Corrective action: All target analyte spike recoveries are within the control limits. The client was notified.

**Inorganic Analyses:** The samples were received two days after collection. They were analyzed for ferrous iron and nitrate as soon as possible on the day received.

In the method blank, total alkalinity and bicarbonate were detected above one-half the LOQ.  
Corrective action: The concentration of total alkalinity and bicarbonate in the samples exceeds the blank concentration by ten-fold or more.

SDG	Received	Client ID	APPL ID	Collected DateTime	Matrix	Method	Method Description
87238	10/26/18	ERH680	AZ81837	10/24/18 9:05:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87238	10/26/18	ERH680	AZ81837	10/24/18 9:05:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87238	10/26/18	ERH680	AZ81837	10/24/18 9:05:00 AM	WATER	RSK 175	METHANE BY RSK 175
87238	10/26/18	ERH701	AZ81838	10/24/18 12:40:00 PM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87238	10/26/18	ERH701	AZ81838	10/24/18 12:40:00 PM	WATER	EPA 8260B	EPA 8260B GRO WATER
87238	10/26/18	ERH701	AZ81838	10/24/18 12:40:00 PM	WATER	RSK 175	METHANE BY RSK 175
87238	10/26/18	ERH695	AZ81839	10/24/18 12:15:00 PM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87238	10/26/18	ERH695	AZ81839	10/24/18 12:15:00 PM	WATER	EPA 8260B	EPA 8260B GRO WATER
87238	10/26/18	ERH695	AZ81839	10/24/18 12:15:00 PM	WATER	RSK 175	METHANE BY RSK 175
87238	10/26/18	ERH681	AZ81840	10/25/18 9:15:00 AM	WATER	SM 2320B	Wetlab 2320B - Water
87238	10/26/18	ERH681	AZ81840	10/25/18 9:15:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water
87238	10/26/18	ERH681	AZ81840	10/25/18 9:15:00 AM	WATER	SM3500FeB	Ferrous Iron
87238	10/26/18	ERH681	AZ81840	10/25/18 9:15:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER
87238	10/26/18	ERH681	AZ81840	10/25/18 9:15:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87238	10/26/18	ERH681	AZ81840	10/25/18 9:15:00 AM	WATER	EPA 8270D	EPA 8270D WATER
87238	10/26/18	ERH681	AZ81840	10/25/18 9:15:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
87238	10/26/18	ERH681	AZ81840	10/25/18 9:15:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH L-L SGC
87238	10/26/18	ERH681	AZ81840	10/25/18 9:15:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
87238	10/26/18	ERH681	AZ81840	10/25/18 9:15:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH RE-EXTRACT
87238	10/26/18	ERH681	AZ81840	10/25/18 9:15:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87238	10/26/18	ERH681	AZ81840	10/25/18 9:15:00 AM	WATER	RSK 175	METHANE BY RSK 175
87238	10/26/18	ERH681	AZ81840	10/25/18 9:15:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ
87238	10/26/18	ERH702	AZ81841	10/24/18 12:55:00 PM	WATER	SM 2320B	Wetlab 2320B - Water
87238	10/26/18	ERH702	AZ81841	10/24/18 12:55:00 PM	WATER	EPA 300.0	Wetlab 300.0 - Water
87238	10/26/18	ERH702	AZ81841	10/24/18 12:55:00 PM	WATER	EPA 300.0	Wetlab 300.0 - Water
87238	10/26/18	ERH702	AZ81841	10/24/18 12:55:00 PM	WATER	SM3500FeB	Ferrous Iron
87238	10/26/18	ERH702	AZ81841	10/24/18 12:55:00 PM	WATER	EPA 353.2	EPA 353.2 - WATER
87238	10/26/18	ERH702	AZ81841	10/24/18 12:55:00 PM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87238	10/26/18	ERH702	AZ81841	10/24/18 12:55:00 PM	WATER	EPA 8270D	EPA 8270D WATER
87238	10/26/18	ERH702	AZ81841	10/24/18 12:55:00 PM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
87238	10/26/18	ERH702	AZ81841	10/24/18 12:55:00 PM	WATER	EPA 8015B-eLL	EPA 8015B TPH L-L SGC
87238	10/26/18	ERH702	AZ81841	10/24/18 12:55:00 PM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
87238	10/26/18	ERH702	AZ81841	10/24/18 12:55:00 PM	WATER	EPA 8015B-eLL	EPA 8015B TPH RE-EXTRACT
87238	10/26/18	ERH702	AZ81841	10/24/18 12:55:00 PM	WATER	EPA 8260B	EPA 8260B GRO WATER
87238	10/26/18	ERH702	AZ81841	10/24/18 12:55:00 PM	WATER	RSK 175	METHANE BY RSK 175
87238	10/26/18	ERH702	AZ81841	10/24/18 12:55:00 PM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ
87238	10/26/18	ERH696	AZ81842	10/24/18 1:15:00 PM	WATER	SM 2320B	Wetlab 2320B - Water
87238	10/26/18	ERH696	AZ81842	10/24/18 1:15:00 PM	WATER	EPA 300.0	Wetlab 300.0 - Water
87238	10/26/18	ERH696	AZ81842	10/24/18 1:15:00 PM	WATER	EPA 300.0	Wetlab 300.0 - Water
87238	10/26/18	ERH696	AZ81842	10/24/18 1:15:00 PM	WATER	SM3500FeB	Ferrous Iron
87238	10/26/18	ERH696	AZ81842	10/24/18 1:15:00 PM	WATER	EPA 353.2	EPA 353.2 - WATER
87238	10/26/18	ERH696	AZ81842	10/24/18 1:15:00 PM	WATER	EPA 8260B	EPA 8260B BTEX WATER
87238	10/26/18	ERH696	AZ81842	10/24/18 1:15:00 PM	WATER	EPA 8270D	EPA 8270D WATER
87238	10/26/18	ERH696	AZ81842	10/24/18 1:15:00 PM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
87238	10/26/18	ERH696	AZ81842	10/24/18 1:15:00 PM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
87238	10/26/18	ERH696	AZ81842	10/24/18 1:15:00 PM	WATER	EPA 8015B-eLL	EPA 8015B TPH RE-EXTRACT
87238	10/26/18	ERH696	AZ81842	10/24/18 1:15:00 PM	WATER	EPA 8260B	EPA 8260B GRO WATER
87238	10/26/18	ERH696	AZ81842	10/24/18 1:15:00 PM	WATER	RSK 175	METHANE BY RSK 175
87238	10/26/18	ERH696	AZ81842	10/24/18 1:15:00 PM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ

**APPL Inc.**  
**Abbreviations and Flags**

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




**SAMPLE RECORDS MANAGEMENT**  
**CHAIN OF CUSTODY,**  
**ARF, CRF, AND**  
**CLIENT COMMUNICATION**

# APPL - Analysis Request Form

87238

Client: AECOM  
 Address: 1001 Bishop Street, Suite 1600  
Honolulu, HI 96813  
 Attn: Margie Pascua  
 Phone: 808-356-5373 Fax: 808-523-8950  
 Job: 60571032 CV18F0126 Red Hill Fuel Storage  
 PO #: 18S-S22209-HI27 PO# 102604  
 Chain of Custody (Y/N): Y # RH102518  
 RAD Screen (Y/N): Y pH (Y/N): Y  
 Turn Around Type: 1 WEEK

Received by: AAR   
 Date Received: 10/26/18 Time: 10:00  
 Delivered by: FEDEX  
 Shuttle Custody Seals (Y/N): Y Time Zone: -10  
 Chest Temp(s): 3.0,2.5,3.0°C  
 Color: VOA/K-PurpYel  
 Samples Chilled until Placed in Refrig/Freezer: Y  
 Project Manager: Libby Cheesebor  
 QC Report Type: DVP4DOD/EQUIS/HI  
 Due Date: 11/02/18

Comments:

**PM: login and F1s to Margie.Pascua@aecom.com**  
**AN: 7 day TAT for Form 1s; 21 day TAT for PKG STYLE 1; DOD v5.1; DOD Forms (LOQ/LOD database/DL) 8260: BTEX & TPH-G only; 8270 SIM: 1-methylnaphthalene, 2-methylnaphthalene & naphthalene only. TPH D & O both with and w/o SGC, reverse surrogate for the SGC; analyze SGC if detections RSK: Methane only; \$87DC53W5: report phenol + TICs; \$87DMEEW5: 2-MEE (LCS Spk 80ppb).**  
  
**FR: HC to LDC, 2 labeled CDs to Margie Pascua.**  
**EDD: AECOM EQUIS EDD 2.5.3 Red Hill 87DMEE->3535A to Margie.Pascua@aecom.com & jecklund@lab-data.com**




Sample Distribution:

**GC: 3-\$87DC53W5, 3-\$87DMEEW5, 2-\$DOC53SGCW5LIQ, 3-\$DOC53W5LIQ, 3-\$DOC53W5LIQRX, 3-\$SIM53LIQ51**  
**Extractions: 3- LIQ003, 3- LIQ005, 3- LIQ005SGC, 3- MWE2MEE**  
**VOA: 6-\$86BTOTXDOD5W, 6-\$GASBL, 6-\$GRO86BW, 6-\$RSKMETH**  
**Wetlab: 3-\$232W(HCO3,CO3,ALK), 3-\$300W(NO3,CL,SO4), 3-\$35FE, 3-\$35OF, 2-\$300WD(CL,SO4)**

Charges:

Invoice To:

**ACCOUNTS PAYABLE**  
**1001 Bishop Street, Ste 1600**  
**USAPImaging@aecom.com**  
**mary.basano@aecom.com**

Client ID	APPL ID	Sampled	Analyses Requested
1. ERH680	AZ81837W LCSD 	10/24/18 09:05	\$86BTOTXDOD5W, \$GASBL, \$GRO86BW, \$RSKMETH
2. ERH701	AZ81838W LCSD 	10/24/18 12:40	\$86BTOTXDOD5W, \$GASBL, \$GRO86BW, \$RSKMETH
3. ERH695	AZ81839W LCSD 	10/24/18 12:15	\$86BTOTXDOD5W, \$GASBL, \$GRO86BW, \$RSKMETH

# APPL - Analysis Request Form

87238

4. ERH681

AZ81840W 10/25/18 09:15  
LCSD 

\$232W(HCO3,CO3,ALK),  
\$300W(NO3,CL,SO4), \$35FE, \$35OF,  
\$86BTOTXDOD5W, \$87DC53W5,  
\$87DMEEW5, \$DOC53SGCW5LIQ,  
\$DOC53W5LIQ, \$DOC53W5LIQRX, \$GASBL,  
\$GRO86BW, \$RSKMETH, \$SIM53LIQ51 --  
D&O-SGC analysis if detections

5. ERH702

AZ81841W 10/24/18 12:55  
LCSD 

\$232W(HCO3,CO3,ALK),  
\$300W(NO3,CL,SO4), \$300WD(CL,SO4),  
\$35FE, \$35OF, \$86BTOTXDOD5W,  
\$87DC53W5, \$87DMEEW5,  
\$DOC53SGCW5LIQ, \$DOC53W5LIQ,  
\$DOC53W5LIQRX, \$GASBL, \$GRO86BW,  
\$RSKMETH, \$SIM53LIQ51 -- D&O-SGC  
analysis if detections

6. ERH696

AZ81842W 10/24/18 13:15  
LCSD 

\$232W(HCO3,CO3,ALK),  
\$300W(NO3,CL,SO4), \$300WD(CL,SO4),  
\$35FE, \$35OF, \$86BTOTXDOD5W,  
\$87DC53W5, \$87DMEEW5, \$DOC53W5LIQ,  
\$DOC53W5LIQRX, \$GASBL, \$GRO86BW,  
\$RSKMETH, \$SIM53LIQ51 -- D&O-SGC  
analysis if detections

# APPL Sample Receipt Form

ARF# 87238

Sample	Container Type	Count	p
AZ81837	<sup>13</sup> VOAs - HCL	4	NA
AZ81838	<sup>13</sup> VOAs - HCL	4	NA
AZ81839	<sup>13</sup> VOAs - HCL	4	NA
AZ81840	<sup>3</sup> PL 250mL	1	NA
	<sup>10</sup> PL 250mL - H2SO4	1	1.7
	<sup>13</sup> VOAs - HCL	4	NA
	<sup>17</sup> Amber Liter	5	NA
	<sup>38</sup> 250mL brn poly, HCl prsvd	1	1.7
	<sup>40</sup> 500mL Amber, unprsvd	2	NA
AZ81841	<sup>3</sup> PL 250mL	1	NA
	<sup>10</sup> PL 250mL - H2SO4	1	1.7
	<sup>13</sup> VOAs - HCL	4	NA
	<sup>17</sup> Amber Liter	5	NA
	<sup>38</sup> 250mL brn poly, HCl prsvd	1	1.7
	<sup>40</sup> 500mL Amber, unprsvd	2	NA
AZ81842	<sup>3</sup> PL 250mL	1	NA
	<sup>10</sup> PL 250mL - H2SO4	1	1.7
	<sup>13</sup> VOAs - HCL	4	NA
	<sup>17</sup> Amber Liter	5	NA
	<sup>38</sup> 250mL brn poly, HCl prsvd	1	1.7
	<sup>40</sup> 500mL Amber, unprsvd	2	NA

Sample    Container Type    Count    p



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

**CHAIN OF CUSTODY RECORD**

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

C.O.C. 102518

Report to: <u>PLEASE PRINT</u> Company Name: <u>AECOM</u> Phone: <u>808-356-5373</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u> Attn: <u>Margie Pascua</u> Email: <u>margie.pascua@aecom.com</u>	Invoice to: <u>PLEASE PRINT</u> Company Name: <u>AECOM</u> Phone: <u>808-529-7249</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u> Attn: <u>Mary Basano</u> Email: <u>mary.basano@aecom.com; usapimaging@aecom.com</u>
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Project Name/Number <u>GIV 53 / 60481245</u> <u>CN 18FO120 / W0591032</u>		Sampler (Print) <u>Danielle Huang for KL, BM, VMM</u>			Analysis Requested/Method Number													Date Shipped: <u>10/25</u>									
Purchase Order Number <u>77265 1D2104</u>		Sampler (Signature) <u>[Signature]</u>																Carrier: <u>FedEx</u>									
Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix			8260C BTEX, TPH-g	8260C DCA	8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/SGT	8270DSIM PAHs short list	8270D Phenol, TICs	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity	300.0 Nitrate, Sulfate, Chloride	300.0 Bromide/Fluoride	5010 Total Ca, Mg, Mn, K, Na	SM4500 Total & Dissolved Silica	Waybill No.:	Comments:	
<u>ERH680</u>	<u>Trap Blank</u>	<u>10/24</u>	<u>0905</u>	<u>HST</u>	<u>4</u>	<u>X</u>			<u>X</u>								<u>X</u>										
<u>ERH681</u>	<u>RHMW01</u>	<u>10/25</u>	<u>0915</u>	<u>HST</u>	<u>14</u>	<u>X</u>			<u>X</u>			<u>X</u>	<u>X*</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>								
<del>                 [Large diagonal line across the table]                   <u>[Signature]</u> <u>10/25</u> </del>																											
*Analyze TPH w/SGT only if TPH-d/o detected. TPH-d/o & PAHs need liquid-liquid extraction.																											

Shuttle Temperature: <u>3.0°, 2.5, 3.0</u>		Turnaround Requested: Check one <input type="checkbox"/> Standard 2-3 wk <input checked="" type="checkbox"/> One week <input type="checkbox"/> 3 days <input type="checkbox"/> 24/48 Hrs. <input type="checkbox"/> Other: _____										Sample Disposal: <input type="checkbox"/> Return to client <input checked="" type="checkbox"/> Disposal by Lab (30-day retention)					
Relinquished by sampler: <u>AECOM</u>		Date <u>10/25</u>	Time <u>1300</u>	Received by:				Relinquished by:				Date	Time	Received by:			
Relinquished by:		Date	Time	Received by:				Relinquished by:				Date <u>10-26-18</u>	Time <u>1000</u>	Received at lab by: <u>[Signature]</u>			



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**CHAIN OF CUSTODY RECORD**  
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 Fax: (559) 275-4422  
 coc@applinc.com C.O.C. 102514

Report to: <u>PLEASE PRINT</u> Company Name: <u>AECOM</u> Phone: <u>808-356-5373</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u> Attn: <u>Margie Pascua</u> Email: <u>margie.pascua@aecom.com</u>	Invoice to: <u>PLEASE PRINT</u> Company Name: <u>AECOM</u> Phone: <u>808-529-7249</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u> Attn: <u>Mary Basano</u> Email: <u>mary.basano@aecom.com; usapimaging@aecom.com</u>
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Project Name/Number <u>CIV-53 / 60481245</u> <u>CV 18FD126 / 60571032</u>	Sampler (Print) <u>Danielle Huang for KL, BM</u> <u>mm</u>	Analysis Requested/Method Number														Date Shipped: <u>10/25</u>				
		Purchase Order Number <u>77265</u> <u>102604</u>					Sampler (Signature) <u>[Signature]</u>					Matrix				8260C BTEX, TPH-g 8260C DCA 8011 EDB 8015C TPH-d/o 3630/8015C TPH-d/o w/ SGT 8270DSIM PAHs short list 8270D Phenol, TICs 8270D 2-(2-methoxy ethoxy)-ethanol RSK175M Methane SM3500-Fe Ferrous Iron 353.2 Nitrate-Nitrite N SM2320B Alkalinity 300.0 Nitrate, Sulfate, Chloride 300.0 Bromide/Fluoride 3010 Total Ca, Mg, Mn, K, Na SM4500 Total & Dissolved Silica				
Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Aq	Sed.	Soil											Waybill No.:	Comments:
<u>ERH 701</u>	<u>Trip Blank</u>	<u>10/24</u>	<u>1240</u>	<u>HST</u>	<u>4</u>	<u>X</u>				<u>X</u>								<u>X</u>		
<u>ERH 702</u>	<u>OWDFMW01</u>	<u>10/24</u>	<u>1255</u>	<u>HST</u>	<u>14</u>	<u>X</u>				<u>X</u>	<u>X</u>	<u>X*</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
<u>[Large Signature]</u> <u>10/25</u>																				
*Analyze TPH w/SGT only if TPH-d/o detected. TPH-d/o & PAHs need liquid-liquid extraction.																				

Shuttle Temperature:		Turnaround Requested: Check one <input type="checkbox"/> Standard 2-3 wk <input checked="" type="checkbox"/> One week <input type="checkbox"/> 3 days <input type="checkbox"/> 24/48 Hrs. <input type="checkbox"/> Other: _____						Sample Disposal: <input type="checkbox"/> Return to client <input checked="" type="checkbox"/> Disposal by Lab (30-day retention)					
Relinquished by sampler: <u>AECOM</u> <u>[Signature]</u>	Date <u>10/25</u>	Time <u>1300</u>	Received by:			Relinquished by:			Date	Time	Received by:		
Relinquished by:	Date	Time	Received by:			Relinquished by:			Date <u>10-26-16</u>	Time <u>1000</u>	Received at lab by: <u>[Signature]</u>		



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 coc@applinc.com C.O.C. PH102518-mcl

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

Project Name/Number		Sampler (Print)					Analysis Requested/Method Number												Date Shipped: <u>10/25/18</u>											
<u>CIV-53 / 60481245</u> <u>CV 18F0126 / 60571032</u>		<u>[Signature]</u>					No. of Containers	Matrix			8260C BTEX,TPH-g	8260C DCA	8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/ SGT	8270DSIM PAHS short list	8270D Phenol, TICs	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity	300.0 Nitrate, Sulfate, Chloride	300.0 Bromide/Fluoride	3010 Total Ca, Mg, Mn, K, Na	SM4500 Total & Dissolved Silica	Carrier: <u>FedEx</u>			
Purchase Order Number		Sampler (Signature)						Aq	Sed.	Soil																	Comments:			
Sample Identification	Location	Date Collected	Time Collected	Time Zone																										
<u>ERH695</u>	<u>Trip Blank</u>	<u>10/24/18</u>	<u>1215</u>	<u>HST</u>	<u>4</u>	<u>X</u>			<u>X</u>								<u>X</u>													
<u>ERH696</u>	<u>RMMW08</u>	<u>10/24/18</u>	<u>1315</u>	<u>HST</u>	<u>14</u>	<u>X</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>		
<div style="font-size: 2em; font-weight: bold; opacity: 0.5;">           [Large diagonal scribble across the table]         </div>																														

Shuttle Temperature:	Turnaround Requested: Check one <input type="checkbox"/> Standard 2-3 wk <input checked="" type="checkbox"/> One week <input type="checkbox"/> 3 days <input type="checkbox"/> 24/48 Hrs. <input type="checkbox"/> Other: _____						Sample Disposal: <input type="checkbox"/> Return to client <input checked="" type="checkbox"/> Disposal by Lab (30-day retention)		
Relinquished by sampler: <u>AECOM</u>	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:		
<u>[Signature]</u>	<u>10/25/18</u>	<u>1330</u>							
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date	Time	Received at lab by:		
					<u>10-26-18</u>	<u>1000</u>	<u>[Signature]</u>		

COOLER RECEIPT FORM

ARF: 87238

- 1) Project: 60571032 CV18F0126 Red Hill Fuel Storage Date Received: 10/26/18
- 2) Coolers: Number of Coolers: 3
- 3) YES Were custody seals present and intact?  
How many? 6 Name/Date on seal? see below
- 4) YES Was there a shipping slip? Carrier name: FEDEX
- 5) Type of packing in cooler:  bubble wrap  popcorn  foam  plastic bags  other  
 wet ice  dry ice  no ice  gel ice
- 6) YES Were cooler temperatures acceptable?
- 7) Serial number of certified NIST thermometer use R1
- 8) Cooler temp(s): In °C  
1: 3.0°C 2: 2.5°C 3: 3.0°C 4: \_\_\_\_\_ 5: \_\_\_\_\_ 6: \_\_\_\_\_  
7: \_\_\_\_\_ 8: \_\_\_\_\_ 9: \_\_\_\_\_ 10: \_\_\_\_\_ 11: \_\_\_\_\_ 12: \_\_\_\_\_

Chain of custody:

- 9) YES Was a chain of custody received?
- 10) YES Were the custody papers complete/signed in the appropriate places?

Sample Labels:

- 11) YES Were all sample labels complete (sample ID, date/time of sampling, etc.)?
- 12) YES Did all container labels agree with custody papers?

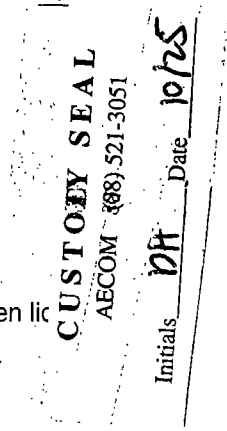
Sample Containers:

- 13) YES Were all containers sealed in separate bags?
- 14) YES Did all containers arrive in good condition:(unbroken, no leakage, no cracked/broken lid)
- 15) YES Were correct containers and preservatives used for the tests indicated?
- 16) YES Was a sufficient amount of sample sent for tests indicated?
- 17) Yes Were bubbles present in volatile samples?

If yes, the following were received with air bubbles:

Larger than a pea: \_\_\_\_\_

Smaller than a pea: AZ81837W01-4, AZ81838W01-3, AZ81839W01-3



Preservation Hold time:

- 18) Yes Was a sufficient amount of holding time remaining to analyze the samples?
- 19) Yes Was the pH taken of all non-VOA preserved samples and written on the sample container?
- 20) Yes Was the pH of acid preserved non-VOA samples < 2?
- 21) NA Was the pH of sodium hydroxide preserved samples for Cyanide > 12 and Sulfide >9?
- 22) NO Were unpreserved VOA Vials received?
- 23) NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?

pH strip lot number: 90B2031

Lab notified if pH was not adequate: \_\_\_\_\_

Notes/Deficiencies:

Personnel receiving samples: ZG Second reviewer: AA  
 Personnel labeling samples: ZG  
 Project manager notified: AA Date/Time of notification 10/26/18  
 Name of client notified: \_\_\_\_\_ Date/Time of notification \_\_\_\_\_



## **SAMPLE RESULTS**

## EPA 8015B TPH LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87238

**Sample ID: ERH681**

**APPL ID: AZ81840**

Sample Collection Date: 10/25/18

QCG: #DOC53-181029A-234822

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	170 B ++	40.0	25.00	13.07	ug/L	10/29/18	10/31/18
EPA 8015B-eL	OIL (C24-C40)	130 B	40.0	40.00	5.54	ug/L	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	135	60-142			%	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	118	56-125			%	10/29/18	10/31/18

B = The analyte was found in a method blank, as well as in the sample.  
++(T3M) The analyst has noted that the chromatogram of this sample is mainly higher boiling hydrocarbons.

Quant Method: DOC0905.M
Run #: 1031027
Instrument: Apollo
Sequence: 181031
Dilution Factor: 1
Initials: DPO

Printed: 11/02/18 2:27:55 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87238

**Sample ID: ERH681**

**APPL ID: AZ81840**

Sample Collection Date: 10/25/18

QCG: #DOC53-181105A-234971

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	170 ++	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	115	60-142			%	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	105	56-125			%	11/05/18	11/07/18

++(T3M) The analyst has noted that the chromatogram of this sample is mainly higher boiling hydrocarbons.

Quant Method: DOC0905.M
Run #: 1107022
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

Printed: 11/08/18 10:01:35 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH WATER L-L SGC

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87238  
APPL ID: **AZ81840**  
QCG: #DOC53-181105A1-235019

**Sample ID: ERH681**

Sample Collection Date: 10/25/18

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	67 ++	40.0	25.00	13.07	ug/L	11/05/18	11/08/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/08/18
EPA 8015B-eL	SURROGATE: (R) DECANOIC ACID (S)	0.0	0-1			%	11/05/18	11/08/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	118	60-142			%	11/05/18	11/08/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	110	56-125			%	11/05/18	11/08/18

++(T6) The analyst has noted that the chromatogram of this sample is mainly a match to hydrocarbons within the range of diesel fuel.

Quant Method: DOC0905.M
Run #: 1107047
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

*Printed: 11/09/18 11:49:38 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD*

# EPA 8015B TPH LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87238

**Sample ID: ERH702**

**APPL ID: AZ81841**

Sample Collection Date: 10/24/18

QCG: #DOC53-181029A-234822

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	220 B ++	40.0	25.00	13.07	ug/L	10/29/18	10/31/18
EPA 8015B-eL	OIL (C24-C40)	170 B	40.0	40.00	5.54	ug/L	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	124	60-142			%	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	111	56-125			%	10/29/18	10/31/18

B = The analyte was found in a method blank, as well as in the sample.  
++(T3M) The analyst has noted that the chromatogram of this sample is mainly higher boiling hydrocarbons.

Quant Method: DOC0905.M
Run #: 1031028
Instrument: Apollo
Sequence: 181031
Dilution Factor: 1
Initials: DPO

Printed: 11/02/18 2:27:55 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87238

**Sample ID: ERH702**

**APPL ID: AZ81841**

Sample Collection Date: 10/24/18

QCG: #DOC53-181105A-234971

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	250 ++	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
EPA 8015B-eL	OIL (C24-C40)	160	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	119	60-142			%	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	101	56-125			%	11/05/18	11/07/18

++(T3M) The analyst has noted that the chromatogram of this sample is mainly higher boiling hydrocarbons.

Quant Method: DOC0905.M
Run #: 1107023
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

Printed: 11/08/18 10:01:36 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH WATER L-L SGC

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87238  
APPL ID: **AZ81841**  
QCG: #DOC53-181105A1-235019

**Sample ID: ERH702**

Sample Collection Date: 10/24/18

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/08/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/08/18
EPA 8015B-eL	SURROGATE: (R) DECANOIC ACID (S)	0.0	0-1			%	11/05/18	11/08/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	119	60-142			%	11/05/18	11/08/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	111	56-125			%	11/05/18	11/08/18

Quant Method: DOC0905.M
Run #: 1107048
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

Printed: 11/09/18 11:49:38 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8015B TPH LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH696**

Sample Collection Date: 10/24/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87238

**APPL ID: AZ81842**

QCG: #DOC53-181029A-234822

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	140 B ++	40.0	25.00	13.07	ug/L	10/29/18	10/31/18
EPA 8015B-eL	OIL (C24-C40)	160 B	40.0	40.00	5.54	ug/L	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	129	60-142			%	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	115	56-125			%	10/29/18	10/31/18

B = The analyte was found in a method blank, as well as in the sample.  
++(T3M) The analyst has noted that the chromatogram of this sample is mainly higher boiling hydrocarbons.

Quant Method: DOC0905.M
Run #: 1031029
Instrument: Apollo
Sequence: 181031
Dilution Factor: 1
Initials: DPO

*Printed: 11/02/18 2:27:55 PM*  
APPL-F1-SC-NoMC-REG MDLs-DOD



# EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87238  
APPL ID: **AZ81842**  
QCG: #DOC53-181105A-234971

**Sample ID: ERH696**

Sample Collection Date: 10/24/18

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	120	60-142			%	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	108	56-125			%	11/05/18	11/07/18

Quant Method: DOC0905.M
Run #: 1107024
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

Printed: 11/08/18 10:01:36 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D SIM LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH681**

Sample Collection Date: 10/25/18

ARF: 87238

**APPL ID: AZ81840**

QCG: #SIM53-181030A-234793

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALE	92.4	39-114			%	10/30/18	11/01/18
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (	102	58-120			%	10/30/18	11/01/18

Quant Method: L1026.M
Run #: 1026L077
Instrument: Linus
Sequence: L181026
Dilution Factor: 1
Initials: MA

Printed: 11/02/18 10:35:59 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8270D SIM LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH702**

Sample Collection Date: 10/24/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87238

**APPL ID: AZ81841**

QCG: #SIM53-181030A-234793

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALE	90.5	39-114			%	10/30/18	11/01/18
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (	100	58-120			%	10/30/18	11/01/18

Quant Method: L1026.M
Run #: 1026L078
Instrument: Linus
Sequence: L181026
Dilution Factor: 1
Initials: MA

Printed: 11/02/18 10:35:59 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D SIM LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH696**

Sample Collection Date: 10/24/18

ARF: 87238

**APPL ID: AZ81842**

QCG: #SIM53-181030A-234793

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALE	89.7	39-114			%	10/30/18	11/01/18
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (	100	58-120			%	10/30/18	11/01/18

Quant Method: L1026.M  
Run #: 1026L079  
Instrument: Linus  
Sequence: L181026  
Dilution Factor: 1  
Initials: MA

Printed: 11/02/18 10:36:00 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH681

Sample Collection Date: 10/25/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87238

APPL ID: AZ81840

QCG: #87DC5-181030A-234799

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BENZENESULFONOTHIOIC ACID, S-P	8.4 T				TIC ug/L	10/30/18	11/01/18
EPA 8270D	HEXANEDIOIC ACID, DIOCTYL ESTER	15 T				TIC ug/L	10/30/18	11/01/18
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	76.1	43-140			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	74.3	44-119			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	79.5	19-119			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	87.6	44-120			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: PHENOL-D6 (S)	82.1	10-115			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	67.4	50-134			%	10/30/18	11/01/18

T = Tentatively identified compound.

Quant Method: Y1025NC.M  
Run #: 1025Y112  
Instrument: Yoda  
Sequence: Y181025  
Dilution Factor: 1  
Initials: AAB

Printed: 11/08/18 7:44:03 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8270D WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87238

**Sample ID: ERH702**

**APPL ID: AZ81841**

Sample Collection Date: 10/24/18

QCG: #87DC5-181030A-234799

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BENZENE, METHYL-	110 T	TIC		TIC	ug/L	10/30/18	11/01/18
EPA 8270D	BENZENESULFONAMIDE, N-ETHYL-4-	5.6 T	TIC		TIC	ug/L	10/30/18	11/01/18
EPA 8270D	BENZENESULFONAMIDE, N-ETHYL-4-	18 T	TIC		TIC	ug/L	10/30/18	11/01/18
EPA 8270D	BENZENESULFONOTHIOIC ACID, S-P	6.9 T	TIC		TIC	ug/L	10/30/18	11/01/18
EPA 8270D	HEXANEDIOIC ACID, DIOCTYL ESTER	38 T	TIC		TIC	ug/L	10/30/18	11/01/18
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	73.3	43-140			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	73.6	44-119			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	76.5	19-119			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	85.7	44-120			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: PHENOL-D6 (S)	78.1	10-115			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	63.5	50-134			%	10/30/18	11/01/18

T = Tentatively identified compound.

Quant Method: Y1025NC.M
Run #: 1025Y113
Instrument: Yoda
Sequence: Y181025
Dilution Factor: 1
Initials: AAB

Printed: 11/08/18 7:44:03 AM

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

# EPA 8270D WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH696**

Sample Collection Date: 10/24/18

ARF: 87238

**APPL ID: AZ81842**

QCG: #87DC5-181030A-234799

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BENZENE, METHYL-	69 T	TIC			ug/L	10/30/18	11/01/18
EPA 8270D	BENZENESULFONOTHIOIC ACID, S-P	7.6 T	TIC			ug/L	10/30/18	11/01/18
EPA 8270D	HEXANEDIOIC ACID, DIOCTYL ESTER	17 T	TIC			ug/L	10/30/18	11/01/18
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	77.5	43-140			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	74.6	44-119			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	79.4	19-119			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	87.9	44-120			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: PHENOL-D6 (S)	87.4	10-115			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	69.9	50-134			%	10/30/18	11/01/18

T = Tentatively identified compound.

Quant Method: Y1025NC.M
Run #: 1025Y114
Instrument: Yoda
Sequence: Y181025
Dilution Factor: 1
Initials: AAB

Printed: 11/08/18 7:44:03 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D MODIFIED WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH681**

Sample Collection Date: 10/25/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87238

**APPL ID: AZ81840**

QCG: #87DME-181029A-234791

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method: YMEE0801.M  
Run #: 0801Y090  
Instrument: Yoda  
Sequence: Y180801M  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 3:57:34 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD



# EPA 8270D MODIFIED WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87238

**Sample ID: ERH702**

**APPL ID: AZ81841**

Sample Collection Date: 10/24/18

QCG: #87DME-181029A-234791

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method: YMEE0801.M  
Run #: 0801Y091  
Instrument: Yoda  
Sequence: Y180801M  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 3:57:35 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D MODIFIED WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93511

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87238  
APPL ID: **AZ81842**  
QCG: #87DME-181029A-234791

**Sample ID: ERH696**

Sample Collection Date: 10/24/18

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method: YMEE0801.M  
Run #: 0801Y092  
Instrument: Yoda  
Sequence: Y180801M  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 3:57:35 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87238

**Sample ID: ERH680**

**APPL ID: AZ81837**

Sample Collection Date: 10/24/18

QCG: #86BTO-181029AL-234666

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/29/18	10/29/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/29/18	10/29/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/29/18	10/29/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/29/18	10/29/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	122 #	81-118			%	10/29/18	10/29/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	88.6	85-114			%	10/29/18	10/29/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	116	80-119			%	10/29/18	10/29/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	98.8	89-112			%	10/29/18	10/29/18

# = Recovery (or RPD) is outside QC limits.

Quant Method: L1026W.M
Run #: 1029L28
Instrument: Loki
Sequence: 181026
Dilution Factor: 1
Initials: SV

Printed: 10/31/18 10:17:22 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH701**

Sample Collection Date: 10/24/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87238

**APPL ID: AZ81838**

QCG: #86BTO-181030AL-234713

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/30/18	10/30/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/30/18	10/30/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/30/18	10/30/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/30/18	10/30/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	117	81-118			%	10/30/18	10/30/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	86.1	85-114			%	10/30/18	10/30/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	114	80-119			%	10/30/18	10/30/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	90.5	89-112			%	10/30/18	10/30/18

Quant Method: LSUR1026.M  
Run #: 1030L14  
Instrument: Loki  
Sequence: 181026  
Dilution Factor: 1  
Initials: SV

Printed: 10/31/18 10:17:22 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH695**

Sample Collection Date: 10/24/18

ARF: 87238

**APPL ID: AZ81839**

QCG: #86BTO-181029AL-234666

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/29/18	10/29/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/29/18	10/29/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/29/18	10/29/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/29/18	10/29/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	128 #	81-118			%	10/29/18	10/29/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	93.3	85-114			%	10/29/18	10/29/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	123 #	80-119			%	10/29/18	10/29/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	104	89-112			%	10/29/18	10/29/18

# = Recovery (or RPD) is outside QC limits.

Quant Method: L1026W.M
Run #: 1029L30
Instrument: Loki
Sequence: 181026
Dilution Factor: 1
Initials: SV

*Printed: 10/31/18 10:17:22 AM*  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH681

Sample Collection Date: 10/25/18

ARF: 87238

APPL ID: AZ81840

QCG: #86BTO-181029AL-234666

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/29/18	10/29/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/29/18	10/29/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/29/18	10/29/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/29/18	10/29/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	124 #	81-118			%	10/29/18	10/29/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	91.0	85-114			%	10/29/18	10/29/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	122 #	80-119			%	10/29/18	10/29/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	99.6	89-112			%	10/29/18	10/29/18

# = Recovery (or RPD) is outside QC limits.

Quant Method: L1026W.M
Run #: 1029L31
Instrument: Loki
Sequence: 181026
Dilution Factor: 1
Initials: SV

Printed: 10/31/18 10:17:22 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH702**

Sample Collection Date: 10/24/18

ARF: 87238

**APPL ID: AZ81841**

QCG: #86BTO-181029AL-234666

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/29/18	10/29/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/29/18	10/29/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/29/18	10/29/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/29/18	10/29/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	126 #	81-118			%	10/29/18	10/29/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	90.3	85-114			%	10/29/18	10/29/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	120 #	80-119			%	10/29/18	10/29/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	100	89-112			%	10/29/18	10/29/18

# = Recovery (or RPD) is outside QC limits.

Quant Method: L1026W.M
Run #: 1029L32
Instrument: Loki
Sequence: 181026
Dilution Factor: 1
Initials: SV

Printed: 10/31/18 10:17:22 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8260B BTEX WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87238

**Sample ID: ERH696**

**APPL ID: AZ81842**

Sample Collection Date: 10/24/18

QCG: #86BTO-181029AL-234666

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/30/18	10/30/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/30/18	10/30/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/30/18	10/30/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/30/18	10/30/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	130 #	81-118			%	10/30/18	10/30/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	91.6	85-114			%	10/30/18	10/30/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	127 #	80-119			%	10/30/18	10/30/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	104	89-112			%	10/30/18	10/30/18

# = Recovery (or RPD) is outside QC limits.

Quant Method: L1026W.M
Run #: 1029L33
Instrument: Loki
Sequence: 181026
Dilution Factor: 1
Initials: SV

Printed: 10/31/18 10:17:22 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD



# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH680**

Sample Collection Date: 10/24/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87238

**APPL ID: AZ81837**

QCG: #GRO86-181029AL-234654

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/29/18	10/29/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	88.6	85-114			%	10/29/18	10/29/18

Quant Method: LGAS1029.M  
Run #: 1029L28  
Instrument: Loki  
Sequence: 181026  
Dilution Factor: 1  
Initials: SV

Printed: 10/31/18 10:18:53 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH701**

Sample Collection Date: 10/24/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87238

**APPL ID: AZ81838**

QCG: #GRO86-181030AL-234719

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/30/18	10/30/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	87.2	85-114			%	10/30/18	10/30/18

Quant Method: LGAS1029.M  
Run #: 1030L14  
Instrument: Loki  
Sequence: 181026  
Dilution Factor: 1  
Initials: SV

Printed: 10/31/18 10:18:53 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH695**

Sample Collection Date: 10/24/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87238

**APPL ID: AZ81839**

QCG: #GRO86-181029AL-234654

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/29/18	10/29/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	93.3	85-114			%	10/29/18	10/29/18

Quant Method: LGAS1029.M  
Run #: 1029L30  
Instrument: Loki  
Sequence: 181026  
Dilution Factor: 1  
Initials: SV

Printed: 10/31/18 10:18:53 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH681**

Sample Collection Date: 10/25/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87238

**APPL ID: AZ81840**

QCG: #GRO86-181029AL-234654

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/29/18	10/29/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	91.0	85-114			%	10/29/18	10/29/18

Quant Method: LGAS1029.M  
Run #: 1029L31  
Instrument: Loki  
Sequence: 181026  
Dilution Factor: 1  
Initials: SV

Printed: 10/31/18 10:18:53 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH702**

Sample Collection Date: 10/24/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87238

**APPL ID: AZ81841**

QCG: #GRO86-181029AL-234654

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/29/18	10/29/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	90.3	85-114			%	10/29/18	10/29/18

Quant Method: LGAS1029.M  
Run #: 1029L32  
Instrument: Loki  
Sequence: 181026  
Dilution Factor: 1  
Initials: SV

Printed: 10/31/18 10:18:53 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH696**

Sample Collection Date: 10/24/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87238

**APPL ID: AZ81842**

QCG: #GRO86-181029AL-234654

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/30/18	10/30/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	91.6	85-114			%	10/30/18	10/30/18

Quant Method: LGAS1029.M  
Run #: 1029L33  
Instrument: Loki  
Sequence: 181026  
Dilution Factor: 1  
Initials: SV

Printed: 10/31/18 10:18:53 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH680**

Sample Collection Date: 10/24/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87238

**APPL ID: AZ81837**

QCG: #RSKME-181030A-234667

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/30/18	10/30/18

Quant Method: RSK1029.M  
Run #: 18103003  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:46:14 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH701**

Sample Collection Date: 10/24/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87238

**APPL ID: AZ81838**

QCG: #RSKME-181030A-234667

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/30/18	10/30/18

Quant Method: RSK1029.M  
Run #: 18103004  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:46:14 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD



# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87238

**Sample ID: ERH695**

**APPL ID: AZ81839**

Sample Collection Date: 10/24/18

QCG: #RSKME-181030A-234667

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/30/18	10/30/18

Quant Method: RSK1029.M  
Run #: 18103005  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:46:14 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH681**

Sample Collection Date: 10/25/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87238

**APPL ID: AZ81840**

QCG: #RSKME-181030A-234667

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	60	5.0	1.00	0.25	ug/L	10/30/18	10/30/18

Quant Method: RSK1029.M  
Run #: 18103006  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:46:14 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH702**

Sample Collection Date: 10/24/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87238

**APPL ID: AZ81841**

QCG: #RSKME-181030A-234667

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/30/18	10/30/18

Quant Method: RSK1029.M  
Run #: 18103008  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:46:14 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# METHANE

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH696**

Sample Collection Date: 10/24/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87238

**APPL ID: AZ81842**

QCG: #RSKME-181030A-234667

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/30/18	10/30/18

Quant Method: RSK1029.M  
Run #: 18103009  
Instrument: Rocky  
Sequence: 181029  
Dilution Factor: 1  
Initials: CMO

Printed: 10/30/18 11:46:14 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## Wet Lab Analysis

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH681**

Sample Collection Date: 10/25/18

**APPL ID: AZ81840**

ARF: 87238

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	42.2	1.0	0.20	0.08	mg/L	1	10/26/18	10/26/18
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	1	10/26/18	10/26/18
EPA 300.0	SULFATE	5.4	1.0	0.20	0.09	mg/L	1	10/26/18	10/26/18
EPA 353.2	NITRATE-NITRITE-N	0.029 J	0.10	0.100	0.028	mg/L	1	10/30/18	10/30/18
SM 2320B	BICARBONATE AS CaCO <sub>3</sub>	80.9	2.0	1.70	0.85	mg/L	1	10/30/18	10/30/18
SM 2320B	CARBONATE AS CaCO <sub>3</sub>	1.70 U	2.0	1.70	0.85	mg/L	1	10/30/18	10/30/18
SM 2320B	TOTAL ALKALINITY AS CaCO <sub>3</sub>	80.9	2.0	1.70	0.85	mg/L	1	10/30/18	10/30/18
SM3500FeB	FERROUS IRON	0.51 J	1.0	0.32	0.16	mg/L	1	10/26/18	10/26/18

J = Estimated value.

Printed: 11/09/18 3:17:00 PM

APPL-F1-SC-NoMC-REG MDLs

## Wet Lab Analysis

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH702**

Sample Collection Date: 10/24/18

**APPL ID: AZ81841**

ARF: 87238

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	1110	50.0	10.00	4.00	mg/L	50	10/29/18	10/29/18
EPA 300.0	SULFATE	313	50.0	10.00	4.50	mg/L	50	10/29/18	10/29/18
EPA 300.0	NITRATE	7.8	0.5	0.18	0.04	mg/L	1	10/26/18	10/26/18
EPA 353.2	NITRATE-NITRITE-N	1.9	0.10	0.100	0.028	mg/L	1	10/30/18	10/30/18
SM 2320B	BICARBONATE AS CaCO <sub>3</sub>	127	2.0	1.70	0.85	mg/L	1	10/30/18	10/30/18
SM 2320B	CARBONATE AS CaCO <sub>3</sub>	1.70 U	2.0	1.70	0.85	mg/L	1	10/30/18	10/30/18
SM 2320B	TOTAL ALKALINITY AS CaCO <sub>3</sub>	127	2.0	1.70	0.85	mg/L	1	10/30/18	10/30/18
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/26/18	10/26/18

Printed: 11/09/18 3:17:00 PM

APPL-F1-SC-NoMC-REG MDLs

## Wet Lab Analysis

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH696**

Sample Collection Date: 10/24/18

**APPL ID: AZ81842**

ARF: 87238

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	155	5.0	1.00	0.40	mg/L	5	10/29/18	10/29/18
EPA 300.0	SULFATE	51.3	5.0	1.00	0.45	mg/L	5	10/29/18	10/29/18
EPA 300.0	NITRATE	5.5	0.5	0.18	0.04	mg/L	1	10/26/18	10/26/18
EPA 353.2	NITRATE-NITRITE-N	2.0	0.10	0.100	0.028	mg/L	1	10/30/18	10/30/18
SM 2320B	BICARBONATE AS CaCO <sub>3</sub>	89.3	2.0	1.70	0.85	mg/L	1	10/30/18	10/30/18
SM 2320B	CARBONATE AS CaCO <sub>3</sub>	1.70 U	2.0	1.70	0.85	mg/L	1	10/30/18	10/30/18
SM 2320B	TOTAL ALKALINITY AS CaCO <sub>3</sub>	89.3	2.0	1.70	0.85	mg/L	1	10/30/18	10/30/18
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/26/18	10/26/18

Printed: 11/09/18 3:17:00 PM

APPL-F1-SC-NoMC-REG MDLs

## **QC FORMS**



**EPA 8015B-eLL**

Form 2 & 8

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/31/18

Matrix: WATER

Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181029A-BLK	Blank	60-142	130		56-125	115	
181029A-LCS	Lab Control Spike	60-142	125		56-125	107	
181029A-LCSD	Lab Control SpikeD	60-142	127		56-125	112	
AZ81840	ERH681	60-142	135		56-125	118	
AZ81841	ERH702	60-142	124		56-125	111	
AZ81842	ERH696	60-142	129		56-125	115	

Comments: Batch: #DOC53-181029A

# EPA 8015B-eLL

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 11/07/18

Matrix: WATER

Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181105A-BLK	Blank	60-142	110		56-125	103	
181105A-LCS	Lab Control Spike	60-142	112		56-125	95.7	
181105A-LCSD	Lab Control SpikeD	60-142	115		56-125	98.3	
AZ81840	ERH681	60-142	115		56-125	105	
AZ81841	ERH702	60-142	119		56-125	101	
AZ81842	ERH696	60-142	120		56-125	108	

Comments: Batch: #DOC53-181105A

Printed: 11/08/18 10:01:43 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8015B-eLL

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 11/08/18

Matrix: WATER

Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: (R) DECANOIC ACID (S)			SURROGATE: OCTACOSANE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181105A1-BLK	Blank	0-1	0.0		60-142	116	
181105A1-LCS	Lab Control Spike	0-1	0.0		60-142	120	
181105A1-LCSD	Lab Control SpikeD	0-1	0.0		60-142	116	
AZ81840	ERH681	0-1	0.0		60-142	118	
AZ81841	ERH702	0-1	0.0		60-142	119	

Comments: Batch: #DOC53-181105A1

Printed: 11/09/18 11:50:09 AM  
Form 2 & 8, Surrogate Recovery Summary

**EPA 8015B-eLL**

Form 2 & 8

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 11/08/18

Matrix: WATER

Instrument: Apollo

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APPL ID.	Client Sample No.	SURROGATE: ORTHO-TERPHENYL (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
181105A1-BLK	Blank	56-125	108				
181105A1-LCS	Lab Control Spike	56-125	104				
181105A1-LCSD	Lab Control SpikeD	56-125	100				
AZ81840	ERH681	56-125	110				
AZ81841	ERH702	56-125	111				

Comments: Batch: #DOC53-181105A1

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Printed: 11/09/18 11:50:09 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8015B-eL

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/31/18

Matrix: WATER

Instrument: Apollo

Blank ID: 181029A-BLK

Time Analyzed: 1307

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181029A-BLK	Blank	1031004	10/31/18 1307
181029A-LCS	Lab Control Spike	1031005	10/31/18 1327
181029A-LCSD	Lab Control SpikeD	1031007	10/31/18 1406
AZ81840	ERH681	1031027	10/31/18 2045
AZ81841	ERH702	1031028	10/31/18 2105
AZ81842	ERH696	1031029	10/31/18 2125

Comments: Batch: #DOC53-181029A

Printed: 11/02/18 2:27:58 PM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8015B TPH LIQ-LIQ**

Blank Name/QCG: **181029W-81636 - 234822**

Batch ID: #DOC53-181029A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	110	40.0	25.00	13.07	ug/L	10/29/18	10/31/18
BLANK	OIL (C24-C40)	150	40.0	40.00	5.54	ug/L	10/29/18	10/31/18
BLANK	SURROGATE: OCTACOSANE (S)	130	60-142			%	10/29/18	10/31/18
BLANK	SURROGATE: ORTHO-TERPHEN	115	56-125			%	10/29/18	10/31/18

Quant Method:DOC0905.M  
Run #: 1031004  
Instrument:Apollo  
Sequence:181031  
Initials:DPO

GC SC-Blank-REG MDLs-DOD  
Printed: 11/02/18 2:28:04 PM

# EPA 8015B-eL

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 11/07/18

Matrix: WATER

Instrument: Apollo

Blank ID: 181105A-BLK

Time Analyzed: 1424

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181105A-BLK	Blank	1107004	11/07/18 1424
181105A-LCS	Lab Control Spike	1107005	11/07/18 1445
181105A-LCSD	Lab Control SpikeD	1107007	11/07/18 1525
AZ81840	ERH681	1107022	11/07/18 2030
AZ81841	ERH702	1107023	11/07/18 2050
AZ81842	ERH696	1107024	11/07/18 2111

Comments: Batch: #DOC53-181105A

Printed: 11/08/18 10:01:38 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8015B TPH LIQ-LIQ RE-EXTRACT**

Blank Name/QCG: **181105W-81584 - 234971**  
Batch ID: #DOC53-181105A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
BLANK	SURROGATE: OCTACOSANE (S)	110	60-142			%	11/05/18	11/07/18
BLANK	SURROGATE: ORTHO-TERPHEN	103	56-125			%	11/05/18	11/07/18

Quant Method: DOC0905.M  
Run #: 1107004  
Instrument: Apollo  
Sequence: 181107  
Initials: DPO

GC SC-Blank-REG MDLs-DOD  
Printed: 11/08/18 10:01:44 AM



# EPA 8015B-eL

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 11/08/18

Matrix: WATER

Instrument: Apollo

Blank ID: 181105A1-BLK

Time Analyzed: 1657

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181105A1-BLK	Blank	1107039	11/08/18 1657
181105A1-LCS	Lab Control Spike	1107040	11/08/18 1718
181105A1-LCSD	Lab Control SpikeD	1107042	11/08/18 1758
AZ81840	ERH681	1107047	11/08/18 1939
AZ81841	ERH702	1107048	11/08/18 1959

Comments: Batch: #DOC53-181105A1

Printed: 11/09/18 11:49:42 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8015B TPH WATER L-L SGC**

Blank Name/QCG: **181105W-81638 - 235019**  
 Batch ID: #DOC53-181105A1

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/08/18
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/08/18
BLANK	SURROGATE: (R) DECANOIC AC	0.0	0-1			%	11/05/18	11/08/18
BLANK	SURROGATE: OCTACOSANE (S)	116	60-142			%	11/05/18	11/08/18
BLANK	SURROGATE: ORTHO-TERPHEN	108	56-125			%	11/05/18	11/08/18

Quant Method: DOC0905.M Run #: 1107039 Instrument: Apollo Sequence: 181107 Initials: DPO
------------------------------------------------------------------------------------------------------

GC SC-Blank-REG MDLs-DOD  
 Printed: 11/09/18 11:50:10 AM

# EPA 8015B-eL

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/31/18

Matrix: WATER

Instrument: Apollo

LCS ID: 181029A-LCS

Time Analyzed: 1327

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181029A-BLK	Blank	1031004	10/31/18 1307
181029A-LCS	Lab Control Spike	1031005	10/31/18 1327
181029A-LCSD	Lab Control SpikeD	1031007	10/31/18 1406
AZ81840	ERH681	1031027	10/31/18 2045
AZ81841	ERH702	1031028	10/31/18 2105
AZ81842	ERH696	1031029	10/31/18 2125

Comments: Batch: #DOC53-181029A

Printed: 11/02/18 2:27:56 PM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## EPA 8015B TPH LIQ-LIQ

APPL ID: 181029W-81636 LCS - 234822  
 Batch ID: #DOC53-181029A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1250	1210	1310	96.8	105	36-132	7.9	30
OIL (C24-C40)	1250	1570	1600	126 #	128 #	41-113	1.9	30
SURROGATE: OCTACOSANE (S)	75.0	93.4	95.6	125	127	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	80.3	84.2	107	112	56-125		

# = Recovery is outside QC limits.

Comments: \_\_\_\_\_

	<u>SPK</u>	<u>DUP</u>
Quant Method :	DOC0905.M	DOC0905.M
Extraction Date :	10/29/18	10/29/18
Analysis Date :	10/31/18	10/31/18
Instrument :	Apollo	Apollo
Run :	1031005	1031007
Initials :	DPO	

# EPA 8015B-eL

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 11/07/18

Matrix: WATER

Instrument: Apollo

LCS ID: 181105A-LCS

Time Analyzed: 1445

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181105A-BLK	Blank	1107004	11/07/18 1424
181105A-LCS	Lab Control Spike	1107005	11/07/18 1445
181105A-LCSD	Lab Control SpikeD	1107007	11/07/18 1525
AZ81840	ERH681	1107022	11/07/18 2030
AZ81841	ERH702	1107023	11/07/18 2050
AZ81842	ERH696	1107024	11/07/18 2111

Comments: Batch: #DOC53-181105A

Printed: 11/08/18 10:01:37 AM  
Form 4, LCS Summary

## Laboratory Control Spike Recoveries

### EPA 8015B TPH LIQ-LIQ RE-EXTRACT

APPL ID: 181105W-81584 LCS - 234971  
 Batch ID: #DOC53-181105A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1250	1270	1240	102	99.2	36-132	2.4	30
OIL (C24-C40)	1250	1170	1220	93.6	97.6	41-113	4.2	30
SURROGATE: OCTACOSANE (S)	75.0	84.2	85.9	112	115	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	71.8	73.7	95.7	98.3	56-125		

Comments: \_\_\_\_\_

Primary	SPK	DUP
Quant Method :	DOC0905.M	DOC0905.M
Extraction Date :	11/05/18	11/05/18
Analysis Date :	11/07/18	11/07/18
Instrument :	Apollo	Apollo
Run :	1107005	1107007
Initials :	DPO	

# EPA 8015B-eL

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 11/08/18

Matrix: WATER

Instrument: Apollo

LCS ID: 181105A1-LCS

Time Analyzed: 1718

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181105A1-BLK	Blank	1107039	11/08/18 1657
181105A1-LCS	Lab Control Spike	1107040	11/08/18 1718
181105A1-LCSD	Lab Control Spiked	1107042	11/08/18 1758
AZ81840	ERH681	1107047	11/08/18 1939
AZ81841	ERH702	1107048	11/08/18 1959

Comments: Batch: #DOC53-181105A1

Printed: 11/09/18 11:49:41 AM  
Form 4, LCS Summary

## Laboratory Control Spike Recoveries

### EPA 8015B TPH WATER L-L SGC

APPL ID: 181105W-81638 LCS - 235019  
 Batch ID: #DOC53-181105A1

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1250	1170	1140	93.6	91.2	36-132	2.6	30
OIL (C24-C40)	1250	1220	1220	97.6	97.6	41-113	0.0	30
-----								
SURROGATE: (R) DECANOIC ACID (S)	10.00	0	0	0.0	0.0	0-1		
SURROGATE: OCTACOSANE (S)	75.0	90.2	87.3	120	116	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	78.3	75.3	104	100	56-125		
-----								

Comments: \_\_\_\_\_

	<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :		DOC0905.M	DOC0905.M
Extraction Date :		11/05/18	11/05/18
Analysis Date :		11/08/18	11/08/18
Instrument :		Apollo	Apollo
Run :		1107040	1107042
Initials :		DPO	



# 8270D-SIM

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 11/01/18

Matrix: WATER

Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-METHYLNAPHTHALENE-D10 (S)			SURROGATE: FLUORANTHENE-D10 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181030A-BLK	Blank	39-114	87.9		58-120	99.4	
181030A-LCS	Lab Control Spike	39-114	88.6		58-120	96.8	
181030A-LCSD	Lab Control SpikeD	39-114	93.1		58-120	103	
AZ81840	ERH681	39-114	92.4		58-120	102	
AZ81841	ERH702	39-114	90.5		58-120	100	
AZ81842	ERH696	39-114	89.7		58-120	100	

Comments: Batch: #SIM53-181030A

Printed: 11/02/18 10:36:21 AM  
Form 2 & 8, Surrogate Recovery Summary

# 8270D-SIM

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 11/01/18

Matrix: WATER

Instrument: Linus

Blank ID: 181030A-BLK

Time Analyzed: 1324

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181030A-BLK	Blank	1026L070	11/01/18 1324
181030A-LCS	Lab Control Spike	1026L071	11/01/18 1353
181030A-LCSD	Lab Control SpikeD	1026L072	11/01/18 1422
AZ81840	ERH681	1026L077	11/01/18 1648
AZ81841	ERH702	1026L078	11/01/18 1717
AZ81842	ERH696	1026L079	11/01/18 1747

Comments: Batch: #SIM53-181030A

Printed: 11/02/18 10:36:22 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8270D SIM LIQ-LIQ**

Blank Name/QCG: **181030W-81676 - 234793**  
Batch ID: #SIM53-181030A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
BLANK	SURROGATE: 2-METHYLNAPHT	87.9	39-114			%	10/30/18	11/01/18
BLANK	SURROGATE: FLUORANTHENE-	99.4	58-120			%	10/30/18	11/01/18

Quant Method:L1026.M  
Run #:1026L070  
Instrument:Linus  
Sequence:L181026  
Initials:MA

GC SC-Blank-REG MDLs-DOD  
Printed: 11/02/18 10:35:58 AM

# 8270D-SIM

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 11/01/18

Matrix: WATER

Instrument: Linus

LCS ID: 181030A-LCS

Time Analyzed: 1353

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181030A-BLK	Blank	1026L070	11/01/18 1324
181030A-LCS	Lab Control Spike	1026L071	11/01/18 1353
181030A-LCSD	Lab Control SpikeD	1026L072	11/01/18 1422
AZ81840	ERH681	1026L077	11/01/18 1648
AZ81841	ERH702	1026L078	11/01/18 1717
AZ81842	ERH696	1026L079	11/01/18 1747

Comments: Batch: #SIM53-181030A

Printed: 11/02/18 10:36:23 AM  
Form 4, LCS Summary

## Laboratory Control Spike Recoveries

### EPA 8270D SIM LIQ-LIQ

APPL ID: 181030W-81676 LCS - 234793  
 Batch ID: #SIM53-181030A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1-METHYLNAPHTHALENE	6.25	5.31	5.59	85.0	89.4	41-115	5.1	20
2-METHYLNAPHTHALENE	6.25	5.42	5.75	86.7	92.0	39-114	5.9	20
NAPHTHALENE	6.25	5.38	5.76	86.1	92.2	43-114	6.8	20
-----								
SURROGATE: 2-METHYLNAPHTHALEN	6.25	5.54	5.82	88.6	93.1	39-114		
SURROGATE: FLUORANTHENE-D10 (S)	6.25	6.05	6.44	96.8	103	58-120		
-----								

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	L1026.M	L1026.M
Extraction Date :	10/30/18	10/30/18
Analysis Date :	11/01/18	11/01/18
Instrument :	Linus	Linus
Run :	1026L071	1026L072
Initials :	MA	

Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: 87227  
Matrix: Soil  
ID: 1026L002.D

SDG No: 87227  
Date Analyzed: 10/26/18  
Instrument: Linus  
Time Analyzed: 12:05

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5 SIM 10/26/18	1026L003.D	10/26/18 12:21
2		0.1 SIM 10/26/18	1026L004.D	10/26/18 12:50
3		0.2 SIM 10/26/18	1026L005.D	10/26/18 13:20
4		0.5 SIM 10/26/18	1026L006.D	10/26/18 13:49
5		1 SIM 10/26/18	1026L007.D	10/26/18 14:18
6		10 SIM 10/26/18	1026L008.D	10/26/18 14:47
7		50 SIM 10/26/18	1026L009.D	10/26/18 15:16
8		100 SIM 10/26/18	1026L010.D	10/26/18 15:46
9		SS SIM 10/26/18	1026L011.D	10/26/18 16:46
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e

51 9.95 - 80% of mass 198	44.4
68 0 - 2.05% of mass 69	0.0
70 0 - 2% of mass 69	0.3
127 10 - 80% of mass 198	55.0
197 0 - 2% of mass 198	0.0
198 100 - 100% of mass 198	100.0
199 5 - 9% of mass 198	6.5
275 10 - 60% of mass 198	21.8
365 1 - 100% of mass 198	2.6
441 0.01 - 24% of mass 442	18.1
442 50 - 150% of mass 198	59.1
443 15 - 24% of mass 442	20.7

Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: 87238  
Matrix: Water  
ID: 1026L068.D

SDG No: 87238  
Date Analyzed: 11/01/18  
Instrument: Linus  
Time Analyzed: 12:32

Client Sample No.	APPL ID.	File ID.	Date Analyzed	
1		5 SIM 10/26/18 (2)	1026L069.D	11/01/18 12:49
2	Blank	181030A BLK 1/800	1026L070.D	11/01/18 13:24
3	Lab Control Spike	181030A LCS-2 1/800	1026L071.D	11/01/18 13:53
4	Lab Control SpikeD	181030A LCSD-2 1/800	1026L072.D	11/01/18 14:22
5	ERH681	AZ81840W12 1/800	1026L077.D	11/01/18 16:48
6	ERH702	AZ81841W12 1/800	1026L078.D	11/01/18 17:17
7	ERH696	AZ81842W13 1/800	1026L079.D	11/01/18 17:47
8		5 SIM 10/26/18 (1)	1026L082.D	11/01/18 19:14
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e

51 9.95 - 80% of mass 198	44.8
68 0 - 2.05% of mass 69	0.0
70 0 - 2% of mass 69	0.7
127 10 - 80% of mass 198	54.2
197 0 - 2% of mass 198	0.0
198 100 - 100% of mass 198	100.0
199 5 - 9% of mass 198	7.0
275 10 - 60% of mass 198	22.1
365 1 - 100% of mass 198	2.7
441 0.01 - 24% of mass 442	18.1
442 50 - 150% of mass 198	65.7
443 15 - 24% of mass 442	19.8

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87238  
 Lab File ID (Standard): 1026L069.D Date Analyzed: 1 Nov 18 12:49  
 Instrument ID: Linus Time Analyzed: 1 Nov 18 12:49  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		Naphthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		30774	4.18	13755	6.21	27077	7.94
UPPER LIMIT		61548	4.35	27510	6.38	54154	8.11
LOWER LIMIT		15387	4.01	6878	6.04	13539	7.77
SAMPLE NO.							
01	5 SIM 10/26/18 (2)	30774	4.18	13755	6.21	27077	7.94
02	181030A BLK 1/800	32155	4.18	14683	6.21	28635	7.95
03	181030A LCS-2 1/800	32648	4.18	14814	6.21	28647	7.94
04	181030A LCSD-2 1/800	30893	4.18	14273	6.21	26521	7.94
05	AZ81840W12 1/800	30448	4.18	14106	6.20	26421	7.95
06	AZ81841W12 1/800	31258	4.18	14089	6.21	26741	7.95
07	AZ81842W13 1/800	31950	4.18	14548	6.20	27549	7.95
08	5 SIM 10/26/18 (1)	34948	4.18	15835	6.21	30535	7.94
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.



8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87238  
 Lab File ID (Standard): 1026L069.D Date Analyzed: 1 Nov 18 12:49  
 Instrument ID: Linus Time Analyzed: 1 Nov 18 12:49  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		37506	14.38	36493	18.17		
UPPER LIMIT		75012	14.55	72986	18.34		
LOWER LIMIT		18753	14.21	18247	18.00		
SAMPLE NO.							
01	5 SIM 10/26/18 (2)	37506	14.38	36493	18.17		
02	181030A BLK 1/800	38811	14.39	37133	18.18		
03	181030A LCS-2 1/800	39215	14.38	37452	18.17		
04	181030A LCSD-2 1/800	36959	14.38	34601	18.17		
05	AZ81840W12 1/800	36826	14.38	36119	18.18		
06	AZ81841W12 1/800	36898	14.39	36438	18.18		
07	AZ81842W13 1/800	38300	14.39	37235	18.17		
08	5 SIM 10/26/18 (1)	43174	14.38	41015	18.17		
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 11/01/18

Matrix: WATER

Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181030A-BLK	Blank	43-140	74.1		44-119	80.3	
181030A-LCS	Lab Control Spike	43-140	71.2		44-119	68.4	
181030A-LCSD	Lab Control SpikeD	43-140	79.2		44-119	75.0	
AZ81840	ERH681	43-140	76.1		44-119	74.3	
AZ81841	ERH702	43-140	73.3		44-119	73.6	
AZ81842	ERH696	43-140	77.5		44-119	74.6	

Comments: Batch: #87DC5-181030A

Printed: 11/02/18 10:05:43 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 11/01/18

Matrix: WATER

Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181030A-BLK	Blank	19-119	76.7		44-120	82.4	
181030A-LCS	Lab Control Spike	19-119	73.2		44-120	78.8	
181030A-LCSD	Lab Control SpikeD	19-119	85.2		44-120	88.8	
AZ81840	ERH681	19-119	79.5		44-120	87.6	
AZ81841	ERH702	19-119	76.5		44-120	85.7	
AZ81842	ERH696	19-119	79.4		44-120	87.9	

Comments: Batch: #87DC5-181030A

Printed: 11/02/18 10:05:43 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8270D

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 11/01/18

Matrix: WATER

Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL-D6 (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181030A-BLK	Blank	10-115	75.8		50-134	68.6	
181030A-LCS	Lab Control Spike	10-115	73.6		50-134	66.2	
181030A-LCSD	Lab Control SpikeD	10-115	83.6		50-134	71.0	
AZ81840	ERH681	10-115	82.1		50-134	67.4	
AZ81841	ERH702	10-115	78.1		50-134	63.5	
AZ81842	ERH696	10-115	87.4		50-134	69.9	

Comments: Batch: #87DC5-181030A

Printed: 11/02/18 10:05:43 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8270D

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 11/01/18

Matrix: WATER

Instrument: Yoda

Blank ID: 181030A-BLK

Time Analyzed: 1430

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181030A-BLK	Blank	1025Y106	11/01/18 1430
181030A-LCS	Lab Control Spike	1025Y107	11/01/18 1458
181030A-LCSD	Lab Control SpikeD	1025Y108	11/01/18 1526
AZ81840	ERH681	1025Y112	11/01/18 1717
AZ81841	ERH702	1025Y113	11/01/18 1744
AZ81842	ERH696	1025Y114	11/01/18 1812

Comments: Batch: #87DC5-181030A

Printed: 11/02/18 10:05:39 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8270D WATER**

Blank Name/QCG: **181030W-81676 - 234799**  
Batch ID: #87DC5-181030A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/30/18	11/01/18
BLANK	SURROGATE: 2,4,6-TRIBROMOP	74.1	43-140			%	10/30/18	11/01/18
BLANK	SURROGATE: 2-FLUORBIPHENY	80.3	44-119			%	10/30/18	11/01/18
BLANK	SURROGATE: 2-FLUOROPHENO	76.7	19-119			%	10/30/18	11/01/18
BLANK	SURROGATE: NITROBENZENE-	82.4	44-120			%	10/30/18	11/01/18
BLANK	SURROGATE: PHENOL-D6 (S)	75.8	10-115			%	10/30/18	11/01/18
BLANK	SURROGATE: TERPHENYL-D14 (	68.6	50-134			%	10/30/18	11/01/18

Quant Method: Y1025NC.M  
Run #: 1025Y106  
Instrument: Yoda  
Sequence: Y181025  
Initials: AAB

GC SC-Blank-REG MDLs-DOD  
Printed: 11/02/18 9:27:20 AM

# EPA 8270D

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 11/01/18

Matrix: WATER

Instrument: Yoda

LCS ID: 181030A-LCS

Time Analyzed: 1458

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181030A-BLK	Blank	1025Y106	11/01/18 1430
181030A-LCS	Lab Control Spike	1025Y107	11/01/18 1458
181030A-LCSD	Lab Control Spiked	1025Y108	11/01/18 1526
AZ81840	ERH681	1025Y112	11/01/18 1717
AZ81841	ERH702	1025Y113	11/01/18 1744
AZ81842	ERH696	1025Y114	11/01/18 1812

Comments: Batch: #87DC5-181030A

Printed: 11/02/18 10:05:34 AM  
Form 4, LCS Summary

## Laboratory Control Spike Recoveries

### EPA 8270D WATER

APPL ID: 181030W-81676 LCS - 234799  
 Batch ID: #87DC5-181030A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
PHENOL	62.5	45.4	49.8	72.6	79.7	10-115	9.2	20
SURROGATE: 2,4,6-TRIBROMOPHENOL	250	178	198	71.2	79.2	43-140		
SURROGATE: 2-FLUORBIPHENYL (S)	125	85.5	93.8	68.4	75.0	44-119		
SURROGATE: 2-FLUOROPHENOL (S)	250	183	213	73.2	85.2	19-119		
SURROGATE: NITROBENZENE-D5 (S)	125	98.5	111	78.8	88.8	44-120		
SURROGATE: PHENOL-D6 (S)	250	184	209	73.6	83.6	10-115		
SURROGATE: TERPHENYL-D14 (S)	125	82.8	88.7	66.2	71.0	50-134		

Comments: \_\_\_\_\_

	<u>SPK</u>	<u>DUP</u>
Quant Method :	Y1025NC.M	Y1025NC.M
Extraction Date :	10/30/18	10/30/18
Analysis Date :	11/01/18	11/01/18
Instrument :	Yoda	Yoda
Run :	1025Y107	1025Y108
Initials :	AAB	



Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: \_\_\_\_\_  
Matrix: Soil  
ID: 1025Y002.D

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Yoda  
Time Analyzed: 11:17

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	4ug/mL 8270 10/18/18	1025Y003.D	10/25/18 11:33
2	5ug/mL 8270 10/18/18	1025Y004.D	10/25/18 12:01
3	10ug/mL 8270 10/18/1	1025Y005.D	10/25/18 12:28
4	20ug/mL 8270 10/18/1	1025Y006.D	10/25/18 12:56
5	40ug/mL 8270 10/18/1	1025Y007.D	10/25/18 13:24
6	50ug/mL 8270 10/18/1	1025Y008.D	10/25/18 13:52
7	60ug/mL 8270 10/18/1	1025Y009.D	10/25/18 14:20
8	80ug/mL 8270 10/18/1	1025Y010.D	10/25/18 14:48
9	100ug/mL 8270 10/18/	1025Y011.D	10/25/18 15:16
10	SS- 8270 10/18/18	1025Y012.D	10/25/18 15:44
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

51 9.95 - 80.04% of mass 198	<u>52.8</u>
68 0 - 2% of mass 69	<u>0.0</u>
70 0 - 2% of mass 69	<u>0.4</u>
127 10 - 80% of mass 198	<u>59.4</u>
197 0 - 2% of mass 198	<u>0.0</u>
198 100 - 100% of mass 198	<u>100.0</u>
199 5 - 9% of mass 198	<u>7.1</u>
275 10 - 60% of mass 198	<u>26.1</u>
365 1 - 100% of mass 198	<u>3.7</u>
441 0.01 - 24% of mass 442	<u>17.3</u>
442 50 - 150% of mass 198	<u>100.0</u>
443 15 - 24% of mass 442	<u>17.8</u>

Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 87219  
 Matrix: Water  
 ID: 1025Y100.D

SDG No: 87219  
 Date Analyzed: 11/01/18  
 Instrument: Yoda  
 Time Analyzed: 11:31

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	50ug/mL 8270 10/18/1	1025Y101.D	11/01/18 11:46
2	Blank	181030A BLK 1/800	11/01/18 14:30
3	Lab Control Spike	181030A LCS-1 1/800	11/01/18 14:58
4	Lab Control SpikeD	181030A LCSD-1 1/800	11/01/18 15:26
5	ERH686	AZ81676W10 1/800	11/01/18 15:54
6	ERH698	AZ81677W10 1/800	11/01/18 16:21
7	ERH688	AZ81678W12 1/800	11/01/18 16:49
8	50ug/mL 8270 10/18/1	1025Y117.D	11/01/18 19:36
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

51 10 - 80% of mass 198	51.4
68 0 - 2% of mass 69	0.0
70 0 - 2% of mass 69	0.6
127 10 - 80% of mass 198	56.0
197 0 - 2% of mass 198	0.0
198 100 - 100% of mass 198	100.0
199 5 - 9% of mass 198	6.8
275 10 - 60% of mass 198	26.4
365 1 - 100% of mass 198	3.7
441 0.01 - 24% of mass 442	16.2
442 50 - 150% of mass 198	92.3
443 17 - 23% of mass 442	19.3

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87263  
 Lab File ID (Standard): 1025Y101.D Date Analyzed: 1 Nov 18 11:46  
 Instrument ID: Yoda Time Analyzed: 1 Nov 18 11:46  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)			
		AREA	#	RT	#	AREA	#	RT	#
12 HOUR STD		297290		5.53		1211780		6.98	
UPPER LIMIT		594580		5.70		2423560		7.15	
LOWER LIMIT		148645		5.36		605890		6.81	
SAMPLE NO.									
01	181031A BLK 1/30.00G	324167		5.54		1281610		6.98	
02	181031A LCS-1 1/30.93	334394		5.54		1321560		6.98	
03	181031A LCSD-1 1/30.0	291116		5.53		1146000		6.98	
04	AZ82015S 1/30.81G df2	314351		5.53		1289820		6.98	
05	181030A BLK 1/800	287396		5.54		1151480		6.98	
06	181030A LCS-1 1/800	295514		5.53		1197710		6.98	
07	181030A LCSD-1 1/800	265874		5.54		1075010		6.98	
08	AZ81676W10 1/800	253383		5.53		985786		6.98	
09	AZ81677W10 1/800	279576		5.53		1149250		6.98	
10	AZ81678W12 1/800	274760		5.53		1101890		6.98	
11	AZ81840W12 1/800	254320		5.53		1010950		6.98	
12	AZ81841W12 1/800	266541		5.53		1021590		6.98	
13	AZ81842W13 1/800	267785		5.53		1033150		6.98	
14	AZ81901W13 1/800	257857		5.54		1038210		6.98	
15	AZ81903W12 1/800	223917		5.53		1001810		6.98	
16	50ug/mL 8270 10/18/18	414395		5.54		1562730		6.99	
17									
18									
19									
20									
21									
22									

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87263  
 Lab File ID (Standard): 1025Y101.D Date Analyzed: 1 Nov 18 11:46  
 Instrument ID: Yoda Time Analyzed: 1 Nov 18 11:46  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		1183260	10.76	1135510	13.87	1173290	15.82
UPPER LIMIT		2366520	10.93	2271020	14.04	2346580	15.99
LOWER LIMIT		591630	10.59	567755	13.70	586645	15.65
SAMPLE NO.							
01	181031A BLK 1/30.00G	1250030	10.76	1236260	13.87	1229560	15.82
02	181031A LCS-1 1/30.93	1333170	10.76	1264770	13.87	1280580	15.82
03	181031A LCSD-1 1/30.0	1142660	10.76	1091960	13.87	1135410	15.81
04	AZ82015S 1/30.81G df2	1294660	10.76	1206220	13.86	1185030	15.81
05	181030A BLK 1/800	1065880	10.76	1035340	13.86	1031350	15.81
06	181030A LCS-1 1/800	1223740	10.76	1158740	13.87	1207180	15.82
07	181030A LCSD-1 1/800	1147630	10.76	1081720	13.87	1100760	15.81
08	AZ81676W10 1/800	942647	10.76	906759	13.86	891410	15.81
09	AZ81677W10 1/800	1115500	10.76	1094160	13.86	1053580	15.81
10	AZ81678W12 1/800	1140160	10.76	1146140	13.86	1068070	15.81
11	AZ81840W12 1/800	1080560	10.76	1044310	13.86	1028910	15.81
12	AZ81841W12 1/800	1083190	10.76	1042920	13.86	1039720	15.81
13	AZ81842W13 1/800	1092870	10.76	1053270	13.86	1060610	15.81
14	AZ81901W13 1/800	1093230	10.76	1079470	13.86	1075940	15.81
15	AZ81903W12 1/800	1103710	10.76	1098420	13.86	1074300	15.81
16	50ug/mL 8270 10/18/18	1566960	10.77	1436800	13.88	1634150	15.83
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

# EPA 8270D

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/31/18

Matrix: WATER

Instrument: Yoda

Blank ID: 181029A-BLK

Time Analyzed: 1043

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181029A-BLK	Blank	0801Y079	10/31/18 1043
181029A-LCS	Lab Control Spike	0801Y080	10/31/18 1107
AZ81840	ERH681	0801Y090	10/31/18 1503
AZ81841	ERH702	0801Y091	10/31/18 1527
AZ81842	ERH696	0801Y092	10/31/18 1551
181029A-LCSD	Lab Control SpikeD	0801Y097	10/31/18 1749

Comments: Batch: #87DME-181029A

Printed: 11/01/18 3:58:00 PM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8270D MODIFIED WATER**

Blank Name/QCG: **181029W-81584 - 234791**  
Batch ID: #87DME-181029A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-(2-METHOXYETHOXY)-ETHAN	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method: YMEE0801.M  
Run #: 0801Y079  
Instrument: Yoda  
Sequence: Y180801M  
Initials: MA

GC SC-Blank-REG MDLs-DOD  
Printed: 11/01/18 3:57:33 PM

# EPA 8270D

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/31/18

Matrix: WATER

Instrument: Yoda

LCS ID: 181029A-LCS

Time Analyzed: 1107

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181029A-BLK	Blank	0801Y079	10/31/18 1043
181029A-LCS	Lab Control Spike	0801Y080	10/31/18 1107
AZ81840	ERH681	0801Y090	10/31/18 1503
AZ81841	ERH702	0801Y091	10/31/18 1527
AZ81842	ERH696	0801Y092	10/31/18 1551
181029A-LCSD	Lab Control Spiked	0801Y097	10/31/18 1749

Comments: Batch: #87DME-181029A

Printed: 11/01/18 3:58:01 PM  
Form 4, LCS Summary

## Laboratory Control Spike Recoveries

### EPA 8270D MODIFIED WATER

APPL ID: 181029W-81584 LCS - 234791  
 Batch ID: #87DME-181029A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2-(2-METHOXYETHOXY)-ETHANOL	80.0	73.0	89.9	91.3	112	30-130	20.7 #	20

# = Recovery is outside QC limits.

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	YMEE0801.M	YMEE0801.M
Extraction Date :	10/29/18	10/29/18
Analysis Date :	10/31/18	10/31/18
Instrument :	Yoda	Yoda
Run :	0801Y080	0801Y097
Initials :	MA	



Form 5  
Tune Summary

Lab Name: APPL Inc.  
Case No: \_\_\_\_\_  
Matrix: Water  
ID: 0801Y002.D

SDG No: \_\_\_\_\_  
Date Analyzed: 08/01/18  
Instrument: Yoda  
Time Analyzed: 14:52

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50ug/ml MEE 08/01/18	0801Y003.D	08/01/18 15:09
2		500ug/ml MEE 08/01/1	0801Y004.D	08/01/18 15:34
3		100ug/ml MEE 08/01/1	0801Y005.D	08/01/18 16:26
4		200ug/ml MEE 08/01/1	0801Y006.D	08/01/18 16:51
5		400ug/ml MEE 08/01/1	0801Y007.D	08/01/18 17:16
6		600ug/ml MEE 08/01/1	0801Y008.D	08/01/18 17:41
7		800ug/ml MEE 08/01/1	0801Y009.D	08/01/18 18:06
8		1000ug/ml MEE 08/01/	0801Y010.D	08/01/18 18:31
9		SS ug/ml MEE 08/01/1	0801Y011.D	08/01/18 18:55
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e

51	9.95 - 80.04% of mass 198	47.8
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.5
127	10 - 80% of mass 198	53.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.3
275	10 - 60% of mass 198	26.6
365	1 - 100% of mass 198	3.8
441	0.01 - 24% of mass 442	16.8
442	50 - 150% of mass 198	121.2
443	15 - 24% of mass 442	20.7

Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 87238  
 Matrix: Water  
 ID: 0801Y069.D

SDG No: 87238  
 Date Analyzed: 10/31/18  
 Instrument: Yoda  
 Time Analyzed: 6:36

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		500ug/ml MEE 08/01/1	0801Y070.D
2	Blank	181029A Blk 2/500	0801Y079.D
3	Lab Control Spike	181029A LCS-1 2/500	0801Y080.D
4	ERH681	AZ81840W09 2/470	0801Y090.D
5	ERH702	AZ81841W08 2/450	0801Y091.D
6	ERH696	AZ81842W08 2/500	0801Y092.D
7	Lab Control SpikeD	181029A LCSD-1 2/500	0801Y097.D
8		500ug/ml MEE 08/01/1	0801Y098.D
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

51 9.95 - 80.04% of mass 198	49.6
68 0 - 2.04% of mass 69	0.0
70 0 - 2.04% of mass 69	0.7
127 10 - 80% of mass 198	55.5
197 0 - 2% of mass 198	0.0
198 100 - 100% of mass 197.95	100.0
199 5 - 9% of mass 198	6.5
275 10 - 60% of mass 198	26.6
365 1 - 100% of mass 198	3.9
441 0.01 - 24% of mass 442	17.1
442 50 - 150% of mass 197.95	92.6
443 15 - 24% of mass 442	20.3

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87238  
 Lab File ID (Standard): 0801Y070.D Date Analyzed: 10/31/18  
 Instrument ID: Yoda Time Analyzed: 6:51  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		1,4-dichlorobenzene-D4(IS)		Naphthalene-D8(IS)		Acenaphthene-D10(IS)			
		AREA	#	RT	#	AREA	#	RT	#
	12 HOUR STD	357281		5.30		1484910		6.73	
	UPPER LIMIT	714562		5.47		2969820		6.90	
	LOWER LIMIT	178641		5.13		742455		6.56	
	SAMPLE NO.								
01	500ug/ml MEE 08/01/18	357281		5.30		1484910		6.73	
02	181029A Blk 2/500	233584		5.31		1284270		6.73	
03	181029A LCS-1 2/500	392175		5.30		1594600		6.73	
04	AZ81840W09 2/470	400852		5.30		1514700		6.73	
05	AZ81841W08 2/450	330853		5.30		1369750		6.73	
06	AZ81842W08 2/500	469557		5.30		1802300		6.73	
07	181029A LCSD-1 2/500	353234		5.31		1396890		6.73	
08	500ug/ml MEE 08/01/18	387693		5.31		1637390		6.73	
09									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87238  
 Lab File ID (Standard): 0801Y070.D Date Analyzed: 10/31/18  
 Instrument ID: Yoda Time Analyzed: 6:51  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

	Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)			
	AREA	#	RT	#	AREA	#	RT	#
12 HOUR STD	1392260		10.50		1474560		13.60	
UPPER LIMIT	2784520		10.67		2949120		13.77	
LOWER LIMIT	696130		10.33		737280		13.43	
SAMPLE NO.								
01	500ug/ml MEE 08/01/18		1392260		1474560		13.60	
02	181029A Bik 2/500		1204750		1112330		13.60	
03	181029A LCS-1 2/500		1395150		1241790		13.60	
04	AZ81840W09 2/470		1445220		1311780		13.60	
05	AZ81841W08 2/450		1472890		1299370		13.60	
06	AZ81842W08 2/500		1725010		1603450		13.60	
07	181029A LCSD-1 2/500		1287860		1186080		13.60	
08	500ug/ml MEE 08/01/18		1555870		1391750		13.60	
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181029AL-LCS	Lab Control Spike	81-118	109		85-114	105	
181029AL-LCSD	Lab Control SpikeD	81-118	108		85-114	99.6	
181029AL-BLK	Blank	81-118	116		85-114	91.7	
AZ81837	ERH680	81-118	122	#	85-114	88.6	
AZ81839	ERH695	81-118	128	#	85-114	93.3	
AZ81840	ERH681	81-118	124	#	85-114	91.0	
AZ81841	ERH702	81-118	126	#	85-114	90.3	
AZ81842	ERH696	81-118	130	#	85-114	91.6	

Comments: Batch: #86BTO-181029AL

# = Recovery outside of Control Limits on Sample.

Printed: 10/31/18 10:17:27 AM

Form 2 & 8, Surrogate Recovery Summary

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181029AL-LCS	Lab Control Spike	80-119	105		89-112	101	
181029AL-LCSD	Lab Control SpikeD	80-119	105		89-112	95.2	
181029AL-BLK	Blank	80-119	115		89-112	95.7	
AZ81837	ERH680	80-119	116		89-112	98.8	
AZ81839	ERH695	80-119	123	#	89-112	104	
AZ81840	ERH681	80-119	122	#	89-112	99.6	
AZ81841	ERH702	80-119	120	#	89-112	100	
AZ81842	ERH696	80-119	127	#	89-112	104	

Comments: Batch: #86BTO-181029AL

# = Recovery outside of Control Limits on Sample.

Printed: 10/31/18 10:17:27 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181030AL-LCS	Lab Control Spike	81-118	106		85-114	104	
181030AL-LCSD	Lab Control SpikeD	81-118	90.4		85-114	89.2	
181030AL-BLK	Blank	81-118	116		85-114	85.9	
AZ81838	ERH701	81-118	117		85-114	86.1	

Comments: Batch: #86BTO-181030AL

Printed: 10/31/18 10:17:27 AM  
Form 2 & 8, Surrogate Recovery Summary

**EPA 8260B**

Form 2 & 8

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
181030AL-LCS	Lab Control Spike	80-119	101		89-112	102	
181030AL-LCSD	Lab Control SpikeD	80-119	88.0		89-112	87.2	*
181030AL-BLK	Blank	80-119	109		89-112	94.5	
AZ81838	ERH701	80-119	114		89-112	90.5	

Comments: Batch: #86BTO-181030AL

\* = Recovery outside of Control Limits on QC Sample.

Printed: 10/31/18 10:17:27 AM  
Form 2 & 8, Surrogate Recovery Summary



# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Loki

Blank ID: 181029AL-BLK

Time Analyzed: 1823

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181029AL-LCS	Lab Control Spike	1029L15	10/29/18 1533
181029AL-LCSD	Lab Control SpikeD	1029L16	10/29/18 1601
181029AL-BLK	Blank	1029L21	10/29/18 1823
AZ81837	ERH680	1029L28	10/29/18 2142
AZ81839	ERH695	1029L30	10/29/18 2239
AZ81840	ERH681	1029L31	10/29/18 2308
AZ81841	ERH702	1029L32	10/29/18 2336
AZ81842	ERH696	1029L33	10/30/18 0004

Comments: Batch: #86BTO-181029AL

Printed: 10/31/18 10:17:32 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8260B BTEX WATER**

Blank Name/QCG: **181029W-81678 - 234666**  
Batch ID: #86BTO-181029AL

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/29/18	10/29/18
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/29/18	10/29/18
BLANK	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/29/18	10/29/18
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/29/18	10/29/18
BLANK	SURROGATE: 1,2-DICHLOROET	116	81-118			%	10/29/18	10/29/18
BLANK	SURROGATE: 4-BROMOFLUORO	91.7	85-114			%	10/29/18	10/29/18
BLANK	SURROGATE: DIBROMOFLUOR	115	80-119			%	10/29/18	10/29/18
BLANK	SURROGATE: TOLUENE-D8 (S)	95.7	89-112			%	10/29/18	10/29/18

Quant Method:LSUR1026.M  
Run #: 1029L21  
Instrument:Loki  
Sequence: 181026  
Initials:SV

GC SC-Blank-REG MDLs-DOD  
Printed: 10/31/18 10:17:36 AM

**EPA 8260B**

Form 4

**Blank Summary**

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Loki

Blank ID: 181030AL-BLK

Time Analyzed: 1348

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181030AL-LCS	Lab Control Spike	1030L04	10/30/18 1000
181030AL-LCSD	Lab Control SpikeD	1030L05	10/30/18 1028
181030AL-BLK	Blank	1030L12	10/30/18 1348
AZ81838	ERH701	1030L14	10/30/18 1444

Comments: Batch: #86BTO-181030AL

Printed: 10/31/18 10:17:32 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8260B BTEX WATER**

Blank Name/QCG: **181030W-81838 - 234713**  
Batch ID: #86BTO-181030AL

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/30/18	10/30/18
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/30/18	10/30/18
BLANK	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/30/18	10/30/18
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/30/18	10/30/18
BLANK	SURROGATE: 1,2-DICHLOROET	116	81-118			%	10/30/18	10/30/18
BLANK	SURROGATE: 4-BROMOFLUORO	85.9	85-114			%	10/30/18	10/30/18
BLANK	SURROGATE: DIBROMOFLUOR	109	80-119			%	10/30/18	10/30/18
BLANK	SURROGATE: TOLUENE-D8 (S)	94.5	89-112			%	10/30/18	10/30/18

Quant Method: L1026W.M  
Run #: 1030L12  
Instrument: Loki  
Sequence: 181026  
Initials: SV

GC SC-Blank-REG MDLs-DOD  
Printed: 10/31/18 10:17:36 AM

# EPA 8260B

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Loki

LCS ID: 181029AL-LCS

Time Analyzed: 1533

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181029AL-LCS	Lab Control Spike	1029L15	10/29/18 1533
181029AL-LCSD	Lab Control SpikeD	1029L16	10/29/18 1601
181029AL-BLK	Blank	1029L21	10/29/18 1823
AZ81837	ERH680	1029L28	10/29/18 2142
AZ81839	ERH695	1029L30	10/29/18 2239
AZ81840	ERH681	1029L31	10/29/18 2308
AZ81841	ERH702	1029L32	10/29/18 2336
AZ81842	ERH696	1029L33	10/30/18 0004

Comments: Batch: #86BTO-181029AL

Printed: 10/31/18 10:17:40 AM  
Form 4, LCS Summary

## Laboratory Control Spike Recoveries

### EPA 8260B BTEX WATER

APPL ID: 181029W-81678 LCS - 234666  
 Batch ID: #86BTO-181029AL

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
BENZENE	10.00	9.88	10.0	98.8	100	79-120	1.2	20
ETHYLBENZENE	10.00	10.0	9.67	100	96.7	79-121	3.4	20
TOLUENE	10.00	9.48	10.6	94.8	106	80-121	11.2	20
XYLENES (TOTAL)	30.0	28.0	27.2	93.3	90.7	79-121	2.9	20
-----								
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	27.2	27.0	109	108	81-118		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	26.2	24.9	105	99.6	85-114		
SURROGATE: DIBROMOFLUOROMETH	25.0	26.2	26.3	105	105	80-119		
SURROGATE: TOLUENE-D8 (S)	25.0	25.2	23.8	101	95.2	89-112		
-----								

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	L1026W.M	L1026W.M
Extraction Date :	10/29/18	10/29/18
Analysis Date :	10/29/18	10/29/18
Instrument :	Loki	Loki
Run :	1029L15	1029L16
Initials :	SV	

**EPA 8260B**

Form 4

**LCS Summary**

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Loki

LCS ID: 181030AL-LCS

Time Analyzed: 1000

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181030AL-LCS	Lab Control Spike	1030L04	10/30/18 1000
181030AL-LCSD	Lab Control SpikeD	1030L05	10/30/18 1028
181030AL-BLK	Blank	1030L12	10/30/18 1348
AZ81838	ERH701	1030L14	10/30/18 1444

Comments: Batch: #86BTO-181030AL

**Laboratory Control Spike Recoveries**  
**EPA 8260B BTEX WATER**

APPL ID: 181030W-81838 LCS - 234713  
 Batch ID: #86BTO-181030AL

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
BENZENE	10.00	9.06	8.64	90.6	86.4	79-120	4.7	20
ETHYLBENZENE	10.00	8.91	8.56	89.1	85.6	79-121	4.0	20
TOLUENE	10.00	9.41	8.68	94.1	86.8	80-121	8.1	20
XYLENES (TOTAL)	30.0	26.2	24.4	87.3	81.3	79-121	7.1	20
-----								
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	26.5	22.6	106	90.4	81-118		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	26.1	22.3	104	89.2	85-114		
SURROGATE: DIBROMOFLUOROMETH	25.0	25.3	22.0	101	88.0	80-119		
SURROGATE: TOLUENE-D8 (S)	25.0	25.6	21.8	102	87.2 #	89-112		
-----								

# = Recovery is outside QC limits.

Comments: \_\_\_\_\_

Primary	SPK	DUP
Quant Method :	L1026W.M	L1026W.M
Extraction Date :	10/30/18	10/30/18
Analysis Date :	10/30/18	10/30/18
Instrument :	Loki	Loki
Run :	1030L04	1030L05
Initials :	SV	



Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: \_\_\_\_\_  
 Matrix: Water  
 ID: 1026L01.D

SDG No: \_\_\_\_\_  
 Date Analyzed: 10/26/18  
 Instrument: Loki  
 Time Analyzed: 9:38

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	0.3ug/L VOC STD 18/1	1026L03.D	10/26/18 10:28
2	0.5ug/L VOC STD 18/1	1026L04.D	10/26/18 10:57
3	1.0ug/L VOC STD 18/1	1026L05.D	10/26/18 11:25
4	2.0ug/L VOC STD 18/1	1026L06.D	10/26/18 11:54
5	5.0ug/L VOC STD 18/1	1026L07.D	10/26/18 12:22
6	10ug/L VOC STD 18/10	1026L08.D	10/26/18 12:50
7	20ug/L VOC STD 18/10	1026L09.D	10/26/18 13:19
8	40ug/L VOC STD 18/10	1026L10.D	10/26/18 13:47
9	100ug/L VOC STD 18/1	1026L11.D	10/26/18 14:16
10	(SS)10ug/L VOC STD 1	1026L13.D	10/26/18 15:13
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

50 15 - 40% of mass 95	<u>16.9</u>
75 30 - 60% of mass 95	<u>47.6</u>
95 100 - 100% of mass 95	<u>100.0</u>
96 5 - 9% of mass 95	<u>6.7</u>
173 0 - 2% of mass 174	<u>1.1</u>
174 50 - 100% of mass 95	<u>96.3</u>
175 5 - 9% of mass 174	<u>7.5</u>
176 94.95 - 101% of mass 174	<u>95.8</u>
177 5 - 9% of mass 176	<u>6.5</u>

Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 87238  
 Matrix: Water  
 ID: 1029L13.D

SDG No: 87238  
 Date Analyzed: 10/29/18  
 Instrument: Loki  
 Time Analyzed: 14:36

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		181029A CCV 10ug/L	1029L14.D
2	Lab Control Spike	181029A LCS 10ug/L	1029L15.D
3	Lab Control SpikeD	181029A LCSD 10ug/L	1029L16.D
4	Blank	181029A BLK	1029L21.D
5	ERH680	AZ81837W01	1029L28.D
6	ERH695	AZ81839W01	1029L30.D
7	ERH681	AZ81840W01	1029L31.D
8	ERH702	AZ81841W01	1029L32.D
9	ERH696	AZ81842W01	1029L33.D
10		Ending CCV 8260 10ug	1029L36.D
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

50	15 - 40% of mass 95	17.4
75	30 - 60% of mass 95	48.0
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	7.0
173	0 - 2% of mass 174	1.3
174	50 - 100% of mass 95	99.4
175	5 - 9% of mass 174	7.2
176	94.95 - 101% of mass 174	96.5
177	5 - 9% of mass 176	6.4

Form 5  
Tune Summary

Lab Name: APPL Inc.  
 Case No: 87238  
 Matrix: Water  
 ID: 1030L01.D

SDG No: 87238  
 Date Analyzed: 10/30/18  
 Instrument: Loki  
 Time Analyzed: 8:40

Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	181030A CCV 10ug/L	1030L03.D	10/30/18 9:31
2	Lab Control Spike	181030A LCS 10ug/L	1030L04.D
3	Lab Control SpikeD	181030A LCSD 10ug/L	1030L05.D
4	Blank	181030A BLK	1030L12.D
5	ERH701	AZ81838W02	1030L14.D
6	Ending CCV 8260 10ug	1030L25.D	10/30/18 19:58
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

m/e

50 15 - 40% of mass 95	<u>18.0</u>
75 30 - 60% of mass 95	<u>49.0</u>
95 100 - 100% of mass 95	<u>100.0</u>
96 5 - 9% of mass 95	<u>6.4</u>
173 0 - 2% of mass 174	<u>1.4</u>
174 50 - 100% of mass 95	<u>92.4</u>
175 5 - 9% of mass 174	<u>7.1</u>
176 94.95 - 101% of mass 174	<u>97.4</u>
177 5 - 9% of mass 176	<u>5.9</u>

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: \_\_\_\_\_  
 Lab Code: \_\_\_\_\_ SDG No.: \_\_\_\_\_  
 Lab File ID (Standard): 1026L08.D Date Analyzed: 10/26/18  
 Instrument ID: Loki Time Analyzed: 12:50  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		526592	4.86	505536	8.52	278912	11.07
UPPER LIMIT		1053184	5.03	1011072	8.69	557824	11.24
LOWER LIMIT		263296	4.69	252768	8.35	139456	10.90
SAMPLE NO.							
01	(SS)10ug/L VOC STD 1	545024	4.86	523328	8.52	283520	11.07
02							
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87238  
 Lab File ID (Standard): 1029L14.D Date Analyzed: 10/29/18  
 Instrument ID: Loki Time Analyzed: 15:04  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

	Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	526528	4.86	475328	8.52	277824	11.07
UPPER LIMIT	1053056	5.03	950656	8.69	555648	11.24
LOWER LIMIT	263264	4.69	237664	8.35	138912	10.90
SAMPLE NO.						
01 181029A LCS 10ug/L	498048	4.86	442240	8.52	241152	11.07
02 181029A LCSD 10ug/L	476864	4.86	478464	8.52	257408	11.07
03 181029A BLK	444416	4.86	409664	8.52	204480	11.07
04 AZ81837W01	410304	4.86	398144	8.52	183872	11.07
05 AZ81839W01	394880	4.86	382848	8.52	184192	11.07
06 AZ81840W01	390976	4.86	379520	8.52	171840	11.07
07 AZ81841W01	381248	4.86	374208	8.52	174400	11.07
08 AZ81842W01	390464	4.86	392064	8.52		
09 Ending CCV 8260 10ug/	444992	4.86	418432	8.52	233600	11.07
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

8A  
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review  
 Lab Code: \_\_\_\_\_ SDG No.: 87238  
 Lab File ID (Standard): 1030L03.D Date Analyzed: 10/30/18  
 Instrument ID: Loki Time Analyzed: 9:31  
 GC Column: \_\_\_\_\_ ID: \_\_\_\_\_ Heated Purge: (Y/N) \_\_\_\_\_

	Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	445568	4.86	421248	8.52	236608	11.07
UPPER LIMIT	891136	5.03	842496	8.69	473216	11.24
LOWER LIMIT	222784	4.69	210624	8.35	118304	10.90
SAMPLE NO.						
01 181030A LCS 10ug/L	495168	4.86	464320	8.52	258240	11.07
02 181030A LCSD 10ug/L	534208	4.86	505664	8.52	275904	11.07
03 181030A BLK	415680	4.86				
04 AZ81838W02	404160	4.86				
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = -50% of internal standard area.  
 RT UPPER LIMIT = +0.17 minutes of internal standard RT  
 RT LOWER LIMIT = -0.17 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: 4-BROMOFLUOROBENZENE (S)			Limits	Result	Qualifier
		Limits	Result	Qualifier			
181029AL-LCS	Lab Control Spike	85-114	98.8				
181029AL-LCSD	Lab Control SpikeD	85-114	94.8				
181029AL-BLK	Blank	85-114	91.7				
AZ81837	ERH680	85-114	88.6				
AZ81839	ERH695	85-114	93.3				
AZ81840	ERH681	85-114	91.0				
AZ81841	ERH702	85-114	90.3				
AZ81842	ERH696	85-114	91.6				

Comments: Batch: #GRO86-181029AL

Printed: 10/31/18 10:18:57 AM  
Form 2 & 8, Surrogate Recovery Summary

# EPA 8260B

Form 2 & 8

## Surrogate Recovery

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: 4-BROMOFLUOROBENZENE (S)			Limits	Result	Qualifier
		Limits	Result	Qualifier			
181030AL-LCS	Lab Control Spike	85-114	93.2				
181030AL-LCSD	Lab Control SpikeD	85-114	92.8				
181030AL-BLK	Blank	85-114	85.9				
AZ81838	ERH701	85-114	87.2				

Comments: Batch: #GRO86-181030AL

Printed: 10/31/18 10:18:58 AM  
Form 2 & 8, Surrogate Recovery Summary



# EPA 8260B

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Loki

Blank ID: 181029AL-BLK

Time Analyzed: 1823

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181029AL-LCS	Lab Control Spike	1029L19	10/29/18 1726
181029AL-LCSD	Lab Control SpikeD	1029L20	10/29/18 1755
181029AL-BLK	Blank	1029L21	10/29/18 1823
AZ81837	ERH680	1029L28	10/29/18 2142
AZ81839	ERH695	1029L30	10/29/18 2239
AZ81840	ERH681	1029L31	10/29/18 2308
AZ81841	ERH702	1029L32	10/29/18 2336
AZ81842	ERH696	1029L33	10/30/18 0004

Comments: Batch: #GRO86-181029AL

Printed: 10/31/18 10:19:03 AM  
Form 4, Blank Summary

**Method Blank**  
**EPA 8260B GRO WATER**

Blank Name/QCG: **181029W-81673 - 234654**  
Batch ID: #GRO86-181029AL

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/29/18	10/29/18
BLANK	SURROGATE: 4-BROMOFLUORO	91.7	85-114			%	10/29/18	10/29/18

Quant Method: LGAS1029.M  
Run #: 1029L21  
Instrument: Loki  
Sequence: 181026  
Initials: SV

GC SC-Blank-REG MDLs-DOD  
Printed: 10/31/18 10:19:07 AM

**EPA 8260B**

Form 4

**Blank Summary**

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Loki

Blank ID: 181030AL-BLK

Time Analyzed: 1348

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181030AL-LCS	Lab Control Spike	1030L07	10/30/18 1125
181030AL-LCSD	Lab Control SpikeD	1030L08	10/30/18 1154
181030AL-BLK	Blank	1030L12	10/30/18 1348
AZ81838	ERH701	1030L14	10/30/18 1444

Comments: Batch: #GRO86-181030AL

**Method Blank**  
**EPA 8260B GRO WATER**

Blank Name/QCG: **181030W-81901 - 234719**  
Batch ID: #GRO86-181030AL

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/30/18	10/30/18
BLANK	SURROGATE: 4-BROMOFLUORO	85.9	85-114			%	10/30/18	10/30/18

Quant Method: LGAS1029.M  
Run #: 1030L12  
Instrument: Loki  
Sequence: 181026  
Initials: SV

GC SC-Blank-REG MDLs-DOD  
Printed: 10/31/18 10:19:07 AM

# EPA 8260B

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Loki

LCS ID: 181029AL-LCS

Time Analyzed: 1726

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181029AL-LCS	Lab Control Spike	1029L19	10/29/18 1726
181029AL-LCSD	Lab Control SpikeD	1029L20	10/29/18 1755
181029AL-BLK	Blank	1029L21	10/29/18 1823
AZ81837	ERH680	1029L28	10/29/18 2142
AZ81839	ERH695	1029L30	10/29/18 2239
AZ81840	ERH681	1029L31	10/29/18 2308
AZ81841	ERH702	1029L32	10/29/18 2336
AZ81842	ERH696	1029L33	10/30/18 0004

Comments: Batch: #GRO86-181029AL

Printed: 10/31/18 10:19:10 AM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## EPA 8260B GRO WATER

APPL ID: 181029W-81673 LCS - 234654  
 Batch ID: #GRO86-181029AL

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
GASOLINE RANGE ORGANICS	300	318	315	106	105	78-122	0.95	20
SURROGATE: 4-BROMOFLUOROBENZE	25.0	24.7	23.7	98.8	94.8	85-114		

Comments: \_\_\_\_\_

Primary	SPK	DUP
Quant Method :	LGAS1029.M	LGAS1029.M
Extraction Date :	10/29/18	10/29/18
Analysis Date :	10/29/18	10/29/18
Instrument :	Loki	Loki
Run :	1029L19	1029L20
Initials :	SV	

**EPA 8260B**

Form 4

**LCS Summary**

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Loki

LCS ID: 181030AL-LCS

Time Analyzed: 1125

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181030AL-LCS	Lab Control Spike	1030L07	10/30/18 1125
181030AL-LCSD	Lab Control SpikeD	1030L08	10/30/18 1154
181030AL-BLK	Blank	1030L12	10/30/18 1348
AZ81838	ERH701	1030L14	10/30/18 1444

Comments: Batch: #GRO86-181030AL

# Laboratory Control Spike Recoveries

## EPA 8260B GRO WATER

APPL ID: 181030W-81901 LCS - 234719  
 Batch ID: #GRO86-181030AL

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
GASOLINE RANGE ORGANICS	300	320	321	107	107	78-122	0.31	20
SURROGATE: 4-BROMOFLUOROBENZE	25.0	23.3	23.2	93.2	92.8	85-114		

Comments: \_\_\_\_\_

Primary	SPK	DUP
Quant Method :	LGAS1029.M	LGAS1029.M
Extraction Date :	10/30/18	10/30/18
Analysis Date :	10/30/18	10/30/18
Instrument :	Loki	Loki
Run :	1030L07	1030L08
Initials :	SV	



# RSK 175

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Rocky

Blank ID: 181030A-BLK

Time Analyzed: 1002

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181030A-LCS	Lab Control Spike	18103000	10/30/18 0956
181030A-LCSD	Lab Control Spiked	18103001	10/30/18 0959
181030A-BLK	Blank	18103002	10/30/18 1002
AZ81837	ERH680	18103003	10/30/18 1005
AZ81838	ERH701	18103004	10/30/18 1007
AZ81839	ERH695	18103005	10/30/18 1009
AZ81840	ERH681	18103006	10/30/18 1011
AZ81841	ERH702	18103008	10/30/18 1017
AZ81842	ERH696	18103009	10/30/18 1020

Comments: Batch: #RSKME-181030A

Printed: 10/30/18 11:46:06 AM  
Form 4, Blank Summary

Method Blank  
METHANE

Blank Name/QCG: 181030W-81837 - 234667  
Batch ID: #RSKME-181030A

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/30/18	10/30/18

Quant Method: RSK1029.M  
Run #: 18103002  
Instrument: Rocky  
Sequence: 181029  
Initials: CMO

GC SC-Blank-REG MDLs-DOD  
Printed: 10/30/18 11:46:17 AM

# RSK 175

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Rocky

LCS ID: 181030A-LCS

Time Analyzed: 0956

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181030A-LCS	Lab Control Spike	18103000	10/30/18 0956
181030A-LCSD	Lab Control SpikeD	18103001	10/30/18 0959
181030A-BLK	Blank	18103002	10/30/18 1002
AZ81837	ERH680	18103003	10/30/18 1005
AZ81838	ERH701	18103004	10/30/18 1007
AZ81839	ERH695	18103005	10/30/18 1009
AZ81840	ERH681	18103006	10/30/18 1011
AZ81841	ERH702	18103008	10/30/18 1017
AZ81842	ERH696	18103009	10/30/18 1020

Comments: Batch: #RSKME-181030A

Printed: 10/30/18 11:46:03 AM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## METHANE

APPL ID: 181030W-81837 LCS - 234667

Batch ID: #RSKME-181030A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
METHANE	83.4	101	92.5	121	111	72-125	8.8	30

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>	<u>DUP</u>
Quant Method :	RSK1029.M	RSK1029.M
Extraction Date :	10/30/18	10/30/18
Analysis Date :	10/30/18	10/30/18
Instrument :	Rocky	Rocky
Run :	18103000	18103001
Initials :	CMO	

# EPA 300.0

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/26/18

Matrix: WATER

Instrument: Charlie

Blank ID: 181026A2-BLK

Time Analyzed: 0949

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
AZ81840	ERH681	29	10/26/18 1220
AZ81841	ERH702	30	10/26/18 1227
AZ81842	ERH696	31	10/26/18 1234
181026A2-BLK	Blank	7	10/26/18 0949
181026A2-LCS	Lab Control Spike	8	10/26/18 0956
181026A2-LCSD	Lab Control SpikeD	9	10/26/18 1003

Comments: Batch: #300W-181026A2

Printed: 11/09/18 3:17:04 PM  
Form 4, Blank Summary

# WETLAB BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	10/26/18	10/26/18	#300W-181026A2-AZ81676
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	10/26/18	10/26/18	#300W-181026A2-AZ81676
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	10/26/18	10/26/18	#300W-181026A2-AZ81676

Wetlab SC-Blank-REG MDLs  
Printed: 11/09/18 3:17:07 PM

# EPA 300.0

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Charlie

Blank ID: 181029A2-BLK

Time Analyzed: 1116

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181029A2-BLK	Blank	32	10/29/18 1116
181029A2-LCS	Lab Control Spike	33	10/29/18 1123
181029A2-LCSD	Lab Control SpikeD	34	10/29/18 1130
AZ81841	ERH702	37	10/29/18 1151
AZ81842	ERH696	38	10/29/18 1158

Comments: Batch: #300WD-181029A2

Printed: 11/09/18 3:17:04 PM  
Form 4, Blank Summary

# WETLAB BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	10/29/18	10/29/18	#300WD-181029A2-AZ81841
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	10/29/18	10/29/18	#300WD-181029A2-AZ81841

Wetlab SC-Blank-REG MDLs  
Printed: 11/09/18 3:17:07 PM



# EPA 353.2

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: EVE

Blank ID: A181030-BLK

Time Analyzed: 1441

APPL ID.	Client Sample No.	File ID.	Date Analyzed
A181030-BLK	Blank	12	10/30/18 1441
A181030-LCS	Lab Control Spike	13	10/30/18 1443
A181030-LCSD	Lab Control SpikeD	14	10/30/18 1445
AZ81840	ERH681	28	10/30/18 1511
AZ81841	ERH702	29	10/30/18 1512
AZ81842	ERH696	30	10/30/18 1513

Comments: Batch: #35OF-A181030

# WETLAB BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 353.2	NITRATE-NITRITE-N	0.100 U	0.10	0.100	0.028	mg/L	10/30/18	10/30/18	#35OF-A181030-AZ81584

Wetlab SC-Blank-REG MDLs  
Printed: 11/09/18 3:17:07 PM

# SM 2320B

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Tiamo

Blank ID: 181030A1-BLK

Time Analyzed: 0822

APPL ID.	Client Sample No.	File ID.	Date Analyzed
181030A1-BLK	Blank	1	10/30/18 0822
181030A1-LCS	Lab Control Spike	2	10/30/18 0825
181030A1-LCSD	Lab Control SpikeD	3	10/30/18 0834
AZ81840	ERH681	4	10/30/18 0843
AZ81841	ERH702	8	10/30/18 0922
AZ81842	ERH696	9	10/30/18 0928

Comments: Batch: #232W-181030A1

# WETLAB BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SM 2320B	BICARBONATE AS CA	1.4 J	2.0	1.70	0.85	mg/L	10/30/18	10/30/18	#232W-181030A1-AZ81840
SM 2320B	CARBONATE AS CACO	1.70 U	2.0	1.70	0.85	mg/L	10/30/18	10/30/18	#232W-181030A1-AZ81840
SM 2320B	TOTAL ALKALINITY AS	1.4 J	2.0	1.70	0.85	mg/L	10/30/18	10/30/18	#232W-181030A1-AZ81840

J = Estimated value.

Wetlab SC-Blank-REG MDLs  
Printed: 11/09/18 3:17:07 PM

# SM3500FeB

Form 4

## Blank Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/26/18

Matrix: WATER

Instrument: Manual Spec

Blank ID: 181026A-BLK

Time Analyzed: 1144

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
181026A-LCSD	Lab Control SpikeD	11	10/26/18 1146
181026A-LCS	Lab Control Spike	12	10/26/18 1146
AZ81842	ERH696	13	10/26/18 1147
AZ81840	ERH681	14	10/26/18 1147
AZ81841	ERH702	15	10/26/18 1148
181026A-BLK	Blank	9	10/26/18 1144

Comments: Batch: #35FE-181026A

Printed: 11/09/18 3:17:04 PM  
Form 4, Blank Summary

# WETLAB BLANK

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SM3500Fe	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	10/26/18	10/26/18	#35FE-181026A-AZ81840

Wetlab SC-Blank-REG MDLs  
Printed: 11/09/18 3:17:07 PM

# EPA 300.0

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/26/18

Matrix: WATER

Instrument: Charlie

LCS ID: 181026A2-LCS

Time Analyzed: 0956

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
AZ81840	ERH681	29	10/26/18 1220
AZ81841	ERH702	30	10/26/18 1227
AZ81842	ERH696	31	10/26/18 1234
181026A2-BLK	Blank	7	10/26/18 0949
181026A2-LCS	Lab Control Spike	8	10/26/18 0956
181026A2-LCSD	Lab Control SpikeD	9	10/26/18 1003

Comments: Batch: #300W-181026A2

Printed: 11/09/18 3:17:11 PM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 300.0	CHLORIDE	25.0	23.4	23.4	93.6	93.6	0.0	20	90-110	10/26/18	10/26/18	10/26/18	10/26/18	#300W-181026A2-AZ8167
EPA 300.0	NITRATE	22.1	22.1	22.1	100	100	0.0	20	90-110	10/26/18	10/26/18	10/26/18	10/26/18	#300W-181026A2-AZ8167
EPA 300.0	SULFATE	25.0	24.3	24.3	97.2	97.2	0.0	20	90-110	10/26/18	10/26/18	10/26/18	10/26/18	#300W-181026A2-AZ8167

Comments: \_\_\_\_\_

\_\_\_\_\_



# EPA 300.0

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/29/18

Matrix: WATER

Instrument: Charlie

LCS ID: 181029A2-LCS

Time Analyzed: 1123

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181029A2-BLK	Blank	32	10/29/18 1116
181029A2-LCS	Lab Control Spike	33	10/29/18 1123
181029A2-LCSD	Lab Control SpikeD	34	10/29/18 1130
AZ81841	ERH702	37	10/29/18 1151
AZ81842	ERH696	38	10/29/18 1158

Comments: Batch: #300WD-181029A2

Printed: 11/09/18 3:17:11 PM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 300.0	CHLORIDE	25	24.3	24.1	97.2	96.4	0.83	20	90-110	10/29/18	10/29/18	10/29/18	10/29/18	#300WD-181029A2-AZ818
EPA 300.0	SULFATE	20.0	19.1	19.1	95.5	95.5	0.0	20	90-110	10/29/18	10/29/18	10/29/18	10/29/18	#300WD-181029A2-AZ818

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

# EPA 353.2

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: EVE

LCS ID: A181030-LCS

Time Analyzed: 1443

<b>APPL ID.</b>	<b>Client Sample No.</b>	<b>File ID.</b>	<b>Date Analyzed</b>
A181030-BLK	Blank	12	10/30/18 1441
A181030-LCS	Lab Control Spike	13	10/30/18 1443
A181030-LCSD	Lab Control SpikeD	14	10/30/18 1445
AZ81840	ERH681	28	10/30/18 1511
AZ81841	ERH702	29	10/30/18 1512
AZ81842	ERH696	30	10/30/18 1513

Comments: Batch: #35OF-A181030

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 353.2	NITRATE-NITRITE-N	3.00	2.98	2.96	99.3	98.7	0.67	20	90-110	10/30/18	10/30/18	10/30/18	10/30/18	#35OF-A181030-AZ81584

Comments: \_\_\_\_\_

# SM 2320B

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/30/18

Matrix: WATER

Instrument: Tiamo

LCS ID: 181030A1-LCS

Time Analyzed: 0825

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181030A1-BLK	Blank	1	10/30/18 0822
181030A1-LCS	Lab Control Spike	2	10/30/18 0825
181030A1-LCSD	Lab Control SpikeD	3	10/30/18 0834
AZ81840	ERH681	4	10/30/18 0843
AZ81841	ERH702	8	10/30/18 0922
AZ81842	ERH696	9	10/30/18 0928

Comments: Batch: #232W-181030A1

Printed: 11/09/18 3:17:11 PM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
SM 2320B	BICARBONATE AS CaCO3	250	234	230	93.6	92.0	1.7	20	90-110	10/30/18	10/30/18	10/30/18	10/30/18	#232W-181030A1-AZ8184
SM 2320B	TOTAL ALKALINITY AS CA	250	234	230	93.6	92.0	1.7	20	90-110	10/30/18	10/30/18	10/30/18	10/30/18	#232W-181030A1-AZ8184

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

# SM3500FeB

Form 4

## LCS Summary

Lab Name: APPL, Inc.

SDG No: 87238

Case No: 87238

Date Analyzed: 10/26/18

Matrix: WATER

Instrument: Manual Spec

LCS ID: 181026A-LCS

Time Analyzed: 1146

<u>APPL ID.</u>	<u>Client Sample No.</u>	<u>File ID.</u>	<u>Date Analyzed</u>
181026A-LCSD	Lab Control SpikeD	11	10/26/18 1146
181026A-LCS	Lab Control Spike	12	10/26/18 1146
AZ81842	ERH696	13	10/26/18 1147
AZ81840	ERH681	14	10/26/18 1147
AZ81841	ERH702	15	10/26/18 1148
181026A-BLK	Blank	9	10/26/18 1144

Comments: Batch: #35FE-181026A

Printed: 11/09/18 3:17:11 PM  
Form 4, LCS Summary

# Laboratory Control Spike Recoveries

## WETLAB

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
SM3500Fe	FERROUS IRON	3.00	3.15	3.12	105	104	0.96	20	80-120	10/26/18	10/26/18	10/26/18	10/26/18	#35FE-181026A-AZ81840

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**ORGANICS  
Calibration Data**

**APPL, INC.**

TPH Extractables  
DOC0905

Form 6  
Initial Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Initial Cal. Date: 09/05/18

Matrix: \_\_\_\_\_

Instrument: Apollo

Initials: \_\_\_\_\_

Diesel: 905003.D 905004.D 905005.D 905006.D 905007.D 905008.D

Motor Oil: 905010.D 905011.D 905012.D 905013.D 905014.D 905015.D

Decanoic Acid: 814017.D 814018.D 814019.D 814020.D 814021.D 814022.D

	Compound	1	2	3	4	5	6					Avg	%RSD	Type	r <sup>2</sup>	Q
1	HATM Diesel (C10-C24)	1977954	1585759	1547772	1602850	1558536	1558715					1638598	10	HATM		
2	HBTM Motor Oil (C24-C40)	1632679	1442329	1281707	1335557	1305155	1329878					1387884	9.5	HBTM		
3	SC Decanoic Acid(S)	648675	1095549	1090928	1053315	1004335	1065935					993123	17	SC		
4	SA Ortho-Terphenyl(S)	2367841	1987512	1916740	1891892	1734307	1719637					1936322	12	SA		
5	SA Octacosane(S)	1652614	1674318	1605080	1646548	1560961	1550101					1614937	3.2	SA		
6																
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1.497611

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180814\814017.D Vial: 17  
 Acq On : 8-14-18 16:56:27 Operator: DP  
 Sample : Decanoic Acid - 1 8/13/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 11:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

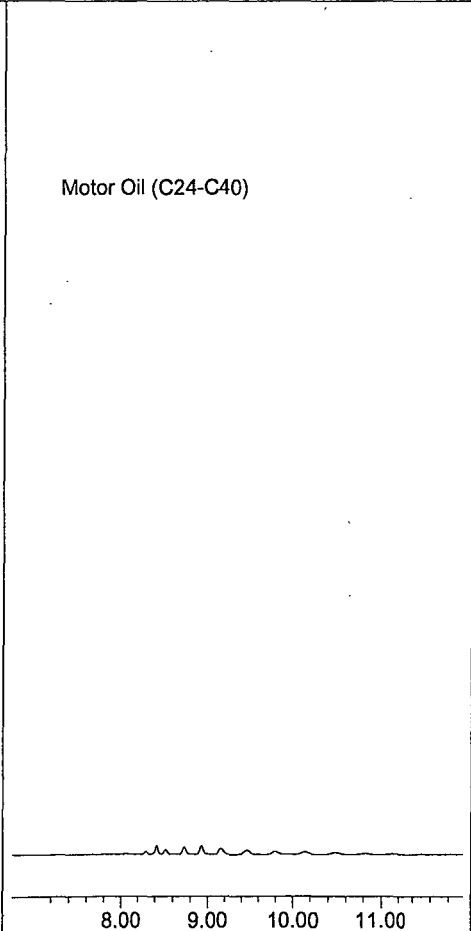
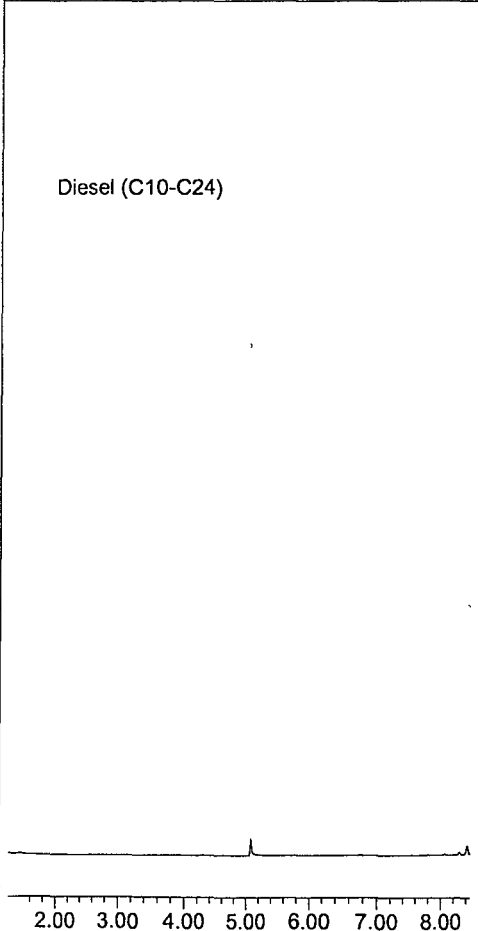
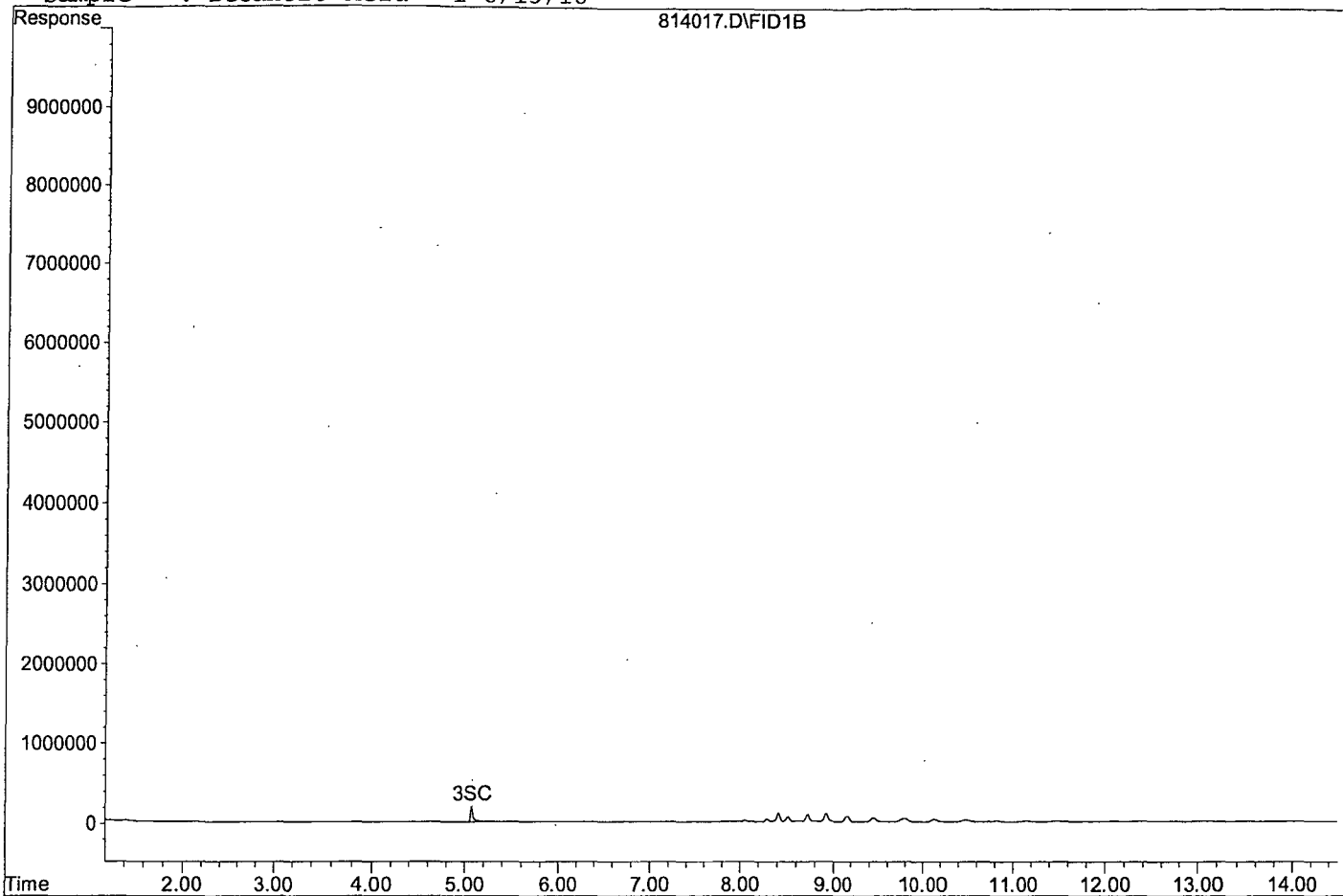
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.08f	3892047	1.959 ppb
Surrogate Spike 24.000	Recovery	=	8.16%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\180814\814017.D

Sample : Decanoic Acid - 1 8/13/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180814\814018.D Vial: 18  
 Acq On : 8-14-18 17:15:48 Operator: DP  
 Sample : Decanoic Acid - 2 8/13/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 11:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

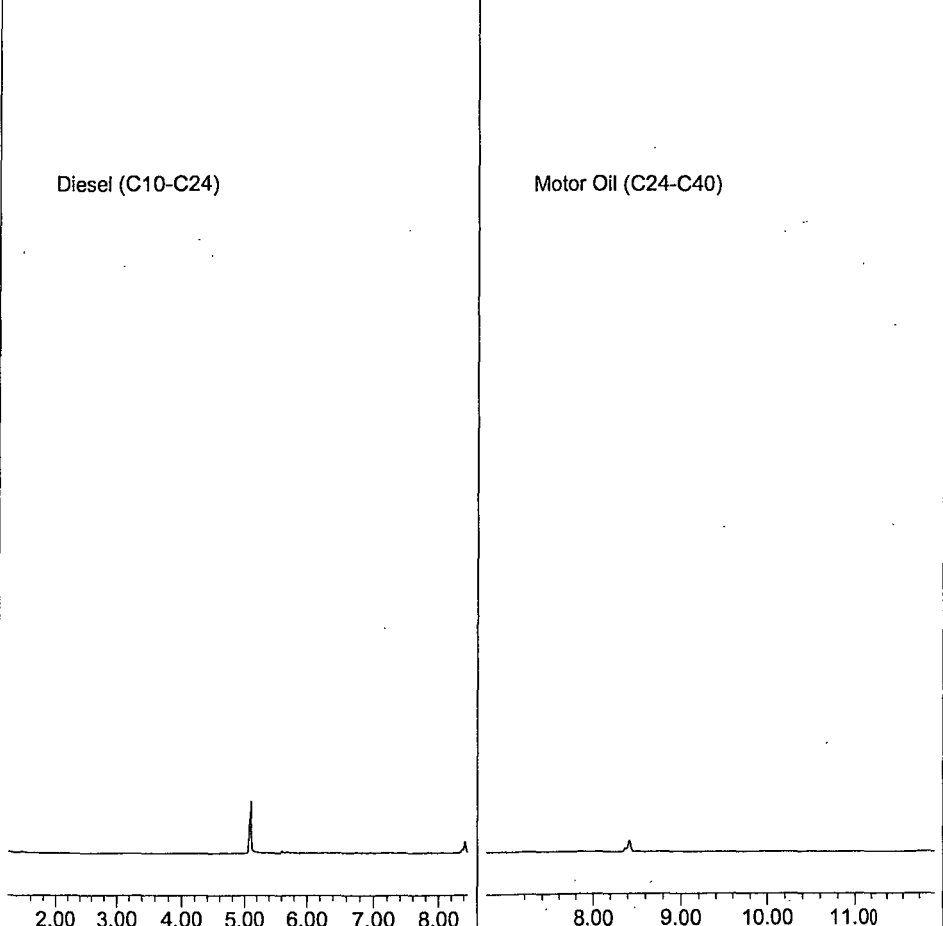
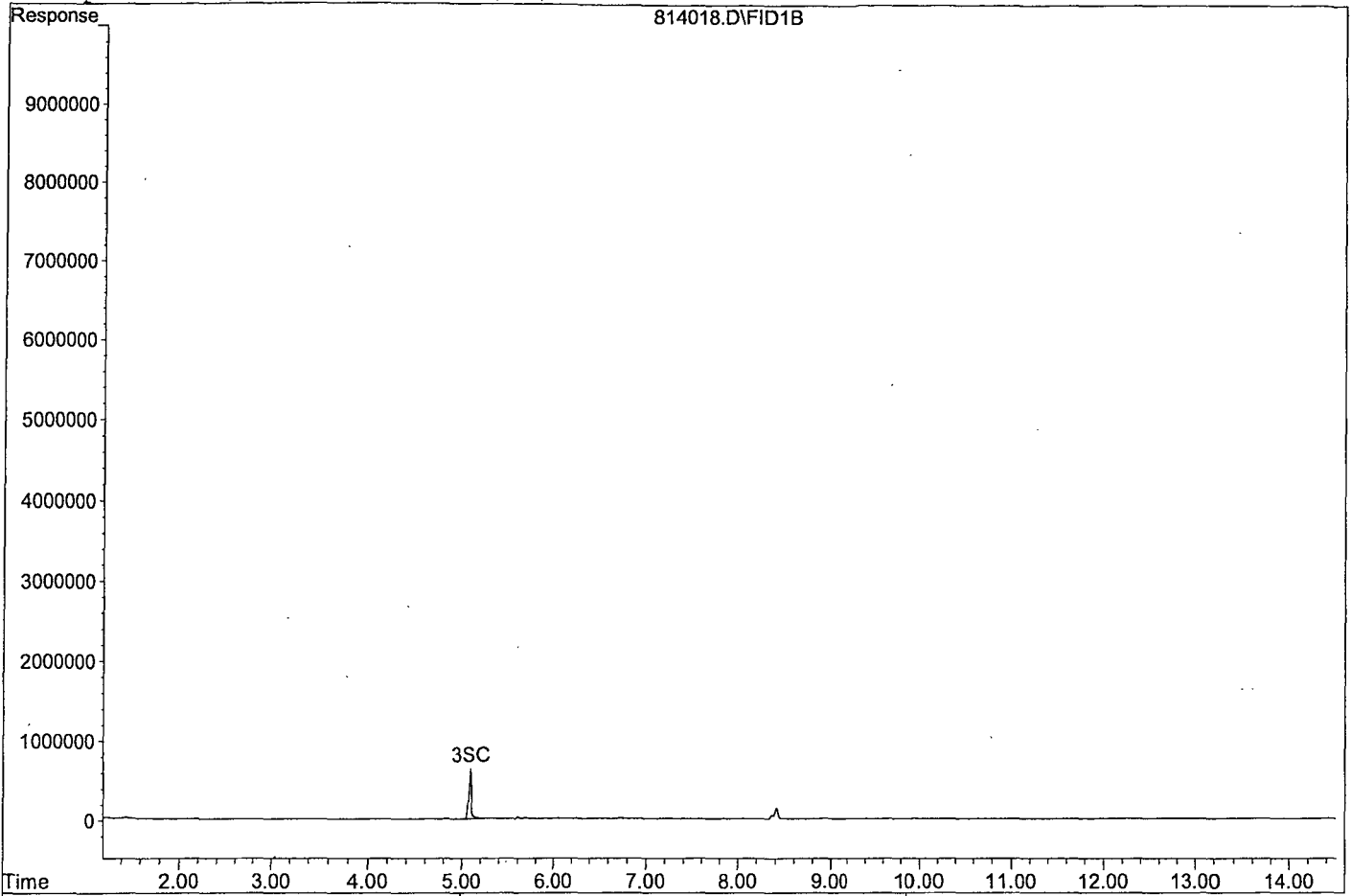
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.10	13146585	6.619 ppb
Surrogate Spike 24.000		Recovery =	27.58%
Target Compounds			

Quantitation Report

Data File: G:\APOLLO\DATA\180814\814018.D

Sample : Decanoic Acid - 2 8/13/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180814\814019.D Vial: 19  
 Acq On : 8-14-18 17:35:59 Operator: DP  
 Sample : Decanoic Acid - 3 8/13/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 11:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

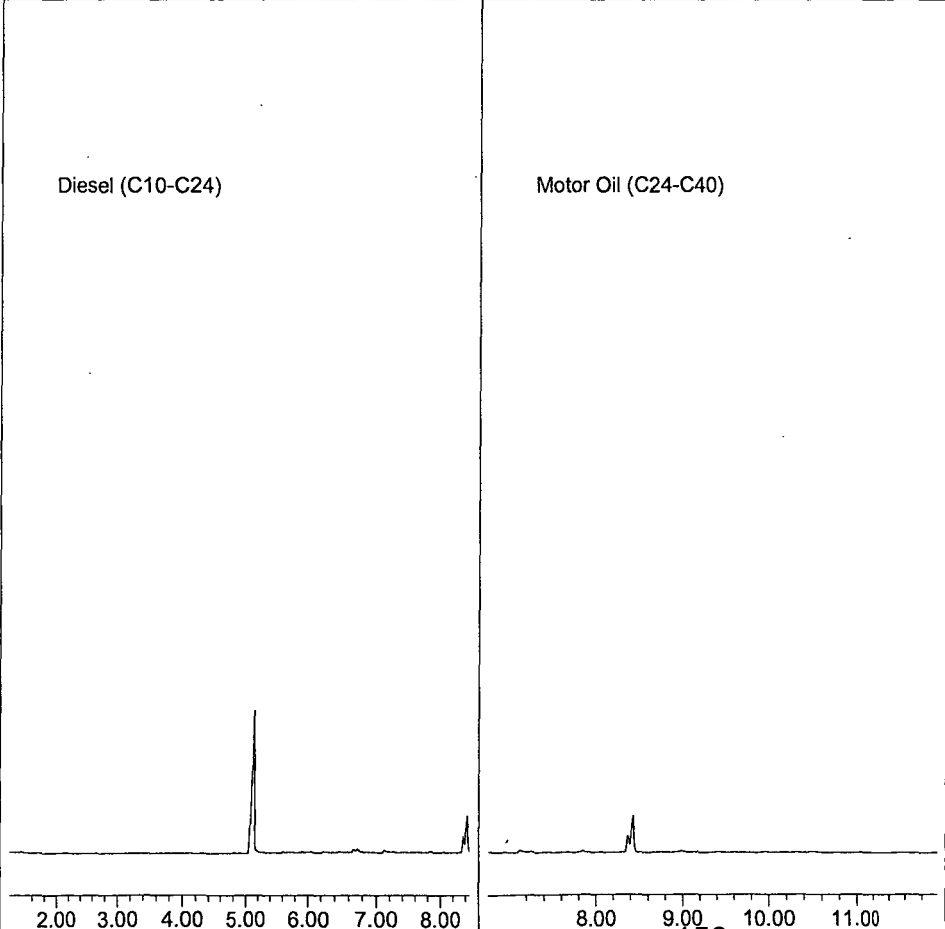
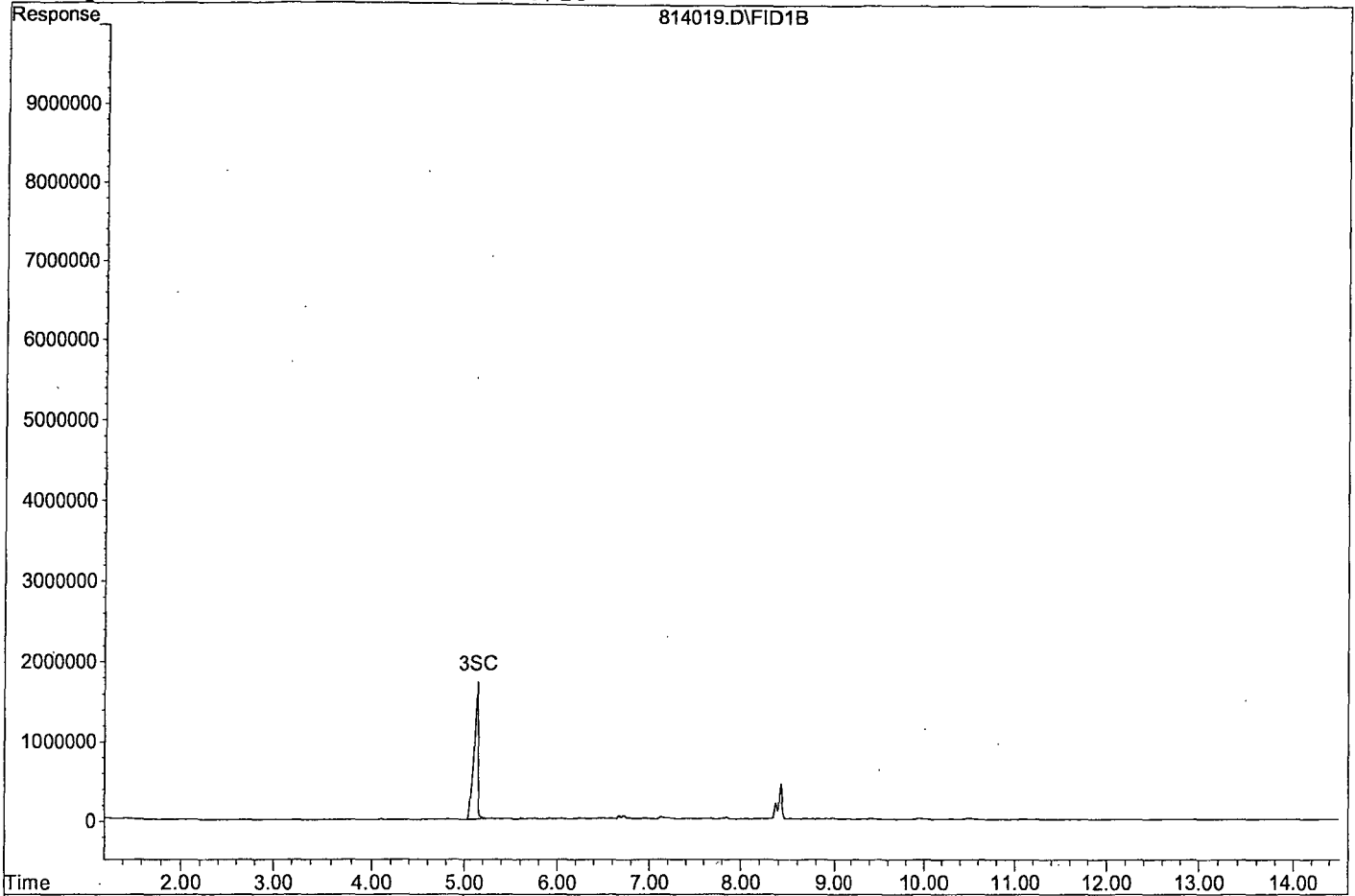
Compound	R.T.	Response	Conc Units
-----			
\System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.14	52364534	26.364 ppb
Surrogate Spike 24.000	Recovery	=	109.85%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\180814\814019.D

Sample : Decanoic Acid - 3 8/13/18





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180814\814020.D Vial: 20  
 Acq On : 8-14-18 17:56:16 Operator: DP  
 Sample : Decanoic Acid - 4 8/13/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 11:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

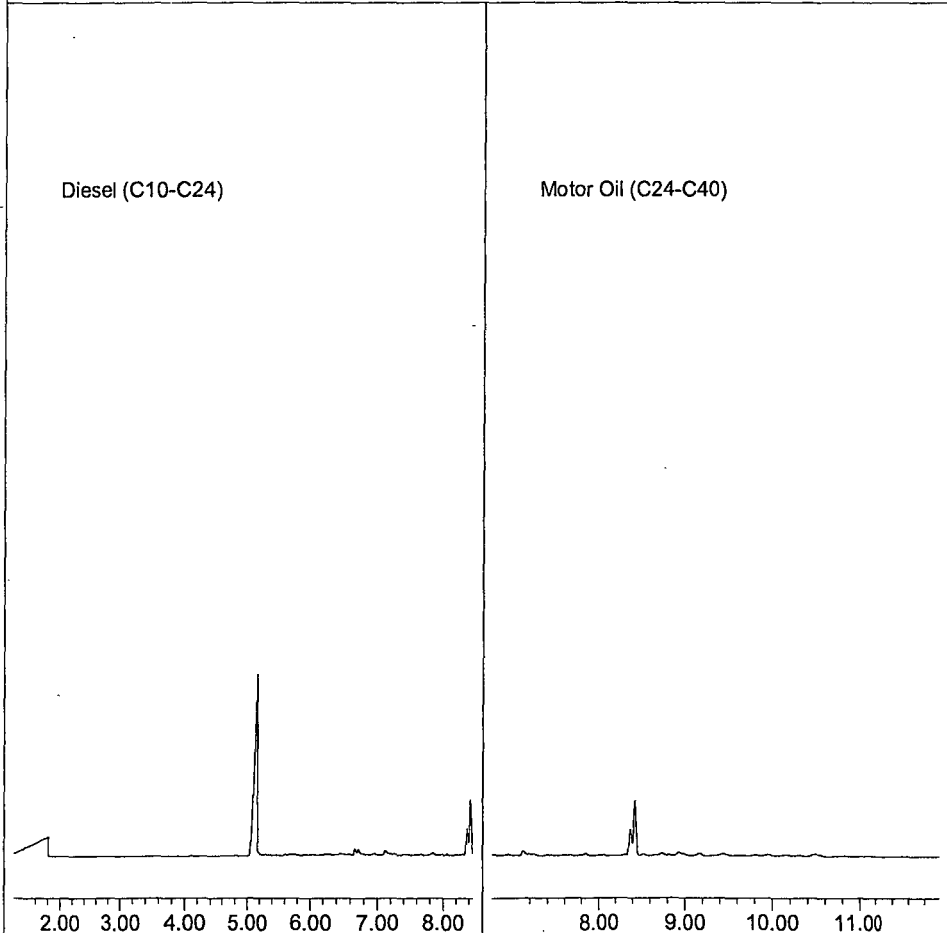
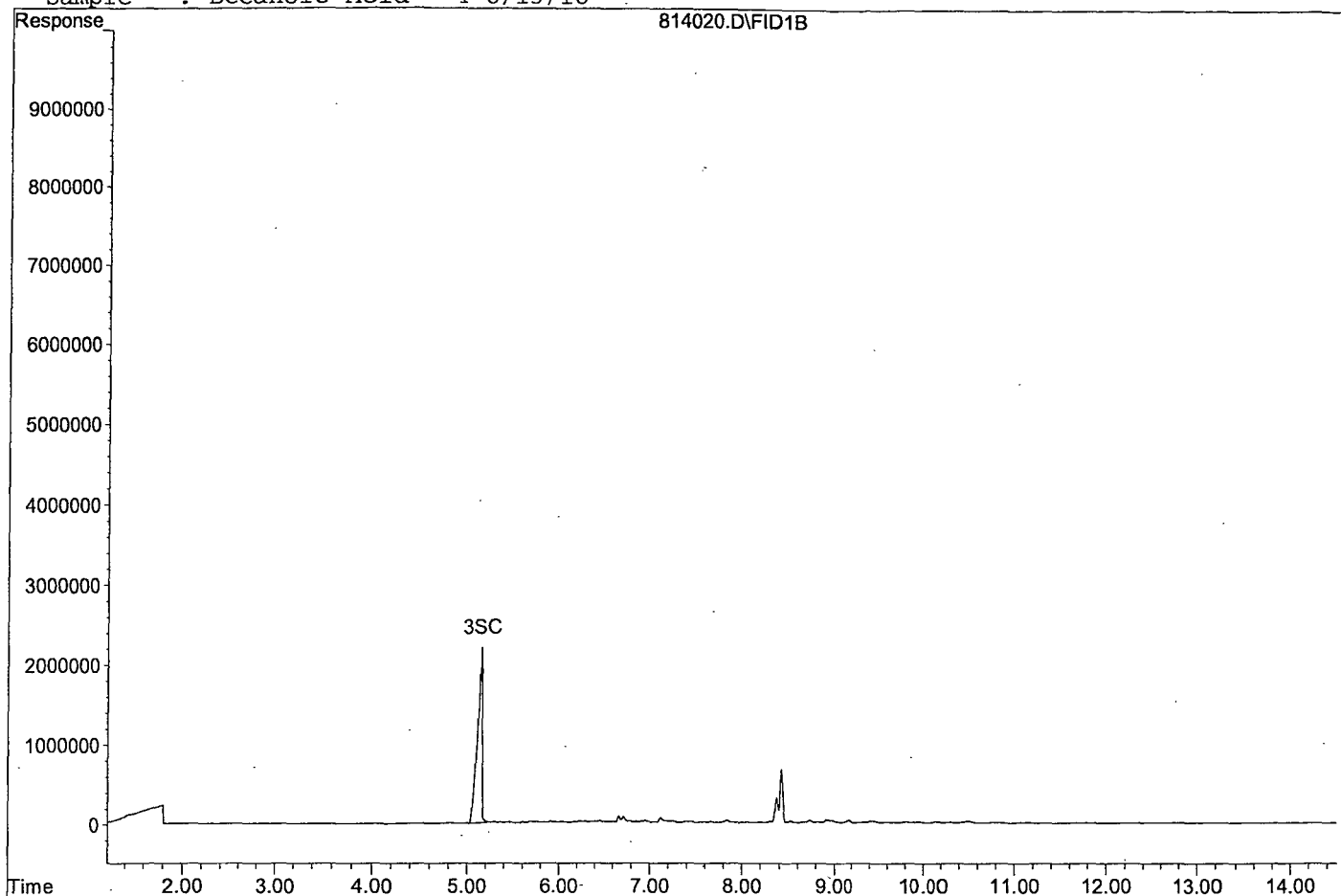
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.15	75838654	38.182 ppb
Surrogate Spike 24:000	Recovery	=	159.09%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\180814\814020.D

Sample : Decanoic Acid - 4 8/13/18



Data File : G:\APOLLO\DATA\180814\814021.D Vial: 21  
 Acq On : 8-14-18 18:16:22 Operator: DP  
 Sample : Decanoic Acid - 5 8/13/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 11:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

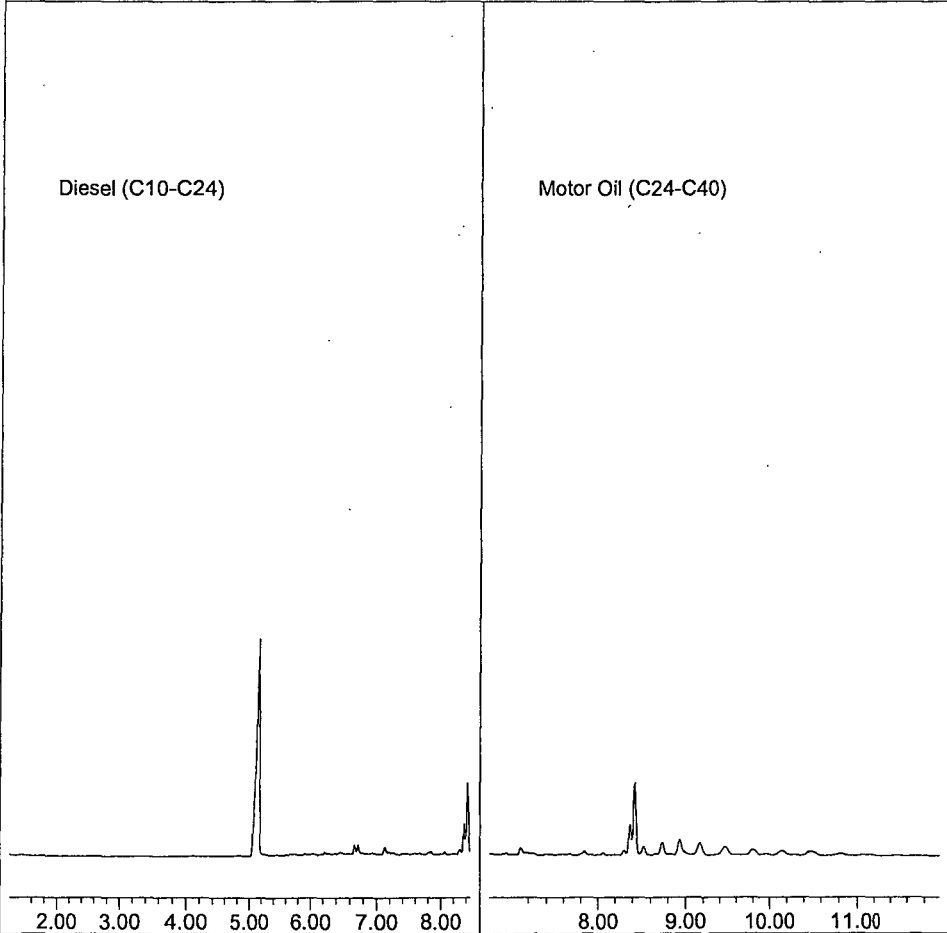
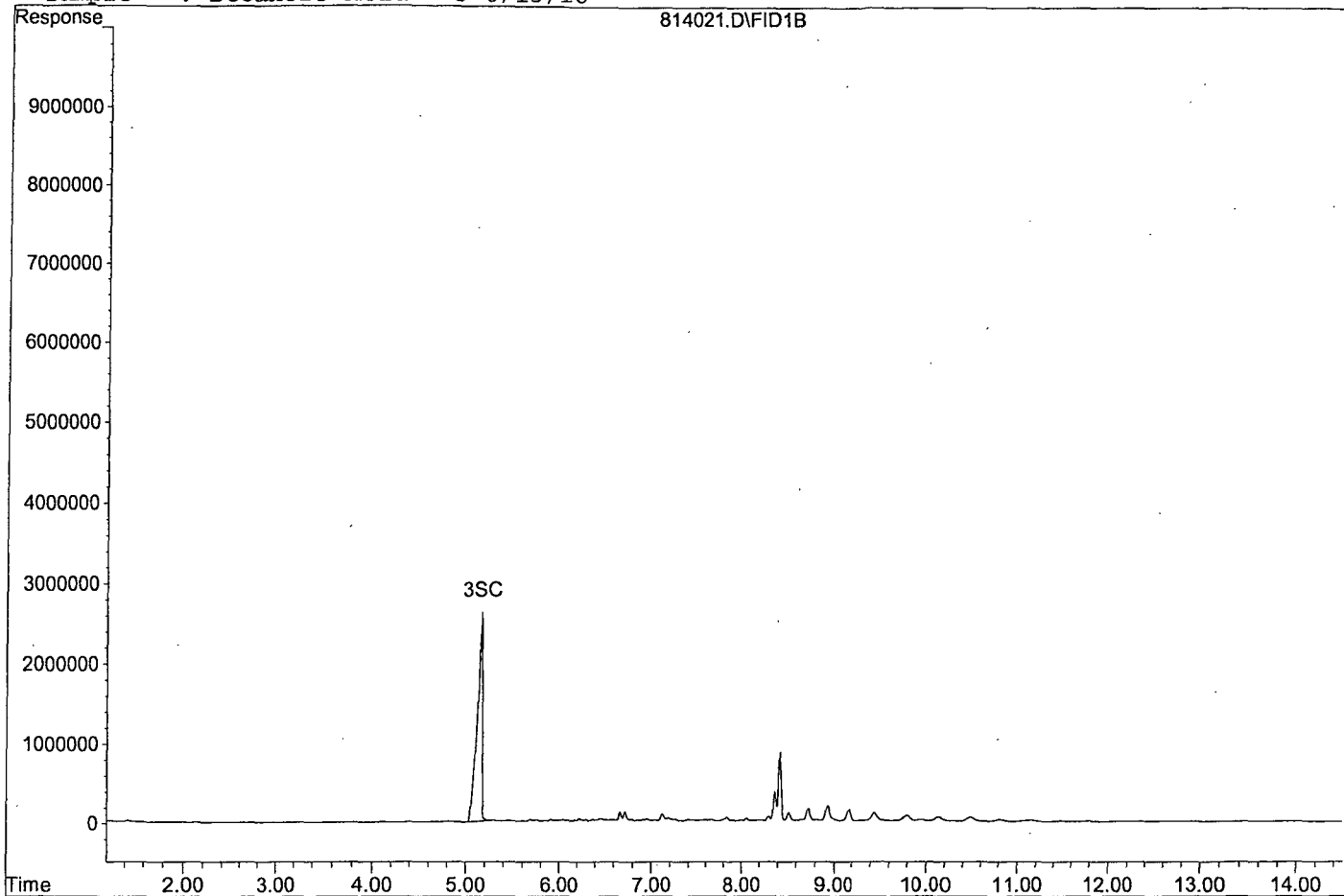
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.17	96416189	48.542 ppb
Surrogate Spike 24.000		Recovery =	202.26%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\180814\814021.D

Sample : Decanoic Acid - 5 8/13/18



Data File : G:\APOLLO\DATA\180814\814022.D Vial: 22  
 Acq On : 8-14-18 18:36:30 Operator: DP  
 Sample : Decanoic Acid - 6 8/13/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 11:33 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

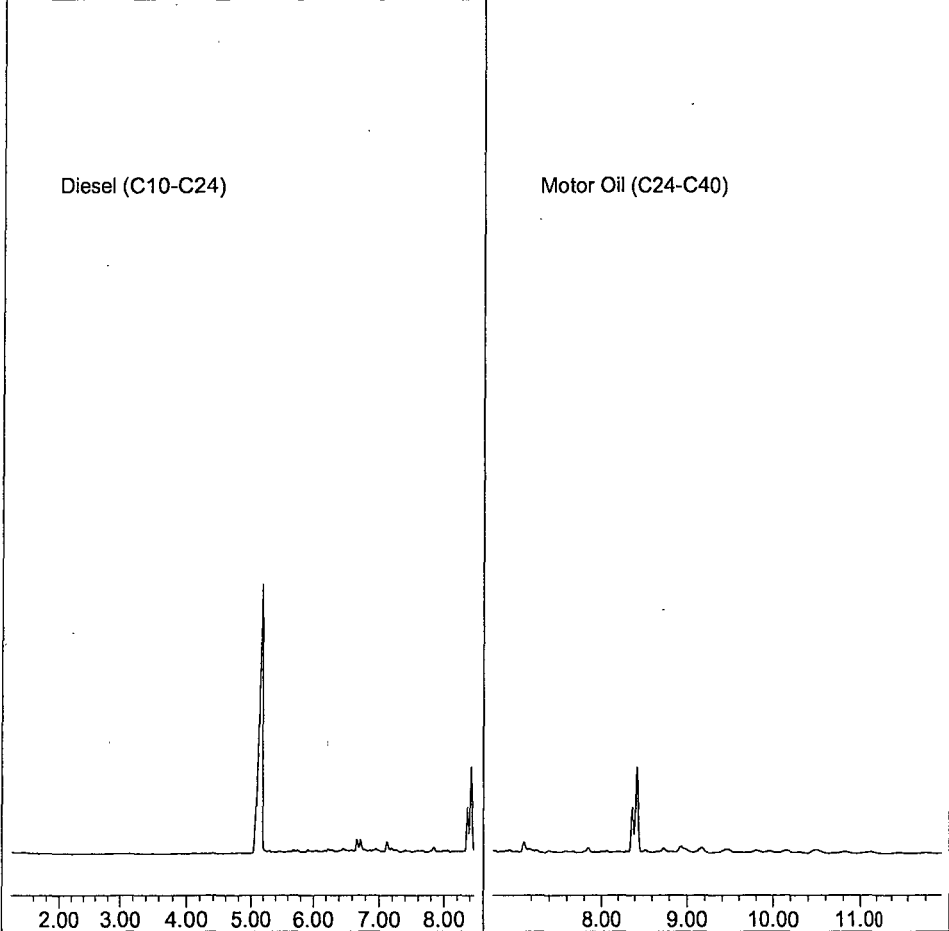
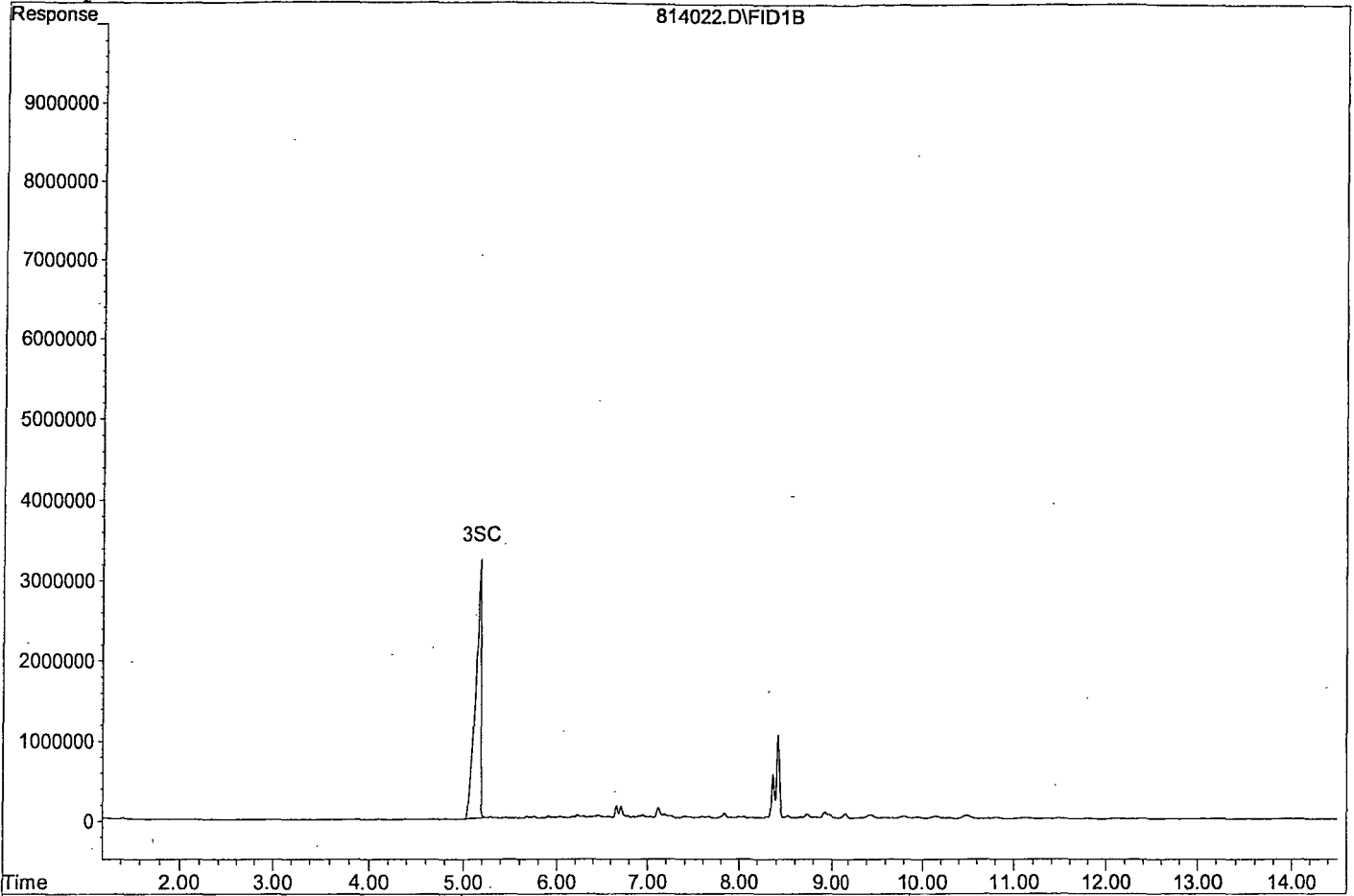
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.18	127912154	64.399 ppb
Surrogate Spike 24.000	Recovery	=	268.33%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\180814\814022.D  
Sample : Decanoic Acid - 6 8/13/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905003.D Vial: 3  
 Acq On : 9-5-18 13:32:12 Operator: DP  
 Sample : Diesel - 1 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

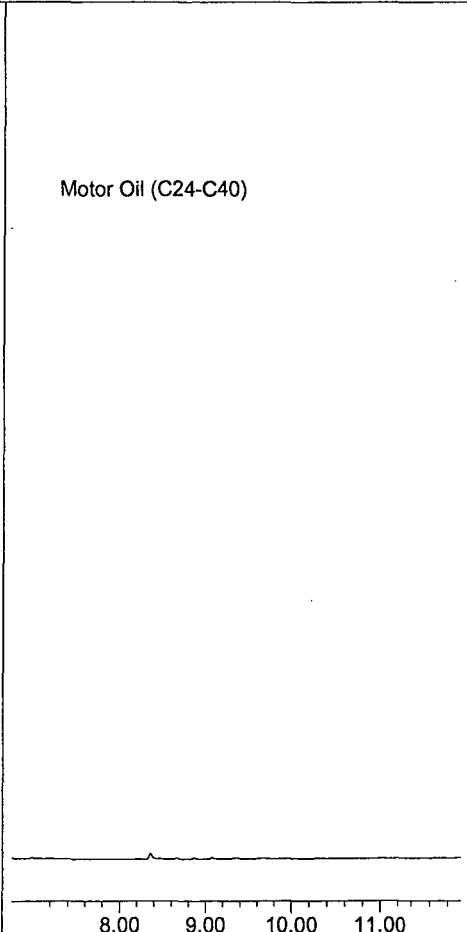
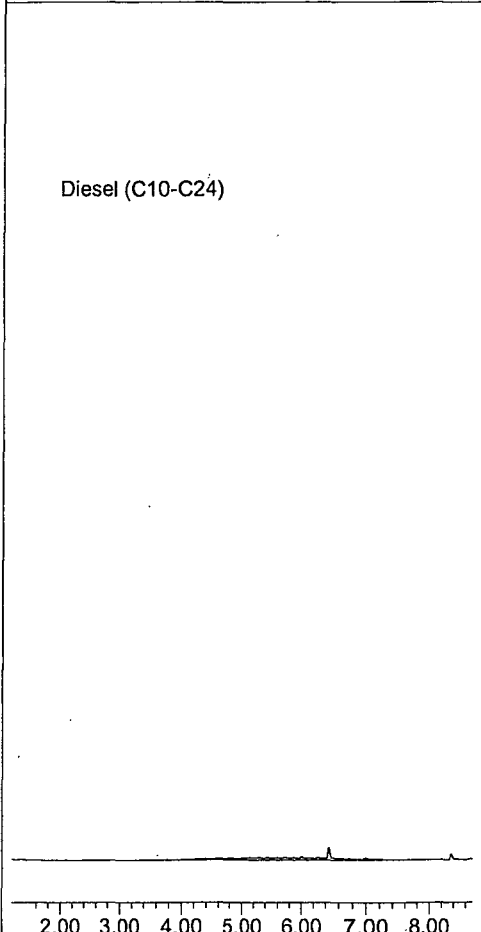
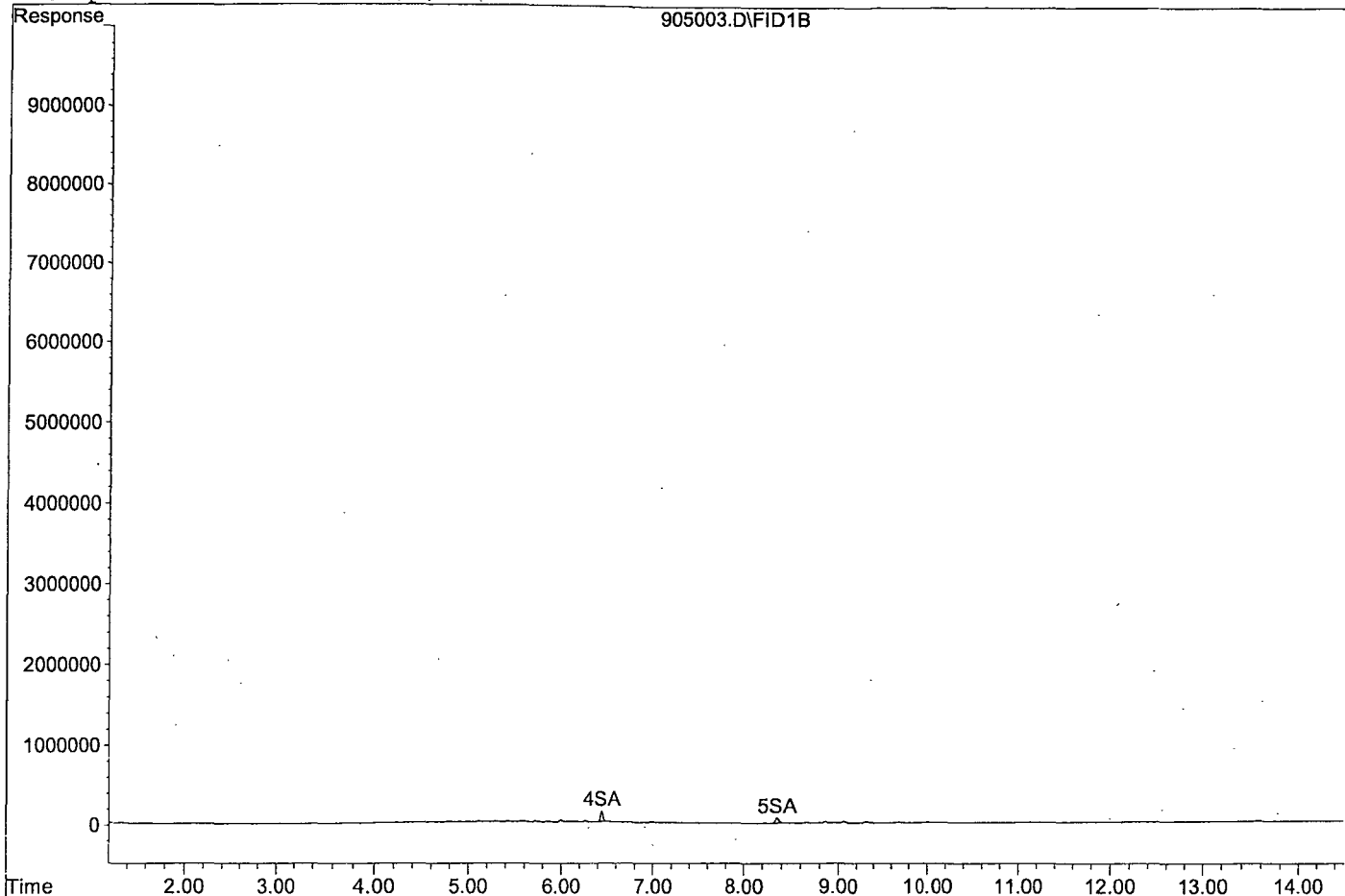
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	2367841	0.611 ppb
Surrogate Spike 30.000		Recovery =	2.04%
5) SA Octacosane(S)	8.35	1652614	0.512 ppb
Surrogate Spike 30.000		Recovery =	1.71%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	39559086	12.071 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905003.D

Sample : Diesel - 1 9/5/18





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905004.D Vial: 4  
 Acq On : 9-5-18 13:51:56 Operator: DP  
 Sample : Diesel - 2 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

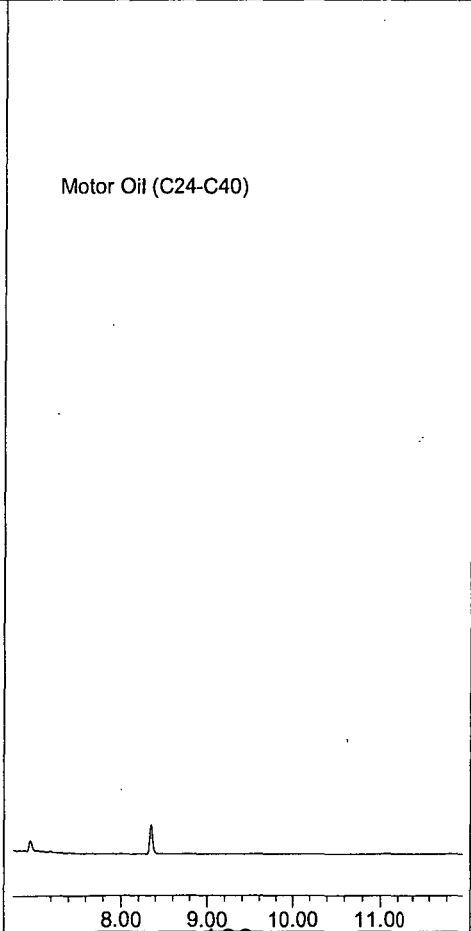
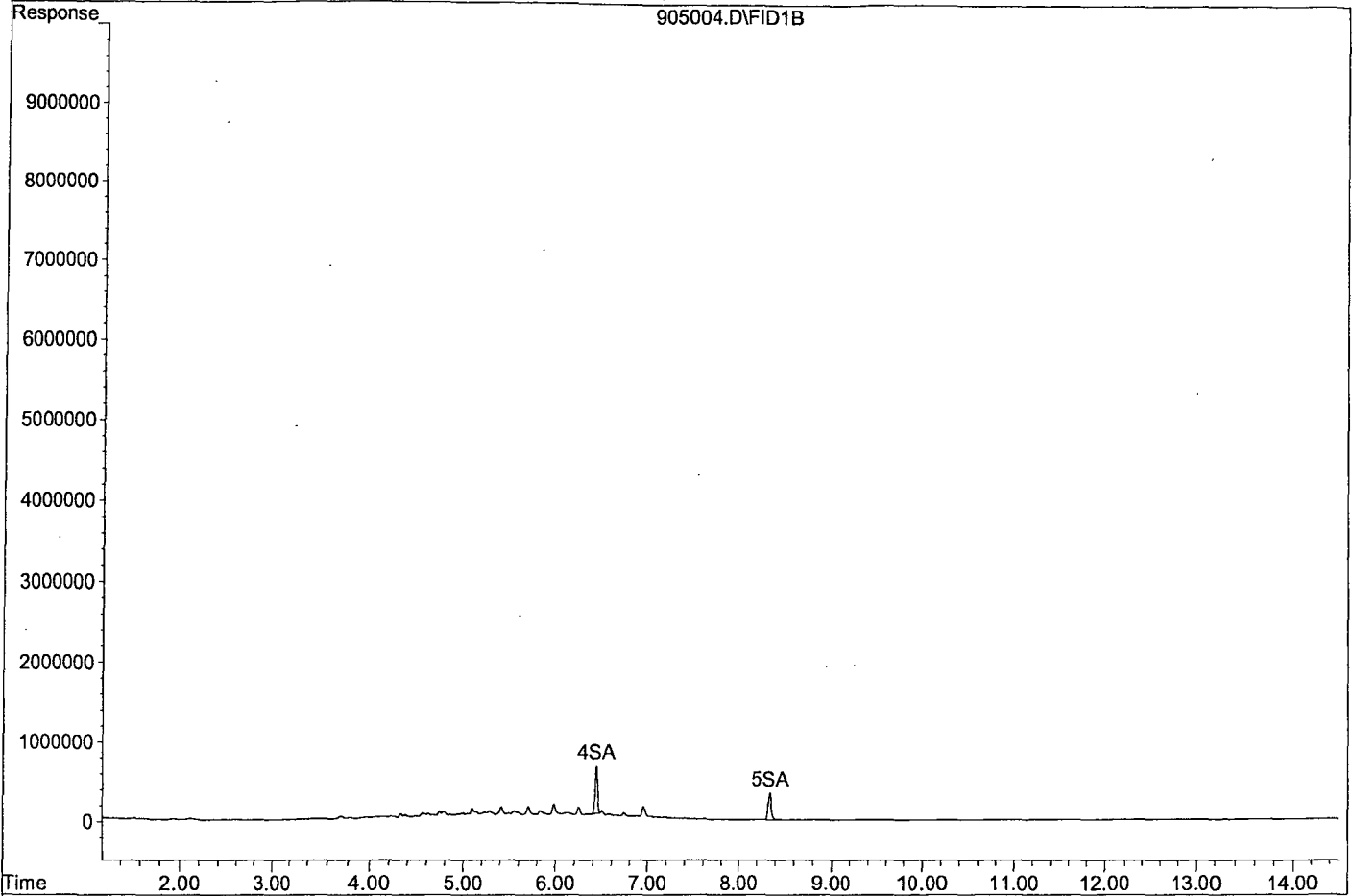
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	9937558	2.566 ppb
Surrogate Spike 30.000		Recovery =	8.55%
5) SA Octacosane(S)	8.35	8371591	2.592 ppb
Surrogate Spike 30.000		Recovery =	8.64%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	158575904	48.388 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905004.D

Sample : Diesel - 2 9/5/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905005.D Vial: 5  
 Acq On : 9-5-18 14:11:55 Operator: DP  
 Sample : Diesel - 3 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

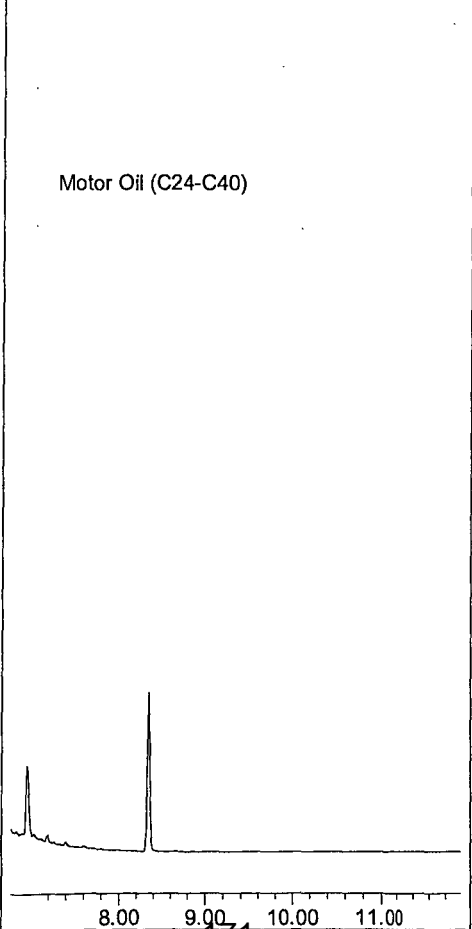
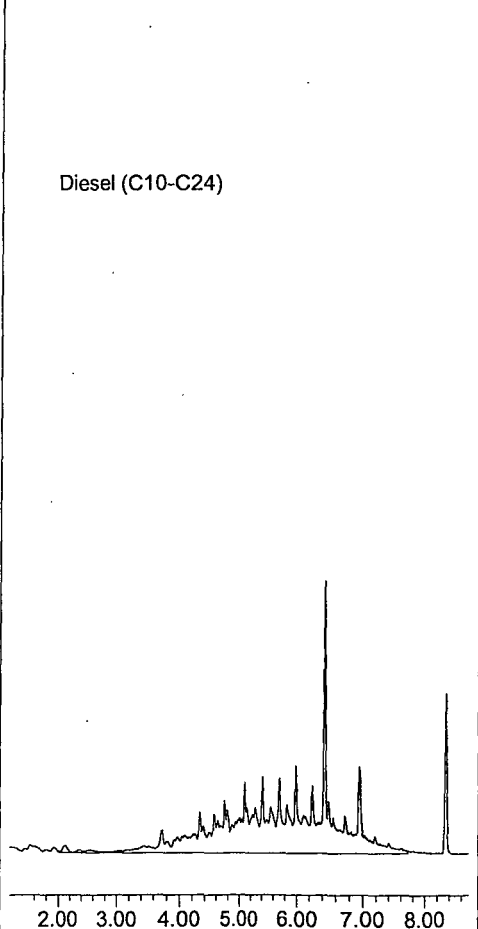
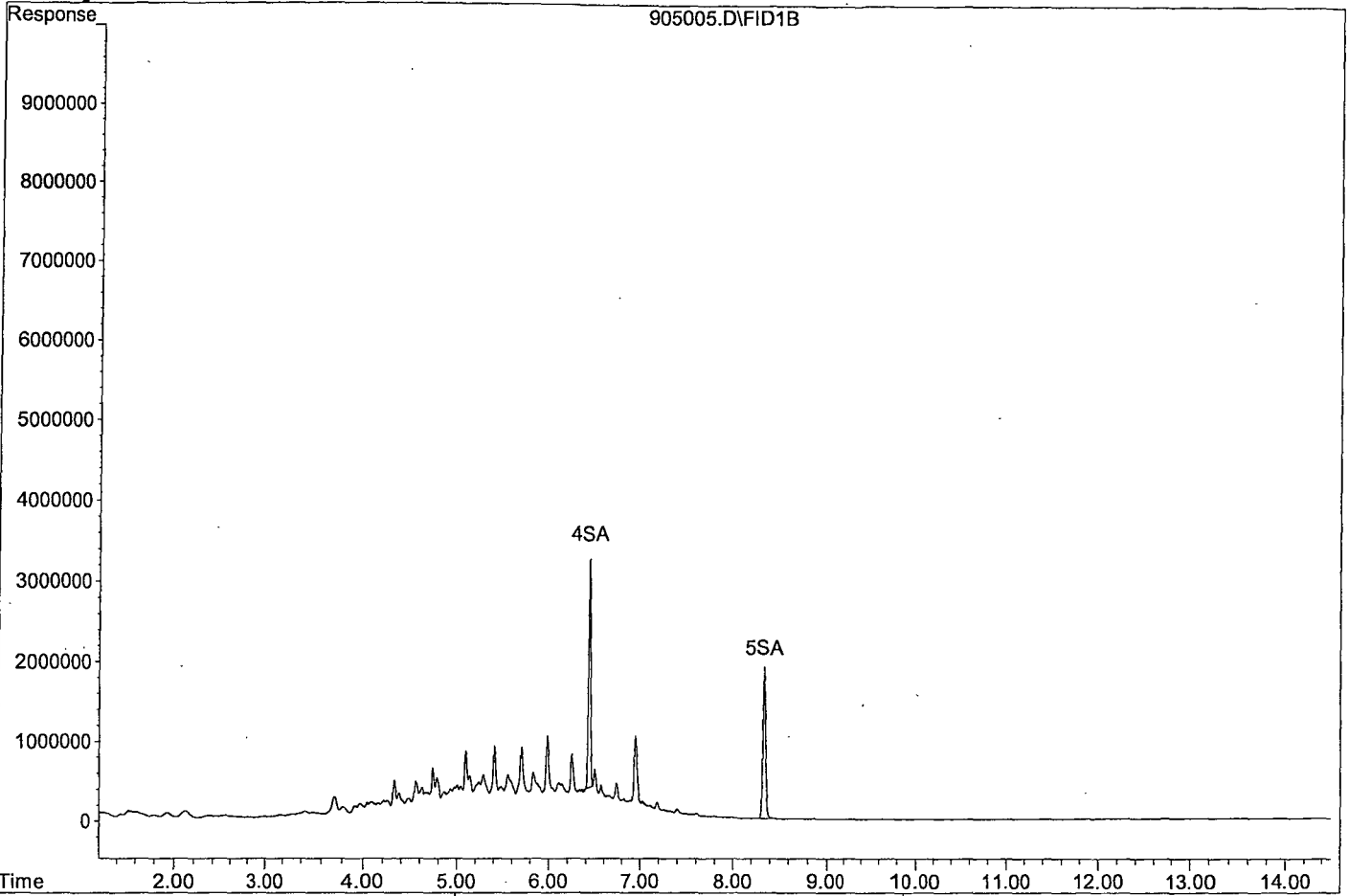
Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	47918495	12.374 ppb
Surrogate Spike 30.000		Recovery =	41.25%
5) SA Octacosane(S)	8.34	40127010	12.424 ppb
Surrogate Spike 30.000		Recovery =	41.41%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	773886098	236.143 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905005.D  
Sample : Diesel - 3 9/5/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905006.D Vial: 6  
 Acq On : 9-5-18 14:31:55 Operator: DP  
 Sample : Diesel - 4 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

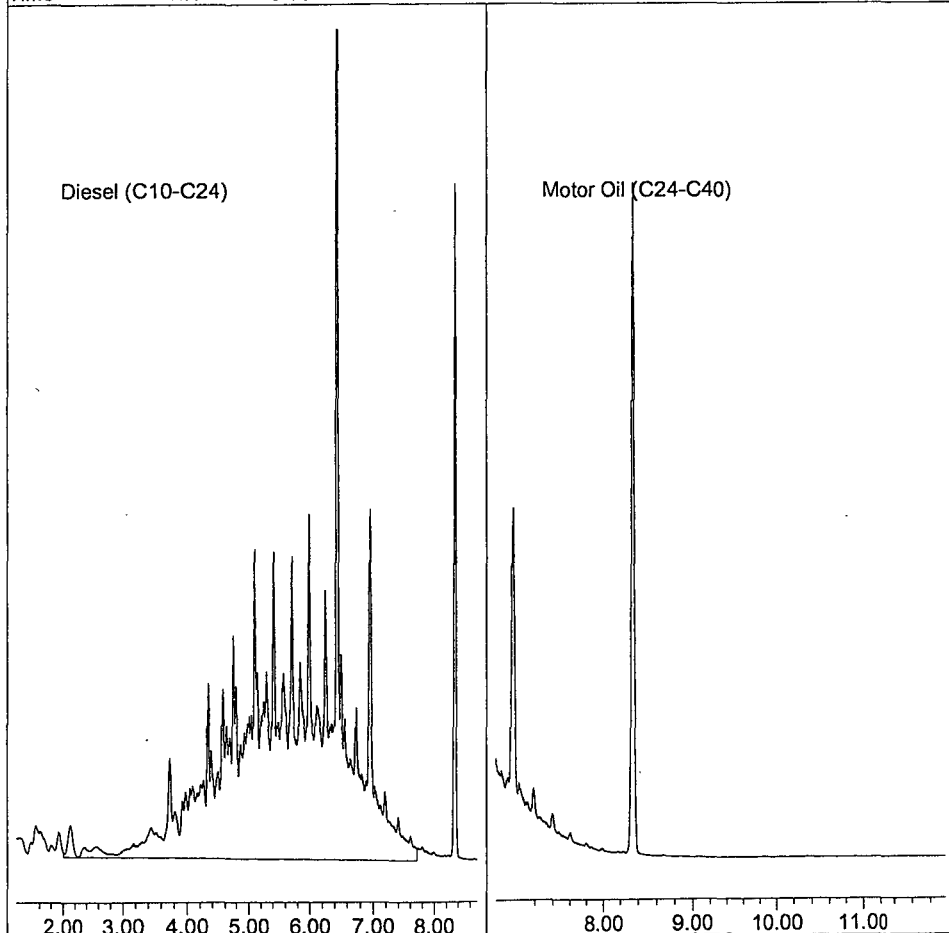
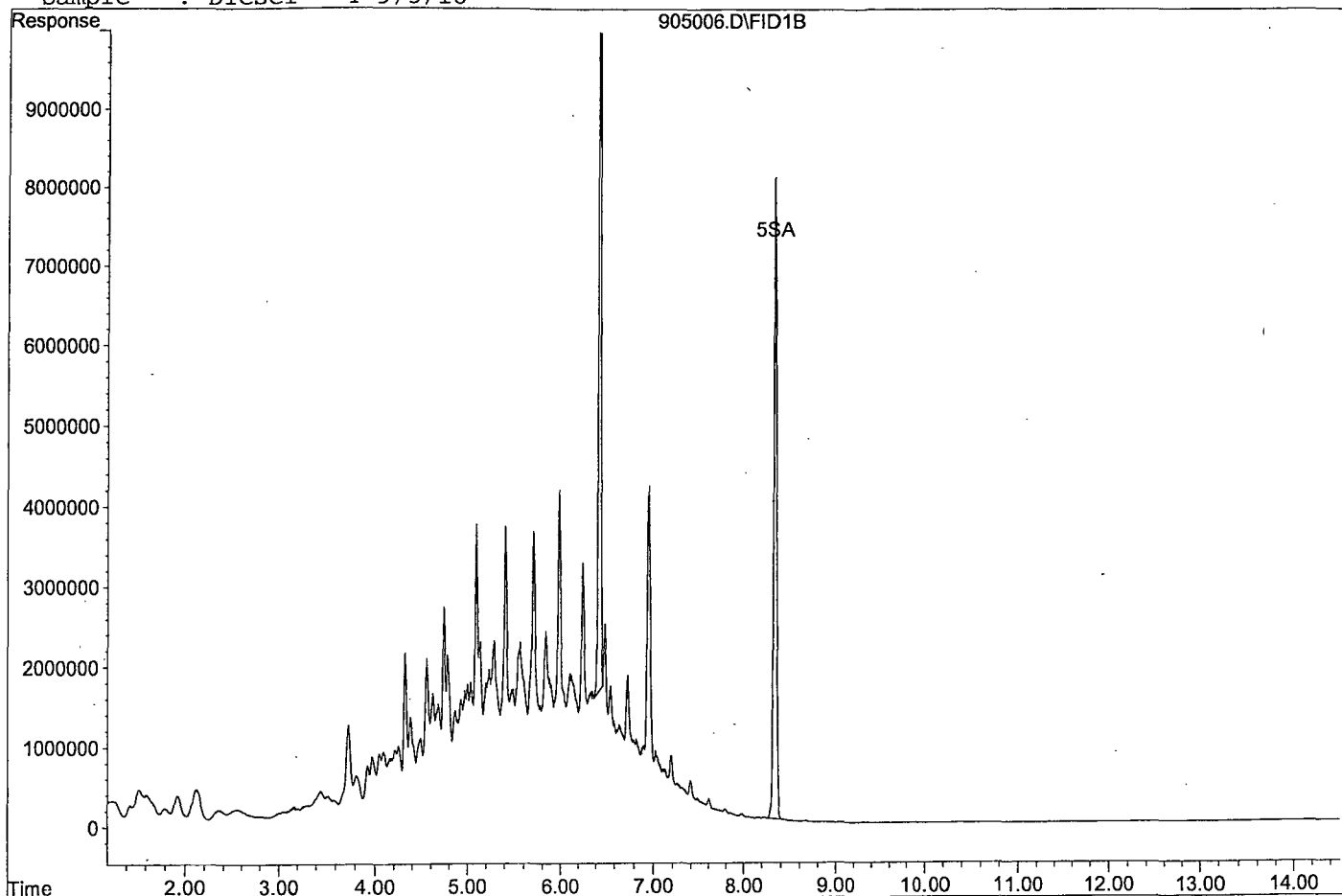
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	189189247	48.853 ppb
Surrogate Spike 30.000		Recovery =	162.84%
5) SA Octacosane(S)	8.34	164654773	50.979 ppb
Surrogate Spike 30.000		Recovery =	169.93%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	3205699857	978.184 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905006.D

Sample : Diesel - 4 9/5/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905007.D Vial: 7  
 Acq On : 9-5-18 14:51:56 Operator: DP  
 Sample : Diesel - 5 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

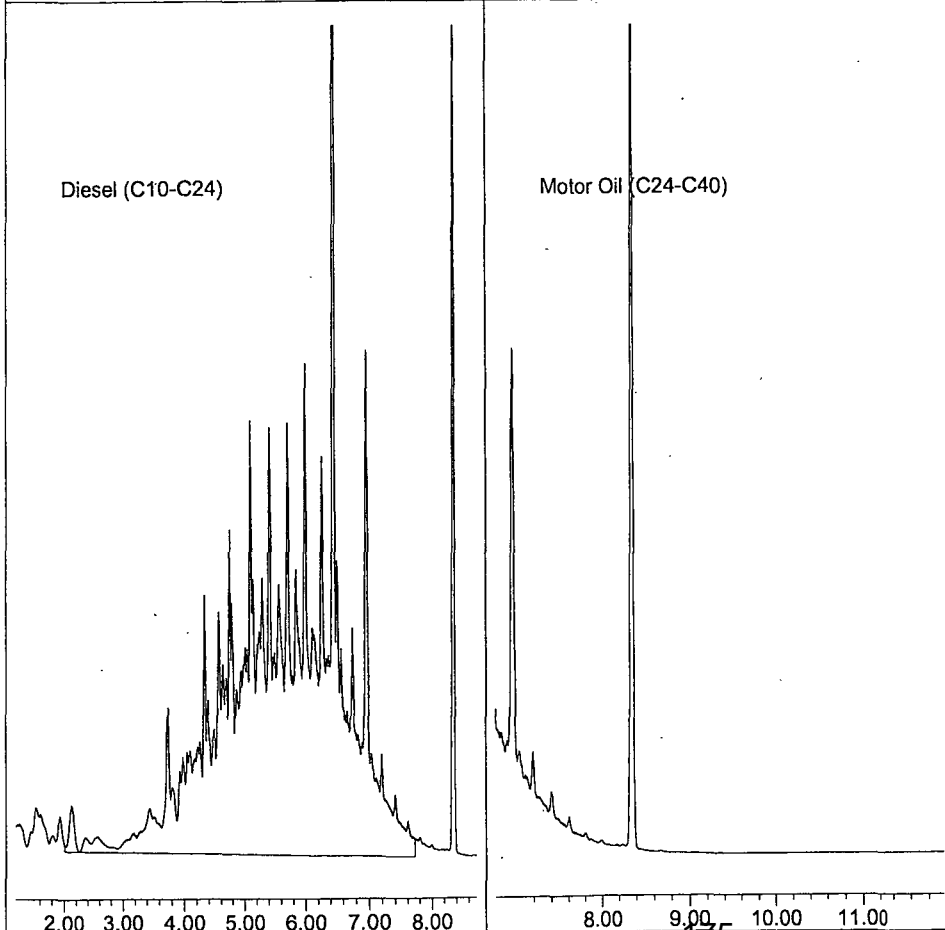
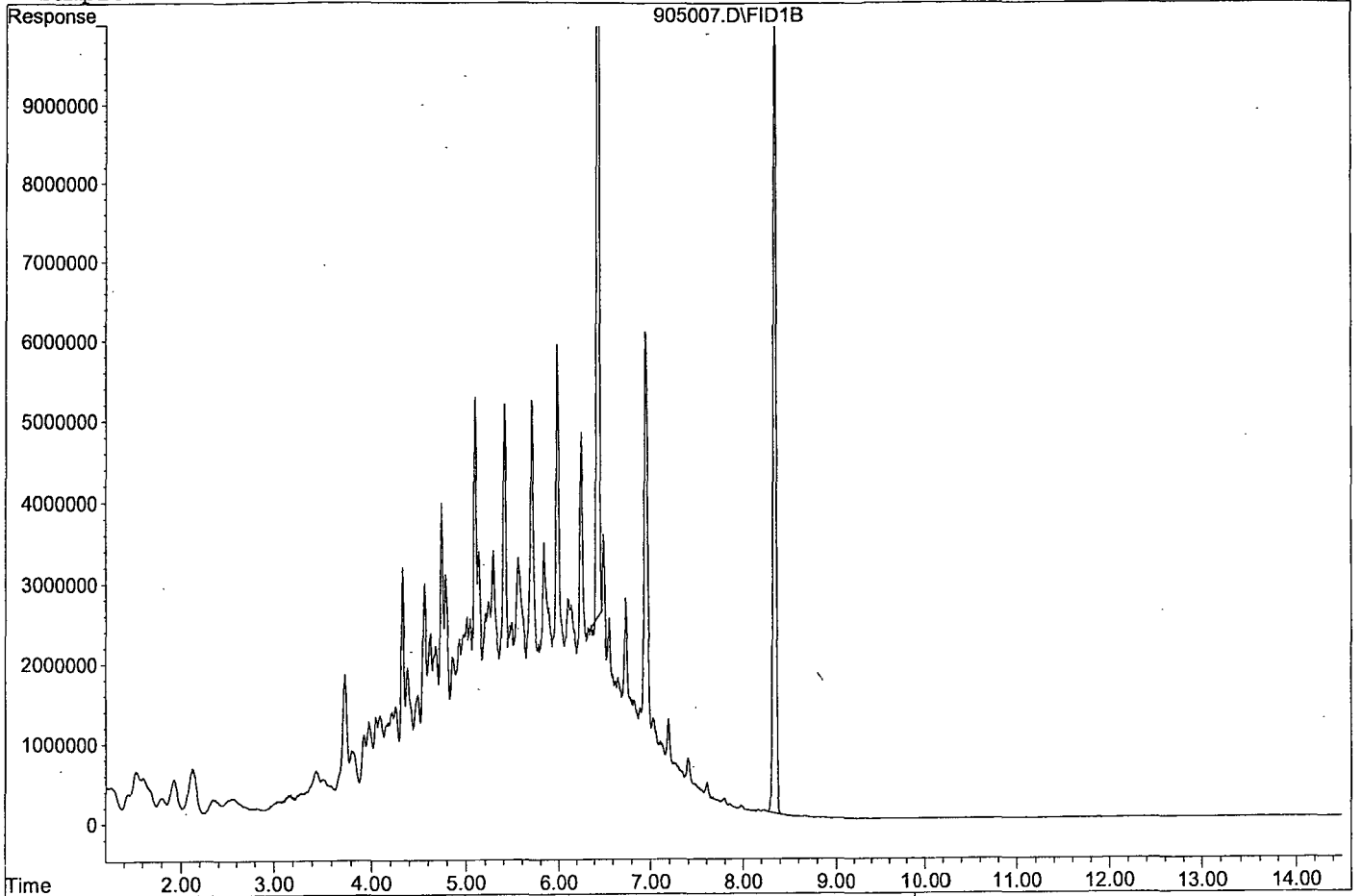
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.45	260146116	67.175 ppb
Surrogate Spike 30.000		Recovery =	223.92%
5) SA Octacosane(S)	8.35	234144102	72.493 ppb
Surrogate Spike 30.000		Recovery =	241.64%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	4675608367	1426.710 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905007.D

Sample : Diesel - 5 9/5/18





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905008.D Vial: 8  
 Acq On : 9-5-18 15:11:58 Operator: DP  
 Sample : Diesel - 6 9/5/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

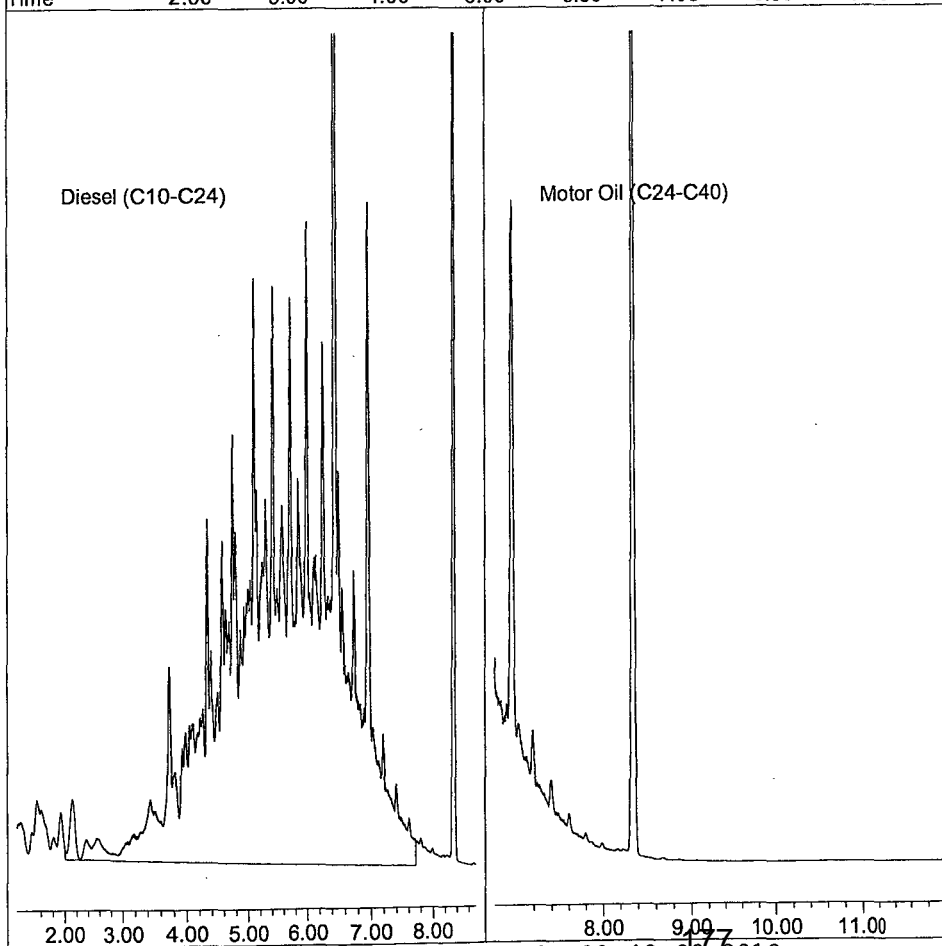
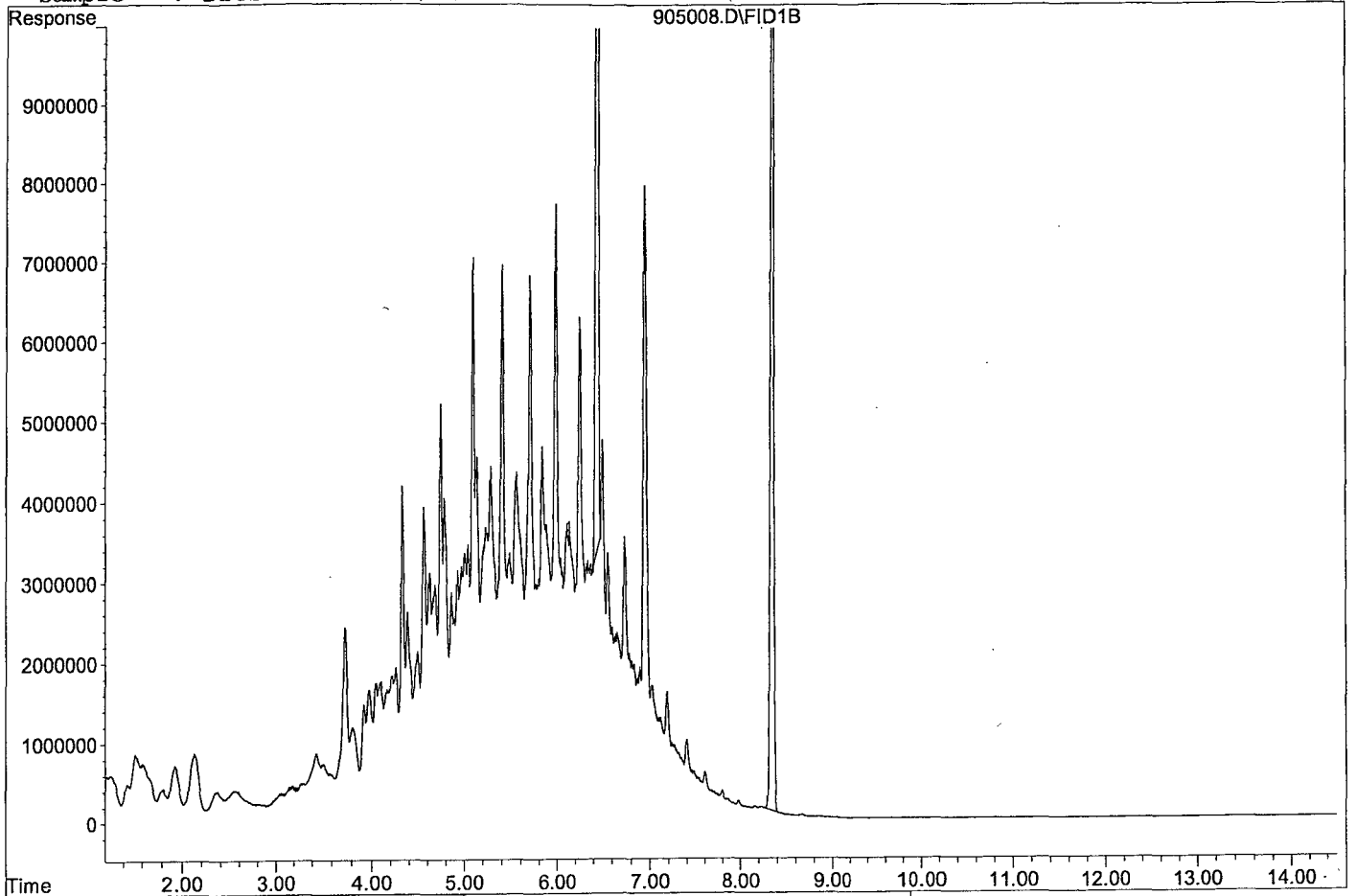
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.45	343927438	88.809 ppb
Surrogate Spike 30.000		Recovery =	296.03%
5) SA Octacosane(S)	8.35	310020200	95.985 ppb
Surrogate Spike 30.000		Recovery =	319.95%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	6234861442	1902.499 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905008.D

Sample : Diesel - 6 9/5/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905010.D Vial: 10  
 Acq On : 9-5-18 15:52:08 Operator: DP  
 Sample : Motor Oil - 1 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

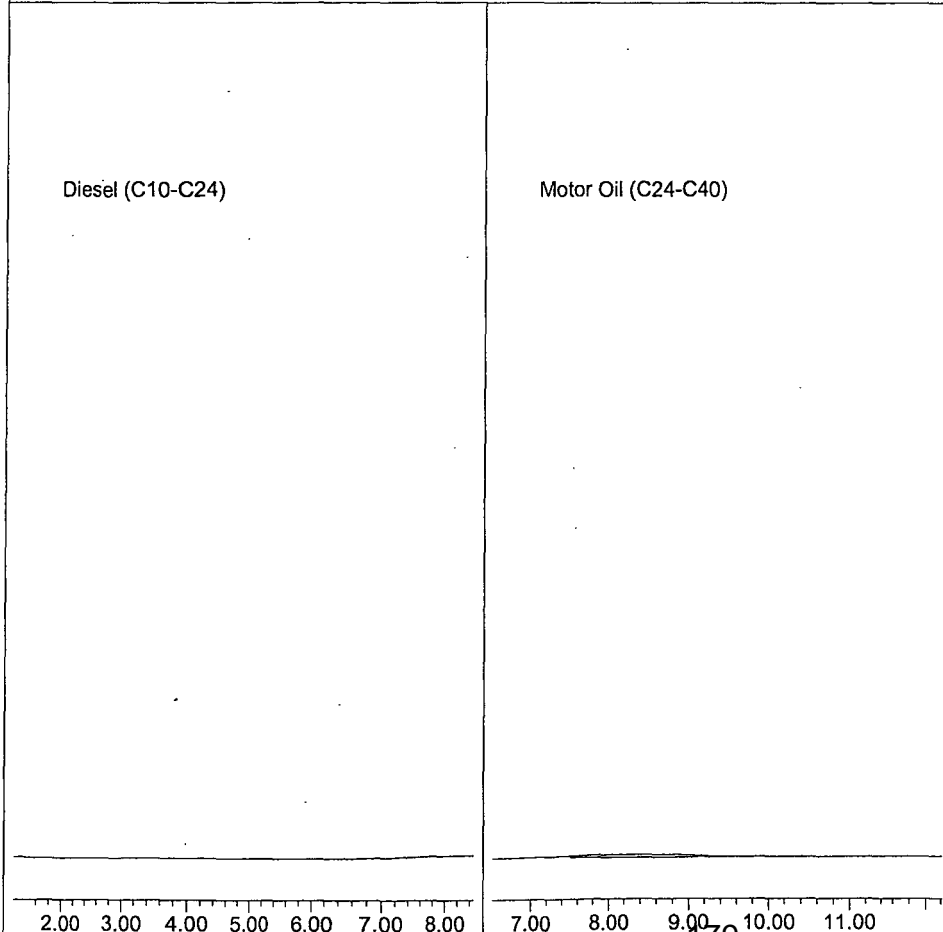
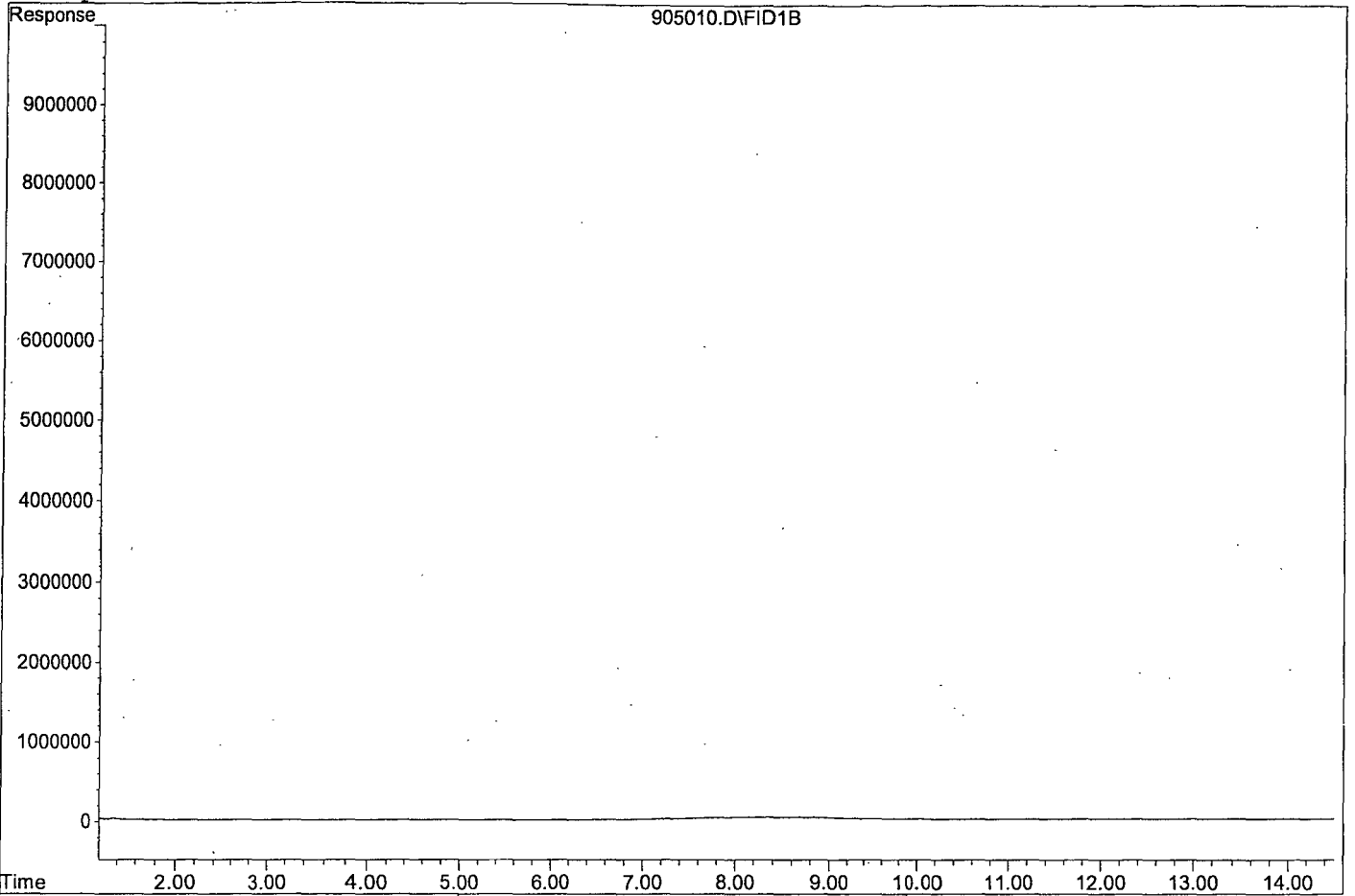
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	32653584	11.764 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905010.D

Sample : Motor Oil - 1 9/5/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905011.D Vial: 11  
Acq On : 9-5-18 16:12:11 Operator: DP  
Sample : Motor Oil - 2 9/5/18 Inst : Apollo  
Misc : Mix(B) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
Title : 8015 B&C  
Last Update : Tue Sep 25 13:45:30 2018  
Response via : Multiple Level Calibration

Volume Inj. : 2UL  
Signal Phase : DB-5  
Signal Info : FID02A

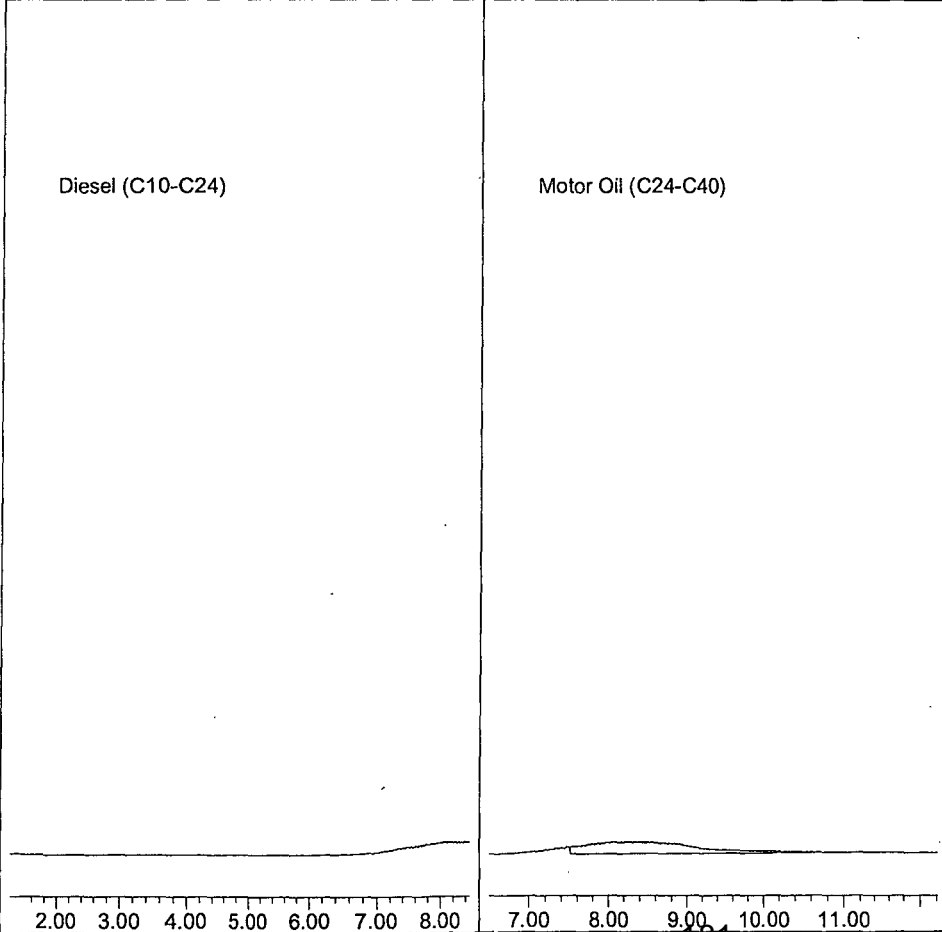
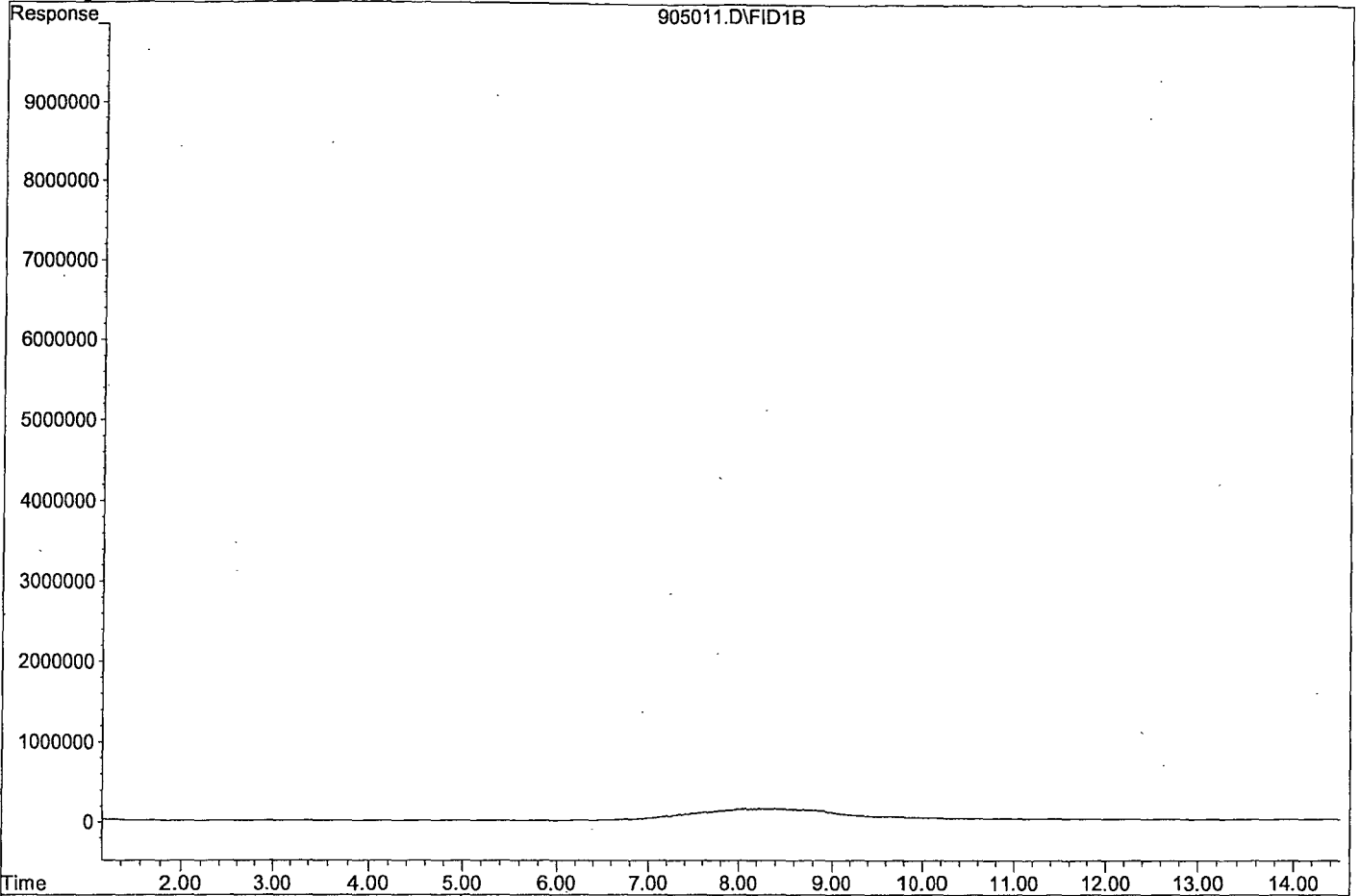
-----  
Compound R.T. Response Conc Units  
-----

System Monitoring Compounds

Target Compounds  
2) HBTM Motor Oil (C24-C40) 9.36 144232897 51.961 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905011.D  
Sample : Motor Oil - 2 9/5/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905012.D Vial: 12  
 Acq On : 9-5-18 16:32:11 Operator: DP  
 Sample : Motor Oil - 3 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

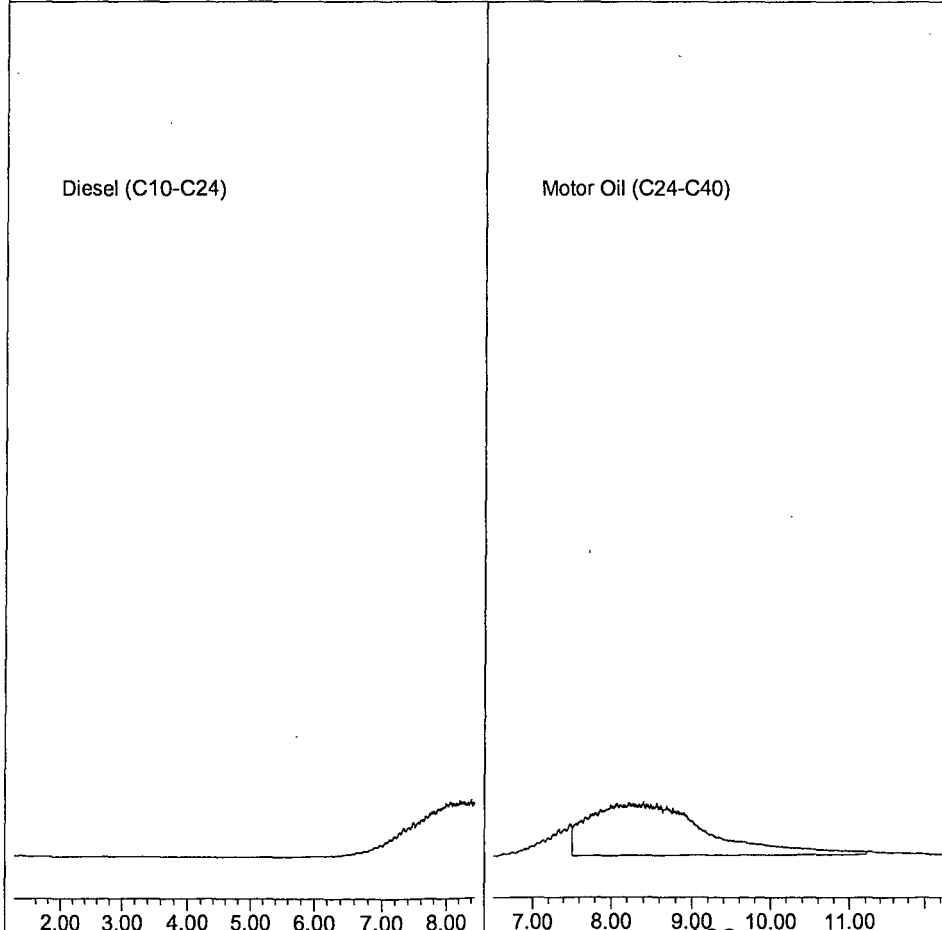
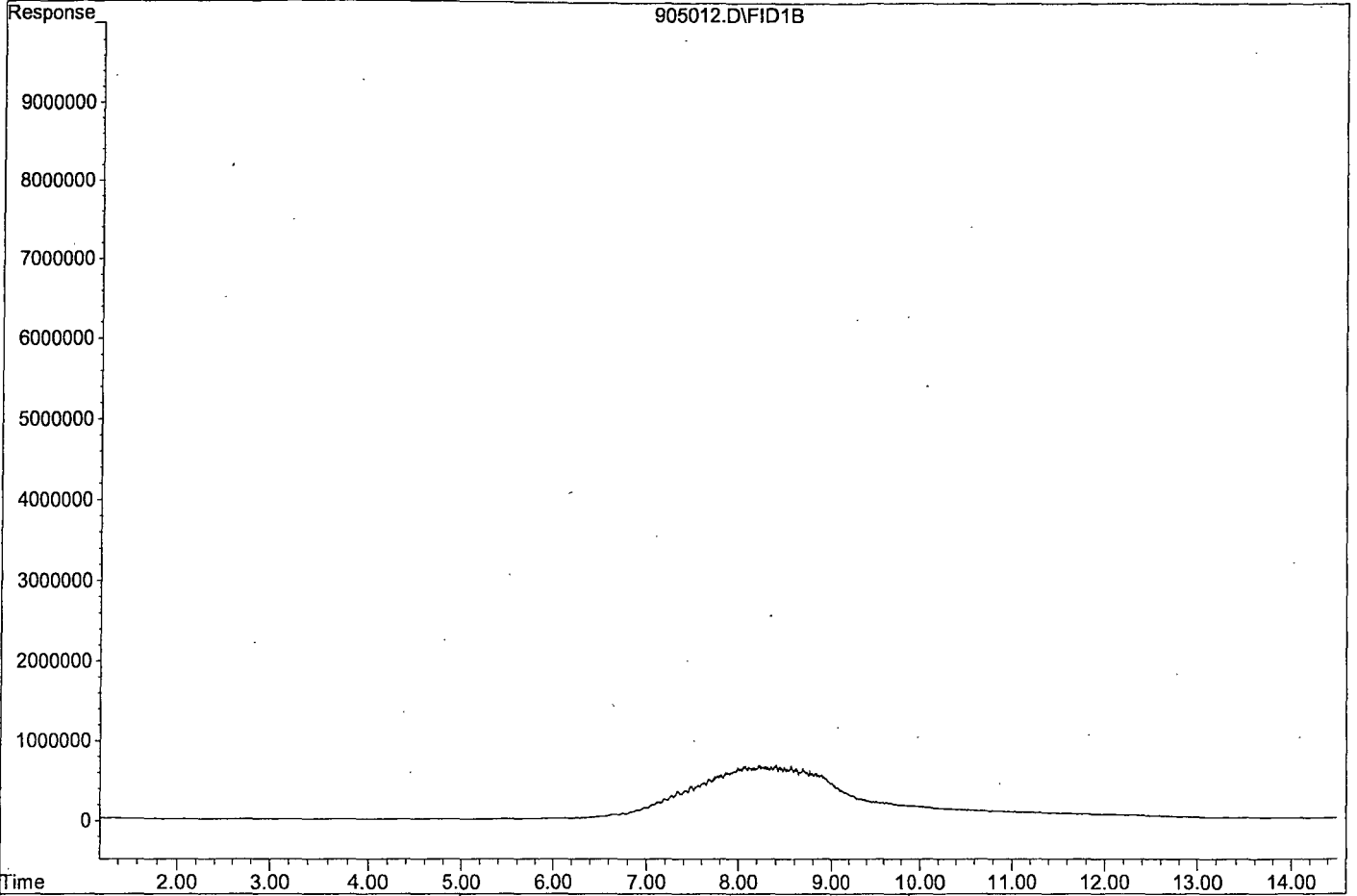
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	640853647	230.874 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905012.D

Sample : Motor Oil - 3 9/5/18





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905013.D Vial: 13  
Acq On : 9-5-18 16:52:14 Operator: DP  
Sample : Motor Oil - 4 9/5/18 Inst : Apollo  
Misc : Mix(B) Multiplr: 1.00  
IntFile : events.e  
Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
Title : 8015 B&C  
Last Update : Tue Sep 25 13:45:30 2018  
Response via : Multiple Level Calibration

Volume Inj. : 2UL  
Signal Phase : DB-5  
Signal Info : FID02A

-----  
Compound R.T. Response Conc Units  
-----

System Monitoring Compounds

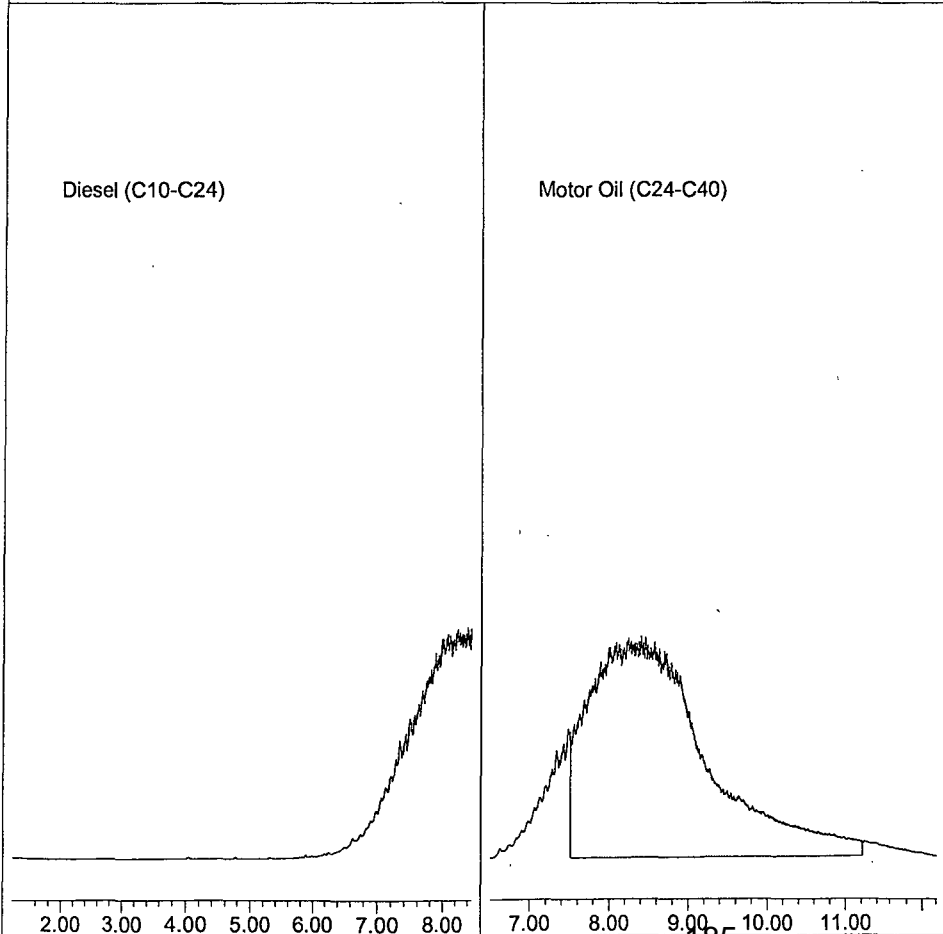
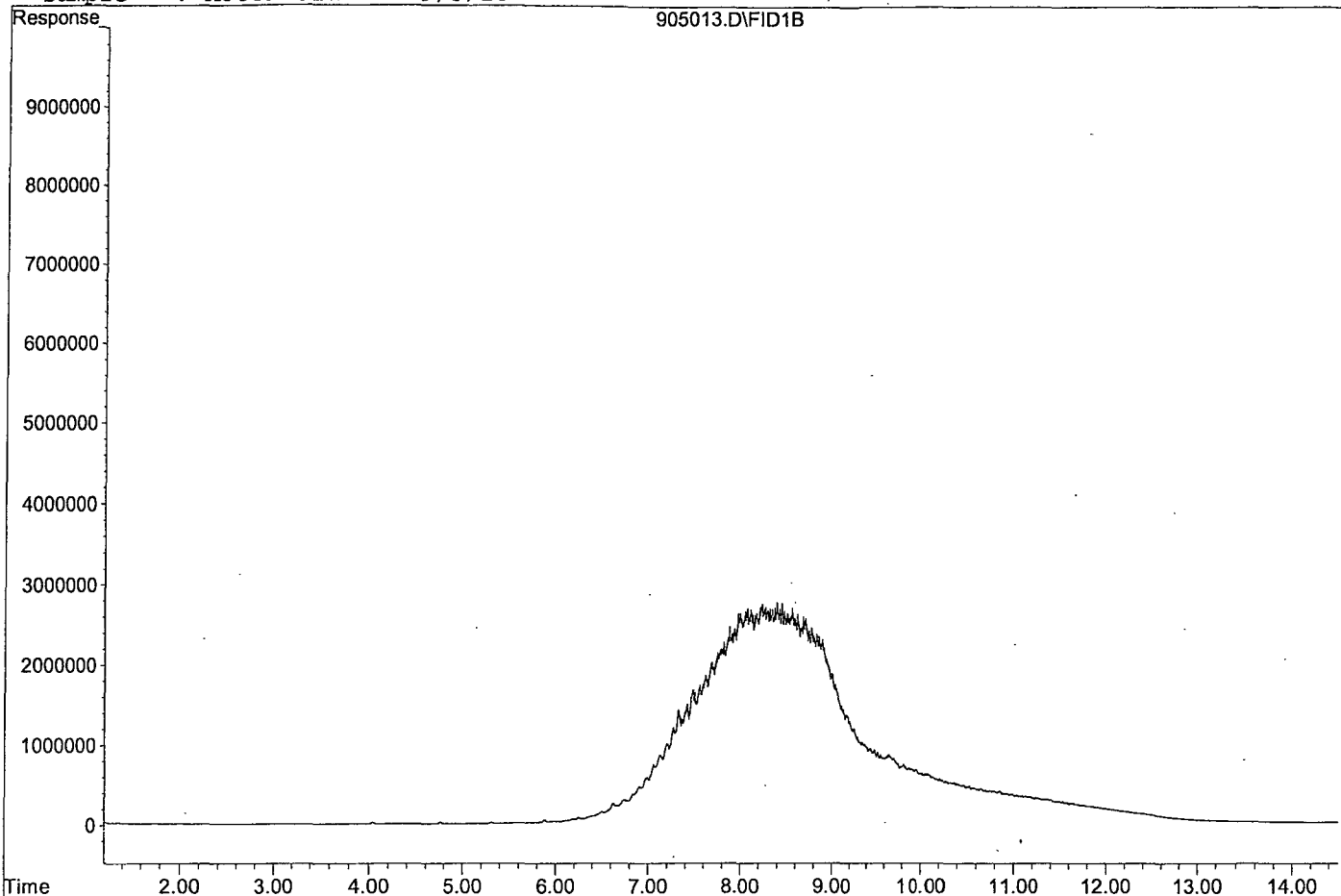
Target Compounds

2) HBTM Motor Oil (C24-C40) 9.36 2671114888 962.297 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905013.D

Sample : Motor Oil - 4 9/5/18



Data File : G:\APOLLO\DATA\180905\905014.D Vial: 14  
 Acq On : 9-5-18 17:12:14 Operator: DP  
 Sample : Motor Oil - 5 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

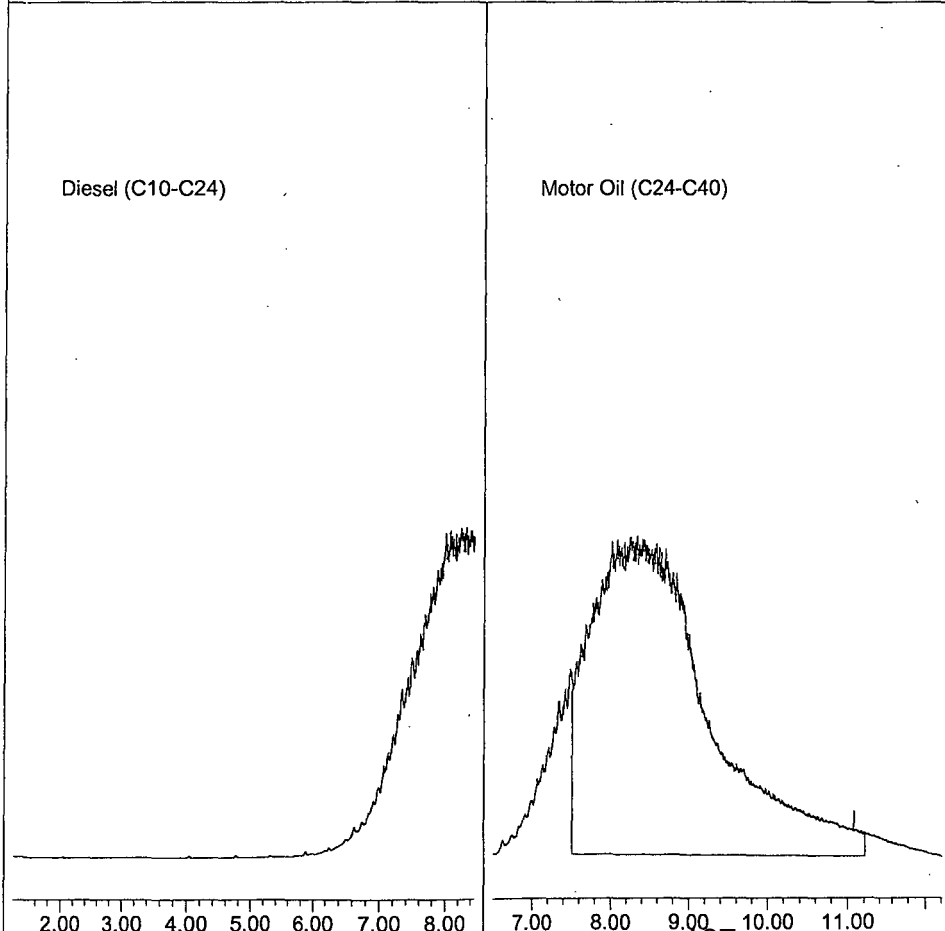
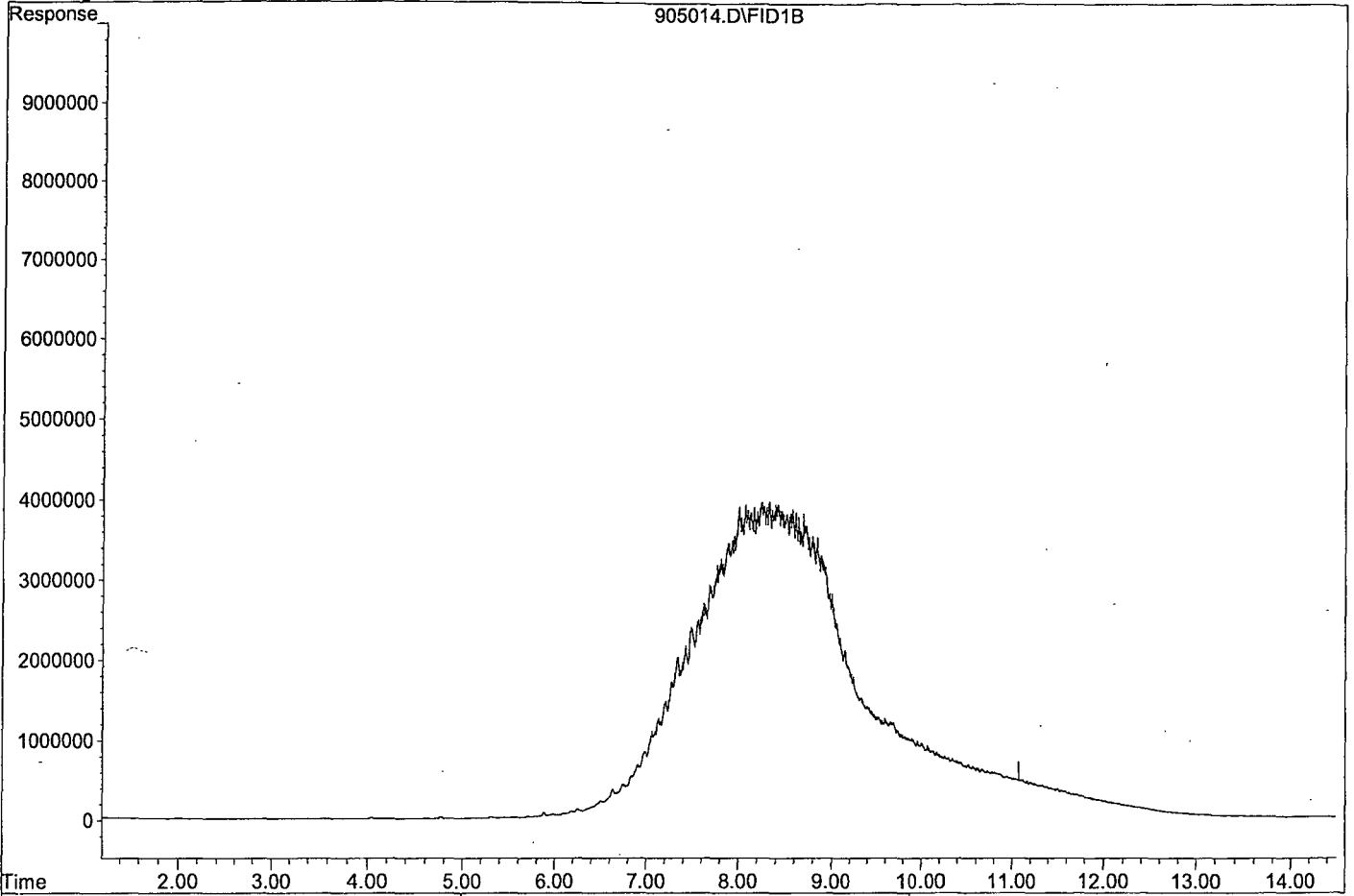
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	3915465455	1410.588 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905014.D

Sample : Motor Oil - 5 9/5/18



Data File : G:\APOLLO\DATA\180905\905015.D Vial: 15  
 Acq On : 9-5-18 17:31:25 Operator: DP  
 Sample : Motor Oil - 6 9/5/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:49 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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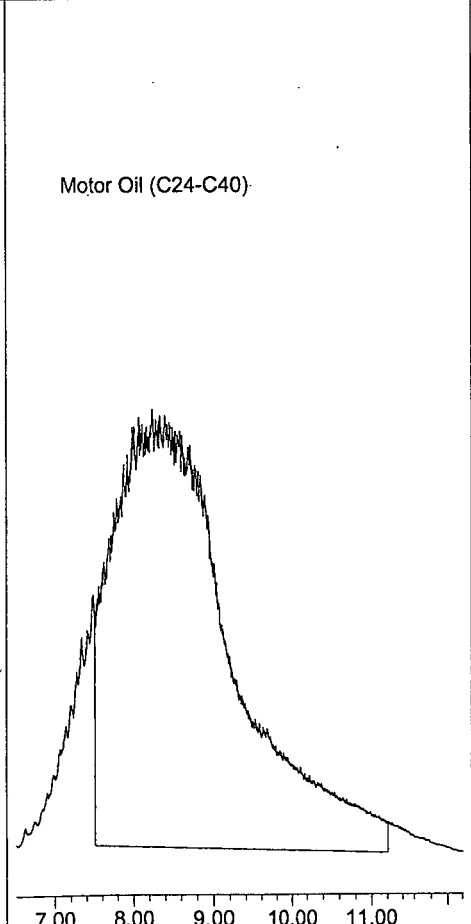
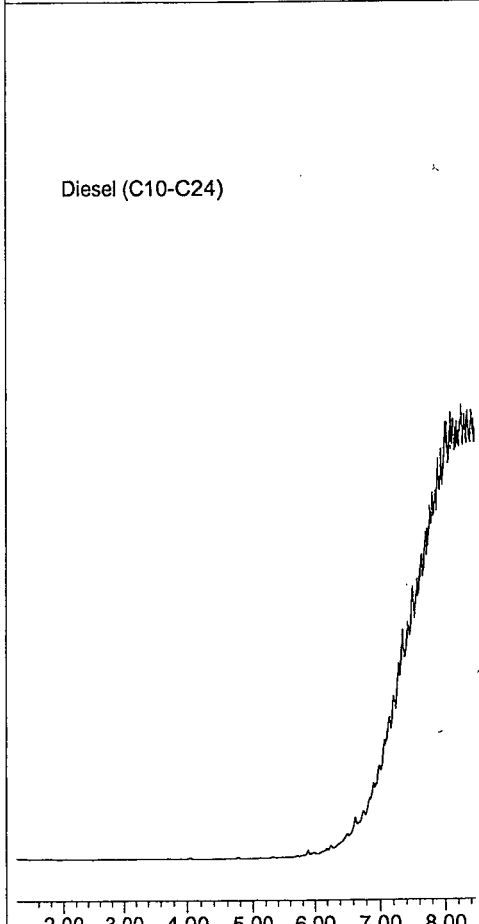
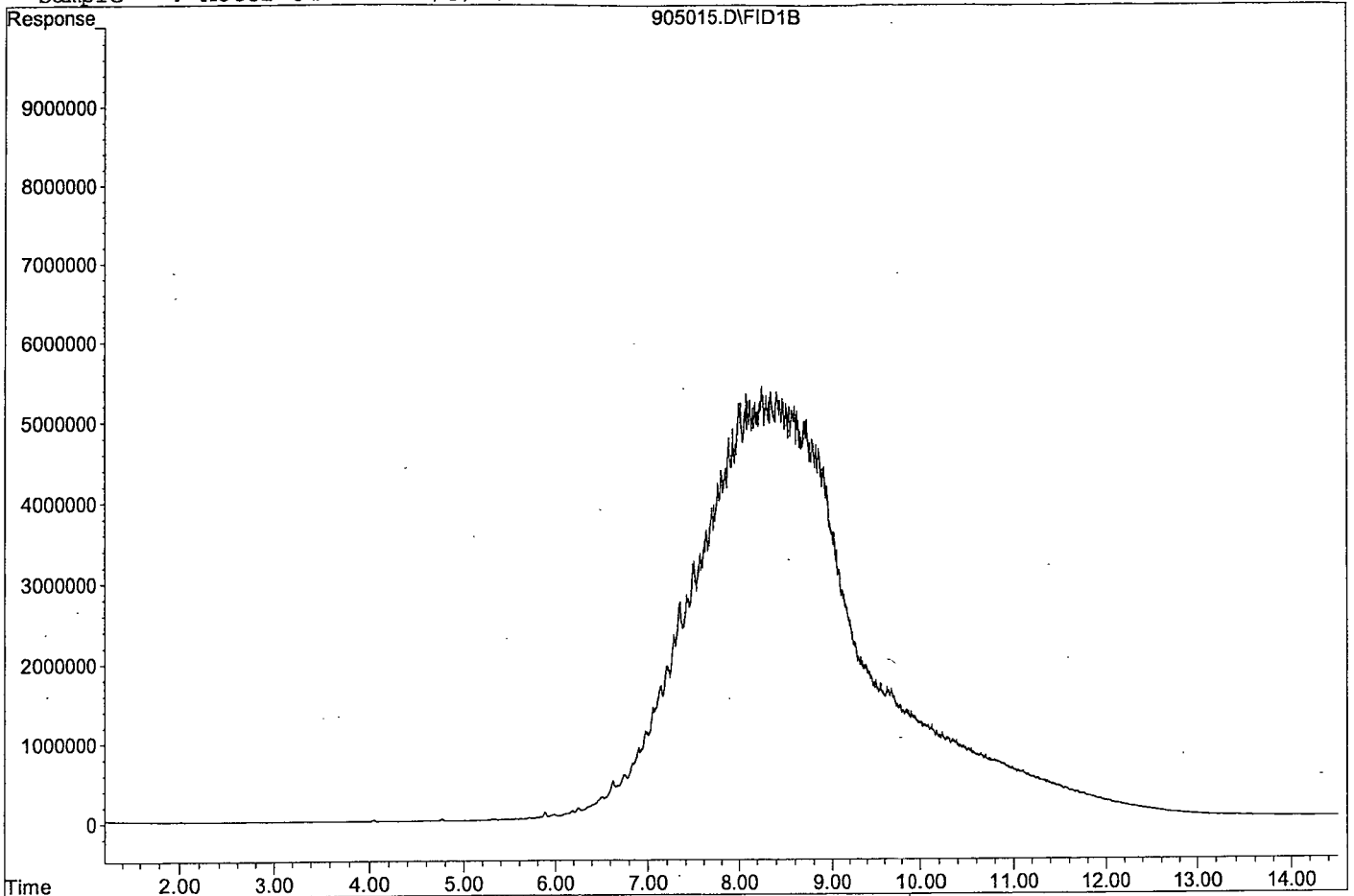
System Monitoring Compounds

Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	5319513396	1916.411 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\180905\905015.D  
Sample : Motor Oil - 6 9/5/18



TPH Extractables  
DOC0905

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 09/05/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 905009.D    905016.D  
                 Diesel                    Motor Oil

		Compound	MEAN	CCRF	%D	%Drift
1	HATM	Diesel (C10-C24)	1638600	1644000	0.33	HATM
2	HBTM	Motor Oil (C24-C40)	1387880	1237490	11	HBTM
3						
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39						
40						

Average

5.7

Data File : G:\APOLLO\DATA\180905\905009.D Vial: 9  
 Acq On : 9-5-18 15:32:03 Operator: DP  
 Sample : Diesel - SS 8/2/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

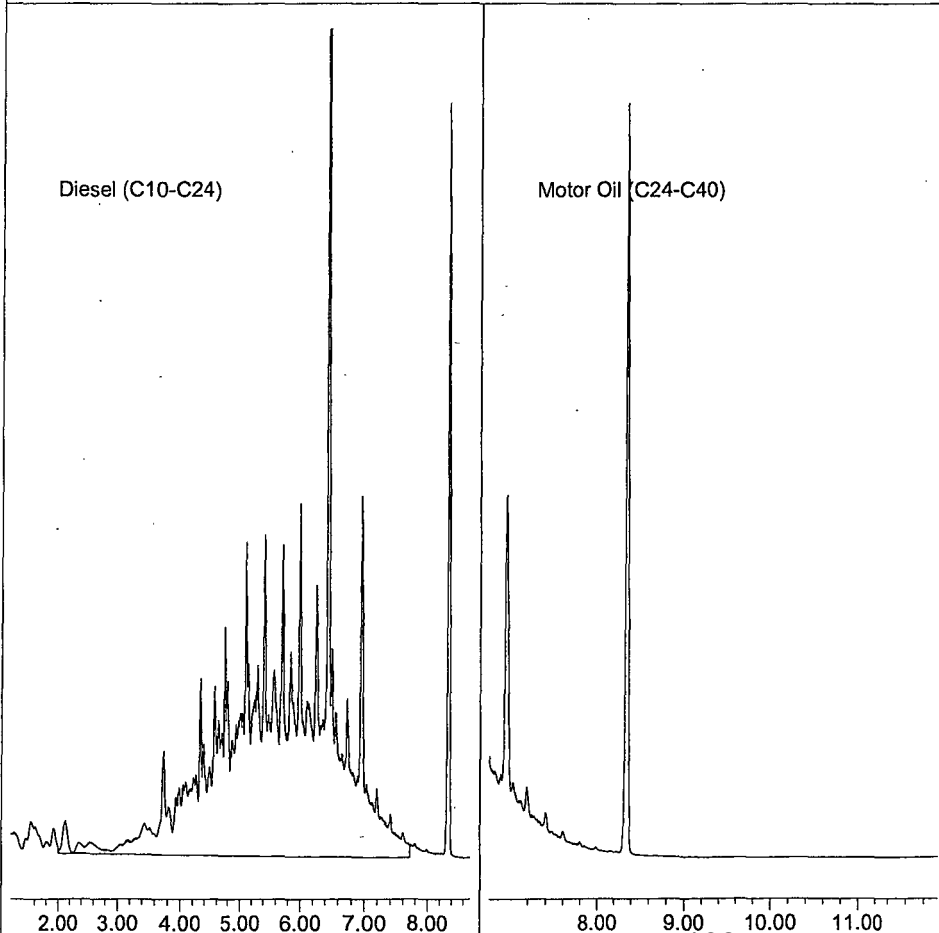
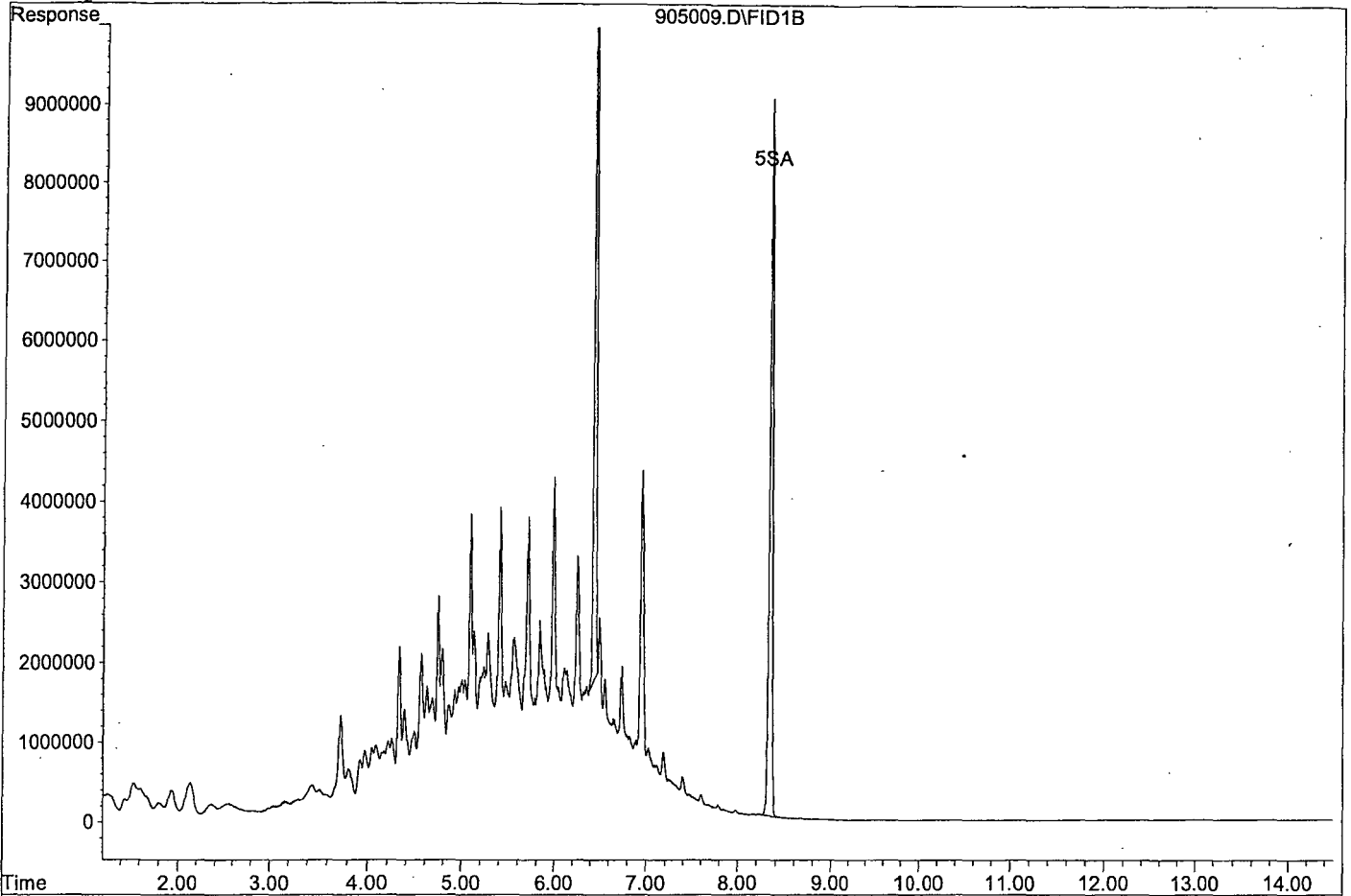
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.44	189576923	48.953 ppb
Surrogate Spike 30.000		Recovery =	163.18%
5) SA Octacosane(S)	8.35	191937049	59.426 ppb
Surrogate Spike 30.000		Recovery =	198.09%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	3287993103	1003.295 ppb



Quantitation Report

Data File: G:\APOLLO\DATA\180905\905009.D

Sample : Diesel - SS 8/2/18



Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\180905\905016.D Vial: 16  
 Acq On : 9-5-18 17:51:24 Operator: DP  
 Sample : Motor Oil - SS 7/13/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Sep 25 12:48 2018 Quant Results File: DOC0905.RES

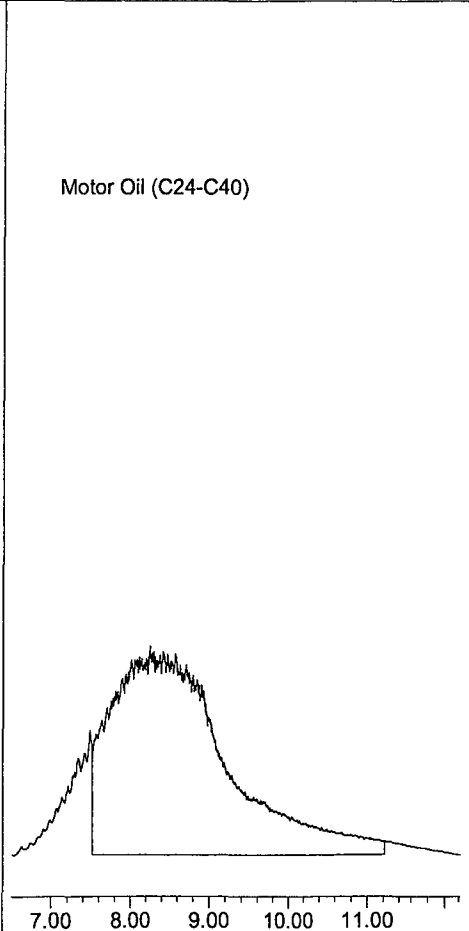
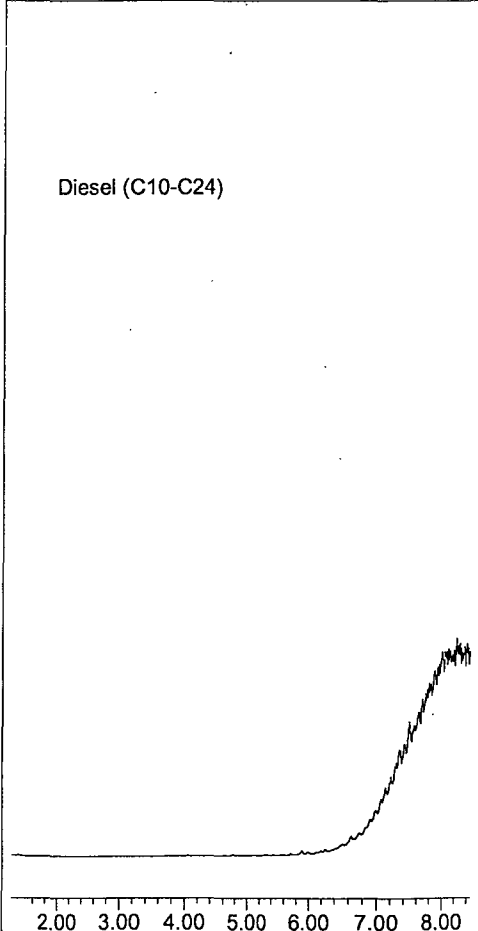
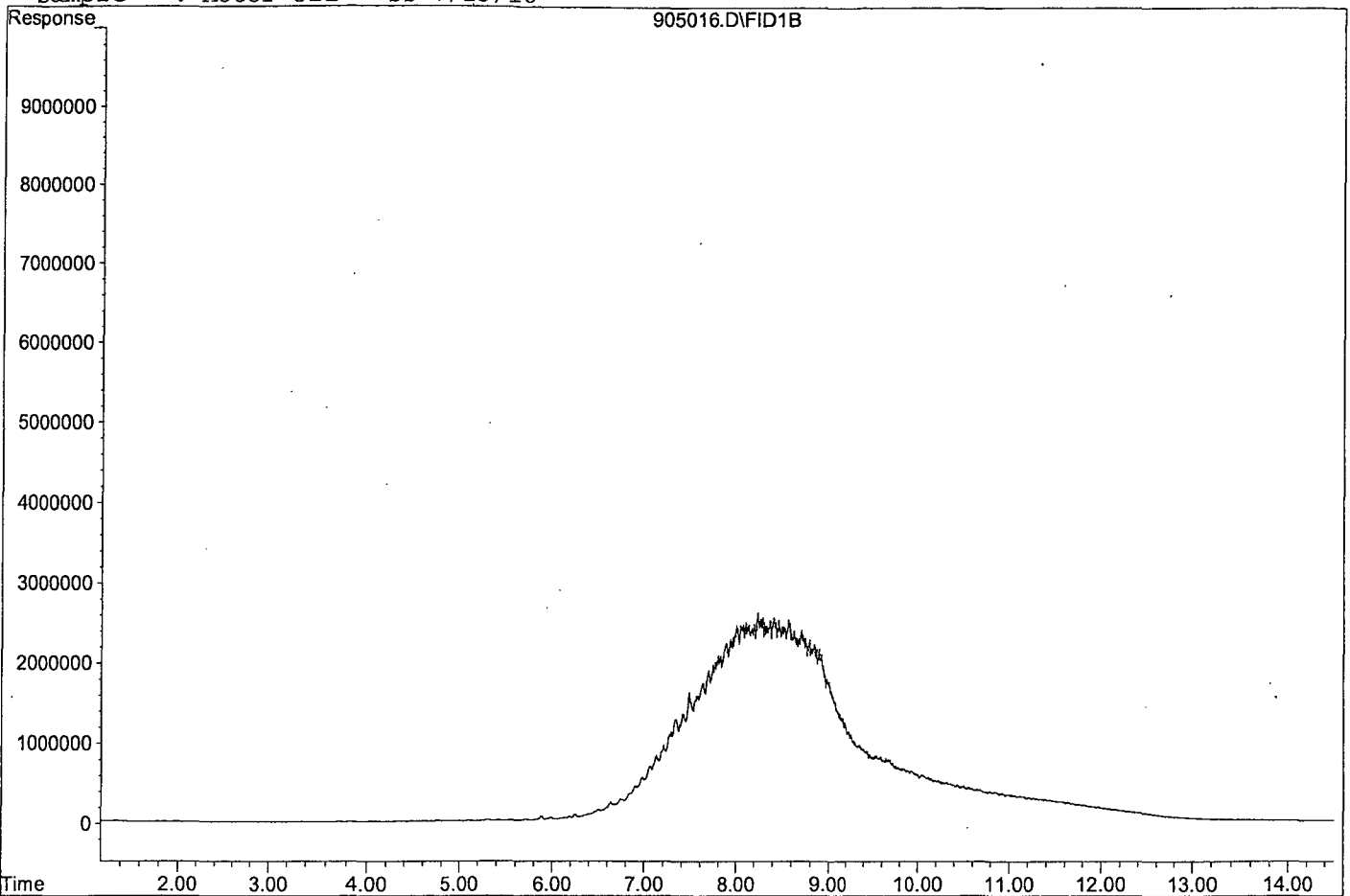
Method : G:\APOLLO\DATA\180905\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Tue Sep 25 13:45:30 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	2474981428	891.638 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\180905\905016.D  
Sample : Motor Oil - SS 7/13/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/31/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1031002-3.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1696100	3.5	HATM
2	SA Ortho-Terphenyl(S)	1936320	2050630	5.9	SA
3	SA Octacosane(S)	1614940	1660800	2.8	SA
4	HBTM Motor Oil (C24-C40)	1387880	1269490	8.5	HBTM
5					
6					
7					
8					
9					
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11					
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37					
38					
39					
40	Average			5.2	

Data File : G:\APOLLO\DATA\181031\1031002.D Vial: 2  
 Acq On : 10-31-18 12:27:03 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Oct 31 11:43 2018 Quant Results File: DOC0905.RES

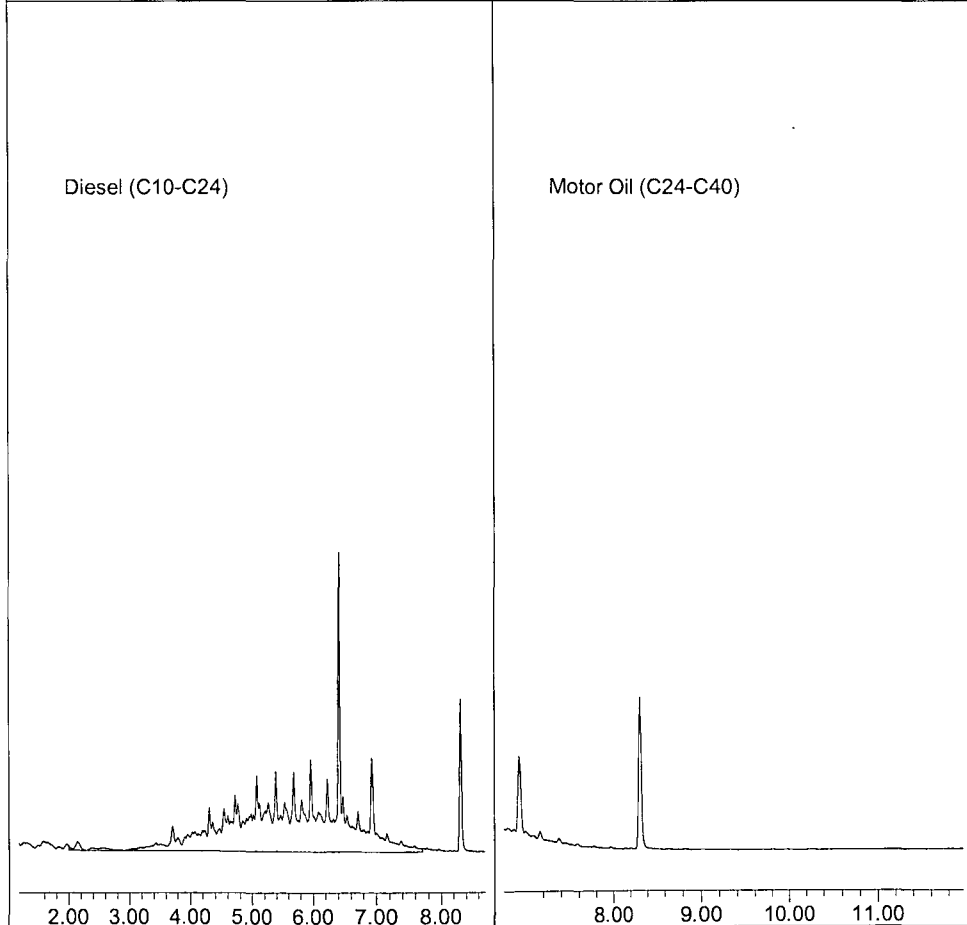
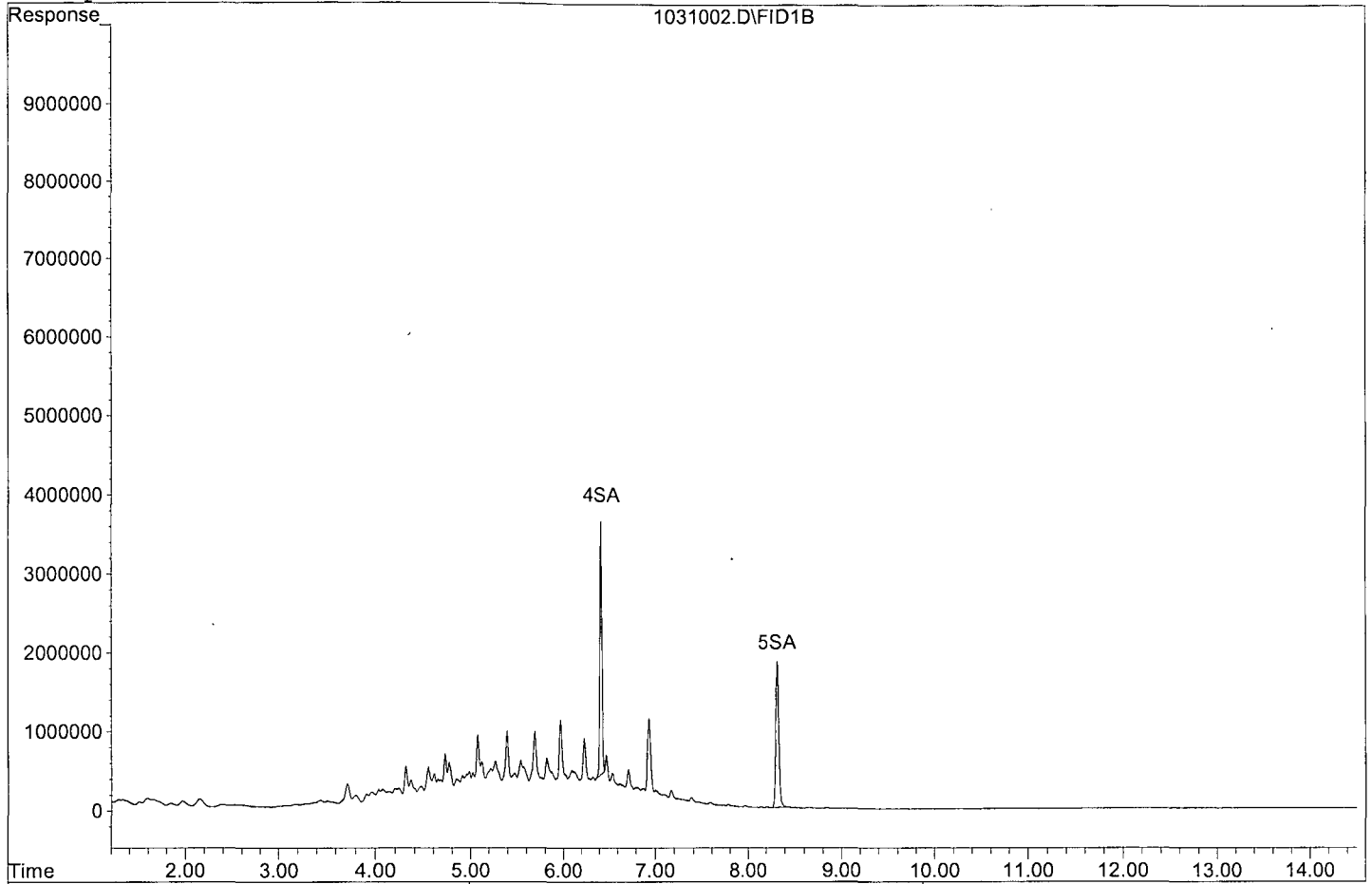
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	51265698	13.238 ppb
Surrogate Spike 30.000		Recovery =	44.13%
5) SA Octacosane(S)	8.32	41519886	12.855 ppb
Surrogate Spike 30.000		Recovery =	42.85%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	848049990	258.773 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031002.D  
Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181031\1031003.D Vial: 3  
 Acq On : 10-31-18 12:47:21 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Oct 31 12:02 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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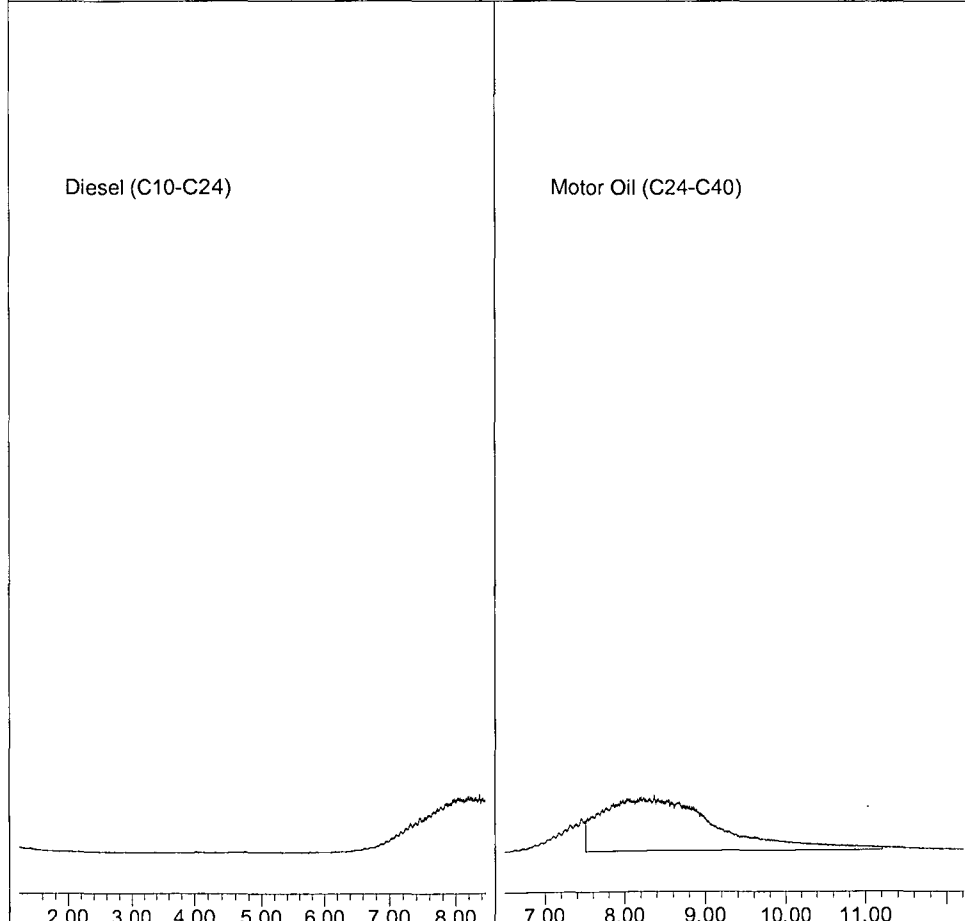
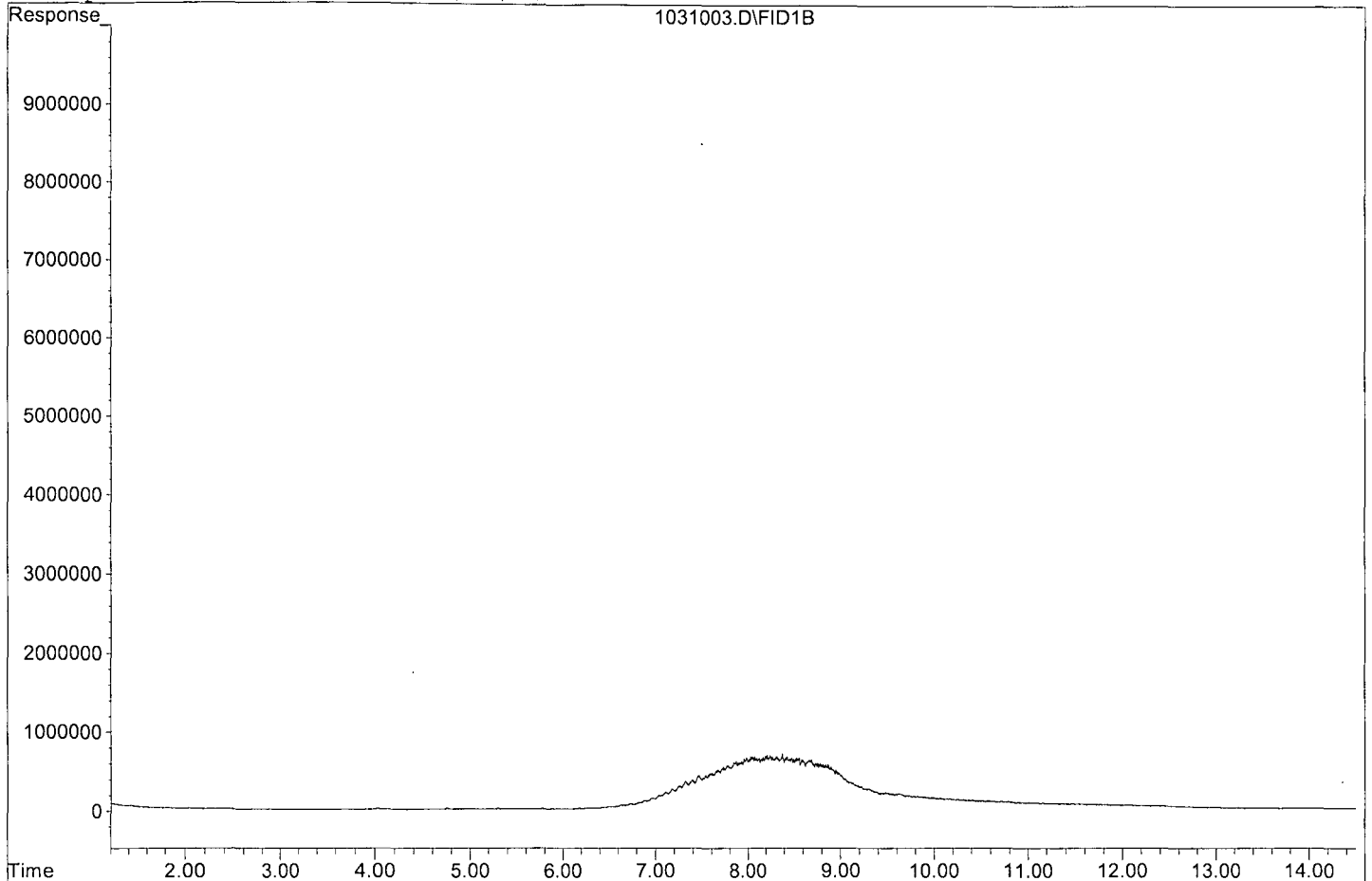
System Monitoring Compounds

Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	634742927	228.673 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031003.D  
Sample : Motor Oil - 3 10/15/18





TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/31/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1031014-15.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1723880	5.2	HATM
2	SA Ortho-Terphenyl(S)	1936320	2055650	6.2	SA
3	SA Octacosane(S)	1614940	1694270	4.9	SA
4	HBTM Motor Oil (C24-C40)	1387880	1342280	3.3	HBTM
5					
6					
7					
8					
9					
10					
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39					
40	Average			4.9	

Data File : G:\APOLLO\DATA\181031\1031014.D Vial: 14  
 Acq On : 10-31-18 16:24:34 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Oct 31 15:42 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

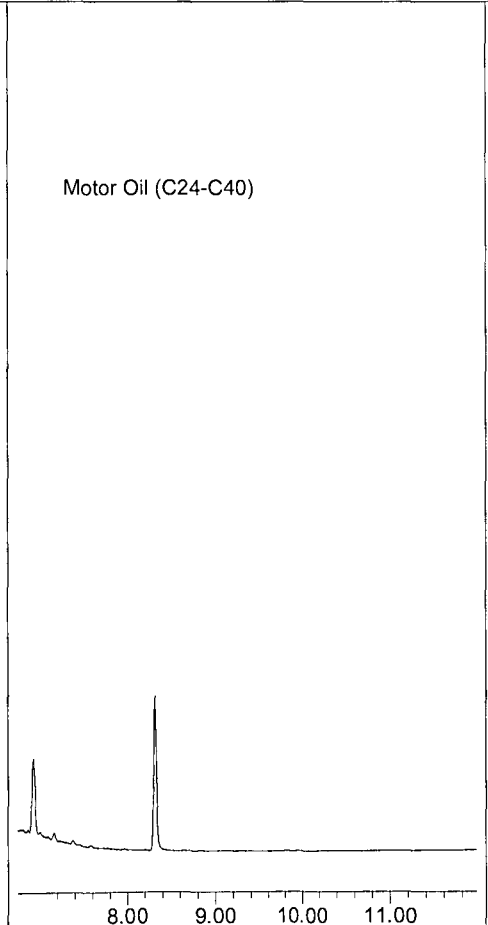
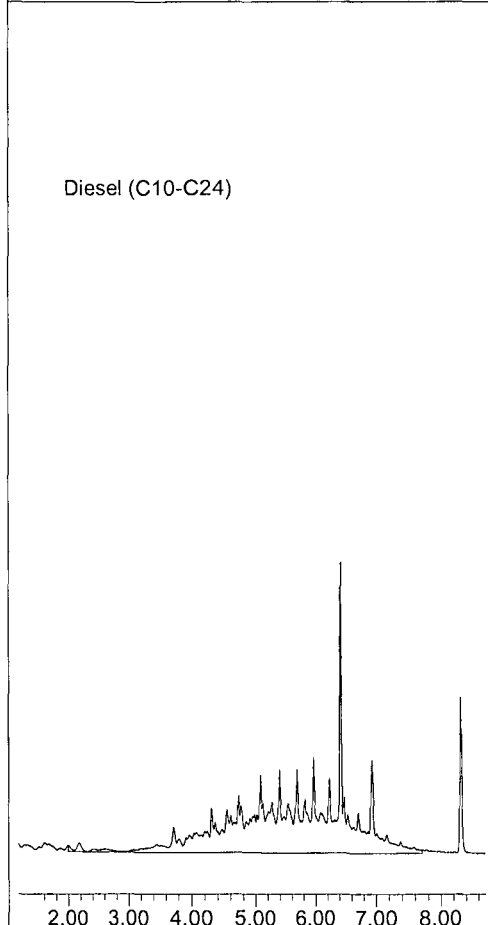
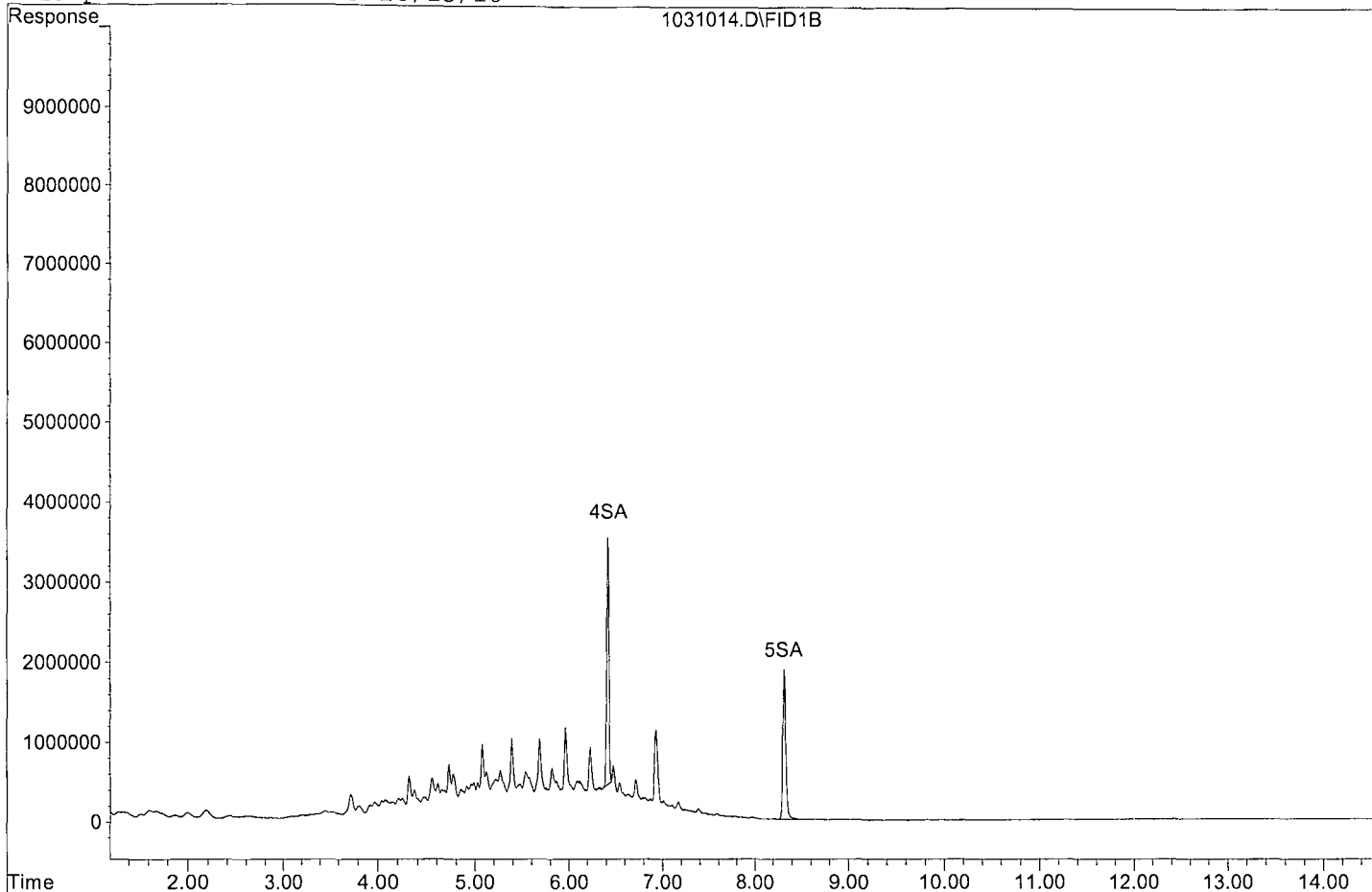
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	51391263	13.270 ppb
Surrogate Spike 30.000		Recovery =	44.23%
5) SA Octacosane(S)	8.32	42356741	13.114 ppb
Surrogate Spike 30.000		Recovery =	43.71%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	861939931	263.011 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031014.D

Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181031\1031015.D Vial: 15  
 Acq On : 10-31-18 16:44:47 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Oct 31 16:09 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

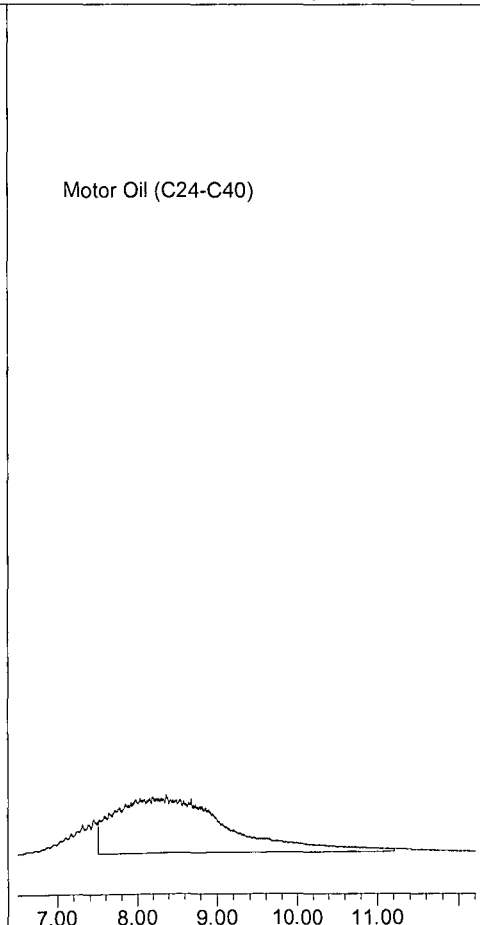
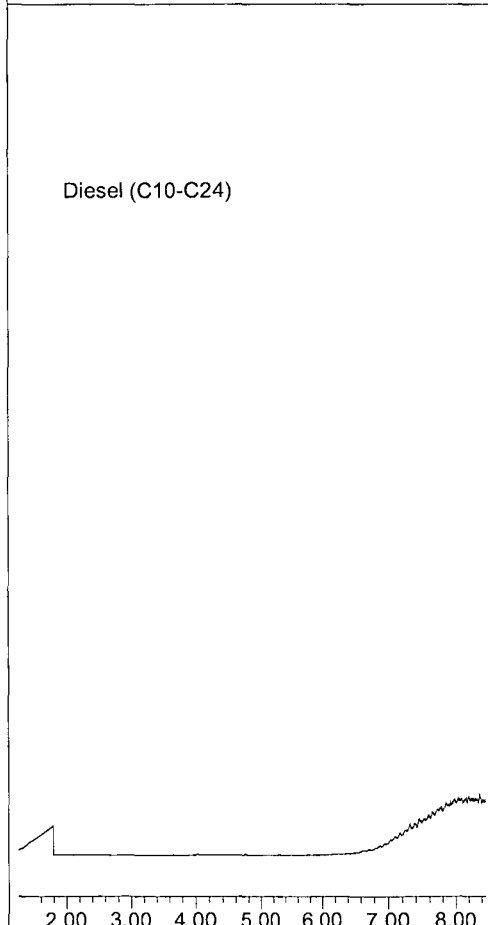
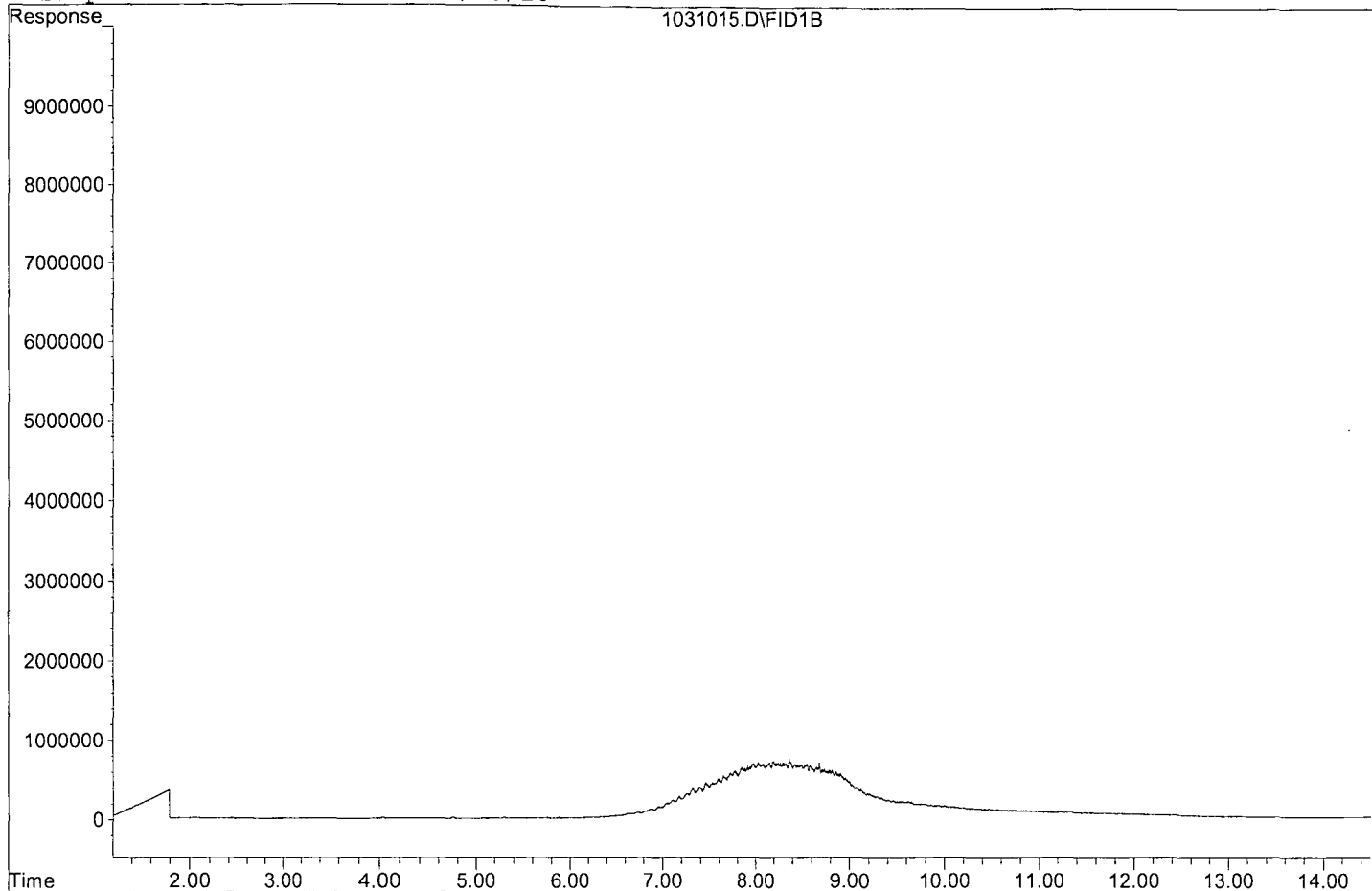
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	671139762	241.785 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031015.D

Sample : Motor Oil - 3 10/15/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/31/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1031032-33.D

		Compound	MEAN	CCRF	%D	%Drift
1	HATM	Diesel (C10-C24)	1638600	1654920	1.0	HATM
2	SA	Ortho-Terphenyl(S)	1936320	1995370	3.0	SA
3	SA	Octacosane(S)	1614940	1632970	1.1	SA
4	HBTM	Motor Oil (C24-C40)	1387880	1349090	2.8	HBTM
5						
6						
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37						
38						
39						
40		Average			2.0	

Data File : G:\APOLLO\DATA\181031\1031032.D Vial: 32  
 Acq On : 10-31-18 22:25:23 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 1 8:09 2018 Quant Results File: DOC0905.RES

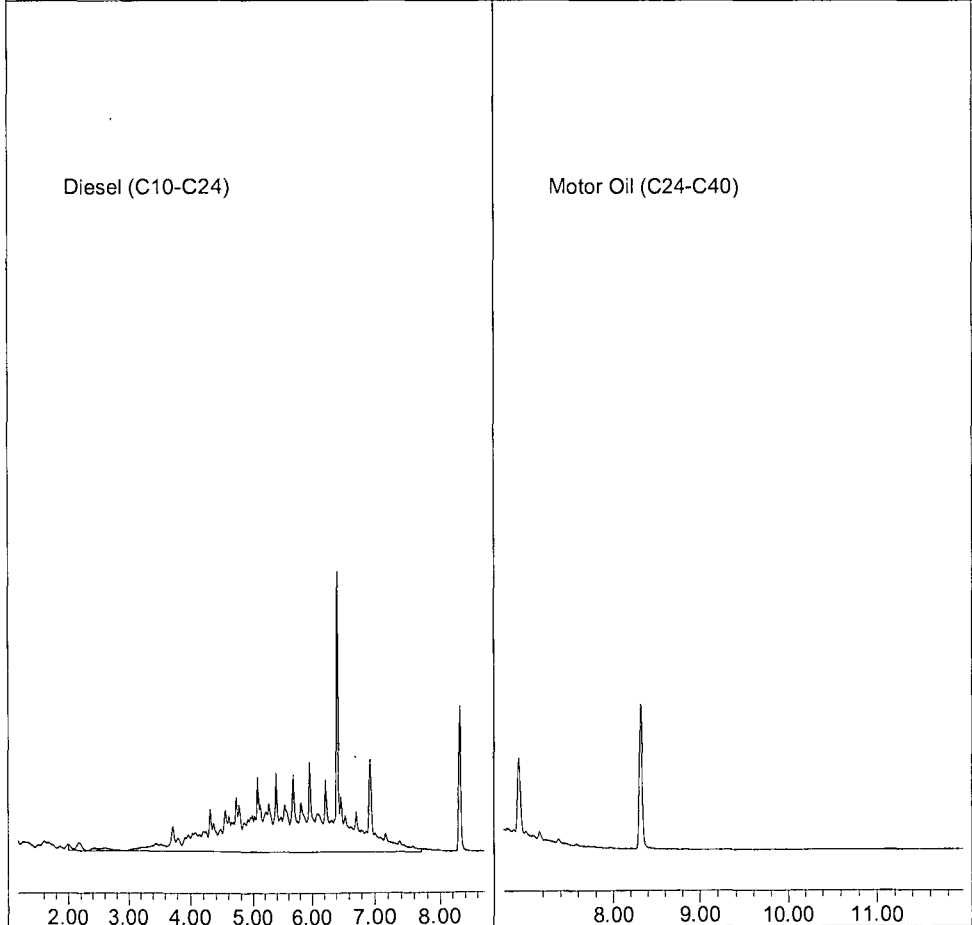
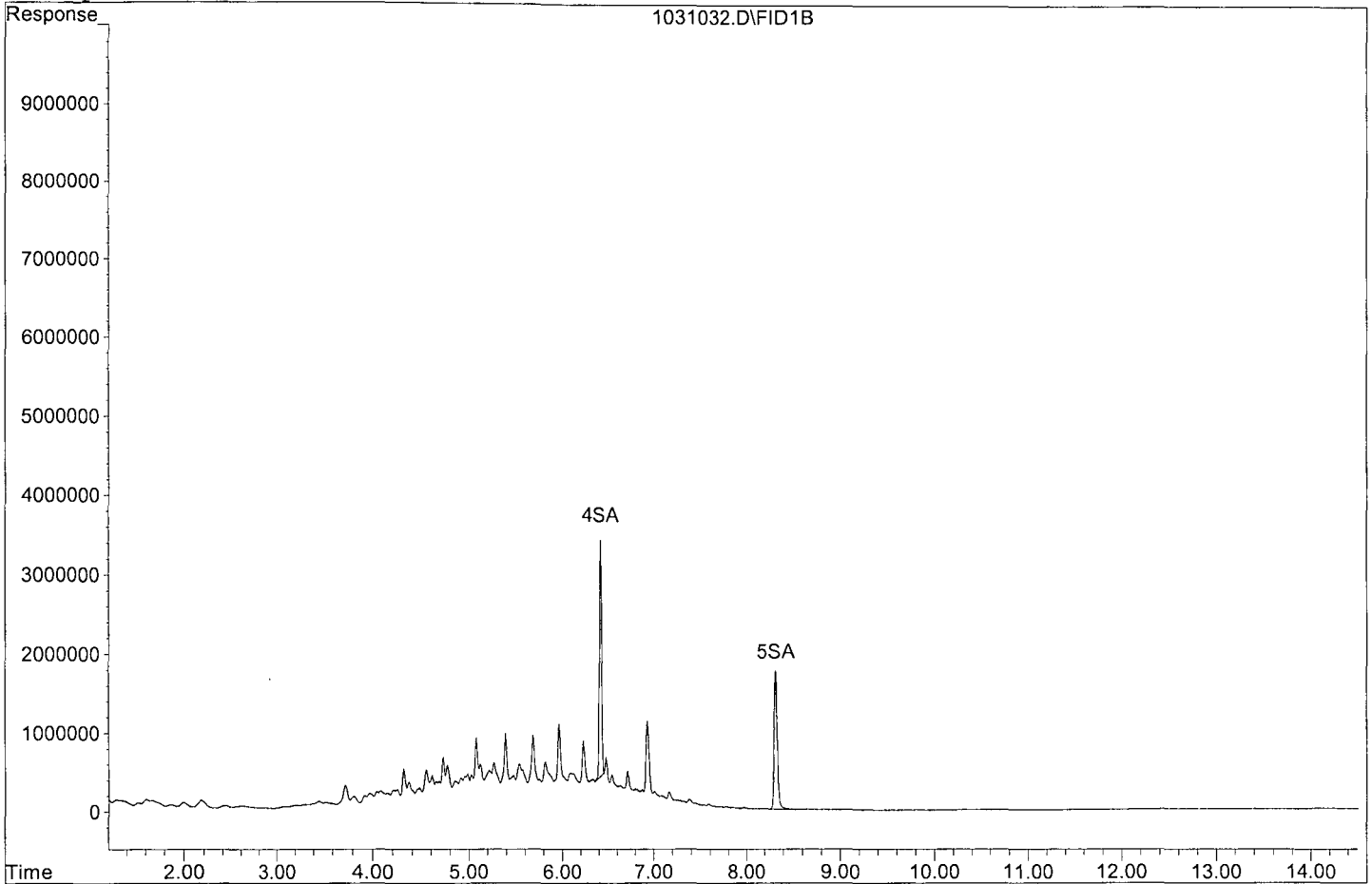
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	49884329	12.881 ppb
Surrogate Spike 30.000		Recovery =	42.94%
5) SA Octacosane(S)	8.32	40824196	12.640 ppb
Surrogate Spike 30.000		Recovery =	42.13%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	827457936	252.490 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031032.D  
Sample : Diesel - 3 10/15/18





Data File : G:\APOLLO\DATA\181031\1031033.D Vial: 33  
 Acq On : 10-31-18 22:45:19 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 1 8:09 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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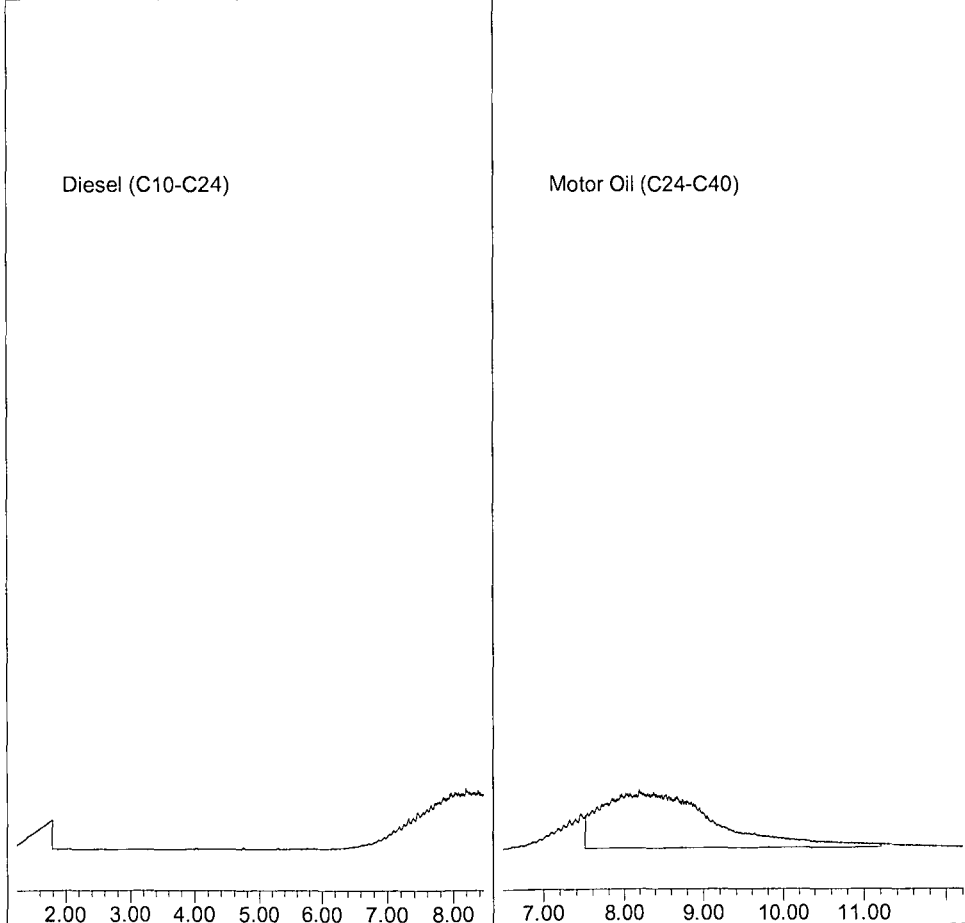
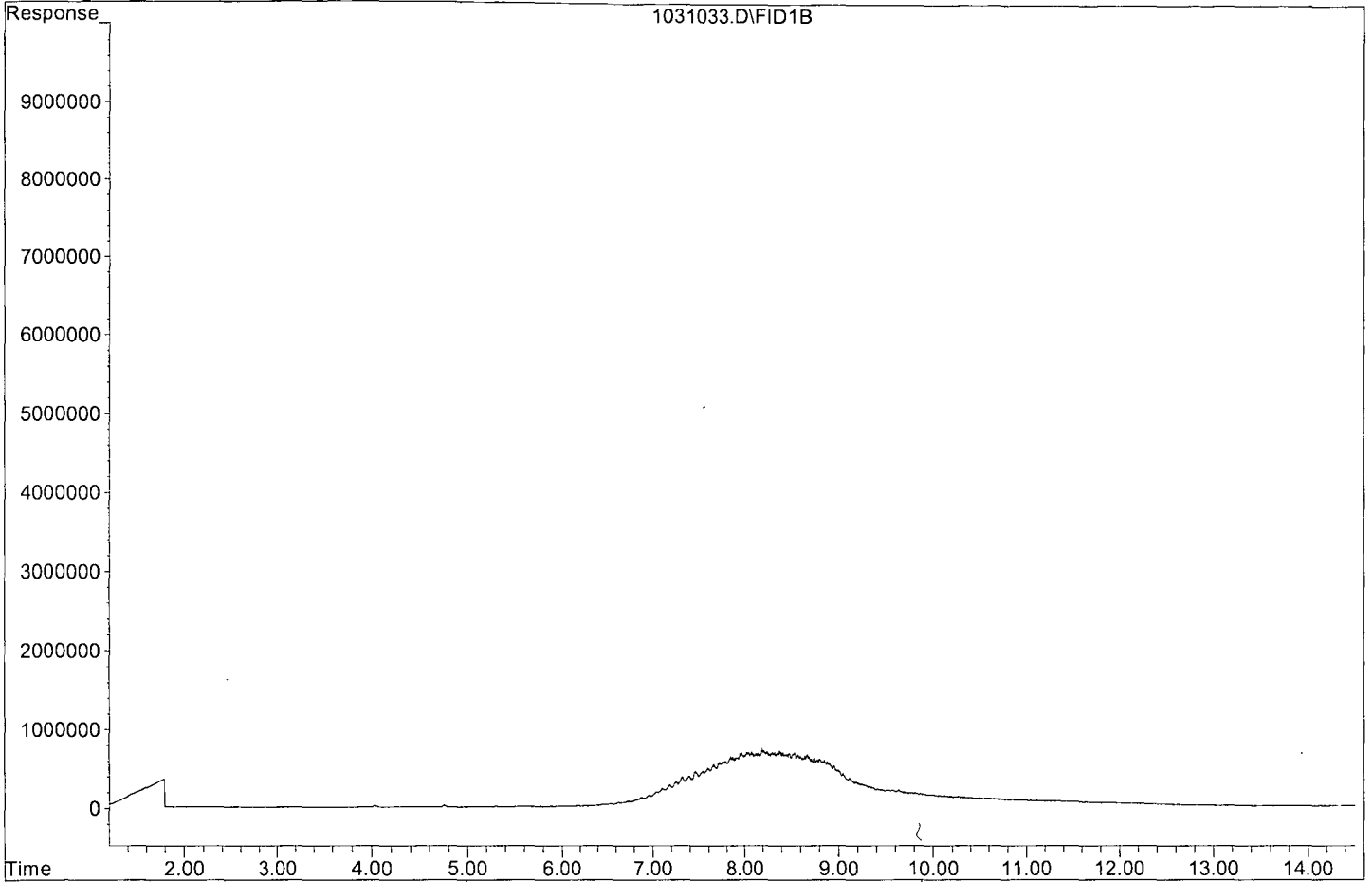
System Monitoring Compounds

Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	674543764	243.012 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031033.D  
Sample : Motor Oil - 3 10/15/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 11/07/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1107002-3.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1637300	0.08	HATM
2	SA Ortho-Terphenyl(S)	1936320	1996750	3.1	SA
3	SA Octacosane(S)	1614940	1603460	0.71	SA
4	HBTM Motor Oil (C24-C40)	1387880	1272680	8.3	HBTM
5					
6					
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35					
36					
37					
38					
39					
40	Average			3.0	

Data File : G:\APOLLO\DATA\181107\1107002.D Vial: 2  
 Acq On : 11-7-18 13:44:44 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 7 14:00 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

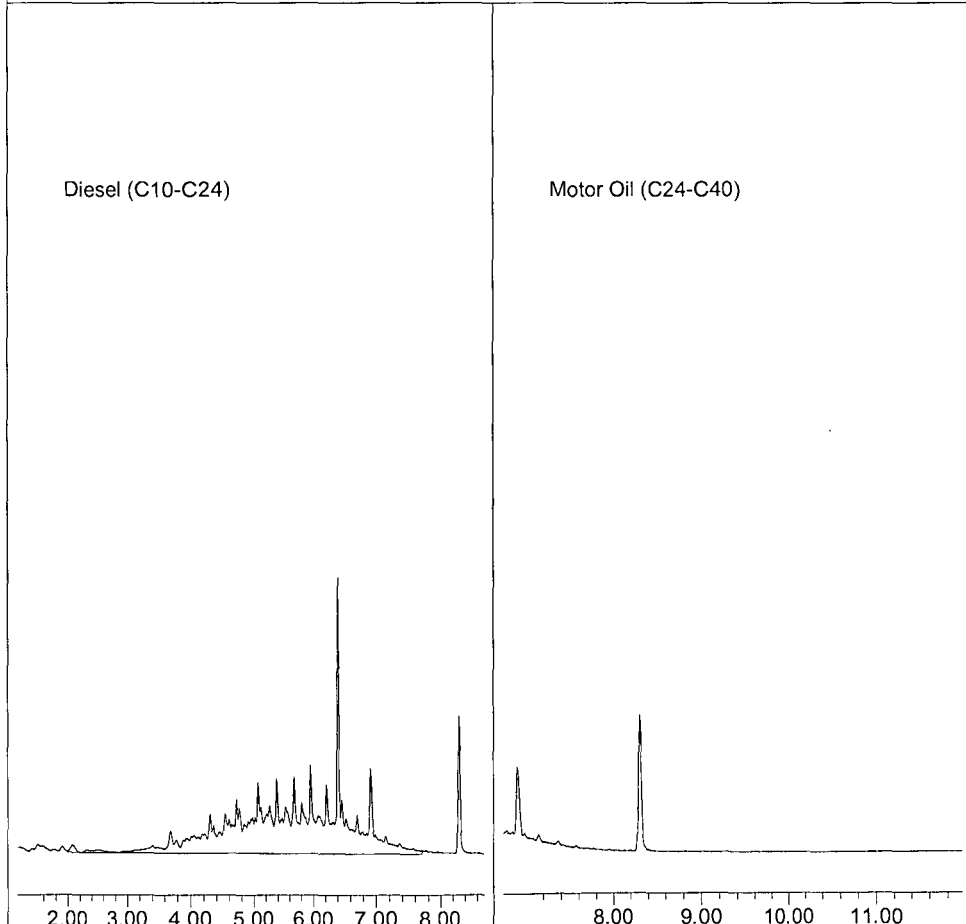
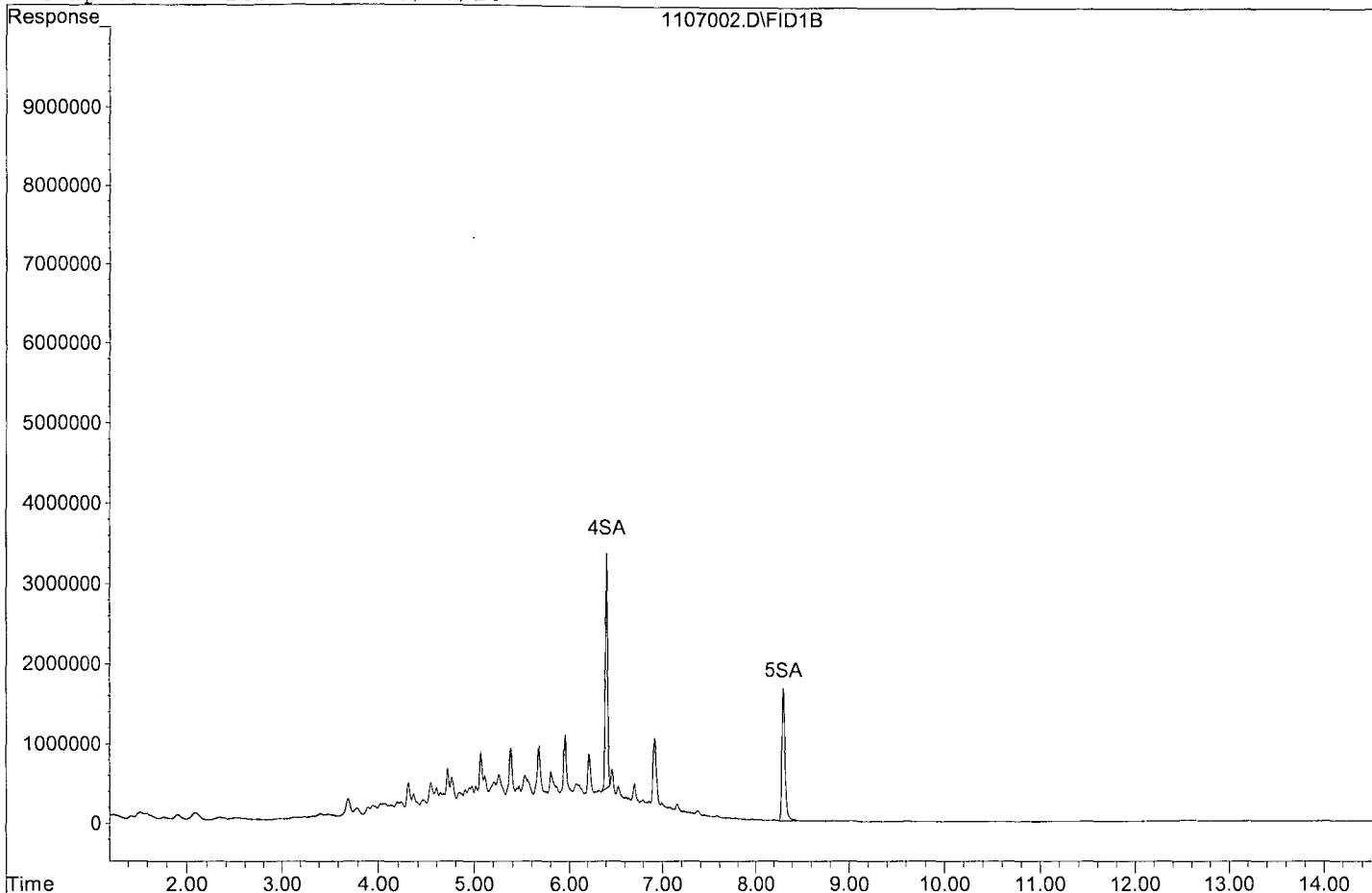
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	49918690	12.890 ppb
Surrogate Spike 30.000		Recovery =	42.97%
5) SA Octacosane(S)	8.31	40086512	12.411 ppb
Surrogate Spike 30.000		Recovery =	41.37%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	818648452	249.802 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107002.D

Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107003.D Vial: 3  
 Acq On : 11-7-18 14:04:52 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 7 14:24 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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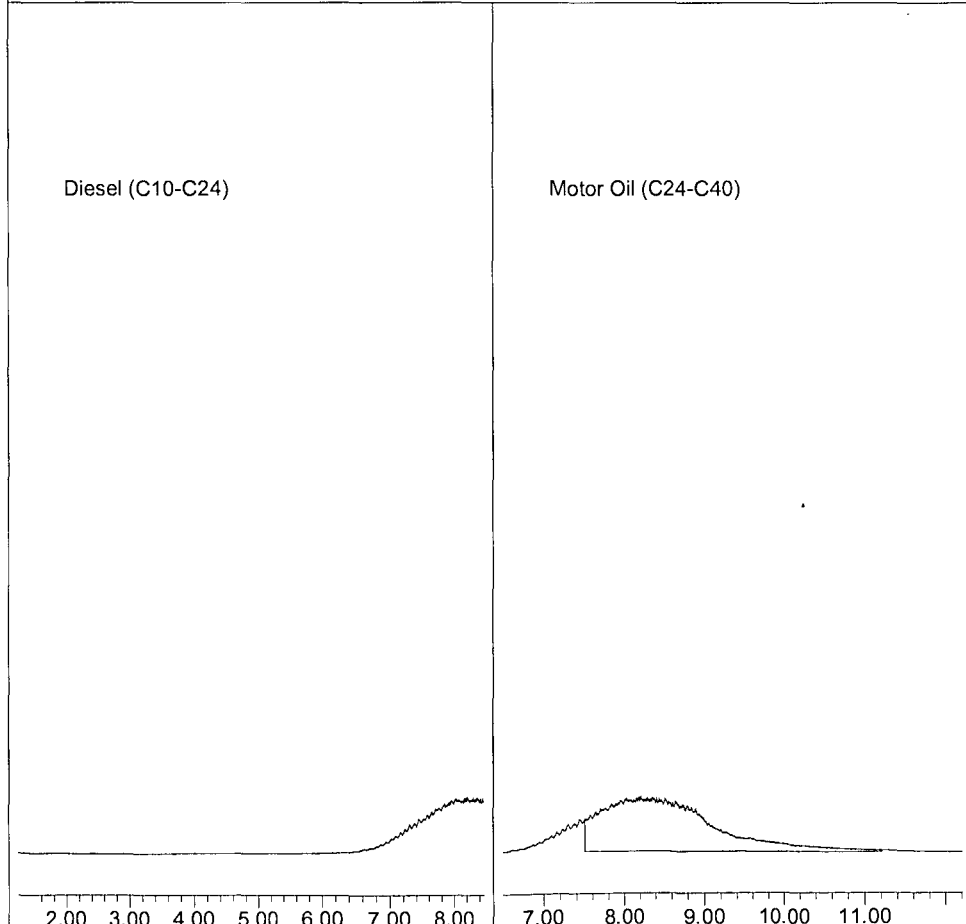
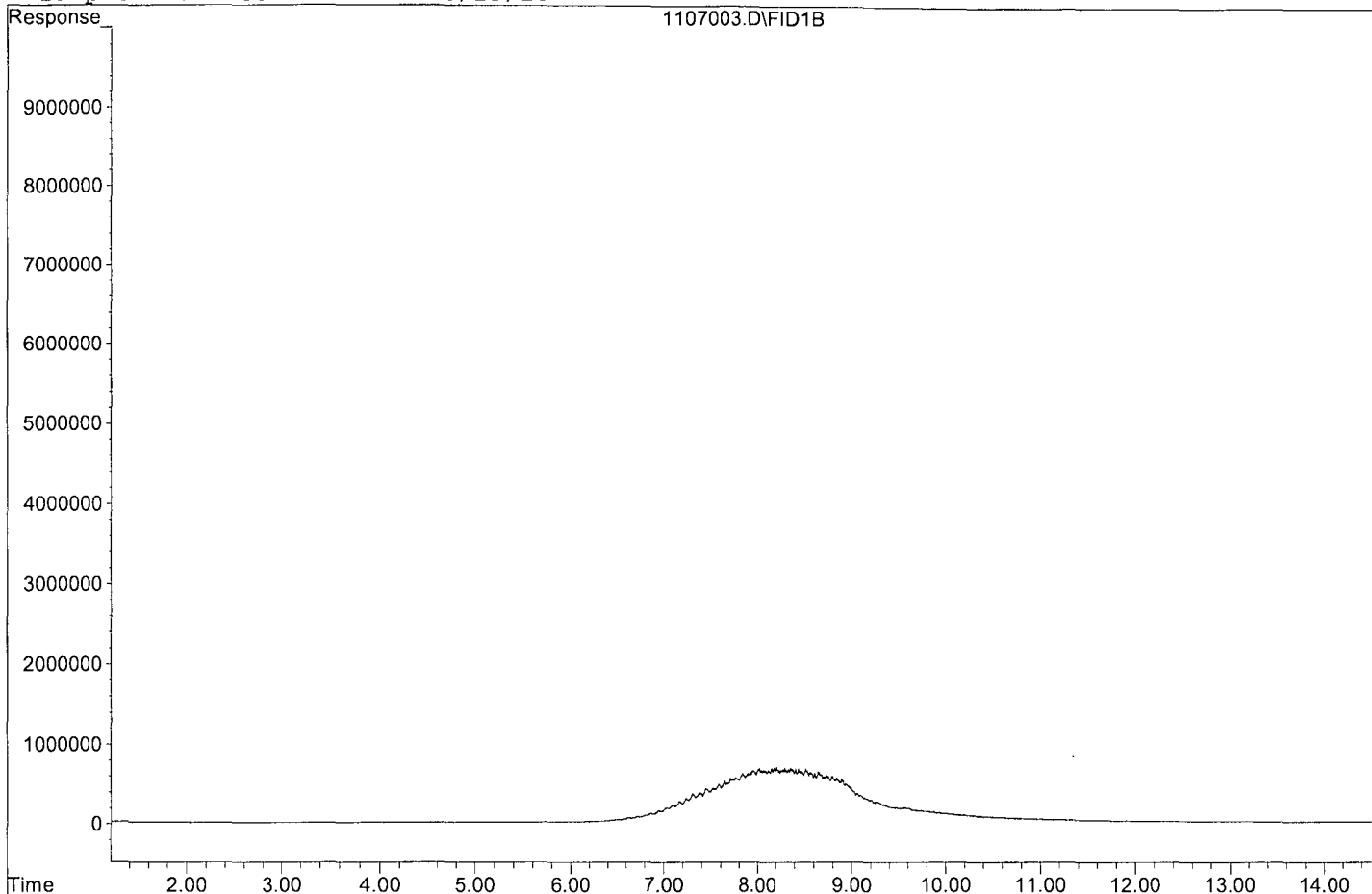
System Monitoring Compounds

Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	636338949	229.248 ppb
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Data File: G:\APOLLO\DATA\181107\1107003.D

Sample : Motor Oil - 3 10/15/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 11/07/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1107019-20.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1666450	1.7	HATM
2	SA Ortho-Terphenyl(S)	1936320	2039030	5.3	SA
3	SA Octacosane(S)	1614940	1660830	2.8	SA
4	HBTM Motor Oil (C24-C40)	1387880	1317870	5.0	HBTM
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
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24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40	Average			3.7	



Data File : G:\APOLLO\DATA\181107\1107019.D Vial: 19  
 Acq On : 11-7-18 19:30:00 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 9:16 2018 Quant Results File: DOC0905.RES

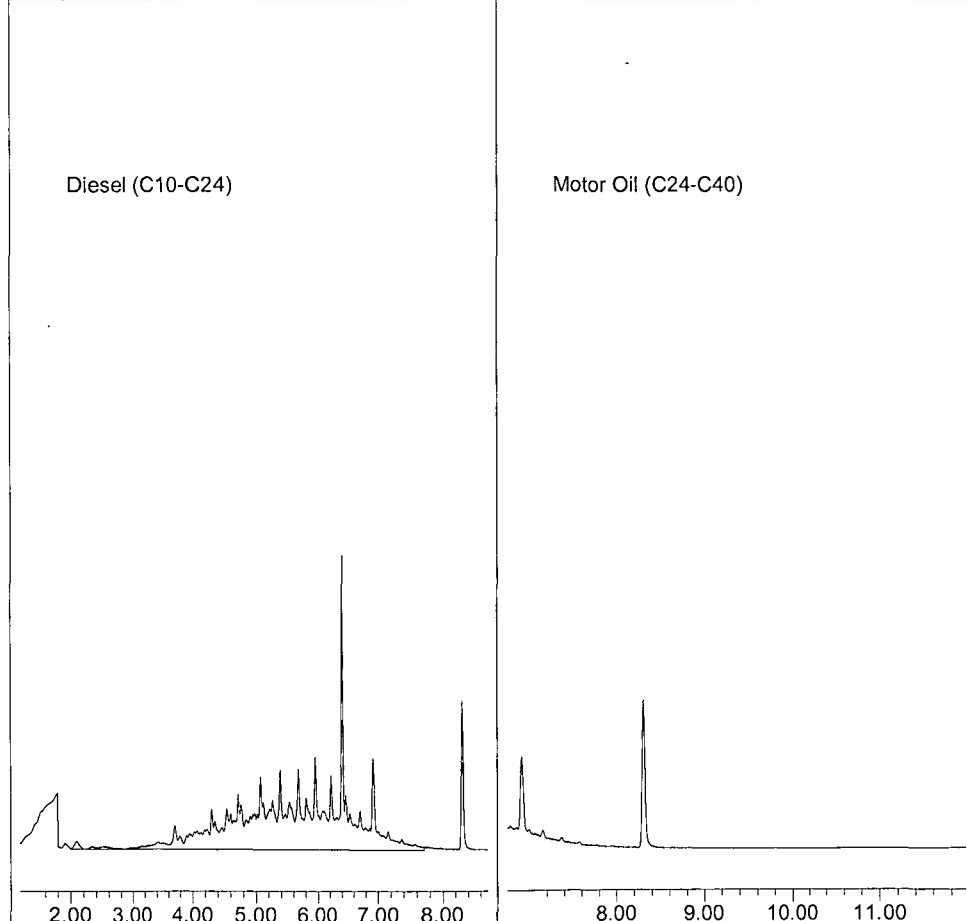
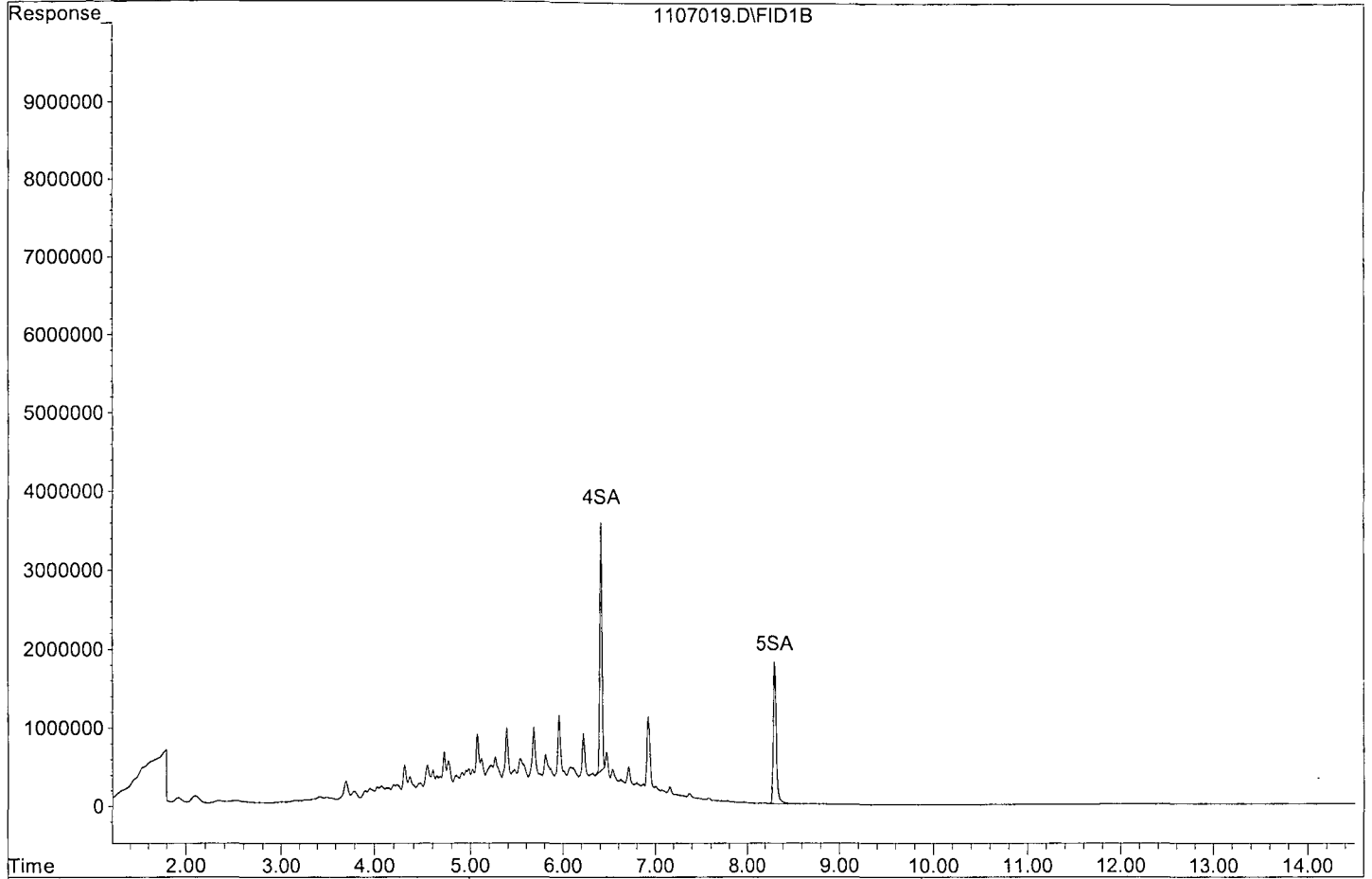
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	50975648	13.163 ppb
Surrogate Spike 30.000		Recovery =	43.88%
5) SA Octacosane(S)	8.31	41520747	12.855 ppb
Surrogate Spike 30.000		Recovery =	42.85%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	833224325	254.249 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107019.D  
Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107020.D Vial: 20  
 Acq On : 11-7-18 19:50:19 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 9:16 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
----------	------	----------	------------

System Monitoring Compounds

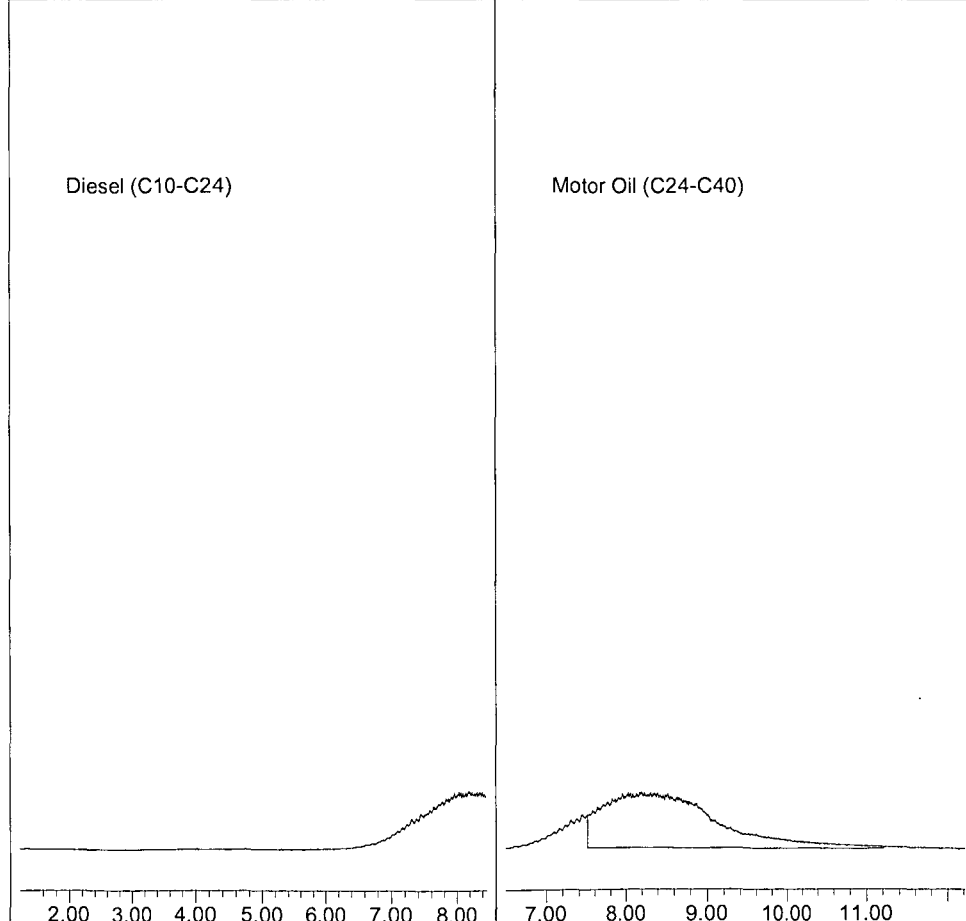
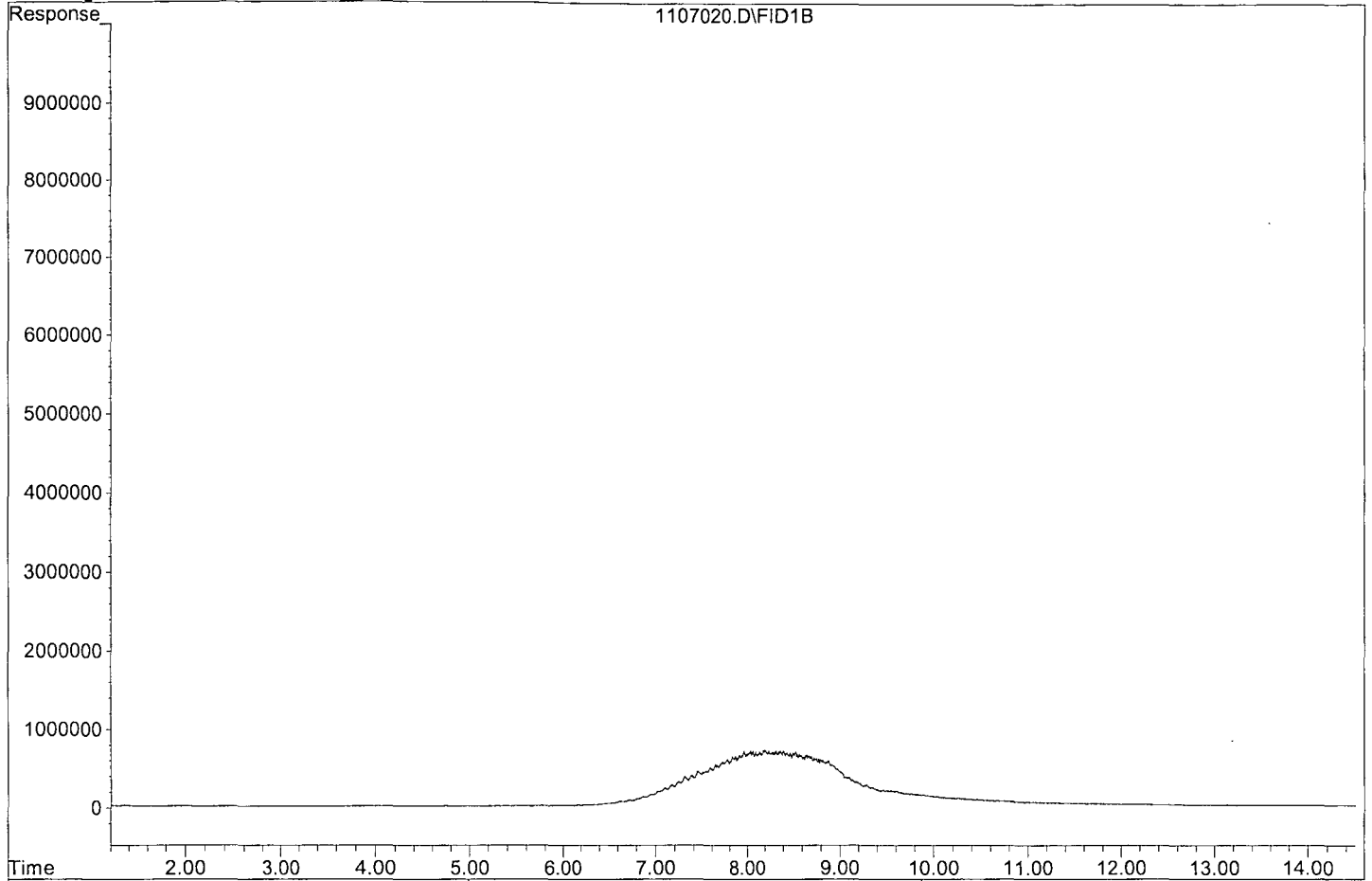
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	658935006	237.388 ppb
-----------------------------	------	-----------	-------------

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107020.D

Sample : Motor Oil - 3 10/15/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 11/07/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1107027-28.D

		Compound	MEAN	CCRF	%D	%Drift
1	HATM	Diesel (C10-C24)	1638600	1712170	4.5	HATM
2	SA	Ortho-Terphenyl(S)	1936320	2079630	7.4	SA
3	SA	Octacosane(S)	1614940	1699620	5.2	SA
4	HBTM	Motor Oil (C24-C40)	1387880	1309190	5.7	HBTM
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39						
40						

Average

5.7

Data File : G:\APOLLO\DATA\181107\1107027.D Vial: 27  
 Acq On : 11-7-18 22:10:29 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 9:17 2018 Quant Results File: DOC0905.RES

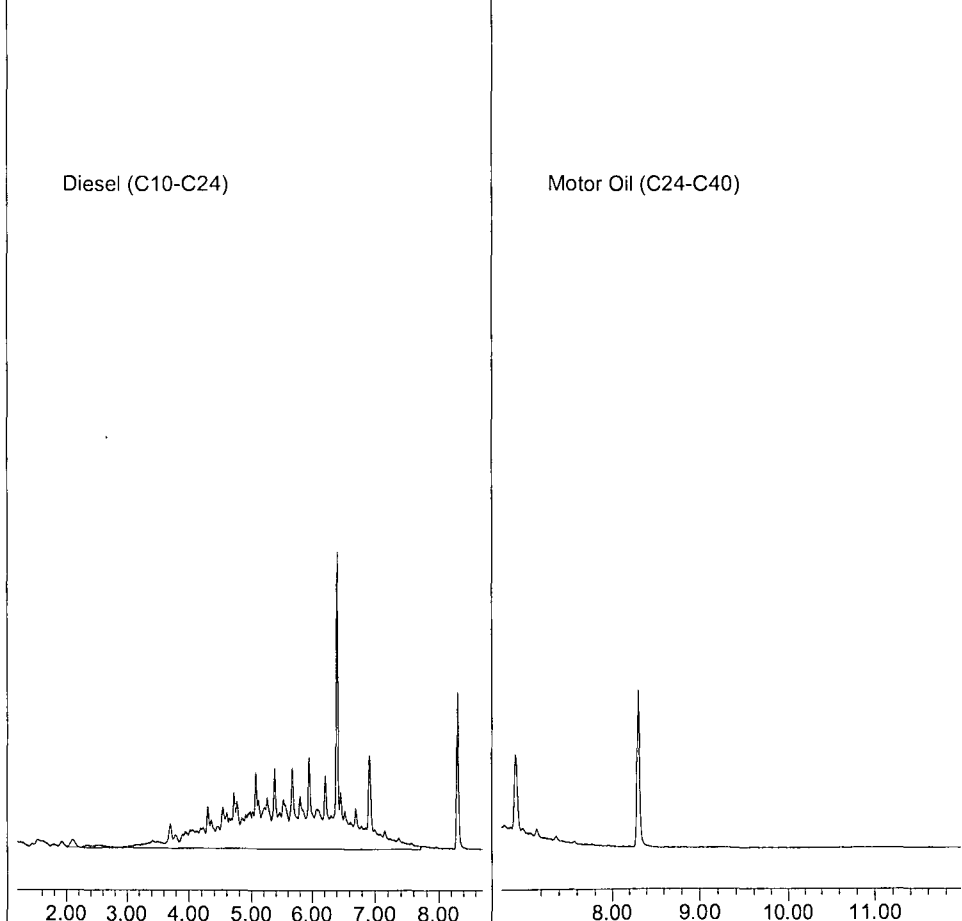
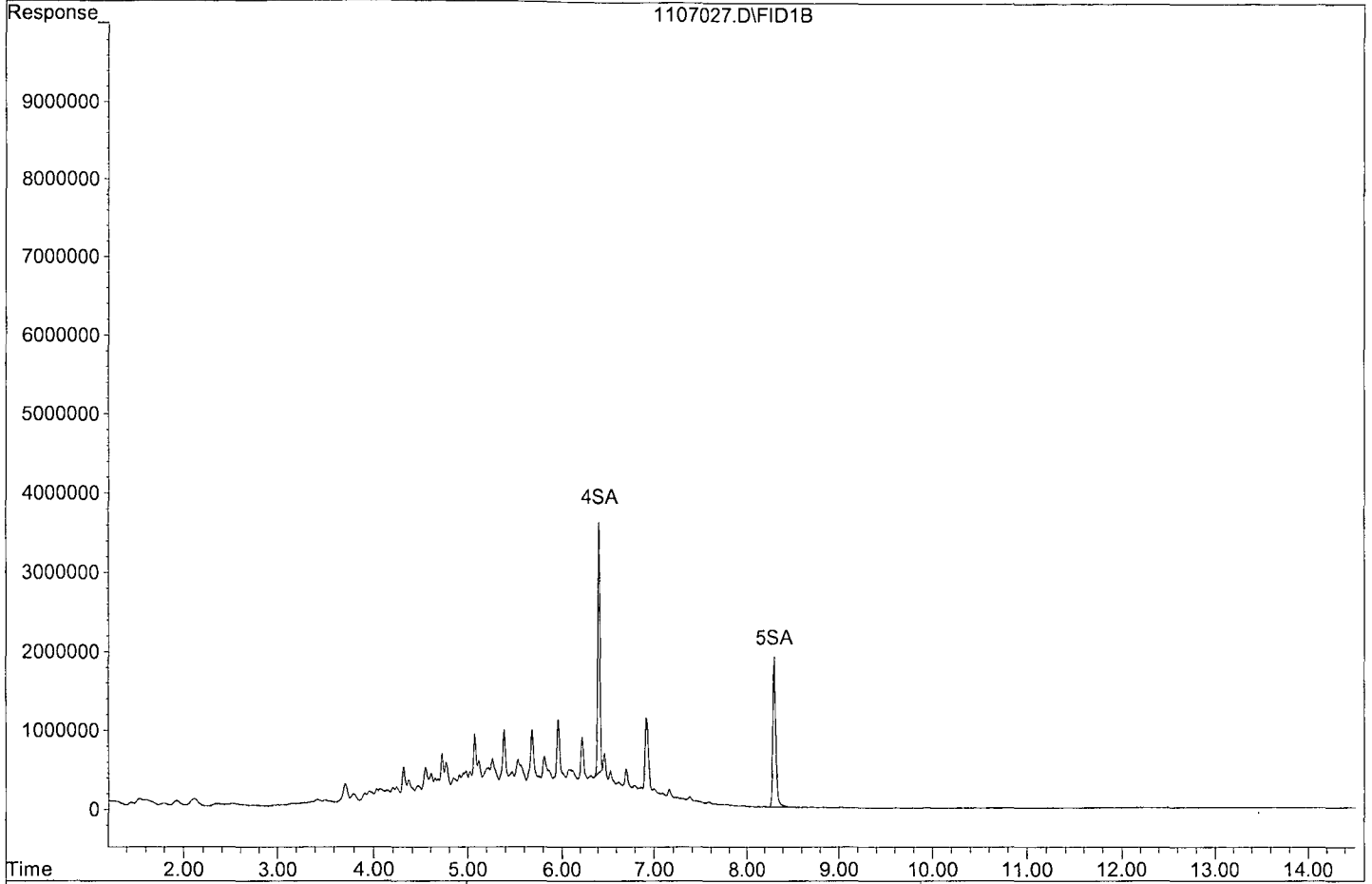
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	51990682	13.425 ppb
Surrogate Spike 30.000		Recovery =	44.75%
5) SA Octacosane(S)	8.31	42490624	13.156 ppb
Surrogate Spike 30.000		Recovery =	43.85%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	856085877	261.225 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107027.D  
Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107028.D Vial: 28  
 Acq On : 11-7-18 22:30:38 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 9:17 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

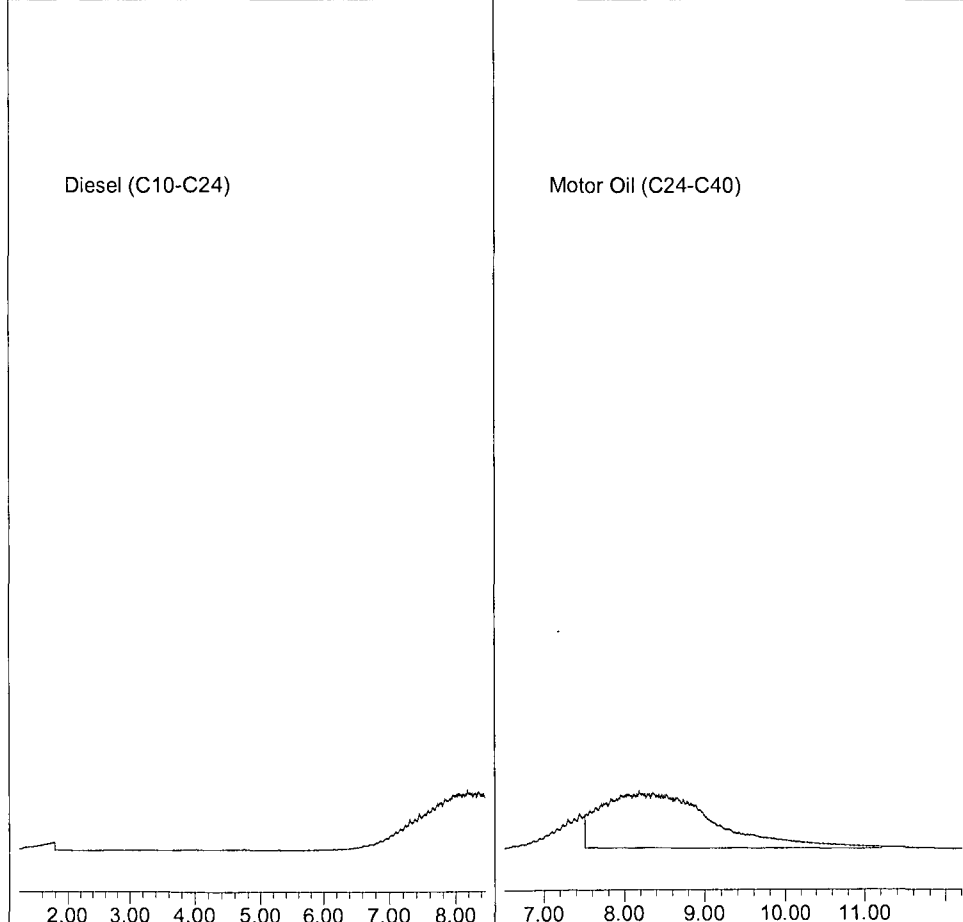
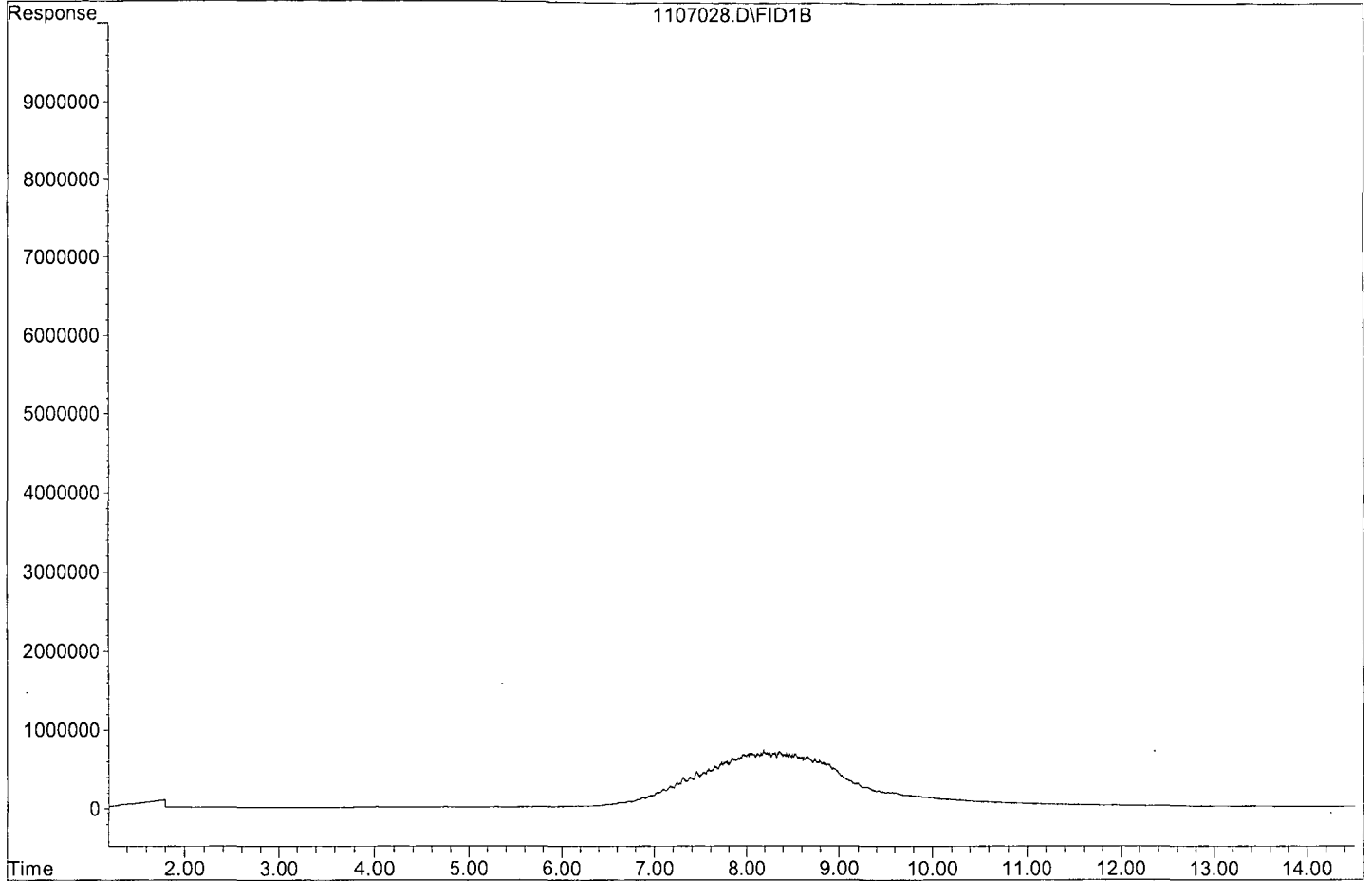
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	654594378	235.825 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107028.D  
Sample : Motor Oil - 3 10/15/18



TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 11/08/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1107030-31.D

	Compound	MEAN	CCRF	%D	%Drift
1	HATM Diesel (C10-C24)	1638600	1592010	2.8	HATM
2	SA Ortho-Terphenyl(S)	1936320	1978180	2.2	SA
3	SA Octacosane(S)	1614940	1622920	0.49	SA
4	HBTM Motor Oil (C24-C40)	1387880	1288240	7.2	HBTM
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38					
39					
40	Average			3.2	

Data File : G:\APOLLO\DATA\181107\1107030.D Vial: 30  
 Acq On : 11-8-18 13:54:55 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 14:45 2018 Quant Results File: DOC0905.RES

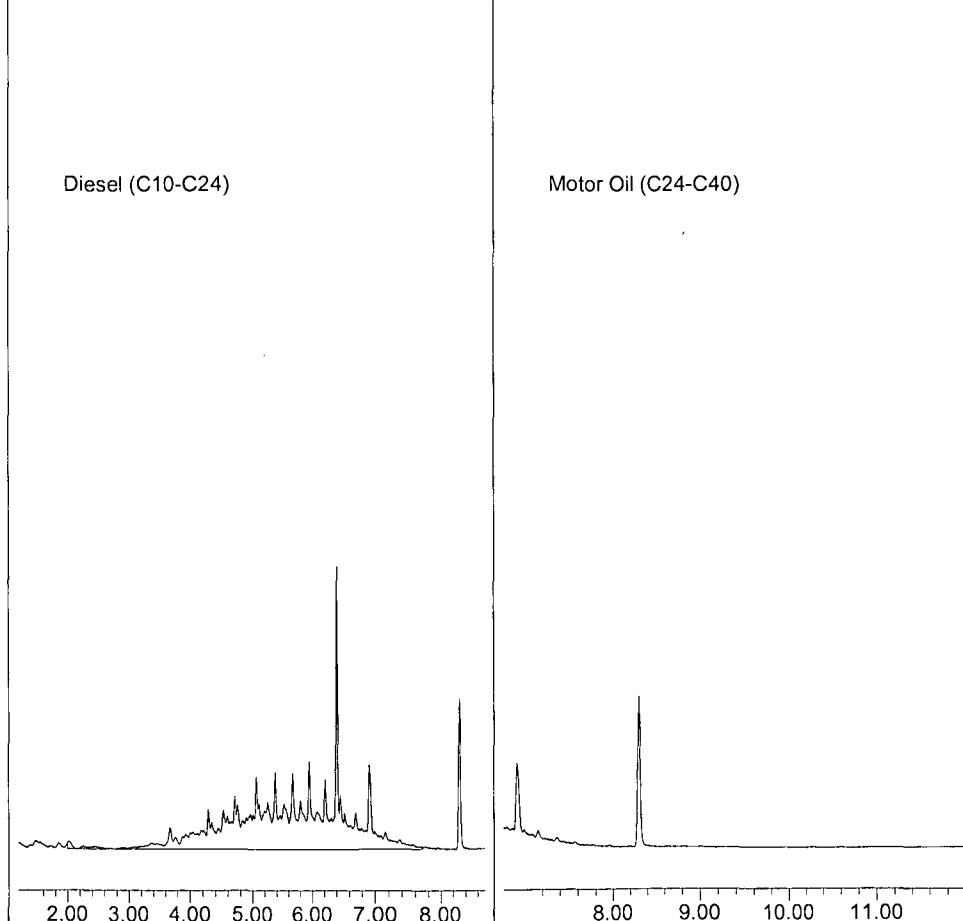
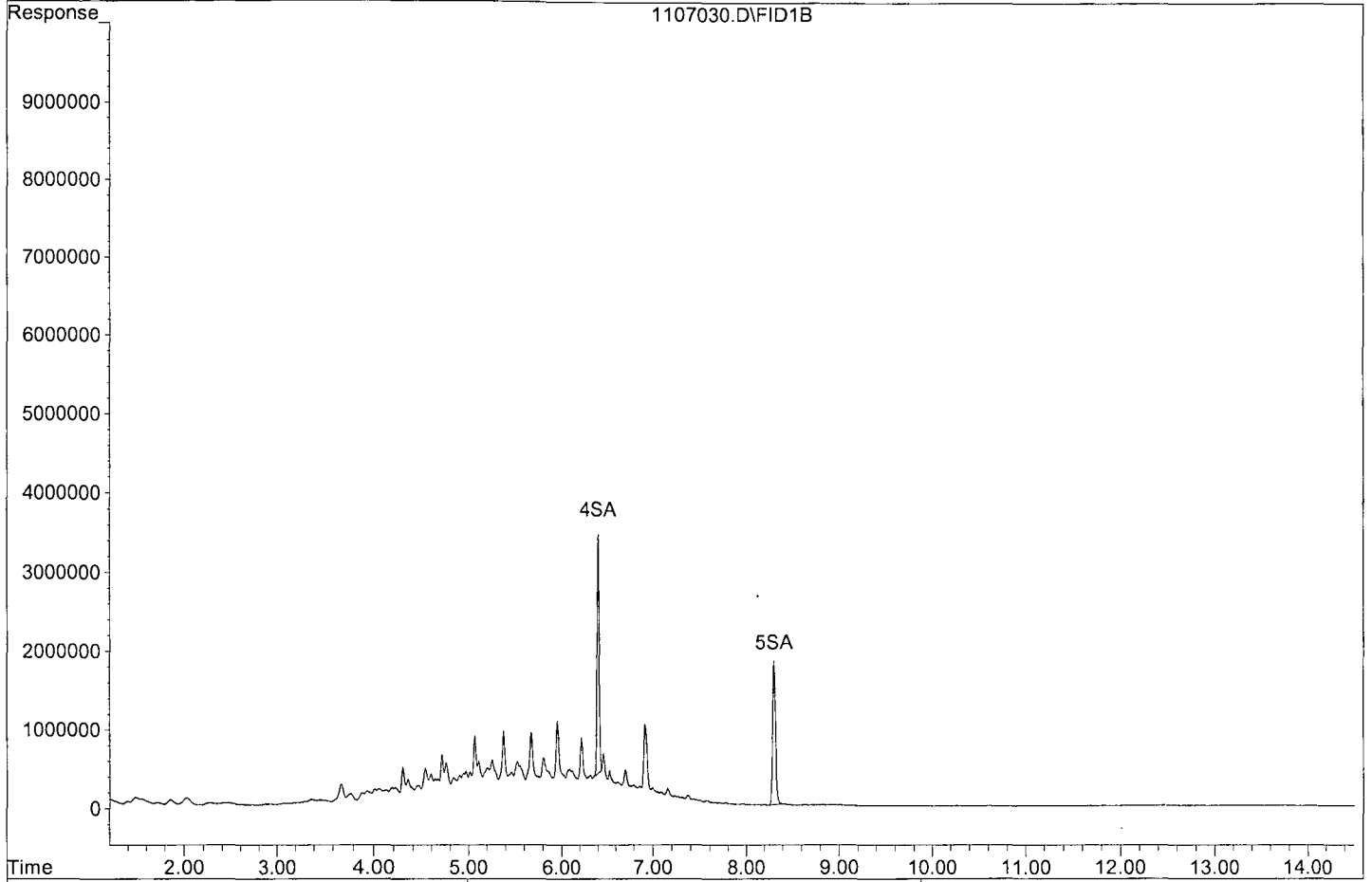
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	49454517	12.770 ppb
Surrogate Spike 30.000		Recovery =	42.57%
5) SA Octacosane(S)	8.30	40572908	12.562 ppb
Surrogate Spike 30.000		Recovery =	41.87%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	796005616	242.892 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107030.D  
Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107031.D Vial: 31  
 Acq On : 11-8-18 14:15:05 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 14:45 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

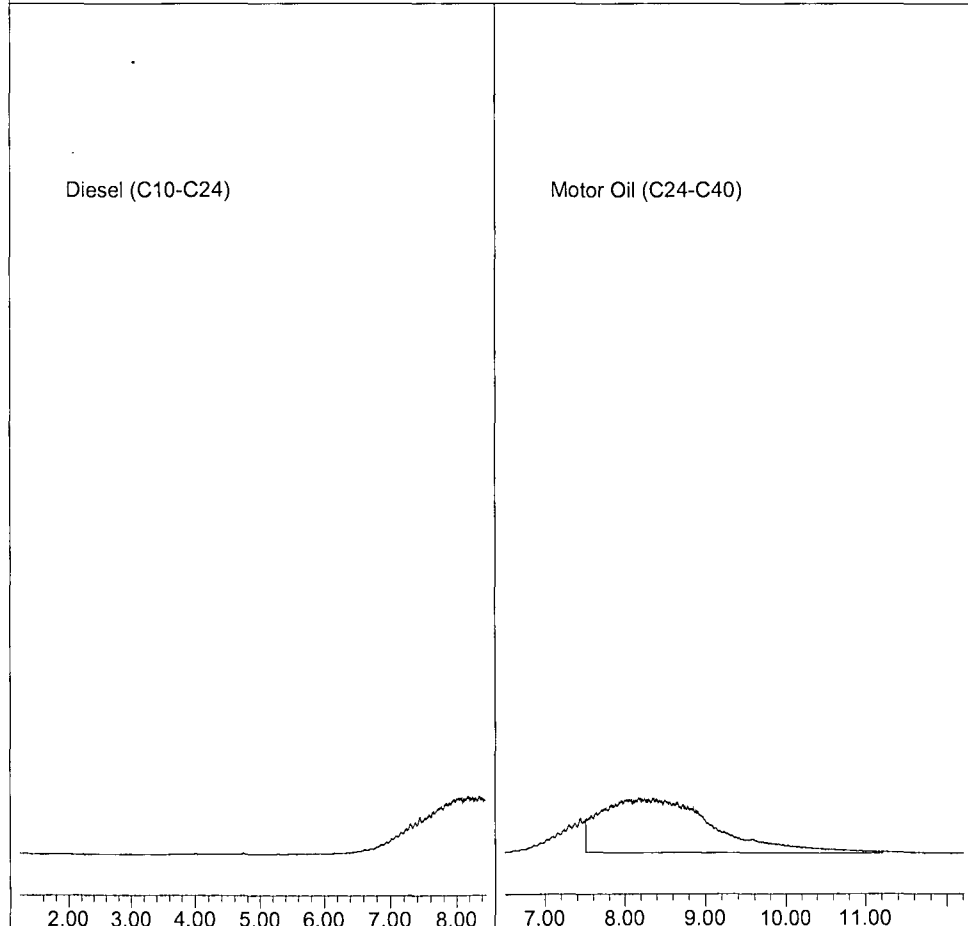
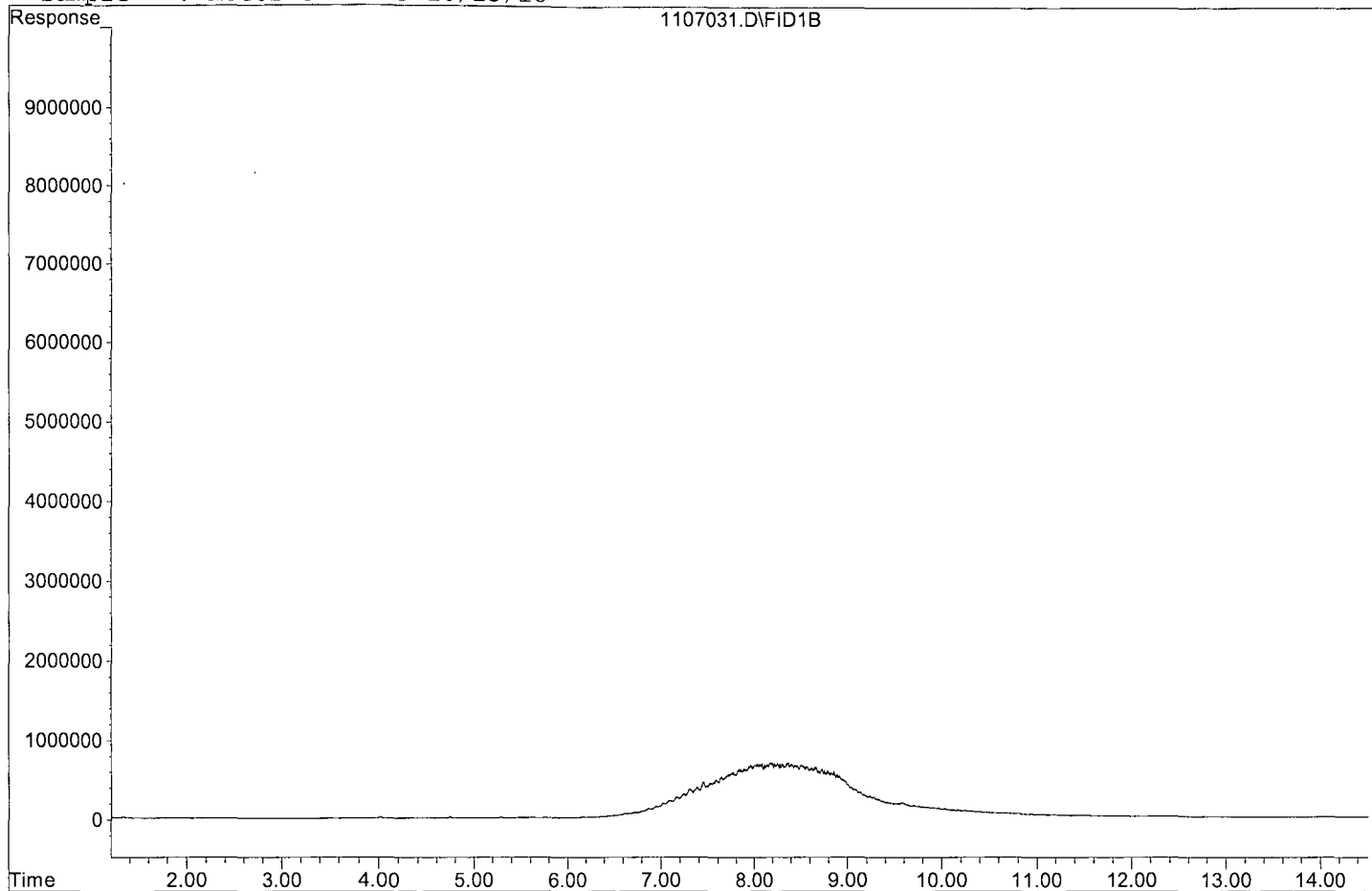
Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	644118064	232.050 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107031.D

Sample : Motor Oil - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107032.D Vial: 32  
 Acq On : 11-8-18 14:35:27 Operator: DP  
 Sample : Decanoic Acid - 3 8/23/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 8 15:40 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

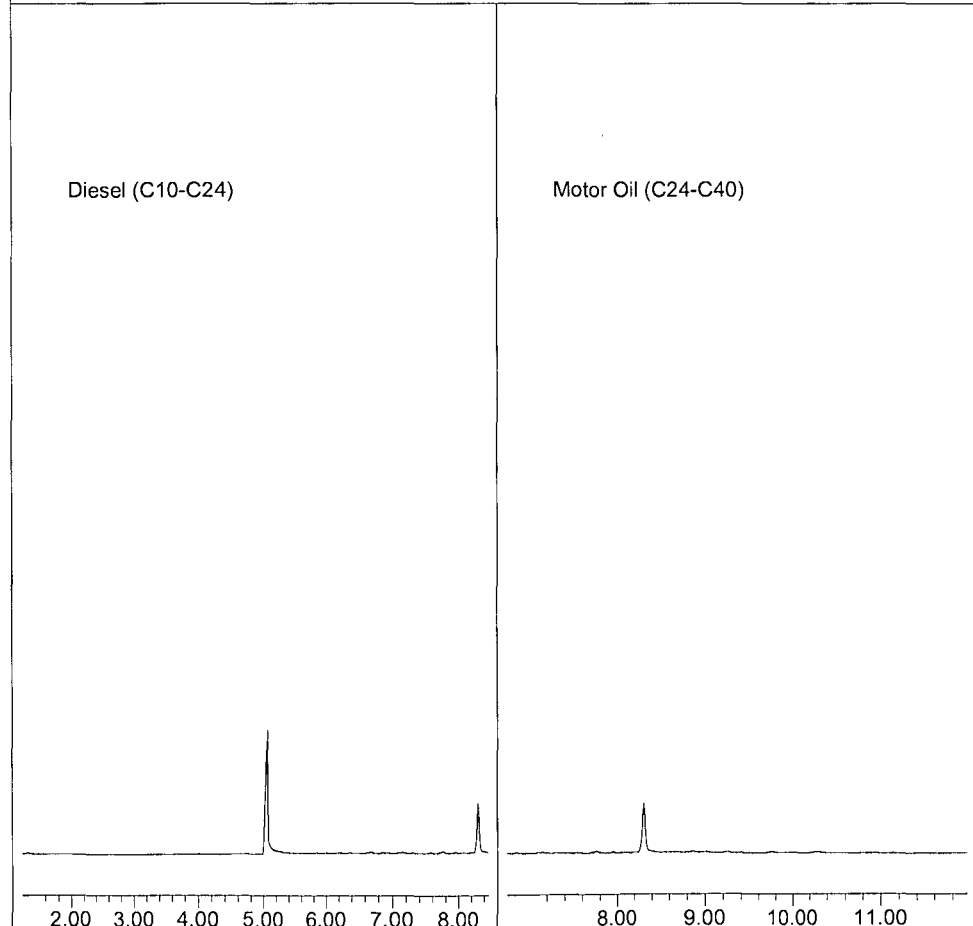
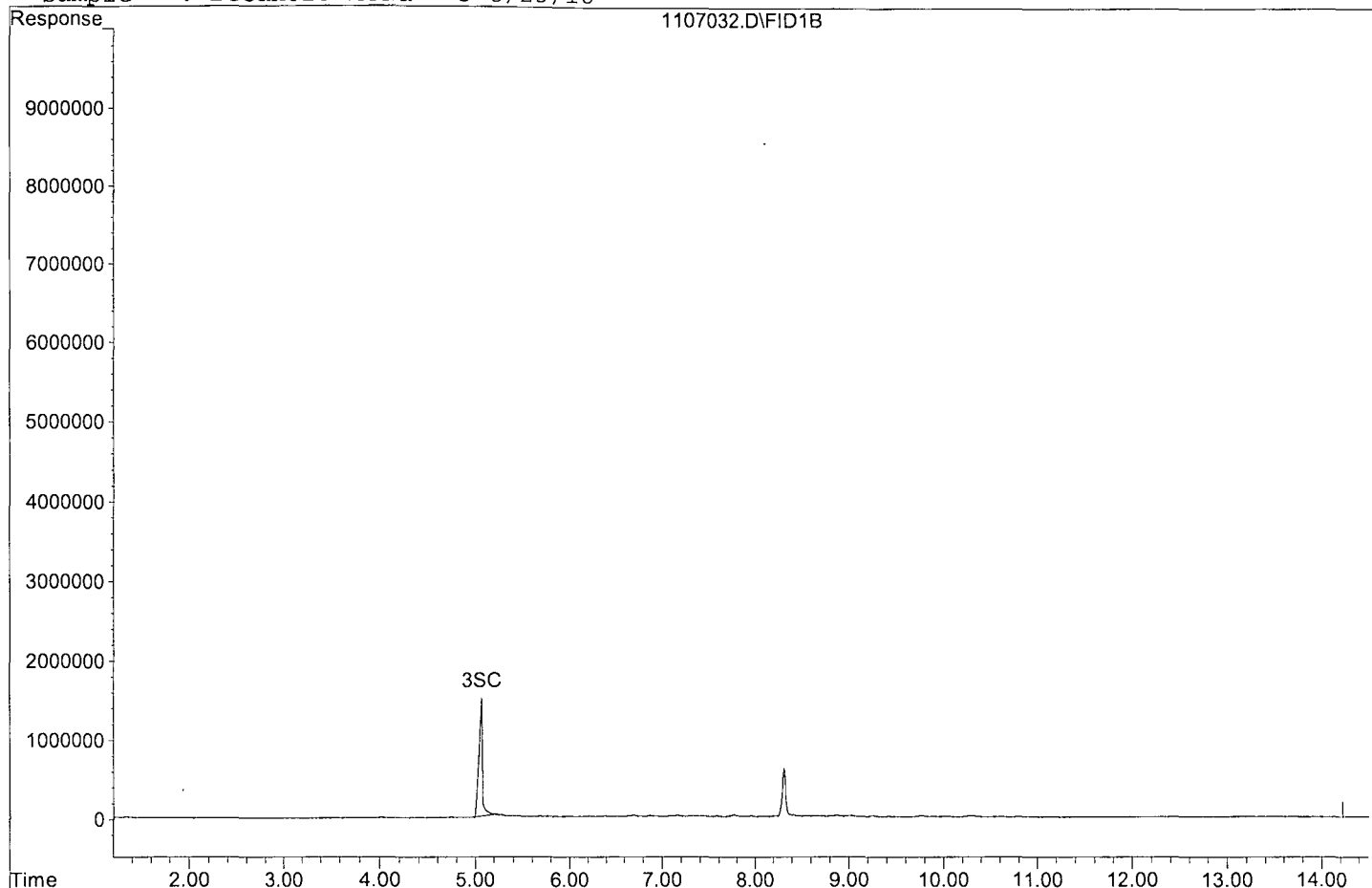
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.07	38744112	19.506 ppb
Surrogate Spike 24.000	Recovery	=	81.27%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107032.D  
Sample : Decanoic Acid - 3 8/23/18





TPH Extractables  
DOC0905

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 11/08/18  
Instrument: Apollo  
Initial Cal. Date: 09/05/18  
Data File: 1107056-57.D

		Compound	MEAN	CCRF	%D	%Drift
1	HATM	Diesel (C10-C24)	1638600	1690390	3.2	HATM
2	SA	Ortho-Terphenyl(S)	1936320	2051610	6.0	SA
3	SA	Octacosane(S)	1614940	1646080	1.9	SA
4	HBTM	Motor Oil (C24-C40)	1387880	1384240	0.26	HBTM
5						
6						
7						
8						
9						
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11						
12						
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24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40		Average			2.8	

Data File : G:\APOLLO\DATA\181107\1107056.D Vial: 56  
 Acq On : 11-8-18 22:40:31 Operator: DP  
 Sample : Diesel - 3 10/15/18 Inst : Apollo  
 Misc : Mix(A) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 9:11 2018 Quant Results File: DOC0905.RES

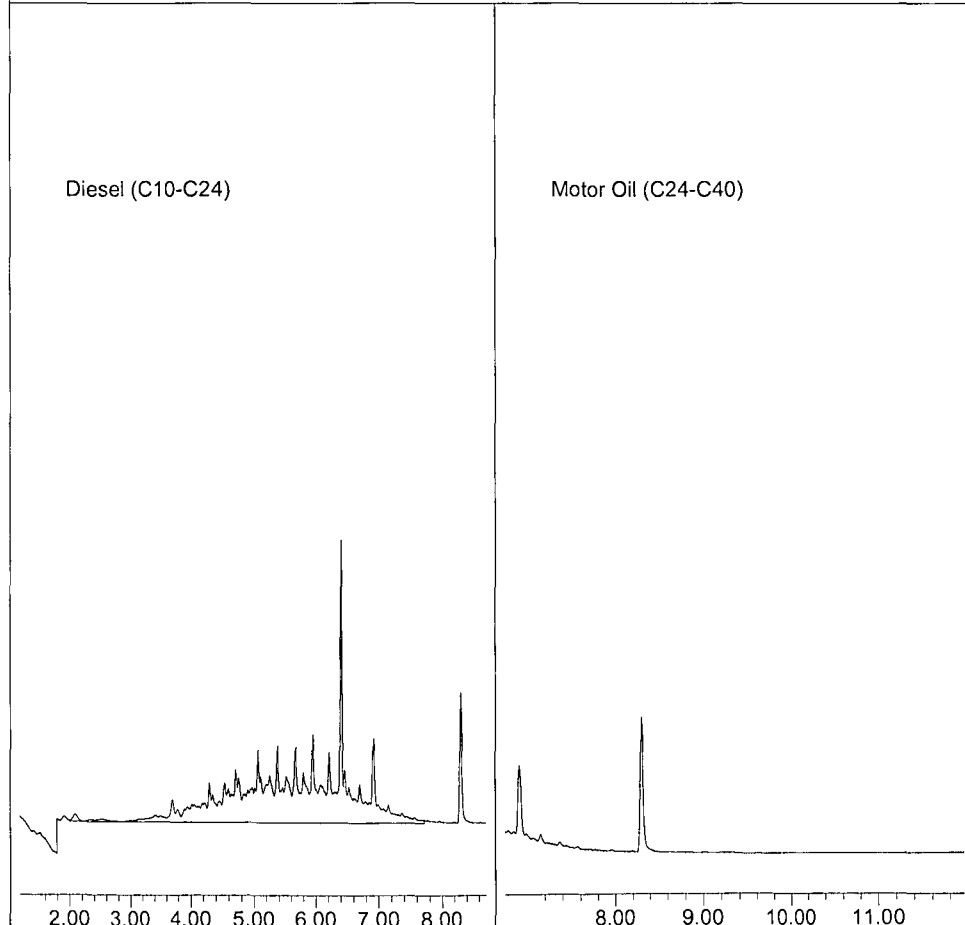
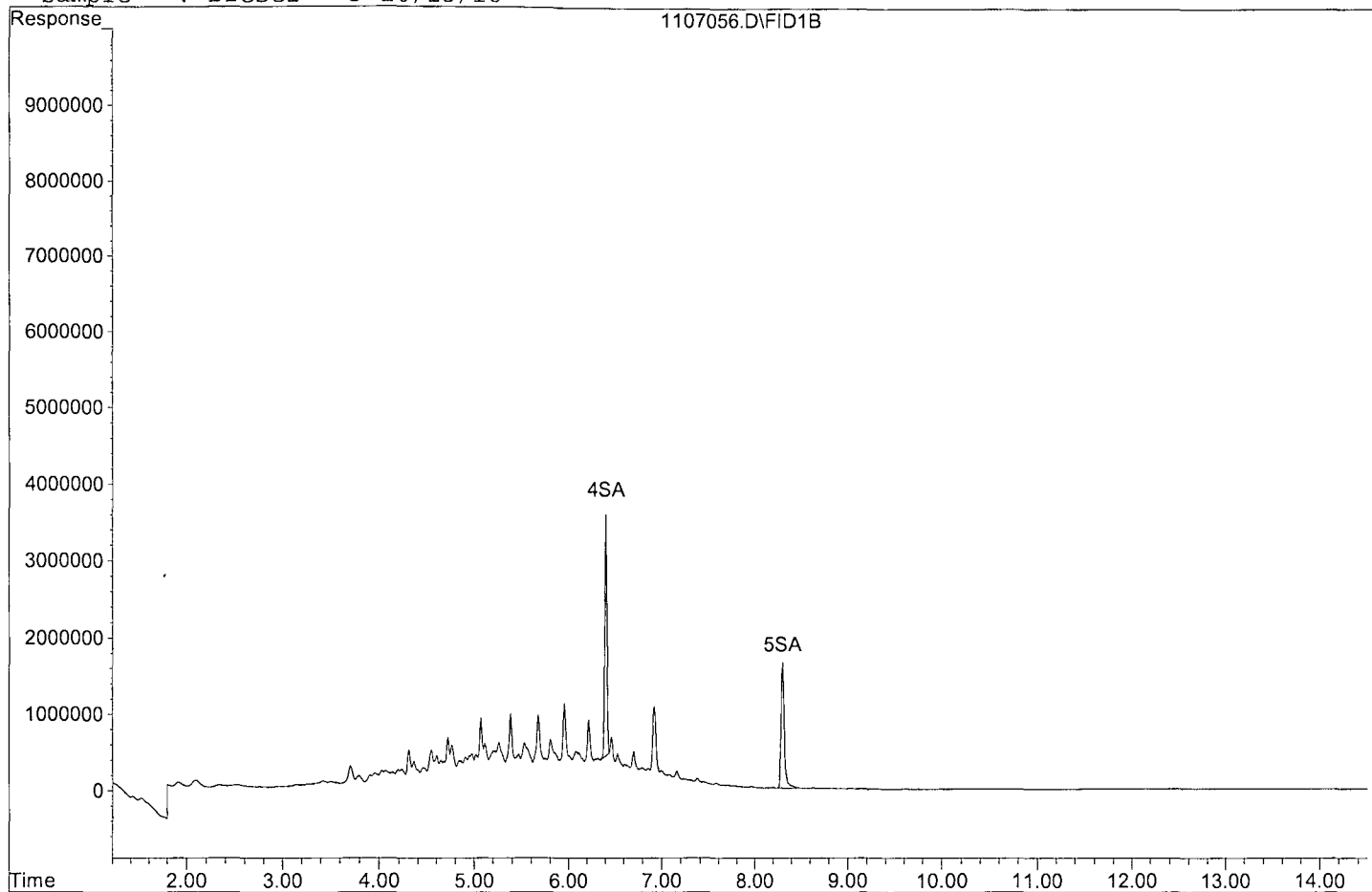
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	51290355	13.244 ppb
Surrogate Spike 30.000		Recovery =	44.15%
5) SA Octacosane(S)	8.30	41151998	12.741 ppb
Surrogate Spike 30.000		Recovery =	42.47%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	845195891	257.902 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107056.D  
Sample : Diesel - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107057.D Vial: 57  
 Acq On : 11-8-18 22:59:46 Operator: DP  
 Sample : Motor Oil - 3 10/15/18 Inst : Apollo  
 Misc : Mix(B) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 9:11 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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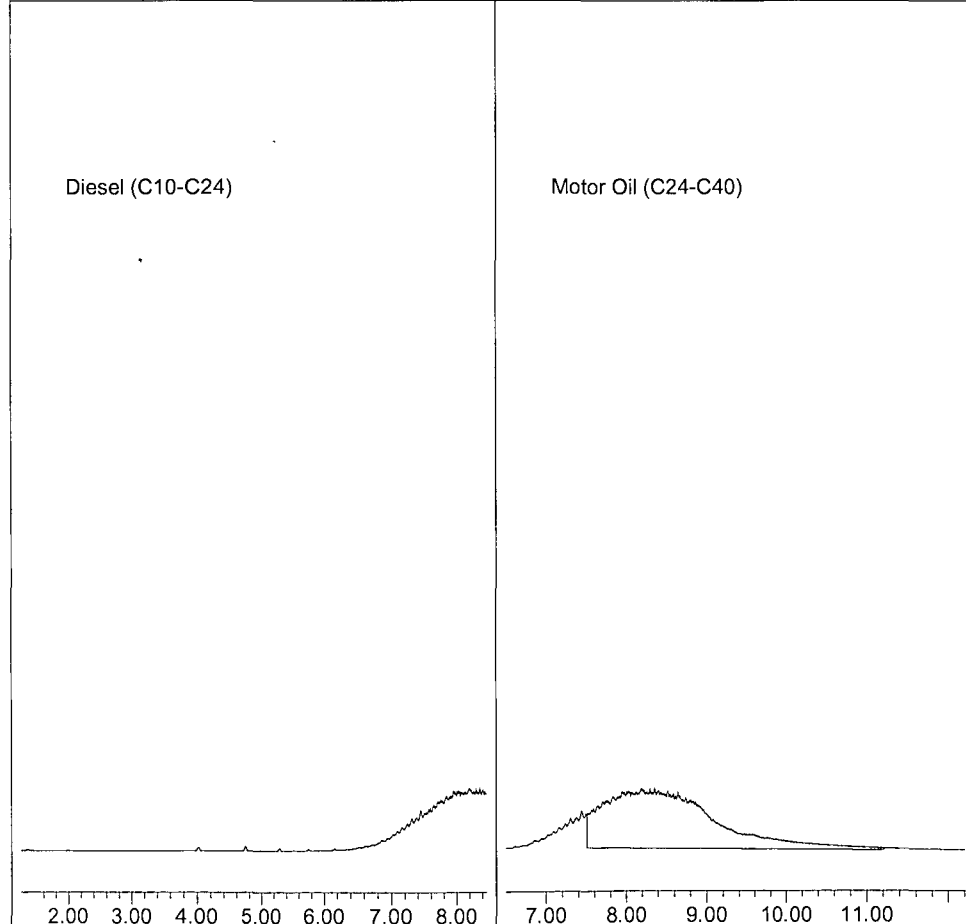
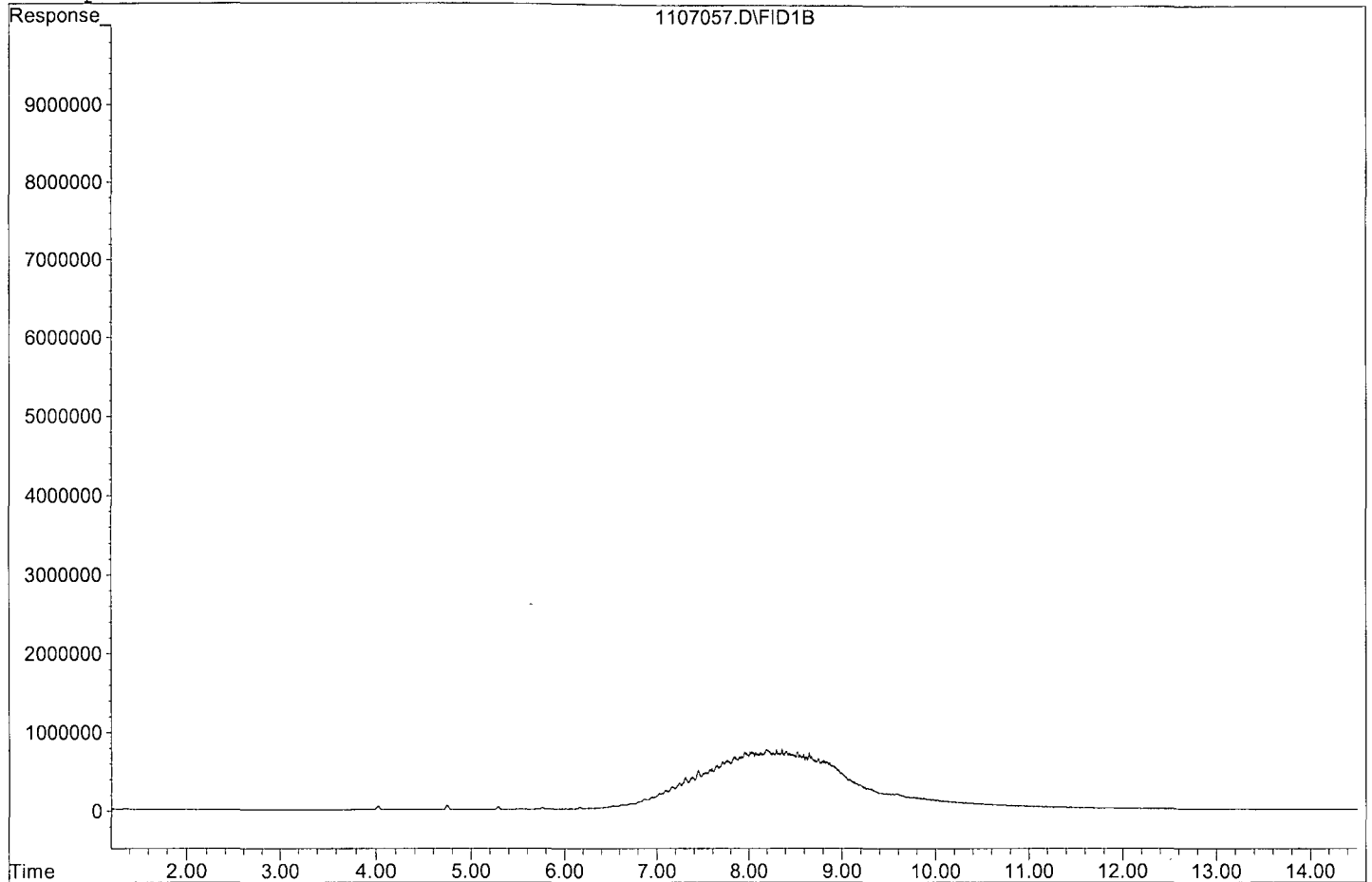
System Monitoring Compounds

Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	692119808	249.343 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107057.D  
Sample : Motor Oil - 3 10/15/18



Data File : G:\APOLLO\DATA\181107\1107058.D Vial: 58  
 Acq On : 11-8-18 23:19:51 Operator: DP  
 Sample : Decanoic Acid - 3 8/23/18 Inst : Apollo  
 Misc : Mix(C) Multiplr: 1.00  
 IntFile : events.e  
 Quant Time: Nov 9 9:11 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

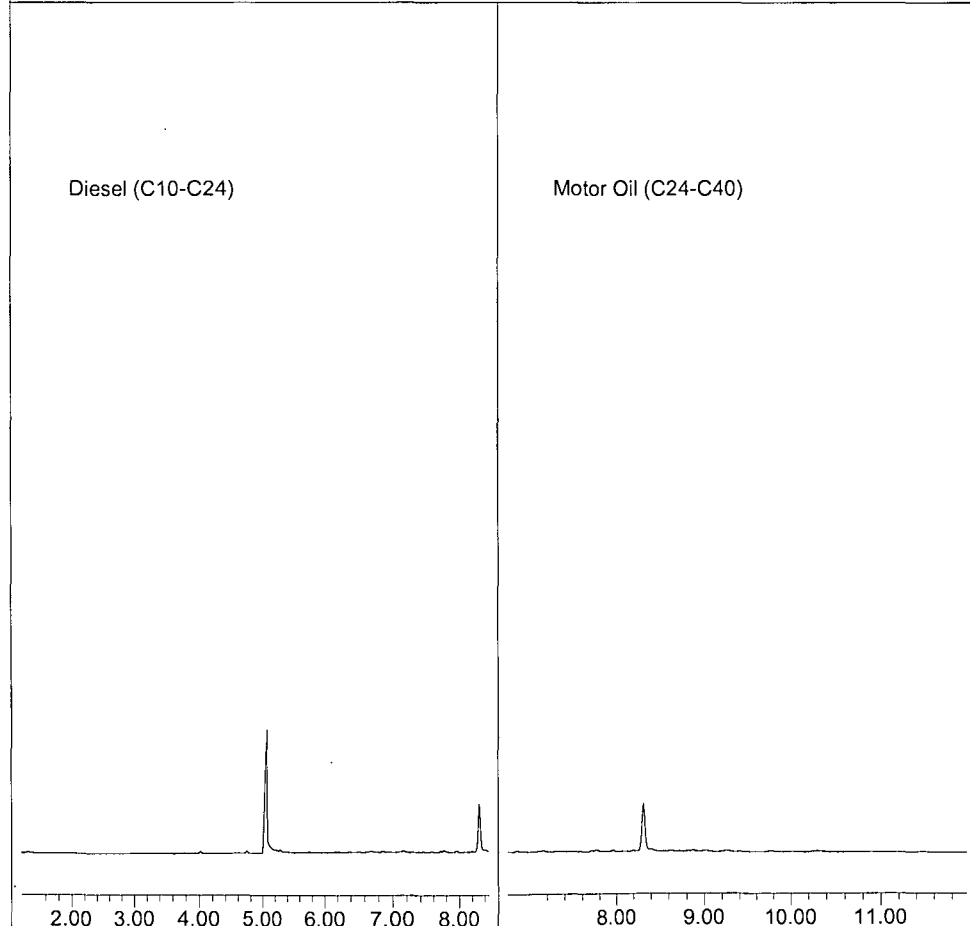
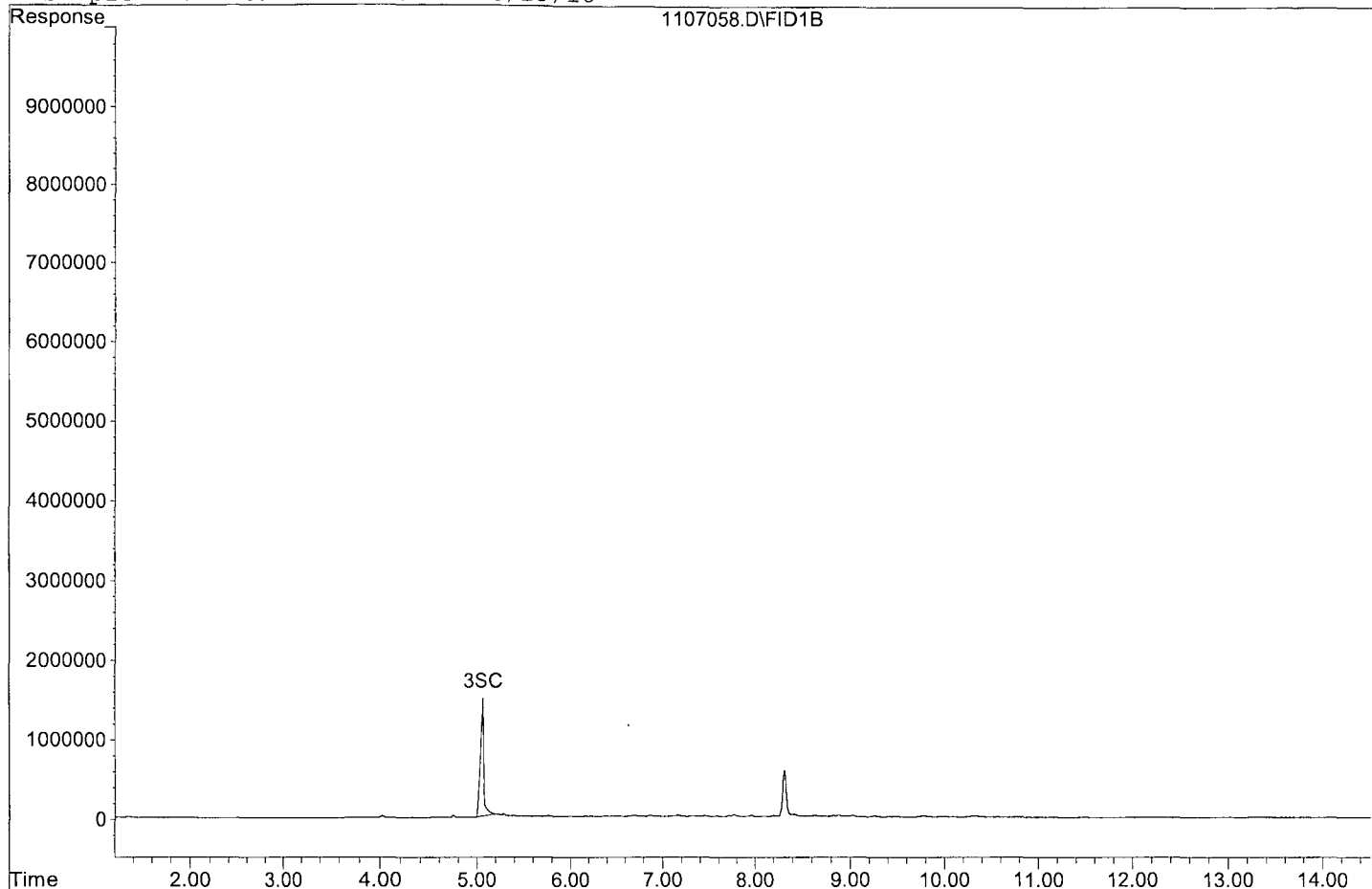
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
3) SC Decanoic Acid(S)	5.06	37861185	19.062 ppb
Surrogate Spike 24.000	Recovery	=	79.43%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107058.D

Sample : Decanoic Acid - 3 8/23/18



**ORGANICS**  
**Raw Data**

**APPL, INC.**



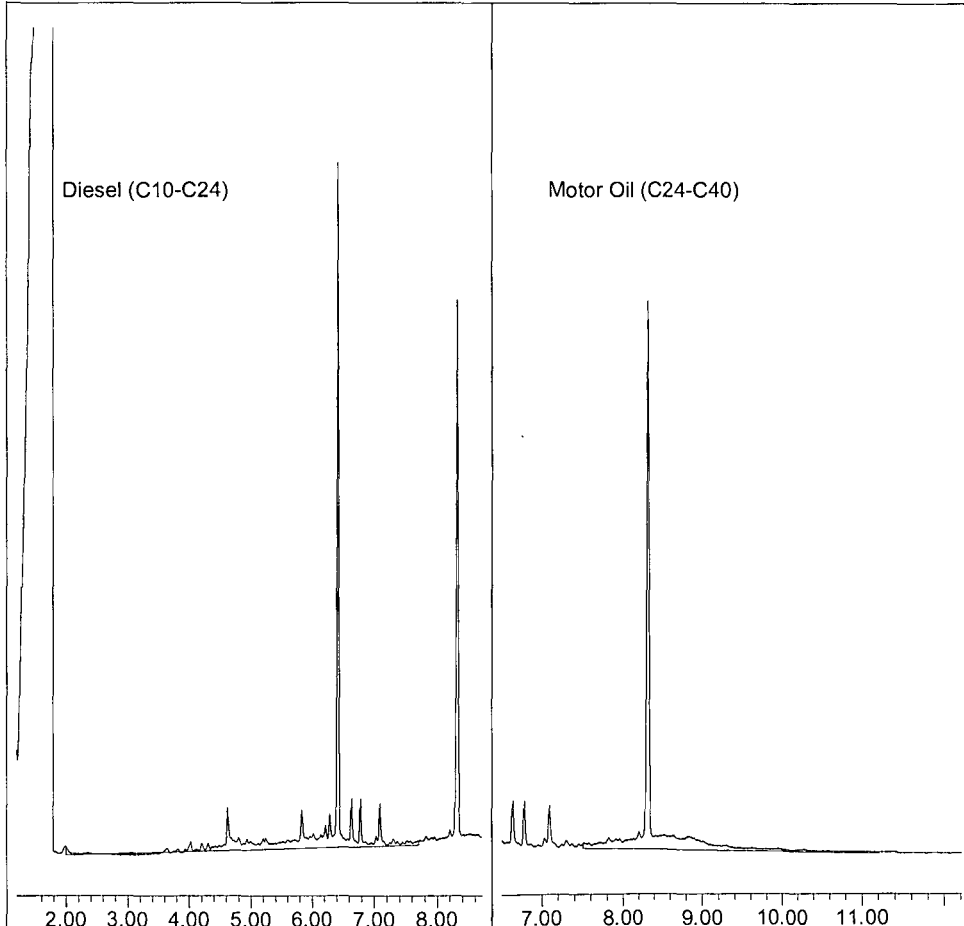
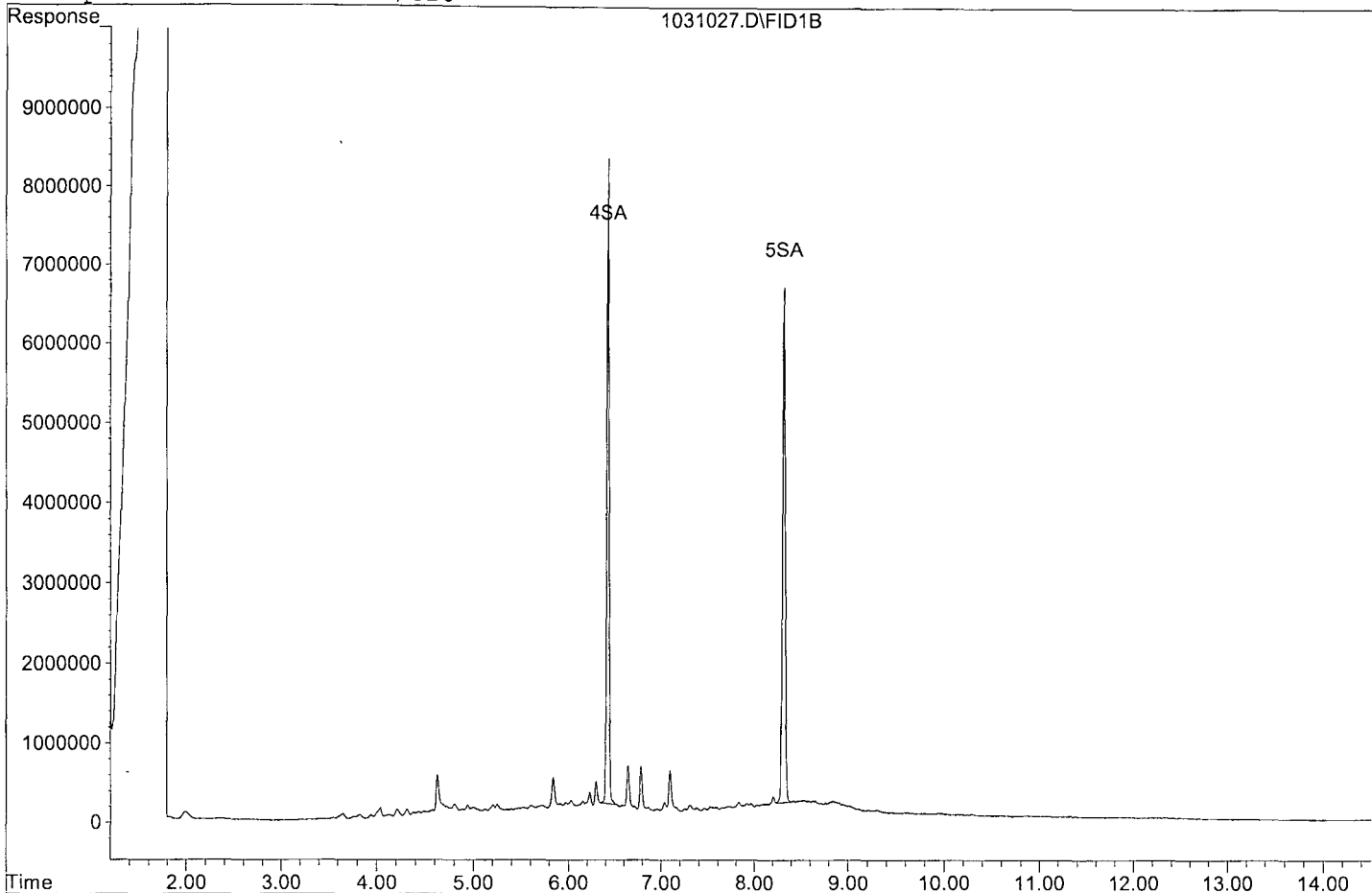
Data File : G:\APOLLO\DATA\181031\1031027.D Vial: 27  
 Acq On : 10-31-18 20:45:10 Operator: DP  
 Sample : AZ81840W14 2/820 Inst : Apollo  
 Misc : water Multiplr: 2.44  
 IntFile : events.e  
 Quant Time: Nov 1 8:08 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	136697842	86.093 ppb
Surrogate Spike 73.171		Recovery =	117.66%
5) SA Octacosane(S)	8.32	130474399	98.527 ppb
Surrogate Spike 73.171		Recovery =	134.65%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	234038686	174.181 ppb
2) HBTM Motor Oil (C24-C40)	9.36	143028677	125.677 ppb

Data File: G:\APOLLO\DATA\181031\1031027.D  
Sample : AZ81840W14 2/820



Data File : G:\APOLLO\DATA\181107\1107022.D Vial: 22  
 Acq On : 11-7-18 20:30:43 Operator: DP  
 Sample : AZ81840W10 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 8 9:17 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

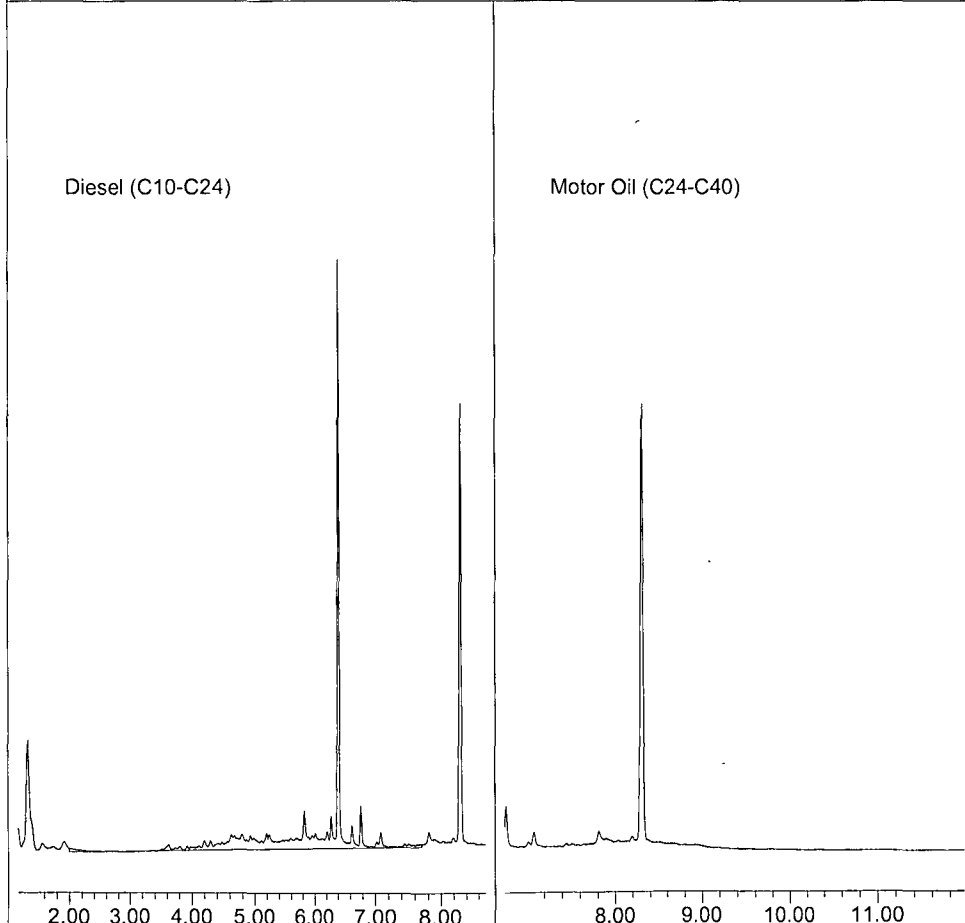
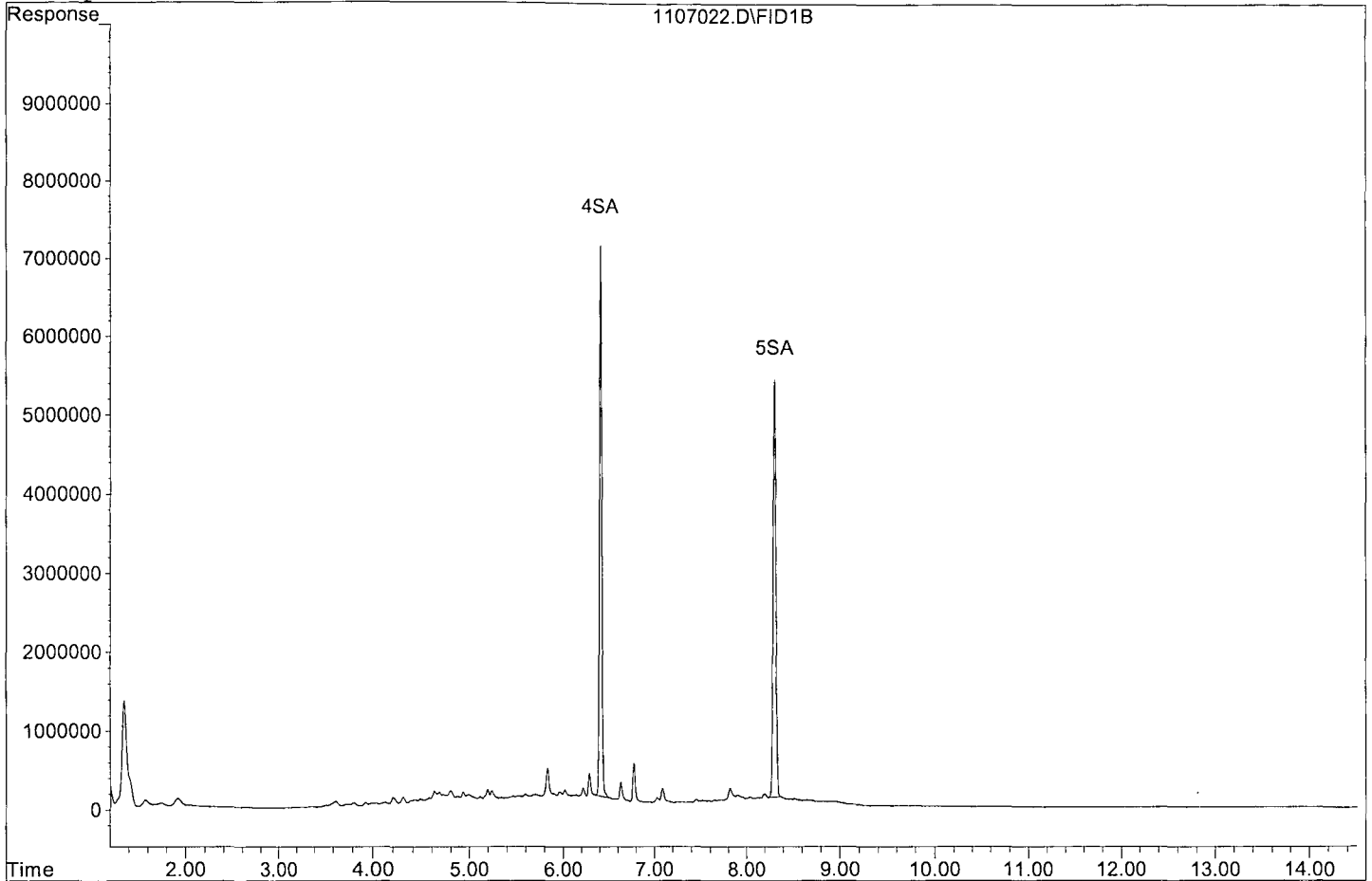
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	121898351	78.692 ppb
Surrogate Spike 75.000		Recovery =	104.92%
5) SA Octacosane(S)	8.31	111796604	86.533 ppb
Surrogate Spike 75.000		Recovery =	115.38%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	222090574	169.421 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107022.D

Sample : AZ81840W10 2/800



Data File : G:\APOLLO\DATA\181107\1107047.D Vial: 47  
 Acq On : 11-8-18 19:39:14 Operator: DP  
 Sample : AZ81840W10 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:14 2018 Quant Results File: DOC0905.RES

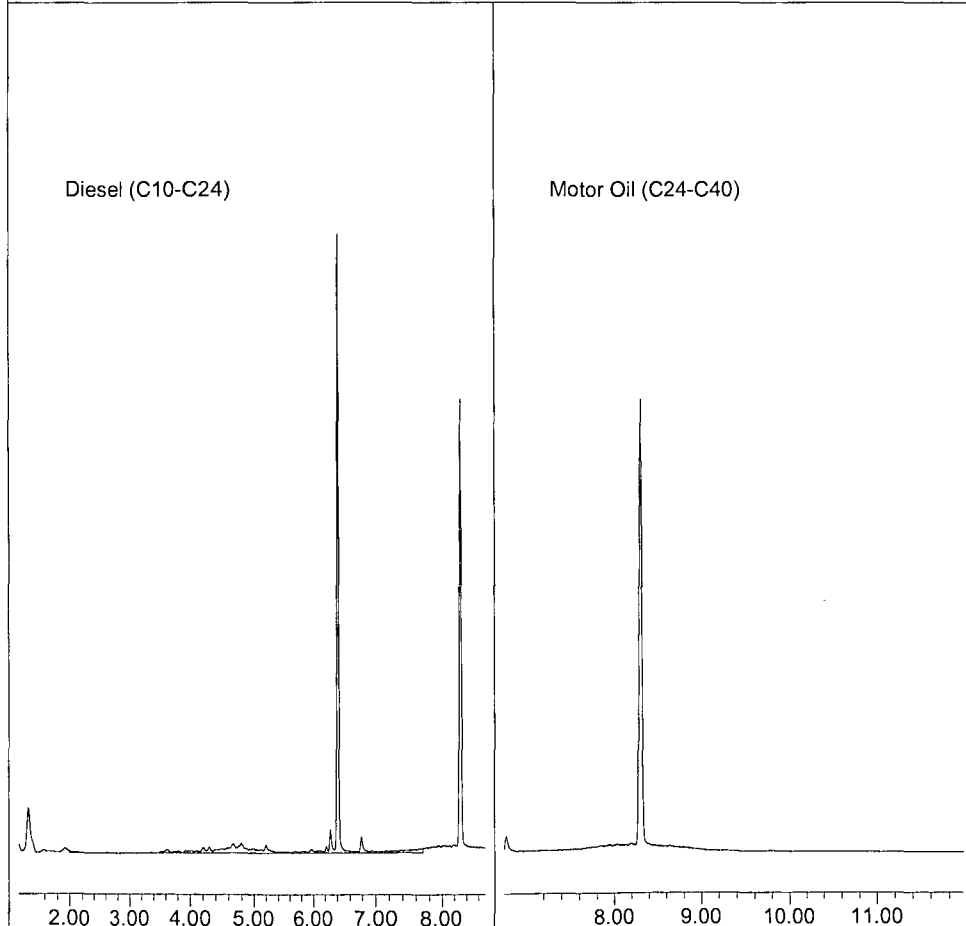
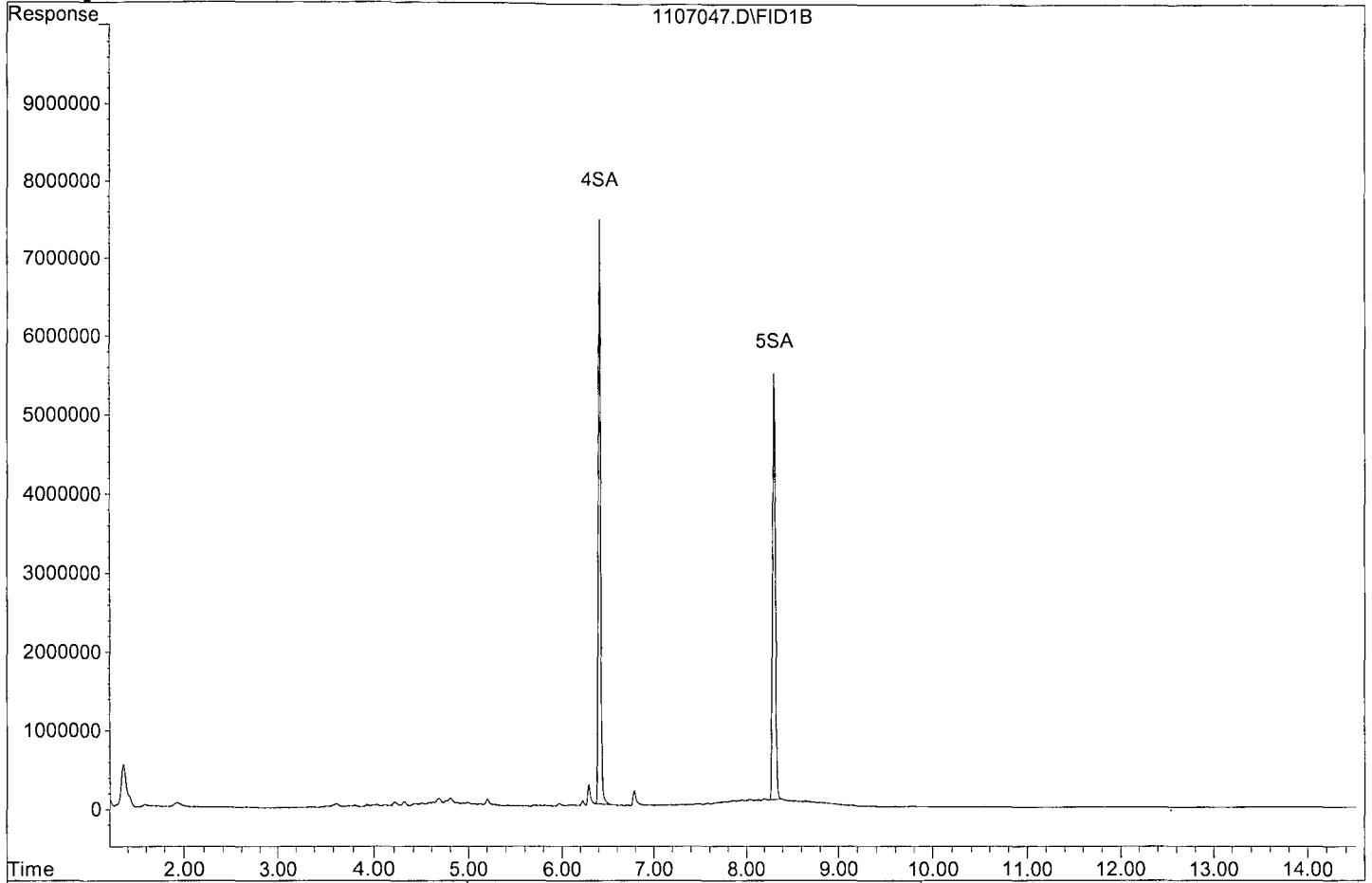
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	128241807	82.787 ppb
Surrogate Spike 75.000		Recovery =	110.38%
5) SA Octacosane(S)	8.31	114707143	88.786 ppb
Surrogate Spike 75.000		Recovery =	118.38%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	87338916	66.626 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107047.D  
Sample : AZ81840W10 2/800 SGC



Data File : G:\APOLLO\DATA\181031\1031028.D Vial: 28  
 Acq On : 10-31-18 21:05:20 Operator: DP  
 Sample : AZ81841W10 2/810 Inst : Apollo  
 Misc : water Multiplr: 2.47  
 IntFile : events.e  
 Quant Time: Nov 1 8:08 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

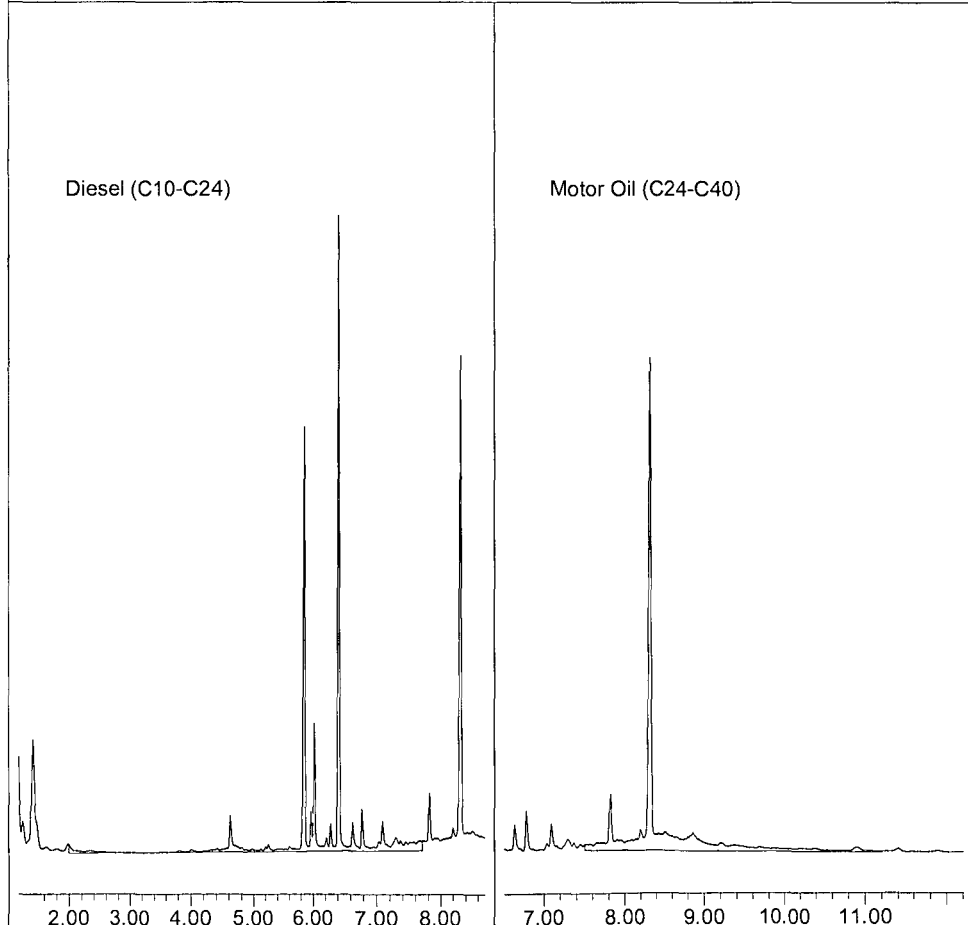
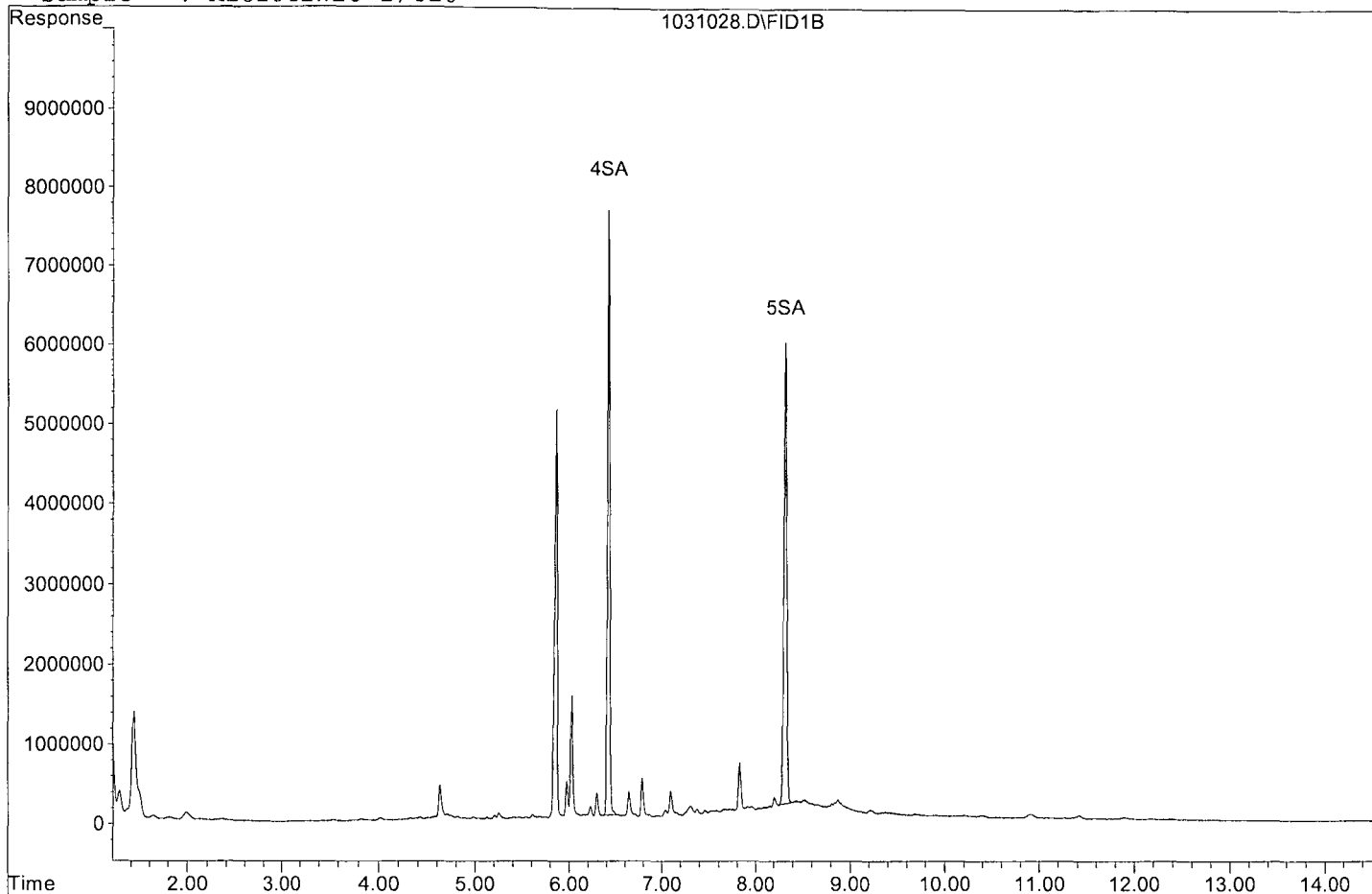
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	128775264	82.105 ppb
Surrogate Spike 74.074		Recovery =	110.84%
5) SA Octacosane(S)	8.32	120376886	92.024 ppb
Surrogate Spike 74.074		Recovery =	124.23%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	287498226	216.610 ppb
2) HBTM Motor Oil (C24-C40)	9.36	189582820	168.640 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031028.D

Sample : AZ81841W10 2/810





Data File : G:\APOLLO\DATA\181107\1107023.D Vial: 23  
 Acq On : 11-7-18 20:50:51 Operator: DP  
 Sample : AZ81841W13 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 8 9:17 2018 Quant Results File: DOC0905.RES

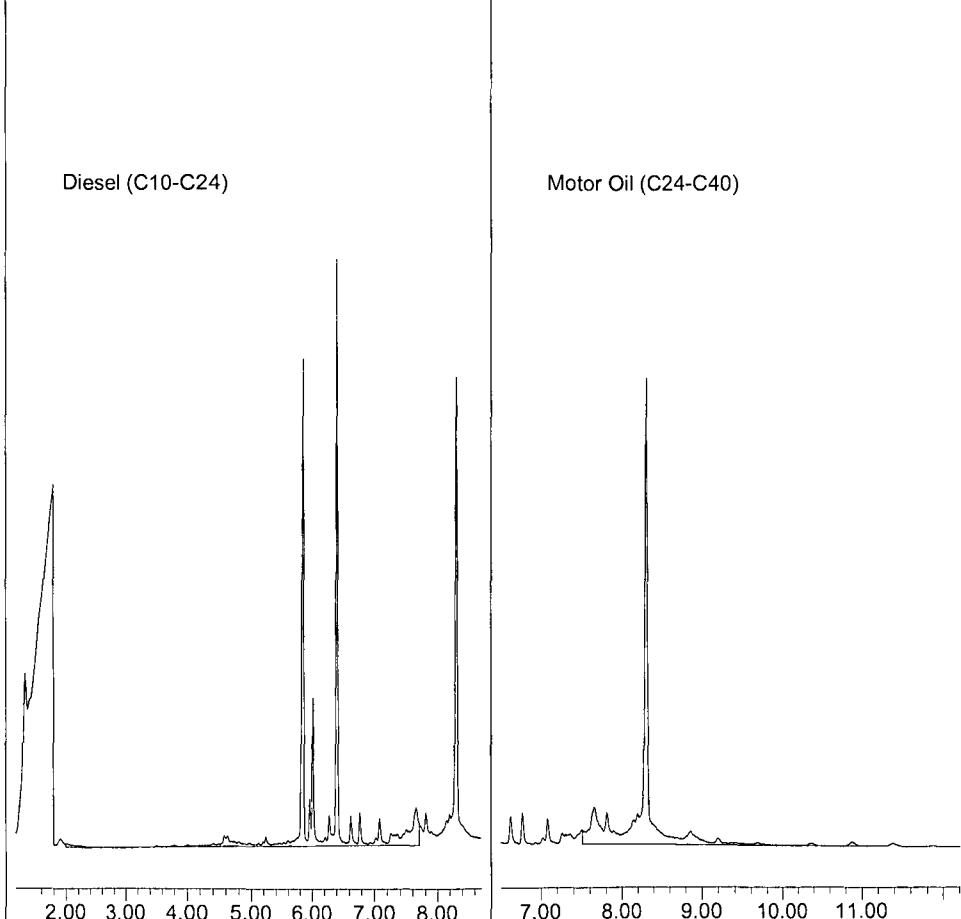
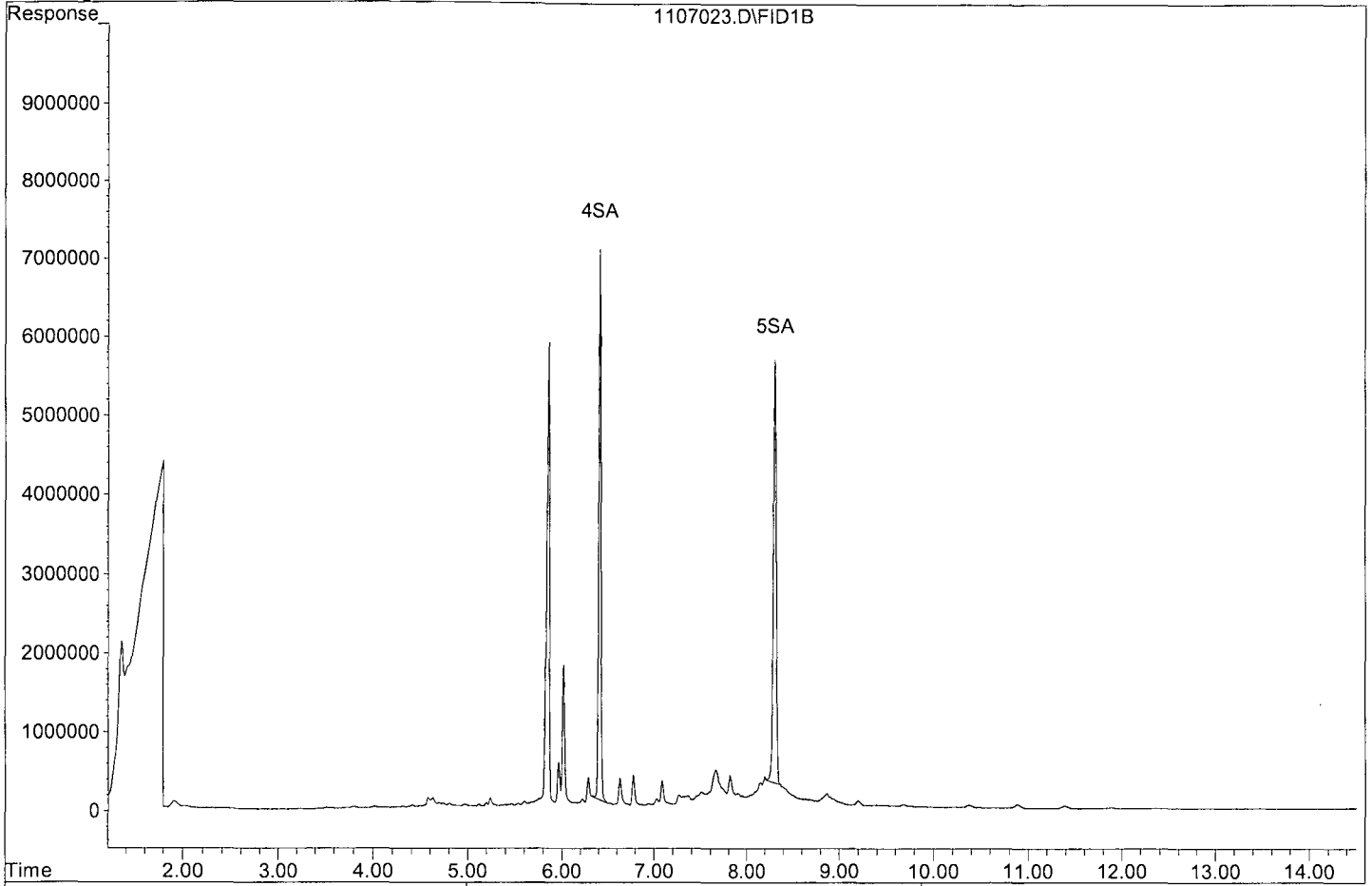
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	117652109	75.951 ppb
Surrogate Spike 75.000		Recovery =	101.27%
5) SA Octacosane(S)	8.31	115385170	89.311 ppb
Surrogate Spike 75.000		Recovery =	119.08%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	332348965	253.532 ppb
2) HBTM Motor Oil (C24-C40)	9.36	181626459	163.582 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107023.D  
Sample : AZ81841W13 2/800



Data File : G:\APOLLO\DATA\181107\1107048.D Vial: 48  
 Acq On : 11-8-18 19:59:27 Operator: DP  
 Sample : AZ81841W13 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:16 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

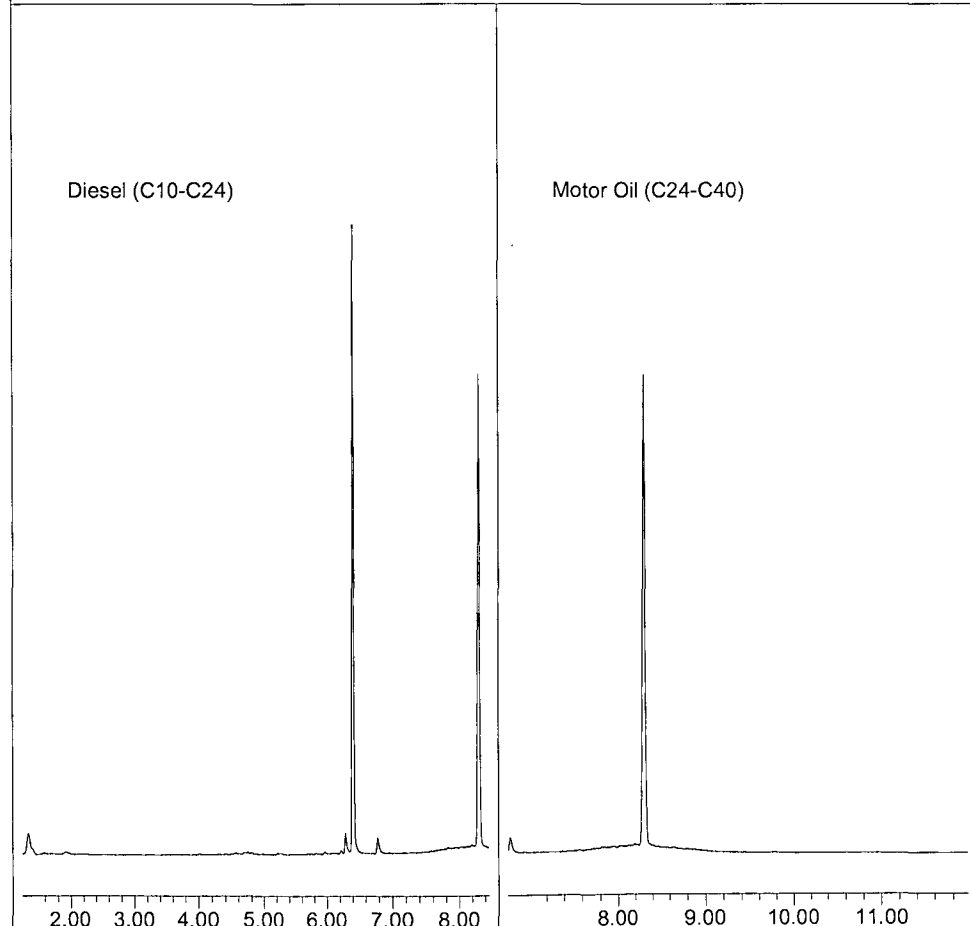
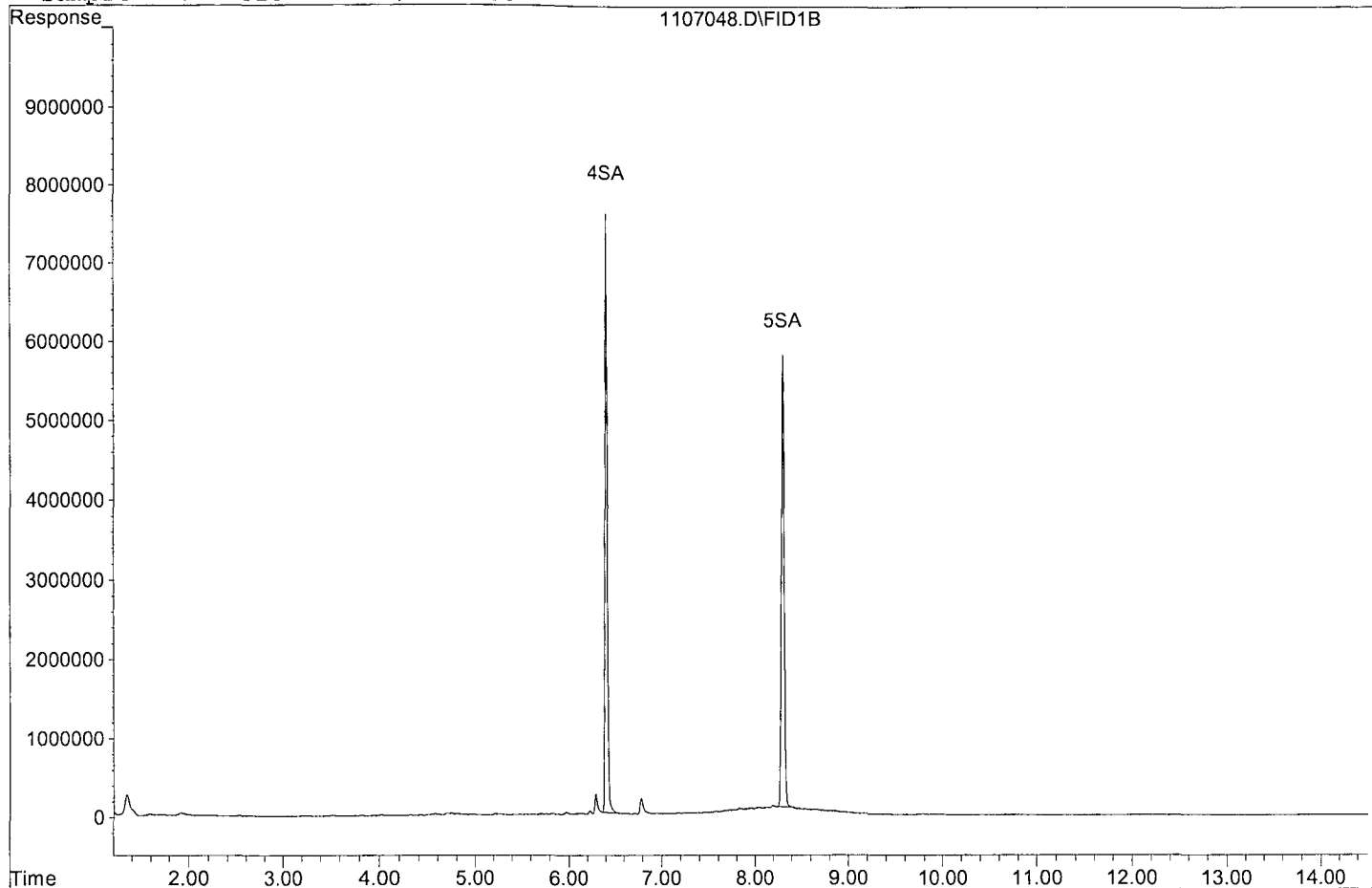
Compound	R.T.	Response	Conc Units
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System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	129199772	83.405 ppb
Surrogate Spike 75.000		Recovery =	111.21%
5) SA Octacosane(S)	8.31	115773175	89.611 ppb
Surrogate Spike 75.000		Recovery =	119.48%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107048.D  
Sample : AZ81841W13 2/800 SGC



Data File : G:\APOLLO\DATA\181031\1031029.D Vial: 29  
 Acq On : 10-31-18 21:25:27 Operator: DP  
 Sample : AZ81842W10 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 1 8:08 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

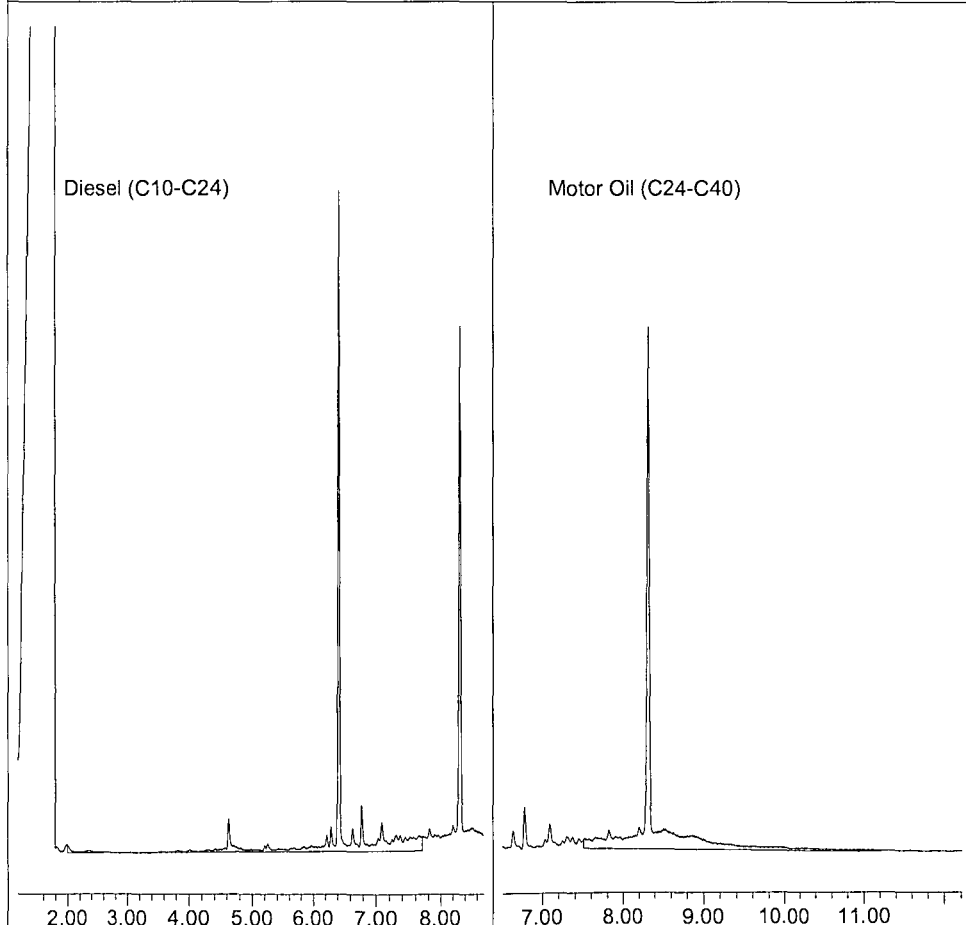
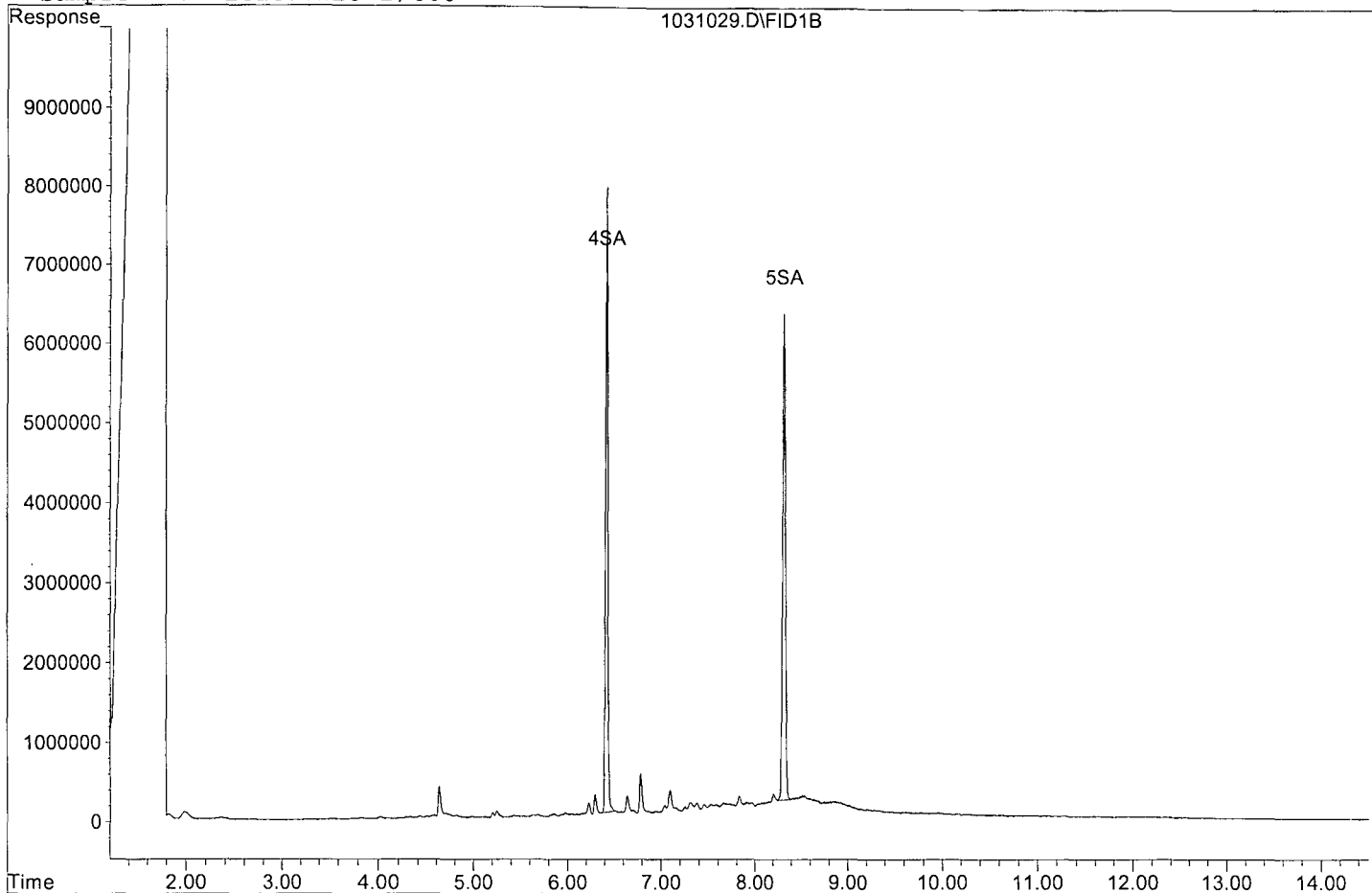
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	133068509	85.903 ppb
Surrogate Spike 75.000		Recovery =	114.54%
5) SA Octacosane(S)	8.32	125147982	96.868 ppb
Surrogate Spike 75.000		Recovery =	129.16%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	180214041	137.476 ppb
2) HBTM Motor Oil (C24-C40)	9.36	182544027	164.409 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031029.D

Sample : AZ81842W10 2/800



Data File : G:\APOLLO\DATA\181107\1107024.D Vial: 24  
 Acq On : 11-7-18 21:11:02 Operator: DP  
 Sample : AZ81842W11 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 8 9:17 2018 Quant Results File: DOC0905.RES

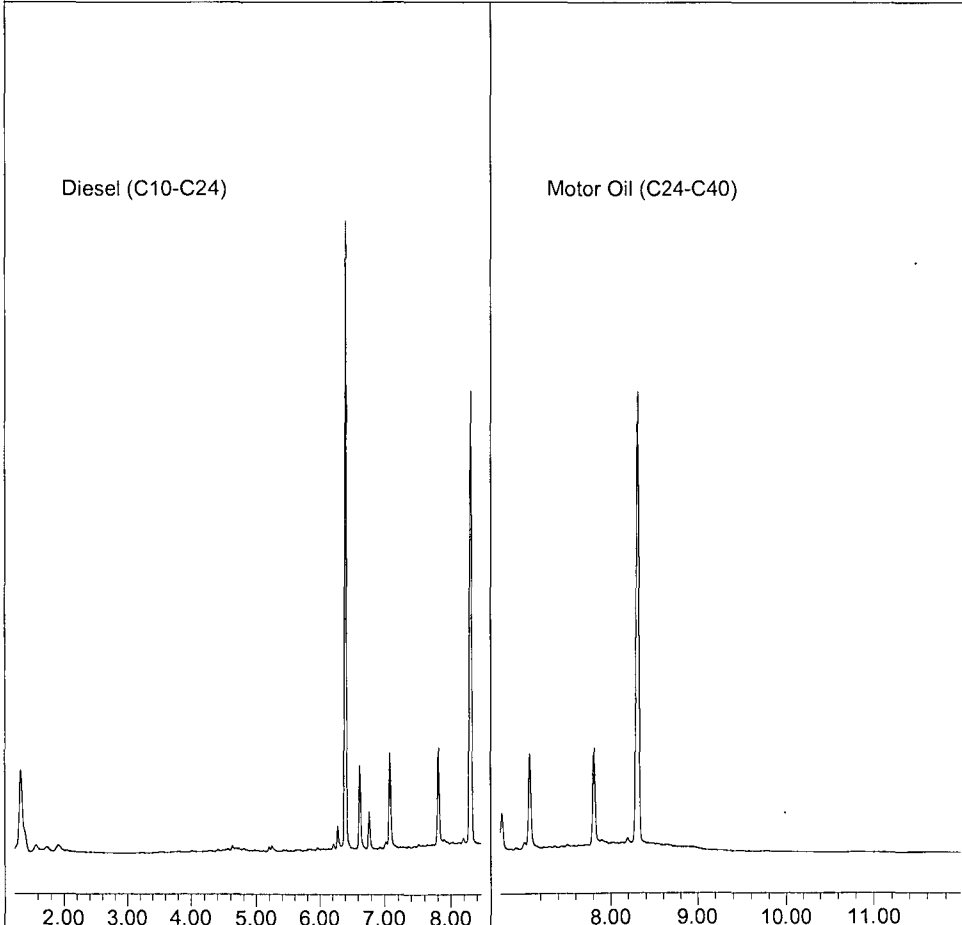
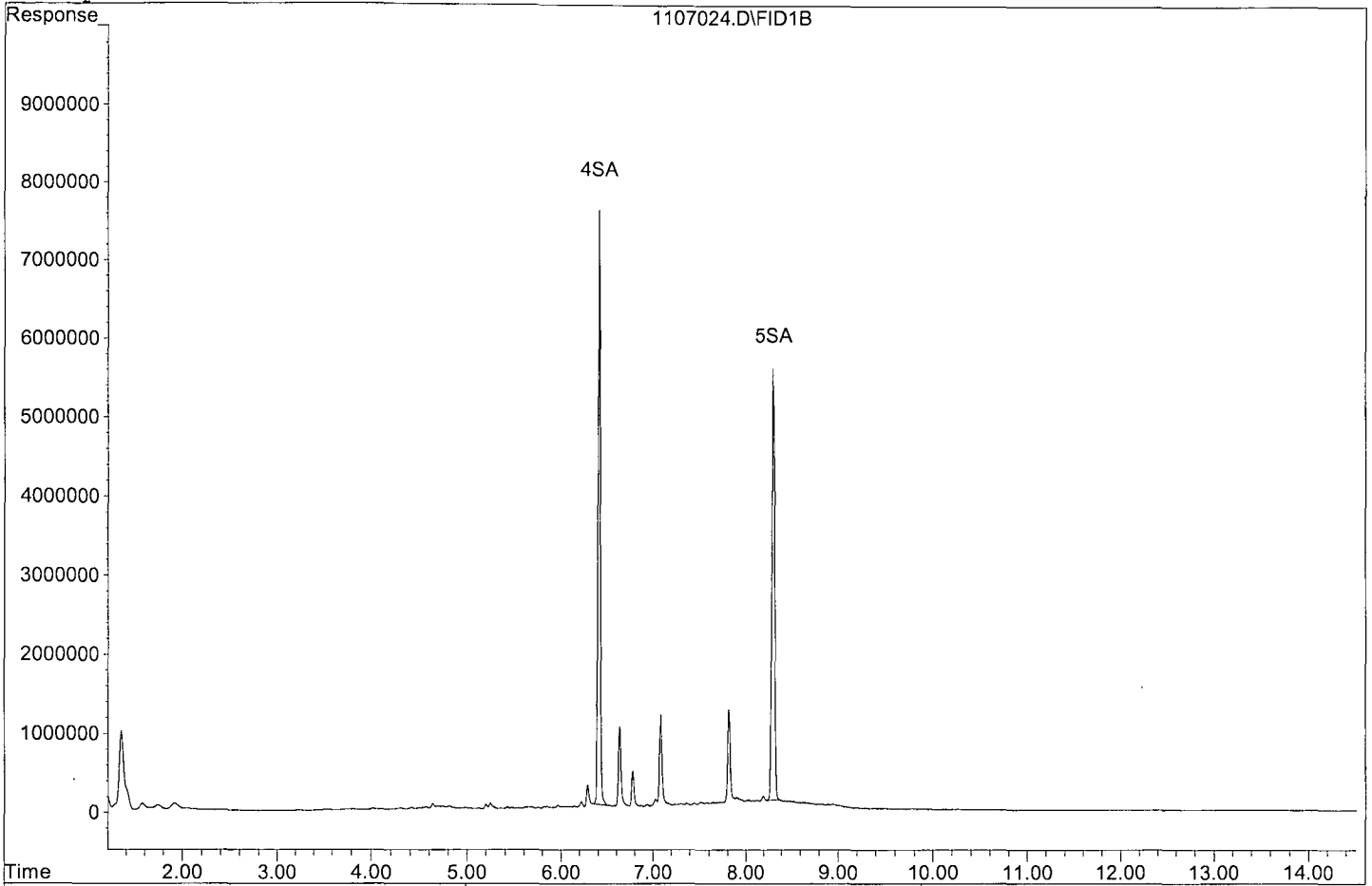
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	125444025	80.981 ppb
Surrogate Spike 75.000		Recovery =	107.97%
5) SA Octacosane(S)	8.31	116303987	90.022 ppb
Surrogate Spike 75.000		Recovery =	120.03%

Target Compounds

Data File: G:\APOLLO\DATA\181107\1107024.D  
Sample : AZ81842W11 2/800





Data File : G:\APOLLO\DATA\181031\1031004.D Vial: 4  
 Acq On : 10-31-18 13:07:10 Operator: DP  
 Sample : 181029A BLK 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 31 12:34 2018 Quant Results File: DOC0905.RES

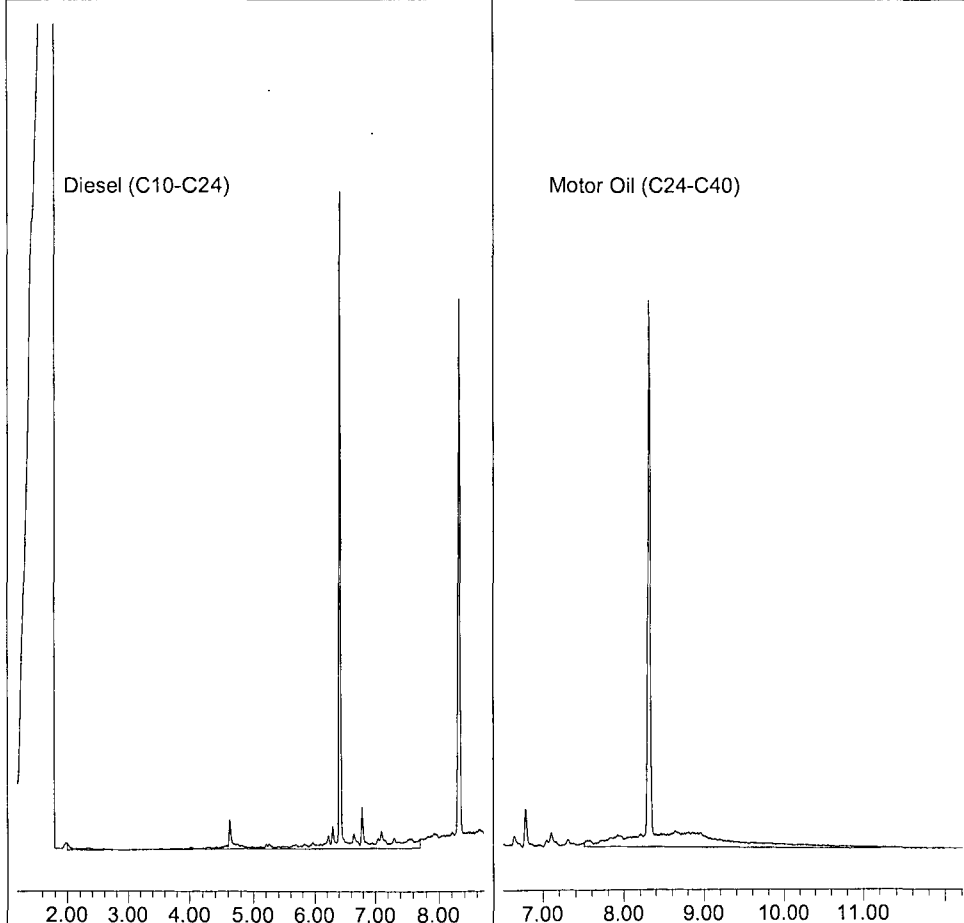
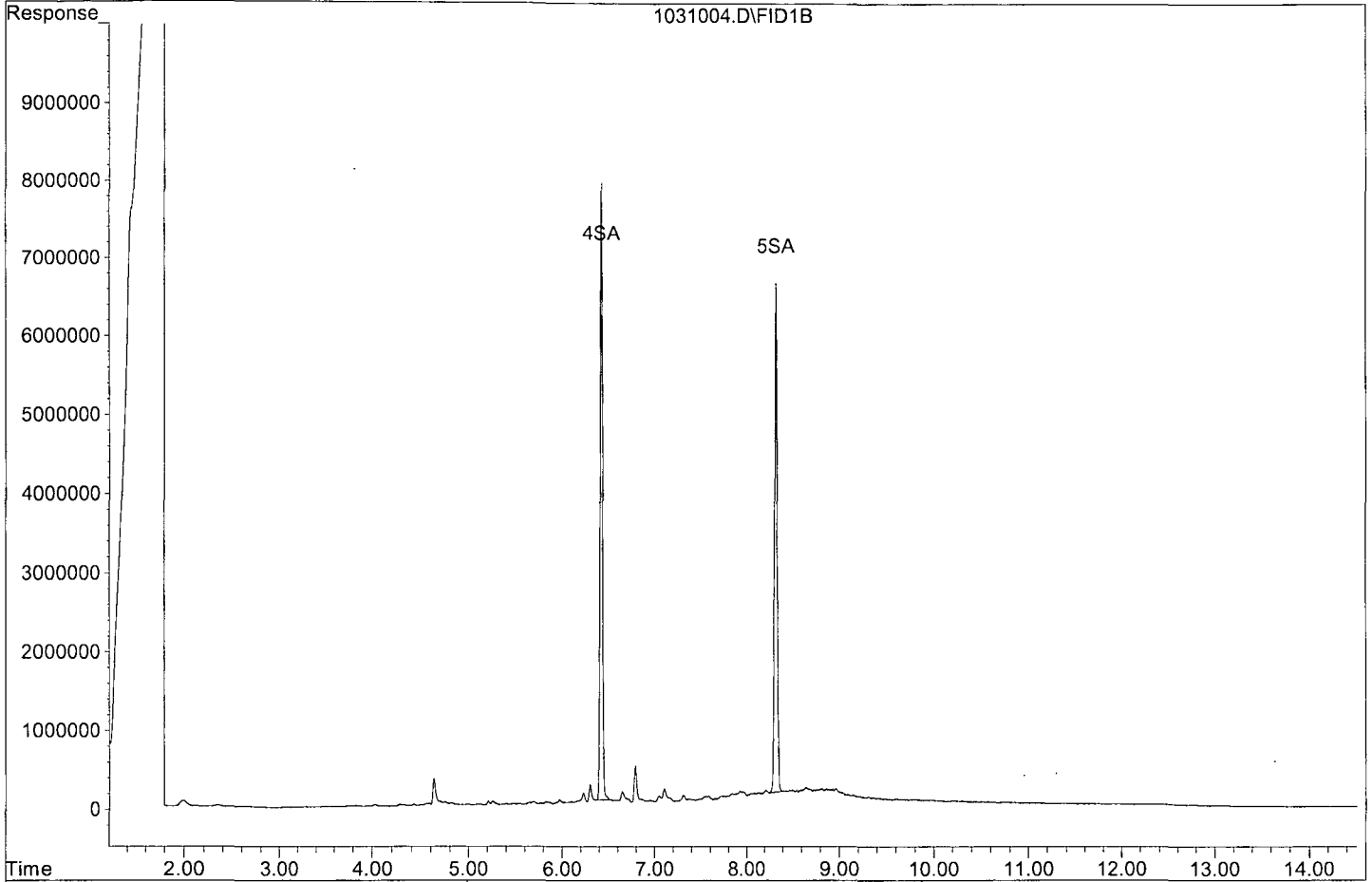
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	133485549	86.172 ppb
Surrogate Spike 75.000		Recovery =	114.90%
5) SA Octacosane(S)	8.32	126068736	97.580 ppb
Surrogate Spike 75.000		Recovery =	130.11%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	139543936	106.451 ppb
2) HBTM Motor Oil (C24-C40)	9.36	169088208	152.290 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031004.D  
Sample : 181029A BLK 2/800



Data File : G:\APOLLO\DATA\181107\1107004.D Vial: 4  
 Acq On : 11-7-18 14:24:57 Operator: DP  
 Sample : 181105A BLK 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 15:05 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

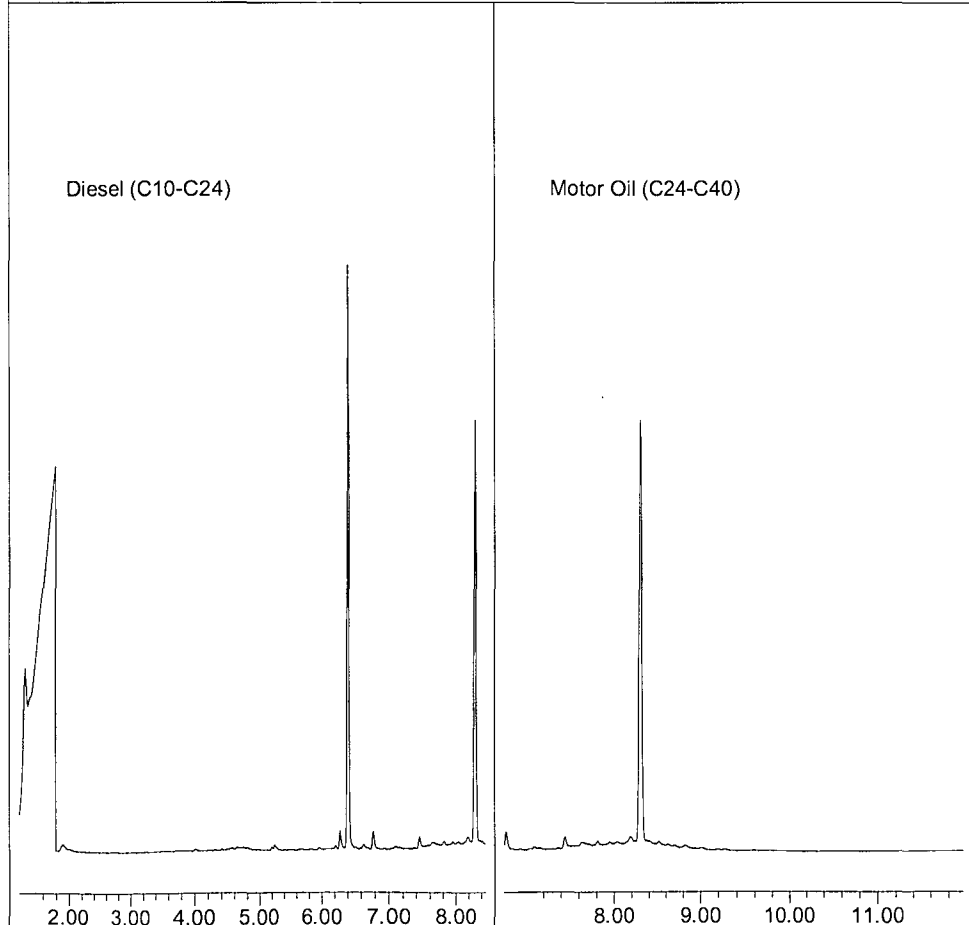
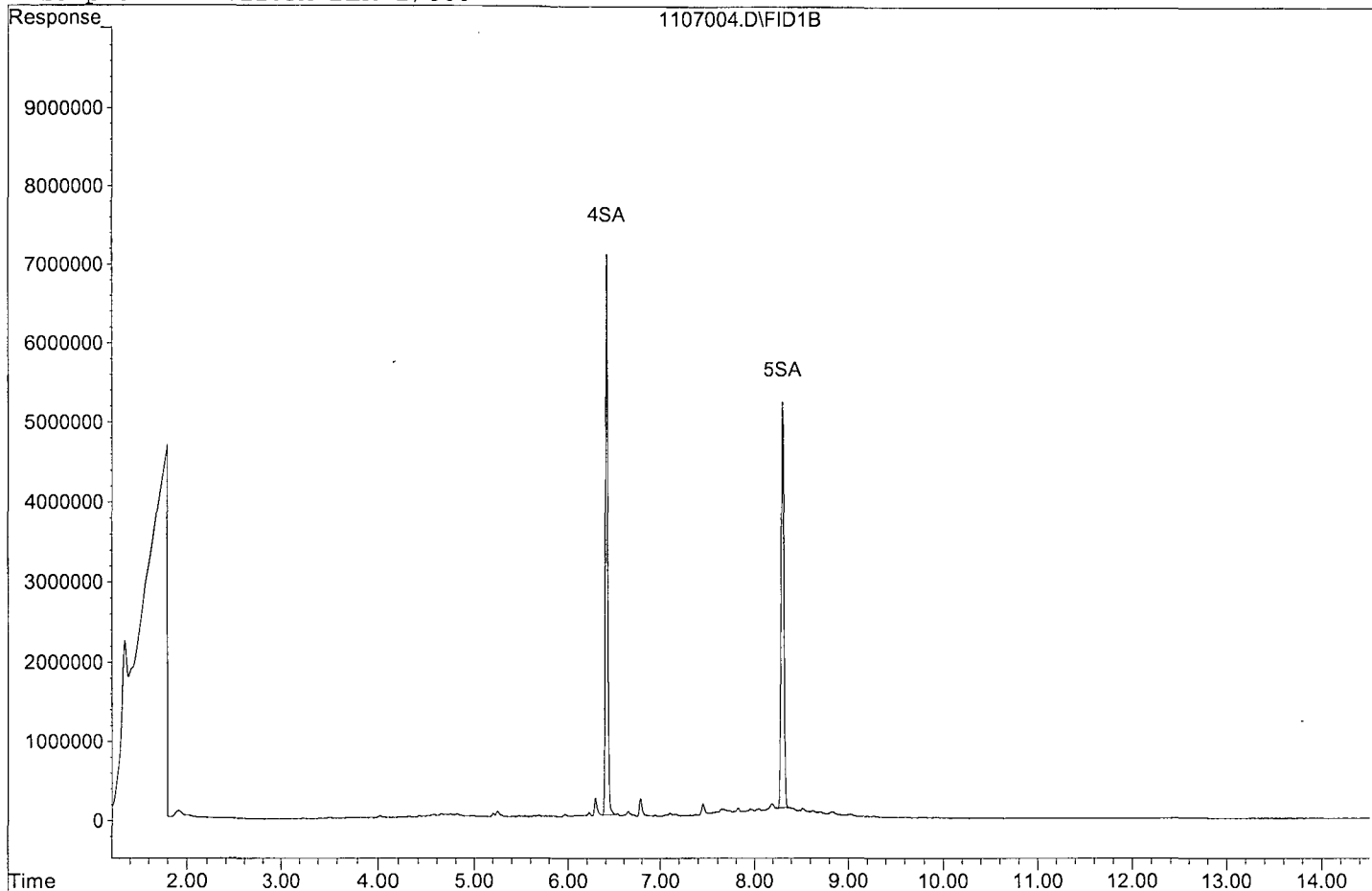
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	120181049	77.583 ppb
Surrogate Spike 75.000		Recovery =	103.44%
5) SA Octacosane(S)	8.31	106752854	82.629 ppb
Surrogate Spike 75.000		Recovery =	110.17%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107004.D

Sample : 181105A BLK 2/800



Data File : G:\APOLLO\DATA\181107\1107039.D Vial: 39  
 Acq On : 11-8-18 16:57:41 Operator: DP  
 Sample : 181105A BLK 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:12 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

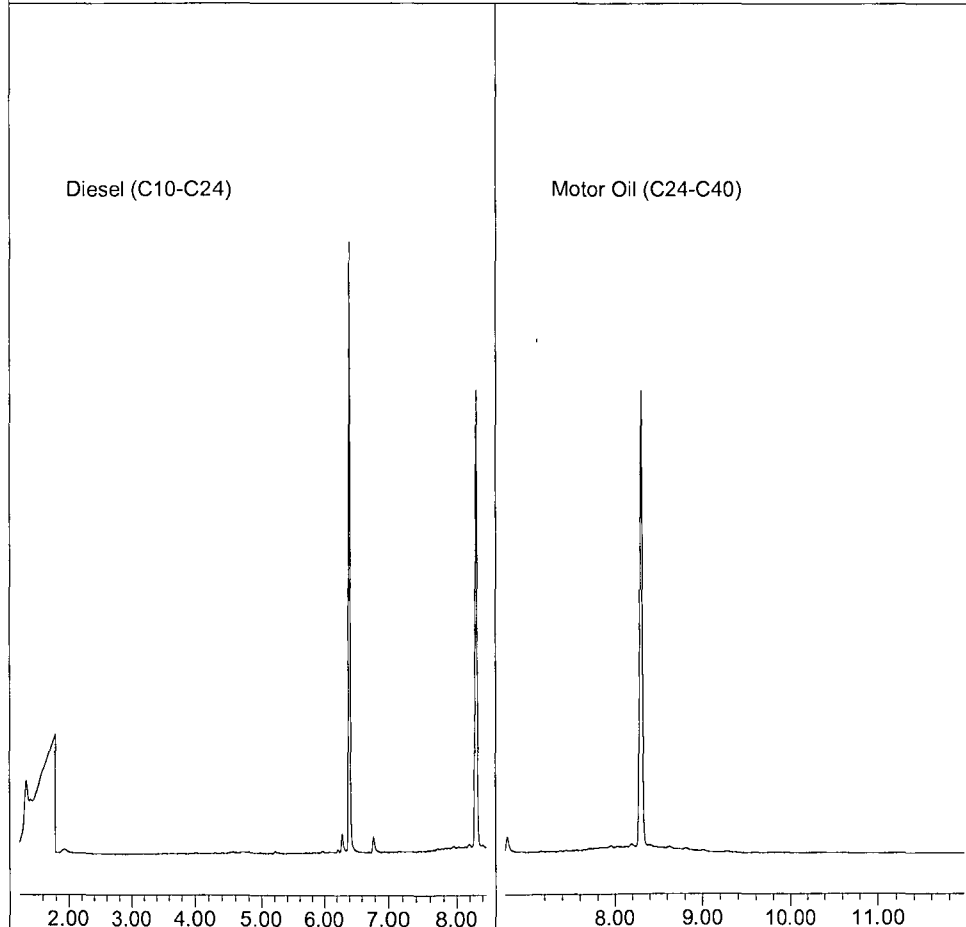
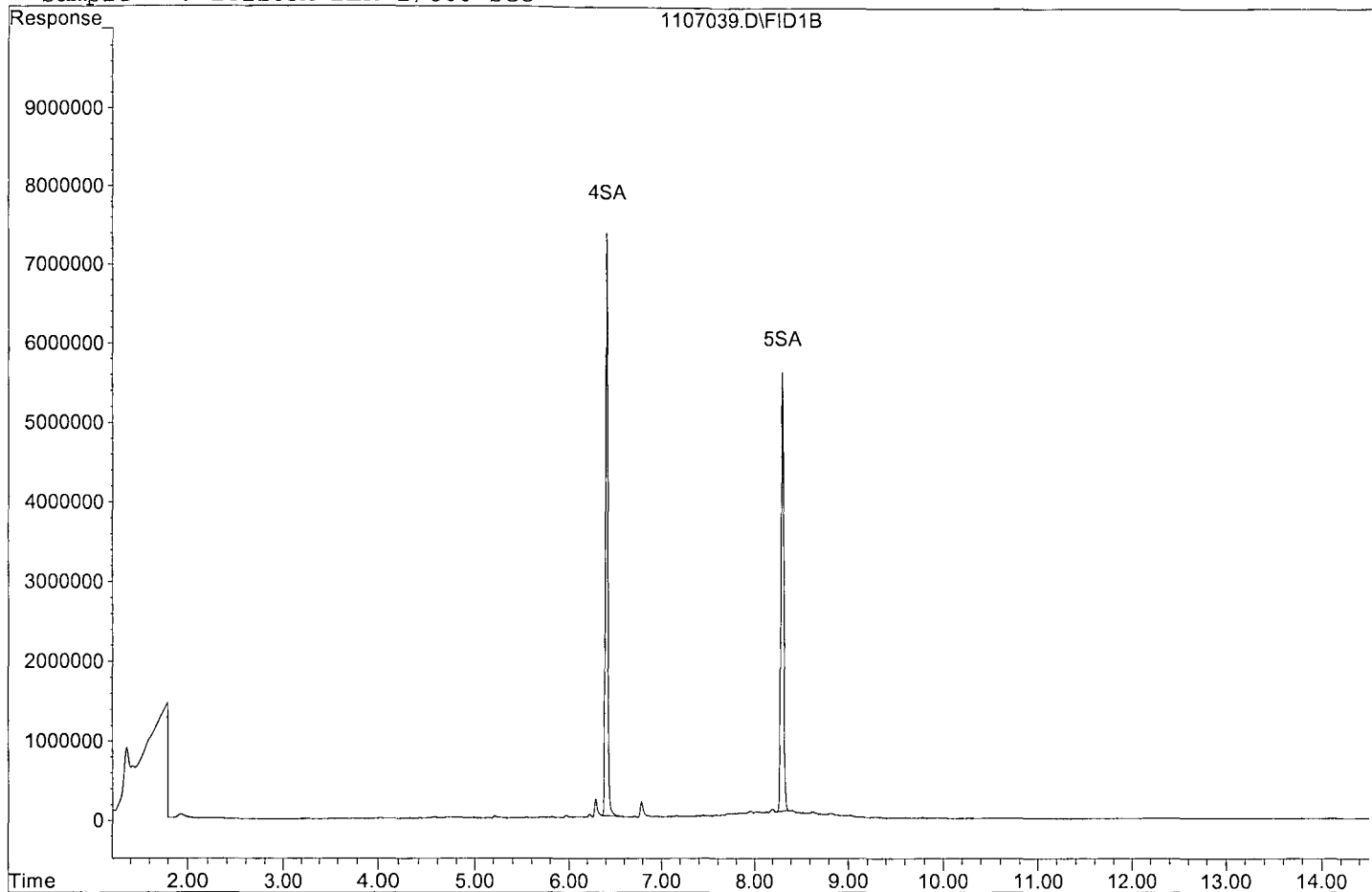
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	125097962	80.757 ppb
Surrogate Spike 75.000		Recovery =	107.68%
5) SA Octacosane(S)	8.30	112214296	86.857 ppb
Surrogate Spike 75.000		Recovery =	115.81%

Target Compounds

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107039.D

Sample : 181105A BLK 2/800 SGC



Data File : G:\APOLLO\DATA\181031\1031005.D Vial: 5  
 Acq On : 10-31-18 13:27:09 Operator: DP  
 Sample : 181029A LCS-1 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 31 13:11 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

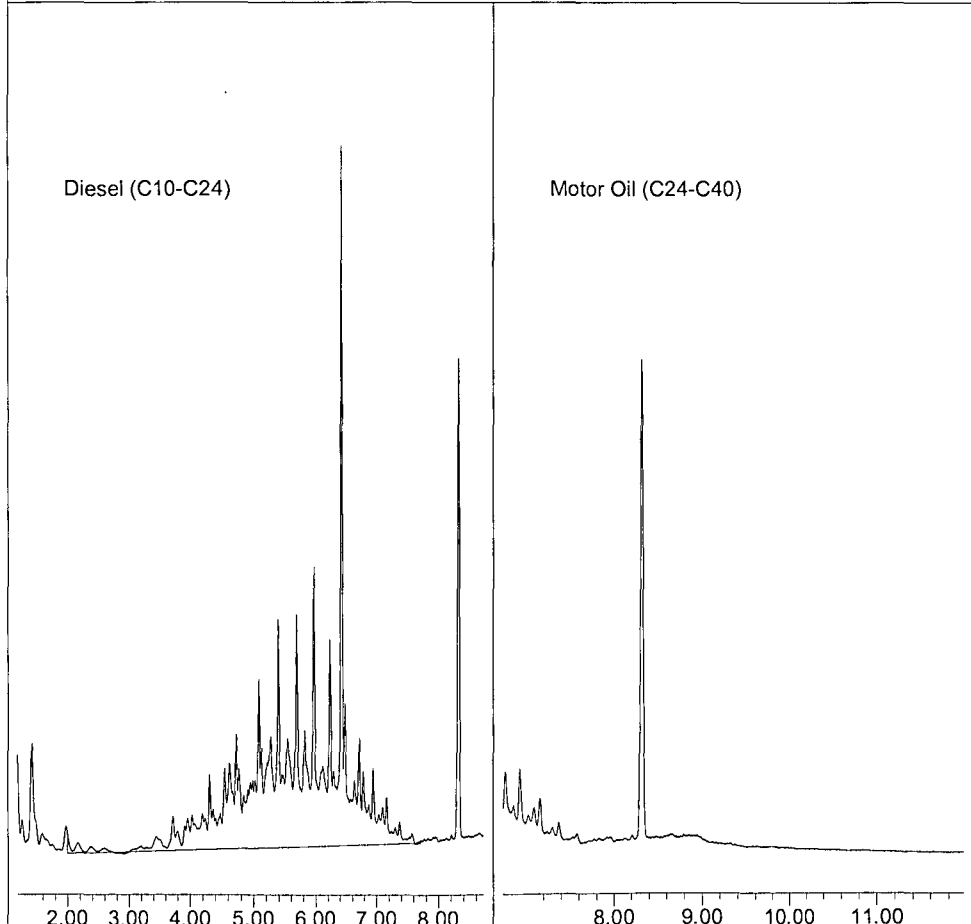
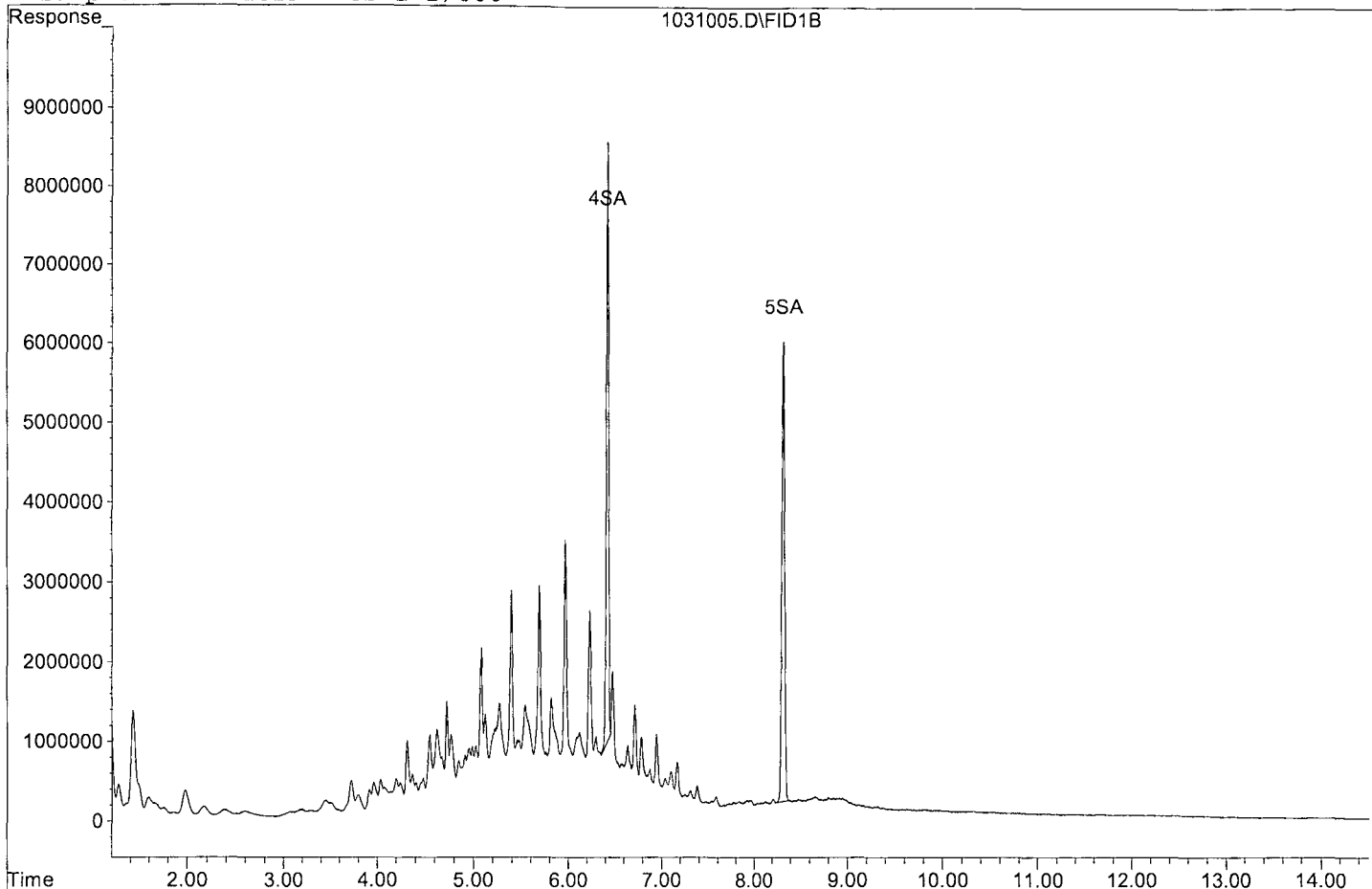
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	124326623	80.260 ppb
Surrogate Spike 75.000		Recovery =	107.01%
5) SA Octacosane(S)	8.32	122965950	95.179 ppb
Surrogate Spike 75.000		Recovery =	126.91%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1587811018	1211.257 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031005.D

Sample : 181029A LCS-1 2/800





Data File : G:\APOLLO\DATA\181031\1031006.D Vial: 6  
 Acq On : 10-31-18 13:47:04 Operator: DP  
 Sample : 181029A LCS-2 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 31 13:11 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

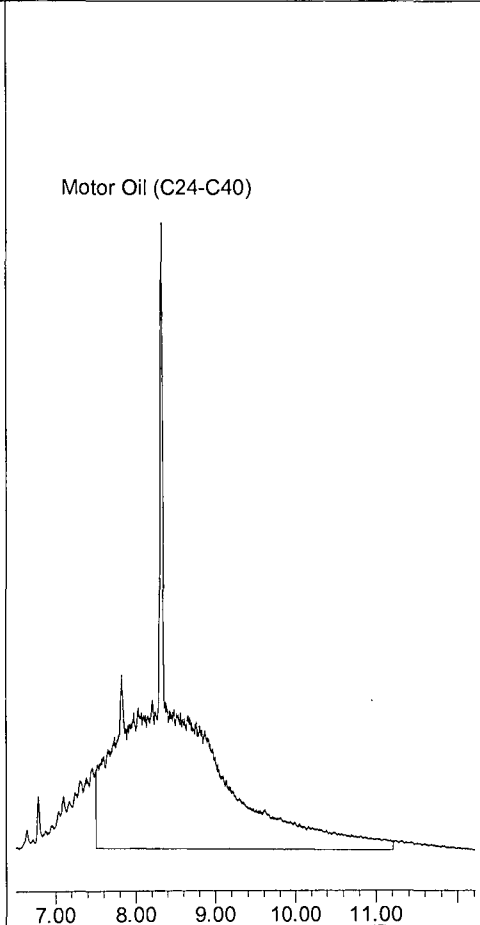
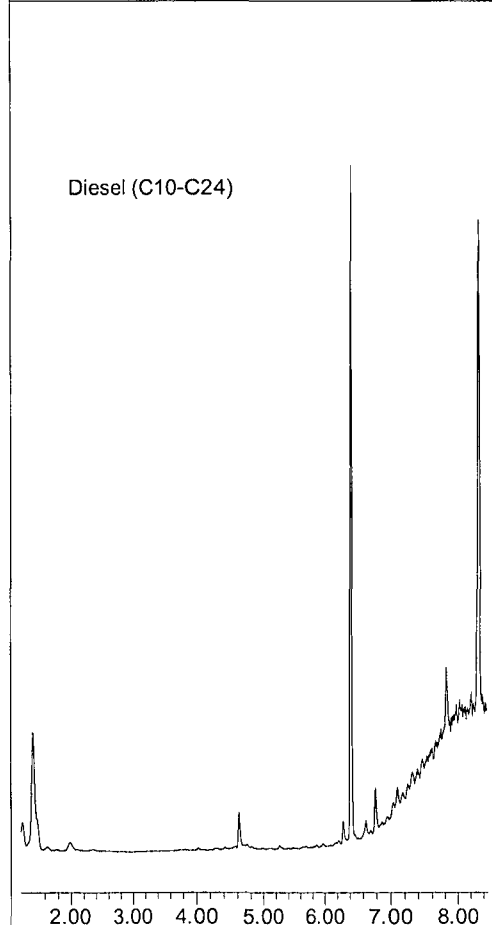
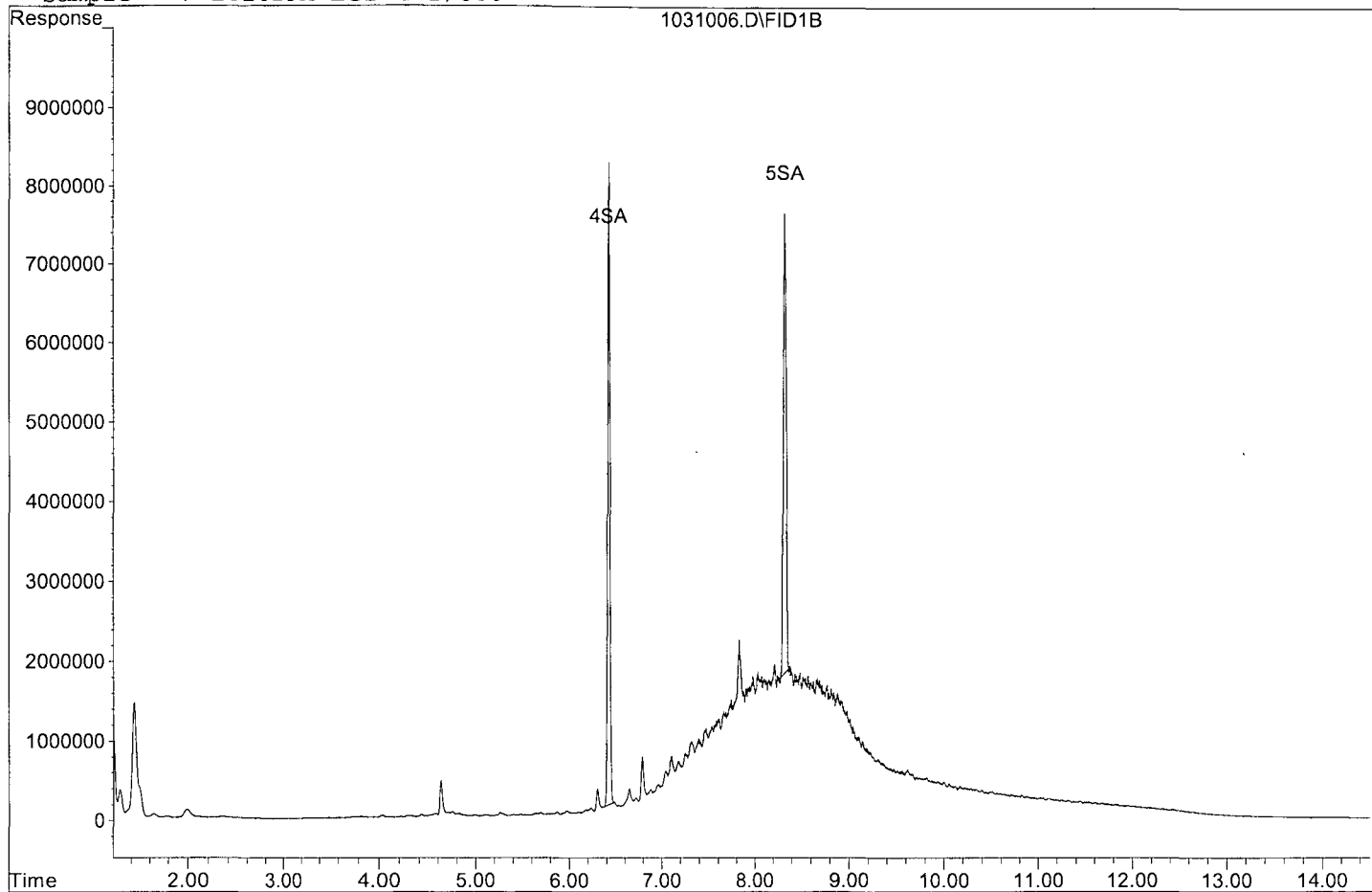
Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	131538659	84.915 ppb
Surrogate Spike 75.000		Recovery =	113.22%
5) SA Octacosane(S)	8.33	120728819	93.447 ppb
Surrogate Spike 75.000		Recovery =	124.60%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1738408382	1565.700 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181031\1031006.D

Sample : 181029A LCS-2 2/800



Data File : G:\APOLLO\DATA\181031\1031007.D Vial: 7  
 Acq On : 10-31-18 14:06:12 Operator: DP  
 Sample : 181029A LCSD-1 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 31 15:08 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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 System Monitoring Compounds

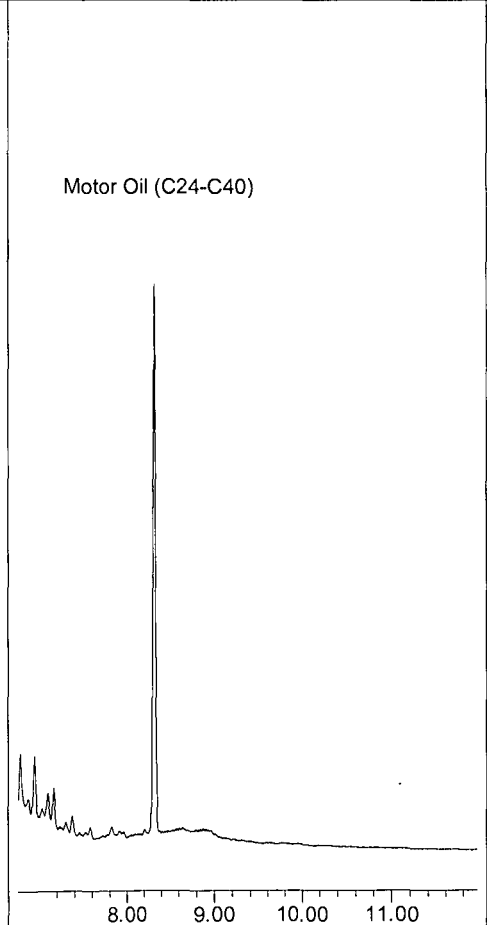
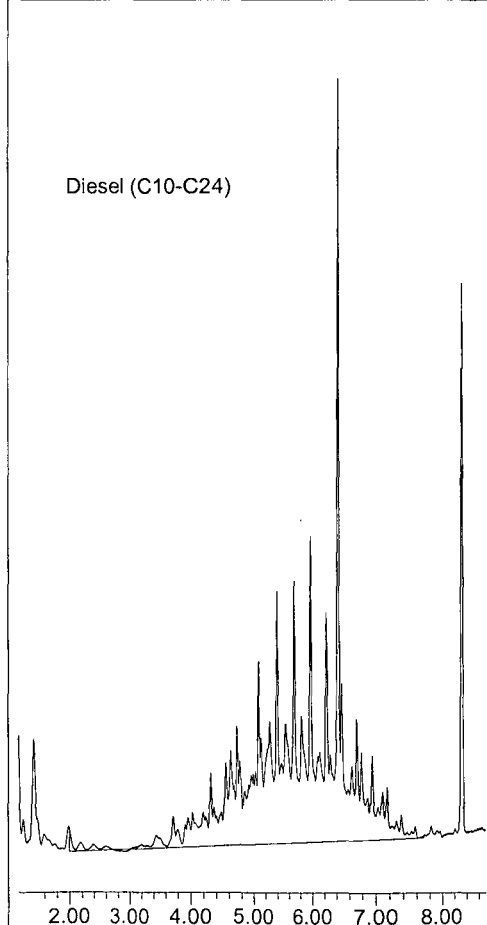
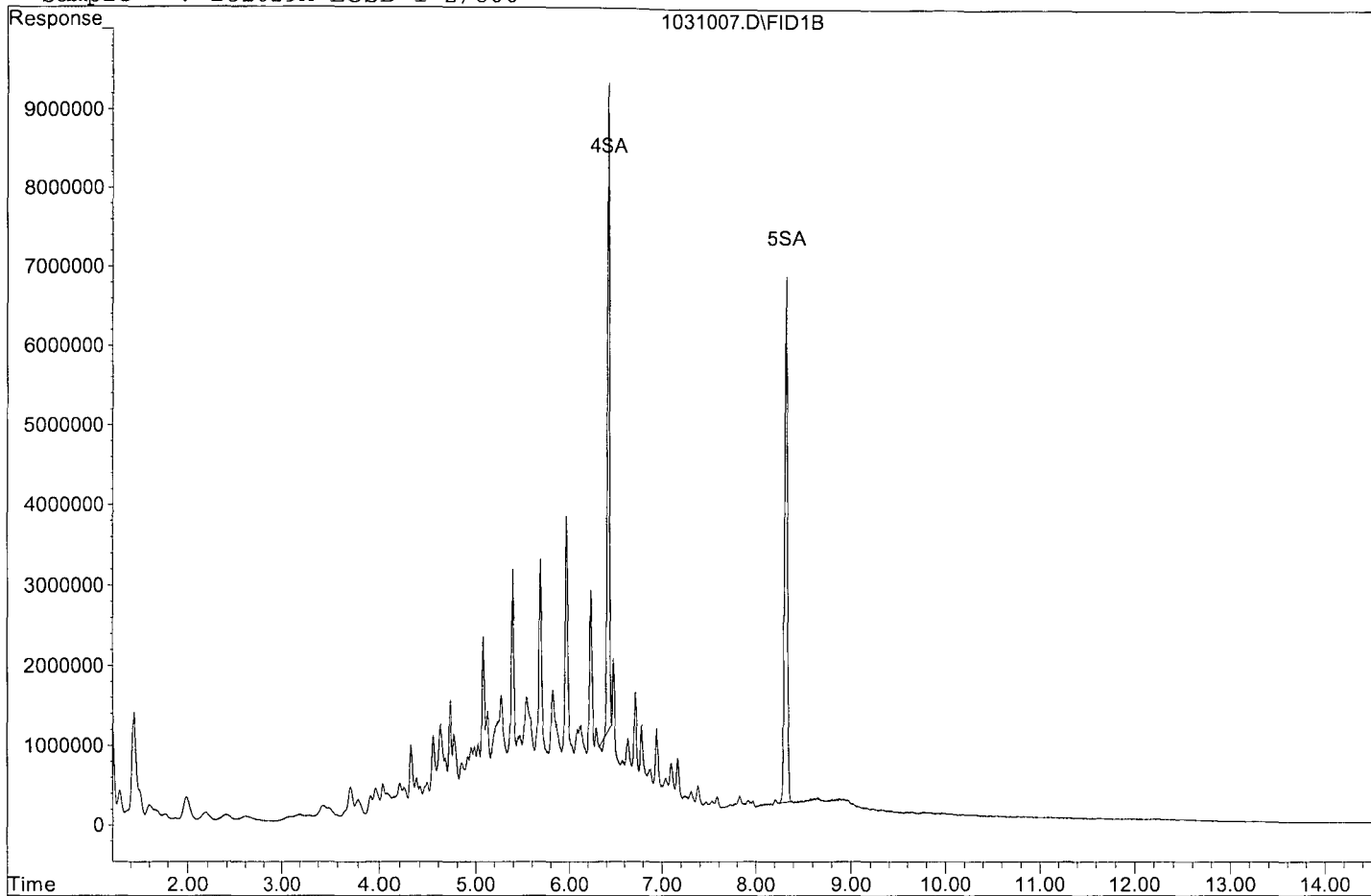
4) SA Ortho-Terphenyl(S)	6.42	130380912	84.168 ppb
Surrogate Spike 75.000		Recovery =	112.22%
5) SA Octacosane(S)	8.32	134459291	104.075 ppb
Surrogate Spike 75.000		Recovery =	138.77%

Target Compounds

1) HATM Diesel (C10-C24)	4.86	1712638199	1306.482 ppb
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Data File: G:\APOLLO\DATA\181031\1031007.D

Sample : 181029A LCSD-1 2/800



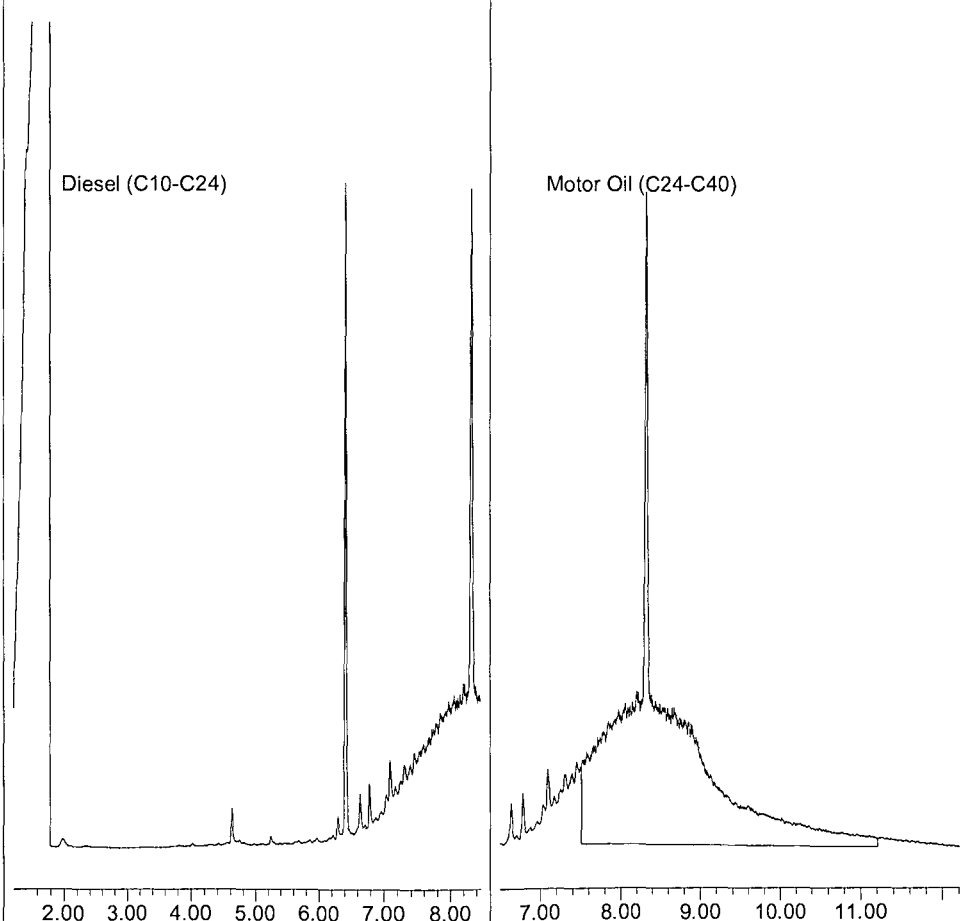
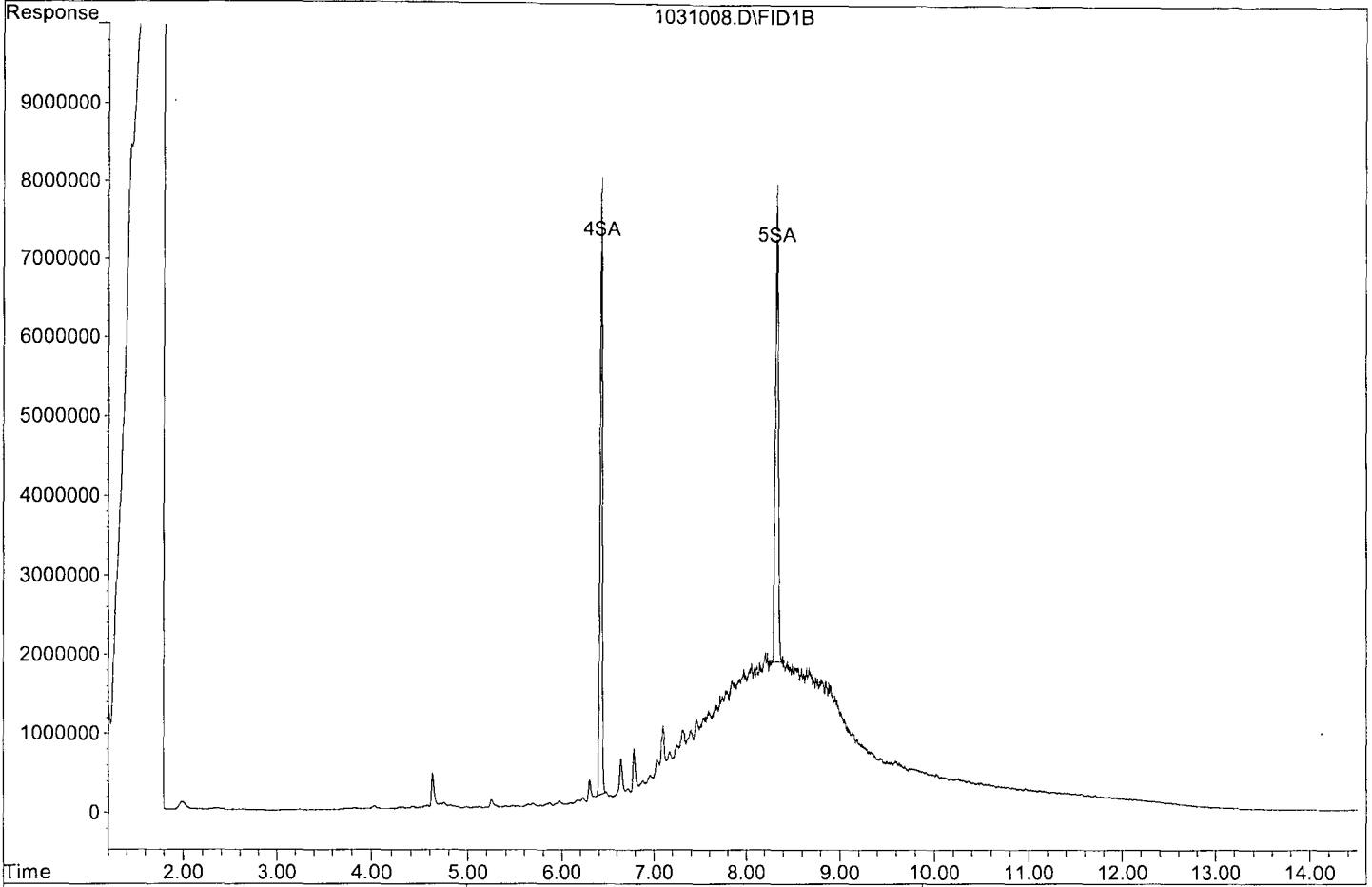
Data File : G:\APOLLO\DATA\181031\1031008.D Vial: 8  
 Acq On : 10-31-18 14:26:08 Operator: DP  
 Sample : 181029A LCSD-2 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Oct 31 15:08 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.42	131342297	84.789 ppb
Surrogate Spike 75.000		Recovery =	113.05%
5) SA Octacosane(S)	8.33	123563443	95.641 ppb
Surrogate Spike 75.000		Recovery =	127.52%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1771379152	1595.395 ppb

Data File: G:\APOLLO\DATA\181031\1031008.D  
Sample : 181029A LCSD-2 2/800



Data File : G:\APOLLO\DATA\181107\1107005.D Vial: 5  
 Acq On : 11-7-18 14:45:01 Operator: DP  
 Sample : 181105A LCS-1 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 15:05 2018 Quant Results File: DOC0905.RES

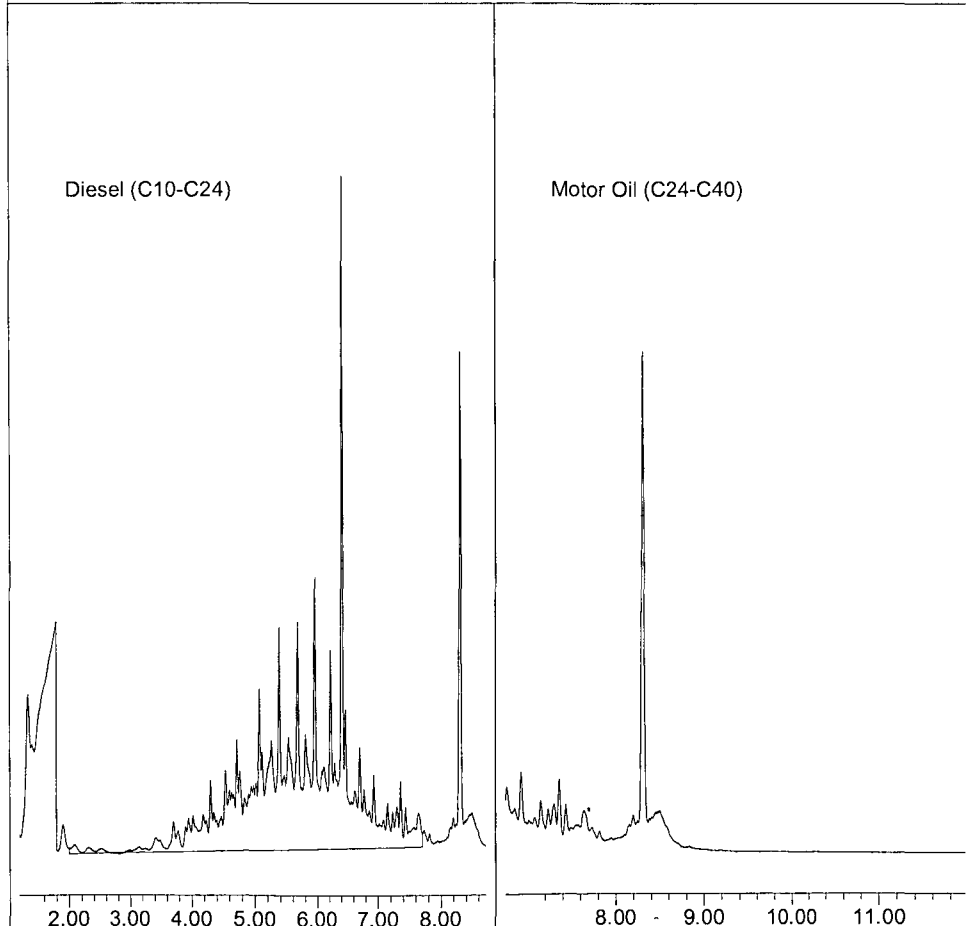
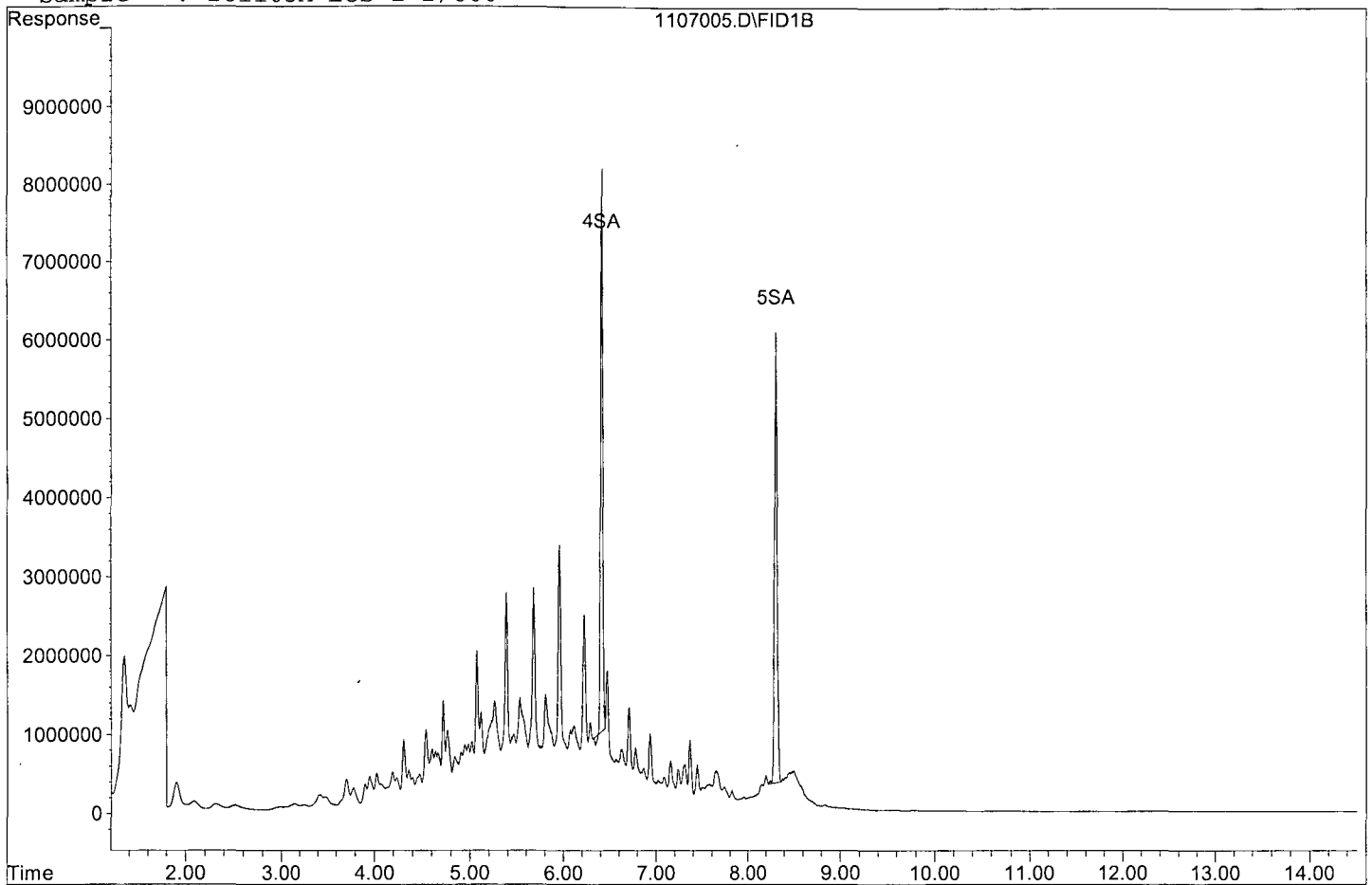
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	111223308	71.801 ppb
Surrogate Spike 75.000		Recovery =	95.73%
5) SA Octacosane(S)	8.31	113189424	87.611 ppb
Surrogate Spike 75.000		Recovery =	116.81%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1661661781	1267.594 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107005.D  
Sample : 181105A LCS-1 2/800





Data File : G:\APOLLO\DATA\181107\1107006.D Vial: 6  
 Acq On : 11-7-18 15:05:06 Operator: DP  
 Sample : 181105A LCS-2 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 15:23 2018 Quant Results File: DOC0905.RES

Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

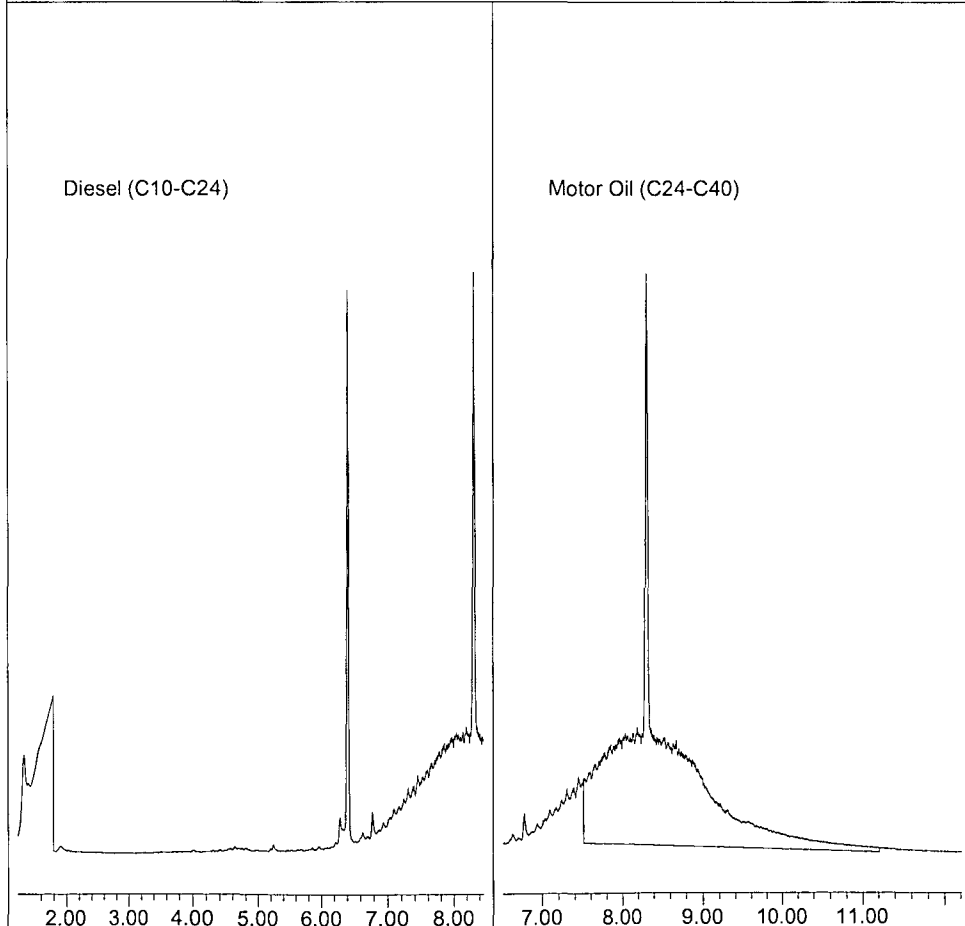
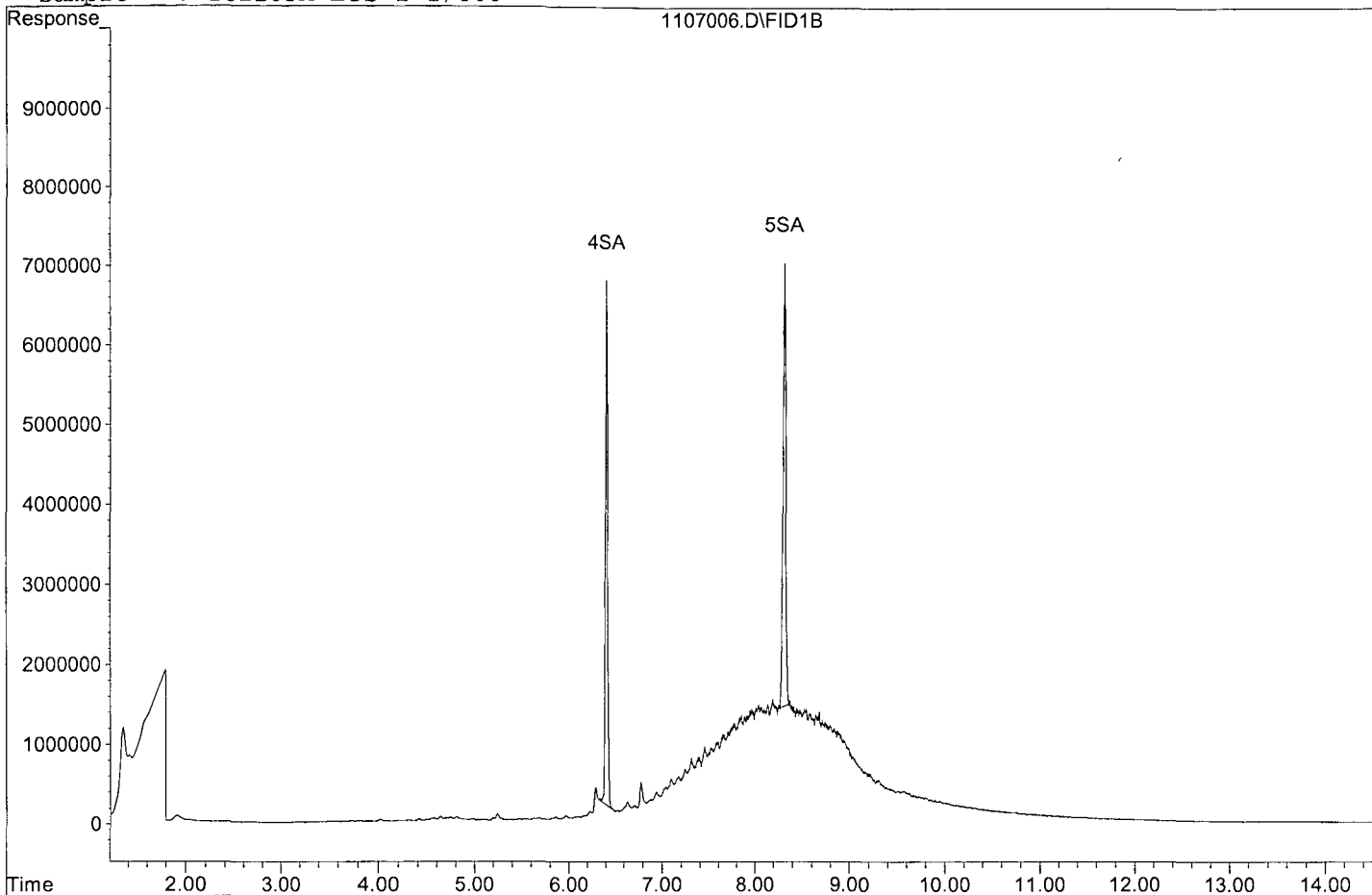
4) SA Ortho-Terphenyl(S)	6.41	109672489	70.800 ppb
Surrogate Spike 75.000		Recovery =	94.40%
5) SA Octacosane(S)	8.31	108757242	84.181 ppb
Surrogate Spike 75.000		Recovery =	112.24%

Target Compounds

2) HBTM Motor Oil (C24-C40)	9.36	1301672640	1172.353 ppb
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Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107006.D  
Sample : 181105A LCS-2 2/800



Data File : G:\APOLLO\DATA\181107\1107007.D Vial: 7  
 Acq On : 11-7-18 15:25:09 Operator: DP  
 Sample : 181105A LCSD-1 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 16:22 2018 Quant Results File: DOC0905.RES

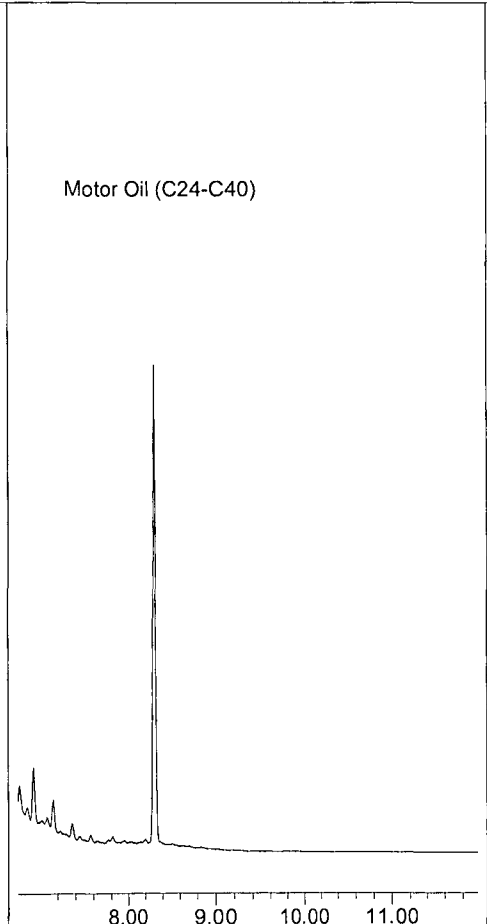
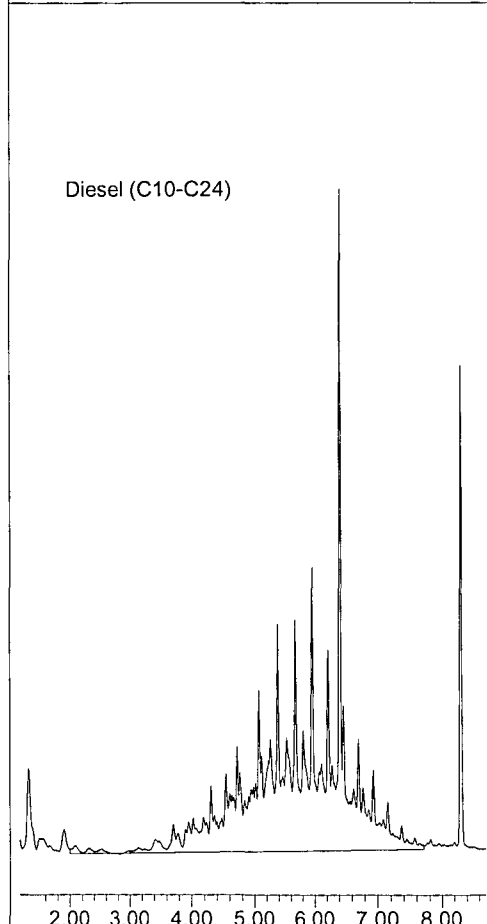
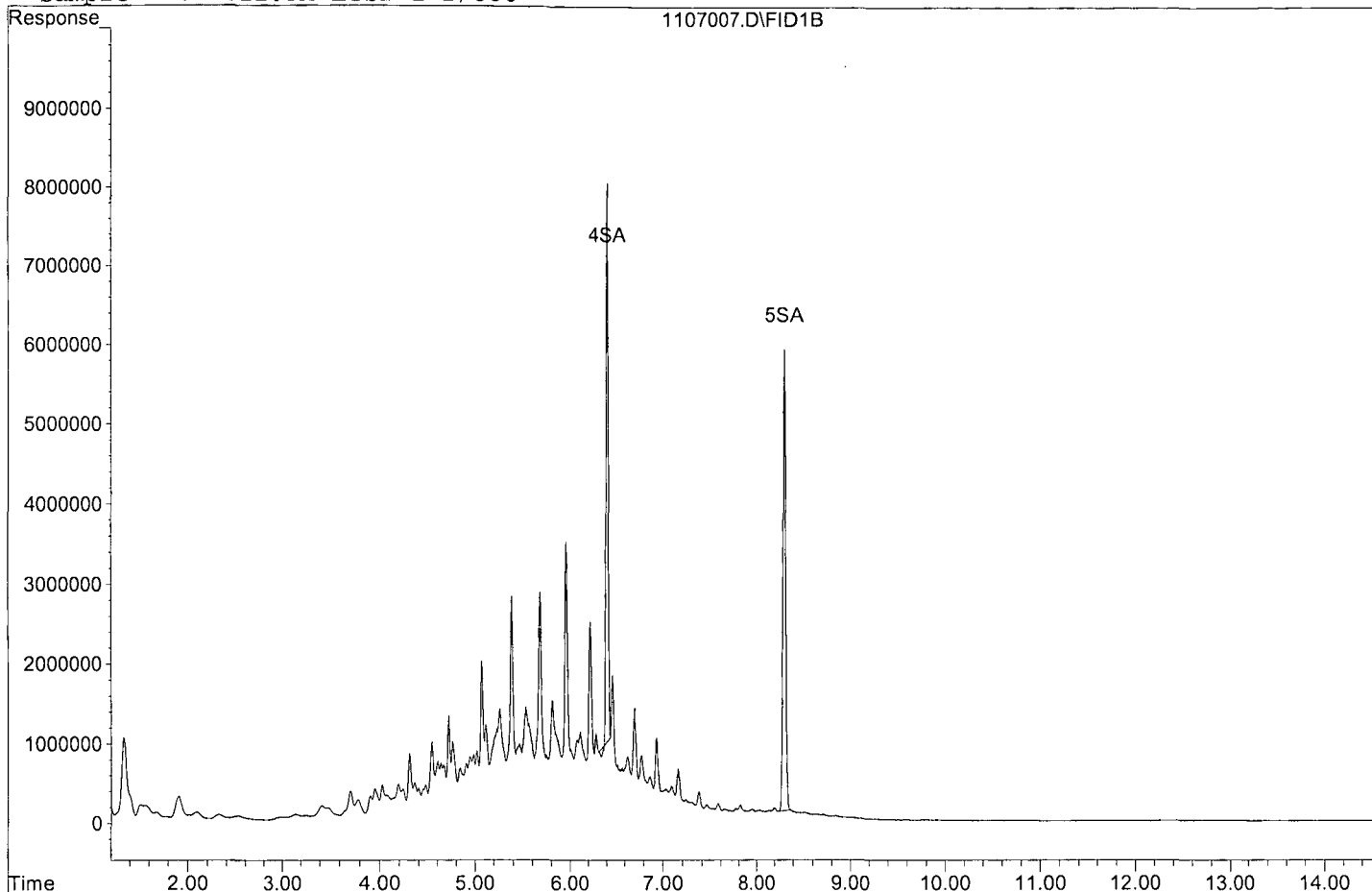
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	114158680	73.696 ppb
Surrogate Spike 75.000		Recovery =	98.26%
5) SA Octacosane(S)	8.31	113691490	88.000 ppb
Surrogate Spike 75.000		Recovery =	117.33%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1620538315	1236.223 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107007.D  
Sample : 181105A LCSD-1 2/800



Data File : G:\APOLLO\DATA\181107\1107008.D Vial: 8  
 Acq On : 11-7-18 15:45:12 Operator: DP  
 Sample : 181105A LCSD-2 2/800 Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 7 16:22 2018 Quant Results File: DOC0905.RES

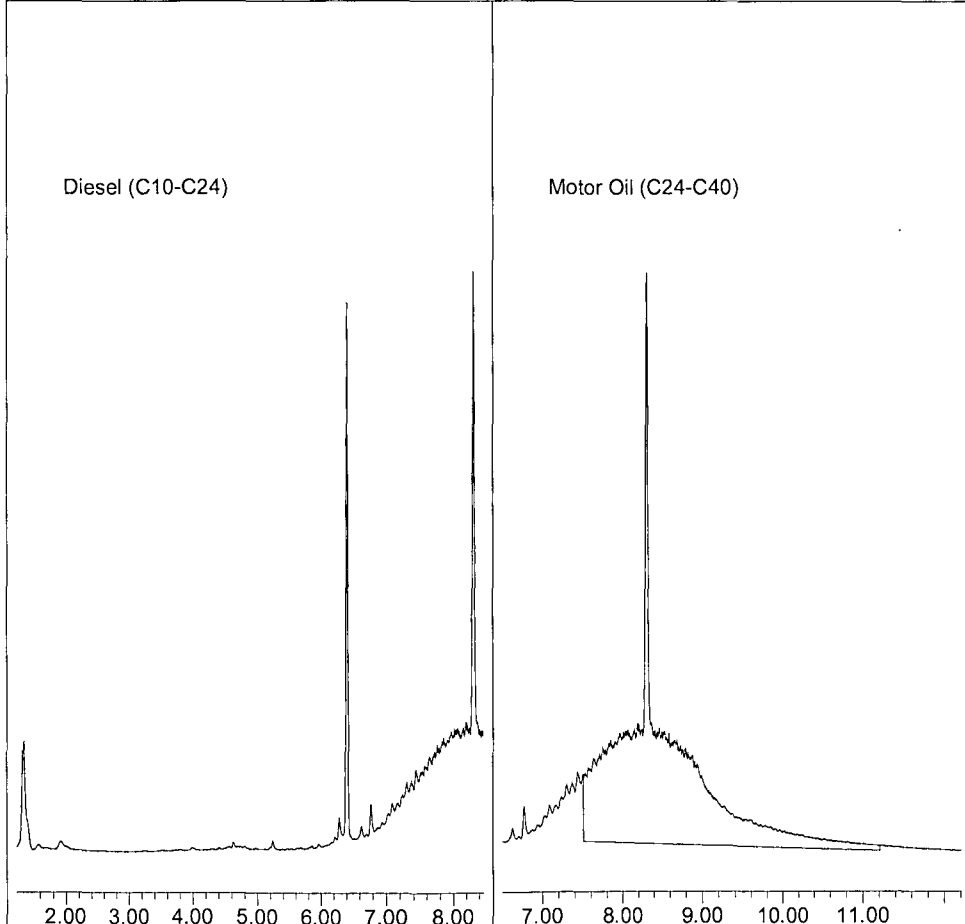
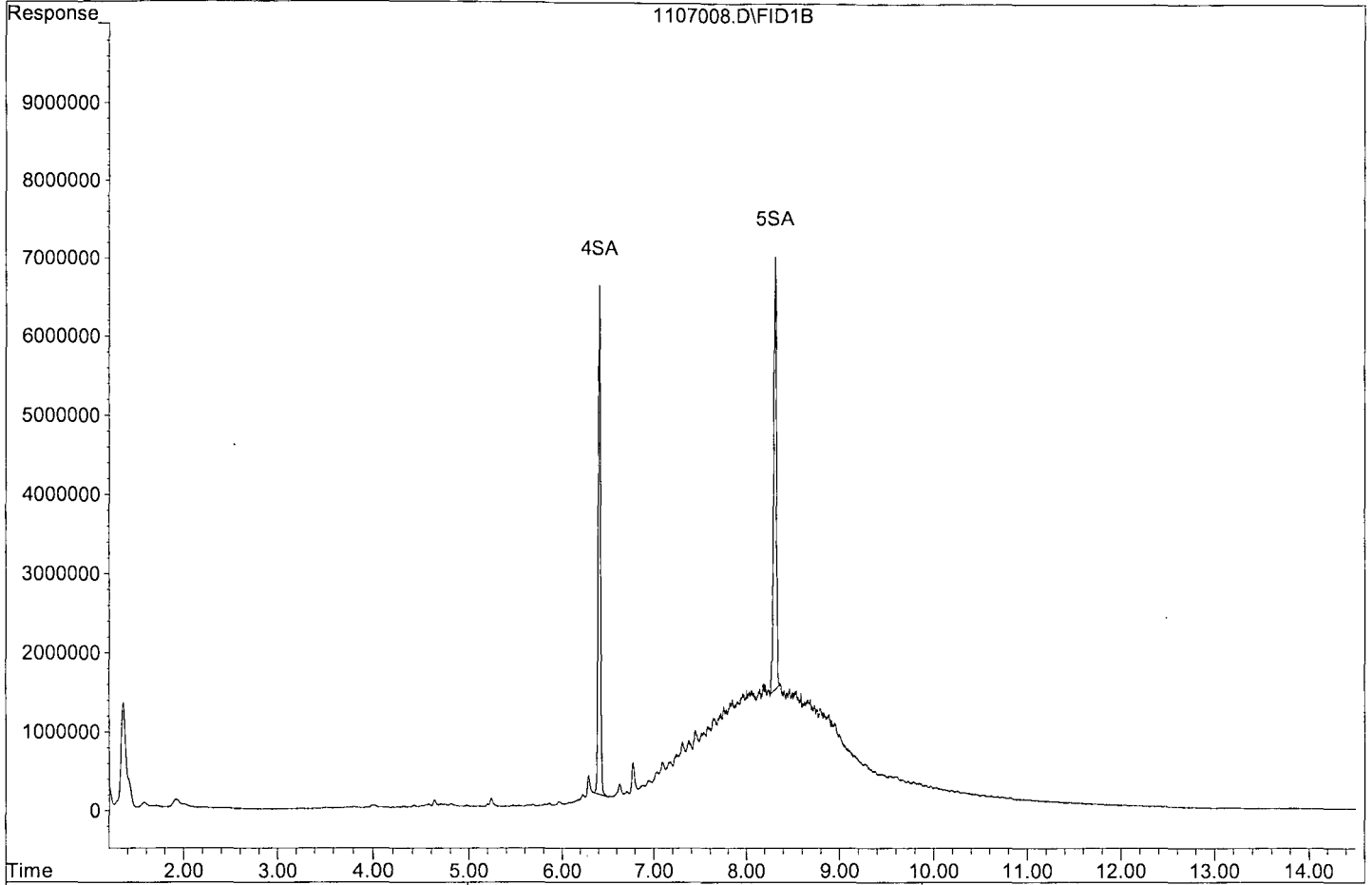
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	114394936	73.848 ppb
Surrogate Spike 75.000		Recovery =	98.46%
5) SA Octacosane(S)	8.31	110962591	85.888 ppb
Surrogate Spike 75.000		Recovery =	114.52%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1358881145	1223.878 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107008.D  
Sample : 181105A LCSD-2 2/800



Data File : G:\APOLLO\DATA\181107\1107040.D Vial: 40  
 Acq On : 11-8-18 17:18:11 Operator: DP  
 Sample : 181105A LCS-1 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:12 2018 Quant Results File: DOC0905.RES

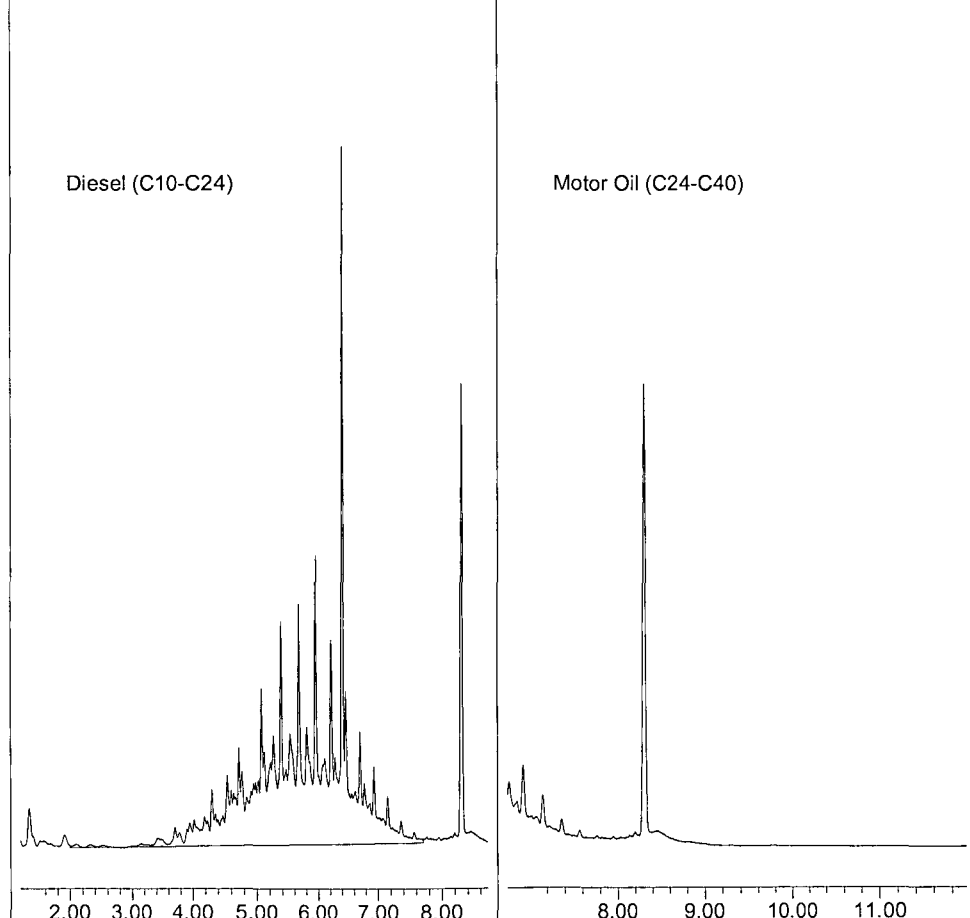
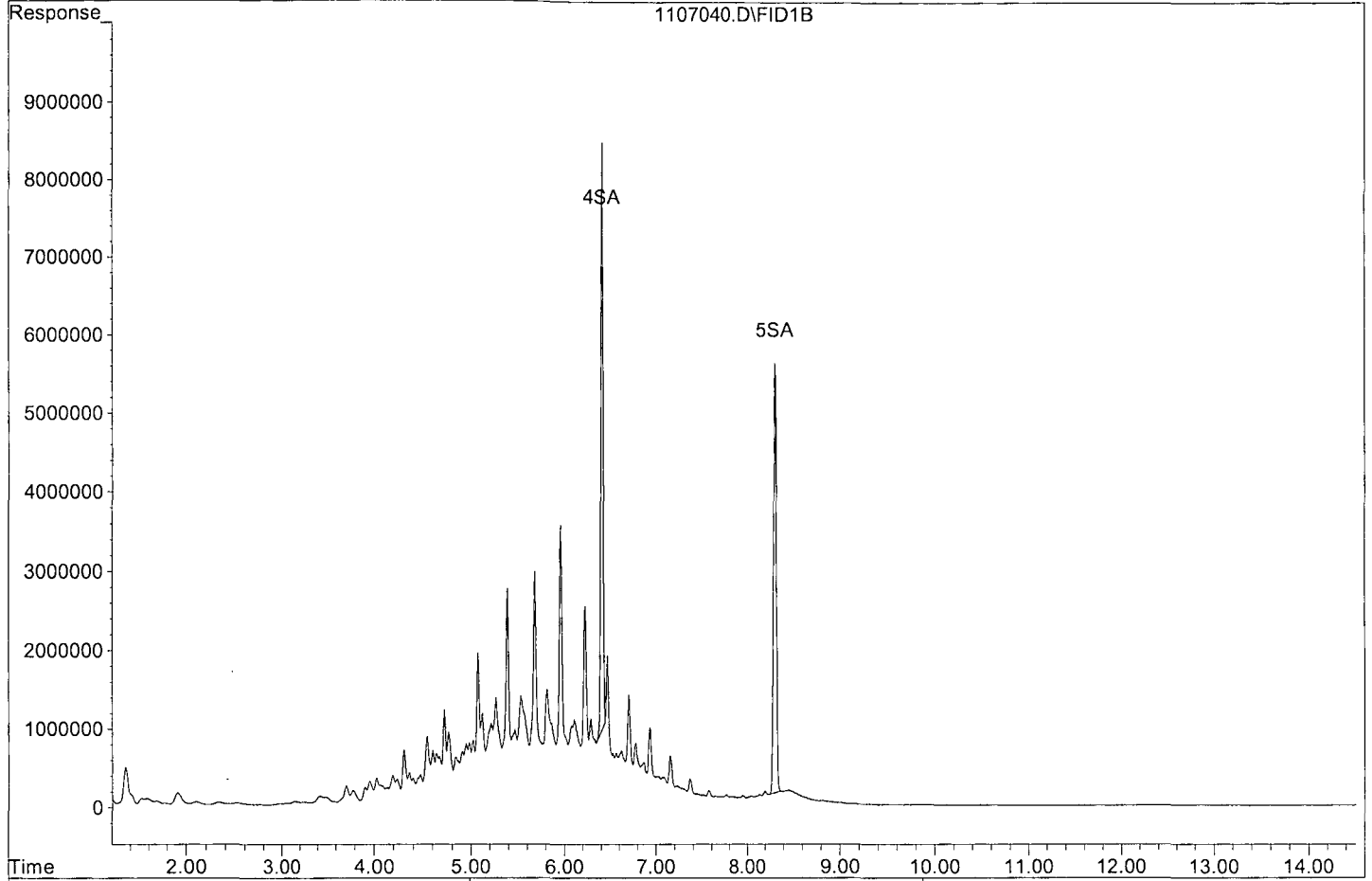
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	121227891	78.259 ppb
Surrogate Spike 75.000		Recovery =	104.35%
5) SA Octacosane(S)	8.31	115243390	89.201 ppb
Surrogate Spike 75.000		Recovery =	118.93%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1528067346	1165.682 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107040.D  
Sample : 181105A LCS-1 2/800 SGC





Data File : G:\APOLLO\DATA\181107\1107041.D Vial: 41  
 Acq On : 11-8-18 17:38:32 Operator: DP  
 Sample : 181105A LCS-2 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:12 2018 Quant Results File: DOC0905.RES

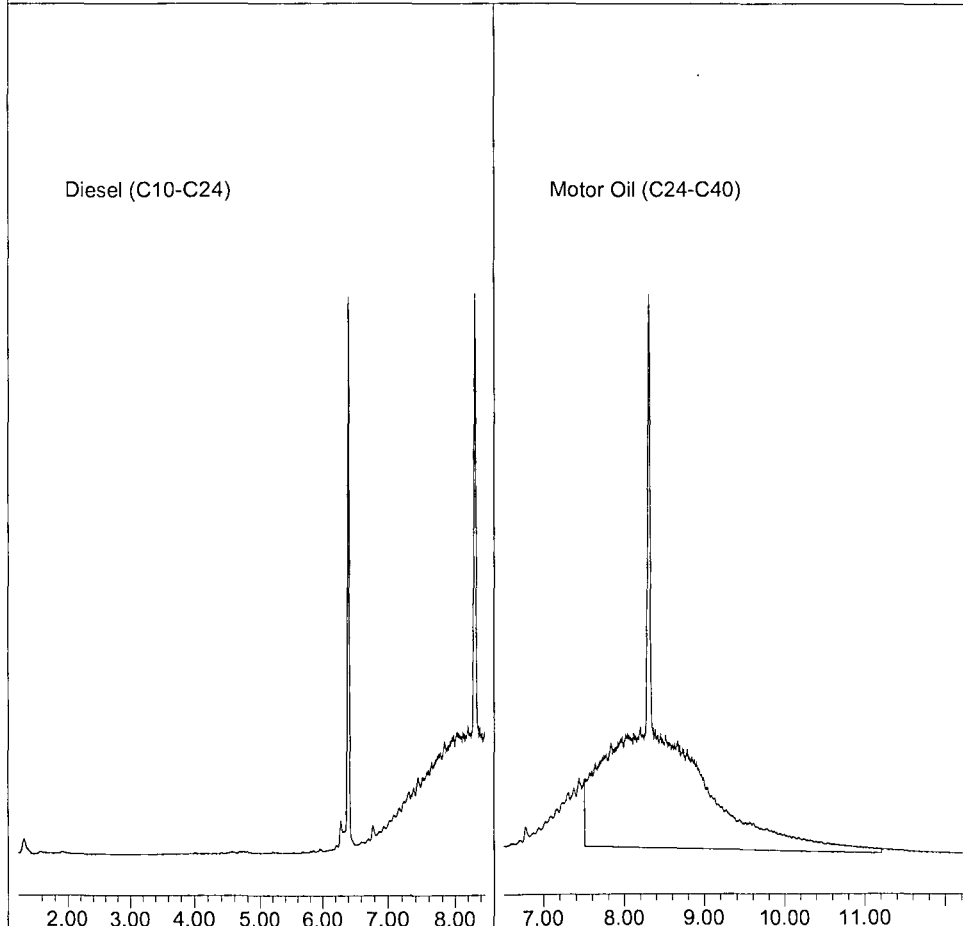
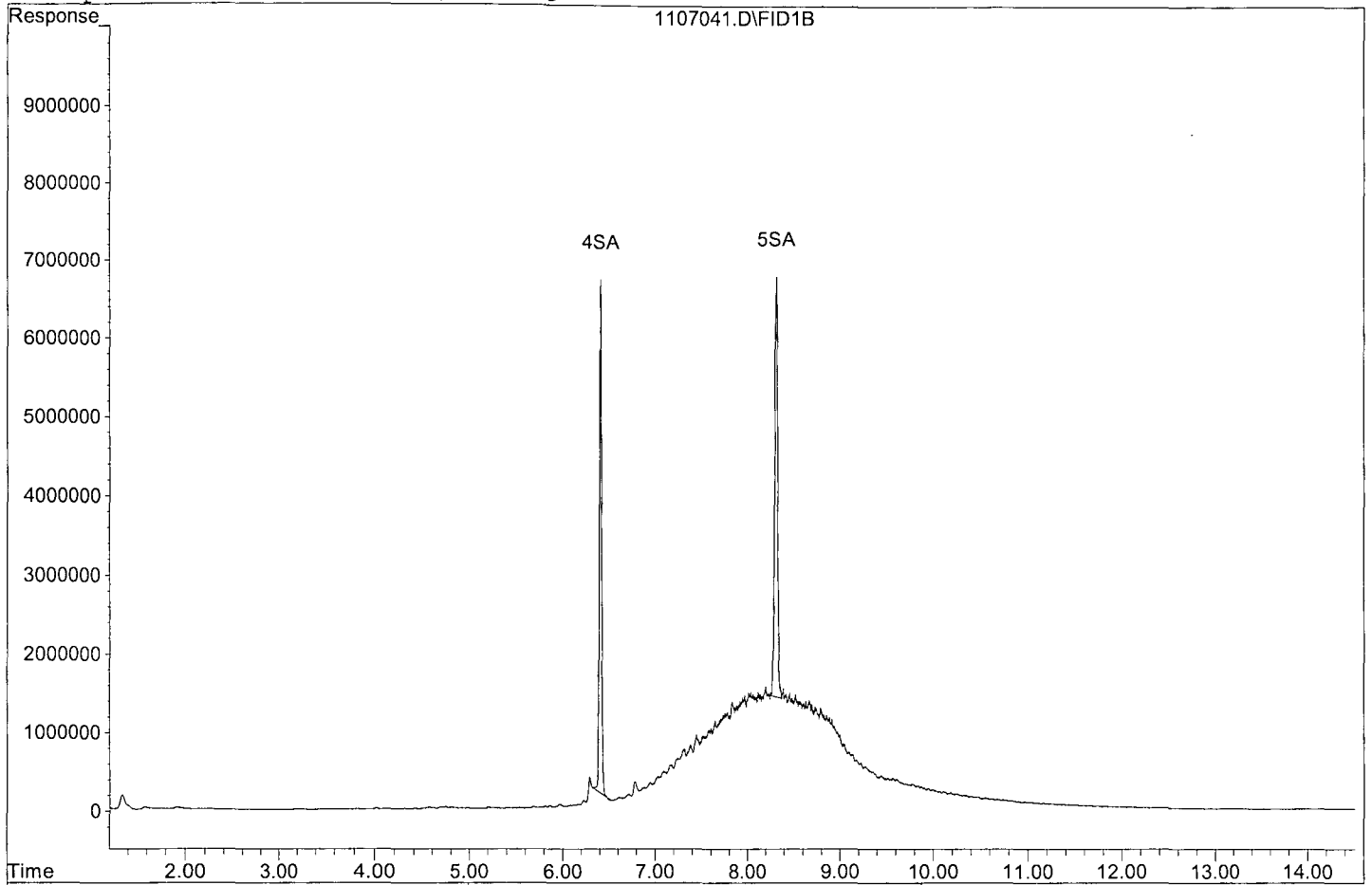
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	111601685	72.045 ppb
Surrogate Spike 75.000		Recovery =	96.06%
5) SA Octacosane(S)	8.31	116564683	90.224 ppb
Surrogate Spike 75.000		Recovery =	120.30%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1353843261	1219.341 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107041.D  
Sample : 181105A LCS-2 2/800 SGC



Data File : G:\APOLLO\DATA\181107\1107042.D Vial: 42  
 Acq On : 11-8-18 17:58:56 Operator: DP  
 Sample : 181105A LCSD-1 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:12 2018 Quant Results File: DOC0905.RES

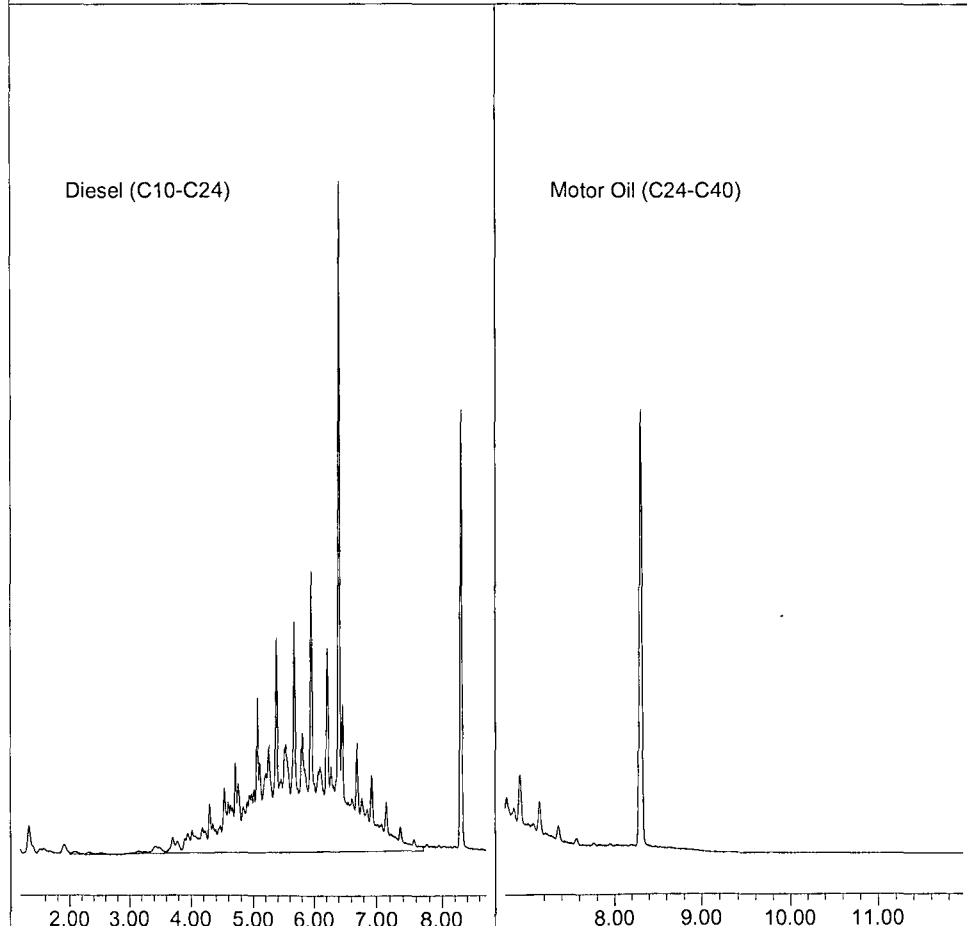
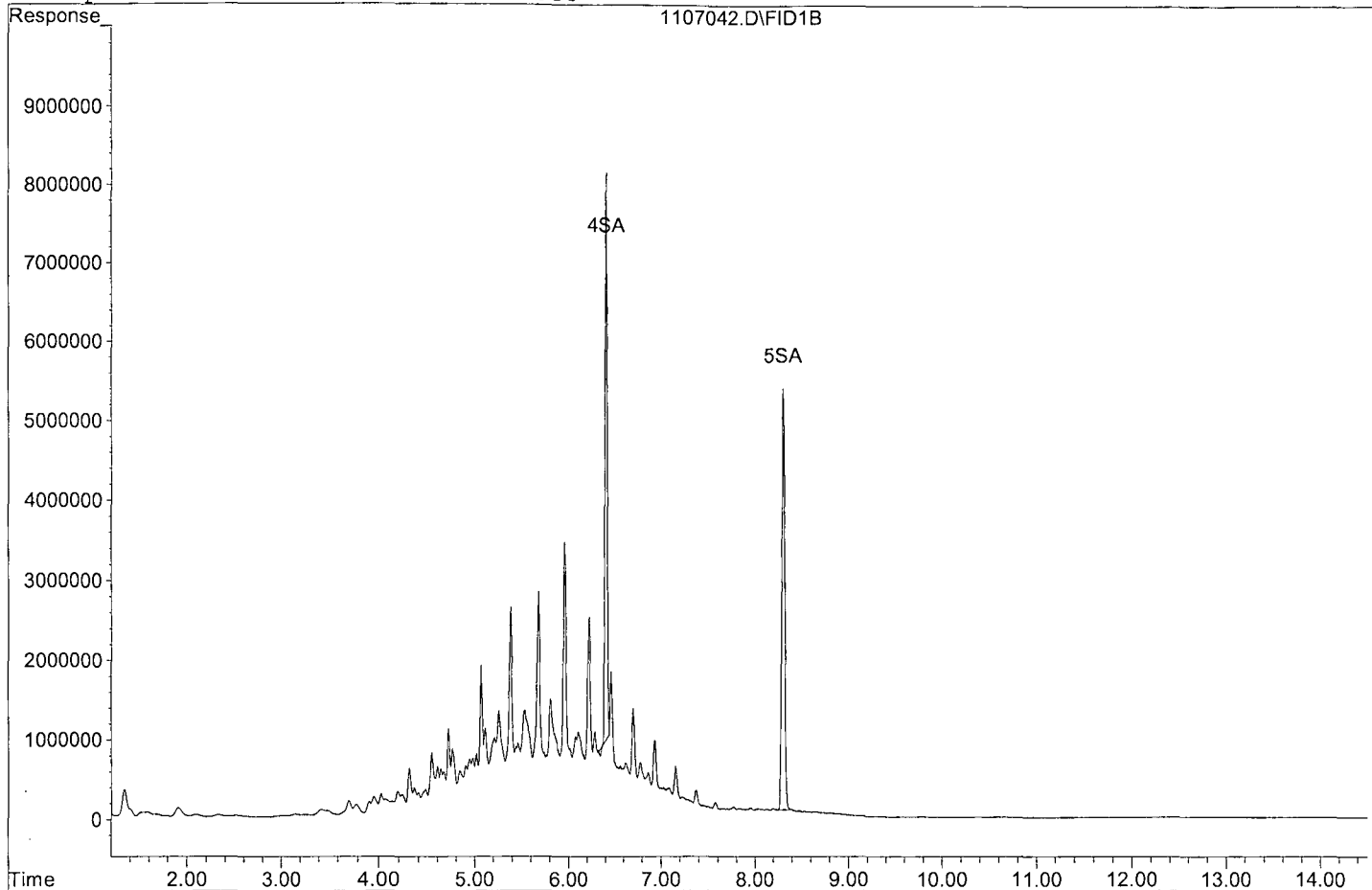
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	116654980	75.307 ppb
Surrogate Spike 75.000		Recovery =	100.41%
5) SA Octacosane(S)	8.31	113802608	88.086 ppb
Surrogate Spike 75.000		Recovery =	117.45%
Target Compounds			
1) HATM Diesel (C10-C24)	4.86	1492724196	1138.721 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107042.D  
Sample : 181105A LCSD-1 2/800 SGC



Data File : G:\APOLLO\DATA\181107\1107043.D Vial: 43  
 Acq On : 11-8-18 18:19:13 Operator: DP  
 Sample : 181105A LCSD-2 2/800 SGC Inst : Apollo  
 Misc : water Multiplr: 2.50  
 IntFile : events.e  
 Quant Time: Nov 9 9:12 2018 Quant Results File: DOC0905.RES

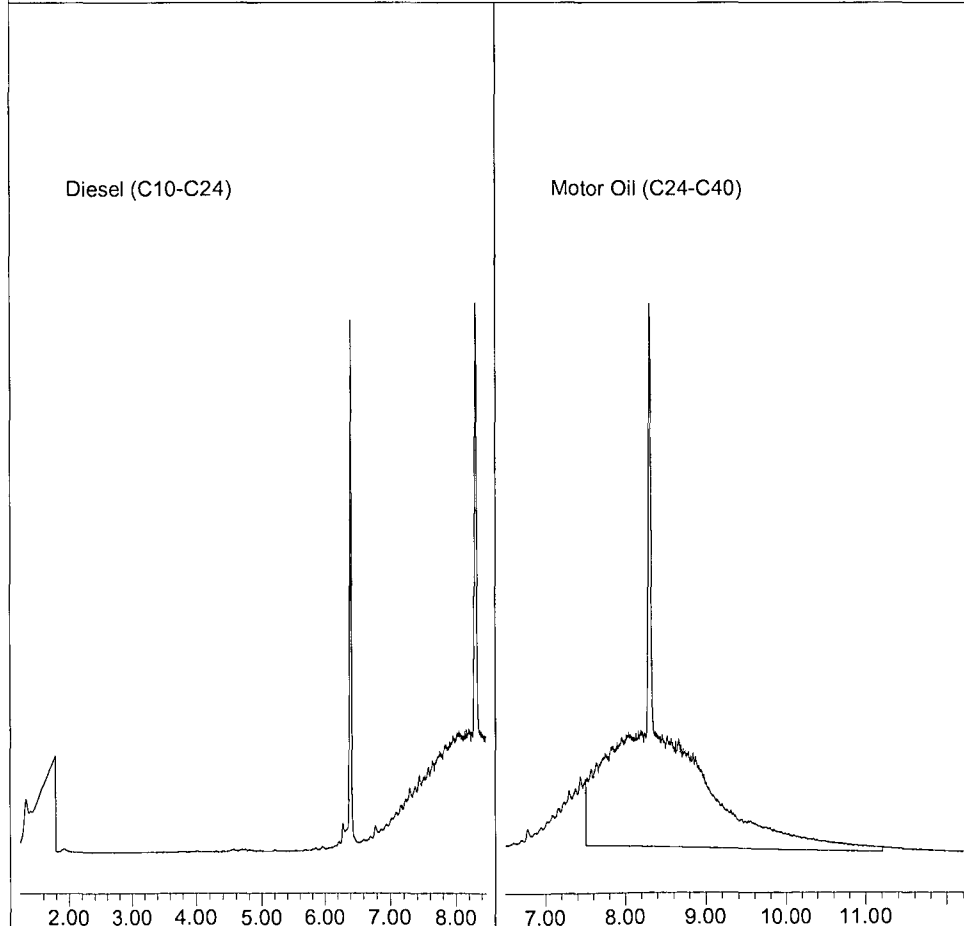
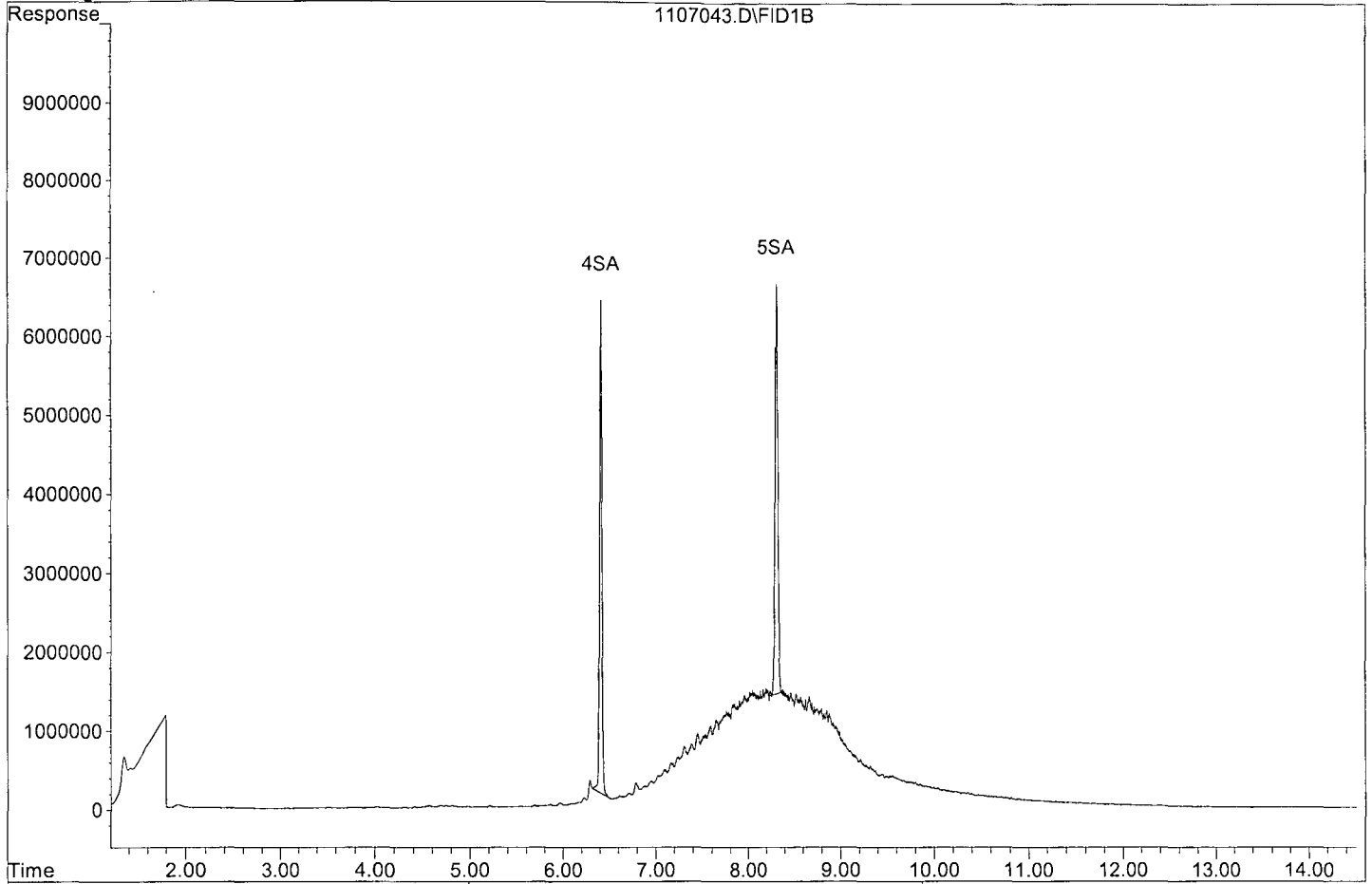
Method : G:\APOLLO\DATA\181105\DOC0905.M (Chemstation Integrator)  
 Title : 8015 B&C  
 Last Update : Fri Oct 26 09:32:46 2018  
 Response via : Multiple Level Calibration

Volume Inj. : 2UL  
 Signal Phase : DB-5  
 Signal Info : FID02A

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) SA Ortho-Terphenyl(S)	6.41	110812417	71.535 ppb
Surrogate Spike 75.000		Recovery =	95.38%
5) SA Octacosane(S)	8.31	112819352	87.325 ppb
Surrogate Spike 75.000		Recovery =	116.43%
Target Compounds			
2) HBTM Motor Oil (C24-C40)	9.36	1349434309	1215.370 ppb

Quantitation Report

Data File: G:\APOLLO\DATA\181107\1107043.D  
Sample : 181105A LCSD-2 2/800 SGC



### 8015 Standard Prep

THC Surrogate										
Prepared: 11/02/18						Prepared By (Initials): DP				
Expires: 10/18/19										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
O-terphenyl / Octacosane Mix	Phenova	ALO-130161	600	CL12572-39692	10/18/19	06/30/23	N/A	N/A	N/A	600

Diesel Calibration Standard										
Prepared: 08/13/18						Prepared By (Initials): DP				
Expires: 08/13/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Fuel #2	Restek	31258	50,000	A0121108	08/13/19		1000uL	25mL	MC	2000
THC Surrogate	Phenova	ALO-130161	600	CL12238-39244	08/13/19		4165			100

Diesel Calibration Curve										
Prepared: 09/05/18						Prepared By (Initials): DP				
Expires: 03/06/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Calibration STD	Restek	Diesel STD (Level 1)	2,000	Prepared 08/13/18	08/13/19	N/A	5uL	1000uL	MC	10
Diesel Calibration STD	Restek	Diesel STD (Level 2)	2,000	Prepared 08/13/18	08/13/19	N/A	25uL	1000uL	MC	50
Diesel Calibration STD	Restek	Diesel STD (Level 3)	2,000	Prepared 08/13/18	08/13/19	N/A	125uL	1000uL	MC	250
Diesel Calibration STD	Restek	Diesel STD (Level 4)	2,000	Prepared 08/13/18	08/13/19	N/A	50uL	100uL	MC	1000
Diesel Calibration STD	Restek	Diesel STD (Level 5)	2,000	Prepared 08/13/18	08/13/19	N/A	75uL	100uL	MC	1500
Diesel Calibration STD	Restek	Diesel STD (Level 6)	2,000	Prepared 08/13/18	08/13/19	N/A	100uL	100uL	N/A	2,000

Diesel Second Source (SS)										
Prepared: 08/02/18						Prepared By (Initials): DP				
Expires: 08/02/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Fuel #2	O2SI	G34-011598-03	50,000	G34-319187-38958	08/02/19		100uL	5mL	MC	1,000

Diesel CCV										
Prepared: 10/15/18						Prepared By (Initials): DP				
Expires: 04/15/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Calibration STD	Restek	Diesel CCV	2,000	Prepared 08/13/18	08/13/19	N/A	1250uL	10mL	MC	250

Diesel Spike										
Prepared: 10/24/18						Prepared By (Initials): DP				
Expires: 10/24/19										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Diesel Fuel #2	Absolute	51046	50,000	111715-39358	10/24/19	11/17/20	N/A	N/A	N/A	50,000

Motor Oil Standard										
Prepared: 03/02/18						Prepared By (Initials): DP				
Expires: 03/02/19										
Methylene Chloride Lot No. 56258										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil	O2SI	116390-01	50,000	334223-38795	03/02/19		1mL	25mL	MC	2,000

Motor Oil Calibration Curve										
Prepared: 09/05/18						Prepared By (Initials): DP				
Expires: 03/02/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil STD	O2SI	Motor Oil (Level 1)	2,000	Prepared 03/02/18	03/02/19	N/A	5uL	1000uL	MC	10
Motor Oil STD	O2SI	Motor Oil (Level 2)	2,000	Prepared 03/02/18	03/02/19	N/A	25uL	1000uL	MC	50
Motor Oil STD	O2SI	Motor Oil (Level 3)	2,000	Prepared 03/02/18	03/02/19	N/A	125uL	1000uL	MC	250
Motor Oil STD	O2SI	Motor Oil (Level 4)	2,000	Prepared 03/02/18	03/02/19	N/A	50uL	100uL	MC	1,000
Motor Oil STD	O2SI	Motor Oil (Level 5)	2,000	Prepared 03/02/18	03/02/19	N/A	75uL	100uL	MC	1,500
Motor Oil STD	O2SI	Motor Oil (Level 6)	2,000	Prepared 03/02/18	03/02/19	N/A	100uL	100uL	N/A	2,000

Motor Oil Second Source (SS)										
Prepared: 07/13/18						Prepared By (Initials): DP				
Expires: 03/02/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil Second Source	O2SI	116390-02-SS	50,000	301142-37652	03/02/19		100uL	5mL	MC	1,000

Motor Oil CCV										
Prepared: 10/15/18						Prepared By (Initials): DP				
Expires: 03/02/19										
Methylene Chloride Lot No. 56278										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil STD	O2SI	Motor Oil CCV	2,000	Prepared 03/02/18	03/02/19	N/A	1250uL	10mL	MC	250

Motor Oil Spike										
Prepared: 10/31/18						Prepared By (Initials): DP				
Expires: 10/31/19										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Standard Conc.
Motor Oil Composite	O2SI	116390-02	50,000	343132-39108	10/31/19	03/02/22	N/A	N/A	N/A	50,000



# Organic Extraction Worksheet

<b>Method</b>	Continuous Liq/Liq TPH-Diesel/MO 3520C	<b>Extraction Set</b>	181029A	<b>Extraction Method</b>	LIQ005	<b>Units</b>	mL
Spiked ID 1	Diesel Spike 10-24-18 EXP 10-24-19	Surrogate ID 1	THC Surrogate 10-18-18 EXP 10-18-19				
Spiked ID 2	Motor Oil Spike 7-9-18 EXP 7-9-19	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC: YES					
Spiked ID 7		Ext. Start Time: 10/29/18 13:00					
Spiked ID 8		Ext. End Time: 10/30/18 8:10, 10/31/18 11:45, 1500					
		GC Requires Extract By: 10/30/18 0:00					
		pH1	2	0/29/18 12:45:00 PM	Water Bath Temp Criteria	35,35,35 °	
		pH2					
		pH3					

Spiked By: KY

Date 10/29/18

Witnessed By: DL

Date 10/29/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1 181029A Blk				0.100	1	800	2	2	10/29/18 13:00	
					equip	E-HP3 E-WB1				
2 181029A LCS-1		0.020	1	0.100	1	800	2	2	10/29/18 13:00	
					equip	E-HP4 E-WB2				
3 181029A LCS-2		0.020	2	0.100	1	800	2	2	10/29/18 13:00	
					equip	E-HP6 E-WB1				
4 181029A LCSD-1		0.020	1	0.100	1	800	2	2	10/29/18 13:00	
					equip	E-HP7 E-WB2				
5 181029A LCSD-2		0.020	2	0.100	1	800	2	2	10/29/18 13:00	
					equip	E-HP9 E-WB2				
6 AZ81584 MS-1	AZ81584W28	0.020	1	0.100	1	800	2	2	10/29/18 13:00	87198
					equip	E-HP10 E-WB1				
7 AZ81584 MSD-1	AZ81584W32	0.020	1	0.100	1	800	2	2	10/29/18 13:00	87198
					equip	E-HP12 E-WB3				
8 AZ81584 MS-2	AZ81584W27	0.020	2	0.100	1	800	2	2	10/29/18 13:00	87198
					equip	E-HP11 E-WB2				
9 AZ81584 MSD-2	AZ81584W31	0.020	2	0.100	1	800	2	2	10/29/18 13:00	87198
					equip	E-HP13 E-WB1				
10 AZ81584	AZ81584W29			0.100	1	800	2	2	10/29/18 13:00	87198
					equip	E-HP51 E-WB2				
11 AZ81585	AZ81585W11			0.100	1	810	2	2	10/29/18 13:00	87198
					equip	E-HP14 E-WB2				
12 AZ81587	AZ81587W12			0.100	1	800	2	2	10/29/18 13:00	87198
					equip	E-HP15 E-WB3				
13 AZ81636	AZ81636W14			0.100	1	810	2	2	10/29/18 13:00	87212
					equip	E-HP16 E-WB2				
14 AZ81638	AZ81638W08			0.100	1	810	2	2	10/29/18 13:00	87212
					equip	E-HP17 E-WB1				
15 AZ81640	AZ81640W13			0.100	1	800	2	2	10/29/18 13:00	87212
					equip	E-HP19 E-WB2				
16 AZ81642	AZ81642W13			0.100	1	840	2	2	10/29/18 13:00	87212
					equip	E-HP25 E-WB1				

Solvent and Lot#	
1+1 HCL (5mL)	9-19-18
PH Strips	HC 727135
Dichloromethane (DCM)	58059
Filter Paper	400147
B. Sodium Sulfate	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	DR
Date	10/31/18
Time	12:00
Refrigerator	Hobart

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	11/02/18 11:57:26 AM

Reviewed By: *[Signature]* 288 Date 11/02/18

# Organic Extraction Worksheet

<b>Method</b>	Continuous Liq/Liq TPH-Diesel/MO 3520C	<b>Extraction Set</b>	181029A	<b>Extraction Method</b>	LIQ005	<b>Units</b>	mL
Spiked ID 1	Diesel Spike 10-24-18 EXP 10-24-19	Surrogate ID 1	THC Surrogate 10-18-18 EXP 10-18-19				
Spiked ID 2	Motor Oil Spike 7-9-18 EXP 7-9-19	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		YES			
Spiked ID 7		Ext. Start Time:		10/29/18 13:00			
Spiked ID 8		Ext. End Time:		10/30/18 8:10, 10/31/18 11:45, 10/30			
		GC Requires Extract By:		10/30/18 0:00			
pH1	2	0/29/18 12:45:00 PM		Water Bath Temp Criteria		35,35,35 °	
pH2							
pH3							

Spiked By: KY

Date 10/29/18

Witnessed By: DL

Date 10/29/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17 AZ81644	AZ81644W11			0.100	1	810	2	2	10/29/18 13:00	87212
						equip				
						E-HP26 E-WB2				
18 AZ81676	AZ81676W14			0.100	1	800	2	2	10/29/18 13:00	87219
						equip				
						E-HP27 E-WB3				
19 AZ81677	AZ81677W14			0.100	1	800	2	2	10/29/18 13:00	87219
						equip				
						E-HP28 E-WB1				
20 AZ81678	AZ81678W10			0.100	1	800	2	2	10/29/18 13:00	87219
						equip				
						E-HP29 E-WB2				
21 AZ81840	AZ81840W14			0.100	1	820	2	2	10/29/18 13:00	87238
						equip				
						E-HP48 E-WB2				
22 AZ81841	AZ81841W10			0.100	1	810	2	2	10/29/18 13:00	87238
						equip				
						E-HP30 E-WB3				
23 AZ81842	AZ81842W10			0.100	1	800	2	2	10/29/18 13:00	87238
						equip				
						E-HP47 E-WB1				
24 AZ81901	AZ81901W10			0.100	1	800	2	2	10/29/18 13:00	87248
						equip				
						E-HP50 E-WB1				
25 AZ81903	AZ81903W09			0.100	1	810	2	2	10/29/18 13:00	87248
						equip				
						E-HP49 E-WB3				

Kis 11/02/18

Solvent and Lot#	
1+1 HCL (5mL)	9-19-18
PH Strips	HC 727135
Dicholormethane (DCM)	58059
Filter Paper	400147
B. Sodium Sulfate	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	11/02/18 11:57:26 AM

Reviewed By: *Kis*

289

Date 11/02/18

# Organic Extraction Worksheet

<b>Method</b>	Continuous Liq/Liq TPH-Diesel/MO 3520C	<b>Extraction Set</b>	181105A	<b>Extraction Method</b>	LIQ005	<b>Units</b>	mL
Spiked ID 1	Diesel Spike 10-24-18 EXP 10-24-19	Surrogate ID 1	THC Surrogate 11-2-18 EXP 11-2-19				
Spiked ID 2	Motor Oil Spike 10-31-18 EXP 10-31-19	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC: NO					
Spiked ID 7		Ext. Start Time:		11/05/18 14:25			
Spiked ID 8		Ext. End Time:		11/06/18 9:25 <i>11/07/18 11:30</i>			
		GC Requires Extract By:		10/30/18 0:00			
pH1	2	1/05/18 12:40:00 PM		Water Bath Temp Criteria		35,35,35 °	
pH2							
pH3							

Spiked By: DL

Date 11/05/18

Witnessed By: CFM

Date 11/05/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	181105A Blk			0.100	1	800	2	2	11/05/18 12:50	RX
					equip	e-hp51 E-WB1				
2	181105A LCS-1	0.020	1	0.100	1	800	2	2	11/05/18 12:50	RX
					equip	E-HP50 E-WB2				
3	181105A LCS-2	0.020	2	0.100	1	800	2	2	11/05/18 12:50	RX
					equip	E-HP49 E-WB1				
4	181105A LCSD-1	0.020	1	0.100	1	800	2	2	11/05/18 12:50	RX
					equip	E-HP48 E-WB3				
5	181105A LCSD-2	0.020	2	0.100	1	800	2	2	11/05/18 12:50	RX
					equip	E-HP47 E-WB2				
6	AZ81584 AZ81584W13			0.100	1	800	2	2	11/05/18 12:50	87198 RX
					equip	E-HP30 E-WB3				
7	AZ81585 AZ81585W07			0.100	1	800	2	2	11/05/18 12:50	87198 RX
					equip	E-HP29 E-WB1				
8	AZ81587 AZ81587W11			0.100	1	800	2	2	11/05/18 12:50	87198 RX
					equip	E-HP28 E-WB2				
9	AZ81636 AZ81636W13			0.100	1	800	2	2	11/05/18 12:50	87212 RX
					equip	E-HP27 E-WB3				
10	AZ81638 AZ81638W11			0.100	1	800	2	2	11/05/18 12:50	87212 RX
					equip	E-HP26 E-WB1				
11	AZ81640 AZ81640W14			0.100	1	800	2	2	11/05/18 12:50	87212 RX
					equip	E-HP25 E-WB2				
12	AZ81642 AZ81642W12			0.100	1	800	2	2	11/05/18 12:50	87212 RX
					equip	E-HP17 E-WB3				
13	AZ81644 AZ81644W14			0.100	1	800	2	2	11/05/18 12:50	87212 RX
					equip	E-HP16 E-WB1				
14	AZ81676 AZ81676W11			0.100	1	800	2	2	11/05/18 12:50	87219 RX
					equip	E-HP15 E-WB2				
15	AZ81677 AZ81677W12			0.100	1	800	2	2	11/05/18 12:50	87219 RX
					equip	E-HP14 E-WB3				
16	AZ81678 AZ81678W13			0.100	1	800	2	2	11/05/18 12:50	87219 RX
					equip	E-HP13 E-WB1				

Solvent and Lot#	
1+1 HCL (5mL)	9-19-18
PH Strips	HC 849161
Dichloromethane (DCM)	58059
Filter Paper	400147
B. Sodium Sulfate	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	DP
Date	11/7/18
Time	11:30
Refrigerator	Hobart

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	11/07/18 12:10:36 PM

Reviewed By: *KY* 290 Date *11/07/18*

# Organic Extraction Worksheet






<b>Method</b>	Continuous Liq/Liq TPH-Diesel/MO 3520C	<b>Extraction Set</b>	181105A	<b>Extraction Method</b>	LIQ005	<b>Units</b>	mL
Spiked ID 1	Diesel Spike 10-24-18 EXP 10-24-19	Surrogate ID 1	THC Surrogate	11-2-18 EXP 11-2-19			
Spiked ID 2	Motor Oil Spike 10-31-18 EXP 10-31-19	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		NO			
Spiked ID 7		Ext. Start Time:		11/05/18 14:25			
Spiked ID 8		Ext. End Time:		11/06/18 9:25, 11/07/18 11:30			
		GC Requires Extract By:		10/30/18 0:00			
pH1	2	1/05/18 12:40:00 PM		Water Bath Temp Criteria		35,35,35 °	
pH2							
pH3							

Spiked By: DL

Date 11/05/18

Witnessed By: CFM

Date 11/05/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ81840 	AZ81840W10		0.100	1	800	2	2	11/05/18 12:50	87238 RX
					equip	E-HP12 E-WB2				
18	AZ81841 	AZ81841W13		0.100	1	800	2	2	11/05/18 12:50	87238 RX
					equip	E-HP11 E-WB3				
19	AZ81842 	AZ81842W11		0.100	1	800	2	2	11/05/18 12:50	87238 RX
					equip	E-HP10 E-WB1				
20	AZ81901 	AZ81901W09		0.100	1	800	2	2	11/05/18 12:50	87248 RX
					equip	E-HP9 E-WB2				
21	AZ81903 	AZ81903W10		0.100	1	800	2	2	11/05/18 12:50	87248 RX
					equip	E-HP7 E-WB3				

Key 11/07/18

Solvent and Lot#	
1+1 HCL (5mL)	9-19-18
PH Strips	HC 849161
Dichloromethane (DCM)	58059
Filter Paper	400147
B. Sodium Sulfate	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	11/07/18 12:10:36 PM

Reviewed By: Key 291 Date 11/07/18

## Injection Log

Directory: G:\APOLLO\DATA\180814\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
17	814017.D	1	Decanoic Acid - 1 8/13/18	Mix(C)	8-14-18 16:56:27
18	814018.D	1	Decanoic Acid - 2 8/13/18	Mix(C)	8-14-18 17:15:48
19	814019.D	1	Decanoic Acid - 3 8/13/18	Mix(C)	8-14-18 17:35:59
20	814020.D	1	Decanoic Acid - 4 8/13/18	Mix(C)	8-14-18 17:56:16
21	814021.D	1	Decanoic Acid - 5 8/13/18	Mix(C)	8-14-18 18:16:22
22	814022.D	1	Decanoic Acid - 6 8/13/18	Mix(C)	8-14-18 18:36:30
3	905003.D	1	Diesel - 1 9/5/18	Mix(A)	9-5-18 13:32:12
4	905004.D	1	Diesel - 2 9/5/18	Mix(A)	9-5-18 13:51:56
5	905005.D	1	Diesel - 3 9/5/18	Mix(A)	9-5-18 14:11:55
6	905006.D	1	Diesel - 4 9/5/18	Mix(A)	9-5-18 14:31:55
7	905007.D	1	Diesel - 5 9/5/18	Mix(A)	9-5-18 14:51:56
8	905008.D	1	Diesel - 6 9/5/18	Mix(A)	9-5-18 15:11:58
9	905009.D	1	Diesel - SS 8/2/18	Mix(A)	9-5-18 15:32:03
10	905010.D	1	Motor Oil - 1 9/5/18	Mix(B)	9-5-18 15:52:08
11	905011.D	1	Motor Oil - 2 9/5/18	Mix(B)	9-5-18 16:12:11
12	905012.D	1	Motor Oil - 3 9/5/18	Mix(B)	9-5-18 16:32:11
13	905013.D	1	Motor Oil - 4 9/5/18	Mix(B)	9-5-18 16:52:14
14	905014.D	1	Motor Oil - 5 9/5/18	Mix(B)	9-5-18 17:12:14
15	905015.D	1	Motor Oil - 6 9/5/18	Mix(B)	9-5-18 17:31:25
16	905016.D	1	Motor Oil - SS 7/13/18	Mix(B)	9-5-18 17:51:24
2	1031002.D	1	Diesel - 3 10/15/18	Mix(A)	10-31-18 12:27:03
3	1031003.D	1	Motor Oil - 3 10/15/18	Mix(B)	10-31-18 12:47:21
4	1031004.D	2.5	181029A BLK 2/800	water	10-31-18 13:07:10
5	1031005.D	2.5	181029A LCS-1 2/800	water	10-31-18 13:27:09
6	1031006.D	2.5	181029A LCS-2 2/800	water	10-31-18 13:47:04
7	1031007.D	2.5	181029A LCSD-1 2/800	water	10-31-18 14:06:12
8	1031008.D	2.5	181029A LCSD-2 2/800	water	10-31-18 14:26:08
14	1031014.D	1	Diesel - 3 10/15/18	Mix(A)	10-31-18 16:24:34
15	1031015.D	1	Motor Oil - 3 10/15/18	Mix(B)	10-31-18 16:44:47
27	1031027.D	2.43902	AZ81840W14 2/820	water	10-31-18 20:45:10
28	1031028.D	2.46914	AZ81841W10 2/810	water	10-31-18 21:05:20
29	1031029.D	2.5	AZ81842W10 2/800	water	10-31-18 21:25:27
32	1031032.D	1	Diesel - 3 10/15/18	Mix(A)	10-31-18 22:25:23
33	1031033.D	1	Motor Oil - 3 10/15/18	Mix(B)	10-31-18 22:45:19
2	1107002.D	1	Diesel - 3 10/15/18	Mix(A)	11-7-18 13:44:44
3	1107003.D	1	Motor Oil - 3 10/15/18	Mix(B)	11-7-18 14:04:52
4	1107004.D	2.5	181105A BLK 2/800	water	11-7-18 14:24:57
5	1107005.D	2.5	181105A LCS-1 2/800	water	11-7-18 14:45:01
6	1107006.D	2.5	181105A LCS-2 2/800	water	11-7-18 15:05:06
7	1107007.D	2.5	181105A LCSD-1 2/800	water	11-7-18 15:25:09
8	1107008.D	2.5	181105A LCSD-2 2/800	water	11-7-18 15:45:12
19	1107019.D	1	Diesel - 3 10/15/18	Mix(A)	11-7-18 19:30:00
20	1107020.D	1	Motor Oil - 3 10/15/18	Mix(B)	11-7-18 19:50:19
22	1107022.D	2.5	AZ81840W10 2/800	water	11-7-18 20:30:43
23	1107023.D	2.5	AZ81841W13 2/800	water	11-7-18 20:50:51
24	1107024.D	2.5	AZ81842W11 2/800	water	11-7-18 21:11:02
27	1107027.D	1	Diesel - 3 10/15/18	Mix(A)	11-7-18 22:10:29
28	1107028.D	1	Motor Oil - 3 10/15/18	Mix(B)	11-7-18 22:30:38
30	1107030.D	1	Diesel - 3 10/15/18	Mix(A)	11-8-18 13:54:55
31	1107031.D	1	Motor Oil - 3 10/15/18	Mix(B)	11-8-18 14:15:05
32	1107032.D	1	Decanoic Acid - 3 8/23/18	Mix(C)	11-8-18 14:35:27

39	1107039.D	2.5	181105A BLK 2/800 SGC	water	11-8-18 16:57:41
40	1107040.D	2.5	181105A LCS-1 2/800 SGC	water	11-8-18 17:18:11
41	1107041.D	2.5	181105A LCS-2 2/800 SGC	water	11-8-18 17:38:32
42	1107042.D	2.5	181105A LCSD-1 2/800 SGC	water	11-8-18 17:58:56
43	1107043.D	2.5	181105A LCSD-2 2/800 SGC	water	11-8-18 18:19:13
47	1107047.D	2.5	AZ81840W10 2/800 SGC	water	11-8-18 19:39:14
48	1107048.D	2.5	AZ81841W13 2/800 SGC	water	11-8-18 19:59:27
56	1107056.D	1	Diesel - 3 10/15/18	Mix(A)	11-8-18 22:40:31
57	1107057.D	1	Motor Oil - 3 10/15/18	Mix(B)	11-8-18 22:59:46
58	1107058.D	1	Decanoic Acid - 3 8/23/18	Mix(C)	11-8-18 23:19:51

**ORGANICS**  
**Calibration Data**

**APPL, INC.**

PAH by GCMS SIM  
EPA 8270 SIM

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/26/18  
Instrument: Linus

Initials: \_\_\_\_\_

1026L004.D 1026L005.D 1026L006.D 1026L007.D 1026L003.D 1026L008.D 1026L009.D 1026L010.D

	Compound	0.1	0.2	0.5	1	5	10	50	100			Avg	%RSD	Type	r <sup>2</sup>	Q	MRF
1	I Naphthalene-D8(IS)																
2	S Surrogate Recovery (NBZ)		0.4490	0.3905	0.3381	0.3544	0.3895	0.3629	0.3647			0.38	9.6	S			
3	TM Naphthalene	1.071	1.109	1.094	1.040	0.9826	1.064	0.9678	0.9409			1.0	6.0	TM			0.700
4	S 2-Methylnaphthalene-D10 (2M)	1.204	1.170	1.283	1.182	1.115	1.207	1.054	1.014			1.2	7.6	S			
5	TM 2-Methylnaphthalene	0.6342	0.6457	0.6760	0.6427	0.6407	0.6856	0.6079	0.5737			0.64	5.6	TM			0.400
6	TM 1-Methylnaphthalene	0.6941	0.6784	0.7038	0.6570	0.6224	0.6581	0.5807	0.5502			0.64	8.5	TM			
7	I Acenaphthene-D10(IS)																
8	S Surrogate Recovery (FBP)	1.668	1.668	1.756	1.634	1.614	1.756	1.472	1.448			1.6	7.1	S			
9	TM Acenaphthylene	4.411	4.374	4.576	4.233	4.273	4.605	4.004	3.832			4.3	6.2	TM			0.900
10	*TM Acenaphthene	1.471	1.421	1.404	1.292	1.236	1.347	1.147	1.130			1.3	9.7	*TM			0.900
11	TM Fluorene	1.527	1.526	1.612	1.554	1.494	1.607	1.380	1.349			1.5	6.4	TM			0.900
12	I Phenanthrene-D10(IS)																
13	TM Phenanthrene	1.224	1.258	1.233	1.198	1.099	1.227	1.071	0.9849			1.2	8.4	TM			0.700
14	TM Anthracene	1.101	1.107	1.146	1.108	1.076	1.204	1.040	0.9417			1.1	7.1	TM			0.700
15	S Fluoranthene-D10 (FRT)	1.512	1.533	1.628	1.543	1.527	1.738	1.504	1.474			1.6	5.5	S			
16	*TM Fluoranthene	1.639	1.693	1.766	1.728	1.661	1.857	1.631	1.559			1.7	5.4	*TM			0.600
17	I Chrysene-D12(IS)																
18	TM Pyrene	1.239	1.278	1.319	1.266	1.226	1.359	1.271	1.238			1.3	3.5	TM			0.600
19	S Surrogate Recovery (TPH)	0.9654	0.8333	0.8383	0.7662	0.7250	0.8033	0.7421	0.7345			0.80	9.9	S			
20	TM Benz (a) anthracene	1.135	1.030	1.075	0.9966	1.038	1.151	1.122	1.044			1.1	5.2	TM			0.800
21	TM Chrysene	1.267	1.224	1.220	1.123	1.071	1.175	1.069	1.061			1.2	7.0	TM			0.700
22	TML Indeno (1,2,3-cd) pyrene	0.5269	0.5639	0.6808	0.6912	0.7735	0.8537	0.9032	0.9238			0.74	20	TML	1.000		0.500
23	I Perylene-D12(IS)																
24	TM Benzo (b) fluoranthene	1.025	1.065	1.071	1.012	1.056	1.169	1.109	1.091			1.1	4.6	TM			0.700
25	TM Benzo (k) fluoranthene	1.385	1.237	1.205	1.145	1.158	1.283	1.115	1.070			1.2	8.4	TM			0.700
26	*TM Benzo (a) pyrene	0.8478	0.8472	0.9054	0.8976	0.9593	1.090	1.004	0.9603			0.94	8.8	*TM			0.700
27	TM Dibenz (a,h) anthracene	0.9632	0.8830	0.9203	0.8970	0.8805	0.9763	0.9194	0.8807			0.92	4.1	TM			0.400
28	TM Benzo (g,h,i) perylene	0.9218	0.9218	0.9490	0.8944	0.9068	1.008	0.9146	0.8895			0.93	4.1	TM			0.500
29																	
30																	
31																	
32																	
33																	
34																	
35																	



Data File : M:\LINUS\DATA\L181026\1026L003.D  
 Acq On : 26 Oct 18 12:21  
 Sample : 5 SIM 10/26/18  
 Misc :

Vial: 3  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 15:34 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	4.18	136	34683	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.20	164	15809	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.94	188	31498	2.50000	ppb	0.00
17) Chrysene-D12 (IS)	14.38	240	43804	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	42589	2.50000	ppb	0.00

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	3.36	82	12292	1.97005	ppb	0.00
Spiked Amount	5.000		Recovery	=	39.400%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	38674	2.07165	ppb	0.00
Spiked Amount	5.000		Recovery	=	41.440%	
8) Surrogate Recovery (FBP)	5.43	172	25518	2.08947	ppb	0.00
Spiked Amount	5.000		Recovery	=	41.780%	
15) Fluoranthene-D10 (FRT)	10.10	212	48093	2.01683	ppb	0.00
Spiked Amount	5.000		Recovery	=	40.340%	
19) Surrogate Recovery (TPH)	11.37	244	31756	1.90290	ppb	0.00
Spiked Amount	5.000		Recovery	=	38.060%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	4.20	128	68158	4.39564	ppb	100
5) 2-Methylnaphthalene	5.00	142	44443	4.68460	ppb	100
6) 1-Methylnaphthalene	5.11	142	43171	4.63382	ppb	100
9) Acenaphthylene	6.04	152	135113	4.62142	ppb	100
10) Acenaphthene	6.24	154	39083	4.31457	ppb	100
11) Fluorene	6.84	166	47222	4.67548	ppb	100
13) Phenanthrene	7.98	178	69245	4.31309	ppb	100
14) Anthracene	8.05	178	67774	4.69700	ppb	100
16) Fluoranthene	10.14	202	104660	4.52909	ppb	100
18) Pyrene	10.76	202	107443	4.23342	ppb	100
20) Benz (a) anthracene	14.36	228	90932	4.13406	ppb	100
21) Chrysene	14.46	228	93849	4.26898	ppb	100
22) Indeno (1,2,3-cd) pyrene	20.47	276	67761	3.61003	ppb	100
24) Benzo (b) fluoranthene	17.27	252	89977	4.21504	ppb	100
25) Benzo (k) fluoranthene	17.34	252	98605	4.42343	ppb	100
26) Benzo (a) pyrene	18.03	252	81715	4.30156	ppb	100
27) Dibenz (a,h) anthracene	20.54	278	74995	3.92549	ppb	100
28) Benzo (g,h,i) perylene	20.96	276	77243	3.90791	ppb	100

Quantitation Report

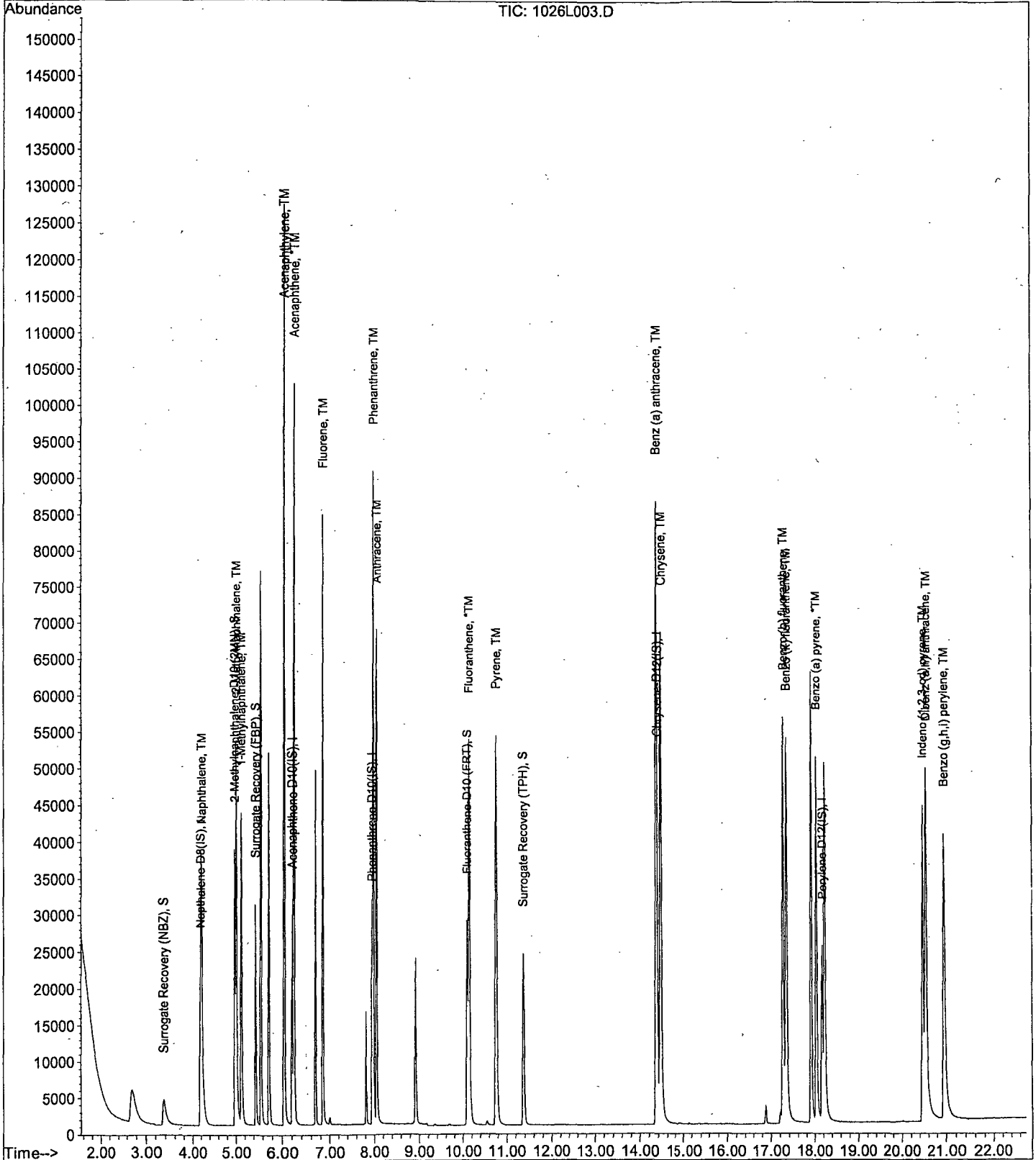
Data File : M:\LINUS\DATA\L181026\1026L003.D  
Acq On : 26 Oct 18 12:21  
Sample : 5 SIM 10/26/18  
Misc :

Vial: 3  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 15:34 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 16:19 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8(IS)	4.18	136	33859	2.50000	ppb	0.00
7) Acenaphthene-D10(IS)	6.20	164	15943	2.50000	ppb	0.00
12) Phenanthrene-D10(IS)	7.95	188	30089	2.50000	ppb	0.01
17) Chrysene-D12(IS)	14.39	240	40761	2.50000	ppb	0.01
23) Perylene-D12(IS)	18.17	264	40517	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.38	82	331	0.05434	ppb	0.02
Spiked Amount	5.000		Recovery	=	1.080%	
4) 2-Methylnaphthalene-D10 (2)	4.99	152	815	0.04472	ppb	0.02
Spiked Amount	5.000		Recovery	=	0.900%	
8) Surrogate Recovery (FBP)	5.44	172	532	0.04320	ppb	0.01
Spiked Amount	5.000		Recovery	=	0.860%	
15) Fluoranthene-D10 (FRT)	10.13	212	910	0.03995	ppb	0.03
Spiked Amount	5.000		Recovery	=	0.800%	
19) Surrogate Recovery (TPH)	11.39	244	787	0.05068	ppb	0.02
Spiked Amount	5.000		Recovery	=	1.020%	
Target Compounds						
3) Naphthalene	4.20	128	1450	0.09579	ppb	98
5) 2-Methylnaphthalene	5.01	142	859	0.09275	ppb	97
6) 1-Methylnaphthalene	5.12	142	940	0.10335	ppb	94
9) Acenaphthylene	6.05	152	2813	0.09541	ppb	99
10) Acenaphthene	6.24	154	938	0.10268	ppb	96
11) Fluorene	6.86	166	974	0.09563	ppb	95
13) Phenanthrene	7.98	178	1473	0.09605	ppb	99
14) Anthracene	8.06	178	1325	0.09613	ppb	97
16) Fluoranthene	10.18	202	1973	0.08938	ppb	97
18) Pyrene	10.79	202	2020	0.08553	ppb	97
20) Benz (a) anthracene	14.37	228	1851	0.09043	ppb	99
21) Chrysene	14.47	228	2065	0.10094	ppb	98
22) Indeno (1,2,3-cd) pyrene	20.55	276	859m	0.04918	ppb	100
24) Benzo (b) fluoranthene	17.31	252	1661	0.08179	ppb	99
25) Benzo (k) fluoranthene	17.38	252	2245m	0.10586	ppb	97
26) Benzo (a) pyrene	18.06	252	1374	0.07603	ppb	98
27) Dibenz (a,h) anthracene	20.61	278	1561	0.08589	ppb	# 93
28) Benzo (g,h,i) perylene	21.03	276	1494	0.07945	ppb	95

Quantitation Report

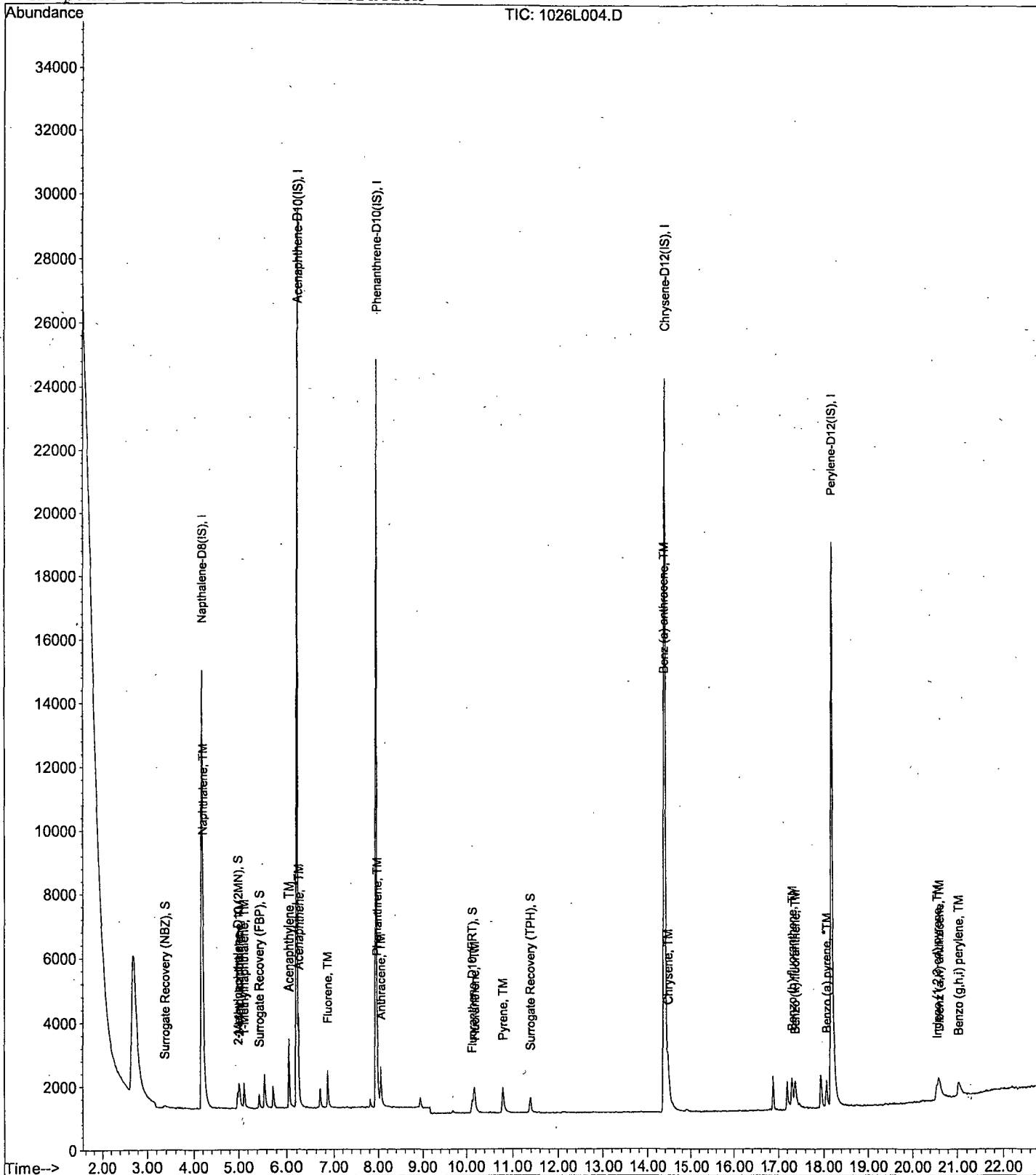
Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 16:19 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration

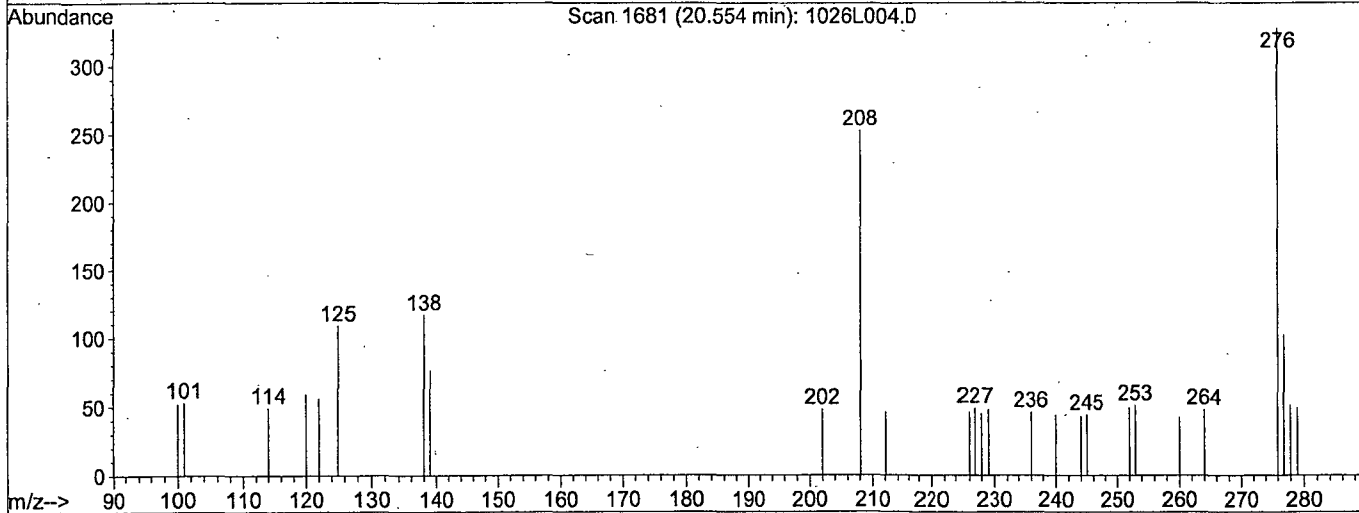
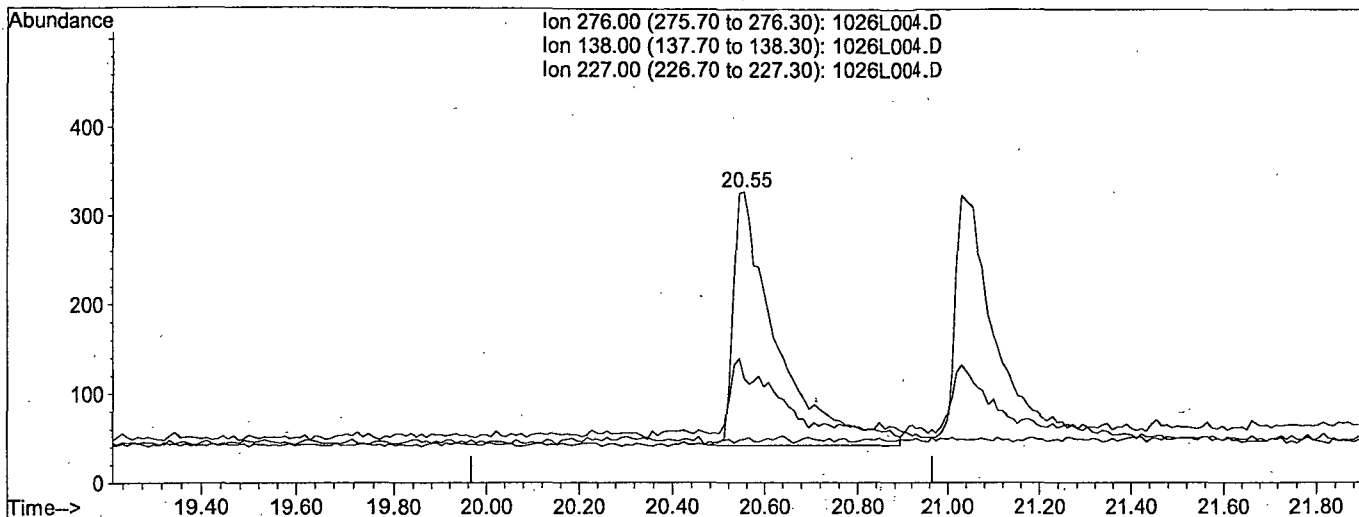


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 15:34 2018

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L004.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.55min 0.1080ppb

response 1887

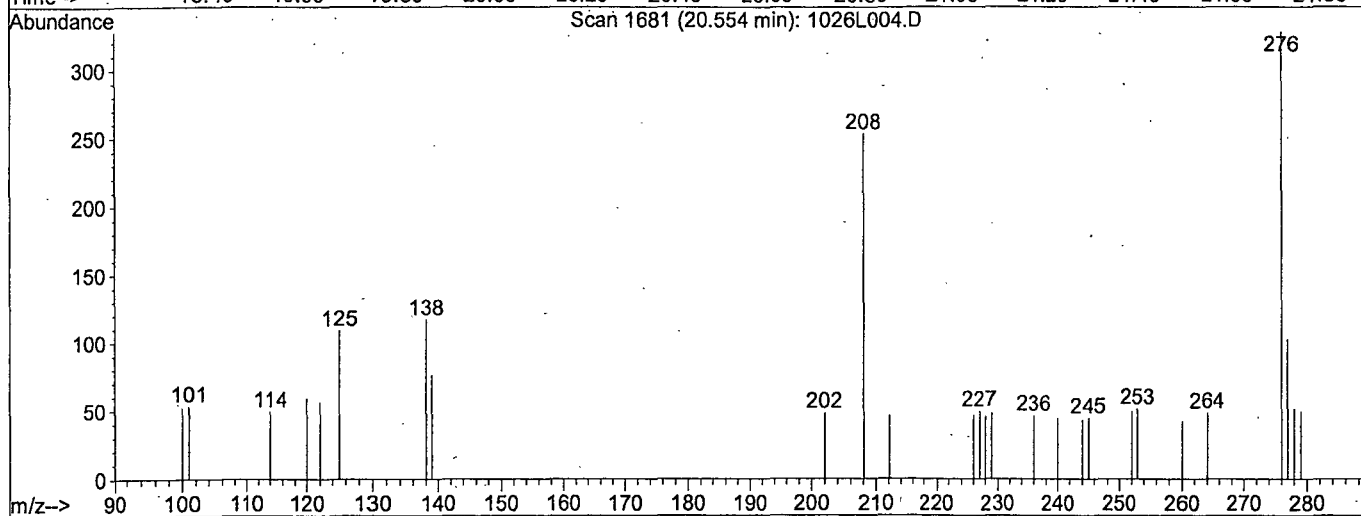
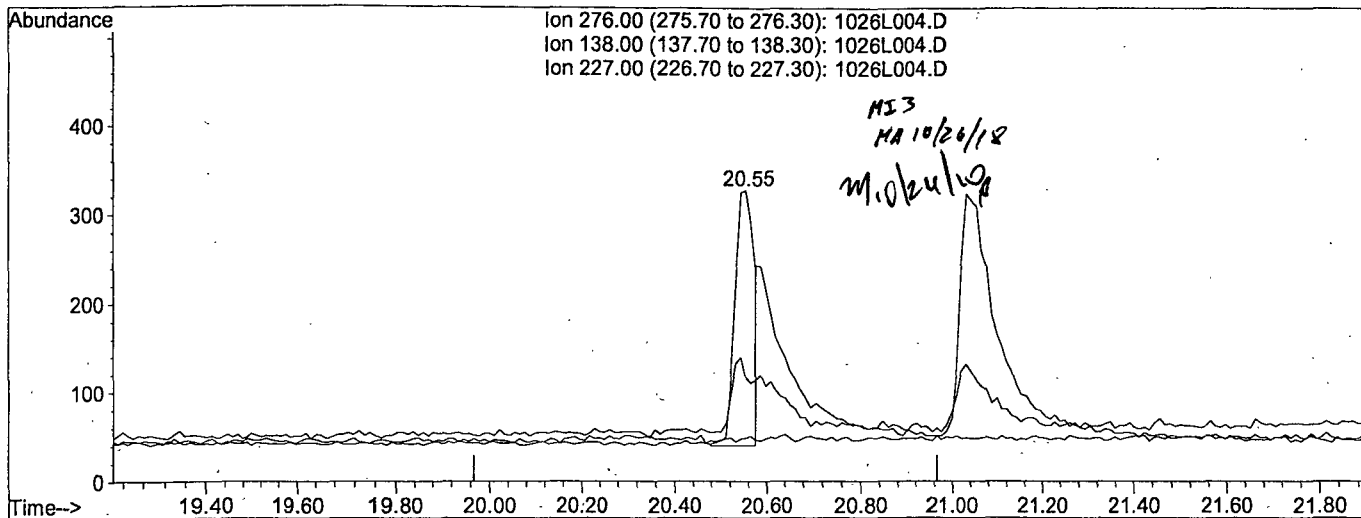
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	21.68
227.00	0.10	1.05#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:14 2018

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L004.D

(22) Indeno(1,2,3-cd) pyrene (TM)

20.55min 0.0492ppb m

response 859

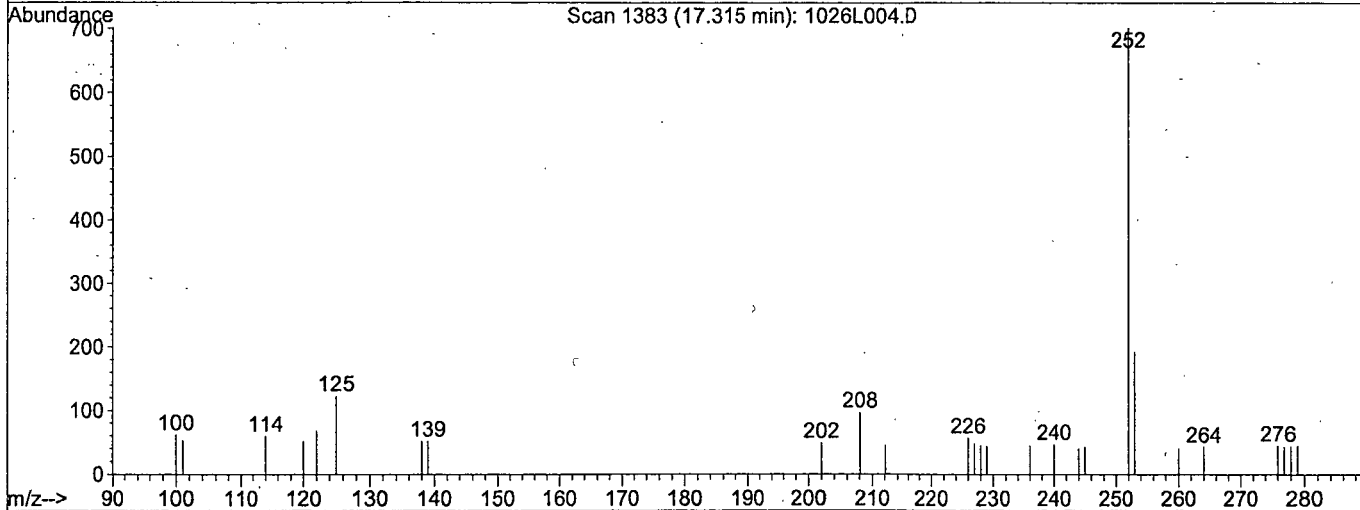
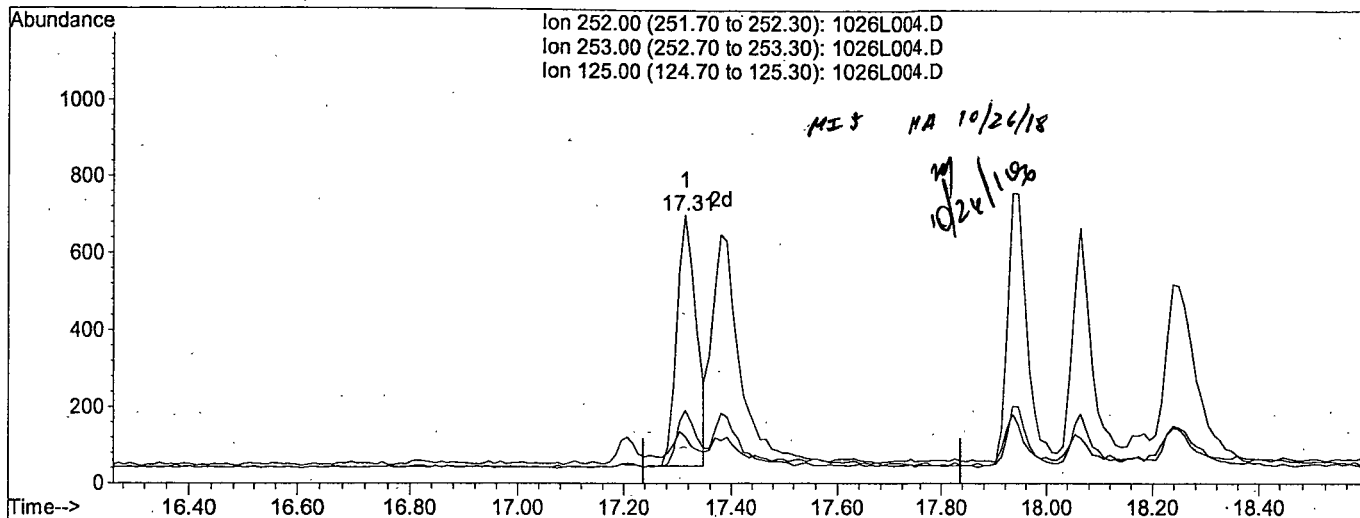
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	35.67#
227.00	0.10	14.94#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:14 2018

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:17:28 2018  
 Response via : Multiple Level Calibration



TIC: 1026L004.D

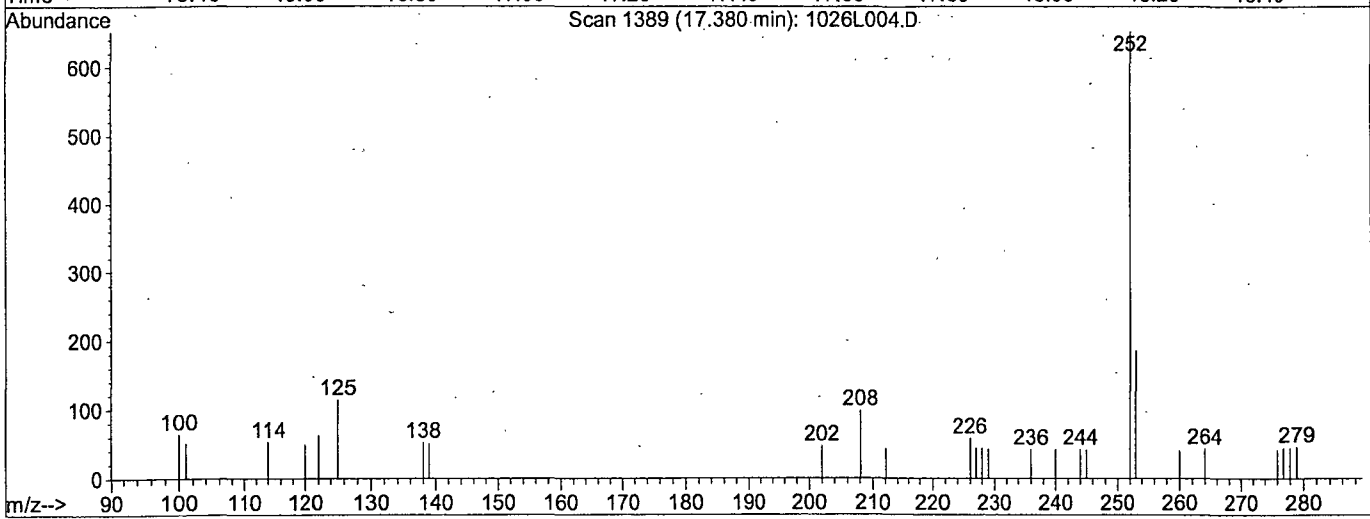
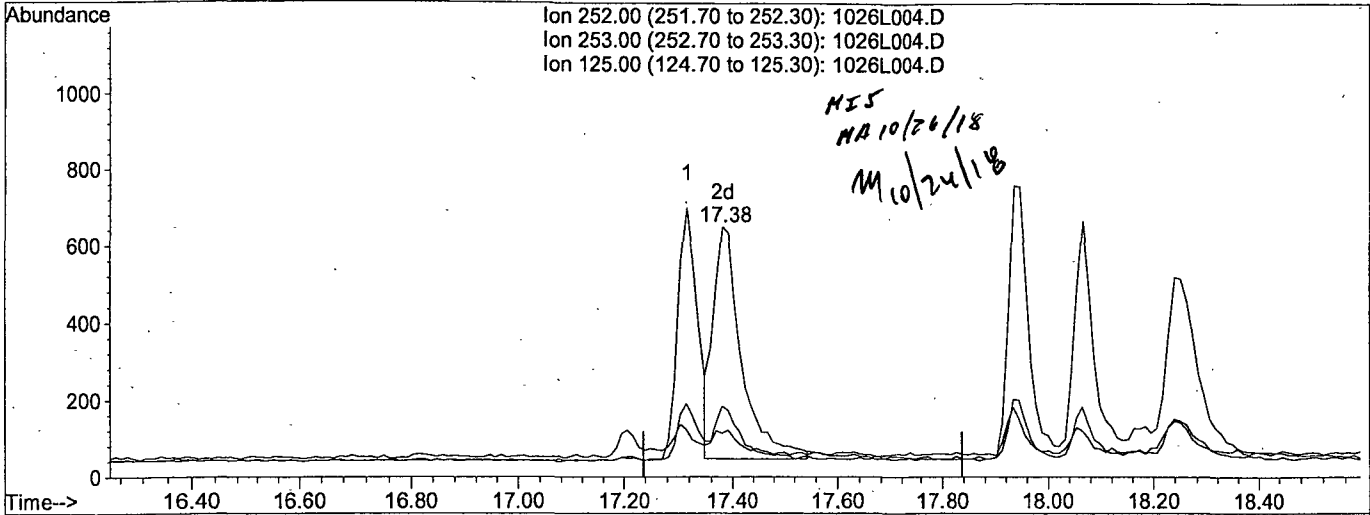
(25) Benzo (k) fluoranthene (TM)		
17.31min	0.0773ppb	
response	1640	
Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.41
125.00	9.90	7.93
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L004.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 0.1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:19 2018

Vial: 4  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:17:28 2018  
 Response via : Multiple Level Calibration



TIC: 1026L004.D

(25) Benzo (k) fluoranthene (TM)

17.38min 0.1059ppb m

response 2245

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	28.37#
125.00	9.90	17.48#
0.00	0.00	0.00



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 16:15 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	4.18	136	32908	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	15199	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	28536	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.38	240	38282	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	37740	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.38	82	591	0.09983	ppb	0.02
Spiked Amount	5.000		Recovery	=	2.000%	
4) 2-Methylnaphthalene-D10 (2)	4.97	152	1540	0.08694	ppb	0.01
Spiked Amount	5.000		Recovery	=	1.740%	
8) Surrogate Recovery (FBP)	5.44	172	1014	0.08636	ppb	0.01
Spiked Amount	5.000		Recovery	=	1.720%	
15) Fluoranthene-D10 (FRT)	10.13	212	1750	0.08101	ppb	0.03
Spiked Amount	5.000		Recovery	=	1.620%	
19) Surrogate Recovery (TPH)	11.39	244	1276	0.08749	ppb	0.02
Spiked Amount	5.000		Recovery	=	1.740%	
Target Compounds						
3) Naphthalene	4.20	128	2920	0.19847	ppb	98
5) 2-Methylnaphthalene	5.01	142	1700	0.18886	ppb	93
6) 1-Methylnaphthalene	5.12	142	1786	0.20204	ppb	97
9) Acenaphthylene	6.05	152	5319	0.18923	ppb	100
10) Acenaphthene	6.24	154	1728	0.19842	ppb	93
11) Fluorene	6.86	166	1855	0.19104	ppb	96
13) Phenanthrene	7.98	178	2873	0.19753	ppb	99
14) Anthracene	8.06	178	2528	0.19339	ppb	99
16) Fluoranthene	10.17	202	3865	0.18462	ppb	98
18) Pyrene	10.79	202	3914	0.17646	ppb	97
20) Benz (a) anthracene	14.37	228	3153	0.16402	ppb	98
21) Chrysene	14.47	228	3749	0.19513	ppb	98
22) Indeno (1,2,3-cd) pyrene	20.53	276	1727m	0.10528	ppb	97
24) Benzo (b) fluoranthene	17.30	252	3214	0.16991	ppb	98
25) Benzo (k) fluoranthene	17.38	252	3734m	0.18903	ppb	98
26) Benzo (a) pyrene	18.06	252	2558	0.15196	ppb	100
27) Dibenz (a,h) anthracene	20.60	278	2666	0.15748	ppb	94
28) Benzo (g,h,i) perylene	21.02	276	2783	0.15889	ppb	97

Quantitation Report

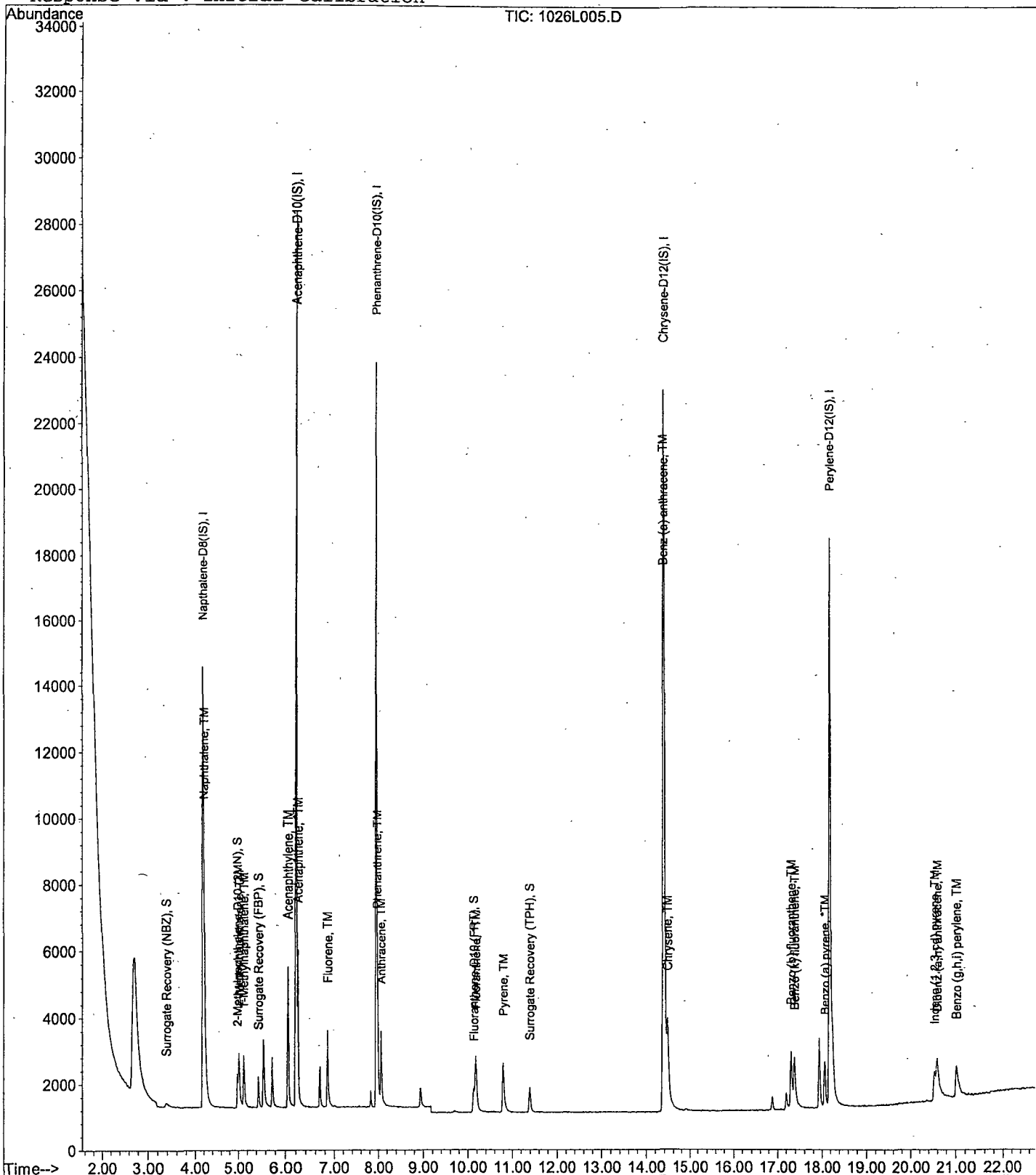
Data File : M:\LINUS\DATA\L181026\1026L005.D  
Acq On : 26 Oct 18 13:20  
Sample : 0.2 SIM 10/26/18  
Misc :

Vial: 5  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 16:15 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration

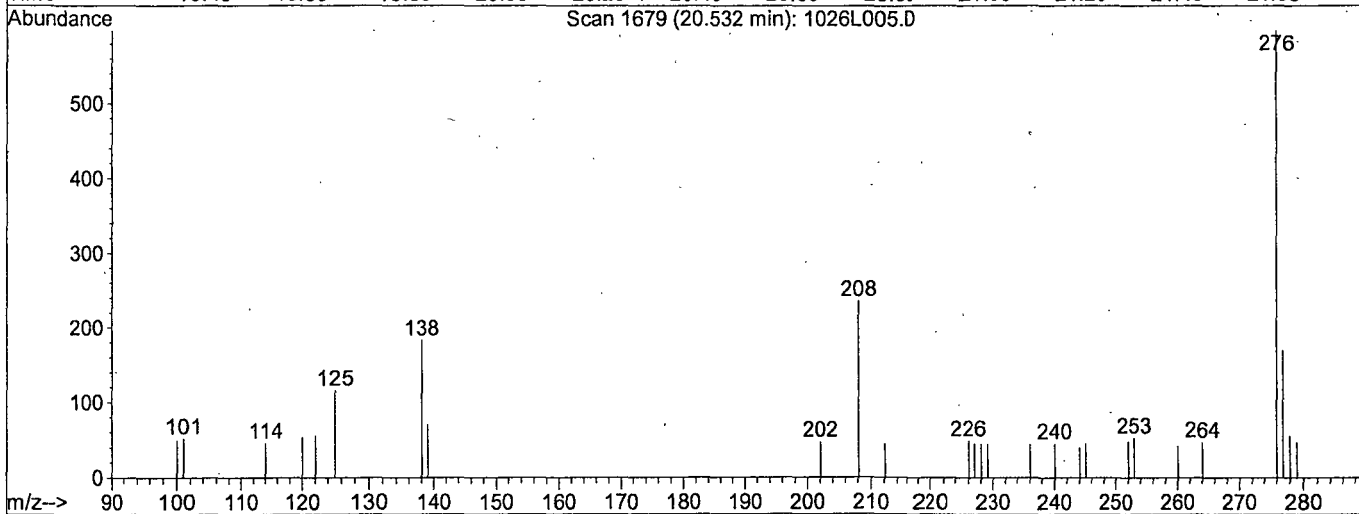
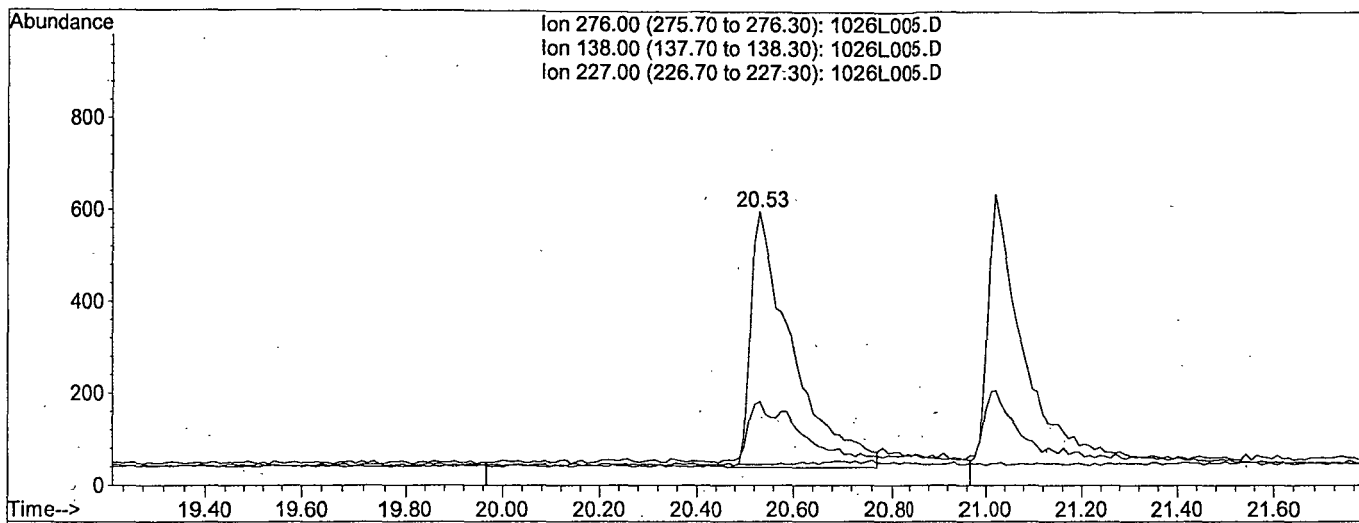


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 15:34 2018

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L005.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.53min 0.2008ppb

response 3294

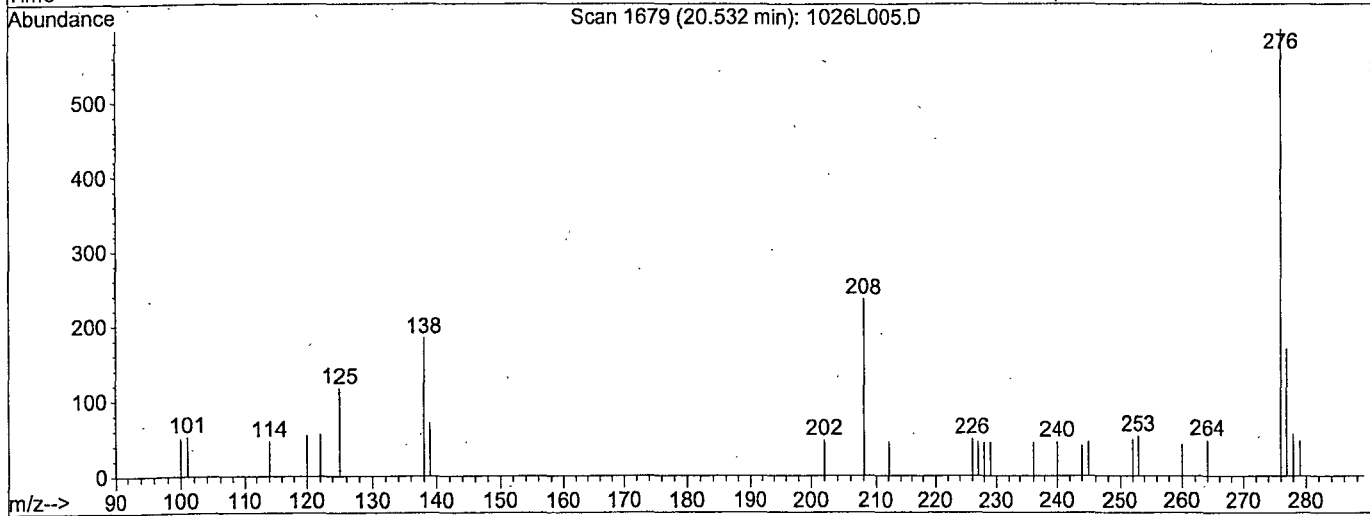
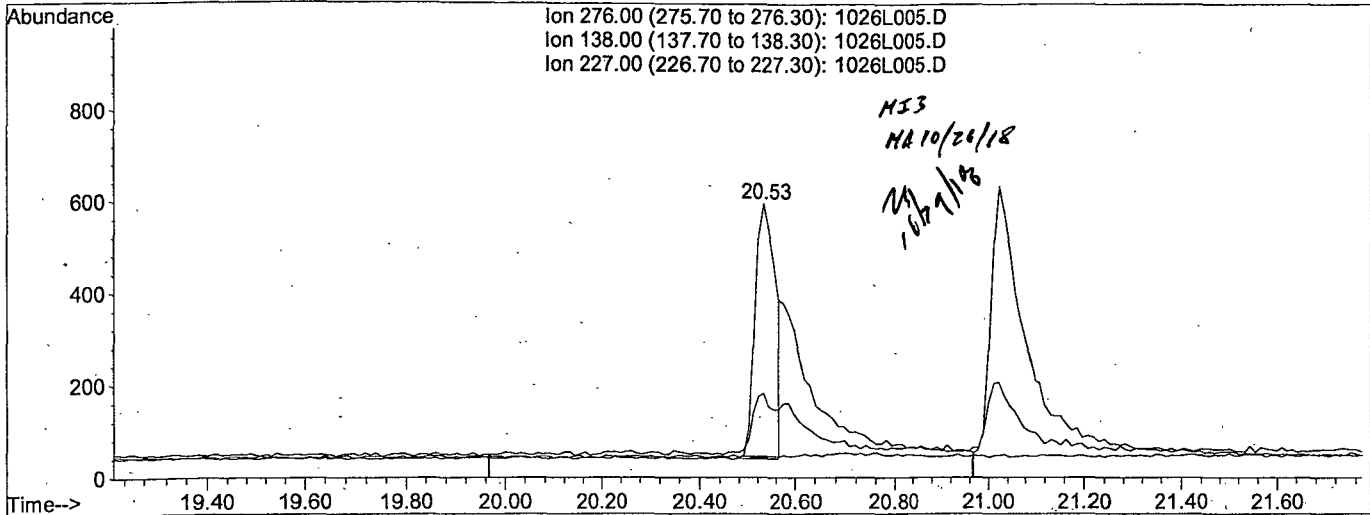
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	22.90
227.00	0.10	0.00#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:14 2018

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L005.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.53min 0.1053ppb m

response 1727

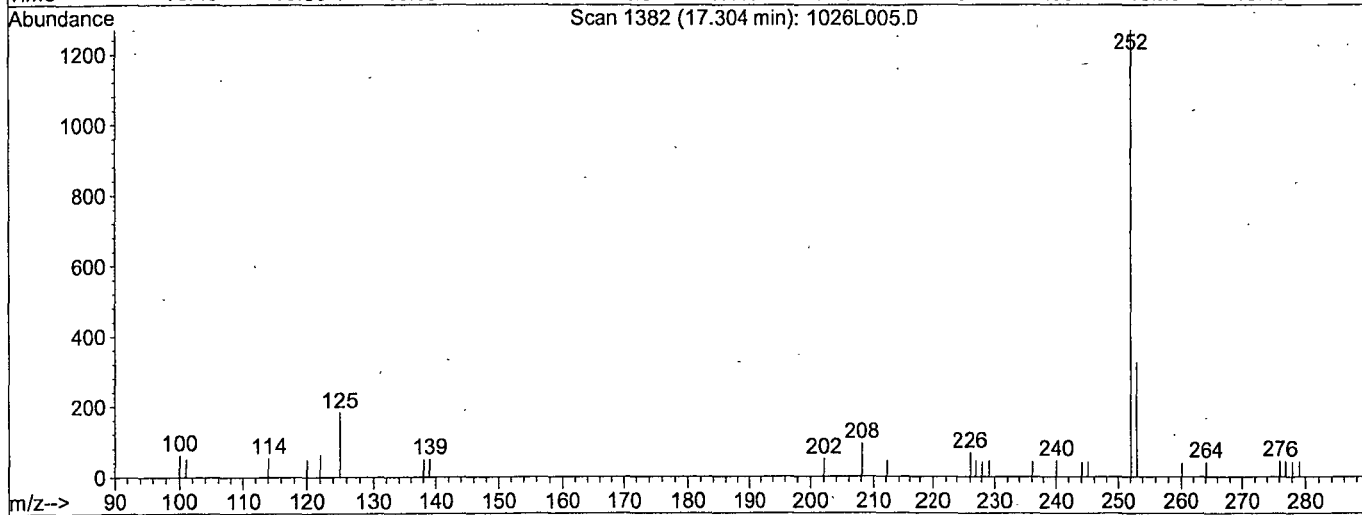
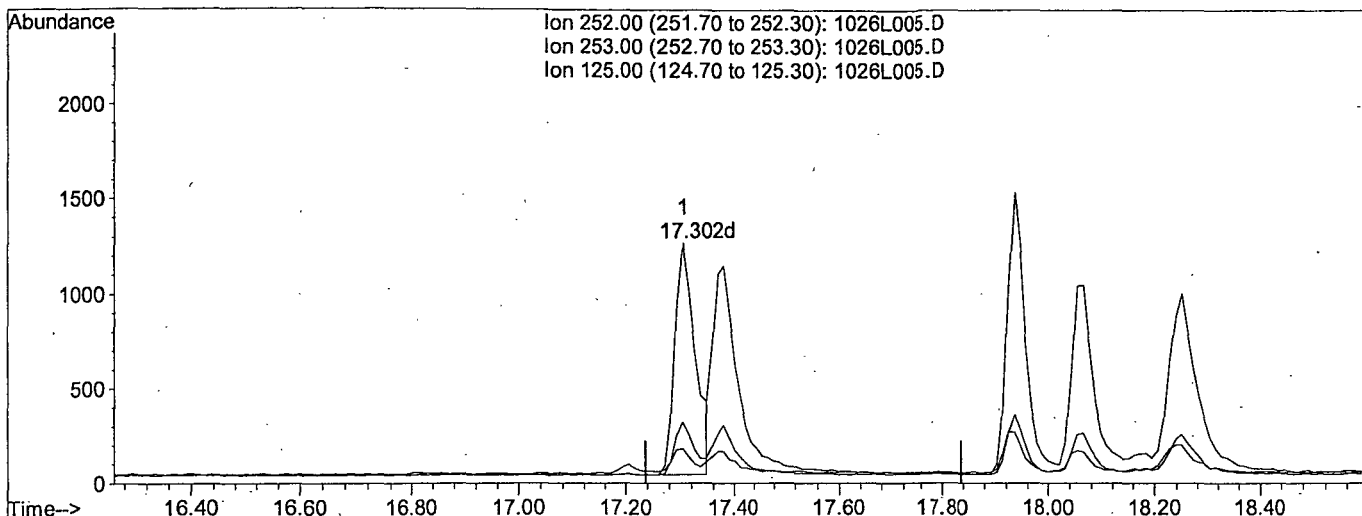
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	30.60#
227.00	0.10	7.53#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:14 2018

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L005.D

(25) Benzo (k) fluoranthene (TM)

17.30min 0.1624ppb

response 3208

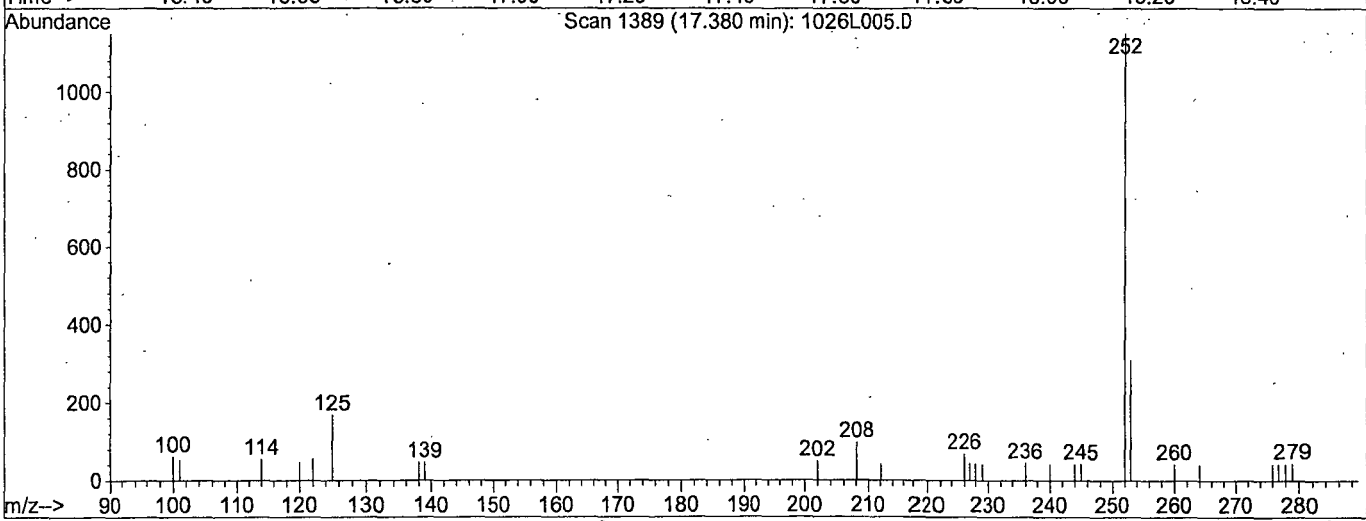
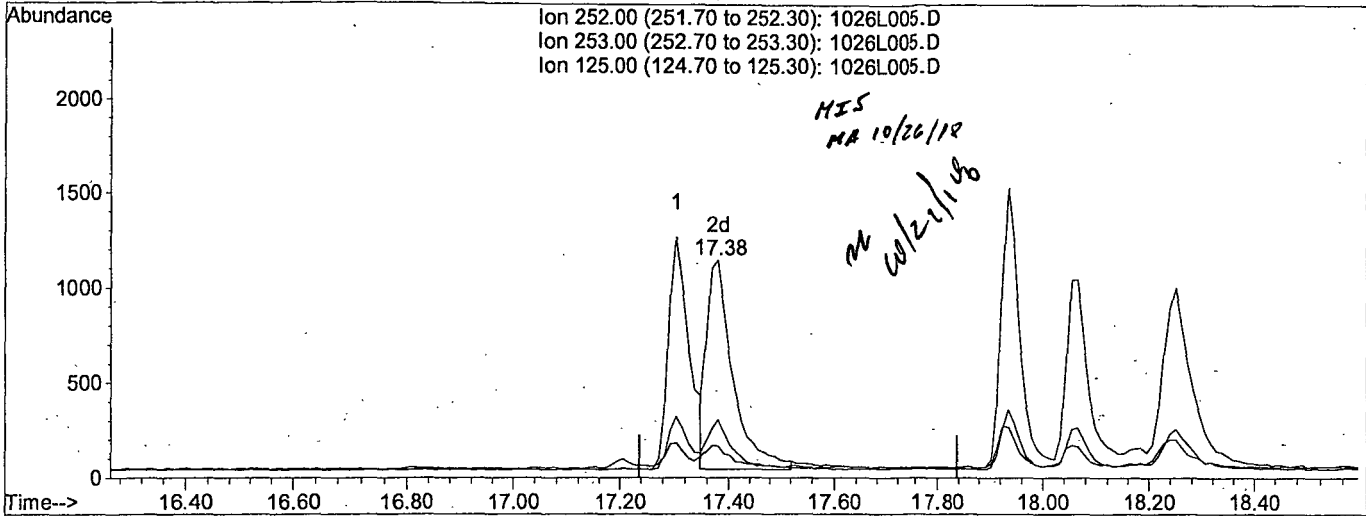
Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.68
125.00	9.90	9.95
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L005.D  
 Acq On : 26 Oct 18 13:20  
 Sample : 0.2 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:15 2018

Vial: 5  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L005.D

(25) Benzo (k) fluoranthene (TM)

17.38min 0.1890ppb m

response 3734

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	26.78
125.00	9.90	14.61#
0.00	0.00	0.00

Data File : M:\LINUS\DATA\L181026\1026L006.D Vial: 6  
 Acq On : 26 Oct 18 13:49 Operator: MA  
 Sample : 0.5 SIM 10/26/18 Inst : Linus  
 Misc : Multiplr: 1.00

Quant Time: Oct 26 16:11 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	4.18	136	32750	2.50000	ppb	0.00
7) Acenaphthene-D10(IS)	6.20	164	14930	2.50000	ppb	0.00
12) Phenanthrene-D10(IS)	7.95	188	28628	2.50000	ppb	0.01
17) Chrysene-D12(IS)	14.39	240	38484	2.50000	ppb	0.01
23) Perylene-D12(IS)	18.17	264	37609	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.38	82	1279	0.21709	ppb	0.02
Spiked Amount	5.000		Recovery	=	4.340%	
4) 2-Methylnaphthalene-D10 (2)	4.97	152	4203	0.23843	ppb	0.01
Spiked Amount	5.000		Recovery	=	4.760%	
8) Surrogate Recovery (FBP)	5.44	172	2622	0.22734	ppb	0.01
Spiked Amount	5.000		Recovery	=	4.540%	
15) Fluoranthene-D10 (FRT)	10.12	212	4660	0.21501	ppb	0.02
Spiked Amount	5.000		Recovery	=	4.300%	
19) Surrogate Recovery (TPH)	11.39	244	3226	0.22003	ppb	0.02
Spiked Amount	5.000		Recovery	=	4.400%	
Target Compounds						
3) Napthalene	4.20	128	7168	0.48956	ppb	98
5) 2-Methylnaphthalene	5.01	142	4428	0.49429	ppb	99
6) 1-Methylnaphthalene	5.12	142	4610	0.52403	ppb	100
9) Acenaphthylene	6.05	152	13663	0.49485	ppb	98
10) Acenaphthene	6.24	154	4192	0.49002	ppb	93
11) Fluorene	6.86	166	4814	0.50470	ppb	99
13) Phenanthrene	7.98	178	7057	0.48363	ppb	98
14) Anthracene	8.06	178	6562	0.50036	ppb	99
16) Fluoranthene	10.16	202	10110	0.48136	ppb	99
18) Pyrene	10.78	202	10151	0.45526	ppb	99
20) Benz (a) anthracene	14.37	228	8271	0.42801	ppb	99
21) Chrysene	14.47	228	9389	0.48612	ppb	97
22) Indeno (1,2,3-cd) pyrene	20.51	276	5240m	0.31776	ppb	99
24) Benzo (b) fluoranthene	17.29	252	8054	0.42726	ppb	97
25) Benzo (k) fluoranthene	17.37	252	9064	0.46045	ppb	100
26) Benzo (a) pyrene	18.05	252	6810	0.40595	ppb	99
27) Dibenz (a,h) anthracene	20.58	278	6922	0.41030	ppb	96
28) Benzo (g,h,i) perylene	21.00	276	7138	0.40895	ppb	96

Quantitation Report

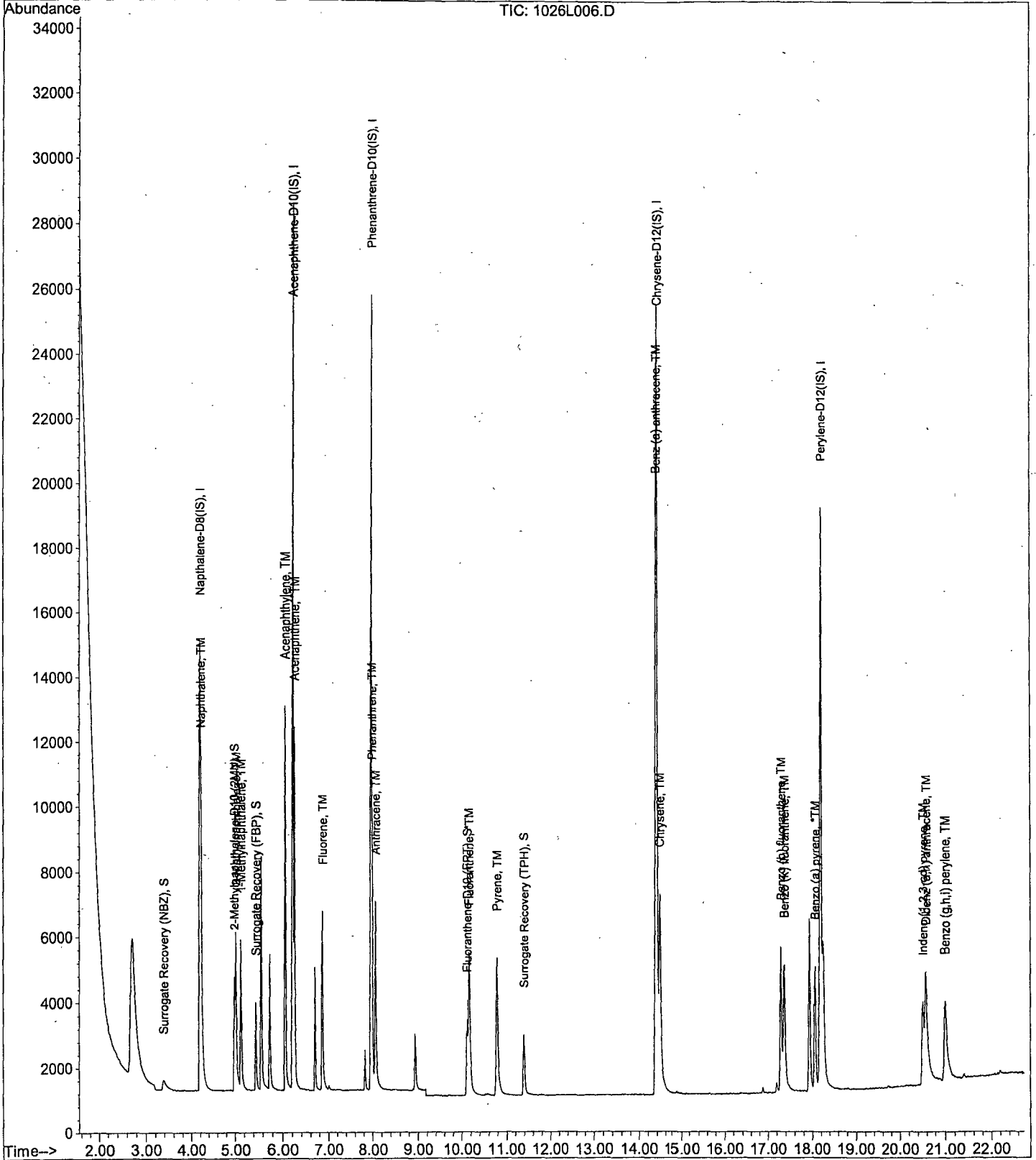
Data File : M:\LINUS\DATA\L181026\1026L006.D  
Acq On : 26 Oct 18 13:49  
Sample : 0.5 SIM 10/26/18  
Misc :

Vial: 6  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 16:11 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



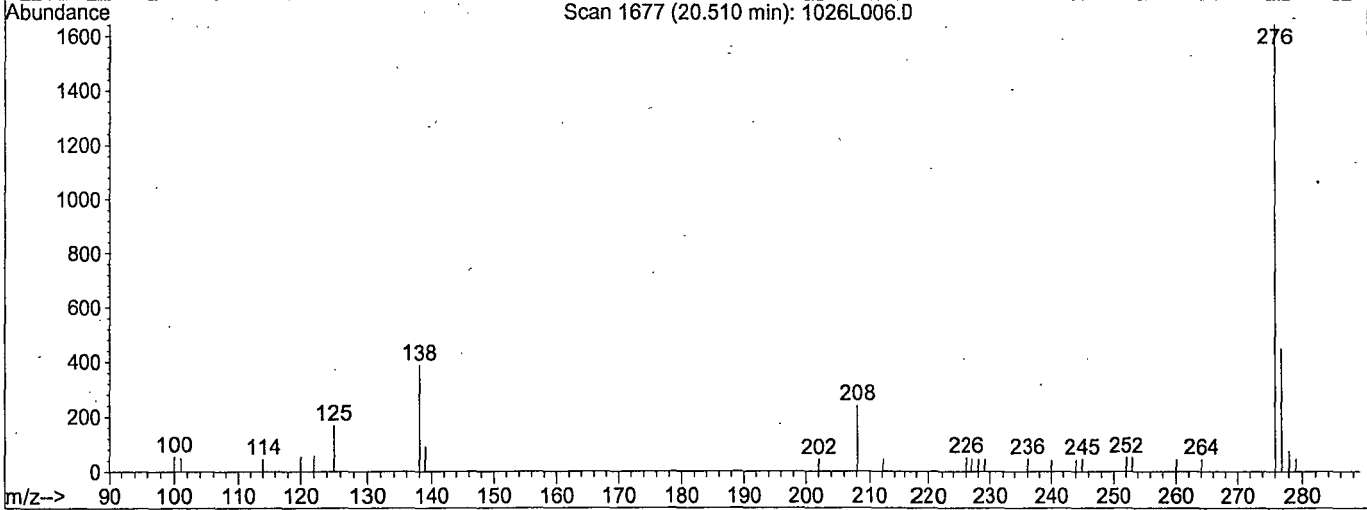
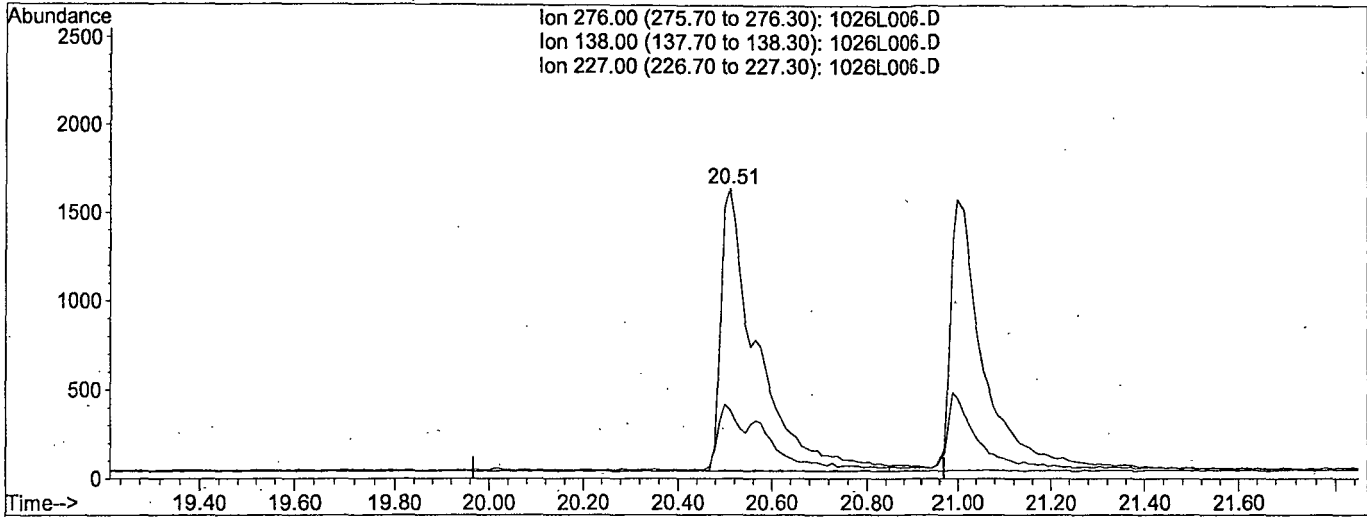


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L006.D  
 Acq On : 26 Oct 18 13:49  
 Sample : 0.5 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 15:34 2018

Vial: 6  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L006.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.51min 0.5224ppb

response 8614

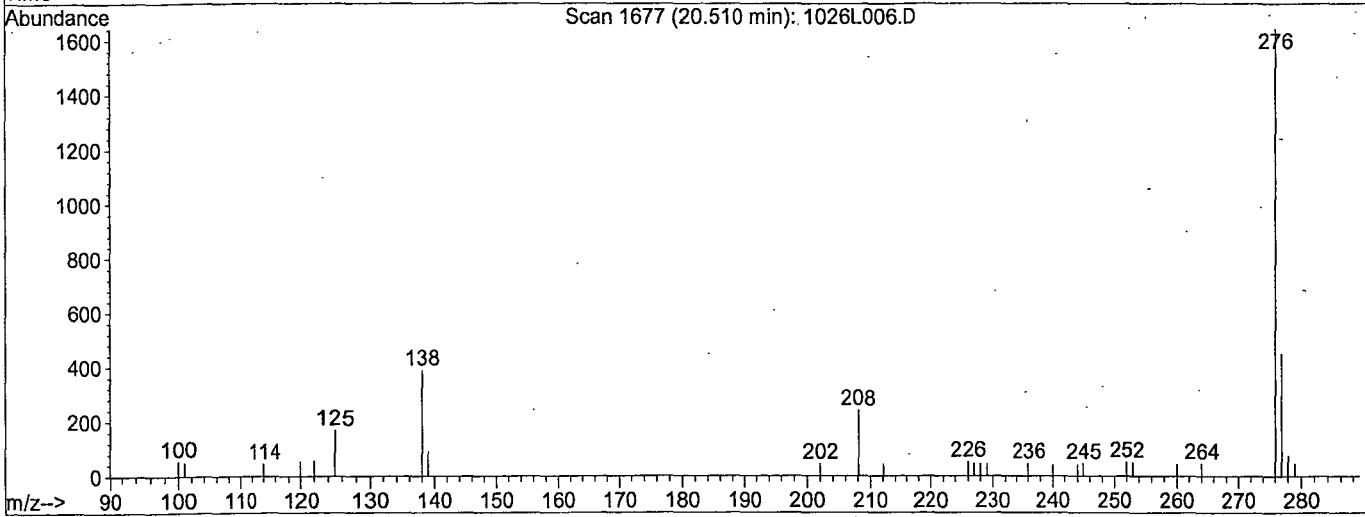
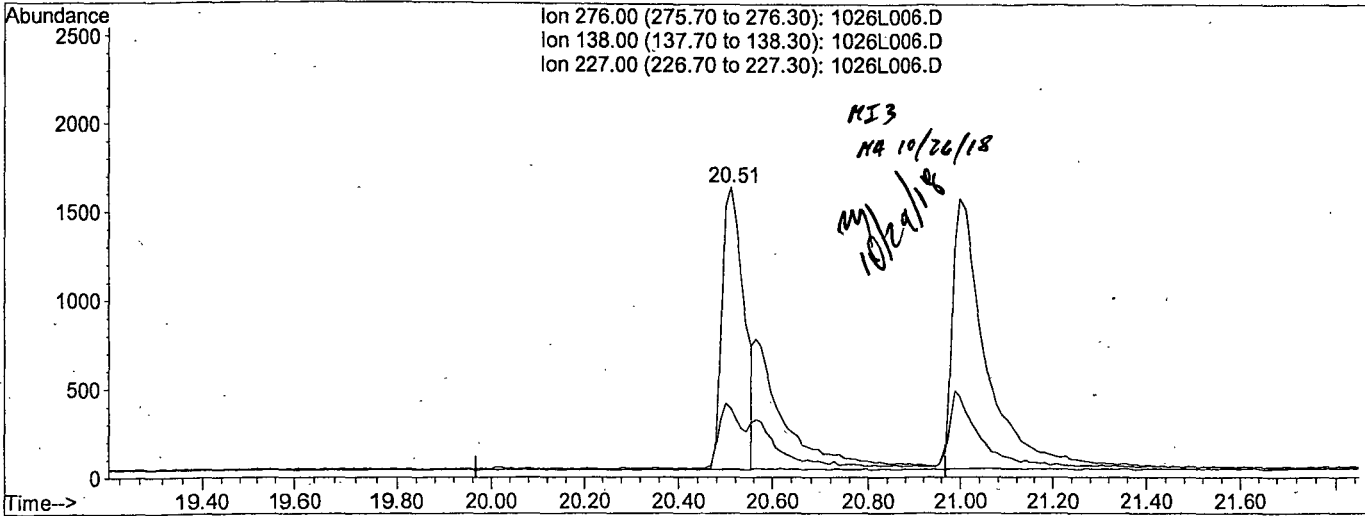
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	20.97
227.00	0.10	0.25#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L006.D  
 Acq On : 26 Oct 18 13:49  
 Sample : 0.5 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:11 2018

Vial: 6  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L006.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.51min 0.3178ppb m

response 5240

Ion	Exp%	Act%
276.00	100	100
138.00	21.50	23.62
227.00	0.10	2.86#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L007.D  
 Acq On : 26 Oct 18 14:18  
 Sample : 1 SIM 10/26/18  
 Misc :

Vial: 7  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 16:11 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Napthalene-D8 (IS)	4.18	136	33971	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	15608	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	29272	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.38	240	39857	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	39069	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.37	82	2297	0.37586	ppb	0.01
Spiked Amount	5.000		Recovery	=	7.520%	
4) 2-Methylnaphthalene-D10 (2)	4.97	152	8029	0.43910	ppb	0.01
Spiked Amount	5.000		Recovery	=	8.780%	
8) Surrogate Recovery (FBP)	5.44	172	5100	0.42298	ppb	0.01
Spiked Amount	5.000		Recovery	=	8.460%	
15) Fluoranthene-D10 (FRT)	10.11	212	9033	0.40761	ppb	0.01
Spiked Amount	5.000		Recovery	=	8.160%	
19) Surrogate Recovery (TPH)	11.38	244	6108	0.40225	ppb	0.01
Spiked Amount	5.000		Recovery	=	8.040%	
Target Compounds						
3) Naphthalene	4.20	128	14128	0.93024	ppb	100
5) 2-Methylnaphthalene	5.01	142	8733	0.93981	ppb	98
6) 1-Methylnaphthalene	5.12	142	8928	0.97838	ppb	98
9) Acenaphthylene	6.05	152	26429	0.91562	ppb	99
10) Acenaphthene	6.24	154	8065	0.90180	ppb	92
11) Fluorene	6.84	166	9703	0.97307	ppb	97
13) Phenanthrene	7.98	178	14031	0.94041	ppb	99
14) Anthracene	8.06	178	12971	0.96730	ppb	99
16) Fluoranthene	10.16	202	20236	0.94229	ppb	98
18) Pyrene	10.77	202	20187	0.87417	ppb	97
20) Benz (a) anthracene	14.36	228	15888	0.79385	ppb	99
21) Chrysene	14.47	228	17899	0.89481	ppb	99
22) Indeno (1,2,3-cd) pyrene	20.50	276	11020m	0.64524	ppb	95
24) Benzo (b) fluoranthene	17.28	252	15809	0.80731	ppb	98
25) Benzo (k) fluoranthene	17.36	252	17901	0.87539	ppb	99
26) Benzo (a) pyrene	18.04	252	14027	0.80492	ppb	97
27) Dibenz (a,h) anthracene	20.56	278	14018	0.79986	ppb	95
28) Benzo (g,h,i) perylene	20.99	276	13977	0.77084	ppb	98

Quantitation Report

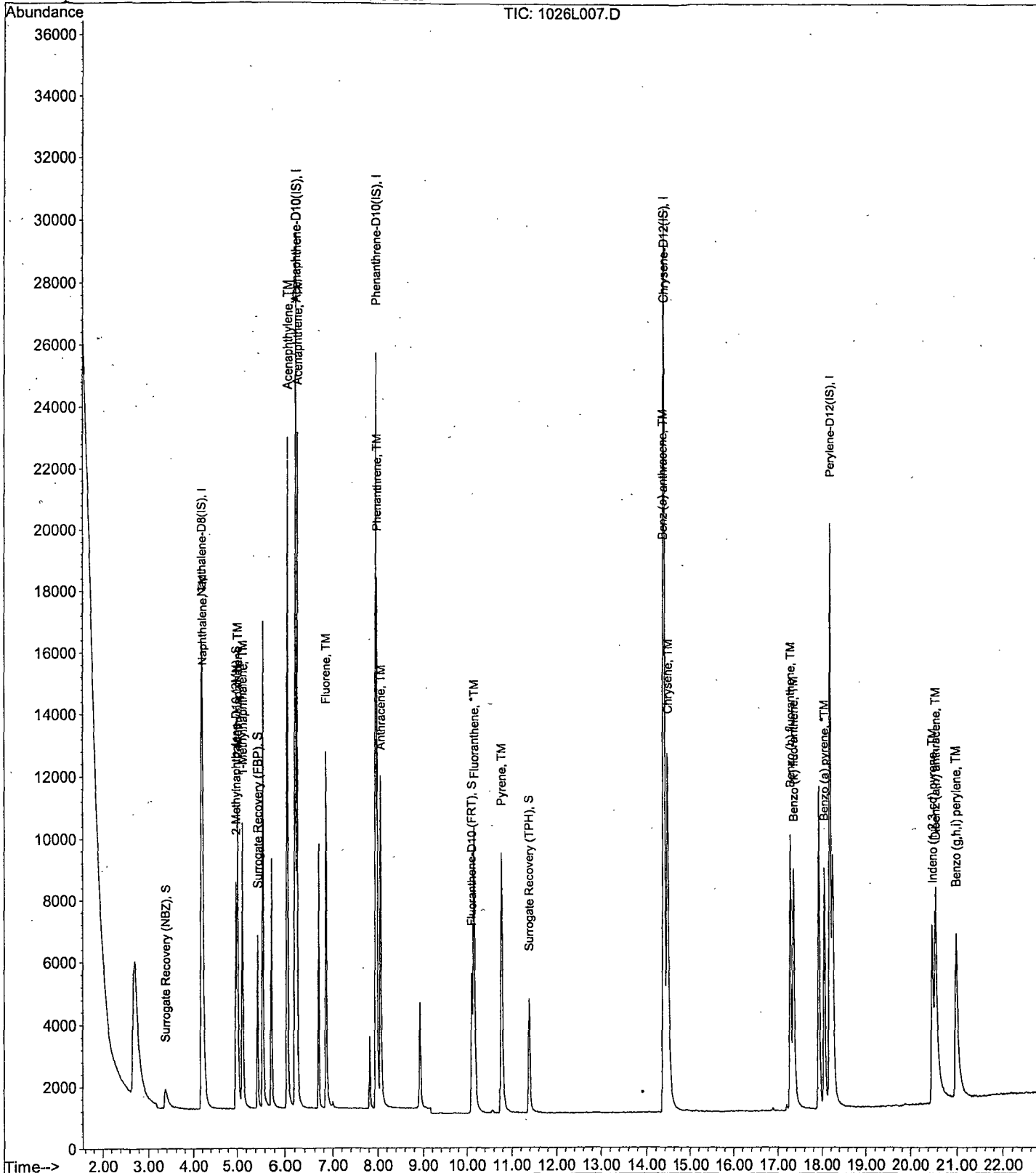
Data File : M:\LINUS\DATA\L181026\1026L007.D  
Acq On : 26 Oct 18 14:18  
Sample : 1 SIM 10/26/18  
Misc :

Vial: 7  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 16:11 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration

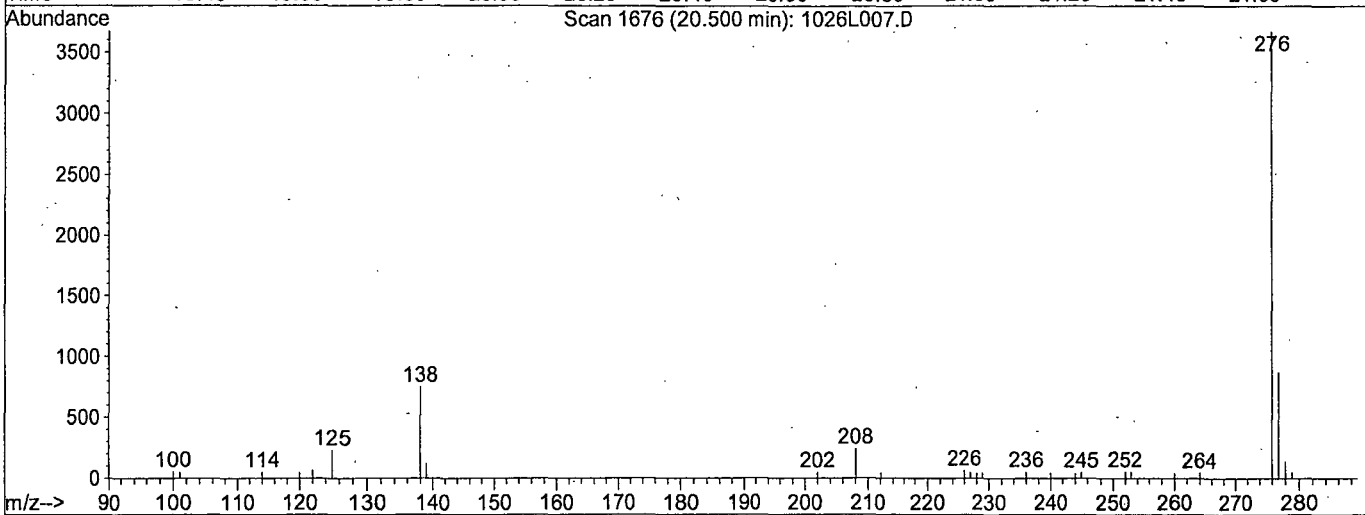
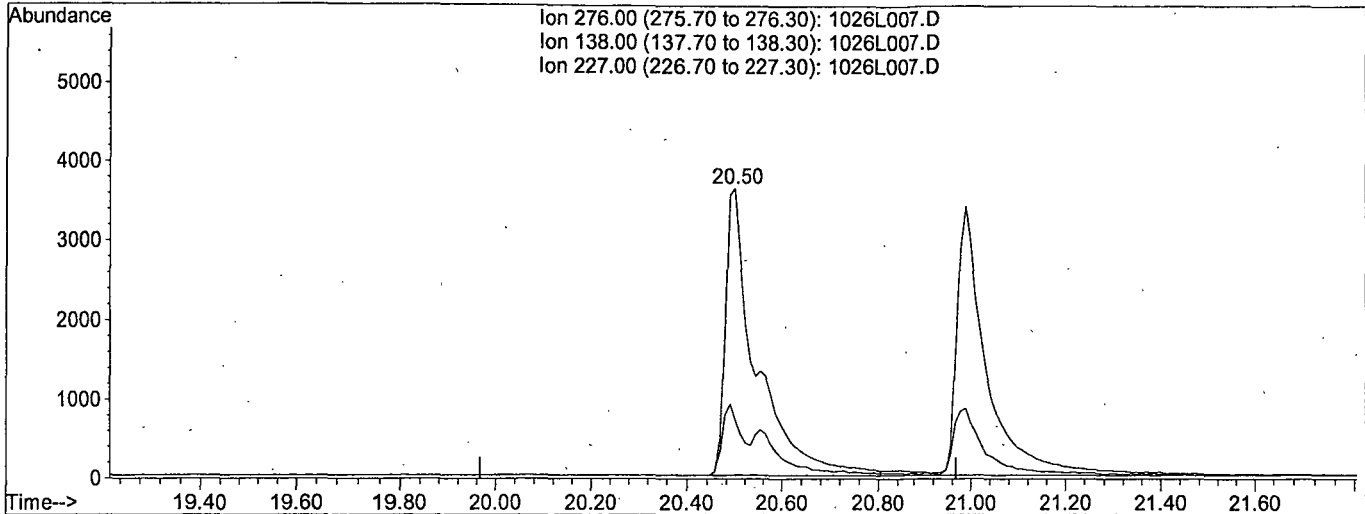


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L007.D  
 Acq On : 26 Oct 18 14:18  
 Sample : 1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 15:34 2018

Vial: 7  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L007.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.50min 0.9777ppb

response 16698

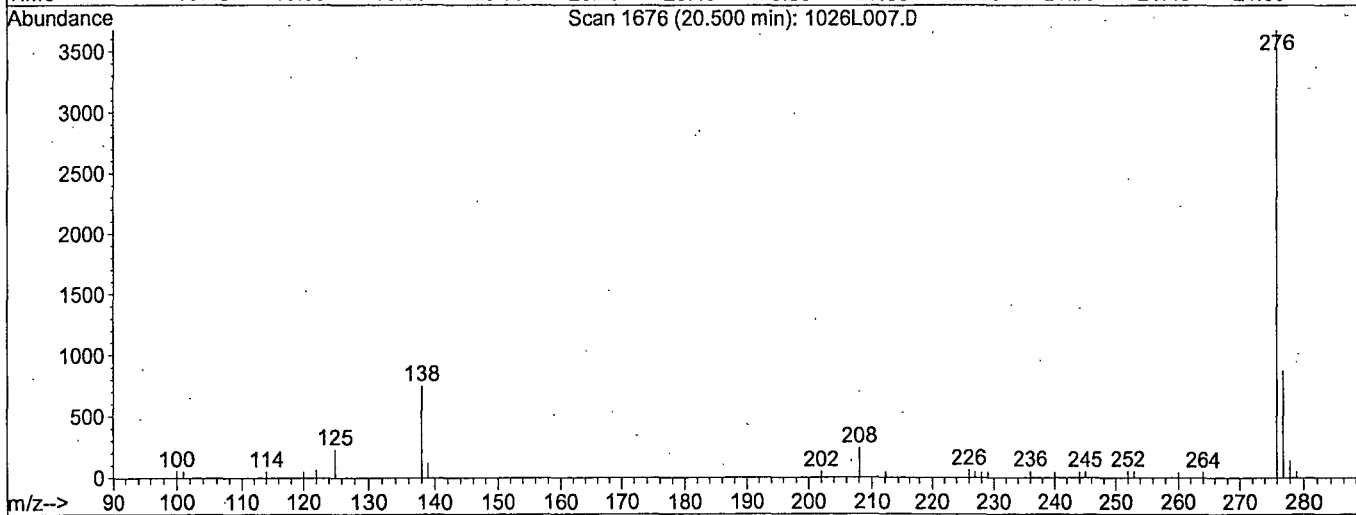
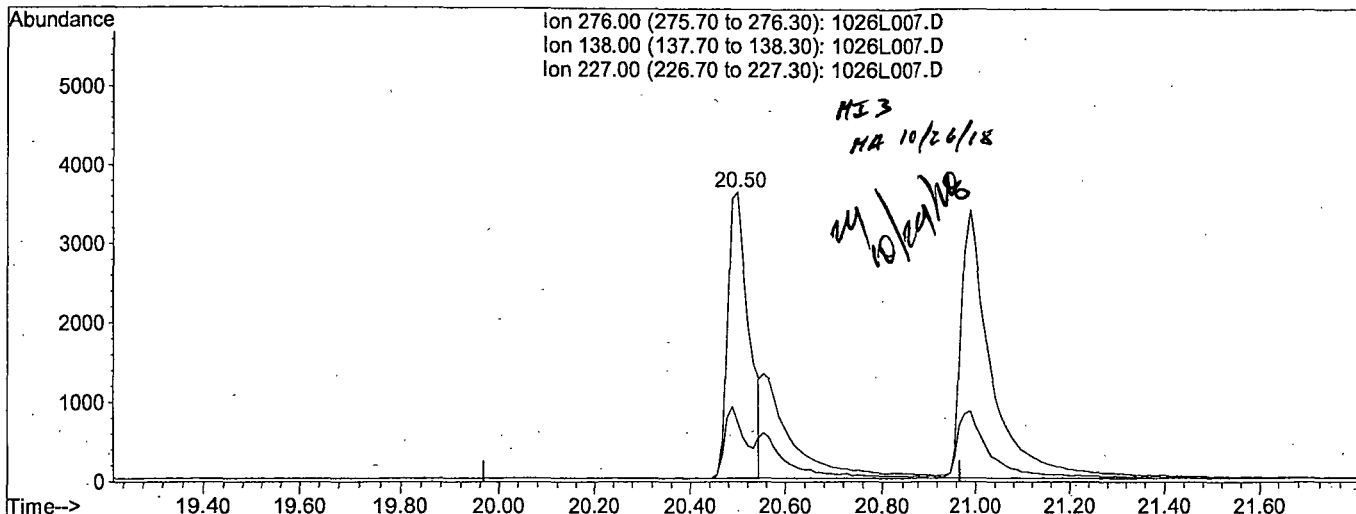
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	19.31
227.00	0.10	0.17#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L007.D  
 Acq On : 26 Oct 18 14:18  
 Sample : 1 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:11 2018

Vial: 7  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L007.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.50min 0.6452ppb m

response 11020

Ion	Exp%	Act%
276.00	100	100
138.00	21.50	20.41
227.00	0.10	1.36#
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L008.D  
 Acq On : 26 Oct 18 14:47  
 Sample : 10 SIM 10/26/18  
 Misc :

Vial: 8  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 15:34 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	32570	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	14513	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	27797	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.38	240	38774	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	36501	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.36	82	25371	4.33004	ppb	0.00
Spiked Amount	5.000		Recovery	=	86.600%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	78619	4.48459	ppb	0.00
Spiked Amount	5.000		Recovery	=	89.700%	
8) Surrogate Recovery (FBP)	5.43	172	50972	4.54640	ppb	0.00
Spiked Amount	5.000		Recovery	=	90.920%	
15) Fluoranthene-D10 (FRT)	10.10	212	96613	4.59101	ppb	0.00
Spiked Amount	5.000		Recovery	=	91.820%	
19) Surrogate Recovery (TPH)	11.37	244	62297	4.21726	ppb	0.00
Spiked Amount	5.000		Recovery	=	84.340%	
Target Compounds						
3) Naphthalene	4.20	128	138573	9.51662	ppb	100
5) 2-Methylnaphthalene	5.00	142	89316	10.02530	ppb	99
6) 1-Methylnaphthalene	5.12	142	85742	9.80030	ppb	97
9) Acenaphthylene	6.04	152	267328	9.96025	ppb	100
10) Acenaphthene	6.24	154	78196	9.40333	ppb	98
11) Fluorene	6.84	166	93296	10.06218	ppb	100
13) Phenanthrene	7.98	178	136446	9.63044	ppb	99
14) Anthracene	8.05	178	133826	10.50953	ppb	100
16) Fluoranthene	10.15	202	206441	10.12305	ppb	96
18) Pyrene	10.76	202	210764	9.38172	ppb	98
20) Benz (a) anthracene	14.36	228	178514	9.16865	ppb	100
21) Chrysene	14.46	228	182173	9.36164	ppb	100
22) Indeno (1,2,3-cd) pyrene	20.47	276	132404	7.96902	ppb	98
24) Benzo (b) fluoranthene	17.27	252	170669	9.32862	ppb	99
25) Benzo (k) fluoranthene	17.34	252	187357	9.80670	ppb	99
26) Benzo (a) pyrene	18.03	252	159123	9.77348	ppb	99
27) Dibenz (a,h) anthracene	20.54	278	142540	8.70545	ppb	99
28) Benzo (g,h,i) perylene	20.96	276	147120	8.68460	ppb	99

Quantitation Report

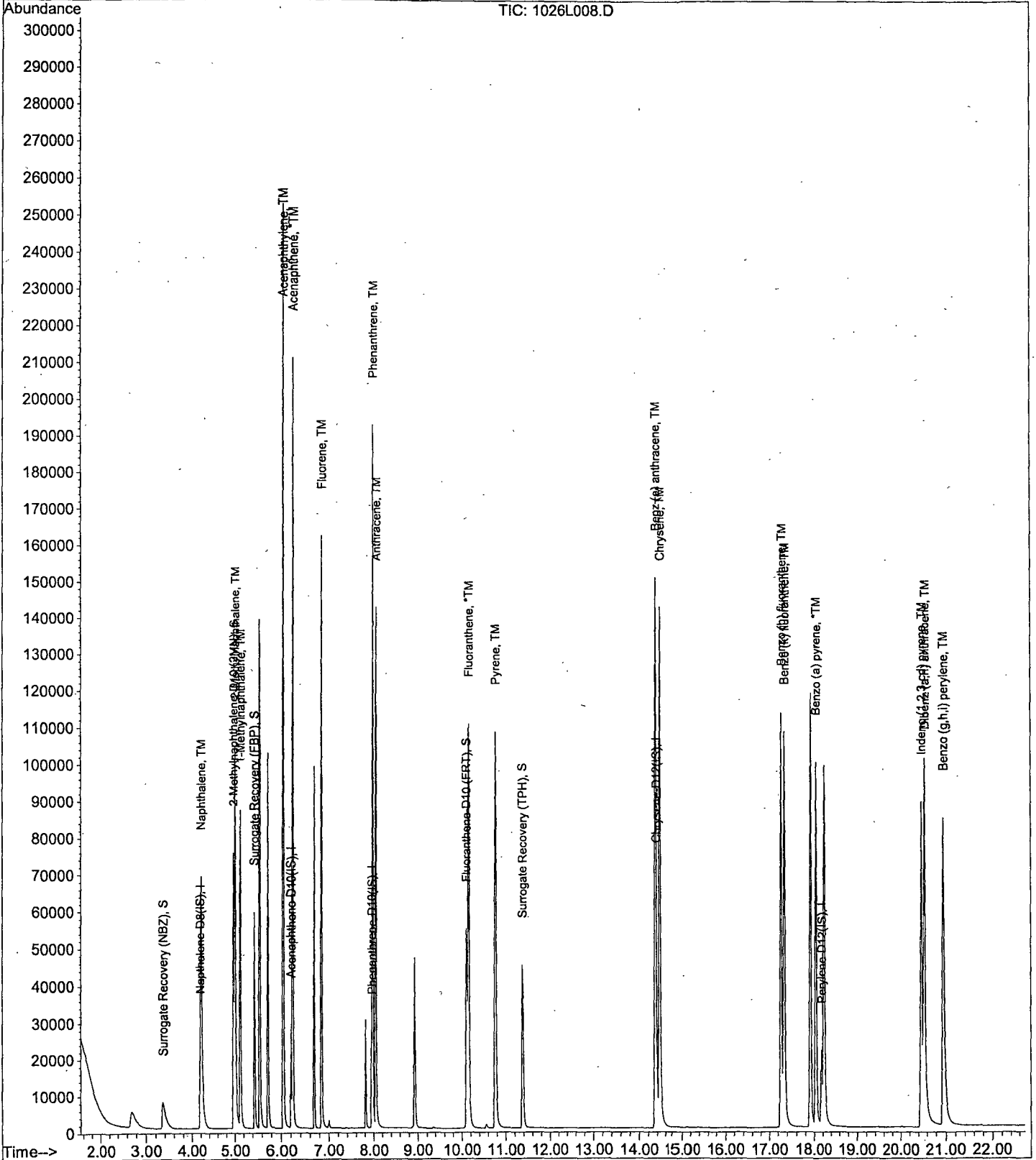
Data File : M:\LINUS\DATA\L181026\1026L008.D  
Acq On : 26 Oct 18 14:47  
Sample : 10 SIM 10/26/18  
Misc :

Vial: 8  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 15:34 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration





Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L181026\1026L009.D  
 Acq On : 26 Oct 18 15:16  
 Sample : 50 SIM 10/26/18  
 Misc :

Vial: 9  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 15:56 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.17	136	33697	2.50000	ppb	-0.01
7) Acenaphthene-D10 (IS)	6.20	164	14973	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	28689	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.40	240	38392	2.50000	ppb	0.02
23) Perylene-D12 (IS)	18.18	264	37588	2.50000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.35	82	122273	21.73245	ppb	-0.01
Spiked Amount	5.000		Recovery	=	434.640%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	355045	22.10239	ppb	0.00
Spiked Amount	5.000		Recovery	=	442.040%	
8) Surrogate Recovery (FBP)	5.43	172	220430	21.82249	ppb	0.00
Spiked Amount	5.000		Recovery	=	436.440%	
15) Fluoranthene-D10 (FRT)	10.11	212	431396	22.92845	ppb	0.01
Spiked Amount	5.000		Recovery	=	458.560%	
19) Surrogate Recovery (TPH)	11.38	244	284921	21.83788	ppb	0.01
Spiked Amount	5.000		Recovery	=	436.760%	
Target Compounds						
3) Naphthalene	4.20	128	652242	46.00597	ppb	100
5) 2-Methylnaphthalene	5.00	142	409700	47.62530	ppb	99
6) 1-Methylnaphthalene	5.12	142	391332	45.14684	ppb	96
9) Acenaphthylene	6.04	152	1199003	46.39626	ppb	100
10) Acenaphthene	6.24	154	343423	43.41979	ppb	94
11) Fluorene	6.84	166	413269	45.87248	ppb	98
13) Phenanthrene	7.98	178	614637	45.60337	ppb	99
14) Anthracene	8.05	178	596928	47.86908	ppb	99
16) Fluoranthene	10.17	202	935853	47.50242	ppb	97
18) Pyrene	10.78	202	976032	48.05263	ppb	98
20) Benz (a) anthracene	14.38	228	861770	50.73337	ppb	99
21) Chrysene	14.49	228	821012	45.08714	ppb	99
22) Indeno (1,2,3-cd) pyrene	20.50	276	693522	42.54313	ppb	95
24) Benzo (b) fluoranthene	17.29	252	833397	49.82667	ppb	# 98
25) Benzo (k) fluoranthene	17.38	252	837921	48.85260	ppb	97
26) Benzo (a) pyrene	18.08	252	754977	52.03384	ppb	97
27) Dibenz (a,h) anthracene	20.58	278	691170	48.13785	ppb	97
28) Benzo (g,h,i) perylene	21.00	276	687548	47.00469	ppb	96

Quantitation Report

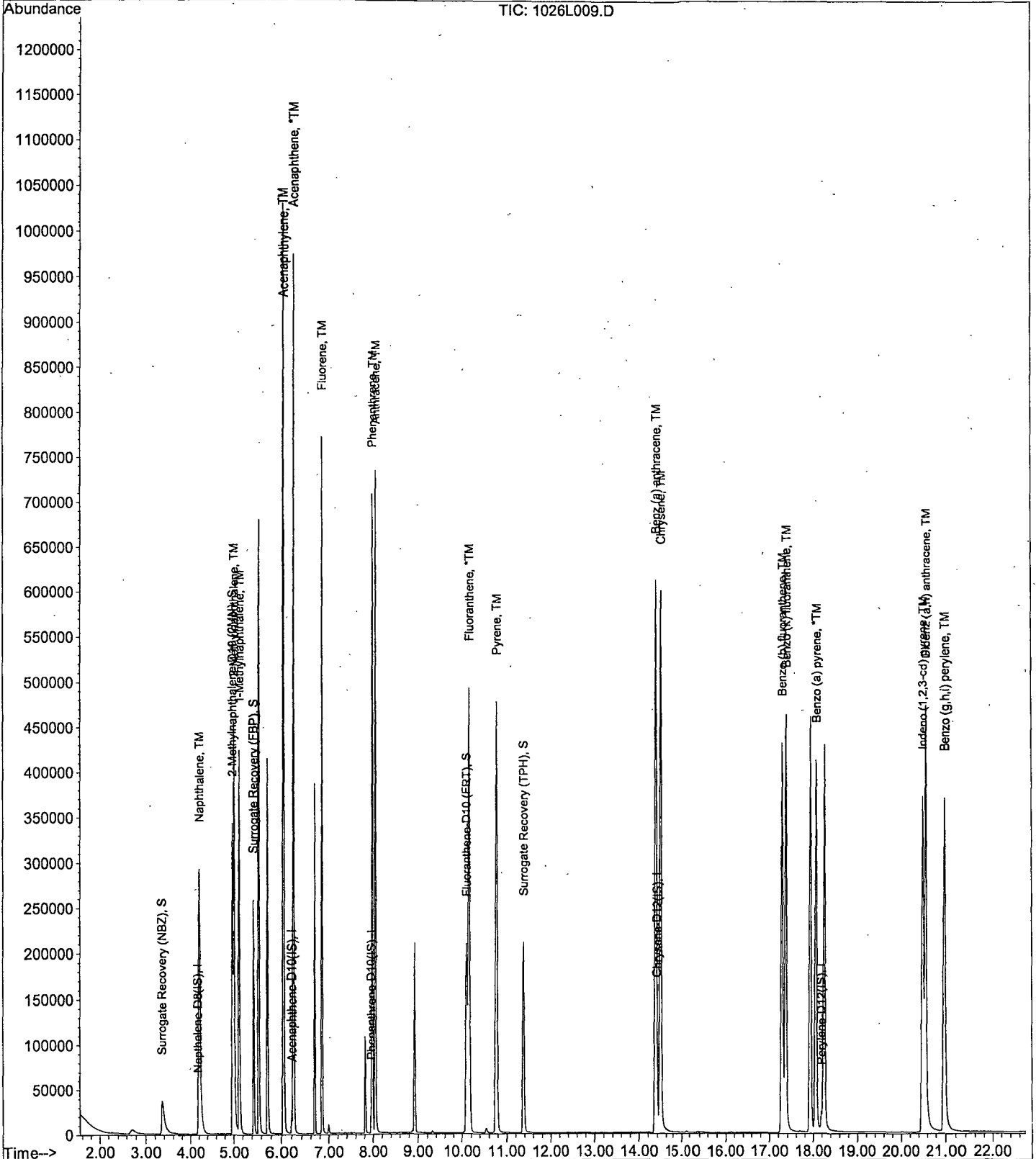
Data File : M:\LINUS\DATA\L181026\1026L009.D  
Acq On : 26 Oct 18 15:16  
Sample : 50 SIM 10/26/18  
Misc :

Vial: 9  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 15:56 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 26 16:12 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.17	136	31633	2.50000	ppb	-0.01
7) Acenaphthene-D10 (IS)	6.20	164	14067	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	26871	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.42	240	35782	2.50000	ppb	0.04
23) Perylene-D12 (IS)	18.20	264	35404	2.50000	ppb	0.02

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	3.35	82	230737	45.09256	ppb	-0.01
Spiked Amount	5.000		Recovery	=	901.860%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	641392	43.26523	ppb	0.00
Spiked Amount	5.000		Recovery	=	865.300%	
8) Surrogate Recovery (FBP)	5.43	172	407321	43.93229	ppb	0.00
Spiked Amount	5.000		Recovery	=	878.640%	
15) Fluoranthene-D10 (FRT)	10.12	212	792092	46.17898	ppb	0.02
Spiked Amount	5.000		Recovery	=	923.580%	
19) Surrogate Recovery (TPH)	11.39	244	525605	44.69973	ppb	0.02
Spiked Amount	5.000		Recovery	=	894.000%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	4.19	128	1190602	90.34580	ppb	100
5) 2-Methylnaphthalene	5.01	142	725937	89.84741	ppb	96
6) 1-Methylnaphthalene	5.12	142	696199	85.61444	ppb	97
9) Acenaphthylene	6.05	152	2156100	89.29356	ppb	99
10) Acenaphthene	6.25	154	635563	86.08448	ppb	95
11) Fluorene	6.86	166	758985	89.77625	ppb	99
13) Phenanthrene	7.99	178	1058586	83.98357	ppb	98
14) Anthracene	8.06	178	1012170	86.44068	ppb	98
16) Fluoranthene	10.19	202	1675844	91.44665	ppb	98
18) Pyrene	10.80	202	1771989	95.58281	ppb	96
20) Benz (a) anthracene	14.40	228	1494777	96.18039	ppb	99
21) Chrysene	14.51	228	1518028	91.13060	ppb	98
22) Indeno (1,2,3-cd) pyrene	20.53	276	1322256m	89.75981	ppb	95
24) Benzo (b) fluoranthene	17.31	252	1544889	98.73724	ppb	# 97
25) Benzo (k) fluoranthene	17.41	252	1515838m	94.40721	ppb	98
26) Benzo (a) pyrene	18.11	252	1359978	100.87684	ppb	98
27) Dibenz (a,h) anthracene	20.61	278	1247200	94.24990	ppb	98
28) Benzo (g,h,i) perylene	21.03	276	1259732	93.82010	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1026L010.D L1026.M Fri Oct 26 16:22:40 322

Quantitation Report

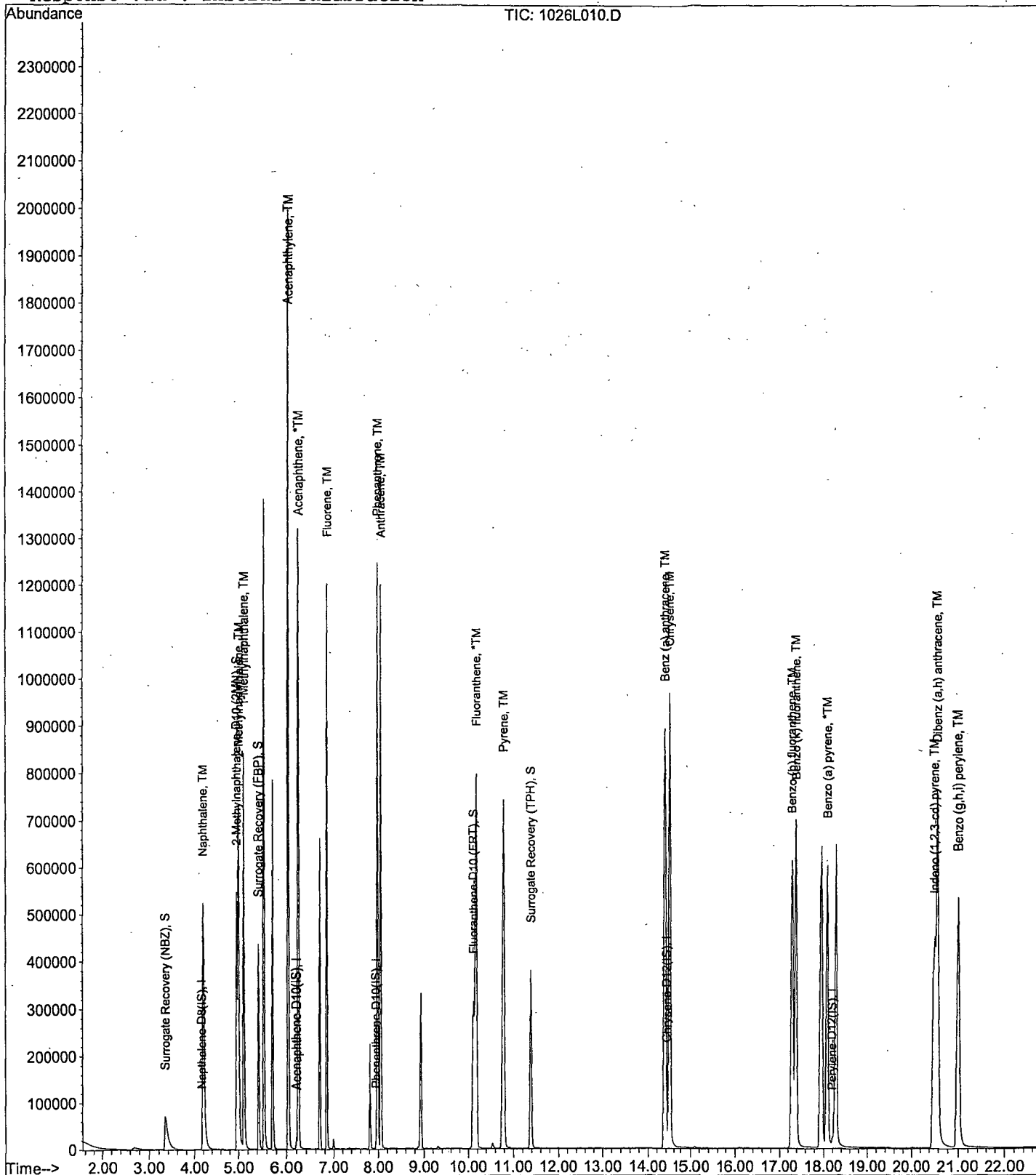
Data File : M:\LINUS\DATA\L181026\1026L010.D  
Acq On : 26 Oct 18 15:46  
Sample : 100 SIM 10/26/18  
Misc :

Vial: 10  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 26 16:12 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration

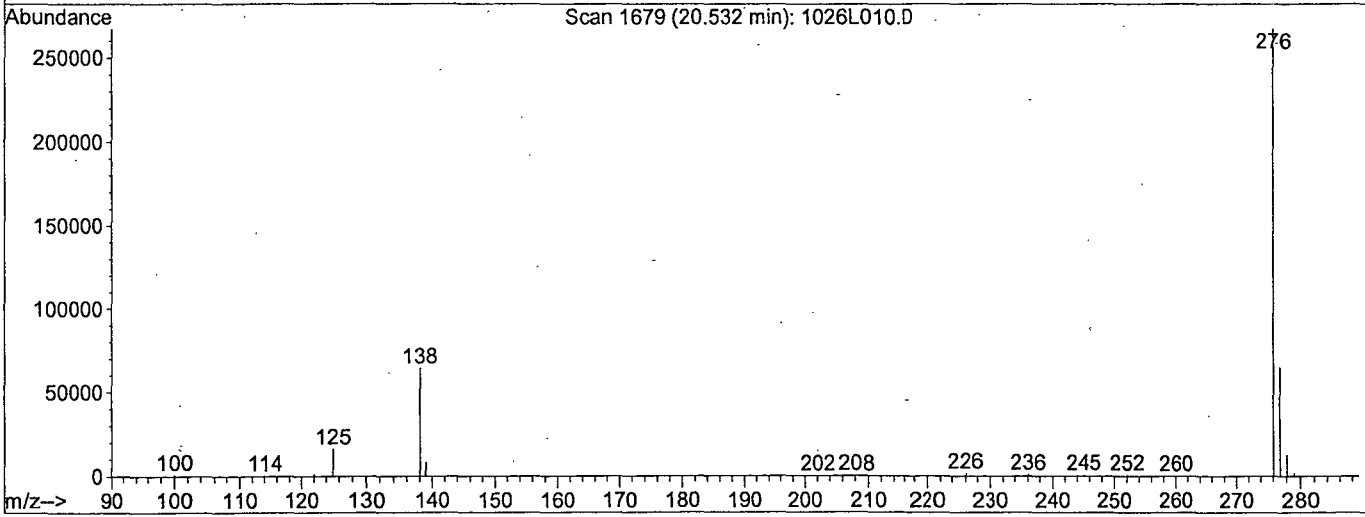
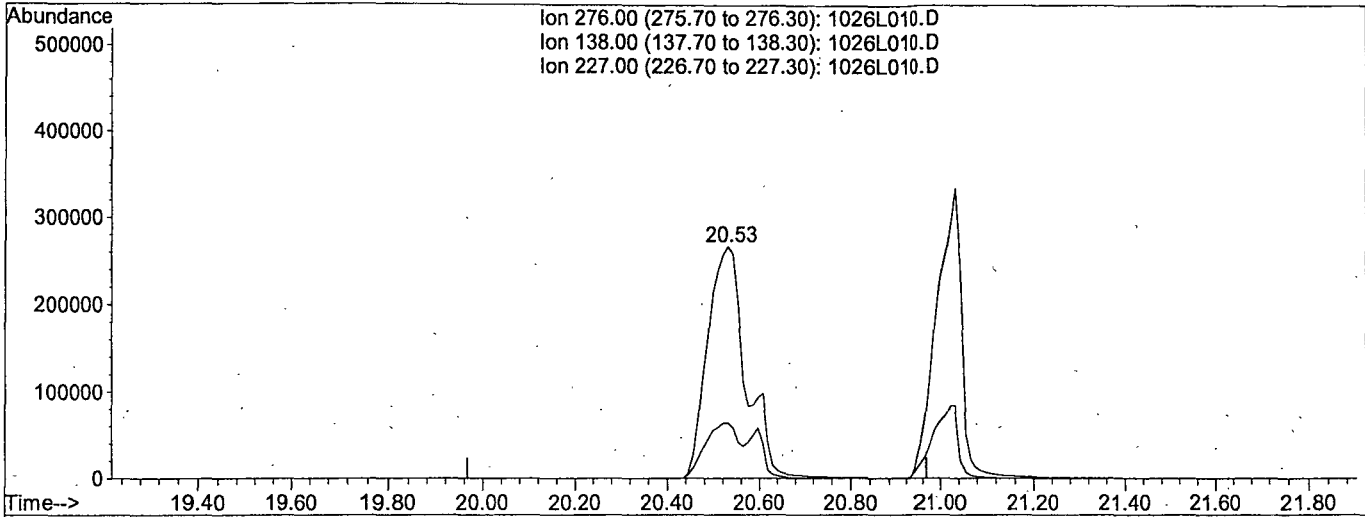


Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:09 2018

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L010.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.53min 107.1725ppb  
 response 1578763

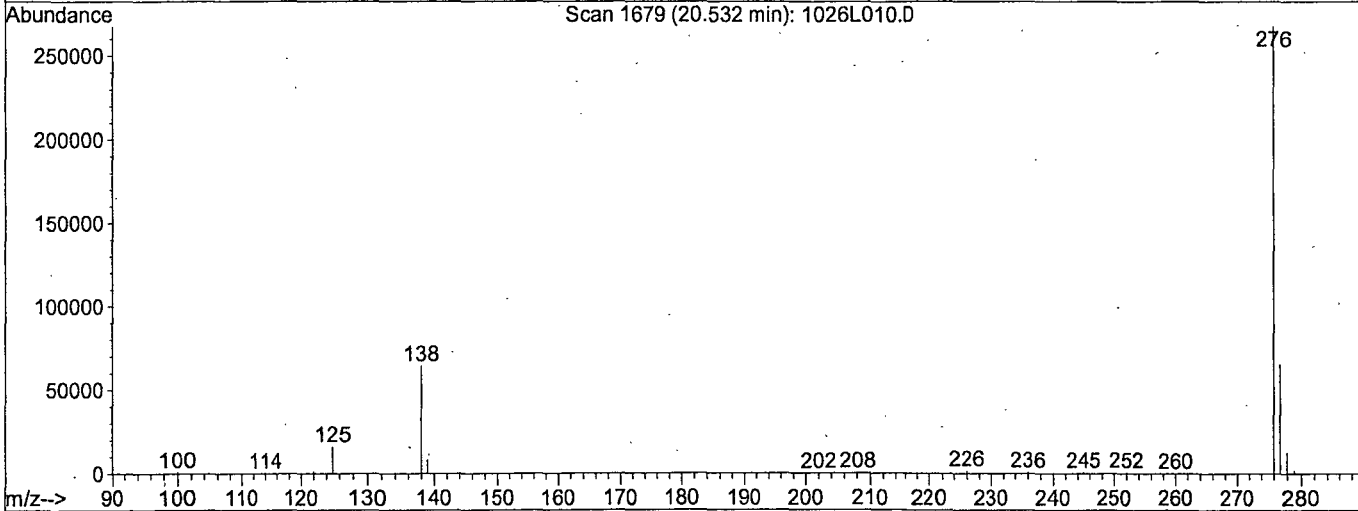
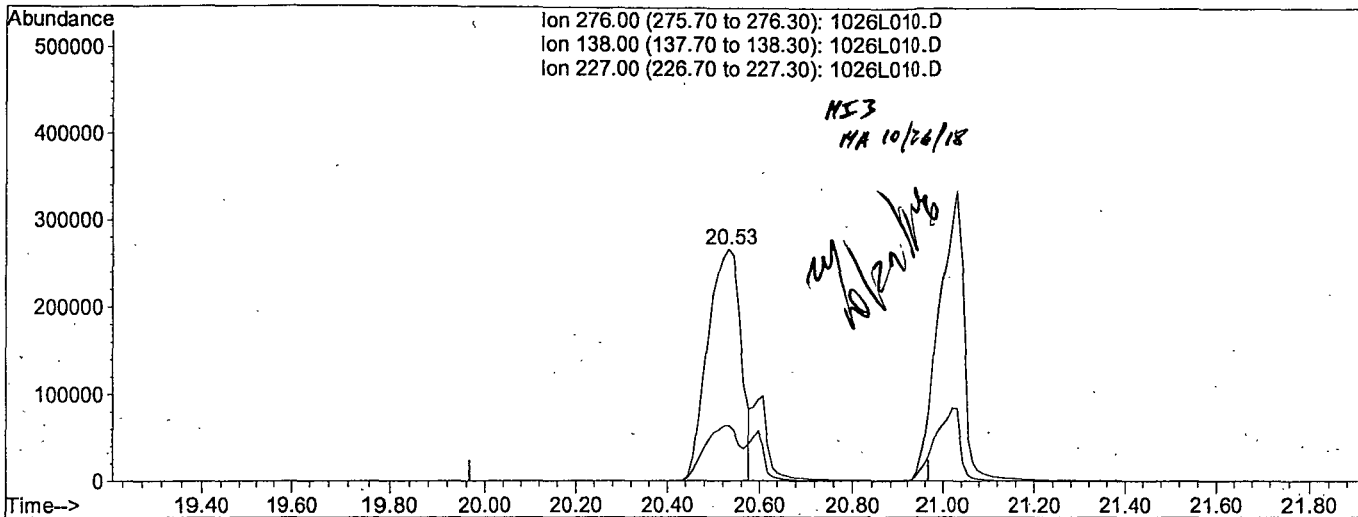
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	24.02
227.00	0.10	0.11
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:12 2018

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L010.D

(22) Indeno (1,2,3-cd) pyrene (TM)

20.53min 89.7598ppb m

response 1322256

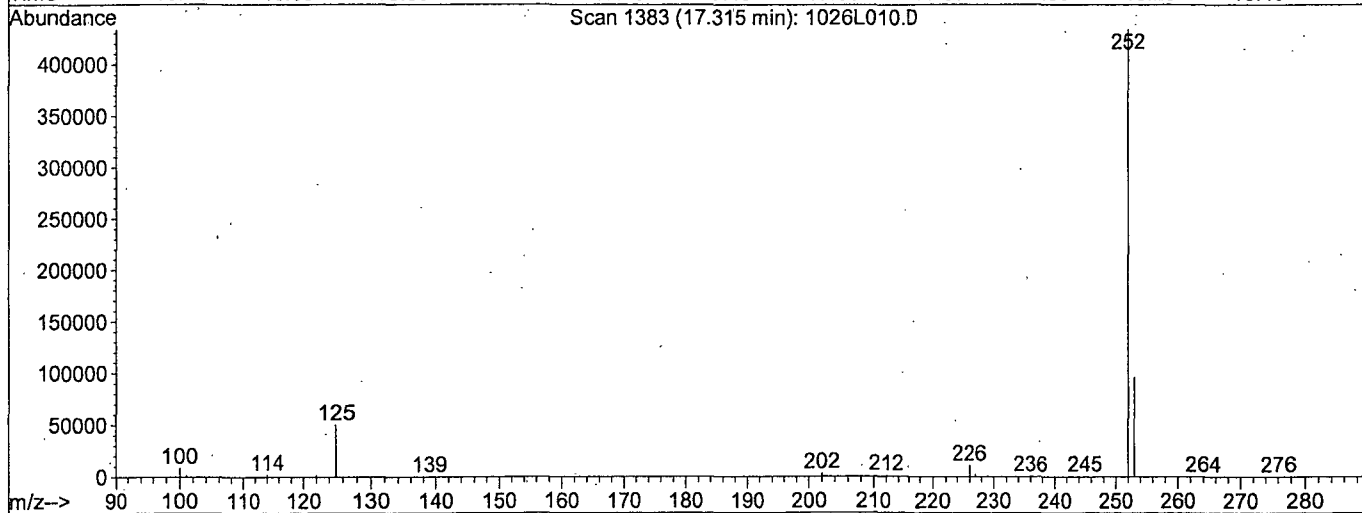
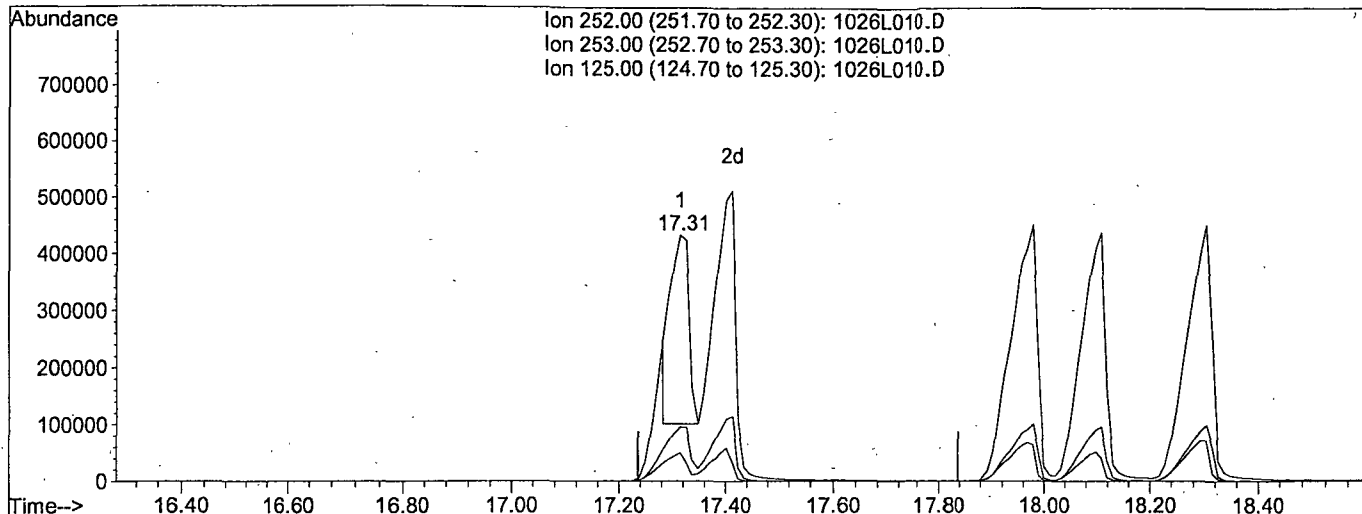
Ion	Exp%	Act%
276.00	100	100
138.00	21.50	24.04
227.00	0.10	0.13#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:12 2018

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L010.D

(25) Benzo (k) fluoranthene (TM)

17.31min 49.4605ppb

response 794156

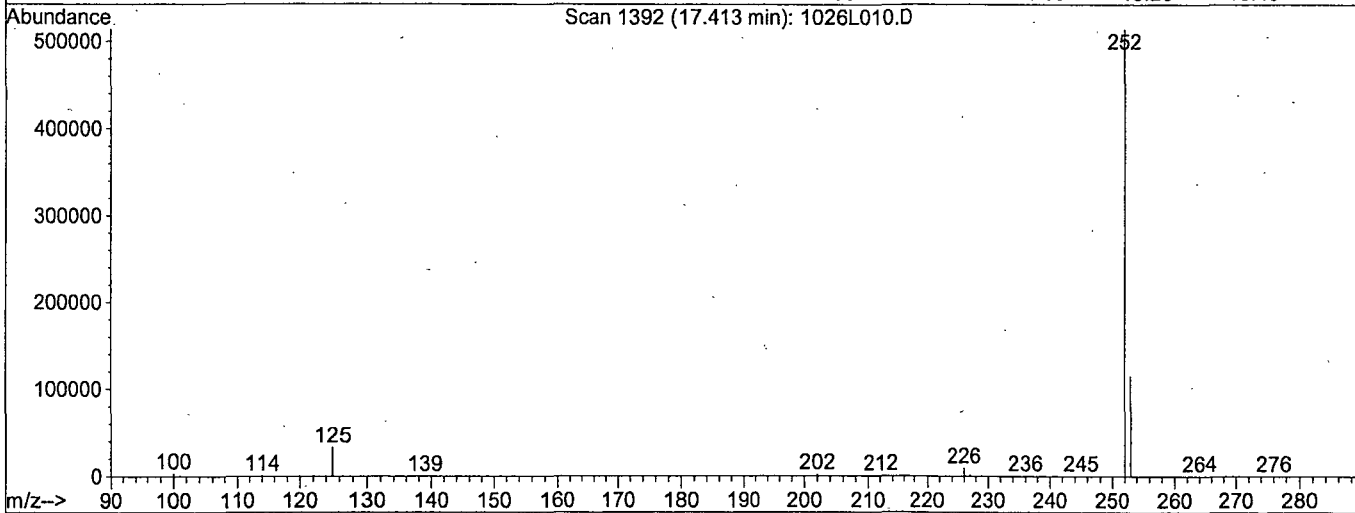
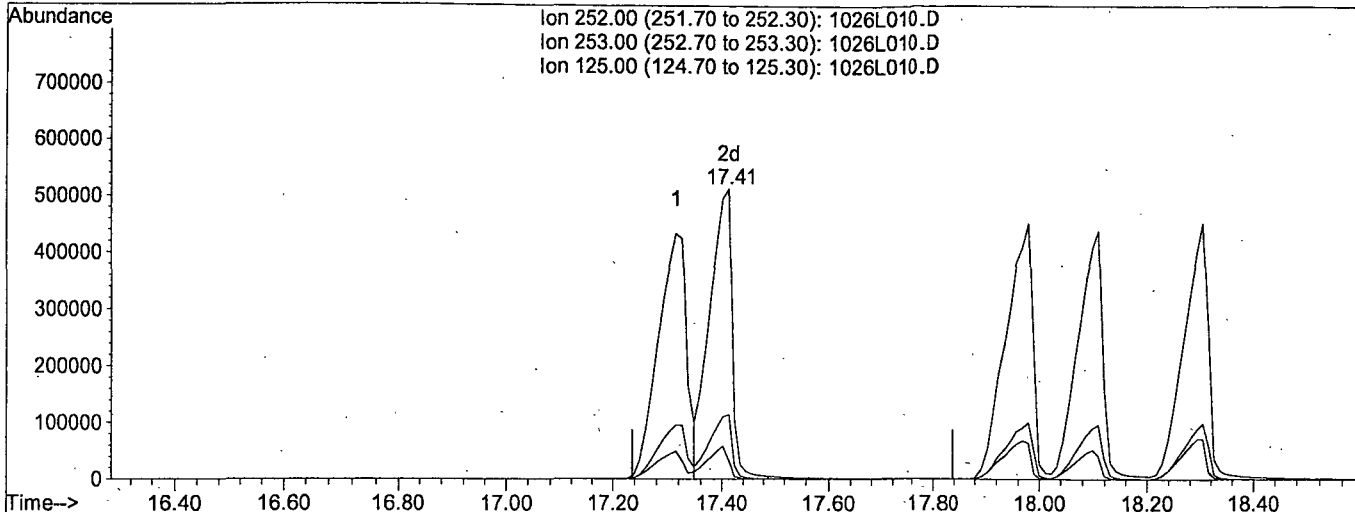
Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.27
125.00	9.90	11.17
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L181026\1026L010.D  
 Acq On : 26 Oct 18 15:46  
 Sample : 100 SIM 10/26/18  
 Misc :  
 Quant Time: Oct 26 16:12 2018

Vial: 10  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 15:34:20 2018  
 Response via : Multiple Level Calibration



TIC: 1026L010.D

(25) Benzo (k) fluoranthene (TM)

17.41min 94.4072ppb m

response 1515838

Ion	Exp%	Act%
252.00	100	100
253.00	21.50	22.26
125.00	9.90	6.39#
0.00	0.00	0.00



PAH by GCMS SIM  
EPA 8270 SIM

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/26/18  
Instrument: Linus  
Initial Cal. Date: 10/26/18  
Data File: 1026L011.D

		Compound	MEAN	CCRF	%D	%Drift
1	TM	Naphthalene	1.034	0.9993	3.3	TM
2	TM	2-Methylnaphthalene	0.6383	0.6413	0.46	TM
3	TM	1-Methylnaphthalene	0.6431	0.6161	4.2	TM
4	TM	Acenaphthylene	4.289	4.407	2.8	TM
5	*TM	Acenaphthene	1.306	1.332	2.0	*TM
6	TM	Fluorene	1.506	1.561	3.6	TM
7	TM	Phenanthrene	1.162	1.168	0.56	TM
8	TM	Anthracene	1.090	1.139	4.5	TM
9	*TM	Fluoranthene	1.692	1.720	1.7	*TM
10	TM	Pyrene	1.275	1.256	1.4	TM
11	TM	Benzo (a) anthracene	1.074	1.063	1.0	TM
12	TM	Chrysene	1.151	1.121	2.6	TM
13	TML	Indeno (1,2,3-cd) pyrene	0.7396	0.7805	5.5	TML 7.6
14	TM	Benzo (b) fluoranthene	1.075	1.067	0.71	TM
15	TM	Benzo (k) fluoranthene	1.200	1.235	3.0	TM
16	*TM	Benzo (a) pyrene	0.9390	1.033	10.0	*TM
17	TM	Dibenz (a,h) anthracene	0.9150	0.9194	0.47	TM
18	TM	Benzo (g,h,i) perylene	0.9257	0.9786	5.7	TM
19						
20						
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34						
35						

Average

3.0

PAH by GCMS SIM  
EPA 8270 SIM

Form 7

Second Source Calibration

Data File : M:\LINUS\DATA\L181026\1026L011.D  
 Acq On : 26 Oct 18 16:46  
 Sample : SS SIM 10/26/18  
 Misc :

Vial: 11  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Oct 29 8:35 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Napthalene-D8 (IS)	4.18	136	35068	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	15606	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	29941	2.50000	ppb	0.01
17) Chrysene-D12 (IS)	14.38	240	41767	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	39215	2.50000	ppb	0.00

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	3.37	82	17	0.00320	ppb	0.01
Spiked Amount	5.000					
			Recovery	=	0.060%	
4) 2-Methylnaphthalene-D10 (2)	4.97	152	29	0.00179	ppb	0.01
Spiked Amount	5.000					
			Recovery	=	0.040%	
8) Surrogate Recovery (FBP)	5.46	172	33	0.00325	ppb	0.02
Spiked Amount	5.000					
			Recovery	=	0.060%	
15) Fluoranthene-D10 (FRT)	10.11	212	117	0.00627	ppb	0.01
Spiked Amount	5.000					
			Recovery	=	0.120%	
19) Surrogate Recovery (TPH)	11.42	244	200	0.01495	ppb	0.05
Spiked Amount	5.000					
			Recovery	=	0.300%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	4.20	128	70085	4.83393	ppb	99
5) 2-Methylnaphthalene	5.01	142	44975	5.02294	ppb	97
6) 1-Methylnaphthalene	5.12	142	43210	4.79009	ppb	96
9) Acenaphthylene	6.04	152	137556	5.13827	ppb	99
10) Acenaphthene	6.24	154	41566	5.09893	ppb	97
11) Fluorene	6.84	166	48722	5.18226	ppb	98
13) Phenanthrene	7.98	178	69971	5.02806	ppb	99
14) Anthracene	8.05	178	68217	5.22347	ppb	99
16) Fluoranthene	10.15	202	103017	5.08425	ppb	99
18) Pyrene	10.76	202	104952	4.92873	ppb	96
20) Benz (a) anthracene	14.36	228	88798	4.94910	ppb	99
21) Chrysene	14.46	228	93681	4.87125	ppb	99
22) Indeno (1,2,3-cd) pyrene	20.47	276	65202	4.62149	ppb	96
24) Benzo (b) fluoranthene	17.27	252	83679	4.96445	ppb	98
25) Benzo (k) fluoranthene	17.34	252	96884	5.14794	ppb	98
26) Benzo (a) pyrene	18.03	252	80997	5.49925	ppb	99
27) Dibenz (a,h) anthracene	20.54	278	72107	5.02375	ppb	97
28) Benzo (g,h,i) perylene	20.96	276	76750	5.28564	ppb	97

Quantitation Report

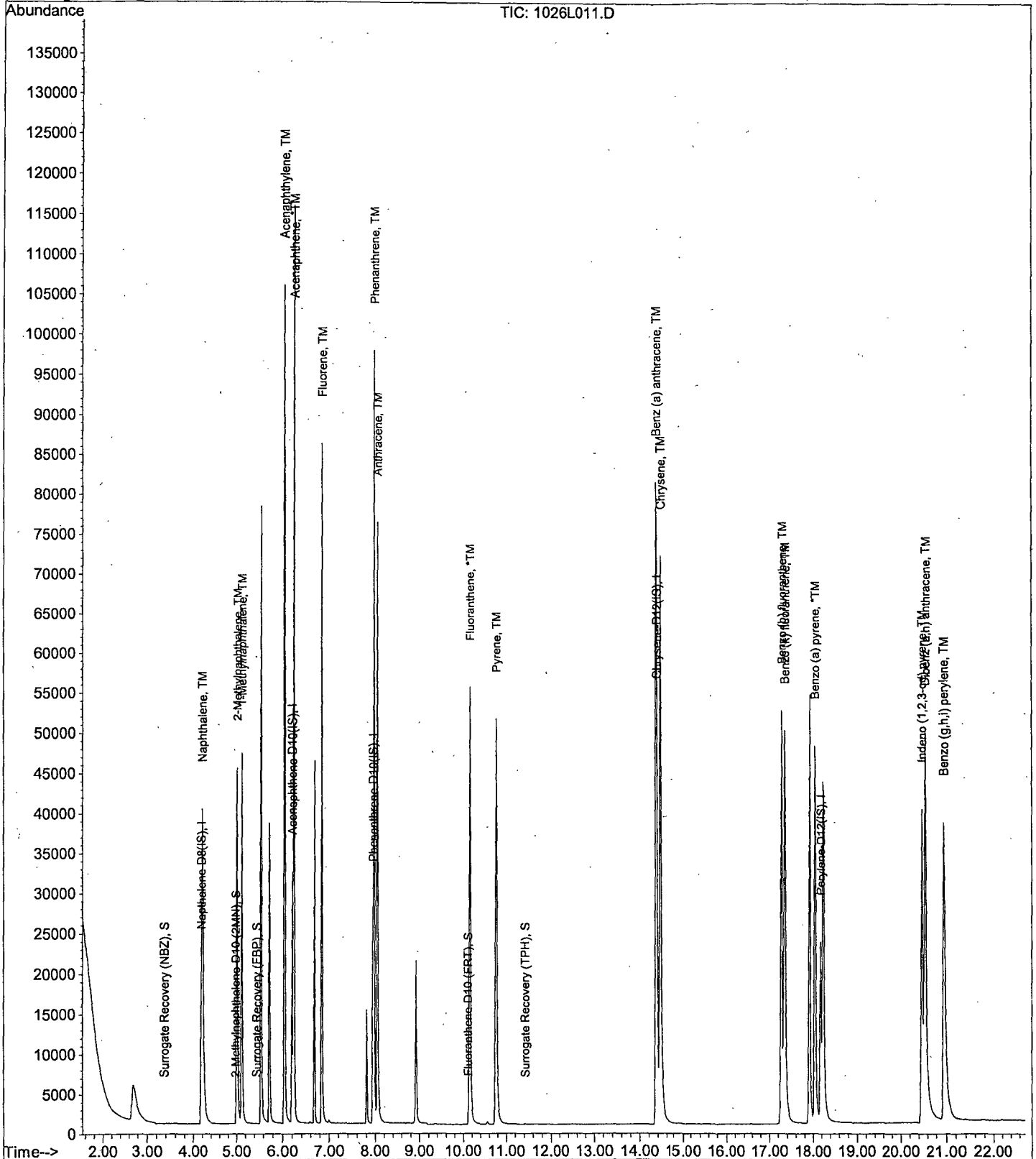
Data File : M:\LINUS\DATA\L181026\1026L011.D  
Acq On : 26 Oct 18 16:46  
Sample : SS SIM 10/26/18  
Misc :

Vial: 11  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Oct 29 8:35 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



PAH by GCMS SIM  
EPA 8270 SIM

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 1 Nov 18 12:49  
Instrument: Linus  
Initial Cal. Date: 10/26/18  
Data File: 1026L069.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Napthalene-D8(IS)	ISTD			I
2	S	Surrogate Recovery (NBZ)	0.3784	0.4068	7.5	S
3	TM	Napthalene	1.034	1.101	6.5	TM
4	S	2-Methylnaphthalene-D10 (2MN)	1.154	1.265	9.7	S
5	TM	2-Methylnaphthalene	0.6383	0.7075	11	TM
6	TM	1-Methylnaphthalene	0.6431	0.6970	8.4	TM
7	I	Acenaphthene-D10(IS)	ISTD			I
8	S	Surrogate Recovery (FBP)	1.627	1.827	12	S
9	TM	Acenaphthylene	4.289	4.830	13	TM
10	*TM	Acenaphthene	1.306	1.402	7.4	*TM
11	TM	Fluorene	1.506	1.702	13	TM
12	I	Phenanthrene-D10(IS)	ISTD			I
13	TM	Phenanthrene	1.162	1.254	7.9	TM
14	TM	Anthracene	1.090	1.225	12	TM
15	S	Fluoranthene-D10 (FRT)	1.557	1.770	14	S
16	*TM	Fluoranthene	1.692	1.909	13	*TM
17	I	Chrysene-D12(IS)	ISTD			I
18	TM	Pyrene	1.275	1.405	10	TM
19	S	Surrogate Recovery (TPH)	0.8010	0.8507	6.2	S
20	TM	Benz (a) anthracene	1.074	1.218	13	TM
21	TM	Chrysene	1.151	1.208	5.0	TM
22	TML	Indeno (1,2,3-cd) pyrene	0.7396	0.8949	21	TML 4.8
23	I	Perylene-D12(IS)	ISTD			I
24	TM	Benzo (b) fluoranthene	1.075	1.199	12	TM
25	TM	Benzo (k) fluoranthene	1.200	1.296	8.0	TM
26	*TM	Benzo (a) pyrene	0.9390	1.110	18	*TM
27	TM	Dibenz (a,h) anthracene	0.9150	0.9918	8.4	TM
28	TM	Benzo (g,h,i) perylene	0.9257	1.025	11	TM
29						
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39						
40						

Average

10.8

Data File : M:\LINUS\DATA\L181026\1026L069.D  
 Acq On : 1 Nov 18 12:49  
 Sample : 5 SIM 10/26/18 (2)  
 Misc :

Vial: 69  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Nov 1 13:13 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	30774	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	13755	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.94	188	27077	2.50000	ppb	0.00
17) Chrysene-D12 (IS)	14.38	240	37506	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	36493	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.36	82	12518	2.68718	ppb	0.00
Spiked Amount 5.000			Recovery =	53.740%		
4) 2-Methylnaphthalene-D10 (2)	4.96	152	38939	2.74236	ppb	0.00
Spiked Amount 5.000			Recovery =	54.840%		
8) Surrogate Recovery (FBP)	5.43	172	25137	2.80795	ppb	0.00
Spiked Amount 5.000			Recovery =	56.160%		
15) Fluoranthene-D10 (FRT)	10.10	212	47915	2.84081	ppb	0.00
Spiked Amount 5.000			Recovery =	56.820%		
19) Surrogate Recovery (TPH)	11.37	244	31908	2.65523	ppb	0.00
Spiked Amount 5.000			Recovery =	53.100%		
Target Compounds						
3) Naphthalene	4.20	128	67749	5.32482	ppb	99
5) 2-Methylnaphthalene	5.00	142	43547	5.54207	ppb	99
6) 1-Methylnaphthalene	5.11	142	42898	5.41906	ppb	100
9) Acenaphthylene	6.04	152	132877	5.63143	ppb	100
10) Acenaphthene	6.24	154	38577	5.36909	ppb	100
11) Fluorene	6.84	166	46823	5.65046	ppb	98
13) Phenanthrene	7.98	178	67908	5.39597	ppb	99
14) Anthracene	8.05	178	66318	5.61517	ppb	100
16) Fluoranthene	10.14	202	103394	5.64260	ppb	99
18) Pyrene	10.76	202	105365	5.51027	ppb	100
20) Benz (a) anthracene	14.36	228	91366	5.67074	ppb	99
21) Chrysene	14.46	228	90645	5.24886	ppb	100
22) Indeno (1,2,3-cd) pyrene	20.47	276	67127	5.24041	ppb	100
24) Benzo (b) fluoranthene	17.27	252	87498	5.57822	ppb	100
25) Benzo (k) fluoranthene	17.34	252	94585	5.40066	ppb	100
26) Benzo (a) pyrene	18.03	252	81017	5.91089	ppb	100
27) Dibenz (a,h) anthracene	20.54	278	72387	5.41943	ppb	98
28) Benzo (g,h,i) perylene	20.96	276	74795	5.53522	ppb	99

Quantitation Report

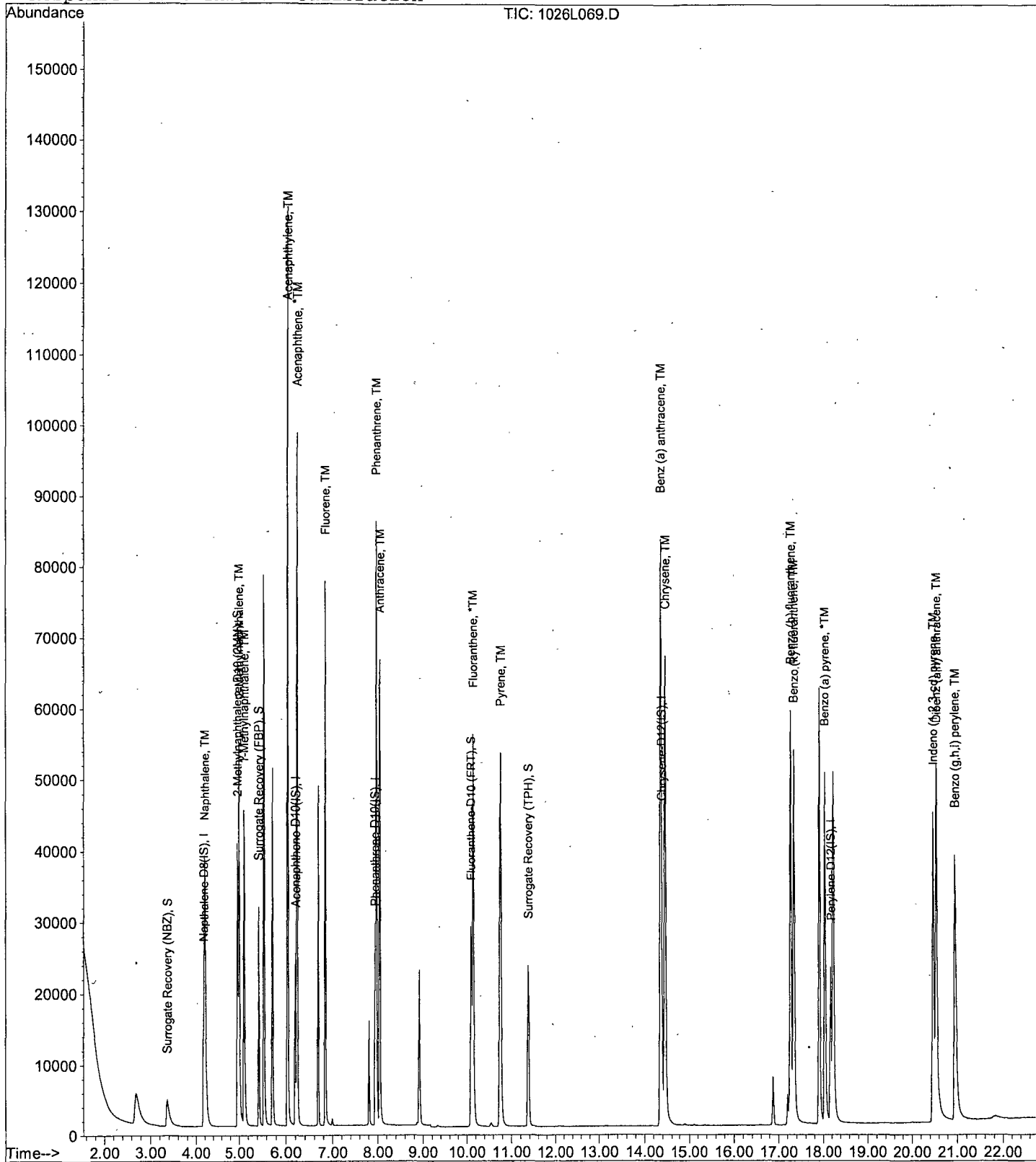
Data File : M:\LINUS\DATA\L181026\1026L069.D  
Acq On : 1 Nov 18 12:49  
Sample : 5 SIM 10/26/18 (2)  
Misc :

Vial: 69  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Nov 1 13:13 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



PAH by GCMS SIM  
EPA 8270 SIM

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 1 Nov 18 19:14  
Instrument: Linus  
Initial Cal. Date: 10/26/18  
Data File: 1026L082.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Napthalene-D8(IS)	ISTD			I
2	S	Surrogate Recovery (NBZ)	0.3784	0.4493	19	S
3	TM	Napthalene	1.034	1.057	2.3	TM
4	S	2-Methylnapthalene-D10 (2MN)	1.154	1.221	5.8	S
5	TM	2-Methylnapthalene	0.6383	0.6804	6.6	TM
6	TM	1-Methylnapthalene	0.6431	0.6675	3.8	TM
7	I	Acenaphthene-D10(IS)	ISTD			I
8	S	Surrogate Recovery (FBP)	1.627	1.956	20	S
9	TM	Acenaphthylene	4.289	4.604	7.4	TM
10	*TM	Acenaphthene	1.306	1.344	2.9	*TM
11	TM	Fluorene	1.506	1.628	8.1	TM
12	I	Phenanthrene-D10(IS)	ISTD			I
13	TM	Phenanthrene	1.162	1.245	7.1	TM
14	TM	Anthracene	1.090	1.207	11	TM
15	S	Fluoranthene-D10 (FRT)	1.557	1.758	13	S
16	*TM	Fluoranthene	1.692	1.881	11	*TM
17	I	Chrysene-D12(IS)	ISTD			I
18	TM	Pyrene	1.275	1.345	5.5	TM
19	S	Surrogate Recovery (TPH)	0.8010	0.9418	18	S
20	TM	Benz (a) anthracene	1.074	1.143	6.4	TM
21	TM	Chrysene	1.151	1.182	2.7	TM
22	TML	Indeno (1,2,3-cd) pyrene	0.7396	0.8498	15	TML 0.08
23	I	Perylene-D12(IS)	ISTD			I
24	TM	Benzo (b) fluoranthene	1.075	1.159	7.8	TM
25	TM	Benzo (k) fluoranthene	1.200	1.259	4.9	TM
26	*TM	Benzo (a) pyrene	0.9390	1.072	14	*TM
27	TM	Dibenz (a,h) anthracene	0.9150	0.9595	4.9	TM
28	TM	Benzo (g,h,i) perylene	0.9257	0.9865	6.6	TM
29						
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39						
40						

Average

8.9

Data File : M:\LINUS\DATA\L181026\1026L082.D  
 Acq On : 1 Nov 18 19:14  
 Sample : 5 SIM 10/26/18 (1)  
 Misc :

Vial: 82  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Quant Time: Nov 2 8:26 2018

Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	34948	2.50000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	15835	2.50000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.94	188	30535	2.50000	ppb	0.00
17) Chrysene-D12 (IS)	14.38	240	43174	2.50000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	41015	2.50000	ppb	0.00

System Monitoring Compounds

2) Surrogate Recovery (NBZ)	3.36	82	15701	2.96791	ppb	0.00
Spiked Amount 5.000			Recovery =	59.360%		
4) 2-Methylnaphthalene-D10 (2)	4.96	152	42657	2.64540	ppb	0.00
Spiked Amount 5.000			Recovery =	52.900%		
8) Surrogate Recovery (FBP)	5.43	172	30967	3.00481	ppb	0.00
Spiked Amount 5.000			Recovery =	60.100%		
15) Fluoranthene-D10 (FRT)	10.10	212	53695	2.82297	ppb	0.00
Spiked Amount 5.000			Recovery =	56.460%		
19) Surrogate Recovery (TPH)	11.37	244	40662	2.93947	ppb	0.00
Spiked Amount 5.000			Recovery =	58.780%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	4.20	128	73910	5.11525	ppb	100
5) 2-Methylnaphthalene	5.00	142	47557	5.32954	ppb	100
6) 1-Methylnaphthalene	5.12	142	46653	5.18953	ppb	96
9) Acenaphthylene	6.04	152	145824	5.36834	ppb	100
10) Acenaphthene	6.24	154	42573	5.14694	ppb	99
11) Fluorene	6.84	166	51548	5.40355	ppb	100
13) Phenanthrene	7.98	178	76012	5.35591	ppb	100
14) Anthracene	8.05	178	73708	5.53413	ppb	100
16) Fluoranthene	10.14	202	114875	5.55919	ppb	99
18) Pyrene	10.76	202	116110	5.27503	ppb	100
20) Benz (a) anthracene	14.36	228	98667	5.31993	ppb	100
21) Chrysene	14.45	228	102095	5.13575	ppb	99
22) Indeno (1,2,3-cd) pyrene	20.47	276	73376	4.99621	ppb	# 98
24) Benzo (b) fluoranthene	17.27	252	95060	5.39215	ppb	99
25) Benzo (k) fluoranthene	17.34	252	103282	5.24706	ppb	100
26) Benzo (a) pyrene	18.03	252	87942	5.70874	ppb	100
27) Dibenz (a,h) anthracene	20.53	278	78706	5.24286	ppb	96
28) Benzo (g,h,i) perylene	20.96	276	80922	5.32838	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1026L082.D L1026.M Fri Nov 02 08:26:23 2018



Quantitation Report

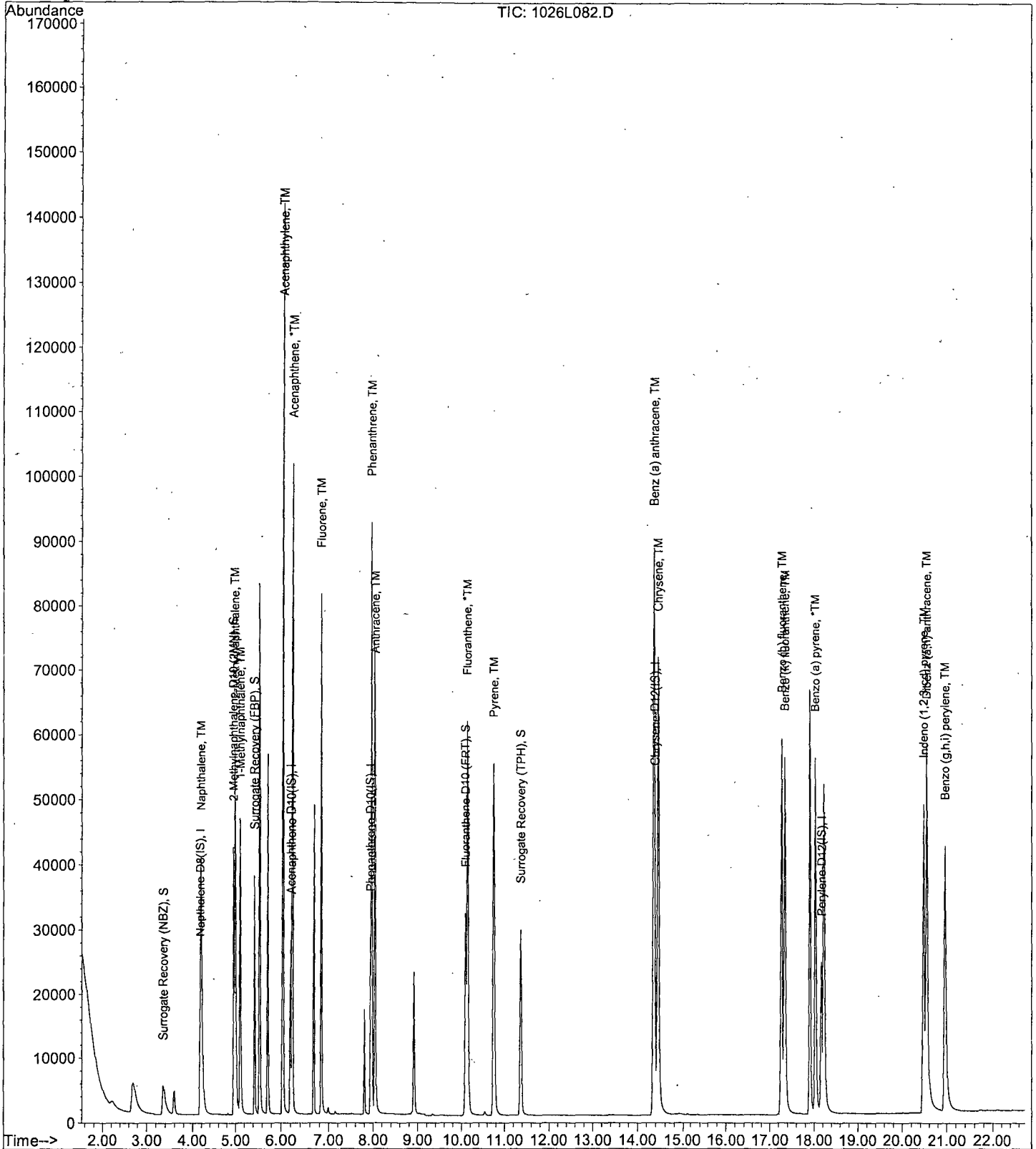
Data File : M:\LINUS\DATA\L181026\1026L082.D  
Acq On : 1 Nov 18 19:14  
Sample : 5 SIM 10/26/18 (1)  
Misc :

Vial: 82  
Operator: MA  
Inst : Linus  
Multiplr: 1.00

Quant Time: Nov 2 8:26 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : M:\LINUS\DATA\L181026\1026L077.D Vial: 77  
 Acq On : 1 Nov 18 16:48 Operator: MA  
 Sample : AZ81840W12 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 2 7:52 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	4.18	136	30448	2.5000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.20	164	14106	2.5000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	26421	2.5000	ppb	0.01
17) Chrysene-D12 (IS)	14.38	240	36826	2.5000	ppb	0.00
23) Perylene-D12 (IS)	18.18	264	36119	2.5000	ppb	0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	3.36	82	417726	113.2894	ppb	0.00
Spiked Amount	6.250					
			Recovery	= 1812.624%		
4) 2-Methylnaphthalene-D10 (2)	4.96	152	64900	5.7746	ppb	0.00
Spiked Amount	6.250					
			Recovery	= 92.400%		
8) Surrogate Recovery (FBP)	5.44	172	670279	91.2637	ppb	0.01
Spiked Amount	6.250					
			Recovery	= 1460.224%		
15) Fluoranthene-D10 (FRT)	10.10	212	84127	6.3895	ppb	0.00
Spiked Amount	6.250					
			Recovery	= 102.224%		
19) Surrogate Recovery (TPH)	11.40	244	915267	96.9631	ppb	0.03
Spiked Amount	6.250					
			Recovery	= 1551.408%		

Target Compounds Qvalue

Quantitation Report

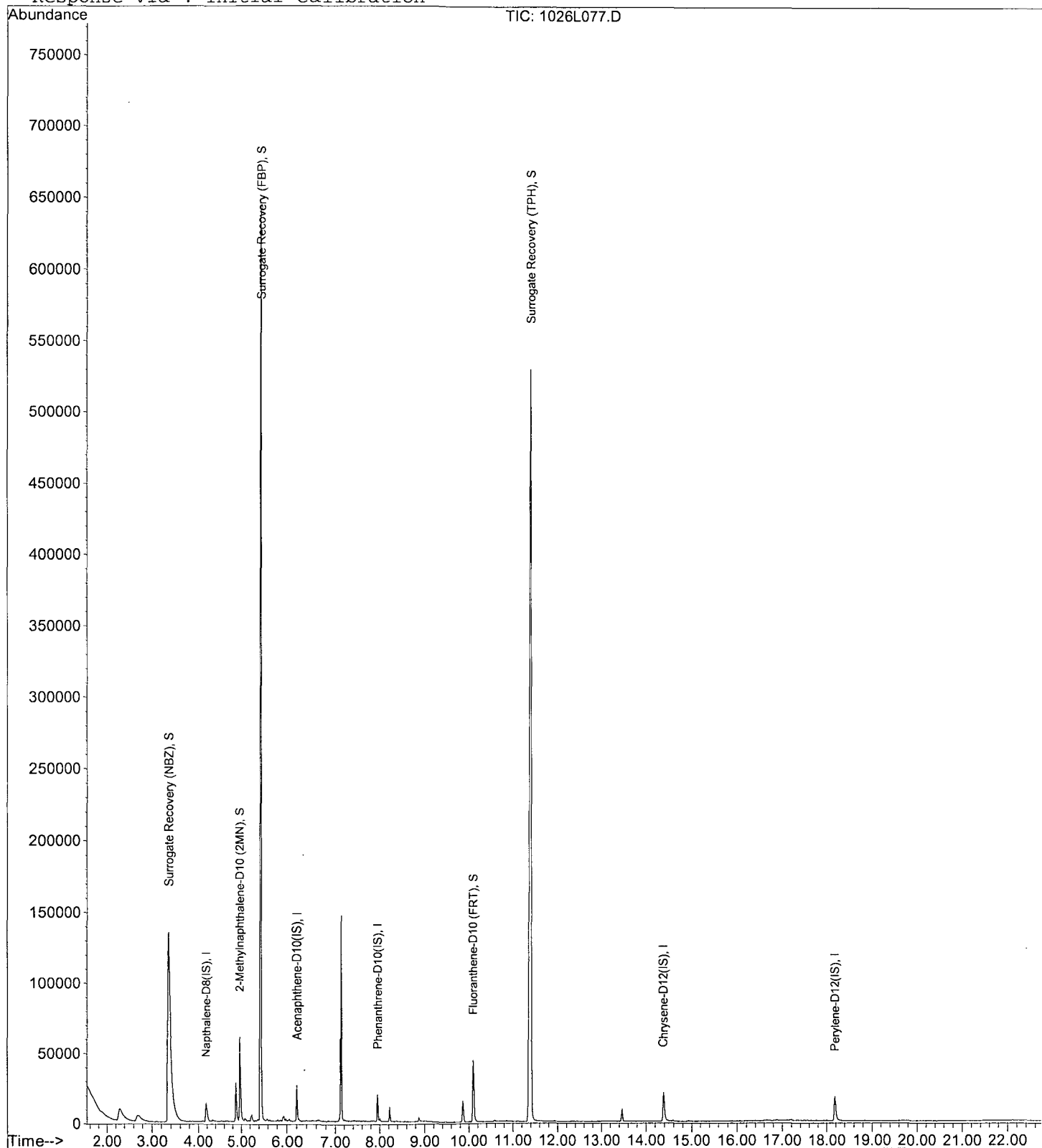
Data File : M:\LINUS\DATA\L181026\1026L077.D  
Acq On : 1 Nov 18 16:48  
Sample : AZ81840W12 1/800  
Misc :

Vial: 77  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 2 7:52 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L078.D Vial: 78  
 Acq On : 1 Nov 18 17:17 Operator: MA  
 Sample : AZ81841W12 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 2 7:52 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	4.18	136	31258	2.5000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	14089	2.5000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	26741	2.5000	ppb	0.01
17) Chrysene-D12 (IS)	14.39	240	36898	2.5000	ppb	0.01
23) Perylene-D12 (IS)	18.18	264	36438	2.5000	ppb	0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	3.36	82	413802	109.3170	ppb	0.00
Spiked Amount	6.250					
			Recovery	= 1749.072%		
4) 2-Methylnaphthalene-D10 (2)	4.96	152	65270	5.6570	ppb	0.00
Spiked Amount	6.250					
			Recovery	= 90.512%		
8) Surrogate Recovery (FBP)	5.44	172	672731	91.7081	ppb	0.01
Spiked Amount	6.250					
			Recovery	= 1467.328%		
15) Fluoranthene-D10 (FRT)	10.10	212	83688	6.2801	ppb	0.00
Spiked Amount	6.250					
			Recovery	= 100.480%		
19) Surrogate Recovery (TPH)	11.40	244	875824	92.6034	ppb	0.03
Spiked Amount	6.250					
			Recovery	= 1481.648%		

Target Compounds Qvalue

Quantitation Report

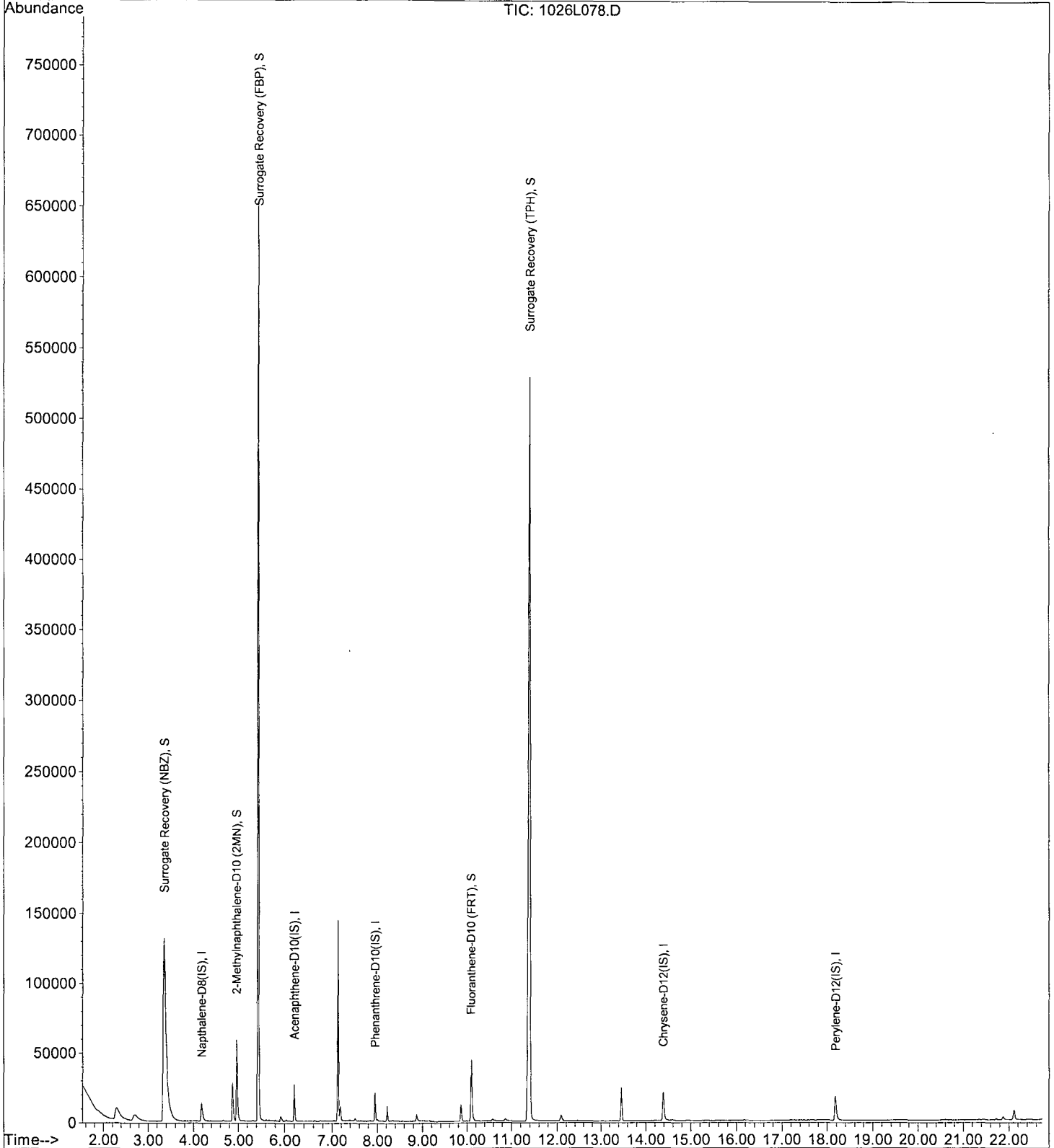
Data File : M:\LINUS\DATA\L181026\1026L078.D  
Acq On : 1 Nov 18 17:17  
Sample : AZ81841W12 1/800  
Misc :

Vial: 78  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 2 7:52 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L079.D Vial: 79  
 Acq On : 1 Nov 18 17:47 Operator: MA  
 Sample : AZ81842W13 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 2 7:58 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	4.18	136	31950	2.5000	ppb	0.00
7) Acenaphthene-D10(IS)	6.20	164	14548	2.5000	ppb	0.00
12) Phenanthrene-D10(IS)	7.95	188	27549	2.5000	ppb	0.01
17) Chrysene-D12(IS)	14.39	240	38300	2.5000	ppb	0.01
23) Perylene-D12(IS)	18.17	264	37235	2.5000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	3.35	82	424862	109.8078	ppb	-0.01
Spiked Amount	6.250					
					Recovery = 1756.928%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	66102	5.6050	ppb	0.00
Spiked Amount	6.250					
					Recovery = 89.680%	
8) Surrogate Recovery (FBP)	5.43	172	679600	89.7215	ppb	0.00
Spiked Amount	6.250					
					Recovery = 1435.536%	
15) Fluoranthene-D10 (FRT)	10.10	212	86185	6.2778	ppb	0.00
Spiked Amount	6.250					
					Recovery = 100.448%	
19) Surrogate Recovery (TPH)	11.40	244	946589	96.4219	ppb	0.03
Spiked Amount	6.250					
					Recovery = 1542.752%	

Target Compounds Qvalue

Quantitation Report

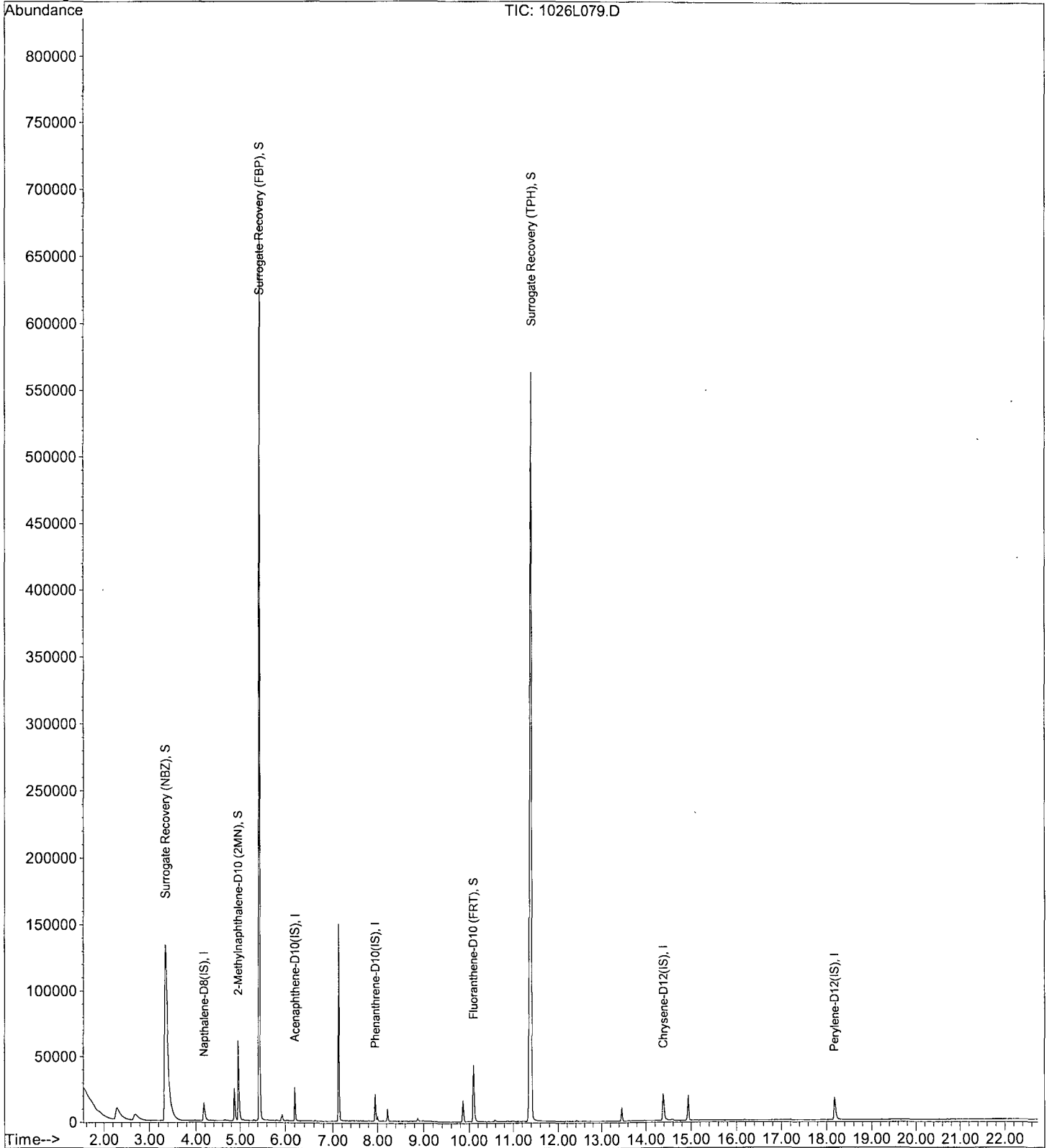
Data File : M:\LINUS\DATA\L181026\1026L079.D  
Acq On : 1 Nov 18 17:47  
Sample : AZ81842W13 1/800  
Misc :

Vial: 79  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 2 7:58 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration





Data File : M:\LINUS\DATA\L181026\1026L070.D Vial: 70  
 Acq On : 1 Nov 18 13:24 Operator: MA  
 Sample : 181030A BLK 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 1 13:31 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8 (IS)	4.18	136	32155	2.5000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	14683	2.5000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.95	188	28635	2.5000	ppb	0.01
17) Chrysene-D12 (IS)	14.39	240	38811	2.5000	ppb	0.01
23) Perylene-D12 (IS)	18.18	264	37133	2.5000	ppb	0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	3.35	82	431373	110.7799	ppb	-0.01
Spiked Amount	6.250					
			Recovery	=	1772.480%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	65181	5.4917	ppb	0.00
Spiked Amount	6.250					
			Recovery	=	87.872%	
8) Surrogate Recovery (FBP)	5.44	172	712050	93.1412	ppb	0.01
Spiked Amount	6.250					
			Recovery	=	1490.256%	
15) Fluoranthene-D10 (FRT)	10.11	212	88692	6.2154	ppb	0.01
Spiked Amount	6.250					
			Recovery	=	99.440%	
19) Surrogate Recovery (TPH)	11.41	244	977100	98.2194	ppb	0.04
Spiked Amount	6.250					
			Recovery	=	1571.504%	

Target Compounds Qvalue

Quantitation Report

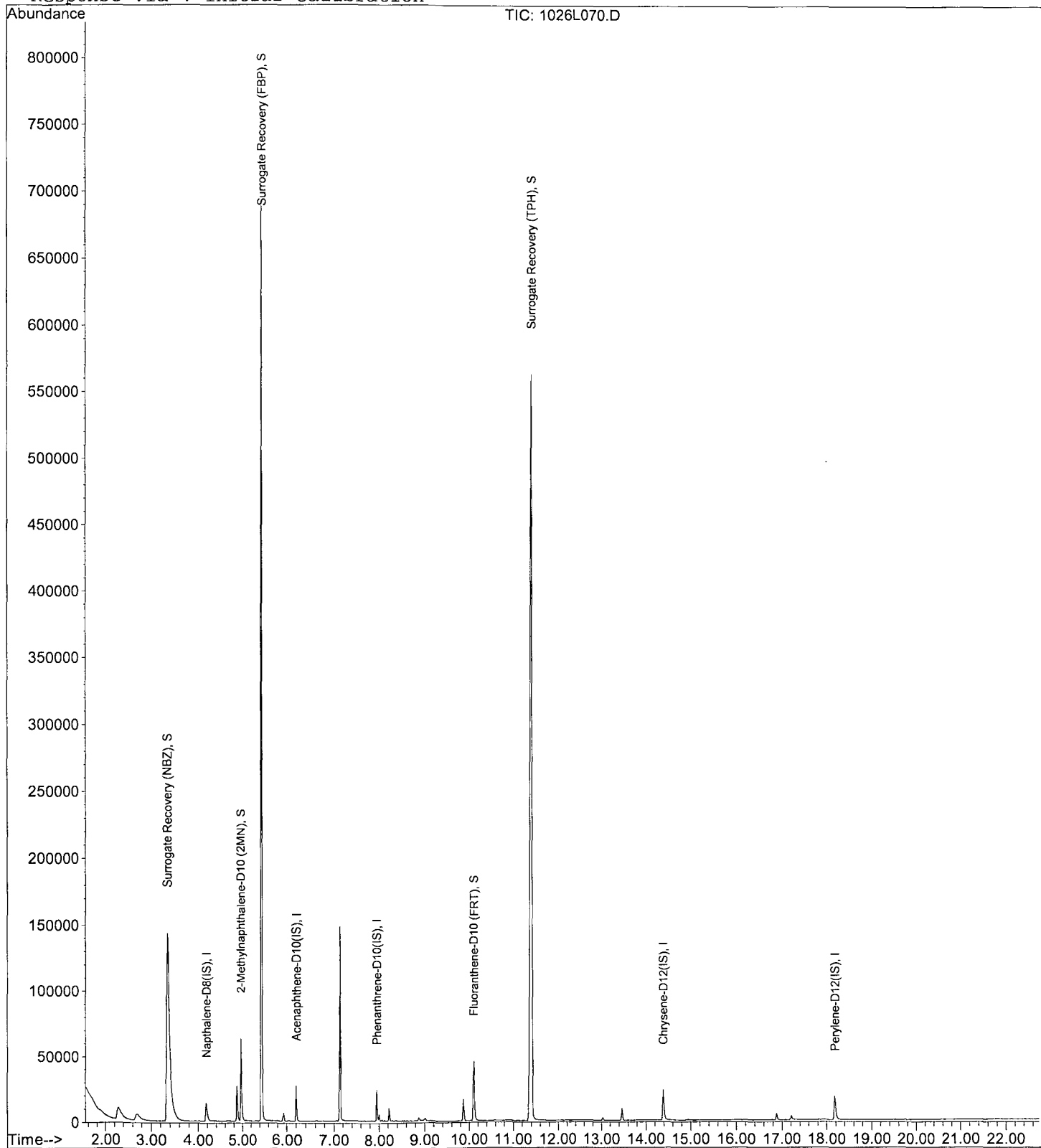
Data File : M:\LINUS\DATA\L181026\1026L070.D  
Acq On : 1 Nov 18 13:24  
Sample : 181030A BLK 1/800  
Misc :

Vial: 70  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 1 13:31 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L071.D Vial: 71  
 Acq On : 1 Nov 18 13:53 Operator: MA  
 Sample : 181030A LCS-2 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 1 13:31 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	32648	2.5000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	14814	2.5000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.94	188	28647	2.5000	ppb	0.00
17) Chrysene-D12 (IS)	14.38	240	39215	2.5000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	37452	2.5000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	3.35	82	62	0.0157	ppb	-0.01
Spiked Amount	6.250		Recovery	=	0.256%	
4) 2-Methylnaphthalene-D10 (2)	4.96	152	66819	5.5447	ppb	0.00
Spiked Amount	6.250		Recovery	=	88.720%	
8) Surrogate Recovery (FBP)	5.41	172	31	0.0040	ppb	-0.02
Spiked Amount	6.250		Recovery	=	0.064%	
15) Fluoranthene-D10 (FRT)	10.10	212	86358	6.0493	ppb	0.00
Spiked Amount	6.250		Recovery	=	96.784%	
19) Surrogate Recovery (TPH)	11.38	244	206	0.0205	ppb	0.01
Spiked Amount	6.250		Recovery	=	0.320%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Naphthalene	4.20	128	58141	5.3842	ppb	99
5) 2-Methylnaphthalene	5.00	142	36148	5.4204	ppb	100
6) 1-Methylnaphthalene	5.12	142	35645	5.3055	ppb	95
9) Acenaphthylene	6.04	152	116328	5.7220	ppb	100
10) Acenaphthene	6.24	154	33643	5.4346	ppb	100
11) Fluorene	6.84	166	41713	5.8424	ppb	99
13) Phenanthrene	7.98	178	61347	5.7593	ppb	99
14) Anthracene	8.05	178	56978	5.6999	ppb	100
16) Fluoranthene	10.15	202	93226	6.0111	ppb	96
18) Pyrene	10.76	202	96209	6.0152	ppb	100
20) Benz (a) anthracene	14.36	228	81058	6.0146	ppb	99
21) Chrysene	14.46	228	82542	5.7142	ppb	100
22) Indeno (1,2,3-cd) pyrene	20.47	276	61695	5.8180	ppb	# 95
24) Benzo (b) fluoranthene	17.27	252	77969	6.0543	ppb	99
25) Benzo (k) fluoranthene	17.34	252	85282	5.9310	ppb	100
26) Benzo (a) pyrene	18.03	252	69878	6.2096	ppb	99
27) Dibenz (a,h) anthracene	20.54	278	65163	5.9421	ppb	98
28) Benzo (g,h,i) perylene	20.96	276	67339	6.0698	ppb	97

Quantitation Report

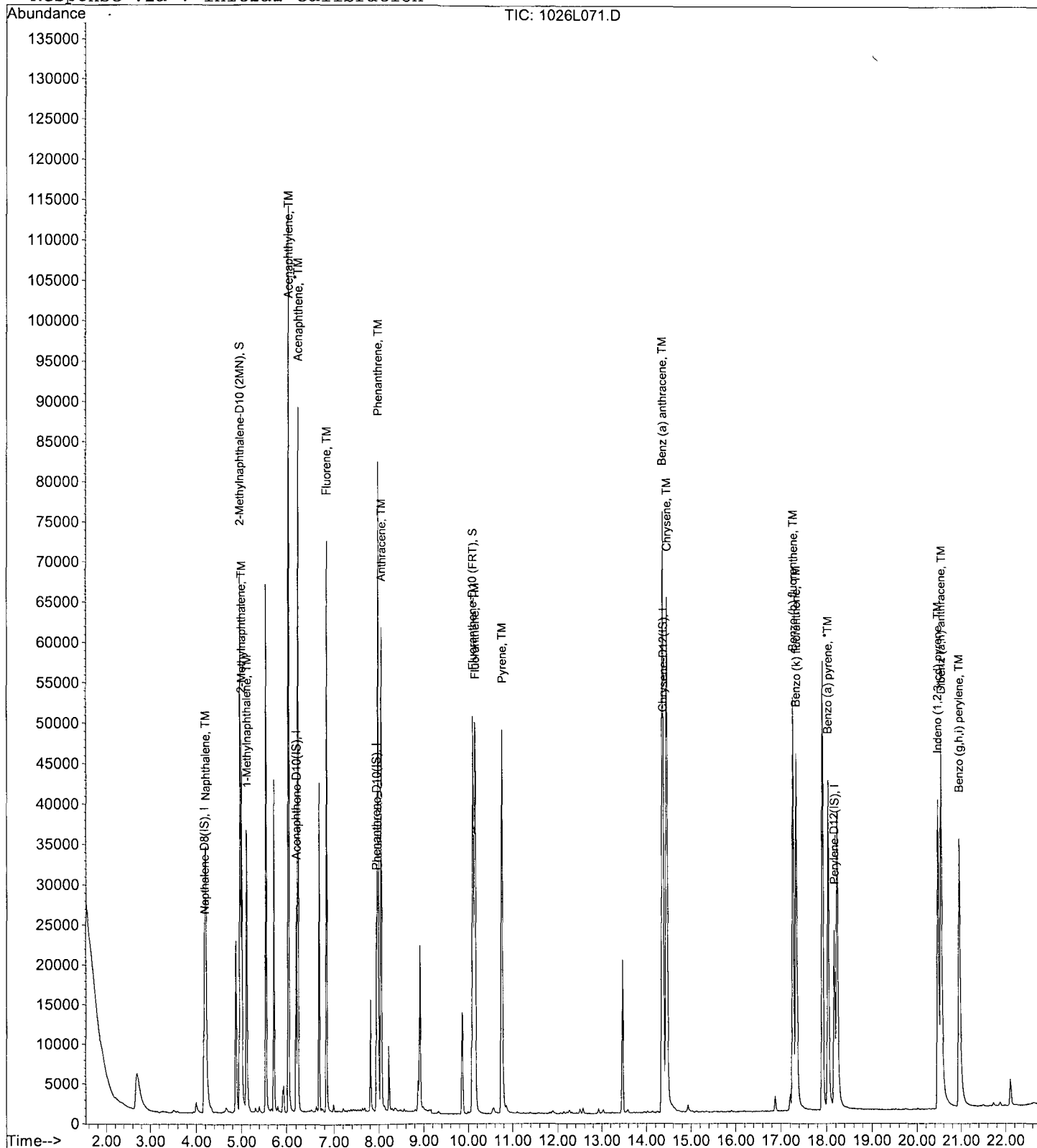
Data File : M:\LINUS\DATA\L181026\1026L071.D  
Acq On : 1 Nov 18 13:53  
Sample : 181030A LCS-2 1/800  
Misc :

Vial: 71  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 1 13:31 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L181026\1026L072.D Vial: 72  
 Acq On : 1 Nov 18 14:22 Operator: MA  
 Sample : 181030A LCSD-2 1/800 Inst : Linus  
 Misc : Multiplr: 1.25

Quant Time: Nov 1 14:10 2018 Quant Results File: L1026.RES

Quant Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270  
 Last Update : Fri Oct 26 16:20:40 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SIM\_2SA

Internal Standards	R.T.	QIion	Response	Conc	Units	Dev(Min)
1) Naphthalene-D8 (IS)	4.18	136	30893	2.5000	ppb	0.00
7) Acenaphthene-D10 (IS)	6.21	164	14273	2.5000	ppb	0.00
12) Phenanthrene-D10 (IS)	7.94	188	26521	2.5000	ppb	0.00
17) Chrysene-D12 (IS)	14.38	240	36959	2.5000	ppb	0.00
23) Perylene-D12 (IS)	18.17	264	34601	2.5000	ppb	0.00

System Monitoring Compounds	R.T.	QIion	Response	Conc	Units	Dev(Min)
2) Surrogate Recovery (NBZ)	3.33	82	127	0.0339	ppb	-0.02
Spiked Amount 6.250			Recovery =	0.544%		
4) 2-Methylnaphthalene-D10 (2)	4.96	152	66421	5.8248	ppb	0.00
Spiked Amount 6.250			Recovery =	93.200%		
8) Surrogate Recovery (FBP)	5.40	172	29	0.0039	ppb	-0.04
Spiked Amount 6.250			Recovery =	0.064%		
15) Fluoranthene-D10 (FRT)	10.10	212	85090	6.4383	ppb	0.00
Spiked Amount 6.250			Recovery =	103.008%		
19) Surrogate Recovery (TPH)	11.39	244	143	0.0151	ppb	0.02
Spiked Amount 6.250			Recovery =	0.240%		

Target Compounds	R.T.	QIion	Response	Conc	Units	Qvalue
3) Naphthalene	4.20	128	58871	5.7615	ppb	99
5) 2-Methylnaphthalene	5.00	142	36291	5.7510	ppb	99
6) 1-Methylnaphthalene	5.12	142	35530	5.5888	ppb	96
9) Acenaphthylene	6.04	152	115923	5.9183	ppb	100
10) Acenaphthene	6.24	154	33607	5.6345	ppb	100
11) Fluorene	6.84	166	41721	6.0651	ppb	100
13) Phenanthrene	7.98	178	61010	6.1869	ppb	100
14) Anthracene	8.05	178	57368	6.1990	ppb	100
16) Fluoranthene	10.15	202	92172	6.4195	ppb	97
18) Pyrene	10.76	202	94767	6.2867	ppb	99
20) Benz (a) anthracene	14.36	228	80452	6.3341	ppb	100
21) Chrysene	14.46	228	81304	5.9721	ppb	100
22) Indeno (1,2,3-cd) pyrene	20.47	276	60500	6.0335	ppb	95
24) Benzo (b) fluoranthene	17.27	252	77005	6.4721	ppb	99
25) Benzo (k) fluoranthene	17.34	252	83820	6.3096	ppb	100
26) Benzo (a) pyrene	18.03	252	68614	6.5996	ppb	99
27) Dibenz (a,h) anthracene	20.54	278	64457	6.3620	ppb	99
28) Benzo (g,h,i) perylene	20.96	276	66743	6.5118	ppb	97

Quantitation Report

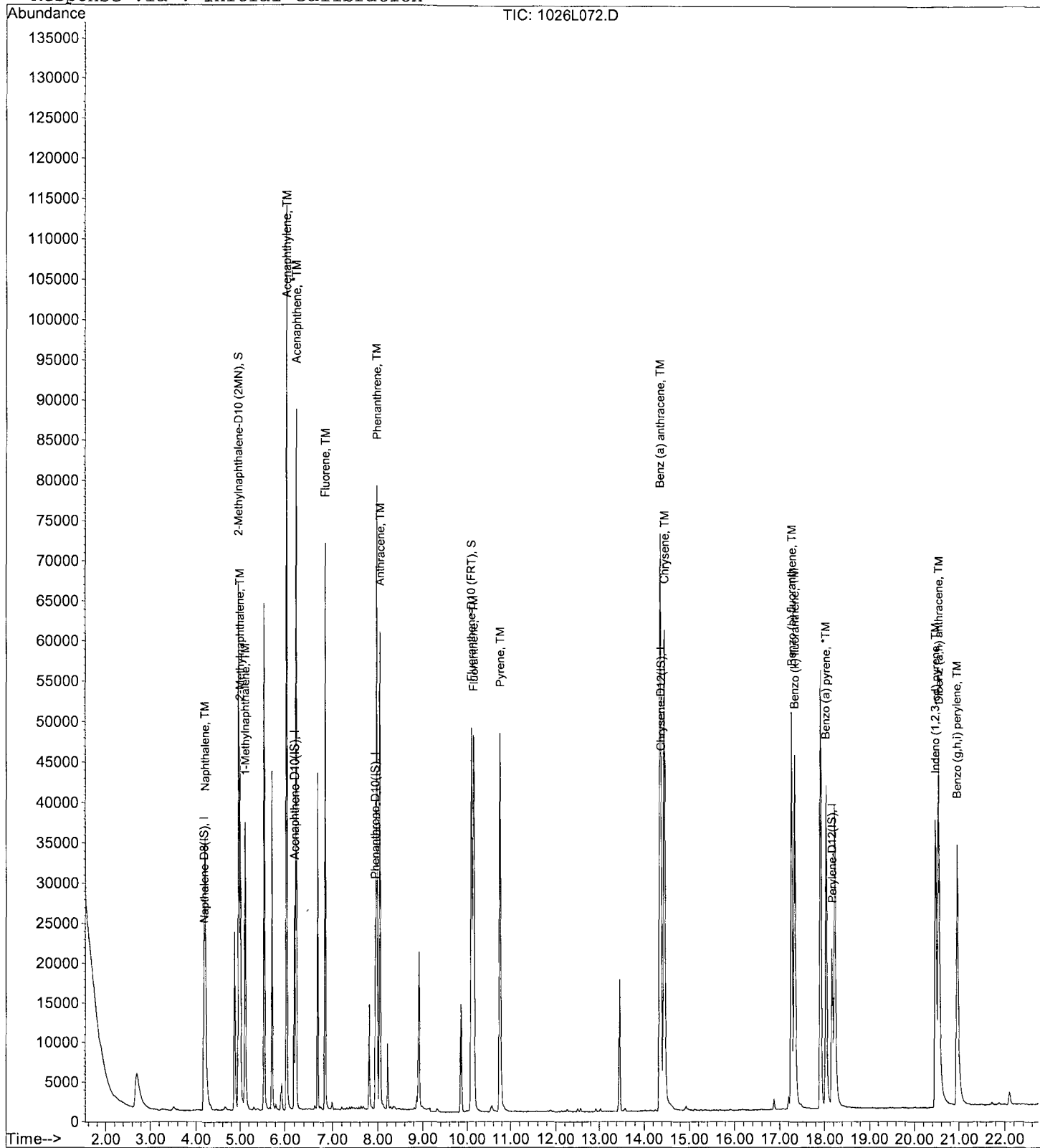
Data File : M:\LINUS\DATA\L181026\1026L072.D  
Acq On : 1 Nov 18 14:22  
Sample : 181030A LCSD-2 1/800  
Misc :

Vial: 72  
Operator: MA  
Inst : Linus  
Multiplr: 1.25

Quant Time: Nov 1 14:10 2018

Quant Results File: L1026.RES

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
Title : EPA 8270  
Last Update : Fri Oct 26 16:20:40 2018  
Response via : Initial Calibration

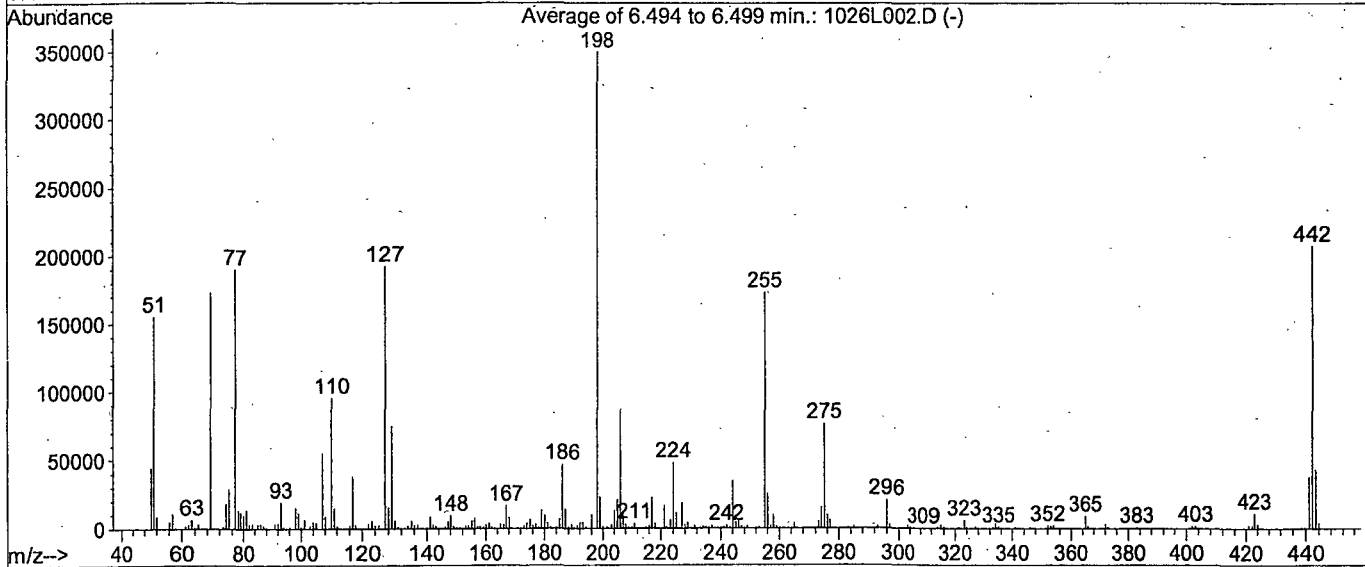
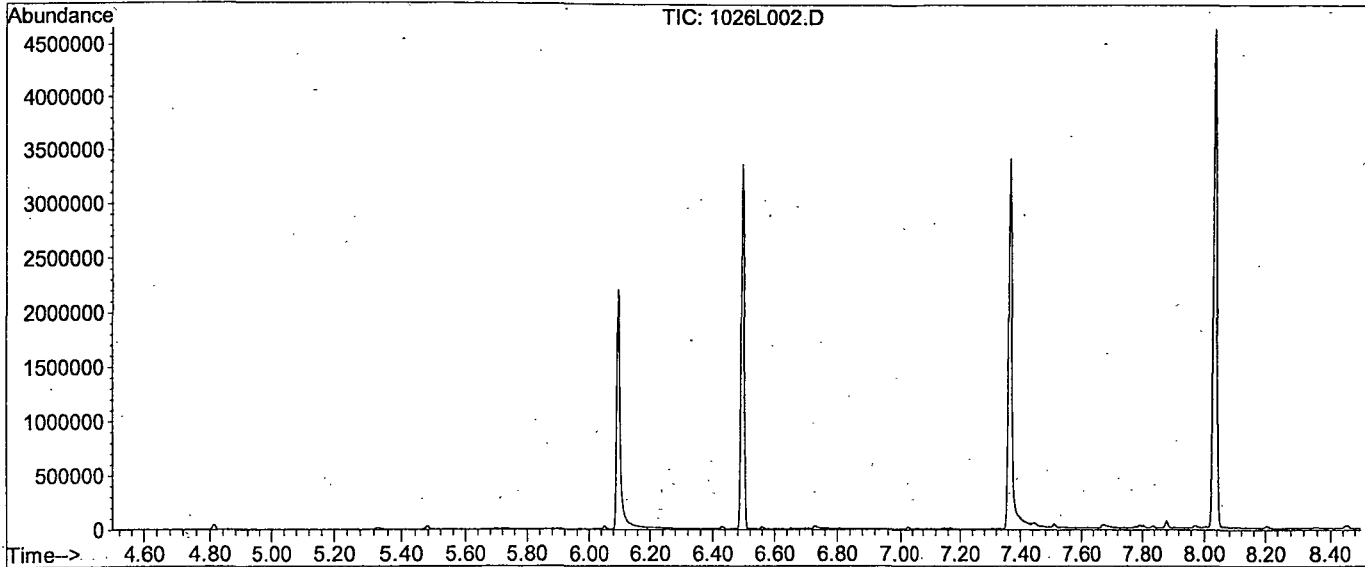


DFTPP

Data File : M:\LINUS\DATA\L181026\1026L002.D  
 Acq On : 26 Oct 18 12:05  
 Sample : SV Tune 03/07/18  
 Misc :

Vial: 2  
 Operator: MA  
 Inst : Linus  
 Multiplr: 1.00

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)  
 Title : EPA 8270



AutoFind: Scans 1570, 1571, 1572; Background Corrected with Scan 1561

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	44.4	155594	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.3	527	PASS
127	198	10	80	55.0	192576	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	350165	PASS
199	198	5	9	6.5	22893	PASS
275	198	10	60	21.8	76453	PASS
365	198	1	100	2.6	9171	PASS
441	442	0.01	24	18.1	37424	PASS
442	198	50	150	59.1	206955	PASS
443	442	15	24	20.7	42821	PASS

Data File Name: 1026L002.D  
Data File Path: M:\LINUS\DATA\L181026\  
Operator: MA  
Date Acquired: 26 Oct 2018 12:05  
Method File: DFTPP2.M  
Sample Name: SV Tune 03/07/18  
Vial Number: 2  
Instrument Name: Linus

#	Name	Ret Time	Target Response
1)	DDT	8.04	32874800
2)	DDD	7.79	219957
3)	DDE	7.91	378113

Breakdown 1.79



Data File : M:\LINUS\DATA\L181026\1026L068.D

Vial: 75

Acq On : 1 Nov 18 12:32

Operator: MA

Sample : SV TUNE 03/07/18

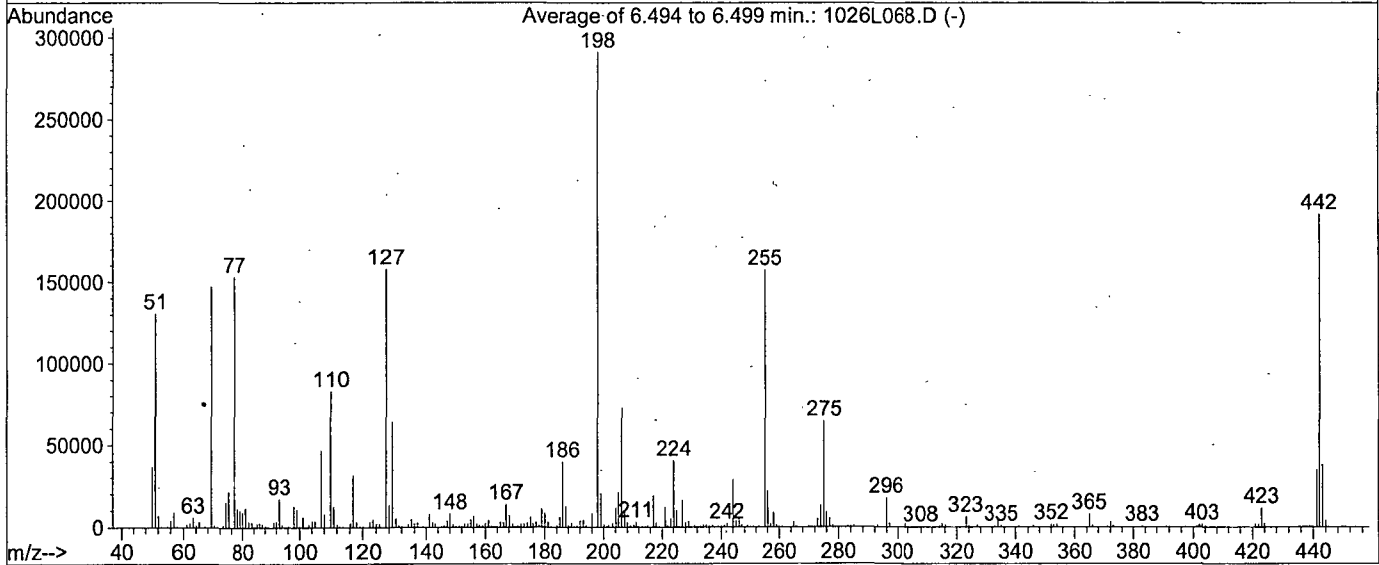
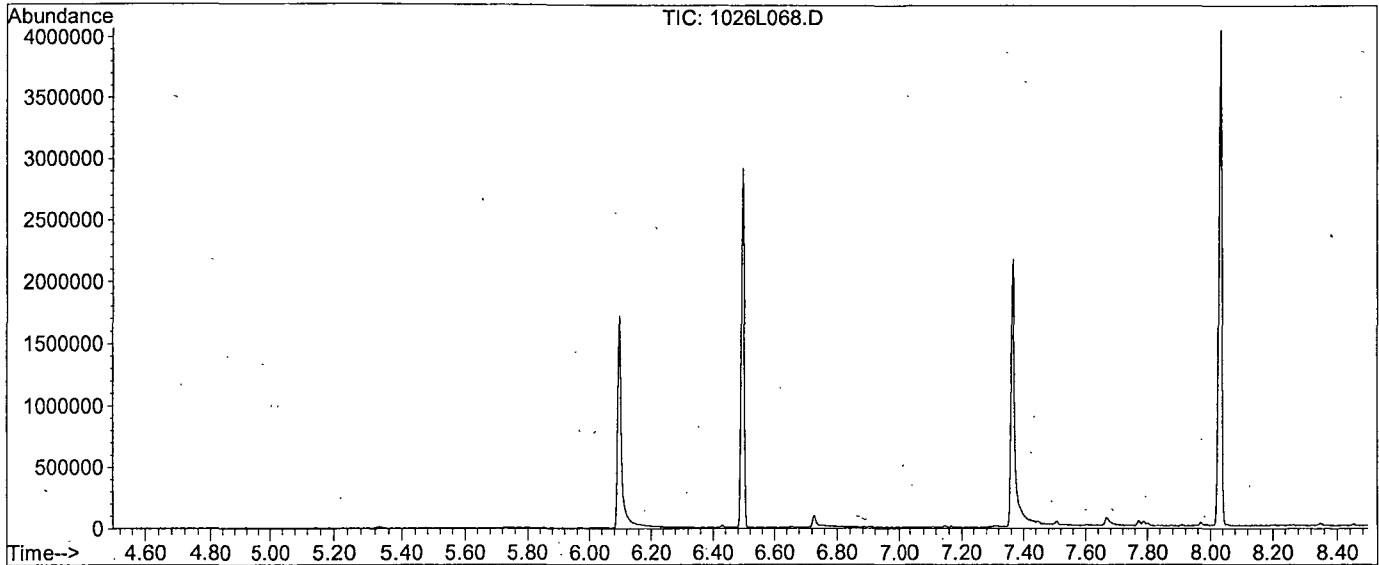
Inst : Linus

Misc :

Multiplr: 1.00

Method : M:\LINUS\DATA\L181026\L1026.M (RTE Integrator)

Title : EPA 8270



AutoFind: Scans 1570, 1571, 1572; Background Corrected with Scan 1561

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	44.8	130652	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	1104	PASS
127	198	10	80	54.2	158024	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	291413	PASS
199	198	5	9	7.0	20272	PASS
275	198	10	60	22.1	64445	PASS
365	198	1	100	2.7	7872	PASS
441	442	0.01	24	18.1	34571	PASS
442	198	50	150	65.7	191317	PASS
443	442	15	24	19.8	37952	PASS

Data File Name: 1026L068.D  
Data File Path: M:\LINUS\DATA\181026\  
Operator: MA  
Date Acquired: 1 Nov 18 12:32  
Method File: DFTPP2.M  
Sample Name: SV TUNE 03/07/18  
Vial Number: 75  
Instrument Name: Linus

#	Name	Ret Time	Target Response
1)	DDT	8.04	28159000
2)	DDD	7.79	261472
3)	DDE	7.92	0

Breakdown 0.92

Name of  
Final  
Standard PAH SIM Stock (Ampule)

Prep'd By (Initials) GA

Prep Date 10/26/18  
Exp Date 10/26/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270D PAH SIM	O2SI	110780-01	200 ug/mL	353450-39732	08/12/20	1000 uL	1mL	NA	200ug/mL

Name of  
Final  
Standard SIM Curve

Prep'd By (Initials) GA

Prep Date 10/26/18  
Exp Date 06/01/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1.0 ug/mL SIM	APPL	SIM 1.0	1.0 ug/mL	10/26/18	06/01/19	10 uL	100uL	MC 56258 90uL	0.1 ug/mL
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
1.0 ug/mL SIM	APPL	SIM 1.0	1.0 ug/mL	10/26/18	06/01/19	20 uL	100uL	MC 56258 80uL	0.2 ug/mL
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
5.0 ug/mL SIM	APPL	SIM 5.0	5.0 ug/mL	10/26/18	06/01/19	10 uL	100uL	MC 56258 90uL	0.5 ug/mL

SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
5.0 ug/mL SIM	APPL	SIM 5.0	5.0 ug/mL	10/26/18	06/01/19	20 uL	100uL	MC 56258 80 uL	1.0 ug/mL
SV Internal Standard	APPL	SIM IS	100 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
PAH SIM	APPL	SIM STOCK	100 ug/mL	10/26/18	10/26/19	5 uL	200uL	MC 56258 190 uL	5.0 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	06/07/18	06/01/19	5 uL	*	*	*
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	4 uL	*	*	*
PAH SIM	APPL	SIM STOCK	200 ug/mL	10/26/18	10/26/19	5 uL	100 uL	MC 56258 90 uL	10 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	06/07/18	06/01/19	5 uL	*	*	*
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
PAH SIM	APPL	SIM STOCK	200	10/26/18	10/26/19	25 uL	100uL	MC 56258 50 uL	50 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	06/07/18	06/01/19	25 uL	*	*	*
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*
PAH SIM	APPL	SIM STOCK	200 ug/mL	10/26/18	10/26/19	50 uL	100uL	na	100 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	06/07/18	06/01/19	50 uL	*	*	*
SV Internal Standard	APPL	SIM IS	2000 ug/mL	06/25/18	06/25/19	2 uL	*	*	*

Name of Final Standard 8270 PAH SIM Second Source

Prep'd By (Initials) GA

Prep Date 10/26/18  
Exp Date 10/26/19

Initial Standard Information	Final Standard Information
------------------------------	----------------------------

Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with	Exp Date	Aliquot from Stock	Final Volume	Final Solvent +	Final Standard Conc (range)
				QA #				(or APPL Prep Date)	
				(or reference to APPL prep date)				(or APPL Prep Date)	
PAH SIMPCP	o2si	110780-01 SS	200 ug/mL	06/25/18	03/24/19	5 uL	200uL	MC 56258 195uL	5 ug/mL
SV Internal Standard	APPL		2000 ug/mL	06/25/18	06/25/19	4 uL	*	*	*

Name of

Final

Standard

**SIM 2S Surrogate**

Prep'd By (Initials)

**GA**

Prep Date **06/07/18**

Exp Date **06/01/19**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with	Exp Date	Aliquot from Stock	Final Volume	Final Solvent +	Final Standard Conc (range)
				QA #				Lot# (or APPL Prep Date)	
SIM Surrogate Mix	Restek	33913	2000 ug/mL	A0131716-38553 & 38554	06/01/19 06/07/19	250 uL	5 mL	Acetone #030817A	100 ug/mL
8270 B/N surrog mix	Restek	31086	5000 ug/mL	A0135243-39162	06/04/19	100 uL	*	*	*

Name of  
Final

Standard SIM 2nd Source Ampule

Prep'd By (Initials)

GA

Prep Date 06/25/18

Exp Date 03/24/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270D PAH SIM	O2SI	110780-02 SS	200 ug/mL	G34-327639-38583	03/24/19	1 mL	na	na	200 ug/mL

Name of  
Final

Standard 8270 SIM PAH Internal Standard

Prep'd By (Initials)

GA

Prep Date 06/25/18

Exp Date 06/25/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
SV Internal Standard	Restek	31206	2000 ug/mL	A0130603-38561	06/25/19	350 uL	5,600 uL	MC 56258 5,250 uL	125 ug/mL

Name of Final Standard SIM Surrogate Prep'd By (Initials) MA

Prep Date 09/27/18  
Exp Date 09/27/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Sim Surrogate Deuterated	Restek	33913	2000 ug/mL	A0131718-39321	09/27/19	1250 uL	25 mL	Acetone #030817A	100 ug/mL

Name of Final Standard PAH SIM Spike (Ampules) Prep'd By (Initials) MA

Prep Date 09/27/19  
Exp Date 03/24/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270D PAH SIM	O2SI	110780-01 SS	200 ug/mL	G34-327639-38585	03/24/19	2 mL	2 mL	NA	200ug/mL



Name of Final Standard Semivolatile (SV) Tuning Solution  
 Prep Date 03/07/18  
 Exp Date 03/07/19

Prep'd By (Initials) GA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38878	03/07/19	1,250 uL	25 mL	MC #56258	50 ug/mL

# Organic Extraction Worksheet

<b>Method</b>	Continuous Liquid/Liquid SVOC 3520C	<b>Extraction Set</b>	181030A	<b>Extraction Method</b>	LIQ003	<b>Units</b>	mL
Spiked ID 1	8270T Spike 10-9-18 EXP 10-9-19	Surrogate ID 1	8270	Surrogate 9-2718	EXP 3-27-19		
Spiked ID 2	Sim Spike 10-26-18 EXP 10-26-19	Surrogate ID 2	SIM	Surrogate 9-27-18	EXP 9-27-19		
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		NO			
Spiked ID 7		Ext. Start Time:		10/30/18 16:00, 10/31/18 13:15			
Spiked ID 8		Ext. End Time:		10/31/18 10:15, 11/01/18 07:45, 10:55			
GC Requires Extract By:				11/01/18 0:00			
pH1	2	10/30/18 1:50:00 PM	Water Bath Temp Criteria		76 °C		
pH2	14	10/31/18 1:00:00 PM					
pH3							

Spiked By: KY

Date 10/30/18

Witnessed By: DL

Date 10/30/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1 181030A Bk				1,0.050	1,2	800	1	2/1	10/30/18 14:00	
					equip	E-HP51 E-WB5				
2 181030A LCS-1		0.250	1	1	1	800	1	2/1	10/30/18 14:00	
					equip	E-HP50 E-WB5				
3 181030A LCS-2		0.0250	2	0.050	2	800	1	2/1	10/30/18 14:00	
					equip	E-HP49 E-WB5				
4 181030A LCSD-1		0.250	1	1	1	800	1	2/1	10/30/18 14:00	
					equip	E-HP48 E-WB5				
5 181030A LCSD-2		0.0250	2	0.050	2	800	1	2/1	10/30/18 14:00	
					equip	E-HP47 E-WB5				
6 AZ81599	AZ81599W01			0.050	1,2	800	1	2/1	10/30/18 14:00	87202
					equip	E-HP30 E-WB5				
7 AZ81676	AZ81676W10			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87219
					equip	E-HP29 E-WB5				
8 AZ81677	AZ81677W10			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87219
					equip	E-HP28 E-WB5				
9 AZ81678	AZ81678W12			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87219
					equip	E-HP27 E-WB5				
10 AZ81840	AZ81840W12			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87238
					equip	E-HP26 E-WB5				
11 AZ81841	AZ81841W12			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87238
					equip	E-HP25 E-WB5				
12 AZ81842	AZ81842W13			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87238
					equip	E-HP17 E-WB5				
13 AZ81901	AZ81901W13			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87248
					equip	E-HP16 E-WB5				
14 AZ81903	AZ81903W12			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87248
					equip	E-HP15 E-WB5				

*Ky 11/02/18*

Solvent and Lot#	
PH Strips	HC 727135
Dichloromethane (DCM)	58059
1+1 H2SO4	73-18
10N NaOH	10-17-18
Filter Paper	400147
Acidified Na2SO4	10-2-18
B. Na2SO4	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	AMT
Date	11/1/18
Time	12:00
Refrigerator	GC-L

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	11/02/18 11:58:33 AM

Reviewed By: *Ky* 361 Date *11/2/18*

## Injection Log

Directory: M:\LINUS\DATA\181026\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	1026L002.D	1	SV Tune 03/07/18		26 Oct 18 12:05
3	1026L003.D	1	5 SIM 10/26/18		26 Oct 18 12:21
4	1026L004.D	1	0.1 SIM 10/26/18		26 Oct 18 12:50
5	1026L005.D	1	0.2 SIM 10/26/18		26 Oct 18 13:20
6	1026L006.D	1	0.5 SIM 10/26/18		26 Oct 18 13:49
7	1026L007.D	1	1 SIM 10/26/18		26 Oct 18 14:18
8	1026L008.D	1	10 SIM 10/26/18		26 Oct 18 14:47
9	1026L009.D	1	50 SIM 10/26/18		26 Oct 18 15:16
10	1026L010.D	1	100 SIM 10/26/18		26 Oct 18 15:46
11	1026L011.D	1	SS SIM 10/26/18		26 Oct 18 16:46
75	1026L068.D	1	SV TUNE 03/07/18		1 Nov 18 12:32
69	1026L069.D	1	5 SIM 10/26/18 (2)		1 Nov 18 12:49
70	1026L070.D	1.25	181030A BLK 1/800		1 Nov 18 13:24
71	1026L071.D	1.25	181030A LCS-2 1/800		1 Nov 18 13:53
72	1026L072.D	1.25	181030A LCSD-2 1/800		1 Nov 18 14:22
77	1026L077.D	1.25	AZ81840W12 1/800		1 Nov 18 16:48
78	1026L078.D	1.25	AZ81841W12 1/800		1 Nov 18 17:17
79	1026L079.D	1.25	AZ81842W13 1/800		1 Nov 18 17:47
82	1026L082.D	1	5 SIM 10/26/18 (1)		1 Nov 18 19:14

**ORGANICS**  
**Calibration Data**

**APPL, INC.**

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/25/18  
Instrument: Yoda

Initials: \_\_\_\_\_

1025Y003.D 1025Y004.D 1025Y005.D 1025Y006.D 1025Y007.D 1025Y008.D 1025Y009.D 1025Y010.D 1025Y011.D

	Compound	4	5	10	20	40	50	60	80	100	Avg	%RSD	Type	r	Q	MRF
1	I 1,4-dichlorobenzene-D4(1S)	ISTD														
2	1,4-Dioxane		0.0822	0.1238	0.1391	0.1156	0.1243	0.1314	0.1253	0.1327	0.12	14				
3	TM n-Nitrosodimethylamine		0.3198	0.2893	0.2895	0.3170	0.3428	0.3386	0.3157	0.3599	0.32	7.7	TM			
4	TM Pyridine		0.3797	0.5088	0.4370	0.4560	0.5069	0.5219	0.5126	0.5246	0.48	11	TM			
5	S 2-Fluorophenol (S)		1.447	1.474	1.688	1.589	1.666	1.585	1.555	1.571	1.6	5.3	S			
6	S Phenol-D6 (S)		1.848	1.901	2.093	1.850	1.941	1.809	1.755	1.750	1.9	6.0	S			
7	*TM Phenol		2.649	2.757	2.820	2.486	2.402	2.436	2.265	2.182	2.5	9.1	*TM			0.800
8	TM Aniline		1.872	2.001	2.114	1.977	2.005	2.023	1.975	2.017	2.0	3.4	TM			
9	TM Bis (2-chloroethyl) ether		1.334	1.348	1.369	1.245	1.271	1.275	1.240	1.376	1.3	4.3	TM			0.700
10	TM 2-Chlorophenol		1.995	2.029	2.057	1.877	1.897	1.907	1.873	1.933	1.9	3.7	TM			0.800
11	TM 1,3-DCB		2.064	2.156	2.189	1.949	1.933	1.958	1.933	1.942	2.0	5.3	TM			
12	*TM 1,4-DCB		2.127	2.156	2.182	2.007	1.906	1.971	1.865	1.938	2.0	6.0	*TM			
13	TM Benzyl alcohol		1.244	1.292	1.329	1.211	1.238	1.259	1.212	1.289	1.3	3.3	TM			
14	TM 1,2-DCB		2.064	2.054	2.067	1.841	1.835	1.876	1.767	1.846	1.9	6.4	TM			
15	TM 2-Methylphenol		1.555	1.604	1.632	1.546	1.494	1.520	1.483	1.561	1.5	3.3	TM			0.700
16	TM Bis (2-chloroisopropyl) ether		2.542	2.584	2.616	2.402	2.400	2.441	2.390	2.420	2.5	3.7	TM			0.010
17	TML Acetophenone		2.636	2.769	2.633	2.030	1.890	1.910	1.779	1.861	2.2	19	TML	0.996		0.010
18	TML 3&4-Methylphenol		2.070	2.176	2.020	1.546	1.435	1.452	1.356	1.396	1.7	20	TML	0.996		0.600
19	**TM n-Nitrosodi-n-propylamine		1.400	1.477	1.415	1.143	1.166	1.186	1.188	1.329	1.3	10	**TM			0.500
20	TM Hexachloroethane		0.7574	0.7950	0.8050	0.7314	0.7379	0.7578	0.7366	0.7504	0.76	3.6	TM			0.300
21	I Naphthalene-D8(1S)	ISTD														
22	S Nitrobenzene-D5(S)		0.4083	0.4328	0.4683	0.4505	0.5001	0.4407	0.4451	0.4657	0.45	6.0	S			
23	TM Nitrobenzene		0.5001	0.5181	0.5139	0.4909	0.4970	0.4779	0.4713	0.4888	0.49	3.3	TM			0.200
24	TM Isophorone		0.8652	0.9168	0.9152	0.8551	0.8760	0.8490	0.8400	0.8786	0.87	3.3	TM			0.400
25	*TM 2-Nitrophenol		0.2370	0.2591	0.2642	0.2517	0.2554	0.2460	0.2442	0.2519	0.25	3.5	*TM			0.100
26	TM 2,4-Dimethylphenol		0.4374	0.4462	0.4431	0.4177	0.4120	0.4072	0.3948	0.4061	0.42	4.6	TM			0.200
27	TML Benzoic acid		0.2022	0.2740	0.3308	0.3563	0.3897	0.3820	0.3935	0.4031	0.34	21	TML	0.999		
28	TM Bis (2-chloroethoxy) methane		0.5234	0.5360	0.5173	0.4794	0.4853	0.4705	0.4613	0.4659	0.49	5.9	TM			0.300
29	*TM 2,4-Dichlorophenol		0.3791	0.3980	0.3911	0.3686	0.3717	0.3607	0.3482	0.3483	0.37	4.9	*TM			0.200
30	TM 1,2,4-Trichlorobenzene		0.4195	0.4275	0.4109	0.3795	0.3707	0.3651	0.3531	0.3536	0.38	7.8	TM			
31	TM 3,4-Dimethylphenol		0.5794	0.6067	0.6052	0.5594	0.5653	0.5568	0.5402	0.5433	0.57	4.5	TM			
32	TM Naphthalene		1.432	1.426	1.383	1.288	1.252	1.247	1.168	1.168	1.3	8.2	TM			0.700
33	TM 4-Chloroaniline		0.5582	0.5734	0.5561	0.4843	0.4698	0.4632	0.4030	0.3734	0.49	15	TM			0.010
34	TM 2,6-Dichlorophenol		0.3835	0.3879	0.3836	0.3390	0.3259	0.3250	0.2935	0.2753	0.34	13	TM			
35	TM Hexachloropropene		0.2398	0.2604	0.2721	0.2579	0.2649	0.2671	0.2525	0.2433	0.26	4.4	TM			

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/25/18  
Instrument: Yoda

Initials: \_\_\_\_\_

	Compound	4	5	10	20	40	50	60	80	100		Avg	%RSD	Type		Q
36	*TM Hexachlorobutadiene		0.2194	0.2297	0.2245	0.2132	0.2082	0.2127	0.1994	0.1969		0.21	5.4	*TM		0.010
37	TM Caprolactam		0.2182	0.2291	0.2384	0.2265	0.2344	0.2268	0.2261	0.2162		0.23	3.3	TM		0.010
38	*TM 4-Chloro-3-methylphenol		0.3843	0.4096	0.4194	0.3872	0.4022	0.4004	0.3860	0.3952		0.40	3.1	*TM		0.200
39	TM 2-Methylnaphthalene		0.8747	0.8997	0.8766	0.8068	0.7983	0.7982	0.7535	0.7265		0.82	7.6	TM		0.400
40	TM 1-Methylnaphthalene		0.8803	0.9151	0.8942	0.8003	0.7852	0.7648	0.7475	0.7263		0.81	8.9	TM		
41	I Acenaphthene-D10(IS)	ISTD														
42	**TML Hexachlorocyclopentadiene		0.2159	0.3254	0.3835	0.4140	0.4334	0.4200	0.4194	0.4411		0.38	20	**TML	0.999	0.050
43	TM 1,2,4,5-Tetrachlorobenzene		0.8104	0.8379	0.8315	0.7526	0.7314	0.7034	0.6664	0.6536		0.75	9.7	TM		0.010
44	*TM 2,4,6-Trichlorophenol		0.5013	0.5549	0.5603	0.5238	0.5316	0.5292	0.4979	0.5107		0.53	4.4	*TM		0.200
45	TM 2,4,5-Trichlorophenol		0.5702	0.5761	0.5952	0.5475	0.5488	0.5482	0.5295	0.5413		0.56	3.9	TM		0.200
46	S 2-Fluorobiphenyl(S)		1.730	1.770	1.821	1.654	1.746	1.617	1.492	1.508		1.7	7.3	S		
47	TM 1,1'-Biphenyl		2.164	2.234	2.170	1.970	1.876	1.856	1.726	1.715		2.0	10	TM		0.010
48	TM 2-Chloronaphthalene		1.645	1.734	1.725	1.553	1.541	1.482	1.409	1.423		1.6	8.1	TM		0.800
49	TM 2-Nitroaniline		0.4862	0.5502	0.5567	0.5429	0.5556	0.5517	0.5173	0.5586		0.54	4.7	TM		0.010
50	TM Dimethyl phthalate		1.834	1.964	1.919	1.801	1.797	1.794	1.657	1.744		1.8	5.3	TM		0.010
51	TM 2,6-DNT		0.3555	0.4320	0.4418	0.4252	0.4354	0.4318	0.3994	0.4280		0.42	6.8	TM		0.200
52	TM Acenaphthylene		2.628	2.725	2.759	2.574	2.482	2.505	2.231	2.278		2.5	7.6	TM		0.900
53	TM 3-Nitroaniline		0.4276	0.4910	0.5106	0.4724	0.4809	0.4713	0.4422	0.4489		0.47	5.8	TM		0.010
54	*TM Acenaphthene		1.672	1.755	1.670	1.499	1.475	1.481	1.337	1.337		1.5	10	*TM		0.900
55	**TML 2,4-Dinitrophenol		0.0575	0.1232	0.2043	0.2314	0.2592	0.2656	0.2764	0.3061		0.22	39	**TML	0.996	0.010
56	**TM 4-Nitrophenol		0.2721	0.3257	0.3588	0.3653	0.3883	0.3983	0.3717	0.4143		0.36	12	**TM		0.010
57	TM Dibenzofuran		2.464	2.496	2.382	2.140	2.009	1.938	1.732	1.711		2.1	15	TM		0.800
58	TM 2,4-DNT		0.5229	0.5883	0.6057	0.5566	0.5362	0.5170	0.4678	0.4705		0.53	9.4	TM		0.200
59	TM 2,3,4,6-Tetrachlorophenol		0.4433	0.4757	0.4924	0.4726	0.4709	0.4494	0.4249	0.4491		0.46	4.7	TM		0.010
60	TM Diethyl phthalate		1.848	1.924	1.892	1.742	1.716	1.664	1.554	1.624		1.7	7.6	TM		0.010
61	TML 4-Chlorophenyl phenyl ether			0.9404	0.8997	0.7607	0.7053	0.6720	0.6051	0.6241		0.74	18	TML	0.995	0.400
62	TML Fluorene			2.000	1.919	1.630	1.529	1.450	1.327	1.370		1.6	16	TML	0.996	0.900
63	TM 4-Nitroaniline		0.4708	0.5200	0.5209	0.4799	0.4968	0.4726	0.4586	0.4920		0.49	4.7	TM		0.010
64	S 2,4,6-Tribromophenol(S)		0.1910	0.2126	0.2272	0.2105	0.2163	0.1901	0.1826	0.1843		0.20	6.3	S		
65	I Phenanthrene-D10(IS)	ISTD														
66	TML 4,6-Dinitro-2-methylphenol		0.1094	0.1601	0.1895	0.1922	0.2012	0.1993	0.1924	0.2094		0.18	18	TML	0.998	0.010
67	TM Diphenyl amine			0.8355	0.7939	0.6850	0.6482	0.6583	0.5640	0.5753		0.68	15	TM		
68	*TM n-Nitrosodiphenylamine			0.8355	0.7939	0.6850	0.6482	0.6583	0.5640	0.5753		0.68	15	*TM		0.010
69	TM 1,2-Diphenylhydrazine		1.082	1.106	1.079	1.022	1.024	1.028	1.102	1.154		1.1	4.4	TM		
70	TM 4-Bromophenyl phenyl ether		0.2805	0.2921	0.2891	0.2738	0.2714	0.2723	0.2524	0.2464		0.27	5.9	TM		0.100

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/25/18  
Instrument: Yoda

Initials: \_\_\_\_\_

		Compound	4	5	10	20	40	50	60	80	100		Avg	%RSD	Type		Q
71	TM	Hexachlorobenzene		0.2989	0.3163	0.3096	0.2849	0.2823	0.2843	0.2563	0.2582		0.29	7.6	TM		0.100
72	TM	Atrazine		0.2274	0.2463	0.2447	0.2494	0.2533	0.2614	0.2438	0.2652		0.25	4.7	TM		0.010
73	*TM	Pentachlorophenol		0.1194	0.1595	0.1803	0.1856	0.1959	0.1970	0.1843	0.1954		0.18	15	*TM		0.050
74	TM	Phenanthrene		1.535	1.556	1.520	1.405	1.341	1.354	1.219	1.247		1.4	9.3	TM		0.700
75	TM	Anthracene		1.534	1.630	1.567	1.432	1.388	1.397	1.243	1.306		1.4	9.2	TM		0.700
76	TM	Carbazol		1.404	1.474	1.412	1.345	1.333	1.342	1.200	1.232		1.3	6.8	TM		0.010
77	TM	Di-n-butylphthalate		1.532	1.684	1.676	1.561	1.557	1.587	1.423	1.418		1.6	6.4	TM		0.010
78	*TM	Fluoranthene		1.599	1.650	1.618	1.482	1.469	1.488	1.311	1.376		1.5	7.9	*TM		0.600
79	I	Chrysene-D12(IS)	ISTD														
80	TM	Benzidine		0.5023	0.5729	0.5988	0.5688	0.5785	0.5804	0.5559	0.5905		0.57	5.2	TM		
81	TM	Pyrene		1.683	1.748	1.756	1.652	1.621	1.636	1.522	1.607		1.7	4.6	TM		0.600
82	S	Terphenyl-D14(S)		1.048	1.090	1.144	1.063	1.110	1.026	0.9763	1.014		1.1	5.2	S		
83	TM	Butyl benzylphthalate		0.6875	0.7381	0.7719	0.7507	0.7445	0.7677	0.7085	0.7378		0.74	3.9	TM		0.010
84	TM	3,3'-Dichlorobenzidine		0.5153	0.5780	0.6107	0.5565	0.5493	0.5524	0.4833	0.4652		0.54	9.0	TM		0.010
85	TM	Benz (a) anthracene		1.567	1.601	1.607	1.369	1.289	1.333	1.201	1.269		1.4	12	TM		0.800
86	TM	Bis (2-ethylhexyl) phthalate		0.9717	1.060	1.058	0.9322	0.8742	0.8932	0.7888	0.8442		0.93	11	TM		0.010
87	TM	Chrysene		1.555	1.591	1.559	1.488	1.422	1.434	1.363	1.407		1.5	5.6	TM		0.700
88	*TM	Di-n-octylphthalate		1.513	1.697	1.766	1.768	1.785	1.794	1.743	1.735		1.7	5.3	*TM		0.010
89	I	Perylene-D12(IS)	ISTD														
90	TM	Benzo (b) fluoranthene		1.425	1.508	1.620	1.418	1.596	1.597	1.382	1.444		1.5	6.3	TM		0.700
91	TM	Benzo (k) fluoranthene		1.477	1.531	1.459	1.477	1.380	1.372	1.365	1.366		1.4	4.6	TM		0.700
92	*TM	Benzo (a) pyrene	1.218	1.317	1.395	1.423	1.374	1.394	1.417	1.346	1.389		1.4	4.7	*TM		0.700
93	TM	Indeno (1,2,3-cd) pyrene		1.504	1.545	1.624	1.566	1.626	1.628	1.542	1.602		1.6	3.0	TM		0.500
94	TM	Dibenz (a,h) anthracene	1.180	1.287	1.350	1.426	1.364	1.388	1.416	1.318	1.348		1.3	5.6	TM		0.400
95	TM	Benzo (g,h,i) perylene		1.187	1.277	1.320	1.302	1.267	1.324	1.228	1.334		1.3	4.0	TM		0.500
96																	
97																	
98																	
99																	
100																	
101																	
102																	
103																	
104																	
105																	

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y003.D Vial: 3  
 Acq On : 25 Oct 18 11:33 Operator: MA  
 Sample : 4ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 25 14:51 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	299628	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1229134	40.00000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	646866	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1199000	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1206033	40.00000	ppb	-0.01
89) Perylene-D12 (IS)	15.81	264	1213261	40.00000	ppb	-0.01
<b>System Monitoring Compounds</b>						
5) 2-Fluorophenol (S)	0.00	112	0d	0.00000	ppb	
Spiked Amount				200.000		
			Recovery	=		0.000%
6) Phenol-D6 (S)	0.00	99	0d	0.00000	ppb	
Spiked Amount				200.000		
			Recovery	=		0.000%
22) Nitrobenzene-D5 (S)	0.00	82	0d	0.00000	ppb	
Spiked Amount				100.000		
			Recovery	=		0.000%
46) 2-Fluorobiphenyl (S)	0.00	172	0d	0.00000	ppb	
Spiked Amount				100.000		
			Recovery	=		0.000%
64) 2,4,6-Tribromophenol (S)	0.00	330	0d	0.00000	ppb	
Spiked Amount				200.000		
			Recovery	=		0.000%
82) Terphenyl-D14 (S)	0.00	244	0d	0.00000	ppb	
Spiked Amount				100.000		
			Recovery	=		0.000%
<b>Target Compounds</b>						
92) Benzo (a) pyrene	15.72	252	147763	3.60635	ppb	99
94) Dibenz (a,h) anthracene	17.86	278	143132	3.53686	ppb	97



Quantitation Report

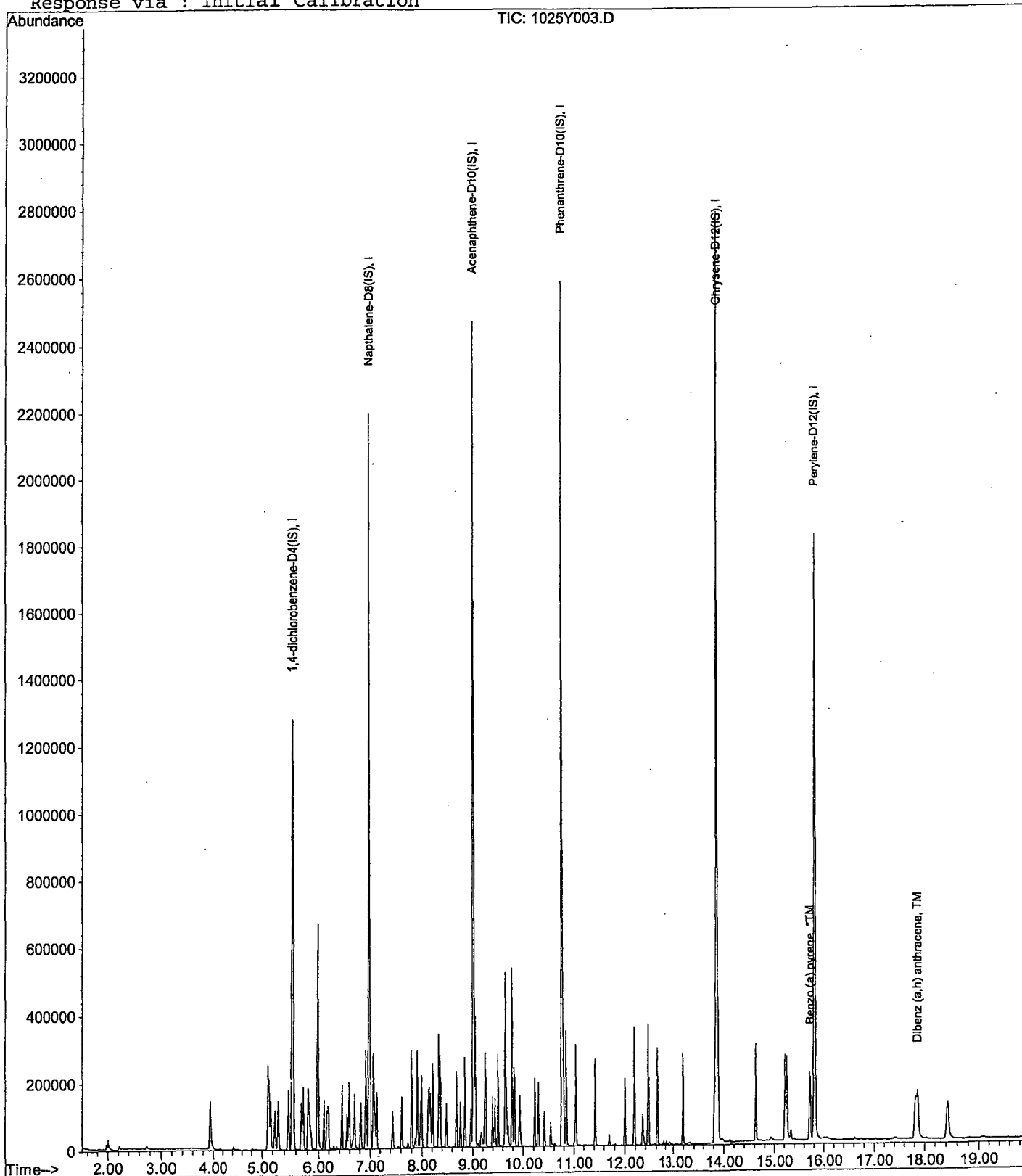
Data File : M:\YODA\DATA\Y181025\1025Y003.D  
Acq On : 25 Oct 18 11:33  
Sample : 4ug/mL 8270 10/18/18  
Misc :

Vial: 3  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 14:51 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y004.D  
 Acq On : 25 Oct 18 12:01  
 Sample : 5ug/mL 8270 10/18/18  
 Misc :

Vial: 4  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:18:52 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	278188	40.00000	ppb	0.00
21) Naphthalene-D8 (IS)	6.98	136	1122051	40.00000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	578178	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1088043	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1091993	40.00000	ppb	-0.01
89) Perylene-D12 (IS)	15.81	264	1129669	40.00000	ppb	-0.01

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.94	112	100605	9.16892	ppb	0.00
Spiked Amount 200.000			Recovery =	4.585%		
6) Phenol-D6 (S)	5.11	99	128510	9.87603	ppb	-0.01
Spiked Amount 200.000			Recovery =	4.938%		
22) Nitrobenzene-D5 (S)	6.16	82	57273	4.46786	ppb	-0.01
Spiked Amount 100.000			Recovery =	4.468%		
46) 2-Fluorobiphenyl (S)	8.22	172	125033	5.15520	ppb	0.00
Spiked Amount 100.000			Recovery =	5.155%		
64) 2,4,6-Tribromophenol (S)	9.94	330	27611	9.22660	ppb	-0.01
Spiked Amount 200.000			Recovery =	4.614%		
82) Terphenyl-D14 (S)	12.62	244	143015	4.87537	ppb	0.00
Spiked Amount 100.000			Recovery =	4.875%		

Target Compounds

					Qvalue	
2) 1,4-Dioxane	1.74	58	286	0.32856	#	1
3) n-Nitrosodimethylamine	1.98	42	11122	5.29803	ppb	88
4) Pyridine	2.00	79	13205	4.04187	ppb	93
7) Phenol	5.13	94	92128	5.29994	ppb	90
8) Aniline	5.16	66	65079m	4.91096	ppb	90
9) Bis (2-chloroethyl) ether	5.23	63	46381	5.10745	ppb	99
10) 2-Chlorophenol	5.29	128	69377	5.18850	ppb	95
11) 1,3-DCB	5.47	146	71761	5.08967	ppb	99
12) 1,4-DCB	5.56	146	73967	5.25936	ppb	94
13) Benzyl alcohol	5.69	108	43273	5.00475	ppb	93
14) 1,2-DCB	5.73	146	71757	5.38435	ppb	97
15) 2-Methylphenol	5.81	107	54087	5.07631	ppb	98
16) Bis (2-chloroisopropyl) et	5.84	45	88410	5.18241	ppb	94
17) Acetophenone	6.00	105	91662	1.39902	ppb	# 70
18) 3&4-Methylphenol	5.99	107	143966	-0.94497	ppb	95
19) n-Nitrosodi-n-propylamine	5.99	70	48666	5.49385	ppb	84
20) Hexachloroethane	6.11	117	26338	4.96713	ppb	95
23) Nitrobenzene	6.19	77	70137	4.98866	ppb	98
24) Isophorone	6.45	82	121351	4.91369	ppb	98
25) 2-Nitrophenol	6.54	139	33236	4.72719	ppb	92
26) 2,4-Dimethylphenol	6.58	122	61342	5.19136	ppb	91
27) Benzoic acid	6.67	105	28356	8.65338	ppb	97
28) Bis (2-chloroethoxy) metha	6.69	93	73409	5.27571	ppb	98
29) 2,4-Dichlorophenol	6.82	162	53167	5.07562	ppb	96
30) 1,2,4-Trichlorobenzene	6.91	180	58841	5.40711	ppb	97
31) 3,4-Dimethylphenol	6.92	107	81264	5.08114	ppb	95
32) Naphthalene	7.01	128	200847	5.51654	ppb	99
33) 4-Chloroaniline	7.06	127	78291	6.25637	ppb	97
34) 2,6-Dichlorophenol	7.07	162	53793	5.59344	ppb	98
35) Hexachloropropene	7.10	213	33627	4.60585	ppb	99
36) Hexachlorobutadiene	7.14	225	30779	5.08021	ppb	98
37) Caprolactum	7.44	55	30607	4.78098	ppb	92

(#) = qualifier out of range (m) = manual integration  
 1025Y004.D Y1025NC.M Thu Oct 25 17:29:39 2018

## Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y004.D  
 Acq On : 25 Oct 18 12:01  
 Sample : 5ug/mL 8270 10/18/18  
 Misc :

Vial: 4  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:18:52 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.62	107	53898	4.81193	ppb	98
39) 2-Methylnaphthalene	7.80	142	122686	5.30010	ppb	97
40) 1-Methylnaphthalene	7.92	142	123467	5.36805	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	15604	2.63514	ppb	97
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	58570	5.36480	ppb	98
44) 2,4,6-Trichlorophenol	8.12	196	36228	4.75527	ppb	99
45) 2,4,5-Trichlorophenol	8.17	196	41210	5.05470	ppb	96
47) 1,1'-Biphenyl	8.34	154	156378	5.47366	ppb	98
48) 2-Chloronaphthalene	8.36	162	118878	5.19543	ppb	98
49) 2-Nitroaniline	8.48	65	35139	4.54088	ppb	92
50) Dimethyl phthalate	8.69	163	132551	5.03002	ppb	100
51) 2,6-DNT	8.77	165	25692	4.26612	ppb	96
52) Acenaphthylene	8.85	152	189919	5.22472	ppb	99
53) 3-Nitroaniline	8.97	138	30903	4.67170	ppb	99
54) Acenaphthene	9.05	154	120819	5.48632	ppb	99
55) 2,4-Dinitrophenol	9.10	184	4155	10.81735	ppb	89
56) 4-Nitrophenol	9.17	65	19665	3.80378	ppb	94
57) Dibenzofuran	9.25	168	178096	5.81314	ppb	92
58) 2,4-DNT	9.24	165	37792	4.90083	ppb	96
59) 2,3,4,6-Tetrachlorophenol	9.39	232	32036	4.80719	ppb	98
60) Diethyl phthalate	9.50	149	133569	5.26630	ppb	98
61) 4-Chlorophenyl phenyl ethe	9.65	204	66152	5.51360	ppb	87
62) Fluorene	9.65	166	140557	5.50594	ppb	99
63) 4-Nitroaniline	9.68	138	34026	4.92384	ppb	89
66) 4,6-Dinitro-2-methylphenol	9.71	198	14879	2.87402	ppb	91
67) Diphenyl amine	9.79	169	225337	0.75658	ppb	98
68) n-Nitrosodiphenylamine	9.79	169	225337	0.75658	ppb	98
69) 1,2-Diphenylhydrazine	9.84	77	147118	5.01547	ppb #	87
70) 4-Bromophenyl phenyl ether	10.23	248	38148	5.05604	ppb	92
71) Hexachlorobenzene	10.29	284	40649	5.12754	ppb	87
72) Atrazine	10.41	200	15461	2.26716	ppb	96
73) Pentachlorophenol	10.54	266	16240	3.32294	ppb	98
74) Phenanthrene	10.79	178	208757	5.42894	ppb	99
75) Anthracene	10.84	178	208619	5.28612	ppb	99
76) Carbazol	11.04	167	190968	5.17629	ppb	99
77) Di-n-butylphthalate	11.43	149	208356	4.90798	ppb	98
78) Fluoranthene	12.18	202	217445	5.29783	ppb	98
80) Benzidine	12.35	184	68565	9.38814	ppb	95
81) Pyrene	12.45	202	229771	5.09317	ppb	99
83) Butyl benzylphthalate	13.19	149	93840	4.68621	ppb	88
84) 3,3'-Dichlorobenzidine	13.81	252	70332	5.31300	ppb	96
85) Benz (a) anthracene	13.85	228	213920	5.55631	ppb	99
86) Bis (2-ethylhexyl) phthala	13.84	149	132632	5.17822	ppb	98
87) Chrysene	13.89	228	212313	5.22319	ppb	98
88) Di-n-octylphthalate	14.62	149	206541	4.38443	ppb	97
90) Benzo (b) fluoranthene	15.21	252	201251	4.74884	ppb	98
91) Benzo (k) fluoranthene	15.25	252	208523	5.23139	ppb	98
92) Benzo (a) pyrene	15.72	252	185959	4.84407	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.81	276	212368	4.76071	ppb	97
94) Dibenz (a,h) anthracene	17.85	278	181728	4.79755	ppb	97
95) Benzo (g,h,i) perylene	18.44	276	167646	4.61279	ppb	95

Quantitation Report

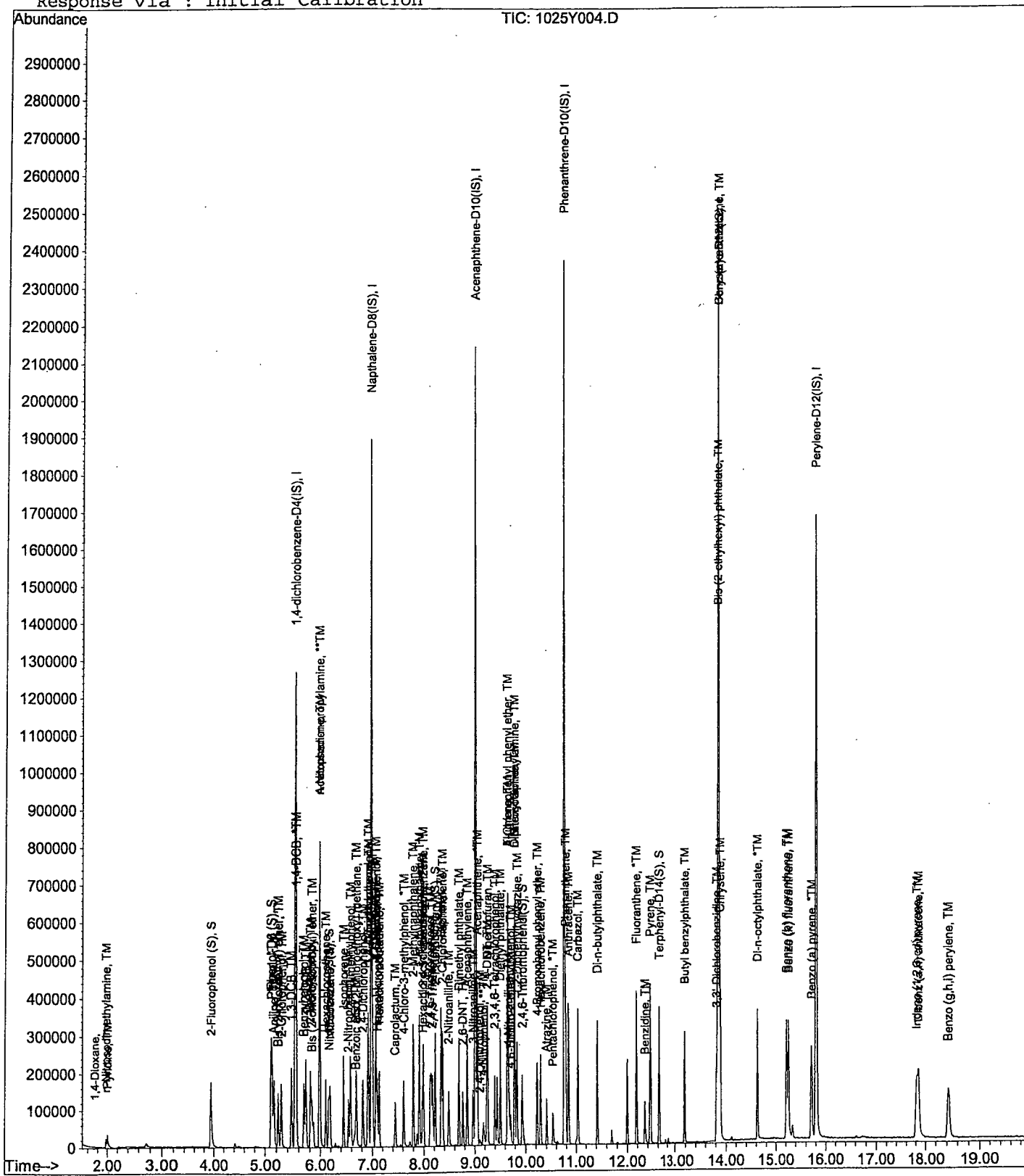
Data File : M:\YODA\DATA\Y181025\1025Y004.D  
Acq On : 25 Oct 18 12:01  
Sample : 5ug/mL 8270 10/18/18  
Misc :

Vial: 4  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration

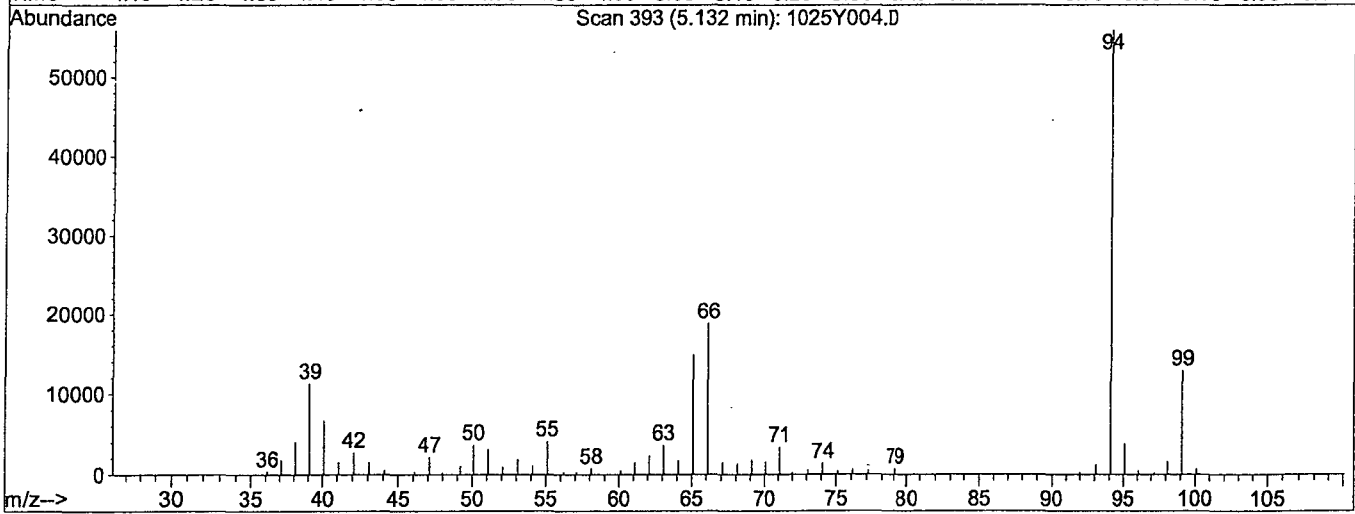
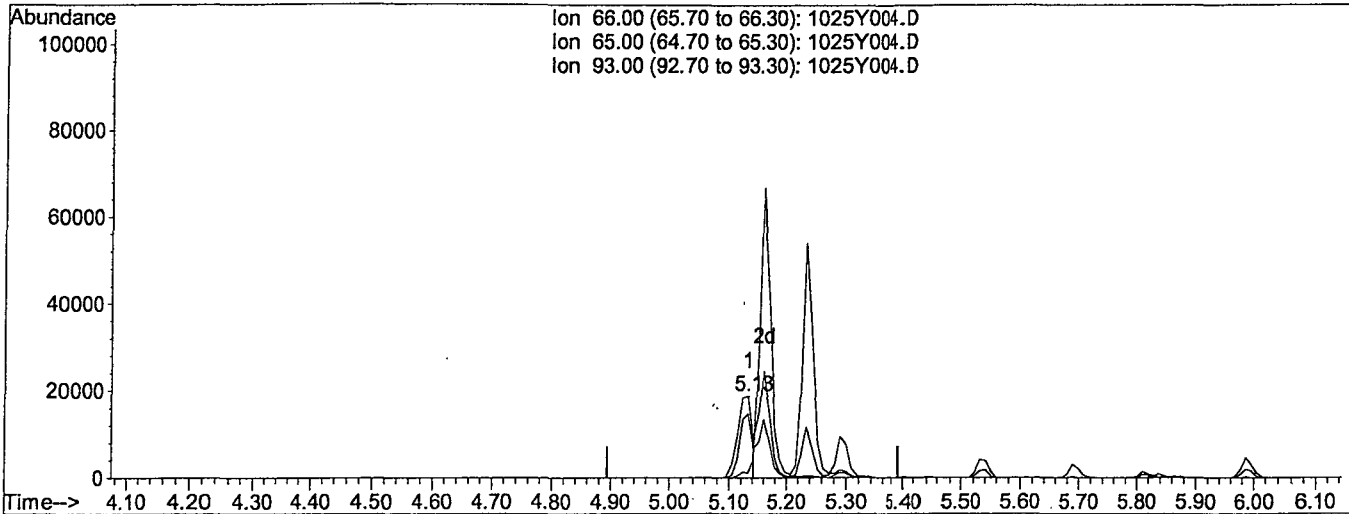


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y004.D  
 Acq On : 25 Oct 18 12:01  
 Sample : 5ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:22 2018

Vial: 4  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y004.D

(8) Aniline (TM)

5.13min 2.4771ppb

response 32826

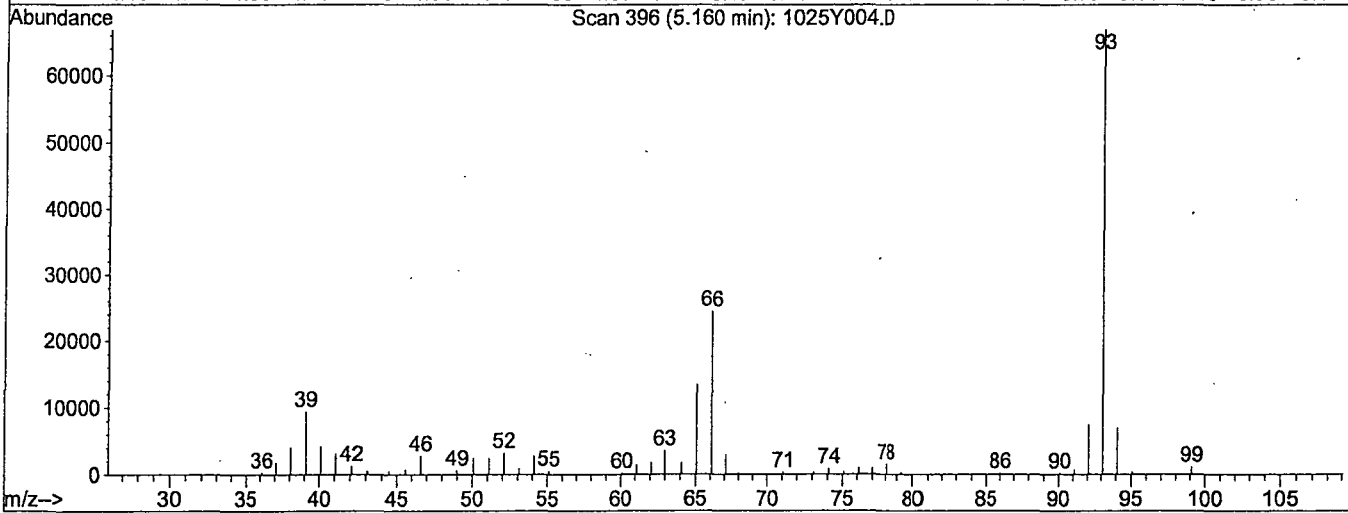
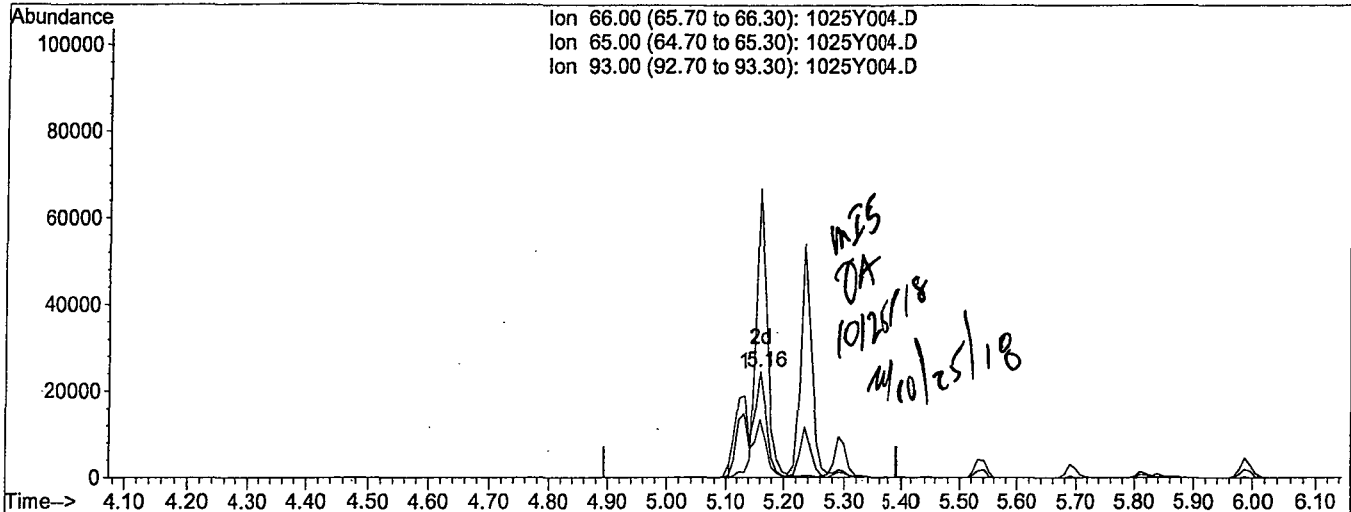
Ion	Exp%	Act%
66.00	100	100
65.00	73.00	78.83
93.00	16.80	6.35#
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y004.D  
 Acq On : 25 Oct 18 12:01  
 Sample : 5ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:40 2018

Vial: 4  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y004.D

(8) Aniline (TM)

5.16min 4.9110ppb m

response 65079

Ion	Exp%	Act%
66.00	100	100
65.00	73.00	54.86
93.00	16.80	272.63#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y005.D  
 Acq On : 25 Oct 18 12:28  
 Sample : 10ug/mL 8270 10/18/18  
 Misc :

Vial: 5  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	300232	40.00000	ppb	0.00
21) Naphthalene-D8 (IS)	6.98	136	1230861	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.01	164	631811	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1201882	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1205751	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	1240435	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	221221	18.94214	ppb	0.00
Spiked Amount 200.000			Recovery =	9.471%		
6) Phenol-D6 (S)	5.12	99	285328	20.43888	ppb	0.00
Spiked Amount 200.000			Recovery =	10.220%		
22) Nitrobenzene-D5 (S)	6.16	82	133193	9.62807	ppb	0.00
Spiked Amount 100.000			Recovery =	9.628%		
46) 2-Fluorobiphenyl (S)	8.22	172	279602	10.54906	ppb	0.00
Spiked Amount 100.000			Recovery =	10.549%		
64) 2,4,6-Tribromophenol (S)	9.94	330	67164	20.84527	ppb	0.00
Spiked Amount 200.000			Recovery =	10.423%		
82) Terphenyl-D14 (S)	12.63	244	328589	10.22856	ppb	0.00
Spiked Amount 100.000			Recovery =	10.229%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.75	58	929	1.00388		# 28
3) n-Nitrosodimethylamine	1.98	42	21711	9.58170	ppb	99
4) Pyridine	2.00	79	38193	11.37249	ppb	91
7) Phenol	5.13	94	206906	11.03338	ppb	94
8) Aniline	5.16	66	150183m	11.67874	ppb	1
9) Bis (2-chloroethyl) ether	5.24	63	101174	10.45077	ppb	98
10) 2-Chlorophenol	5.29	128	152294	10.56163	ppb	96
11) 1,3-DCB	5.47	146	161803	10.67379	ppb	98
12) 1,4-DCB	5.56	146	161804	10.65348	ppb	98
13) Benzyl alcohol	5.69	108	96968	10.53145	ppb	98
14) 1,2-DCB	5.73	146	154175	10.69843	ppb	97
15) 2-Methylphenol	5.81	107	120382	10.45634	ppb	97
16) Bis (2-chloroisopropyl) et	5.84	45	193925	10.62578	ppb	95
17) Acetophenone	6.00	105	207799	11.04127	ppb	# 65
18) 3&4-Methylphenol	5.99	107	326662	21.50272	ppb	93
19) n-Nitrosodi-n-propylamine	5.99	70	110886	11.82806	ppb	86
20) Hexachloroethane	6.11	117	59671	10.51312	ppb	97
23) Nitrobenzene	6.19	77	159416	10.46426	ppb	99
24) Isophorone	6.45	82	282118	10.56547	ppb	99
25) 2-Nitrophenol	6.55	139	79727	10.50448	ppb	95
26) 2,4-Dimethylphenol	6.58	122	137297	10.66244	ppb	96
27) Benzoic acid	6.66	105	84326	10.81134	ppb	98
28) Bis (2-chloroethoxy) metha	6.69	93	164934	10.84663	ppb	99
29) 2,4-Dichlorophenol	6.81	162	122464	10.68123	ppb	99
30) 1,2,4-Trichlorobenzene	6.92	180	131536	11.07691	ppb	96
31) 3,4-Dimethylphenol	6.93	107	186695	10.80192	ppb	99
32) Naphthalene	7.01	128	438668	10.94097	ppb	99
33) 4-Chloroaniline	7.07	127	176444	12.30075	ppb	96
34) 2,6-Dichlorophenol	7.07	162	119365	11.19004	ppb	99
35) Hexachloropropene	7.10	213	80130	10.15063	ppb	99
36) Hexachlorobutadiene	7.13	225	70672	10.70159	ppb	98
37) Caprolactum	7.46	55	70487	10.16881	ppb	93

(#) = qualifier out of range (m) = manual integration  
 1025Y005.D Y1025NC.M Thu Oct 25 17:29:43 2018

## Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y005.D  
 Acq On : 25 Oct 18 12:28  
 Sample : 10ug/mL 8270 10/18/18  
 Misc :

Vial: 5  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.61	107	126043	10.41989	ppb	93
39) 2-Methylnaphthalene	7.80	142	276842	10.92661	ppb	99
40) 1-Methylnaphthalene	7.92	142	281584	11.16023	ppb	99
42) Hexachlorocyclopentadiene	7.98	237	51397	8.90604	ppb	96
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	132348	11.12180	ppb	97
44) 2,4,6-Trichlorophenol	8.12	196	87652	10.65793	ppb	97
45) 2,4,5-Trichlorophenol	8.17	196	90992	10.31238	ppb	99
47) 1,1'-Biphenyl	8.34	154	352803	11.35842	ppb	98
48) 2-Chloronaphthalene	8.36	162	273861	10.99149	ppb	100
49) 2-Nitroaniline	8.49	65	86904	10.47296	ppb	98
50) Dimethyl phthalate	8.69	163	310155	10.89603	ppb	99
51) 2,6-DNT	8.76	165	68241	10.69622	ppb #	76
52) Acenaphthylene	8.85	152	430423	10.88350	ppb	99
53) 3-Nitroaniline	8.97	138	77548	10.73814	ppb	98
54) Acenaphthene	9.05	154	277166	11.51060	ppb	99
55) 2,4-Dinitrophenol	9.10	184	19452	9.77773	ppb	89
56) 4-Nitrophenol	9.16	65	51446	9.82417	ppb	99
57) Dibenzofuran	9.26	168	394310	11.63004	ppb	90
58) 2,4-DNT	9.24	165	92929	11.08363	ppb	89
59) 2,3,4,6-Tetrachlorophenol	9.40	232	75143	10.45294	ppb	98
60) Diethyl phthalate	9.51	149	303842	10.93776	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.66	204	148543	11.35154	ppb	85
62) Fluorene	9.66	166	315913	11.62498	ppb	99
63) 4-Nitroaniline	9.68	138	82137	10.94297	ppb	88
66) 4,6-Dinitro-2-methylphenol	9.71	198	48093	9.38585	ppb	93
67) Diphenyl amine	9.79	169	502110	20.34500	ppb	99
68) n-Nitrosodiphenylamine	9.79	169	502110	20.34500	ppb	99
69) 1,2-Diphenylhydrazine	9.83	77	332208	10.55674	ppb	96
70) 4-Bromophenyl phenyl ether	10.23	248	87774	10.64034	ppb #	88
71) Hexachlorobenzene	10.30	284	95045	10.83471	ppb #	86
72) Atrazine	10.41	200	36997	5.22448	ppb	98
73) Pentachlorophenol	10.53	266	47918	9.18154	ppb	95
74) Phenanthrene	10.79	178	467458	10.98724	ppb	99
75) Anthracene	10.84	178	489721	11.24781	ppb	99
76) Carbazol	11.04	167	442898	10.88274	ppb	99
77) Di-n-butylphthalate	11.43	149	506128	10.95897	ppb	99
78) Fluoranthene	12.18	202	495904	10.93795	ppb	97
80) Benzidine	12.34	184	172692	13.26912	ppb #	97
81) Pyrene	12.45	202	527058	10.66163	ppb	99
83) Butyl benzylphthalate	13.18	149	222487	10.19998	ppb	93
84) 3,3'-Dichlorobenzidine	13.81	252	174217	11.76697	ppb	98
85) Benz (a) anthracene	13.85	228	482577	11.32071	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	319582	11.52940	ppb	97
87) Chrysene	13.89	228	479657	10.67126	ppb	99
88) Di-n-octylphthalate	14.62	149	511451	10.09760	ppb	100
90) Benzo (b) fluoranthene	15.22	252	467753	10.21786	ppb	98
91) Benzo (k) fluoranthene	15.25	252	474686	10.98227	ppb	98
92) Benzo (a) pyrene	15.72	252	432472	10.35493	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.82	276	479114	9.97285	ppb	96
94) Dibenz (a,h) anthracene	17.85	278	418696	10.15110	ppb	97
95) Benzo (g,h,i) perylene	18.43	276	396150	10.06399	ppb	96



Quantitation Report

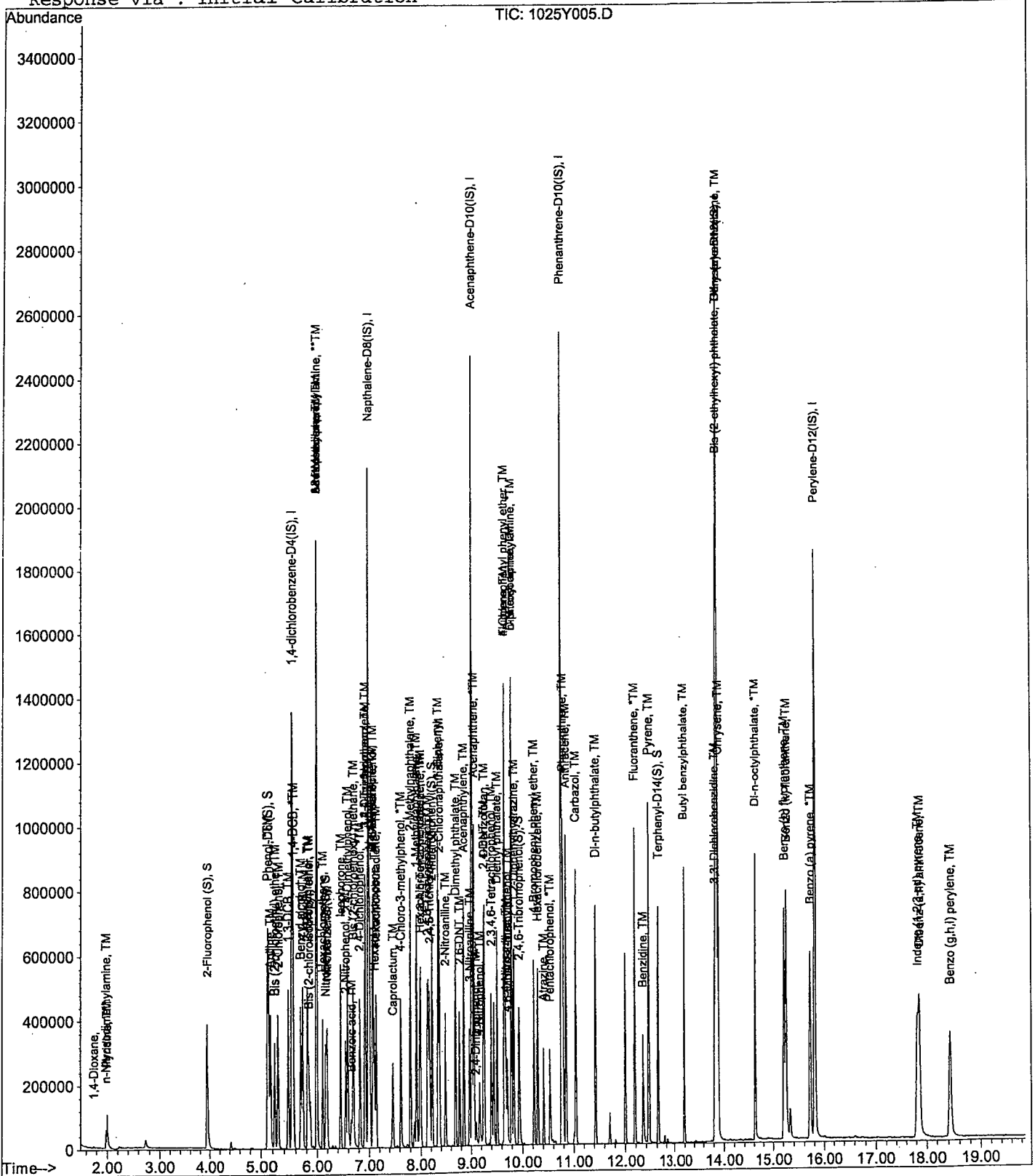
Data File : M:\YODA\DATA\Y181025\1025Y005.D  
Acq On : 25 Oct 18 12:28  
Sample : 10ug/mL 8270 10/18/18  
Misc :

Vial: 5  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:40 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration

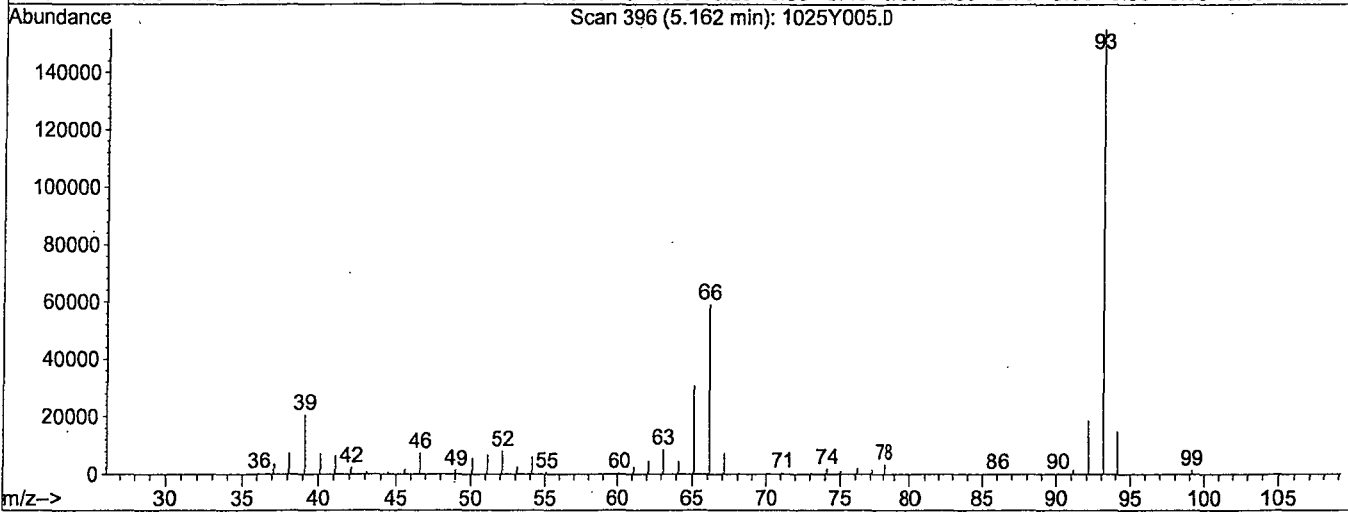
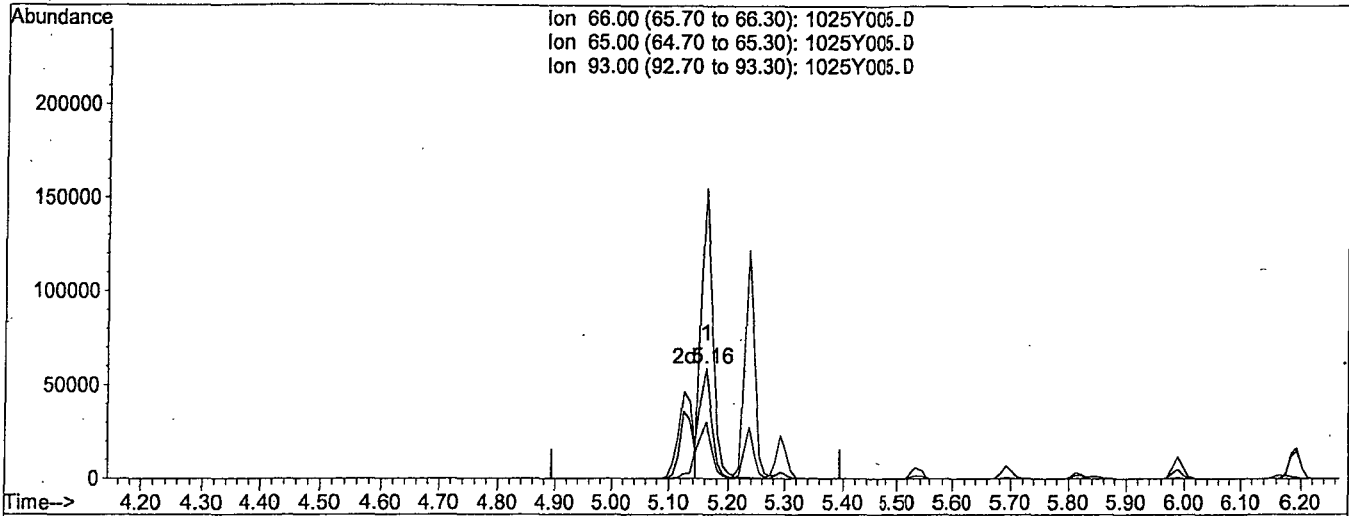


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y005.D  
 Acq On : 25 Oct 18 12:28  
 Sample : 10ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 14:36 2018

Vial: 5  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y005.D

(8) Aniline (TM)

5.16min 6.2649ppb

response 80563

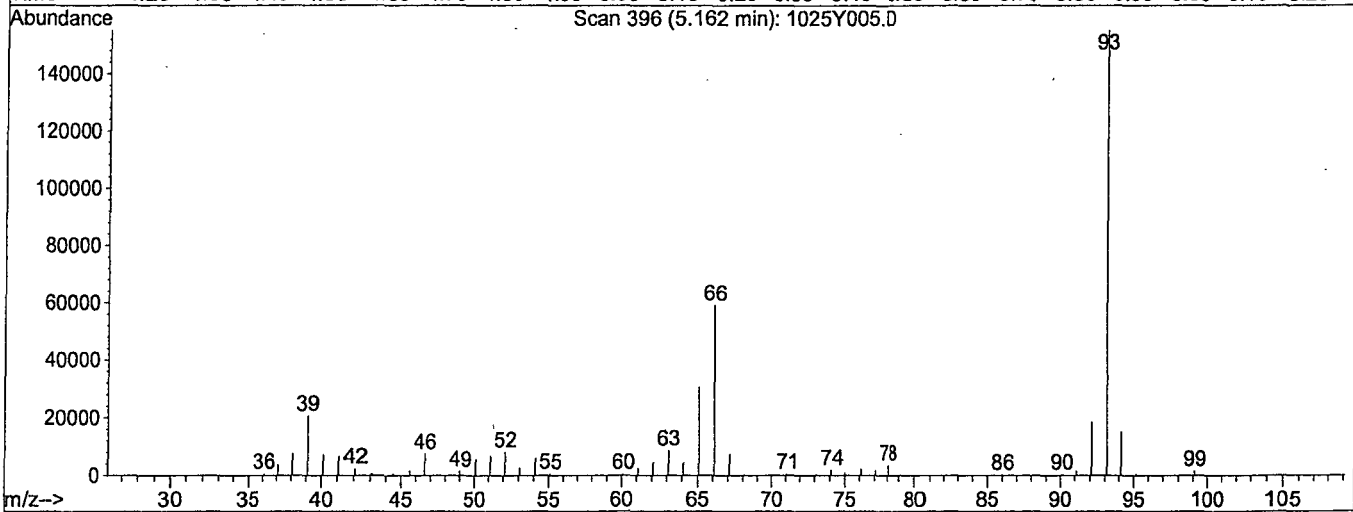
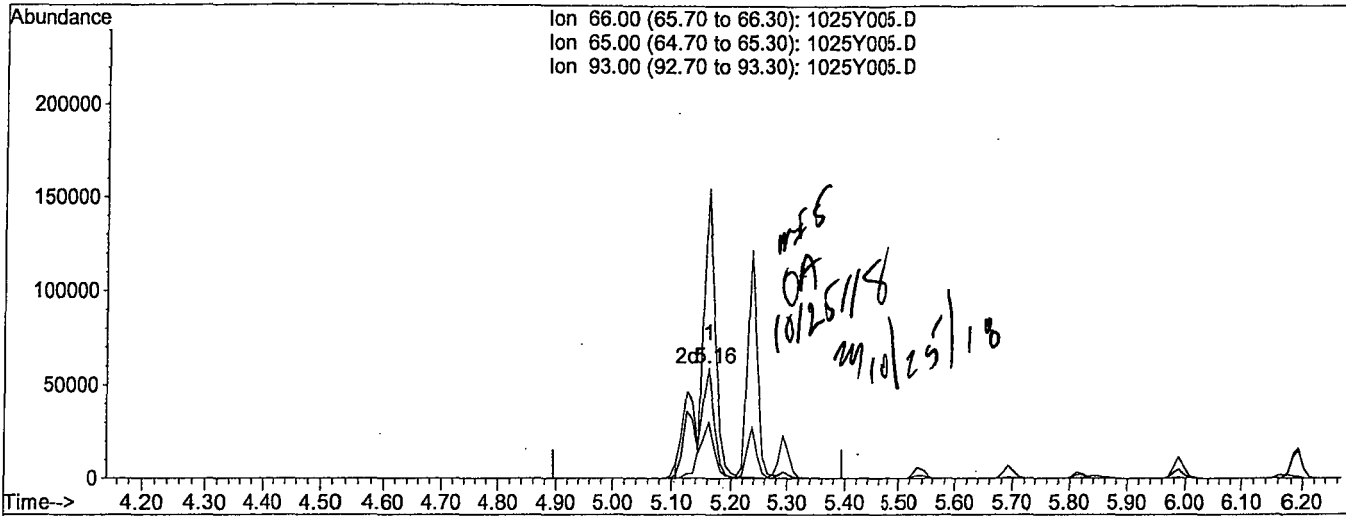
Ion	Exp%	Act%
66.00	100	100
65.00	73.00	50.79#
93.00	16.80	258.44#
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y005.D  
 Acq On : 25 Oct 18 12:28  
 Sample : 10ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:40 2018

Vial: 5  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y005.D

(8) Aniline (TM)

5.16min 11.6787ppb m

response 150183

Ion	Exp%	Act%
66.00	100	100
65.00	73.00	51.84
93.00	16.80	262.84#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y006.D  
 Acq On : 25 Oct 18 12:56  
 Sample : 20ug/mL 8270 10/18/18  
 Misc :

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:41 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	290382	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1223444	40.00000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	629900	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1204770	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1181082	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	1220701	40.00000	ppb	-0.01

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.94	112	490073	43.37727	ppb	0.00
Spiked Amount 200.000			Recovery =	21.689%		
6) Phenol-D6 (S)	5.11	99	607802	45.05458	ppb	-0.01
Spiked Amount 200.000			Recovery =	22.528%		
22) Nitrobenzene-D5 (S)	6.17	82	286469	20.83144	ppb	0.00
Spiked Amount 100.000			Recovery =	20.831%		
46) 2-Fluorobiphenyl (S)	8.22	172	573636	21.68875	ppb	0.00
Spiked Amount 100.000			Recovery =	21.689%		
64) 2,4,6-Tribromophenol (S)	9.94	330	143138	44.65770	ppb	-0.01
Spiked Amount 200.000			Recovery =	22.329%		
82) Terphenyl-D14 (S)	12.62	244	675637	21.47388	ppb	0.00
Spiked Amount 100.000			Recovery =	21.474%		

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.74	58	2020	2.21754		95
3) n-Nitrosodimethylamine	1.98	42	42026	19.06529	ppb	96
4) Pyridine	1.99	79	63452	19.10237	ppb	92
7) Phenol	5.13	94	409389	22.56257	ppb	91
8) Aniline	5.16	66	306972m	25.94663	ppb	92
9) Bis (2-chloroethyl) ether	5.23	63	198837	21.22817	ppb	99
10) 2-Chlorophenol	5.29	128	298595	21.37682	ppb	95
11) 1,3-DCB	5.47	146	317791	21.68657	ppb	99
12) 1,4-DCB	5.56	146	316843	21.58129	ppb	99
13) Benzyl alcohol	5.70	108	192921	21.56642	ppb	94
14) 1,2-DCB	5.73	146	300114	21.53440	ppb	99
15) 2-Methylphenol	5.82	107	237023	21.28708	ppb	97
16) Bis (2-chloroisopropyl) et	5.84	45	379752	21.51483	ppb	95
17) Acetophenone	6.00	105	382272	24.76023	ppb	80
18) 3&4-Methylphenol	5.99	107	586631	50.98185	ppb	95
19) n-Nitrosodi-n-propylamine	6.00	70	205387	22.64950	ppb	86
20) Hexachloroethane	6.11	117	116876	21.29903	ppb	97
23) Nitrobenzene	6.19	77	314344	20.77440	ppb	97
24) Isophorone	6.45	82	559872	21.08450	ppb	96
25) 2-Nitrophenol	6.54	139	161628	21.33251	ppb	-94
26) 2,4-Dimethylphenol	6.59	122	271081	21.19767	ppb	96
27) Benzoic acid	6.69	105	202378	20.35540	ppb	97
28) Bis (2-chloroethoxy) metha	6.69	93	316442	20.92408	ppb	100
29) 2,4-Dichlorophenol	6.82	162	239229	21.04386	ppb	95
30) 1,2,4-Trichlorobenzene	6.91	180	251353	21.31809	ppb	98
31) 3,4-Dimethylphenol	6.92	107	370196	21.57853	ppb	99
32) Napthalene	7.01	128	845753	21.25336	ppb	100
33) 4-Chloroaniline	7.07	127	340170	23.24506	ppb	94
34) 2,6-Dichlorophenol	7.07	162	234656	22.23655	ppb	97
35) Hexachloropropene	7.10	213	166441	21.28804	ppb	98
36) Hexachlorobutadiene	7.14	225	137304	20.94525	ppb	100
37) Caprolactum	7.47	55	145853	21.26970	ppb	98

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y006.D  
 Acq On : 25 Oct 18 12:56  
 Sample : 20ug/mL 8270 10/18/18  
 Misc :

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:41 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.62	107	256526	21.38628	ppb	99
39) 2-Methylnaphthalene	7.80	142	536219	21.36229	ppb	98
40) 1-Methylnaphthalene	7.92	142	547012	21.77716	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	120772	21.00856	ppb	98
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	261867	22.08838	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	176463	21.55275	ppb	98
45) 2,4,5-Trichlorophenol	8.18	196	187473	21.41641	ppb	98
47) 1,1'-Biphenyl	8.34	154	683309	22.07949	ppb	98
48) 2-Chloronaphthalene	8.37	162	543325	21.89555	ppb	96
49) 2-Nitroaniline	8.48	65	175336	21.17902	ppb	96
50) Dimethyl phthalate	8.69	163	604425	21.31030	ppb	99
51) 2,6-DNT	8.77	165	139132	21.81691	ppb	94
52) Acenaphthylene	8.86	152	869059	22.09946	ppb	99
53) 3-Nitroaniline	8.97	138	160814	22.21857	ppb	98
54) Acenaphthene	9.05	154	525829	21.82990	ppb	99
55) 2,4-Dinitrophenol	9.10	184	64350	20.18899	ppb	90
56) 4-Nitrophenol	9.16	65	113018	21.37567	ppb	98
57) Dibenzofuran	9.25	168	750248	22.14745	ppb	93
58) 2,4-DNT	9.24	165	190755	22.75923	ppb	95
59) 2,3,4,6-Tetrachlorophenol	9.39	232	155081	21.62025	ppb	96
60) Diethyl phthalate	9.51	149	595935	21.52627	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.65	204	283357	21.76006	ppb	90
62) Fluorene	9.65	166	604520	22.33864	ppb	99
63) 4-Nitroaniline	9.68	138	164058	21.74134	ppb	96
66) 4,6-Dinitro-2-methylphenol	9.72	198	114155	22.13697	ppb	# 81
67) Diphenyl amine	9.79	169	956412	38.77147	ppb	99
68) n-Nitrosodiphenylamine	9.79	169	956412	38.77147	ppb	99
69) 1,2-Diphenylhydrazine	9.84	77	649971	20.60106	ppb	92
70) 4-Bromophenyl phenyl ether	10.23	248	174149	21.07741	ppb	93
71) Hexachlorobenzene	10.29	284	186511	21.24507	ppb	91
72) Atrazine	10.41	200	73704	10.39108	ppb	96
73) Pentachlorophenol	10.54	266	108637	20.77287	ppb	98
74) Phenanthrene	10.79	178	915505	21.55342	ppb	99
75) Anthracene	10.85	178	943897	21.63629	ppb	99
76) Carbazol	11.04	167	850675	20.89859	ppb	100
77) Di-n-butylphthalate	11.43	149	1009471	21.85094	ppb	99
78) Fluoranthene	12.19	202	974932	21.45718	ppb	98
80) Benzidine	12.35	184	353619	23.38081	ppb	99
81) Pyrene	12.46	202	1037225	21.42193	ppb	99
83) Butyl benzylphthalate	13.19	149	455845	21.34257	ppb	93
84) 3,3'-Dichlorobenzidine	13.82	252	360616	24.23295	ppb	98
85) Benz (a) anthracene	13.85	228	948804	22.72143	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	624664	23.08335	ppb	99
87) Chrysene	13.90	228	920508	20.92565	ppb	100
88) Di-n-octylphthalate	14.62	149	1042686	21.03047	ppb	94
90) Benzo (b) fluoranthene	15.22	252	988569	21.92385	ppb	99
91) Benzo (k) fluoranthene	15.26	252	890455	20.93840	ppb	99
92) Benzo (a) pyrene	15.72	252	868827	21.10545	ppb	98
93) Indeno (1,2,3-cd) pyrene	17.82	276	991343	21.01223	ppb	98
94) Dibenz (a,h) anthracene	17.87	278	870568	21.47174	ppb	99
95) Benzo (g,h,i) perylene	18.44	276	805511	20.82183	ppb	99

Quantitation Report

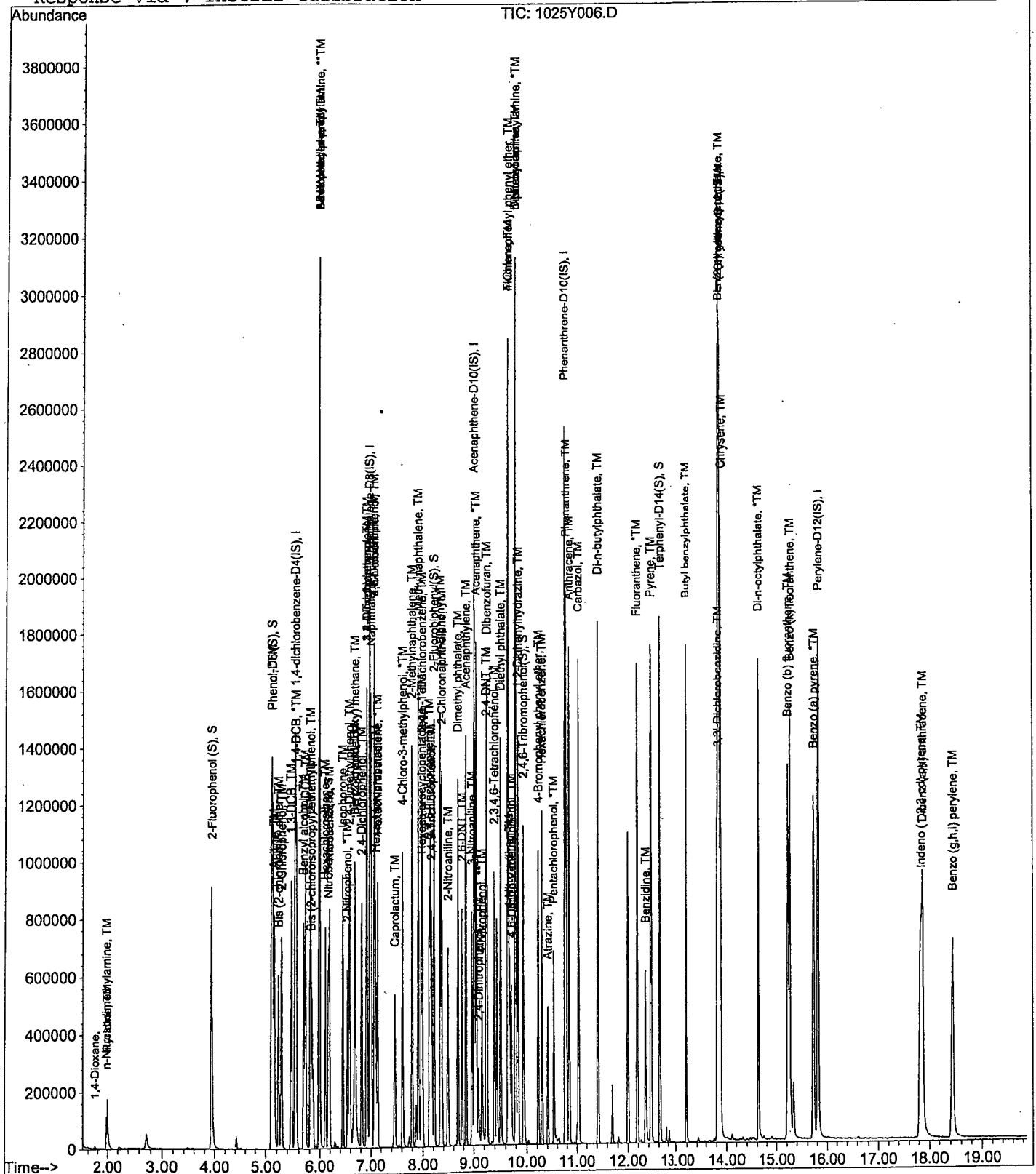
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Acq On : 25 Oct 18 12:56  
Sample : 20ug/mL 8270 10/18/18  
Misc :

Vial: 6  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:41 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration

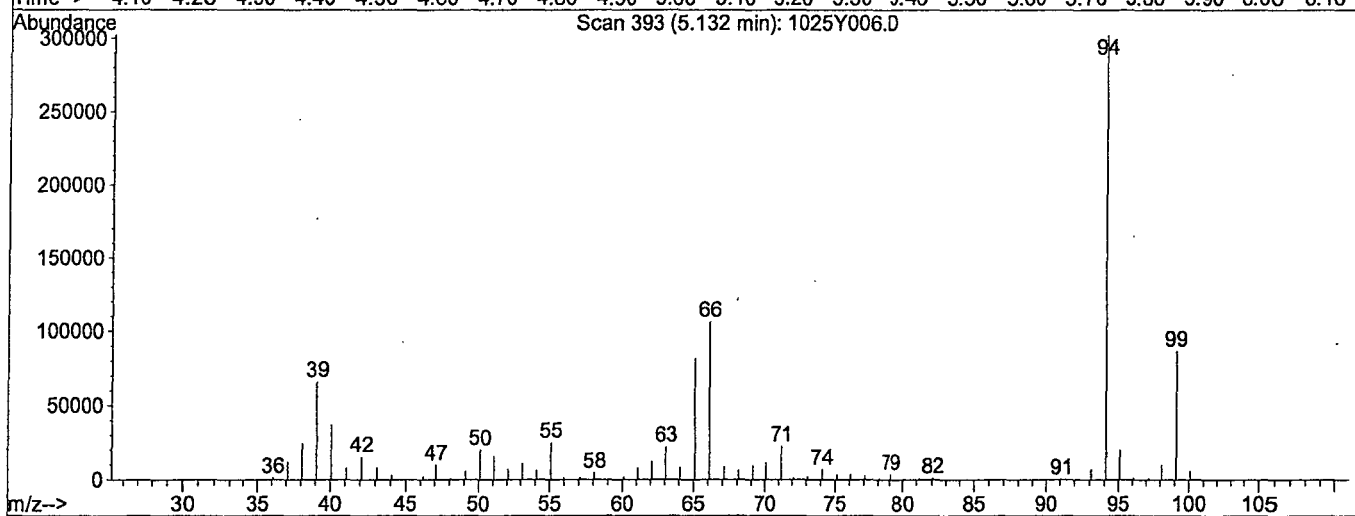
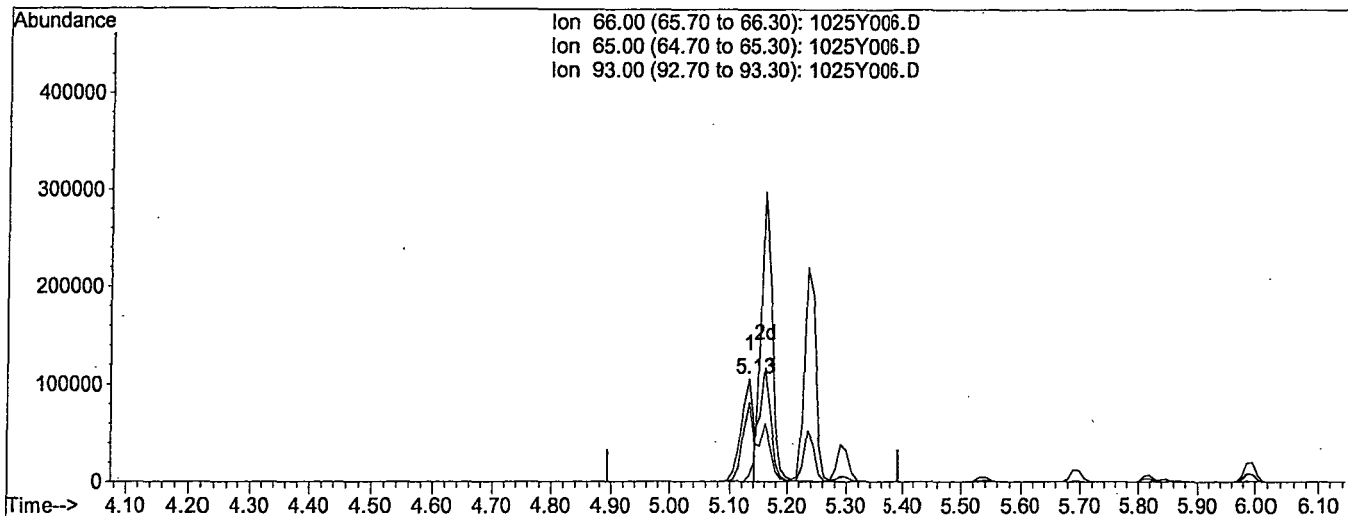


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y006.D  
 Acq On : 25 Oct 18 12:56  
 Sample : 20ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 14:36 2018

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:32:53 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y006.D

(8) Aniline (TM)

5.13min 13.2238ppb

response 156450

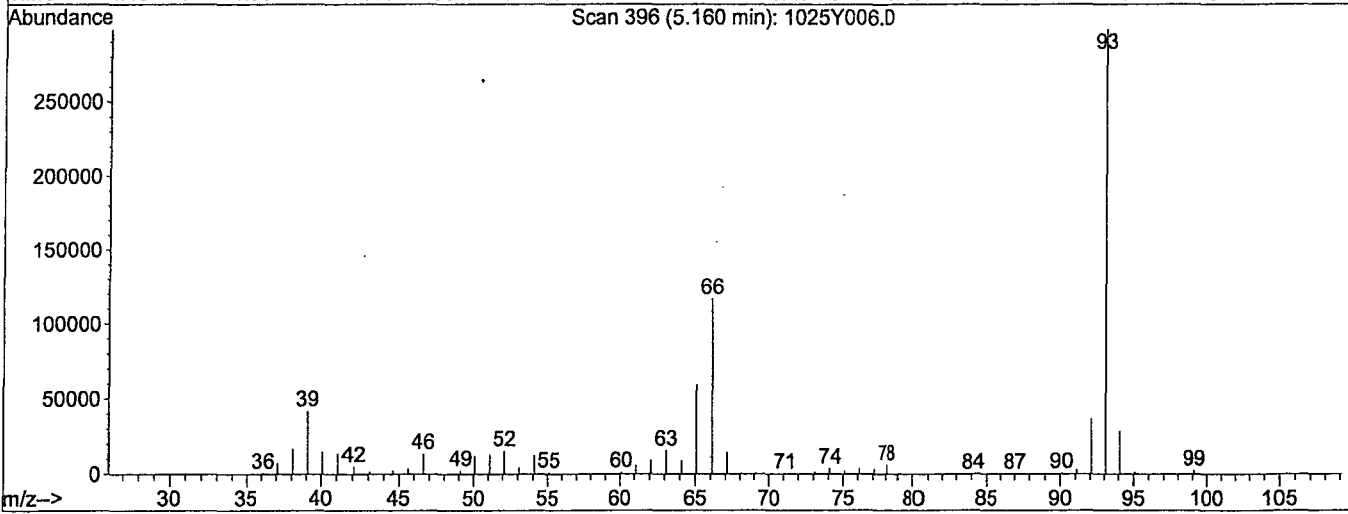
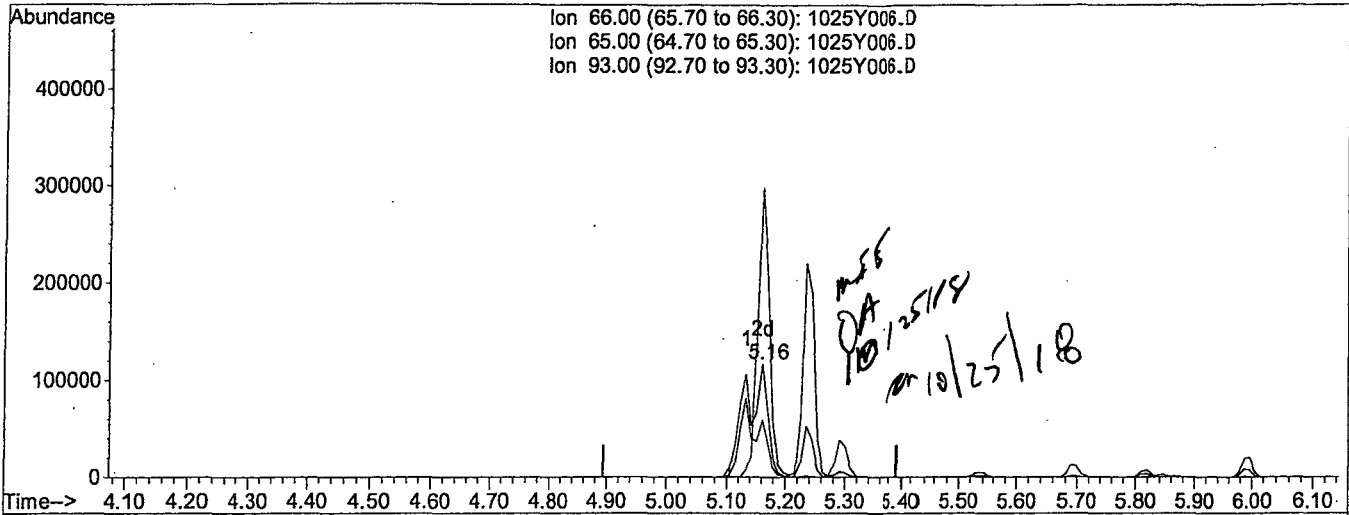
Ion	Exp%	Act%
66.00	100	100
65.00	73.00	76.89
93.00	16.80	6.73#
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y006.D  
Acq On : 25 Oct 18 12:56  
Sample : 20ug/mL 8270 10/18/18  
Misc :  
Quant Time: Oct 25 16:41 2018

Vial: 6  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00  
Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:32:53 2018  
Response via : Multiple Level Calibration



TIC: 1025Y006.D

(8) Aniline (TM)

5.16min 25.9466ppb m

response 306972

Ion	Exp%	Act%
66.00	100	100
65.00	73.00	50.95#
93.00	16.80	255.04#
0.00	0.00	0.00



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y007.D  
 Acq On : 25 Oct 18 13:24  
 Sample : 40ug/mL 8270 10/18/18  
 Misc :

Vial: 7  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 14:36 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	318018	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1294060	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	666705	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1245079	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1191788	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1280764	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.94	112	1010384	81.59307	ppb	0.00
Spiked Amount 200.000			Recovery =	40.797%		
6) Phenol-D6 (S)	5.12	99	1176481	79.46738	ppb	0.00
Spiked Amount 200.000			Recovery =	39.734%		
22) Nitrobenzene-D5 (S)	6.17	82	582928	40.21356	ppb	0.00
Spiked Amount 100.000			Recovery =	40.214%		
46) 2-Fluorobiphenyl (S)	8.22	172	1102793	39.41556	ppb	0.00
Spiked Amount 100.000			Recovery =	39.416%		
64) 2,4,6-Tribromophenol (S)	9.95	330	280665	82.93676	ppb	0.00
Spiked Amount 200.000			Recovery =	41.469%		
82) Terphenyl-D14 (S)	12.62	244	1266713	39.94442	ppb	0.00
Spiked Amount 100.000			Recovery =	39.944%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	3677	3.67592		97
3) n-Nitrosodimethylamine	1.98	42	100802	41.95571	ppb	100
4) Pyridine	1.99	79	145029	40.25904	ppb	93
7) Phenol	5.14	94	790588	39.71079	ppb	95
8) Aniline	5.14	66	628810	51.73854	ppb	97
9) Bis (2-chloroethyl) ether	5.24	63	395928	38.56012	ppb	97
10) 2-Chlorophenol	5.30	128	596775	38.87640	ppb	99
11) 1,3-DCB	5.48	146	619939	38.52312	ppb	100
12) 1,4-DCB	5.56	146	638372	39.61299	ppb	98
13) Benzyl alcohol	5.70	108	385142	39.26432	ppb	99
14) 1,2-DCB	5.73	146	585503	38.26801	ppb	99
15) 2-Methylphenol	5.82	107	491626	40.21265	ppb	98
16) Bis (2-chloroisopropyl) et	5.85	45	763870	39.43313	ppb	93
17) Acetophenone	6.01	105	645527	40.38143	ppb	81
18) 3&4-Methylphenol	6.00	107	983419	85.13996	ppb	98
19) n-Nitrosodi-n-propylamine	6.01	70	363553	36.40816	ppb	88
20) Hexachloroethane	6.11	117	232599	38.58005	ppb	97
23) Nitrobenzene	6.19	77	635205	39.86102	ppb	93
24) Isophorone	6.46	82	1106500	39.50287	ppb	98
25) 2-Nitrophenol	6.55	139	325742	40.65749	ppb	99
26) 2,4-Dimethylphenol	6.59	122	540521	40.09089	ppb	97
27) Benzoic acid	6.72	105	461041	39.47378	ppb	97
28) Bis (2-chloroethoxy) metha	6.70	93	620310	38.99171	ppb	99
29) 2,4-Dichlorophenol	6.82	162	476984	39.83231	ppb	98
30) 1,2,4-Trichlorobenzene	6.92	180	491077	39.55043	ppb	98
31) 3,4-Dimethylphenol	6.93	107	723882	39.94000	ppb	97
32) Naphthalene	7.01	128	1667378	39.74317	ppb	100
33) 4-Chloroaniline	7.07	127	626753	39.96712	ppb	98
34) 2,6-Dichlorophenol	7.08	162	438666	39.45736	ppb	98
35) Hexachloropropene	7.10	213	333703	40.48736	ppb	99
36) Hexachlorobutadiene	7.14	225	275831	39.98878	ppb	96
37) Caprolactum	7.49	55	293160	40.49900	ppb	99

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y007.D  
 Acq On : 25 Oct 18 13:24  
 Sample : 40ug/mL 8270 10/18/18  
 Misc :

Vial : 7  
 Operator : MA  
 Inst : Yoda  
 Multiplr : 1.00

Quant Time: Oct 25 14:36 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.62	107	501052	39.54708	ppb	94
39) 2-Methylnaphthalene	7.81	142	1044016	39.57169	ppb	100
40) 1-Methylnaphthalene	7.92	142	1035684	39.08276	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	276017	45.51106	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	501748	39.97453	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	349193	40.28802	ppb	97
45) 2,4,5-Trichlorophenol	8.18	196	365033	39.44211	ppb	96
47) 1,1'-Biphenyl	8.34	154	1313687	40.19664	ppb	99
48) 2-Chloronaphthalene	8.37	162	1035114	39.42092	ppb	99
49) 2-Nitroaniline	8.49	65	361980	41.26398	ppb	95
50) Dimethyl phthalate	8.70	163	1200934	40.05736	ppb	100
51) 2,6-DNT	8.77	165	283467	41.88994	ppb #	77
52) Acenaphthylene	8.86	152	1716029	41.20615	ppb	99
53) 3-Nitroaniline	8.98	138	314968	40.87729	ppb	96
54) Acenaphthene	9.06	154	999581	39.22237	ppb	100
55) 2,4-Dinitrophenol	9.10	184	154249	39.02320	ppb	98
56) 4-Nitrophenol	9.17	65	243516	43.12342	ppb	99
57) Dibenzofuran	9.25	168	1426743	39.85636	ppb	98
58) 2,4-DNT	9.25	165	371114	41.78144	ppb	96
59) 2,3,4,6-Tetrachlorophenol	9.40	232	315102	41.51349	ppb	97
60) Diethyl phthalate	9.51	149	1161119	39.70067	ppb	98
61) 4-Chlorophenyl phenyl ethe	9.65	204	507141	36.80762	ppb	96
62) Fluorene	9.66	166	1086613	37.92570	ppb	99
63) 4-Nitroaniline	9.70	138	319922	39.79147	ppb	89
66) 4,6-Dinitro-2-methylphenol	9.73	198	239355	44.72343	ppb #	79
67) Diphenyl amine	9.80	169	1705706	67.00904	ppb	98
68) n-Nitrosodiphenylamine	9.80	169	1705706	67.00904	ppb	98
69) 1,2-Diphenylhydrazine	9.84	77	1272463	39.16968	ppb	99
70) 4-Bromophenyl phenyl ether	10.23	248	340841	40.13013	ppb	97
71) Hexachlorobenzene	10.29	284	354740	39.28942	ppb	98
72) Atrazine	10.41	200	155235	21.33653	ppb	97
73) Pentachlorophenol	10.54	266	231100	42.95095	ppb	99
74) Phenanthrene	10.79	178	1749355	40.00535	ppb	100
75) Anthracene	10.85	178	1782539	39.68801	ppb	99
76) Carbazol	11.05	167	1675104	40.06149	ppb	99
77) Di-n-butylphthalate	11.43	149	1943518	40.76549	ppb	100
78) Fluoranthene	12.19	202	1845733	39.45176	ppb	99
80) Benzidine	12.35	184	677888	41.42354	ppb	100
81) Pyrene	12.46	202	1968970	40.26998	ppb	100
83) Butyl benzylphthalate	13.19	149	894703	41.54886	ppb	98
84) 3,3'-Dichlorobenzidine	13.82	252	663209	42.95692	ppb	99
85) Benz (a) anthracene	13.86	228	1631151	38.51858	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1111031	40.66159	ppb	99
87) Chrysene	13.90	228	1773653	40.13804	ppb	99
88) Di-n-octylphthalate	14.63	149	2107342	42.13889	ppb	98
90) Benzo (b) fluoranthene	15.22	252	1816648	37.99937	ppb	99
91) Benzo (k) fluoranthene	15.27	252	1891672	42.87610	ppb	99
92) Benzo (a) pyrene	15.73	252	1759365	40.70527	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.83	276	2006266	40.51838	ppb	98
94) Dibenz (a,h) anthracene	17.88	278	1746636	40.99599	ppb	98
95) Benzo (g,h,i) perylene	18.46	276	1666927	41.10992	ppb	99

Quantitation Report

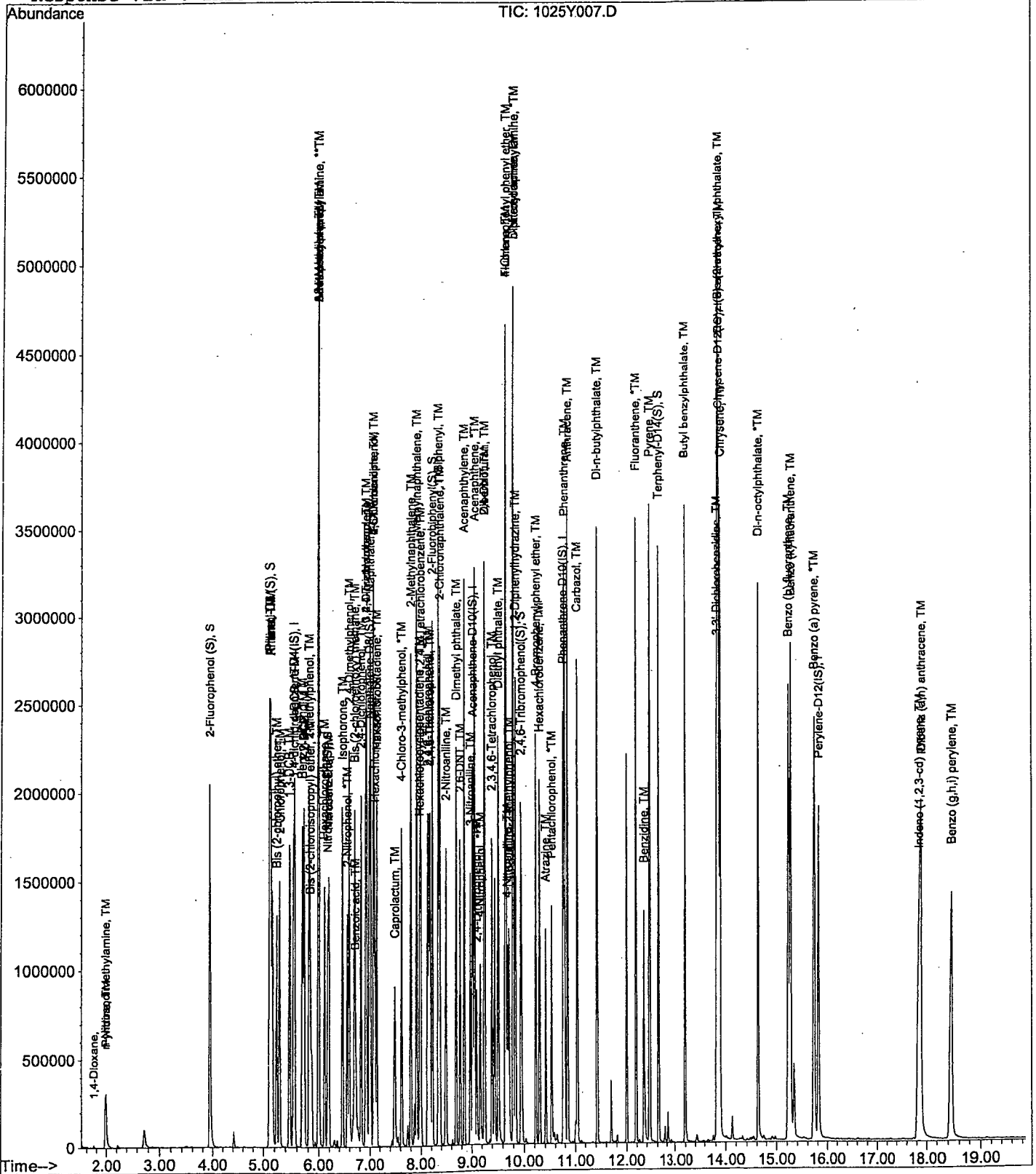
Data File : M:\YODA\DATA\Y181025\1025Y007.D  
Acq On : 25 Oct 18 13:24  
Sample : 40ug/mL 8270 10/18/18  
Misc :

Vial: 7  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 14:36 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y008.D  
 Acq On : 25 Oct 18 13:52  
 Sample : 50ug/mL 8270 10/18/18  
 Misc :

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:06 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	354562	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1447172	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	756305	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1417504	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1348063	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1457106	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	1476673	105.59151	ppb	0.00
Spiked Amount 200.000			Recovery =	52.796%		
6) Phenol-D6 (S)	5.13	99	1720681	103.75090	ppb	0.00
Spiked Amount 200.000			Recovery =	51.876%		
22) Nitrobenzene-D5 (S)	6.17	82	904668	54.71817	ppb	0.00
Spiked Amount 100.000			Recovery =	54.718%		
46) 2-Fluorobiphenyl (S)	8.23	172	1650975	52.03860	ppb	0.00
Spiked Amount 100.000			Recovery =	52.039%		
64) 2,4,6-Tribromophenol (S)	9.95	330	409016	104.48747	ppb	0.00
Spiked Amount 200.000			Recovery =	52.244%		
82) Terphenyl-D14 (S)	12.63	244	1869638	51.62897	ppb	0.00
Spiked Amount 100.000			Recovery =	51.629%		

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	5509	4.96554		100
3) n-Nitrosodimethylamine	1.98	42	151913	56.77704	ppb	100
4) Pyridine	1.99	79	224654	53.95160	ppb	100
7) Phenol	5.14	94	1064541	48.04938	ppb	100
8) Aniline	5.14	66	888774	52.62143	ppb	100
9) Bis (2-chloroethyl) ether	5.25	63	563104	48.65181	ppb	100
10) 2-Chlorophenol	5.30	128	840944	49.34459	ppb	100
11) 1,3-DCB	5.48	146	856664	47.67136	ppb	100
12) 1,4-DCB	5.56	146	844788	47.12906	ppb	100
13) Benzyl alcohol	5.70	108	548899	49.80860	ppb	100
14) 1,2-DCB	5.73	146	813072	47.86788	ppb	100
15) 2-Methylphenol	5.82	107	662132	48.75806	ppb	100
16) Bis (2-chloroisopropyl) et	5.84	45	1063565	48.91484	ppb	100
17) Acetophenone	6.01	105	837712	48.57460	ppb	100
18) 3&4-Methylphenol	6.01	107	1271955	96.38878	ppb	100
19) n-Nitrosodi-n-propylamine	6.01	70	516912	45.78402	ppb	100
20) Hexachloroethane	6.11	117	327022	48.38896	ppb	100
23) Nitrobenzene	6.20	77	899117	49.58439	ppb	100
24) Isophorone	6.47	82	1584593	49.74787	ppb	100
25) 2-Nitrophenol	6.56	139	461968	50.94462	ppb	100
26) 2,4-Dimethylphenol	6.59	122	745372	48.90901	ppb	100
27) Benzoic acid	6.74	105	705002	52.14223	ppb	100
28) Bis (2-chloroethoxy) metha	6.70	93	877816	48.91333	ppb	100
29) 2,4-Dichlorophenol	6.82	162	672319	49.76393	ppb	100
30) 1,2,4-Trichlorobenzene	6.92	180	670646	47.78272	ppb	100
31) 3,4-Dimethylphenol	6.94	107	1022611	49.57535	ppb	100
32) Naphthalene	7.01	128	2265416	48.24380	ppb	100
33) 4-Chloroaniline	7.08	127	849844	52.65530	ppb	100
34) 2,6-Dichlorophenol	7.08	162	589534	47.52855	ppb	100
35) Hexachloropropene	7.10	213	479179	50.88754	ppb	100
36) Hexachlorobutadiene	7.14	225	376623	48.19772	ppb	100
37) Caprolactum	7.51	55	424032	51.35549	ppb	100

## Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y008.D  
 Acq On : 25 Oct 18 13:52  
 Sample : 50ug/mL 8270 10/18/18  
 Misc :

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:06 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	727515	50.35943	ppb	100
39) 2-Methylnaphthalene	7.81	142	1444015	48.36749	ppb	100
40) 1-Methylnaphthalene	7.92	142	1420373	47.88072	ppb	100
42) Hexachlorocyclopentadiene	7.98	237	409755	52.90002	ppb	100
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	691484	48.42004	ppb	100
44) 2,4,6-Trichlorophenol	8.13	196	502528	50.42615	ppb	100
45) 2,4,5-Trichlorophenol	8.19	196	518787	48.64596	ppb	100
47) 1,1'-Biphenyl	8.35	154	1773411	47.45435	ppb	100
48) 2-Chloronaphthalene	8.37	162	1456928	48.67684	ppb	100
49) 2-Nitroaniline	8.50	65	525275	51.89217	ppb	100
50) Dimethyl phthalate	8.70	163	1698457	49.27260	ppb	100
51) 2,6-DNT	8.78	165	411620	52.25122	ppb	100
52) Acenaphthylene	8.86	152	2346114	49.34103	ppb	100
53) 3-Nitroaniline	8.98	138	454608	52.53829	ppb	100
54) Acenaphthene	9.06	154	1394818	48.42040	ppb	100
55) 2,4-Dinitrophenol	9.10	184	245054m	50.15466	ppb	100
56) 4-Nitrophenol	9.17	65	367119	54.28665	ppb	100
57) Dibenzofuran	9.26	168	1899351	47.39435	ppb	100
58) 2,4-DNT	9.25	165	506947	50.25700	ppb	100
59) 2,3,4,6-Tetrachlorophenol	9.41	232	445166	51.06694	ppb	100
60) Diethyl phthalate	9.53	149	1622457	48.90323	ppb	100
61) 4-Chlorophenyl phenyl ethe	9.66	204	666818	42.48780	ppb	100
62) Fluorene	9.67	166	1445397	43.28437	ppb	100
63) 4-Nitroaniline	9.70	138	469650	51.95553	ppb	100
66) 4,6-Dinitro-2-methylphenol	9.73	198	356560	52.86526	ppb	100
67) Diphenyl amine	9.80	169	2296953	87.01306	ppb	100
68) n-Nitrosodiphenylamine	9.80	169	2296953	87.01306	ppb	100
69) 1,2-Diphenylhydrazine	9.84	77	1815288	47.50217	ppb	100
70) 4-Bromophenyl phenyl ether	10.23	248	480817	48.91480	ppb	100
71) Hexachlorobenzene	10.30	284	500118	48.42322	ppb	100
72) Atrazine	10.42	200	224418	25.25951	ppb	100
73) Pentachlorophenol	10.54	266	347169	54.52541	ppb	100
74) Phenanthrene	10.80	178	2376811	47.44496	ppb	100
75) Anthracene	10.85	178	2459721	47.83999	ppb	100
76) Carbazol	11.05	167	2362634	49.15594	ppb	100
77) Di-n-butylphthalate	11.43	149	2759688	49.89746	ppb	100
78) Fluoranthene	12.19	202	2602957	48.67849	ppb	100
80) Benzidine	12.35	184	974885	52.83900	ppb	100
81) Pyrene	12.46	202	2732069	49.05629	ppb	100
83) Butyl benzylphthalate	13.19	149	1254571	50.75033	ppb	100
84) 3,3'-Dichlorobenzidine	13.82	252	925602	56.63971	ppb	100
85) Benz (a) anthracene	13.86	228	2171520	45.68871	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1473034	46.58588	ppb	100
87) Chrysene	13.91	228	2396929	47.76659	ppb	100
88) Di-n-octylphthalate	14.63	149	3007984	51.72394	ppb	100
90) Benzo (b) fluoranthene	15.24	252	2907202	53.18449	ppb	100
91) Benzo (k) fluoranthene	15.27	252	2512664	48.86356	ppb	100
92) Benzo (a) pyrene	15.74	252	2538131	51.25869	ppb	100
93) Indeno (1,2,3-cd) pyrene	17.85	276	2961769	51.47471	ppb	100
94) Dibenz (a,h) anthracene	17.90	278	2528524	51.75953	ppb	100
95) Benzo (g,h,i) perylene	18.48	276	2308238	49.24625	ppb	100

Quantitation Report

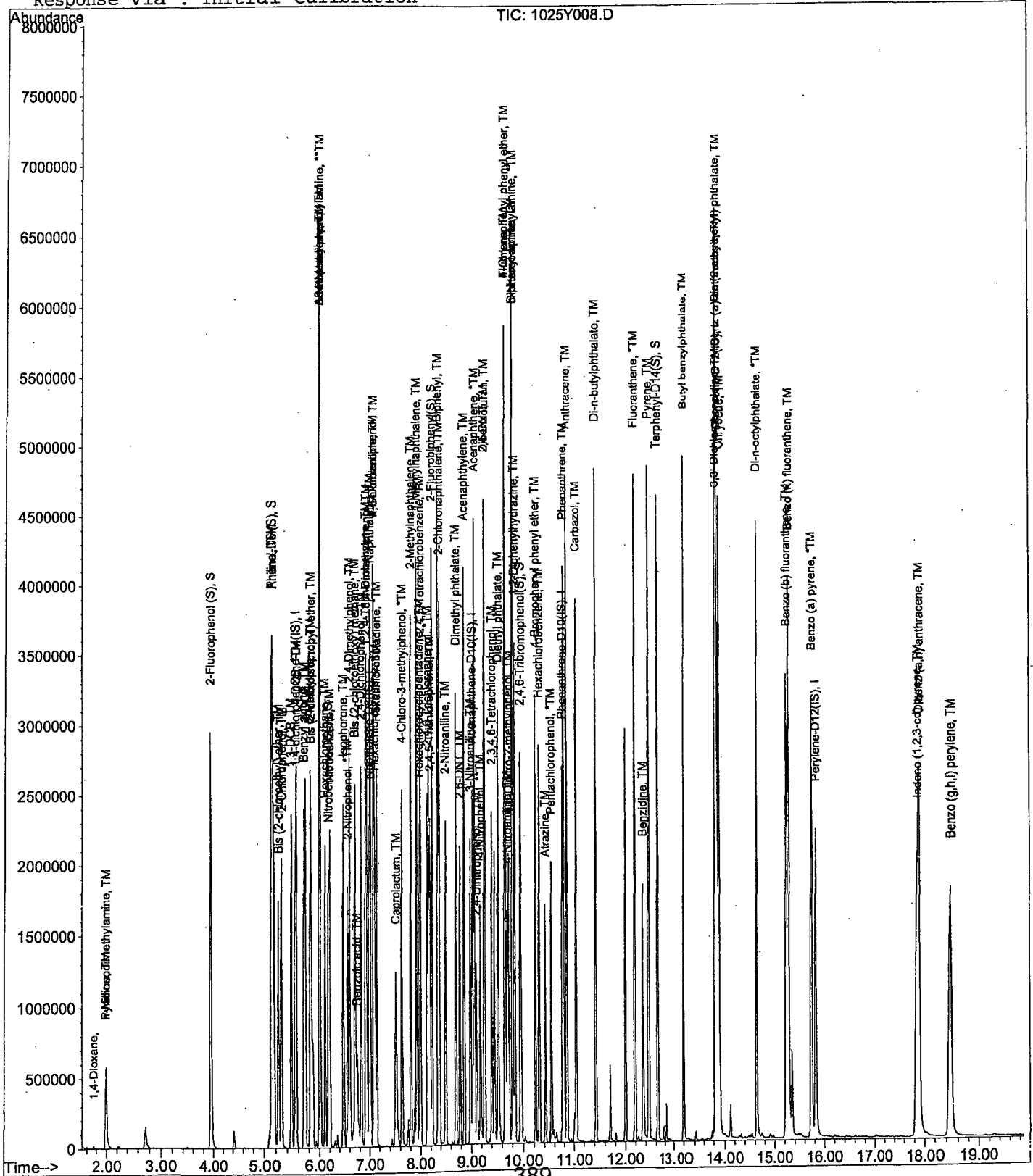
Data File : M:\YODA\DATA\Y181025\1025Y008.D  
Acq On : 25 Oct 18 13:52  
Sample : 50ug/mL 8270 10/18/18  
Misc :

Vial: 8  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:06 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration

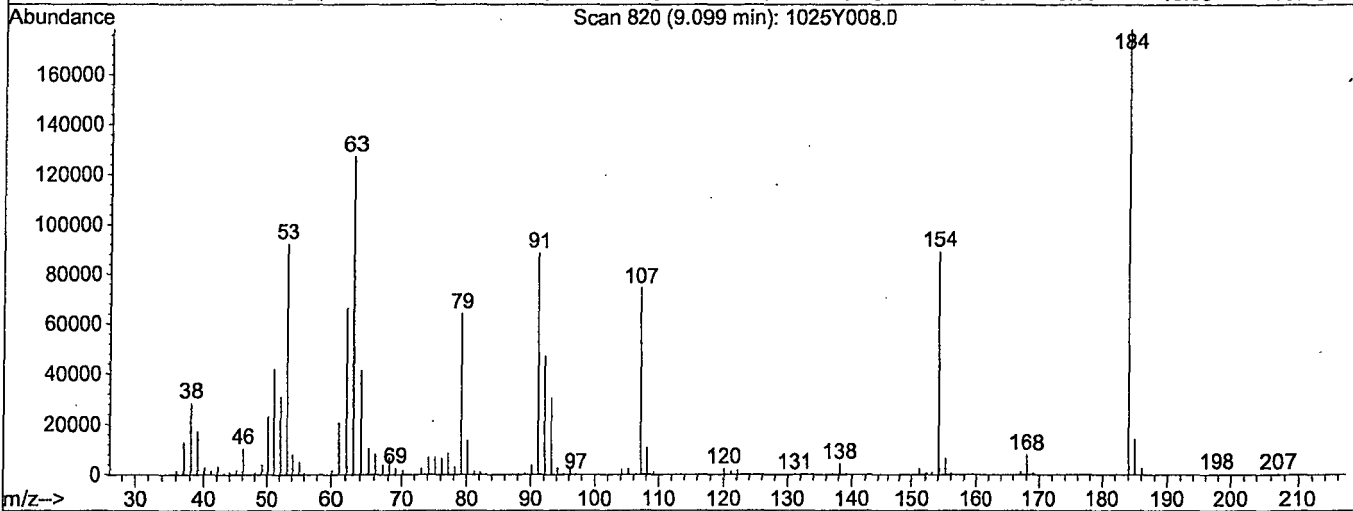
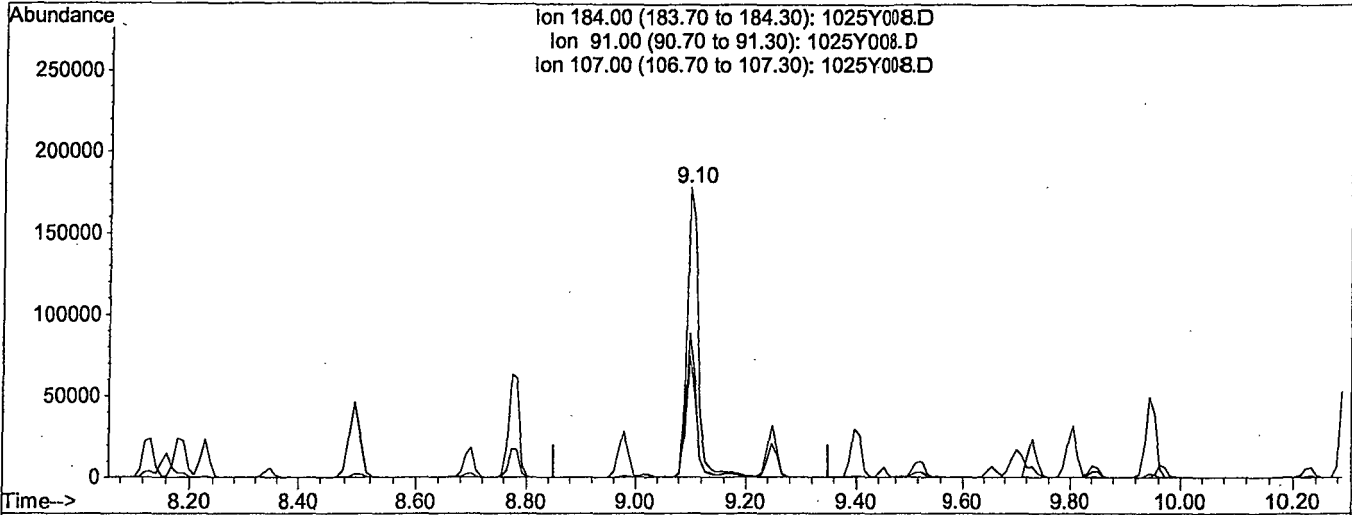


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y008.D  
 Acq On : 25 Oct 18 13:52  
 Sample : 50ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:05 2018

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y008.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.10min 51.9258ppb

response 255966

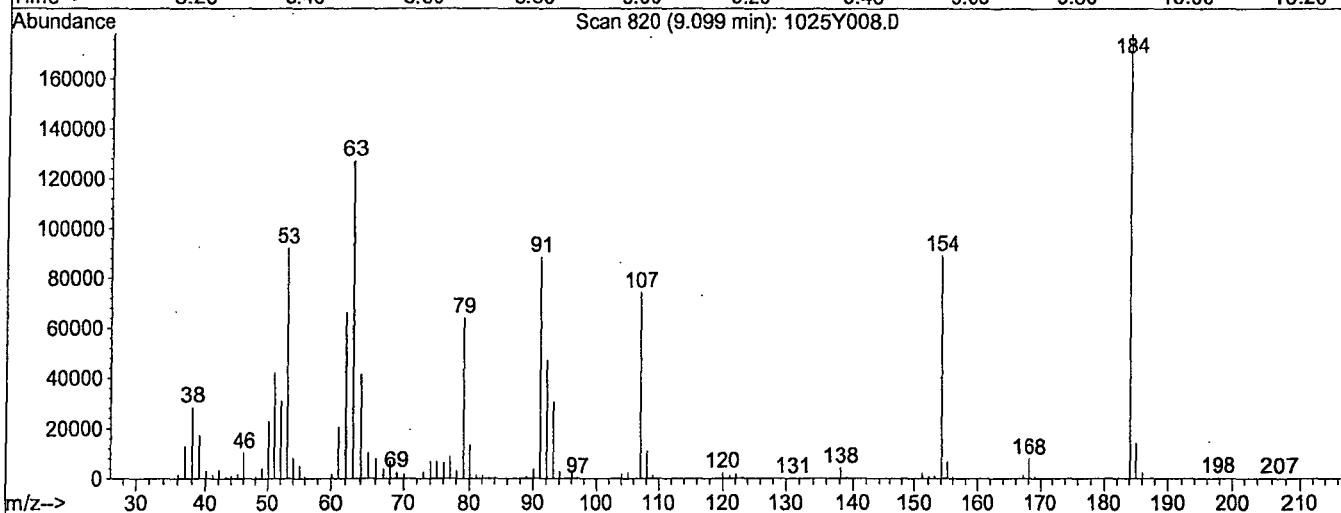
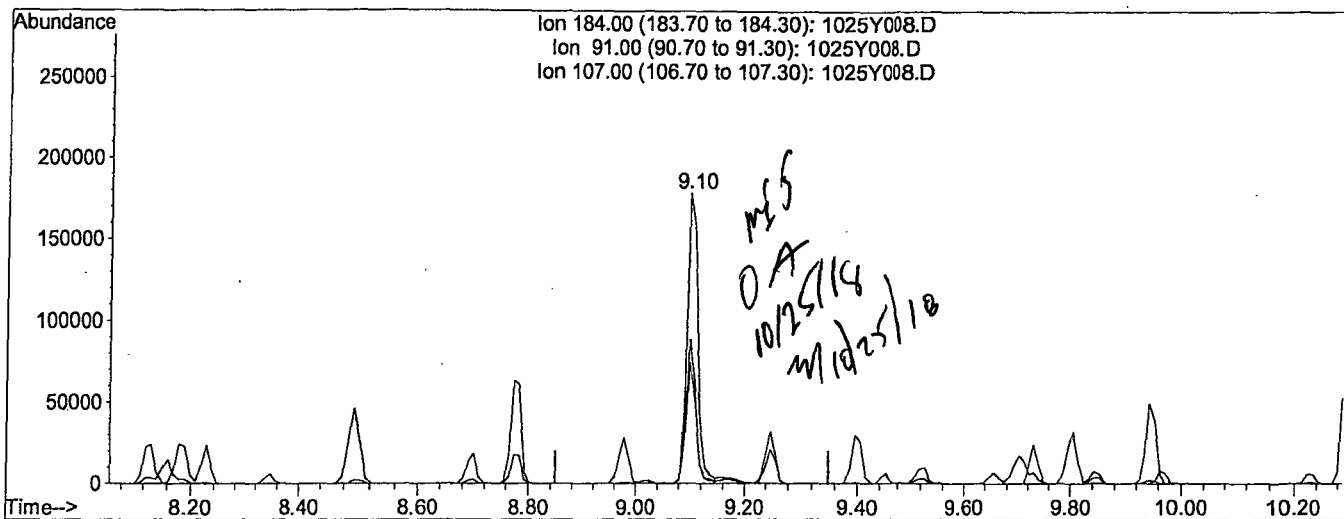
Ion	Exp%	Act%
184.00	100	100
91.00	49.60	49.43
107.00	41.70	41.63
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y008.D  
 Acq On : 25 Oct 18 13:52  
 Sample : 50ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:06 2018

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y008.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.10min 50.1547ppb m

response 245054

Ion	Exp%	Act%
184.00	100	100
91.00	49.60	49.62
107.00	41.70	41.66
0.00	0.00	0.00



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y009.D  
 Acq On : 25 Oct 18 14:20  
 Sample : 60ug/mL 8270 10/18/18  
 Misc :

Vial: 9  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 14:37 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	293806	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1248682	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	652245	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1164642	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1106655	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1177661	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	1396667	122.48622	ppb	0.00
Spiked Amount 200.000				Recovery = 61.243%		
6) Phenol-D6 (S)	5.13	99	1594801	116.90180	ppb	0.00
Spiked Amount 200.000				Recovery = 58.451%		
22) Nitrobenzene-D5 (S)	6.17	82	825428	59.27506	ppb	0.00
Spiked Amount 100.000				Recovery = 59.275%		
46) 2-Fluorobiphenyl (S)	8.23	172	1582354	58.14903	ppb	0.00
Spiked Amount 100.000				Recovery = 58.149%		
64) 2,4,6-Tribromophenol (S)	9.95	330	371964	113.05507	ppb	0.00
Spiked Amount 200.000				Recovery = 56.528%		
82) Terphenyl-D14 (S)	12.63	244	1703605	58.20318	ppb	0.00
Spiked Amount 100.000				Recovery = 58.203%		

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	5793	6.28250		100
3) n-Nitrosodimethylamine	1.98	42	149211	66.20974	ppb	97
4) Pyridine	1.99	79	230010	68.76896	ppb	97
7) Phenol	5.14	94	1073485	58.39068	ppb	100
8) Aniline	5.14	66	891646	78.33248	ppb	98
9) Bis (2-chloroethyl) ether	5.25	63	561785	59.31722	ppb	99
10) 2-Chlorophenol	5.30	128	840318	59.22259	ppb	99
11) 1,3-DCB	5.47	146	862977	58.23576	ppb	97
12) 1,4-DCB	5.56	146	868709	58.41076	ppb	99
13) Benzyl alcohol	5.70	108	554988	61.26081	ppb	98
14) 1,2-DCB	5.73	146	826738	58.75003	ppb	99
15) 2-Methylphenol	5.82	107	669956	59.07720	ppb	100
16) Bis (2-chloroisopropyl) et	5.84	45	1075872	60.01871	ppb	98
17) Acetophenone	6.01	105	841702	59.44702	ppb	99
18) 3&4-Methylphenol	6.00	107	1279902	126.01420	ppb	95
19) n-Nitrosodi-n-propylamine	6.01	70	522780	56.69937	ppb	100
20) Hexachloroethane	6.11	117	333986	60.18057	ppb	98
23) Nitrobenzene	6.20	77	895128	58.18511	ppb	97
24) Isophorone	6.47	82	1590281	58.83296	ppb	99
25) 2-Nitrophenol	6.56	139	460698	59.50766	ppb	99
26) 2,4-Dimethylphenol	6.59	122	762771	58.45886	ppb	98
27) Benzoic acid	6.74	105	715553	60.93105	ppb	99
28) Bis (2-chloroethoxy) metha	6.70	93	881224	57.41215	ppb	100
29) 2,4-Dichlorophenol	6.82	162	675506	58.35074	ppb	97
30) 1,2,4-Trichlorobenzene	6.92	180	683818	57.06262	ppb	100
31) 3,4-Dimethylphenol	6.94	107	1042901	59.54141	ppb	97
32) Napthalene	7.01	128	2334914	57.66174	ppb	100
33) 4-Chloroaniline	7.08	127	867604	57.11266	ppb	99
34) 2,6-Dichlorophenol	7.08	162	608644	56.88494	ppb	98
35) Hexachloropropene	7.10	213	500316	63.00156	ppb	99
36) Hexachlorobutadiene	7.14	225	398396	59.86365	ppb	98
37) Caprolactum	7.51	55	424783	60.68288	ppb	99

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y009.D  
 Acq On : 25 Oct 18 14:20  
 Sample : 60ug/mL 8270 10/18/18  
 Misc :

Vial: 9  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 14:37 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 14:33:55 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	750028	61.30869	ppb	99
39) 2-Methylnaphthalene	7.81	142	1495064	58.81028	ppb	98
40) 1-Methylnaphthalene	7.92	142	1432507	56.10503	ppb	100
42) Hexachlorocyclopentadiene	7.98	237	410897	69.33167	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	688197	56.07063	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	517705	61.08937	ppb	98
45) 2,4,5-Trichlorophenol	8.19	196	536388	59.30011	ppb	96
47) 1,1'-Biphenyl	8.35	154	1815555	56.74467	ppb	98
48) 2-Chloronaphthalene	8.38	162	1449816	56.58564	ppb	99
49) 2-Nitroaniline	8.50	65	539736	62.69933	ppb	100
50) Dimethyl phthalate	8.70	163	1754748	59.83504	ppb	100
51) 2,6-DNT	8.77	165	422472	63.65250	ppb #	75
52) Acenaphthylene	8.86	152	2451242	59.95919	ppb	100
53) 3-Nitroaniline	8.98	138	461146	61.05255	ppb	100
54) Acenaphthene	9.06	154	1448610	58.25587	ppb	99
55) 2,4-Dinitrophenol	9.10	184	259866	63.34565	ppb	98
56) 4-Nitrophenol	9.17	65	389637	70.06067	ppb	98
57) Dibenzofuran	9.26	168	1896443	54.21534	ppb	100
58) 2,4-DNT	9.25	165	505838	58.23970	ppb	100
59) 2,3,4,6-Tetrachlorophenol	9.41	232	439665	59.01996	ppb	99
60) Diethyl phthalate	9.53	149	1628330	56.91407	ppb	100
61) 4-Chlorophenyl phenyl ethe	9.66	204	657494	49.02602	ppb	99
62) Fluorene	9.67	166	1418764	50.80577	ppb	97
63) 4-Nitroaniline	9.70	138	462291	58.53451	ppb	99
66) 4,6-Dinitro-2-methylphenol	9.73	198	348204	69.36668	ppb	97
67) Diphenyl amine	9.80	169	2300014	96.66443	ppb	99
68) n-Nitrosodiphenylamine	9.80	169	2300014	96.66443	ppb	99
69) 1,2-Diphenylhydrazine	9.84	77	1795234	59.03507	ppb	97
70) 4-Bromophenyl phenyl ether	10.23	248	475767	59.90641	ppb	99
71) Hexachlorobenzene	10.30	284	496642	58.87254	ppb	98
72) Atrazine	10.42	200	228362	33.43771	ppb	99
73) Pentachlorophenol	10.54	266	344131	68.32703	ppb	98
74) Phenanthrene	10.79	178	2365130	57.80814	ppb	99
75) Anthracene	10.85	178	2441122	58.20836	ppb	99
76) Carbazol	11.05	167	2344070	59.83596	ppb	99
77) Di-n-butylphthalate	11.43	149	2772662	62.10556	ppb	100
78) Fluoranthene	12.19	202	2600184	59.54929	ppb	99
80) Benzidine	12.35	184	963474	61.92708	ppb	100
81) Pyrene	12.46	202	2715143	59.80369	ppb	99
83) Butyl benzylphthalate	13.19	149	1274449	63.53586	ppb	97
84) 3,3'-Dichlorobenzidine	13.82	252	917019	63.04532	ppb	98
85) Benz (a) anthracene	13.86	228	2213433	56.50387	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1482746	58.54499	ppb	99
87) Chrysene	13.91	228	2380062	58.01700	ppb	99
88) Di-n-octylphthalate	14.63	149	2977998	63.97074	ppb	99
90) Benzo (b) fluoranthene	15.24	252	2821204	64.75998	ppb	99
91) Benzo (k) fluoranthene	15.27	252	2422949	59.15190	ppb	99
92) Benzo (a) pyrene	15.74	252	2503225	63.04372	ppb	100
93) Indeno (1,2,3-cd) pyrene	17.85	276	2876167	63.21338	ppb	98
94) Dibenz (a,h) anthracene	17.90	278	2501158	63.84752	ppb	98
95) Benzo (g,h,i) perylene	18.48	276	2339552	62.64681	ppb	100

Quantitation Report

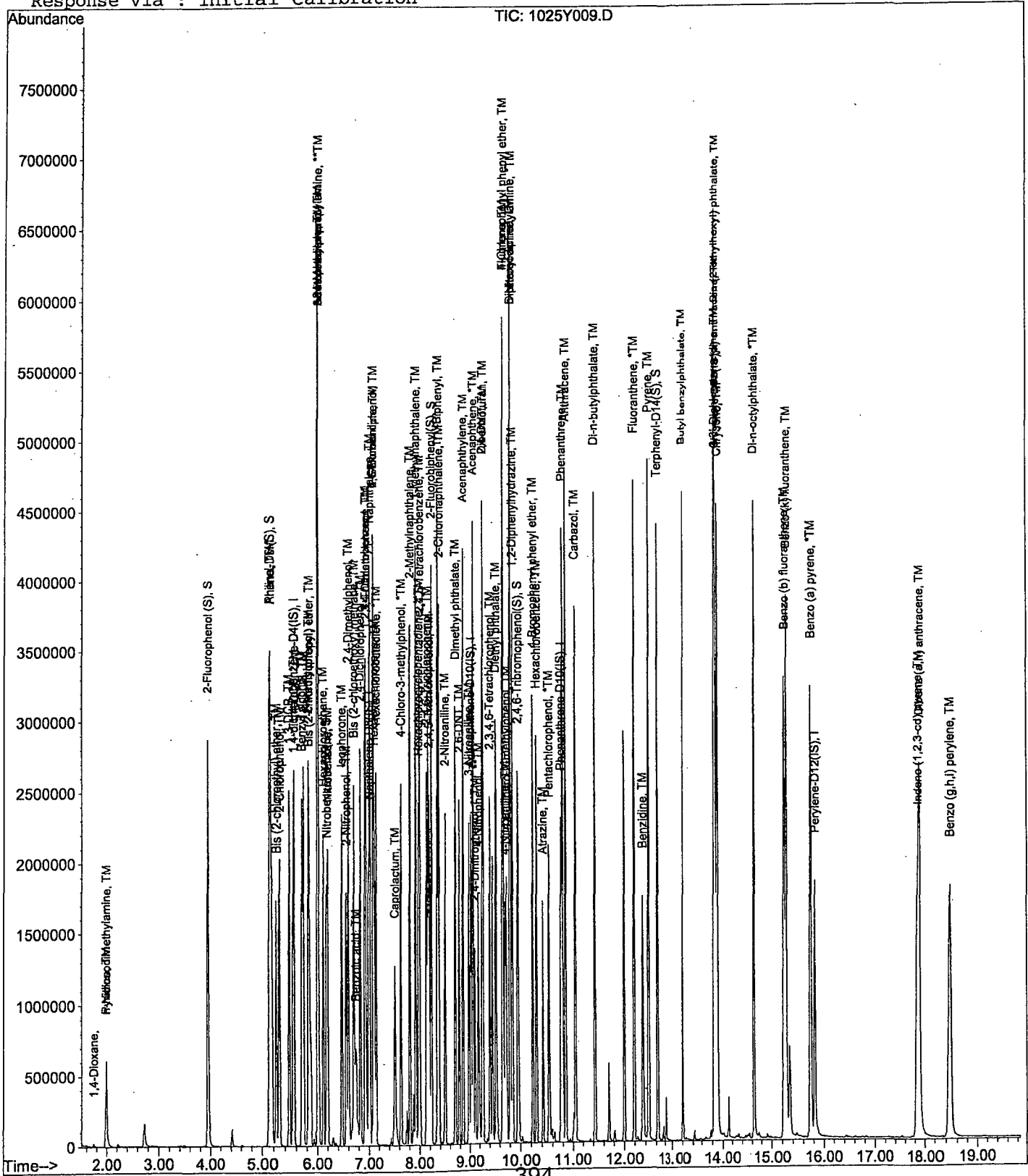
Data File : M:\YODA\DATA\Y181025\1025Y009.D  
 Acq On : 25 Oct 18 14:20  
 Sample : 60ug/mL 8270 10/18/18  
 Misc :

Vial: 9  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 14:37 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y010.D Vial: 10  
 Acq On : 25 Oct 18 14:48 Operator: MA  
 Sample : 80ug/mL 8270 10/18/18 Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Oct 25 16:52 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:49:58 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	298120	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1239535	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	679471	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.77	188	1264268	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.88	240	1132125	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1266945	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.96	112	1854398	158.30900	ppb	0.00
Spiked Amount	200.000			Recovery =	79.155%	
6) Phenol-D6 (S)	5.13	99	2092472	150.26876	ppb	0.00
Spiked Amount	200.000			Recovery =	75.135%	
22) Nitrobenzene-D5 (S)	6.18	82	1103339	78.87091	ppb	0.00
Spiked Amount	100.000			Recovery =	78.871%	
46) 2-Fluorobiphenyl (S)	8.23	172	2027051	71.56952	ppb	0.00
Spiked Amount	100.000			Recovery =	71.570%	
64) 2,4,6-Tribromophenol (S)	9.95	330	496953	144.92168	ppb	0.00
Spiked Amount	200.000			Recovery =	72.461%	
82) Terphenyl-D14 (S)	12.63	244	2210595	73.76127	ppb	0.00
Spiked Amount	100.000			Recovery =	73.761%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.75	58	7469	8.22729		100
3) n-Nitrosodimethylamine	1.98	42	188228	78.54209	ppb	93
4) Pyridine	1.99	79	305613	85.25855	ppb	97
7) Phenol	5.15	94	1350491	72.49504	ppb	90
8) Aniline	5.15	66	1177499	78.82457	ppb	# 79
9) Bis (2-chloroethyl) ether	5.25	63	739454	75.89814	ppb	97
10) 2-Chlorophenol	5.30	128	1116753	77.00027	ppb	98
11) 1,3-DCB	5.48	146	1152459	76.72072	ppb	99
12) 1,4-DCB	5.56	146	1112078	73.89992	ppb	99
13) Benzyl alcohol	5.71	108	722446	76.97596	ppb	97
14) 1,2-DCB	5.73	146	1053574	73.67599	ppb	99
15) 2-Methylphenol	5.83	107	884052	76.55747	ppb	98
16) Bis (2-chloroisopropyl) et	5.85	45	1425097	77.27618	ppb	94
17) Acetophenone	6.01	105	1060989	76.55394	ppb	95
18) 3&4-Methylphenol	6.01	107	1616444	154.33994	ppb	97
19) n-Nitrosodi-n-propylamine	6.04	70	708491	73.80154	ppb	84
20) Hexachloroethane	6.11	117	439196	77.64569	ppb	98
23) Nitrobenzene	6.20	77	1168448	76.21313	ppb	95
24) Isophorone	6.47	82	2082503	76.84727	ppb	97
25) 2-Nitrophenol	6.56	139	605413	77.77800	ppb	94
26) 2,4-Dimethylphenol	6.60	122	978659	75.09293	ppb	97
27) Benzoic acid	6.77	105	975401	79.71615	ppb	98
28) Bis (2-chloroethoxy) metha	6.70	93	1143577	74.95029	ppb	99
29) 2,4-Dichlorophenol	6.83	162	863229	75.14672	ppb	96
30) 1,2,4-Trichlorobenzene	6.92	180	875412	73.37796	ppb	98
31) 3,4-Dimethylphenol	6.94	107	1339179	75.87829	ppb	97
32) Naphthalene	7.02	128	2895411	72.12380	ppb	100
33) 4-Chloroaniline	7.08	127	998989	64.32820	ppb	99
34) 2,6-Dichlorophenol	7.08	162	727703	69.22702	ppb	97
35) Hexachloropropene	7.10	213	625852	78.51222	ppb	99
36) Hexachlorobutadiene	7.14	225	494379	74.90339	ppb	98
37) Caprolactum	7.53	55	560419	79.68248	ppb	98

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y010.D  
 Acq On : 25 Oct 18 14:48  
 Sample : 80ug/mL 8270 10/18/18  
 Misc :

Vial: 10  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:52 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:49:58 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	956899	77.58053	ppb	94
39) 2-Methylnaphthalene	7.81	142	1868075	73.80573	ppb	100
40) 1-Methylnaphthalene	7.92	142	1853126	73.44569	ppb	99
42) Hexachlorocyclopentadiene	7.98	237	570005	77.91883	ppb	100
43) 1,2,4,5-Tetrachlorobenzene	8.00	216	905579	71.23286	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	676658	75.70139	ppb	99
45) 2,4,5-Trichlorophenol	8.19	196	719566	76.03629	ppb	95
47) 1,1'-Biphenyl	8.35	154	2344956	70.29834	ppb	98
48) 2-Chloronaphthalene	8.37	162	1914231	72.05630	ppb	98
49) 2-Nitroaniline	8.50	65	702929	76.64566	ppb	97
50) Dimethyl phthalate	8.70	163	2251234	73.07697	ppb	99
51) 2,6-DNT	8.78	165	542814	76.33175	ppb	84
52) Acenaphthylene	8.86	152	3031289	70.73584	ppb	99
53) 3-Nitroaniline	8.99	138	600894	75.56813	ppb	94
54) Acenaphthene	9.06	154	1816835	69.98732	ppb	99
55) 2,4-Dinitrophenol	9.11	184	375675	79.60657	ppb	90
56) 4-Nitrophenol	9.18	65	505067	82.17869	ppb	99
57) Dibenzofuran	9.27	168	2353797	65.69856	ppb	98
58) 2,4-DNT	9.26	165	635665	70.19014	ppb	85
59) 2,3,4,6-Tetrachlorophenol	9.41	232	577445	73.93248	ppb	95
60) Diethyl phthalate	9.53	149	2112448	71.24348	ppb	98
61) 4-Chlorophenyl phenyl ethe	9.66	204	822358	58.29531	ppb	96
62) Fluorene	9.67	166	1803473	60.82365	ppb	98
63) 4-Nitroaniline	9.71	138	623093	75.02411	ppb	98
66) 4,6-Dinitro-2-methylphenol	9.74	198	486468	76.25103	ppb	94
67) Diphenyl amine	9.81	169	2851981	129.17108	ppb	99
68) n-Nitrosodiphenylamine	9.81	169	2851981	129.17108	ppb	99
69) 1,2-Diphenylhydrazine	9.85	77	2787284	82.06122	ppb	92
70) 4-Bromophenyl phenyl ether	10.23	248	638296	74.17645	ppb	94
71) Hexachlorobenzene	10.31	284	648074	71.60657	ppb	91
72) Atrazine	10.43	200	308193	39.17258	ppb	97
73) Pentachlorophenol	10.54	266	466031	83.21870	ppb	99
74) Phenanthrene	10.80	178	3082481	69.80685	ppb	99
75) Anthracene	10.85	178	3141722	69.16738	ppb	100
76) Carbazol	11.05	167	3035131	71.50811	ppb	98
77) Di-n-butylphthalate	11.43	149	3598995	73.23157	ppb	99
78) Fluoranthene	12.19	202	3315365	69.96256	ppb	99
80) Benzidine	12.35	184	1258627	78.22096	ppb	99
81) Pyrene	12.46	202	3445765	73.63892	ppb	100
83) Butyl benzylphthalate	13.19	149	1604258	76.76735	ppb	94
84) 3,3'-Dichlorobenzidine	13.83	252	1094222	71.75135	ppb	96
85) Benz (a) anthracene	13.86	228	2719656	68.42029	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1785958	68.01314	ppb	99
87) Chrysene	13.91	228	3086091	73.80016	ppb	99
88) Di-n-octylphthalate	14.63	149	3946319	80.82281	ppb	96
90) Benzo (b) fluoranthene	15.24	252	3501392	73.75617	ppb	99
91) Benzo (k) fluoranthene	15.28	252	3457887	76.44268	ppb	99
92) Benzo (a) pyrene	15.75	252	3410020	78.95777	ppb	98
93) Indeno (1,2,3-cd) pyrene	17.86	276	3907142	78.08684	ppb	98
94) Dibenz (a,h) anthracene	17.91	278	3338407	78.55102	ppb	99
95) Benzo (g,h,i) perylene	18.49	276	3111904	76.75911	ppb	99

Quantitation Report

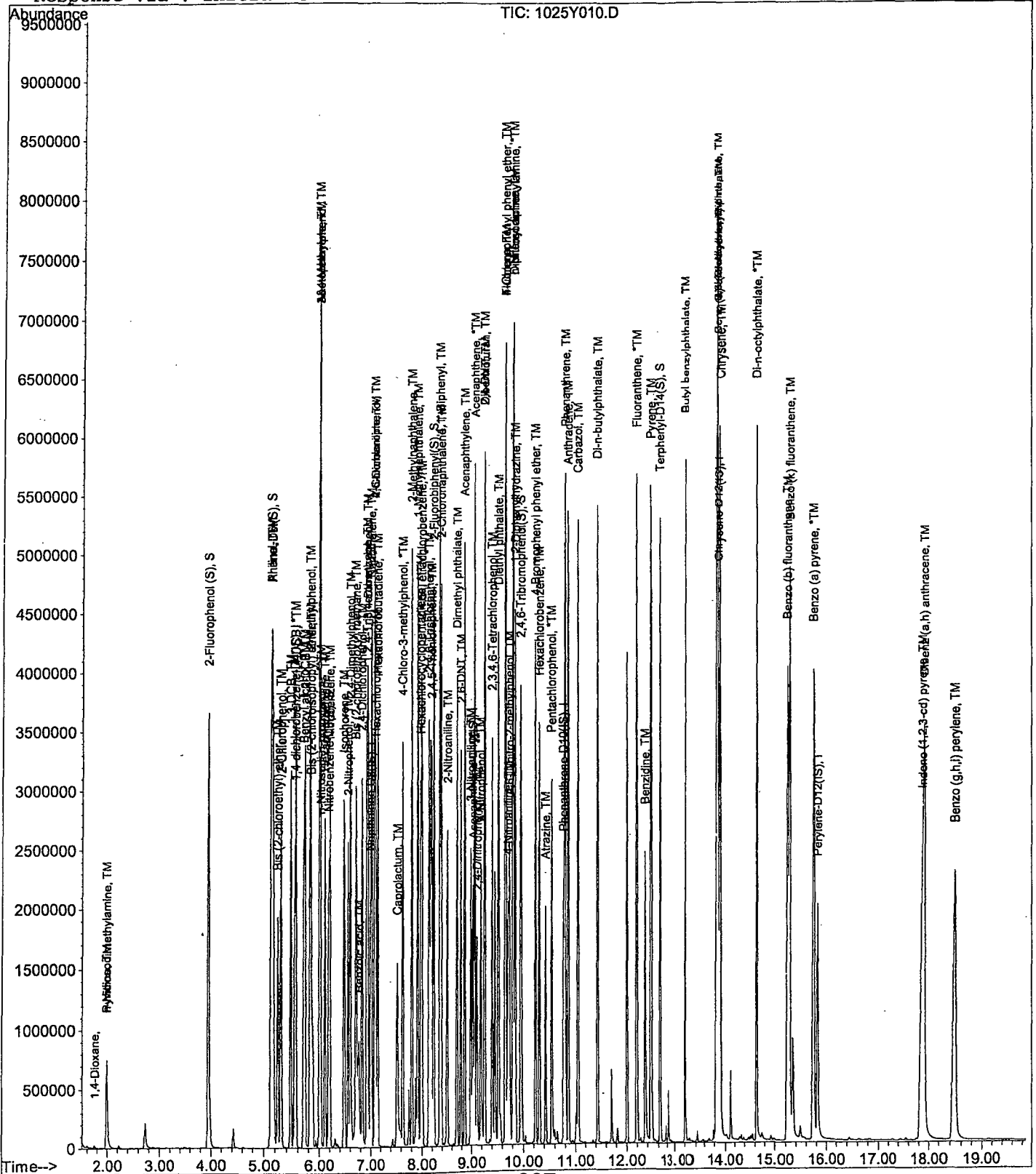
Data File : M:\YODA\DATA\Y181025\1025Y010.D  
Acq On : 25 Oct 18 14:48  
Sample : 80ug/mL 8270 10/18/18  
Misc :

Vial: 10  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:52 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration

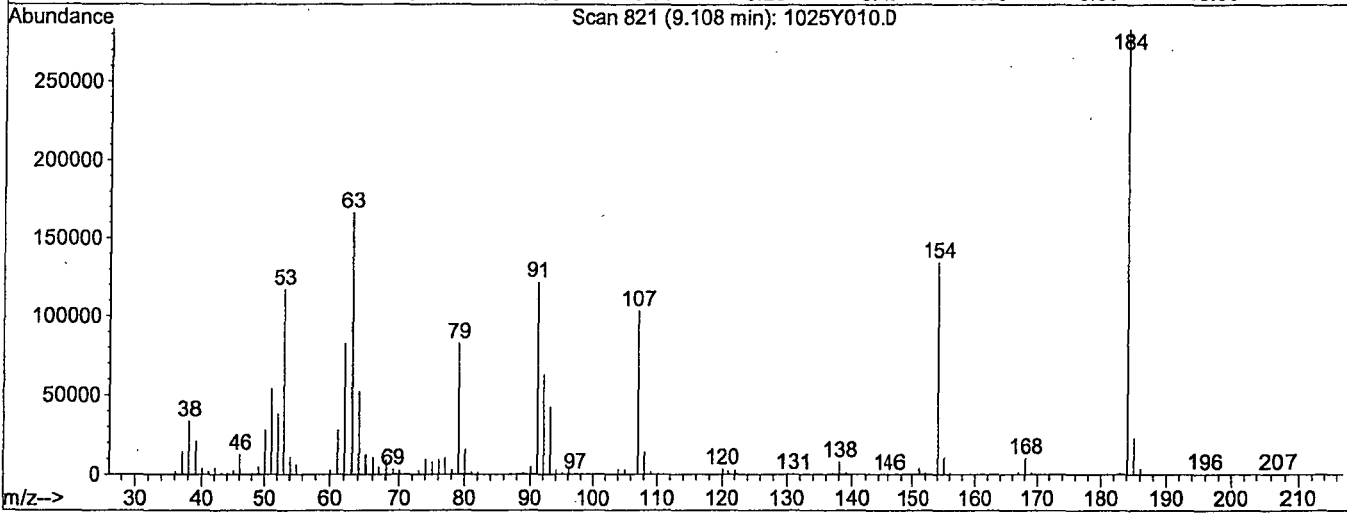
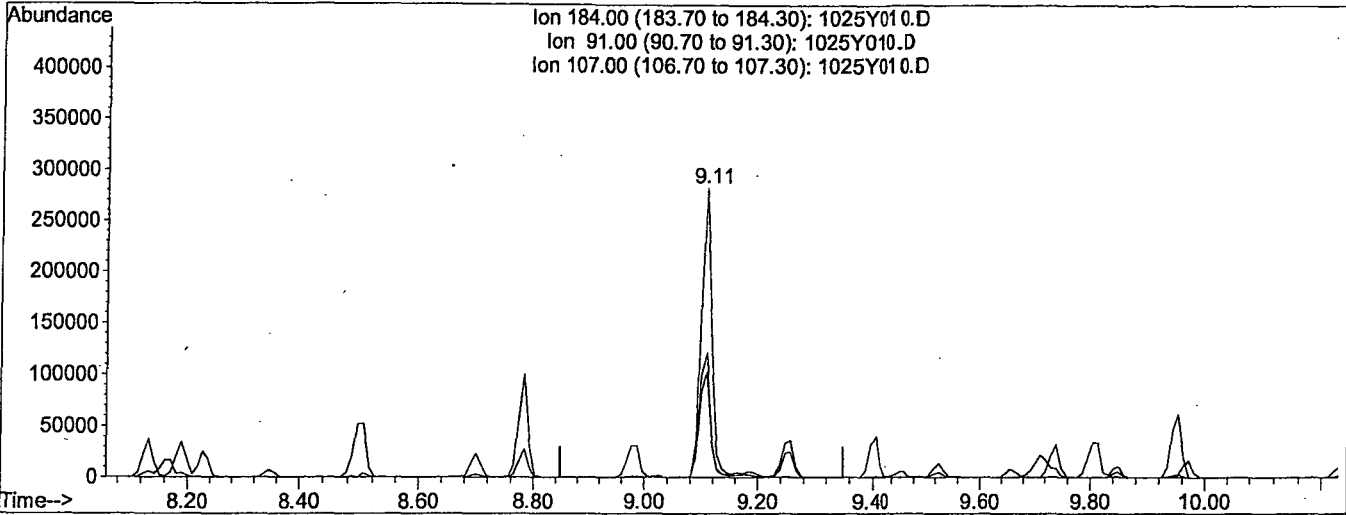


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y010.D  
 Acq On : 25 Oct 18 14:48  
 Sample : 80ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 14:57 2018

Vial: 10  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y010.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.11min 85.8731ppb

response 375675

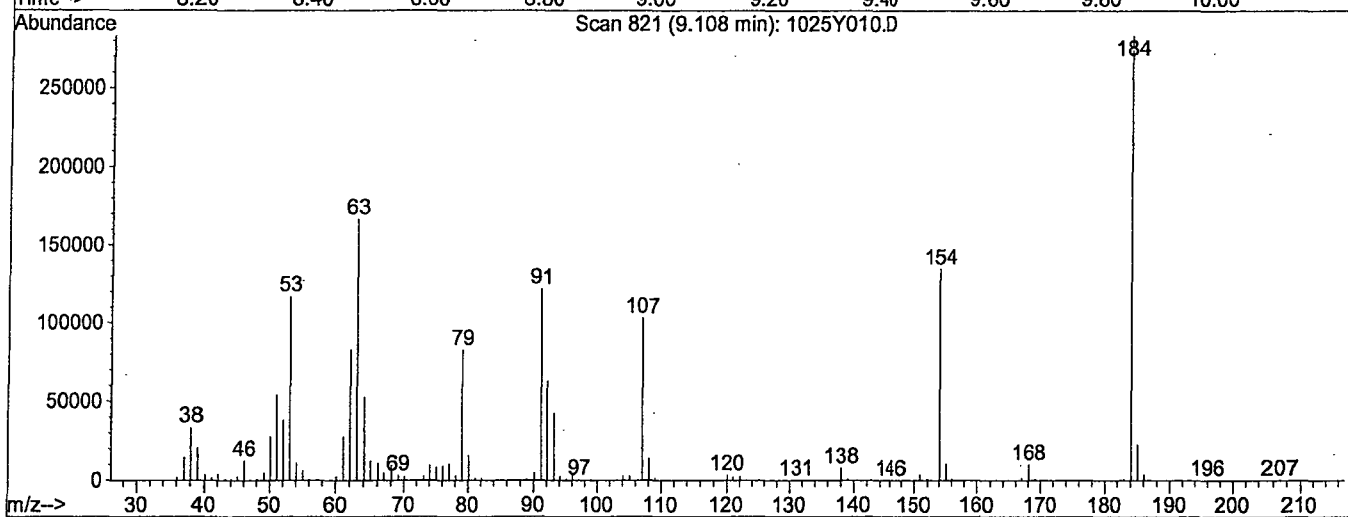
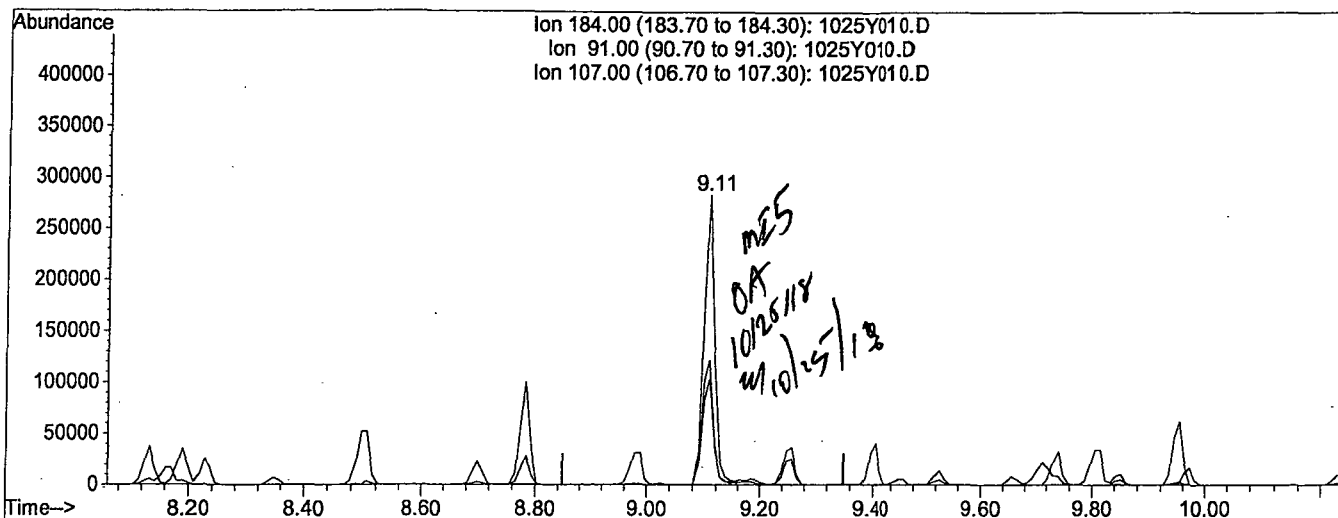
Ion	Exp%	Act%
184.00	100	100
91.00	49.40	42.52
107.00	41.60	36.24
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y010.D  
 Acq On : 25 Oct 18 14:48  
 Sample : 80ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:07 2018

Vial: 10  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y010.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.11min 83.1604ppb m

response 362746

Ion	Exp%	Act%
184.00	100	100
91.00	49.40	43.01
107.00	41.60	36.48
0.00	0.00	0.00



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y011.D  
 Acq On : 25 Oct 18 15:16  
 Sample : 100ug/mL 8270 10/18/18  
 Misc :

Vial: 11  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:53 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:49:58 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	284116	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1206900	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	630021	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.77	188	1170815	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.88	240	1050283	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.83	264	1174261	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	2232374	199.97009	ppb	0.00
Spiked Amount	200.000			Recovery =	99.985%	
6) Phenol-D6 (S)	5.14	99	2486343	187.35510	ppb	0.02
Spiked Amount	200.000			Recovery =	93.677%	
22) Nitrobenzene-D5 (S)	6.18	82	1404992	103.15000	ppb	0.00
Spiked Amount	100.000			Recovery =	103.150%	
46) 2-Fluorobiphenyl (S)	8.23	172	2374842	90.43031	ppb	0.00
Spiked Amount	100.000			Recovery =	90.430%	
64) 2,4,6-Tribromophenol (S)	9.96	330	580689	182.63228	ppb	0.00
Spiked Amount	200.000			Recovery =	91.316%	
82) Terphenyl-D14 (S)	12.63	244	2662866	95.77596	ppb	0.00
Spiked Amount	100.000			Recovery =	95.776%	

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.74	58	9424	10.89244		97
3) n-Nitrosodimethylamine	1.99	42	255611	111.91625	ppb	89
4) Pyridine	1.99	79	372623	109.07650	ppb	94
7) Phenol	5.16	94	1549550	87.28058	ppb	# 76
8) Aniline	5.16	66	1432837	100.66741	ppb	# 64
9) Bis (2-chloroethyl) ether	5.25	63	977421	105.26816	ppb	99
10) 2-Chlorophenol	5.31	128	1373185	99.34811	ppb	99
11) 1,3-DCB	5.48	146	1379732	96.37788	ppb	96
12) 1,4-DCB	5.56	146	1376578	95.98535	ppb	98
13) Benzyl alcohol	5.71	108	915255	102.32629	ppb	98
14) 1,2-DCB	5.74	146	1311460	96.23021	ppb	100
15) 2-Methylphenol	5.83	107	1108446	100.72092	ppb	99
16) Bis (2-chloroisopropyl) et	5.85	45	1719168	97.81714	ppb	98
17) Acetophenone	6.01	105	1321707	101.91311	ppb	98
18) 3&4-Methylphenol	6.01	107	1983222	202.55082	ppb	97
19) n-Nitrosodi-n-propylamine	6.04	70	944036	103.18464	ppb	84
20) Hexachloroethane	6.12	117	533036	98.88056	ppb	90
23) Nitrobenzene	6.21	77	1474935	98.80542	ppb	97
24) Isophorone	6.48	82	2650980	100.47008	ppb	97
25) 2-Nitrophenol	6.56	139	760170	100.30054	ppb	98
26) 2,4-Dimethylphenol	6.60	122	1225289	96.55920	ppb	98
27) Benzoic acid	6.78	105	1216248	101.08222	ppb	99
28) Bis (2-chloroethoxy) metha	6.71	93	1405755	94.62481	ppb	99
29) 2,4-Dichlorophenol	6.83	162	1050994	93.96622	ppb	98
30) 1,2,4-Trichlorobenzene	6.92	180	1066906	91.84739	ppb	98
31) 3,4-Dimethylphenol	6.94	107	1639376	95.39926	ppb	97
32) Napthalene	7.02	128	3525329	90.18941	ppb	100
33) 4-Chloroaniline	7.08	127	1126570	74.50516	ppb	95
34) 2,6-Dichlorophenol	7.09	162	830763	81.16824	ppb	97
35) Hexachloropropene	7.11	213	734181	94.59241	ppb	99
36) Hexachlorobutadiene	7.14	225	594034	92.43581	ppb	99
37) Caprolactum	7.55	55	652243	95.24604	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y011.D Y1025NC.M Thu Oct 25 17:30:07 2018

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y011.D  
 Acq On : 25 Oct 18 15:16  
 Sample : 100ug/mL 8270 10/18/18  
 Misc :

Vial: 11  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:53 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:49:58 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.64	107	1192402	99.28802	ppb	93
39) 2-Methylnaphthalene	7.81	142	2192026	88.94652	ppb	99
40) 1-Methylnaphthalene	7.93	142	2191424	89.20214	ppb	100
42) Hexachlorocyclopentadiene	7.98	237	694700	101.54904	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	8.00	216	1029526	87.33881	ppb	99
44) 2,4,6-Trichlorophenol	8.14	196	804453	97.06244	ppb	99
45) 2,4,5-Trichlorophenol	8.20	196	852583	97.16344	ppb	94
47) 1,1'-Biphenyl	8.35	154	2701619	87.34748	ppb	98
48) 2-Chloronaphthalene	8.38	162	2241776	91.00929	ppb	97
49) 2-Nitroaniline	8.50	65	879824	103.46365	ppb	99
50) Dimethyl phthalate	8.71	163	2746250	96.14260	ppb	99
51) 2,6-DNT	8.79	165	674065	102.22847	ppb	92
52) Acenaphthylene	8.86	152	3588460	90.31007	ppb	100
53) 3-Nitroaniline	8.98	138	707065	95.89943	ppb	96
54) Acenaphthene	9.07	154	2106539	87.51637	ppb	99
55) 2,4-Dinitrophenol	9.11	184	482121	106.69190	ppb	91
56) 4-Nitrophenol	9.19	65	652587	114.51556	ppb	98
57) Dibenzofuran	9.26	168	2694490	81.11092	ppb	92
58) 2,4-DNT	9.25	165	741133	88.25917	ppb	85
59) 2,3,4,6-Tetrachlorophenol	9.41	232	707425	97.68344	ppb	99
60) Diethyl phthalate	9.53	149	2557601	93.02674	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.66	204	983024	75.15410	ppb	99
62) Fluorene	9.67	166	2158535	81.29619	ppb	99
63) 4-Nitroaniline	9.73	138	774941	100.63117	ppb	96
66) 4,6-Dinitro-2-methylphenol	9.75	198	613024	102.84739	ppb	98
67) Diphenyl amine	9.81	169	3367607	164.69899	ppb	99
68) n-Nitrosodiphenylamine	9.81	169	3367607	164.69899	ppb	99
69) 1,2-Diphenylhydrazine	9.85	77	3378849	107.41783	ppb	97
70) 4-Bromophenyl phenyl ether	10.24	248	721364	90.52099	ppb	96
71) Hexachlorobenzene	10.30	284	755752	90.16925	ppb	97
72) Atrazine	10.43	200	388070	53.26235	ppb	97
73) Pentachlorophenol	10.54	266	571860	110.26730	ppb	100
74) Phenanthrene	10.80	178	3649628	89.24771	ppb	100
75) Anthracene	10.86	178	3823882	90.90525	ppb	99
76) Carbazol	11.06	167	3605924	91.73716	ppb	98
77) Di-n-butylphthalate	11.44	149	4150806	91.20117	ppb	99
78) Fluoranthene	12.20	202	4026512	91.75172	ppb	99
80) Benzidine	12.35	184	1550386	103.86135	ppb	99
81) Pyrene	12.47	202	4219684	97.20526	ppb	100
83) Butyl benzylphthalate	13.20	149	1937337	99.92992	ppb	97
84) 3,3'-Dichlorobenzidine	13.83	252	1221498	86.33869	ppb	99
85) Benz (a) anthracene	13.87	228	3331112	90.33337	ppb	99
86) Bis (2-ethylhexyl) phthala	13.85	149	2216578	90.98979	ppb	100
87) Chrysene	13.91	228	3694086	95.22338	ppb	100
88) Di-n-octylphthalate	14.64	149	4556807	100.59826	ppb	96
90) Benzo (b) fluoranthene	15.25	252	4238332	96.32649	ppb	100
91) Benzo (k) fluoranthene	15.29	252	4010562	95.65848	ppb	99
92) Benzo (a) pyrene	15.75	252	4077181	101.85705	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.88	276	4702968	101.41071	ppb	98
94) Dibenz (a,h) anthracene	17.92	278	3956359	100.43877	ppb	99
95) Benzo (g,h,i) perylene	18.51	276	3916077	104.21928	ppb	99

Quantitation Report

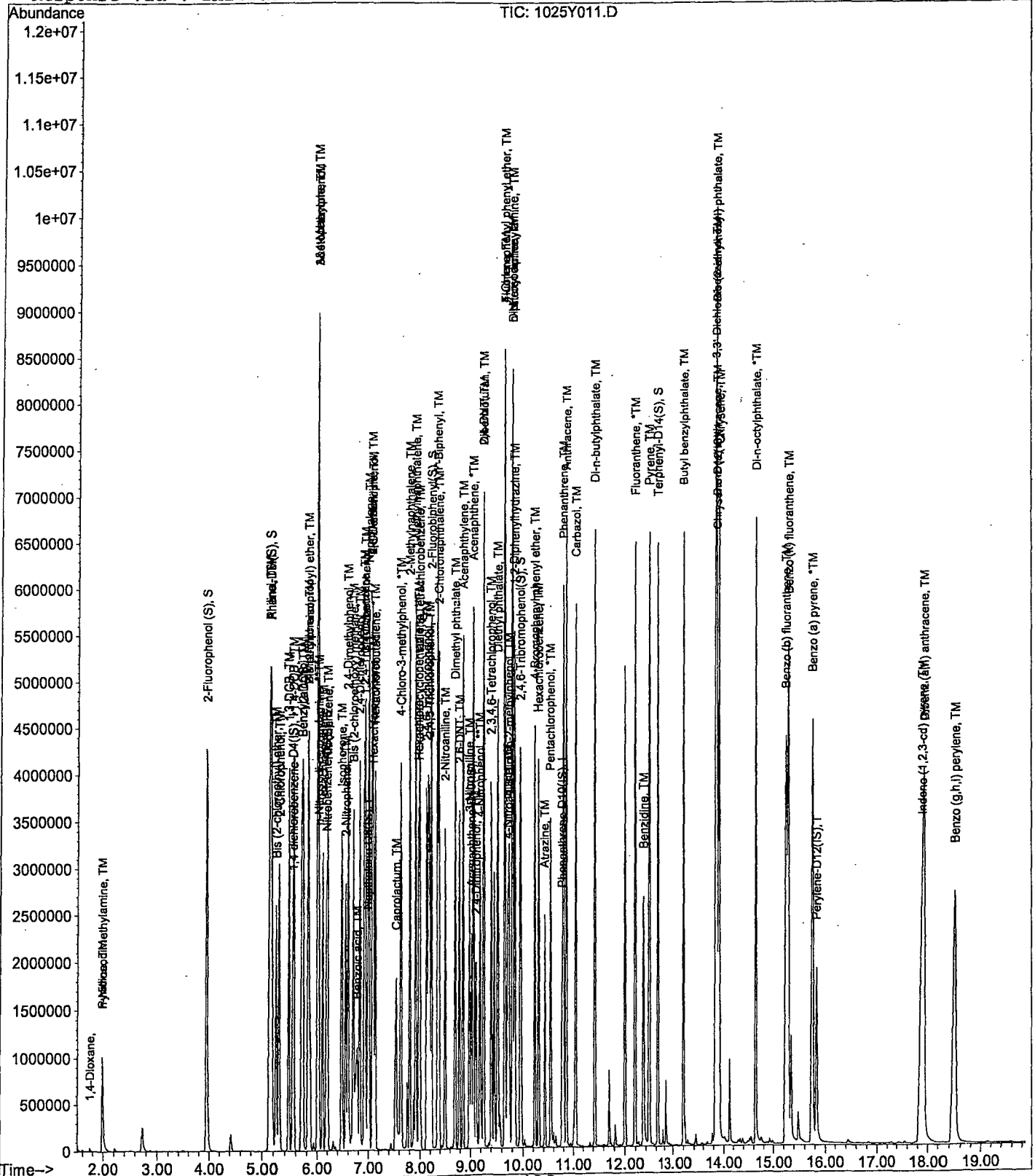
Data File : M:\YODA\DATA\Y181025\1025Y011.D  
Acq On : 25 Oct 18 15:16  
Sample : 100ug/mL 8270 10/18/18  
Misc :

Vial: 11  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:53 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration

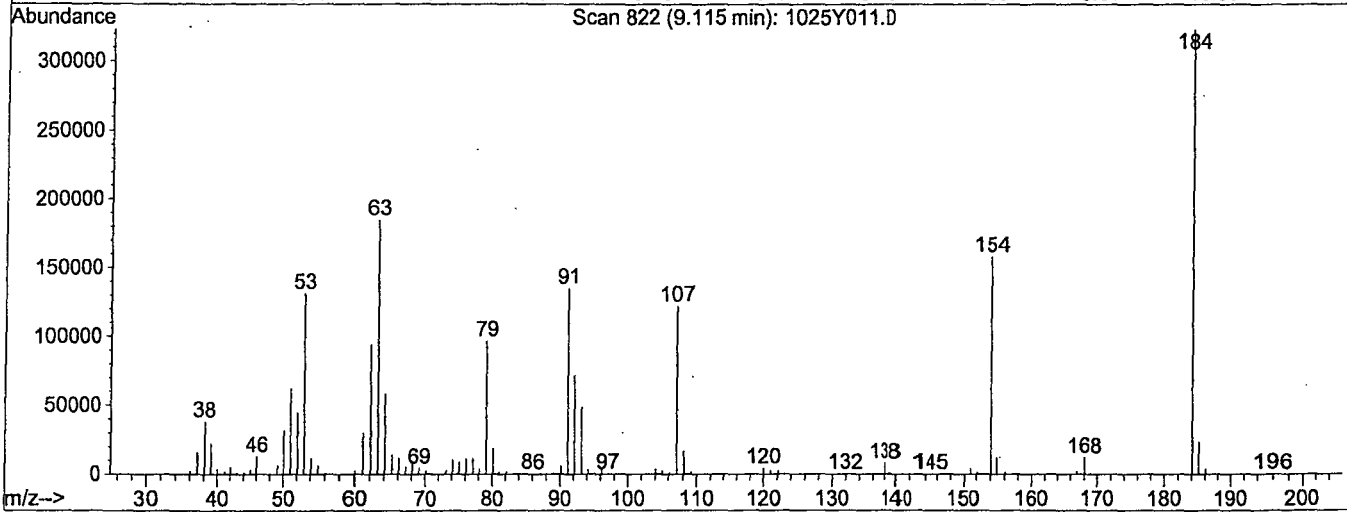
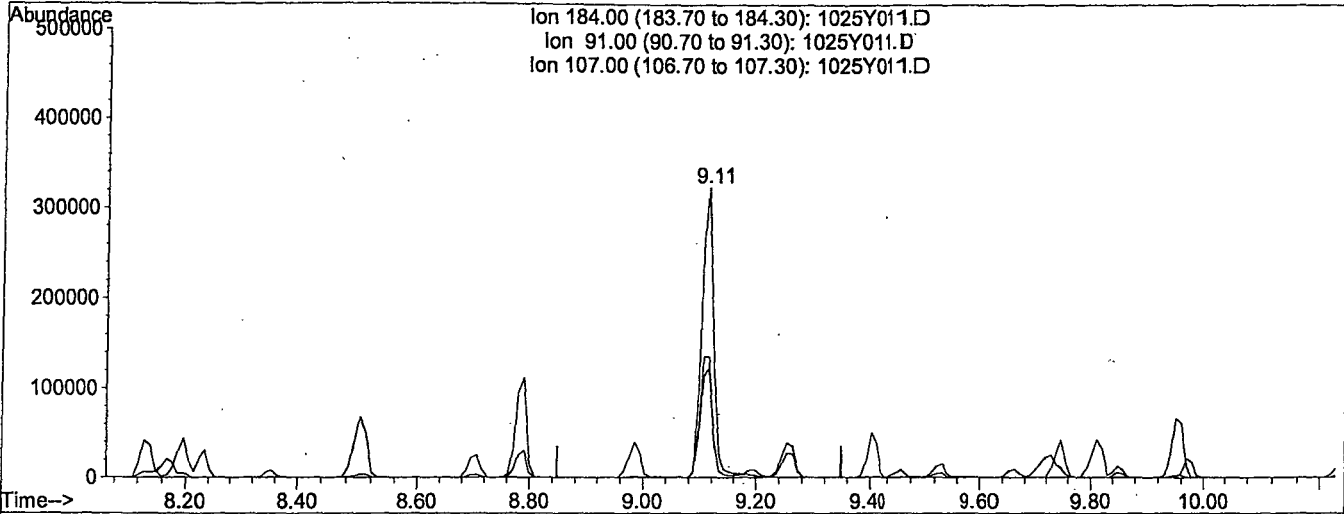


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y011.D  
 Acq On : 25 Oct 18 15:16  
 Sample : 100ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 15:40 2018

Vial: 11  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y011.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.11min 109.9277ppb

response 482121

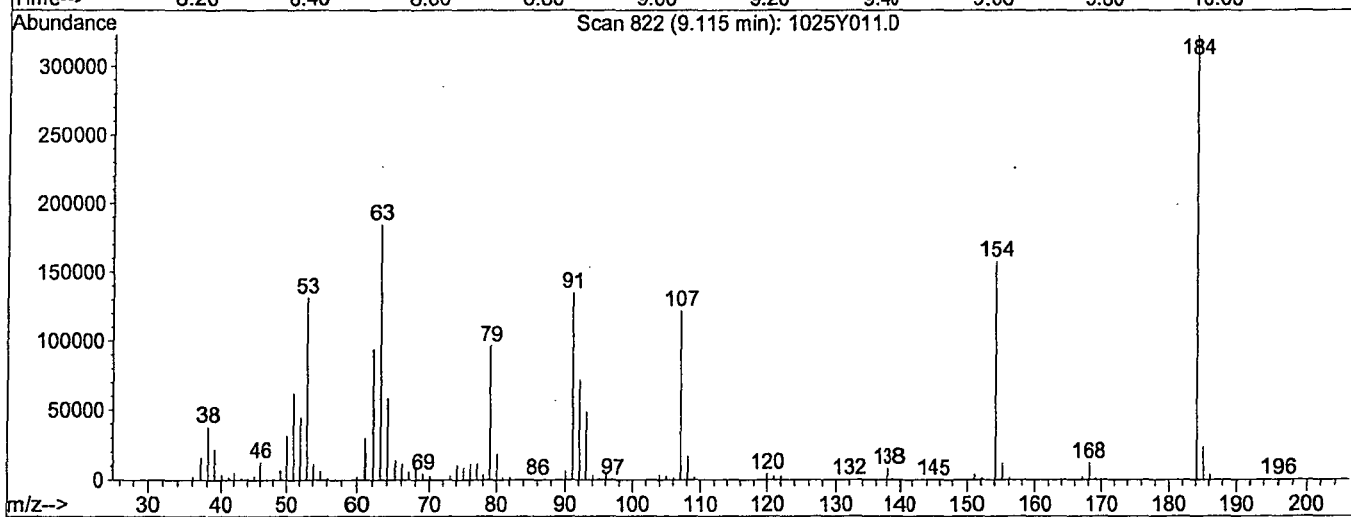
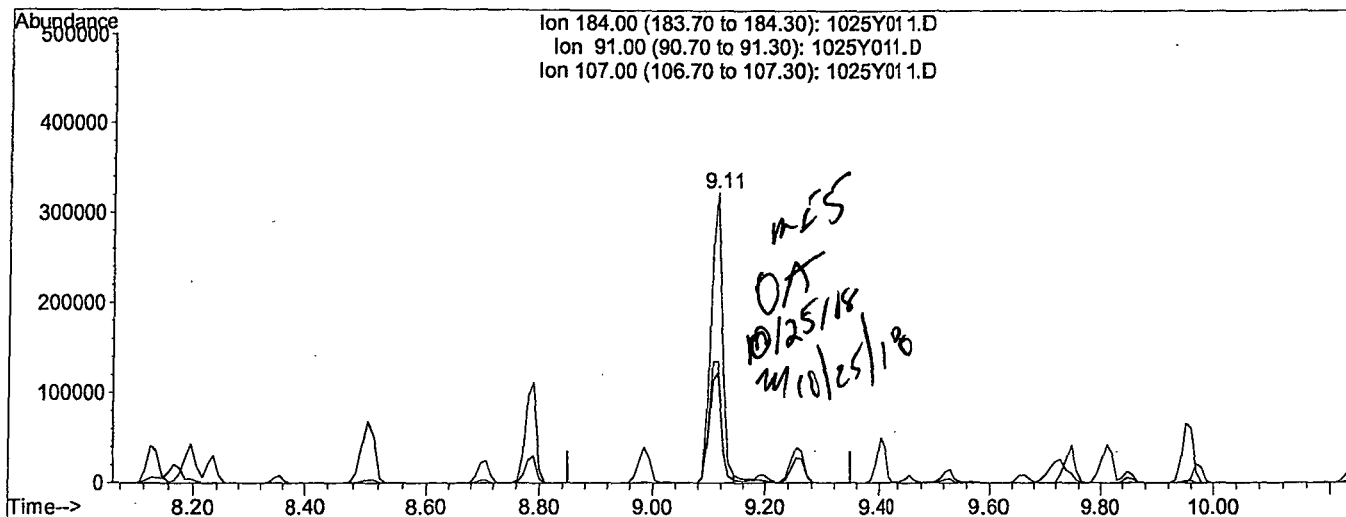
Ion	Exp%	Act%
184.00	100	100
91.00	49.40	41.47
107.00	41.60	37.69
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y011.D  
 Acq On : 25 Oct 18 15:16  
 Sample : 100ug/mL 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:09 2018

Vial: 11  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:05:34 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y011.D

(55) 2,4-Dinitrophenol (\*\*TM)

9.11min 106.3390ppb m

response 465055

Ion	Exp%	Act%
184.00	100	100
91.00	49.40	41.76
107.00	41.60	37.76
0.00	0.00	0.00

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Yoda  
Initial Cal. Date: 10/25/18  
Data File: 1025Y012.D

		Compound	MEAN	CCRF	%D	%Drift
1		1,4-Dioxane	0.1218	0.1244	2.1	
2	TM	n-Nitrosodimethylamine	0.3216	0.2589	19	TM
3	TM	Pyridine	0.4810	0.4013	17	TM
4	*TM	Phenol	2.499	2.403	3.8	*TM
5	TM	Aniline	1.998	1.731	13	TM
6	TM	Bis (2-chloroethyl) ether	1.307	1.201	8.1	TM
7	TM	2-Chlorophenol	1.946	1.718	12	TM
8	TM	1,3-DCB	2.015	1.784	11	TM
9	*TM	1,4-DCB	2.019	1.787	12	*TM
10	TM	Benzyl alcohol	1.259	1.076	15	TM
11	TM	1,2-DCB	1.919	1.715	11	TM
12	TM	2-Methylphenol	1.549	1.367	12	TM
13	TM	Bis (2-chloroisopropyl) ether	2.474	2.177	12	TM
14	TML	Acetophenone	2.188	1.706	22	TML 13
15	TML	3&4-Methylphenol	1.681	1.327	21	TML 11
16	**TM	n-Nitrosodi-n-propylamine	1.288	1.064	17	**TM
17	TM	Hexachloroethane	0.7589	0.6864	9.6	TM
18	TM	Nitrobenzene	0.4947	0.4496	9.1	TM
19	TM	Isophorone	0.8745	0.7852	10	TM
20	*TM	2-Nitrophenol	0.2512	0.2231	11	*TM
21	TM	2,4-Dimethylphenol	0.4206	0.3656	13	TM
22	TML	Benzoic acid	0.3415	0.3452	1.1	TML 9.2
23	TM	Bis (2-chloroethoxy) methane	0.4924	0.4719	4.2	TM
24	*TM	2,4-Dichlorophenol	0.3707	0.3294	11	*TM
25	TM	1,2,4-Trichlorobenzene	0.3850	0.3326	14	TM
26	TM	3,4-Dimethylphenol	0.5695	0.4899	14	TM
27	TM	Naphthalene	1.295	1.098	15	TM
28	TM	4-Chloroaniline	0.4852	0.4064	16	TM
29	TM	2,6-Dichlorophenol	0.3392	0.2872	15	TM
30	TM	Hexachloropropene	0.2572	0.2341	9.0	TM
31	*TM	Hexachlorobutadiene	0.2130	0.1890	11	*TM
32	TM	Caprolactum	0.2270	0.2016	11	TM
33	*TM	4-Chloro-3-methylphenol	0.3980	0.3571	10	*TM
34	TM	2-Methylnaphthalene	0.8168	0.6740	17	TM
35	TM	1-Methylnaphthalene	0.8142	0.6890	15	TM
36	**TML	Hexachlorocyclopentadiene	0.3816	0.4093	7.3	**TML 2.8
37	TM	1,2,4,5-Tetrachlorobenzene	0.7484	0.6277	16	TM
38	*TM	2,4,6-Trichlorophenol	0.5262	0.4695	11	*TM
39	TM	2,4,5-Trichlorophenol	0.5571	0.4836	13	TM
40	TM	1,1'-Biphenyl	1.964	1.652	16	TM

Average

12.2

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y012.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	2-Chloronaphthalene	1.564	1.389	11	TM
42	TM	2-Nitroaniline	0.5399	0.4821	11	TM
43	TM	Dimethyl phthalate	1.814	1.613	11	TM
44	TM	2,6-DNT	0.4186	0.3880	7.3	TM
45	TM	Acenaphthylene	2.523	2.168	14	TM
46	TM	3-Nitroaniline	0.4681	0.4202	10	TM
47	*TM	Acenaphthene	1.528	1.272	17	*TM
48	**TML	2,4-Dinitrophenol	0.2155	0.2397	11	**TML 9.2
49	**TM	4-Nitrophenol	0.3618	0.3499	3.3	**TM
50	TM	Dibenzofuran	2.109	1.730	18	TM
51	TM	2,4-DNT	0.5331	0.4841	9.2	TM
52	TM	2,3,4,6-Tetrachlorophenol	0.4598	0.4180	9.1	TM
53	TM	Diethyl phthalate	1.746	1.531	12	TM
54	TML	4-Chlorophenyl phenyl ether	0.7439	0.6243	16	TML 10
55	TML	Fluorene	1.604	1.340	16	TML 11
56	TM	4-Nitroaniline	0.4889	0.4338	11	TM
57	TML	4,6-Dinitro-2-methylphenol	0.1817	0.1817	0.00	TML 7.9
58	TM	Diphenyl amine	0.6800	0.5607	18	TM
59	*TM	n-Nitrosodiphenylamine	0.6800	0.5607	18	*TM
60	TM	1,2-Diphenylhydrazine	1.075	0.9477	12	TM
61	TM	4-Bromophenyl phenyl ether	0.2723	0.2417	11	TM
62	TM	Hexachlorobenzene	0.2863	0.2508	12	TM
63	TM	Atrazine	0.2489	0.2399	3.6	TM
64	*TM	Pentachlorophenol	0.1772	0.1717	3.1	*TM
65	TM	Phenanthrene	1.397	1.162	17	TM
66	TM	Anthracene	1.437	1.228	15	TM
67	TM	Carbazol	1.343	1.179	12	TM
68	TM	Di-n-butylphthalate	1.555	1.410	9.3	TM
69	*TM	Fluoranthene	1.499	1.316	12	*TM
70	TM	Benzidine	0.5685	0.5475	3.7	TM
71	TM	Pyrene	1.653	1.493	9.7	TM
72	TM	Butyl benzylphthalate	0.7384	0.7010	5.1	TM
73	TM	3,3'-Dichlorobenzidine	0.5388	0.5024	6.8	TM
74	TM	Benz (a) anthracene	1.404	1.159	18	TM
75	TM	Bis (2-ethylhexyl) phthalate	0.9278	0.8150	12	TM
76	TM	Chrysene	1.477	1.320	11	TM
77	*TM	Di-n-octylphthalate	1.725	1.640	4.9	*TM
78	TM	Benzo (b) fluoranthene	1.499	1.283	14	TM
79	TM	Benzo (k) fluoranthene	1.428	1.271	11	TM
80	*TM	Benzo (a) pyrene	1.364	1.231	9.7	*TM

Average

10.9

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/25/18  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y012.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	Indeno (1,2,3-cd) pyrene	1.580	1.378	13	TM
82	TM	Dibenz (a,h) anthracene	1.342	1.207	10	TM
83	TM	Benzo (g,h,i) perylene	1.280	1.124	12	TM
84						
85						
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116						
117						
118						
119						
120		Average			11.7	



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y012.D  
 Acq On : 25 Oct 18 15:44  
 Sample : SS- 8270 10/18/18  
 Misc :

Vial: 12  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:58 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	386868	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1656168	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	862976	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.77	188	1603520	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.88	240	1476646	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.83	264	1648401	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	0.00	112	0	0.00000	ppb	
Spiked Amount 200.000			Recovery =	0.000%		
6) Phenol-D6 (S)	0.00	99	0	0.00000	ppb	
Spiked Amount 200.000			Recovery =	0.000%		
22) Nitrobenzene-D5 (S)	6.11	82	83944	4.49109	ppb	-0.07
Spiked Amount 100.000			Recovery =	4.491%		
46) 2-Fluorobiphenyl (S)	8.22	172	136	0.00378	ppb	0.00
Spiked Amount 100.000			Recovery =	0.004%		
64) 2,4,6-Tribromophenol (S)	0.00	330	0	0.00000	ppb	
Spiked Amount 200.000			Recovery =	0.000%		
82) Terphenyl-D14 (S)	12.62	244	747	0.01911	ppb	0.00
Spiked Amount 100.000			Recovery =	0.019%		

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,4-Dioxane	1.74	58	6016	5.10659		95
3) n-Nitrosodimethylamine	1.98	42	125217	40.26334	ppb	92
4) Pyridine	1.99	79	194063	41.71931	ppb	92
7) Phenol	5.14	94	1162248	48.07770	ppb	94
8) Aniline	5.17	66	837054m	43.31498	ppb	94
9) Bis (2-chloroethyl) ether	5.24	63	580808	45.93893	ppb	99
10) 2-Chlorophenol	5.30	128	830627	44.13361	ppb	97
11) 1,3-DCB	5.47	146	862923	44.26776	ppb	98
12) 1,4-DCB	5.56	146	864003	44.24378	ppb	99
13) Benzyl alcohol	5.70	108	520550	42.74059	ppb	100
14) 1,2-DCB	5.73	146	829434	44.69625	ppb	98
15) 2-Methylphenol	5.83	107	660841	44.09964	ppb	100
16) Bis (2-chloroisopropyl) et	5.85	45	1052745	43.98987	ppb	94
17) Acetophenone	6.00	105	824838	43.45115	ppb	95
18) 3&4-Methylphenol	6.00	107	1283819	89.25332	ppb	98
19) n-Nitrosodi-n-propylamine	6.00	70	514399	41.29139	ppb	98
20) Hexachloroethane	6.12	117	331921	45.21911	ppb	87
23) Nitrobenzene	6.20	77	930745	45.43657	ppb	99
24) Isophorone	6.47	82	1625471	44.89277	ppb	98
25) 2-Nitrophenol	6.55	139	461761	44.39936	ppb	92
26) 2,4-Dimethylphenol	6.60	122	756913	43.46783	ppb	96
27) Benzoic acid	6.75	105	714663	45.40513	ppb	99
28) Bis (2-chloroethoxy) metha	6.70	93	976896	47.91932	ppb	99
29) 2,4-Dichlorophenol	6.83	162	682004	44.43502	ppb	96
30) 1,2,4-Trichlorobenzene	6.92	180	688647	43.20203	ppb	99
31) 3,4-Dimethylphenol	6.93	107	1014136	43.00605	ppb	99
32) Naphthalene	7.02	128	2272459	42.36614	ppb	100
33) 4-Chloroaniline	7.08	127	841244	41.87769	ppb	97
34) 2,6-Dichlorophenol	7.08	162	594483	42.32679	ppb	98
35) Hexachloropropene	7.11	213	484652	45.50405	ppb	97
36) Hexachlorobutadiene	7.14	225	391221	44.36270	ppb	99
37) Caprolactum	7.52	55	417379	44.41554	ppb	98

## Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y181025\1025Y012.D  
 Acq On : 25 Oct 18 15:44  
 Sample : SS- 8270 10/18/18  
 Misc :

Vial: 12  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Oct 25 16:58 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	739202	44.85431	ppb	97
39) 2-Methylnaphthalene	7.81	142	1395302	41.25897	ppb	99
40) 1-Methylnaphthalene	7.92	142	1426411	42.31170	ppb	99
42) Hexachlorocyclopentadiene	7.98	237	441562	48.60381	ppb	98
43) 1,2,4,5-Tetrachlorobenzene	8.00	216	677153	41.93852	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	506412	44.60780	ppb	97
45) 2,4,5-Trichlorophenol	8.19	196	521633	43.39978	ppb	98
47) 1,1'-Biphenyl	8.34	154	1782334	42.06992	ppb	98
48) 2-Chloronaphthalene	8.37	162	1498212	44.40410	ppb	98
49) 2-Nitroaniline	8.49	65	520087	44.65029	ppb	96
50) Dimethyl phthalate	8.70	163	1740390	44.48142	ppb	99
51) 2,6-DNT	8.78	165	418526	46.33923	ppb	88
52) Acenaphthylene	8.85	152	2338312	42.96223	ppb	99
53) 3-Nitroaniline	8.98	138	453228	44.87761	ppb	94
54) Acenaphthene	9.06	154	1371833	41.60805	ppb	100
55) 2,4-Dinitrophenol	9.10	184	258568	45.38445	ppb	89
56) 4-Nitrophenol	9.17	65	377398	48.34839	ppb	94
57) Dibenzofuran	9.26	168	1866460	41.01831	ppb	98
58) 2,4-DNT	9.25	165	522235	45.40315	ppb	98
59) 2,3,4,6-Tetrachlorophenol	9.40	232	450896	45.45412	ppb	95
60) Diethyl phthalate	9.52	149	1651997	43.86727	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.65	204	673453	44.86290	ppb	97
62) Fluorene	9.66	166	1445945	44.38941	ppb	99
63) 4-Nitroaniline	9.71	138	467969	44.36467	ppb	91
66) 4,6-Dinitro-2-methylphenol	9.73	198	364179	46.03995	ppb	95
67) Diphenyl amine	9.80	169	2247708	82.45409	ppb	99
68) n-Nitrosodiphenylamine	9.80	169	2247708	82.45409	ppb	99
69) 1,2-Diphenylhydrazine	9.85	77	1899544	44.09312	ppb	94
70) 4-Bromophenyl phenyl ether	10.23	248	484488	44.39067	ppb	92
71) Hexachlorobenzene	10.30	284	502790	43.80056	ppb	92
72) Atrazine	10.42	200	240392	24.09041	ppb	98
73) Pentachlorophenol	10.53	266	344170	48.45559	ppb	98
74) Phenanthrene	10.79	178	2328547	41.57645	ppb	100
75) Anthracene	10.86	178	2461509	42.72674	ppb	99
76) Carbazol	11.05	167	2363833	43.90959	ppb	98
77) Di-n-butylphthalate	11.43	149	2826248	45.34111	ppb	99
78) Fluoranthene	12.19	202	2638457	43.89844	ppb	98
80) Benzidine	12.34	184	1010610	48.15348	ppb	99
81) Pyrene	12.47	202	2755960	45.15571	ppb	99
83) Butyl benzylphthalate	13.19	149	1293875	47.46928	ppb	93
84) 3,3'-Dichlorobenzidine	13.83	252	927314	46.61970	ppb	98
85) Benz (a) anthracene	13.86	228	2138564	41.24879	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1504349	43.92262	ppb	99
87) Chrysene	13.90	228	2436471	44.67122	ppb	100
88) Di-n-octylphthalate	14.63	149	3027268	47.53469	ppb	96
90) Benzo (b) fluoranthene	15.23	252	2644578	42.81628	ppb	99
91) Benzo (k) fluoranthene	15.28	252	2618826	44.49658	ppb	100
92) Benzo (a) pyrene	15.73	252	2536913	45.14799	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.85	276	2840172	43.62729	ppb	97
94) Dibenz (a,h) anthracene	17.90	278	2486583	44.96871	ppb	98
95) Benzo (g,h,i) perylene	18.48	276	2316893	43.92428	ppb	99

Quantitation Report

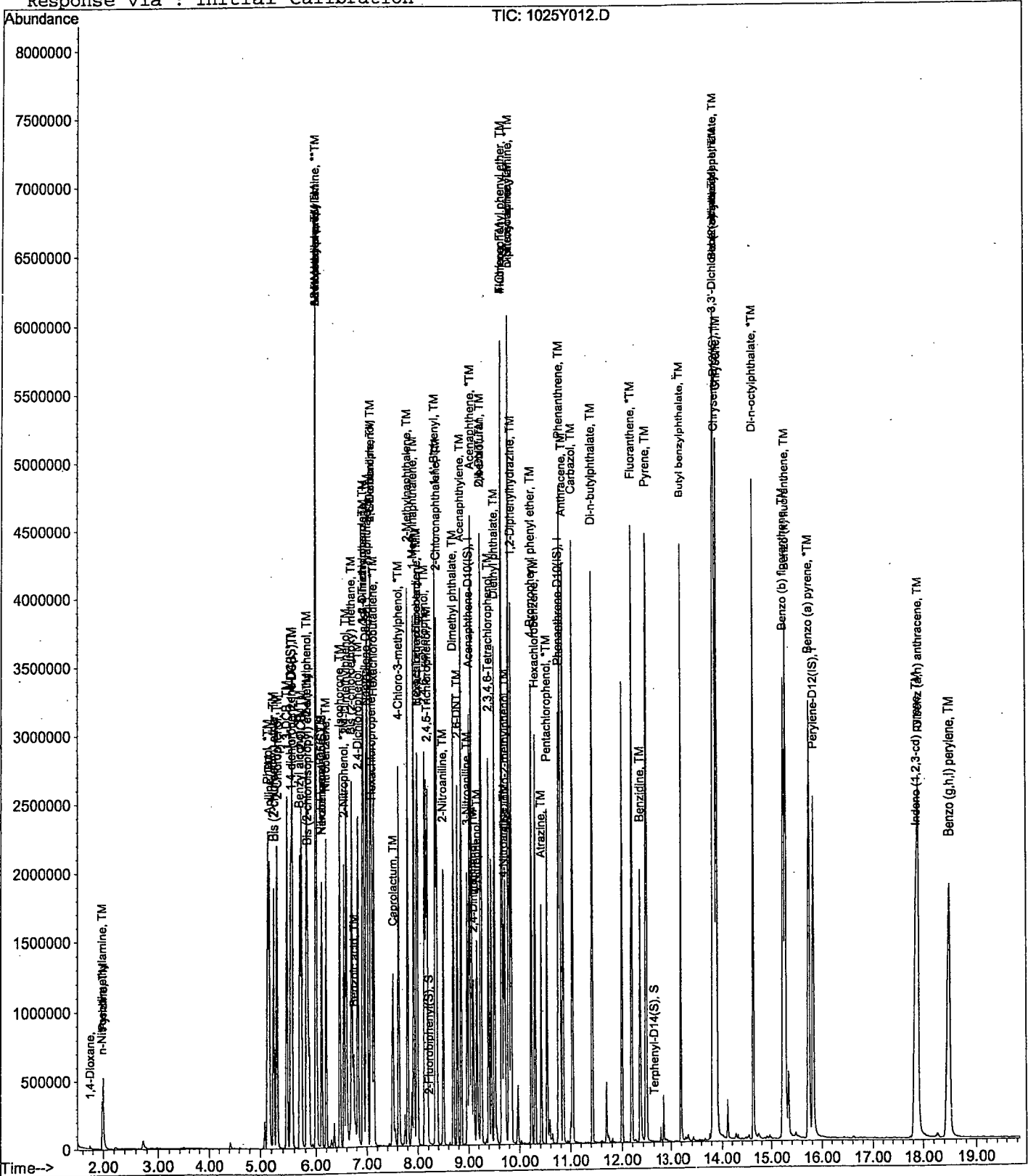
Data File : M:\YODA\DATA\Y181025\1025Y012.D  
Acq On : 25 Oct 18 15:44  
Sample : SS- 8270 10/18/18  
Misc :

Vial: 12  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Oct 25 16:58 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration

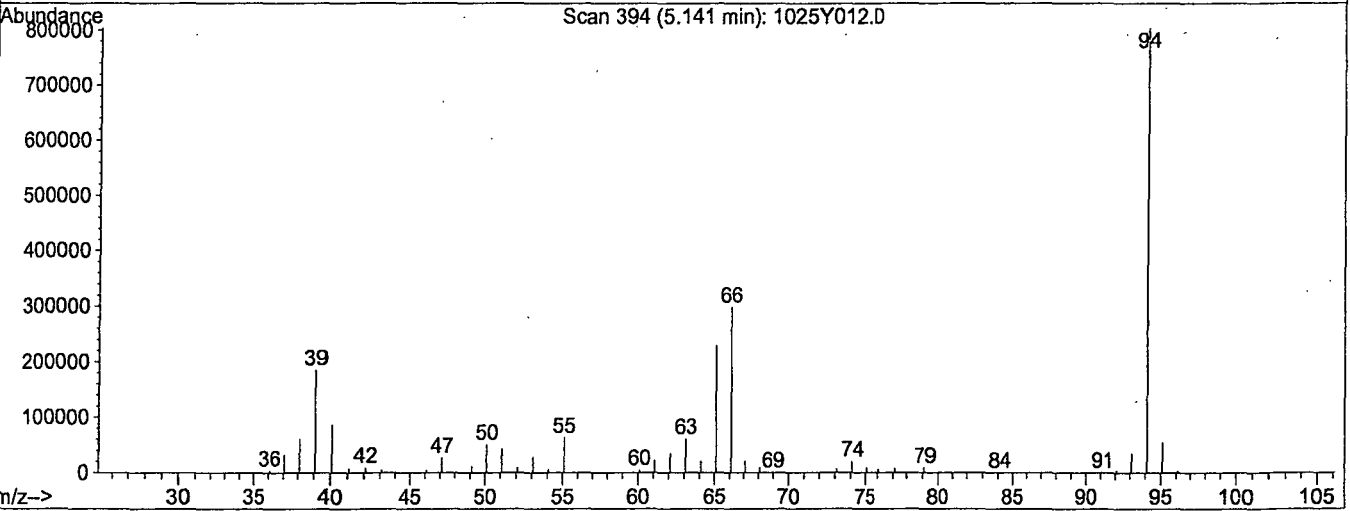
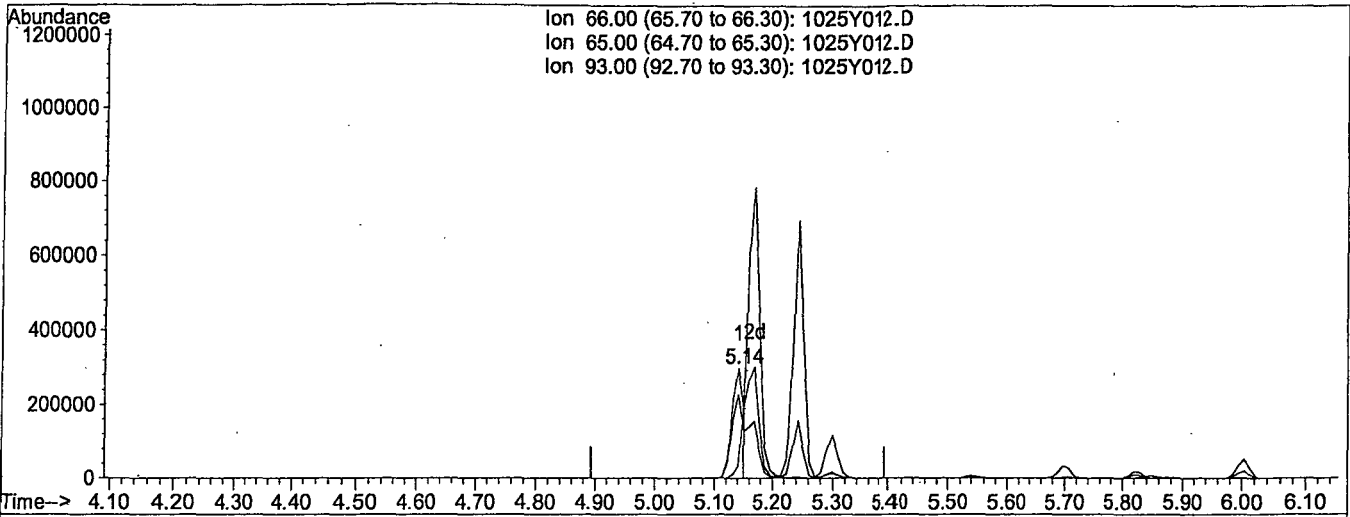


Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y012.D  
 Acq On : 25 Oct 18 15:44  
 Sample : SS- 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:57 2018

Vial: 12  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y012.D

(8) Aniline (TM)

5.14min 22.0314ppb

response 425752

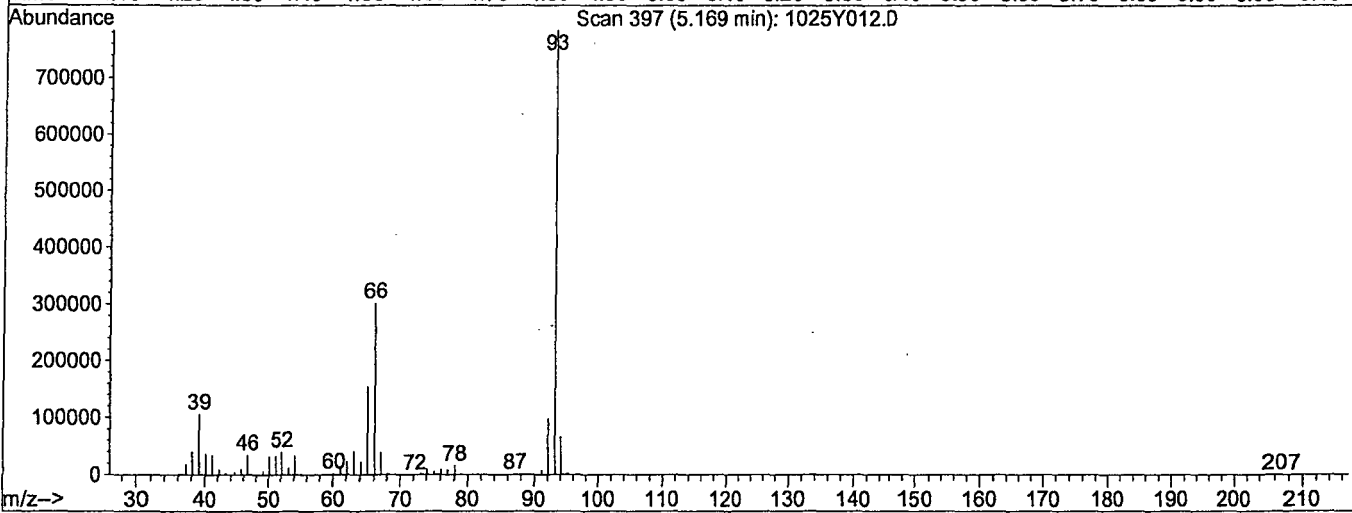
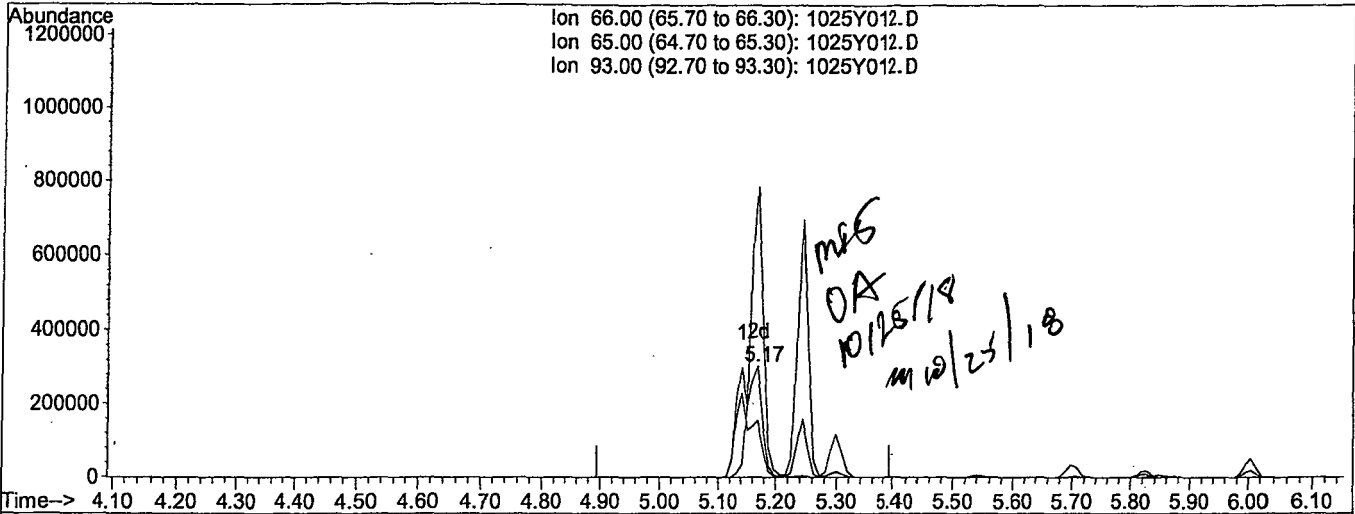
Ion	Exp%	Act%
66.00	100	100
65.00	73.00	76.70
93.00	16.80	11.42#
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y012.D  
 Acq On : 25 Oct 18 15:44  
 Sample : SS- 8270 10/18/18  
 Misc :  
 Quant Time: Oct 25 16:58 2018

Vial: 12  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Multiple Level Calibration



TIC: 1025Y012.D

(8) Aniline (TM)

5.17min 43.3150ppb m

response 837054

Ion	Exp%	Act%
66.00	100	100
65.00	73.00	51.40
93.00	16.80	259.64#
0.00	0.00	0.00

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 1 Nov 18 11:46  
Instrument: Yoda  
Initial Cal. Date: 10/25/18  
Data File: 1025Y101.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2		1,4-Dioxane	0.1218	0.1695	39		*NT
3	TM	n-Nitrosodimethylamine	0.3216	0.3329	3.5	TM	
4	TM	Pyridine	0.4810	0.5086	5.7	TM	
5	S	2-Fluorophenol (S)	1.572	1.503	4.4	S	
6	S	Phenol-D6 (S)	1.868	1.827	2.2	S	
7	*TM	Phenol	2.499	2.748	9.9	*TM	
8	TM	Aniline	1.998	2.223	11	TM	
9	TM	Bis (2-chloroethyl) ether	1.307	1.388	6.1	TM	
10	TM	2-Chlorophenol	1.946	2.027	4.2	TM	
11	TM	1,3-DCB	2.015	2.108	4.6	TM	
12	*TM	1,4-DCB	2.019	2.138	5.9	*TM	
13	TM	Benzyl alcohol	1.259	1.356	7.7	TM	
14	TM	1,2-DCB	1.919	2.010	4.8	TM	
15	TM	2-Methylphenol	1.549	1.671	7.8	TM	
16	TM	Bis (2-chloroisopropyl) ether	2.474	2.679	8.3	TM	
17	TML	Acetophenone	2.188	2.163	1.2	TML	13
18	TML	3&4-Methylphenol	1.681	1.663	1.1	TML	15
19	**TM	n-Nitrosodi-n-propylamine	1.288	1.306	1.4	**TM	
20	TM	Hexachloroethane	0.7589	0.7984	5.2	TM	
21	I	Napthalene-D8(IS)	ISTD			I	
22	S	Nitrobenzene-D5(S)	0.4514	0.4451	1.4	S	
23	TM	Nitrobenzene	0.4947	0.5485	11	TM	
24	TM	Isophorone	0.8745	0.9602	9.8	TM	
25	*TM	2-Nitrophenol	0.2512	0.2732	8.7	*TM	
26	TM	2,4-Dimethylphenol	0.4206	0.4593	9.2	TM	
27	TML	Benzoic acid	0.3415	0.4230	24	TML	9.6
28	TM	Bis (2-chloroethoxy) methane	0.4924	0.5292	7.5	TM	
29	*TM	2,4-Dichlorophenol	0.3707	0.4057	9.4	*TM	
30	TM	1,2,4-Trichlorobenzene	0.3850	0.4134	7.4	TM	
31	TM	3,4-Dimethylphenol	0.5695	0.6311	11	TM	
32	TM	Napthalene	1.295	1.394	7.6	TM	
33	TM	4-Chloroaniline	0.4852	0.5109	5.3	TM	
34	TM	2,6-Dichlorophenol	0.3392	0.3741	10	TM	
35	TM	Hexachloropropene	0.2572	0.2869	12	TM	
36	*TM	Hexachlorobutadiene	0.2130	0.2342	9.9	*TM	
37	TM	Caprolactum	0.2270	0.2604	15	TM	
38	*TM	4-Chloro-3-methylphenol	0.3980	0.4398	11	*TM	
39	TM	2-Methylnapthalene	0.8168	0.9001	10	TM	
40	TM	1-Methylnapthalene	0.8142	0.8817	8.3	TM	

Average

8.5

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 1 Nov 18 11:46  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y101.D

		Compound	MEAN	CCRF	%D	%Drift
41	I	Acenaphthene-D10(IS)	ISTD			I
42	**TML	Hexachlorocyclopentadiene	0.3816	0.4343	14	**TML 2.8
43	TM	1,2,4,5-Tetrachlorobenzene	0.7484	0.8117	8.5	TM
44	*TM	2,4,6-Trichlorophenol	0.5262	0.5772	9.7	*TM
45	TM	2,4,5-Trichlorophenol	0.5571	0.6009	7.9	TM
46	S	2-Fluorobiphenyl(S)	1.667	1.621	2.8	S
47	TM	1,1'-Biphenyl	1.964	2.110	7.4	TM
48	TM	2-Chloronaphthalene	1.564	1.682	7.5	TM
49	TM	2-Nitroaniline	0.5399	0.6061	12	TM
50	TM	Dimethyl phthalate	1.814	1.953	7.7	TM
51	TM	2,6-DNT	0.4186	0.4558	8.9	TM
52	TM	Acenaphthylene	2.523	2.735	8.4	TM
53	TM	3-Nitroaniline	0.4681	0.5133	9.7	TM
54	*TM	Acenaphthene	1.528	1.628	6.5	*TM
55	**TML	2,4-Dinitrophenol	0.2155	0.2740	27	**TML 1.7
56	**TM	4-Nitrophenol	0.3618	0.4136	14	**TM
57	TM	Dibenzofuran	2.109	2.247	6.5	TM
58	TM	2,4-DNT	0.5331	0.5924	11	TM
59	TM	2,3,4,6-Tetrachlorophenol	0.4598	0.5133	12	TM
60	TM	Diethyl phthalate	1.746	1.909	9.4	TM
61	TML	4-Chlorophenyl phenyl ether	0.7439	0.7926	6.5	TML 20
62	TML	Fluorene	1.604	1.711	6.7	TML 19
63	TM	4-Nitroaniline	0.4889	0.5302	8.4	TM
64	S	2,4,6-Tribromophenol(S)	0.2019	0.1933	4.3	S
65	I	Phenanthrene-D10(IS)	ISTD			I
66	TML	4,6-Dinitro-2-methylphenol	0.1817	0.2109	16	TML 6.1
67	TM	Diphenyl amine	0.6800	0.7310	7.5	TM
68	*TM	n-Nitrosodiphenylamine	0.6800	0.7310	7.5	*TM
69	TM	1,2-Diphenylhydrazine	1.075	1.146	6.7	TM
70	TM	4-Bromophenyl phenyl ether	0.2723	0.2955	8.6	TM
71	TM	Hexachlorobenzene	0.2863	0.3060	6.9	TM
72	TM	Atrazine	0.2489	0.2673	7.4	TM
73	*TM	Pentachlorophenol	0.1772	0.2091	18	*TM
74	TM	Phenanthrene	1.397	1.519	8.7	TM
75	TM	Anthracene	1.437	1.543	7.3	TM
76	TM	Carbazol	1.343	1.481	10	TM
77	TM	Di-n-butylphthalate	1.555	1.708	9.9	TM
78	*TM	Fluoranthene	1.499	1.641	9.5	*TM
79	I	Chrysene-D12(IS)	ISTD			I
80	TM	Benzidine	0.5685	0.5817	2.3	TM

Average

9.3

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 1 Nov 18 11:46  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y101.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	Pyrene	1.653	1.773	7.2	TM
82	S	Terphenyl-D14(S)	1.059	1.039	1.8	S
83	TM	Butyl benzylphthalate	0.7384	0.8174	11	TM
84	TM	3,3'-Dichlorobenzidine	0.5388	0.5988	11	TM
85	TM	Benz (a) anthracene	1.404	1.471	4.7	TM
86	TM	Bis (2-ethylhexyl) phthalate	0.9278	1.009	8.8	TM
87	TM	Chrysene	1.477	1.601	8.4	TM
88	*TM	Di-n-octylphthalate	1.725	1.938	12	*TM
89	I	Perylene-D12(IS)	ISTD			I
90	TM	Benzo (b) fluoranthene	1.499	1.714	14	TM
91	TM	Benzo (k) fluoranthene	1.428	1.549	8.5	TM
92	*TM	Benzo (a) pyrene	1.364	1.561	14	*TM
93	TM	Indeno (1,2,3-cd) pyrene	1.580	1.768	12	TM
94	TM	Dibenz (a,h) anthracene	1.342	1.551	16	TM
95	TM	Benzo (g,h,i) perylene	1.280	1.444	13	TM
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120						

Average

10.2



Data File : M:\YODA\DATA\Y181025\1025Y101.D Vial: 1  
 Acq On : 1 Nov 18 11:46 Operator: MA  
 Sample : 50ug/mL 8270 10/18/18 (2) Inst : Yoda  
 Misc : Multiplr: 1.00

Quant Time: Nov 1 12:00 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.53	152	297290	40.00000	ppb	-0.01
21) Napthalene-D8 (IS)	6.98	136	1211775	40.00000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	634714	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1183258	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1135513	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1173289	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.94	112	1117004	95.62428	ppb	0.00
Spiked Amount 200.000			Recovery =	47.812%		
6) Phenol-D6 (S)	5.12	99	1357977	97.79402	ppb	0.00
Spiked Amount 200.000			Recovery =	48.897%		
22) Nitrobenzene-D5 (S)	6.17	82	674224	49.30022	ppb	0.00
Spiked Amount 100.000			Recovery =	49.300%		
46) 2-Fluorobiphenyl (S)	8.22	172	1286346	48.61990	ppb	0.00
Spiked Amount 100.000			Recovery =	48.620%		
64) 2,4,6-Tribromophenol (S)	9.95	330	306698	95.74626	ppb	0.00
Spiked Amount 200.000			Recovery =	47.873%		
82) Terphenyl-D14 (S)	12.62	244	1475268	49.07862	ppb	0.00
Spiked Amount 100.000			Recovery =	49.079%		

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.74	58	6298	6.95678		91
3) n-Nitrosodimethylamine	1.97	42	123706	51.76304	ppb	91
4) Pyridine	1.99	79	189005	52.87498	ppb	95
7) Phenol	5.14	94	1021038	54.96286	ppb	98
8) Aniline	5.14	66	825911	55.61608	ppb	# 93
9) Bis (2-chloroethyl) ether	5.24	63	515644	53.07387	ppb	97
10) 2-Chlorophenol	5.29	128	753252	52.08183	ppb	95
11) 1,3-DCB	5.47	146	783259	52.28817	ppb	98
12) 1,4-DCB	5.56	146	794540	52.94626	ppb	98
13) Benzyl alcohol	5.70	108	503860	53.83571	ppb	97
14) 1,2-DCB	5.73	146	747007	52.38373	ppb	98
15) 2-Methylphenol	5.82	107	620959	53.92417	ppb	99
16) Bis (2-chloroisopropyl) et	5.84	45	995634	54.13919	ppb	97
17) Acetophenone	6.00	105	803689	56.70516	ppb	94
18) 3&4-Methylphenol	6.00	107	1235621	115.17459	ppb	95
19) n-Nitrosodi-n-propylamine	6.00	70	485486	50.71292	ppb	97
20) Hexachloroethane	6.11	117	296694	52.59913	ppb	95
23) Nitrobenzene	6.19	77	830835	55.43346	ppb	92
24) Isophorone	6.46	82	1454382	54.89820	ppb	96
25) 2-Nitrophenol	6.55	139	413748	54.37230	ppb	100
26) 2,4-Dimethylphenol	6.59	122	695713	54.60527	ppb	97
27) Benzoic acid	6.74	105	640776	54.80417	ppb	97
28) Bis (2-chloroethoxy) metha	6.70	93	801621	53.74199	ppb	100
29) 2,4-Dichlorophenol	6.82	162	614496	54.71922	ppb	98
30) 1,2,4-Trichlorobenzene	6.92	180	626215	53.69247	ppb	99
31) 3,4-Dimethylphenol	6.93	107	955958	55.40571	ppb	100
32) Napthalene	7.01	128	2111865	53.81104	ppb	99
33) 4-Chloroaniline	7.07	127	773891	52.65298	ppb	99
34) 2,6-Dichlorophenol	7.08	162	566699	55.14558	ppb	98
35) Hexachloropropene	7.10	213	434613	55.77058	ppb	99
36) Hexachlorobutadiene	7.14	225	354718	54.97452	ppb	98
37) Caprolactum	7.51	55	394361	57.35625	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y101.D Y1025NC.M Thu Nov 01 18:06:05 2018

Data File : M:\YODA\DATA\Y181025\1025Y101.D  
 Acq On : 1 Nov 18 11:46  
 Sample : 50ug/mL 8270 10/18/18 (2)  
 Misc :

Vial: 1  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Nov 1 12:00 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	666221	55.25121	ppb	99
39) 2-Methylnaphthalene	7.80	142	1363400	55.10054	ppb	99
40) 1-Methylnaphthalene	7.92	142	1335502	54.14305	ppb	100
42) Hexachlorocyclopentadiene	7.97	237	344605	51.40397	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	643960	54.22578	ppb	99
44) 2,4,6-Trichlorophenol	8.13	196	457975	54.84907	ppb	98
45) 2,4,5-Trichlorophenol	8.19	196	476729	53.92805	ppb	99
47) 1,1'-Biphenyl	8.34	154	1674036	53.72396	ppb	98
48) 2-Chloronaphthalene	8.37	162	1334104	53.76011	ppb	100
49) 2-Nitroaniline	8.49	65	480900	56.13370	ppb	100
50) Dimethyl phthalate	8.70	163	1549731	53.85290	ppb	100
51) 2,6-DNT	8.78	165	361611	54.43631	ppb	98
52) Acenaphthylene	8.86	152	2169571	54.19745	ppb	100
53) 3-Nitroaniline	8.98	138	407241	54.82582	ppb	97
54) Acenaphthene	9.06	154	1291459	53.25708	ppb	99
55) 2,4-Dinitrophenol	9.10	184	217350	50.84951	ppb	97
56) 4-Nitrophenol	9.17	65	328185	57.16389	ppb	97
57) Dibenzofuran	9.25	168	1782794	53.26977	ppb	99
58) 2,4-DNT	9.25	165	470003	55.55732	ppb	97
59) 2,3,4,6-Tetrachlorophenol	9.40	232	407278	55.82239	ppb	99
60) Diethyl phthalate	9.52	149	1514444	54.67706	ppb	100
61) 4-Chlorophenyl phenyl ethe	9.65	204	628870	59.89642	ppb	98
62) Fluorene	9.66	166	1357186	59.31613	ppb	98
63) 4-Nitroaniline	9.70	138	420650	54.22028	ppb	99
66) 4,6-Dinitro-2-methylphenol	9.73	198	311911	53.03203	ppb	93
67) Diphenyl amine	9.80	169	2162463	107.50184	ppb	100
68) n-Nitrosodiphenylamine	9.80	169	2162463	107.50184	ppb	100
69) 1,2-Diphenylhydrazine	9.84	77	1695571	53.33747	ppb	99
70) 4-Bromophenyl phenyl ether	10.23	248	437136	54.27755	ppb	99
71) Hexachlorobenzene	10.29	284	452662	53.43946	ppb	99
72) Atrazine	10.42	200	197650	26.84206	ppb	97
73) Pentachlorophenol	10.54	266	309297	59.01216	ppb	99
74) Phenanthrene	10.80	178	2246396	54.35552	ppb	99
75) Anthracene	10.85	178	2281500	53.66780	ppb	99
76) Carbazol	11.05	167	2191030	55.15512	ppb	100
77) Di-n-butylphthalate	11.43	149	2526356	54.92516	ppb	100
78) Fluoranthene	12.19	202	2427776	54.73973	ppb	100
80) Benzidine	12.35	184	825611	51.15685	ppb	100
81) Pyrene	12.46	202	2516603	53.62147	ppb	99
83) Butyl benzylphthalate	13.19	149	1160264	55.35558	ppb	99
84) 3,3'-Dichlorobenzidine	13.82	252	849867	55.56200	ppb	98
85) Benz (a) anthracene	13.86	228	2087278	52.35444	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1432432	54.38735	ppb	99
87) Chrysene	13.91	228	2273158	54.19765	ppb	99
88) Di-n-octylphthalate	14.63	149	2750182	56.15720	ppb	100
90) Benzo (b) fluoranthene	15.23	252	2514138	57.18729	ppb	99
91) Benzo (k) fluoranthene	15.27	252	2272144	54.23926	ppb	99
92) Benzo (a) pyrene	15.73	252	2289672	57.24849	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.85	276	2592373	55.94598	ppb	96
94) Dibenz (a,h) anthracene	17.90	278	2274408	57.78747	ppb	99
95) Benzo (g,h,i) perylene	18.48	276	2117191	56.39188	ppb	99

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

1025Y101.D Y1025NC.M Thu Nov 01 18:06:06 2018

Quantitation Report

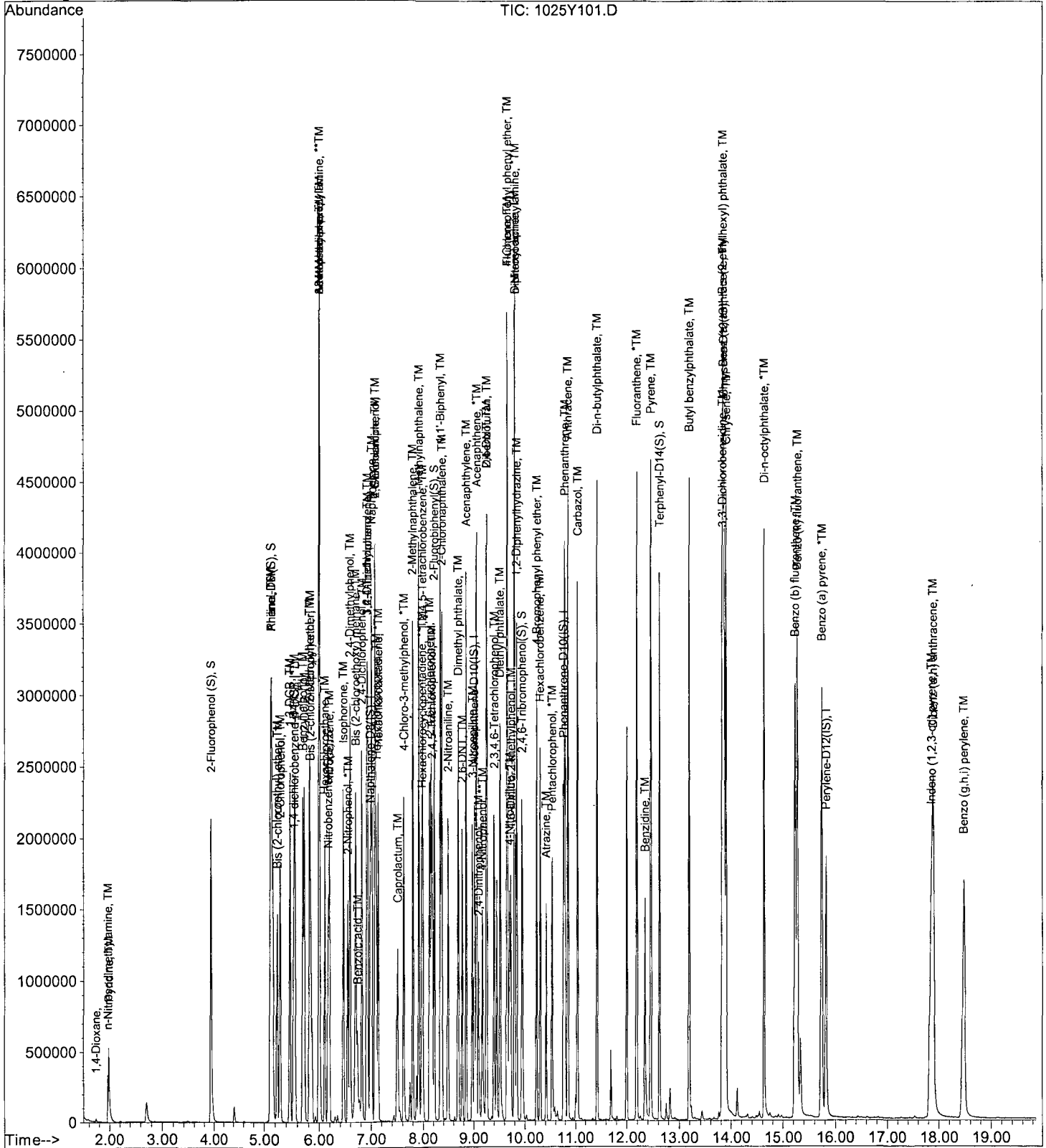
Data File : M:\YODA\DATA\Y181025\1025Y101.D  
Acq On : 1 Nov 18 11:46  
Sample : 50ug/mL 8270 10/18/18 (2)  
Misc :

Vial: 1  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 12:00 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Ending Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 1 Nov 18 19:36  
Instrument: Yoda  
Initial Cal. Date: 10/25/18  
Data File: 1025Y117.D

	Compound	MEAN	CCRF	%D	%Drift
1 I	1,4-dichlorobenzene-D4(IS)	ISTD			I
2	1,4-Dioxane	0.1218	0.1365	12	
3 TM	n-Nitrosodimethylamine	0.3216	0.3575	11	TM
4 TM	Pyridine	0.4810	0.4817	0.16	TM
5 S	2-Fluorophenol (S)	1.572	1.450	7.7	S
6 S	Phenol-D6 (S)	1.868	1.684	9.9	S
7 *TM	Phenol	2.499	2.510	0.42	*TM
8 TM	Aniline	1.998	2.121	6.1	TM
9 TM	Bis (2-chloroethyl) ether	1.307	1.370	4.8	TM
10 TM	2-Chlorophenol	1.946	2.003	2.9	TM
11 TM	1,3-DCB	2.015	2.101	4.2	TM
12 *TM	1,4-DCB	2.019	1.971	2.4	*TM
13 TM	Benzyl alcohol	1.259	1.343	6.6	TM
14 TM	1,2-DCB	1.919	1.917	0.07	TM
15 TM	2-Methylphenol	1.549	1.624	4.8	TM
16 TM	Bis (2-chloroisopropyl) ether	2.474	2.639	6.6	TM
17 TML	Acetophenone	2.188	1.831	16	TML 5.8
18 TML	3&4-Methylphenol	1.681	1.376	18	TML 7.0
19 **TM	n-Nitrosodi-n-propylamine	1.288	1.231	4.4	**TM
20 TM	Hexachloroethane	0.7589	0.7701	1.5	TM
21 I	Napthalene-D8(IS)	ISTD			I
22 S	Nitrobenzene-D5(S)	0.4514	0.4804	6.4	S
23 TM	Nitrobenzene	0.4947	0.5960	20	TM
24 TM	Isophorone	0.8745	1.013	16	TM
25 *TM	2-Nitrophenol	0.2512	0.2949	17	*TM
26 TM	2,4-Dimethylphenol	0.4206	0.4870	16	TM
27 TML	Benzoic acid	0.3415	0.4199	23	TML 8.9
28 TM	Bis (2-chloroethoxy) methane	0.4924	0.5158	4.8	TM
29 *TM	2,4-Dichlorophenol	0.3707	0.3895	5.1	*TM
30 TM	1,2,4-Trichlorobenzene	0.3850	0.3918	1.8	TM
31 TM	3,4-Dimethylphenol	0.5695	0.6102	7.1	TM
32 TM	Naphthalene	1.295	1.322	2.0	TM
33 TM	4-Chloroaniline	0.4852	0.4479	7.7	TM
34 TM	2,6-Dichlorophenol	0.3392	0.3284	3.2	TM
35 TM	Hexachloropropene	0.2572	0.2787	8.3	TM
36 *TM	Hexachlorobutadiene	0.2130	0.2238	5.1	*TM
37 TM	Caprolactum	0.2270	0.2622	16	TM
38 *TM	4-Chloro-3-methylphenol	0.3980	0.4325	8.7	*TM
39 TM	2-Methylnaphthalene	0.8168	0.8387	2.7	TM
40 TM	1-Methylnaphthalene	0.8142	0.8327	2.3	TM

Average

7.7

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 1 Nov 18 19:36  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y117.D

		Compound	MEAN	CCRF	%D	%Drift
41	I	Acenaphthene-D10(IS)	ISTD			I
42	**TML	Hexachlorocyclopentadiene	0.3816	0.4393	15	**TML 3.9
43	TM	1,2,4,5-Tetrachlorobenzene	0.7484	0.7314	2.3	TM
44	*TM	2,4,6-Trichlorophenol	0.5262	0.5541	5.3	*TM
45	TM	2,4,5-Trichlorophenol	0.5571	0.5801	4.1	TM
46	S	2-Fluorobiphenyl(S)	1.667	1.526	8.5	S
47	TM	1,1'-Biphenyl	1.964	1.938	1.3	TM
48	TM	2-Chloronaphthalene	1.564	1.586	1.4	TM
49	TM	2-Nitroaniline	0.5399	0.6025	12	TM
50	TM	Dimethyl phthalate	1.814	1.873	3.3	TM
51	TM	2,6-DNT	0.4186	0.4516	7.9	TM
52	TM	Acenaphthylene	2.523	2.580	2.3	TM
53	TM	3-Nitroaniline	0.4681	0.4966	6.1	TM
54	*TM	Acenaphthene	1.528	1.483	3.0	*TM
55	**TML	2,4-Dinitrophenol	0.2155	0.3030	41	**TML 11
56	**TM	4-Nitrophenol	0.3618	0.4369	21	**TM
57	TM	Dibenzofuran	2.109	1.997	5.3	TM
58	TM	2,4-DNT	0.5331	0.5283	0.90	TM
59	TM	2,3,4,6-Tetrachlorophenol	0.4598	0.4864	5.8	TM
60	TM	Diethyl phthalate	1.746	1.805	3.4	TM
61	TML	4-Chlorophenyl phenyl ether	0.7439	0.6908	7.1	TML 1.6
62	TML	Fluorene	1.604	1.522	5.1	TML 3.4
63	TM	4-Nitroaniline	0.4889	0.5297	8.3	TM
64	S	2,4,6-Tribromophenol(S)	0.2019	0.1867	7.5	S
65	I	Phenanthrene-D10(IS)	ISTD			I
66	TML	4,6-Dinitro-2-methylphenol	0.1817	0.2130	17	TML 7.1
67	TM	Diphenyl amine	0.6800	0.6425	5.5	TM
68	*TM	n-Nitrosodiphenylamine	0.6800	0.6425	5.5	*TM
69	TM	1,2-Diphenylhydrazine	1.075	1.282	19	TM
70	TM	4-Bromophenyl phenyl ether	0.2723	0.2772	1.8	TM
71	TM	Hexachlorobenzene	0.2863	0.2860	0.12	TM
72	TM	Atrazine	0.2489	0.2659	6.8	TM
73	*TM	Pentachlorophenol	0.1772	0.2058	16	*TM
74	TM	Phenanthrene	1.397	1.382	1.1	TM
75	TM	Anthracene	1.437	1.457	1.4	TM
76	TM	Carbazol	1.343	1.401	4.3	TM
77	TM	Di-n-butylphthalate	1.555	1.629	4.8	TM
78	*TM	Fluoranthene	1.499	1.515	1.1	*TM
79	I	Chrysene-D12(IS)	ISTD			I
80	TM	Benzidine	0.5685	0.5568	2.1	TM

Average

7.1

Semi-Volatile Analysis by GC-MS  
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 1 Nov 18 19:36  
Instrument: Yoda  
Cal. Date: 10/25/18  
Data File: 1025Y117.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	Pyrene	1.653	1.748	5.7	TM
82	S	Terphenyl-D14(S)	1.059	1.001	5.5	S
83	TM	Butyl benzylphthalate	0.7384	0.8119	10.0	TM
84	TM	3,3'-Dichlorobenzidine	0.5388	0.5487	1.8	TM
85	TM	Benz (a) anthracene	1.404	1.344	4.3	TM
86	TM	Bis (2-ethylhexyl) phthalate	0.9278	0.9010	2.9	TM
87	TM	Chrysene	1.477	1.526	3.3	TM
88	*TM	Di-n-octylphthalate	1.725	1.906	10	*TM
89	I	Perylene-D12(IS)	ISTD			I
90	TM	Benzo (b) fluoranthene	1.499	1.527	1.9	TM
91	TM	Benzo (k) fluoranthene	1.428	1.432	0.28	TM
92	*TM	Benzo (a) pyrene	1.364	1.461	7.1	*TM
93	TM	Indeno (1,2,3-cd) pyrene	1.580	1.636	3.6	TM
94	TM	Dibenz (a,h) anthracene	1.342	1.399	4.3	TM
95	TM	Benzo (g,h,i) perylene	1.280	1.356	5.9	TM
96						
97						
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117						
118						
119						
120						

Average

4.8

Data File : M:\YODA\DATA\Y181025\1025Y117.D  
 Acq On : 1 Nov 18 19:36  
 Sample : 50ug/mL 8270 10/18/18 (2)  
 Misc :

Vial: 17  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Nov 2 8:25 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	414395	40.00000	ppb	0.00
21) Napthalene-D8 (IS)	6.99	136	1562731	40.00000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	835105	40.00000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.77	188	1566958	40.00000	ppb	0.00
79) Chrysene-D12 (IS)	13.88	240	1436803	40.00000	ppb	0.00
89) Perylene-D12 (IS)	15.83	264	1634152	40.00000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.94	112	1502511	92.27773	ppb	0.00
Spiked Amount 200.000			Recovery =	46.139%		
6) Phenol-D6 (S)	5.13	99	1744854	90.14565	ppb	0.00
Spiked Amount 200.000			Recovery =	45.073%		
22) Nitrobenzene-D5 (S)	6.17	82	938466	53.21095	ppb	0.00
Spiked Amount 100.000			Recovery =	53.211%		
46) 2-Fluorobiphenyl (S)	8.22	172	1592837	45.75774	ppb	0.00
Spiked Amount 100.000			Recovery =	45.758%		
64) 2,4,6-Tribromophenol (S)	9.95	330	389848	92.50031	ppb	0.00
Spiked Amount 200.000			Recovery =	46.250%		
82) Terphenyl-D14 (S)	12.62	244	1797298	47.25377	ppb	0.00
Spiked Amount 100.000			Recovery =	47.254%		

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.74	58	7070	5.60261		90
3) n-Nitrosodimethylamine	1.98	42	185167	55.58510	ppb	96
4) Pyridine	1.99	79	249526	50.07933	ppb	94
7) Phenol	5.15	94	1300177	50.21063	ppb	87
8) Aniline	5.15	66	1098623	53.07397	ppb	# 68
9) Bis (2-chloroethyl) ether	5.24	63	709433	52.38512	ppb	99
10) 2-Chlorophenol	5.30	128	1037342	51.45573	ppb	97
11) 1,3-DCB	5.47	146	1088299	52.12092	ppb	96
12) 1,4-DCB	5.56	146	1021042	48.81226	ppb	100
13) Benzyl alcohol	5.71	108	695462	53.30890	ppb	98
14) 1,2-DCB	5.73	146	993139	49.96290	ppb	100
15) 2-Methylphenol	5.83	107	841290	52.41216	ppb	98
16) Bis (2-chloroisopropyl) et	5.84	45	1366753	53.31726	ppb	94
17) Acetophenone	6.01	105	948652	47.09714	ppb	92
18) 3&4-Methylphenol	6.01	107	1425439	93.00678	ppb	97
19) n-Nitrosodi-n-propylamine	6.03	70	637834	47.79862	ppb	86
20) Hexachloroethane	6.11	117	398931	50.73800	ppb	98
23) Nitrobenzene	6.20	77	1164296	60.23631	ppb	95
24) Isophorone	6.47	82	1978184	57.90073	ppb	97
25) 2-Nitrophenol	6.55	139	576126	58.70797	ppb	93
26) 2,4-Dimethylphenol	6.60	122	951376	57.90211	ppb	96
27) Benzoic acid	6.77	105	820237	54.42568	ppb	100
28) Bis (2-chloroethoxy) metha	6.70	93	1007563	52.37869	ppb	98
29) 2,4-Dichlorophenol	6.83	162	760831	52.53477	ppb	96
30) 1,2,4-Trichlorobenzene	6.92	180	765318	50.88264	ppb	98
31) 3,4-Dimethylphenol	6.93	107	1191964	53.56938	ppb	98
32) Napthalene	7.01	128	2582195	51.01901	ppb	100
33) 4-Chloroaniline	7.07	127	875004	46.16267	ppb	96
34) 2,6-Dichlorophenol	7.08	162	641427	48.39977	ppb	98
35) Hexachloropropene	7.10	213	544334	54.16337	ppb	99
36) Hexachlorobutadiene	7.14	225	437266	52.54867	ppb	100
37) Caprolactum	7.53	55	512170	57.76153	ppb	99

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

Data File : M:\YODA\DATA\Y181025\1025Y117.D  
 Acq On : 1 Nov 18 19:36  
 Sample : 50ug/mL 8270 10/18/18 (2)  
 Misc :

Vial: 17  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Nov 2 8:25 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.63	107	844838	54.32937	ppb	94
39) 2-Methylnaphthalene	7.81	142	1638358	51.34275	ppb	100
40) 1-Methylnaphthalene	7.92	142	1626638	51.13601	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	458595	51.96093	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	763471	48.86259	ppb	98
44) 2,4,6-Trichlorophenol	8.13	196	578421	52.65123	ppb	99
45) 2,4,5-Trichlorophenol	8.19	196	605575	52.06526	ppb	93
47) 1,1'-Biphenyl	8.34	154	2023530	49.35713	ppb	98
48) 2-Chloronaphthalene	8.37	162	1655829	50.71343	ppb	97
49) 2-Nitroaniline	8.49	65	628922	55.79595	ppb	94
50) Dimethyl phthalate	8.70	163	1955046	51.63530	ppb	100
51) 2,6-DNT	8.78	165	471440	53.93994	ppb	# 81
52) Acenaphthylene	8.86	152	2692796	51.12643	ppb	99
53) 3-Nitroaniline	8.99	138	518363	53.04014	ppb	96
54) Acenaphthene	9.06	154	1547604	48.50579	ppb	99
55) 2,4-Dinitrophenol	9.11	184	316248	55.47731	ppb	94
56) 4-Nitrophenol	9.18	65	456104	60.38150	ppb	97
57) Dibenzofuran	9.26	168	2084753	47.34469	ppb	96
58) 2,4-DNT	9.25	165	551500	49.54766	ppb	# 79
59) 2,3,4,6-Tetrachlorophenol	9.40	232	507758	52.89459	ppb	96
60) Diethyl phthalate	9.52	149	1884557	51.71282	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.65	204	721098	50.80015	ppb	93
62) Fluorene	9.66	166	1588487	51.69928	ppb	99
63) 4-Nitroaniline	9.71	138	552982	54.17374	ppb	96
66) 4,6-Dinitro-2-methylphenol	9.74	198	417136	53.53098	ppb	96
67) Diphenyl amine	9.81	169	2517074	94.48988	ppb	98
68) n-Nitrosodiphenylamine	9.81	169	2517074	94.48988	ppb	98
69) 1,2-Diphenylhydrazine	9.84	77	2511661	59.66224	ppb	98
70) 4-Bromophenyl phenyl ether	10.23	248	542903	50.90354	ppb	92
71) Hexachlorobenzene	10.30	284	560189	49.93955	ppb	90
72) Atrazine	10.42	200	260437	26.70815	ppb	97
73) Pentachlorophenol	10.54	266	403130	58.08086	ppb	99
74) Phenanthrene	10.80	178	2706410	49.45076	ppb	99
75) Anthracene	10.85	178	2854694	50.70782	ppb	100
76) Carbazol	11.05	167	2743782	52.15659	ppb	98
77) Di-n-butylphthalate	11.43	149	3191544	52.39619	ppb	99
78) Fluoranthene	12.19	202	2967949	50.53271	ppb	100
80) Benzidine	12.35	184	999955	48.96702	ppb	99
81) Pyrene	12.46	202	3139808	52.87155	ppb	100
83) Butyl benzylphthalate	13.19	149	1458140	54.97923	ppb	95
84) 3,3'-Dichlorobenzidine	13.82	252	985465	50.91702	ppb	97
85) Benz (a) anthracene	13.86	228	2414527	47.86303	ppb	99
86) Bis (2-ethylhexyl) phthala	13.84	149	1618282	48.55936	ppb	99
87) Chrysene	13.91	228	2740519	51.63908	ppb	99
88) Di-n-octylphthalate	14.63	149	3423300	55.24384	ppb	97
90) Benzo (b) fluoranthene	15.23	252	3118297	50.92610	ppb	99
91) Benzo (k) fluoranthene	15.28	252	2925497	50.14066	ppb	99
92) Benzo (a) pyrene	15.74	252	2984032	53.56816	ppb	98
93) Indeno (1,2,3-cd) pyrene	17.86	276	3341985	51.78315	ppb	97
94) Dibenz (a,h) anthracene	17.91	278	2858171	52.13941	ppb	99
95) Benzo (g,h,i) perylene	18.49	276	2769337	52.95962	ppb	100

(#) = qualifier out of range (m) = manual integration  
 1025Y117.D Y1025NC.M Fri Nov 02 08:25:06 2018



Quantitation Report

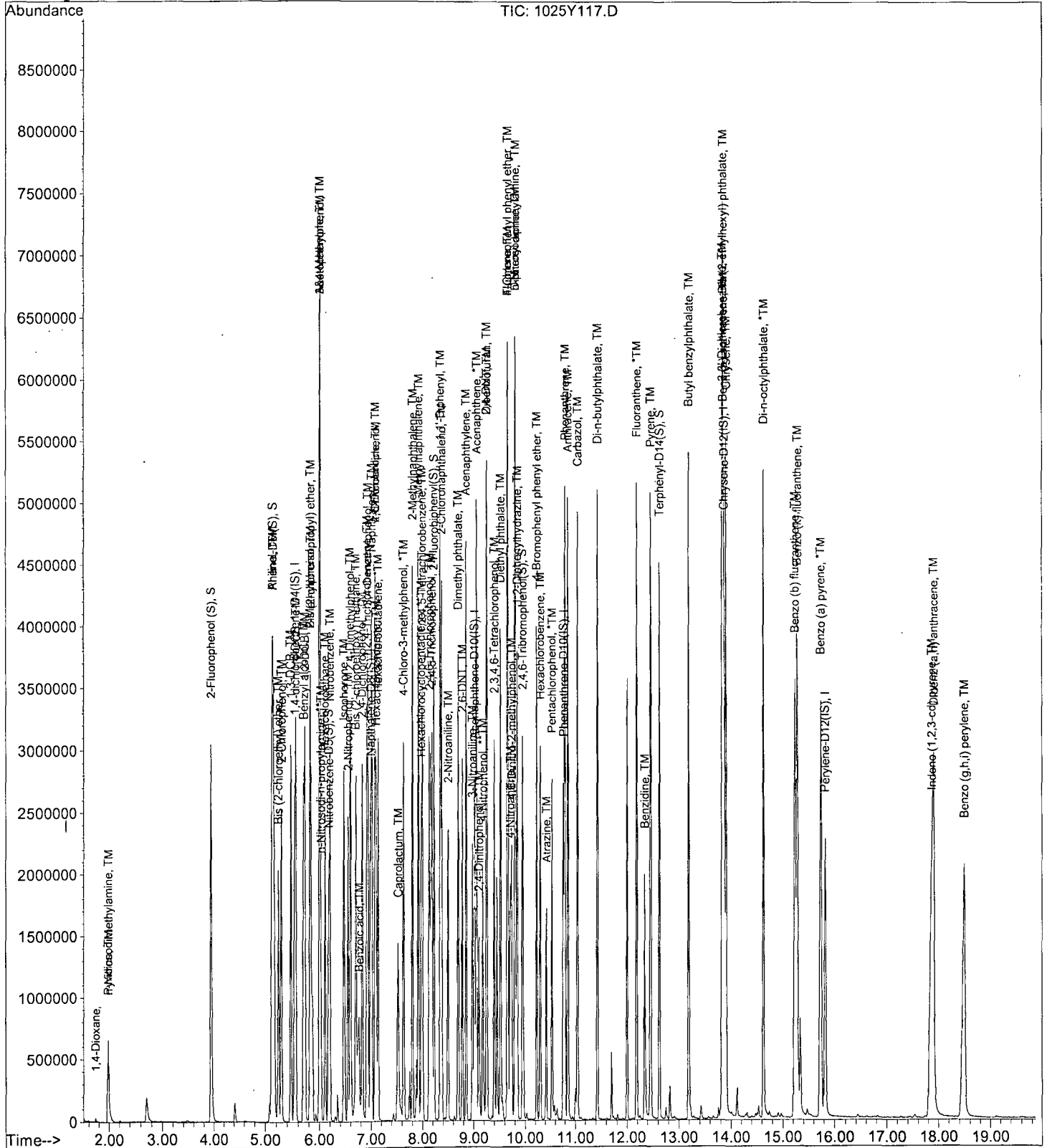
Data File : M:\YODA\DATA\Y181025\1025Y117.D  
Acq On : 1 Nov 18 19:36  
Sample : 50ug/mL 8270 10/18/18 (2)  
Misc :

Vial: 17  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 2 8:25 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : M:\YODA\DATA\Y181025\1025Y112.D Vial: 12  
 Acq On : 1 Nov 18 17:17 Operator: MA  
 Sample : AZ81840W12 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Time: Nov 2 8:33 2018 Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.53	152	254320	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1010949	40.0000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	558750	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1080561	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1044308	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	1028914	40.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
5) 2-Fluorophenol (S)	3.95	112	1588159	198.6631	ppb	0.00
Spiked Amount 250.000			Recovery =	79.465%		
6) Phenol-D6 (S)	5.13	99	1950218	205.2168	ppb	0.00
Spiked Amount 250.000			Recovery =	82.087%		
22) Nitrobenzene-D5 (S)	6.17	82	999453	109.4989	ppb	0.00
Spiked Amount 125.000			Recovery =	87.599%		
46) 2-Fluorobiphenyl (S)	8.23	172	1729749	92.8346	ppb	0.00
Spiked Amount 125.000			Recovery =	74.268%		
64) 2,4,6-Tribromophenol (S)	9.94	330	429211	190.2621	ppb	0.00
Spiked Amount 250.000			Recovery =	76.105%		
82) Terphenyl-D14 (S)	12.63	244	1864556	84.3083	ppb	0.00
Spiked Amount 125.000			Recovery =	67.446%		

Target Compounds Qvalue

Quantitation Report

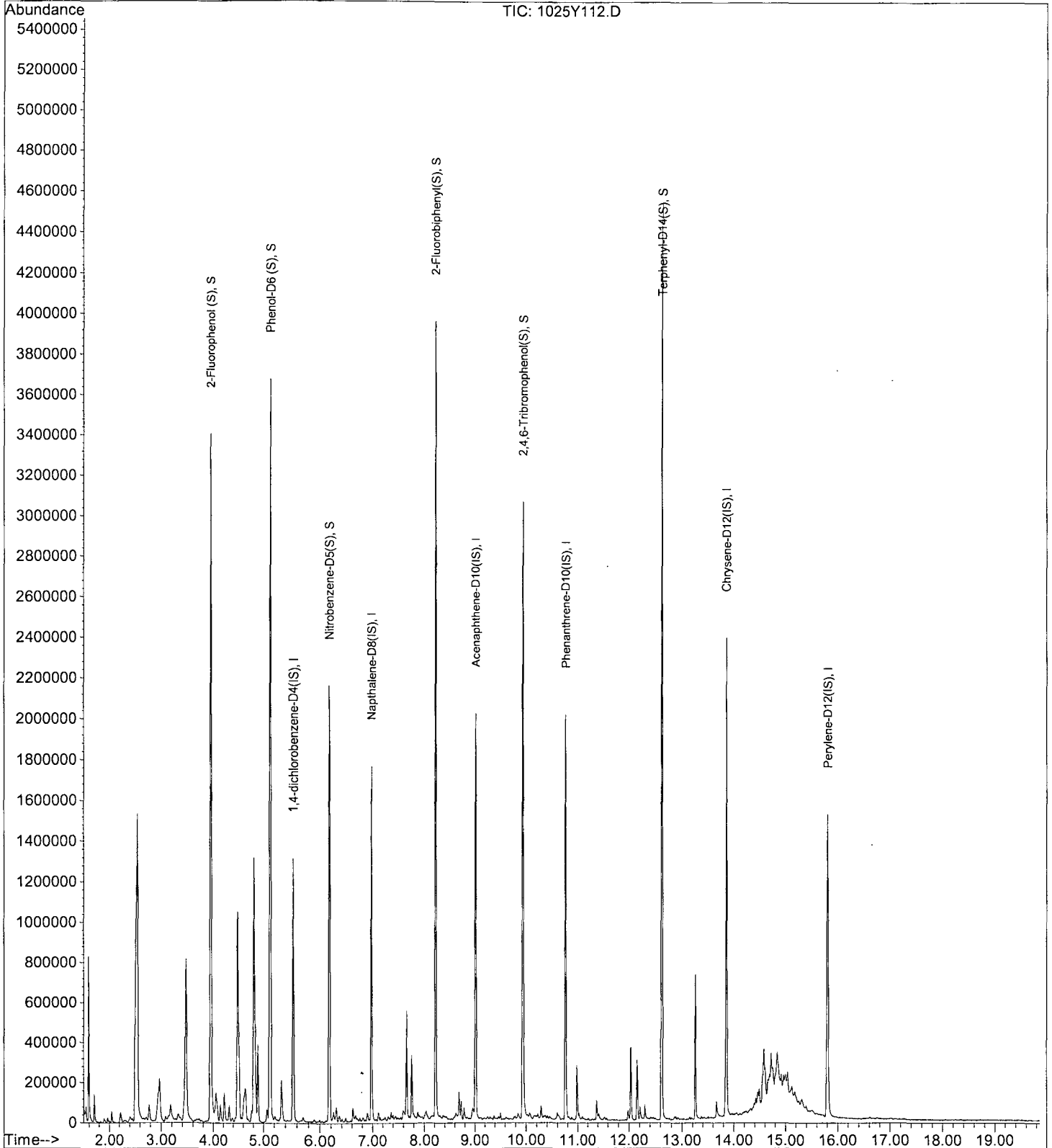
Data File : M:\YODA\DATA\Y181025\1025Y112.D  
Acq On : 1 Nov 18 17:17  
Sample : AZ81840W12 1/800  
Misc :

Vial: 12  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Nov 2 8:33 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



LSC Area Percent Report

Data File : M:\YODA\DATA\Y181025\1025Y112.D  
 Acq On : 1 Nov 18 17:17  
 Sample : AZ81840W12 1/800  
 Misc :  
 MS Integration Params: LSCINT.P

Vial: 12  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25000

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.002  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

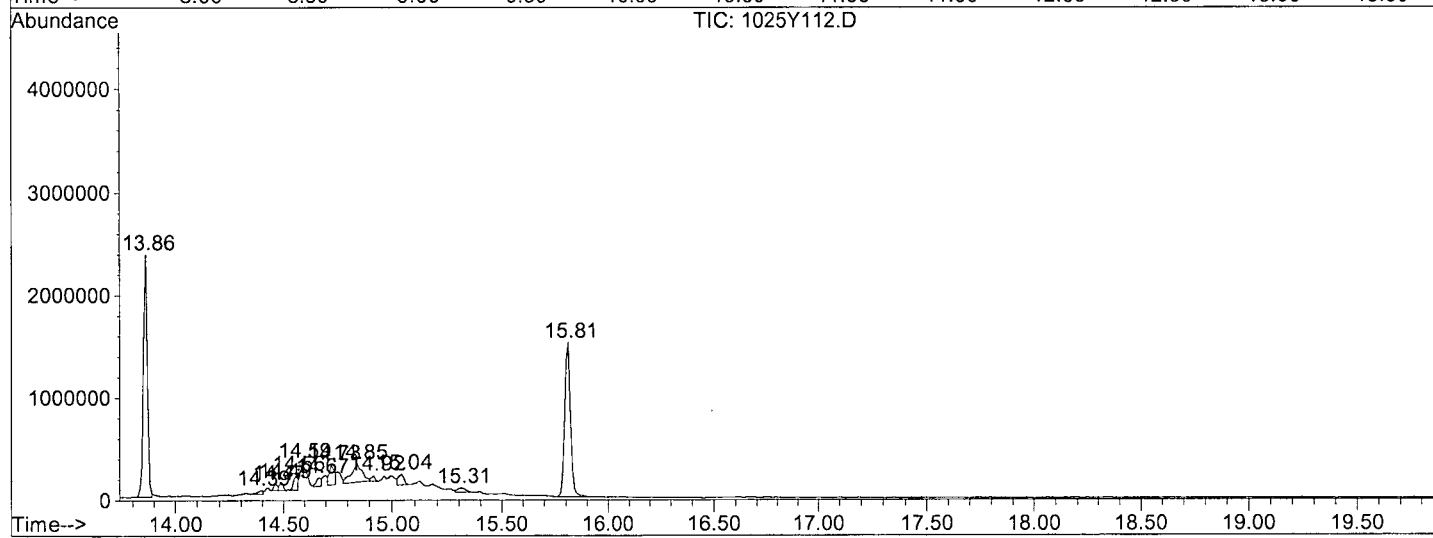
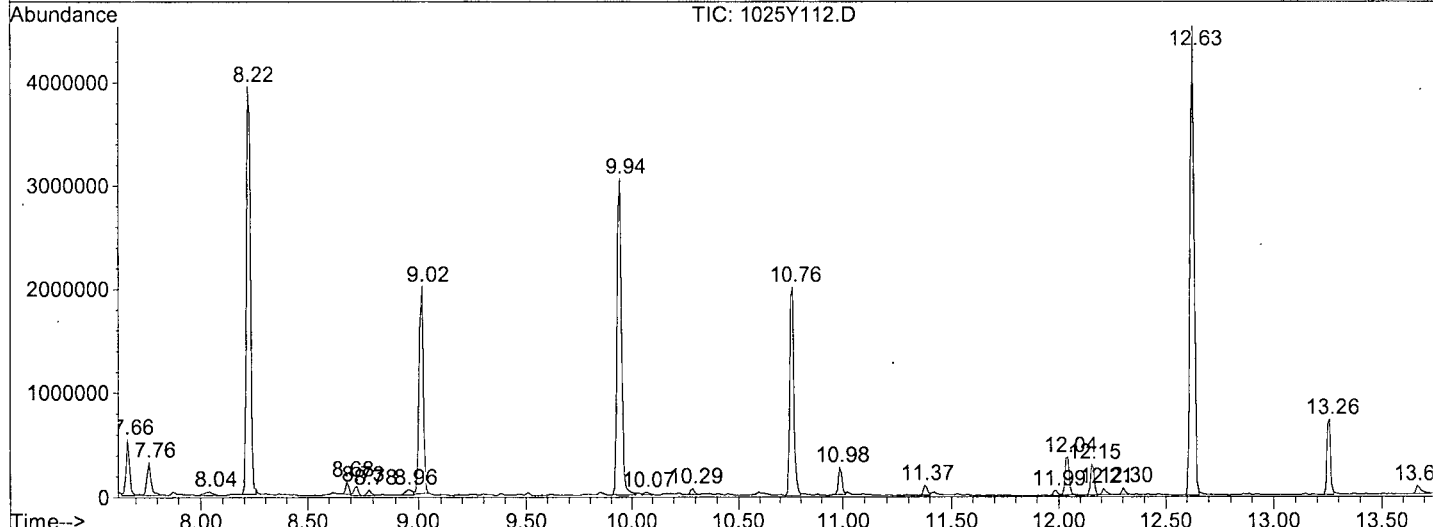
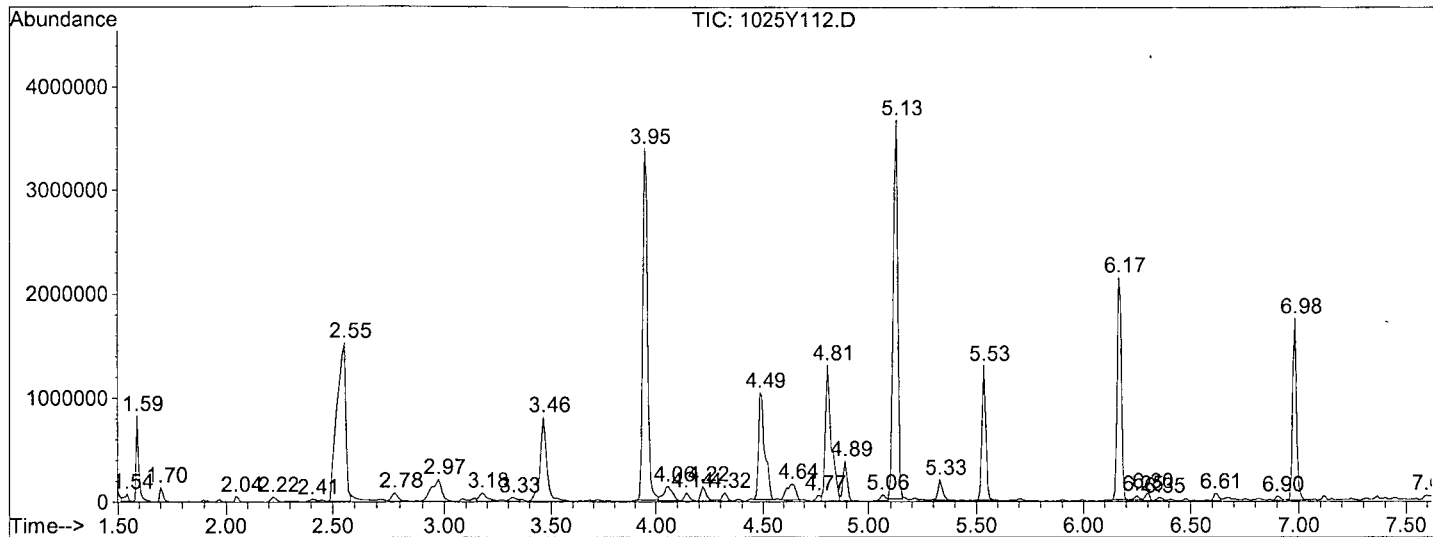
If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	1.543	3	6	9	rVB2	70124	384458	90536	1.57%	0.135%
2	1.589	9	11	21	rVV	823540	1237229	734482	12.73%	1.098%
3	1.701	21	23	29	rVB2	137267	477880	159704	2.77%	0.239%
4	2.044	59	60	70	rVB	54465	636747	74904	1.30%	0.112%
5	2.221	75	79	84	rBV2	50267	427379	101431	1.76%	0.152%
6	2.406	95	99	102	rBV3	25516	325284	60497	1.05%	0.090%
7	2.555	107	115	118	rBV	1526353	4799131	4312298	74.76%	6.447%
8	2.778	136	139	146	rVB	80957	600857	153748	2.67%	0.230%
9	2.972	151	160	169	rVB3	212212	1414323	696842	12.08%	1.042%
10	3.177	179	182	190	rVV2	82656	721770	211002	3.66%	0.315%
11	3.325	194	198	201	rVV2	36416	373647	91205	1.58%	0.136%
12	3.464	205	213	229	rVB	811694	2674387	1732147	30.03%	2.589%
13	3.947	261	265	272	rBV	3385891	6073139	5566730	96.51%	8.322%
14	4.059	272	277	283	rVB4	138331	947756	389813	6.76%	0.583%
15	4.142	283	286	291	rVB	80813	460077	130195	2.26%	0.195%
16	4.216	291	294	299	rBV2	138888	538431	229051	3.97%	0.342%
17	4.319	302	305	309	rVB	76902	410416	117238	2.03%	0.175%
18	4.486	320	323	330	rVB2	1032398	2738343	2174862	37.70%	3.251%
19	4.643	334	340	344	rVB3	157036	982208	495919	8.60%	0.741%
20	4.773	350	354	355	rBV2	57147	295706	100047	1.73%	0.150%
21	4.811	355	358	364	rVV2	1310007	3056641	2472208	42.86%	3.696%
22	4.894	364	367	371	rVB	382733	856198	500921	8.68%	0.749%
23	5.061	382	385	388	rBV3	59646	344689	105479	1.83%	0.158%
24	5.126	388	392	395	rVV	3651197	6147401	5458118	94.62%	8.160%
25	5.330	411	414	419	rVB	199329	633901	286092	4.96%	0.428%
26	5.535	432	436	441	rVB	1298608	1990540	1620463	28.09%	2.423%
27	6.166	501	504	508	rBV	2141576	3413347	2956875	51.26%	4.420%
28	6.250	508	513	516	rVV4	42119	389851	70668	1.23%	0.106%
29	6.296	516	518	521	rVB2	73177	346210	105174	1.82%	0.157%
30	6.352	521	524	528	rBV3	30327	338646	60756	1.05%	0.091%
31	6.612	550	552	555	rBV	67303	323760	109056	1.89%	0.163%
32	6.899	581	583	586	rBV2	40053	282354	65313	1.13%	0.098%
33	6.983	588	592	599	rVV	1752248	2690741	2230539	38.67%	3.335%
34	7.596	654	658	662	rBV2	43262	448644	117755	2.04%	0.176%
35	7.661	662	665	670	rVV	534235	1011559	621180	10.77%	0.929%
36	7.763	673	676	682	rBV	312005	876635	427049	7.40%	0.638%
37	8.041	700	706	713	rBV4	38440	663524	113371	1.97%	0.169%
38	8.218	722	725	729	rBV	3933617	5650134	5194281	90.05%	7.765%
39	8.682	773	775	777	rBV	119157	333549	125300	2.17%	0.187%
40	8.728	777	780	783	rVB	88945	400684	121059	2.10%	0.181%
41	8.784	783	786	790	rBV3	57287	368840	78548	1.36%	0.117%
42	8.960	799	805	807	rBV2	54922	462731	130296	2.26%	0.195%
43	9.016	807	811	814	rVB	1987552	2867052	2506858	43.46%	3.748%
44	9.944	907	911	919	rBV	3045665	5321428	4569129	79.21%	6.831%
45	10.065	922	924	930	rVB3	28800	421729	59781	1.04%	0.089%

LSC Report - Integrated Chromatogram

File : M:\YODA\DATA\Y181025\1025Y112.D  
Operator : MA  
Acquired : 1 Nov 18 17:17 using AcqMethod SVOC416  
Instrument : Yoda  
Sample Name: AZ81840W12 1/800  
Misc Info :  
Vial Number: 12  
Quant File : Y1025NC.RES (RTE Integrator)



Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y112.D Vial: 12  
 Acq On : 1 Nov 18 17:17 Operator: MA  
 Sample : AZ81840W12 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 1 Benzenesulfonothioic acid, S-p Concentration Rank 15

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.04	8.36 ppb	477934	Phenanthrene-D10 (IS)	10.76

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzenesulfonothioic acid, S-phenyl	250	C12H10O2S2	001212-08-4	91
2		2-PROPENOIC ACID, 3-PHENYLSULFON-,	226	C10H10O4S	000000-00-0	35
3		Benzene, (ethenylsulfonyl)-	168	C8H8O2S	005535-48-8	28
4		ACRYLONITRILE, 2-PHENYLSULFONE-	193	C9H7NO2S	000000-00-0	27
5		Benzenesulfonamide, N-hydroxy-	173	C6H7NO3S	000599-71-3	25

\*\*\*\*\*  
 Peak Number 2 Hexanedioic acid, dioctyl este Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.26	14.75 ppb	879672	Chrysene-D12 (IS)	13.86

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	91
2		DI-(2-ETHYLHEXYL) ESTER OF ADIPIC A	370	C22H42O4	000000-00-0	72
3		Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	58
4		Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	53
5		Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	50

Tentatively Identified Compound (LSC) summary

Operator ID: MA Date Acquired: 1 Nov 18 17:17  
 Data File: M:\YODA\DATA\Y181025\1025Y112.D  
 Name: AZ81840W12 1/800  
 Misc:  
 Method: M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title: EPA 8270C  
 Library Searched: M:\DATABASE\WILEY138.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Benzenesulfonothioic	12.04	8.4	ppb	477934	ISTD04	10.76	2856960	40.0
Hexanedioic acid, di	13.26	14.8	ppb	879672	ISTD05	13.86	2981920	40.0

1025Y112.D Y1025NC.M Thu Nov 08 07:32:33 2018



Data File : M:\YODA\DATA\Y181025\1025Y113.D  
 Acq On : 1 Nov 18 17:44  
 Sample : AZ81841W12 1/800  
 Misc :

Vial: 13  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Nov 2 8:33 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.53	152	266541	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1021593	40.0000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.01	164	563476	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1083193	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1042917	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	1039722	40.0000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.96	112	1602099	191.2181	ppb	0.00
Spiked Amount 250.000			Recovery =	76.487%		
6) Phenol-D6 (S)	5.12	99	1944837	195.2672	ppb	0.00
Spiked Amount 250.000			Recovery =	78.107%		
22) Nitrobenzene-D5 (S)	6.16	82	987662	107.0797	ppb	0.00
Spiked Amount 125.000			Recovery =	85.664%		
46) 2-Fluorobiphenyl (S)	8.23	172	1729545	92.0451	ppb	0.00
Spiked Amount 125.000			Recovery =	73.636%		
64) 2,4,6-Tribromophenol (S)	9.94	330	416705	183.1691	ppb	0.00
Spiked Amount 250.000			Recovery =	73.268%		
82) Terphenyl-D14 (S)	12.63	244	1753786	79.4055	ppb	0.00
Spiked Amount 125.000			Recovery =	63.524%		

Target Compounds

Qvalue

Quantitation Report

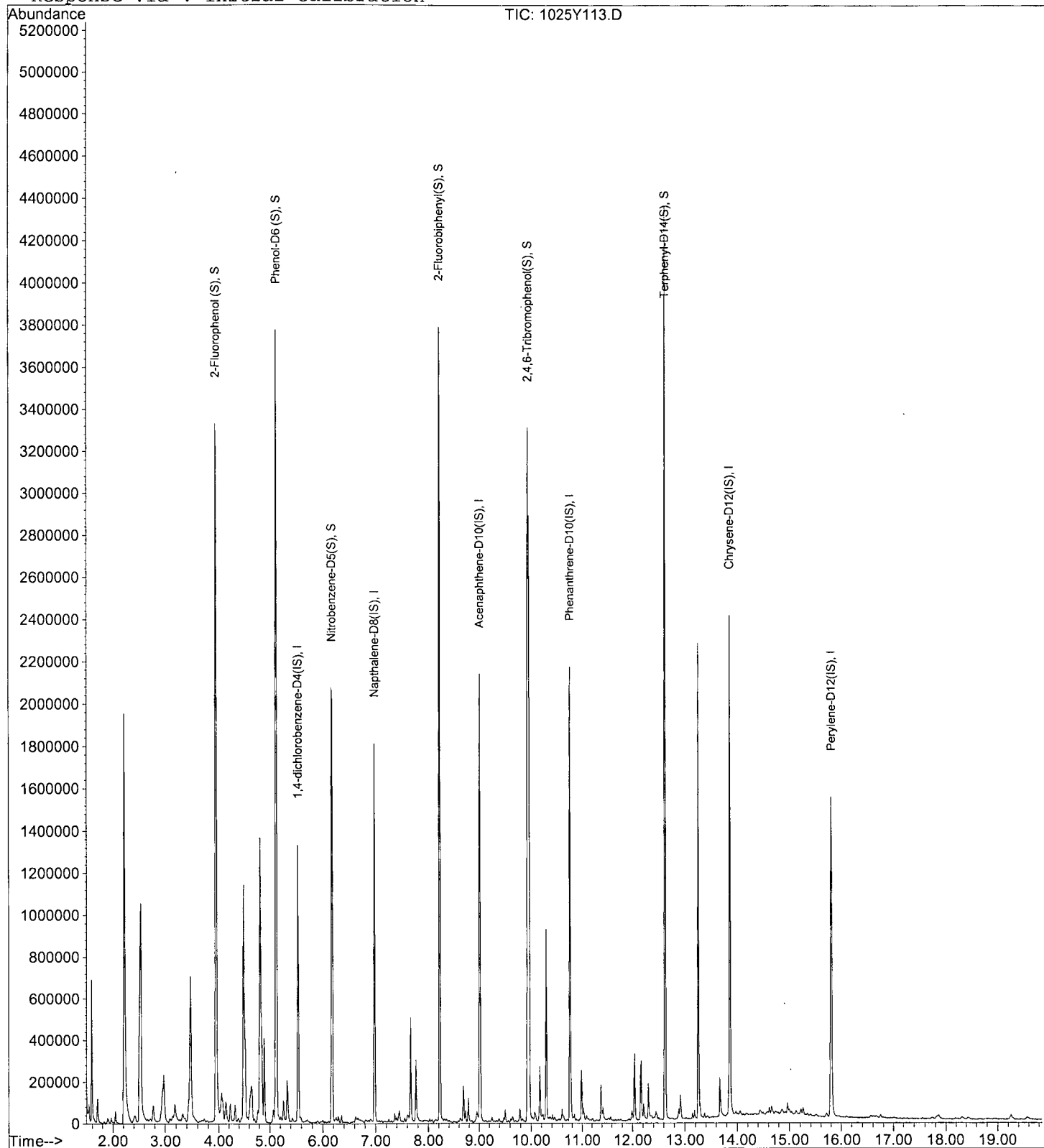
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Acq On : 1 Nov 18 17:44  
Sample : AZ81841W12 1/800  
Misc :

Vial: 13  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Nov 2 8:33 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



LSC Area Percent Report

Data File : M:\YODA\DATA\Y181025\1025Y113.D  
 Acq On : 1 Nov 18 17:44  
 Sample : AZ81841W12 1/800  
 Misc :  
 MS Integration Params: LSCINT.P

Vial: 13  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25000

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.002  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

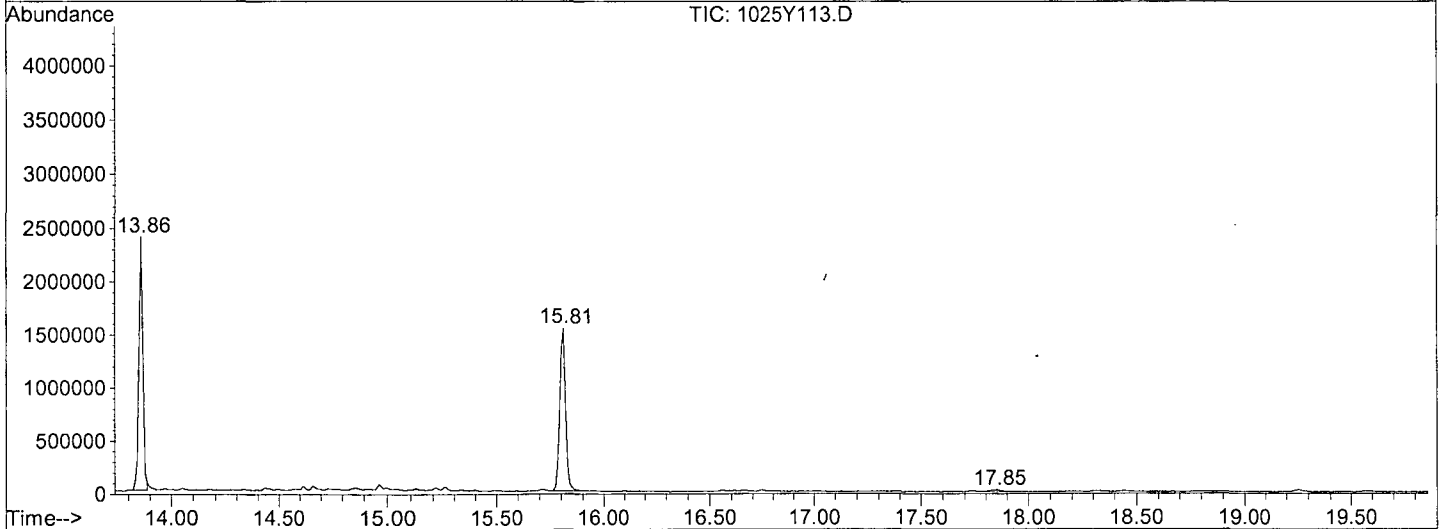
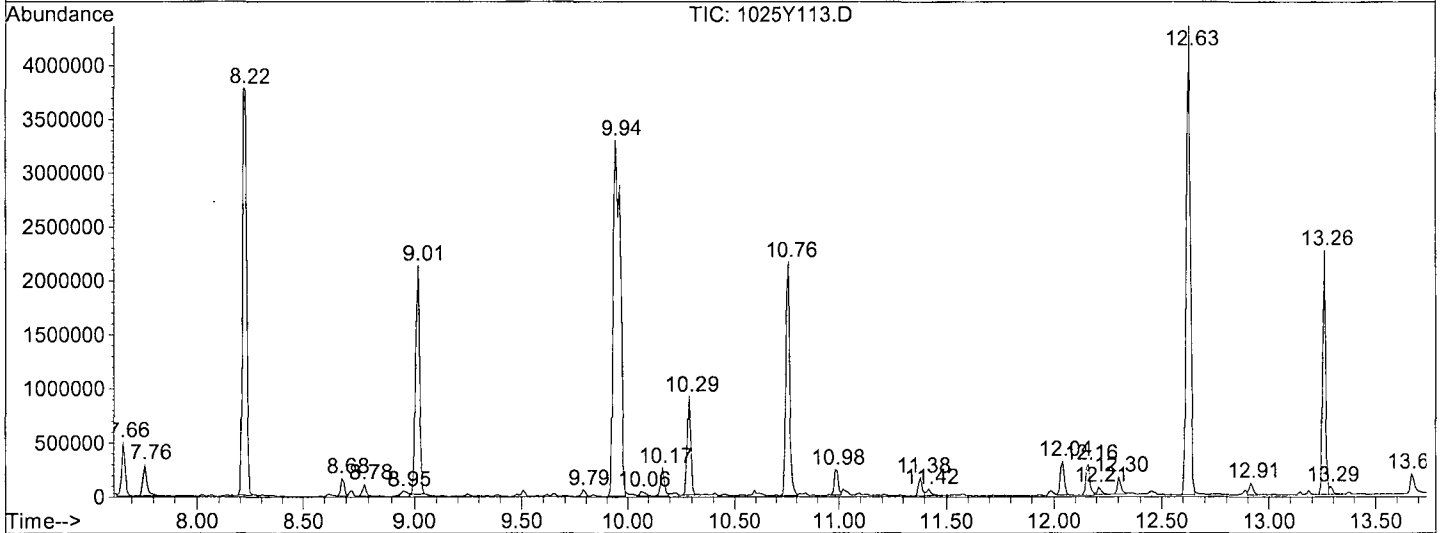
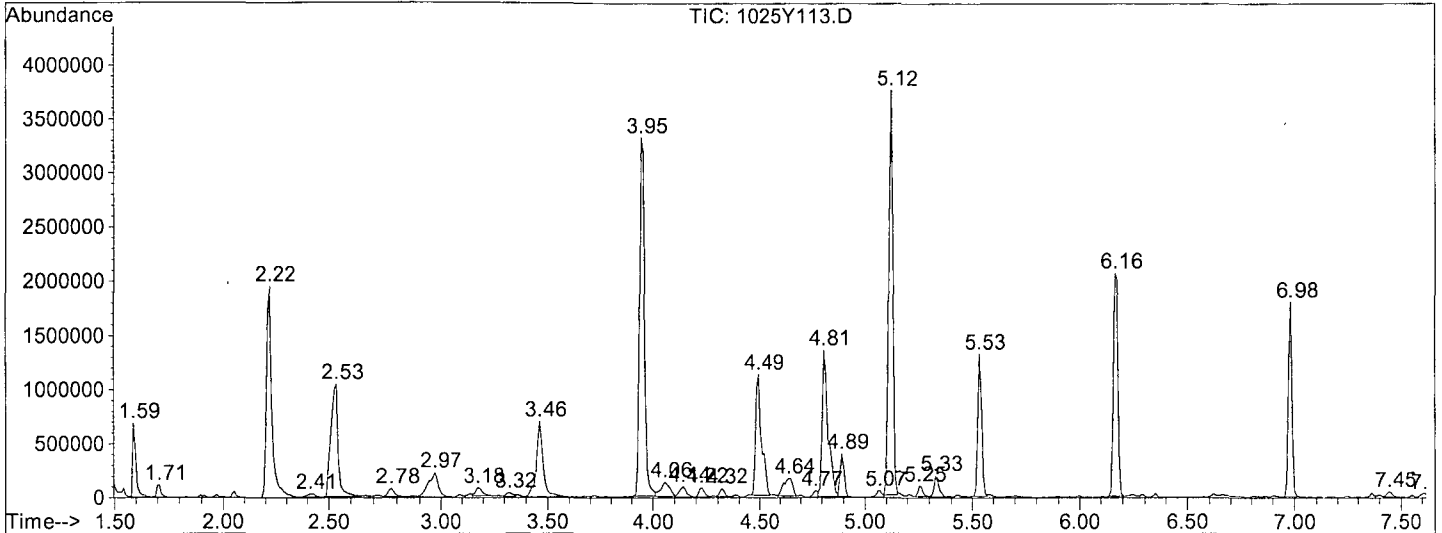
If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	1.588	9	11	21	rVV	682603	1293712	738733	9.37%	1.024%
2	1.709	21	24	30	rVB2	114650	559793	158089	2.01%	0.219%
3	2.219	74	79	95	rBV	1951868	4415564	3528961	44.77%	4.890%
4	2.414	95	100	107	rBV4	32321	620213	96979	1.23%	0.134%
5	2.535	107	113	125	rBV	1044516	3273514	2444875	31.02%	3.388%
6	2.776	135	139	147	rVB	78187	701694	156316	1.98%	0.217%
7	2.971	151	160	170	rVB3	227274	1610463	743001	9.43%	1.029%
8	3.175	179	182	190	rVB	76837	738623	176851	2.24%	0.245%
9	3.324	194	198	201	rVV2	35238	397685	78821	1.00%	0.109%
10	3.463	205	213	228	rVB	700085	2539037	1514247	19.21%	2.098%
11	3.946	261	265	272	rBV	3314659	6134194	5589776	70.92%	7.745%
12	4.057	272	277	282	rVV4	133078	943056	380171	4.82%	0.527%
13	4.141	282	286	292	rVB2	95911	715308	211262	2.68%	0.293%
14	4.224	292	295	299	rBV	85057	488518	151597	1.92%	0.210%
15	4.317	302	305	309	rVB	79697	445883	119845	1.52%	0.166%
16	4.494	320	324	330	rBV2	1118216	2804020	2250214	28.55%	3.118%
17	4.642	334	340	345	rVB4	165028	1091362	524994	6.66%	0.727%
18	4.772	350	354	355	rBV2	60088	320102	100009	1.27%	0.139%
19	4.809	355	358	365	rVV2	1356436	3223029	2572592	32.64%	3.564%
20	4.893	365	367	371	rVB	399064	1099769	497024	6.31%	0.689%
21	5.069	379	386	388	rBV3	61689	502108	120005	1.52%	0.166%
22	5.125	388	392	395	rBV	3750408	6010170	5406159	68.59%	7.491%
23	5.255	403	406	411	rBV	94619	517501	150906	1.91%	0.209%
24	5.329	411	414	419	rVB	197424	676736	297412	3.77%	0.412%
25	5.533	433	436	440	rBV	1316694	2103804	1670220	21.19%	2.314%
26	6.165	501	504	508	rBV	2062254	3326572	2906498	36.88%	4.027%
27	6.982	588	592	595	rBV	1799353	2425823	2114383	26.83%	2.930%
28	7.446	639	642	647	rVB2	52195	468778	90022	1.14%	0.125%
29	7.613	655	660	662	rBV2	32036	382088	79542	1.01%	0.110%
30	7.659	662	665	670	rVV	497644	970299	575451	7.30%	0.797%
31	7.761	673	676	684	rVV	291100	914693	385210	4.89%	0.534%
32	8.216	722	725	729	rBV	3774411	5520612	5103941	64.76%	7.072%
33	8.680	773	775	778	rVV	166980	463946	200676	2.55%	0.278%
34	8.783	782	786	792	rBV	111355	561685	127955	1.62%	0.177%
35	8.950	796	804	807	rBV4	49408	586096	121507	1.54%	0.168%
36	9.015	807	811	814	rVV	2112991	2895742	2544791	32.29%	3.526%
37	9.785	888	894	897	rBV2	62255	480242	94747	1.20%	0.131%
38	9.943	907	911	916	rBV2	3298584	8429928	7881631	100.00%	10.920%
39	10.064	922	924	931	rVB3	42495	509218	84688	1.07%	0.117%
40	10.166	931	935	938	rBV	261046	641153	325361	4.13%	0.451%
41	10.286	945	948	951	rBV	910093	1360483	1040692	13.20%	1.442%
42	10.760	995	999	1004	rBV	2164186	3342362	2892543	36.70%	4.008%
43	10.983	1021	1023	1026	rBV	237281	601371	319557	4.05%	0.443%
44	11.382	1063	1066	1068	rBV	171612	4492434	215327	2.73%	0.298%
45	11.419	1068	1070	1078	rVB2	62571	650565	96868	1.23%	0.134%

LSC Report - Integrated Chromatogram

File : M:\YODA\DATA\Y181025\1025Y113.D  
 Operator : MA  
 Acquired : 1 Nov 18 17:44 using AcqMethod SVOC416  
 Instrument : Yoda  
 Sample Name: AZ81841W12 1/800  
 Misc Info :  
 Vial Number: 13  
 Quant File : Y1025NC.RES (RTE Integrator)



Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y113.D Vial: 13  
 Acq On : 1 Nov 18 17:44 Operator: MA  
 Sample : AZ81841W12 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 1 Benzene, methyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.22	105.64 ppb	3528960	1,4-dichlorobenzene-D4 (IS)	5.53

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzene, methyl-	92	C7H8	000108-88-3	94
2		Benzene, methyl-	92	C7H8	000108-88-3	91
3		Benzene, methyl-	92	C7H8	000108-88-3	91
4		Benzene, methyl-	92	C7H8	000108-88-3	91
5		Benzene, methyl-	92	C7H8	000108-88-3	91

\*\*\*\*\*  
 Peak Number 2 Benzenesulfonamide, N-ethyl-4- Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.17	5.62 ppb	325361	Phenanthrene-D10 (IS)	10.76

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzenesulfonamide, N-ethyl-4-methy	199	C9H13NO2S	000080-39-7	91
2		Benzenesulfonamide, N-ethyl-4-methy	199	C9H13NO2S	000080-39-7	87
3		Benzenesulfonamide, N-ethyl-4-methy	199	C9H13NO2S	000080-39-7	87
4		Benzenesulfonamide, N-ethyl-4-methy	199	C9H13NO2S	000080-39-7	78
5		Benzenesulfonamide, N-ethyl-4-methy	199	C9H13NO2S	000080-39-7	56

\*\*\*\*\*  
 Peak Number 3 Benzenesulfonamide, N-ethyl-4- Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.29	17.99 ppb	1040690	Phenanthrene-D10 (IS)	10.76

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzenesulfonamide, N-ethyl-4-methy	199	C9H13NO2S	000080-39-7	93
2		Benzenesulfonamide, N-ethyl-4-methy	199	C9H13NO2S	000080-39-7	90
3		Benzenesulfonamide, N-ethyl-4-methy	199	C9H13NO2S	000080-39-7	87
4		Carbamic acid, methyl[(4-methylphen	243	C10H13NO4S	032258-50-7	72
5		Benzenesulfonamide, N-butyl-4-methy	227	C11H17NO2S	001907-65-9	64

Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y113.D Vial: 13  
 Acq On : 1 Nov 18 17:44 Operator: MA  
 Sample : AZ81841W12 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 4 Benzenesulfonothioic acid, S-p Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.04	6.86 ppb	397131	Phenanthrene-D10 (IS)	10.76

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzenesulfonothioic acid, S-phenyl	250	C12H10O2S2	001212-08-4	95
2		Benzenesulfonamide, N-hydroxy-	173	C6H7NO3S	000599-71-3	72
3		2-PHENYL-2-OXO-2-PHOSPHA-3-OXA-8,9.	250	C13H15O3P	055870-19-4	46
4		2-PHENYL-2-OXO-2-PHOSPHA-3-OXA-8,9.	250	C13H15O3P	055816-83-6	43
5		ACRYLONITRILE, 2-PHENYLSULFONE-	193	C9H7NO2S	000000-00-0	38

\*\*\*\*\*  
 Peak Number 5 Hexanedioic acid, dioctyl este Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.26	37.88 ppb	2296890	Chrysene-D12 (IS)	13.86

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	91
2		DI-(2-ETHYLHEXYL) ESTER OF ADIPIC A	370	C22H42O4	000000-00-0	72
3		Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	62
4		Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	58
5		Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	50

Tentatively Identified Compound (LSC) summary

Operator ID: MA Date Acquired: 1 Nov 18 17:44  
 Data File: M:\YODA\DATA\Y181025\1025Y113.D  
 Name: AZ81841W12 1/800  
 Misc:  
 Method: M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title: EPA 8270C  
 Library Searched: M:\DATABASE\WILEY138.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Benzene, methyl-	2.22	105.6	ppb	3528960	ISTD01	5.53	1670220	40.0
Benzenesulfonamide,	10.17	5.6	ppb	325361	ISTD04	10.76	2892540	40.0
Benzenesulfonamide,	10.29	18.0	ppb	1040690	ISTD04	10.76	2892540	40.0
Benzenesulfonothioic	12.04	6.9	ppb	397131	ISTD04	10.76	2892540	40.0
Hexanedioic acid, di	13.26	37.9	ppb	2296890	ISTD05	13.86	3031910	40.0

1025Y113.D Y1025NC.M Thu Nov 08 07:35:39 2018

Data File : M:\YODA\DATA\Y181025\1025Y114.D  
 Acq On : 1 Nov 18 18:12  
 Sample : AZ81842W13 1/800  
 Misc :

Vial: 14  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Nov 2 8:32 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.53	152	267785	40.0000	ppb	-0.01
21) Napthalene-D8 (IS)	6.98	136	1033153	40.0000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	563783	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1092866	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1053268	40.0000	ppb	-0.01
89) Perylene-D12 (IS)	15.81	264	1060609	40.0000	ppb	-0.01

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	1671692	198.5975	ppb	0.00
Spiked Amount 250.000			Recovery =	79.439%		
6) Phenol-D6 (S)	5.12	99	2187604	218.6214	ppb	0.00
Spiked Amount 250.000			Recovery =	87.448%		
22) Nitrobenzene-D5 (S)	6.17	82	1025084	109.8934	ppb	0.00
Spiked Amount 125.000			Recovery =	87.914%		
46) 2-Fluorobiphenyl (S)	8.22	172	1753556	93.2722	ppb	0.00
Spiked Amount 125.000			Recovery =	74.618%		
64) 2,4,6-Tribromophenol (S)	9.94	330	440977	193.7327	ppb	-0.01
Spiked Amount 250.000			Recovery =	77.493%		
82) Terphenyl-D14 (S)	12.62	244	1948623	87.3600	ppb	0.00
Spiked Amount 125.000			Recovery =	69.888%		

Target Compounds

Qvalue



Quantitation Report

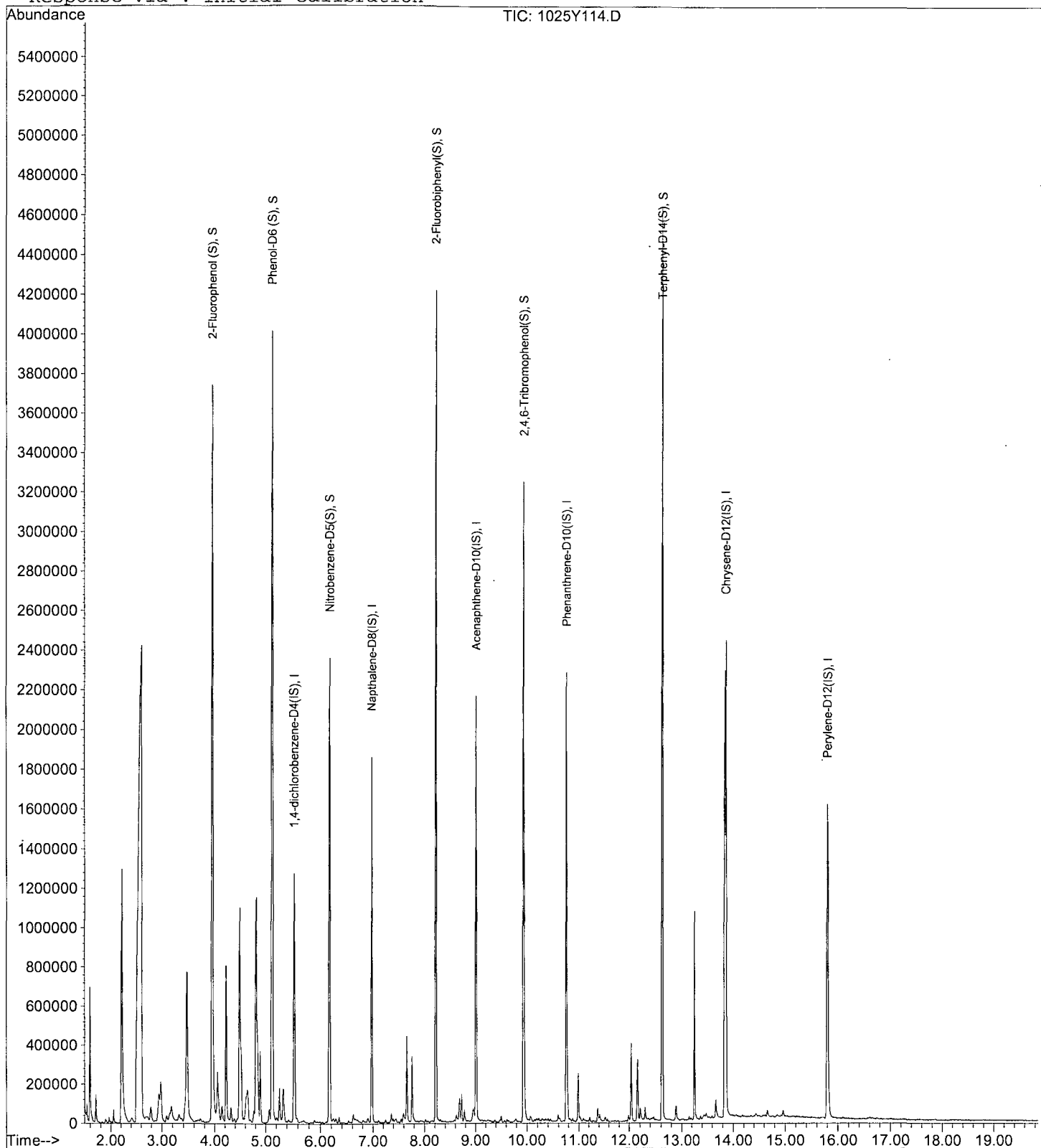
Data File : M:\YODA\DATA\Y181025\1025Y114.D  
Acq On : 1 Nov 18 18:12  
Sample : AZ81842W13 1/800  
Misc :

Vial: 14  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Nov 2 8:32 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



LSC Area Percent Report

Data File : M:\YODA\DATA\Y181025\1025Y114.D  
 Acq On : 1 Nov 18 18:12  
 Sample : AZ81842W13 1/800  
 Misc :  
 MS Integration Params: LSCINT.P

Vial: 14  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25000

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.002  
 Stop Thrs : 0

Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

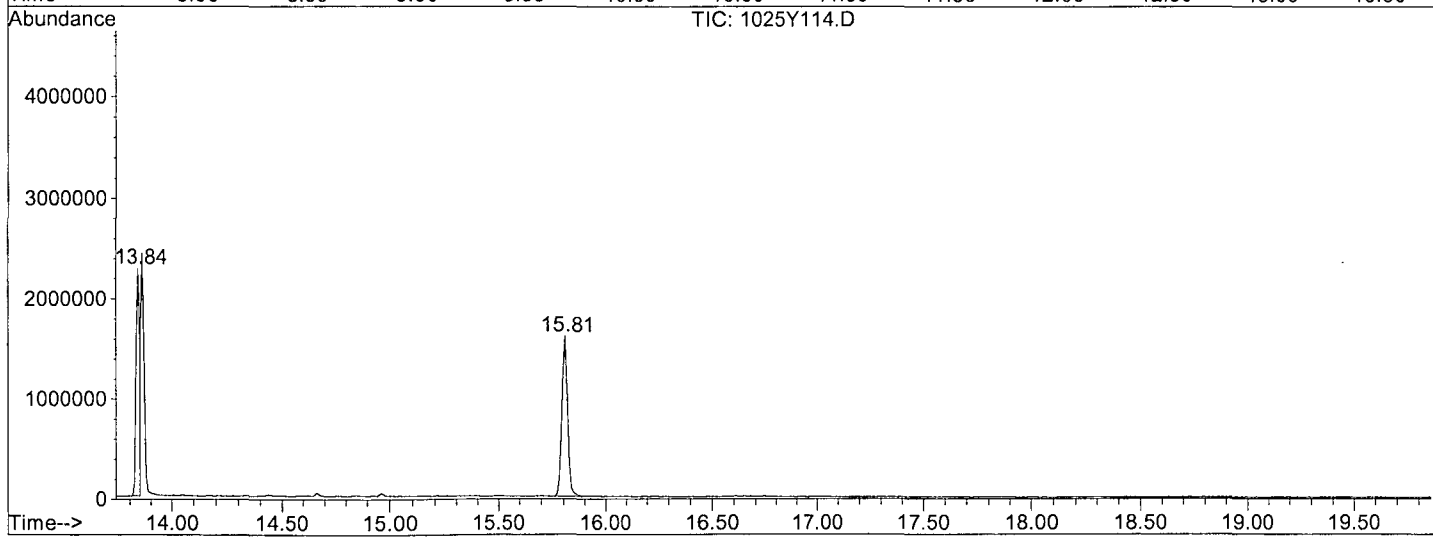
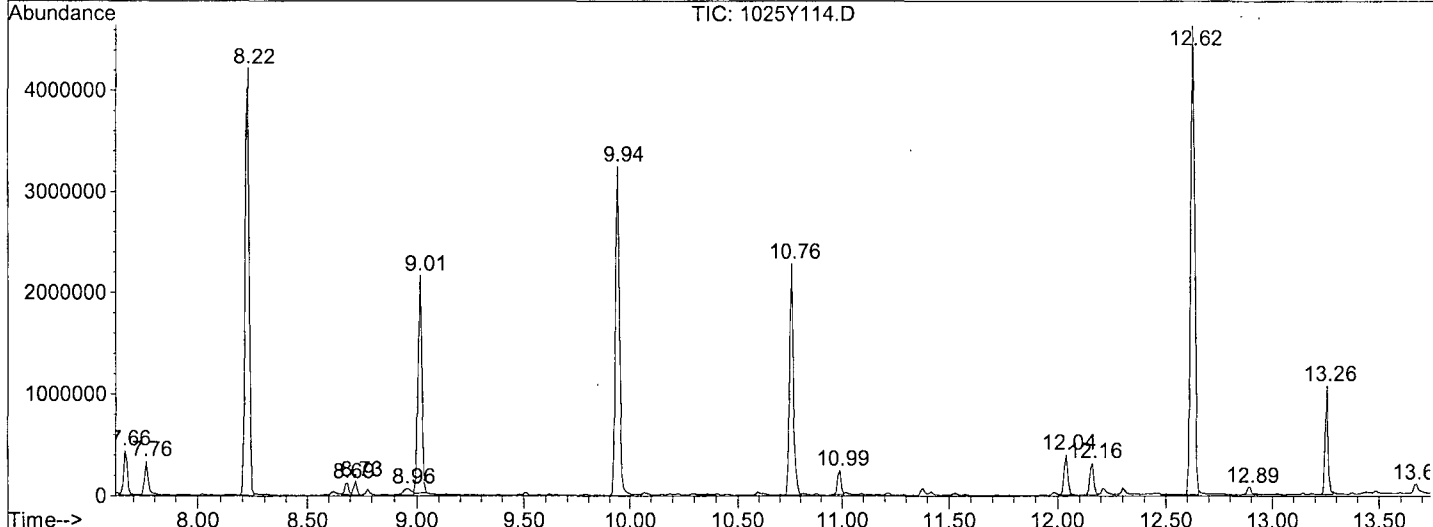
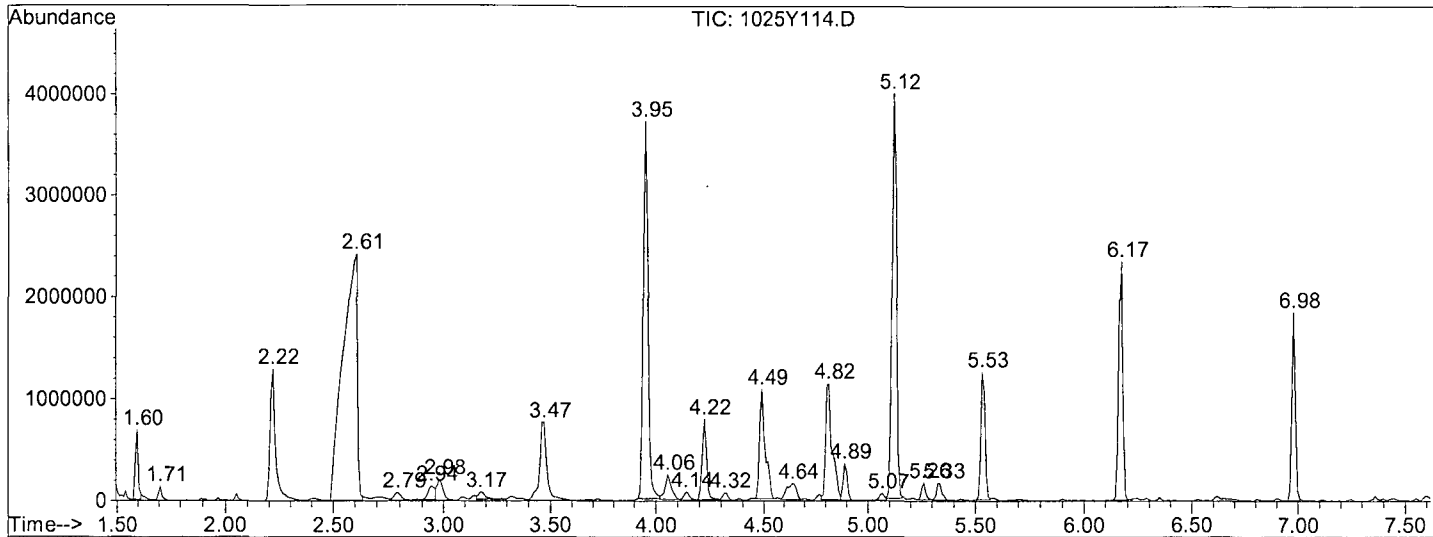
If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	1.596	10	12	14	rBV	685633	1305333	688401	6.18%	0.920%
2	1.707	21	24	29	rVB	137302	518600	142953	1.28%	0.191%
3	2.218	75	79	95	rBV	1292653	3396212	2332988	20.94%	3.118%
4	2.608	107	121	124	rBV	2415764	11959009	11142355	100.00%	14.893%
5	2.793	137	141	147	rVB	72182	663338	152505	1.37%	0.204%
6	2.942	152	157	159	rBV2	136625	638825	299799	2.69%	0.401%
7	2.979	159	161	170	rVB	203402	1347499	382858	3.44%	0.512%
8	3.174	180	182	191	rVB2	71194	833854	161817	1.45%	0.216%
9	3.471	206	214	230	rVB	765894	2920676	1730503	15.53%	2.313%
10	3.954	262	266	273	rBV	3715409	6605831	5828168	52.31%	7.790%
11	4.056	273	277	283	rVB3	245604	1099870	480077	4.31%	0.642%
12	4.139	283	286	291	rVB2	77831	567126	145698	1.31%	0.195%
13	4.223	291	295	302	rBV	795657	1672475	1146864	10.29%	1.533%
14	4.316	302	305	309	rVB	73122	471089	120358	1.08%	0.161%
15	4.492	320	324	331	rVV2	1078212	2699933	2094392	18.80%	2.799%
16	4.641	334	340	345	rVB5	158049	1155501	528090	4.74%	0.706%
17	4.817	355	359	365	rVV3	1144091	3058367	2448407	21.97%	3.273%
18	4.891	365	367	371	rVB	361543	1009041	477125	4.28%	0.638%
19	5.068	382	386	388	rBV3	67090	400381	112735	1.01%	0.151%
20	5.123	388	392	396	rVV	3991252	6610948	6052393	54.32%	8.090%
21	5.263	404	407	410	rBV	167188	567822	230557	2.07%	0.308%
22	5.328	411	414	419	rVB	167314	696551	284206	2.55%	0.380%
23	5.532	433	436	440	rBV	1257499	2112078	1701788	15.27%	2.275%
24	6.172	501	505	508	rBV	2345784	3410318	3012154	27.03%	4.026%
25	6.980	589	592	595	rBV	1847276	2611054	2140501	19.21%	2.861%
26	7.658	662	665	670	rVV	437047	966695	552340	4.96%	0.738%
27	7.760	673	676	683	rBV	332066	922446	424240	3.81%	0.567%
28	8.224	722	726	729	rBV	4211962	5619944	5232395	46.96%	6.994%
29	8.688	773	776	778	rVV	115658	428513	159538	1.43%	0.213%
30	8.725	778	780	783	rVV	135802	478099	139579	1.25%	0.187%
31	8.957	798	805	808	rBV3	63272	650887	168235	1.51%	0.225%
32	9.013	808	811	814	rVB	2135098	3100542	2529702	22.70%	3.381%
33	9.942	907	911	919	rBV	3244234	5105122	4441875	39.86%	5.937%
34	10.758	995	999	1004	rBV	2278545	3450176	2993193	26.86%	4.001%
35	10.991	1021	1024	1026	rBV	237488	556487	285772	2.56%	0.382%
36	12.040	1134	1137	1140	rVV	392800	802464	456285	4.10%	0.610%
37	12.160	1147	1150	1153	rBV	312553	773535	407342	3.66%	0.544%
38	12.624	1196	1200	1203	rBV	4629221	6335421	5981838	53.69%	7.995%
39	12.894	1224	1229	1235	rBV3	70497	667186	119033	1.07%	0.159%
40	13.256	1265	1268	1271	rBV	1066717	1349293	1015918	9.12%	1.358%
41	13.673	1310	1313	1320	rBV2	87293	705773	143927	1.29%	0.192%
42	13.841	1328	1331	1332	rBV	2264352	3353068	2988018	26.82%	3.994%
43	15.809	1537	1543	1553	rBV	1601384	3777523	2938716	26.37%	3.928%

LSC Report - Integrated Chromatogram

File : M:\YODA\DATA\Y181025\1025Y114.D  
Operator : MA  
Acquired : 1 Nov 18 18:12 using AcqMethod SVOC416  
Instrument : Yoda  
Sample Name: AZ81842W13 1/800  
Misc Info :  
Vial Number: 14  
Quant File : Y1025NC.RES (RTE Integrator)



Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y114.D Vial: 14  
 Acq On : 1 Nov 18 18:12 Operator: MA  
 Sample : AZ81842W13 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 1 Benzene, methyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.22	68.55 ppb	2332990	1,4-dichlorobenzene-D4 (IS)	5.53

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzene, methyl-	92	C7H8	000108-88-3	94
2		Benzene, methyl-	92	C7H8	000108-88-3	91
3		Benzene, methyl-	92	C7H8	000108-88-3	91
4		Benzene, methyl-	92	C7H8	000108-88-3	91
5		Benzene, methyl-	92	C7H8	000108-88-3	91

\*\*\*\*\*  
 Peak Number 2 Benzenesulfothioic acid, S-p Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.04	7.62 ppb	456285	Phenanthrene-D10 (IS)	10.76

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzenesulfothioic acid, S-phenyl	250	C12H10O2S2	001212-08-4	91
2		Benzenesulfonamide, N-hydroxy-	173	C6H7NO3S	000599-71-3	50
3		2-PHENYL-2-OXO-2-PHOSPHA-3-OXA-8,9.	250	C13H15O3P	055870-19-4	22
4		4-D-HIPPURIC-BZH-AZLACTONE	251	C16H13NO2	000000-00-0	16
5		Benzene, 1,1'-sulfonylbis-	218	C12H10O2S	000127-63-9	16

\*\*\*\*\*  
 Peak Number 3 Hexanedioic acid, dioctyl este Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.26	17.00 ppb	1015920	Chrysene-D12 (IS)	13.86

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	91
2		DI-(2-ETHYLHEXYL) ESTER OF ADIPIC A	370	C22H42O4	000000-00-0	72
3		Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	64
4		Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	58
5		Hexanedioic acid, dioctyl ester	370	C22H42O4	000123-79-5	50

Tentatively Identified Compound (LSC) summary

Operator ID: MA Date Acquired: 1 Nov 18 18:12  
 Data File: M:\YODA\DATA\Y181025\1025Y114.D  
 Name: AZ81842W13 1/800  
 Misc:  
 Method: M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title: EPA 8270C  
 Library Searched: M:\DATABASE\WILEY138.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Benzene, methyl-	2.22	68.5	ppb	2332990	ISTD01	5.53	1701790	40.0
Benzenesulfonothioic	12.04	7.6	ppb	456285	ISTD04	10.76	2993190	40.0
Hexanedioic acid, di	13.26	17.0	ppb	1015920	ISTD05	13.86	2988020	40.0

1025Y114.D Y1025NC.M Thu Nov 08 07:38:51 2018

Data File : M:\YODA\DATA\Y181025\1025Y106.D  
 Acq On : 1 Nov 18 14:30  
 Sample : 181030A BLK 1/800  
 Misc :

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Nov 2 8:37 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	287396	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1151481	40.0000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	562079	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1065879	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.86	240	1035335	40.0000	ppb	-0.01
89) Perylene-D12 (IS)	15.81	264	1031345	40.0000	ppb	-0.01

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	1731628	191.6804	ppb	0.00
Spiked Amount 250.000						
						Recovery = 76.672%
6) Phenol-D6 (S)	5.12	99	2035408	189.5313	ppb	0.00
Spiked Amount 250.000						
						Recovery = 75.812%
22) Nitrobenzene-D5 (S)	6.17	82	1070349	102.9545	ppb	0.00
Spiked Amount 125.000						
						Recovery = 82.363%
46) 2-Fluorobiphenyl (S)	8.22	172	1881178	100.3638	ppb	0.00
Spiked Amount 125.000						
						Recovery = 80.291%
64) 2,4,6-Tribromophenol (S)	9.94	330	420269	185.1949	ppb	-0.01
Spiked Amount 250.000						
						Recovery = 74.078%
82) Terphenyl-D14 (S)	12.63	244	1880780	85.7789	ppb	0.00
Spiked Amount 125.000						
						Recovery = 68.623%

Target Compounds

Qvalue

Quantitation Report

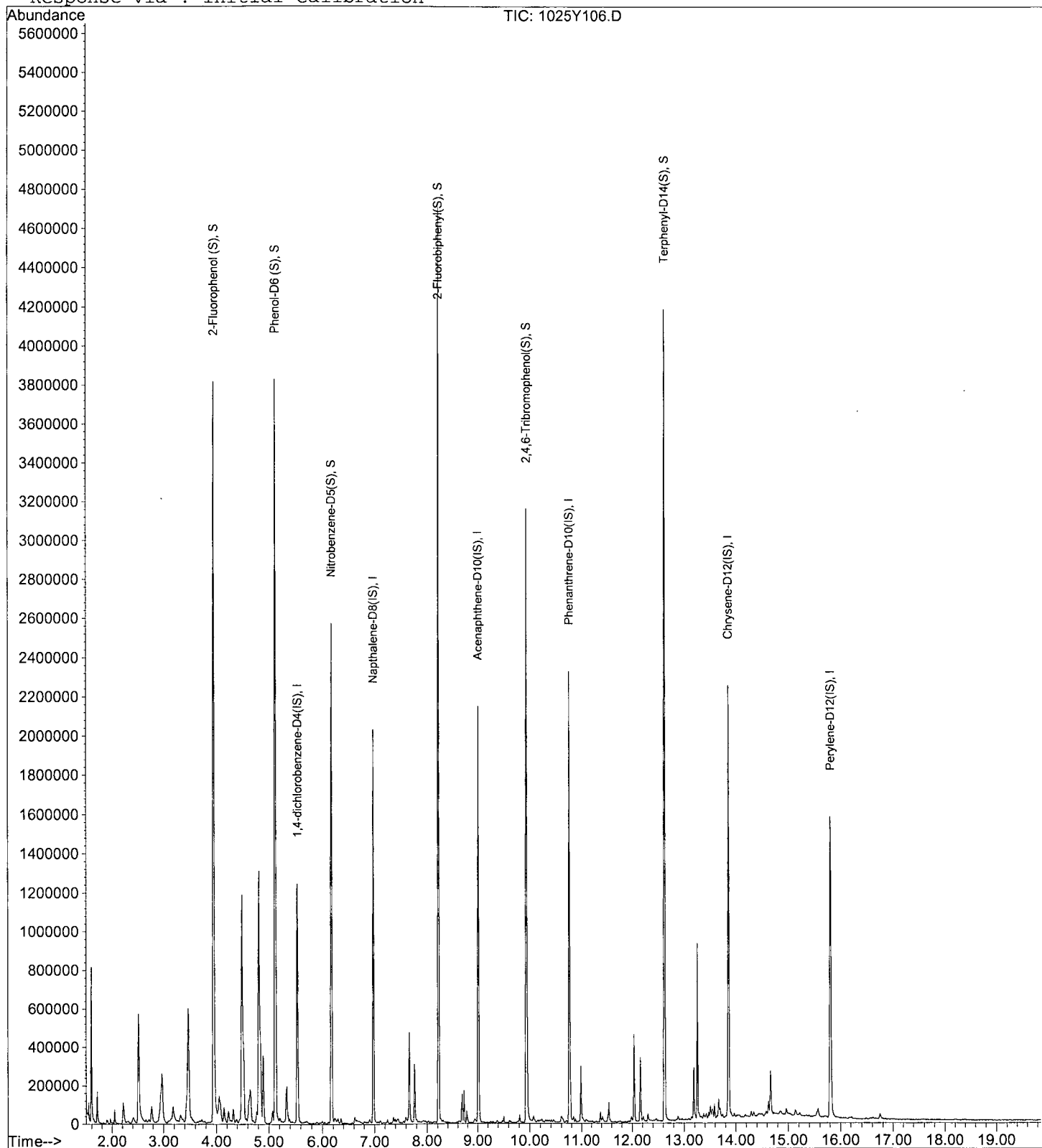
Data File : M:\YODA\DATA\Y181025\1025Y106.D  
Acq On : 1 Nov 18 14:30  
Sample : 181030A BLK 1/800  
Misc :

Vial: 6  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Nov 2 8:37 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration



Tentatively Identified Compound (LSC) summary

Operator ID: MA Date Acquired: 1 Nov 18 14:30  
 Data File: M:\YODA\DATA\Y181025\1025Y106.D  
 Name: 181030A BLK 1/800  
 Misc:  
 Method: M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title: EPA 8270C  
 Library Searched: M:\DATABASE\WILEY138.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
3-Penten-2-ol	1.60	20.8	ppb	743867	ISTD01	5.54	1785910	40.0
Acetic acid, ethyl e	2.51	29.5	ppb	1053400	ISTD01	5.54	1785910	40.0
2-Pentanone, 4-hydro	3.46	40.3	ppb	1439110	ISTD01	5.54	1785910	40.0
Cyclohexane, (1,2,2-	4.64	13.9	ppb	495802	ISTD01	5.54	1785910	40.0
Decane, 3,3,4-trimet	4.82	72.5	ppb	2589210	ISTD01	5.54	1785910	40.0
Benzene, 1,2,4-trime	5.34	7.8	ppb	277192	ISTD01	5.54	1785910	40.0
SULFONE, CHLORO PHEN	7.67	12.5	ppb	596020	ISTD02	6.98	2384250	40.0
Disulfide, diphenyl	10.99	5.1	ppb	295978	ISTD04	10.76	2922730	40.0
1,2-Benzenedicarboxy	13.19	5.5	ppb	324538	ISTD05	13.86	2975730	40.0

1025Y106.D Y1025NC.M Wed Nov 07 07:26:01 2018



LSC Area Percent Report

Data File : M:\YODA\DATA\Y181025\1025Y106.D  
 Acq On : 1 Nov 18 14:30  
 Sample : 181030A BLK 1/800  
 Misc :  
 MS Integration Params: LSCINT.P

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25000

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Smoothing : ON  
 Sampling : 1  
 Start Thrs: 0.002  
 Stop Thrs : 0  
 Filtering: 5  
 Min Area: 3 % of largest Peak  
 Max Peaks: 100  
 Peak Location: TOP

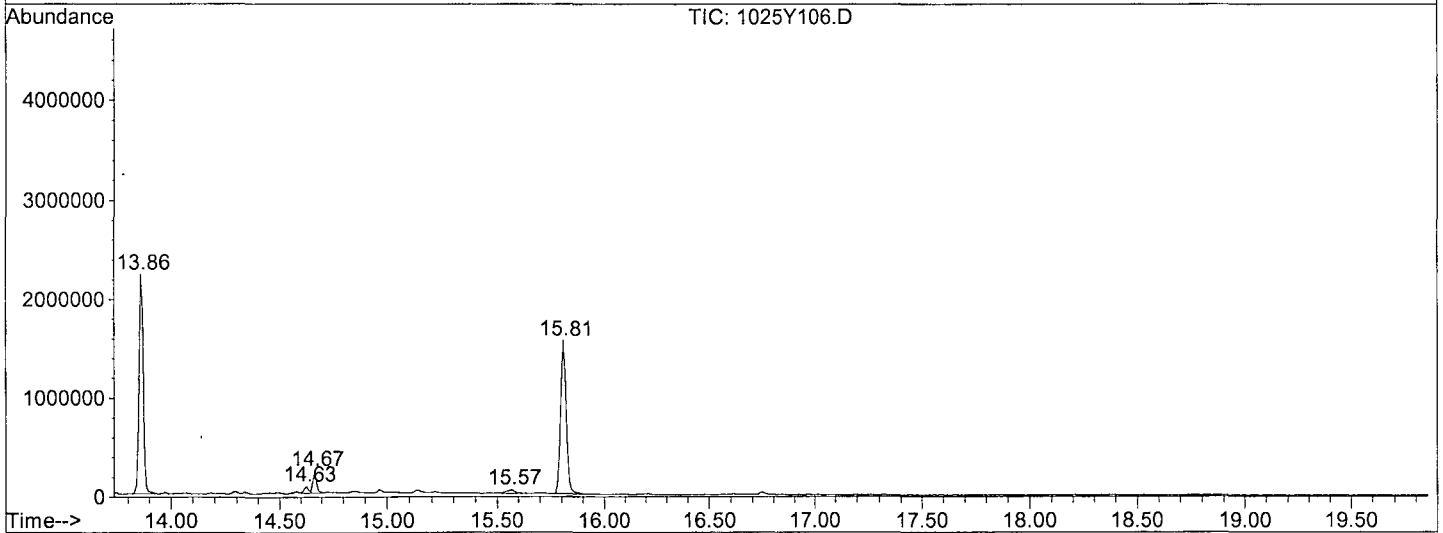
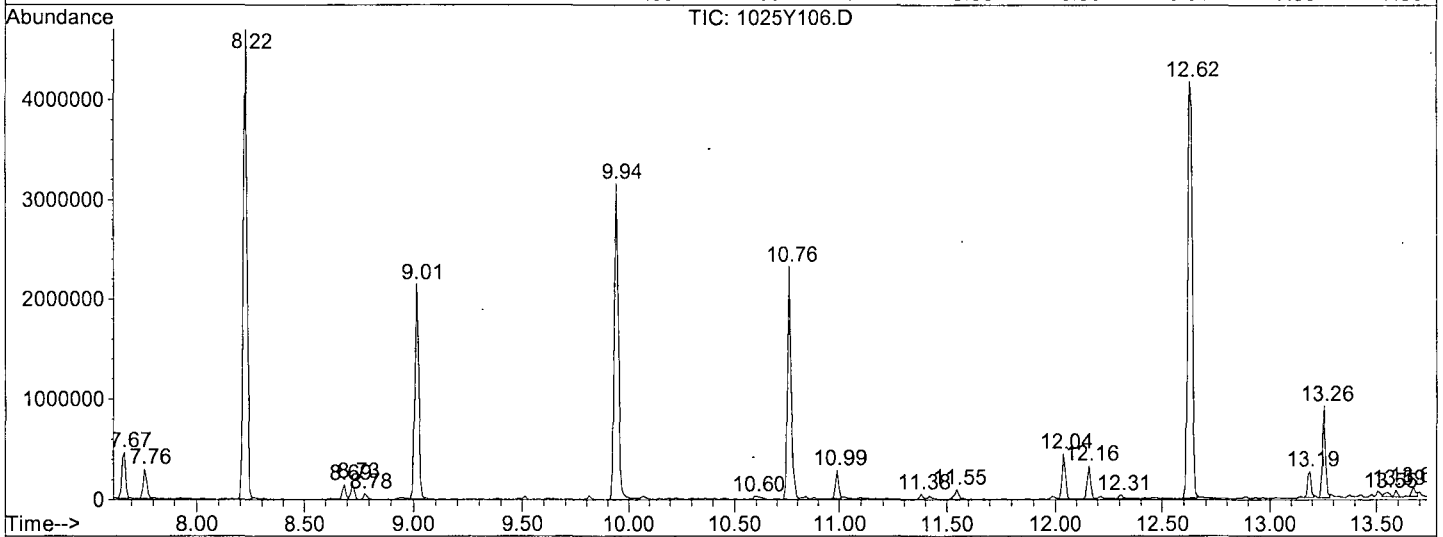
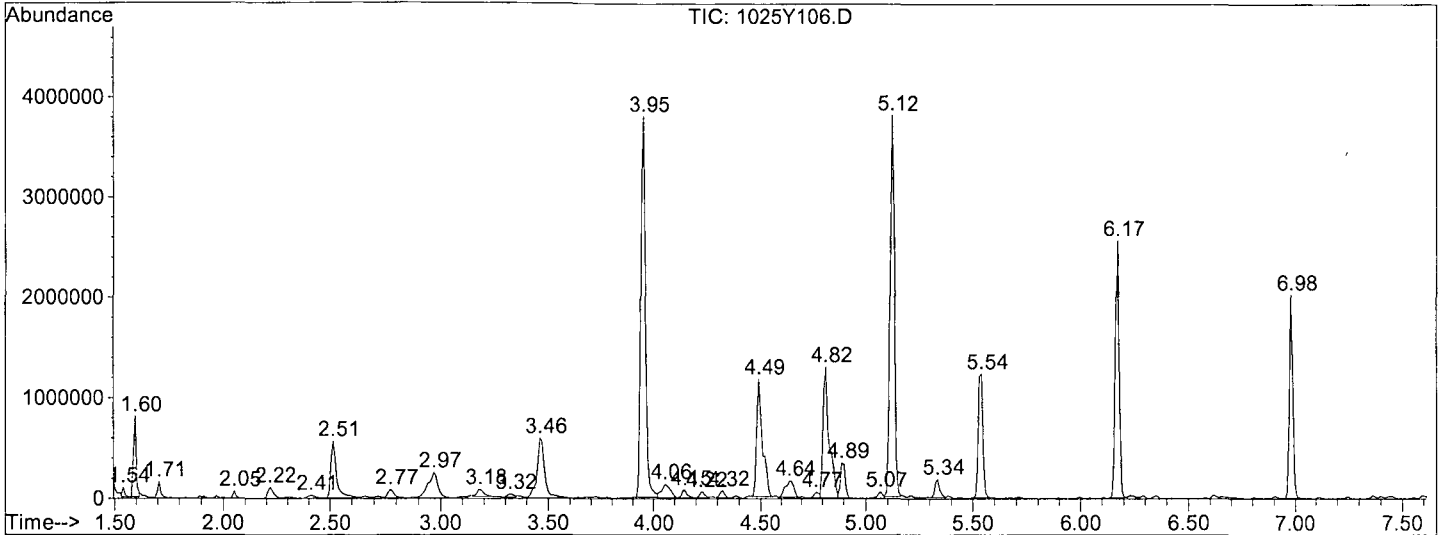
If leading or trailing edge < 100 prefer < Baseline drop else tangent >  
 Peak separation: 5

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	raw area	corr. area	corr. % max.	% of total
1	1.540	5	6	10	rVB	94577	463958	67704	1.13%	0.108%
2	1.595	10	12	14	rBV	800000	1385814	743867	12.37%	1.183%
3	1.707	22	24	34	rVB	164458	984532	181085	3.01%	0.288%
4	2.050	59	61	65	rBV	71781	397298	66976	1.11%	0.107%
5	2.217	75	79	84	rBV3	110659	658536	216342	3.60%	0.344%
6	2.412	95	100	107	rBV4	29560	685119	81226	1.35%	0.129%
7	2.514	108	111	125	rBV	563259	2144497	1053403	17.52%	1.675%
8	2.774	136	139	146	rVB	84164	722844	161282	2.68%	0.256%
9	2.969	151	160	170	rVB2	255291	1800062	803366	13.36%	1.278%
10	3.183	179	183	190	rVB	74922	796110	173395	2.88%	0.276%
11	3.322	195	198	201	rBV2	33682	401691	70556	1.17%	0.112%
12	3.461	206	213	229	rVB	594199	2655982	1439109	23.93%	2.289%
13	3.953	262	266	273	rBV	3800978	7016709	6013912	100.00%	9.564%
14	4.056	273	277	283	rVV4	133863	1057088	377044	6.27%	0.600%
15	4.148	283	287	292	rVB	79779	620149	146807	2.44%	0.233%
16	4.223	292	295	299	rBV	59572	468717	107968	1.80%	0.172%
17	4.325	303	306	309	rVB	68920	457046	110915	1.84%	0.176%
18	4.492	320	324	331	rVV2	1167248	2885173	2254973	37.50%	3.586%
19	4.640	334	340	345	rVB4	165884	1089736	495802	8.24%	0.788%
20	4.770	350	354	356	rBV2	59024	417055	112267	1.87%	0.179%
21	4.817	356	359	365	rVV3	1300121	3713085	2589214	43.05%	4.118%
22	4.891	365	367	372	rVB	348673	1074175	509931	8.48%	0.811%
23	5.067	379	386	388	rBV2	65120	558595	108691	1.81%	0.173%
24	5.123	388	392	396	rBV	3807313	6202576	5644908	93.86%	8.977%
25	5.337	411	415	419	rVB	181865	710023	277192	4.61%	0.441%
26	5.541	433	437	442	rVB	1231986	2318805	1785908	29.70%	2.840%
27	6.172	501	505	508	rBV	2562207	3542699	3145855	52.31%	5.003%
28	6.980	589	592	596	rBV	2022283	2859852	2384246	39.65%	3.792%
29	7.667	662	666	669	rVV	459453	981534	596020	9.91%	0.948%
30	7.760	673	676	680	rBV	296092	725209	362358	6.03%	0.576%
31	8.224	722	726	729	rBV	4699533	5936015	5554437	92.36%	8.833%
32	8.688	773	776	778	rBV	144970	426513	162286	2.70%	0.258%
33	8.725	778	780	783	rVB	165549	509928	173604	2.89%	0.276%
34	8.781	783	786	792	rVB	59132	518132	69524	1.16%	0.111%
35	9.013	808	811	815	rBV	2140880	3066569	2552540	42.44%	4.059%
36	9.941	907	911	919	rBV	3155756	4887180	4244503	70.58%	6.750%
37	10.600	979	982	989	rVB4	31169	589209	77254	1.28%	0.123%
38	10.758	996	999	1004	rBV	2320286	3620781	2922726	48.60%	4.648%
39	10.990	1021	1024	1026	rBV	282939	562823	295978	4.92%	0.471%
40	11.380	1063	1066	1068	rBV	52893	312747	60331	1.00%	0.096%
41	11.547	1080	1084	1086	rBV2	99126	453951	133172	2.21%	0.212%
42	12.039	1134	1137	1140	rVB	448288	818117	487892	8.11%	0.776%
43	12.160	1147	1150	1153	rBV	330339	720438	383675	6.38%	0.610%
44	12.309	1163	1166	1176	rBV2	35583	744948	62996	1.05%	0.100%
45	12.624	1197	1200	1204	rBV	4173208	6462472	5842501	97.15%	9.291%

LSC Report - Integrated Chromatogram

File : M:\YODA\DATA\Y181025\1025Y106.D  
 Operator : MA  
 Acquired : 1 Nov 18 14:30 using AcqMethod SVOC416  
 Instrument : Yoda  
 Sample Name: 181030A BLK 1/800  
 Misc Info :  
 Vial Number: 6  
 Quant File : Y1025NC.RES (RTE Integrator)



## Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y106.D  
 Acq On : 1 Nov 18 14:30  
 Sample : 181030A BLK 1/800  
 Misc :

Vial: 6  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 1 3-Penten-2-ol Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.60	20.83 ppb	743867	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		3-Penten-2-ol	86	C5H10O	001569-50-2	86
2		Furan, tetrahydro-2-(methoxymethyl)	116	C6H12O2	019354-27-9	72
3		3-Buten-2-ol, 2-methyl-	86	C5H10O	000115-18-4	64
4		3-Penten-2-ol	86	C5H10O	001569-50-2	59
5		Pentane, 2-bromo-	150	C5H11Br	000107-81-3	50

\*\*\*\*\*  
 Peak Number 2 Acetic acid, ethyl ester Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.51	29.49 ppb	1053400	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Acetic acid, ethyl ester	88	C4H8O2	000141-78-6	43
2		Acetic acid, ethyl ester	88	C4H8O2	000141-78-6	37
3		1,4-Butanediol, diacetate	174	C8H14O4	000628-67-1	28
4		Acetic acid, pentyl ester	130	C7H14O2	000628-63-7	28
5		Acetic acid, pentyl ester	130	C7H14O2	000628-63-7	25

\*\*\*\*\*  
 Peak Number 3 2-Pentanone, 4-hydroxy-4-methyl Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.46	40.29 ppb	1439110	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	56
2		2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	50
3		2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	47
4		2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	47
5		2-Pentanone, 4-hydroxy-4-methyl-	116	C6H12O2	000123-42-2	42

## Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y106.D Vial: 6  
Acq On : 1 Nov 18 14:30 Operator: MA  
Sample : 181030A BLK 1/800 Inst : Yoda  
Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
Peak Number 4 Cyclohexane, (1,2,2-trimethylb Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.64	13.88 ppb	495802	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Cyclohexane, (1,2,2-trimethylbutyl)	182	C13H26	061142-21-0	72
2		Decane, 3,3,4-trimethyl-	184	C13H28	049622-18-6	64
3		Heptane, 4-methyl-	114	C8H18	000589-53-7	59
4		Pentane, 3-ethyl-	100	C7H16	000617-78-7	59
5		Hexane, 2,3-dimethyl-	114	C8H18	000584-94-1	45

\*\*\*\*\*  
Peak Number 5 Decane, 3,3,4-trimethyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.82	72.49 ppb	2589210	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Decane, 3,3,4-trimethyl-	184	C13H28	049622-18-6	78
2		1-Butanol, 3-methyl-, carbonate (2:	202	C11H22O3	002050-95-5	56
3		Hexane, 3,3,4-trimethyl-	128	C9H20	016747-31-2	56
4		Hexane, 2,3-dimethyl-	114	C8H18	000584-94-1	56
5		1-Hexene, 4,5-dimethyl-	112	C8H16	016106-59-5	43

\*\*\*\*\*  
Peak Number 6 Benzene, 1,2,4-trimethyl- Concentration Rank 13

R.T.	EstConc	Area	Relative to ISTD	R.T.
5.34	7.76 ppb	277192	1,4-dichlorobenzene-D4 (IS)	5.54

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	97
2		Benzene, 1,3,5-trimethyl-	120	C9H12	000108-67-8	97
3		Benzene, 1,2,4-trimethyl-	120	C9H12	000095-63-6	97
4		Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	97
5		Benzene, 1,2,3-trimethyl-	120	C9H12	000526-73-8	95

Library Search Compound Report

Data File : M:\YODA\DATA\Y181025\1025Y106.D Vial: 6  
 Acq On : 1 Nov 18 14:30 Operator: MA  
 Sample : 181030A BLK 1/800 Inst : Yoda  
 Misc : Multiplr: 1.25

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Library : M:\DATABASE\WILEY138.L

\*\*\*\*\*  
 Peak Number 7 SULFONE, CHLORO PHENYL Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
7.67	12.50 ppb	596020	Napthalene-D8(IS)	6.98

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		SULFONE, CHLORO PHENYL	176	C6H5ClO2S	000000-00-0	96
2		Phenol, 4-hexyl-	178	C12H18O	002446-69-7	64
3		Benzenesulfonyl chloride	176	C6H5ClO2S	000098-09-9	49
4		Benzenesulfonyl chloride	176	C6H5ClO2S	000098-09-9	43
5		4-BENZOLSULFONAMIDE-1,2,4-TRIAZOL	224	C8H8N4O2S	029982-62-5	38

\*\*\*\*\*  
 Peak Number 8 Disulfide, diphenyl Concentration Rank 19

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.99	5.06 ppb	295978	Phenanthrene-D10(IS)	10.76

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Disulfide, diphenyl	218	C12H10S2	000882-33-7	98
2		Disulfide, diphenyl	218	C12H10S2	000882-33-7	94
3		Disulfide, diphenyl	218	C12H10S2	000882-33-7	74
4		Benzenesulfinothioic acid, S-phenyl	234	C12H10OS2	001208-20-4	43
5		Disulfide, diphenyl	218	C12H10S2	000882-33-7	30

\*\*\*\*\*  
 Peak Number 9 1,2-Benzenedicarboxylic acid, Concentration Rank 17

R.T.	EstConc	Area	Relative to ISTD	R.T.
13.19	5.45 ppb	324538	Chrysene-D12(IS)	13.86

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		1,2-Benzenedicarboxylic acid, butyl	312	C19H20O4	000085-68-7	98
2		1,2-Benzenedicarboxylic acid, butyl	312	C19H20O4	000085-68-7	91
3		1,2-Benzenedicarboxylic acid, butyl	312	C19H20O4	000085-68-7	90
4		1,2-Benzenedicarboxylic acid, butyl	312	C19H20O4	000085-68-7	59
5		1,2-Benzenedicarboxylic acid, butyl	312	C19H20O4	000085-68-7	52

Data File : M:\YODA\DATA\Y181025\1025Y107.D  
 Acq On : 1 Nov 18 14:58  
 Sample : 181030A LCS-1 1/800  
 Misc :

Vial: 7  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Nov 1 18:17 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.53	152	295514	40.0000	ppb	0.00
21) Naphthalene-D8 (IS)	6.98	136	1197711	40.0000	ppb	0.00
41) Acenaphthene-D10 (IS)	9.02	164	643161	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1223743	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1158737	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.82	264	1207182	40.0000	ppb	0.00

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.96	112	1699347	182.9396	ppb	0.00
Spiked Amount	250.000					
				Recovery =	73.176%	
6) Phenol-D6 (S)	5.13	99	2034870	184.2760	ppb	0.00
Spiked Amount	250.000					
				Recovery =	73.710%	
22) Nitrobenzene-D5 (S)	6.17	82	1065046	98.4902	ppb	0.00
Spiked Amount	125.000					
				Recovery =	78.792%	
46) 2-Fluorobiphenyl (S)	8.23	172	1833663	85.4957	ppb	0.00
Spiked Amount	125.000					
				Recovery =	68.397%	
64) 2,4,6-Tribromophenol (S)	9.95	330	461663	177.7888	ppb	0.00
Spiked Amount	250.000					
				Recovery =	71.116%	
82) Terphenyl-D14 (S)	12.63	244	2032192	82.8139	ppb	0.00
Spiked Amount	125.000					
				Recovery =	66.251%	

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.74	58	3991	5.5437		91
3) n-Nitrosodimethylamine	1.97	42	94839	49.9032	ppb	87
4) Pyridine	1.99	79	105162	36.9954	ppb	98
7) Phenol	5.14	94	670334	45.3765	ppb	99
8) Aniline	5.14	66	590739	50.0236	ppb	# 95
9) Bis (2-chloroethyl) ether	5.24	63	386405	50.0133	ppb	96
10) 2-Chlorophenol	5.29	128	520682	45.2721	ppb	93
11) 1,3-DCB	5.47	146	452580	37.9932	ppb	98
12) 1,4-DCB	5.55	146	458086	38.3865	ppb	98
13) Benzyl alcohol	5.70	108	348583	46.8359	ppb	95
14) 1,2-DCB	5.73	146	446472	39.3712	ppb	99
15) 2-Methylphenol	5.82	107	423621	46.2605	ppb	99
16) Bis (2-chloroisopropyl) et	5.84	45	708371	48.4379	ppb	96
17) Acetophenone	6.00	105	604511	51.8064	ppb	98
18) 3&4-Methylphenol	6.00	107	891726	99.9273	ppb	99
19) n-Nitrosodi-n-propylamine	6.00	70	339802	44.6355	ppb	100
20) Hexachloroethane	6.11	117	156367	34.8600	ppb	91
23) Nitrobenzene	6.19	77	597720	50.4353	ppb	94
24) Isophorone	6.46	82	1033353	49.3297	ppb	99
25) 2-Nitrophenol	6.55	139	289988	48.1950	ppb	91
26) 2,4-Dimethylphenol	6.59	122	413027	40.9980	ppb	93
27) Benzoic acid	6.72	105	386232	43.5866	ppb	96
28) Bis (2-chloroethoxy) metha	6.69	93	641583	54.3973	ppb	99
29) 2,4-Dichlorophenol	6.82	162	426649	48.0476	ppb	96
30) 1,2,4-Trichlorobenzene	6.92	180	382319	41.4568	ppb	99
31) 3,4-Dimethylphenol	6.93	107	633889	46.4632	ppb	99
32) Naphthalene	7.01	128	1433125	46.1816	ppb	100
33) 4-Chloroaniline	7.07	127	370564	31.8850	ppb	98
34) 2,6-Dichlorophenol	7.08	162	415044	51.0778	ppb	99
35) Hexachloropropene	7.10	213	224347	36.4085	ppb	98
36) Hexachlorobutadiene	7.13	225	194038	38.0316	ppb	97
37) Caprolactum	7.49	55	264967	48.7370	ppb	99

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

Data File : M:\YODA\DATA\Y181025\1025Y107.D  
 Acq On : 1 Nov 18 14:58  
 Sample : 181030A LCS-1 1/800  
 Misc :

Vial: 7  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Nov 1 18:17 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.62	107	469807	49.2746	ppb	95
39) 2-Methylnaphthalene	7.80	142	915975	46.8162	ppb	100
40) 1-Methylnaphthalene	7.92	142	935162	47.9474	ppb	98
42) Hexachlorocyclopentadiene	7.98	237	84676	18.1987	ppb	99
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	432729	44.9502	ppb	98
44) 2,4,6-Trichlorophenol	8.12	196	321187	47.4519	ppb	99
45) 2,4,5-Trichlorophenol	8.18	196	337211	47.0558	ppb	95
47) 1,1'-Biphenyl	8.34	154	1198555	47.4493	ppb	97
48) 2-Chloronaphthalene	8.37	162	930575	46.2584	ppb	98
49) 2-Nitroaniline	8.50	65	344488	49.6034	ppb	90
50) Dimethyl phthalate	8.69	163	1207549	51.7638	ppb	99
51) 2,6-DNT	8.77	165	254304	47.2246	ppb	86
52) Acenaphthylene	8.85	152	1531739	47.2018	ppb	100
53) 3-Nitroaniline	8.97	138	263130	43.6991	ppb	93
54) Acenaphthene	9.05	154	920378	46.8200	ppb	99
55) 2,4-Dinitrophenol	9.10	184	152528	46.7630	ppb	# 80
56) 4-Nitrophenol	9.17	65	231569	49.7567	ppb	100
57) Dibenzofuran	9.26	168	1339672	49.3795	ppb	94
58) 2,4-DNT	9.25	165	344180	50.1874	ppb	95
59) 2,3,4,6-Tetrachlorophenol	9.40	232	271369	45.8824	ppb	96
60) Diethyl phthalate	9.52	149	1122068	49.9735	ppb	99
61) 4-Chlorophenyl phenyl ethe	9.65	204	487202	54.0358	ppb	100
62) Fluorene	9.66	166	1014637	51.5370	ppb	97
63) 4-Nitroaniline	9.69	138	292584	46.5222	ppb	98
66) 4,6-Dinitro-2-methylphenol	9.72	198	221717	46.5485	ppb	95
67) Diphenyl amine	9.80	169	1596613	95.9326	ppb	100
68) n-Nitrosodiphenylamine	9.80	169	1596613	95.9326	ppb	100
69) 1,2-Diphenylhydrazine	9.84	77	1224311	46.5487	ppb	94
70) 4-Bromophenyl phenyl ether	10.23	248	326243	48.9603	ppb	92
71) Hexachlorobenzene	10.30	284	326511	46.5892	ppb	92
72) Atrazine	10.42	200	148116	24.3120	ppb	95
73) Pentachlorophenol	10.53	266	213504	49.2347	ppb	98
74) Phenanthrene	10.79	178	1628328	47.6210	ppb	99
75) Anthracene	10.85	178	1685659	47.9250	ppb	99
76) Carbazol	11.04	167	1577373	47.9923	ppb	100
77) Di-n-butylphthalate	11.43	149	1919745	50.4452	ppb	98
78) Fluoranthene	12.18	202	1777879	48.4502	ppb	98
80) Benzidine	12.35	184	179702	13.6395	ppb	99
81) Pyrene	12.45	202	1855644	48.4324	ppb	100
83) Butyl benzylphthalate	13.18	149	864773	50.5387	ppb	92
84) 3,3'-Dichlorobenzidine	13.82	252	465026	37.2410	ppb	94
85) Benz (a) anthracene	13.85	228	1562127	47.9962	ppb	99
86) Bis (2-ethylhexyl) phthala	13.84	149	1105700	51.4255	ppb	97
87) Chrysene	13.90	228	1613210	47.1150	ppb	100
88) Di-n-octylphthalate	14.62	149	2072330	51.8347	ppb	96
90) Benzo (b) fluoranthene	15.23	252	1704382	47.0999	ppb	99
91) Benzo (k) fluoranthene	15.26	252	1698239	49.2514	ppb	99
92) Benzo (a) pyrene	15.73	252	1560771	47.4102	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.84	276	1733061	45.4389	ppb	98
94) Dibenz (a,h) anthracene	17.88	278	1583510	48.8797	ppb	99
95) Benzo (g,h,i) perylene	18.47	276	1568024	50.7401	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y107.D Y1025NC.M Fri Nov 02 15:27:10 2018

Quantitation Report

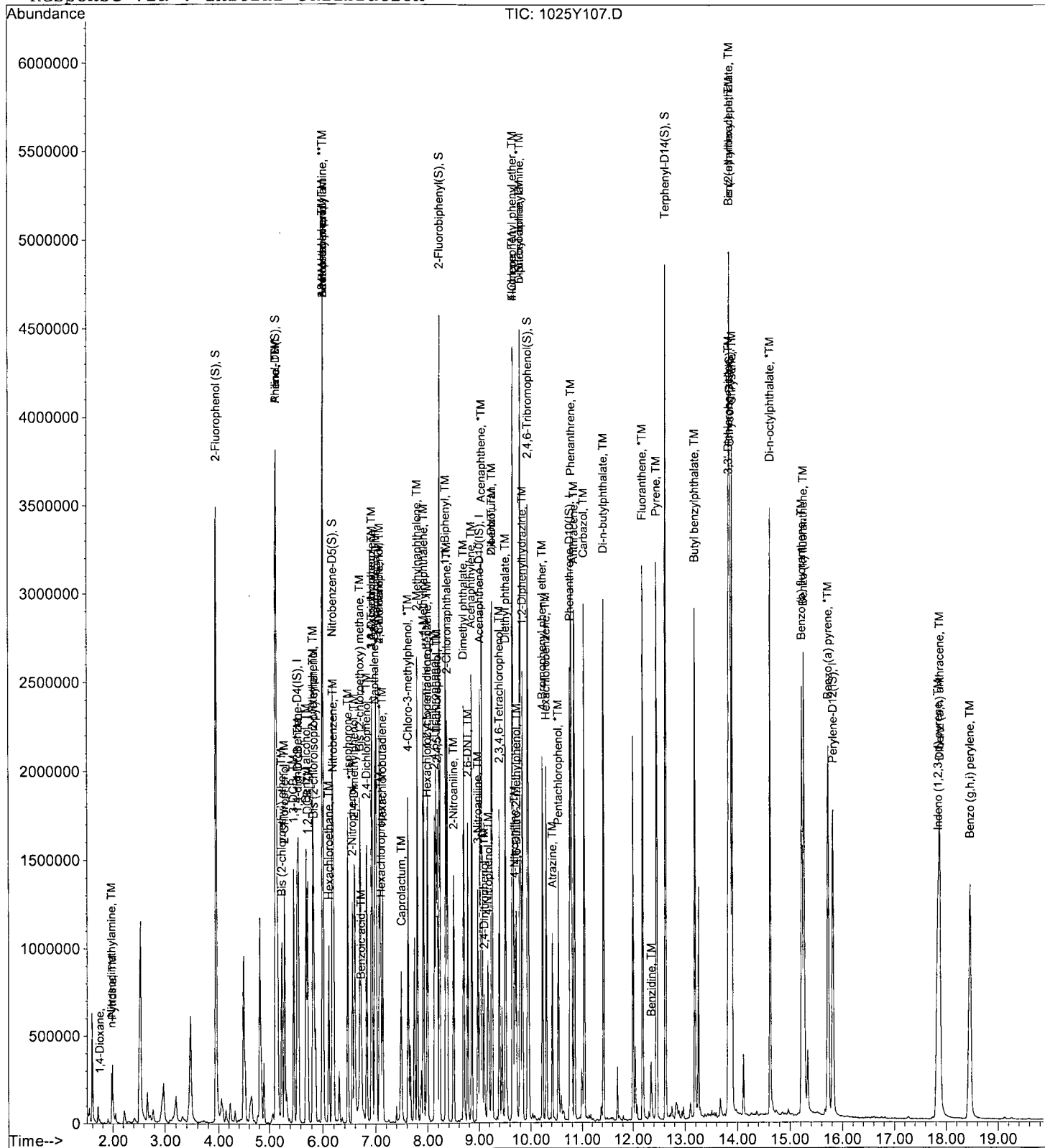
Data File : M:\YODA\DATA\Y181025\1025Y107.D  
Acq On : 1 Nov 18 14:58  
Sample : 181030A LCS-1 1/800  
Misc :

Vial: 7  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Nov 1 18:17 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration





Data File : M:\YODA\DATA\Y181025\1025Y108.D  
 Acq On : 1 Nov 18 15:26  
 Sample : 181030A LCSD-1 1/800  
 Misc :

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Nov 1 18:17 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.54	152	265874	40.0000	ppb	0.00
21) Napthalene-D8 (IS)	6.98	136	1075014	40.0000	ppb	-0.01
41) Acenaphthene-D10 (IS)	9.01	164	590010	40.0000	ppb	0.00
65) Phenanthrene-D10 (IS)	10.76	188	1147633	40.0000	ppb	0.00
79) Chrysene-D12 (IS)	13.87	240	1081719	40.0000	ppb	0.00
89) Perylene-D12 (IS)	15.81	264	1100761	40.0000	ppb	-0.01

System Monitoring Compounds

5) 2-Fluorophenol (S)	3.95	112	1776256	212.5365	ppb	0.00
Spiked Amount	250.000		Recovery	=	85.014%	
6) Phenol-D6 (S)	5.13	99	2072425	208.5994	ppb	0.00
Spiked Amount	250.000		Recovery	=	83.440%	
22) Nitrobenzene-D5 (S)	6.17	82	1074762	110.7324	ppb	0.00
Spiked Amount	125.000		Recovery	=	88.586%	
46) 2-Fluorobiphenyl (S)	8.22	172	1845264	93.7872	ppb	0.00
Spiked Amount	125.000		Recovery	=	75.030%	
64) 2,4,6-Tribromophenol (S)	9.95	330	472789	198.4755	ppb	0.00
Spiked Amount	250.000		Recovery	=	79.390%	
82) Terphenyl-D14 (S)	12.62	244	2031935	88.6990	ppb	0.00
Spiked Amount	125.000		Recovery	=	70.959%	

Target Compounds

						Qvalue
2) 1,4-Dioxane	1.74	58	4199	6.4828		83
3) n-Nitrosodimethylamine	1.97	42	92856	54.3067	ppb	86
4) Pyridine	2.00	79	59758	23.3662	ppb	88
7) Phenol	5.14	94	662064	49.8129	ppb	97
8) Aniline	5.14	66	545892	51.3793	ppb	96
9) Bis (2-chloroethyl) ether	5.24	63	386115	55.5472	ppb	99
10) 2-Chlorophenol	5.30	128	518497	50.1080	ppb	100
11) 1,3-DCB	5.47	146	449227	41.9159	ppb	98
12) 1,4-DCB	5.56	146	469759	43.7531	ppb	96
13) Benzyl alcohol	5.70	108	344694	51.4765	ppb	97
14) 1,2-DCB	5.73	146	448668	43.9756	ppb	99
15) 2-Methylphenol	5.82	107	438670	53.2443	ppb	99
16) Bis (2-chloroisopropyl) et	5.84	45	702801	53.4145	ppb	96
17) Acetophenone	6.00	105	610243	59.0451	ppb	98
18) 3&4-Methylphenol	6.00	107	924442	117.6966	ppb	97
19) n-Nitrosodi-n-propylamine	6.00	70	340205	49.6703	ppb	95
20) Hexachloroethane	6.11	117	161726	40.0741	ppb	93
23) Nitrobenzene	6.19	77	591648	55.6210	ppb	93
24) Isophorone	6.46	82	1030590	54.8130	ppb	98
25) 2-Nitrophenol	6.55	139	294757	54.5788	ppb	96
26) 2,4-Dimethylphenol	6.59	122	486561	53.8096	ppb	95
27) Benzoic acid	6.73	105	454352	55.6853	ppb	96
28) Bis (2-chloroethoxy) metha	6.70	93	639417	60.4014	ppb	99
29) 2,4-Dichlorophenol	6.82	162	429379	53.8740	ppb	98
30) 1,2,4-Trichlorobenzene	6.92	180	389859	47.0994	ppb	99
31) 3,4-Dimethylphenol	6.93	107	662340	54.0897	ppb	99
32) Napthalene	7.01	128	1424481	51.1422	ppb	100
33) 4-Chloroaniline	7.07	127	236676	22.6890	ppb	98
34) 2,6-Dichlorophenol	7.07	162	421551	57.7998	ppb	98
35) Hexachloropropene	7.10	213	230297	41.6398	ppb	99
36) Hexachlorobutadiene	7.14	225	203754	44.4941	ppb	99
37) Caprolactum	7.49	55	263697	54.0393	ppb	98

(#) = qualifier out of range (m) = manual integration  
 1025Y108.D Y1025NC.M Fri Nov 02 15:27:13 2018

Data File : M:\YODA\DATA\Y181025\1025Y108.D  
 Acq On : 1 Nov 18 15:26  
 Sample : 181030A LCSD-1 1/800  
 Misc :

Vial: 8  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.25

Quant Time: Nov 1 18:17 2018

Quant Results File: Y1025NC.RES

Quant Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Oct 25 16:55:54 2018  
 Response via : Initial Calibration  
 DataAcq Meth : SVOC416

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.62	107	468069	54.6955	ppb	91
39) 2-Methylnaphthalene	7.80	142	919305	52.3492	ppb	100
40) 1-Methylnaphthalene	7.92	142	915116	52.2748	ppb	99
42) Hexachlorocyclopentadiene	7.97	237	89490	20.4405	ppb	97
43) 1,2,4,5-Tetrachlorobenzene	7.99	216	440415	49.8698	ppb	98
44) 2,4,6-Trichlorophenol	8.13	196	321908	51.8427	ppb	98
45) 2,4,5-Trichlorophenol	8.18	196	334732	50.9177	ppb	94
47) 1,1'-Biphenyl	8.34	154	1176322	50.7643	ppb	99
48) 2-Chloronaphthalene	8.37	162	947166	51.3246	ppb	98
49) 2-Nitroaniline	8.49	65	338535	53.1375	ppb	94
50) Dimethyl phthalate	8.70	163	1178215	55.0562	ppb	99
51) 2,6-DNT	8.77	165	256432	51.9096	ppb	# 80
52) Acenaphthylene	8.86	152	1519944	51.0577	ppb	100
53) 3-Nitroaniline	8.97	138	197361	35.7292	ppb	96
54) Acenaphthene	9.05	154	940482	52.1526	ppb	99
55) 2,4-Dinitrophenol	9.10	184	161943	52.7179	ppb	90
56) 4-Nitrophenol	9.17	65	242589	56.8202	ppb	99
57) Dibenzofuran	9.25	168	1343077	53.9646	ppb	95
58) 2,4-DNT	9.25	165	349185	55.5041	ppb	91
59) 2,3,4,6-Tetrachlorophenol	9.39	232	280591	51.7154	ppb	93
60) Diethyl phthalate	9.51	149	1123126	54.5267	ppb	100
61) 4-Chlorophenyl phenyl ethe	9.65	204	483628	59.5895	ppb	93
62) Fluorene	9.65	166	1027429	58.1417	ppb	100
63) 4-Nitroaniline	9.69	138	276397	47.9074	ppb	99
66) 4,6-Dinitro-2-methylphenol	9.72	198	223979	49.8985	ppb	95
67) Diphenyl amine	9.79	169	1402163	89.8364	ppb	99
68) n-Nitrosodiphenylamine	9.79	169	1402163	89.8364	ppb	99
69) 1,2-Diphenylhydrazine	9.84	77	1203777	48.8033	ppb	95
70) 4-Bromophenyl phenyl ether	10.23	248	320290	51.2547	ppb	97
71) Hexachlorobenzene	10.29	284	328145	49.9275	ppb	94
72) Atrazine	10.42	200	121357	21.2408	ppb	97
73) Pentachlorophenol	10.54	266	221096	54.3667	ppb	99
74) Phenanthrene	10.79	178	1622539	50.5986	ppb	99
75) Anthracene	10.85	178	1657377	50.2459	ppb	99
76) Carbazol	11.04	167	1551166	50.3248	ppb	100
77) Di-n-butylphthalate	11.43	149	1858842	52.0842	ppb	99
78) Fluoranthene	12.19	202	1750958	50.8811	ppb	99
81) Pyrene	12.46	202	1828814	51.1306	ppb	99
83) Butyl benzylphthalate	13.19	149	877024	54.9040	ppb	94
84) 3,3'-Dichlorobenzidine	13.82	252	272866	23.4080	ppb	96
85) Benz (a) anthracene	13.85	228	1574730	51.8283	ppb	100
86) Bis (2-ethylhexyl) phthala	13.84	149	1120197	55.8092	ppb	97
87) Chrysene	13.90	228	1630420	51.0080	ppb	100
88) Di-n-octylphthalate	14.62	149	2022856	54.1997	ppb	95
90) Benzo (b) fluoranthene	15.22	252	1676170	50.7984	ppb	99
91) Benzo (k) fluoranthene	15.26	252	1700218	54.0760	ppb	98
92) Benzo (a) pyrene	15.73	252	1552568	51.7206	ppb	99
93) Indeno (1,2,3-cd) pyrene	17.84	276	1699367	48.8631	ppb	98
94) Dibenz (a,h) anthracene	17.88	278	1557346	52.7196	ppb	98
95) Benzo (g,h,i) perylene	18.46	276	1532042	54.3687	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1025Y108.D Y1025NC.M Fri Nov 02 15:27:14 2018

Quantitation Report

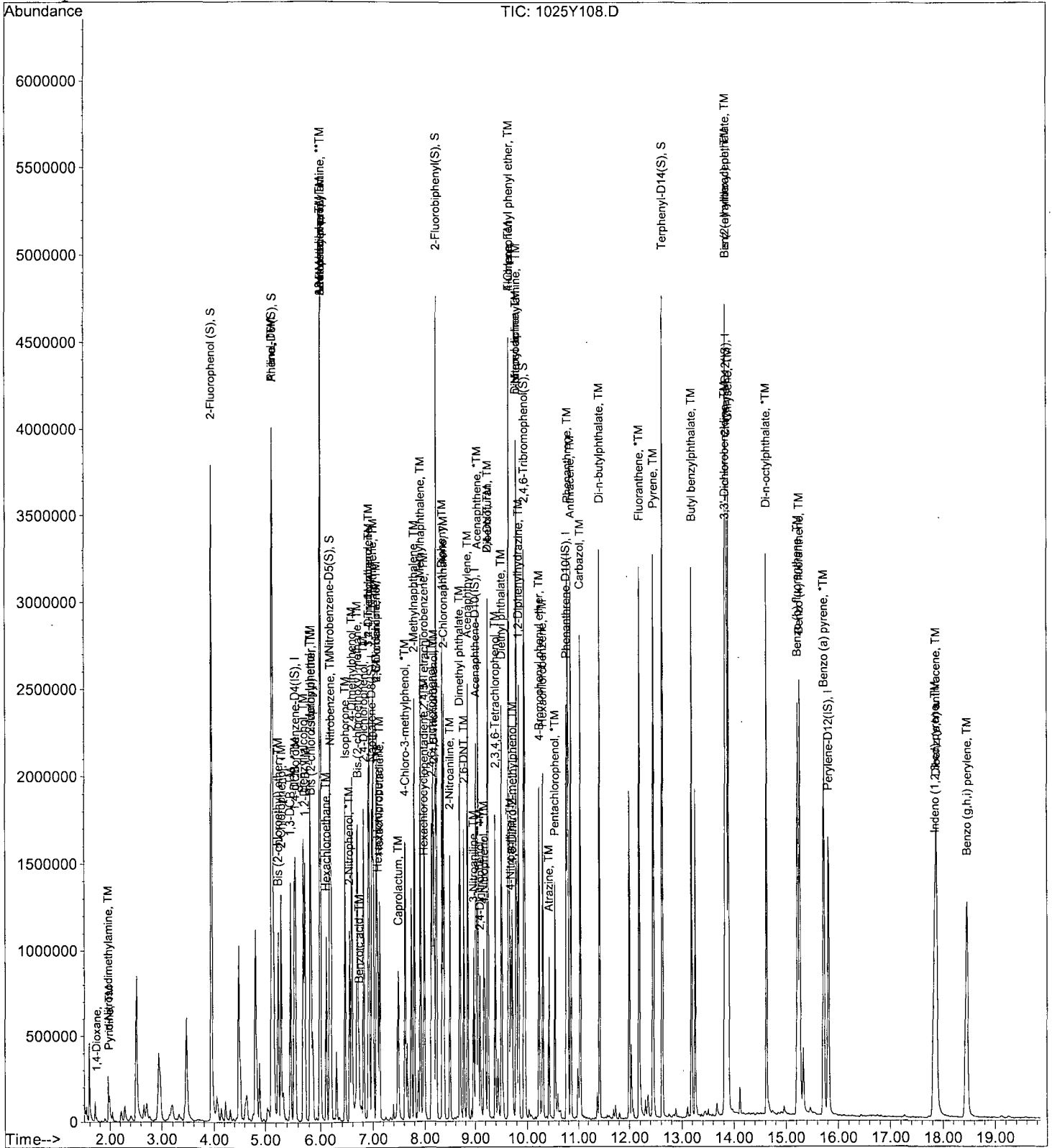
Data File : M:\YODA\DATA\Y181025\1025Y108.D  
Acq On : 1 Nov 18 15:26  
Sample : 181030A LCSD-1 1/800  
Misc :

Vial: 8  
Operator: MA  
Inst : Yoda  
Multiplr: 1.25

Quant Time: Nov 1 18:17 2018

Quant Results File: Y1025NC.RES

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Oct 25 16:55:54 2018  
Response via : Initial Calibration

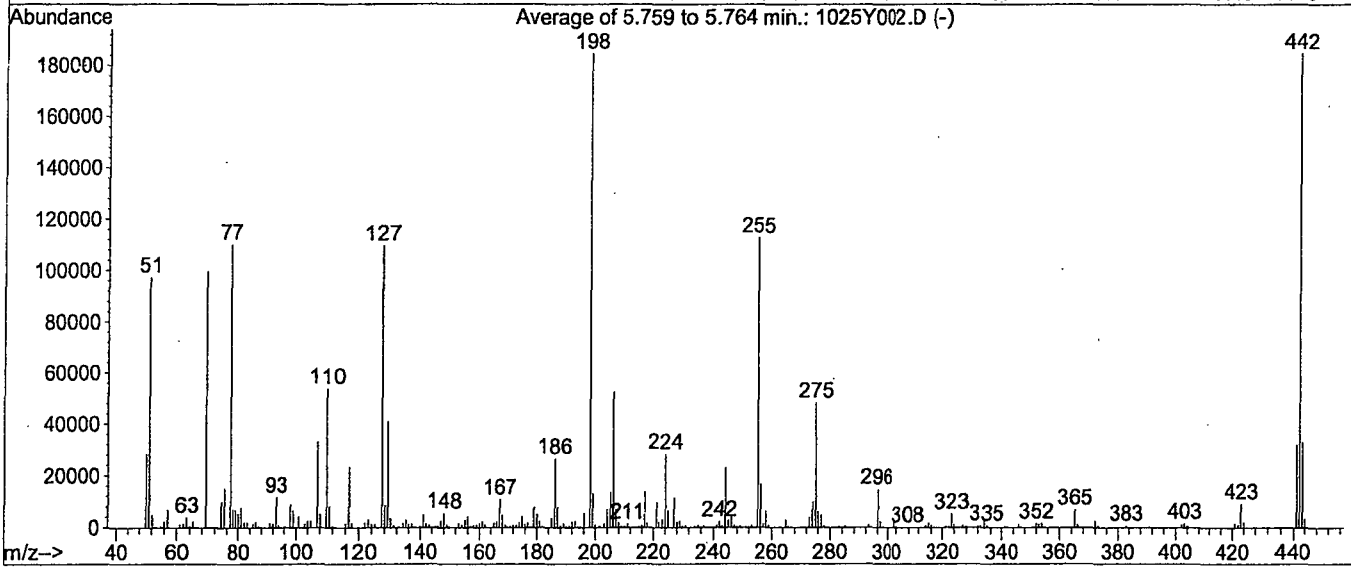
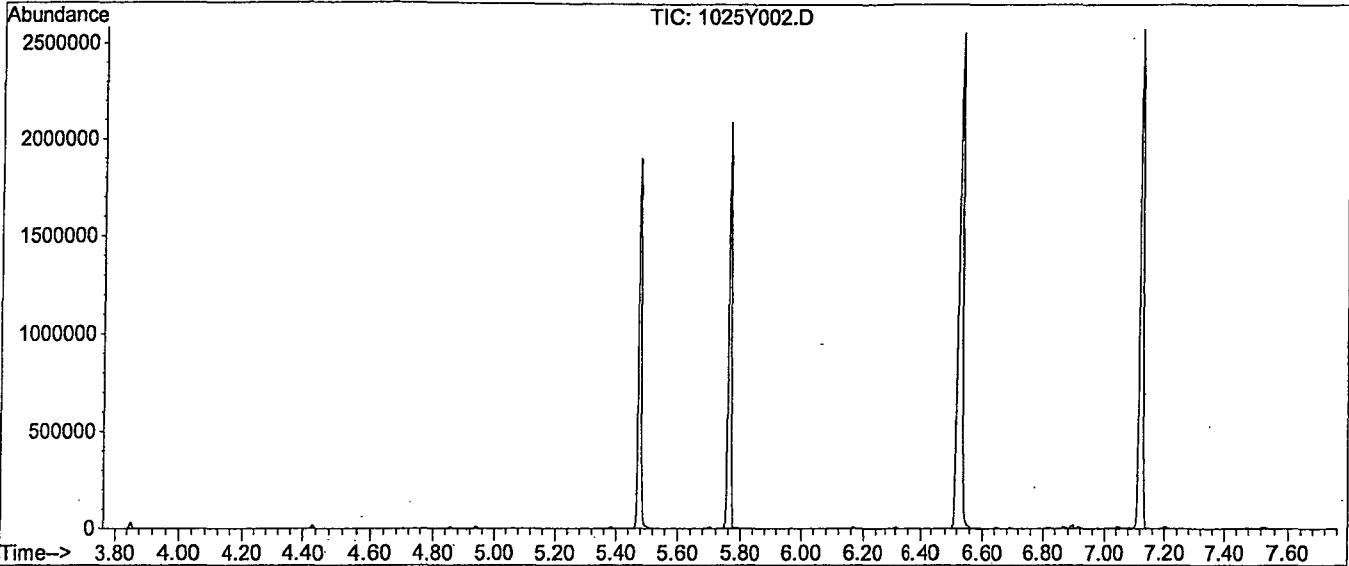


DFTPP

Data File : M:\YODA\DATA\Y181025\1025Y002.D  
 Acq On : 25 Oct 18 11:17  
 Sample : SV Tune 03/07/18  
 Misc :

Vial: 2  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)  
 Title : EPA 8270C



AutoFind: Scans 870, 871, 872; Background Corrected with Scan 862

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	52.8	97467	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.4	371	PASS
127	198	10	80	59.4	109768	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	184661	PASS
199	198	5	9	7.1	13044	PASS
275	198	10	60	26.1	48283	PASS
365	198	1	100	3.7	6805	PASS
441	442	0.01	24	17.3	32043	PASS
442	198	50	150	100.0	184749	PASS
443	442	15	24	17.8	32880	PASS

Data File Name: 1025Y002.D  
Data File Path: M:\YODA\DATA\Y181025\  
Operator: MA  
Date Acquired: 25 Oct 2018 11:17  
Method File: DFTPP2.M  
Sample Name: SV Tune 03/07/18  
Vial Number: 2  
Instrument Name: Yoda

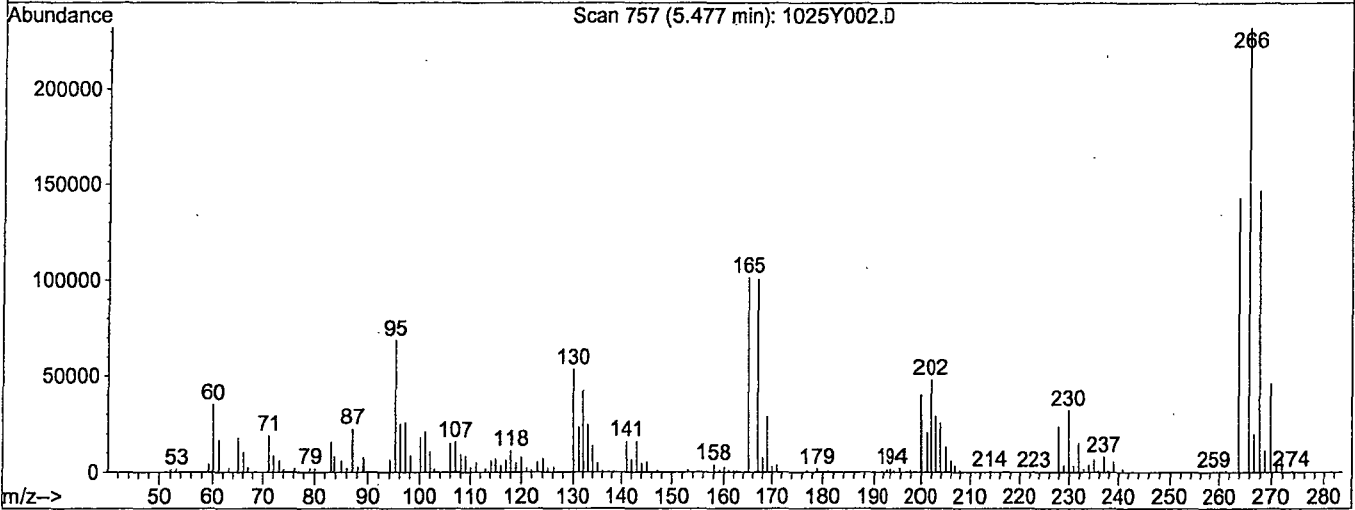
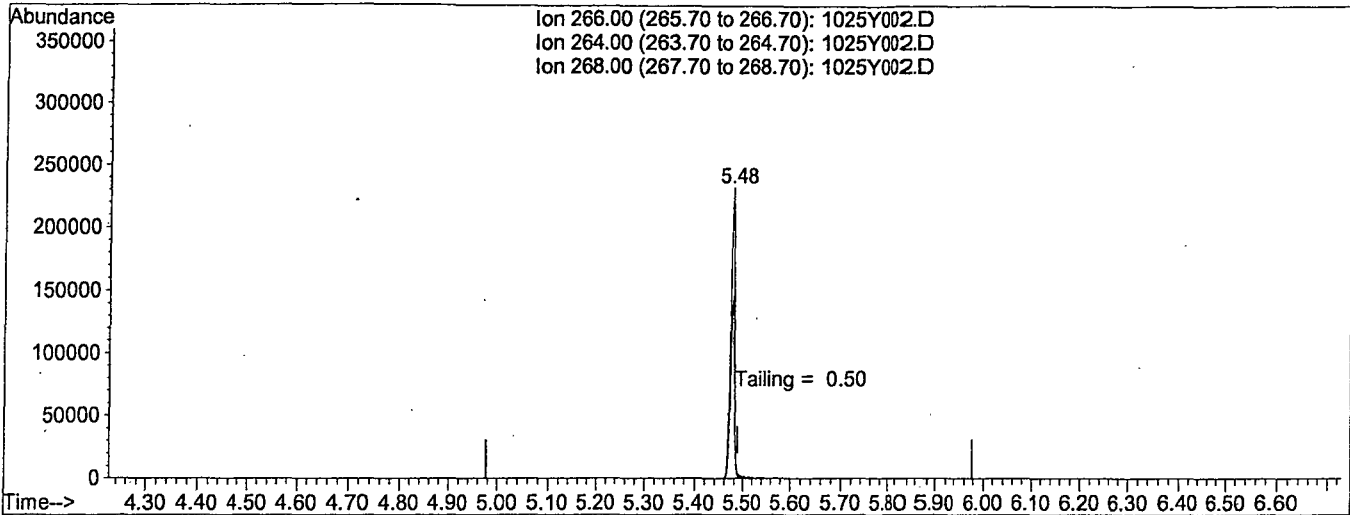
#	Name	Ret Time	Target Response
1)	DDT	7.13	19507100
2)	DDD	6.93	122658
3)	DDE	7.09	0

Breakdown 0.62

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y002.D Vial: 2  
 Acq On : 25 Oct 18 11:17 Operator: MA  
 Sample : SV Tune 03/07/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Oct 25 13:10 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Oct 25 09:06:57 2018  
 Response via : Single Level Calibration



TIC: 1025Y002.D

(5) Pentachlorophenol

5.48min 0.0000

response 1348374

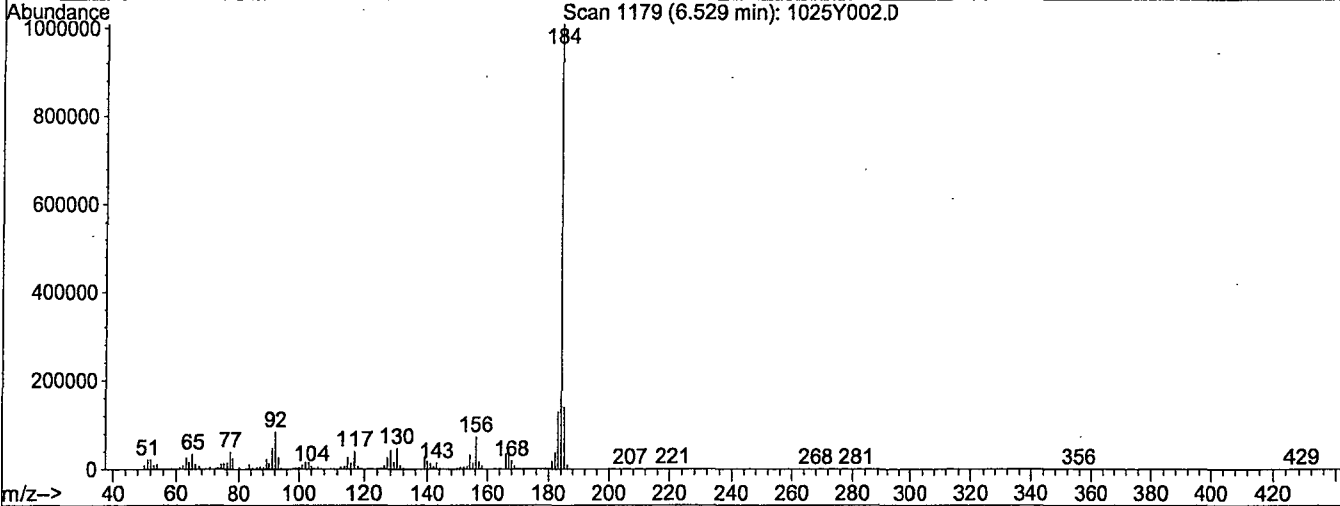
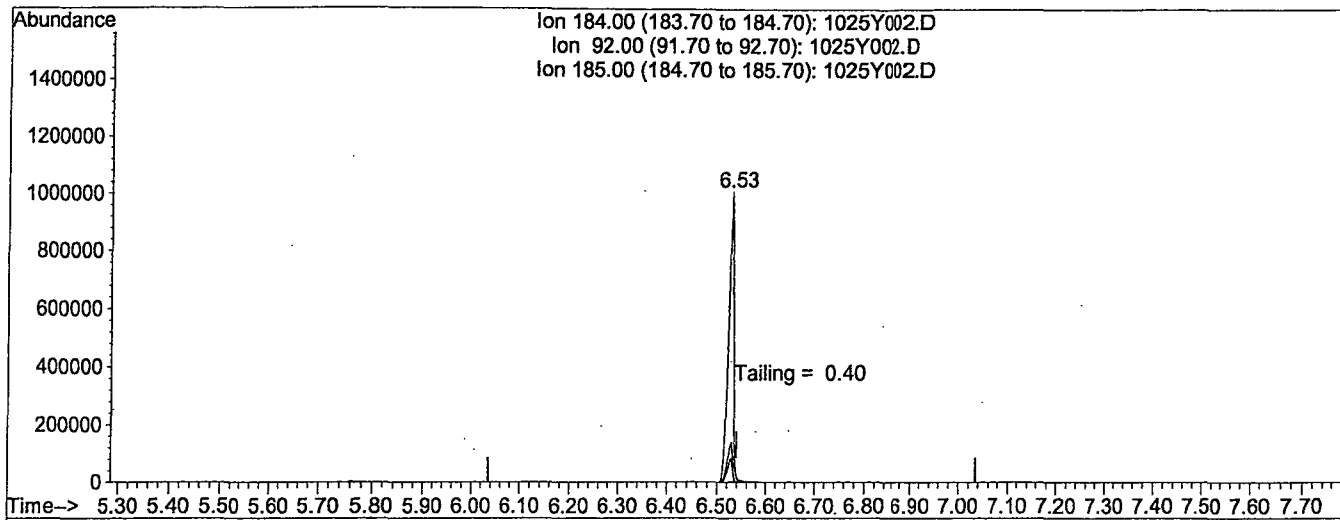
Ion	Exp%	Act%
266.00	100	100
264.00	57.80	62.08
268.00	63.30	62.31
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y002.D  
 Acq On : 25 Oct 18 11:17  
 Sample : SV Tune 03/07/18  
 Misc :  
 Quant Time: Oct 25 13:10 2018

Vial: 2  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Oct 25 09:06:57 2018  
 Response via : Single Level Calibration



TIC: 1025Y002.D

(6) Benzidine

6.53min 0.0000

response 7252222

Ion	Exp%	Act%
184.00	100	100
92.00	7.80	8.06
185.00	14.30	14.29
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y181025\1025Y100.D

Vial: 100

Acq On : 1 Nov 18 11:31

Operator: MA

Sample : SV TUNE 03/07/18

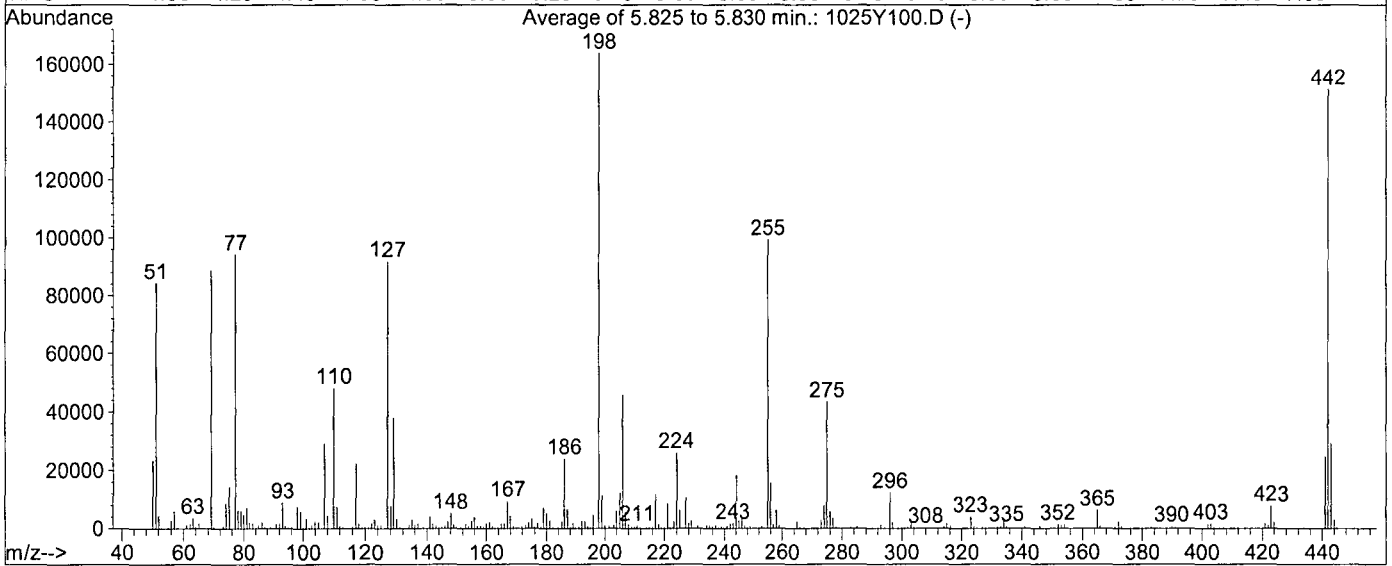
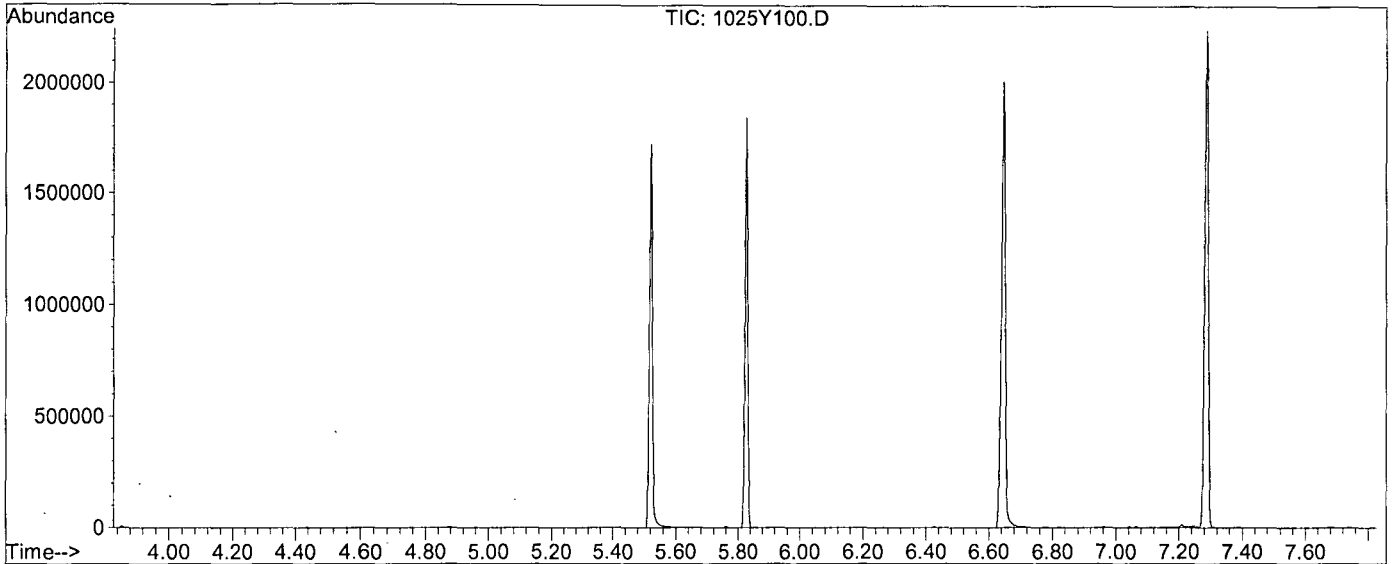
Inst : Yoda

Misc :

Multiplr: 1.00

Method : M:\YODA\DATA\Y181025\Y1025NC.M (RTE Integrator)

Title : EPA 8270C



AutoFind: Scans 897, 898, 899; Background Corrected with Scan 887

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	51.4	84285	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	516	PASS
127	198	10	80	56.0	91755	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	163840	PASS
199	198	5	9	6.8	11217	PASS
275	198	10	60	26.4	43173	PASS
365	198	1	100	3.7	6091	PASS
441	442	0.01	24	16.2	24499	PASS
442	198	50	150	92.3	151203	PASS
443	442	15	24	19.3	29144	PASS



Data File Name: 1025Y100.D  
Data File Path: M:\YODA\DATA\Y181025\  
Operator: MA  
Date Acquired: 1 Nov 18 11:31  
Method File: DFTPP2.M  
Sample Name: SV TUNE 03/07/18  
Vial Number: 100  
Instrument Name: Yoda

#	Name	Ret Time	Target Response
1)	DDT	7.29	17175500
2)	DDD	7.06	0
3)	DDE	7.24	0

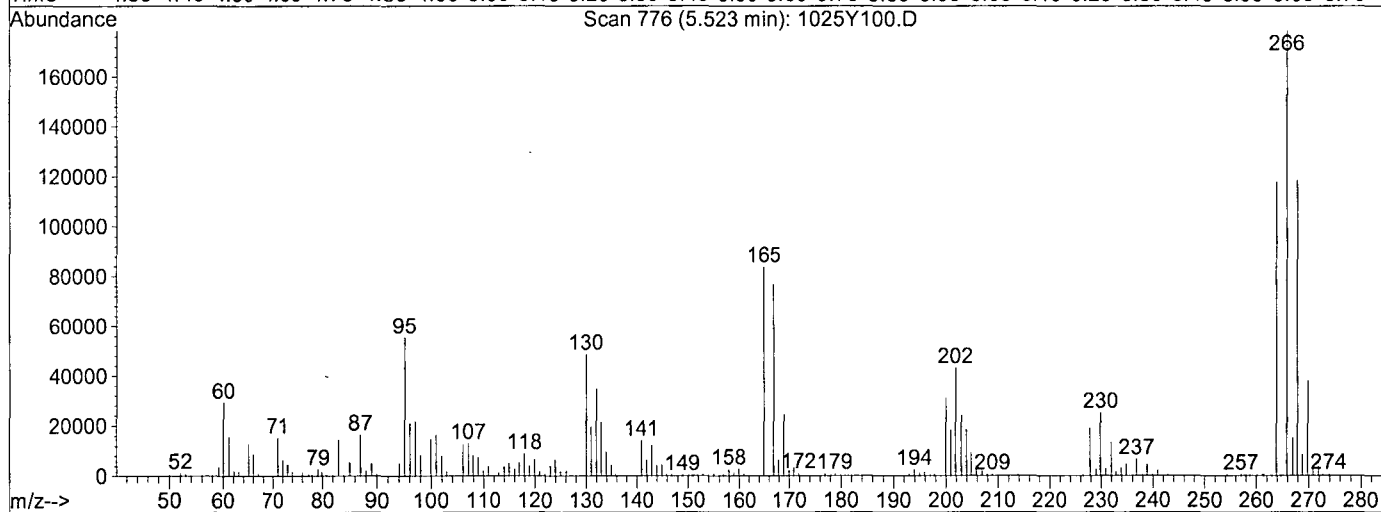
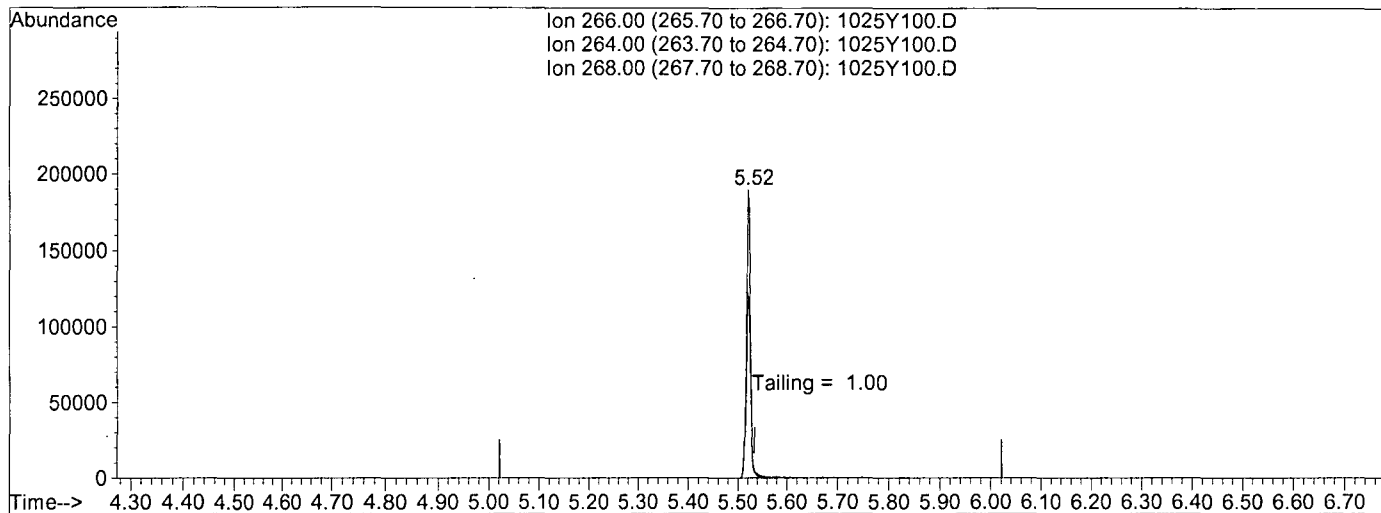
Breakdown 0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y100.D  
 Acq On : 1 Nov 18 11:31  
 Sample : SV TUNE 03/07/18  
 Misc :  
 Quant Time: Nov 1 18:04 2018

Vial: 100  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Nov 01 18:04:42 2018  
 Response via : Single Level Calibration



TIC: 1025Y100.D

(5) Pentachlorophenol

5.52min 0.0000

response 1181168

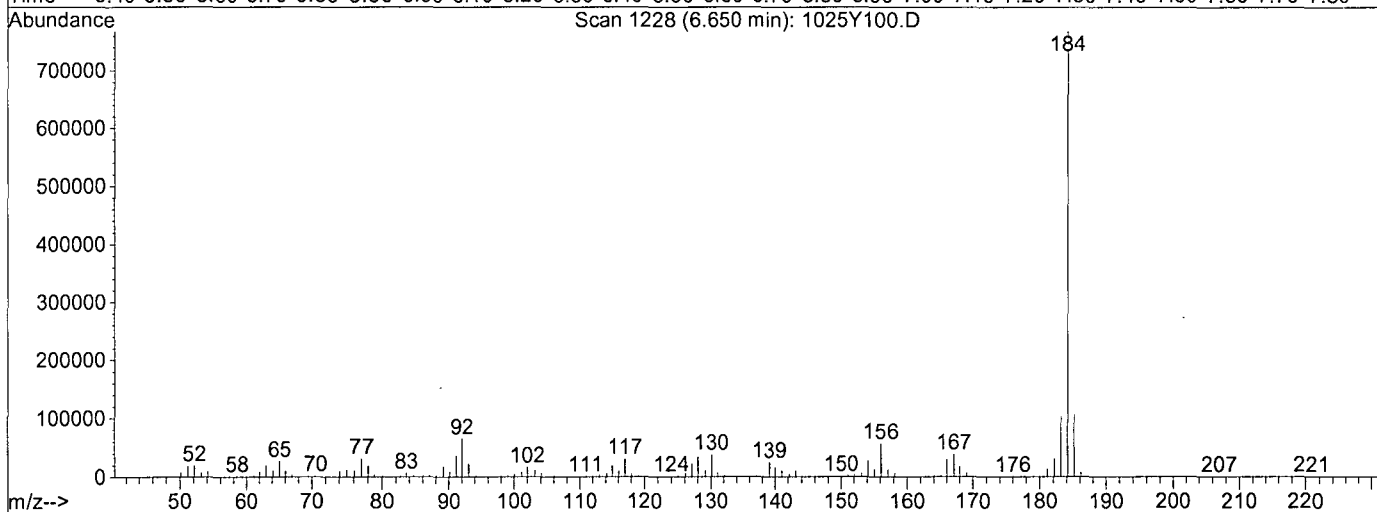
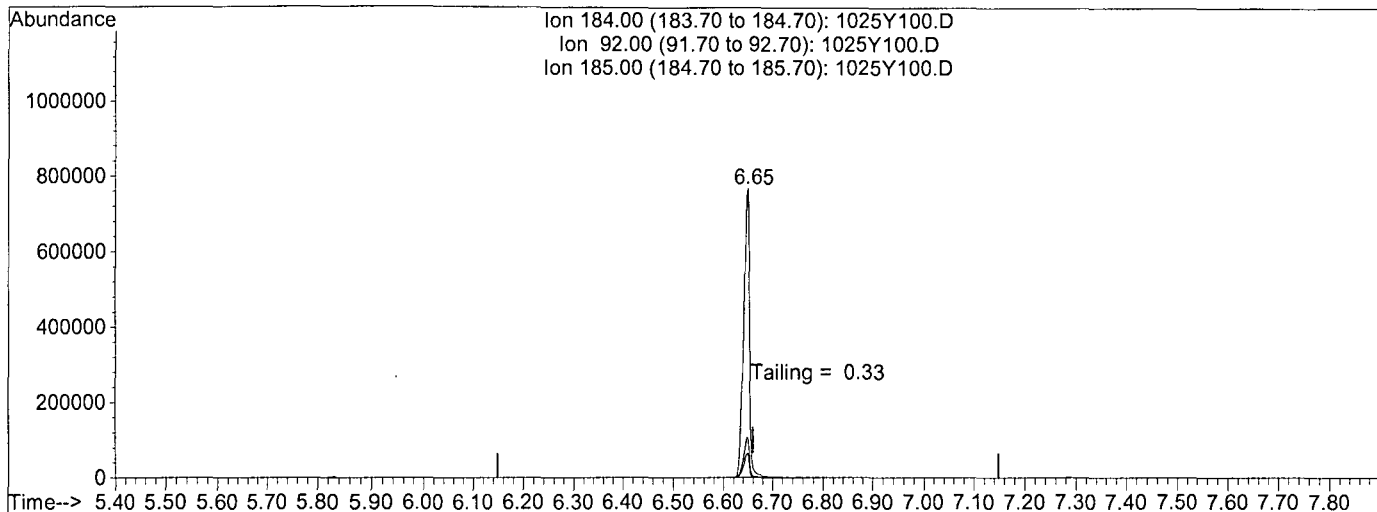
Ion	Exp%	Act%
266.00	100	100
264.00	64.60	64.29
268.00	59.20	64.15
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y181025\1025Y100.D  
 Acq On : 1 Nov 18 11:31  
 Sample : SV TUNE 03/07/18  
 Misc :  
 Quant Time: Nov 1 18:04 2018

Vial: 100  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y181025\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Thu Nov 01 18:04:42 2018  
 Response via : Single Level Calibration



TIC: 1025Y100.D

(6) Benzidine

6.65min 0.0000

response 6439666

Ion	Exp%	Act%
184.00	100	100
92.00	8.40	8.02
185.00	13.70	13.97
0.00	0.00	0.00

Name of  
Final

Standard 8270 Full Scan Standard Curve

Prep'd By (Initials)

OA

Prep Date 10/18/18

Exp Date 12/19/18

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	4 uL	200uL	MC 56258 192uL	4 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	4 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	5 uL	200uL	MC 56258 190uL	5 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	5 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	5 uL	100uL	MC 56258 90uL	10 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	5 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	10 uL	100uL	MC 56258 80 uL	20 ug/mL

8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	20 uL	100uL	MC 56258 60 uL	40 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	20 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	50 uL	200 uL	MC 56258 100 uL	50 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	30 uL	100uL	MC 56258 40 uL	60 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	30 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	40 uL	100uL	MC 56258 20 uL	80 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	40 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	200 ug/mL	12/19/17	12/19/18	50 uL	100uL	na	100 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200/400 ug/mL	06/13/18	05/29/19	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	2 uL	*	*	*

Name of  
Final

Standard 8270 Full Scan Second Source

Prep'd By (Initials)

OA

Prep Date 10/18/19

Exp Date 02/16/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 SS Stock	o2si	8270 SS Stock	200 ug/mL	04/19/18	04/19/19	50 uL	200uL	MC 56258 150uL	50 ug/mL
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	10/11/18	10/11/19	4 uL	*	*	*

8270 Full Scan Stock						
12/19/17 -GA						
8270 Source Stock						
Exp:	12/19/18					
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
Absolute	10001	2000	012317-38399 012317-38400	12/19/17	12/19/18	2000
Absolute	10002	2000	062216-37964 062216-37965	12/19/17	12/19/18	2000
Absolute	10004	2000	012516-38188 012516-38508	12/19/17	12/19/18	2000
Absolute	10005	2000	110314-38248 110314-38249	12/19/17	12/19/18	2000
Absolute	10006	2000	021717-38253 021717-38254	12/19/17	12/19/18	2000
Absolute	10007	2000	080116-38258 080116-38259	12/19/17	12/19/18	2000
Absolute	10018	2000	090216-38192 090216-38192	12/19/17	12/19/18	2000
Absolute	70023	1000	091217-038263 091217-038264	12/19/17	12/19/18	2000
Absolute	82705	2000	041217-38268 041217-38269	12/19/17	12/19/18	2000
Absolute	94552	various	102017-38402 102017-38403	12/19/17	12/19/18	2000
				Final Vol.		20000

G34

G34

Name of

Final

Standard

8270 Surrogate 200/400 ppm

Prep'd By (Initials)

GA

Prep Date 06/13/18

Exp Date 05/29/19

Initial Standard Information					Final Standard Information				
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Allquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 Acid Surrogate Mix	Restek	33029	10,000 ug/mL	A0130078-38378	05/29/19	200 uL	5 mL	MC 56258	400 ug/mL
8270 B/N Surrogate Mix	Restek	31086	5000 ug/mL	A0130555-38549	06/04/19	200 uL	*	*	200 ug/mL



Name of  
Final  
Standard

**8270 SS STOCK**

Prep'd By (Initials)

OA

Prep Date 04/19/18

Exp Date 04/19/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc. (range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
	Absolute	10001	2000	G34-081717-38180	04/19/19	1.0 mL	10 mL	NA	2000 ug/mL
	Absolute	10002	2000	G34-020217-38183	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10004	2000	010815-38824	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10005	2000	041317-37803	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10006	2000	011718-38826	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10007	2000	020515-38828	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	10018	2000	G34-030216-38198	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	70023	1000	013118-38829	04/19/19	1.0 mL	*	*	1000 ug/mL
	Absolute	82705	2000	090617-38831	04/19/19	1.0 mL	*	*	2000 ug/mL
	Absolute	94552	various	013118-38824	04/19/19	1.0 mL	*	*	various

Name of  
 Final **8270 Surrogate 100/200**  
 Standard **ppm**

Prep'd By (Initials) **GA**

Prep Date **09/07/18**  
 Exp Date **03/07/19**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 Acid Surrogate Mix	Restek	33029	10,000 ug/mL	A0132399-38918 & A0132399 39394	07/11/2019 09/07/19	5.0 mL	250 mL	Acetone #030817A	200 ug/mL
8270 B/N Surrogate Mix	Restek	31086	5000 ug/mL	A0135243-39164 & 39165	08/09/19 09/07/19	5.0 mL	250 mL	*	100 ug/mL

Name of  
Final

Standard 8270 Full Scan Spike

Prep'd By (Initials)

OA

Prep Date 09/20/18

Exp Date 09/20/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent Lot# (Or APPL Prep Date)	Final Standard Conc.(range)
10001	Absolute	10001	2000	051018-39432	09/20/19	1.0 mL	10 mL	NA	2000 ug/mL
10002	Absolute	10002	2000	051018-39438	09/20/19	1.0 mL			2000 ug/mL
10004	Absolute	10004	2000	071818-39442	09/20/19	1.0 mL			2000 ug/mL
10005	Absolute	10005	2000	110314-38938	09/20/19	1.0 mL			2000 ug/mL
10006	Absolute	10006	2000	071318-39448	09/20/19	1.0 mL			2000 ug/mL
10007	Absolute	10007	2000	080116-38946	09/20/19	1.0 mL			2000 ug/mL
10018	Absolute	10018	2000	062718-39453	09/20/19	1.0 mL			2000 ug/mL
70023	Absolute	70023	1000	620818-39488	09/20/19	1.0 mL			1000 ug/mL
82705	Absolute	82705	2000	090617-39227	09/20/19	1.0 mL			2000 ug/mL
94552	Absolute	94552	various	102017-38956	09/20/19	1.0 mL			various

Name of Final Standard 8270 Internal Standard (Ampule)  
 Prep Date 10/11/18  
 Exp Date 10/11/19

Prep'd By (Initials) GA

Initial Standard Information					Final Standard Information				
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile Internal Standard	Restek	31206	2mg/mL	A0138585 - 39541 39542	10/11/19	2 mL	2 mL	NA	2mg/mL

Name of  
Final

Standard Semivolatiles (SV) Tuning Solution

Prep'd By (Initials)

GA

Prep Date 03/07/18

Exp Date 03/07/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatiles GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38878	03/07/19	1,250 uL	25 mL	MC #56258	50 ug/mL

# Organic Extraction Worksheet















<b>Method</b>	Continuous Liquid/Liquid SVOC 3520C	<b>Extraction Set</b>	181030A	<b>Extraction Method</b>	LIQ003	<b>Units</b>	mL
Spiked ID 1	8270T Spike 10-9-18 EXP 10-9-19	Surrogate ID 1	8270 Surrogate 9-2718 EXP 3-27-19				
Spiked ID 2	Sim Spike 10-26-18 EXP 10-26-19	Surrogate ID 2	SIM Surrogate 9-27-18 EXP 9-27-19				
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		NO			
Spiked ID 7		Ext. Start Time:		10/30/18 16:00, 10/31/18 13:15			
Spiked ID 8		Ext. End Time:		10/31/18 10:15, 11/01/18 07:45, 10:55			
GC Requires Extract By:				11/01/18 0:00			
pH1	2	10/30/18 1:50:00 PM	Water Bath Temp Criteria 76 °C				
pH2	14	10/31/18 1:00:00 PM					
pH3							

Spiked By: KY

Date 10/30/18

Witnessed By: DL

Date 10/30/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	181030A Blk			1,0.050	1,2	800	1	2/1	10/30/18 14:00	
					equip	E-HP51 E-WB5				
2	181030A LCS-1	0.250	1	1	1	800	1	2/1	10/30/18 14:00	
					equip	E-HP50 E-WB5				
3	181030A LCS-2	0.0250	2	0.050	2	800	1	2/1	10/30/18 14:00	
					equip	E-HP49 E-WB5				
4	181030A LCS-D-1	0.250	1	1	1	800	1	2/1	10/30/18 14:00	
					equip	E-HP48 E-WB5				
5	181030A LCS-D-2	0.0250	2	0.050	2	800	1	2/1	10/30/18 14:00	
					equip	E-HP47 E-WB5				
6	AZ81599 AZ81599W01			0.050	1,2	800	1	2/1	10/30/18 14:00	87202
					equip	E-HP30 E-WB5				
7	AZ81676 AZ81676W10			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87219
					equip	E-HP29 E-WB5				
8	AZ81677 AZ81677W10			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87219
					equip	E-HP28 E-WB5				
9	AZ81678 AZ81678W12			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87219
					equip	E-HP27 E-WB5				
10	AZ81840 AZ81840W12			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87238
					equip	E-HP26 E-WB5				
11	AZ81841 AZ81841W12			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87238
					equip	E-HP25 E-WB5				
12	AZ81842 AZ81842W13			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87238
					equip	E-HP17 E-WB5				
13	AZ81901 AZ81901W13			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87248
					equip	E-HP16 E-WB5				
14	AZ81903 AZ81903W12			1,0.050	1,2	800	1	2/1	10/30/18 14:00	87248
					equip	E-HP15 E-WB5				

*Ky 11/02/18*

Solvent and Lot#	
PH Strips	HC 727135
Dichloromethane (DCM)	58059
1+1 H2SO4	73-18
10N NaOH	10-17-18
Filter Paper	400147
Acidified Na2SO4	10-2-18
B. Na2SO4	18D105205

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	AMT
Date	11/1/18
Time	12:00
Refrigerator	GC-C

Technician's Initials	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	11/02/18 11:58:33 AM

Reviewed By: *Ky* 477 Date *11/2/18*

# Injection Log

Directory: M:\YODA\DATA\Y181025\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	1025Y002.D	1	SV Tune 03/07/18		25 Oct 18 11:17
3	1025Y003.D	1	4ug/mL 8270 10/18/18		25 Oct 18 11:33
4	1025Y004.D	1	5ug/mL 8270 10/18/18		25 Oct 18 12:01
5	1025Y005.D	1	10ug/mL 8270 10/18/18		25 Oct 18 12:28
6	1025Y006.D	1	20ug/mL 8270 10/18/18		25 Oct 18 12:56
7	1025Y007.D	1	40ug/mL 8270 10/18/18		25 Oct 18 13:24
8	1025Y008.D	1	50ug/mL 8270 10/18/18		25 Oct 18 13:52
9	1025Y009.D	1	60ug/mL 8270 10/18/18		25 Oct 18 14:20
10	1025Y010.D	1	80ug/mL 8270 10/18/18		25 Oct 18 14:48
11	1025Y011.D	1	100ug/mL 8270 10/18/18		25 Oct 18 15:16
12	1025Y012.D	1	SS- 8270 10/18/18		25 Oct 18 15:44
100	1025Y100.D	1	SV TUNE 03/07/18		1 Nov 18 11:31
1	1025Y101.D	1	50ug/mL 8270 10/18/18 (2)		1 Nov 18 11:46
6	1025Y106.D	1.25	181030A BLK 1/800		1 Nov 18 14:30
7	1025Y107.D	1.25	181030A LCS-1 1/800		1 Nov 18 14:58
8	1025Y108.D	1.25	181030A LCSD-1 1/800		1 Nov 18 15:26
12	1025Y112.D	1.25	AZ81840W12 1/800		1 Nov 18 17:17
13	1025Y113.D	1.25	AZ81841W12 1/800		1 Nov 18 17:44
14	1025Y114.D	1.25	AZ81842W13 1/800		1 Nov 18 18:12
17	1025Y117.D	1	50ug/mL 8270 10/18/18 (2)		1 Nov 18 19:36

**ORGANICS**  
**Calibration Data**

**APPL, INC.**



2MEE  
EPA 8270

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 08/01/18  
Instrument: Yoda

Initials: \_\_\_\_\_

0801Y003.D    0801Y005.D    0801Y006.D    0801Y007.D    0801Y004.D    0801Y008.D    0801Y009.D    0801Y010.D

	Compound	1	2	3	4	5	6	7	8			Avg	%RSD	Type	r <sup>2</sup>	Q	MRF
1	I 1,4-dichlorobenzene-D4(IS)																
2	TML 2-(2-Methoxyethoxy)ethanol	0.1397	0.2559	0.2135	0.2096	0.2114	0.2268	0.2198	0.2224			0.21	15	TML	0.998		
3	I Napthalene-D8(IS)																
4	I Acenaphthene-D10(IS)																
5	I Phenanthrene-D10(IS)																
6	I Chrysene-D12(IS)																
7	I Perylene-D12(IS)																
8																	
9																	
10																	
11																	
12																	
13																	
14																	
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35																	

Data File : M:\YODA\DATA\Y180801M\0801Y003.D  
 Acq On : 1 Aug 18 15:09  
 Sample : 50ug/ml MEE 08/01/18  
 Misc : soil

Vial: 3  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	423228	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1672731	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	846835	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1554428	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1480723	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1510378	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.90	45	73888	40.09311	ppb	92

Quantitation Report

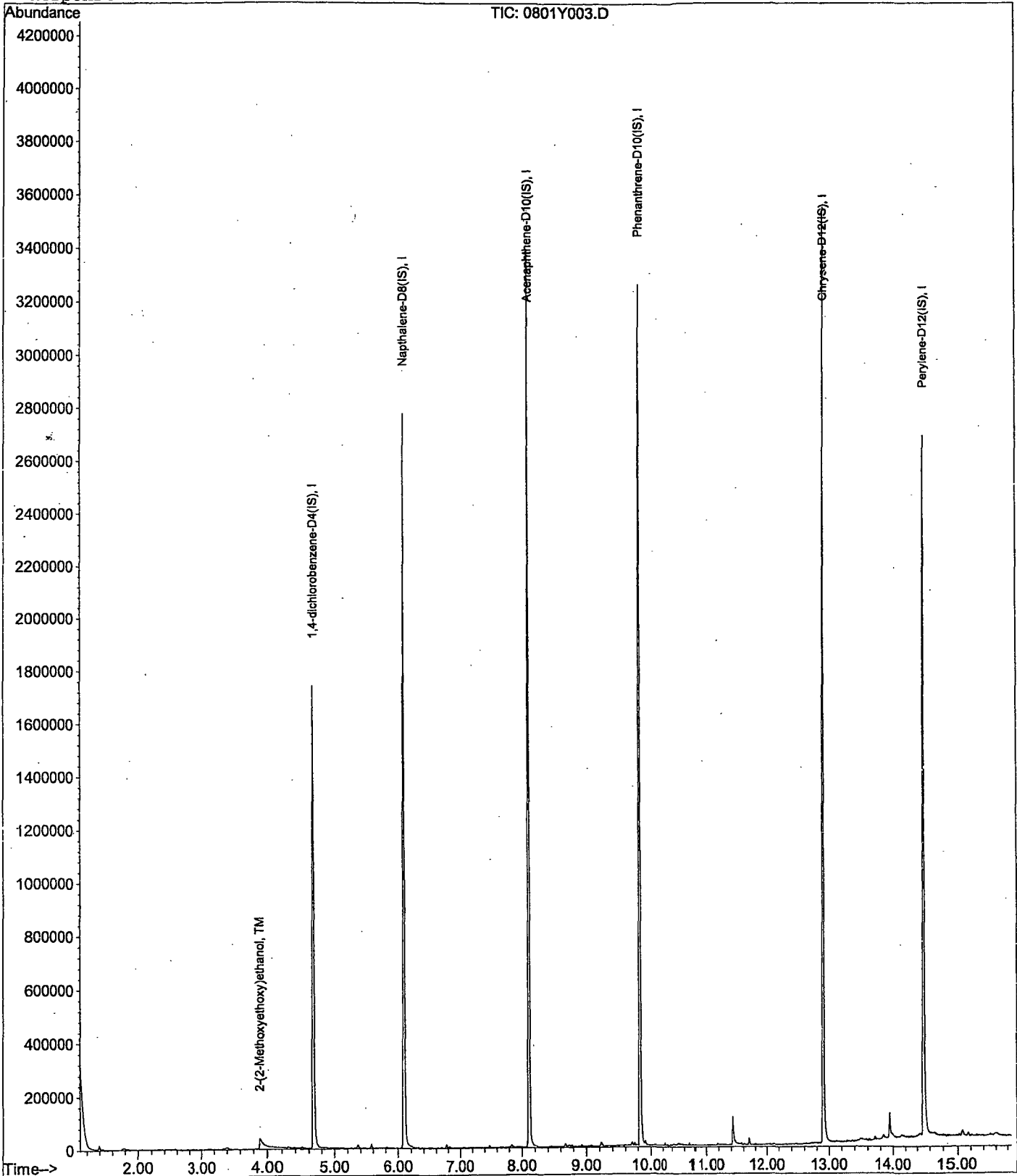
Data File : M:\YODA\DATA\Y180801M\0801Y003.D  
Acq On : 1 Aug 18 15:09  
Sample : 50ug/ml MEE 08/01/18  
Misc : soil

vial: 3  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y004.D Vial: 4  
 Acq On : 1 Aug 18 15:34 Operator: MA  
 Sample : 500ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	444036	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1697285	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	865268	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.83	188	1608326	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1531073	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1598774	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.88	45	1173343	482.22697	ppb	99

Quantitation Report

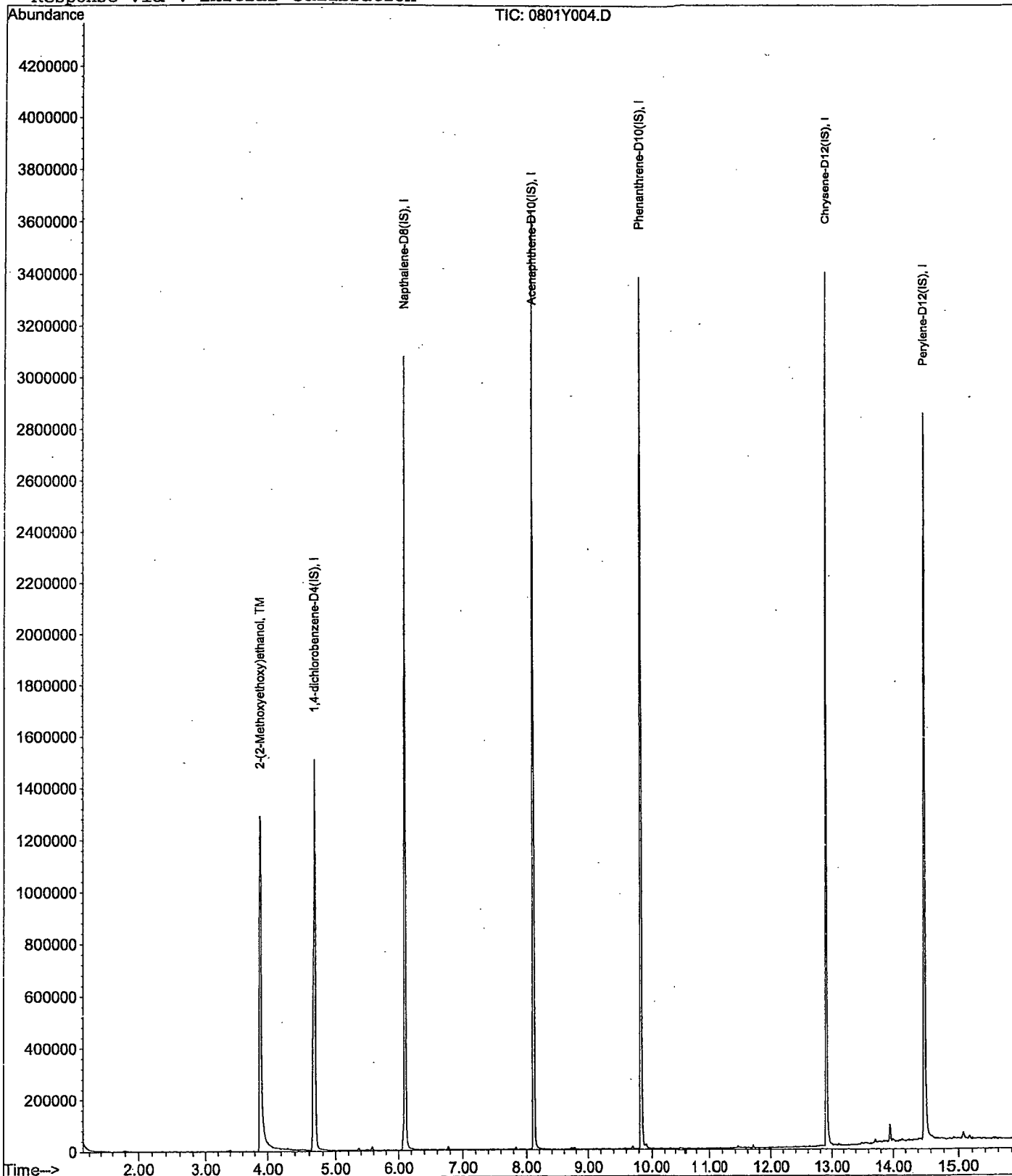
Data File : M:\YODA\DATA\Y180801M\0801Y004.D  
Acq On : 1 Aug 18 15:34  
Sample : 500ug/ml MEE 08/01/18  
Misc : soil

Vial: 4  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y005.D Vial: 5  
 Acq On : 1 Aug 18 16:26 Operator: MA  
 Sample : 100ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	412018	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1553432	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	800497	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1436197	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1368694	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1351563	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.87	45	263617	123.44322	ppb	99

Quantitation Report

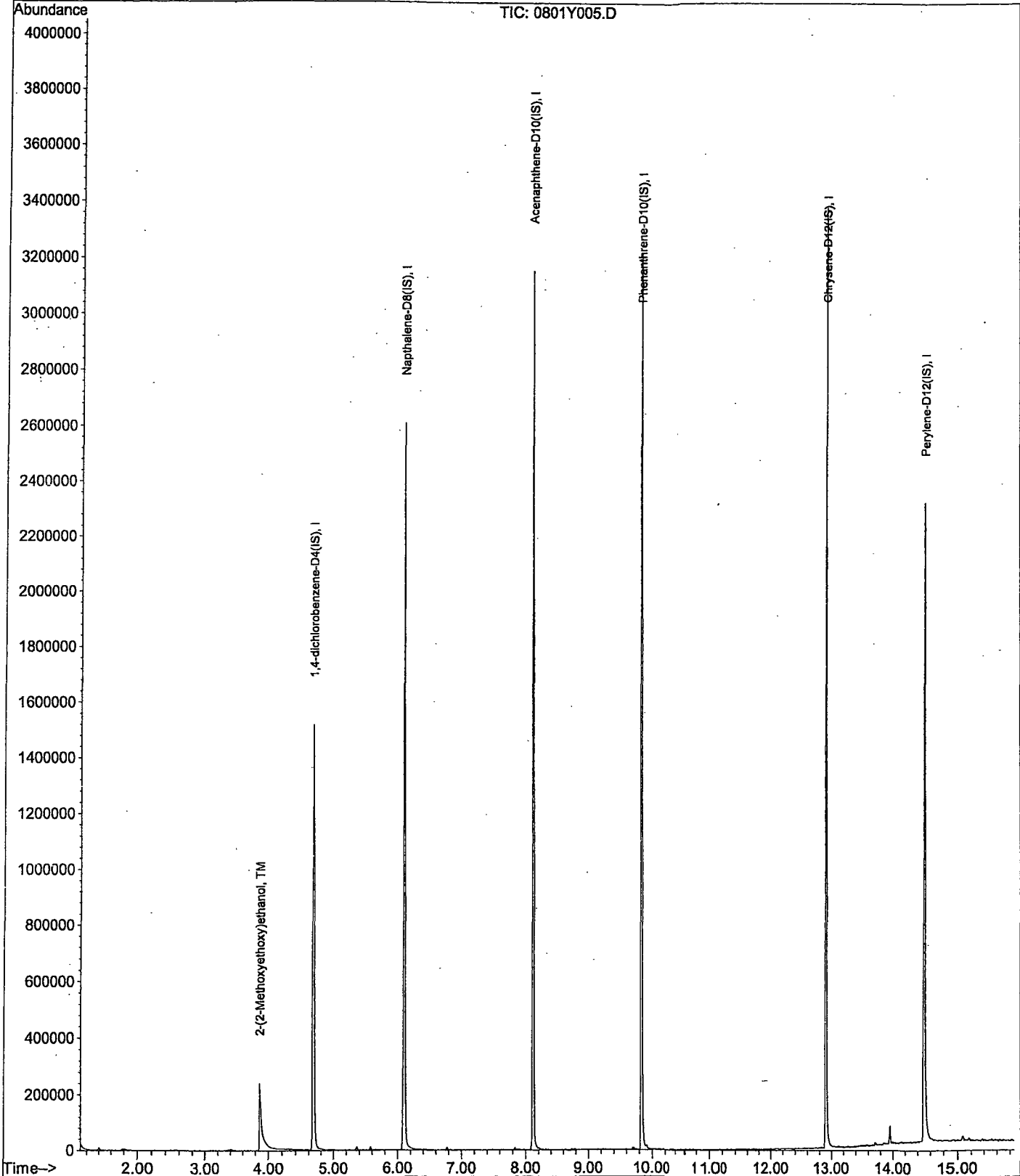
Data File : M:\YODA\DATA\Y180801M\0801Y005.D  
Acq On : 1 Aug 18 16:26  
Sample : 100ug/ml MEE 08/01/18  
Misc : soil

Vial: 5  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y006.D Vial: 6  
 Acq On : 1 Aug 18 16:51 Operator: MA  
 Sample : 200ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	408598	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1570821	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	801658	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1450305	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1375178	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1308796	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.87	45	436085	200.02396	ppb	98



Quantitation Report

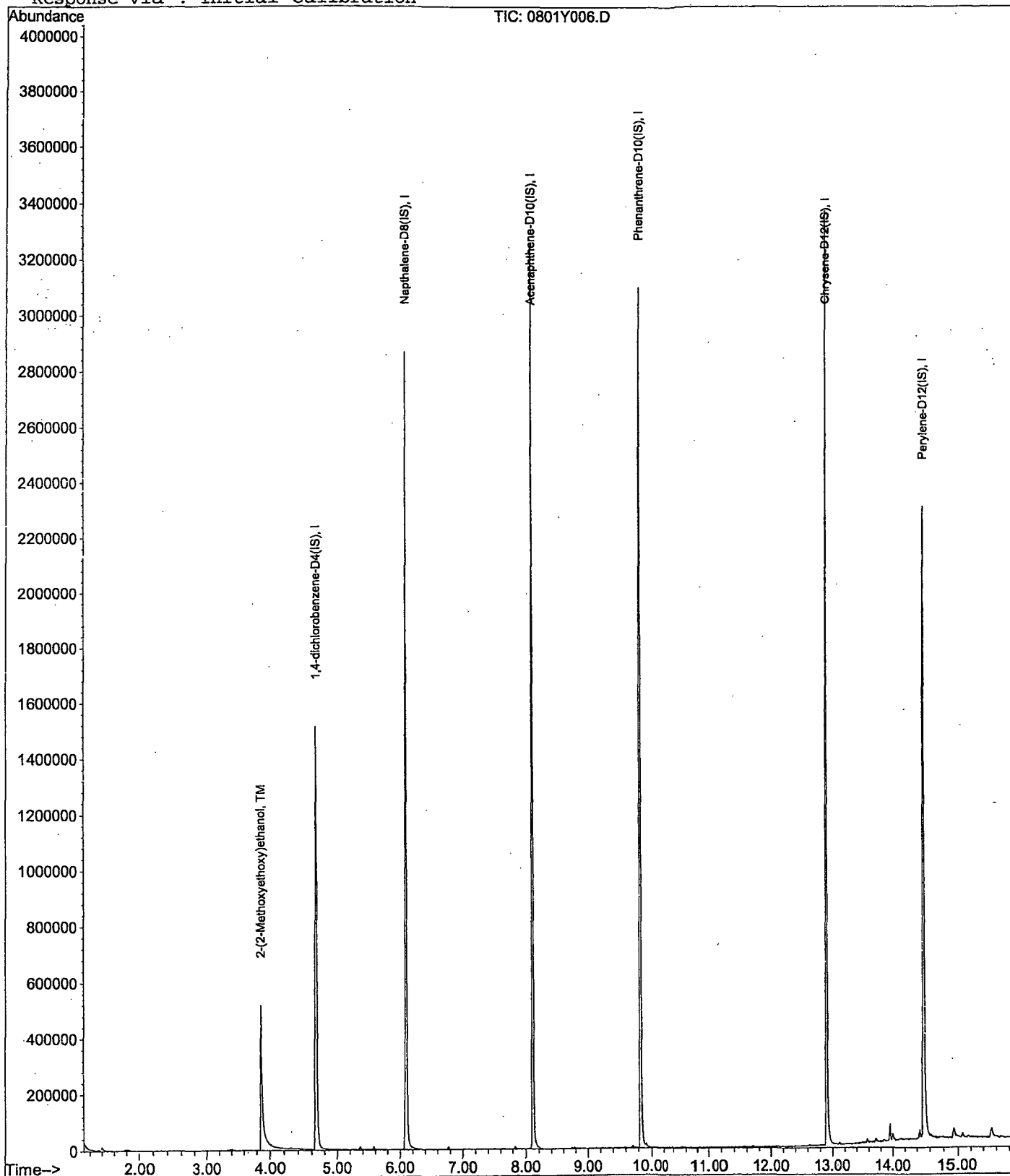
Data File : M:\YODA\DATA\Y180801M\0801Y006.D  
Acq On : 1 Aug 18 16:51  
Sample : 200ug/ml MEE 08/01/18  
Misc : soil

Vial: 6  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y007.D                      Vial: 7  
 Acq On : 1 Aug 18 17:16                                              Operator: MA  
 Sample : 400ug/ml MEE 08/01/18                                      Inst : Yoda  
 Misc : soil                                                              Multiplr: 1.00

Quant Time: Aug 2 9:28 2018                                              Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	404706	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1558208	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	769410	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.83	188	1420741	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1352975	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.50	264	1257373	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.87	45	848145	384.27446	ppb	97

Quantitation Report

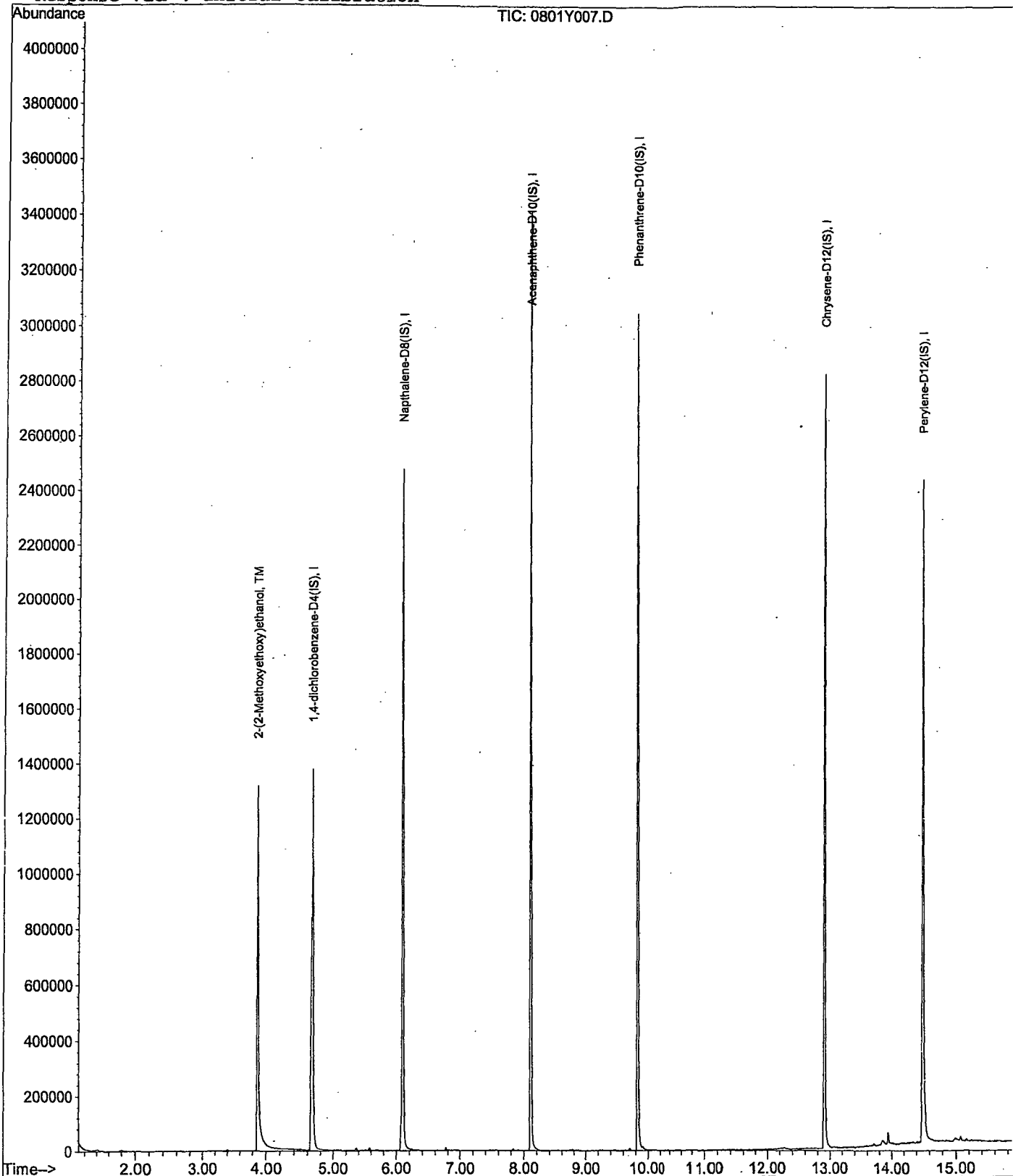
Data File : M:\YODA\DATA\Y180801M\0801Y007.D  
Acq On : 1 Aug 18 17:16  
Sample : 400ug/ml MEE 08/01/18  
Misc : soil

Vial: 7  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y008.D                   Vial: 8  
 Acq On : 1 Aug 18 17:41                                   Operator: MA  
 Sample : 500ug/ml MEE 08/01/18                         Inst : Yoda  
 Misc : soil                                               Multiplr: 1.00

Quant Time: Aug 2 9:28 2018                           Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.69	152	405475	40.00000	ppb	0.01
3) Napthalene-D8 (IS)	6.11	136	1552965	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	796436	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.83	188	1490717	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.90	240	1398690	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.50	264	1658322	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.91	45	1379331	618.26307	ppb	97

Quantitation Report

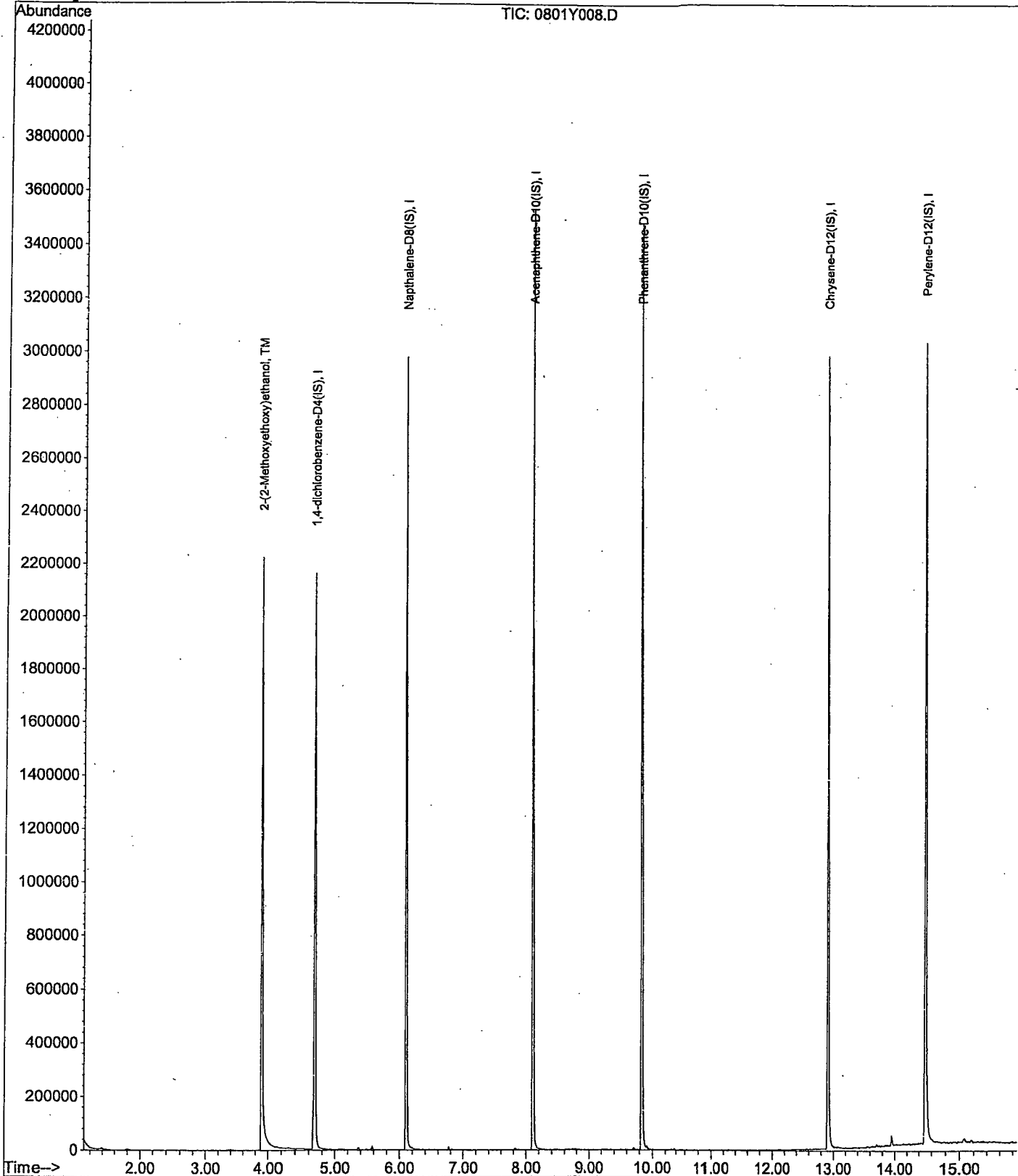
Data File : M:\YODA\DATA\Y180801M\0801Y008.D  
Acq On : 1 Aug 18 17:41  
Sample : 600ug/ml MEE 08/01/18  
Misc : soil

Vial: 8  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y009.D Vial: 9  
 Acq On : 1 Aug 18 18:06 Operator: MA  
 Sample : 800ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.69	152	408320	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1525383	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	796830	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1438835	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1358221	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1353471	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.92	45	1795349	796.55050	ppb	98

Quantitation Report

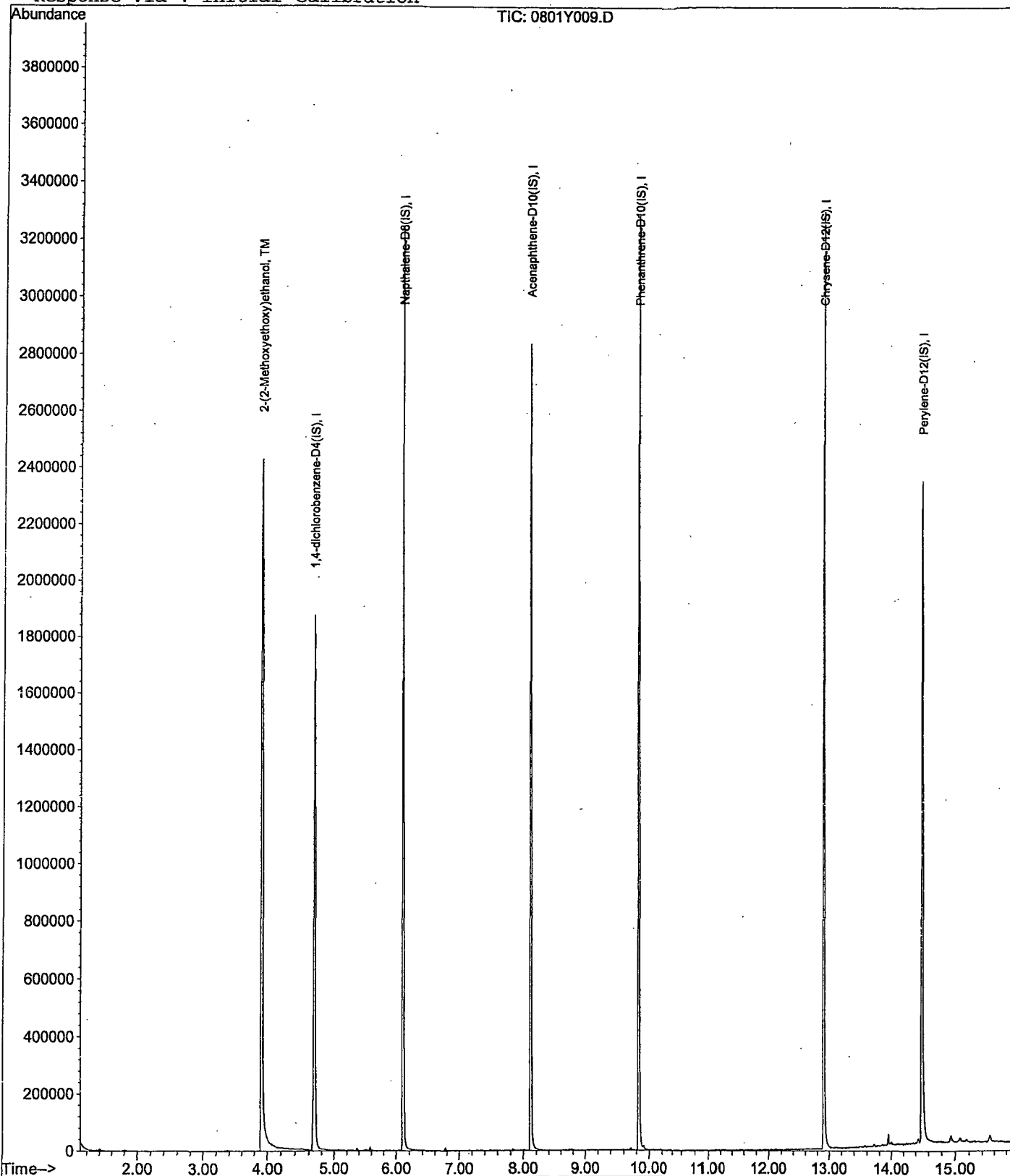
Data File : M:\YODA\DATA\Y180801M\0801Y009.D  
Acq On : 1 Aug 18 18:06  
Sample : 800ug/ml MEE 08/01/18  
Misc : soil

Vial: 9  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y010.D Vial: 10  
 Acq On : 1 Aug 18 18:31 Operator: MA  
 Sample : 1000ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:28 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:17:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.69	152	405400	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1531861	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	798997	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1470941	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1395838	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1333379	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.93	45	2254478	1005.12472	ppb	97



Quantitation Report

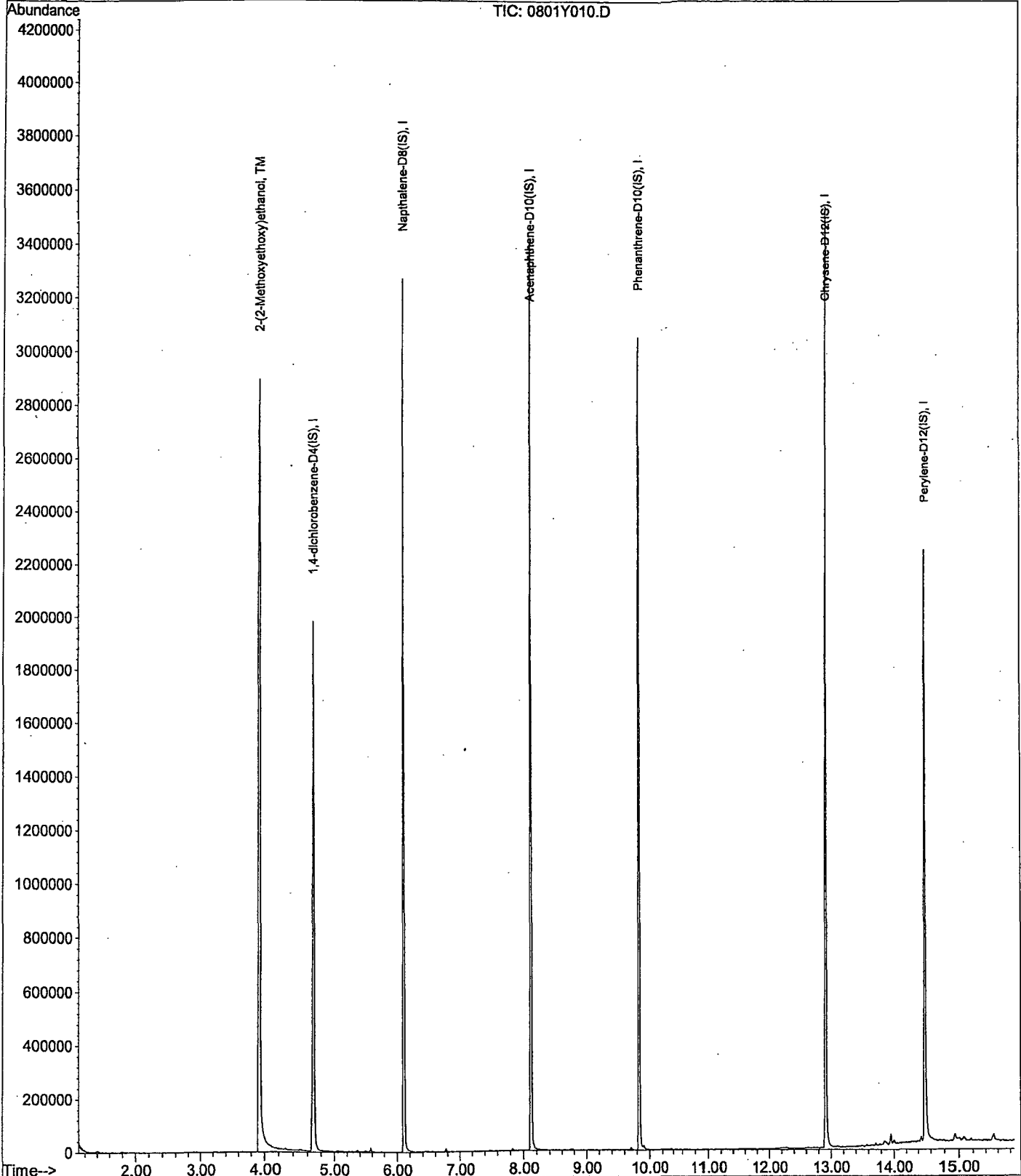
Data File : M:\YODA\DATA\Y180801M\0801Y010.D  
Acq On : 1 Aug 18 18:31  
Sample : 1000ug/ml MEE 08/01/18  
Misc : soil

Vial: 10  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:28 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



2MEE  
EPA 8270

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 1 Aug 18 18:55  
Instrument: Yoda  
Initial Cal. Date: 08/01/18  
Data File: 0801Y011.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TML	2-(2-Methoxyethoxy)ethanol	0.2124	0.2617	23	TML	19
2							
3							
4							
5							
6							
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37							
38							
39							
40							

Average

23.0

Data File : M:\YODA\DATA\Y180801M\0801Y011.D Vial: 11  
 Acq On : 1 Aug 18 18:55 Operator: MA  
 Sample : SS ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Aug 2 9:31 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Aug 02 09:29:28 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	4.68	152	402794	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.11	136	1509521	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.11	164	769368	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	9.84	188	1397959	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	12.91	240	1355134	40.00000	ppb	0.00
7) Perylene-D12 (IS)	14.51	264	1392217	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	3.89	45	1317418	594.78167	ppb	98

$$\text{Algo} = \frac{(1317418 + 0.0492) \times 40}{0.22 \times 402794} = 594.7 \text{ MA } 8/2/18$$

Quantitation Report

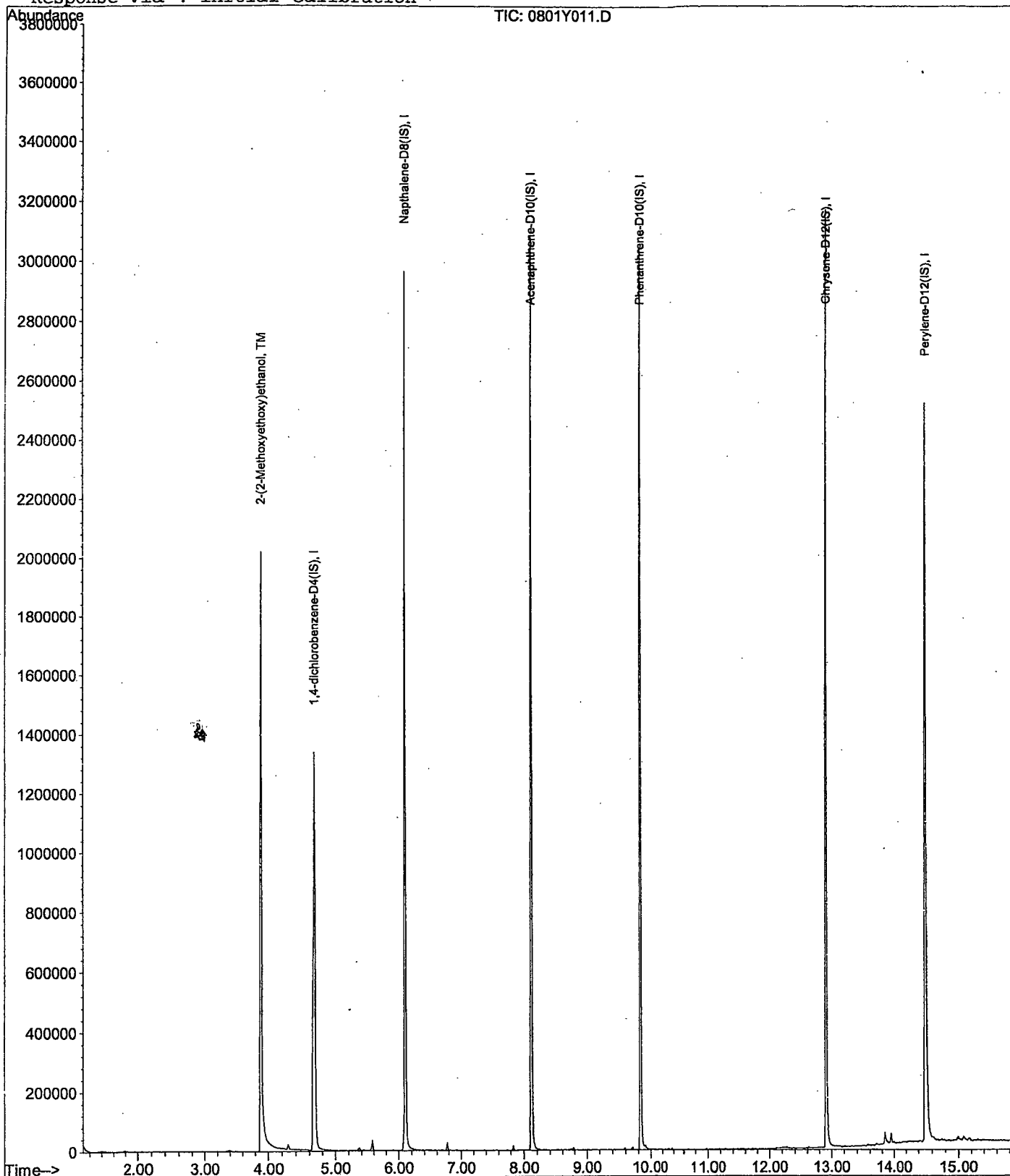
Data File : M:\YODA\DATA\Y180801M\0801Y011.D  
Acq On : 1 Aug 18 18:55  
Sample : SS ug/ml MEE 08/01/18  
Misc : soil

Vial: 11  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Aug 2 9:31 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Aug 02 09:29:28 2018  
Response via : Initial Calibration



2MEE  
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/31/18

Matrix: \_\_\_\_\_

Instrument: Yoda

Initial Cal. Date: 08/01/18

Data File: 0801Y070.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TML	2-(2-Methoxyethoxy)ethanol	0.2124	0.2493	17	TML	13
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
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14							
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36							
37							
38							
39							
40							

Average

17.0

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y070.D Vial: 70  
 Acq On : 31 Oct 18 6:51 Operator: MA  
 Sample : 500ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:19 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	357281	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1484912	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	759796	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1392264	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1474563	40.00000	ppb	0.00
7) Perylene-D12 (IS)	15.43	264	2044915	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	4.49	45	1113167	567.00588	ppb	100

Quantitation Report

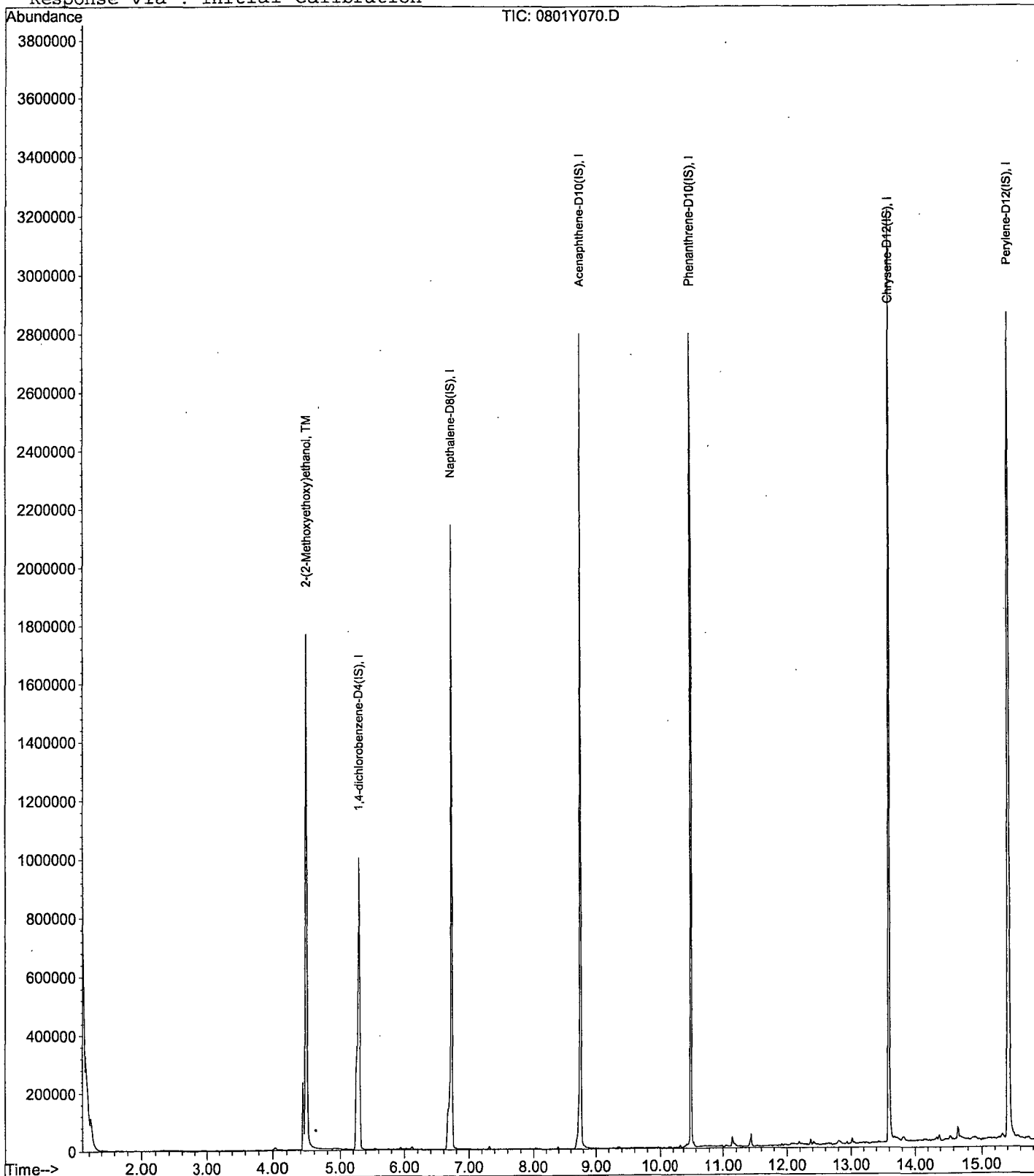
Data File : M:\YODA\DATA\Y180801M\0801Y070.D  
Acq On : 31 Oct 18 6:51  
Sample : 500ug/ml MEE 08/01/18  
Misc : soil

Vial: 70  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:19 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



2MEE  
EPA 8270

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/31/18  
Instrument: Yoda  
Initial Cal. Date: 08/01/18  
Data File: 0801Y098.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TML	2-(2-Methoxyethoxy)ethanol	0.2124	0.2077	2.2	TML	5.2
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
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36							
37							
38							
39							
40							

Average

2.2



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y180801M\0801Y098.D Vial: 98  
 Acq On : 31 Oct 18 18:12 Operator: MA  
 Sample : 500ug/ml MEE 08/01/18 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:17 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.31	152	387693	40.00000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1637394	40.00000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	845559	40.00000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1555868	40.00000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1391754	40.00000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1264016	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	4.50	45	1006670	474.00632	ppb	98

Quantitation Report

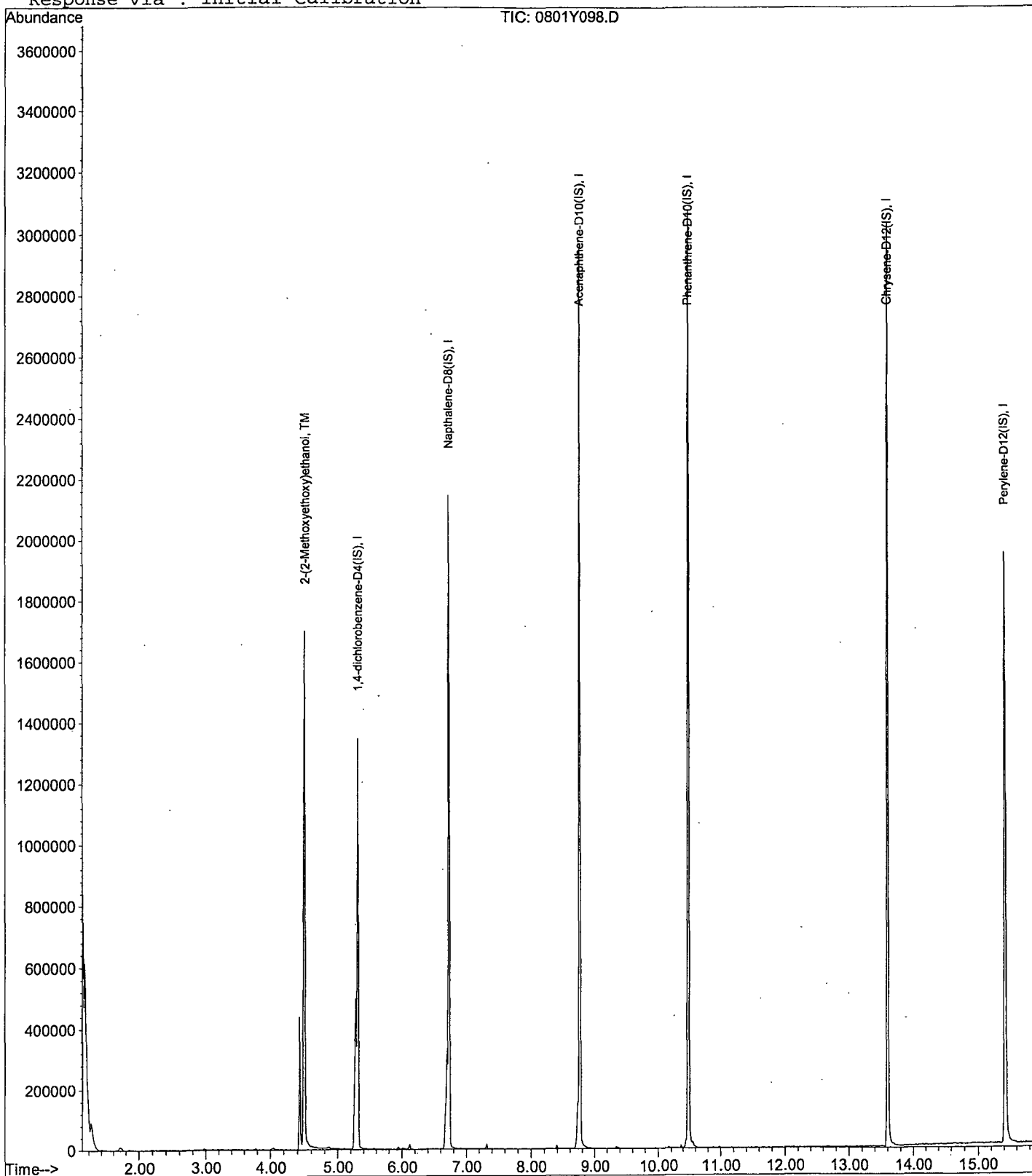
Data File : M:\YODA\DATA\Y180801M\0801Y098.D  
Acq On : 31 Oct 18 18:12  
Sample : 500ug/ml MEE 08/01/18  
Misc : soil

Vial: 98  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:17 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : M:\YODA\DATA\Y180801M\0801Y090.D Vial: 90  
 Acq On : 31 Oct 18 15:03 Operator: MA  
 Sample : AZ81840W09 2/470 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	400852	40.0000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1514698	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	774815	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1445218	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1311781	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1314211	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Quantitation Report

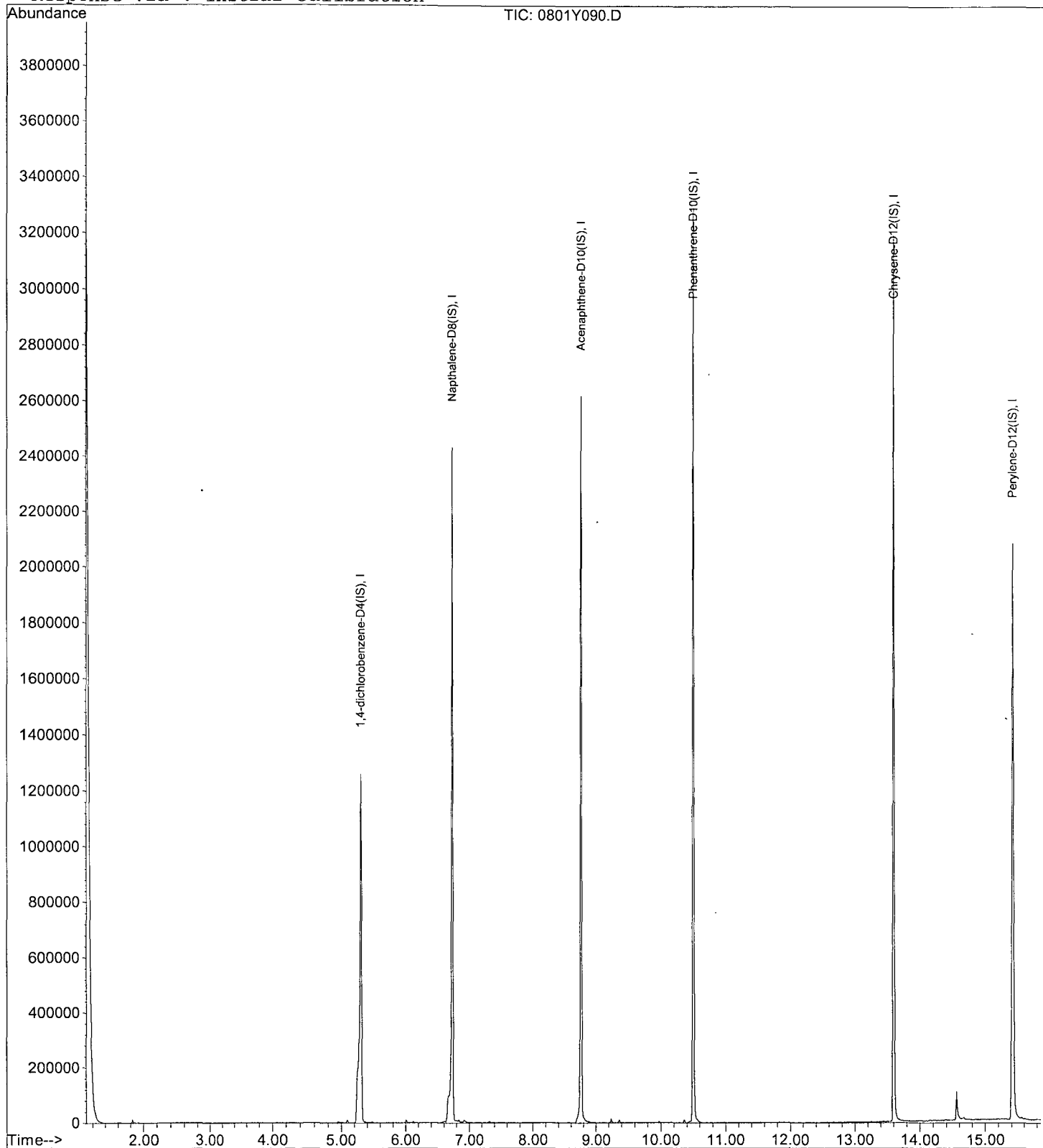
Data File : M:\YODA\DATA\Y180801M\0801Y090.D  
Acq On : 31 Oct 18 15:03  
Sample : AZ81840W09 2/470  
Misc : soil

Vial: 90  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y091.D  
 Acq On : 31 Oct 18 15:27  
 Sample : AZ81841W08 2/450  
 Misc : soil

Vial: 91  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	330853	40.0000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1369745	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	778067	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1472886	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1299372	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1080204	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds

Qvalue

Quantitation Report

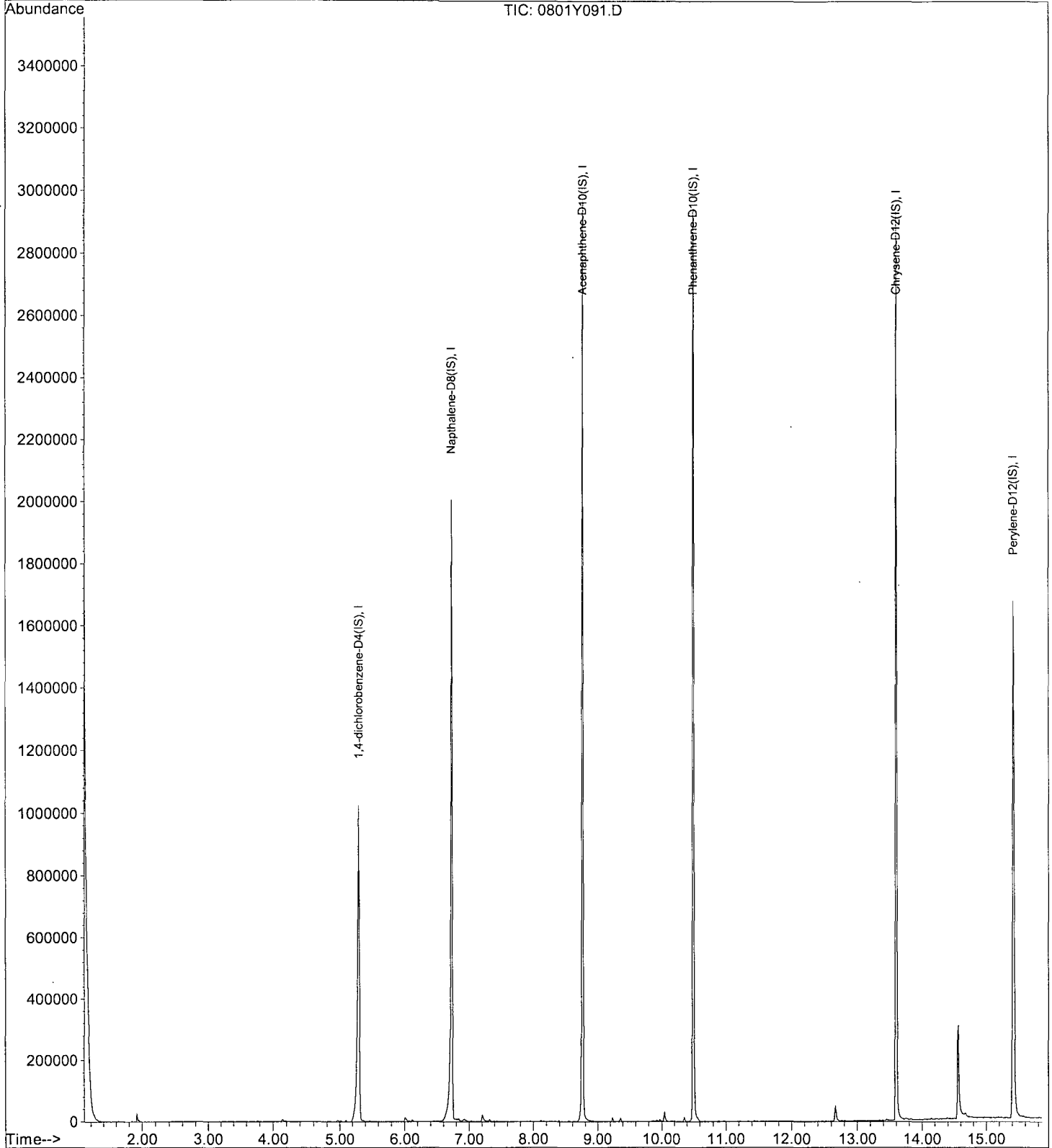
Data File : M:\YODA\DATA\Y180801M\0801Y091.D  
Acq On : 31 Oct 18 15:27  
Sample : AZ81841W08 2/450  
Misc : soil

Vial: 91  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y092.D Vial: 92  
 Acq On : 31 Oct 18 15:51 Operator: MA  
 Sample : AZ81842W08 2/500 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	469557	40.0000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1802302	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	923966	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1725011	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1603449	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.43	264	1620035	40.0000	ppb	0.01

System Monitoring Compounds

Target Compounds Qvalue



Quantitation Report

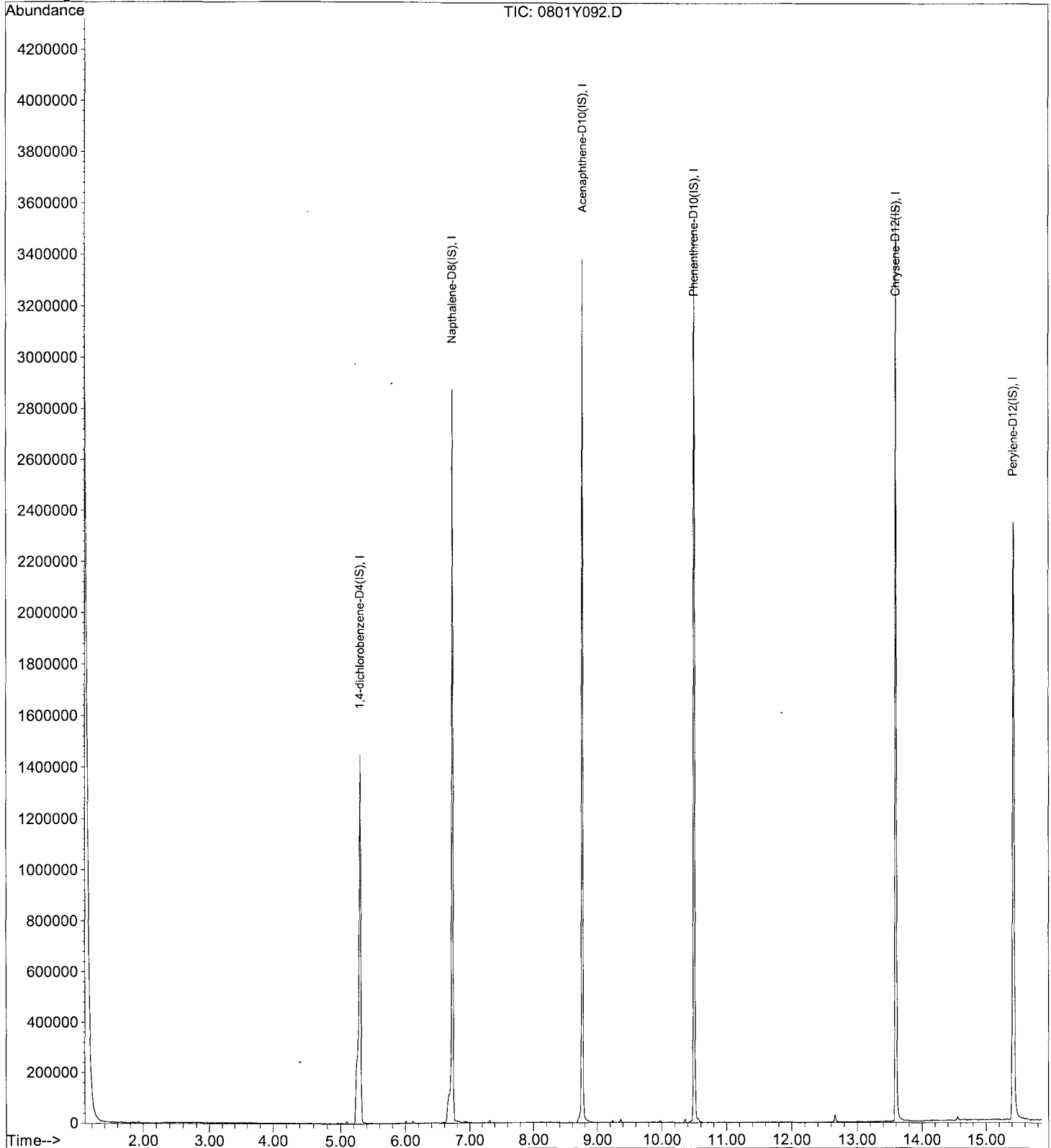
Data File : M:\YODA\DATA\Y180801M\0801Y092.D  
Acq On : 31 Oct 18 15:51  
Sample : AZ81842W08 2/500  
Misc : soil

Vial: 92  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y079.D Vial: 79  
 Acq On : 31 Oct 18 10:43 Operator: MA  
 Sample : 181029A Blk 2/500 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.31	152	233584	40.0000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1284274	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	664335	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1204751	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1112334	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1097799	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Quantitation Report

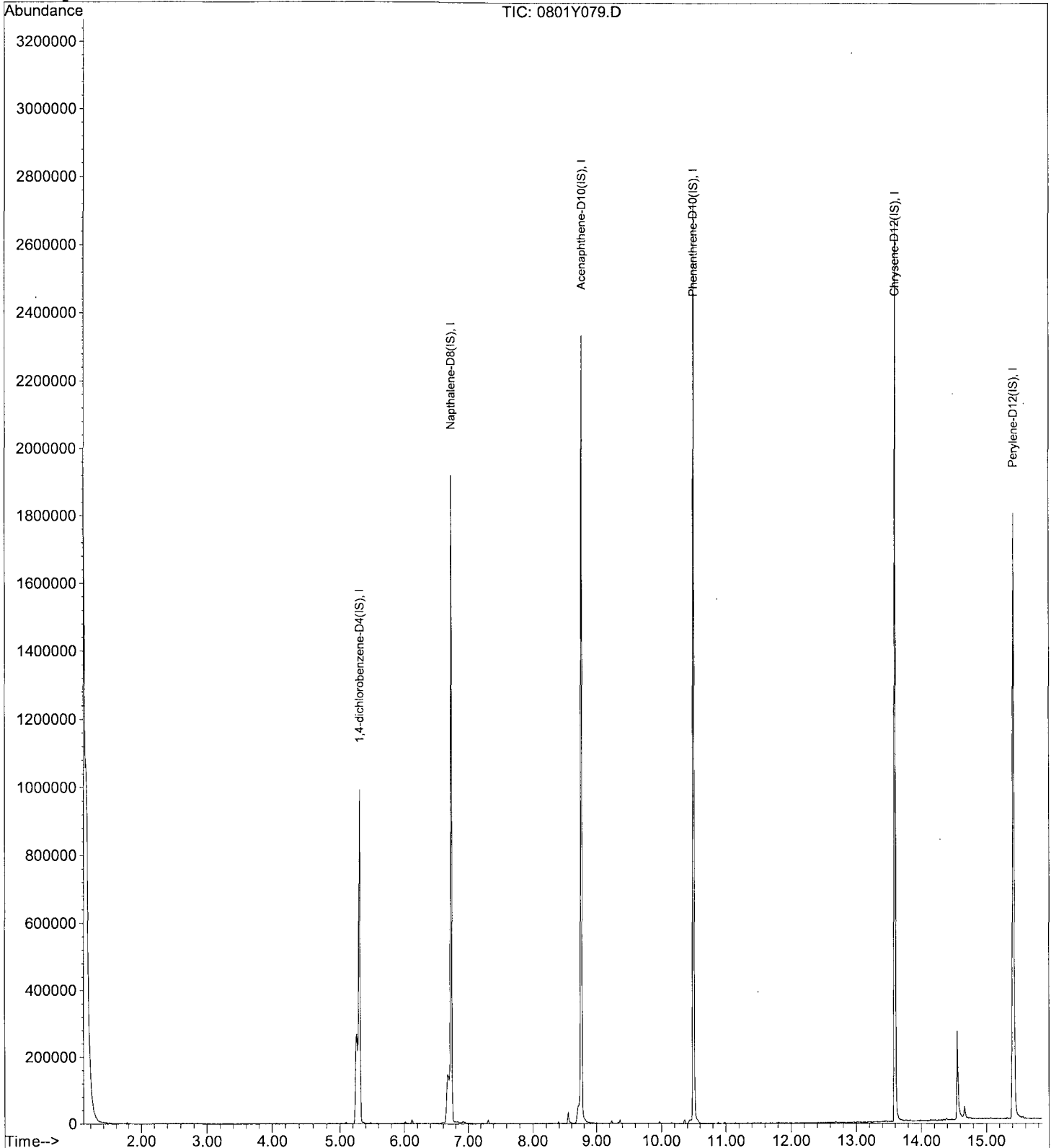
Data File : M:\YODA\DATA\Y180801M\0801Y079.D  
Acq On : 31 Oct 18 10:43  
Sample : 181029A Blk 2/500  
Misc : soil

Vial: 79  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y080.D Vial: 80  
 Acq On : 31 Oct 18 11:07 Operator: MA  
 Sample : 181029A LCS-1 2/500 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.30	152	392175	40.0000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1594599	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	819390	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1395149	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1241785	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1311326	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy) ethanol	4.48	45	140476	72.9889	ppb	98

Quantitation Report

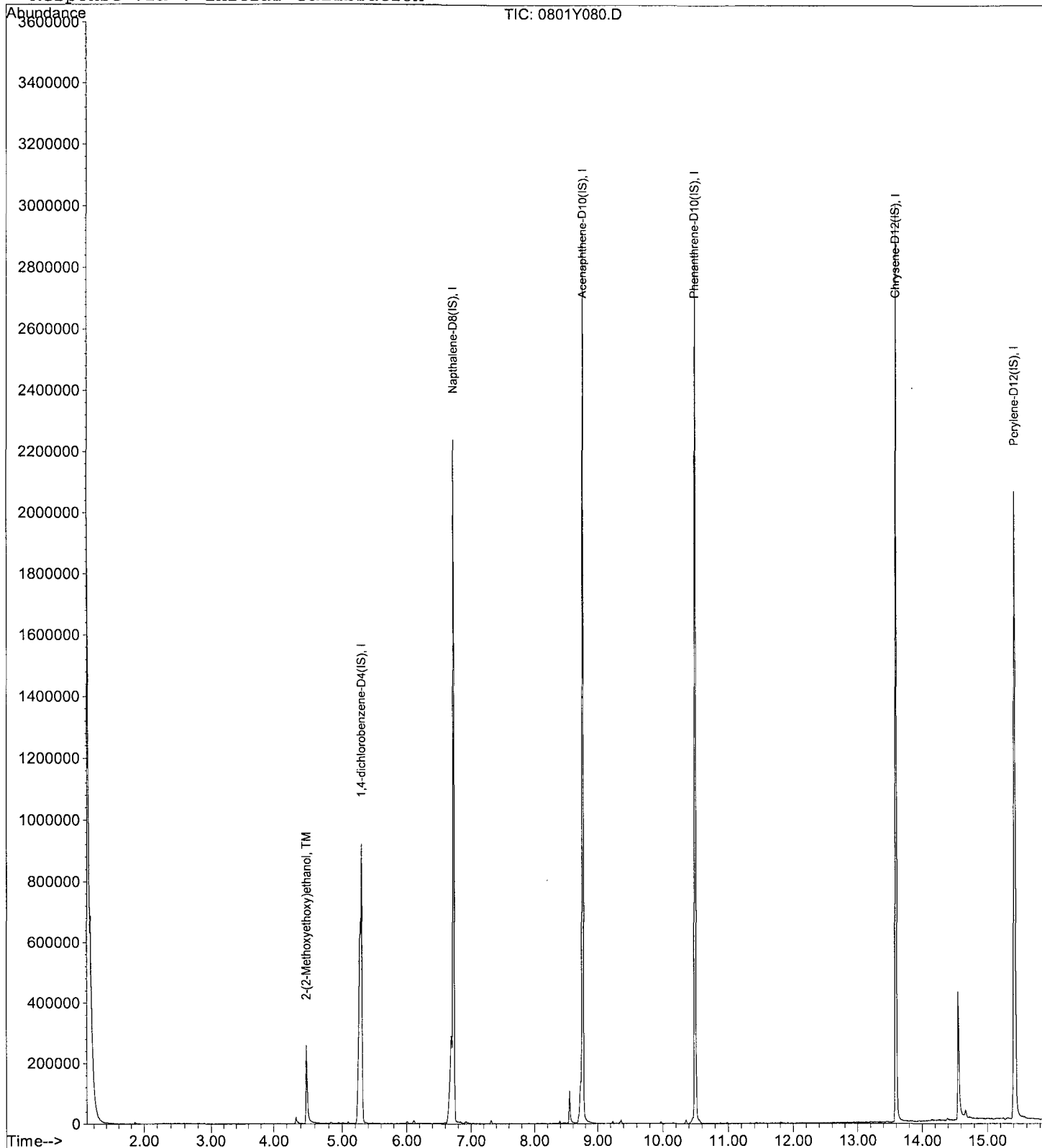
Data File : M:\YODA\DATA\Y180801M\0801Y080.D  
Acq On : 31 Oct 18 11:07  
Sample : 181029A LCS-1 2/500  
Misc : soil

Vial: 80  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y097.D Vial: 97  
 Acq On : 31 Oct 18 17:49 Operator: MA  
 Sample : 181029A LCSD-1 2/500 Inst : Yoda  
 Misc : soil Multiplr: 1.00

Quant Time: Nov 1 8:21 2018 Quant Results File: YMEE0801.RES

Quant Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C  
 Last Update : Thu Nov 01 09:17:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4 (IS)	5.31	152	353234	40.0000	ppb	0.00
3) Napthalene-D8 (IS)	6.73	136	1396888	40.0000	ppb	0.00
4) Acenaphthene-D10 (IS)	8.76	164	700025	40.0000	ppb	0.00
5) Phenanthrene-D10 (IS)	10.50	188	1287861	40.0000	ppb	0.00
6) Chrysene-D12 (IS)	13.60	240	1186080	40.0000	ppb	0.00
7) Perylene-D12 (IS)	15.42	264	1218318	40.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 2-(2-Methoxyethoxy)ethanol	4.51	45	159843	89.8862	ppb	100

Quantitation Report

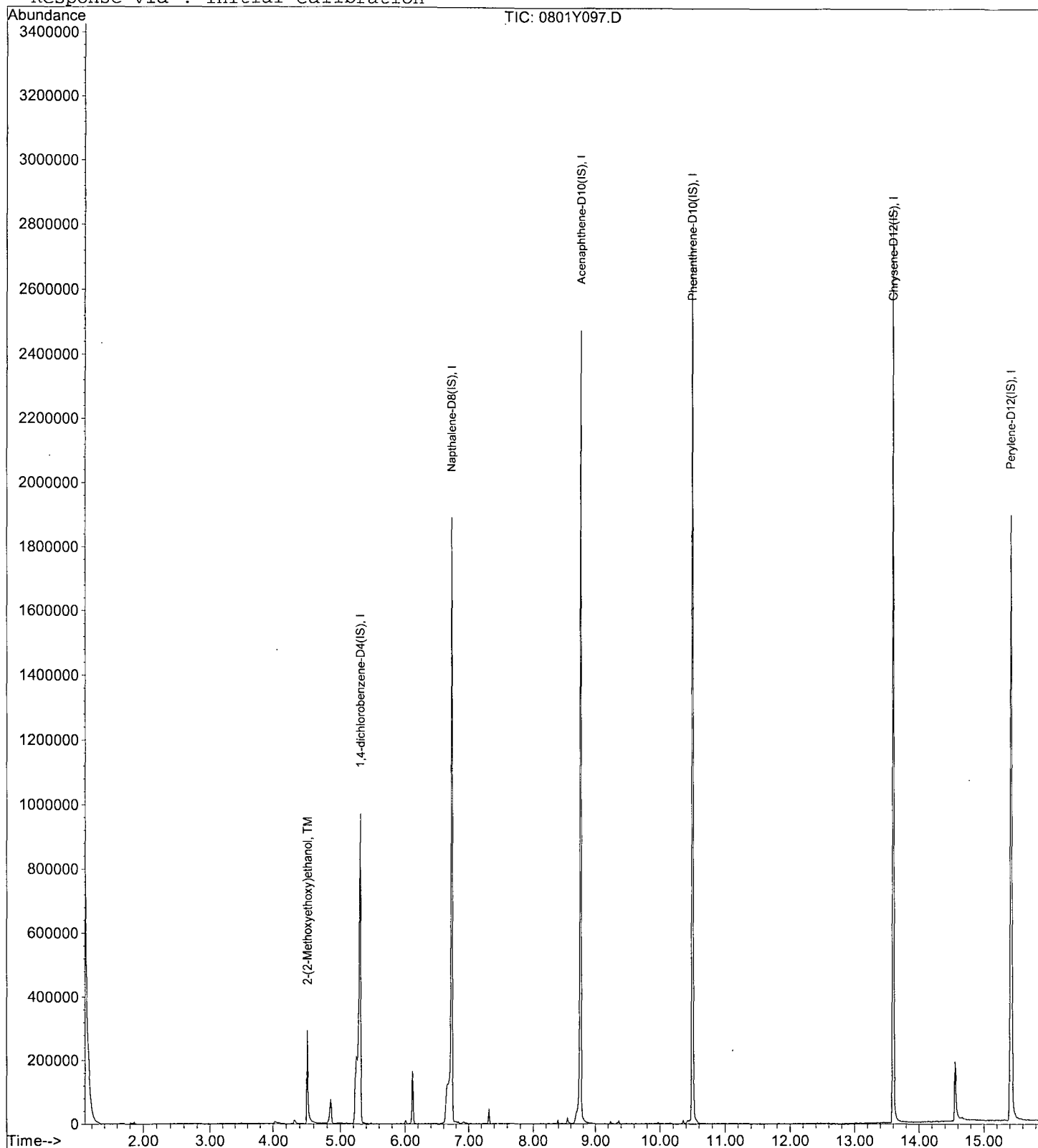
Data File : M:\YODA\DATA\Y180801M\0801Y097.D  
Acq On : 31 Oct 18 17:49  
Sample : 181029A LCSD-1 2/500  
Misc : soil

Vial: 97  
Operator: MA  
Inst : Yoda  
Multiplr: 1.00

Quant Time: Nov 1 8:21 2018

Quant Results File: YMEE0801.RES

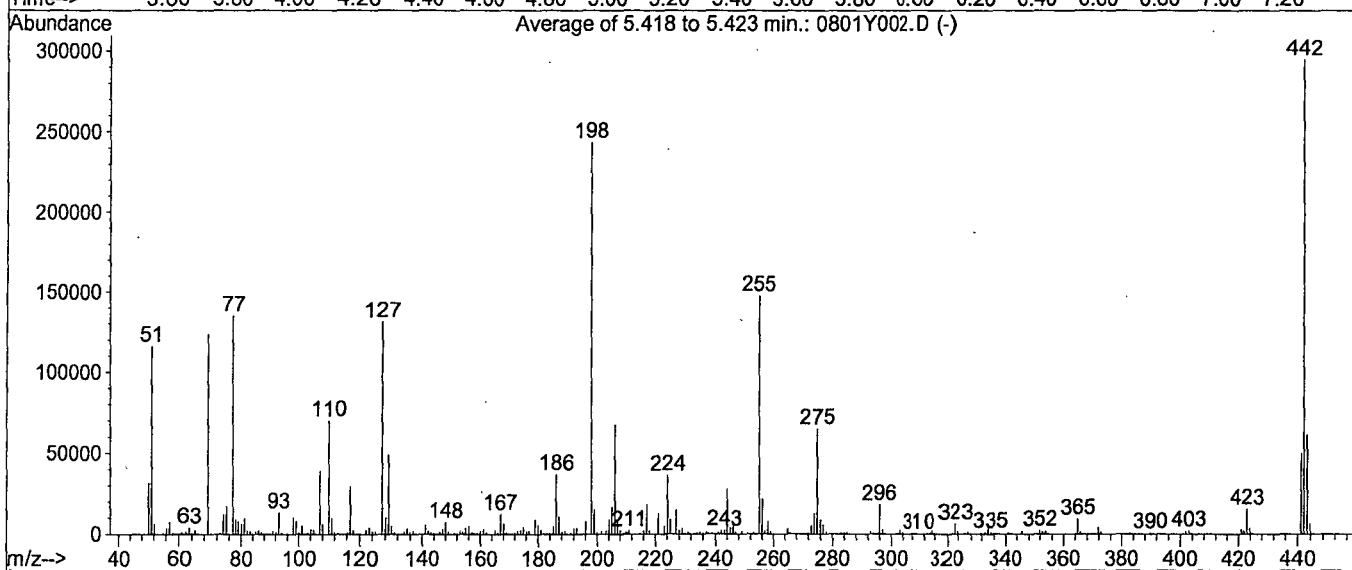
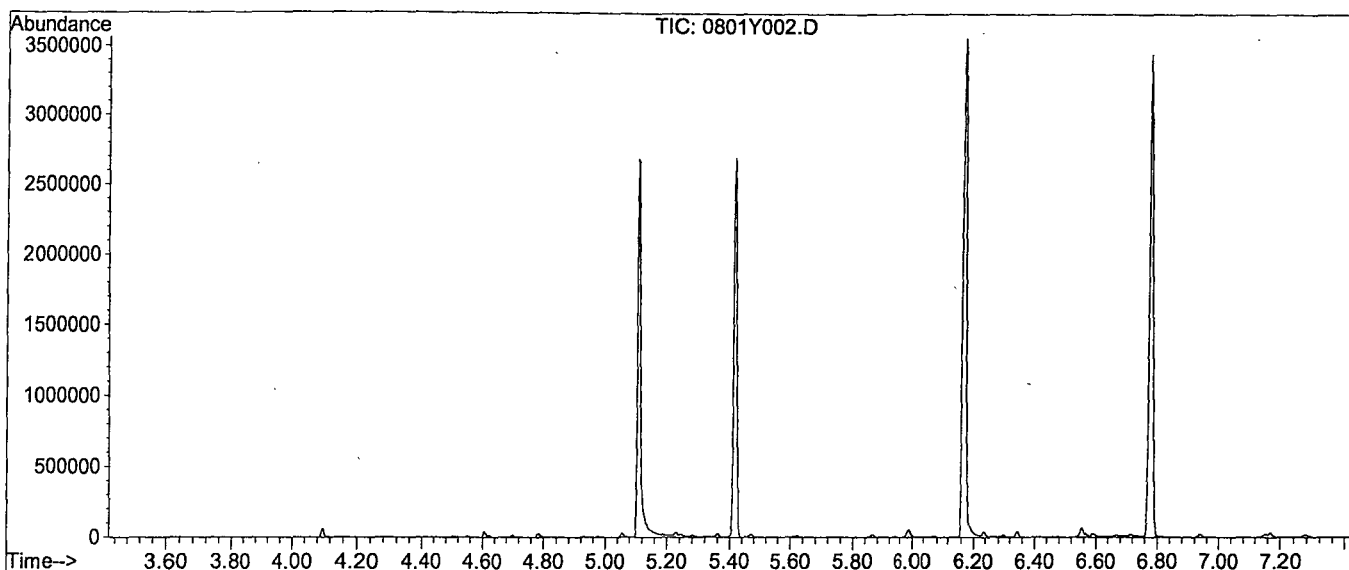
Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
Title : EPA 8270C  
Last Update : Thu Nov 01 09:17:53 2018  
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y180801M\0801Y002.D  
 Acq On : 1 Aug 18 14:52  
 Sample : SV Tune 03/07/18  
 Misc :

Vial: 2  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C



AutoFind: Scans 732, 733, 734; Background Corrected with Scan 723

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	47.8	116235	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	582	PASS
127	198	10	80	53.9	131100	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	243285	PASS
199	198	5	9	6.3	15320	PASS
275	198	10	60	26.6	64613	PASS
365	198	1	100	3.8	9226	PASS
441	442	0.01	24	16.8	49651	PASS
442	198	50	150	121.2	294869	PASS
443	442	15	24	20.7	61115	PASS



Data File Name: 0801Y002.D  
Data File Path: M:\YODA\DATA\Y180801\  
Operator: MA  
Date Acquired: 1 Aug 18 14:52  
Method File: DFTPP2.M  
Sample Name: SV Tune 03/07/18  
Vial Number: 2  
Instrument Name: Yoda

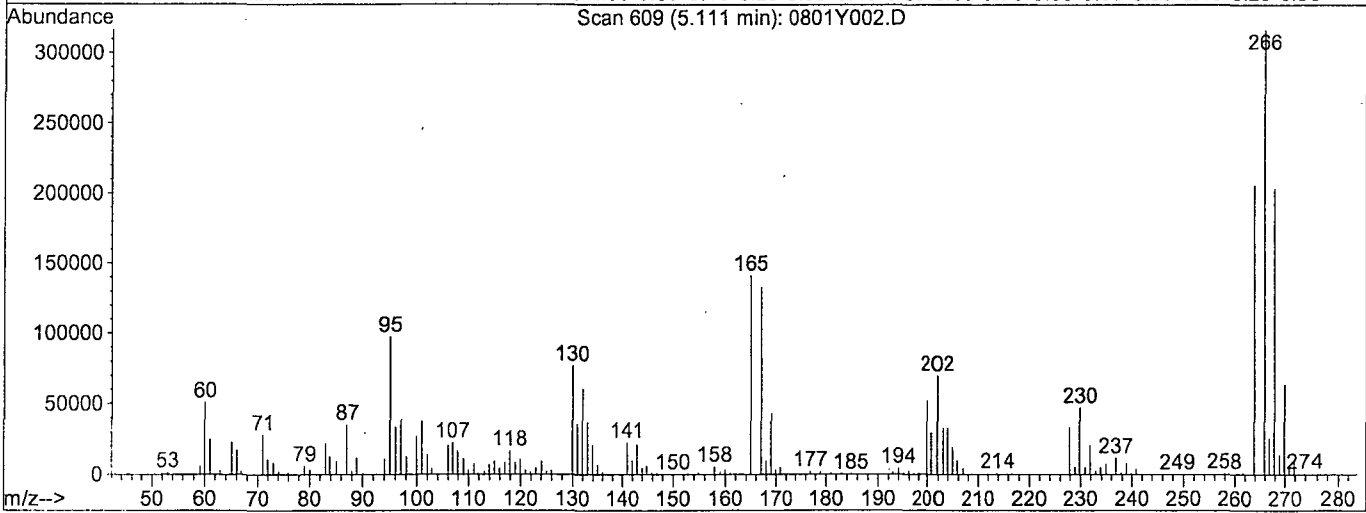
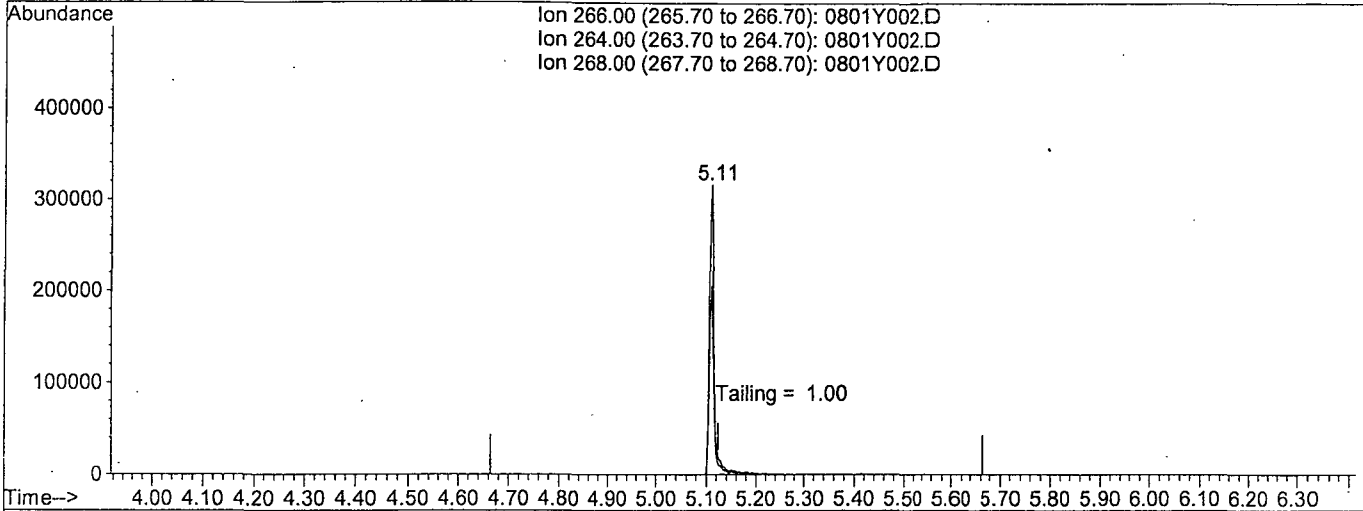
#	Name	Ret Time	Target Response
1)	DDT	6.66	26824100
2)	DDD	6.46	639080
3)	DDE	6.55	564547

Breakdown 4.29

Quantitation Report

Data File : M:\YODA\DATA\Y180801\0801Y002.D Vial: 2  
 Acq On : 1 Aug 18 14:52 Operator: MA  
 Sample : SV Tune 03/07/18 Inst : Yoda  
 Misc : Multiplr: 1.00  
 Quant Time: Aug 1 14:55 2018 Quant Results File: temp.res

Method : M:\YODA\DATA\Y180716\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Wed Jul 25 12:12:29 2018  
 Response via : Single Level Calibration



TIC: 0801Y002.D

(5) Pentachlorophenol

5.11min 0.0000 m

response 1984014

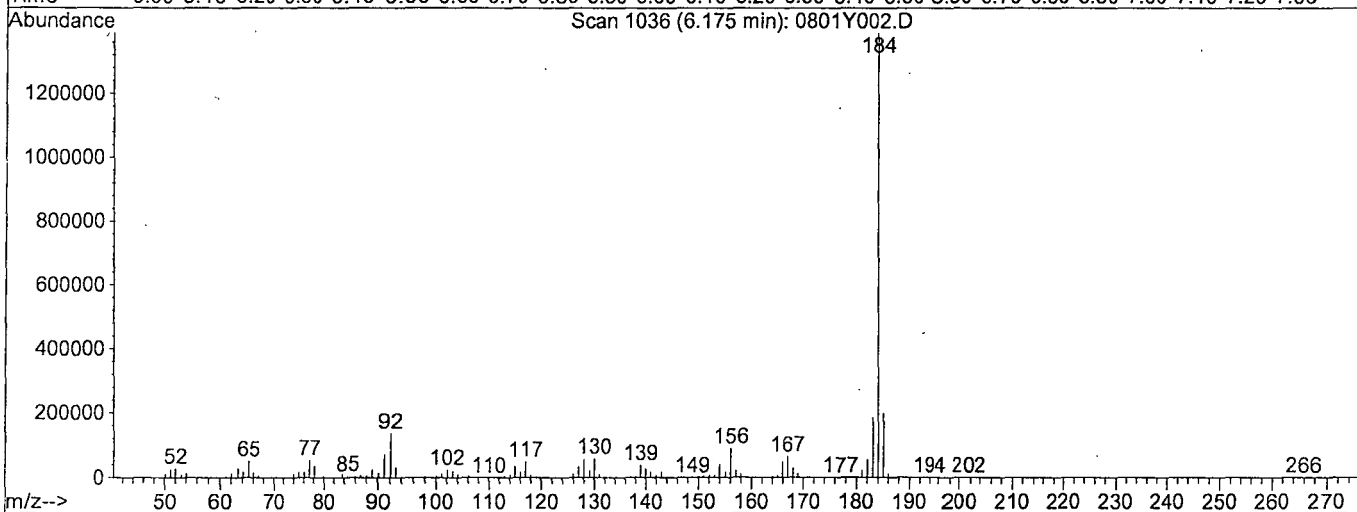
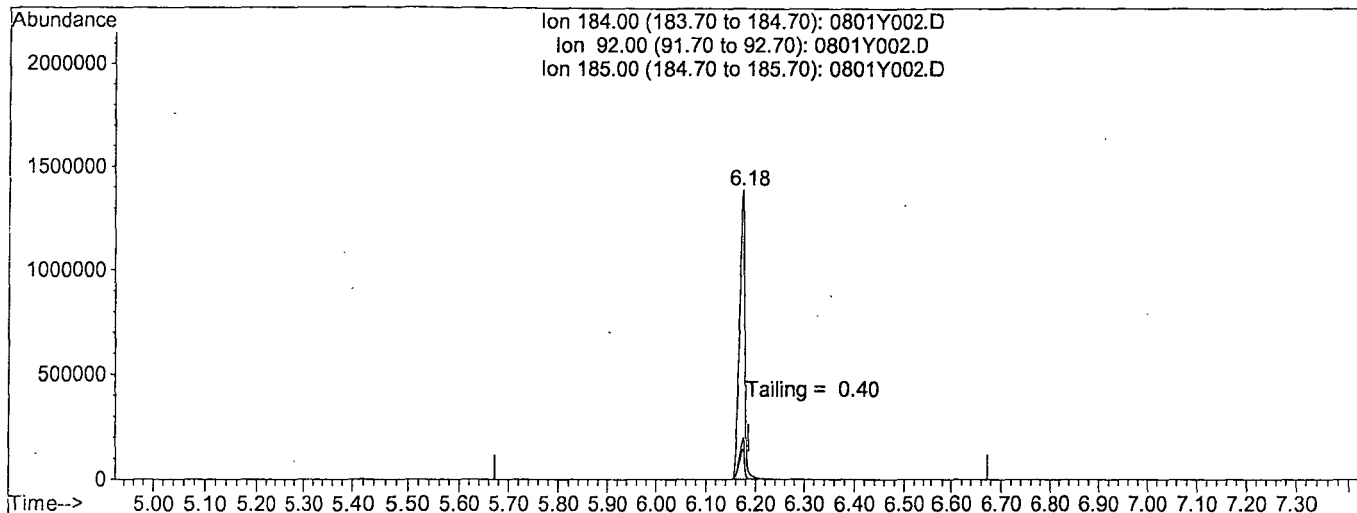
Ion	Exp%	Act%
266.00	100	100
264.00	64.20	64.17
268.00	61.30	65.81
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y180801\0801Y002.D  
 Acq On : 1 Aug 18 14:52  
 Sample : SV Tune 03/07/18  
 Misc :  
 Quant Time: Aug 1 14:55 2018

Vial: 2  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y180716\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Wed Jul 25 12:12:29 2018  
 Response via : Single Level Calibration



TIC: 0801Y002.D

(6) Benzidine

6.17min 0.0000

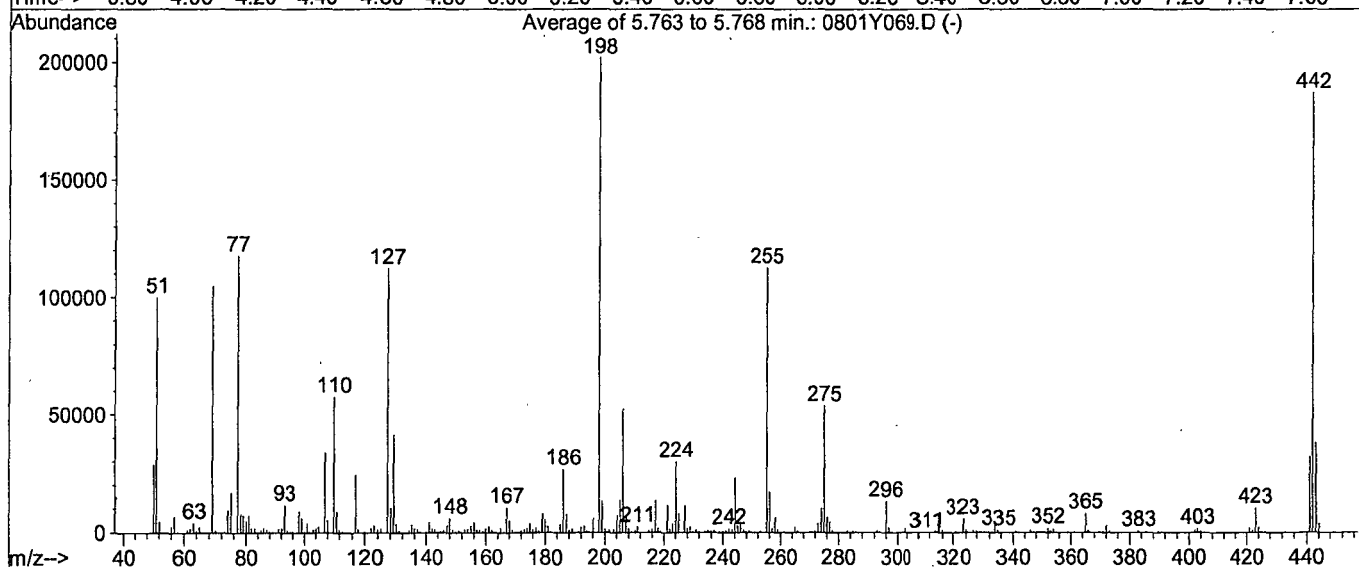
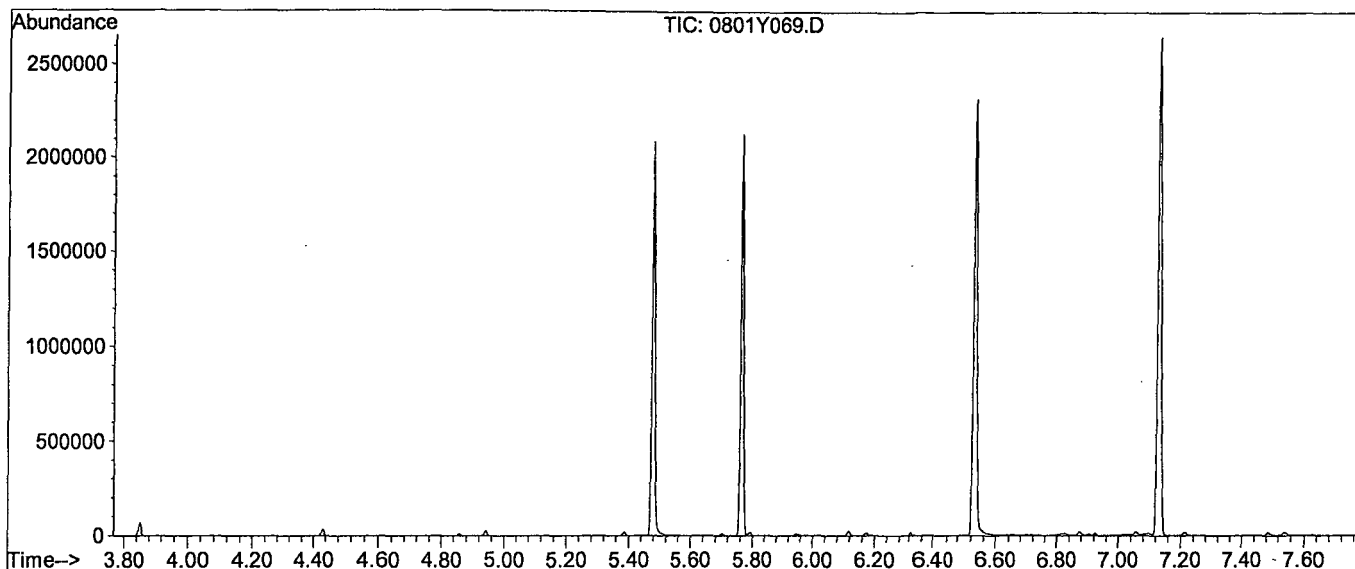
response 10907511

Ion	Exp%	Act%
184.00	100	100
92.00	10.20	9.66
185.00	14.00	13.74
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y180801M\0801Y069.D  
 Acq On : 31 Oct 18 6:36  
 Sample : SV TUNE 03/07/18  
 Misc : soil

Vial: 69  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00

Method : M:\YODA\DATA\Y180801M\YMEE0801.M (RTE Integrator)  
 Title : EPA 8270C



AutoFind: Scans 871, 872, 873; Background Corrected with Scan 863

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	49.6	100069	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	760	PASS
127	198	10	80	55.5	112144	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	201941	PASS
199	198	5	9	6.5	13143	PASS
275	198	10	60	26.6	53648	PASS
365	198	1	100	3.9	7927	PASS
441	442	0.01	24	17.1	31907	PASS
442	198	50	150	92.6	186987	PASS
443	442	15	24	20.3	37923	PASS

Data File Name: 0801Y069.D  
Data File Path: M:\YODA\DATA\Y180801M\  
Operator: MA  
Date Acquired: 31 Oct 2018 06:36  
Method File: DFTPP2.M  
Sample Name: SV TUNE 03/07/18  
Vial Number: 69  
Instrument Name: Yoda

#	Name	Ret Time	Target Response
1)	DDT	7.13	19429200
2)	DDD	6.93	114381
3)	DDE	7.06	0

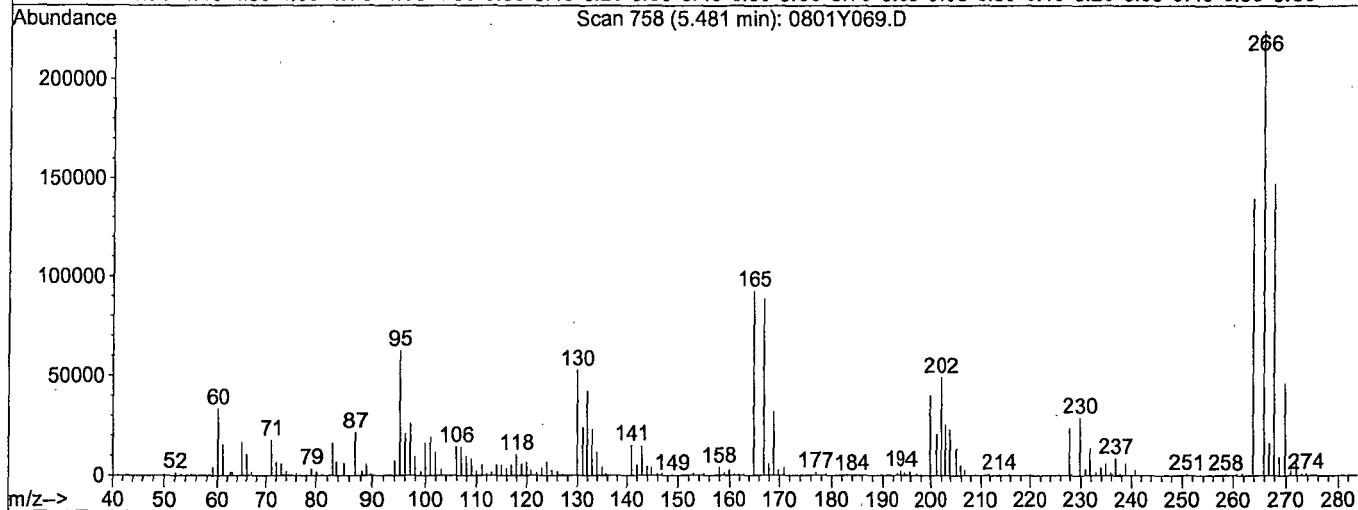
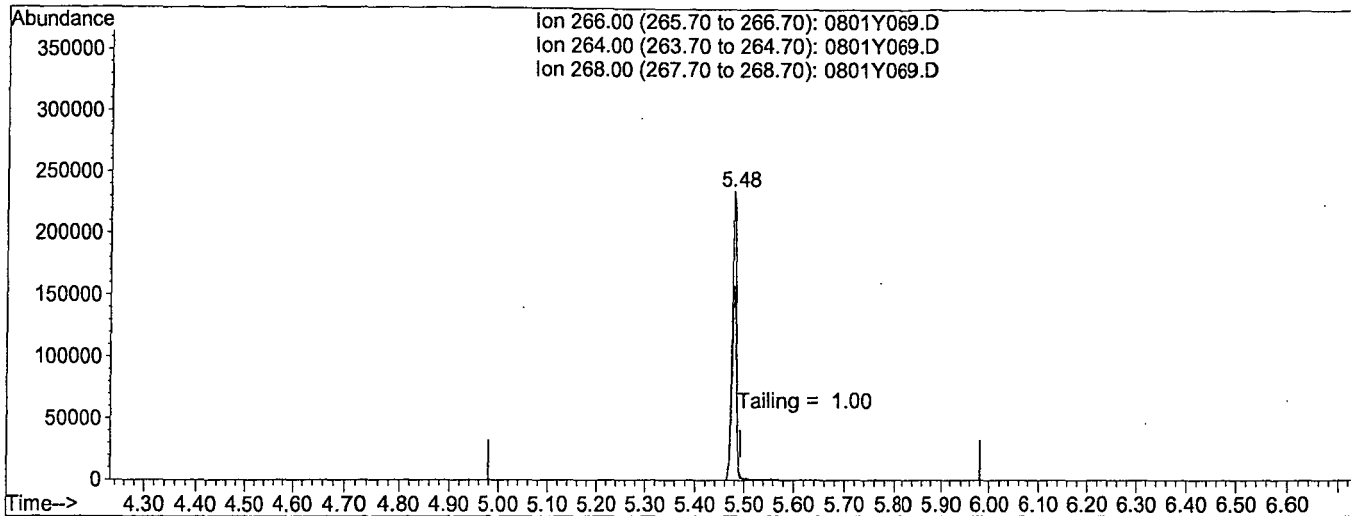
Breakdown 0.59

Quantitation Report

Data File : M:\YODA\DATA\Y180801M\0801Y069.D  
 Acq On : 31 Oct 18 6:36  
 Sample : SV TUNE 03/07/18  
 Misc : soil  
 Quant Time: Oct 31 6:16 2018

Vial: 69  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y180801M\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Wed Oct 31 07:16:04 2018  
 Response via : Single Level Calibration



TIC: 0801Y069.D

(5) Pentachlorophenol

5.48min 0.0000

response 1468963

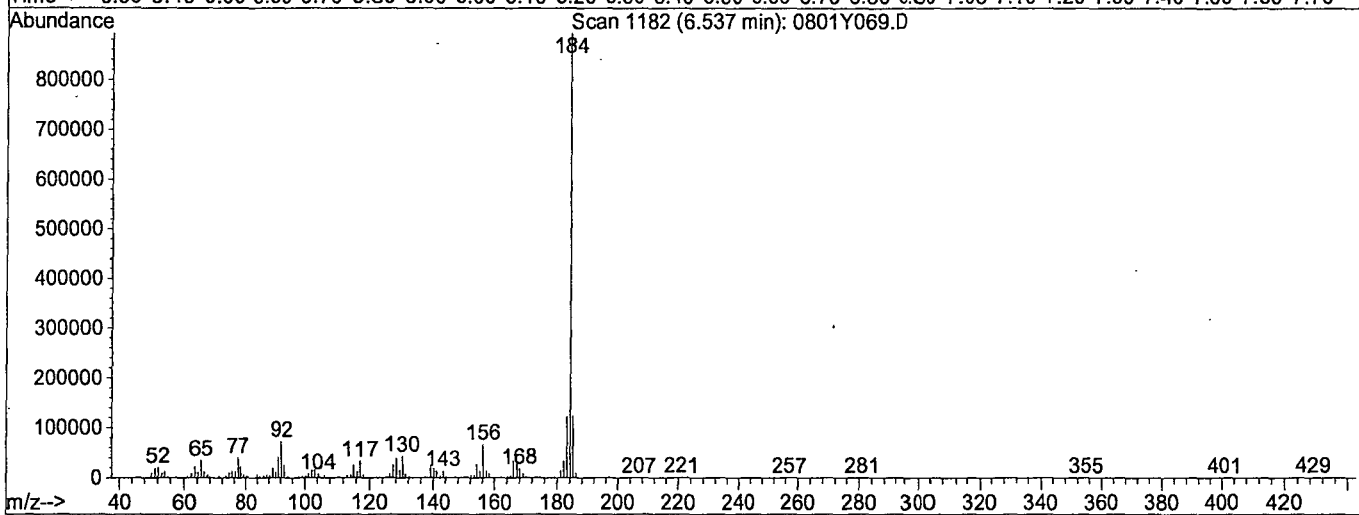
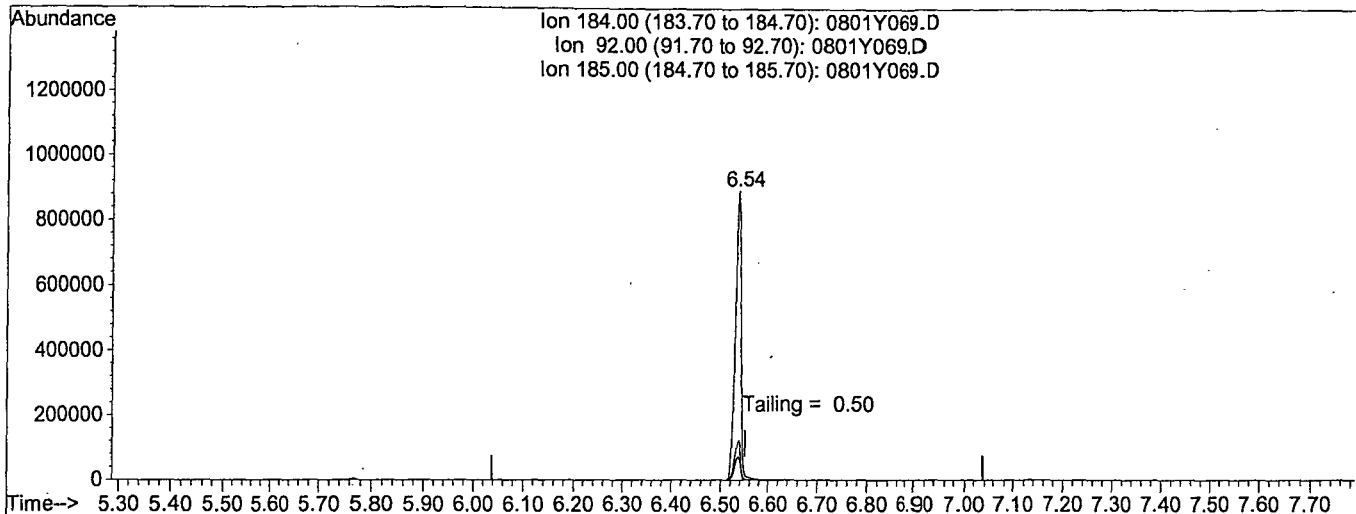
Ion	Exp%	Act%
266.00	100	100
264.00	64.70	64.44
268.00	67.10	64.99
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y180801M\0801Y069.D  
 Acq On : 31 Oct 18 6:36  
 Sample : SV TUNE 03/07/18  
 Misc : soil  
 Quant Time: Oct 31 6:16 2018

Vial: 69  
 Operator: MA  
 Inst : Yoda  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : M:\YODA\DATA\Y180801M\DFTPP2.M (Chemstation Integrator)  
 Title :  
 Last Update : Wed Oct 31 07:16:04 2018  
 Response via : Single Level Calibration



TIC: 0801Y069.D

(6) Benzidine

6.54min 0.0000

response 7364167

Ion	Exp%	Act%
184.00	100	100
92.00	8.10	8.27
185.00	13.70	14.03
0.00	0.00	0.00

Name of  
Final  
Standard

MEE Curve

Prep'd By (Initials)

GA

Prep Date 08/01/18

Exp Date 11/10/18

Initial Standard Information						Final Standard Information			
MEE M STD Stock	APPL		200 ug/mL	07/27/18	11/10/18	5 uL	200uL	Methanol 195uL	50 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	4 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/10/18	5 uL	100uL	Methanol 95uL	100 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/10/18	10 uL	100uL	Methanol 90 uL	200 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/10/18	20 uL	100uL	Methanol 80 uL	400 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/10/18	50 uL	200 uL	Methanol 150 uL	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	4 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/10/18	30 uL	100uL	Methanol 70 uL	600 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/10/18	40 uL	100uL	Methanol 60 uL	800 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*
MEE M STD Stock	APPL		2000 ug/mL	07/27/18	11/10/18	50 uL	100uL	Methanol 50uL	1000 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	06/22/18	06/22/18	2 uL	*	*	*



# Organic Extraction Worksheet

<b>Method</b>	Solid Phase Extraction of 2MEE in Water	<b>Extraction Set</b>	180727A	<b>Extraction Method</b>	MWE2MEE	<b>Units</b>	mL
Spiked ID 1	Diethylene Glycol 7-25-18 EXP 10-3-18	Surrogate ID 1					
Spiked ID 2	MEE 10320ug/MI 5-22-17 EXP 8-4-18	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		NO			
Spiked ID 7		Ext. Start Time:		07/27/18 10:55			
Spiked ID 8		Ext. End Time:		07/30/18 12:00			
<b>STANDARD PREPARATION MA 11/5/18</b>				GC Requires Extract By:		07/31/18 0:00	
pH1						Water Bath Temp Criteria	
pH2							
pH3							

Spiked By: DL

Date 07/27/18

Witnessed By: RP

Date 07/27/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	180727A Blk			NA	NA	500	2	7	07/27/18 10:55	
2	180727A LCS-1	0.040	1	NA	NA	500	2	7	07/27/18 10:55	
3	180727A SS	0.097	2	NA	NA	500	2	7	07/27/18 10:55	
4	AZ76727 MS-1 AZ76727W14	0.040	1	NA	NA	500	2	7	07/27/18 10:55	86359
5	AZ76727 MSD-1 AZ76727W15	0.040	1	NA	NA	500	2	7	07/27/18 10:55	86359
6	AZ76727 AZ76727W13			NA	NA	500	2	7	07/27/18 10:55	86359
7	AZ76728 AZ76728W05			NA	NA	500	2	7	07/27/18 10:55	86359
8	AZ76730 AZ76730W08			NA	NA	490	2	7	07/27/18 10:55	86359
9	AZ76732 AZ76732W05			NA	NA	500	2	7	07/27/18 10:55	86359
10	AZ76733 AZ76733W04			NA	NA	500	2	7	07/27/18 10:55	86359
11	AZ76734 AZ76734W04			NA	NA	480	2	7	07/27/18 10:55	86359
12	AZ76760 AZ76760W09			NA	NA	500	2	7	07/27/18 10:55	86367
13	AZ76762 AZ76762W09			NA	NA	500	2	7	07/27/18 10:55	86367
14	AZ76764 AZ76764W09			NA	NA	500	2	7	07/27/18 10:55	86367
15	AZ76766 AZ76766W09			NA	NA	490	2	7	07/27/18 10:55	86367
16	AZ76768 AZ76768W08			NA	NA	500	2	7	07/27/18 10:55	86367

<b>Solvent and Lot#</b>	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	8099704
PH Strip	HC613865
Di Water	7-27-18
Dichloromethane	57278
Methanol	121417A

<b>Extraction COC Transfer</b>	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

<b>Technician's Initials</b>	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	07/30/18 7:00:03 AM

Reviewed By:

528

Date

# Organic Extraction Worksheet







<b>Method</b>	Solid Phase Extraction of 2MEE in Water	<b>Extraction Set</b>	180727A	<b>Extraction Method</b>	MWE2MEE	<b>Units</b>	mL
Spiked ID 1	Diethylene Glycol 7-25-18 EXP 10-3-18	Surrogate ID 1					
Spiked ID 2	MEE 10320ug/ML 5-22-17 EXP 8-4-18	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		NO			
Spiked ID 7		Ext. Start Time:		07/27/18 10:55			
Spiked ID 8		Ext. End Time:		07/30/18 12:00			
		GC Requires Extract By:		07/31/18 0:00			
		pH1		Water Bath Temp Criteria			
		pH2					
		pH3					

Spiked By: DL

Date 07/27/18

Witnessed By: RP

Date 07/27/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ76879 			NA	NA	500	2	7	07/27/18 10:55	86376
					equip					
18	AZ76880 			NA	NA	490	2	7	07/27/18 10:55	86376
					equip					
19	AZ76882 			NA	NA	500	2	7	07/27/18 10:55	86376
					equip					
20	AZ76884 			NA	NA	500	2	7	07/27/18 10:55	86376
					equip					
21	AZ76886 			NA	NA	500	2	7	07/27/18 10:55	86376
					equip					
22	M Std 	1	1	NA	NA	500	2	7	07/27/18 10:55	
					equip					

<b>Solvent and Lot#</b>	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	8099704
PH Strip	HC613865
Di Water	7-27-18
Dichloromethane	57278
Methanol	121417A

<b>Extraction COC Transfer</b>	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

<b>Technician's Initials</b>	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	07/30/18 7:00:03 AM

Reviewed By:

Date

529

Ext\_ID

59740

Name of Final Standard Diethylene Glycol

Prep'd By (Initials) GA

Prep Date 07/25/18

Exp Date 11/10/18

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Diethylene glycol monomethyl ether	AccuStandard	72273	2000 ug/mL	216101007-37330 and 37331	10/03/18	2.0 mL	4 mL	Methanol #042317C	1000 ug/mL

Given to Extraction to do **MEE M STD Stock** (used for ICAL) Final concentration 2000ug/L  
 APPL re-certified diethylene glycol monomethyl ether lot 216101007-37330 and 37331 and extended the expiration date to 11/10/18 per verification with a second source from ChemService lot 7079100-39417 Inj on Yoda 0801Y064

Methoxyethoxyethanol-Neat (MEE) SS Stock: 5/22/17-R.H. ex: 08/04/18						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MEE	Neat 99.5%	HEM SERVICE	0.1032g	10 mL	10320 ug/ml	MC
		Cat: N-12404-1G				#56258
		Lot: 5259000-37082				
		OP: 09/27/16				
		EXP: 08/04/18				

0.097ml were spiked in 500ml of water and extracted on 06/07/17. Final concentration is 2000ug

APPL re-certified MEE SS stock Lot 5259000-37082 and extended the expiration date to 8/04/18 per verification with a different source Accu Standards Lot # 216101007-37334,5 injected on 05/04/18

Name of Final Standard 8270 Internal Standard (Ampule)  
 Prep Date 06/22/18  
 Exp Date 06/22/19

Prep'd By (Initials) OA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA# (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
EPA 8270 Semivolatiles Internal Standard	RESTEK	CRM48902	2000 ug/mL	A0130603-38562	06/22/19	1000 uL	1 mL	NA	100ug/mL

# Organic Extraction Worksheet

















<b>Method</b>	Solid Phase Extraction of 2MEE in Water	<b>Extraction Set</b>	181029A	<b>Extraction Method</b>	MWE2MEE	<b>Units</b>	mL
Spiked ID 1	Diethylene Glycol 7-25-18 EXP 10-3-18	Surrogate ID 1					
Spiked ID 2	2MEE SS STK 8-3-18 EXP 8-3-19	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		YES			
Spiked ID 7		Ext. Start Time:		10/29/18 13:50			
Spiked ID 8		Ext. End Time:		10/30/18 16:10			
				GC Requires Extract By:		10/30/18 0:00	
pH1				Water Bath Temp Criteria			
pH2							
pH3							

Spiked By: KY

Date 10/29/18

Witnessed By: DL

Date 10/29/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments	
1	181029A Blk			NA	NA	500	2	7	10/29/18 13:50		
					equip						
2	181029A LCS-1	0.040	1	NA	NA	500	2	7	10/29/18 13:50	LOQ	
					equip						
3	181029A LCSD-1	0.040	1	NA	NA	500	2	7	10/29/18 13:50		
					equip						
4	181029A SS	0.097	2	NA	NA	500	2	7	10/29/18 13:50		
					equip						
5	AZ77514	AZ77514W01	0.040	1	NA	NA	500	2	7	10/29/18 13:50	86492 LOD
					equip						
6	AZ81584 MS-1	AZ81584W17	0.040	1	NA	NA	460	2	7	10/29/18 13:50	87198
					equip						
7	AZ81584 MSD-1	AZ81584W14	0.040	1	NA	NA	460	2	7	10/29/18 13:50	87198
					equip						
8	AZ81584	AZ81584W12			NA	NA	500	2	7	10/29/18 13:50	87198
					equip						
9	AZ81585	AZ81585W05			NA	NA	500	2	7	10/29/18 13:50	87198
					equip						
10	AZ81587	AZ81587W09			NA	NA	500	2	7	10/29/18 13:50	87198
					equip						
11	AZ81636	AZ81636W09			NA	NA	470	2	7	10/29/18 13:50	87212
					equip						
12	AZ81638	AZ81638W05			NA	NA	490	2	7	10/29/18 13:50	87212
					equip						
13	AZ81640	AZ81640W08			NA	NA	480	2	7	10/29/18 13:50	87212
					equip						
14	AZ81642	AZ81642W09			NA	NA	500	2	7	10/29/18 13:50	87212
					equip						
15	AZ81644	AZ81644W09			NA	NA	490	2	7	10/29/18 13:50	87212
					equip						
16	AZ81676	AZ81676W08			NA	NA	490	2	7	10/29/18 13:50	87219
					equip						

<b>Solvent and Lot#</b>	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	10699801
PH Strip	HC 727135
Di Water	10-29-18
Dichloromethane	58059
Methanol	58055

<b>Extraction COC Transfer</b>	
Extraction lab employee Initials	KY
GC analyst's initials	JA
Date	10/30/18
Time	17:11
Refrigerator	BC-C

<b>Technician's Initials</b>	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	10/29/18 2:20:25 PM

Reviewed By: *KY* 533 Date 10/31/18

# Organic Extraction Worksheet

<b>Method</b>	Solid Phase Extraction of 2MEE in Water	<b>Extraction Set</b>	181029A	<b>Extraction Method</b>	MWE2MEE	<b>Units</b>	mL
Spiked ID 1	Diethylene Glycol 7-25-18 EXP 10-3-18	Surrogate ID 1					
Spiked ID 2	2MEE SS STK 8-3-18 EXP 8-3-19	Surrogate ID 2					
Spiked ID 3		Surrogate ID 3					
Spiked ID 4		Surrogate ID 4					
Spiked ID 5		Surrogate ID 5					
Spiked ID 6		Sufficient Vol for Matrix QC:		YES			
Spiked ID 7		Ext. Start Time:		10/29/18 13:50			
Spiked ID 8		Ext. End Time:		10/30/18 16:10			
		GC Requires Extract By:		10/30/18 0:00			
		pH1		Water Bath Temp Criteria			
		pH2					
		pH3					

Spiked By: KY

Date 10/29/18

Witnessed By: DL

Date 10/29/18

Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17 AZ81677	AZ81677W09			NA	NA	450	2	7	10/29/18 13:50	87219
										equip
18 AZ81678	AZ81678W09			NA	NA	500	2	7	10/29/18 13:50	87219
										equip
19 AZ81840	AZ81840W09			NA	NA	470	2	7	10/29/18 13:50	87238
										equip
20 AZ81841	AZ81841W08			NA	NA	450	2	7	10/29/18 13:50	87238
										equip
21 AZ81842	AZ81842W08			NA	NA	500	2	7	10/29/18 13:50	87238
										equip
22 AZ81901	AZ81901W07			NA	NA	450	2	7	10/29/18 13:50	87248
										equip
23 AZ81903	AZ81903W08			NA	NA	500	2	7	10/29/18 13:50	87248
										equip
24 M Std		1	1	NA	NA	500	2	7	10/29/18 13:50	
										equip

*Ks 10/31/18*

<b>Solvent and Lot#</b>	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	10699801
PH Strip	HC 727135
Di Water	10-29-18
Dichloromethane	58059
Methanol	58055

<b>Extraction COC Transfer</b>	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

<b>Technician's Initials</b>	
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL
Modified	10/29/18 2:20:25 PM

Reviewed By: *Ks* 534 Date 10/31/18

## Injection Log

Directory: M:\YODA\DATA\Y180801M\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	0801Y002.D	1	SV Tune 03/07/18		1 Aug 18 14:52
3	0801Y003.D	1	50ug/ml MEE 08/01/18	soil	1 Aug 18 15:09
4	0801Y004.D	1	500ug/ml MEE 08/01/18	soil	1 Aug 18 15:34
5	0801Y005.D	1	100ug/ml MEE 08/01/18	soil	1 Aug 18 16:26
6	0801Y006.D	1	200ug/ml MEE 08/01/18	soil	1 Aug 18 16:51
7	0801Y007.D	1	400ug/ml MEE 08/01/18	soil	1 Aug 18 17:16
8	0801Y008.D	1	600ug/ml MEE 08/01/18	soil	1 Aug 18 17:41
9	0801Y009.D	1	800ug/ml MEE 08/01/18	soil	1 Aug 18 18:06
10	0801Y010.D	1	1000ug/ml MEE 08/01/18	soil	1 Aug 18 18:31
11	0801Y011.D	1	SS ug/ml MEE 08/01/18	soil	1 Aug 18 18:55
69	0801Y069.D	1	SV TUNE 03/07/18	soil	31 Oct 18 6:36
70	0801Y070.D	1	500ug/ml MEE 08/01/18	soil	31 Oct 18 6:51
79	0801Y079.D	1	181029A Blk 2/500	soil	31 Oct 18 10:43
80	0801Y080.D	1	181029A LCS-1 2/500	soil	31 Oct 18 11:07
90	0801Y090.D	1	AZ81840W09 2/470	soil	31 Oct 18 15:03
91	0801Y091.D	1	AZ81841W08 2/450	soil	31 Oct 18 15:27
92	0801Y092.D	1	AZ81842W08 2/500	soil	31 Oct 18 15:51
97	0801Y097.D	1	181029A LCSD-1 2/500	soil	31 Oct 18 17:49
98	0801Y098.D	1	500ug/ml MEE 08/01/18	soil	31 Oct 18 18:12



**ORGANICS  
Calibration Data**

**APPL, INC.**

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

**Form 6**  
**Initial Calibration**

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/26/18  
Instrument: Loki

Initials: \_\_\_\_\_

1026L03.D    1026L04.D    1026L05.D    1026L06.D    1026L07.D    1026L08.D    1026L09.D    1026L10.D    1026L11.D

	Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type	r <sup>2</sup>	Q	MRF
1	I	Fluorobenzene (IS)															
2	TM	Dichlorodifluoromethane	0.3148	0.3083	0.3862	0.3998	0.3562	0.3441	0.3582	0.3535	0.3568	0.35	8.3	TM			
3	TM	Freon 114	0.2357	0.2821	0.2441	0.2512	0.2202	0.2173	0.2452	0.2407	0.2443	0.24	7.8	TM			
4	TM**L	Chloromethane		0.5960	0.5078	0.3825	0.4286	0.3769	0.3694	0.3650	0.3455	0.42	21	TM**L	1.000		
5	TM*	Vinyl chloride	0.3170	0.3128	0.3381	0.3142	0.3661	0.3458	0.3371	0.3275	0.3212	0.33	5.3	TM*			
6	TML	Bromomethane		0.3885	0.3273	0.2972	0.2950	0.2809	0.2689	0.2483	0.2169	0.29	18	TML	0.996		
7	TM	Chloroethane		0.1792	0.2064	0.1883	0.2092	0.1801	0.1813	0.1778		0.19	7.1	TM			
8	TM	Dichlorofluoromethane		0.6533	0.4609	0.4837	0.4897	0.4950	0.4833	0.4733	0.4653	0.50	13	TM			
9	TM	Trichlorofluoromethane	0.4769	0.4503	0.4418	0.3978	0.4371	0.4195	0.4243	0.4200	0.4002	0.43	5.8	TM			
10	TM	Acrolein	0.0369	0.0293	0.0296	0.0280	0.0296	0.0283				0.03	11	TM			
11	TML	Acetone			0.4527	0.2599	0.1798	0.1310	0.1171	0.1116	0.0986	0.19	66	TML	0.999		
12	TM	Freon-113	0.2349	0.2213	0.2188	0.2418	0.2244	0.2032	0.2267	0.2203	0.2143	0.22	5.0	TM			
13	TM*	1,1-DCE	0.1228	0.1220	0.1149	0.0868	0.0963	0.0946	0.0944	0.0900	0.0905	0.10	14	TM*			
14	TM	t-Butanol	0.0392	0.0394	0.0362	0.0331	0.0318	0.0324				0.04	9.7	TM			
15	TM	Acetonitrile	0.0536	0.0529	0.0514	0.0482	0.0502	0.0482				0.05	4.5	TM			
16	TM	Methyl Acetate		0.3365	0.3169	0.2815	0.2702	0.2568	0.2597	0.2491	0.2460	0.28	12	TM			
17	TML	Iodomethane		0.0684	0.0667	0.0736	0.0809	0.0923	0.1171	0.1290	0.1351	0.10	29	TML	0.999		
18	TML	Acrylonitrile		0.2102	0.1400	0.1551	0.1105	0.1104	0.1083	0.1066	0.1021	0.13	29	TML	1.000		
19	TM	Methylene chloride			0.3950	0.3366	0.3261	0.3154	0.3040	0.2987	0.2883	0.32	11	TM			
20	TM	Carbon disulfide	0.9698	0.7915	0.8278	0.7763	0.7375	0.7425	0.7371	0.7276	0.7137	0.78	10	TM			
21	TM	Methyl t-butyl ether (MTBE)	0.9313	0.8014	0.8261	0.7534	0.7726	0.7629	0.7586	0.7531	0.7289	0.79	7.7	TM			
22	TM	Trans-1,2-DCE		0.3117	0.3266	0.2805	0.2810	0.2720	0.2803	0.2656	0.2616	0.28	8.0	TM			
23	TM	Diisopropyl Ether			0.8819	0.8847	0.8525	0.8201	0.7667	0.8213	0.7914	0.83	5.3	TM			
24	TM**	1,1-DCA	0.7059	0.5711	0.5910	0.5579	0.5448	0.5468	0.5266	0.5161	0.4967	0.56	11	TM**			
25	TM	Vinyl Acetate		0.2480	0.2267	0.1997	0.2149	0.1844	0.1786	0.1904	0.1770	0.20	13	TM			
26	TM	Ethyl tert Butyl Ether	0.7477	0.7065	0.7158	0.7107	0.6876	0.7159	0.7059	0.7337	0.7501	0.72	2.9	TM			
27	TM	MEK (2-Butanone)			0.1672	0.1446	0.1562	0.1386	0.1396	0.1459	0.1369	0.15	7.5	TM			
28	TM	Cis-1,2-DCE	0.3116	0.3538	0.3400	0.3256	0.3153	0.3200	0.3206	0.3183	0.3186	0.32	4.2	TM			
29	TML	2,2-Dichloropropane		0.5125	0.4669	0.4268	0.4063	0.4047	0.3967	0.3885	0.3805	0.42	11	TML	1.000		
30	TM*	Chloroform	0.6630	0.5476	0.5435	0.5231	0.5685	0.5593	0.5471	0.5342	0.5114	0.56	7.9	TM*			
31	TM	Bromochloromethane	0.1709	0.2153	0.1814	0.1700	0.1802	0.1824	0.1762	0.1698	0.1547	0.18	9.2	TM			
32	SL	Dibromofluoromethane(S)	1.176	1.034	0.7332	0.7070	0.7145	0.7260	0.6447	0.6433		0.80	25	SL	0.996		
33	TM	1,1,1-TCA	0.5148	0.4238	0.4737	0.4354	0.4410	0.4287	0.4350	0.4222	0.4133	0.44	7.2	TM			
34	TM	Cyclohexane			0.2078	0.1912	0.1663	0.1784	0.1835	0.1823	0.1898	0.19	6.9	TM			
35	TM	1,1-Dichloropropene	0.3864	0.3537	0.3361	0.3341	0.3128	0.3102	0.3286	0.3354	0.3426	0.34	6.7	TM			

**VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS**

**Form 6  
Initial Calibration**

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/26/18  
Instrument: Loki

Initials: \_\_\_\_\_

	Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type	Q	MRF
36	TM 2,2,4-Trimethylpentane	0.6042	0.6487	0.5862	0.5905	0.5698	0.5759	0.6284	0.6377	0.6730		0.61	5.8	TM		
37	SL 1,2-DCA-D4(S)	1.286	1.123	0.8001	0.7833	0.7777	0.7999	0.7131	0.7091	0.6575		0.85	25	SL	0.998	
38	TM Carbon Tetrachloride	0.3763	0.3614	0.3638	0.3492	0.3512	0.3543	0.3776	0.3712	0.3666		0.36	2.9	TM		
39	TM Tert Amyl Methyl Ether	0.6177	0.6314	0.6498	0.5839	0.6273	0.6628	0.6915	0.7184	0.7338		0.66	7.5	TM		
40	TM 1,2-DCA	0.4401	0.4207	0.4008	0.4028	0.4126	0.4226	0.4052	0.4065	0.3851		0.41	3.8	TM		
41	TM Benzene	1.395	1.152	1.145	1.085	1.082	1.146	1.142	1.136	1.121		1.2	8.1	TM		
42	TM TCE		0.1660	0.1446	0.1349	0.1419	0.1340	0.1355	0.1372	0.1400		0.14	7.4	TM		
43	TM 2-Pentanone	0.2084	0.2061	0.2089	0.1994	0.2102	0.2130					0.21	2.2	TM		
44	TM* 1,2-Dichloropropane	0.3236	0.3173	0.3095	0.3115	0.3144	0.3091	0.3077	0.3080	0.2929		0.31	2.7	TM*		
45	TM Bromodichloromethane	0.5163	0.4537	0.4611	0.4120	0.4421	0.4440	0.4353	0.4321	0.4147		0.45	7.0	TM		
46	TM Methyl Cyclohexane	0.3514	0.3347	0.2869	0.2782	0.2830	0.2833	0.3142	0.3244	0.3584		0.31	10.0	TM		
47	TM Dibromomethane	0.3020	0.2158	0.2364	0.2294	0.2313	0.2284	0.2261	0.2193	0.2107		0.23	12	TM		
48	TM 2-Chloroethyl vinyl ether													TM		
49	TM MIBK (methyl isobutyl ketone)			0.2532	0.2798	0.2838	0.2566	0.2955	0.2698	0.2759		0.27	5.5	TM		
50	TM 1-Bromo-2-chloroethane	0.2484	0.2199	0.2231	0.2271	0.2136	0.2246	0.2279	0.2262	0.2194		0.23	4.3	TM		
51	TM Cis-1,3-Dichloropropene	0.4821	0.4236	0.4547	0.4220	0.4571	0.4546	0.4626	0.4728	0.4831		0.46	4.9	TM		
52	TM* Toluene	1.312	1.091	1.119	1.115	1.185	1.217	1.244	1.249	1.246		1.2	6.3	TM*		
53	TM Trans-1,3-Dichloropropene	0.5110	0.3740	0.4057	0.4068	0.4226	0.4312	0.4356	0.4396	0.4407		0.43	8.7	TM		
54	TM 1,1,2-TCA	0.2937	0.2753	0.2720	0.2529	0.2730	0.2730	0.2607	0.2587	0.2489		0.27	5.1	TM		
55	TM 2-Hexanone			0.1783	0.1667	0.1752	0.1674	0.1668	0.1761	0.1828		0.17	3.7	TM		
56	I Chlorobenzene-D5 (IS)															
57	SL Toluene-D8(S)	3.750	3.328	2.362	2.318	2.368	2.594	2.431	2.395	2.355		2.7	20	SL	0.999	
58	TM 1,2-EDB	0.3600	0.2646	0.3409	0.2984	0.3281	0.3476	0.3419	0.3354	0.3323		0.33	8.9	TM		
59	TM Tetrachloroethene	0.3344	0.3432	0.3569	0.3607	0.3506	0.3651	0.3694	0.3504	0.3650		0.36	3.2	TM		
60	TM 1-Chlorohexane		0.2322	0.2285	0.2498	0.2356	0.2598	0.2965	0.3096			0.26	12	TM		
61	TM 1,1,1,2-Tetrachloroethane	0.3552	0.3563	0.3444	0.3514	0.3437	0.3528	0.3476	0.3335	0.3362		0.35	2.3	TM		
62	TML m&p-Xylene		0.3787	0.4099	0.4166	0.4619	0.5317	0.5852	0.6357	0.6783		0.51	22	TML	0.999	
63	TM o-Xylene	0.3903	0.3659	0.3500	0.3750	0.3841	0.4375	0.4707	0.4895	0.5342		0.42	15	TM		
64	TML Styrene		0.2686	0.3364	0.3542	0.3722	0.4588	0.5175	0.5397	0.5910		0.43	26	TML	0.999	
65	S 4-Bromofluorobenzene(S)			0.7519	0.7516	0.7990	0.8844	0.8527	0.8376			0.81	6.7	S		
66	TM 1,3-Dichloropropane	0.5354	0.4636	0.4669	0.4827	0.4872	0.5285	0.5229	0.5158	0.5195		0.50	5.5	TM		
67	TM Dibromochloromethane	0.4324	0.3113	0.4029	0.3365	0.3639	0.3810	0.3765	0.3694	0.3719		0.37	9.4	TM		
68	TM** Chlorobenzene	0.9607	0.7883	0.8161	0.8233	0.8193	0.8663	0.8671	0.8458	0.8687		0.85	5.8	TM**		
69	TM* Ethylbenzene	1.163	1.088	1.078	1.064	1.113	1.202	1.320	1.355	1.437		1.2	11	TM*		
70	TM** Bromoform	0.1987	0.2913	0.2985	0.2773	0.2786	0.2949	0.2988	0.2830	0.2879		0.28	11	TM**		

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/26/18  
Instrument: Loki

Initials: \_\_\_\_\_

	Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type	Q	MRF
71	I	1,4-Dichlorobenzene-D (IS)														
72	TM	Isopropylbenzene	1.870	1.850	1.627	1.744	1.674	1.904	2.023	2.163	2.131	1.9	10	TM		
73	TM**	1,1,2,2-Tetrachloroethane	1.045	0.9958	0.8852	0.8489	0.7870	0.8337	0.8253	0.7797	0.7091	0.86	12	TM**		
74	TM	1,2,3-Trichloropropane	0.3099	0.2379	0.2451	0.2395	0.2523	0.2482	0.2496	0.2405	0.2193	0.25	9.9	TM		
75	TM	t-1,4-Dichloro-2-Butene	0.2303	0.1788	0.1967	0.1504	0.1658	0.1680	0.1668	0.1656	0.1613	0.18	14	TM		
76	TM	Bromobenzene	0.8174	0.7285	0.6800	0.6860	0.6995	0.7271	0.7170	0.7005	0.6337	0.71	7.0	TM		
77	TM	n-Propylbenzene	1.405	1.334	1.341	1.264	1.291	1.487	1.610	1.706	1.677	1.5	12	TM		
78	TM	4-Ethyltoluene	1.773	1.623	1.471	1.507	1.625	1.937	2.084	2.185	2.102	1.8	15	TM		
79	TM	2-Chlorotoluene	1.676	1.432	1.262	1.411	1.418	1.592	1.653	1.672	1.556	1.5	9.5	TM		
80	TML	1,3,5-Trimethylbenzene		0.8476	0.7770	0.7844	0.9177	1.107	1.226	1.261	1.194	1.0	20	TML	0.999	
81	TM	4-Chlorotoluene	1.634	1.634	1.557	1.490	1.657	1.891	1.959	1.949	1.824	1.7	10	TM		
82	TM	Tert-Butylbenzene	1.395	1.248	1.252	1.199	1.248	1.409	1.513	1.574	1.564	1.4	11	TM		
83	TML	1,2,4-Trimethylbenzene		1.317	1.259	1.251	1.404	1.697	1.856	1.969	1.916	1.6	19	TML	1.000	
84	TM	Sec-Butylbenzene	1.921	1.798	1.683	1.687	1.795	2.078	2.299	2.371	2.338	2.0	14	TM		
85	TM	p-Isopropyltoluene	1.899	1.705	1.647	1.618	1.664	1.901	2.070	2.097	2.077	1.9	11	TM		
86	TM	Benzyl Chloride	1.222	0.9699	0.9031	0.7696	0.9273	0.8973	0.8998	0.9110	0.9551	0.94	13	TM		
87	TM	1,3-DCB	1.424	1.254	1.226	1.136	1.205	1.298	1.293	1.272	1.205	1.3	6.4	TM		
88	TM	1,4-DCB	1.590	1.395	1.307	1.267	1.277	1.371	1.372	1.316	1.249	1.3	7.7	TM		
89	TM	n-Butylbenzene	1.827	1.465	1.383	1.362	1.378	1.537	1.643	1.742	1.803	1.6	12	TM		
90	TM	1,2-DCB	1.214	1.324	1.183	1.124	1.185	1.251	1.234	1.230	1.217	1.2	4.5	TM		
91	TM	Hexachloroethane	0.4458	0.4906	0.4143	0.3765	0.4135	0.3953	0.3937	0.3885	0.3635	0.41	9.5	TM		
92	TM	1,2-Dibromo-3-chloropropane	0.1592	0.1874	0.1863	0.1602	0.1475	0.1458	0.1432	0.1480	0.1459	0.16	11	TM		
93	TM	1,2,4-Trichlorobenzene	0.8766	0.6216	0.6663	0.6530	0.6630	0.7293	0.7532	0.7938	0.8803	0.74	13	TM		
94	TM	Hexachlorobutadiene	0.5074	0.4480	0.3992	0.4339	0.3895	0.3944	0.4063	0.4062	0.4206	0.42	8.7	TM		
95	TML	Naphthalene		1.355	1.272	1.202	1.284	1.491	1.618	1.854	2.086	1.5	21	TML	0.997	
96	TM	1,2,3-Trichlorobenzene	0.4343	0.4403	0.3727	0.3183	0.3926	0.4250	0.4450	0.4458	0.5106	0.42	13	TM		
97																
98																
99																
100																
101																
102																
103																
104																
105																

Data File : M:\LOKI\DATA\181026\1026L03.D  
 Acq On : 26 Oct 18 10:28  
 Sample : 0.3ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 2  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	501632	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	505856	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	246016	25.0000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	3.85	111	117998	6.2738	ppb	0.00
Spiked Amount	25.000		Recovery	=	25.096%	
37) 1,2-DCA-D4 (S)	4.35	65	129064	5.7026	ppb	0.00
Spiked Amount	25.000		Recovery	=	22.812%	
57) Toluene-D8 (S)	6.90	98	379189	7.8558	ppb	0.00
Spiked Amount	25.000		Recovery	=	31.424%	
65) 4-Bromofluorobenzene(S)	9.83	95	123814	7.5276	ppb	0.00
Spiked Amount	25.000		Recovery	=	30.112%	
Target Compounds						
2) Dichlorodifluoromethane	0.73	85	1895	0.2675	ppb	91
3) Freon 114	0.79	85	1419	0.2919	ppb	98
4) Chloromethane	0.78	50	3495	-0.3935	ppb #	41
5) Vinyl chloride	0.87	62	1908	0.2872	ppb #	38
6) Bromomethane	1.04	94	2264	-1.6348	ppb	92
7) Chloroethane	1.09	64	1056	0.2786	ppb	99
9) Trichlorofluoromethane	1.24	101	2871	0.3329	ppb	85
10) Acrolein	1.49	56	7406	12.1836	ppb #	97
11) Acetone	1.59	43	7183	-0.5304	ppb #	80
12) Freon-113	1.56	101	1414	0.3162	ppb #	86
13) 1,1-DCE	1.55	63	739	0.3634	ppb #	43
14) t-Butanol	2.04	59	7870	11.0944	ppb	96
15) Acetonitrile	1.78	41	10755	10.5605	ppb	97
16) Methyl Acetate	1.84	43	3121	0.5613	ppb #	83
17) Iodomethane	1.64	142	490	1.8011	ppb #	63
19) Methylene chloride	1.89	84	4282	0.6598	ppb #	68
20) Carbon disulfide	1.68	76	5838	0.3728	ppb #	92
21) Methyl t-butyl ether (MtBE)	2.15	73	5606	0.3547	ppb #	91
22) Trans-1,2-DCE	2.11	96	2401	0.4200	ppb	91
23) Diisopropyl Ether	2.63	45	5547	0.3326	ppb #	79
24) 1,1-DCA	2.49	63	4249	0.3769	ppb #	91
25) Vinyl Acetate	2.63	43	1630	0.4012	ppb #	96
26) Ethyl tert Butyl Ether	3.06	59	4501	0.3118	ppb	96
27) MEK (2-Butanone)	3.25	43	1735	0.5882	ppb	91
28) Cis-1,2-DCE	3.16	96	1876	0.2878	ppb	95
30) Chloroform	3.63	83	3991	0.3582	ppb #	73
31) Bromochloromethane	3.46	128	1029	0.2883	ppb #	65
33) 1,1,1-TCA	3.84	97	3099	0.3486	ppb	91
34) Cyclohexane	3.90	41	1818	0.4881	ppb #	75
35) 1,1-Dichloropropene	4.11	75	2326	0.3432	ppb #	76
36) 2,2,4-Trimethylpentane	4.61	57	3637	0.2958	ppb #	16
38) Carbon Tetrachloride	4.09	117	2265	0.3105	ppb	100
39) Tert Amyl Methyl Ether	4.70	73	3718	0.2819	ppb #	96
40) 1,2-DCA	4.47	62	2649	0.3214	ppb #	77
41) Benzene	4.41	78	8398	0.3621	ppb	98
42) TCE	5.37	95	1216	0.4275	ppb #	71
43) 2-Pentanone	5.71	43	41996	10.0791	ppb	95
44) 1,2-Dichloropropane	5.63	63	1948	0.3127	ppb #	86
45) Bromodichloromethane	6.04	83	3108	0.3475	ppb #	78

(#) = qualifier out of range (m) = manual integration  
 1026L03.D L1026W.M Mon Oct 29 06:55:09 2018

Data File : M:\LOKI\DATA\181026\1026L03.D  
 Acq On : 26 Oct 18 10:28  
 Sample : 0.3ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 2  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Methyl Cyclohexane	5.58	83	2115	0.3370	ppb	91
47) Dibromomethane	5.79	93	1818	0.3884	ppb #	65
49) MIBK (methyl isobutyl ket	6.89	43	4769	0.8690	ppb #	1
50) 1-Bromo-2-chloroethane	6.38	63	1495	0.3303	ppb	94
51) Cis-1,3-Dichloropropene	6.61	75	2902	0.3165	ppb	97
52) Toluene	6.98	91	7895	0.3286	ppb	88
53) Trans-1,3-Dichloropropene	7.29	75	3076	0.3568	ppb #	76
54) 1,1,2-TCA	7.47	83	1768	0.3293	ppb	87
55) 2-Hexanone	7.83	43	1819	0.5230	ppb #	67
58) 1,2-EDB	7.98	107	2185	0.3296	ppb	90
59) Tetrachloroethene	7.60	166	2030	0.2825	ppb	87
60) 1-Chlorohexane	8.60	91	1769	0.3377	ppb	84
61) 1,1,1,2-Tetrachloroethane	8.66	131	2156	0.3072	ppb	92
62) m&p-Xylene	8.85	91	5300	3.2147	ppb	96
63) o-Xylene	9.27	106	2369	0.2775	ppb	66
64) Styrene	9.29	104	2418	1.7354	ppb	91
66) 1,3-Dichloropropane	7.65	76	3250	0.3196	ppb	88
67) Dibromochloromethane	7.89	129	2625	0.3490	ppb #	66
68) Chlorobenzene	8.55	112	5832	0.3388	ppb	94
69) Ethylbenzene	8.71	91	7058	0.2901	ppb	96
70) Bromoform	9.45	173	1206	0.2138	ppb #	30
72) Isopropylbenzene	9.69	105	5522	0.2973	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.03	83	3085	0.3660	ppb	91
74) 1,2,3-Trichloropropane	10.05	110	915	0.3732	ppb	86
75) t-1,4-Dichloro-2-Butene	10.10	53	680	0.3927	ppb #	58
76) Bromobenzene	9.96	156	2413	0.3454	ppb	88
77) n-Propylbenzene	10.13	91	4148	0.2892	ppb	100
78) 4-Ethyltoluene	10.26	105	5234	0.2935	ppb	99
79) 2-Chlorotoluene	10.19	91	4947	0.3309	ppb	91
80) 1,3,5-Trimethylbenzene	10.34	105	2787	0.5182	ppb	95
81) 4-Chlorotoluene	10.32	91	4825	0.2829	ppb	95
82) Tert-Butylbenzene	10.68	119	4119	0.3038	ppb #	77
83) 1,2,4-Trimethylbenzene	10.73	105	3953	0.8287	ppb	86
84) Sec-Butylbenzene	10.91	105	5672	0.2887	ppb	98
85) p-Isopropyltoluene	11.09	119	5605	0.3074	ppb #	86
86) Benzyl Chloride	11.25	91	3607	0.3902	ppb	98
87) 1,3-DCB	11.00	146	4205	0.3400	ppb #	77
88) 1,4-DCB	11.09	146	4694	0.3535	ppb #	91
89) n-Butylbenzene	11.52	91	5395	0.3489	ppb #	89
90) 1,2-DCB	11.48	146	3584	0.2990	ppb	86
91) Hexachloroethane	11.74	117	1316	0.3269	ppb	88
92) 1,2-Dibromo-3-chloropropan	12.31	75	470	0.3020	ppb #	76
93) 1,2,4-Trichlorobenzene	13.20	180	2588	0.3566	ppb	85
94) Hexachlorobutadiene	13.41	225	1498	0.3600	ppb #	60
95) Naphthalene	13.45	128	4880	2.1993	ppb	96
96) 1,2,3-Trichlorobenzene	13.71	180	1282	0.3098	ppb	97

Quantitation Report

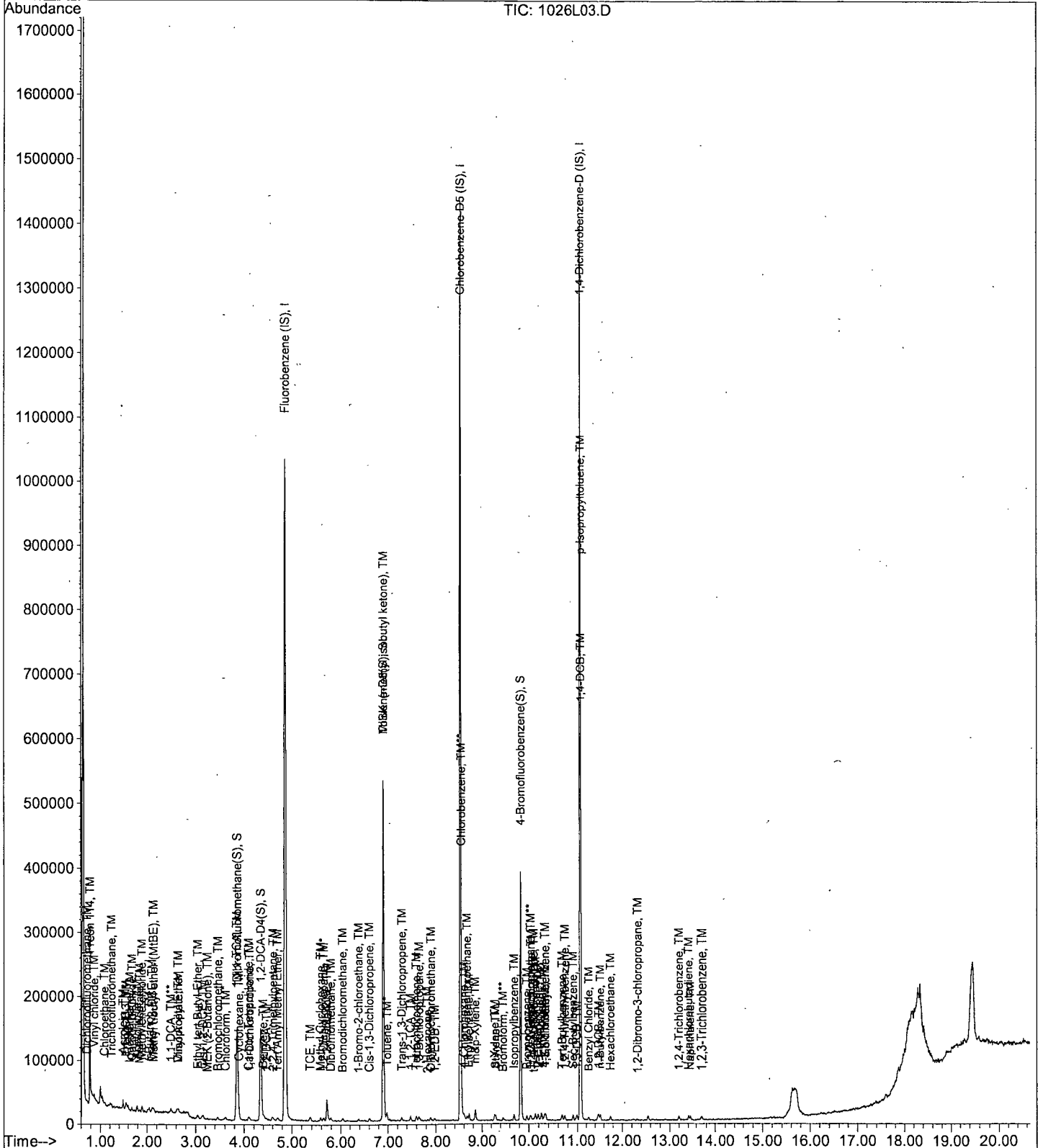
Data File : M:\LOKI\DATA\181026\1026L03.D  
Acq On : 26 Oct 18 10:28  
Sample : 0.3ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 2  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L04.D  
 Acq On : 26 Oct 18 10:57  
 Sample : 0.5ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	513856	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	505216	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	239616	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	106270	5.1037	ppb	0.00
Spiked Amount 25.000			Recovery =	20.416%		
37) 1,2-DCA-D4(S)	4.35	65	115366	4.4216	ppb	0.00
Spiked Amount 25.000			Recovery =	17.688%		
57) Toluene-D8(S)	6.90	98	336267	6.9754	ppb	0.00
Spiked Amount 25.000			Recovery =	27.900%		
65) 4-Bromofluorobenzene(S)	9.83	95	109990	6.6956	ppb	0.00
Spiked Amount 25.000			Recovery =	26.784%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	3168	0.4365	ppb	90
3) Freon 114	0.79	85	2899	0.5821	ppb	98
5) Vinyl chloride	0.87	62	3215	0.4724	ppb #	52
6) Bromomethane	1.03	94	3895	-1.2809	ppb	82
7) Chloroethane	1.09	64	1931	0.4973	ppb	87
8) Dichlorofluoromethane	1.21	67	6714	0.6526	ppb	92
9) Trichlorofluoromethane	1.24	101	4628	0.5239	ppb	90
10) Acrolein	1.49	56	15073	24.2066	ppb #	100
12) Freon-113	1.56	101	2274	0.4964	ppb	88
13) 1,1-DCE	1.55	63	1254	0.6019	ppb #	56
14) t-Butanol	2.04	59	20238	27.8511	ppb	93
15) Acetonitrile	1.78	41	27169	26.0431	ppb	92
16) Methyl Acetate	1.84	43	3458	0.6072	ppb	98
17) Iodomethane	1.64	142	703	1.8728	ppb	85
18) Acrylonitrile	2.26	52	2113	0.1630	ppb #	7
19) Methylene chloride	1.90	84	5175	0.7784	ppb	78
20) Carbon disulfide	1.68	76	8134	0.5071	ppb #	90
21) Methyl t-butyl ether (MtBE)	2.14	73	8236	0.5088	ppb #	85
22) Trans-1,2-DCE	2.11	96	3203	0.5470	ppb	96
23) Diisopropyl Ether	2.64	45	12562	0.7353	ppb #	88
24) 1,1-DCA	2.49	63	5869	0.5082	ppb #	92
25) Vinyl Acetate	2.61	43	2528	0.6075	ppb #	91
26) Ethyl tert Butyl Ether	3.05	59	7261	0.4911	ppb	90
27) MEK (2-Butanone)	3.24	43	2561	0.8476	ppb	100
28) Cis-1,2-DCE	3.16	96	3636	0.5445	ppb	96
29) 2,2-Dichloropropane	3.14	77	5267	0.2195	ppb #	90
30) Chloroform	3.62	83	5628	0.4931	ppb	91
31) Bromochloromethane	3.46	128	2213	0.6053	ppb	81
33) 1,1,1-TCA	3.83	97	4355	0.4782	ppb	100
34) Cyclohexane	3.90	41	2786	0.7302	ppb #	74
35) 1,1-Dichloropropene	4.12	75	3635	0.5236	ppb	95
36) 2,2,4-Trimethylpentane	4.62	57	6667	0.5294	ppb #	20
38) Carbon Tetrachloride	4.08	117	3714	0.4971	ppb	80
39) Tert Amyl Methyl Ether	4.70	73	6489	0.4802	ppb #	96
40) 1,2-DCA	4.47	62	4324	0.5122	ppb #	76
41) Benzene	4.42	78	11838	0.4982	ppb	95
42) TCE	5.37	95	1706	0.5855	ppb	92
43) 2-Pentanone	5.71	43	106101	24.8587	ppb	98
44) 1,2-Dichloropropane	5.65	63	3261	0.5110	ppb #	86

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



Data File : M:\LOKI\DATA\181026\1026L04.D  
 Acq On : 26 Oct 18 10:57  
 Sample : 0.5ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) Bromodichloromethane	6.04	83	4663	0.5090	ppb	# 78
46) Methyl Cyclohexane	5.58	83	3440	0.5352	ppb	75
47) Dibromomethane	5.80	93	2218	0.4626	ppb	82
49) MIBK (methyl isobutyl ket	6.85	43	5152	0.9165	ppb	# 77
50) 1-Bromo-2-chloroethane	6.37	63	2260	0.4874	ppb	97
51) Cis-1,3-Dichloropropene	6.61	75	4353	0.4635	ppb	93
52) Toluene	6.98	91	11217	0.4557	ppb	95
53) Trans-1,3-Dichloropropene	7.29	75	3844	0.4352	ppb	88
54) 1,1,2-TCA	7.48	83	2829	0.5144	ppb	83
55) 2-Hexanone	7.83	43	2034	0.5709	ppb	94
58) 1,2-EDB	7.98	107	2674	0.4038	ppb	90
59) Tetrachloroethene	7.60	166	3468	0.4833	ppb	86
60) 1-Chlorohexane	8.60	91	2346	0.4485	ppb	89
61) 1,1,1,2-Tetrachloroethane	8.67	131	3600	0.5137	ppb	78
62) m&p-Xylene	8.85	91	7652	3.3859	ppb	92
63) o-Xylene	9.27	106	3697	0.4336	ppb	92
64) Styrene	9.30	104	2714	1.7603	ppb	97
66) 1,3-Dichloropropane	7.65	76	4684	0.4613	ppb	83
67) Dibromochloromethane	7.89	129	3145	0.4186	ppb	93
68) Chlorobenzene	8.55	112	7965	0.4633	ppb	# 90
69) Ethylbenzene	8.71	91	10996	0.4526	ppb	96
70) Bromoform	9.45	173	2943	0.5224	ppb	88
72) Isopropylbenzene	9.69	105	8867	0.4902	ppb	93
73) 1,1,2,2-Tetrachloroethane	10.03	83	4772	0.5812	ppb	98
74) 1,2,3-Trichloropropane	10.05	110	1140	0.4774	ppb	89
75) t-1,4-Dichloro-2-Butene	10.08	53	857	0.5081	ppb	# 62
76) Bromobenzene	9.96	156	3491	0.5130	ppb	81
77) n-Propylbenzene	10.13	91	6393	0.4577	ppb	94
78) 4-Ethyltoluene	10.27	105	7780	0.4480	ppb	97
79) 2-Chlorotoluene	10.19	91	6863	0.4714	ppb	95
80) 1,3,5-Trimethylbenzene	10.34	105	4062	0.6346	ppb	95
81) 4-Chlorotoluene	10.32	91	7830	0.4714	ppb	100
82) Tert-Butylbenzene	10.67	119	5979	0.4527	ppb	94
83) 1,2,4-Trimethylbenzene	10.73	105	6310	0.9613	ppb	97
84) Sec-Butylbenzene	10.91	105	8618	0.4503	ppb	90
85) p-Isopropyltoluene	11.08	119	8172	0.4601	ppb	# 89
86) Benzyl Chloride	11.25	91	4648	0.5162	ppb	99
87) 1,3-DCB	10.99	146	6009	0.4988	ppb	88
88) 1,4-DCB	11.09	146	6684	0.5168	ppb	95
89) n-Butylbenzene	11.52	91	7023	0.4664	ppb	# 91
90) 1,2-DCB	11.48	146	6344	0.5434	ppb	87
91) Hexachloroethane	11.74	117	2351	0.5996	ppb	# 73
92) 1,2-Dibromo-3-chloropropan	12.31	75	898	0.5923	ppb	# 53
93) 1,2,4-Trichlorobenzene	13.20	180	2979	0.4215	ppb	96
94) Hexachlorobutadiene	13.41	225	2147	0.5298	ppb	82
95) Naphthalene	13.45	128	6494	2.2861	ppb	99
96) 1,2,3-Trichlorobenzene	13.71	180	2110	0.5235	ppb	96

Quantitation Report

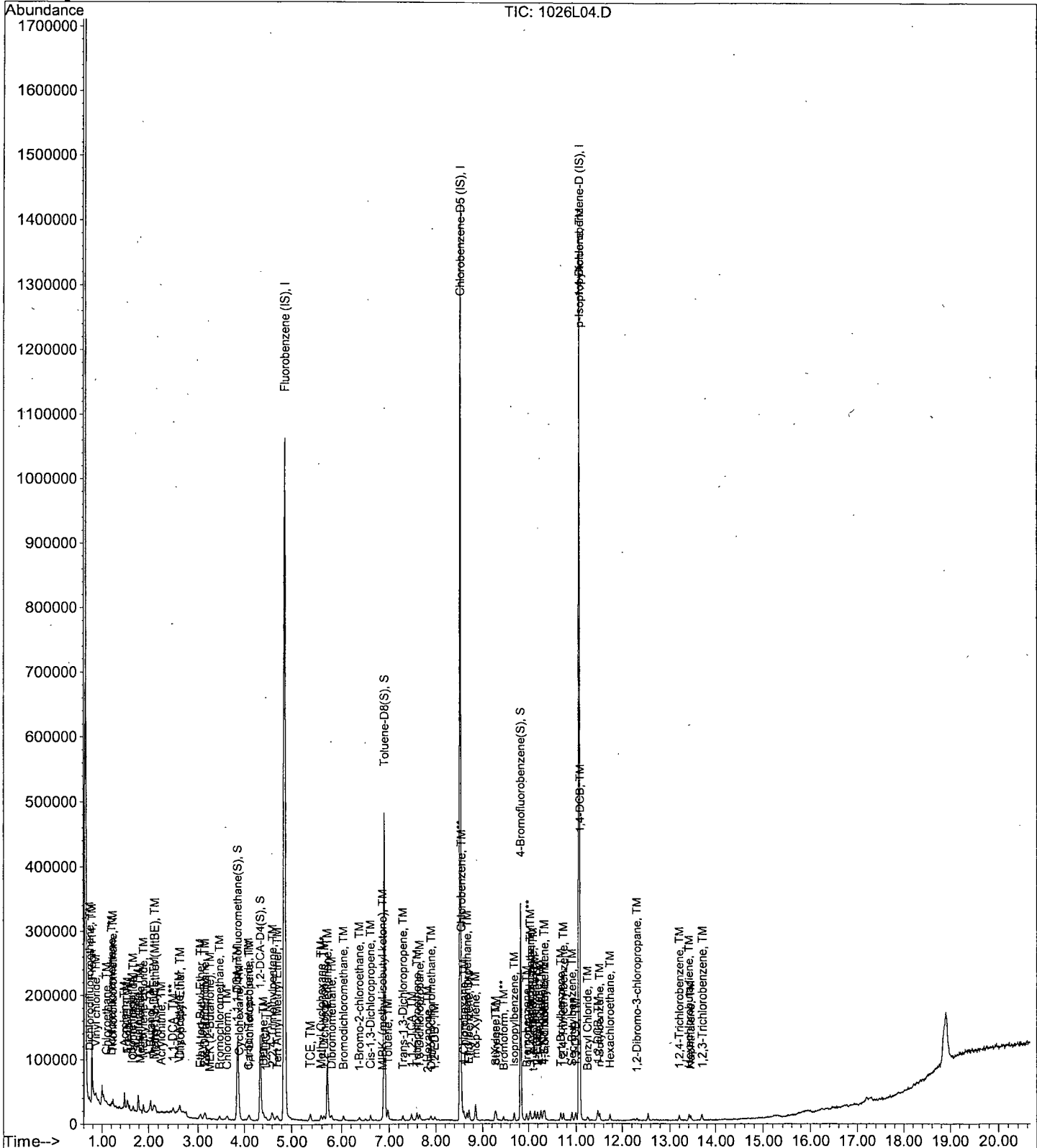
Data File : M:\LOKI\DATA\181026\1026L04.D  
Acq On : 26 Oct 18 10:57  
Sample : 0.5ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 3  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L05.D  
 Acq On : 26 Oct 18 11:25  
 Sample : 1.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	505920	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	497728	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	254912	25.0000	ppb	0.00

System Monitoring Compounds.

32) Dibromofluoromethane(S)	3.86	111	148372	8.6635	ppb	0.00
Spiked Amount	25.000		Recovery	=	34.656%	
37) 1,2-DCA-D4 (S)	4.35	65	161909	8.1545	ppb	0.00
Spiked Amount	25.000		Recovery	=	32.616%	
57) Toluene-D8 (S)	6.90	98	470130	9.8990	ppb	0.00
Spiked Amount	25.000		Recovery	=	39.596%	
65) 4-Bromofluorobenzene(S)	9.83	95	149696	9.2498	ppb	0.00
Spiked Amount	25.000		Recovery	=	37.000%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.72	85	7815	1.0937	ppb	92
3) Freon 114	0.79	85	4939	1.0072	ppb	91
4) Chloromethane	0.81	50	10276	0.5740	ppb	92
5) Vinyl chloride	0.87	62	6843	1.0212	ppb	85
6) Bromomethane	1.03	94	6400	-0.6957	ppb	89
7) Chloroethane	1.09	64	4177	1.0925	ppb	95
8) Dichlorofluoromethane	1.21	67	9912	0.9785	ppb	100
9) Trichlorofluoromethane	1.24	101	8940	1.0279	ppb	90
10) Acrolein	1.49	56	29924	48.8106	ppb	97
11) Acetone	1.60	43	9162	0.4627	ppb	99
12) Freon-113	1.56	101	4428	0.9818	ppb	96
13) 1,1-DCE	1.55	63	2326	1.1340	ppb	# 75
14) t-Butanol	2.05	59	36698	51.2951	ppb	100
15) Acetonitrile	1.78	41	51986	50.6134	ppb	94
16) Methyl Acetate	1.84	43	6414	1.1439	ppb	92
17) Iodomethane	1.64	142	1350	2.1110	ppb	# 91
18) Acrylonitrile	2.10	52	2894	0.5581	ppb	# 65
19) Methylene chloride	1.89	84	7994	1.2213	ppb	96
20) Carbon disulfide	1.68	76	16752	1.0607	ppb	98
21) Methyl t-butyl ether (MtBE)	2.14	73	16717	1.0489	ppb	95
22) Trans-1,2-DCE	2.11	96	6609	1.1463	ppb	91
23) Diisopropyl Ether	2.63	45	17847	1.0610	ppb	# 87
24) 1,1-DCA	2.49	63	11959	1.0518	ppb	94
25) Vinyl Acetate	2.63	43	4588	1.1198	ppb	# 97
26) Ethyl tert Butyl Ether	3.05	59	14485	0.9951	ppb	94
27) MEK (2-Butanone)	3.24	43	3383	1.1372	ppb	90
28) Cis-1,2-DCE	3.16	96	6881	1.0466	ppb	77
29) 2,2-Dichloropropane	3.14	77	9448	0.7741	ppb	# 89
30) Chloroform	3.62	83	10999	0.9788	ppb	97
31) Bromochloromethane	3.46	128	3670	1.0195	ppb	83
33) 1,1,1-TCA	3.83	97	9586	1.0691	ppb	# 71
34) Cyclohexane	3.88	41	4205	1.1195	ppb	82
35) 1,1-Dichloropropene	4.10	75	6802	0.9951	ppb	88
36) 2,2,4-Trimethylpentane	4.61	57	11863	0.9567	ppb	# 21
38) Carbon Tetrachloride	4.09	117	7362	1.0008	ppb	91
39) Tert Amyl Methyl Ether	4.71	73	13150	0.9885	ppb	# 95
40) 1,2-DCA	4.47	62	8111	0.9759	ppb	# 88
41) Benzene	4.41	78	23172	0.9906	ppb	92
42) TCE	5.37	95	2926	1.0200	ppb	91

Data File : M:\LOKI\DATA\181026\1026L05.D  
 Acq On : 26 Oct 18 11:25  
 Sample : 1.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	211886	50.4220	ppb	99
44) 1,2-Dichloropropane	5.64	63	6264	0.9970	ppb #	86
45) Bromodichloromethane	6.04	83	9332	1.0346	ppb #	86
46) Methyl Cyclohexane	5.59	83	5806	0.9174	ppb	98
47) Dibromomethane	5.79	93	4783	1.0133	ppb	95
49) MIBK (methyl isobutyl ket	6.85	43	5121	0.9253	ppb	97
50) 1-Bromo-2-chloroethane	6.37	63	4515	0.9891	ppb	99
51) Cis-1,3-Dichloropropene	6.61	75	9202	0.9951	ppb	95
52) Toluene	6.98	91	22652	0.9347	ppb	85
53) Trans-1,3-Dichloropropene	7.29	75	8210	0.9441	ppb	93
54) 1,1,2-TCA	7.48	83	5504	1.0165	ppb	97
55) 2-Hexanone	7.83	43	3609	1.0289	ppb #	86
58) 1,2-EDB	7.98	107	6787	1.0404	ppb	95
59) Tetrachloroethene	7.60	166	7105	1.0051	ppb	90
60) 1-Chlorohexane	8.60	91	4549	0.8827	ppb	87
61) 1,1,1,2-Tetrachloroethane	8.67	131	6857	0.9931	ppb	99
62) m&p-Xylene	8.85	91	16320	4.0326	ppb	97
63) o-Xylene	9.27	106	6969	0.8297	ppb	99
64) Styrene	9.29	104	6697	2.1008	ppb	91
66) 1,3-Dichloropropane	7.65	76	9295	0.9291	ppb	92
67) Dibromochloromethane	7.89	129	8021	1.0837	ppb	99
68) Chlorobenzene	8.55	112	16248	0.9594	ppb	92
69) Ethylbenzene	8.71	91	21454	0.8963	ppb	92
70) Bromoform	9.45	173	5943	1.0708	ppb	98
72) Isopropylbenzene	9.69	105	16589	0.8620	ppb	94
73) 1,1,2,2-Tetrachloroethane	10.03	83	9026	1.0334	ppb #	92
74) 1,2,3-Trichloropropane	10.04	110	2499	0.9837	ppb	95
75) t-1,4-Dichloro-2-Butene	10.10	53	2006	1.1180	ppb	82
76) Bromobenzene	9.96	156	6934	0.9578	ppb	97
77) n-Propylbenzene	10.13	91	13678	0.9205	ppb	93
78) 4-Ethyltoluene	10.26	105	14994	0.8116	ppb	93
79) 2-Chlorotoluene	10.19	91	12865	0.8306	ppb	95
80) 1,3,5-Trimethylbenzene	10.34	105	7923	0.9272	ppb	99
81) 4-Chlorotoluene	10.32	91	15878	0.8986	ppb	91
82) Tert-Butylbenzene	10.67	119	12770	0.9089	ppb	99
83) 1,2,4-Trimethylbenzene	10.73	105	12840	1.2717	ppb	82
84) Sec-Butylbenzene	10.91	105	17162	0.8430	ppb	96
85) p-Isopropyltoluene	11.08	119	16797	0.8889	ppb	88
86) Benzyl Chloride	11.25	91	9208	0.9613	ppb #	86
87) 1,3-DCB	10.99	146	12498	0.9753	ppb	94
88) 1,4-DCB	11.09	146	13322	0.9683	ppb	97
89) n-Butylbenzene	11.52	91	14099	0.8801	ppb	97
90) 1,2-DCB	11.48	146	12059	0.9710	ppb	89
91) Hexachloroethane	11.74	117	4224	1.0127	ppb	90
92) 1,2-Dibromo-3-chloropropan	12.31	75	1900	1.1781	ppb #	73
93) 1,2,4-Trichlorobenzene	13.20	180	6794	0.9035	ppb	98
94) Hexachlorobutadiene	13.41	225	4070	0.9440	ppb	94
95) Naphthalene	13.45	128	12974	2.5702	ppb	92
96) 1,2,3-Trichlorobenzene	13.71	180	3800	0.8863	ppb #	95

Quantitation Report

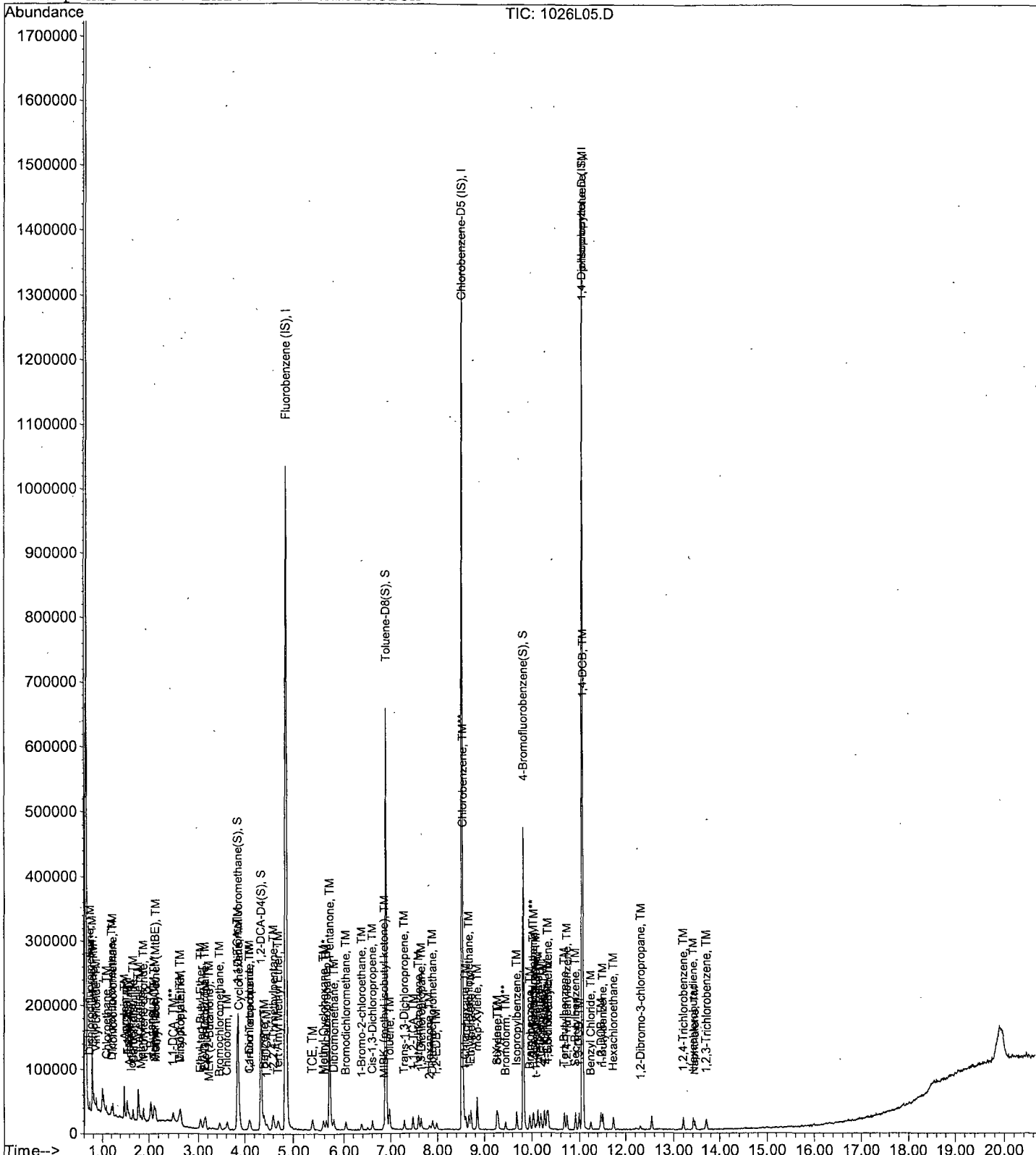
Data File : M:\LOKI\DATA\181026\1026L05.D  
 Acq On : 26 Oct 18 11:25  
 Sample : 1.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L06.D  
 Acq On : 26 Oct 18 11:54  
 Sample : 2.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 5  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	528768	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	515904	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	268608	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	149525	8.2316	ppb	0.00
Spiked Amount 25.000			Recovery =	32.928%		
37) 1,2-DCA-D4(S)	4.35	65	165668	7.8919	ppb	0.00
Spiked Amount 25.000			Recovery =	31.568%		
57) Toluene-D8(S)	6.90	98	478316	9.7165	ppb	0.00
Spiked Amount 25.000			Recovery =	38.864%		
65) 4-Bromofluorobenzene(S)	9.83	95	155110	9.2467	ppb	0.00
Spiked Amount 25.000			Recovery =	36.988%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	16912	2.2646	ppb	91
3) Freon 114	0.79	85	10627	2.0736	ppb	79
4) Chloromethane	0.81	50	16195	1.3220	ppb	96
5) Vinyl chloride	0.87	62	13293	1.8981	ppb	84
6) Bromomethane	1.03	94	12382	0.5470	ppb	99
7) Chloroethane	1.09	64	7967	1.9938	ppb	97
8) Dichlorofluoromethane	1.21	67	20463	1.9328	ppb	97
9) Trichlorofluoromethane	1.24	101	16828	1.8513	ppb	94
10) Acrolein	1.49	56	44406	69.3031	ppb	# 94
11) Acetone	1.60	43	10993	1.1649	ppb	# 85
12) Freon-113	1.56	101	10230	2.1703	ppb	90
13) 1,1-DCE	1.55	63	3670	1.7119	ppb	94
14) t-Butanol	2.05	59	52587	70.3281	ppb	99
15) Acetonitrile	1.78	41	76479	71.2423	ppb	91
16) Methyl Acetate	1.84	43	11909	2.0320	ppb	90
17) Iodomethane	1.64	142	3115	2.7014	ppb	94
18) Acrylonitrile	2.10	52	6560	2.2009	ppb	74
19) Methylene chloride	1.89	84	14238	2.0813	ppb	95
20) Carbon disulfide	1.68	76	32838	1.9894	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	31870	1.9132	ppb	95
22) Trans-1,2-DCE	2.11	96	11865	1.9691	ppb	95
23) Diisopropyl Ether	2.63	45	37423	2.1286	ppb	92
24) 1,1-DCA	2.49	63	23600	1.9859	ppb	95
25) Vinyl Acetate	2.63	43	8448	1.9728	ppb	# 96
26) Ethyl tert Butyl Ether	3.05	59	30063	1.9760	ppb	93
27) MEK (2-Butanone)	3.24	43	6116	1.9671	ppb	98
28) Cis-1,2-DCE	3.16	96	13775	2.0046	ppb	87
29) 2,2-Dichloropropane	3.13	77	18055	1.7923	ppb	97
30) Chloroform	3.62	83	22127	1.8840	ppb	96
31) Bromochloromethane	3.46	128	7193	1.9118	ppb	89
33) 1,1,1-TCA	3.83	97	18420	1.9655	ppb	97
34) Cyclohexane	3.90	41	8087	2.0599	ppb	98
35) 1,1-Dichloropropene	4.12	75	14135	1.9785	ppb	93
36) 2,2,4-Trimethylpentane	4.60	57	24980	1.9275	ppb	# 55
38) Carbon Tetrachloride	4.10	117	14770	1.9211	ppb	91
39) Tert Amyl Methyl Ether	4.71	73	24701	1.7765	ppb	# 93
40) 1,2-DCA	4.46	62	17038	1.9614	ppb	# 89
41) Benzene	4.41	78	45902	1.8775	ppb	98
42) TCE	5.37	95	5706	1.9032	ppb	97

Data File : M:\LOKI\DATA\181026\1026L06.D  
 Acq On : 26 Oct 18 11:54  
 Sample : 2.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 5  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	316951	72.1650	ppb	100
44) 1,2-Dichloropropane	5.64	63	13178	2.0069	ppb #	94
45) Bromodichloromethane	6.04	83	17430	1.8489	ppb	97
46) Methyl Cyclohexane	5.59	83	11768	1.7791	ppb	97
47) Dibromomethane	5.79	93	9702	1.9665	ppb	90
49) MIBK (methyl isobutyl ket	6.85	43	11834	2.0458	ppb #	90
50) 1-Bromo-2-chloroethane	6.37	63	9606	2.0134	ppb	100
51) Cis-1,3-Dichloropropene	6.61	75	17851	1.8471	ppb	96
52) Toluene	6.98	91	47158	1.8618	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	17208	1.8934	ppb	89
54) 1,1,2-TCA	7.48	83	10698	1.8904	ppb	97
55) 2-Hexanone	7.83	43	7052	1.9235	ppb	99
58) 1,2-EDB	7.98	107	12314	1.8211	ppb	95
59) Tetrachloroethene	7.60	166	14887	2.0317	ppb	90
60) 1-Chlorohexane	8.60	91	10310	1.9301	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.66	131	14504	2.0267	ppb	86
62) m&p-Xylene	8.85	91	34392	5.2743	ppb	98
63) o-Xylene	9.27	106	15479	1.7778	ppb	88
64) Styrene	9.29	104	14618	2.7275	ppb	96
66) 1,3-Dichloropropane	7.65	76	19922	1.9212	ppb	94
67) Dibromochloromethane	7.89	129	13887	1.8102	ppb	97
68) Chlorobenzene	8.55	112	33981	1.9358	ppb	98
69) Ethylbenzene	8.71	91	43926	1.7704	ppb	97
70) Bromoform	9.45	173	11445	1.9894	ppb	97
72) Isopropylbenzene	9.69	105	37467	1.8477	ppb	95
73) 1,1,2,2-Tetrachloroethane	10.03	83	18241	1.9819	ppb	91
74) 1,2,3-Trichloropropane	10.04	110	5147	1.9227	ppb	92
75) t-1,4-Dichloro-2-Butene	10.09	53	3231	1.7089	ppb #	75
76) Bromobenzene	9.96	156	14742	1.9326	ppb	89
77) n-Propylbenzene	10.13	91	27152	1.7341	ppb	100
78) 4-Ethyltoluene	10.26	105	32383	1.6634	ppb	93
79) 2-Chlorotoluene	10.19	91	30329	1.8583	ppb	96
80) 1,3,5-Trimethylbenzene	10.34	105	16856	1.5829	ppb	92
81) 4-Chlorotoluene	10.31	91	32027	1.7201	ppb	100
82) Tert-Butylbenzene	10.67	119	25759	1.7399	ppb	98
83) 1,2,4-Trimethylbenzene	10.73	105	26887	1.9140	ppb	99
84) Sec-Butylbenzene	10.91	105	36246	1.6896	ppb	98
85) p-Isopropyltoluene	11.08	119	34770	1.7463	ppb	98
86) Benzyl Chloride	11.25	91	16537	1.6384	ppb #	89
87) 1,3-DCB	10.99	146	24403	1.8072	ppb	98
88) 1,4-DCB	11.09	146	27234	1.8786	ppb	95
89) n-Butylbenzene	11.52	91	29260	1.7334	ppb	95
90) 1,2-DCB	11.48	146	24155	1.8457	ppb	93
91) Hexachloroethane	11.75	117	8091	1.8409	ppb	90
92) 1,2-Dibromo-3-chloropropan	12.31	75	3442	2.0254	ppb #	84
93) 1,2,4-Trichlorobenzene	13.20	180	14033	1.7710	ppb	99
94) Hexachlorobutadiene	13.41	225	9324	2.0524	ppb	92
95) Naphthalene	13.45	128	25823	3.1105	ppb #	90
96) 1,2,3-Trichlorobenzene	13.71	180	6840	1.5139	ppb	99

Quantitation Report

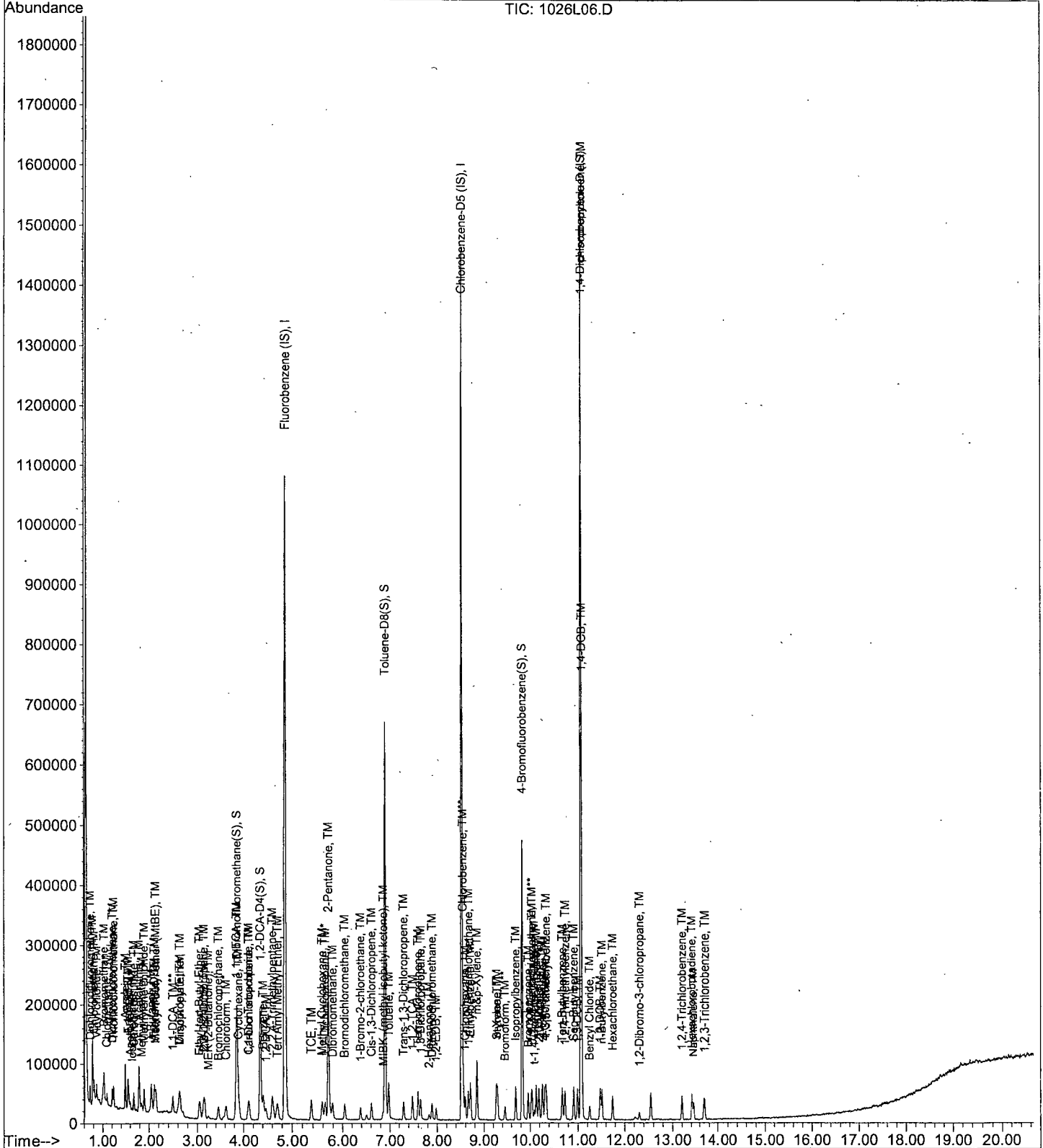
Data File : M:\LOKI\DATA\181026\1026L06.D  
Acq On : 26 Oct 18 11:54  
Sample : 2.0ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 5  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181026\1026L07.D  
 Acq On : 26 Oct 18 12:22  
 Sample : 5.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 6  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.86	96	500096	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	496128	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	275392	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Dibromofluoromethane (S)	3.86	111	357287	26.0037	ppb	0.00
Spiked Amount 25.000			Recovery = 104.016%			
37) 1,2-DCA-D4 (S)	4.35	65	388947	26.0419	ppb	0.00
Spiked Amount 25.000			Recovery = 104.168%			
57) Toluene-D8 (S)	6.90	98	1174648	24.8129	ppb	0.00
Spiked Amount 25.000			Recovery = 99.252%			
65) 4-Bromofluorobenzene (S)	9.83	95	396415	24.5737	ppb	0.00
Spiked Amount 25.000			Recovery = 98.296%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	35624	5.0436	ppb	95
3) Freon 114	0.79	85	22026	4.5442	ppb	99
4) Chloromethane	0.81	50	42866	5.3161	ppb	98
5) Vinyl chloride	0.87	62	36614	5.5279	ppb	99
6) Bromomethane	1.03	94	29487	4.6497	ppb	99
7) Chloroethane	1.09	64	20925	5.5369	ppb	98
8) Dichlorofluoromethane	1.21	67	48975	4.8910	ppb	97
9) Trichlorofluoromethane	1.24	101	43721	5.0856	ppb	96
10) Acrolein	1.49	56	59261	97.7894	ppb	# 99
11) Acetone	1.60	43	17986	5.1410	ppb	91
12) Freon-113	1.56	101	22440	5.0337	ppb	92
13) 1,1-DCE	1.55	63	9631	4.7501	ppb	91
14) t-Butanol	2.05	59	63668	90.0292	ppb	99
15) Acetonitrile	1.79	41	100503	98.9888	ppb	97
16) Methyl Acetate	1.84	43	27026	4.8759	ppb	100
17) Iodomethane	1.63	142	8089	4.5855	ppb	94
18) Acrylonitrile	2.10	52	11052	4.5827	ppb	88
19) Methylene chloride	1.90	84	32618	5.0415	ppb	93
20) Carbon disulfide	1.68	76	73767	4.7251	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	77279	4.9051	ppb	98
22) Trans-1,2-DCE	2.11	96	28104	4.9314	ppb	96
23) Diisopropyl Ether	2.63	45	85262	5.1277	ppb	99
24) 1,1-DCA	2.50	63	54489	4.8481	ppb	99
25) Vinyl Acetate	2.63	43	21489	5.3058	ppb	100
26) Ethyl tert Butyl Ether	3.05	59	68776	4.7796	ppb	94
27) MEK (2-Butanone)	3.24	43	15625	5.3137	ppb	95
28) Cis-1,2-DCE	3.15	96	31539	4.8529	ppb	98
29) 2,2-Dichloropropane	3.13	77	40641	4.8939	ppb	98
30) Chloroform	3.62	83	56857	5.1185	ppb	93
31) Bromochloromethane	3.46	128	18026	5.0658	ppb	98
33) 1,1,1-TCA	3.84	97	44105	4.9760	ppb	92
34) Cyclohexane	3.90	41	16598	4.4702	ppb	94
35) 1,1-Dichloropropene	4.11	75	31289	4.6307	ppb	95
36) 2,2,4-Trimethylpentane	4.61	57	56990	4.6497	ppb	# 76
38) Carbon Tetrachloride	4.09	117	35125	4.8306	ppb	97
39) Tert Amyl Methyl Ether	4.70	73	62739	4.7710	ppb	# 93
40) 1,2-DCA	4.47	62	41264	5.0226	ppb	93
41) Benzene	4.41	78	108250	4.6814	ppb	98
42) TCE	5.37	95	14194	5.0056	ppb	89

Data File : M:\LOKI\DATA\181026\1026L07.D  
 Acq On : 26 Oct 18 12:22  
 Sample : 5.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 6  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	420781	101.2984	ppb	98
44) 1,2-Dichloropropane	5.64	63	31448	5.0639	ppb	99
45) Bromodichloromethane	6.04	83	44221	4.9596	ppb	96
46) Methyl Cyclohexane	5.58	83	28307	4.5249	ppb	96
47) Dibromomethane	5.79	93	23137	4.9586	ppb	87
49) MIBK (methyl isobutyl ket	6.85	43	28137	5.1430	ppb	94
50) 1-Bromo-2-chloroethane	6.37	63	21368	4.7355	ppb	97
51) Cis-1,3-Dichloropropene	6.61	75	45720	5.0019	ppb	95
52) Toluene	6.98	91	118547	4.9487	ppb	98
53) Trans-1,3-Dichloropropene	7.29	75	42272	4.9178	ppb	98
54) 1,1,2-TCA	7.48	83	27307	5.1019	ppb	98
55) 2-Hexanone	7.83	43	17526	5.0546	ppb	98
58) 1,2-EDB	7.98	107	32552	5.0059	ppb	99
59) Tetrachloroethene	7.60	166	34790	4.9372	ppb	96
60) 1-Chlorohexane	8.60	91	23375	4.5504	ppb	94
61) 1,1,1,2-Tetrachloroethane	8.67	131	34108	4.9560	ppb	91
62) m&p-Xylene	8.85	91	91672	9.6039	ppb	97
63) o-Xylene	9.27	106	38109	4.5515	ppb	89
64) Styrene	9.29	104	36928	4.6691	ppb	94
66) 1,3-Dichloropropane	7.65	76	48341	4.8477	ppb	98
67) Dibromochloromethane	7.89	129	36107	4.8943	ppb	94
68) Chlorobenzene	8.55	112	81296	4.8159	ppb	95
69) Ethylbenzene	8.71	91	110477	4.6302	ppb	94
70) Bromoform	9.45	173	27649	4.9976	ppb	92
72) Isopropylbenzene	9.69	105	92204	4.4350	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	43347	4.5937	ppb	97
74) 1,2,3-Trichloropropane	10.04	110	13899	5.0642	ppb	95
75) t-1,4-Dichloro-2-Butene	10.09	53	9134	4.7121	ppb	90
76) Bromobenzene	9.96	156	38530	4.9266	ppb	94
77) n-Propylbenzene	10.13	91	71128	4.4308	ppb	98
78) 4-Ethyltoluene	10.26	105	89515	4.4847	ppb	99
79) 2-Chlorotoluene	10.19	91	78089	4.6667	ppb	96
80) 1,3,5-Trimethylbenzene	10.34	105	50544	4.0836	ppb	98
81) 4-Chlorotoluene	10.31	91	91283	4.7818	ppb	98
82) Tert-Butylbenzene	10.67	119	68712	4.5269	ppb	97
83) 1,2,4-Trimethylbenzene	10.73	105	77345	4.2485	ppb	98
84) Sec-Butylbenzene	10.91	105	98860	4.4947	ppb	98
85) p-Isopropyltoluene	11.08	119	91671	4.4907	ppb	98
86) Benzyl Chloride	11.25	91	51074	4.9354	ppb	99
87) 1,3-DCB	10.99	146	66347	4.7924	ppb	95
88) 1,4-DCB	11.09	146	70330	4.7318	ppb	94
89) n-Butylbenzene	11.52	91	75877	4.3842	ppb	95
90) 1,2-DCB	11.48	146	65287	4.8658	ppb	97
91) Hexachloroethane	11.74	117	22777	5.0546	ppb	91
92) 1,2-Dibromo-3-chloropropan	12.31	75	8125	4.6632	ppb	92
93) 1,2,4-Trichlorobenzene	13.20	180	36516	4.4950	ppb	95
94) Hexachlorobutadiene	13.41	225	21452	4.6056	ppb	96
95) Naphthalene	13.45	128	70733	5.0297	ppb	96
96) 1,2,3-Trichlorobenzene	13.71	180	21624	4.6683	ppb	93

Quantitation Report

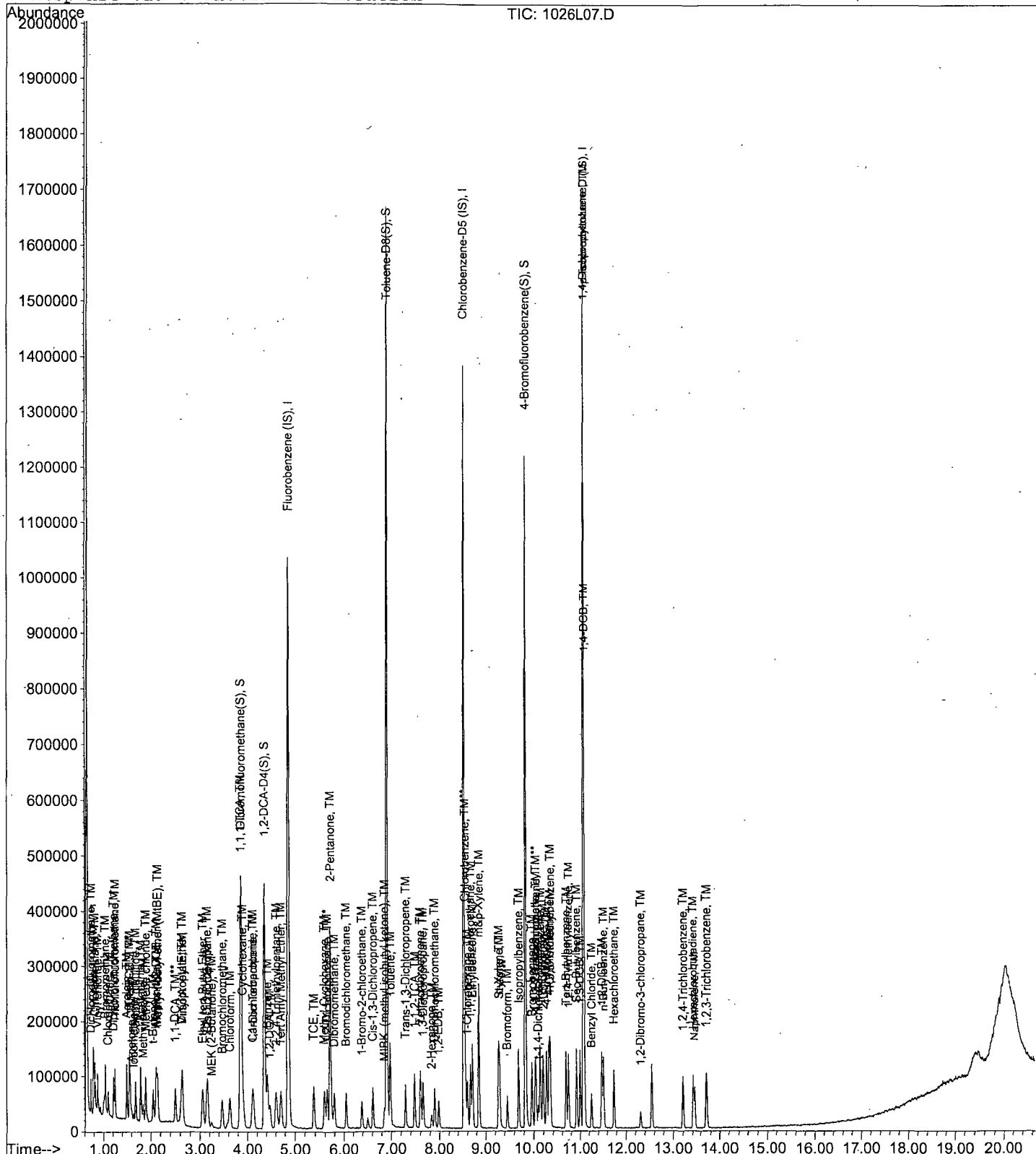
Data File : M:\LOKI\DATA\181026\1026L07.D  
Acq On : 26 Oct 18 12:22  
Sample : 5.0ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18, 8/23/18

Vial: 6  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L08.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 10ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 7  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	526592	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	505536	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	278912	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	382323	26.4812	ppb	0.00
Spiked Amount 25.000			Recovery = 105.924%			
37) 1,2-DCA-D4(S)	4.35	65	421224	26.9079	ppb	0.00
Spiked Amount 25.000			Recovery = 107.632%			
57) Toluene-D8(S)	6.90	98	1311127	27.1804	ppb	0.00
Spiked Amount 25.000			Recovery = 108.720%			
65) 4-Bromofluorobenzene(S)	9.83	95	447107	27.2003	ppb	0.00
Spiked Amount 25.000			Recovery = 108.800%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	72472	9.7443	ppb	96
3) Freon 114	0.79	85	45764	8.9665	ppb	92
4) Chloromethane	0.81	50	79537	10.0526	ppb	99
5) Vinyl chloride	0.87	62	72846	10.4448	ppb	98
6) Bromomethane	1.03	94	59255	10.8319	ppb	97
7) Chloroethane	1.09	64	37935	9.5328	ppb	97
8) Dichlorofluoromethane	1.21	67	104273	9.8895	ppb	97
9) Trichlorofluoromethane	1.24	101	88360	9.7609	ppb	97
10) Acrolein	1.49	56	74598	116.9039	ppb #	98
11) Acetone	1.59	43	27603	9.4519	ppb	95
12) Freon-113	1.56	101	42796	9.1169	ppb	99
13) 1,1-DCE	1.54	63	19928	9.3342	ppb	97
14) t-Butanol	2.05	59	85501	114.8187	ppb	100
15) Acetonitrile	1.79	41	126977	118.7713	ppb	96
16) Methyl Acetate	1.84	43	54083	9.2664	ppb	97
17) Iodomethane	1.64	142	19448	8.3882	ppb	90
18) Acrylonitrile	2.10	52	23249	10.0007	ppb	94
19) Methylene chloride	1.90	84	66430	9.7509	ppb	97
20) Carbon disulfide	1.68	76	156404	9.5144	ppb	100
21) Methyl t-butyl ether (MtBE)	2.14	73	160687	9.6861	ppb	97
22) Trans-1,2-DCE	2.11	96	57297	9.5481	ppb	99
23) Diisopropyl Ether	2.63	45	172733	9.8656	ppb	94
24) 1,1-DCA	2.49	63	115174	9.7319	ppb	98
25) Vinyl Acetate	2.63	43	38835	9.1062	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	150801	9.9527	ppb	98
27) MEK (2-Butanone)	3.23	43	29194	9.4286	ppb	88
28) Cis-1,2-DCE	3.16	96	67403	9.8494	ppb	99
29) 2,2-Dichloropropane	3.13	77	85249	10.2004	ppb	98
30) Chloroform	3.62	83	117806	10.0718	ppb	97
31) Bromochloromethane	3.46	128	38417	10.2530	ppb	100
33) 1,1,1-TCA	3.83	97	90290	9.6741	ppb	93
34) Cyclohexane	3.89	41	37569	9.6090	ppb	97
35) 1,1-Dichloropropene	4.11	75	65346	9.1845	ppb	95
36) 2,2,4-Trimethylpentane	4.61	57	121315	9.3997	ppb	89
38) Carbon Tetrachloride	4.09	117	74629	9.7471	ppb	97
39) Tert Amyl Methyl Ether	4.70	73	139607	10.0822	ppb	98
40) 1,2-DCA	4.47	62	89015	10.2896	ppb	95
41) Benzene	4.41	78	241301	9.9104	ppb	99
42) TCE	5.37	95	28216	9.4500	ppb	97

Data File : M:\LOKI\DATA\181026\1026L08.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 10ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 7  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	561343	128.3375	ppb	98
44) 1,2-Dichloropropane	5.64	63	65117	9.9578	ppb	97
45) Bromodichloromethane	6.04	83	93532	9.9622	ppb	98
46) Methyl Cyclohexane	5.58	83	59683	9.0603	ppb	98
47) Dibromomethane	5.79	93	48104	9.7906	ppb	86
49) MIBK (methyl isobutyl ket	6.85	43	54041	9.3809	ppb	95
50) 1-Bromo-2-chloroethane	6.37	63	47312	9.9575	ppb	98
51) Cis-1,3-Dichloropropene	6.61	75	95750	9.9483	ppb	97
52) Toluene	6.97	91	256455	10.1669	ppb	98
53) Trans-1,3-Dichloropropene	7.29	75	90828	10.0350	ppb	95
54) 1,1,2-TCA	7.47	83	57502	10.2028	ppb	96
55) 2-Hexanone	7.82	43	35499	9.7230	ppb	98
58) 1,2-EDB	7.98	107	70287	10.6077	ppb	96
59) Tetrachloroethene	7.60	166	73834	10.2831	ppb	95
60) 1-Chlorohexane	8.60	91	52527	10.0351	ppb	100
61) 1,1,1,2-Tetrachloroethane	8.67	131	71337	10.1726	ppb	97
62) m&p-Xylene	8.85	91	215023	18.4221	ppb	100
63) o-Xylene	9.27	106	88477	10.3704	ppb	91
64) Styrene	9.29	104	92784	9.2645	ppb	98
66) 1,3-Dichloropropane	7.65	76	106876	10.5183	ppb	95
67) Dibromochloromethane	7.89	129	77052	10.2500	ppb	96
68) Chlorobenzene	8.55	112	175169	10.1837	ppb	99
69) Ethylbenzene	8.71	91	243015	9.9955	ppb	96
70) Bromoform	9.45	173	59638	10.5791	ppb	100
72) Isopropylbenzene	9.69	105	212410	10.0879	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	93008	9.7321	ppb	91
74) 1,2,3-Trichloropropane	10.04	110	27685	9.9599	ppb	92
75) t-1,4-Dichloro-2-Butene	10.09	53	18738	9.5446	ppb	96
76) Bromobenzene	9.96	156	81119	10.2412	ppb	99
77) n-Propylbenzene	10.13	91	165888	10.2033	ppb	98
78) 4-Ethyltoluene	10.26	105	216107	10.6904	ppb	99
79) 2-Chlorotoluene	10.19	91	177648	10.4825	ppb	97
80) 1,3,5-Trimethylbenzene	10.34	105	123512	9.4522	ppb	99
81) 4-Chlorotoluene	10.31	91	210980	10.9126	ppb	99
82) Tert-Butylbenzene	10.67	119	157165	10.2238	ppb	98
83) 1,2,4-Trimethylbenzene	10.73	105	189355	9.3894	ppb	97
84) Sec-Butylbenzene	10.91	105	231854	10.4084	ppb	100
85) p-Isopropyltoluene	11.08	119	212102	10.2591	ppb	98
86) Benzyl Chloride	11.25	91	100111	9.5519	ppb	98
87) 1,3-DCB	10.99	146	144789	10.3264	ppb	98
88) 1,4-DCB	11.09	146	152999	10.1638	ppb	97
89) n-Butylbenzene	11.52	91	171481	9.7832	ppb	98
90) 1,2-DCB	11.48	146	139587	10.2721	ppb	97
91) Hexachloroethane	11.74	117	44106	9.6643	ppb	89
92) 1,2-Dibromo-3-chloropropan	12.31	75	16267	9.2183	ppb	94
93) 1,2,4-Trichlorobenzene	13.20	180	81368	9.8897	ppb	96
94) Hexachlorobutadiene	13.41	225	44004	9.3282	ppb	92
95) Naphthalene	13.45	128	166397	9.0872	ppb	100
96) 1,2,3-Trichlorobenzene	13.71	180	47416	10.1072	ppb	98

Quantitation Report

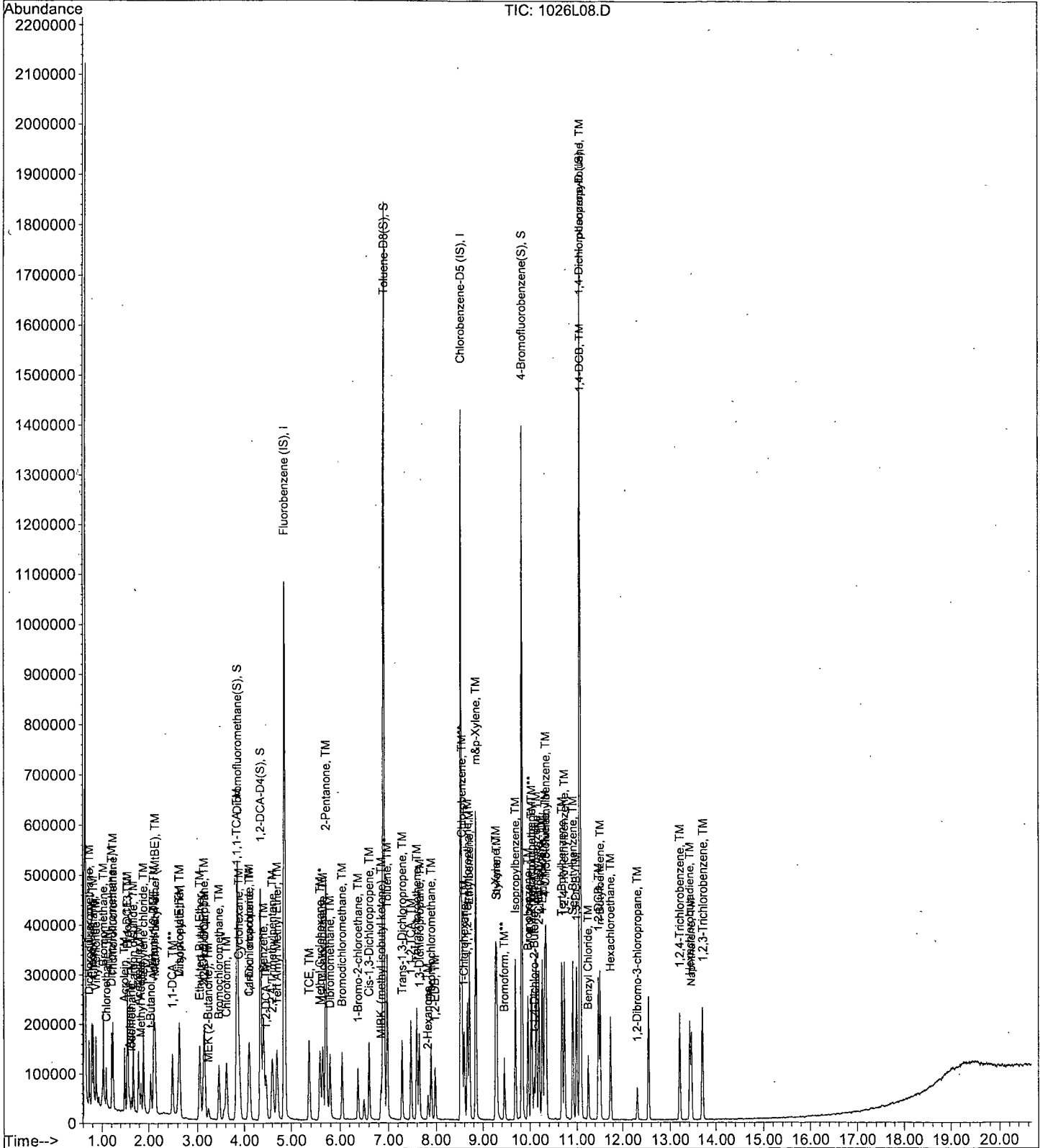
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Acq On : 26 Oct 18 12:50  
Sample : 10ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 7  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L09.D  
 Acq On : 26 Oct 18 13:19  
 Sample : 20ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 8  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	538688	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	513856	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	292416	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	694433	49.6646	ppb	0.00
Spiked Amount 25.000			Recovery =	198.660%		
37) 1,2-DCA-D4(S)	4.35	65	768279	51.3835	ppb	0.00
Spiked Amount 25.000			Recovery =	205.536%		
57) Toluene-D8(S)	6.90	98	2497738	50.9412	ppb	0.00
Spiked Amount 25.000			Recovery =	203.764%		
65) 4-Bromofluorobenzene(S)	9.83	95	876354	52.4509	ppb	0.00
Spiked Amount 25.000			Recovery =	209.804%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	154368	20.2896	ppb	96
3) Freon 114	0.79	85	105676	20.2401	ppb	92
4) Chloromethane	0.81	50	159183	20.5267	ppb	100
5) Vinyl chloride	0.87	62	145292	20.3644	ppb	99
6) Bromomethane	1.03	94	115660	22.6256	ppb	98
7) Chloroethane	1.09	64	78152	19.1981	ppb	98
8) Dichlorofluoromethane	1.20	67	208270	19.3092	ppb	100
9) Trichlorofluoromethane	1.23	101	182837	19.7440	ppb	98
10) Acrolein	1.49	56	146004	223.6678	ppb	# 95
11) Acetone	1.60	43	50452	20.2570	ppb	# 86
12) Freon-113	1.56	101	97702	20.3462	ppb	94
13) 1,1-DCE	1.55	63	40664	18.6191	ppb	93
14) t-Butanol	2.05	59	164176	215.5203	ppb	97
15) Acetonitrile	1.79	41	247127	225.9662	ppb	98
16) Methyl Acetate	1.84	43	111921	18.7455	ppb	98
17) Iodomethane	1.64	142	50456	18.7817	ppb	87
18) Acrylonitrile	2.10	52	46666	20.4383	ppb	91
19) Methylene chloride	1.89	84	131009	18.7982	ppb	94
20) Carbon disulfide	1.68	76	317658	18.8898	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	326935	19.2649	ppb	99
22) Trans-1,2-DCE	2.11	96	120782	19.6754	ppb	97
23) Diisopropyl Ether	2.64	45	330504	18.4529	ppb	100
24) 1,1-DCA	2.49	63	226918	18.7435	ppb	97
25) Vinyl Acetate	2.63	43	76981	17.6455	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	304202	19.6262	ppb	98
27) MEK (2-Butanone)	3.23	43	60166	18.9951	ppb	88
28) Cis-1,2-DCE	3.15	96	138155	19.7348	ppb	98
29) 2,2-Dichloropropane	3.13	77	170975	20.4358	ppb	# 95
30) Chloroform	3.62	83	235766	19.7042	ppb	96
31) Bromochloromethane	3.46	128	75919	19.8068	ppb	93
33) 1,1,1-TCA	3.83	97	187473	19.6357	ppb	93
34) Cyclohexane	3.90	41	79094	19.7755	ppb	90
35) 1,1-Dichloropropene	4.11	75	141599	19.4552	ppb	94
36) 2,2,4-Trimethylpentane	4.61	57	270812	20.5119	ppb	94
38) Carbon Tetrachloride	4.09	117	162724	20.7757	ppb	96
39) Tert Amyl Methyl Ether	4.70	73	297986	21.0368	ppb	98
40) 1,2-DCA	4.47	62	174615	19.7311	ppb	97
41) Benzene	4.41	78	492266	19.7636	ppb	100
42) TCE	5.36	95	58400	19.1199	ppb	95

Data File : M:\LOKI\DATA\181026\1026L09.D  
 Acq On : 26 Oct 18 13:19  
 Sample : 20ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 8  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	1192715	266.5625	ppb	99
44) 1,2-Dichloropropane	5.64	63	132596	19.8216	ppb	99
45) Bromodichloromethane	6.04	83	187599	19.5327	ppb	99
46) Methyl Cyclohexane	5.58	83	135421	20.0962	ppb	98
47) Dibromomethane	5.79	93	97440	19.3866	ppb	92
49) MIBK (methyl isobutyl ket	6.85	43	127877	21.6995	ppb	93
50) 1-Bromo-2-chloroethane	6.37	63	98216	20.2069	ppb	100
51) Cis-1,3-Dichloropropene	6.61	75	199338	20.2458	ppb	96
52) Toluene	6.97	91	536079	20.7751	ppb	97
53) Trans-1,3-Dichloropropene	7.29	75	187734	20.2758	ppb	98
54) 1,1,2-TCA	7.47	83	112358	19.4884	ppb	98
55) 2-Hexanone	7.82	43	72028	19.2850	ppb	95
58) 1,2-EDB	7.98	107	140567	20.8708	ppb	98
59) Tetrachloroethene	7.59	166	151835	20.8041	ppb	94
60) 1-Chlorohexane	8.60	91	121903	22.9121	ppb	96
61) 1,1,1,2-Tetrachloroethane	8.67	131	142907	20.0484	ppb	97
62) m&p-Xylene	8.85	91	481159	37.1550	ppb	100
63) o-Xylene	9.27	106	193489	22.3117	ppb	99
64) Styrene	9.29	104	212736	18.9714	ppb	96
66) 1,3-Dichloropropane	7.65	76	214943	20.8113	ppb	98
67) Dibromochloromethane	7.89	129	154783	20.2569	ppb	99
68) Chlorobenzene	8.55	112	356456	20.3875	ppb	100
69) Ethylbenzene	8.71	91	542807	21.9647	ppb	96
70) Bromoform	9.45	173	122818	21.4337	ppb	100
72) Isopropylbenzene	9.69	105	473198	21.4355	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	193070	19.2693	ppb	95
74) 1,2,3-Trichloropropane	10.04	110	58401	20.0399	ppb	95
75) t-1,4-Dichloro-2-Butene	10.09	53	39021	18.9583	ppb	97
76) Bromobenzene	9.96	156	167724	20.1972	ppb	98
77) n-Propylbenzene	10.13	91	376640	22.0962	ppb	98
78) 4-Ethyltoluene	10.26	105	487551	23.0043	ppb	99
79) 2-Chlorotoluene	10.19	91	386663	21.7623	ppb	99
80) 1,3,5-Trimethylbenzene	10.34	105	286848	20.5936	ppb	100
81) 4-Chlorotoluene	10.31	91	458250	22.6077	ppb	100
82) Tert-Butylbenzene	10.67	119	353963	21.9623	ppb	98
83) 1,2,4-Trimethylbenzene	10.73	105	434178	19.7978	ppb	96
84) Sec-Butylbenzene	10.91	105	537842	23.0297	ppb	100
85) p-Isopropyltoluene	11.08	119	484282	22.3424	ppb	99
86) Benzyl Chloride	11.25	91	210494	19.1565	ppb	99
87) 1,3-DCB	10.99	146	302382	20.5701	ppb	99
88) 1,4-DCB	11.09	146	320873	20.3314	ppb	96
89) n-Butylbenzene	11.52	91	384279	20.9112	ppb	98
90) 1,2-DCB	11.48	146	288789	20.2703	ppb	99
91) Hexachloroethane	11.75	117	92091	19.2467	ppb	94
92) 1,2-Dibromo-3-chloropropan	12.31	75	33496	18.1051	ppb	96
93) 1,2,4-Trichlorobenzene	13.20	180	176202	20.4271	ppb	96
94) Hexachlorobutadiene	13.41	225	95041	19.2169	ppb	98
95) Naphthalene	13.45	128	378527	17.4216	ppb	99
96) 1,2,3-Trichlorobenzene	13.71	180	104104	21.1660	ppb	99



Quantitation Report

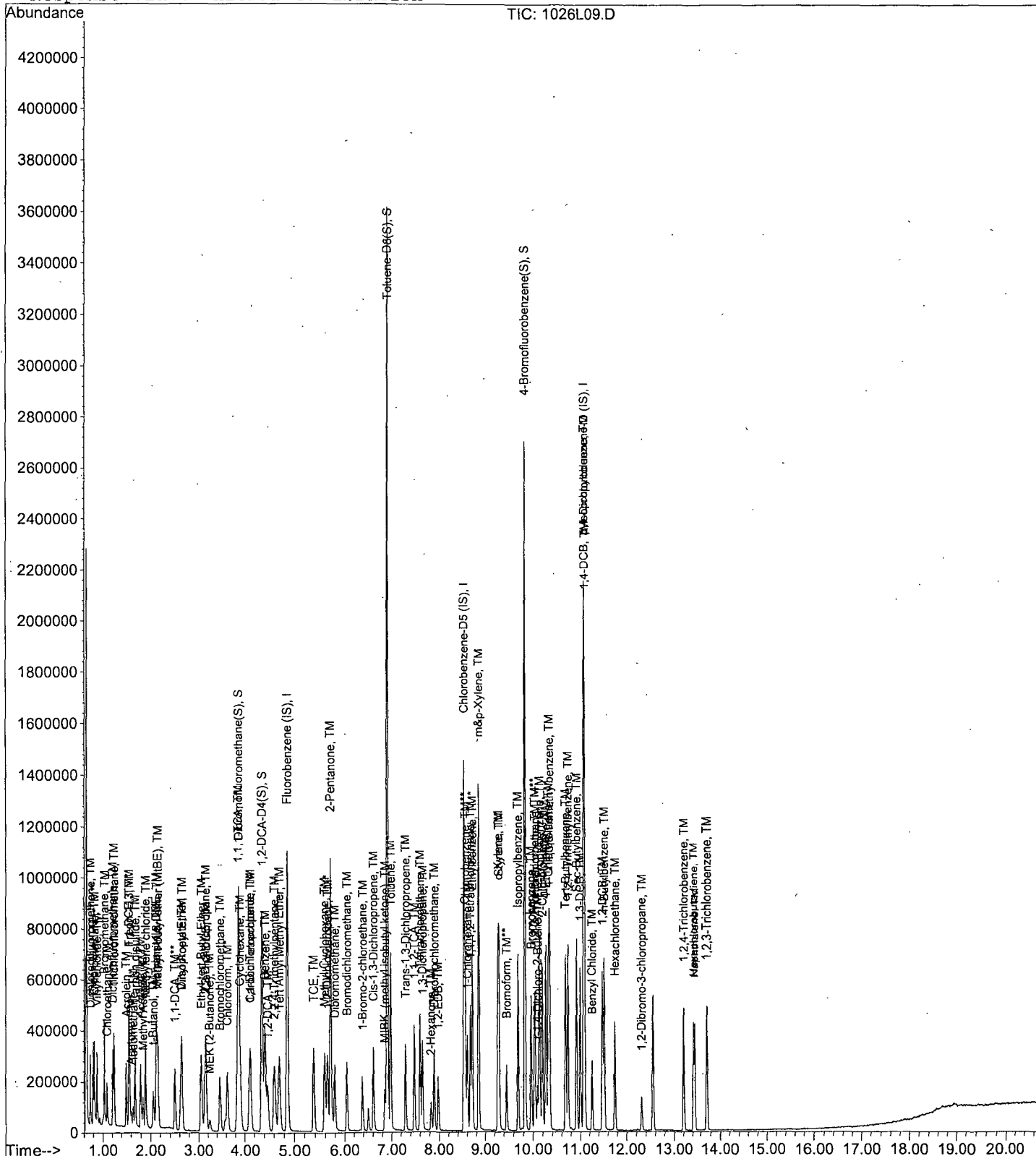
Data File : M:\LOKI\DATA\181026\1026L09.D  
Acq On : 26 Oct 18 13:19  
Sample : 20ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18, 8/23/18

Vial: 8  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L10.D  
 Acq On : 26 Oct 18 13:47  
 Sample : 40ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 9  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	553216	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	542016	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	306688	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	711689	49.5550	ppb	0.00
Spiked Amount 25.000			Recovery = 198.220%			
37) 1,2-DCA-D4 (S)	4.35	65	784592	51.0722	ppb	0.00
Spiked Amount 25.000			Recovery = 204.288%			
57) Toluene-D8 (S)	6.90	98	2595482	50.1845	ppb	0.00
Spiked Amount 25.000			Recovery = 200.736%			
65) 4-Bromofluorobenzene(S)	9.83	95	907950	51.5186	ppb	0.00
Spiked Amount 25.000			Recovery = 206.076%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	312896	40.0460	ppb	99
3) Freon 114	0.79	85	213056	39.7349	ppb	90
4) Chloromethane	0.81	50	322973	41.4305	ppb	99
5) Vinyl chloride	0.87	62	289916	39.5680	ppb	98
6) Bromomethane	1.03	94	220002	43.7441	ppb	97
7) Chloroethane	1.09	64	157403	37.6508	ppb	100
8) Dichlorofluoromethane	1.20	67	419264	37.8503	ppb	98
9) Trichlorofluoromethane	1.23	101	371728	39.0877	ppb	98
10) Acrolein	1.49	56	108301	161.5526	ppb	# 98
11) Acetone	1.60	43	98821	42.5209	ppb	# 88
12) Freon-113	1.56	101	195033	39.5485	ppb	94
13) 1,1-DCE	1.54	63	79680	35.5255	ppb	94
14) t-Butanol	2.05	59	122907	157.1078	ppb	96
15) Acetonitrile	1.79	41	180728	160.9131	ppb	98
16) Methyl Acetate	1.84	43	220509	35.9629	ppb	98
17) Iodomethane	1.63	142	114208	39.4431	ppb	92
18) Acrylonitrile	2.10	52	94322	41.0458	ppb	91
19) Methylene chloride	1.89	84	264380	36.9391	ppb	95
20) Carbon disulfide	1.68	76	643979	37.2892	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	666599	38.2483	ppb	98
22) Trans-1,2-DCE	2.11	96	235075	37.2882	ppb	97
23) Diisopropyl Ether	2.63	45	726988	39.5236	ppb	96
24) 1,1-DCA	2.50	63	456778	36.7392	ppb	98
25) Vinyl Acetate	2.63	43	168468	37.6020	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	649461	40.8009	ppb	97
27) MEK (2-Butanone)	3.23	43	129152	39.7039	ppb	90
28) Cis-1,2-DCE	3.15	96	281784	39.1945	ppb	98
29) 2,2-Dichloropropane	3.13	77	343917	40.4635	ppb	96
30) Chloroform	3.62	83	472850	38.4808	ppb	92
31) Bromochloromethane	3.46	128	150291	38.1803	ppb	95
33) 1,1,1-TCA	3.83	97	373675	38.1105	ppb	95
34) Cyclohexane	3.90	41	161374	39.2880	ppb	85
35) 1,1-Dichloropropene	4.11	75	296818	39.7108	ppb	93
36) 2,2,4-Trimethylpentane	4.61	57	564455	41.6303	ppb	95
38) Carbon Tetrachloride	4.09	117	328542	40.8448	ppb	96
39) Tert Amyl Methyl Ether	4.70	73	635878	43.7120	ppb	97
40) 1,2-DCA	4.46	62	360243	39.6377	ppb	95
41) Benzene	4.41	78	1005113	39.2938	ppb	99
42) TCE	5.37	95	121400	38.7020	ppb	95

Data File : M:\LOKI\DATA\181026\1026L10.D  
 Acq On : 26 Oct 18 13:47  
 Sample : 40ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 9  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	875854	190.6060	ppb	98
44) 1,2-Dichloropropane	5.64	63	272621	39.6835	ppb	99
45) Bromodichloromethane	6.04	83	382481	38.7780	ppb	99
46) Methyl Cyclohexane	5.59	83	287160	41.4948	ppb	99
47) Dibromomethane	5.79	93	194078	37.5997	ppb	90
49) MIBK (methyl isobutyl ket	6.85	43	238819	39.4611	ppb	92
50) 1-Bromo-2-chloroethane	6.37	63	200192	40.1058	ppb	100
51) Cis-1,3-Dichloropropene	6.61	75	418570	41.3957	ppb	98
52) Toluene	6.97	91	1105755	41.7270	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	389231	40.9342	ppb	100
54) 1,1,2-TCA	7.47	83	228943	38.6671	ppb	97
55) 2-Hexanone	7.82	43	156193	40.7214	ppb	98
58) 1,2-EDB	7.98	107	290829	40.9377	ppb	97
59) Tetrachloroethene	7.60	166	303873	39.4729	ppb	98
60) 1-Chlorohexane	8.60	91	268497	47.8431	ppb	92
61) 1,1,1,2-Tetrachloroethane	8.67	131	289246	38.4701	ppb	99
62) m&p-Xylene	8.85	91	1102533	77.3955	ppb	100
63) o-Xylene	9.27	106	424480	46.4048	ppb	97
64) Styrene	9.29	104	468032	37.9042	ppb	99
66) 1,3-Dichloropropane	7.65	76	447303	41.0588	ppb	98
67) Dibromochloromethane	7.89	129	320346	39.7464	ppb	95
68) Chlorobenzene	8.55	112	733514	39.7737	ppb	99
69) Ethylbenzene	8.71	91	1175141	45.0816	ppb	97
70) Bromoform	9.45	173	245442	40.6081	ppb	100
72) Isopropylbenzene	9.69	105	1061428	45.8443	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	382594	36.4078	ppb	95
74) 1,2,3-Trichloropropane	10.04	110	118004	38.6079	ppb	97
75) t-1,4-Dichloro-2-Butene	10.09	53	81237	37.6323	ppb	92
76) Bromobenzene	9.96	156	343750	39.4678	ppb	98
77) n-Propylbenzene	10.13	91	837376	46.8398	ppb	97
78) 4-Ethyltoluene	10.26	105	1072183	48.2350	ppb	99
79) 2-Chlorotoluene	10.19	91	820320	44.0209	ppb	99
80) 1,3,5-Trimethylbenzene	10.34	105	618820	42.0595	ppb	99
81) 4-Chlorotoluene	10.31	91	956370	44.9868	ppb	99
82) Tert-Butylbenzene	10.67	119	772262	45.6867	ppb	98
83) 1,2,4-Trimethylbenzene	10.73	105	966025	41.3026	ppb	96
84) Sec-Butylbenzene	10.91	105	1163305	47.4932	ppb	99
85) p-Isopropyltoluene	11.08	119	1028910	45.2598	ppb	99
86) Benzyl Chloride	11.25	91	447039	38.7906	ppb	99
87) 1,3-DCB	10.99	146	623996	40.4732	ppb	99
88) 1,4-DCB	11.09	146	645934	39.0235	ppb	97
89) n-Butylbenzene	11.52	91	854784	44.3499	ppb	97
90) 1,2-DCB	11.48	146	603500	40.3887	ppb	98
91) Hexachloroethane	11.75	117	190651	37.9911	ppb	94
92) 1,2-Dibromo-3-chloropropan	12.31	75	72631	37.4312	ppb	96
93) 1,2,4-Trichlorobenzene	13.20	180	389525	43.0561	ppb	97
94) Hexachlorobutadiene	13.41	225	199340	38.4300	ppb	96
95) Naphthalene	13.45	128	909888	37.3934	ppb	98
96) 1,2,3-Trichlorobenzene	13.71	180	218752	42.4061	ppb	100

Quantitation Report

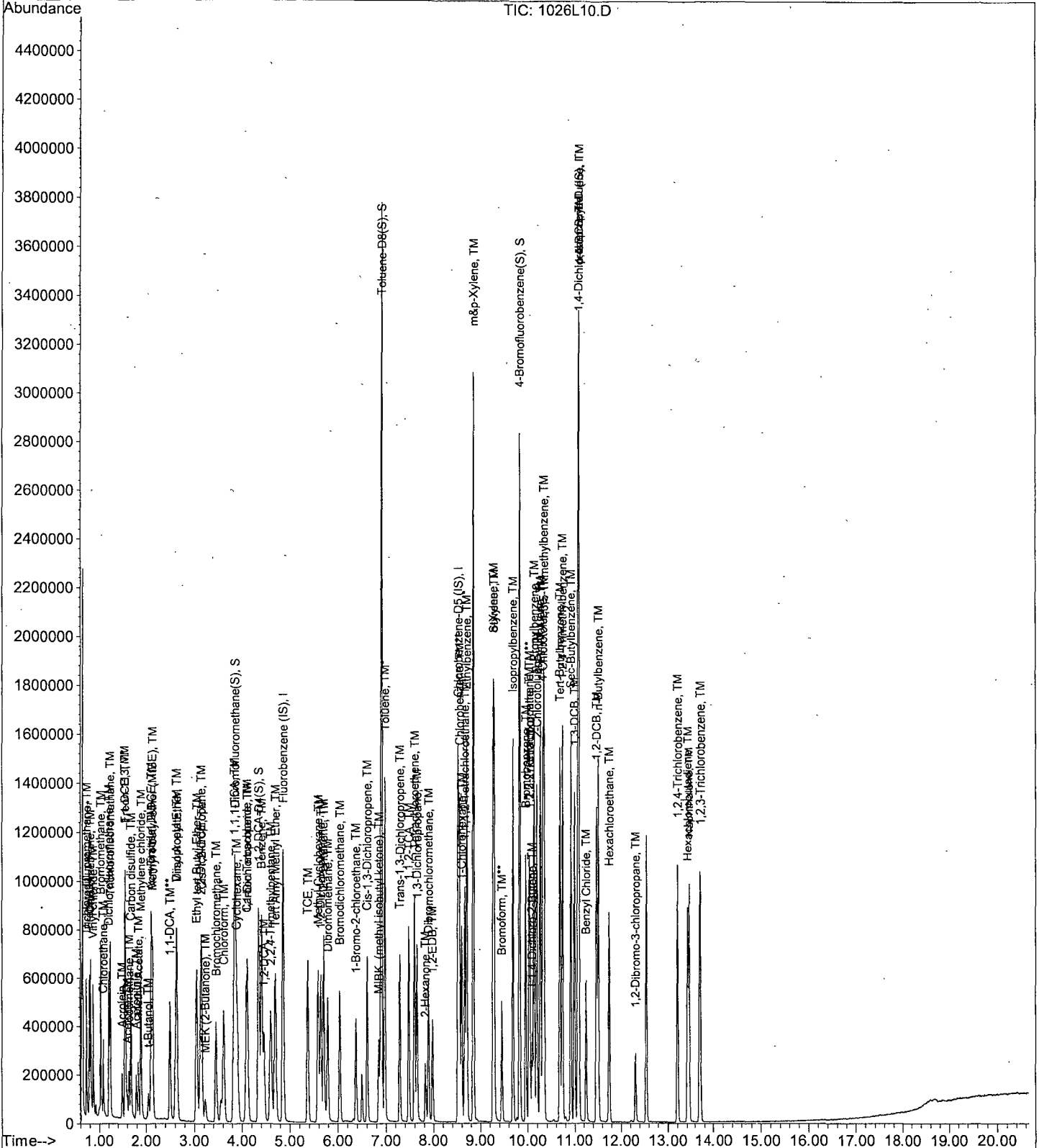
Data File : M:\LOKI\DATA\181026\1026L10.D  
Acq On : 26 Oct 18 13:47  
Sample : 40ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 9  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L11.D Vial: 10  
 Acq On : 26 Oct 18 14:16 Operator: PM, DG, SV, CMM, KV  
 Sample : 100ug/L VOC STD 18/10/26 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018 Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	543168	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	516992	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	330368	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane (S)	3.85	111	1288990	94.2941	ppb	0.00
Spiked Amount	25.000		Recovery	= 377.176%		
37) 1,2-DCA-D4 (S)	4.35	65	1428480	98.4238	ppb	0.00
Spiked Amount	25.000		Recovery	= 393.696%		
57) Toluene-D8 (S)	6.90	98	4870231	98.7255	ppb	0.00
Spiked Amount	25.000		Recovery	= 394.900%		
65) 4-Bromofluorobenzene (S)	9.83	95	1754528	104.3737	ppb	0.00
Spiked Amount	25.000		Recovery	= 417.496%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.72	85	775296	101.0620	ppb	97
3) Freon 114	0.79	85	530727	100.8115	ppb	91
4) Chloromethane	0.81	50	751116	99.3644	ppb	99
5) Vinyl chloride	0.87	62	697865	97.0073	ppb	99
6) Bromomethane	1.03	94	470846	97.8958	ppb	100
7) Chloroethane	1.08	64	246296	60.0038	ppb	99
8) Dichlorofluoromethane	1.20	67	1011038	92.9628	ppb	100
9) Trichlorofluoromethane	1.22	101	869492	93.1195	ppb	98
10) Acrolein	1.49	56	119522	181.5891	ppb	# 95
11) Acetone	1.60	43	214134	99.0110	ppb	90
12) Freon-113	1.55	101	465612	96.1626	ppb	95
13) 1,1-DCE	1.54	63	196529	89.2438	ppb	98
14) t-Butanol	2.07	59	154831	201.5763	ppb	98
15) Acetonitrile	1.79	41	198553	180.0540	ppb	97
16) Methyl Acetate	1.84	43	534374	88.7635	ppb	96
17) Iodomethane	1.63	142	293504	100.6163	ppb	92
18) Acrylonitrile	2.10	52	221865	99.5171	ppb	94
19) Methylene chloride	1.89	84	626293	89.1243	ppb	92
20) Carbon disulfide	1.67	76	1550711	91.4539	ppb	98
21) Methyl t-butyl ether (MtBE)	2.14	73	1583614	92.5459	ppb	98
22) Trans-1,2-DCE	2.11	96	568103	91.7809	ppb	98
23) Diisopropyl Ether	2.64	45	1719467	95.2103	ppb	98
24) 1,1-DCA	2.49	63	1079130	88.4014	ppb	98
25) Vinyl Acetate	2.64	43	384458	87.3982	ppb	# 99
26) Ethyl tert Butyl Ether	3.05	59	1629892	104.2884	ppb	99
27) MEK (2-Butanone)	3.23	43	297432	93.1280	ppb	91
28) Cis-1,2-DCE	3.15	96	692193	98.0611	ppb	98
29) 2,2-Dichloropropane	3.13	77	826674	99.7205	ppb	97
30) Chloroform	3.62	83	1111028	92.0886	ppb	93
31) Bromochloromethane	3.46	128	336164	86.9798	ppb	94
33) 1,1,1-TCA	3.83	97	898007	93.2805	ppb	93
34) Cyclohexane	3.89	41	412380	102.2549	ppb	83
35) 1,1-Dichloropropene	4.11	75	744290	101.4193	ppb	94
36) 2,2,4-Trimethylpentane	4.61	57	1462269	109.8419	ppb	88
38) Carbon Tetrachloride	4.09	117	796507	100.8546	ppb	96
39) Tert Amyl Methyl Ether	4.70	73	1594044	111.6060	ppb	95
40) 1,2-DCA	4.46	62	835170	93.5940	ppb	94
41) Benzene	4.41	78	2434775	96.9458	ppb	100
42) TCE	5.36	95	304192	98.7695	ppb	96

Data File : M:\LOKI\DATA\181026\1026L11.D  
 Acq On : 26 Oct 18 14:16  
 Sample : 100ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 10  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	958198	212.3835	ppb	100
44) 1,2-Dichloropropane	5.64	63	637973	94.5831	ppb	99
45) Bromodichloromethane	6.04	83	901140	93.0525	ppb	100
46) Methyl Cyclohexane	5.58	83	778712	114.6060	ppb	99
47) Dibromomethane	5.79	93	457827	90.3379	ppb	91
49) MIBK (methyl isobutyl ket	6.85	43	599499	100.8903	ppb	93
50) 1-Bromo-2-chloroethane	6.37	63	476608	97.2483	ppb	99
51) Cis-1,3-Dichloropropene	6.61	75	1049793	105.7430	ppb	98
52) Toluene	6.97	91	2706244	104.0124	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	957584	102.5690	ppb	98
54) 1,1,2-TCA	7.47	83	540684	93.0075	ppb	96
55) 2-Hexanone	7.82	43	397453	105.5378	ppb	95
58) 1,2-EDB	7.98	107	687129	101.4034	ppb	98
59) Tetrachloroethene	7.60	166	754773	102.7901	ppb	96
60) 1-Chlorohexane	8.60	91	727935	135.9882	ppb	89
61) 1,1,1,2-Tetrachloroethane	8.67	131	695184	96.9358	ppb	97
62) m&p-Xylene	8.85	91	2805200	201.7306	ppb	99
63) o-Xylene	9.27	106	1104769	126.6208	ppb	97
64) Styrene	9.29	104	1222144	101.1023	ppb	97
66) 1,3-Dichloropropane	7.65	76	1074255	103.3809	ppb	97
67) Dibromochloromethane	7.89	129	768983	100.0284	ppb	97
68) Chlorobenzene	8.55	112	1796449	102.1248	ppb	99
69) Ethylbenzene	8.71	91	2972354	119.5470	ppb	96
70) Bromoform	9.45	173	595426	103.2810	ppb	97
72) Isopropylbenzene	9.69	105	2815956	112.9066	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	937001	82.7742	ppb	95
74) 1,2,3-Trichloropropane	10.04	110	289809	88.0218	ppb	95
75) t-1,4-Dichloro-2-Butene	10.09	53	213174	91.6726	ppb	96
76) Bromobenzene	9.96	156	837446	89.2599	ppb	99
77) n-Propylbenzene	10.13	91	2215814	115.0607	ppb	97
78) 4-Ethyltoluene	10.26	105	2778255	116.0285	ppb	98
79) 2-Chlorotoluene	10.19	91	2055810	102.4135	ppb	99
80) 1,3,5-Trimethylbenzene	10.34	105	1577835	99.1665	ppb	100
81) 4-Chlorotoluene	10.31	91	2410773	105.2723	ppb	100
82) Tert-Butylbenzene	10.67	119	2066769	113.5052	ppb	99
83) 1,2,4-Trimethylbenzene	10.73	105	2532211	99.6147	ppb	96
84) Sec-Butylbenzene	10.91	105	3089057	117.0747	ppb	99
85) p-Isopropyltoluene	11.08	119	2744042	112.0534	ppb	99
86) Benzyl Chloride	11.25	91	1262087	101.6644	ppb	98
87) 1,3-DCB	10.99	146	1592038	95.8601	ppb	99
88) 1,4-DCB	11.09	146	1650079	92.5427	ppb	97
89) n-Butylbenzene	11.51	91	2383099	114.7829	ppb	98
90) 1,2-DCB	11.48	146	1608094	99.9064	ppb	99
91) Hexachloroethane	11.75	117	480289	88.8473	ppb	95
92) 1,2-Dibromo-3-chloropropan	12.31	75	192835	92.2564	ppb	97
93) 1,2,4-Trichlorobenzene	13.20	180	1163249	119.3633	ppb	97
94) Hexachlorobutadiene	13.41	225	555782	99.4670	ppb	97
95) Naphthalene	13.44	128	2756349	101.6013	ppb	98
96) 1,2,3-Trichlorobenzene	13.71	180	674688	121.4166	ppb	99

Quantitation Report

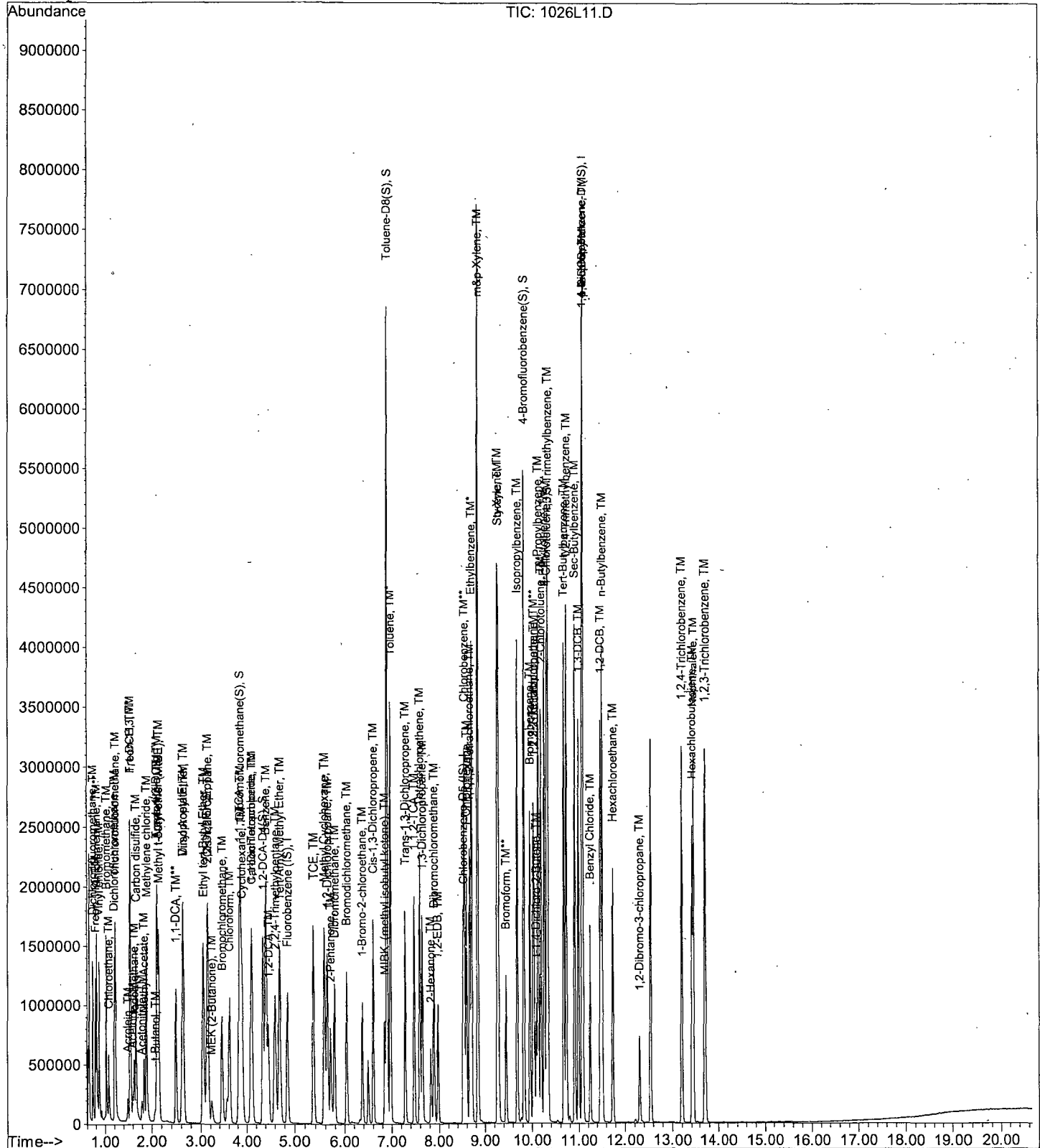
Data File : M:\LOKI\DATA\181026\1026L11.D  
Acq On : 26 Oct 18 14:16  
Sample : 100ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 10  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

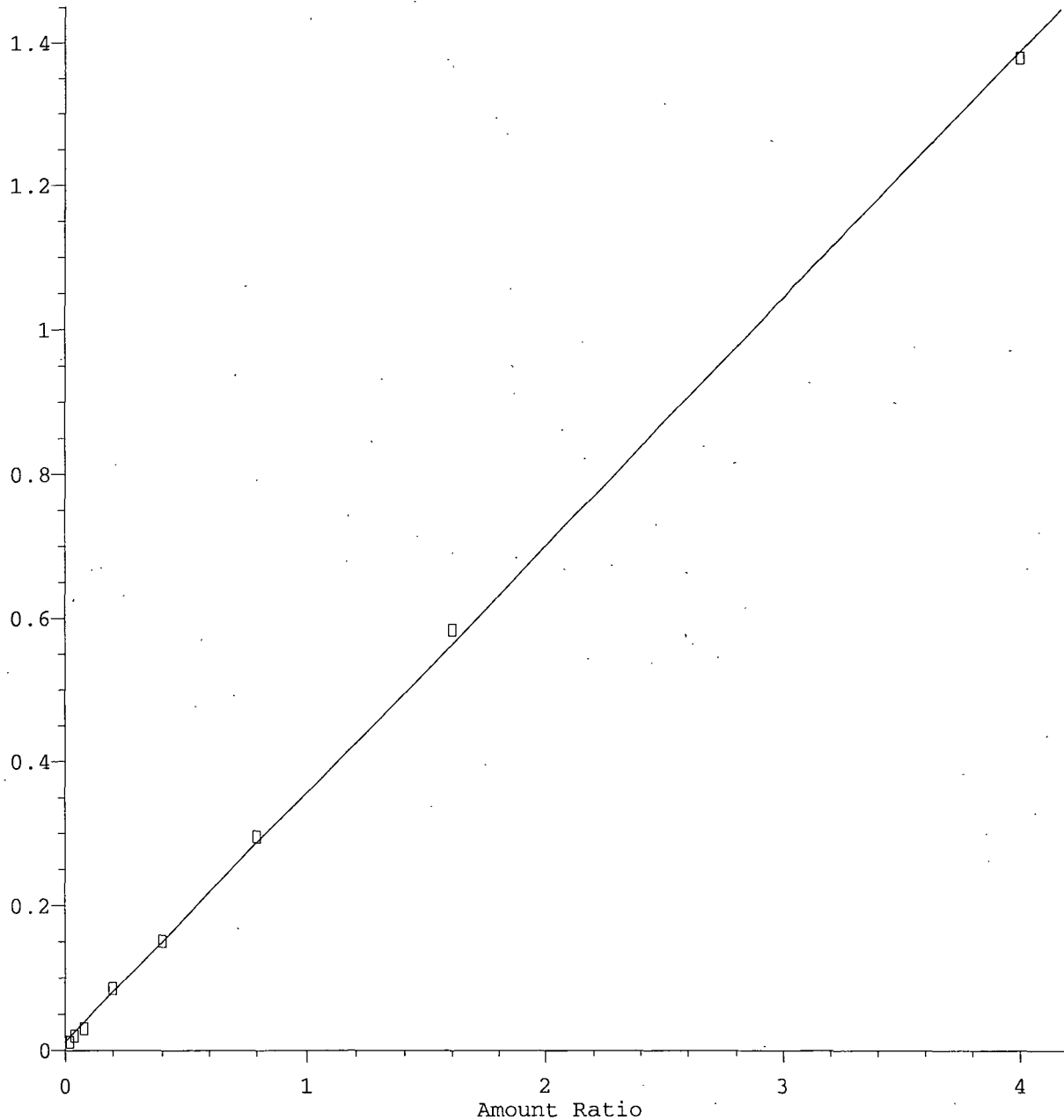
Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Chloromethane

Response Ratio



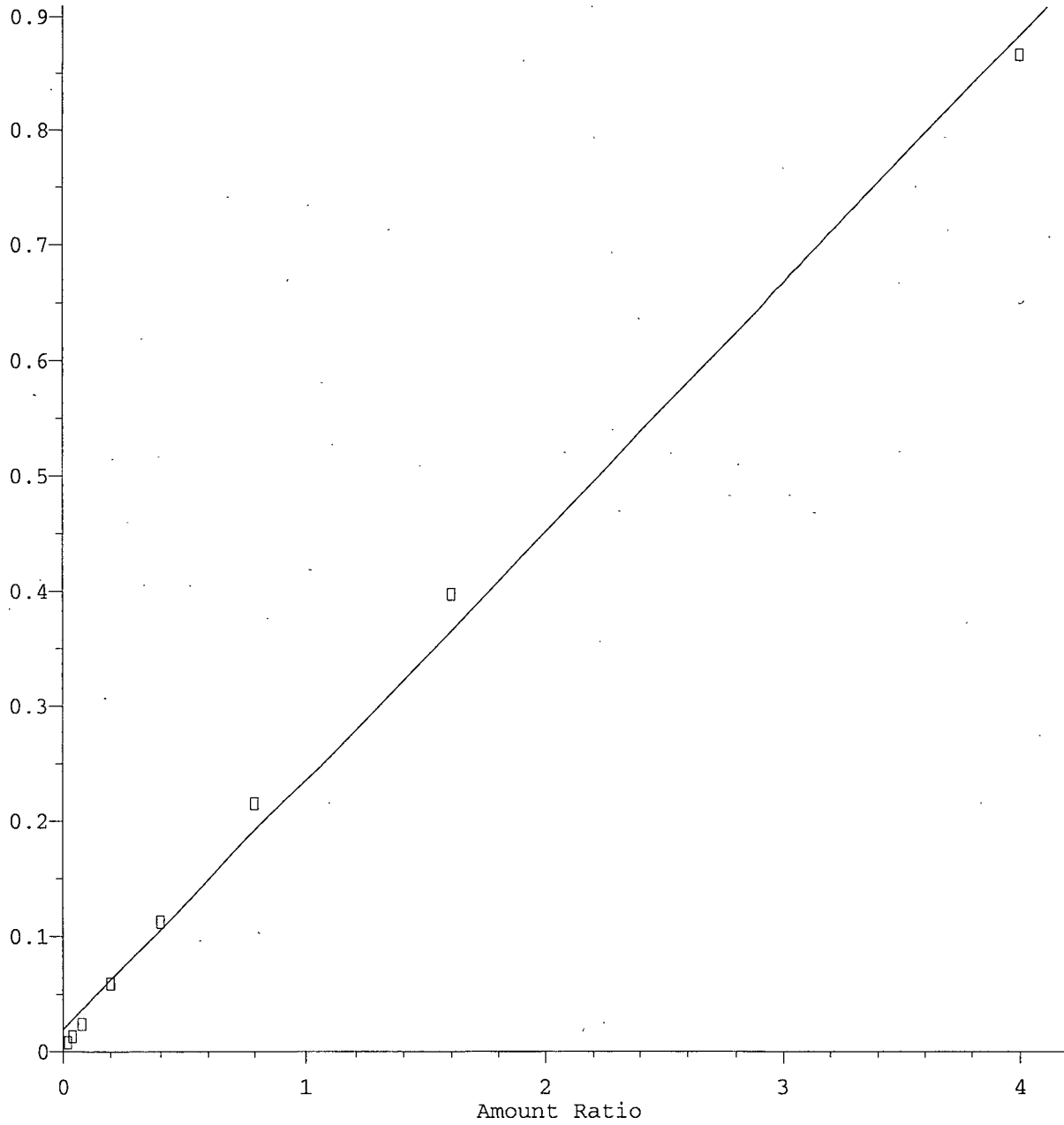
Resp Ratio = 3.45e-001 \* Amt + 1.24e-002  
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018



Bromomethane

Response Ratio

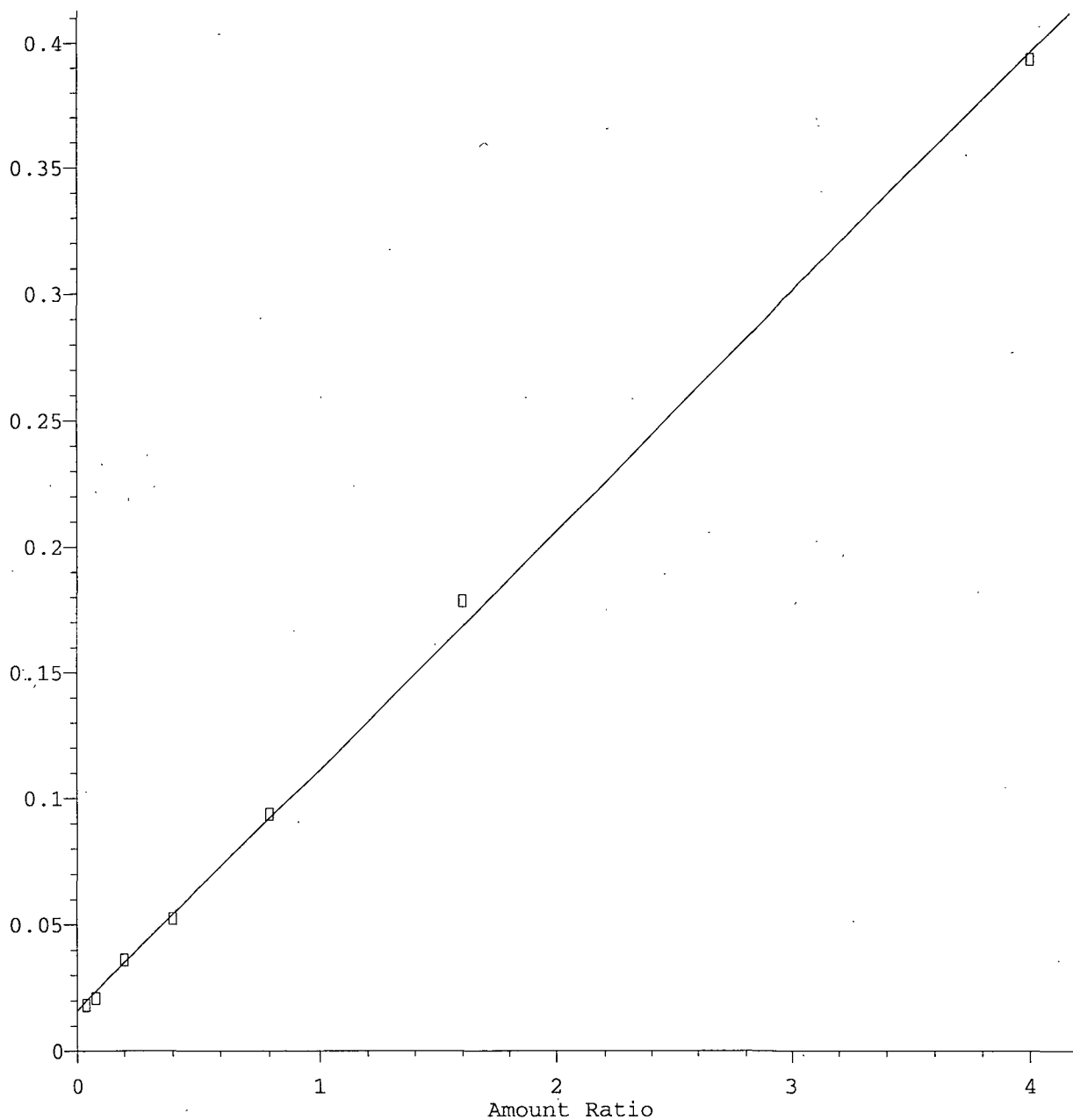


Resp Ratio =  $2.17e-001 * Amt + 1.87e-002$   
Coef of Det ( $r^2$ ) = 0.996 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

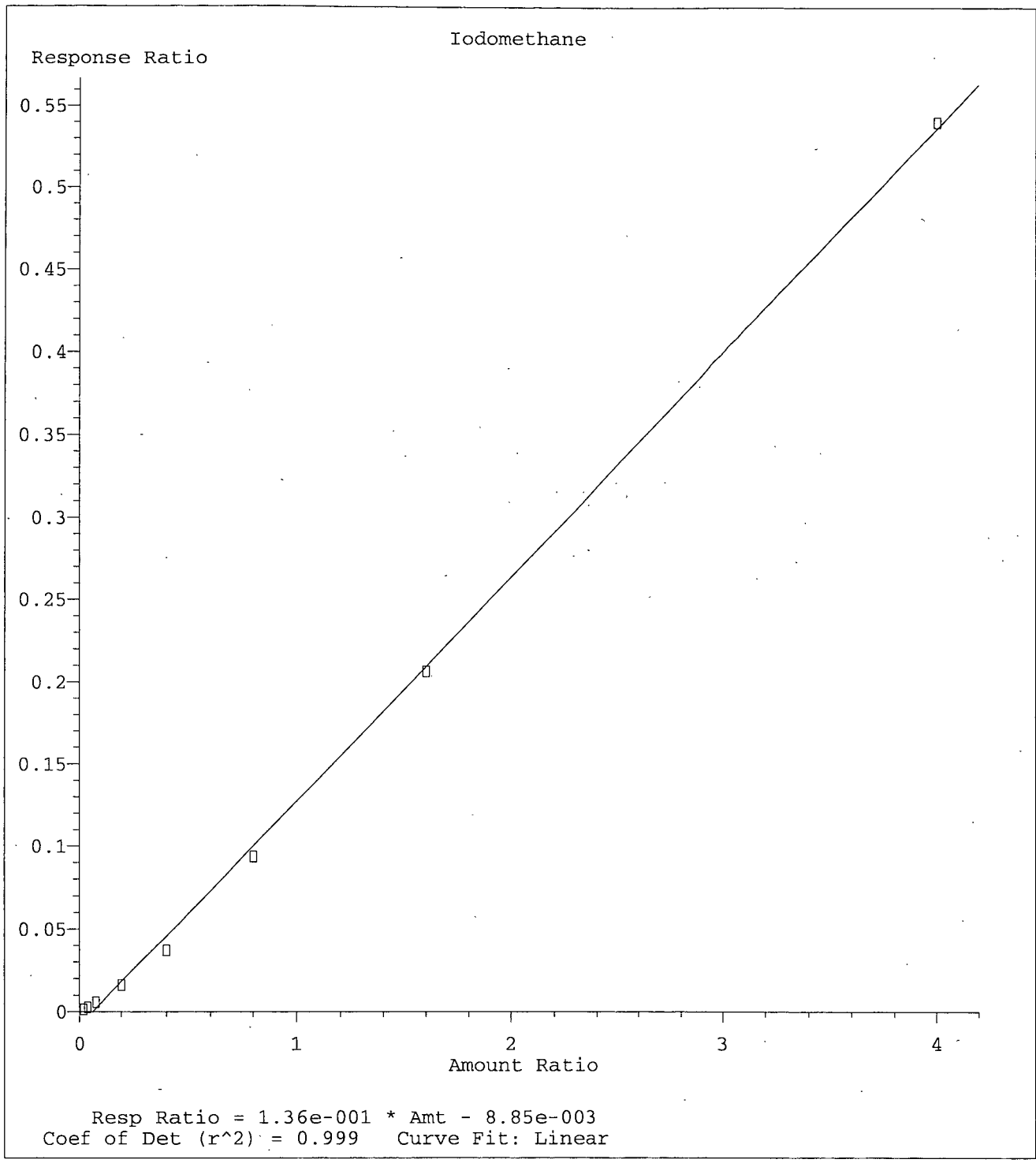
Acetone

Response Ratio



Resp Ratio =  $9.54e-002 * Amt + 1.63e-002$   
Coef of Det ( $r^2$ ) = 0.999 Curve Fit: Linear

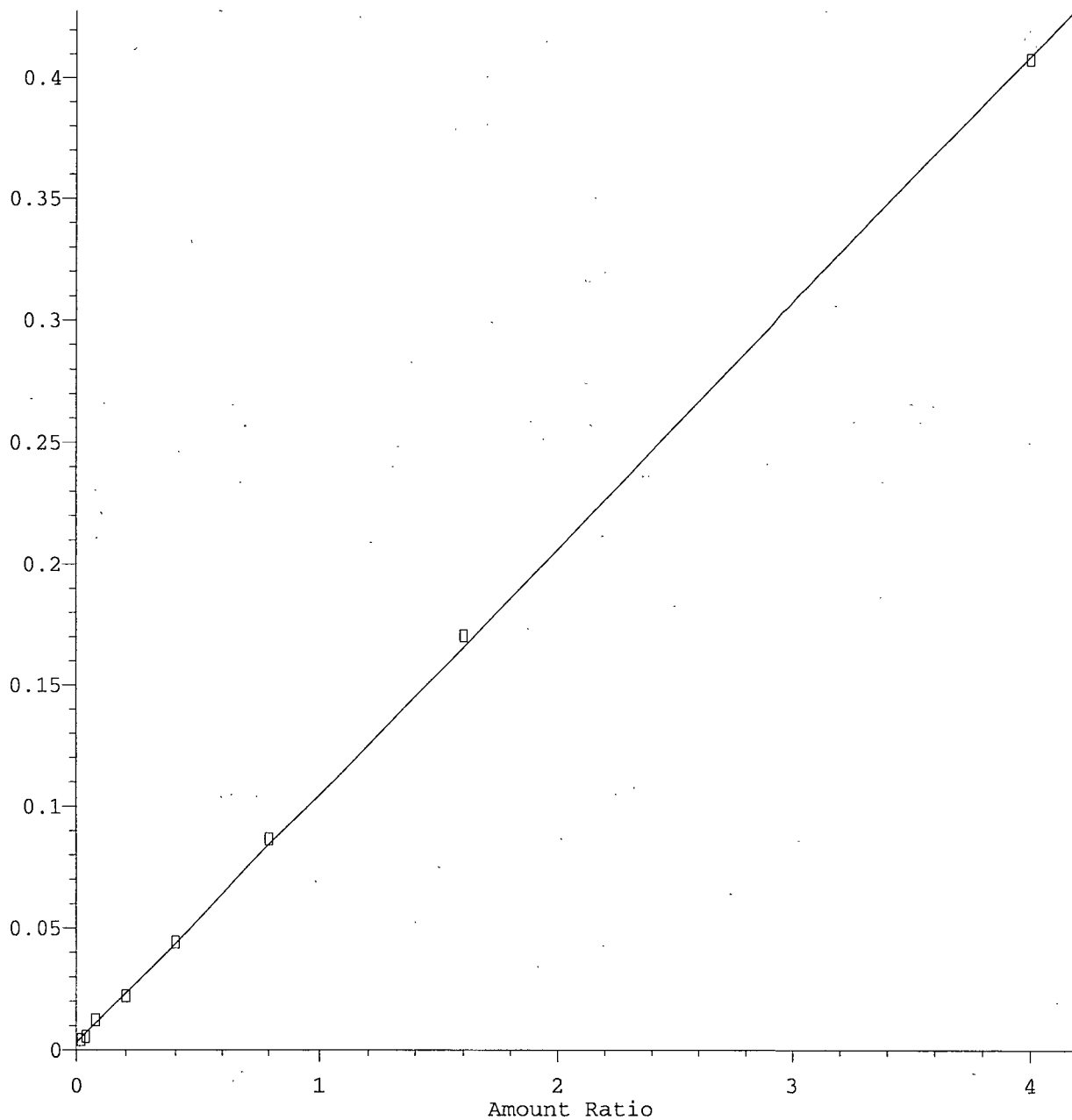
Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018



Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

Acrylonitrile

Response Ratio

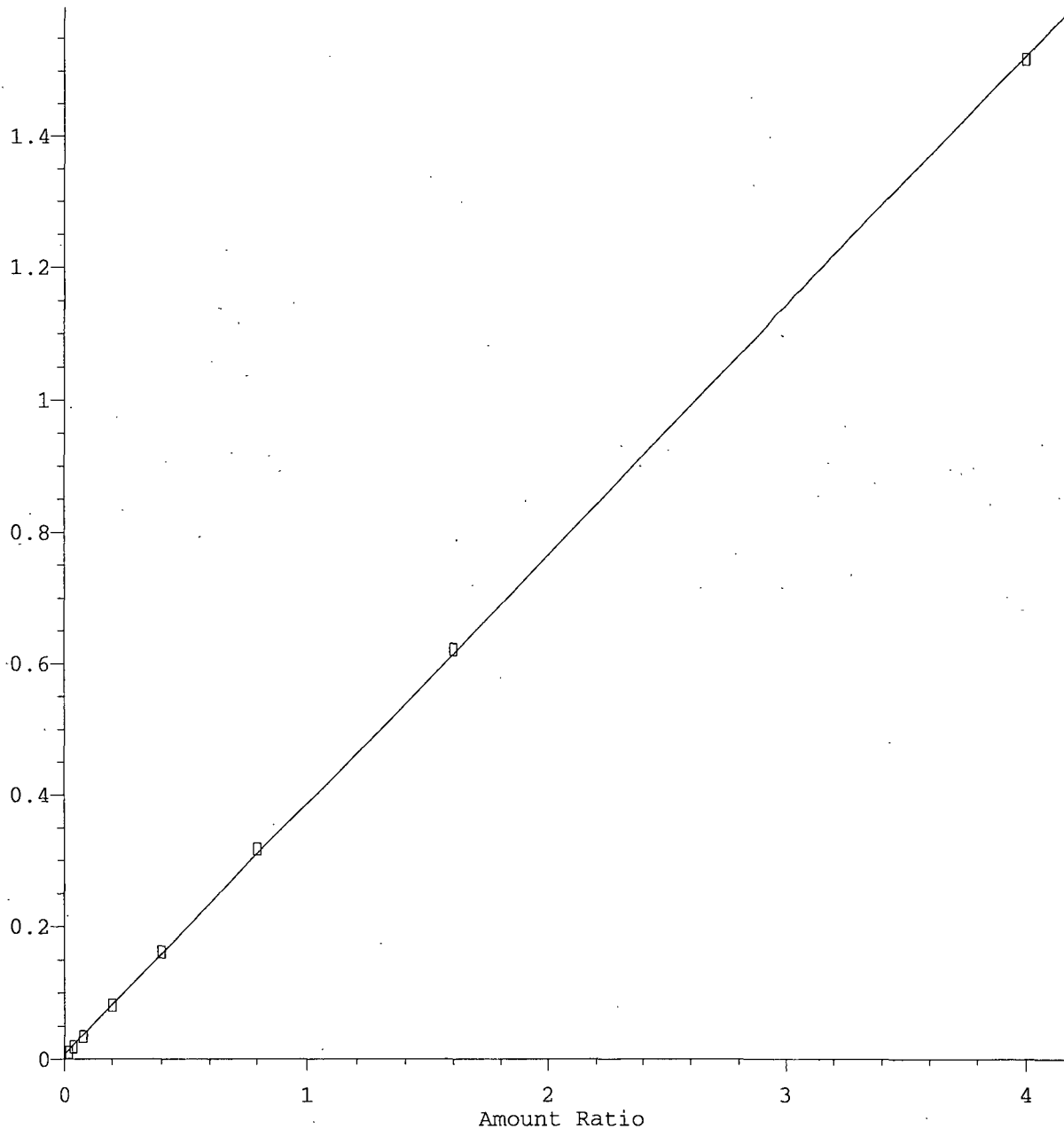


Resp Ratio = 1.02e-001 \* Amt + 3.45e-003  
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

2,2-Dichloropropane

Response Ratio

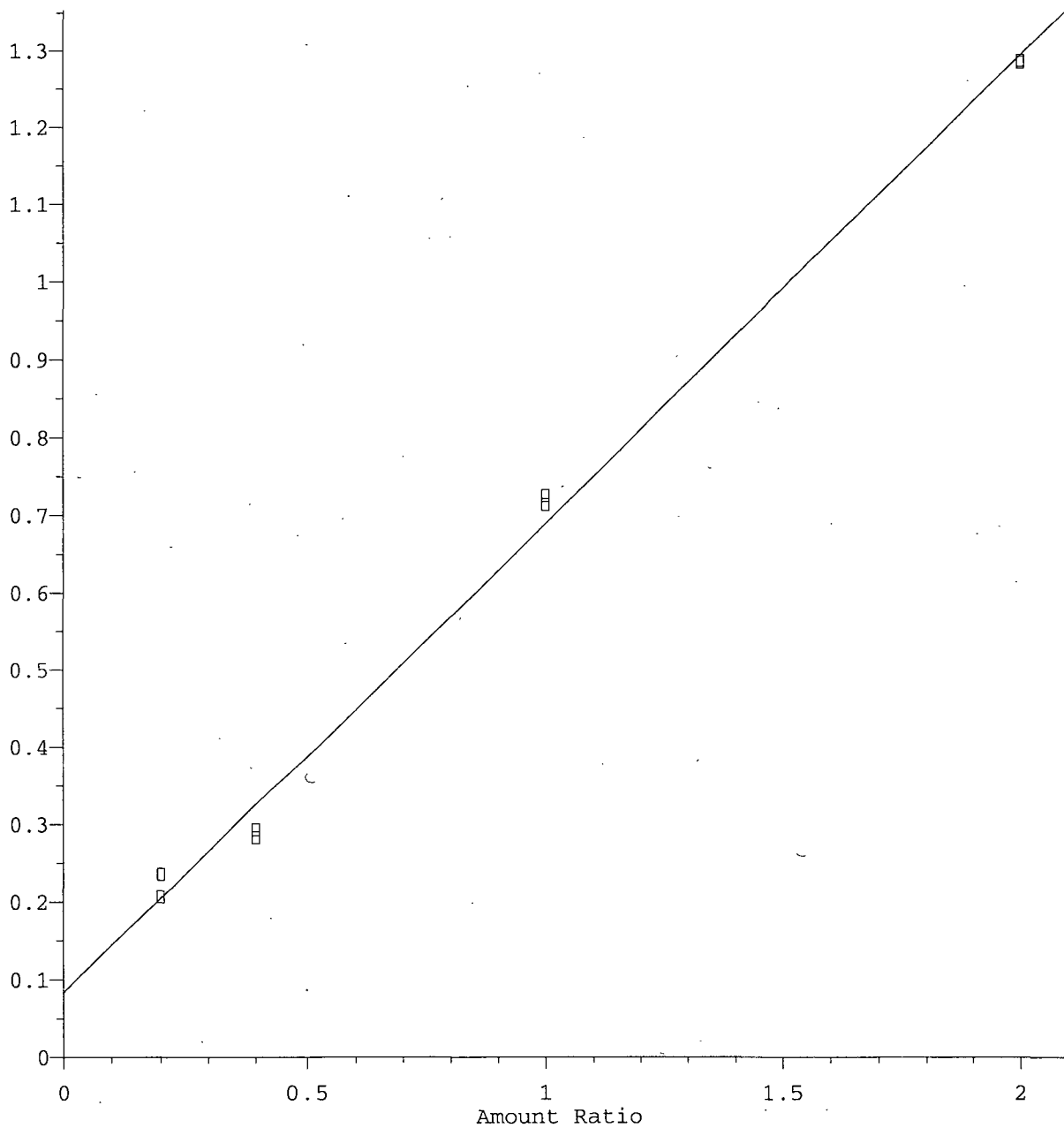


Resp Ratio = 3.80e-001 \* Amt + 6.91e-003  
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

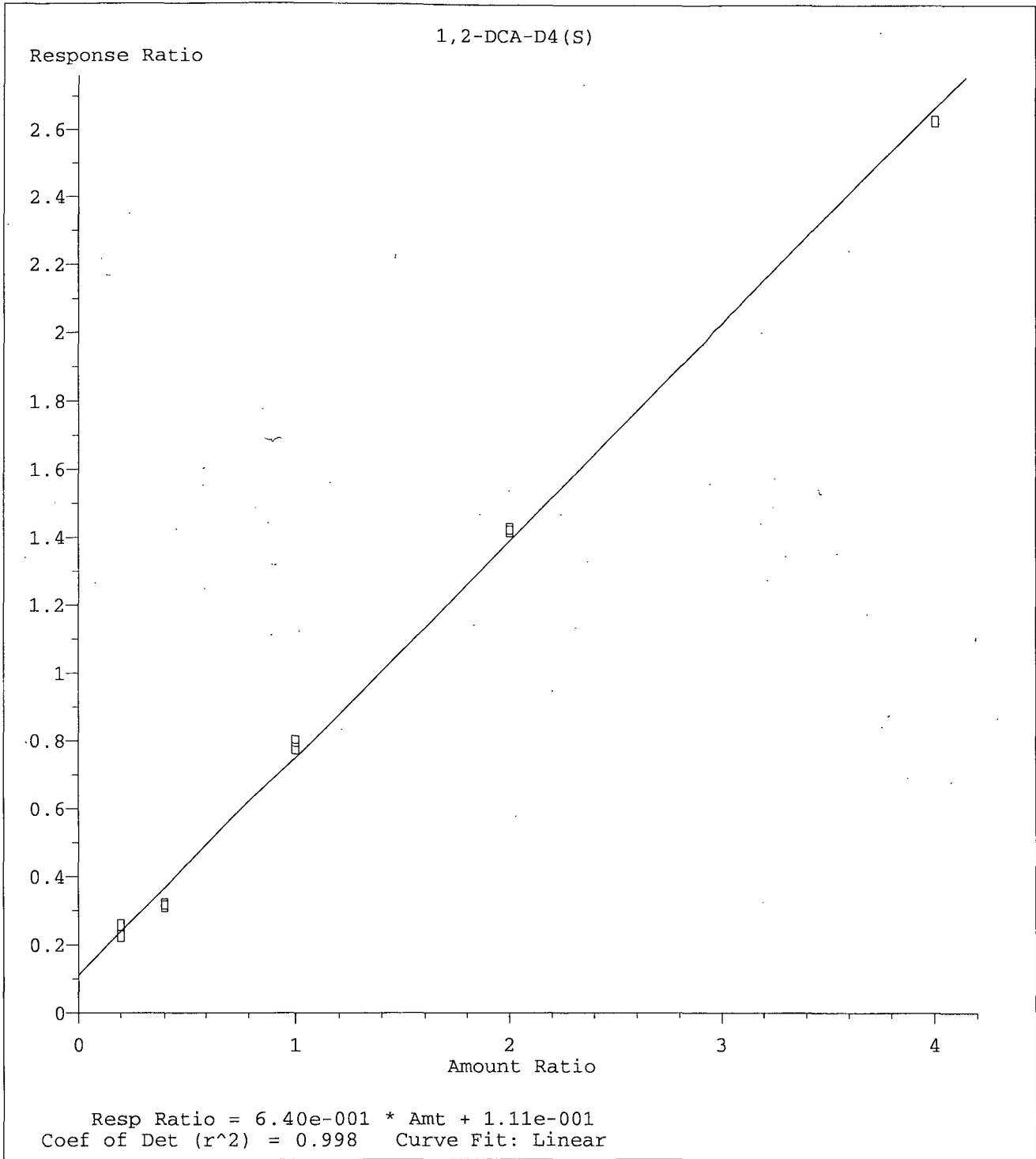
Dibromofluoromethane(S)

Response Ratio

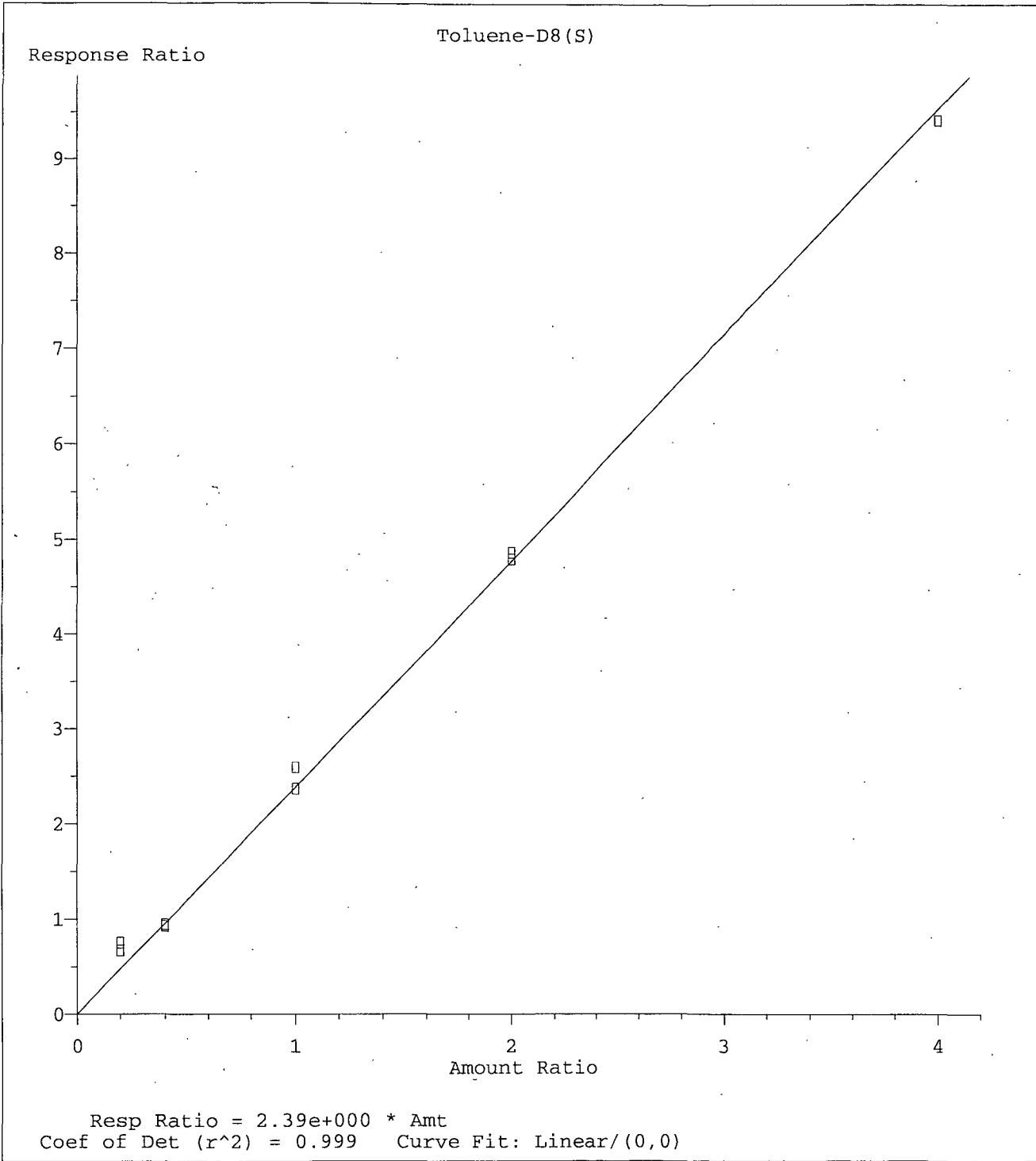


Resp Ratio = 6.07e-001 \* Amt + 8.28e-002  
Coef of Det (r^2) = 0.996 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018



Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

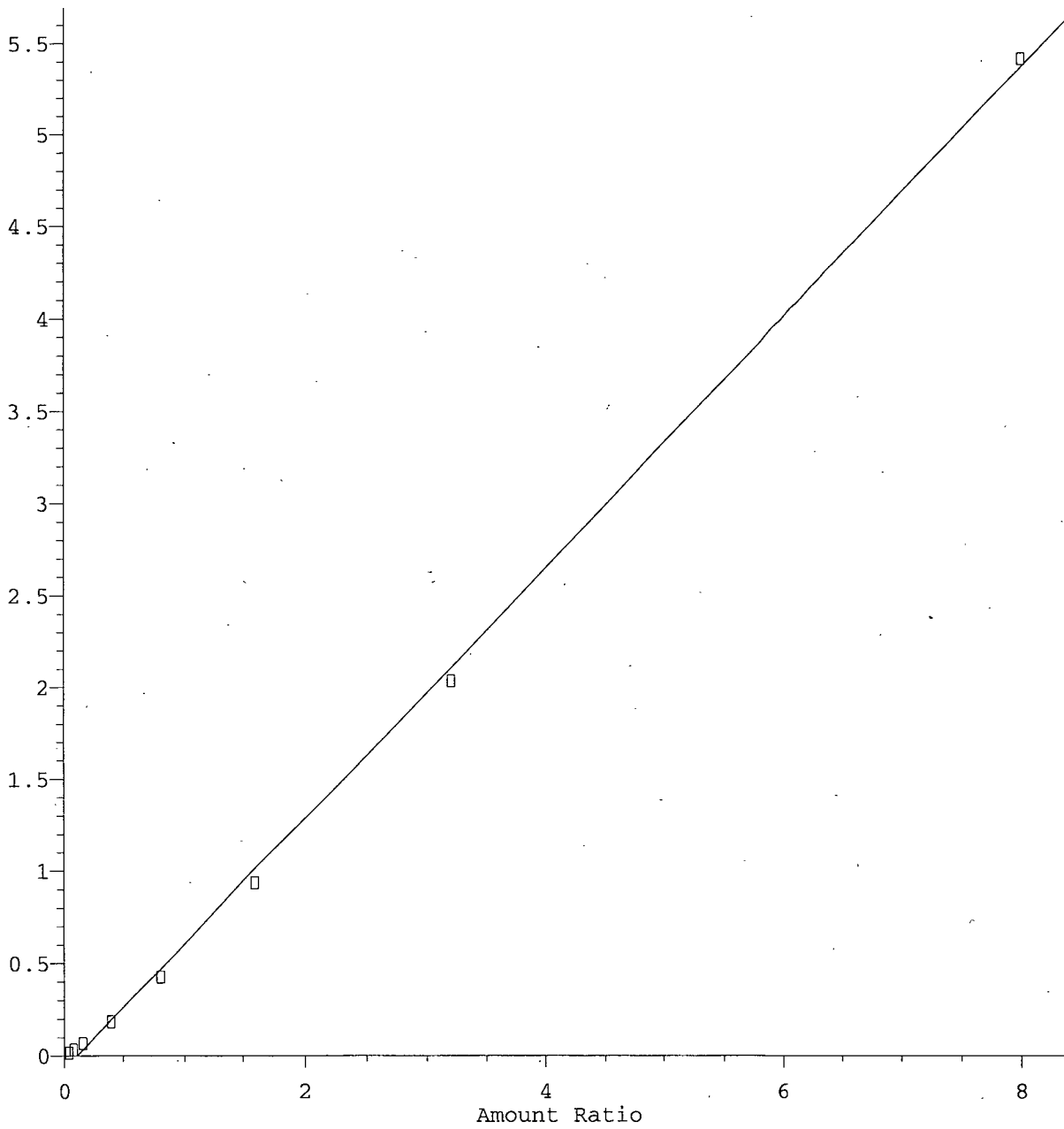


Method Name: M:\LOKI\DATA\181026\L1026W.M  
 Calibration Table Last Updated: Mon Oct 29 06:47:10 2018



m&p-Xylene

Response Ratio

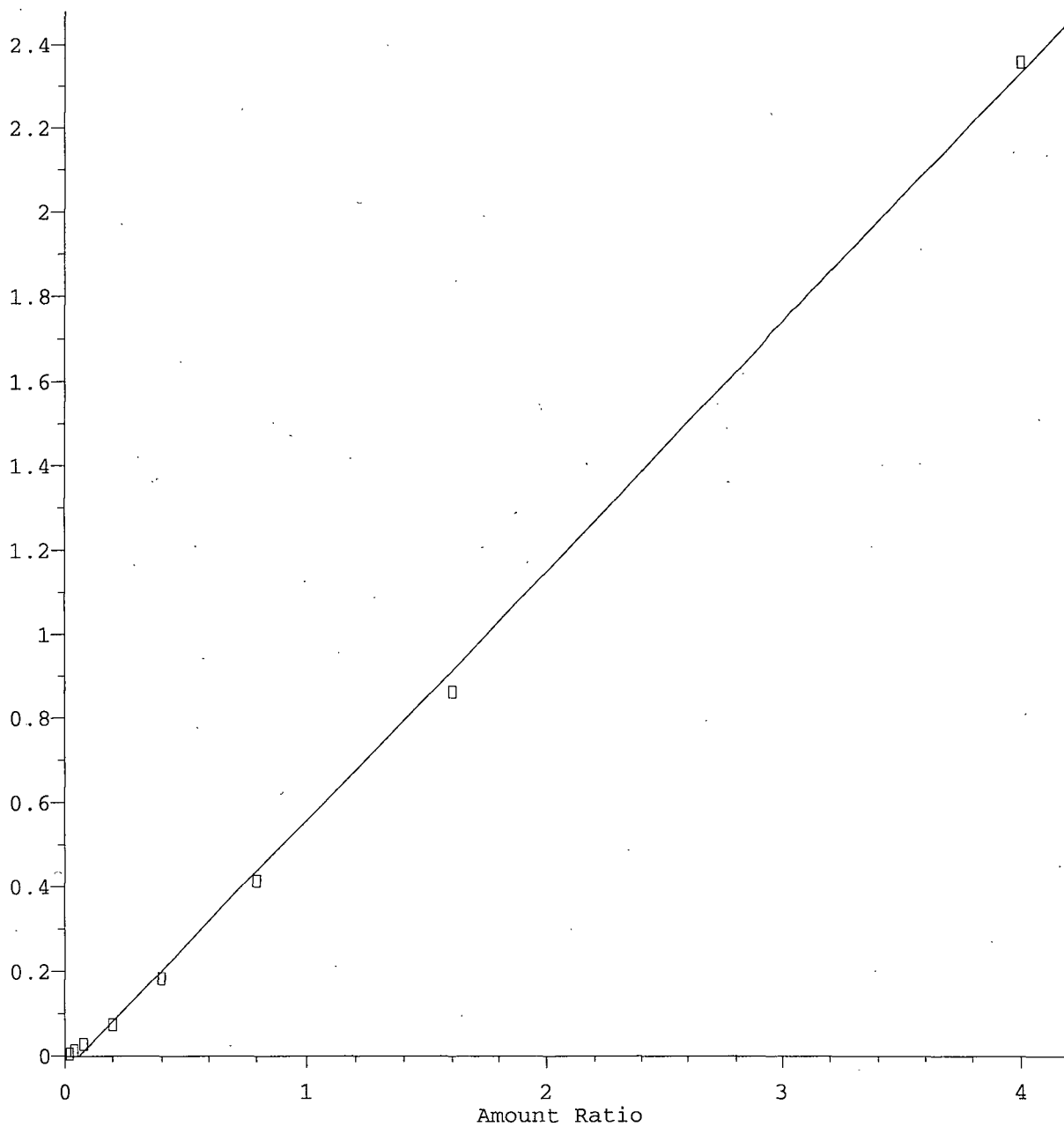


Resp Ratio = 6.82e-001 \* Amt - 7.72e-002  
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

Styrene

Response Ratio

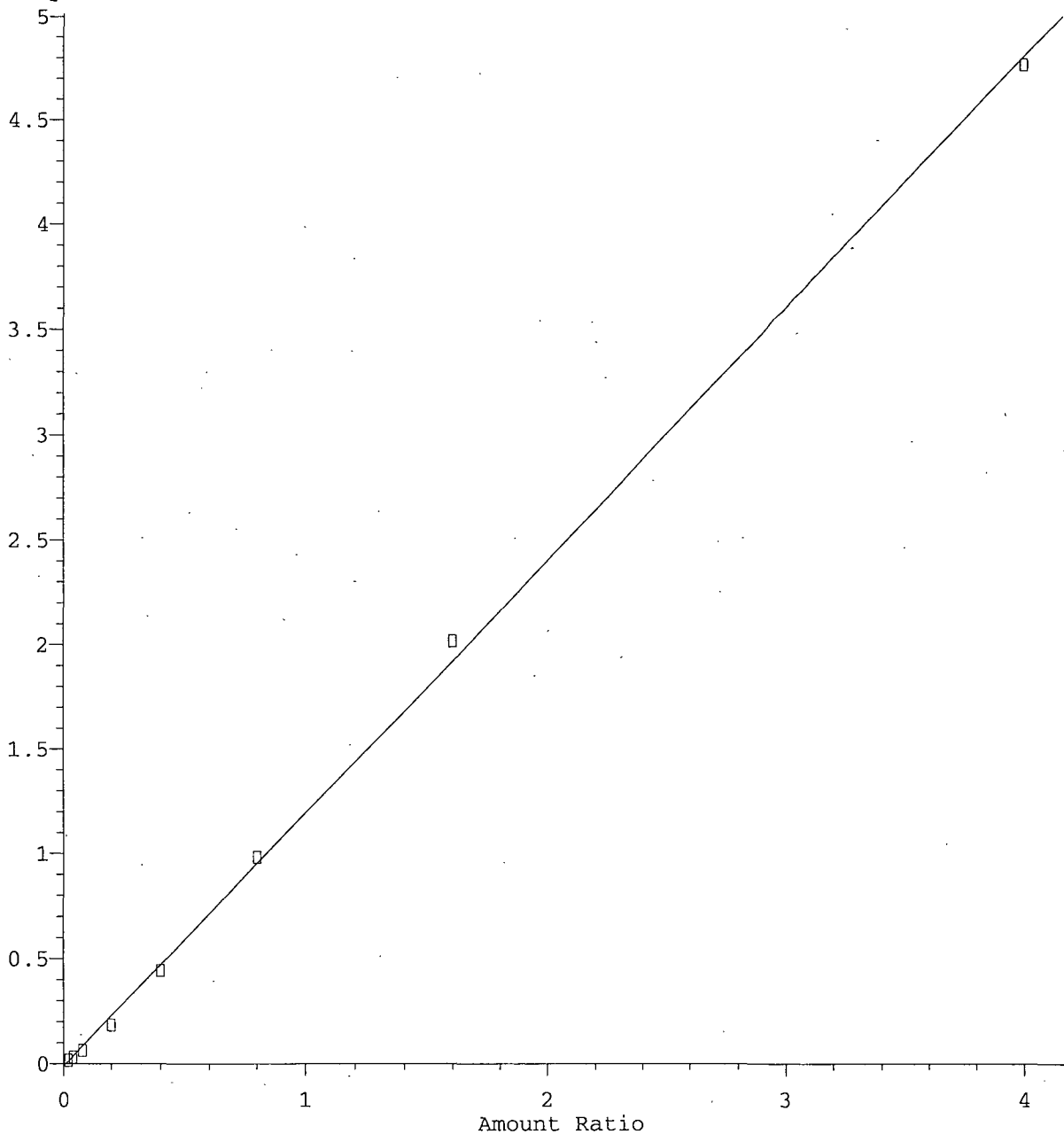


Resp Ratio =  $5.94e-001 * Amt - 3.64e-002$   
Coef of Det ( $r^2$ ) = 0.999 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

1,3,5-Trimethylbenzene

Response Ratio

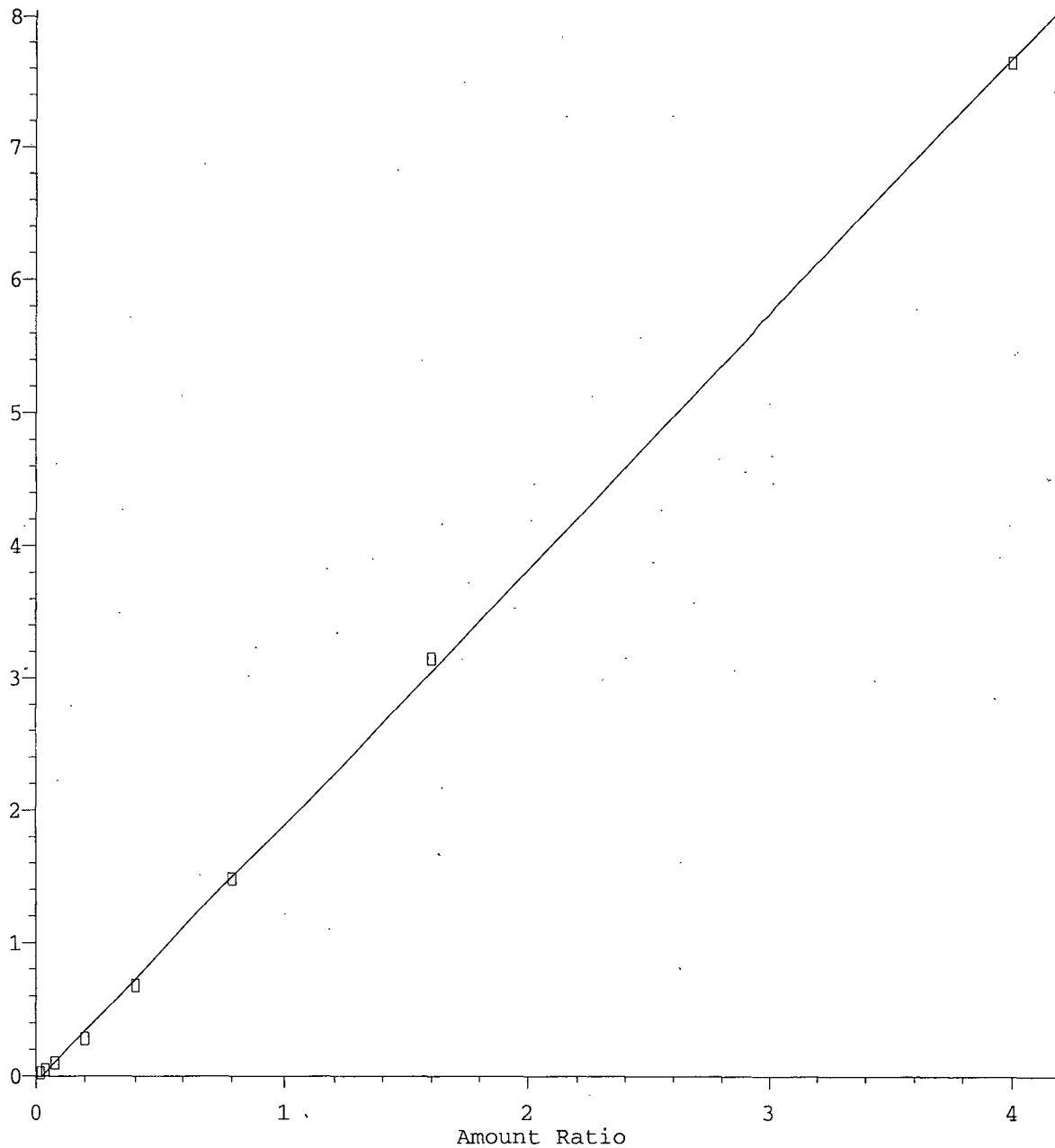


Resp Ratio = 1.21e+000 \* Amt - 1.37e-002  
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

1,2,4-Trimethylbenzene

Response Ratio

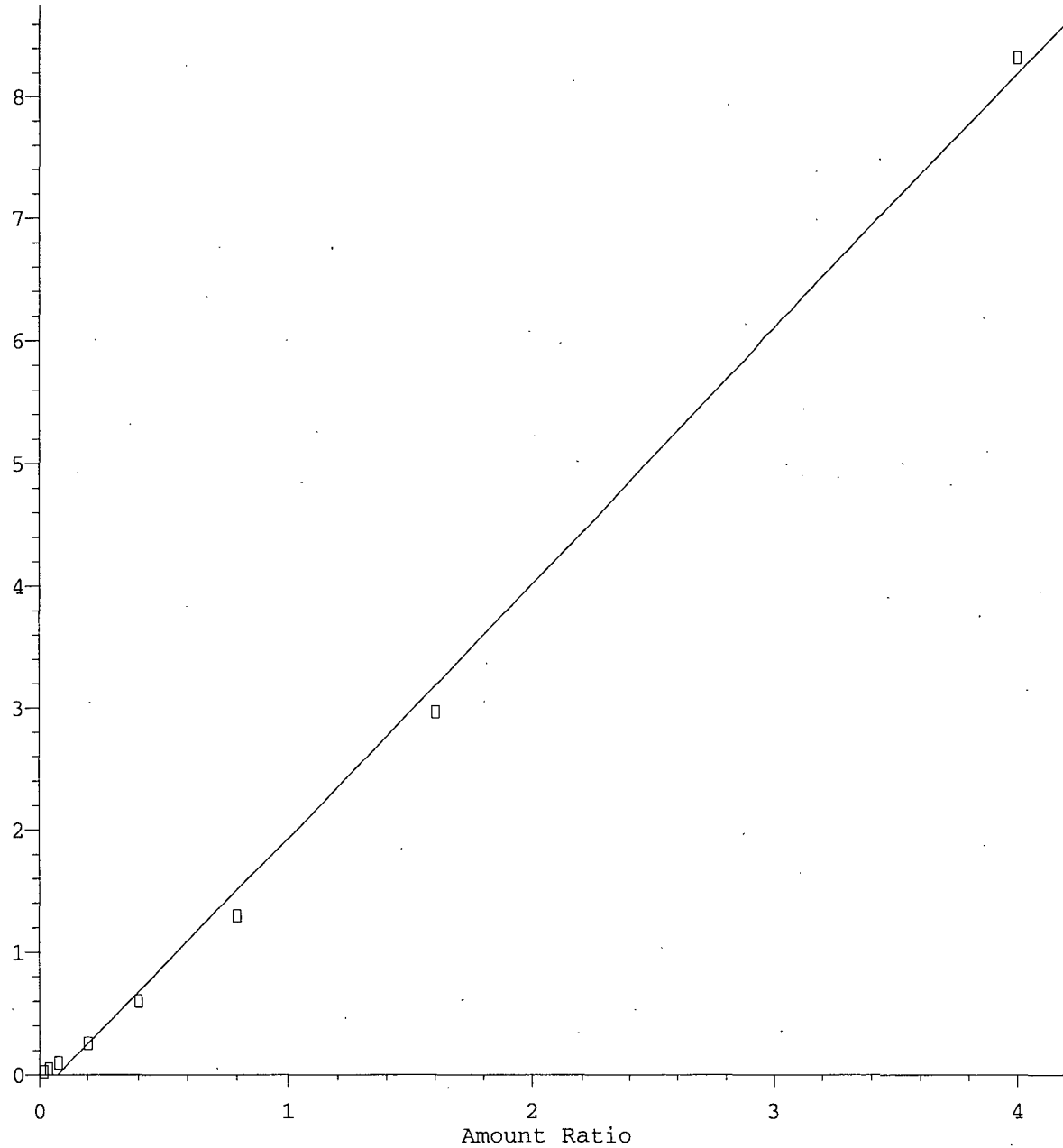


Resp Ratio = 1.94e+000 \* Amt - 4.81e-002  
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

Naphthalene

Response Ratio



Resp Ratio = 2.09e+000 \* Amt - 1.64e-001  
Coef of Det (r^2) = 0.997 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/26/18  
Instrument: Loki  
Initial Cal. Date: 10/26/18  
Data File: 1026L13.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TM	Dichlorodifluoromethane	0.3531	0.3825	8.3	TM	
2	TM	Freon 114	0.2423	0.2449	1.1	TM	
3	TM**L	Chloromethane	0.4215	0.3746	11	TM**L	0.34
4	TM*	Vinyl chloride	0.3311	0.3527	6.5	TM*	
5	TML	Bromomethane	0.2904	0.2842	2.1	TML	9.6
6	TM	Chloroethane	0.1889	0.1965	4.0	TM	
7	TM	Dichlorofluoromethane	0.5006	0.4997	0.18	TM	
8	TM	Trichlorofluoromethane	0.4298	0.4254	1.0	TM	
9	TM	Acrolein	0.0303	0.0302	0.47	TM	
10	TML	Acetone	0.1930	0.1300	33	TML	6.6
11	TM	Freon-113	0.2229	0.2214	0.64	TM	
12	TM*	1,1-DCE	0.1014	0.0913	9.9	TM*	
13	TM	t-Butanol	0.0354	0.0343	3.0	TM	
14	TM	Acetonitrile	0.0508	0.0495	2.5	TM	
15	TM	Methyl Acetate	0.2771	0.2675	3.5	TM	
16	TML	Iodomethane	0.0954	0.1092	14	TML	3.8
17	TML	Acrylonitrile	0.1304	0.1169	10	TML	6.4
18	TM	Methylene chloride	0.3234	0.3125	3.4	TM	
19	TM	Carbon disulfide	0.7804	0.7664	1.8	TM	
20	TM	Methyl t-butyl ether (MtBE)	0.7876	0.7571	3.9	TM	
21	TM	Trans-1,2-DCE	0.2849	0.2868	0.66	TM	
22	TM	Diisopropyl Ether	0.8312	0.7964	4.2	TM	
23	TM**	1,1-DCA	0.5618	0.5545	1.3	TM**	
24	TM	Vinyl Acetate	0.2025	0.1795	11	TM	
25	TM	Ethyl tert Butyl Ether	0.7193	0.6923	3.8	TM	
26	TM	MEK (2-Butanone)	0.1470	0.1460	0.69	TM	
27	TM	Cis-1,2-DCE	0.3249	0.3365	3.6	TM	
28	TML	2,2-Dichloropropane	0.4229	0.3954	6.5	TML	0.44
29	TM*	Chloroform	0.5553	0.5538	0.27	TM*	
30	TM	Bromochloromethane	0.1779	0.1788	0.49	TM	
31	TM	1,1,1-TCA	0.4431	0.4356	1.7	TM	
32	TM	Cyclohexane	0.1856	0.1777	4.2	TM	
33	TM	1,1-Dichloropropene	0.3378	0.3290	2.6	TM	
34	TM	2,2,4-Trimethylpentane	0.6127	0.6099	0.46	TM	
35	TM	Carbon Tetrachloride	0.3635	0.3782	4.0	TM	
36	TM	Tert Amyl Methyl Ether	0.6574	0.6626	0.79	TM	
37	TM	1,2-DCA	0.4107	0.4188	2.0	TM	
38	TM	Benzene	1.156	1.144	1.0	TM	
39	TM	TCE	0.1418	0.1393	1.7	TM	
40	TM	2-Pentanone	0.2077	0.2224	7.1	TM	

Average

4.5

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/26/18  
Instrument: Loki  
Cal. Date: 10/26/18  
Data File: 1026L13.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM*	1,2-Dichloropropane	0.3105	0.2989	3.7	TM*	
42	TM	Bromodichloromethane	0.4457	0.4440	0.40	TM	
43	TM	Methyl Cyclohexane	0.3127	0.2942	5.9	TM	
44	TM	Dibromomethane	0.2333	0.2222	4.7	TM	
45	TM	2-Chloroethyl vinyl ether	0.0000	0.0072	0.00	TM	
46	TM	MIBK (methyl isobutyl ketone)	0.2735	0.2791	2.0	TM	
47	TM	1-Bromo-2-chloroethane	0.2256	0.2259	0.16	TM	
48	TM	Cis-1,3-Dichloropropene	0.4569	0.4508	1.3	TM	
49	TM*	Toluene	1.198	1.230	2.7	TM*	
50	TM	Trans-1,3-Dichloropropene	0.4297	0.4293	0.08	TM	
51	TM	1,1,2-TCA	0.2676	0.2558	4.4	TM	
52	TM	2-Hexanone	0.1733	0.1724	0.54	TM	
53	TM	1,2-EDB	0.3277	0.3372	2.9	TM	
54	TM	Tetrachloroethene	0.3551	0.3825	7.7	TM	
55	TM	1-Chlorohexane	0.2589	0.2826	9.2	TM	
56	TM	1,1,1,2-Tetrachloroethane	0.3468	0.3487	0.55	TM	
57	TML	m&p-Xylene	0.5122	0.5414	5.7	TML	6.5
58	TM	o-Xylene	0.4219	0.4511	6.9	TM	
59	TML	Styrene	0.4298	0.4568	6.3	TML	7.7
60	TM	1,3-Dichloropropane	0.5025	0.5168	2.9	TM	
61	TM	Dibromochloromethane	0.3717	0.3793	2.0	TM	
62	TM**	Chlorobenzene	0.8506	0.8765	3.0	TM**	
63	TM*	Ethylbenzene	1.202	1.252	4.2	TM*	
64	TM**	Bromoform	0.2788	0.3004	7.8	TM**	
65	TM	Isopropylbenzene	1.887	2.022	7.1	TM	
66	TM**	1,1,2,2-Tetrachloroethane	0.8566	0.8545	0.25	TM**	
67	TM	1,2,3-Trichloropropane	0.2492	0.2646	6.2	TM	
68	TM	t-1,4-Dichloro-2-Butene	0.1760	0.1684	4.3	TM	
69	TM	Bromobenzene	0.7100	0.7286	2.6	TM	
70	TM	n-Propylbenzene	1.457	1.507	3.4	TM	
71	TM	4-Ethyltoluene	1.812	2.028	12	TM	
72	TM	2-Chlorotoluene	1.519	1.659	9.2	TM	
73	TML	1,3,5-Trimethylbenzene	1.014	1.136	12	TML	3.1
74	TM	4-Chlorotoluene	1.733	1.921	11	TM	
75	TM	Tert-Butylbenzene	1.378	1.515	9.9	TM	
76	TML	1,2,4-Trimethylbenzene	1.584	1.727	9.0	TML	4.6
77	TM	Sec-Butylbenzene	1.997	2.209	11	TM	
78	TM	p-Isopropyltoluene	1.853	2.013	8.6	TM	
79	TM	Benzyl Chloride	0.9394	0.9057	3.6	TM	
80	TM	1,3-DCB	1.257	1.343	6.9	TM	

Average

5.1

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/26/18  
Instrument: Loki  
Cal. Date: 10/26/18  
Data File: 1026L13.D

		Compound	MEAN	CCRF	%D	%Drift
81	TM	1,4-DCB	1.349	1.378	2.1	TM
82	TM	n-Butylbenzene	1.571	1.623	3.3	TM
83	TM	1,2-DCB	1.218	1.281	5.2	TM
84	TM	Hexachloroethane	0.4091	0.4041	1.2	TM
85	TM	1,2-Dibromo-3-chloropropane	0.1582	0.1591	0.60	TM
86	TM	1,2,4-Trichlorobenzene	0.7375	0.7713	4.6	TM
87	TM	Hexachlorobutadiene	0.4228	0.4311	2.0	TM
88	TML	Naphthalene	1.520	1.633	7.4	TML 2.4
89	TM	1,2,3-Trichlorobenzene	0.4205	0.4406	4.8	TM
90						
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118						
119						
120						

Average

3.5



Data File : M:\LOKI\DATA\181026\1026L13.D  
 Acq On : 26 Oct 18 15:13  
 Sample : (SS)10ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 12  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	545024	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	523328	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	283520	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.86	111	352671	23.2303	ppb	0.00
Spiked Amount 25.000			Recovery =	92.920%		
37) 1,2-DCA-D4 (S)	4.35	65	390993	23.6831	ppb	0.00
Spiked Amount 25.000			Recovery =	94.732%		
57) Toluene-D8 (S)	6.90	98	1206160	24.1543	ppb	0.00
Spiked Amount 25.000			Recovery =	96.616%		
65) 4-Bromofluorobenzene(S)	9.83	95	425669	25.0157	ppb	0.00
Spiked Amount 25.000			Recovery =	100.064%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	83384	10.8323	ppb	96
3) Freon 114	0.79	85	53383	10.1056	ppb	96
4) Chloromethane	0.81	50	81668	9.9657	ppb	96
5) Vinyl chloride	0.87	62	76900	10.6531	ppb	96
6) Bromomethane	1.03	94	61954	10.9642	ppb	99
7) Chloroethane	1.09	64	42841	10.4016	ppb	100
8) Dichlorofluoromethane	1.21	67	108934	9.9821	ppb	98
9) Trichlorofluoromethane	1.23	101	92745	9.8988	ppb	98
10) Acrolein	1.49	56	82168	124.4123	ppb #	92
11) Acetone	1.60	43	28345	9.3442	ppb #	87
12) Freon-113	1.56	101	48272	9.9356	ppb	96
13) 1,1-DCE	1.55	63	19912	9.0112	ppb	94
14) t-Butanol	2.05	59	93403	121.1884	ppb	99
15) Acetonitrile	1.79	41	134865	121.8833	ppb	99
16) Methyl Acetate	1.84	43	58323	9.6549	ppb	100
17) Iodomethane	1.64	142	23808	9.6249	ppb	93
18) Acrylonitrile	2.10	52	25488	10.6433	ppb	89
19) Methylene chloride	1.89	84	68133	9.6626	ppb	94
20) Carbon disulfide	1.68	76	167090	9.8207	ppb	100
21) Methyl t-butyl ether (MtBE)	2.14	73	165051	9.6127	ppb	98
22) Trans-1,2-DCE	2.11	96	62519	10.0660	ppb	95
23) Diisopropyl Ether	2.63	45	173630	9.5815	ppb	97
24) 1,1-DCA	2.50	63	120886	9.8692	ppb	99
25) Vinyl Acetate	2.63	43	39134	8.8660	ppb	99
26) Ethyl tert Butyl Ether	3.06	59	150932	9.6245	ppb	99
27) MEK (2-Butanone)	3.24	43	31826	9.9310	ppb	88
28) Cis-1,2-DCE	3.16	96	73368	10.3585	ppb	98
29) 2,2-Dichloropropane	3.14	77	86208	9.9559	ppb	98
30) Chloroform	3.62	83	120736	9.9732	ppb	94
31) Bromochloromethane	3.46	128	38970	10.0488	ppb	97
33) 1,1,1-TCA	3.83	97	94957	9.8301	ppb	93
34) Cyclohexane	3.90	41	38750	9.5758	ppb	85
35) 1,1-Dichloropropene	4.11	75	71721	9.7397	ppb	92
36) 2,2,4-Trimethylpentane	4.61	57	132970	9.9544	ppb	92
38) Carbon Tetrachloride	4.10	117	82446	10.4039	ppb	92
39) Tert Amyl Methyl Ether	4.71	73	144454	10.0794	ppb	98
40) 1,2-DCA	4.47	62	91293	10.1960	ppb	95
41) Benzene	4.41	78	249399	9.8965	ppb	99
42) TCE	5.37	95	30368	9.8267	ppb	95

(#) = qualifier out of range (m) = manual integration  
 1026L13.D L1026W.M Mon Oct 29 06:58:15 2018

Data File : M:\LOKI\DATA\181026\1026L13.D  
 Acq On : 26 Oct 18 15:13  
 Sample : (SS)10ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 12  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	606197	133.9053	ppb	98
44) 1,2-Dichloropropane	5.64	63	65171	9.6291	ppb	100
45) Bromodichloromethane	6.04	83	96789	9.9605	ppb	99
46) Methyl Cyclohexane	5.59	83	64129	9.4060	ppb	92
47) Dibromomethane	5.79	93	48448	9.5271	ppb	95
49) MIBK (methyl isobutyl ket	6.85	43	60838	10.2036	ppb	94
50) 1-Bromo-2-chloroethane	6.37	63	49256	10.0161	ppb	96
51) Cis-1,3-Dichloropropene	6.61	75	98286	9.8664	ppb	98
52) Toluene	6.98	91	268083	10.2685	ppb	98
53) Trans-1,3-Dichloropropene	7.29	75	93600	9.9916	ppb	99
54) 1,1,2-TCA	7.48	83	55773	9.5613	ppb	99
55) 2-Hexanone	7.82	43	37585	9.9462	ppb	97
58) 1,2-EDB	7.98	107	70581	10.2899	ppb	98
59) Tetrachloroethene	7.60	166	80077	10.7734	ppb	93
60) 1-Chlorohexane	8.60	91	59150	10.9162	ppb	93
61) 1,1,1,2-Tetrachloroethane	8.67	131	72995	10.0551	ppb	96
62) m&p-Xylene	8.85	91	226652	18.7066	ppb	98
63) o-Xylene	9.27	106	94435	10.6924	ppb	96
64) Styrene	9.29	104	95624	9.2302	ppb	96
66) 1,3-Dichloropropane	7.65	76	108192	10.2858	ppb	98
67) Dibromochloromethane	7.89	129	79404	10.2037	ppb	95
68) Chlorobenzene	8.55	112	183474	10.3039	ppb	98
69) Ethylbenzene	8.71	91	262144	10.4157	ppb	98
70) Bromoform	9.45	173	62881	10.7751	ppb	98
72) Isopropylbenzene	9.69	105	229274	10.7118	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.03	83	96907	9.9753	ppb	96
74) 1,2,3-Trichloropropane	10.04	110	30011	10.6212	ppb	97
75) t-1,4-Dichloro-2-Butene	10.09	53	19101	9.5714	ppb	100
76) Bromobenzene	9.96	156	82625	10.2618	ppb	98
77) n-Propylbenzene	10.13	91	170944	10.3434	ppb	100
78) 4-Ethyltoluene	10.26	105	230039	11.1946	ppb	99
79) 2-Chlorotoluene	10.19	91	188103	10.9190	ppb	97
80) 1,3,5-Trimethylbenzene	10.34	105	128832	9.6917	ppb	99
81) 4-Chlorotoluene	10.31	91	217908	11.0878	ppb	97
82) Tert-Butylbenzene	10.67	119	171788	10.9934	ppb	97
83) 1,2,4-Trimethylbenzene	10.73	105	195827	9.5418	ppb	97
84) Sec-Butylbenzene	10.91	105	250499	11.0626	ppb	100
85) p-Isopropyltoluene	11.08	119	228305	10.8634	ppb	99
86) Benzyl Chloride	11.25	91	102709	9.6406	ppb	97
87) 1,3-DCB	10.99	146	152351	10.6892	ppb	99
88) 1,4-DCB	11.09	146	156239	10.2104	ppb	98
89) n-Butylbenzene	11.52	91	184019	10.3279	ppb	98
90) 1,2-DCB	11.48	146	145260	10.5158	ppb	98
91) Hexachloroethane	11.74	117	45825	9.8778	ppb	95
92) 1,2-Dibromo-3-chloropropan	12.31	75	18046	10.0602	ppb	97
93) 1,2,4-Trichlorobenzene	13.20	180	87469	10.4584	ppb	96
94) Hexachlorobutadiene	13.41	225	48894	10.1963	ppb	97
95) Naphthalene	13.45	128	185141	9.7609	ppb	97
96) 1,2,3-Trichlorobenzene	13.71	180	49968	10.4781	ppb	98

Quantitation Report

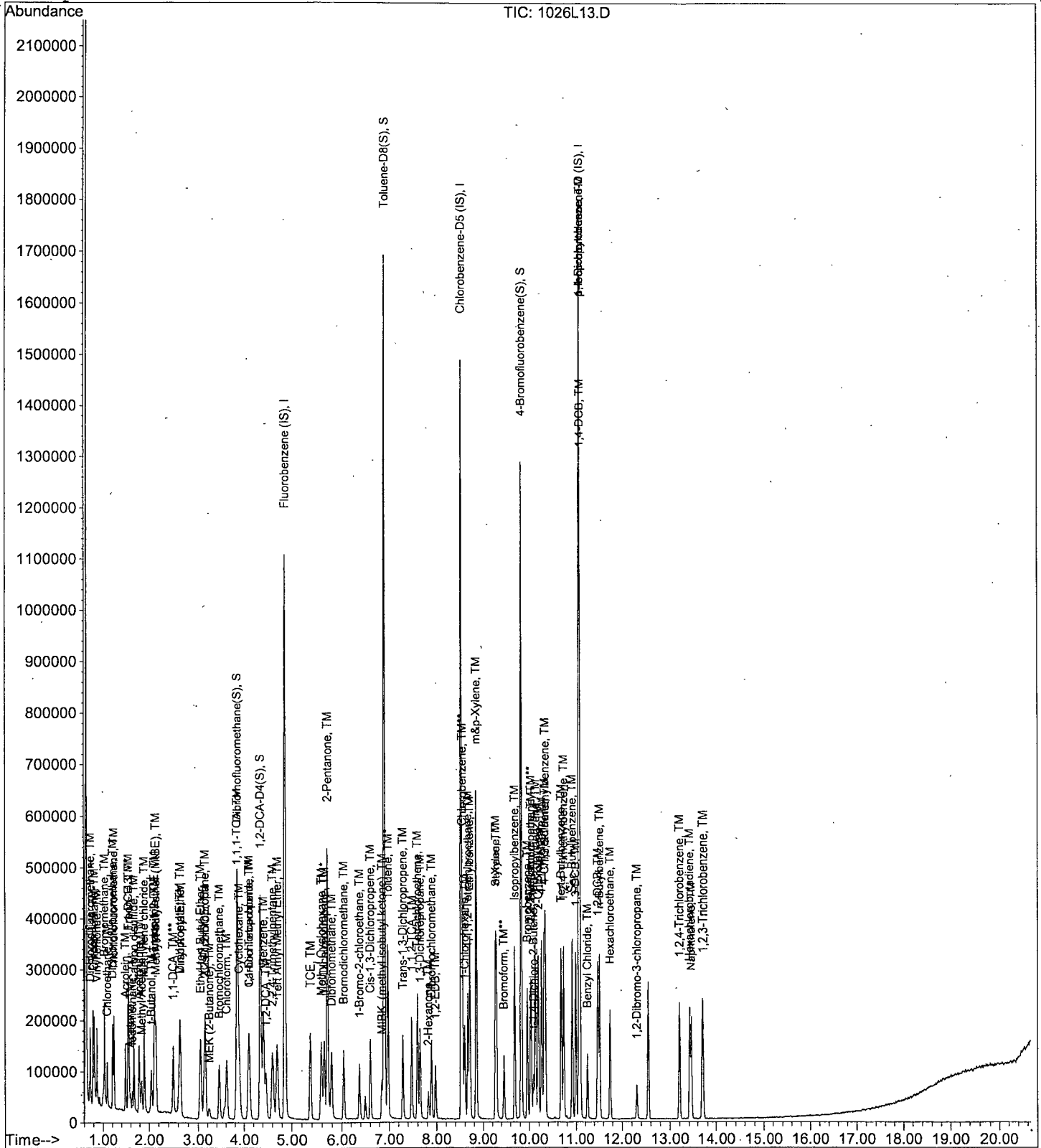
Data File : M:\LOKI\DATA\181026\1026L13.D  
 Acq On : 26 Oct 18 15:13  
 Sample : (SS)10ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 12  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/29/18  
Instrument: Loki  
Initial Cal. Date: 10/26/18  
Data File: 1029L14.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Fluorobenzene (IS)	ISTD			I
2	TM	Dichlorodifluoromethane	0.3531	0.3377	4.4	TM
3	TM	Freon 114	0.2423	0.2237	7.7	TM
4	TM**L	Chloromethane	0.4215	0.3809	9.6	TM**L 1.5
5	TM*	Vinyl chloride	0.3311	0.3340	0.87	TM*
6	TML	Bromomethane	0.2904	0.2748	5.4	TML 5.3
7	TM	Chloroethane	0.1889	0.1769	6.4	TM
8	TM	Dichlorofluoromethane	0.5006	0.4720	5.7	TM
9	TM	Trichlorofluoromethane	0.4298	0.3871	9.9	TM
10	TM	Acrolein	0.0303	0.0250	17	TM
11	TML	Acetone	0.1930	0.1217	37	TML 15
12	TM	Freon-113	0.2229	0.1940	13	TM
13	TM*	1,1-DCE	0.1014	0.0834	18	TM*
14	TM	t-Butanol	0.0354	0.0327	7.6	TM
15	TM	Acetonitrile	0.0508	0.0463	8.8	TM
16	TM	Methyl Acetate	0.2771	0.2525	8.9	TM
17	TML	Iodomethane	0.0954	0.0696	27	TML 33 nt
18	TML	Acrylonitrile	0.1304	0.1058	19	TML 4.5
19	TM	Methylene chloride	0.3234	0.3013	6.9	TM
20	TM	Carbon disulfide	0.7804	0.6685	14	TM
21	TM	Methyl t-butyl ether (MtBE)	0.7876	0.6978	11	TM
22	TM	Trans-1,2-DCE	0.2849	0.2567	9.9	TM
23	TM	Diisopropyl Ether	0.8312	0.7756	6.7	TM
24	TM**	1,1-DCA	0.5618	0.5066	9.8	TM**
25	TM	Vinyl Acetate	0.2025	0.1923	5.0	TM
26	TM	Ethyl tert Butyl Ether	0.7193	0.6410	11	TM
27	TM	MEK (2-Butanone)	0.1470	0.1365	7.1	TM
28	TM	Cis-1,2-DCE	0.3249	0.3055	6.0	TM
29	TML	2,2-Dichloropropane	0.4229	0.4051	4.2	TML 2.1
30	TM*	Chloroform	0.5553	0.5381	3.1	TM*
31	TM	Bromochloromethane	0.1779	0.1778	0.06	TM
32	SL	Dibromofluoromethane(S)	0.7974	0.6984	12	SL 1.4
33	TM	1,1,1-TCA	0.4431	0.4276	3.5	TM
34	TM	Cyclohexane	0.1856	0.1586	15	TM
35	TM	1,1-Dichloropropene	0.3378	0.2804	17	TM
36	TM	2,2,4-Trimethylpentane	0.6127	0.4948	19	TM
37	SL	1,2-DCA-D4(S)	0.8500	0.7715	9.2	SL 3.2
38	TM	Carbon Tetrachloride	0.3635	0.3487	4.1	TM
39	TM	Tert Amyl Methyl Ether	0.6574	0.5875	11	TM
40	TM	1,2-DCA	0.4107	0.3948	3.9	TM

Average

10.1

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/29/18  
Instrument: Loki  
Cal. Date: 10/26/18  
Data File: 1029L14.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	Benzene	1.156	1.046	9.5	TM
42	TM	TCE	0.1418	0.1282	9.6	TM
43	TM	2-Pentanone	0.2077	0.2007	3.3	TM
44	TM*	1,2-Dichloropropane	0.3105	0.2902	6.5	TM*
45	TM	Bromodichloromethane	0.4457	0.4249	4.7	TM
46	TM	Methyl Cyclohexane	0.3127	0.2297	27	TM
47	TM	Dibromomethane	0.2333	0.2184	6.4	TM
48	TM	2-Chloroethyl vinyl ether	0.0000	0.0058	0.00	TM
49	TM	MIBK (methyl isobutyl ketone)	0.2735	0.2512	8.2	TM
50	TM	1-Bromo-2-chloroethane	0.2256	0.2203	2.3	TM
51	TM	Cis-1,3-Dichloropropene	0.4569	0.3856	16	TM
52	TM*	Toluene	1.198	1.133	5.4	TM*
53	TM	Trans-1,3-Dichloropropene	0.4297	0.4026	6.3	TM
54	TM	1,1,2-TCA	0.2676	0.2561	4.3	TM
55	TM	2-Hexanone	0.1733	0.1537	11	TM
56	I	Chlorobenzene-D5 (IS)	ISTD			I
57	SL	Toluene-D8(S)	2.655	2.483	6.5	SL 0.69
58	TM	1,2-EDB	0.3277	0.3097	5.5	TM
59	TM	Tetrachloroethene	0.3551	0.3609	1.6	TM
60	TM	1-Chlorohexane	0.2589	0.2521	2.6	TM
61	TM	1,1,1,2-Tetrachloroethane	0.3468	0.3684	6.2	TM
62	TML	m&p-Xylene	0.5122	0.4988	2.6	TML 13
63	TM	o-Xylene	0.4219	0.3790	10	TM
64	TML	Styrene	0.4298	0.3823	11	TML 20
65	S	4-Bromofluorobenzene(S)	0.8129	0.8488	4.4	S
66	TM	1,3-Dichloropropane	0.5025	0.5171	2.9	TM
67	TM	Dibromochloromethane	0.3717	0.3572	3.9	TM
68	TM**	Chlorobenzene	0.8506	0.8247	3.0	TM**
69	TM*	Ethylbenzene	1.202	1.173	2.5	TM*
70	TM**	Bromoform	0.2788	0.2955	6.0	TM**
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
72	TM	Isopropylbenzene	1.887	1.660	12	TM
73	TM**	1,1,2,2-Tetrachloroethane	0.8566	0.8315	2.9	TM**
74	TM	1,2,3-Trichloropropane	0.2492	0.2386	4.2	TM
75	TM	t-1,4-Dichloro-2-Butene	0.1760	0.1633	7.2	TM
76	TM	Bromobenzene	0.7100	0.6690	5.8	TM
77	TM	n-Propylbenzene	1.457	1.330	8.8	TM
78	TM	4-Ethyltoluene	1.812	1.661	8.3	TM
79	TM	2-Chlorotoluene	1.519	1.435	5.5	TM
80	TML	1,3,5-Trimethylbenzene	1.014	1.010	0.39	TML 13

Average

6.4

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/29/18  
Instrument: Loki  
Cal. Date: 10/26/18  
Data File: 1029L14.D

		Compound	MEAN	CCRF	%D	%Drift	
81	TM	4-Chlorotoluene	1.733	1.681	3.0	TM	
82	TM	Tert-Butylbenzene	1.378	1.151	16	TM	
83	TML	1,2,4-Trimethylbenzene	1.584	1.356	14	TML	24 nt
84	TM	Sec-Butylbenzene	1.997	1.822	8.8	TM	
85	TM	p-Isopropyltoluene	1.853	1.672	9.8	TM	
86	TM	Benzyl Chloride	0.9394	0.8277	12	TM	
87	TM	1,3-DCB	1.257	1.193	5.1	TM	
88	TM	1,4-DCB	1.349	1.218	9.8	TM	
89	TM	n-Butylbenzene	1.571	1.350	14	TM	
90	TM	1,2-DCB	1.218	1.154	5.3	TM	
91	TM	Hexachloroethane	0.4091	0.3783	7.5	TM	
92	TM	1,2-Dibromo-3-chloropropane	0.1582	0.1361	14	TM	
93	TM	1,2,4-Trichlorobenzene	0.7375	0.5901	20	TM	
94	TM	Hexachlorobutadiene	0.4228	0.3432	19	TM	
95	TML	Naphthalene	1.520	1.142	25	TML	26 nt
96	TM	1,2,3-Trichlorobenzene	0.4205	0.3409	19	TM	
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
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110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							

Average

12.6

Data File : M:\LOKI\DATA\181026\1029L14.D  
 Acq On : 29 Oct 18 15:04  
 Sample : 181029A CCV 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 9  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 8:57 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	526528	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	475328	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	277824	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	367722	25.3431	ppb	0.00
Spiked Amount 25.000			Recovery = 101.372%			
37) 1,2-DCA-D4(S)	4.35	65	406215	25.7978	ppb	0.00
Spiked Amount 25.000			Recovery = 103.192%			
57) Toluene-D8(S)	6.90	98	1180360	25.1735	ppb	0.00
Spiked Amount 25.000			Recovery = 100.692%			
65) 4-Bromofluorobenzene(S)	9.83	95	403482	26.1063	ppb	0.00
Spiked Amount 25.000			Recovery = 104.424%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.72	85	71120	9.5637	ppb	97
3) Freon 114	0.79	85	47122	9.2337	ppb	97
4) Chloromethane	0.81	50	80231	10.1495	ppb	99
5) Vinyl chloride	0.87	62	70341	10.0868	ppb	98
6) Bromomethane	1.03	94	57867	10.5292	ppb	98
7) Chloroethane	1.09	64	37250	9.3618	ppb	99
8) Dichlorofluoromethane	1.21	67	99406	9.4290	ppb	99
9) Trichlorofluoromethane	1.24	101	81527	9.0072	ppb	96
10) Acrolein	1.49	56	65837	103.1869	ppb	100
11) Acetone	1.60	43	25641	8.4773	ppb	91
12) Freon-113	1.56	101	40856	8.7046	ppb	99
13) 1,1-DCE	1.54	63	17560	8.2260	ppb	96
14) t-Butanol	2.05	59	86044	115.5619	ppb	99
15) Acetonitrile	1.78	41	121862	114.0007	ppb	97
16) Methyl Acetate	1.84	43	53172	9.1114	ppb	99
17) Iodomethane	1.63	142	14666	6.7251	ppb	87
18) Acrylonitrile	2.10	52	22290	9.5545	ppb	96
19) Methylene chloride	1.89	84	63449	9.3144	ppb	98
20) Carbon disulfide	1.68	76	140790	8.5656	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	146968	8.8602	ppb	98
22) Trans-1,2-DCE	2.11	96	54067	9.0109	ppb	95
23) Diisopropyl Ether	2.63	45	163354	9.3311	ppb	97
24) 1,1-DCA	2.49	63	106692	9.0163	ppb	98
25) Vinyl Acetate	2.63	43	40510	9.5001	ppb	# 98
26) Ethyl tert Butyl Ether	3.05	59	135004	8.9112	ppb	94
27) MEK (2-Butanone)	3.23	43	28753	9.2873	ppb	# 74
28) Cis-1,2-DCE	3.16	96	64343	9.4034	ppb	95
29) 2,2-Dichloropropane	3.14	77	85322	10.2109	ppb	94
30) Chloroform	3.62	83	113325	9.6899	ppb	92
31) Bromochloromethane	3.45	128	37441	9.9937	ppb	90
33) 1,1,1-TCA	3.83	97	90057	9.6503	ppb	93
34) Cyclohexane	3.89	41	33397	8.5429	ppb	95
35) 1,1-Dichloropropene	4.11	75	59060	8.3020	ppb	94
36) 2,2,4-Trimethylpentane	4.61	57	104201	8.0747	ppb	# 82
38) Carbon Tetrachloride	4.09	117	73449	9.5941	ppb	94
39) Tert Amyl Methyl Ether	4.70	73	123736	8.9371	ppb	95
40) 1,2-DCA	4.46	62	83143	9.6120	ppb	# 92
41) Benzene	4.41	78	220235	9.0463	ppb	99
42) TCE	5.36	95	27000	9.0438	ppb	90

(#) = qualifier out of range (m) = manual integration  
 1029L14.D L1026W.M Tue Oct 30 09:07:05 2590

Data File : M:\LOKI\DATA\181026\1029L14.D  
 Acq On : 29 Oct 18 15:04  
 Sample : 181029A CCV-10ug/L  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 9  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 8:57 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	528446	120.8311	ppb	100
44) 1,2-Dichloropropane	5.64	63	61129	9.3491	ppb	99
45) Bromodichloromethane	6.04	83	89497	9.5336	ppb	100
46) Methyl Cyclohexane	5.59	83	48386	7.3462	ppb	90
47) Dibromomethane	5.79	93	46002	9.3639	ppb	91
49) MIBK (methyl isobutyl ket	6.85	43	52906	9.1850	ppb	95
50) 1-Bromo-2-chloroethane	6.37	63	46400	9.7668	ppb	100
51) Cis-1,3-Dichloropropene	6.61	75	81217	8.4393	ppb	98
52) Toluene	6.97	91	238573	9.4592	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	84789	9.3690	ppb	98
54) 1,1,2-TCA	7.47	83	53947	9.5731	ppb	98
55) 2-Hexanone	7.82	43	32381	8.8700	ppb	95
58) 1,2-EDB	7.98	107	58887	9.4520	ppb	98
59) Tetrachloroethene	7.60	166	68619	10.1641	ppb	97
60) 1-Chlorohexane	8.60	91	47933	9.7394	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.67	131	70043	10.6228	ppb	99
62) m&p-Xylene	8.85	91	189684	17.4589	ppb	99
63) o-Xylene	9.27	106	72060	8.9829	ppb	99
64) Styrene	9.29	104	72680	7.9743	ppb	100
66) 1,3-Dichloropropane	7.65	76	98309	10.2900	ppb	96
67) Dibromochloromethane	7.89	129	67907	9.6075	ppb	97
68) Chlorobenzene	8.55	112	156805	9.6954	ppb	99
69) Ethylbenzene	8.71	91	222965	9.7536	ppb	96
70) Bromoform	9.45	173	56193	10.6014	ppb	97
72) Isopropylbenzene	9.69	105	184511	8.7972	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.03	83	92407	9.7071	ppb	92
74) 1,2,3-Trichloropropane	10.04	110	26519	9.5778	ppb	94
75) t-1,4-Dichloro-2-Butene	10.09	53	18151	9.2818	ppb	96
76) Bromobenzene	9.96	156	74344	9.4227	ppb	98
77) n-Propylbenzene	10.13	91	147776	9.1249	ppb	97
78) 4-Ethyltoluene	10.26	105	184574	9.1662	ppb	99
79) 2-Chlorotoluene	10.19	91	159520	9.4497	ppb	97
80) 1,3,5-Trimethylbenzene	10.34	105	112288	8.6516	ppb	99
81) 4-Chlorotoluene	10.31	91	186836	9.7017	ppb	99
82) Tert-Butylbenzene	10.67	119	127903	8.3528	ppb	95
83) 1,2,4-Trimethylbenzene	10.73	105	150696	7.6266	ppb	95
84) Sec-Butylbenzene	10.91	105	202443	9.1236	ppb	97
85) p-Isopropyltoluene	11.08	119	185779	9.0211	ppb	97
86) Benzyl Chloride	11.25	91	91987	8.8112	ppb	99
87) 1,3-DCB	10.99	146	132532	9.4893	ppb	97
88) 1,4-DCB	11.09	146	135317	9.0244	ppb	99
89) n-Butylbenzene	11.52	91	150076	8.5956	ppb	96
90) 1,2-DCB	11.47	146	128242	9.4741	ppb	97
91) Hexachloroethane	11.75	117	42039	9.2475	ppb	95
92) 1,2-Dibromo-3-chloropropan	12.31	75	15126	8.6052	ppb	91
93) 1,2,4-Trichlorobenzene	13.20	180	65581	8.0021	ppb	95
94) Hexachlorobutadiene	13.41	225	38140	8.1168	ppb	96
95) Naphthalene	13.45	128	126865	7.4158	ppb	100
96) 1,2,3-Trichlorobenzene	13.71	180	37888	8.1078	ppb	97



Quantitation Report

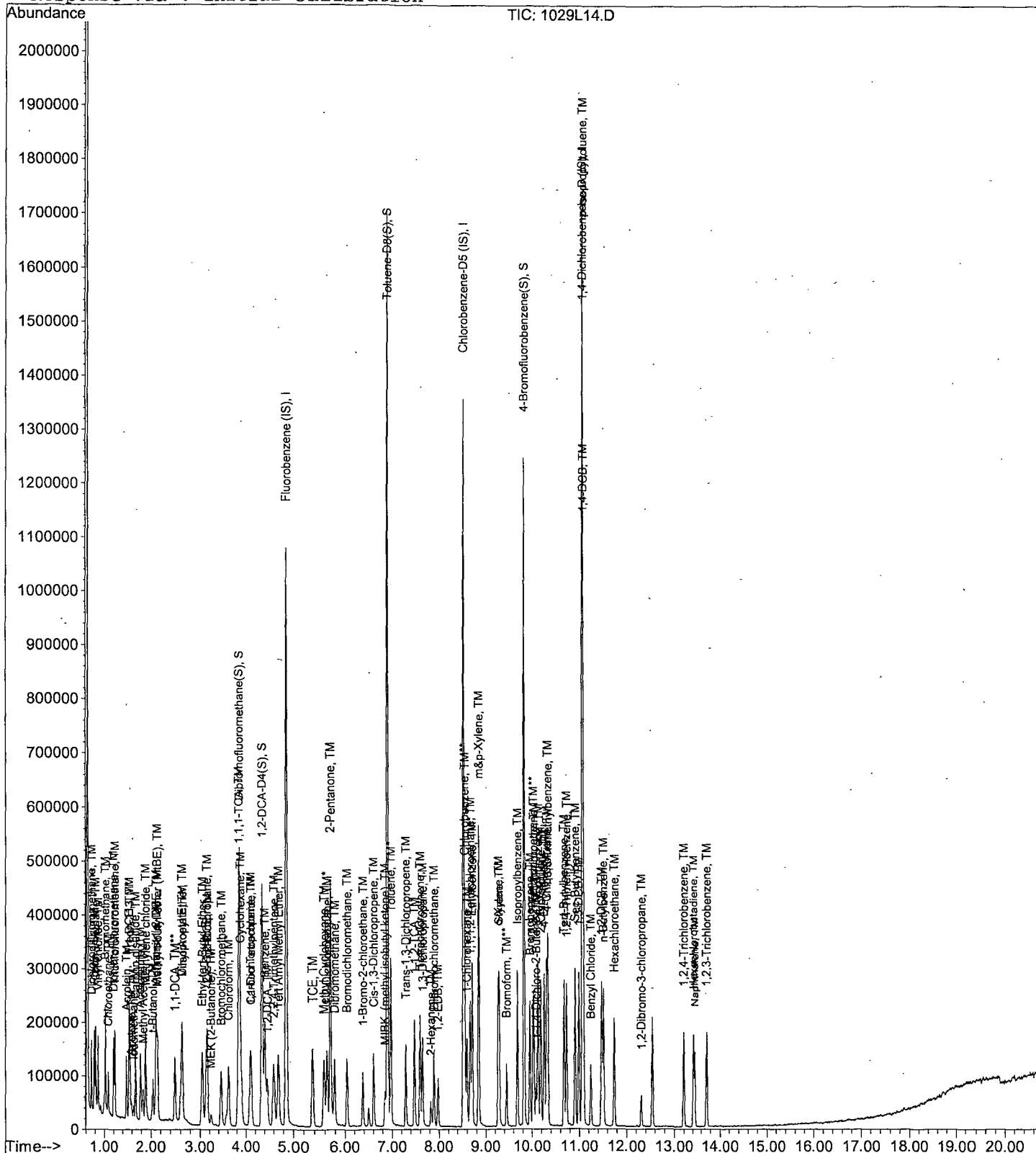
Data File : M:\LOKI\DATA\181026\1029L14.D  
Acq On : 29 Oct 18 15:04  
Sample : 181029A CCV 10ug/L  
Misc : IS&S 9/28/18, 8/23/18

Vial: 9  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 8:57 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 08:56:51 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Loki  
Initial Cal. Date: 10/26/18  
Data File: 1029L36.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Fluorobenzene (IS)	ISTD			I
2	TM	Dichlorodifluoromethane	0.3531	0.3990	13	TM
3	TM	Freon 114	0.2423	0.2702	12	TM
4	TM**L	Chloromethane	0.4215	0.4223	0.19	TM**L 13
5	TM*	Vinyl chloride	0.3311	0.3646	10	TM*
6	TML	Bromomethane	0.2904	0.2959	1.9	TML 15
7	TM	Chloroethane	0.1889	0.1941	2.7	TM
8	TM	Dichlorofluoromethane	0.5006	0.5643	13	TM
9	TM	Trichlorofluoromethane	0.4298	0.4583	6.6	TM
10	TM	Acrolein	0.0303	0.0257	15	TM
11	TML	Acetone	0.1930	0.1296	33	TML 7.0
12	TM	Freon-113	0.2229	0.2363	6.0	TM
13	TM*	1,1-DCE	0.1014	0.1076	6.2	TM*
14	TM	t-Butanol	0.0354	0.0291	18	TM
15	TM	Acetonitrile	0.0508	0.0499	1.7	TM
16	TM	Methyl Acetate	0.2771	0.2698	2.6	TM
17	TML	Iodomethane	0.0954	0.1022	7.2	TML 8.8
18	TML	Acrylonitrile	0.1304	0.1150	12	TML 4.6
19	TM	Methylene chloride	0.3234	0.3599	11	TM
20	TM	Carbon disulfide	0.7804	0.8006	2.6	TM
21	TM	Methyl t-butyl ether (MtBE)	0.7876	0.7637	3.0	TM
22	TM	Trans-1,2-DCE	0.2849	0.3020	6.0	TM
23	TM	Diisopropyl Ether	0.8312	0.8940	7.6	TM
24	TM**	1,1-DCA	0.5618	0.6043	7.5	TM**
25	TM	Vinyl Acetate	0.2025	0.2192	8.2	TM
26	TM	Ethyl tert Butyl Ether	0.7193	0.7014	2.5	TM
27	TM	MEK (2-Butanone)	0.1470	0.1428	2.9	TM
28	TM	Cis-1,2-DCE	0.3249	0.3370	3.7	TM
29	TML	2,2-Dichloropropane	0.4229	0.3761	11	TML 5.5
30	TM*	Chloroform	0.5553	0.6013	8.3	TM*
31	TM	Bromochloromethane	0.1779	0.1877	5.5	TM
32	SL	Dibromofluoromethane(S)	0.7974	0.7445	6.6	SL 9.0
33	TM	1,1,1-TCA	0.4431	0.4725	6.6	TM
34	TM	Cyclohexane	0.1856	0.1774	4.5	TM
35	TM	1,1-Dichloropropene	0.3378	0.3212	4.9	TM
36	TM	2,2,4-Trimethylpentane	0.6127	0.5034	18	TM
37	SL	1,2-DCA-D4(S)	0.8500	0.8475	0.29	SL 15
38	TM	Carbon Tetrachloride	0.3635	0.4124	13	TM
39	TM	Tert Amyl Methyl Ether	0.6574	0.6084	7.5	TM
40	TM	1,2-DCA	0.4107	0.4393	7.0	TM

Average

7.9

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Loki  
Cal. Date: 10/26/18  
Data File: 1029L36.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	Benzene	1.156	1.167	0.98	TM
42	TM	TCE	0.1418	0.1405	0.89	TM
43	TM	2-Pentanone	0.2077	0.1887	9.1	TM
44	TM*	1,2-Dichloropropane	0.3105	0.3320	7.0	TM*
45	TM	Bromodichloromethane	0.4457	0.4671	4.8	TM
46	TM	Methyl Cyclohexane	0.3127	0.2672	15	TM
47	TM	Dibromomethane	0.2333	0.2389	2.4	TM
48	TM	2-Chloroethyl vinyl ether	0.0000	0.0059	0.00	TM
49	TM	MIBK (methyl isobutyl ketone)	0.2735	0.2364	14	TM
50	TM	1-Bromo-2-chloroethane	0.2256	0.2273	0.78	TM
51	TM	Cis-1,3-Dichloropropene	0.4569	0.4270	6.6	TM
52	TM*	Toluene	1.198	1.257	5.0	TM*
53	TM	Trans-1,3-Dichloropropene	0.4297	0.4212	2.0	TM
54	TM	1,1,2-TCA	0.2676	0.2770	3.5	TM
55	TM	2-Hexanone	0.1733	0.1477	15	TM
56	I	Chlorobenzene-D5 (IS)	ISTD			I
57	SL	Toluene-D8(S)	2.655	2.573	3.1	SL 4.6
58	TM	1,2-EDB	0.3277	0.3387	3.4	TM
59	TM	Tetrachloroethene	0.3551	0.3884	9.4	TM
60	TM	1-Chlorohexane	0.2589	0.2609	0.79	TM
61	TM	1,1,1,2-Tetrachloroethane	0.3468	0.3922	13	TM
62	TML	m&p-Xylene	0.5122	0.5323	3.9	TML 7.8
63	TM	o-Xylene	0.4219	0.4275	1.3	TM
64	TML	Styrene	0.4298	0.4435	3.2	TML 9.9
65	S	4-Bromofluorobenzene(S)	0.8129	0.8853	8.9	S
66	TM	1,3-Dichloropropane	0.5025	0.5207	3.6	TM
67	TM	Dibromochloromethane	0.3717	0.3855	3.7	TM
68	TM**	Chlorobenzene	0.8506	0.8961	5.3	TM**
69	TM*	Ethylbenzene	1.202	1.221	1.5	TM*
70	TM**	Bromoform	0.2788	0.2952	5.9	TM**
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
72	TM	Isopropylbenzene	1.887	1.893	0.29	TM
73	TM**	1,1,2,2-Tetrachloroethane	0.8566	0.8165	4.7	TM**
74	TM	1,2,3-Trichloropropane	0.2492	0.2545	2.1	TM
75	TM	t-1,4-Dichloro-2-Butene	0.1760	0.1435	18	TM
76	TM	Bromobenzene	0.7100	0.7159	0.84	TM
77	TM	n-Propylbenzene	1.457	1.479	1.5	TM
78	TM	4-Ethyltoluene	1.812	1.874	3.4	TM
79	TM	2-Chlorotoluene	1.519	1.630	7.3	TM
80	TML	1,3,5-Trimethylbenzene	1.014	1.086	7.1	TML 7.2
Average					5.2	

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Loki  
Cal. Date: 10/26/18  
Data File: 1029L36.D

		Compound	MEAN	CCRF	%D	%Drift	
81	TM	4-Chlorotoluene	1.733	1.891	9.1	TM	
82	TM	Tert-Butylbenzene	1.378	1.407	2.1	TM	
83	TML	1,2,4-Trimethylbenzene	1.584	1.572	0.76	TML	13
84	TM	Sec-Butylbenzene	1.997	2.070	3.7	TM	
85	TM	p-Isopropyltoluene	1.853	1.889	1.9	TM	
86	TM	Benzyl Chloride	0.9394	0.5899	37	TM	
87	TM	1,3-DCB	1.257	1.335	6.2	TM	
88	TM	1,4-DCB	1.349	1.407	4.3	TM	
89	TM	n-Butylbenzene	1.571	1.455	7.4	TM	
90	TM	1,2-DCB	1.218	1.240	1.8	TM	
91	TM	Hexachloroethane	0.4091	0.4210	2.9	TM	
92	TM	1,2-Dibromo-3-chloropropane	0.1582	0.1354	14	TM	
93	TM	1,2,4-Trichlorobenzene	0.7375	0.6796	7.9	TM	
94	TM	Hexachlorobutadiene	0.4228	0.4160	1.6	TM	
95	TML	Naphthalene	1.520	1.181	22	TML	24
96	TM	1,2,3-Trichlorobenzene	0.4205	0.3758	11	TM	
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							

Average

8.4

Data File : M:\LOKI\DATA\181026\1029L36.D  
 Acq On : 30 Oct 18 1:30  
 Sample : Ending CCV 8260 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 31  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 9:04 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 08:56:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	444992	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	418432	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	233600	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	331296	27.2414	ppb	0.00
Spiked Amount 25.000			Recovery = 108.964%			
37) 1,2-DCA-D4(S)	4.35	65	377136	28.7684	ppb	0.00
Spiked Amount 25.000			Recovery = 115.072%			
57) Toluene-D8(S)	6.90	98	1076612	26.1380	ppb	0.00
Spiked Amount 25.000			Recovery = 104.552%			
65) 4-Bromofluorobenzene(S)	9.83	95	370448	27.2281	ppb	0.00
Spiked Amount 25.000			Recovery = 108.912%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	71016	11.2995	ppb	96
3) Freon 114	0.79	85	48099	11.1521	ppb	86
4) Chloromethane	0.81	50	75161	11.3477	ppb	98
5) Vinyl chloride	0.87	62	64905	11.0127	ppb	96
6) Bromomethane	1.03	94	52663	11.5037	ppb	95
7) Chloroethane	1.09	64	34548	10.2737	ppb	99
8) Dichlorofluoromethane	1.21	67	100444	11.2732	ppb	99
9) Trichlorofluoromethane	1.24	101	81572	10.6635	ppb	95
10) Acrolein	1.49	56	57072	105.8393	ppb	# 98
11) Acetone	1.59	43	23069	9.3008	ppb	97
12) Freon-113	1.56	101	42067	10.6049	ppb	94
13) 1,1-DCE	1.55	63	19152	10.6157	ppb	91
14) t-Butanol	2.04	59	64714	102.8399	ppb	95
15) Acetonitrile	1.78	41	110985	122.8493	ppb	97
16) Methyl Acetate	1.84	43	48022	9.7367	ppb	98
17) Iodomethane	1.64	142	18200	9.1151	ppb	95
18) Acrylonitrile	2.10	52	20474	10.4577	ppb	91
19) Methylene chloride	1.89	84	64070	11.1290	ppb	94
20) Carbon disulfide	1.68	76	142513	10.2591	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	135939	9.6969	ppb	97
22) Trans-1,2-DCE	2.11	96	53763	10.6021	ppb	97
23) Diisopropyl Ether	2.63	45	159125	10.7550	ppb	97
24) 1,1-DCA	2.49	63	107555	10.7547	ppb	97
25) Vinyl Acetate	2.63	43	39008	10.8240	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	124842	9.7503	ppb	99
27) MEK (2-Butanone)	3.23	43	25416	9.7136	ppb	92
28) Cis-1,2-DCE	3.15	96	59985	10.3728	ppb	95
29) 2,2-Dichloropropane	3.14	77	66948	9.4474	ppb	98
30) Chloroform	3.62	83	107035	10.8290	ppb	95
31) Bromochloromethane	3.46	128	33408	10.5511	ppb	97
33) 1,1,1-TCA	3.83	97	84098	10.6630	ppb	92
34) Cyclohexane	3.89	41	31568	9.5547	ppb	94
35) 1,1-Dichloropropene	4.11	75	57165	9.5080	ppb	93
36) 2,2,4-Trimethylpentane	4.61	57	89596	8.2151	ppb	# 80
38) Carbon Tetrachloride	4.09	117	73399	11.3443	ppb	95
39) Tert Amyl Methyl Ether	4.70	73	108293	9.2549	ppb	94
40) 1,2-DCA	4.47	62	78195	10.6963	ppb	96
41) Benzene	4.41	78	207771	10.0980	ppb	98
42) TCE	5.37	95	25008	9.9114	ppb	98

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

Data File : M:\LOKI\DATA\181026\1029L36.D  
 Acq On : 30 Oct 18 1:30  
 Sample : Ending CCV 8260 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 31  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 9:04 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 08:56:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	419749	113.5631	ppb	97
44) 1,2-Dichloropropane	5.64	63	59101	10.6952	ppb	99
45) Bromodichloromethane	6.04	83	83147	10.4801	ppb	99
46) Methyl Cyclohexane	5.59	83	47552	8.5424	ppb	94
47) Dibromomethane	5.79	93	42518	10.2406	ppb	86
49) MIBK (methyl isobutyl ket	6.85	43	42082	8.6445	ppb	92
50) 1-Bromo-2-chloroethane	6.37	63	40464	10.0779	ppb	100
51) Cis-1,3-Dichloropropene	6.61	75	76005	9.3448	ppb	98
52) Toluene	6.97	91	223736	10.4963	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	74971	9.8020	ppb	100
54) 1,1,2-TCA	7.47	83	49301	10.3517	ppb	96
55) 2-Hexanone	7.82	43	26292	8.5217	ppb	94
58) 1,2-EDB	7.98	107	56686	10.3359	ppb	96
59) Tetrachloroethene	7.60	166	65012	10.9392	ppb	95
60) 1-Chlorohexane	8.60	91	43666	10.0788	ppb	92
61) 1,1,1,2-Tetrachloroethane	8.66	131	65640	11.3087	ppb	99
62) m&p-Xylene	8.85	91	178190	18.4410	ppb	100
63) o-Xylene	9.27	106	71552	10.1324	ppb	99
64) Styrene	9.29	104	74224	9.0054	ppb	96
66) 1,3-Dichloropropane	7.65	76	87153	10.3627	ppb	98
67) Dibromochloromethane	7.89	129	64525	10.3704	ppb	99
68) Chlorobenzene	8.55	112	149980	10.5344	ppb	96
69) Ethylbenzene	8.71	91	204281	10.1514	ppb	95
70) Bromoform	9.45	173	49402	10.5876	ppb	99
72) Isopropylbenzene	9.69	105	176869	10.0293	ppb	97
73) 1,1,2,2-Tetrachloroethane	10.03	83	76297	9.5321	ppb	95
74) 1,2,3-Trichloropropane	10.04	110	23777	10.2132	ppb	88
75) t-1,4-Dichloro-2-Butene	10.09	53	13408	8.1544	ppb	93
76) Bromobenzene	9.96	156	66897	10.0840	ppb	96
77) n-Propylbenzene	10.13	91	138176	10.1473	ppb	95
78) 4-Ethyltoluene	10.26	105	175133	10.3439	ppb	100
79) 2-Chlorotoluene	10.19	91	152291	10.7294	ppb	98
80) 1,3,5-Trimethylbenzene	10.34	105	101472	9.2772	ppb	96
81) 4-Chlorotoluene	10.31	91	176704	10.9126	ppb	99
82) Tert-Butylbenzene	10.67	119	131469	10.2111	ppb	97
83) 1,2,4-Trimethylbenzene	10.73	105	146850	8.7402	ppb	97
84) Sec-Butylbenzene	10.91	105	193394	10.3659	ppb	99
85) p-Isopropyltoluene	11.08	119	176518	10.1941	ppb	99
86) Benzyl Chloride	11.25	91	55118	6.2791	ppb	98
87) 1,3-DCB	10.99	146	124754	10.6234	ppb	100
88) 1,4-DCB	11.09	146	131438	10.4252	ppb	98
89) n-Butylbenzene	11.52	91	135949	9.2605	ppb	97
90) 1,2-DCB	11.47	146	115905	10.1838	ppb	96
91) Hexachloroethane	11.74	117	39336	10.2910	ppb	95
92) 1,2-Dibromo-3-chloropropan	12.31	75	12650	8.5591	ppb	95
93) 1,2,4-Trichlorobenzene	13.20	180	63499	9.2149	ppb	93
94) Hexachlorobutadiene	13.41	225	38868	9.8377	ppb	97
95) Naphthalene	13.45	128	110384	7.6056	ppb	98
96) 1,2,3-Trichlorobenzene	13.71	180	35112	8.9363	ppb	99

Quantitation Report

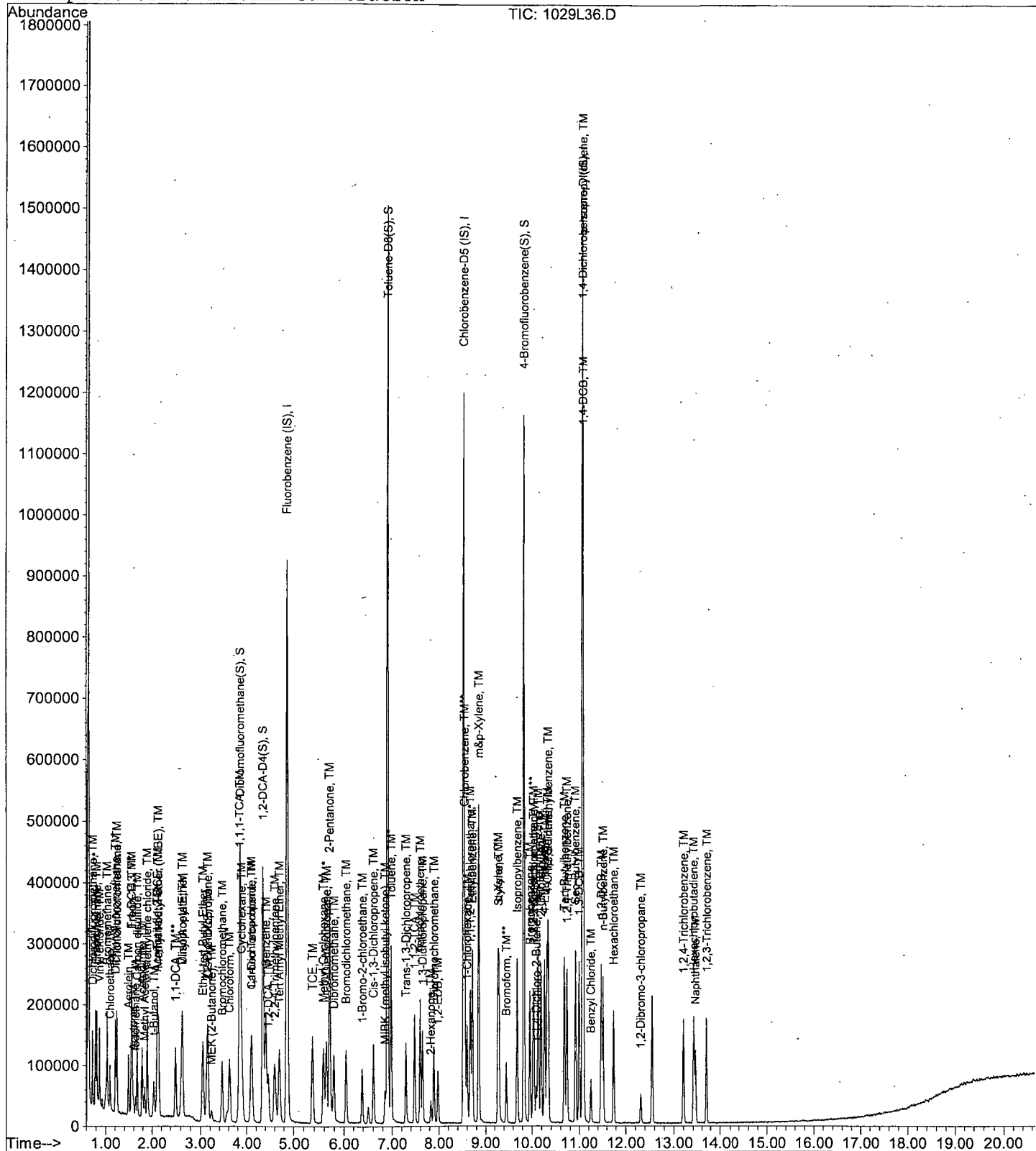
Data File : M:\LOKI\DATA\181026\1029L36.D  
Acq On : 30 Oct 18 1:30  
Sample : Ending CCV 8260 10ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 31  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 9:04 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 08:56:51 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Loki  
Initial Cal. Date: 10/26/18  
Data File: 1030L03.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Dichlorodifluoromethane	0.3531	0.3796	7.5	TM	
3	TM	Freon 114	0.2423	0.2733	13	TM	
4	TM**L	Chloromethane	0.4215	0.4123	2.2	TM**L	11
5	TM*	Vinyl chloride	0.3311	0.3685	11	TM*	
6	TML	Bromomethane	0.2904	0.3004	3.5	TML	17
7	TM	Chloroethane	0.1889	0.2093	11	TM	
8	TM	Dichlorofluoromethane	0.5006	0.5462	9.1	TM	
9	TM	Trichlorofluoromethane	0.4298	0.4728	10	TM	
10	TM	Acrolein	0.0303	0.0257	15	TM	
11	TML	Acetone	0.1930	0.1167	40	TML	21 nt
12	TM	Freon-113	0.2229	0.2538	14	TM	
13	TM*	1,1-DCE	0.1014	0.1063	4.9	TM*	
14	TM	t-Butanol	0.0354	0.0280	21	TM	nt
15	TM	Acetonitrile	0.0508	0.0463	8.9	TM	
16	TM	Methyl Acetate	0.2771	0.2547	8.1	TM	
17	TML	Iodomethane	0.0954	0.1002	5.1	TML	10
18	TML	Acrylonitrile	0.1304	0.1094	16	TML	0.93
19	TM	Methylene chloride	0.3234	0.3644	13	TM	
20	TM	Carbon disulfide	0.7804	0.8145	4.4	TM	
21	TM	Methyl t-butyl ether (MtBE)	0.7876	0.7446	5.5	TM	
22	TM	Trans-1,2-DCE	0.2849	0.3089	8.4	TM	
23	TM	Diisopropyl Ether	0.8312	0.9044	8.8	TM	
24	TM**	1,1-DCA	0.5618	0.6042	7.5	TM**	
25	TM	Vinyl Acetate	0.2025	0.2120	4.7	TM	
26	TM	Ethyl tert Butyl Ether	0.7193	0.6672	7.3	TM	
27	TM	MEK (2-Butanone)	0.1470	0.1285	13	TM	
28	TM	Cis-1,2-DCE	0.3249	0.3222	0.83	TM	
29	TML	2,2-Dichloropropane	0.4229	0.4788	13	TML	22 nt
30	TM*	Chloroform	0.5553	0.6027	8.5	TM*	
31	TM	Bromochloromethane	0.1779	0.1940	9.1	TM	
32	SL	Dibromofluoromethane(S)	0.7974	0.7725	3.1	SL	14
33	TM	1,1,1-TCA	0.4431	0.4849	9.4	TM	
34	TM	Cyclohexane	0.1856	0.1909	2.8	TM	
35	TM	1,1-Dichloropropene	0.3378	0.3122	7.6	TM	
36	TM	2,2,4-Trimethylpentane	0.6127	0.6123	0.07	TM	
37	SL	1,2-DCA-D4(S)	0.8740	0.8783	0.49	SL	20
38	TM	Carbon Tetrachloride	0.3635	0.3995	9.9	TM	
39	TM	Tert Amyl Methyl Ether	0.6574	0.5921	9.9	TM	
40	TM	1,2-DCA	0.4107	0.4425	7.7	TM	
Average					9.1		



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Loki  
Cal. Date: 10/26/18  
Data File: 1030L03.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM	Benzene	1.156	1.140	1.4	TM	
42	TM	TCE	0.1418	0.1406	0.82	TM	
43	TM	2-Pentanone	0.2077	0.1837	12	TM	
44	TM*	1,2-Dichloropropane	0.3105	0.3141	1.2	TM*	
45	TM	Bromodichloromethane	0.4457	0.4775	7.1	TM	
46	TM	Methyl Cyclohexane	0.3127	0.2895	7.4	TM	
47	TM	Dibromomethane	0.2333	-0.2364	1.4	TM	
48	TM	2-Chloroethyl vinyl ether	0.0000	0.0006	0.00	TM	
49	TM	MIBK (methyl isobutyl ketone)	0.2735	0.2542	7.1	TM	
50	TM	1-Bromo-2-chloroethane	0.2256	0.2332	3.4	TM	
51	TM	Cis-1,3-Dichloropropene	0.4569	0.4434	3.0	TM	
52	TM*	Toluene	1.198	1.272	6.2	TM*	
53	TM	Trans-1,3-Dichloropropene	0.4297	0.4182	2.7	TM	
54	TM	1,1,2-TCA	0.2676	0.2626	1.9	TM	
55	TM	2-Hexanone	0.1733	0.1336	23	TM	
56	I	Chlorobenzene-D5 (IS)	ISTD			I	
57	SL	Toluene-D8(S)	2.655	2.712	2.1	SL	14
58	TM	1,2-EDB	0.3277	0.3326	1.5	TM	
59	TM	Tetrachloroethene	0.3551	0.4025	13	TM	
60	TM	1-Chlorohexane	0.2589	0.2626	1.4	TM	
61	TM	1,1,1,2-Tetrachloroethane	0.3468	0.3817	10	TM	
62	TML	m&p-Xylene	0.5122	0.5206	1.6	TML	9.5
63	TM	o-Xylene	0.4219	0.4226	0.17	TM	
64	TML	Styrene	0.4298	0.4123	4.1	TML	15
65	S	4-Bromofluorobenzene(S)	0.8129	0.9215	13	S	
66	TM	1,3-Dichloropropane	0.5025	0.5267	4.8	TM	
67	TM	Dibromochloromethane	0.3717	0.3957	6.4	TM	
68	TM**	Chlorobenzene	0.8506	0.8943	5.1	TM**	
69	TM*	Ethylbenzene	1.202	1.204	0.11	TM*	
70	TM**	Bromoform	0.2788	0.2844	2.0	TM**	
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
72	TM	Isopropylbenzene	1.887	1.812	4.0	TM	
73	TM**	1,1,2,2-Tetrachloroethane	0.8566	0.8216	4.1	TM**	
74	TM	1,2,3-Trichloropropane	0.2492	0.2427	2.6	TM	
75	TM	t-1,4-Dichloro-2-Butene	0.1760	0.1569	11	TM	
76	TM	Bromobenzene	0.7100	0.7295	2.7	TM	
77	TM	n-Propylbenzene	1.457	1.458	0.04	TM	
78	TM	4-Ethyltoluene	1.812	1.880	3.8	TM	
79	TM	2-Chlorotoluene	1.519	1.597	5.1	TM	
80	TML	1,3,5-Trimethylbenzene	1.014	1.067	5.2	TML	8.8

Average

4.8

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Loki  
Cal. Date: 10/26/18  
Data File: 1030L03.D

		Compound	MEAN	CCRF	%D	%Drift	
81	TM	4-Chlorotoluene	1.733	1.895	9.3	TM	
82	TM	Tert-Butylbenzene	1.378	1.384	0.46	TM	
83	TML	1,2,4-Trimethylbenzene	1.584	1.550	2.1	TML	14
84	TM	Sec-Butylbenzene	1.997	2.090	4.7	TM	
85	TM	p-Isopropyltoluene	1.853	1.909	3.0	TM	
86	TM	Benzyl Chloride	0.9394	0.9225	1.8	TM	
87	TM	1,3-DCB	1.257	1.337	6.4	TM	
88	TM	1,4-DCB	1.349	1.430	6.0	TM	
89	TM	n-Butylbenzene	1.571	1.569	0.12	TM	
90	TM	1,2-DCB	1.218	1.242	2.0	TM	
91	TM	Hexachloroethane	0.4091	0.4355	6.5	TM	
92	TM	1,2-Dibromo-3-chloropropane	0.1582	0.1295	18	TM	
93	TM	1,2,4-Trichlorobenzene	0.7375	0.6723	8.8	TM	
94	TM	Hexachlorobutadiene	0.4228	0.4414	4.4	TM	
95	TML	Naphthalene	1.520	1.109	27	TML	27 nt
96	TM	1,2,3-Trichlorobenzene	0.4205	0.3563	15	TM	
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							

Average

7.2

Data File : M:\LOKI\DATA\181026\1030L03.D  
 Acq On : 30 Oct 18 9:31  
 Sample : 181030A CCV 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 2  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 31 6:32 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	445568	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	421248	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	236608	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S) Spiked Amount 25.000	3.85	111	344183	28.3926	ppb	0.00
						Recovery = 113.572%
37) 1,2-DCA-D4(S) Spiked Amount 25.000	4.35	65	391351	29.9723	ppb	0.00
						Recovery = 119.888%
57) Toluene-D8(S) Spiked Amount 25.000	6.90	98	1142471	28.4231	ppb	0.00
						Recovery = 113.692%
65) 4-Bromofluorobenzene(S) Spiked Amount 25.000	9.83	95	388198	28.3420	ppb	0.00
						Recovery = 113.368%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.72	85	67656	10.7509	ppb	99
3) Freon 114	0.79	85	48705	11.2780	ppb	94
4) Chloromethane	0.81	50	73485	11.0592	ppb	100
5) Vinyl chloride	0.87	62	65684	11.1305	ppb	98
6) Bromomethane	1.03	94	53544	11.7142	ppb	99
7) Chloroethane	1.09	64	37307	11.0798	ppb	98
8) Dichlorofluoromethane	1.21	67	97342	10.9109	ppb	99
9) Trichlorofluoromethane	1.24	101	84270	11.0019	ppb	94
10) Acrolein	1.49	56	57173	105.8895	ppb	# 97
11) Acetone	1.59	43	20798	7.9478	ppb	93
12) Freon-113	1.56	101	45236	11.3890	ppb	95
13) 1,1-DCE	1.55	63	18952	10.4912	ppb	93
14) t-Butanol	2.04	59	62414	99.0567	ppb	100
15) Acetonitrile	1.78	41	103048	113.9164	ppb	95
16) Methyl Acetate	1.84	43	45402	9.1936	ppb	95
17) Iodomethane	1.64	142	17864	8.9672	ppb	91
18) Acrylonitrile	2.10	52	19502	9.9071	ppb	91
19) Methylene chloride	1.89	84	64953	11.2678	ppb	93
20) Carbon disulfide	1.68	76	145172	10.4370	ppb	100
21) Methyl t-butyl ether (MtBE)	2.14	73	132702	9.4538	ppb	96
22) Trans-1,2-DCE	2.11	96	55046	10.8410	ppb	96
23) Diisopropyl Ether	2.63	45	161184	10.8801	ppb	93
24) 1,1-DCA	2.49	63	107679	10.7532	ppb	99
25) Vinyl Acetate	2.63	43	37782	10.4703	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	118905	9.2747	ppb	95
27) MEK (2-Butanone)	3.23	43	22901	8.7411	ppb	# 85
28) Cis-1,2-DCE	3.16	96	57423	9.9169	ppb	96
29) 2,2-Dichloropropane	3.13	77	85342	12.1518	ppb	# 96
30) Chloroform	3.62	83	107416	10.8535	ppb	94
31) Bromochloromethane	3.45	128	34574	10.9053	ppb	96
33) 1,1,1-TCA	3.83	97	86428	10.9442	ppb	90
34) Cyclohexane	3.89	41	34015	10.2820	ppb	90
35) 1,1-Dichloropropene	4.11	75	55648	9.2438	ppb	# 88
36) 2,2,4-Trimethylpentane	4.60	57	109123	9.9926	ppb	88
38) Carbon Tetrachloride	4.09	117	71205	10.9910	ppb	97
39) Tert Amyl Methyl Ether	4.70	73	105526	9.0067	ppb	95
40) 1,2-DCA	4.46	62	78864	10.7739	ppb	98
41) Benzene	4.41	78	203161	9.8612	ppb	98
42) TCE	5.37	95	25056	9.9176	ppb	95

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

Data File : M:\LOKI\DATA\181026\1030L03.D  
 Acq On : 30 Oct 18 9:31  
 Sample : 181030A CCV 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 2  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 31 6:32 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	409338	110.6032	ppb	99
44) 1,2-Dichloropropane	5.64	63	55990	10.1191	ppb	98
45) Bromodichloromethane	6.04	83	85100	10.7124	ppb	97
46) Methyl Cyclohexane	5.58	83	51600	9.2576	ppb	89
47) Dibromomethane	5.79	93	42140	10.1364	ppb	90
49) MIBK (methyl isobutyl ket	6.85	43	45297	9.2929	ppb	96
50) 1-Bromo-2-chloroethane	6.37	63	41568	10.3395	ppb	100
51) Cis-1,3-Dichloropropene	6.61	75	79029	9.7041	ppb	99
52) Toluene	6.97	91	226724	10.6227	ppb	99
53) Trans-1,3-Dichloropropene	7.28	75	74529	9.7316	ppb	100
54) 1,1,2-TCA	7.47	83	46803	9.8145	ppb	86
55) 2-Hexanone	7.82	43	23813	7.7083	ppb	98
58) 1,2-EDB	7.98	107	56036	10.1491	ppb	93
59) Tetrachloroethene	7.59	166	67825	11.3363	ppb	92
60) 1-Chlorohexane	8.60	91	44247	10.1447	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.66	131	64311	11.0057	ppb	99
62) m&p-Xylene	8.84	91	175431	18.0966	ppb	99
63) o-Xylene	9.27	106	71212	10.0169	ppb	94
64) Styrene	9.29	104	69464	8.4795	ppb	100
66) 1,3-Dichloropropane	7.65	76	88749	10.4820	ppb	100
67) Dibromochloromethane	7.89	129	66677	10.6446	ppb	98
68) Chlorobenzene	8.55	112	150686	10.5132	ppb	98
69) Ethylbenzene	8.71	91	202815	10.0112	ppb	98
70) Bromoform	9.45	173	47922	10.2017	ppb	99
72) Isopropylbenzene	9.69	105	171483	9.6003	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.02	83	77757	9.5910	ppb	92
74) 1,2,3-Trichloropropane	10.04	110	22967	9.7398	ppb	91
75) t-1,4-Dichloro-2-Butene	10.09	53	14849	8.9160	ppb	88
76) Bromobenzene	9.96	156	69040	10.2747	ppb	100
77) n-Propylbenzene	10.13	91	137984	10.0044	ppb	96
78) 4-Ethyltoluene	10.26	105	177942	10.3762	ppb	100
79) 2-Chlorotoluene	10.19	91	151111	10.5109	ppb	100
80) 1,3,5-Trimethylbenzene	10.34	105	100952	9.1174	ppb	98
81) 4-Chlorotoluene	10.31	91	179319	10.9333	ppb	100
82) Tert-Butylbenzene	10.67	119	131011	10.0462	ppb	95
83) 1,2,4-Trimethylbenzene	10.73	105	146682	8.6278	ppb	100
84) Sec-Butylbenzene	10.91	105	197850	10.4699	ppb	99
85) p-Isopropyltoluene	11.08	119	180630	10.2989	ppb	99
86) Benzyl Chloride	11.25	91	87305	9.8194	ppb	97
87) 1,3-DCB	10.99	146	126550	10.6394	ppb	98
88) 1,4-DCB	11.09	146	135339	10.5981	ppb	96
89) n-Butylbenzene	11.52	91	148511	9.9876	ppb	95
90) 1,2-DCB	11.47	146	117580	10.1996	ppb	98
91) Hexachloroethane	11.74	117	41220	10.6468	ppb	92
92) 1,2-Dibromo-3-chloropropan	12.30	75	12255	8.1864	ppb	# 84
93) 1,2,4-Trichlorobenzene	13.20	180	63628	9.1162	ppb	95
94) Hexachlorobutadiene	13.41	225	41779	10.4400	ppb	96
95) Naphthalene	13.44	128	104934	7.2588	ppb	98
96) 1,2,3-Trichlorobenzene	13.71	180	33720	8.4729	ppb	99

(#) = qualifier out of range (m) = manual integration  
 1030L03.D L1026W.M Wed Oct 31 08:25:08 2018

# Quantitation Report

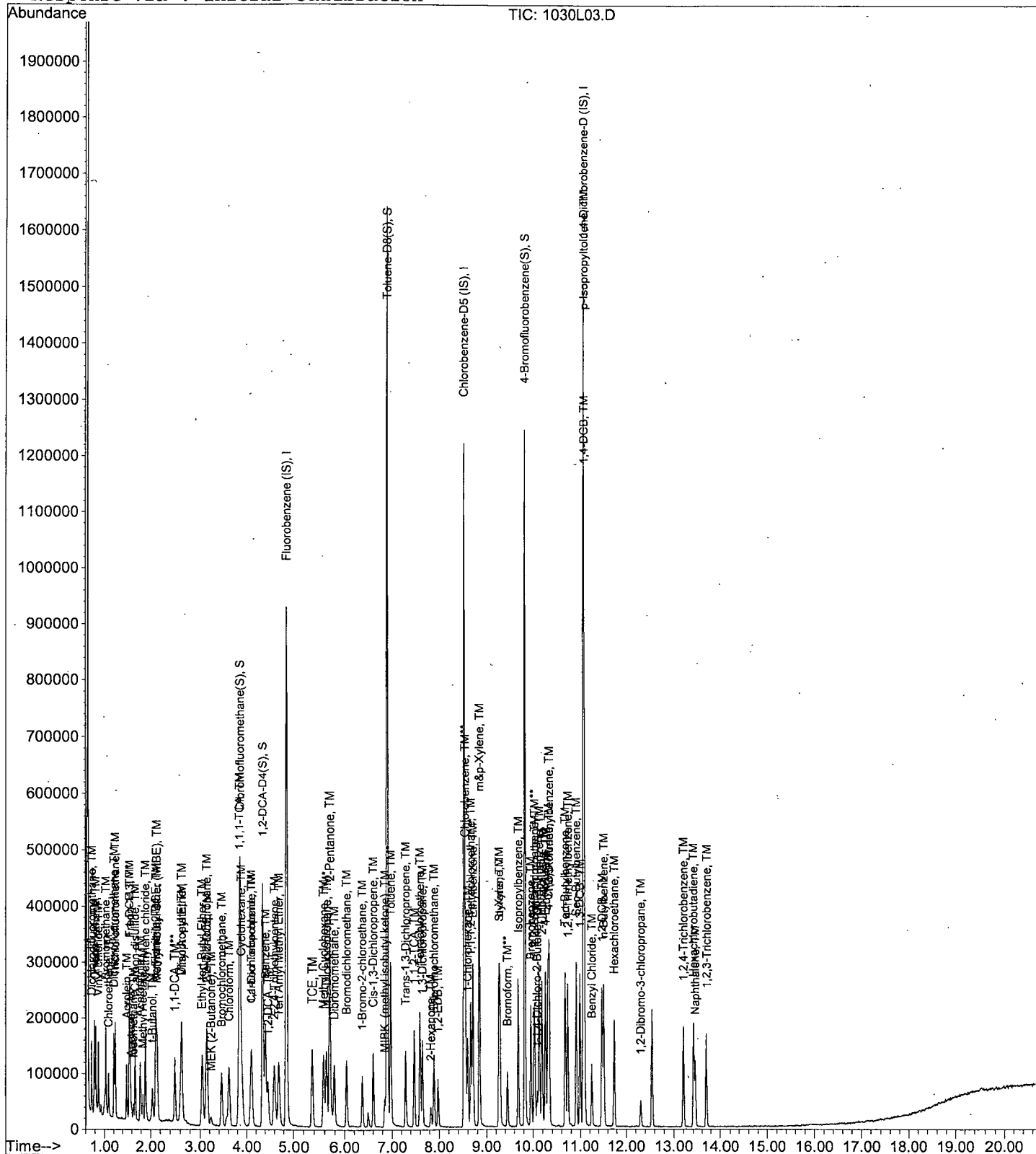
Data File : M:\LOKI\DATA\181026\1030L03.D  
Acq On : 30 Oct 18 9:31  
Sample : 181030A CCV 10ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 2  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 31 6:32 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 31 07:45:10 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Loki  
Initial Cal. Date: 10/26/18  
Data File: 1030L25.D

		Compound	MEAN	CCRF	%D	%Drift
1	I	Fluorobenzene (IS)	ISTD			I
2	TM	Dichlorodifluoromethane	0.3531	0.2878	18	TM
3	TM	Freon 114	0.2423	0.2644	9.1	TM
4	TM**L	Chloromethane	0.4215	0.3610	14	TM**L 4.3
5	TM*	Vinyl chloride	0.3311	0.2905	12	TM*
6	TML	Bromomethane	0.2904	0.2860	1.5	TML 10
7	TM	Chloroethane	0.1889	0.1584	16	TM
8	TM	Dichlorofluoromethane	0.5006	0.5533	11	TM
9	TM	Trichlorofluoromethane	0.4298	0.3584	17	TM
10	TM	Acrolein	0.0303	0.0291	4.1	TM
11	TML	Acetone	0.1930	0.1509	22	TML 15
12	TM	Freon-113	0.2229	0.2360	5.9	TM
13	TM*	1,1-DCE	0.1014	0.0978	3.6	TM*
14	TM	t-Butanol	0.0354	0.0380	7.6	TM
15	TM	Acetonitrile	0.0508	0.0572	13	TM
16	TM	Methyl Acetate	0.2771	0.2893	4.4	TM
17	TML	Iodomethane	0.0954	0.1029	7.9	TML 8.3
18	TML	Acrylonitrile	0.1304	0.1242	4.7	TML 14
19	TM	Methylene chloride	0.3234	0.3472	7.3	TM
20	TM	Carbon disulfide	0.7804	0.7756	0.62	TM
21	TM	Methyl t-butyl ether (MtBE)	0.7876	0.7792	1.1	TM
22	TM	Trans-1,2-DCE	0.2849	0.3010	5.7	TM
23	TM	Diisopropyl Ether	0.8312	0.8924	7.4	TM
24	TM**	1,1-DCA	0.5618	0.5940	5.7	TM**
25	TM	Vinyl Acetate	0.2025	0.2158	6.6	TM
26	TM	Ethyl tert Butyl Ether	0.7193	0.6843	4.9	TM
27	TM	MEK (2-Butanone)	0.1470	0.1542	4.9	TM
28	TM	Cis-1,2-DCE	0.3249	0.3394	4.5	TM
29	TML	2,2-Dichloropropane	0.4229	0.3933	7.0	TML 1.00
30	TM*	Chloroform	0.5553	0.6358	14	TM*
31	TM	Bromochloromethane	0.1779	0.1977	11	TM
32	SL	Dibromofluoromethane(S)	0.7974	0.7301	8.4	SL 6.6
33	TM	1,1,1-TCA	0.4431	0.5047	14	TM
34	TM	Cyclohexane	0.1856	0.1917	3.3	TM
35	TM	1,1-Dichloropropene	0.3378	0.3096	8.4	TM
36	TM	2,2,4-Trimethylpentane	0.6127	0.5179	15	TM
37	SL	1,2-DCA-D4(S)	0.8740	0.7956	9.0	SL 7.0
38	TM	Carbon Tetrachloride	0.3635	0.4289	18	TM
39	TM	Tert Amyl Methyl Ether	0.6574	0.6160	6.3	TM
40	TM	1,2-DCA	0.4107	0.4496	9.5	TM

Average

8.8

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Loki  
Cal. Date: 10/26/18  
Data File: 1030L25.D

		Compound	MEAN	CCRF	%D	%Drift
41	TM	Benzene	1.156	1.192	3.1	TM
42	TM	TCE	0.1418	0.1413	0.33	TM
43	TM	2-Pentanone	0.2077	0.2259	8.8	TM
44	TM*	1,2-Dichloropropane	0.3105	0.3358	8.1	TM*
45	TM	Bromodichloromethane	0.4457	0.4920	10	TM
46	TM	Methyl Cyclohexane	0.3127	0.2507	20	TM
47	TM	Dibromomethane	0.2333	0.2434	4.3	TM
48	TM	2-Chloroethyl vinyl ether	0.0000	0.0012	0.00	TM
49	TM	MIBK (methyl isobutyl ketone)	0.2735	0.2695	1.5	TM
50	TM	1-Bromo-2-chloroethane	0.2256	0.2367	4.9	TM
51	TM	Cis-1,3-Dichloropropene	0.4569	0.4284	6.2	TM
52	TM*	Toluene	1.198	1.249	4.3	TM*
53	TM	Trans-1,3-Dichloropropene	0.4297	0.3851	10	TM
54	TM	1,1,2-TCA	0.2676	0.2922	9.2	TM
55	TM	2-Hexanone	0.1733	0.1627	6.1	TM
56	I	Chlorobenzene-D5 (IS)	ISTD			I
57	SL	Toluene-D8(S)	2.655	2.398	9.7	SL 0.53
58	TM	1,2-EDB	0.3277	0.3600	9.9	TM
59	TM	Tetrachloroethene	0.3551	0.3761	5.9	TM
60	TM	1-Chlorohexane	0.2589	0.2566	0.85	TM
61	TM	1,1,1,2-Tetrachloroethane	0.3468	0.4097	18	TM
62	TML	m&p-Xylene	0.5122	0.5297	3.4	TML 8.2
63	TM	o-Xylene	0.4219	0.4172	1.1	TM
64	TML	Styrene	0.4298	0.4321	0.53	TML 12
65	S	4-Bromofluorobenzene(S)	0.8129	0.8252	1.5	S
66	TM	1,3-Dichloropropane	0.5025	0.5284	5.2	TM
67	TM	Dibromochloromethane	0.3717	0.4134	11	TM
68	TM**	Chlorobenzene	0.8506	0.9154	7.6	TM**
69	TM*	Ethylbenzene	1.202	1.209	0.56	TM*
70	TM**	Bromoform	0.2788	0.3030	8.7	TM**
71	I	1,4-Dichlorobenzene-D (IS)	ISTD			I
72	TM	Isopropylbenzene	1.887	1.798	4.8	TM
73	TM**	1,1,2,2-Tetrachloroethane	0.8566	0.8937	4.3	TM**
74	TM	1,2,3-Trichloropropane	0.2492	0.2926	17	TM
75	TM	t-1,4-Dichloro-2-Butene	0.1760	0.1573	11	TM
76	TM	Bromobenzene	0.7100	0.7464	5.1	TM
77	TM	n-Propylbenzene	1.457	1.434	1.6	TM
78	TM	4-Ethyltoluene	1.812	1.832	1.1	TM
79	TM	2-Chlorotoluene	1.519	1.591	4.7	TM
80	TML	1,3,5-Trimethylbenzene	1.014	1.107	9.1	TML 5.5

Average

6.3

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.  
Case No: \_\_\_\_\_  
Matrix: 0

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Loki  
Cal. Date: 10/26/18  
Data File: 1030L25.D

		Compound	MEAN	CCRF	%D	%Drift	
81	TM	4-Chlorotoluene	1.733	1.920	11	TM	
82	TM	Tert-Butylbenzene	1.378	1.340	2.7	TM	
83	TML	1,2,4-Trimethylbenzene	1.584	1.546	2.4	TML	14
84	TM	Sec-Butylbenzene	1.997	1.985	0.59	TM	
85	TM	p-Isopropyltoluene	1.853	1.854	0.06	TM	
86	TM	Benzyl Chloride	0.9394	0.6138	35	TM	
87	TM	1,3-DCB	1.257	1.351	7.5	TM	
88	TM	1,4-DCB	1.349	1.466	8.6	TM	
89	TM	n-Butylbenzene	1.571	1.419	9.7	TM	
90	TM	1,2-DCB	1.218	1.277	4.8	TM	
91	TM	Hexachloroethane	0.4091	0.3493	15	TM	
92	TM	1,2-Dibromo-3-chloropropane	0.1582	0.1628	2.9	TM	
93	TM	1,2,4-Trichlorobenzene	0.7375	0.6508	12	TM	
94	TM	Hexachlorobutadiene	0.4228	0.4290	1.5	TM	
95	TML	Naphthalene	1.520	1.299	15	TML	18
96	TM	1,2,3-Trichlorobenzene	0.4205	0.3761	11	TM	
97							
98							
99							
100							
101							
102							
103							
104							
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111							
112							
113							
114							
115							
116							
117							
118							
119							
120							

Average

8.7



Data File : M:\LOKI\DATA\181026\1030L25.D  
 Acq On : 30 Oct 18 19:58  
 Sample : Ending CCV 8260 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 24  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 31 6:32 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.86	96	459520	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	428800	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	241152	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Dibromofluoromethane (S)	3.85	111	335513	26.6502	ppb	0.00
Spiked Amount 25.000			Recovery =	106.600%		
37) 1,2-DCA-D4 (S)	4.35	65	365577	26.7382	ppb	0.00
Spiked Amount 25.000			Recovery =	106.952%		
57) Toluene-D8 (S)	6.90	98	1028352	25.1334	ppb	0.00
Spiked Amount 25.000			Recovery =	100.532%		
65) 4-Bromofluorobenzene (S)	9.83	95	353844	25.3788	ppb	0.00
Spiked Amount 25.000			Recovery =	101.516%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	52904	8.1515	ppb	97
3) Freon 114	0.79	85	48604	10.9129	ppb	90
4) Chloromethane	0.81	50	66363	9.5724	ppb	98
5) Vinyl chloride	0.87	62	53398	8.7738	ppb	99
6) Bromomethane	1.03	94	52567	11.0477	ppb	96
7) Chloroethane	1.09	64	29120	8.3858	ppb	99
8) Dichlorofluoromethane	1.21	67	101694	11.0527	ppb	95
9) Trichlorofluoromethane	1.24	101	65874	8.3391	ppb	100
10) Acrolein	1.49	56	66765	119.9004	ppb	# 97
11) Acetone	1.60	43	27742	11.5358	ppb	92
12) Freon-113	1.56	101	43384	10.5911	ppb	96
13) 1,1-DCE	1.55	63	17968	9.6445	ppb	96
14) t-Butanol	2.05	59	87382	134.4724	ppb	99
15) Acetonitrile	1.78	41	131501	140.9565	ppb	99
16) Methyl Acetate	1.84	43	53169	10.4394	ppb	95
17) Iodomethane	1.64	142	18920	9.1652	ppb	97
18) Acrylonitrile	2.10	52	22836	11.3633	ppb	79
19) Methylene chloride	1.89	84	63814	10.7341	ppb	95
20) Carbon disulfide	1.68	76	142563	9.9382	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	143229	9.8939	ppb	96
22) Trans-1,2-DCE	2.11	96	55329	10.5659	ppb	97
23) Diisopropyl Ether	2.64	45	164027	10.7358	ppb	95
24) 1,1-DCA	2.49	63	109180	10.5720	ppb	98
25) Vinyl Acetate	2.63	43	39665	10.6584	ppb	# 98
26) Ethyl tert Butyl Ether	3.05	59	125780	9.5130	ppb	92
27) MEK (2-Butanone)	3.24	43	28350	10.4924	ppb	94
28) Cis-1,2-DCE	3.15	96	62386	10.4469	ppb	97
29) 2,2-Dichloropropane	3.13	77	72295	9.9002	ppb	98
30) Chloroform	3.62	83	116858	11.4490	ppb	93
31) Bromochloromethane	3.45	128	36345	11.1158	ppb	94
33) 1,1,1-TCA	3.83	97	92773	11.3910	ppb	98
34) Cyclohexane	3.89	41	35236	10.3277	ppb	92
35) 1,1-Dichloropropene	4.11	75	56898	9.1644	ppb	92
36) 2,2,4-Trimethylpentane	4.61	57	95200	8.4529	ppb	# 76
38) Carbon Tetrachloride	4.09	117	78833	11.7990	ppb	95
39) Tert Amyl Methyl Ether	4.70	73	113217	9.3698	ppb	# 92
40) 1,2-DCA	4.46	62	82635	10.9463	ppb	93
41) Benzene	4.41	78	219090	10.3115	ppb	98
42) TCE	5.37	95	25968	9.9665	ppb	97

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

Data File : M:\LOKI\DATA\181026\1030L25.D  
 Acq On : 30 Oct 18 19:58  
 Sample : Ending CCV 8260 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 24  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 31 6:32 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	519056	135.9908	ppb	97
44) 1,2-Dichloropropane	5.64	63	61714	10.8150	ppb	97
45) Bromodichloromethane	6.04	83	90429	11.0376	ppb	97
46) Methyl Cyclohexane	5.59	83	46083	8.0168	ppb	84
47) Dibromomethane	5.79	93	44737	10.4343	ppb	90
49) MIBK (methyl isobutyl ket	6.85	43	49533	9.8534	ppb	94
50) 1-Bromo-2-chloroethane	6.37	63	43504	10.4925	ppb	98
51) Cis-1,3-Dichloropropene	6.61	75	78745	9.3756	ppb	98
52) Toluene	6.97	91	229660	10.4336	ppb	97
53) Trans-1,3-Dichloropropene	7.29	75	70777	8.9611	ppb	100
54) 1,1,2-TCA	7.47	83	53703	10.9195	ppb	95
55) 2-Hexanone	7.82	43	29905	9.3863	ppb	99
58) 1,2-EDB	7.98	107	61750	10.9870	ppb	99
59) Tetrachloroethene	7.60	166	64501	10.5908	ppb	95
60) 1-Chlorohexane	8.60	91	44020	9.9149	ppb	95
61) 1,1,1,2-Tetrachloroethane	8.66	131	70264	11.8126	ppb	92
62) m&p-Xylene	8.85	91	181696	18.3633	ppb	100
63) o-Xylene	9.27	106	71562	9.8888	ppb	92
64) Styrene	9.29	104	74112	8.8138	ppb	94
66) 1,3-Dichloropropane	7.65	76	90634	10.5161	ppb	96
67) Dibromochloromethane	7.89	129	70901	11.1196	ppb	96
68) Chlorobenzene	8.55	112	157013	10.7617	ppb	95
69) Ethylbenzene	8.71	91	207373	10.0559	ppb	96
70) Bromoform	9.45	173	51970	10.8686	ppb	97
72) Isopropylbenzene	9.69	105	173400	9.5247	ppb	100
73) 1,1,2,2-Tetrachloroethane	10.03	83	86206	10.4328	ppb	97
74) 1,2,3-Trichloropropane	10.04	110	28225	11.7441	ppb	93
75) t-1,4-Dichloro-2-Butene	10.09	53	15171	8.9377	ppb	84
76) Bromobenzene	9.96	156	72000	10.5133	ppb	95
77) n-Propylbenzene	10.13	91	138368	9.8432	ppb	95
78) 4-Ethyltoluene	10.26	105	176672	10.1081	ppb	96
79) 2-Chlorotoluene	10.19	91	153462	10.4733	ppb	99
80) 1,3,5-Trimethylbenzene	10.34	105	106752	9.4489	ppb	98
81) 4-Chlorotoluene	10.31	91	185196	11.0789	ppb	97
82) Tert-Butylbenzene	10.67	119	129274	9.7262	ppb	96
83) 1,2,4-Trimethylbenzene	10.73	105	149139	8.6086	ppb	95
84) Sec-Butylbenzene	10.91	105	191473	9.9415	ppb	100
85) p-Isopropyltoluene	11.08	119	178864	10.0061	ppb	98
86) Benzyl Chloride	11.25	91	59210	6.5340	ppb	96
87) 1,3-DCB	10.99	146	130355	10.7527	ppb	99
88) 1,4-DCB	11.09	146	141395	10.8637	ppb	96
89) n-Butylbenzene	11.52	91	136849	9.0299	ppb	98
90) 1,2-DCB	11.47	146	123166	10.4829	ppb	97
91) Hexachloroethane	11.74	117	33692	8.5384	ppb	97
92) 1,2-Dibromo-3-chloropropan	12.31	75	15704	10.2927	ppb	92
93) 1,2,4-Trichlorobenzene	13.20	180	62774	8.8244	ppb	93
94) Hexachlorobutadiene	13.41	225	41383	10.1462	ppb	92
95) Naphthalene	13.45	128	125302	8.1677	ppb	100
96) 1,2,3-Trichlorobenzene	13.71	180	36280	8.9444	ppb	97

(#) = qualifier out of range (m) = manual integration  
 1030L25.D L1026W.M Wed Oct 31 08:25:23 2018

Quantitation Report

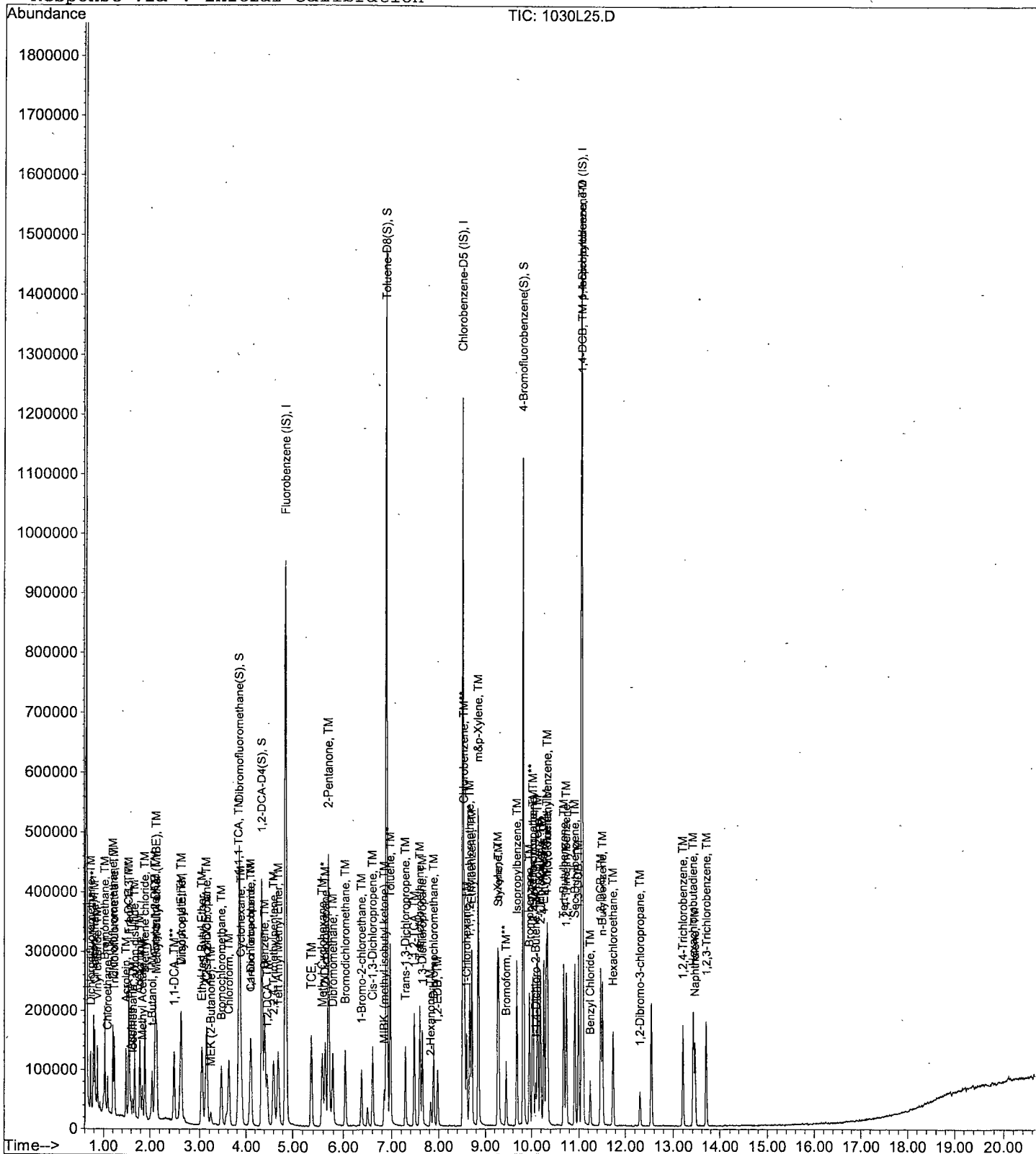
Data File : M:\LOKI\DATA\181026\1030L25.D  
 Acq On : 30 Oct 18 19:58  
 Sample : Ending CCV 8260 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 24  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 31 6:32 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 31 07:45:10 2018  
 Response via : Initial Calibration



**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : M:\LOKI\DATA\181026\1029L28.D Vial: 23  
 Acq On : 29 Oct 18 21:42 Operator: PM, DG, SV, CMM, KV  
 Sample : AZ81837W01 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 30 10:11 2018 Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	410304	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	398144	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	183872	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	321849	28.8849	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	115.540%
37) 1,2-DCA-D4(S)	4.35	65	365366	30.4474	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	121.788%
57) Toluene-D8(S)	6.90	98	938382	24.7003	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	98.800%
65) 4-Bromofluorobenzene(S)	9.83	95	286869	22.1594	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	88.636%

Target Compounds Qvalue

Quantitation Report

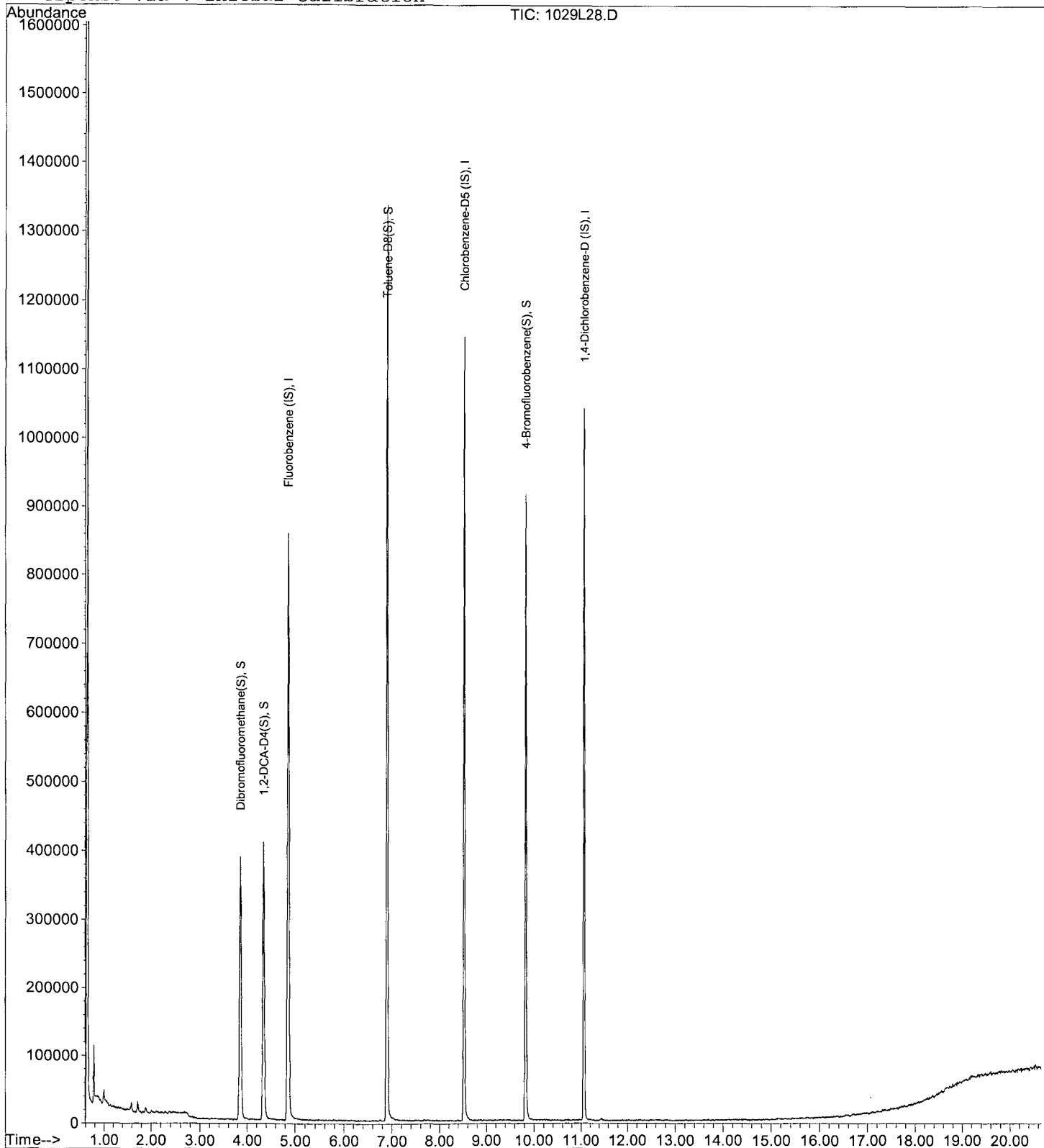
Data File : M:\LOKI\DATA\181026\1029L28.D  
Acq On : 29 Oct 18 21:42  
Sample : AZ81837W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 23  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 10:11 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 31 07:45:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1030L14.D Vial: 13  
 Acq On : 30 Oct 18 14:44 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81838W02 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 31 7:21 2018 Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 31 07:20:43 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	404160	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	417792	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	191616	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	314137	28.5902	ppb	0.00
Spiked Amount 25.000				Recovery =	114.360%	
37) 1,2-DCA-D4(S)	4.35	65	348541	29.3496	ppb	0.00
Spiked Amount 25.000				Recovery =	117.400%	
57) Toluene-D8(S)	6.90	98	902454	22.6375	ppb	0.00
Spiked Amount 25.000				Recovery =	90.548%	
65) 4-Bromofluorobenzene(S)	9.83	95	286176	21.5298	ppb	0.00
Spiked Amount 25.000				Recovery =	86.120%	

Target Compounds Qvalue

Quantitation Report

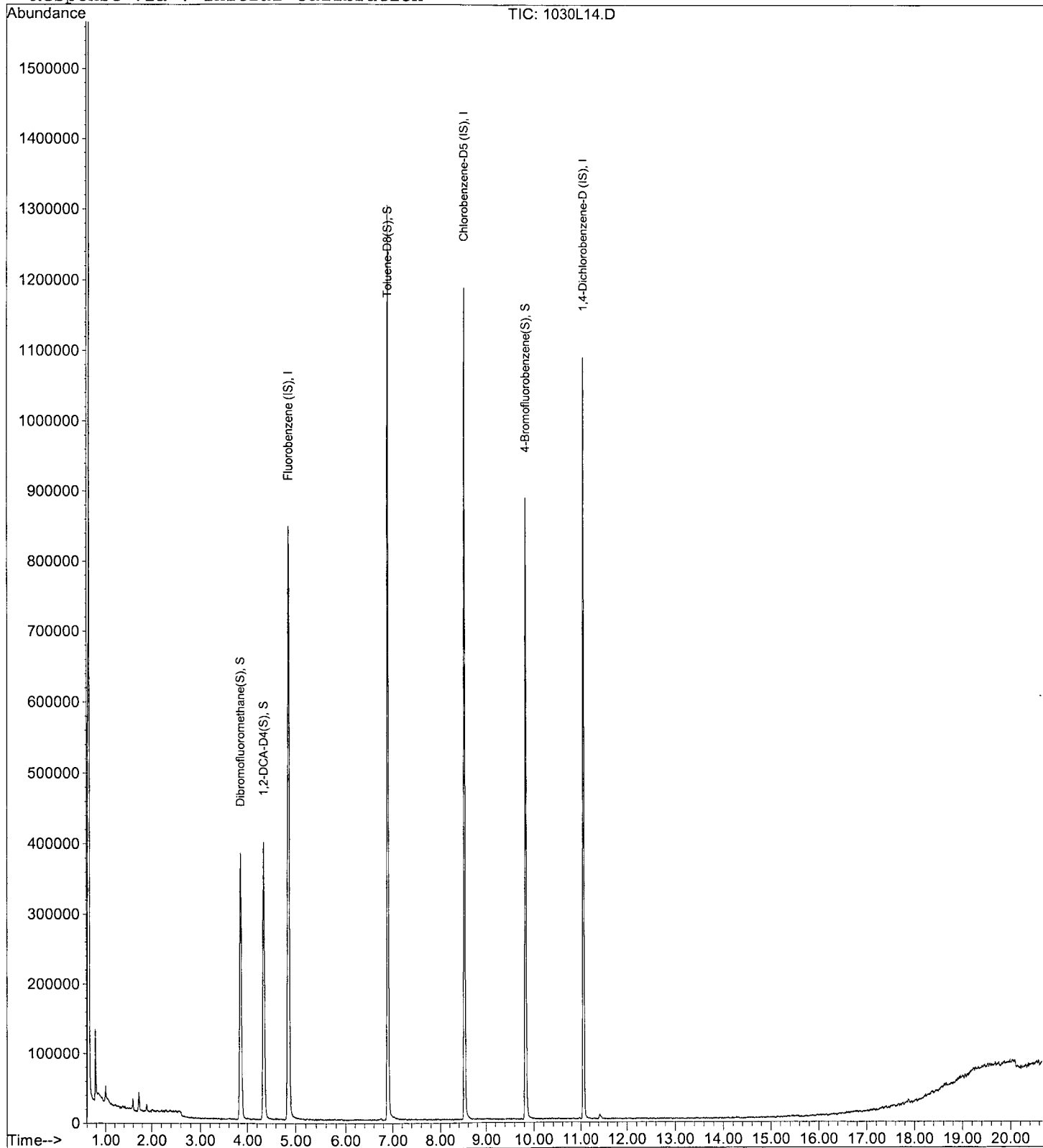
Data File : M:\LOKI\DATA\181026\1030L14.D  
Acq On : 30 Oct 18 14:44  
Sample : AZ81838W02  
Misc : IS&S 9/28/18,8/23/18

Vial: 13  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 31 7:21 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 31 07:45:10 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181026\1029L30.D Vial: 25  
 Acq On : 29 Oct 18 22:39 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81839W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 10:12 2018 Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	394880	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	382848	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	184192	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.86	111	327681	30.7545	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	123.016%
37) 1,2-DCA-D4(S)	4.35	65	366624	31.9312	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	127.724%
57) Toluene-D8(S)	6.90	98	951137	26.0364	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	104.144%
65) 4-Bromofluorobenzene(S)	9.83	95	290439	23.3315	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	93.328%

Target Compounds Qvalue

Quantitation Report

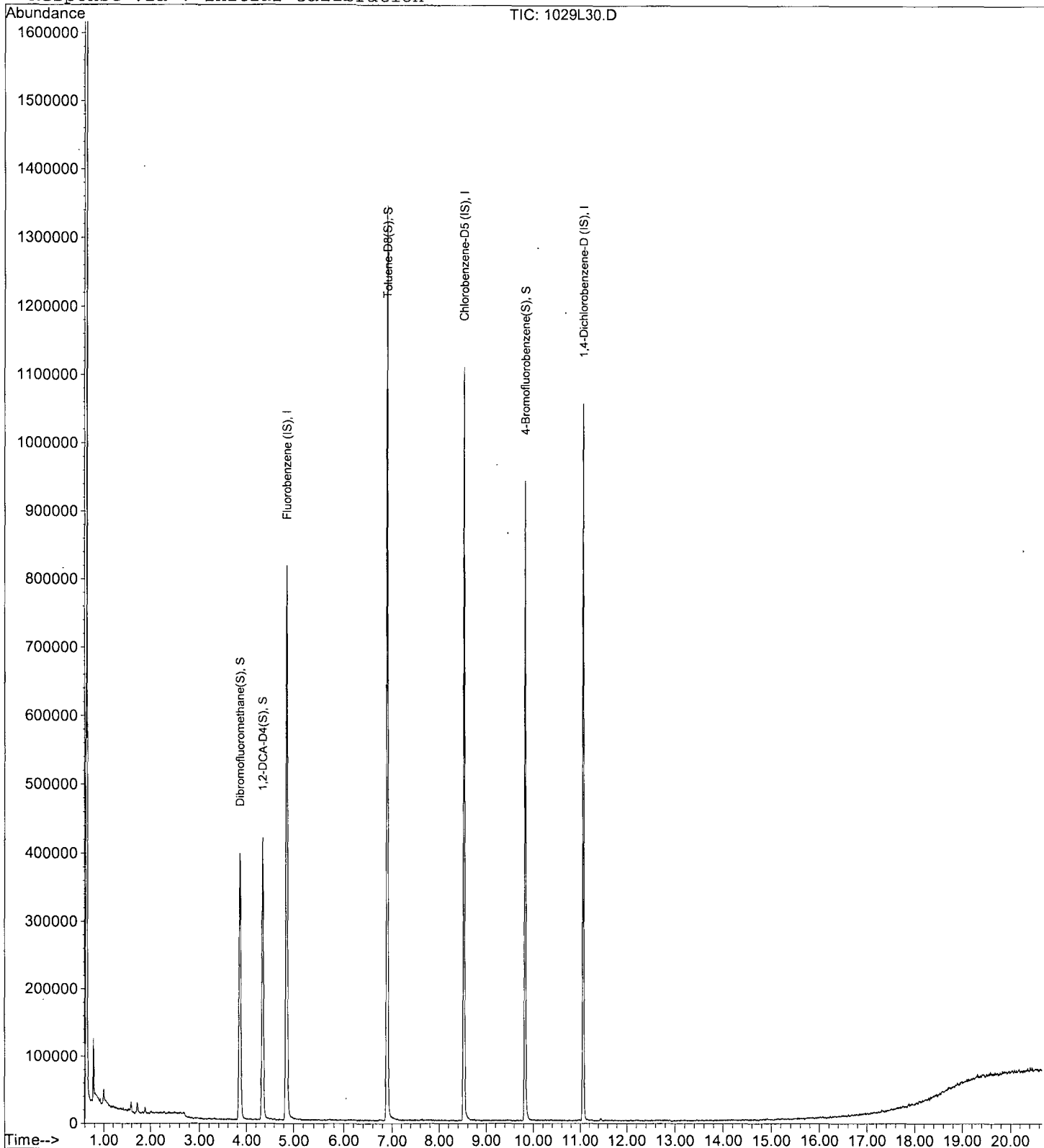
Data File : M:\LOKI\DATA\181026\1029L30.D  
Acq On : 29 Oct 18 22:39  
Sample : AZ81839W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 25  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 10:12 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 31 07:45:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L31.D Vial: 26  
 Acq On : 29 Oct 18 23:08 Operator: PM, DG, SV, CMM, KV  
 Sample : AZ81840W01 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 30 10:13 2018 Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	390976	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	379520	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	171840	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.86	111	320988	30.3908	ppb	0.00
Spiked Amount				25.000		
				Recovery =	121.564%	
37) 1,2-DCA-D4(S)	4.35	65	354214	31.0531	ppb	0.00
Spiked Amount				25.000		
				Recovery =	124.212%	
57) Toluene-D8(S)	6.90	98	901876	24.9044	ppb	0.00
Spiked Amount				25.000		
				Recovery =	99.616%	
65) 4-Bromofluorobenzene(S)	9.83	95	280734	22.7497	ppb	0.00
Spiked Amount				25.000		
				Recovery =	91.000%	

Target Compounds Qvalue

Quantitation Report

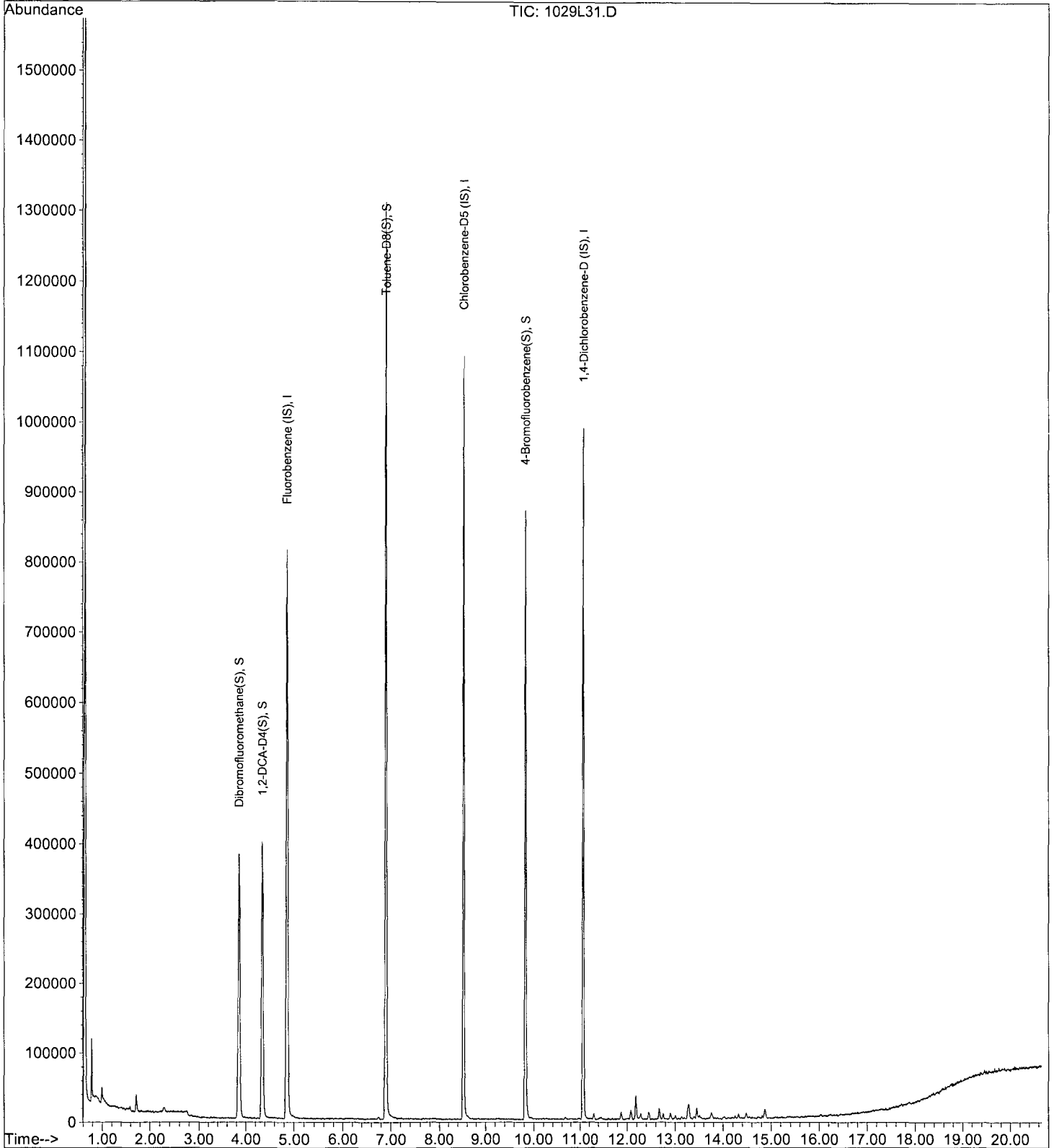
Data File : M:\LOKI\DATA\181026\1029L31.D  
Acq On : 29 Oct 18 23:08  
Sample : AZ81840W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 26  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 10:13 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 31 07:45:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L32.D Vial: 27  
 Acq On : 29 Oct 18 23:36 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81841W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 10:13 2018 Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	381248	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	374208	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	174400	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	310197	30.0879	ppb	0.00
Spiked Amount				25.000		
					Recovery = 120.352%	
37) 1,2-DCA-D4(S)	4.35	65	348906	31.4124	ppb	0.00
Spiked Amount				25.000		
					Recovery = 125.648%	
57) Toluene-D8(S)	6.90	98	894962	25.0643	ppb	0.00
Spiked Amount				25.000		
					Recovery = 100.256%	
65) 4-Bromofluorobenzene(S)	9.83	95	274675	22.5746	ppb	0.00
Spiked Amount				25.000		
					Recovery = 90.300%	

Target Compounds Qvalue

Quantitation Report

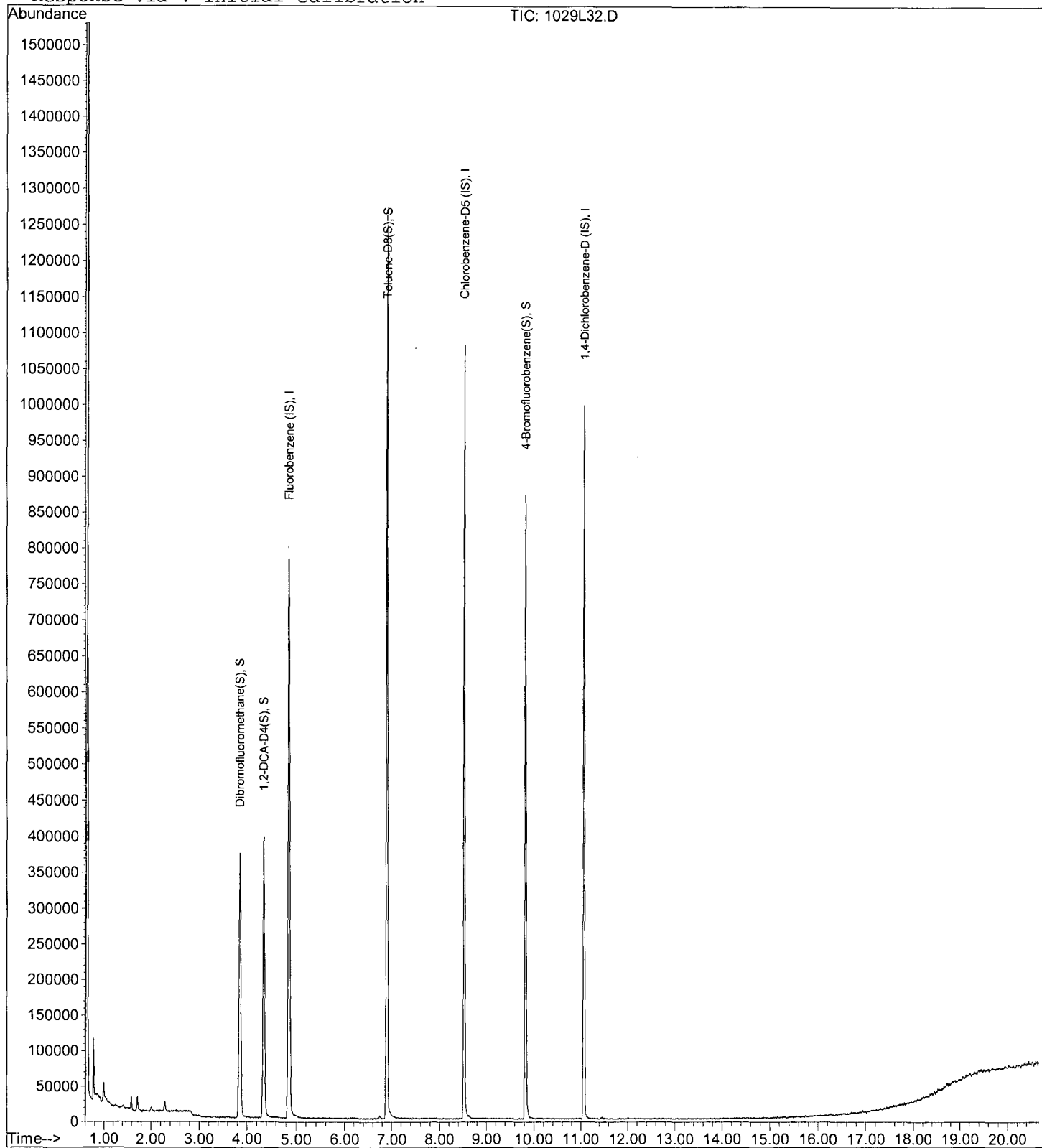
Data File : M:\LOKI\DATA\181026\1029L32.D  
Acq On : 29 Oct 18 23:36  
Sample : AZ81841W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 27  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 10:13 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 31 07:45:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L33.D Vial: 28  
 Acq On : 30 Oct 18 00:04 Operator: PM, DG, SV, CMM, KV  
 Sample : AZ81842W01 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 30 10:14 2018 Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	390464	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	392064	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	0.00	152	0m	25.0000	ppb	-11.07

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.86	111	332734	31.6737	ppb	0.00
Spiked Amount				25.000		
					Recovery = 126.696%	
37) 1,2-DCA-D4(S)	4.35	65	368910	32.5703	ppb	0.00
Spiked Amount				25.000		
					Recovery = 130.280%	
57) Toluene-D8(S)	6.90	98	968845	25.8977	ppb	0.00
Spiked Amount				25.000		
					Recovery = 103.592%	
65) 4-Bromofluorobenzene(S)	9.83	95	291940	22.9008	ppb	0.00
Spiked Amount				25.000		
					Recovery = 91.604%	

Target Compounds Qvalue

Quantitation Report

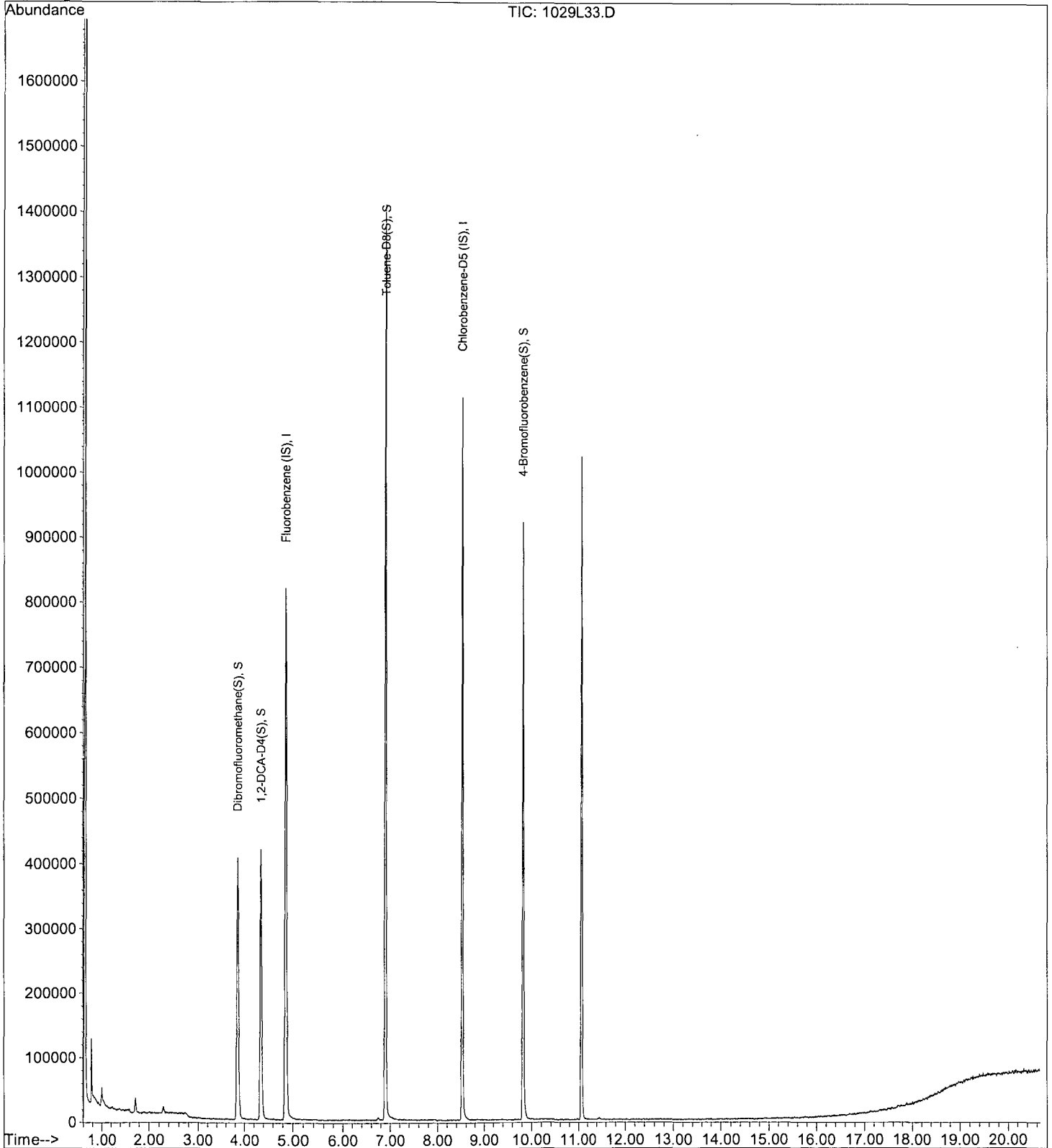
Data File : M:\LOKI\DATA\181026\1029L33.D  
Acq On : 30 Oct 18 00:04  
Sample : AZ81842W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 28  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 10:14 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 31 07:45:10 2018  
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\181026\1029L21.D Vial: 16  
 Acq On : 29 Oct 18 18:23 Operator: PM, DG, SV, CMM, KV  
 Sample : 181029A BLK Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 30 9:05 2018 Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 08:56:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	444416	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	409664	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	204480	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	345802	28.6250	ppb	0.00
Spiked Amount 25.000			Recovery =	114.500%		
37) 1,2-DCA-D4(S)	4.35	65	378966	28.9722	ppb	0.00
Spiked Amount 25.000			Recovery =	115.888%		
57) Toluene-D8(S)	6.90	98	970025	23.9328	ppb	0.00
Spiked Amount 25.000			Recovery =	95.732%		
65) 4-Bromofluorobenzene(S)	9.83	95	305500	22.9350	ppb	0.00
Spiked Amount 25.000			Recovery =	91.740%		

Target Compounds Qvalue

Quantitation Report

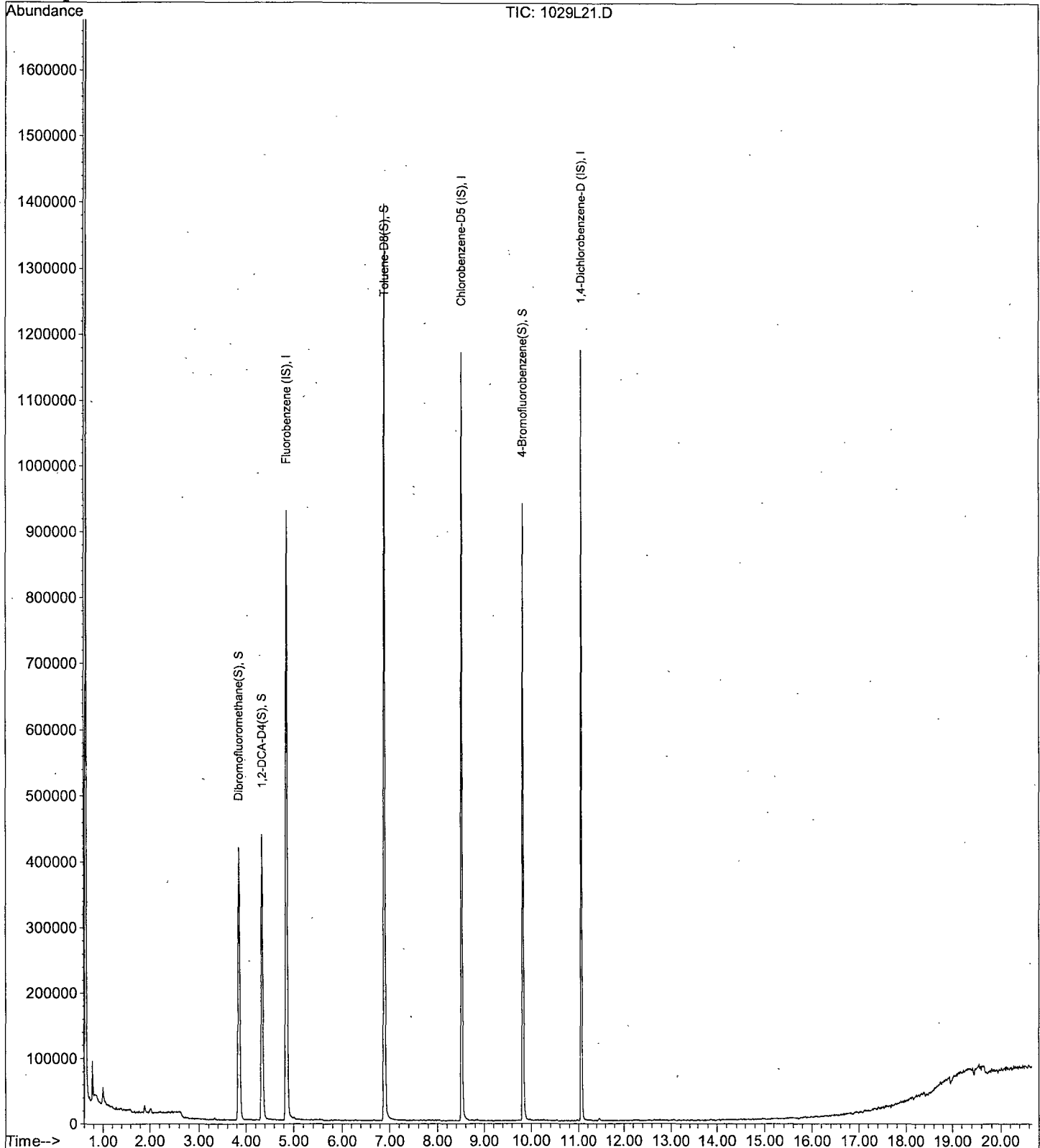
Data File : M:\LOKI\DATA\181026\1029L21.D  
Acq On : 29 Oct 18 18:23  
Sample : 181029A BLK  
Misc : IS&S 9/28/18,8/23/18

Vial: 16  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 9:05 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 08:56:51 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1030L12.D  
 Acq On : 30 Oct 18 13:48  
 Sample : 181030A BLK  
 Misc : IS&S 9/28/18,8/23/18

Vial: 11  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 31 7:56 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	415680	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	403712	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	190720	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.86	111	309575	27.2515	ppb	0.00
Spiked Amount 25.000						
					Recovery = 109.008%	
37) 1,2-DCA-D4(S)	4.35	65	354617	28.9868	ppb	0.00
Spiked Amount 25.000						
					Recovery = 115.948%	
57) Toluene-D8(S)	6.90	98	910494	23.6357	ppb	0.00
Spiked Amount 25.000						
					Recovery = 94.544%	
65) 4-Bromofluorobenzene(S)	9.83	95	282058	21.4873	ppb	0.00
Spiked Amount 25.000						
					Recovery = 85.948%	

Target Compounds Qvalue

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

Quantitation Report

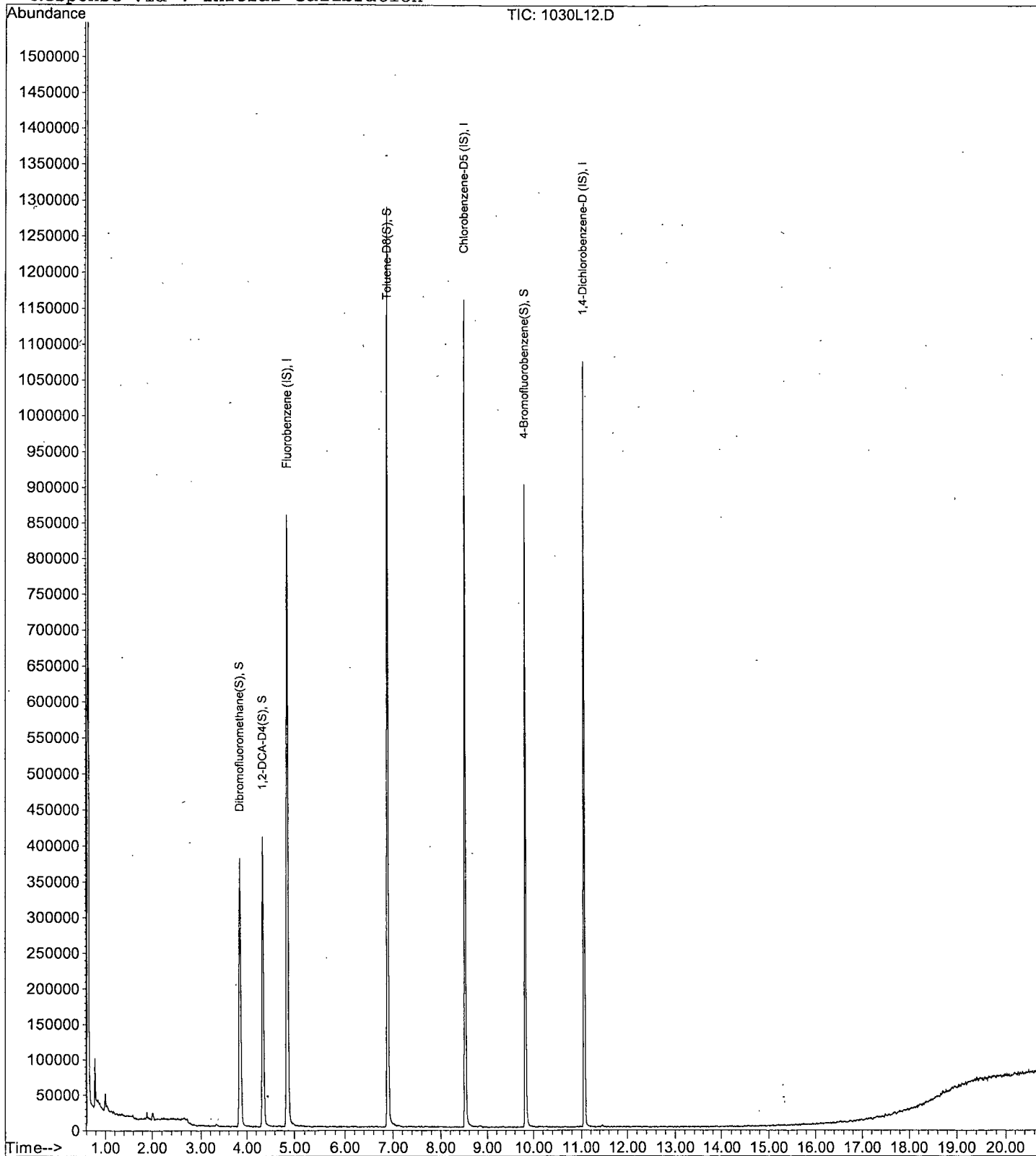
Data File : M:\LOKI\DATA\181026\1030L12.D  
Acq On : 30 Oct 18 13:48  
Sample : 181030A BLK  
Misc : IS&S 9/28/18,8/23/18

Vial: 11  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 31 7:56 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 31 07:45:10 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181026\1029L15.D  
 Acq On : 29 Oct 18 15:33  
 Sample : 181029A LCS 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 10  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 9:04 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 08:56:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	498048	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	442240	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	241152	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	357960	26.1803	ppb	0.00
Spiked Amount 25.000			Recovery = 104.720%			
37) 1,2-DCA-D4(S)	4.35	65	401552	27.1559	ppb	0.00
Spiked Amount 25.000			Recovery = 108.624%			
57) Toluene-D8(S)	6.90	98	1100152	25.2211	ppb	0.00
Spiked Amount 25.000			Recovery = 100.884%			
65) 4-Bromofluorobenzene(S)	9.83	95	376797	26.2038	ppb	0.00
Spiked Amount 25.000			Recovery = 104.816%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.72	85	73456	10.4426	ppb	96
3) Freon 114	0.79	85	49419	10.2375	ppb	87
4) Chloromethane	0.81	50	83576	11.2682	ppb	98
5) Vinyl chloride	0.87	62	72527	10.9950	ppb	98
6) Bromomethane	1.03	94	59658	11.6696	ppb	100
7) Chloroethane	1.09	64	36210	9.6208	ppb	97
8) Dichlorofluoromethane	1.21	67	100580	10.0859	ppb	99
9) Trichlorofluoromethane	1.23	101	83697	9.7757	ppb	96
10) Acrolein	1.49	56	66521	110.2208	ppb #	100
11) Acetone	1.60	43	24268	8.4846	ppb	91
12) Freon-113	1.56	101	42575	9.5896	ppb	97
13) 1,1-DCE	1.55	63	18064	8.9460	ppb	92
14) t-Butanol	2.05	59	85636	121.5909	ppb	97
15) Acetonitrile	1.78	41	124679	123.3056	ppb	97
16) Methyl Acetate	1.84	43	52611	9.5308	ppb	96
17) Iodomethane	1.64	142	16960	7.8607	ppb	91
18) Acrylonitrile	2.10	52	23708	10.8489	ppb	93
19) Methylene chloride	1.89	84	63794	9.9006	ppb	97
20) Carbon disulfide	1.68	76	148191	9.5314	ppb	97
21) Methyl t-butyl ether (MtBE)	2.14	73	147991	9.4321	ppb	98
22) Trans-1,2-DCE	2.11	96	53275	9.3867	ppb	91
23) Diisopropyl Ether	2.64	45	165124	9.9716	ppb	96
24) 1,1-DCA	2.50	63	109868	9.8157	ppb	100
25) Vinyl Acetate	2.63	43	39670	9.8351	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	133449	9.3123	ppb	95
27) MEK (2-Butanone)	3.23	43	27904	9.5284	ppb	90
28) Cis-1,2-DCE	3.16	96	64856	10.0203	ppb	98
29) 2,2-Dichloropropane	3.14	77	82994	10.5131	ppb #	95
30) Chloroform	3.62	83	111929	10.1178	ppb	96
31) Bromochloromethane	3.46	128	36667	10.3468	ppb	89
33) 1,1,1-TCA	3.84	97	90236	10.2224	ppb	96
34) Cyclohexane	3.89	41	32269	8.7264	ppb	96
35) 1,1-Dichloropropene	4.11	75	62177	9.2400	ppb	92
36) 2,2,4-Trimethylpentane	4.60	57	104435	8.5556	ppb #	82
38) Carbon Tetrachloride	4.09	117	77167	10.6562	ppb	95
39) Tert Amyl Methyl Ether	4.70	73	125733	9.6006	ppb	94
40) 1,2-DCA	4.46	62	82469	10.0792	ppb	93
41) Benzene	4.41	78	227532	9.8804	ppb	98
42) TCE	5.37	95	27168	9.6205	ppb	96

(#) = qualifier out of range (m) = manual integration  
 1029L15.D L1026W.M Tue Oct 30 09:07:09 2018

Data File : M:\LOKI\DATA\181026\1029L15.D  
 Acq On : 29 Oct 18 15:33  
 Sample : 181029A LCS 10ug/L  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 10  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 9:04 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 08:56:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	518044	125.2262	ppb	99
44) 1,2-Dichloropropane	5.64	63	58291	9.4249	ppb	98
45) Bromodichloromethane	6.04	83	87963	9.9060	ppb	99
46) Methyl Cyclohexane	5.58	83	47802	7.6725	ppb	87
47) Dibromomethane	5.79	93	43084	9.2714	ppb	94
49) MIBK (methyl isobutyl ket	6.85	43	50993	9.3591	ppb #	93
50) 1-Bromo-2-chloroethane	6.37	63	41824	9.3070	ppb	98
51) Cis-1,3-Dichloropropene	6.61	75	81589	8.9628	ppb	99
52) Toluene	6.98	91	226210	9.4819	ppb	97
53) Trans-1,3-Dichloropropene	7.29	75	76966	8.9909	ppb	95
54) 1,1,2-TCA	7.47	83	50097	9.3983	ppb	98
55) 2-Hexanone	7.82	43	27981	8.1030	ppb	96
58) 1,2-EDB	7.98	107	59914	10.3364	ppb	90
59) Tetrachloroethene	7.60	166	66893	10.6498	ppb	93
60) 1-Chlorohexane	8.60	91	46058	10.0586	ppb	94
61) 1,1,1,2-Tetrachloroethane	8.67	131	64233	10.4705	ppb	97
62) m&p-Xylene	8.85	91	183808	18.0663	ppb	99
63) o-Xylene	9.27	106	74265	9.9505	ppb	96
64) Styrene	9.29	104	74352	8.6154	ppb	99
66) 1,3-Dichloropropane	7.65	76	92321	10.3863	ppb	95
67) Dibromochloromethane	7.89	129	69862	10.6236	ppb	93
68) Chlorobenzene	8.55	112	153182	10.1800	ppb	99
69) Ethylbenzene	8.71	91	213196	10.0240	ppb	99
70) Bromoform	9.45	173	53279	10.8037	ppb	98
72) Isopropylbenzene	9.69	105	180423	9.9104	ppb	100
73) 1,1,2,2-Tetrachloroethane	10.03	83	86355	10.4508	ppb	94
74) 1,2,3-Trichloropropane	10.04	110	25266	10.5129	ppb	96
75) t-1,4-Dichloro-2-Butene	10.09	53	17829	10.5036	ppb	95
76) Bromobenzene	9.96	156	70792	10.3369	ppb	99
77) n-Propylbenzene	10.13	91	140595	10.0016	ppb	98
78) 4-Ethyltoluene	10.26	105	182910	10.4650	ppb	98
79) 2-Chlorotoluene	10.19	91	154591	10.5503	ppb	98
80) 1,3,5-Trimethylbenzene	10.34	105	104800	9.2813	ppb	99
81) 4-Chlorotoluene	10.31	91	182713	10.9304	ppb	99
82) Tert-Butylbenzene	10.67	119	134954	10.1535	ppb	95
83) 1,2,4-Trimethylbenzene	10.73	105	154636	8.9030	ppb	95
84) Sec-Butylbenzene	10.91	105	201314	10.4525	ppb	99
85) p-Isopropyltoluene	11.08	119	182518	10.2105	ppb	97
86) Benzyl Chloride	11.25	91	86751	9.5733	ppb	97
87) 1,3-DCB	10.99	146	127305	10.5012	ppb	100
88) 1,4-DCB	11.09	146	137051	10.5300	ppb	97
89) n-Butylbenzene	11.52	91	147402	9.7263	ppb	98
90) 1,2-DCB	11.48	146	118773	10.1090	ppb	99
91) Hexachloroethane	11.74	117	40501	10.2640	ppb	94
92) 1,2-Dibromo-3-chloropropan	12.31	75	14400	9.4380	ppb	87
93) 1,2,4-Trichlorobenzene	13.20	180	67101	9.4327	ppb	95
94) Hexachlorobutadiene	13.41	225	39646	9.7203	ppb	91
95) Naphthalene	13.45	128	129715	8.3862	ppb	99
96) 1,2,3-Trichlorobenzene	13.71	180	38816	9.5696	ppb	99

# Quantitation Report

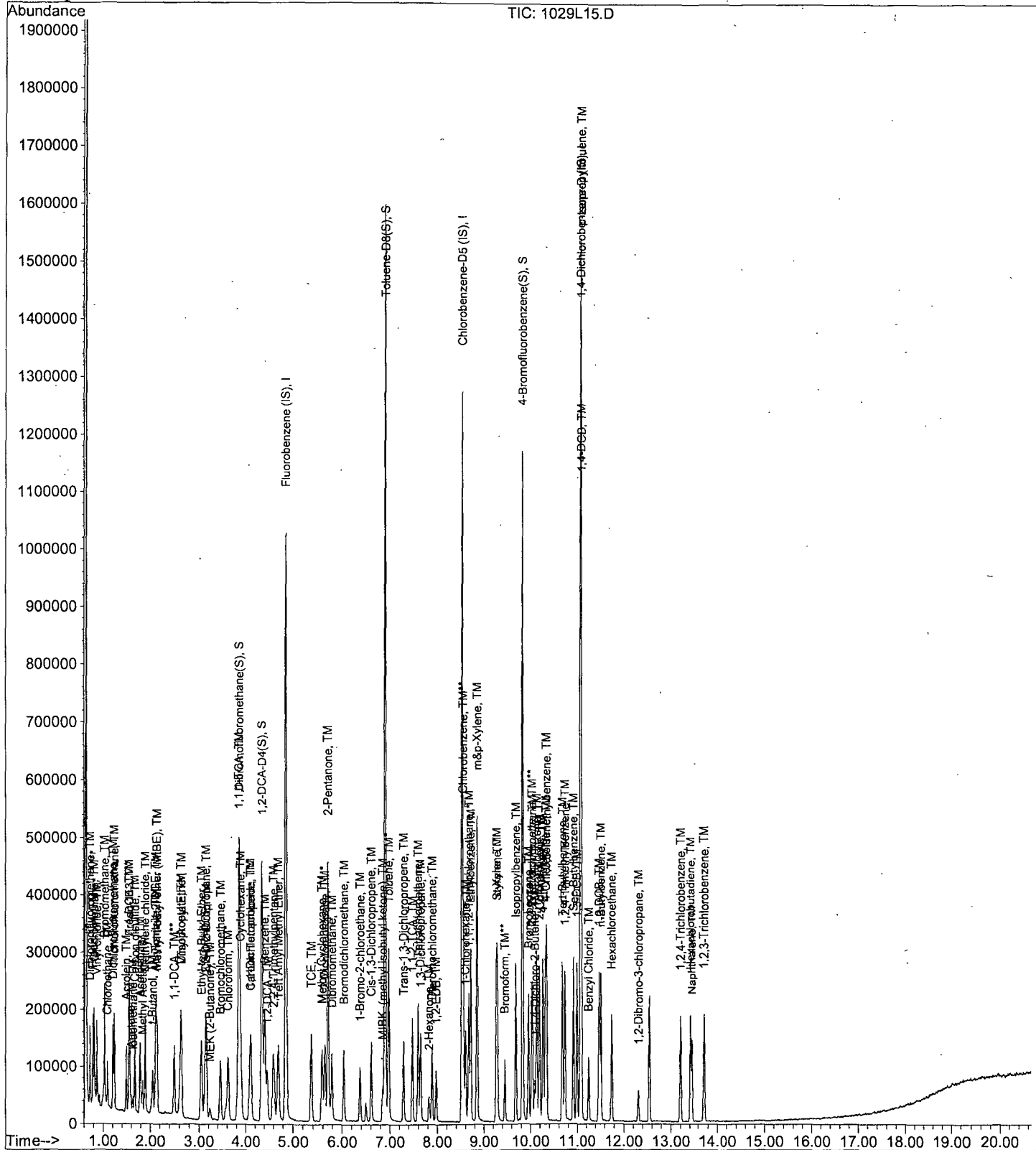
Data File : M:\LOKI\DATA\181026\1029L15.D  
Acq On : 29 Oct 18 15:33  
Sample : 181029A LCS 10ug/L  
Misc : IS&S 9/28/18, 8/23/18

Vial: 10  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 9:04 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 08:56:51 2018  
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\181026\1029L16.D  
 Acq On : 29 Oct 18 16:01  
 Sample : 181029A LCSD 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 11  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 9:04 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 08:56:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	476864	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	478464	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	257408	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	344607	26.3420	ppb	0.00
Spiked Amount 25.000			Recovery =	105.368%		
37) 1,2-DCA-D4(S)	4.35	65	382068	26.9589	ppb	0.00
Spiked Amount 25.000			Recovery =	107.836%		
57) Toluene-D8(S)	6.90	98	1128347	23.8298	ppb	0.00
Spiked Amount 25.000			Recovery =	95.320%		
65) 4-Bromofluorobenzene(S)	9.83	95	387897	24.9334	ppb	0.00
Spiked Amount 25.000			Recovery =	99.732%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	71592	10.6298	ppb	94
3) Freon 114	0.79	85	49064	10.6155	ppb	91
4) Chloromethane	0.81	50	73065	10.2105	ppb	99
5) Vinyl chloride	0.87	62	64253	10.1734	ppb	98
6) Bromomethane	1.03	94	51607	10.3351	ppb	99
7) Chloroethane	1.09	64	35150	9.7541	ppb	99
8) Dichlorofluoromethane	1.21	67	98040	10.2680	ppb	100
9) Trichlorofluoromethane	1.24	101	79792	9.7336	ppb	97
10) Acrolein	1.49	56	64366	111.3879	ppb	100
11) Acetone	1.59	43	26539	10.2995	ppb	# 84
12) Freon-113	1.56	101	43314	10.1894	ppb	96
13) 1,1-DCE	1.55	63	19624	10.1503	ppb	97
14) t-Butanol	2.05	59	80880	119.9395	ppb	100
15) Acetonitrile	1.78	41	121026	125.0100	ppb	99
16) Methyl Acetate	1.84	43	54262	10.2665	ppb	99
17) Iodomethane	1.64	142	18424	8.7003	ppb	88
18) Acrylonitrile	2.10	52	20989	9.9675	ppb	91
19) Methylene chloride	1.89	84	63049	10.2197	ppb	92
20) Carbon disulfide	1.68	76	141410	9.4993	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	144383	9.6109	ppb	97
22) Trans-1,2-DCE	2.11	96	52655	9.6896	ppb	95
23) Diisopropyl Ether	2.63	45	151560	9.5590	ppb	100
24) 1,1-DCA	2.50	63	107965	10.0741	ppb	97
25) Vinyl Acetate	2.63	43	36100	9.3476	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	133257	9.7120	ppb	96
27) MEK (2-Butanone)	3.23	43	27142	9.6800	ppb	91
28) Cis-1,2-DCE	3.15	96	63014	10.1683	ppb	96
29) 2,2-Dichloropropane	3.13	77	81227	10.7565	ppb	# 94
30) Chloroform	3.62	83	113892	10.7526	ppb	93
31) Bromochloromethane	3.46	128	37133	10.9438	ppb	98
33) 1,1,1-TCA	3.83	97	89779	10.6225	ppb	89
34) Cyclohexane	3.90	41	35425	10.0054	ppb	89
35) 1,1-Dichloropropene	4.11	75	61371	9.5254	ppb	94
36) 2,2,4-Trimethylpentane	4.60	57	108808	9.3098	ppb	88
38) Carbon Tetrachloride	4.09	117	75523	10.8924	ppb	97
39) Tert Amyl Methyl Ether	4.70	73	121301	9.6737	ppb	92
40) 1,2-DCA	4.47	62	83922	10.7124	ppb	100
41) Benzene	4.41	78	220474	9.9992	ppb	97
42) TCE	5.37	95	27208	10.0626	ppb	92

(#) = qualifier out of range (m) = manual integration  
 1029L16.D L1026W.M Tue Oct 30 09:07:13 2018



Data File : M:\LOKI\DATA\181026\1029L16.D  
 Acq On : 29 Oct 18 16:01  
 Sample : 181029A LCSD 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 11  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 9:04 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 08:56:51 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	524743	132.4804	ppb	99
44) 1,2-Dichloropropane	5.64	63	59806	10.0994	ppb	98
45) Bromodichloromethane	6.04	83	86427	10.1654	ppb	99
46) Methyl Cyclohexane	5.58	83	51129	8.5711	ppb	86
47) Dibromomethane	5.79	93	45284	10.1778	ppb	91
49) MIBK (methyl isobutyl ket	6.85	43	54668	10.4793	ppb	98
50) 1-Bromo-2-chloroethane	6.37	63	45560	10.5887	ppb	99
51) Cis-1,3-Dichloropropene	6.61	75	87410	10.0288	ppb	98
52) Toluene	6.97	91	241429	10.5693	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	78370	9.5616	ppb	97
54) 1,1,2-TCA	7.47	83	54905	10.7579	ppb	99
55) 2-Hexanone	7.82	43	31566	9.5473	ppb	99
58) 1,2-EDB	7.98	107	64341	10.2597	ppb	91
59) Tetrachloroethene	7.60	166	67661	9.9565	ppb	97
60) 1-Chlorohexane	8.60	91	46625	9.4116	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.66	131	67413	10.1569	ppb	97
62) m&p-Xylene	8.85	91	188089	17.2408	ppb	99
63) o-Xylene	9.27	106	80575	9.9786	ppb	96
64) Styrene	9.29	104	78128	8.4117	ppb	100
66) 1,3-Dichloropropane	7.65	76	99903	10.3883	ppb	96
67) Dibromochloromethane	7.89	129	70530	9.9132	ppb	98
68) Chlorobenzene	8.55	112	163024	10.0139	ppb	96
69) Ethylbenzene	8.71	91	222615	9.6745	ppb	95
70) Bromoform	9.45	173	56180	10.5295	ppb	99
72) Isopropylbenzene	9.69	105	188846	9.7180	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	91155	10.3350	ppb	93
74) 1,2,3-Trichloropropane	10.04	110	25976	10.1257	ppb	100
75) t-1,4-Dichloro-2-Butene	10.09	53	17212	9.4998	ppb	92
76) Bromobenzene	9.96	156	76671	10.4883	ppb	99
77) n-Propylbenzene	10.13	91	150016	9.9979	ppb	99
78) 4-Ethyltoluene	10.26	105	196578	10.5367	ppb	98
79) 2-Chlorotoluene	10.19	91	164616	10.5250	ppb	96
80) 1,3,5-Trimethylbenzene	10.34	105	112752	9.3527	ppb	98
81) 4-Chlorotoluene	10.31	91	193207	10.8282	ppb	100
82) Tert-Butylbenzene	10.67	119	140494	9.9028	ppb	95
83) 1,2,4-Trimethylbenzene	10.73	105	162944	8.7968	ppb	93
84) Sec-Butylbenzene	10.91	105	215030	10.4595	ppb	97
85) p-Isopropyltoluene	11.08	119	197702	10.3615	ppb	99
86) Benzyl Chloride	11.25	91	82220	8.5003	ppb	99
87) 1,3-DCB	10.99	146	132695	10.2545	ppb	96
88) 1,4-DCB	11.09	146	145281	10.4574	ppb	97
89) n-Butylbenzene	11.52	91	154874	9.5739	ppb	98
90) 1,2-DCB	11.47	146	127479	10.1647	ppb	97
91) Hexachloroethane	11.74	117	41937	9.9567	ppb	94
92) 1,2-Dibromo-3-chloropropan	12.31	75	16073	9.8692	ppb	85
93) 1,2,4-Trichlorobenzene	13.20	180	65304	8.6003	ppb	98
94) Hexachlorobutadiene	13.41	225	41114	9.4437	ppb	96
95) Naphthalene	13.45	128	141754	8.5391	ppb	99
96) 1,2,3-Trichlorobenzene	13.71	180	43008	9.9335	ppb	98

Quantitation Report

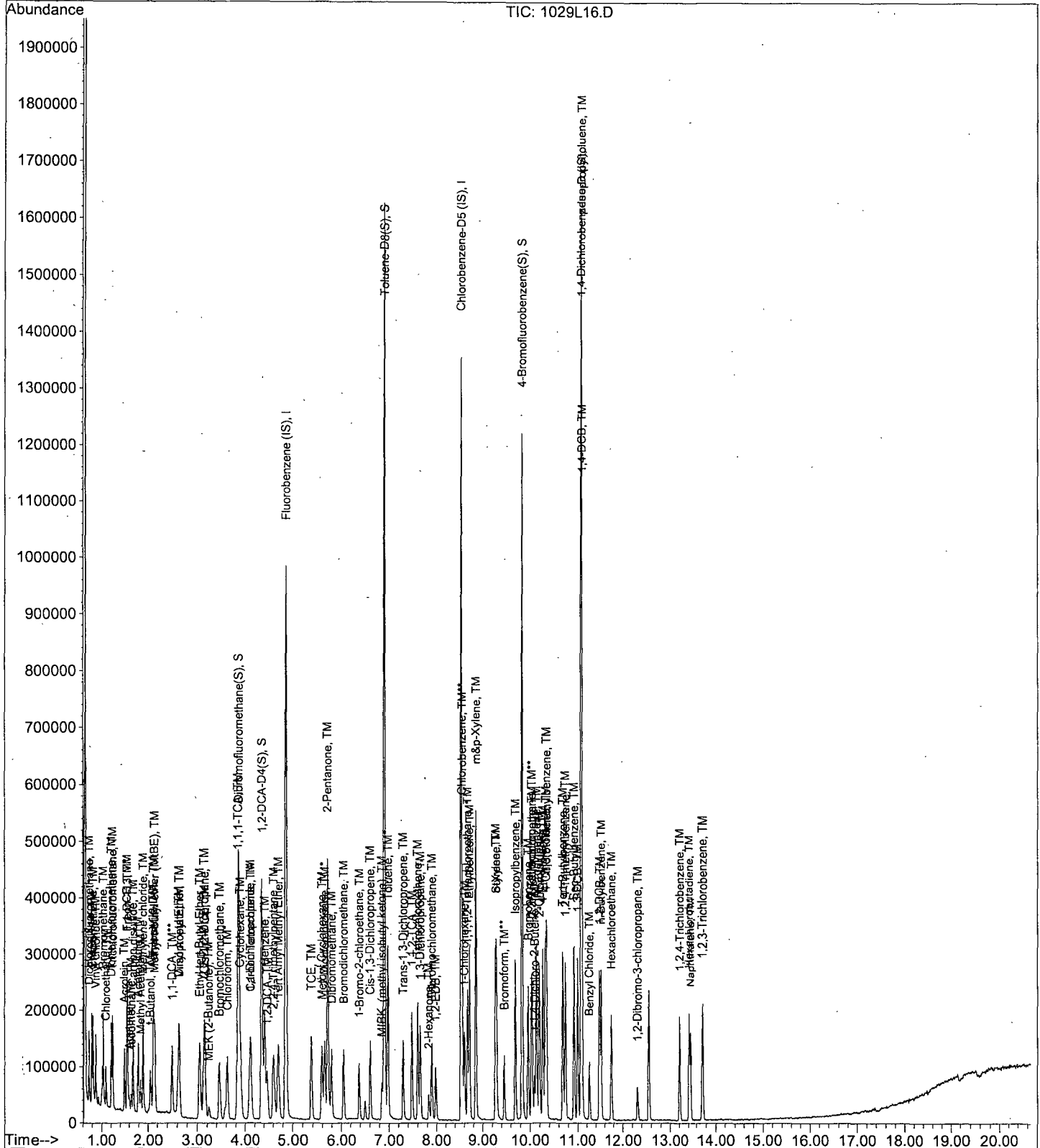
Data File : M:\LOKI\DATA\181026\1029L16.D  
Acq On : 29 Oct 18 16:01  
Sample : 181029A LCSD 10ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 11  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 9:04 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 08:56:51 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1030L04.D  
 Acq On : 30 Oct 18 10:00  
 Sample : 181030A LCS 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 31 6:32 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	495168	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	464320	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	258240	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	345174	25.2893	ppb	0.00
Spiked Amount 25.000			Recovery = 101.156%			
37) 1,2-DCA-D4(S)	4.35	65	391470	26.5435	ppb	0.00
Spiked Amount 25.000			Recovery = 106.176%			
57) Toluene-D8(S)	6.90	98	1135925	25.6387	ppb	0.00
Spiked Amount 25.000			Recovery = 102.556%			
65) 4-Bromofluorobenzene(S)	9.83	95	394155	26.1074	ppb	0.00
Spiked Amount 25.000			Recovery = 104.428%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	69472	9.9337	ppb	94
3) Freon 114	0.79	85	48654	10.1377	ppb	93
4) Chloromethane	0.81	50	70986	9.4955	ppb	98
5) Vinyl chloride	0.87	62	63811	9.7299	ppb	97
6) Bromomethane	1.03	94	52006	9.9664	ppb	100
7) Chloroethane	1.09	64	37045	9.8999	ppb	96
8) Dichlorofluoromethane	1.21	67	96573	9.7405	ppb	98
9) Trichlorofluoromethane	1.24	101	81873	9.6183	ppb	97
10) Acrolein	1.49	56	62336	103.8873	ppb	# 99
11) Acetone	1.59	43	23770	8.2953	ppb	# 85
12) Freon-113	1.56	101	44773	10.1433	ppb	93
13) 1,1-DCE	1.55	63	19208	9.5679	ppb	96
14) t-Butanol	2.04	59	73723	105.2849	ppb	97
15) Acetonitrile	1.78	41	113458	112.8608	ppb	99
16) Methyl Acetate	1.84	43	48291	8.7991	ppb	98
17) Iodomethane	1.64	142	18752	8.5600	ppb	93
18) Acrylonitrile	2.10	52	21574	9.8580	ppb	88
19) Methylene chloride	1.89	84	62479	9.7529	ppb	91
20) Carbon disulfide	1.68	76	140816	9.1097	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	139821	8.9632	ppb	98
22) Trans-1,2-DCE	2.11	96	51487	9.1244	ppb	92
23) Diisopropyl Ether	2.63	45	159838	9.7085	ppb	99
24) 1,1-DCA	2.49	63	108931	9.7885	ppb	98
25) Vinyl Acetate	2.63	43	38614	9.6290	ppb	# 98
26) Ethyl tert Butyl Ether	3.05	59	122302	8.5841	ppb	93
27) MEK (2-Butanone)	3.23	43	24726	8.4924	ppb	99
28) Cis-1,2-DCE	3.15	96	58109	9.0301	ppb	98
29) 2,2-Dichloropropane	3.14	77	86968	11.1052	ppb	# 94
30) Chloroform	3.62	83	107990	9.8185	ppb	97
31) Bromochloromethane	3.46	128	34436	9.7738	ppb	99
33) 1,1,1-TCA	3.83	97	86305	9.8340	ppb	94
34) Cyclohexane	3.90	41	34849	9.4789	ppb	93
35) 1,1-Dichloropropene	4.11	75	57414	8.5818	ppb	96
36) 2,2,4-Trimethylpentane	4.61	57	108268	8.9212	ppb	88
38) Carbon Tetrachloride	4.09	117	70825	9.8373	ppb	93
39) Tert Amyl Methyl Ether	4.70	73	112361	8.6295	ppb	# 90
40) 1,2-DCA	4.46	62	81711	10.0447	ppb	97
41) Benzene	4.41	78	207498	9.0629	ppb	99
42) TCE	5.37	95	24456	8.7105	ppb	94

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

Data File : M:\LOKI\DATA\181026\1030L04.D  
 Acq On : 30 Oct 18 10:00  
 Sample : 181030A LCS 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 31 6:32 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	456972	111.1058	ppb	98
44) 1,2-Dichloropropane	5.64	63	57823	9.4036	ppb	98
45) Bromodichloromethane	6.04	83	83892	9.5025	ppb	100
46) Methyl Cyclohexane	5.59	83	52297	8.4428	ppb	91
47) Dibromomethane	5.79	93	42739	9.2507	ppb	92
49) MIBK (methyl isobutyl ket	6.84	43	49250	9.0918	ppb	94
50) 1-Bromo-2-chloroethane	6.37	63	41552	9.3002	ppb	98
51) Cis-1,3-Dichloropropene	6.61	75	79337	8.7661	ppb	97
52) Toluene	6.97	91	223306	9.4146	ppb	100
53) Trans-1,3-Dichloropropene	7.29	75	77542	9.1108	ppb	99
54) 1,1,2-TCA	7.47	83	49801	9.3971	ppb	95
55) 2-Hexanone	7.82	43	27913	8.1304	ppb	# 90
58) 1,2-EDB	7.98	107	58457	9.6054	ppb	96
59) Tetrachloroethene	7.59	166	65680	9.9594	ppb	95
60) 1-Chlorohexane	8.60	91	45501	9.4645	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.66	131	61507	9.5494	ppb	98
62) m&p-Xylene	8.85	91	178944	16.9578	ppb	100
63) o-Xylene	9.27	106	72250	9.2201	ppb	95
64) Styrene	9.29	104	71184	7.9913	ppb	98
66) 1,3-Dichloropropane	7.65	76	90247	9.6701	ppb	99
67) Dibromochloromethane	7.89	129	66654	9.6538	ppb	99
68) Chlorobenzene	8.55	112	148166	9.3785	ppb	99
69) Ethylbenzene	8.71	91	198955	8.9096	ppb	97
70) Bromoform	9.45	173	49248	9.5115	ppb	97
72) Isopropylbenzene	9.69	105	176981	9.0781	ppb	100
73) 1,1,2,2-Tetrachloroethane	10.03	83	80495	9.0970	ppb	92
74) 1,2,3-Trichloropropane	10.04	110	22825	8.8688	ppb	99
75) t-1,4-Dichloro-2-Butene	10.09	53	15828	8.7077	ppb	95
76) Bromobenzene	9.96	156	65958	8.9938	ppb	93
77) n-Propylbenzene	10.13	91	140480	9.3322	ppb	98
78) 4-Ethyltoluene	10.26	105	178350	9.5288	ppb	99
79) 2-Chlorotoluene	10.19	91	151516	9.6562	ppb	98
80) 1,3,5-Trimethylbenzene	10.34	105	106480	8.8206	ppb	99
81) 4-Chlorotoluene	10.31	91	175430	9.8002	ppb	96
82) Tert-Butylbenzene	10.67	119	130333	9.1570	ppb	97
83) 1,2,4-Trimethylbenzene	10.73	105	146922	7.9692	ppb	95
84) Sec-Butylbenzene	10.91	105	196330	9.5192	ppb	100
85) p-Isopropyltoluene	11.08	119	179637	9.3844	ppb	99
86) Benzyl Chloride	11.25	91	88186	9.0877	ppb	97
87) 1,3-DCB	10.99	146	123009	9.4754	ppb	98
88) 1,4-DCB	11.09	146	131714	9.4503	ppb	95
89) n-Butylbenzene	11.51	91	143672	8.8528	ppb	98
90) 1,2-DCB	11.48	146	117570	9.3444	ppb	98
91) Hexachloroethane	11.74	117	41338	9.7829	ppb	88
92) 1,2-Dibromo-3-chloropropan	12.31	75	13416	8.2112	ppb	87
93) 1,2,4-Trichlorobenzene	13.20	180	66673	8.7523	ppb	89
94) Hexachlorobutadiene	13.41	225	40151	9.1928	ppb	96
95) Naphthalene	13.44	128	119552	7.4911	ppb	97
96) 1,2,3-Trichlorobenzene	13.71	180	37248	8.5754	ppb	97

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

Quantitation Report

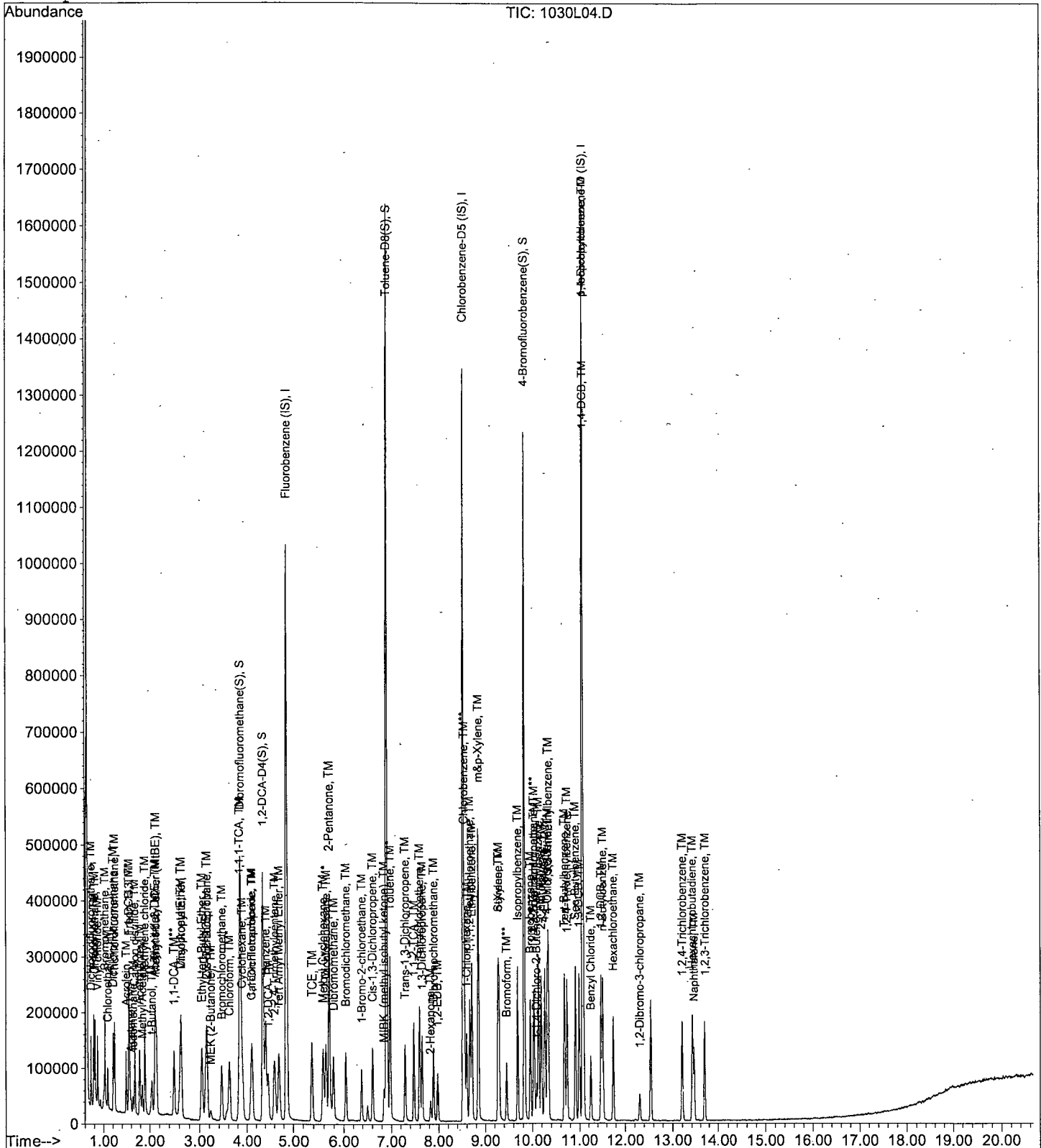
Data File : M:\LOKI\DATA\181026\1030L04.D  
Acq On : 30 Oct 18 10:00  
Sample : 181030A LCS 10ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 3  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 31 6:32 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 31 07:45:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1030L05.D  
 Acq On : 30 Oct 18 10:28  
 Sample : 181030A LCSD 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 31 6:32 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	534208	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	505664	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	275904	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	330271	22.0433	ppb	0.00
Spiked Amount 25.000			Recovery =	88.172%		
37) 1,2-DCA-D4(S)	4.35	65	368472	22.6032	ppb	0.00
Spiked Amount 25.000			Recovery =	90.412%		
57) Toluene-D8(S)	6.90	98	1052644	21.8164	ppb	0.00
Spiked Amount 25.000			Recovery =	87.264%		
65) 4-Bromofluorobenzene(S)	9.83	95	366349	22.2817	ppb	0.00
Spiked Amount 25.000			Recovery =	89.128%		

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	52752	6.9917	ppb	99
3) Freon 114	0.79	85	47392	9.1531	ppb	95
4) Chloromethane	0.81	50	61764	7.4842	ppb	96
5) Vinyl chloride	0.87	62	49958	7.0609	ppb	99
6) Bromomethane	1.03	94	44635	7.4880	ppb	98
7) Chloroethane	1.09	64	28563	7.0754	ppb	95
8) Dichlorofluoromethane	1.21	67	100123	9.3605	ppb	100
9) Trichlorofluoromethane	1.24	101	62975	6.8575	ppb	97
10) Acrolein	1.49	56	64183	99.1484	ppb	# 97
11) Acetone	1.59	43	22734	6.8680	ppb	96
12) Freon-113	1.56	101	43246	9.0814	ppb	94
13) 1,1-DCE	1.55	63	18904	8.7283	ppb	90
14) t-Butanol	2.04	59	69455	91.9409	ppb	99
15) Acetonitrile	1.78	41	113218	104.3916	ppb	96
16) Methyl Acetate	1.84	43	48728	8.2298	ppb	98
17) Iodomethane	1.64	142	19520	8.3164	ppb	91
18) Acrylonitrile	2.10	52	22483	9.4937	ppb	98
19) Methylene chloride	1.89	84	63532	9.1925	ppb	97
20) Carbon disulfide	1.68	76	141771	8.5012	ppb	100
21) Methyl t-butyl ether (MtBE)	2.14	73	141294	8.3957	ppb	99
22) Trans-1,2-DCE	2.11	96	55651	9.1416	ppb	97
23) Diisopropyl Ether	2.63	45	162382	9.1422	ppb	95
24) 1,1-DCA	2.50	63	108183	9.0109	ppb	97
25) Vinyl Acetate	2.63	43	38994	9.0131	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	128904	8.3862	ppb	99
27) MEK (2-Butanone)	3.23	43	25642	8.1633	ppb	90
28) Cis-1,2-DCE	3.15	96	59550	8.5778	ppb	99
29) 2,2-Dichloropropane	3.13	77	85215	10.0443	ppb	98
30) Chloroform	3.62	83	107319	9.0444	ppb	89
31) Bromochloromethane	3.45	128	34605	9.1040	ppb	95
33) 1,1,1-TCA	3.83	97	83929	8.8644	ppb	89
34) Cyclohexane	3.90	41	33113	8.3485	ppb	86
35) 1,1-Dichloropropene	4.11	75	55506	7.6903	ppb	91
36) 2,2,4-Trimethylpentane	4.60	57	107238	8.1906	ppb	87
38) Carbon Tetrachloride	4.09	117	69463	8.9430	ppb	95
39) Tert Amyl Methyl Ether	4.70	73	111948	7.9694	ppb	93
40) 1,2-DCA	4.46	62	82602	9.4121	ppb	97
41) Benzene	4.41	78	213530	8.6448	ppb	100
42) TCE	5.36	95	25040	8.2667	ppb	94

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

Data File : M:\LOKI\DATA\181026\1030L05.D  
 Acq On : 30 Oct 18 10:28  
 Sample : 181030A LCSD 10ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 31 6:32 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	477932	107.7098	ppb	97
44) 1,2-Dichloropropane	5.64	63	58864	8.8733	ppb	99
45) Bromodichloromethane	6.04	83	84627	8.8852	ppb	99
46) Methyl Cyclohexane	5.58	83	49796	7.4516	ppb	91
47) Dibromomethane	5.79	93	43913	8.8102	ppb	88
49) MIBK (methyl isobutyl ket	6.84	43	50648	8.6666	ppb	99
50) 1-Bromo-2-chloroethane	6.37	63	42552	8.8280	ppb	97
51) Cis-1,3-Dichloropropene	6.61	75	83385	8.5400	ppb	99
52) Toluene	6.97	91	222225	8.6843	ppb	95
53) Trans-1,3-Dichloropropene	7.29	75	80951	8.8163	ppb	99
54) 1,1,2-TCA	7.47	83	49769	8.7048	ppb	95
55) 2-Hexanone	7.82	43	28506	7.6963	ppb	94
58) 1,2-EDB	7.98	107	59626	8.9965	ppb	97
59) Tetrachloroethene	7.59	166	64910	9.0379	ppb	98
60) 1-Chlorohexane	8.60	91	44603	8.5191	ppb	96
61) 1,1,1,2-Tetrachloroethane	8.66	131	63440	9.0442	ppb	99
62) m&p-Xylene	8.85	91	182040	16.0272	ppb	100
63) o-Xylene	9.27	106	71225	8.3462	ppb	98
64) Styrene	9.29	104	70208	7.3820	ppb	99
66) 1,3-Dichloropropane	7.65	76	94304	9.2787	ppb	98
67) Dibromochloromethane	7.89	129	67705	9.0043	ppb	96
68) Chlorobenzene	8.55	112	157137	9.1331	ppb	100
69) Ethylbenzene	8.71	91	208190	8.5609	ppb	95
70) Bromoform	9.45	173	51219	9.0833	ppb	96
72) Isopropylbenzene	9.69	105	176496	8.4736	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.02	83	82933	8.7725	ppb	93
74) 1,2,3-Trichloropropane	10.04	110	24158	8.7858	ppb	93
75) t-1,4-Dichloro-2-Butene	10.09	53	16570	8.5323	ppb	89
76) Bromobenzene	9.96	156	69574	8.8795	ppb	99
77) n-Propylbenzene	10.13	91	145344	9.0371	ppb	96
78) 4-Ethyltoluene	10.26	105	182152	9.1089	ppb	100
79) 2-Chlorotoluene	10.19	91	154944	9.2425	ppb	97
80) 1,3,5-Trimethylbenzene	10.34	105	105088	8.1696	ppb	99
81) 4-Chlorotoluene	10.31	91	182949	9.5659	ppb	96
82) Tert-Butylbenzene	10.67	119	133001	8.7462	ppb	96
83) 1,2,4-Trimethylbenzene	10.73	105	147254	7.5143	ppb	100
84) Sec-Butylbenzene	10.91	105	197704	8.9721	ppb	99
85) p-Isopropyltoluene	11.08	119	181175	8.8588	ppb	99
86) Benzyl Chloride	11.25	91	77899	7.5137	ppb	97
87) 1,3-DCB	10.99	146	128786	9.2852	ppb	99
88) 1,4-DCB	11.09	146	137712	9.2480	ppb	96
89) n-Butylbenzene	11.51	91	149174	8.6034	ppb	97
90) 1,2-DCB	11.47	146	121008	9.0019	ppb	98
91) Hexachloroethane	11.74	117	32506	7.2002	ppb	91
92) 1,2-Dibromo-3-chloropropan	12.31	75	14436	8.2698	ppb	89
93) 1,2,4-Trichlorobenzene	13.20	180	69101	8.4903	ppb	98
94) Hexachlorobutadiene	13.41	225	40544	8.6884	ppb	95
95) Naphthalene	13.44	128	123326	7.3005	ppb	99
96) 1,2,3-Trichlorobenzene	13.71	180	37496	8.0798	ppb	97

(#) = qualifier out of range (m) = manual integration  
 1030L05.D L1026W.M Wed Oct 31 08:25:16 2018

Quantitation Report

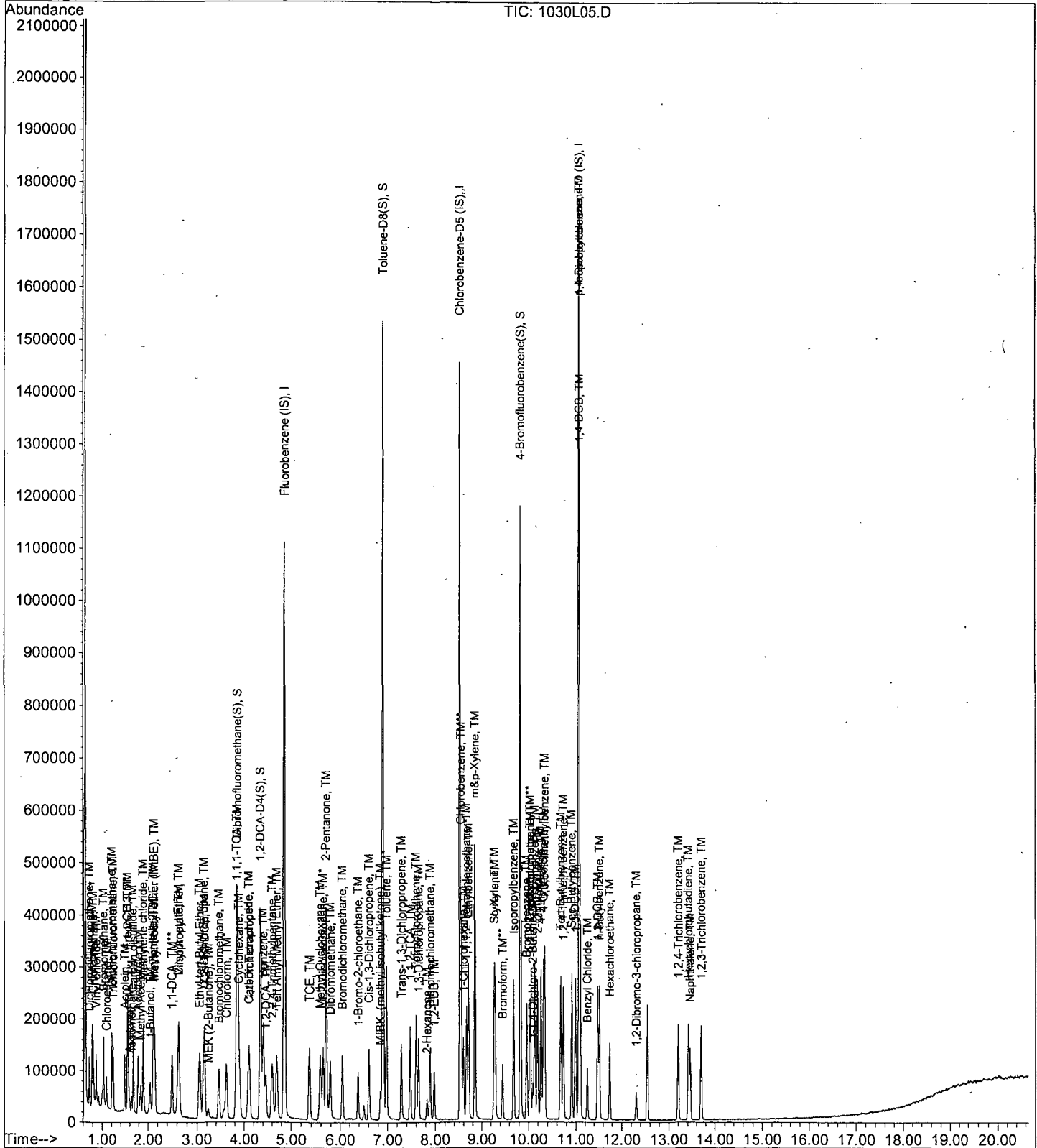
Data File : M:\LOKI\DATA\181026\1030L05.D  
Acq On : 30 Oct 18 10:28  
Sample : 181030A LCSD 10ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 4  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 31 6:32 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Wed Oct 31 07:45:10 2018  
Response via : Initial Calibration

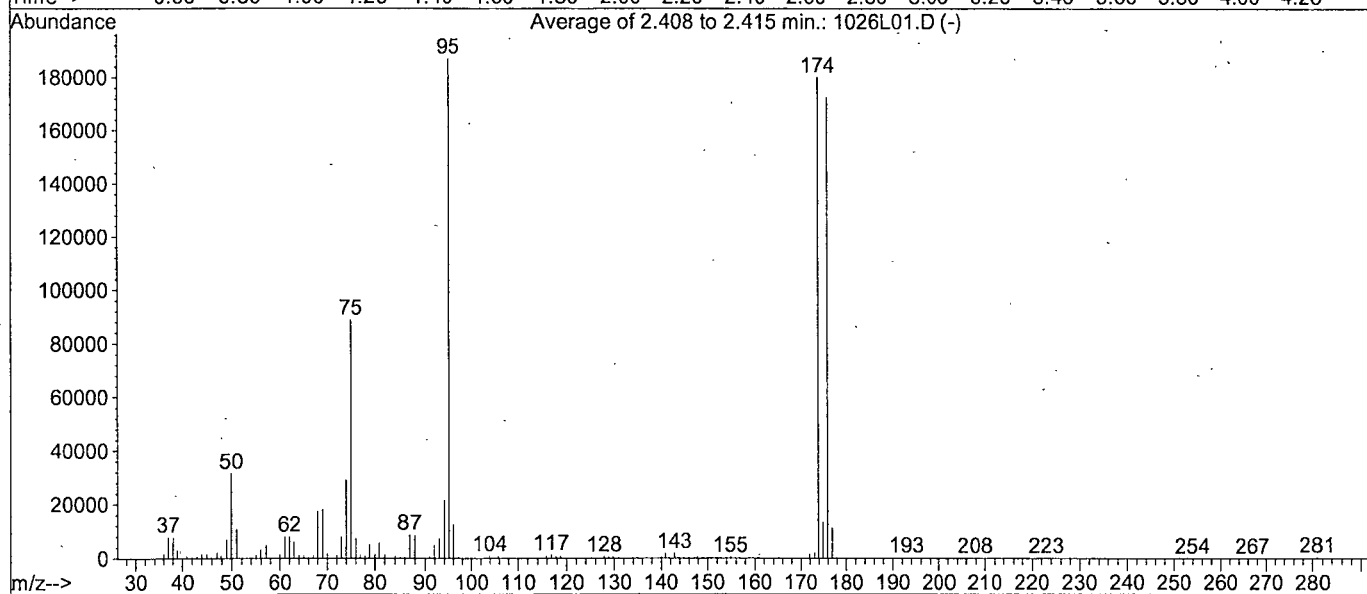
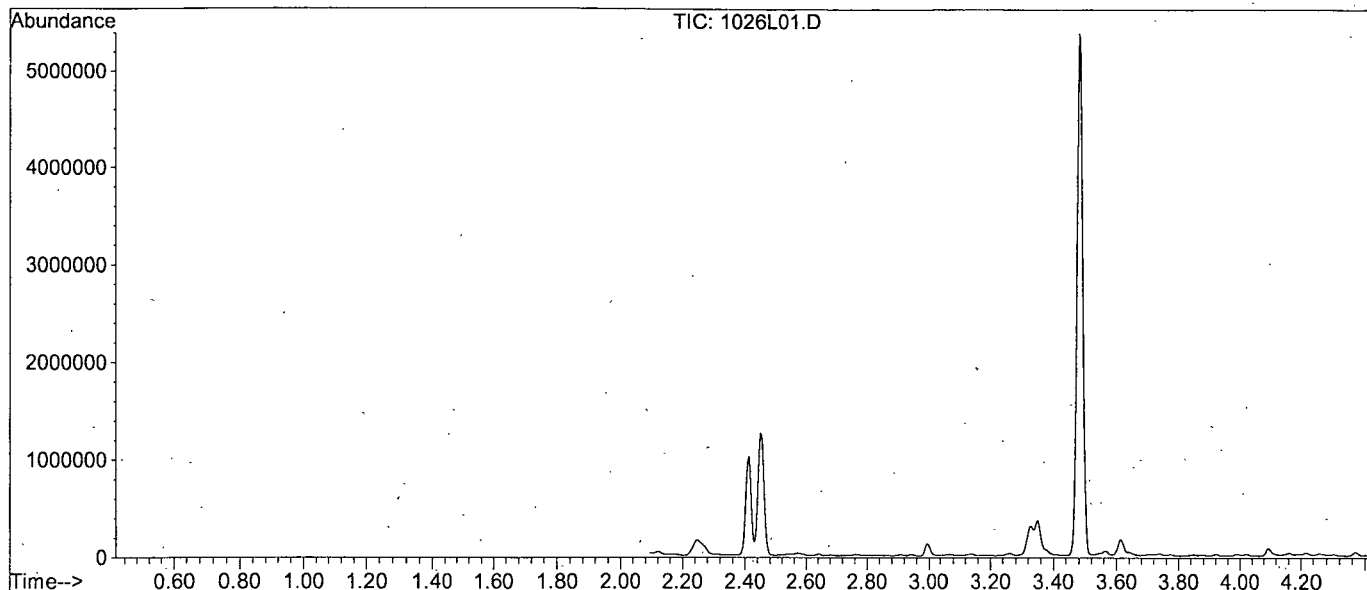




Data File : M:\LOKI\DATA\181026\1026L01.D  
 Acq On : 26 Oct 18 9:38  
 Sample : 25ug/L BFB STD 9/2/18  
 Misc : 2ul

Vial: 1  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B



Spectrum Information: Average of 2.408 to 2.415 min.

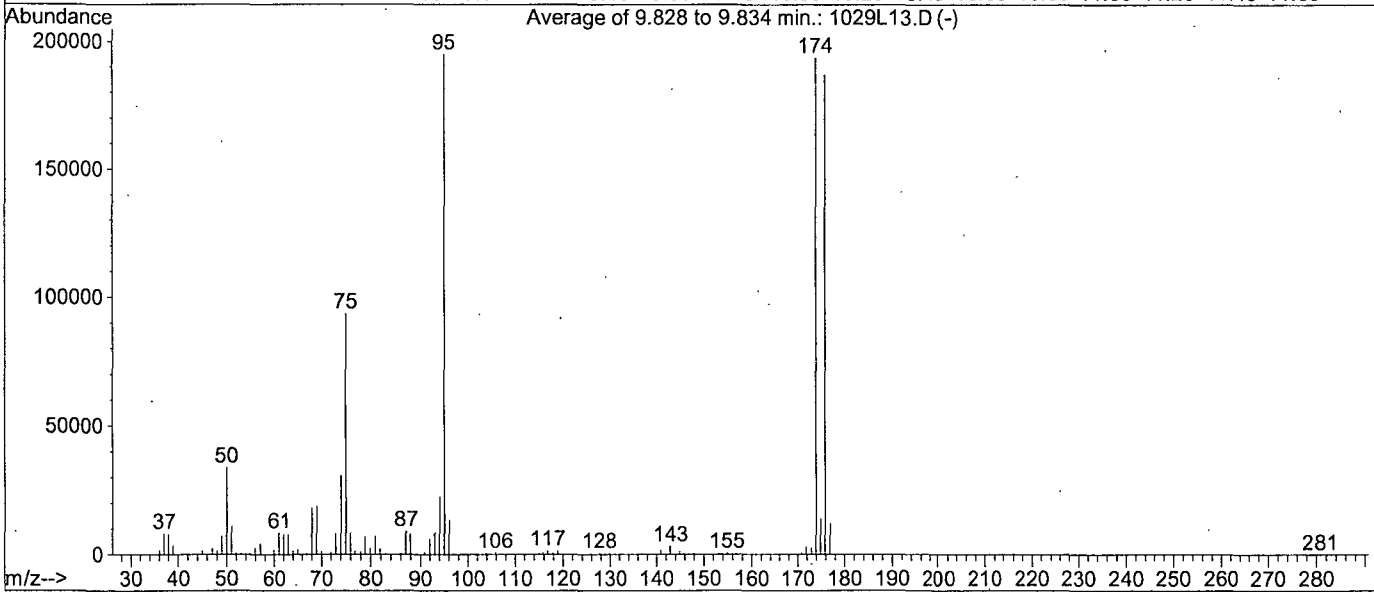
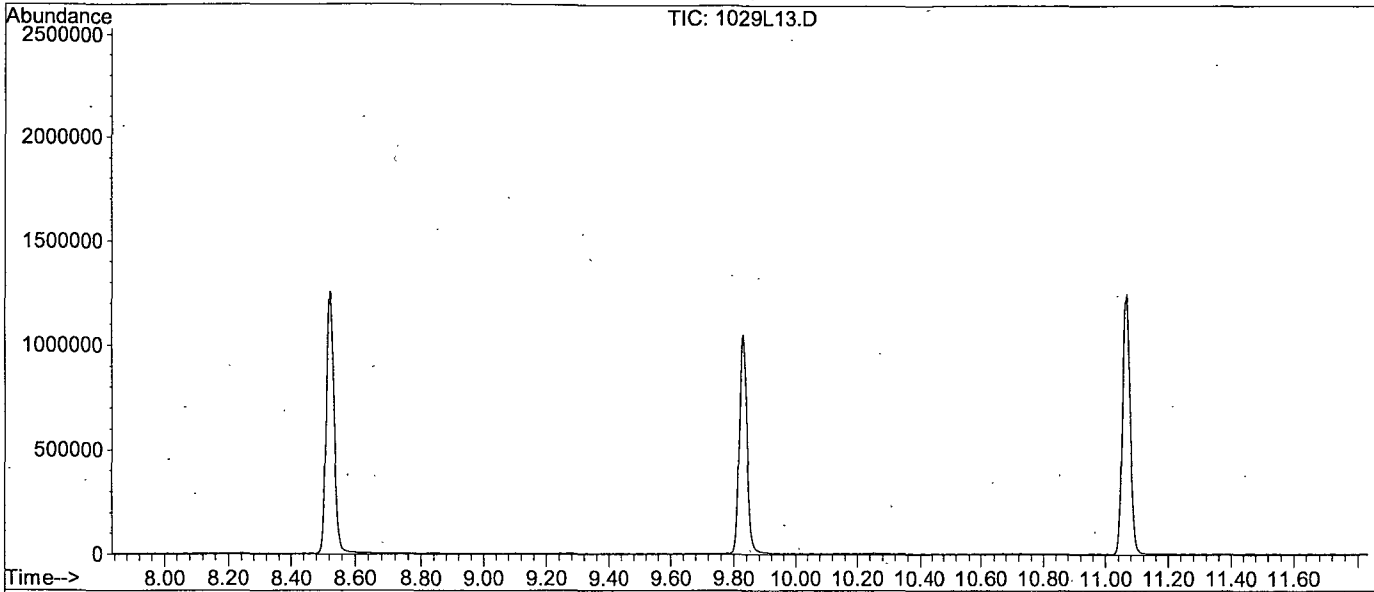
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.9	31573	PASS
75	95	30	60	47.6	89033	PASS
95	95	100	100	100.0	187079	PASS
96	95	5	9	6.7	12460	PASS
173	174	0.00	2	1.1	2004	PASS
174	95	50	100	96.3	180096	PASS
175	174	5	9	7.5	13440	PASS
176	174	95	101	95.8	172544	PASS
177	176	5	9	6.5	11238	PASS

BFB

Data File : M:\LOKI\DATA\181026\1029L13.D  
Acq On : 29 Oct 18 14:36  
Sample : 25ug/L BFB STD 9/2/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 8  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Method : M:\LOKI\DATA\180915\LALLW.M (RTE Integrator)  
Title : METHOD 8260B



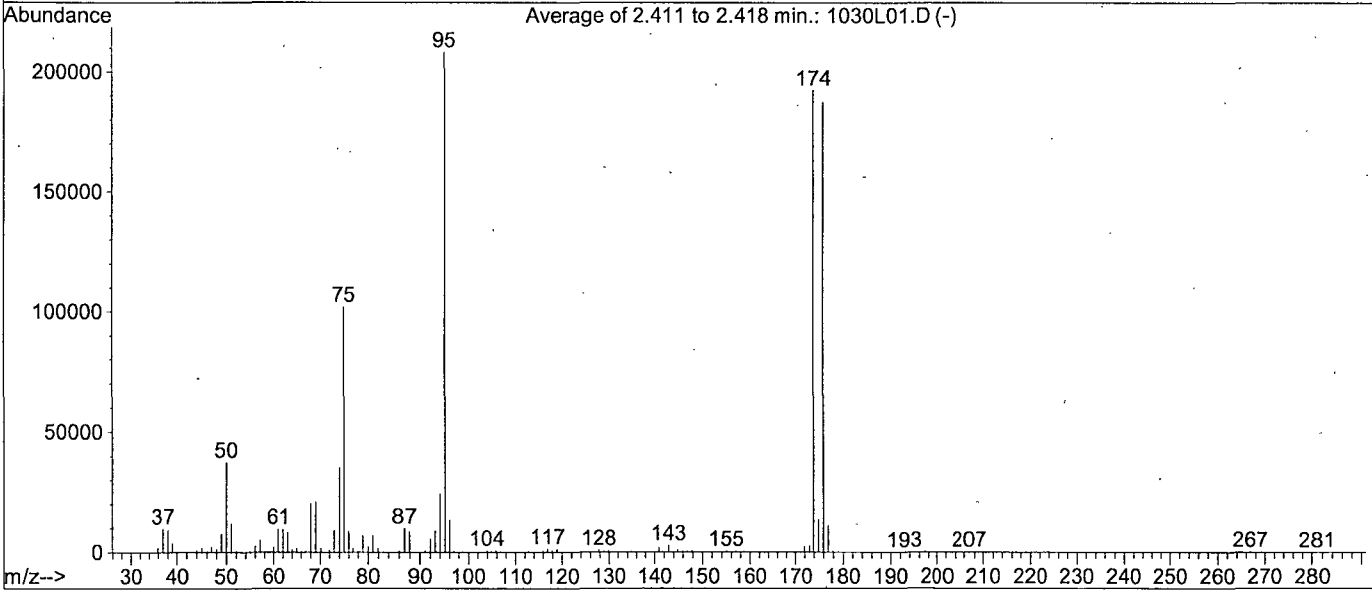
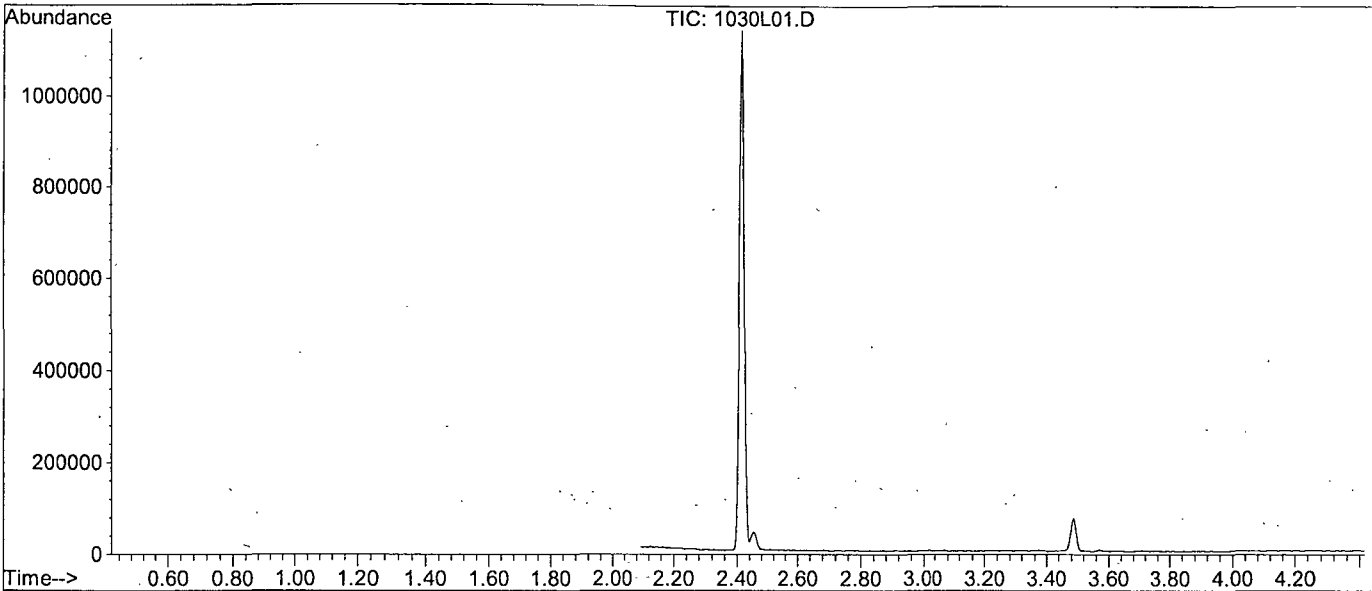
Spectrum Information: Average of 9.828 to 9.834 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	33877	PASS
75	95	30	60	48.0	93627	PASS
95	95	100	100	100.0	194944	PASS
96	95	5	9	7.0	13581	PASS
173	174	0.00	2	1.3	2555	PASS
174	95	50	100	99.4	193685	PASS
175	174	5	9	7.2	13899	PASS
176	174	95	101	96.5	186987	PASS
177	176	5	9	6.4	12030	PASS

Data File : M:\LOKI\DATA\181026\1030L01.D  
 Acq On : 30 Oct 18 8:40  
 Sample : 25ug/L BFB STD 9/2/18  
 Misc : 2ul

Vial: 1  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B



Spectrum Information: Average of 2.411 to 2.418 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	37464	PASS
75	95	30	60	49.0	102037	PASS
95	95	100	100	100.0	208149	PASS
96	95	5	9	6.4	13341	PASS
173	174	0.00	2	1.4	2675	PASS
174	95	50	100	92.4	192363	PASS
175	174	5	9	7.1	13653	PASS
176	174	95	101	97.4	187456	PASS
177	176	5	9	5.9	11124	PASS

## Loki 8260 Standard Prep

Loki 8260 Water Calibration Curve										
<b>0.3ug/L</b>										
Prepared By (Initials): <u>DG</u>										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.3ug/L	5	Prepared 10/23/18	10/31/18	N/A	3uL	50mL	P&T Water	0.3
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	3uL			0.3
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	3uL			0.3
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	2uL			10
<b>0.5ug/L</b>										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.5ug/L	5	Prepared 10/23/18	10/31/18	N/A	5uL	50mL	P&T Water	0.5
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	5uL			0.5
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	5uL			0.5
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	5uL			25
<b>1.0ug/L</b>										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	1.0ug/L	5	Prepared 10/23/18	10/31/18	N/A	10uL	50mL	P&T Water	1
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	10uL			1
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	10uL			1
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	10uL			50
<b>2.0ug/L</b>										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	2.0ug/L	5	Prepared 10/23/18	10/31/18	N/A	20uL	50mL	P&T Water	2
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	20uL			2
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	20uL			2
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	15uL			75
<b>5ug/L</b>										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	5ug/L	50	Prepared 10/23/18	12/22/18	N/A	5uL	50mL	P&T Water	5
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	5uL			5
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	5uL			5
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	5uL			5
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	20uL			100
<b>10ug/L</b>										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	10ug/L	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	25uL			125

20ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	20ug/L	50	Prepared 10/23/18	12/22/18	N/A	20uL	50mL	P&T Water	20
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	20uL			20
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	20uL			20
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	20uL			20
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	30uL			150
40ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	40ug/L	50	Prepared 10/23/18	12/22/18	N/A	40uL	50mL	P&T Water	40
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	40uL			40
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	35uL			175
100ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	100ug/L	50	Prepared 10/23/18	12/22/18	N/A	100uL	50mL	P&T Water	100
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	100uL			100
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	100uL			100
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	100uL			100
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	40uL			200
Loki 8260 Water Second Source (SS)										
Prepared: 10/26/18										
Expires: 11/25/18										
						Prepared By (Initials): <u>DG</u>				
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 4	Phenova	8260 Water SS	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 5	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 6	Various		50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	25uL			250
8260 Water Continuing Calibrations (CCV)/ Lab Control Spikes (LCS)										
Prepared: 10/26/18										
Expires: 10/27/18										
						Prepared By (Initials): <u>DG</u>				
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	25uL			125
LCS (X4 Ketones)										
Prepared: 10/26/18										
Expires: 10/27/18										
						Prepared By (Initials): <u>DG</u>				
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	25uL			125

<b>Loki 8260 Water Surrogate</b>							Prepared By (Initials): <u>DG</u>				
Prepared: 09/28/18											
Expires: 04/02/19											
Methanol Lot No: 57159											

Initial Standard Information							Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)	
8260 Surrogate Solution	O2SI	120002-01	2,000	275545-36334	09/28/19	04/02/19	375uL	15mL	Methanol	50	

<b>Loki 8260 Water Internal Standard</b>							Prepared By (Initials): <u>DG</u>				
Prepared: 09/28/18											
Expires: 06/29/19											
Methanol Lot No: 57159											

Initial Standard Information							Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)	
Internal Standard Solution	O2SI	120004-02	2,000	326533-38434	06/29/19	04/27/21	375uL	15mL	Methanol	50	

## Primary and Secondary Working Standards

Primary Standards										
VOA STD 7										
Prepared: 10/23/18 C										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses STD	Phenova	ALO-101206	2,000	CL12418-39660	09/13/19	04/30/23	100uL	4mL	Methanol	50
Hexachloroethane	Absolute	70199	1,000	071317-39700	09/04/19	05/14/28	200uL			50
Benzyl Chloride	O2SI	020228-02	1,000	041918-39343	09/04/19	04/19/19	200uL			50
VOA STD 8										
Prepared: 10/23/18 D										
Expires: 10/31/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Additions STD	Phenova	ALO-101206	2,000	CL12622-39323	06/20/19	05/31/20	100uL	4mL	Methanol	50
VOC's-54 COMP	Phenova	ALO-101200	2,000	CL12490-39490	06/20/19	05/30/20	100uL			50
Vinyl Acetate	Phenova	ALO-101228	2,000	CL12805-39766	09/06/19	10/31/18	100uL			50
VOA STD TBA										
Prepared: 10/23/18 E										
Expires: 10/31/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOC Mix	Phenova	ALO-130176	2,000	CL12228-39680	09/06/19	08/31/28	500uL	4mL	Methanol	250
Acrolein	Phenova	ALO-101224	5,000	CL12863-39768	09/06/19	10/31/18	200uL			250
VOA STD 1										
Prepared: 10/23/18 F										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
2-CEVE	O2SI	020145-02	2,000	292247-38407	09/06/19	11/12/19	50	2mL	Methanol	50
VOA STD 2										
Prepared: 10/23/18 G										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
HSL's Ketone Solution	O2SI	121020-05	2,000	CL12729-39663	10/17/19	08/01/28	100	4mL	Methanol	50
VOA STD 9										
Prepared: 10/23/18 H										
Expires: 10/31/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 7	O2SI	VOA STD. 9	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5
VOA STD. 8	O2SI		50	Prepared 10/23/18	10/31/18	N/A	200uL			5
VOA STD. 10										
Prepared: 10/23/18 I										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 1	O2SI	VOA STD. 10	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5
VOA STD. 12										
Prepared: 10/23/18 J										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 2	O2SI	VOA STD. 12	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5

Second Source (SS) Standards										
VOA STD. 3										
Prepared: 10/23/18 K						Prepared By (Initials): PC				
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Ketones Standard	Phenova	ALO-101211	2,000	CL12730-39669	07/25/19	08/01/28	50uL	2mL	Methanol	50
VOA STD. 5										
Prepared: 10/23/18 L						Prepared By (Initials): PC				
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260 Gases (SS)	Phenova	ALO-101206	2,000	CL12417-39649	09/13/19	04/30/23	50uL	2mL	Methanol	50
2-CEVE (SS)	O2SI	020145-02-02-SS	2,000	71018-39539	06/20/19	11/12/19	50uL			50
VOA STD. 6										
Prepared: 10/23/18 M						Prepared By (Initials): PC				
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
502.2 Calibration STD. (54-compounds)	Phenova	ALO-101200	2,000	CL12489-39484	06/20/19	05/31/23	50uL	2mL	Methanol	50
Vinyl Acetate	Phenova	ALO-101228	1,000	CL12869-39767	09/06/19	10/31/18	50uL			50
Hexachloroethane	O2SI	020049-02	1,000	218051281	06/20/19	05/14/28	50uL			50
VOA STD. TBA										
Prepared: 10/23/18 N						Prepared By (Initials): PC				
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOA Mix (4-3)	Phenova	ALO-130179	2,000	CL12228-39309	08/13/19	08/31/20	250uL	2mL	Methanol	250
Acrolein	Phenova	ALO-101224	5,000	CL12868-39769	09/06/19	10/31/18	100uL			250
VOA STD. 0										
Prepared: 10/23/18 O						Prepared By (Initials): PC				
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Addition STD.	Phenova	ALO-130175	2,000	CL12230-39138	07/25/19	01/31/20	50uL	2mL	Methanol	50
BFB Tune										
Prepared: 08/29/18						Prepared By (Initials): PC				
Expires: 08/07/19										
Methanol Lot No. 9077-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
4-Bromofluorobenzene	O2SI	020135-03	2,500	320514-38965	08/07/19	09/03/20	20uL	2mL	Methanol	25



## Injection Log

Directory: M:\LOKI\DATA\181026\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1026L01.D	1	25ug/L BFB STD 9/2/18	2ul	26 Oct 18 9:38
2	2	1026L03.D	1	0.3ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 10:28
3	3	1026L04.D	1	0.5ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 10:57
4	4	1026L05.D	1	1.0ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 11:25
5	5	1026L06.D	1	2.0ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 11:54
6	6	1026L07.D	1	5.0ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 12:22
7	7	1026L08.D	1	10ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 12:50
8	8	1026L09.D	1	20ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 13:19
9	9	1026L10.D	1	40ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 13:47
10	10	1026L11.D	1	100ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 14:16
11	12	1026L13.D	1	(SS)10ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 15:13
12	8	1029L13.D	1	25ug/L BFB STD 9/2/18	IS&S 9/28/18,8/23/18	29 Oct 18 14:36
13	9	1029L14.D	1	181029A CCV 10ug/L	IS&S 9/28/18,8/23/18	29 Oct 18 15:04
14	10	1029L15.D	1	181029A LCS 10ug/L	IS&S 9/28/18,8/23/18	29 Oct 18 15:33
15	11	1029L16.D	1	181029A LCSD 10ug/L	IS&S 9/28/18,8/23/18	29 Oct 18 16:01
16	16	1029L21.D	1	181029A BLK	IS&S 9/28/18,8/23/18	29 Oct 18 18:23
17	23	1029L28.D	1	AZ81837W01	IS&S 9/28/18,8/23/18	29 Oct 18 21:42
18	25	1029L30.D	1	AZ81839W01	IS&S 9/28/18,8/23/18	29 Oct 18 22:39
19	26	1029L31.D	1	AZ81840W01	IS&S 9/28/18,8/23/18	29 Oct 18 23:08
20	27	1029L32.D	1	AZ81841W01	IS&S 9/28/18,8/23/18	29 Oct 18 23:36
21	28	1029L33.D	1	AZ81842W01	IS&S 9/28/18,8/23/18	30 Oct 18 00:04
22	31	1029L36.D	1	Ending CCV 8260 10ug/L	IS&S 9/28/18,8/23/18	30 Oct 18 1:30
23	1	1030L01.D	1	25ug/L BFB STD 9/2/18	2ul	30 Oct 18 8:40
24	2	1030L03.D	1	181030A CCV 10ug/L	IS&S 9/28/18,8/23/18	30 Oct 18 9:31
25	3	1030L04.D	1	181030A LCS 10ug/L	IS&S 9/28/18,8/23/18	30 Oct 18 10:00
26	4	1030L05.D	1	181030A LCSD 10ug/L	IS&S 9/28/18,8/23/18	30 Oct 18 10:28
27	11	1030L12.D	1	181030A BLK	IS&S 9/28/18,8/23/18	30 Oct 18 13:48
28	13	1030L14.D	1	AZ81838W02	IS&S 9/28/18,8/23/18	30 Oct 18 14:44
29	24	1030L25.D	1	Ending CCV 8260 10ug/L	IS&S 9/28/18,8/23/18	30 Oct 18 19:58

**ORGANICS**  
**Calibration Data**

**APPL, INC.**

**VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS**

**Form 6  
Initial Calibration**

Lab Name: APPL, Inc. \_\_\_\_\_

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Initial Cal. Date: 10/26/18 \_\_\_\_\_

Matrix: \_\_\_\_\_

Instrument: Loki \_\_\_\_\_

Initials: \_\_\_\_\_

1026L03.D    1026L04.D    1026L05.D    1026L06.D    1026L07.D    1026L08.D    1026L09.D    1026L10.D    1026L11.D

1	Compound	1	2	3	4	5	6	7	8	9	Avg	%RSD	Type	r^2	Q	MRF
1	Fluorobenzene (IS)															
2	TM Dichlorodifluoromethane	0.3148	0.3083	0.3862	0.3998	0.3562	0.3441	0.3582	0.3535	0.3568	0.35	8.3	TM			
3	TM Freon 114	0.2357	0.2821	0.2441	0.2512	0.2202	0.2173	0.2452	0.2407	0.2443	0.24	7.8	TM			
4	TM**L Chloromethane		0.5960	0.5078	0.3825	0.4286	0.3769	0.3694	0.3650	0.3455	0.42	21	TM**L	1.000		
5	TM* Vinyl chloride	0.3170	0.3128	0.3381	0.3142	0.3661	0.3458	0.3371	0.3275	0.3212	0.33	5.3	TM*			
6	TML Bromomethane		0.3885	0.3273	0.2972	0.2950	0.2809	0.2689	0.2483	0.2169	0.29	18	TML	0.996		
7	TM Chloroethane		0.1792	0.2064	0.1883	0.2092	0.1801	0.1813	0.1778		0.19	7.1	TM			
8	TM Dichlorofluoromethane		0.6533	0.4609	0.4837	0.4897	0.4950	0.4833	0.4733	0.4653	0.50	13	TM			
9	TM Trichlorofluoromethane	0.4769	0.4503	0.4418	0.3978	0.4371	0.4195	0.4243	0.4200	0.4002	0.43	5.8	TM			
10	TM Acrolein	0.0369	0.0293	0.0296	0.0280	0.0296	0.0283				0.03	11	TM			
11	TML Acetone			0.4527	0.2599	0.1798	0.1310	0.1171	0.1116	0.0986	0.19	66	TML	0.999		
12	TM Freon-113	0.2349	0.2213	0.2188	0.2418	0.2244	0.2032	0.2267	0.2203	0.2143	0.22	5.0	TM			
13	TM* 1,1-DCE	0.1228	0.1220	0.1149	0.0868	0.0963	0.0946	0.0944	0.0900	0.0905	0.10	14	TM*			
14	TM t-Butanol	0.0392	0.0394	0.0362	0.0331	0.0318	0.0324				0.04	9.7	TM			
15	TM Acetonitrile	0.0536	0.0529	0.0514	0.0482	0.0502	0.0482				0.05	4.5	TM			
16	TM Methyl Acetate		0.3365	0.3169	0.2815	0.2702	0.2568	0.2597	0.2491	0.2460	0.28	12	TM			
17	TML Iodomethane		0.0684	0.0667	0.0736	0.0809	0.0923	0.1171	0.1290	0.1351	0.10	29	TML	0.999		
18	TML Acrylonitrile		0.2102	0.1400	0.1551	0.1105	0.1104	0.1083	0.1066	0.1021	0.13	29	TML	1.000		
19	TM Methylene chloride			0.3950	0.3366	0.3261	0.3154	0.3040	0.2987	0.2883	0.32	11	TM			
20	TM Carbon disulfide	0.9698	0.7915	0.8278	0.7763	0.7375	0.7425	0.7371	0.7276	0.7137	0.78	10	TM			
21	TM Methyl t-butyl ether (MtBE)	0.9313	0.8014	0.8261	0.7534	0.7726	0.7629	0.7586	0.7531	0.7289	0.79	7.7	TM			
22	TM Trans-1,2-DCE		0.3117	0.3266	0.2805	0.2810	0.2720	0.2803	0.2656	0.2616	0.28	8.0	TM			
23	TM Diisopropyl Ether			0.8819	0.8847	0.8525	0.8201	0.7667	0.8213	0.7914	0.83	5.3	TM			
24	TM** 1,1-DCA	0.7059	0.5711	0.5910	0.5579	0.5448	0.5468	0.5266	0.5161	0.4967	0.56	11	TM**			
25	TM Vinyl Acetate		0.2480	0.2267	0.1997	0.2149	0.1844	0.1786	0.1904	0.1770	0.20	13	TM			
26	TM Ethyl tert Butyl Ether	0.7477	0.7065	0.7158	0.7107	0.6876	0.7159	0.7059	0.7337	0.7501	0.72	2.9	TM			
27	TM MEK (2-Butanone)			0.1672	0.1446	0.1562	0.1386	0.1396	0.1459	0.1369	0.15	7.5	TM			
28	TM Cis-1,2-DCE	0.3116	0.3538	0.3400	0.3256	0.3153	0.3200	0.3206	0.3183	0.3186	0.32	4.2	TM			
29	TML 2,2-Dichloropropane		0.5125	0.4669	0.4268	0.4063	0.4047	0.3967	0.3885	0.3805	0.42	11	TML	1.000		
30	TM* Chloroform	0.6630	0.5476	0.5435	0.5231	0.5685	0.5593	0.5471	0.5342	0.5114	0.56	7.9	TM*			
31	TM Bromochloromethane	0.1709	0.2153	0.1814	0.1700	0.1802	0.1824	0.1762	0.1698	0.1547	0.18	9.2	TM			
32	SL Dibromofluoromethane(S)	1.176	1.034	0.7332	0.7070	0.7145	0.7260	0.6447	0.6433		0.80	25	SL	0.996		
33	TM 1,1,1-TCA	0.5148	0.4238	0.4737	0.4354	0.4410	0.4287	0.4350	0.4222	0.4133	0.44	7.2	TM			
34	TM Cyclohexane			0.2078	0.1912	0.1663	0.1784	0.1835	0.1823	0.1898	0.19	6.9	TM			
35	TM 1,1-Dichloropropene	0.3864	0.3537	0.3361	0.3341	0.3128	0.3102	0.3286	0.3354	0.3426	0.34	6.7	TM			

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

**Form 6**  
**Initial Calibration**

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/26/18  
Instrument: Loki

Initials: \_\_\_\_\_

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type	Q	MRF
36	TM	2,2,4-Trimethylpentane	0.6042	0.6487	0.5862	0.5905	0.5698	0.5759	0.6284	0.6377	0.6730		0.61	5.8	TM		
37	SL	1,2-DCA-D4(S)	1.286	1.123	0.8001	0.7833	0.7777	0.7999	0.7131	0.7091	0.6575		0.85	25	SL	0.998	
38	TM	Carbon Tetrachloride	0.3763	0.3614	0.3638	0.3492	0.3512	0.3543	0.3776	0.3712	0.3666		0.36	2.9	TM		
39	TM	Tert Amyl Methyl Ether	0.6177	0.6314	0.6498	0.5839	0.6273	0.6628	0.6915	0.7184	0.7338		0.66	7.5	TM		
40	TM	1,2-DCA	0.4401	0.4207	0.4008	0.4028	0.4126	0.4226	0.4052	0.4065	0.3851		0.41	3.8	TM		
41	TM	Benzene	1.395	1.152	1.145	1.085	1.082	1.146	1.142	1.136	1.121		1.2	8.1	TM		
42	TM	TCE		0.1660	0.1446	0.1349	0.1419	0.1340	0.1355	0.1372	0.1400		0.14	7.4	TM		
43	TM	2-Pentanone	0.2084	0.2061	0.2089	0.1994	0.2102	0.2130					0.21	2.2	TM		
44	TM*	1,2-Dichloropropane	0.3236	0.3173	0.3095	0.3115	0.3144	0.3091	0.3077	0.3080	0.2929		0.31	2.7	TM*		
45	TM	Bromodichloromethane	0.5163	0.4537	0.4611	0.4120	0.4421	0.4440	0.4353	0.4321	0.4147		0.45	7.0	TM		
46	TM	Methyl Cyclohexane	0.3514	0.3347	0.2869	0.2782	0.2830	0.2833	0.3142	0.3244	0.3584		0.31	10.0	TM		
47	TM	Dibromomethane	0.3020	0.2158	0.2364	0.2294	0.2313	0.2284	0.2261	0.2193	0.2107		0.23	12	TM		
48	TM	2-Chloroethyl vinyl ether													TM		
49	TM	MIBK (methyl isobutyl ketone)			0.2532	0.2798	0.2838	0.2566	0.2955	0.2698	0.2759		0.27	5.5	TM		
50	TM	1-Bromo-2-chloroethane	0.2484	0.2199	0.2231	0.2271	0.2136	0.2246	0.2279	0.2262	0.2194		0.23	4.3	TM		
51	TM	Cis-1,3-Dichloropropene	0.4821	0.4236	0.4547	0.4220	0.4571	0.4546	0.4626	0.4728	0.4831		0.46	4.9	TM		
52	TM*	Toluene	1.312	1.091	1.119	1.115	1.185	1.217	1.244	1.249	1.246		1.2	6.3	TM*		
53	TM	Trans-1,3-Dichloropropene	0.5110	0.3740	0.4057	0.4068	0.4226	0.4312	0.4356	0.4396	0.4407		0.43	8.7	TM		
54	TM	1,1,2-TCA	0.2937	0.2753	0.2720	0.2529	0.2730	0.2730	0.2607	0.2587	0.2489		0.27	5.1	TM		
55	TM	2-Hexanone			0.1783	0.1667	0.1752	0.1674	0.1668	0.1761	0.1828		0.17	3.7	TM		
56	I	Chlorobenzene-D5 (IS)															
57	SL	Toluene-D8(S)	3.750	3.328	2.362	2.318	2.368	2.594	2.431	2.395	2.355		2.7	20	SL	0.999	
58	TM	1,2-EDB	0.3600	0.2646	0.3409	0.2984	0.3281	0.3476	0.3419	0.3354	0.3323		0.33	8.9	TM		
59	TM	Tetrachloroethene	0.3344	0.3432	0.3569	0.3607	0.3506	0.3651	0.3694	0.3504	0.3650		0.36	3.2	TM		
60	TM	1-Chlorohexane		0.2322	0.2285	0.2498	0.2356	0.2598	0.2965	0.3096			0.26	12	TM		
61	TM	1,1,1,2-Tetrachloroethane	0.3552	0.3563	0.3444	0.3514	0.3437	0.3528	0.3476	0.3335	0.3362		0.35	2.3	TM		
62	TML	m&p-Xylene		0.3787	0.4099	0.4166	0.4619	0.5317	0.5852	0.6357	0.6783		0.51	22	TML	0.999	
63	TM	o-Xylene	0.3903	0.3659	0.3500	0.3750	0.3841	0.4375	0.4707	0.4895	0.5342		0.42	15	TM		
64	TML	Styrene		0.2686	0.3364	0.3542	0.3722	0.4588	0.5175	0.5397	0.5910		0.43	26	TML	0.999	
65	S	4-Bromofluorobenzene(S)			0.7519	0.7516	0.7990	0.8844	0.8527	0.8376			0.81	6.7	S		
66	TM	1,3-Dichloropropane	0.5354	0.4636	0.4669	0.4827	0.4872	0.5285	0.5229	0.5158	0.5195		0.50	5.5	TM		
67	TM	Dibromochloromethane	0.4324	0.3113	0.4029	0.3365	0.3639	0.3810	0.3765	0.3694	0.3719		0.37	9.4	TM		
68	TM**	Chlorobenzene	0.9607	0.7883	0.8161	0.8233	0.8193	0.8663	0.8671	0.8458	0.8687		0.85	5.8	TM**		
69	TM*	Ethylbenzene	1.163	1.088	1.078	1.064	1.113	1.202	1.320	1.355	1.437		1.2	11	TM*		
70	TM**	Bromoform	0.1987	0.2913	0.2985	0.2773	0.2786	0.2949	0.2988	0.2830	0.2879		0.28	11	TM**		

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

**Form 6**  
**Initial Calibration**

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/26/18  
Instrument: Loki

Initials: \_\_\_\_\_

	Compound	1	2	3	4	5	6	7	8	9	Avg	%RSD	Type	Q	MRF
71	I 1,4-Dichlorobenzene-D (IS)														
72	TM Isopropylbenzene	1.870	1.850	1.627	1.744	1.674	1.904	2.023	2.163	2.131	1.9	10	TM		
73	TM** 1,1,2,2-Tetrachloroethane	1.045	0.9958	0.8852	0.8489	0.7870	0.8337	0.8253	0.7797	0.7091	0.86	12	TM**		
74	TM 1,2,3-Trichloropropane	0.3099	0.2379	0.2451	0.2395	0.2523	0.2482	0.2496	0.2405	0.2193	0.25	9.9	TM		
75	TM t-1,4-Dichloro-2-Butene	0.2303	0.1788	0.1967	0.1504	0.1658	0.1680	0.1668	0.1656	0.1613	0.18	14	TM		
76	TM Bromobenzene	0.8174	0.7285	0.6800	0.6860	0.6995	0.7271	0.7170	0.7005	0.6337	0.71	7.0	TM		
77	TM n-Propylbenzene	1.405	1.334	1.341	1.264	1.291	1.487	1.610	1.706	1.677	1.5	12	TM		
78	TM 4-Ethyltoluene	1.773	1.623	1.471	1.507	1.625	1.937	2.084	2.185	2.102	1.8	15	TM		
79	TM 2-Chlorotoluene	1.676	1.432	1.262	1.411	1.418	1.592	1.653	1.672	1.556	1.5	9.5	TM		
80	TML 1,3,5-Trimethylbenzene		0.8476	0.7770	0.7844	0.9177	1.107	1.226	1.261	1.194	1.0	20	TML	0.999	
81	TM 4-Chlorotoluene	1.634	1.634	1.557	1.490	1.657	1.891	1.959	1.949	1.824	1.7	10	TM		
82	TM Tert-Butylbenzene	1.395	1.248	1.252	1.199	1.248	1.409	1.513	1.574	1.564	1.4	11	TM		
83	TML 1,2,4-Trimethylbenzene		1.317	1.259	1.251	1.404	1.697	1.856	1.969	1.916	1.6	19	TML	1.000	
84	TM Sec-Butylbenzene	1.921	1.798	1.683	1.687	1.795	2.078	2.299	2.371	2.338	2.0	14	TM		
85	TM p-Isopropyltoluene	1.899	1.705	1.647	1.618	1.664	1.901	2.070	2.097	2.077	1.9	11	TM		
86	TM Benzyl Chloride	1.222	0.9699	0.9031	0.7696	0.9273	0.8973	0.8998	0.9110	0.9551	0.94	13	TM		
87	TM 1,3-DCB	1.424	1.254	1.226	1.136	1.205	1.298	1.293	1.272	1.205	1.3	6.4	TM		
88	TM 1,4-DCB	1.590	1.395	1.307	1.267	1.277	1.371	1.372	1.316	1.249	1.3	7.7	TM		
89	TM n-Butylbenzene	1.827	1.465	1.383	1.362	1.378	1.537	1.643	1.742	1.803	1.6	12	TM		
90	TM 1,2-DCB	1.214	1.324	1.183	1.124	1.185	1.251	1.234	1.230	1.217	1.2	4.5	TM		
91	TM Hexachloroethane	0.4458	0.4906	0.4143	0.3765	0.4135	0.3953	0.3937	0.3885	0.3635	0.41	9.5	TM		
92	TM 1,2-Dibromo-3-chloropropane	0.1592	0.1874	0.1863	0.1602	0.1475	0.1458	0.1432	0.1480	0.1459	0.16	11	TM		
93	TM 1,2,4-Trichlorobenzene	0.8766	0.6216	0.6663	0.6530	0.6630	0.7293	0.7532	0.7938	0.8803	0.74	13	TM		
94	TM Hexachlorobutadiene	0.5074	0.4480	0.3992	0.4339	0.3895	0.3944	0.4063	0.4062	0.4206	0.42	8.7	TM		
95	TML Naphthalene		1.355	1.272	1.202	1.284	1.491	1.618	1.854	2.086	1.5	21	TML	0.997	
96	TM 1,2,3-Trichlorobenzene	0.4343	0.4403	0.3727	0.3183	0.3926	0.4250	0.4450	0.4458	0.5106	0.42	13	TM		
97															
98															
99															
100															
101															
102															
103															
104															
105															

Data File : M:\LOKI\DATA\181026\1026L03.D  
 Acq On : 26 Oct 18 10:28  
 Sample : 0.3ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 2  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	501632	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	505856	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	246016	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	117998	6.2738	ppb	0.00
Spiked Amount	25.000		Recovery	=	25.096%	
37) 1,2-DCA-D4(S)	4.35	65	129064	5.7026	ppb	0.00
Spiked Amount	25.000		Recovery	=	22.812%	
57) Toluene-D8(S)	6.90	98	379189	7.8558	ppb	0.00
Spiked Amount	25.000		Recovery	=	31.424%	
65) 4-Bromofluorobenzene(S)	9.83	95	123814	7.5276	ppb	0.00
Spiked Amount	25.000		Recovery	=	30.112%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	1895	0.2675	ppb	91
3) Freon 114	0.79	85	1419	0.2919	ppb	98
4) Chloromethane	0.78	50	3495	-0.3935	ppb #	41
5) Vinyl chloride	0.87	62	1908	0.2872	ppb #	38
6) Bromomethane	1.04	94	2264	-1.6348	ppb	92
7) Chloroethane	1.09	64	1056	0.2786	ppb	99
9) Trichlorofluoromethane	1.24	101	2871	0.3329	ppb	85
10) Acrolein	1.49	56	7406	12.1836	ppb #	97
11) Acetone	1.59	43	7183	-0.5304	ppb #	80
12) Freon-113	1.56	101	1414	0.3162	ppb #	86
13) 1,1-DCE	1.55	63	739	0.3634	ppb #	43
14) t-Butanol	2.04	59	7870	11.0944	ppb	96
15) Acetonitrile	1.78	41	10755	10.5605	ppb	97
16) Methyl Acetate	1.84	43	3121	0.5613	ppb #	83
17) Iodomethane	1.64	142	490	1.8011	ppb #	63
19) Methylene chloride	1.89	84	4282	0.6598	ppb #	68
20) Carbon disulfide	1.68	76	5838	0.3728	ppb #	92
21) Methyl t-butyl ether (MtBE)	2.15	73	5606	0.3547	ppb #	91
22) Trans-1,2-DCE	2.11	96	2401	0.4200	ppb	91
23) Diisopropyl Ether	2.63	45	5547	0.3326	ppb #	79
24) 1,1-DCA	2.49	63	4249	0.3769	ppb #	91
25) Vinyl Acetate	2.63	43	1630	0.4012	ppb #	96
26) Ethyl tert Butyl Ether	3.06	59	4501	0.3118	ppb	96
27) MEK (2-Butanone)	3.25	43	1735	0.5882	ppb	91
28) Cis-1,2-DCE	3.16	96	1876	0.2878	ppb	95
30) Chloroform	3.63	83	3991	0.3582	ppb #	73
31) Bromochloromethane	3.46	128	1029	0.2883	ppb #	65
33) 1,1,1-TCA	3.84	97	3099	0.3486	ppb	91
34) Cyclohexane	3.90	41	1818	0.4881	ppb #	75
35) 1,1-Dichloropropene	4.11	75	2326	0.3432	ppb #	76
36) 2,2,4-Trimethylpentane	4.61	57	3637	0.2958	ppb #	16
38) Carbon Tetrachloride	4.09	117	2265	0.3105	ppb	100
39) Tert Amyl Methyl Ether	4.70	73	3718	0.2819	ppb #	96
40) 1,2-DCA	4.47	62	2649	0.3214	ppb #	77
41) Benzene	4.41	78	8398	0.3621	ppb	98
42) TCE	5.37	95	1216	0.4275	ppb #	71
43) 2-Pentanone	5.71	43	41996	10.0791	ppb	95
44) 1,2-Dichloropropane	5.63	63	1948	0.3127	ppb #	86
45) Bromodichloromethane	6.04	83	3108	0.3475	ppb #	78

Data File : M:\LOKI\DATA\181026\1026L03.D  
 Acq On : 26 Oct 18 10:28  
 Sample : 0.3ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 2  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
46) Methyl Cyclohexane	5.58	83	2115	0.3370	ppb	91
47) Dibromomethane	5.79	93	1818	0.3884	ppb #	65
49) MIBK (methyl isobutyl ket	6.89	43	4769	0.8690	ppb #	1
50) 1-Bromo-2-chloroethane	6.38	63	1495	0.3303	ppb	94
51) Cis-1,3-Dichloropropene	6.61	75	2902	0.3165	ppb	97
52) Toluene	6.98	91	7895	0.3286	ppb	88
53) Trans-1,3-Dichloropropene	7.29	75	3076	0.3568	ppb #	76
54) 1,1,2-TCA	7.47	83	1768	0.3293	ppb	87
55) 2-Hexanone	7.83	43	1819	0.5230	ppb #	67
58) 1,2-EDB	7.98	107	2185	0.3296	ppb	90
59) Tetrachloroethene	7.60	166	2030	0.2825	ppb	87
60) 1-Chlorohexane	8.60	91	1769	0.3377	ppb	84
61) 1,1,1,2-Tetrachloroethane	8.66	131	2156	0.3072	ppb	92
62) m&p-Xylene	8.85	91	5300	3.2147	ppb	96
63) o-Xylene	9.27	106	2369	0.2775	ppb	66
64) Styrene	9.29	104	2418	1.7354	ppb	91
66) 1,3-Dichloropropane	7.65	76	3250	0.3196	ppb	88
67) Dibromochloromethane	7.89	129	2625	0.3490	ppb #	66
68) Chlorobenzene	8.55	112	5832	0.3388	ppb	94
69) Ethylbenzene	8.71	91	7058	0.2901	ppb	96
70) Bromoform	9.45	173	1206	0.2138	ppb #	30
72) Isopropylbenzene	9.69	105	5522	0.2973	ppb	99
73) 1,1,2,2-Tetrachloroethane	10.03	83	3085	0.3660	ppb	91
74) 1,2,3-Trichloropropane	10.05	110	915	0.3732	ppb	86
75) t-1,4-Dichloro-2-Butene	10.10	53	680	0.3927	ppb #	58
76) Bromobenzene	9.96	156	2413	0.3454	ppb	88
77) n-Propylbenzene	10.13	91	4148	0.2892	ppb	100
78) 4-Ethyltoluene	10.26	105	5234	0.2935	ppb	99
79) 2-Chlorotoluene	10.19	91	4947	0.3309	ppb	91
80) 1,3,5-Trimethylbenzene	10.34	105	2787	0.5182	ppb	95
81) 4-Chlorotoluene	10.32	91	4825	0.2829	ppb	95
82) Tert-Butylbenzene	10.68	119	4119	0.3038	ppb #	77
83) 1,2,4-Trimethylbenzene	10.73	105	3953	0.8287	ppb	86
84) Sec-Butylbenzene	10.91	105	5672	0.2887	ppb	98
85) p-Isopropyltoluene	11.09	119	5605	0.3074	ppb #	86
86) Benzyl Chloride	11.25	91	3607	0.3902	ppb	98
87) 1,3-DCB	11.00	146	4205	0.3400	ppb #	77
88) 1,4-DCB	11.09	146	4694	0.3535	ppb #	91
89) n-Butylbenzene	11.52	91	5395	0.3489	ppb #	89
90) 1,2-DCB	11.48	146	3584	0.2990	ppb	86
91) Hexachloroethane	11.74	117	1316	0.3269	ppb	88
92) 1,2-Dibromo-3-chloropropan	12.31	75	470	0.3020	ppb #	76
93) 1,2,4-Trichlorobenzene	13.20	180	2588	0.3566	ppb	85
94) Hexachlorobutadiene	13.41	225	1498	0.3600	ppb #	60
95) Naphthalene	13.45	128	4880	2.1993	ppb	96
96) 1,2,3-Trichlorobenzene	13.71	180	1282	0.3098	ppb	97

Quantitation Report

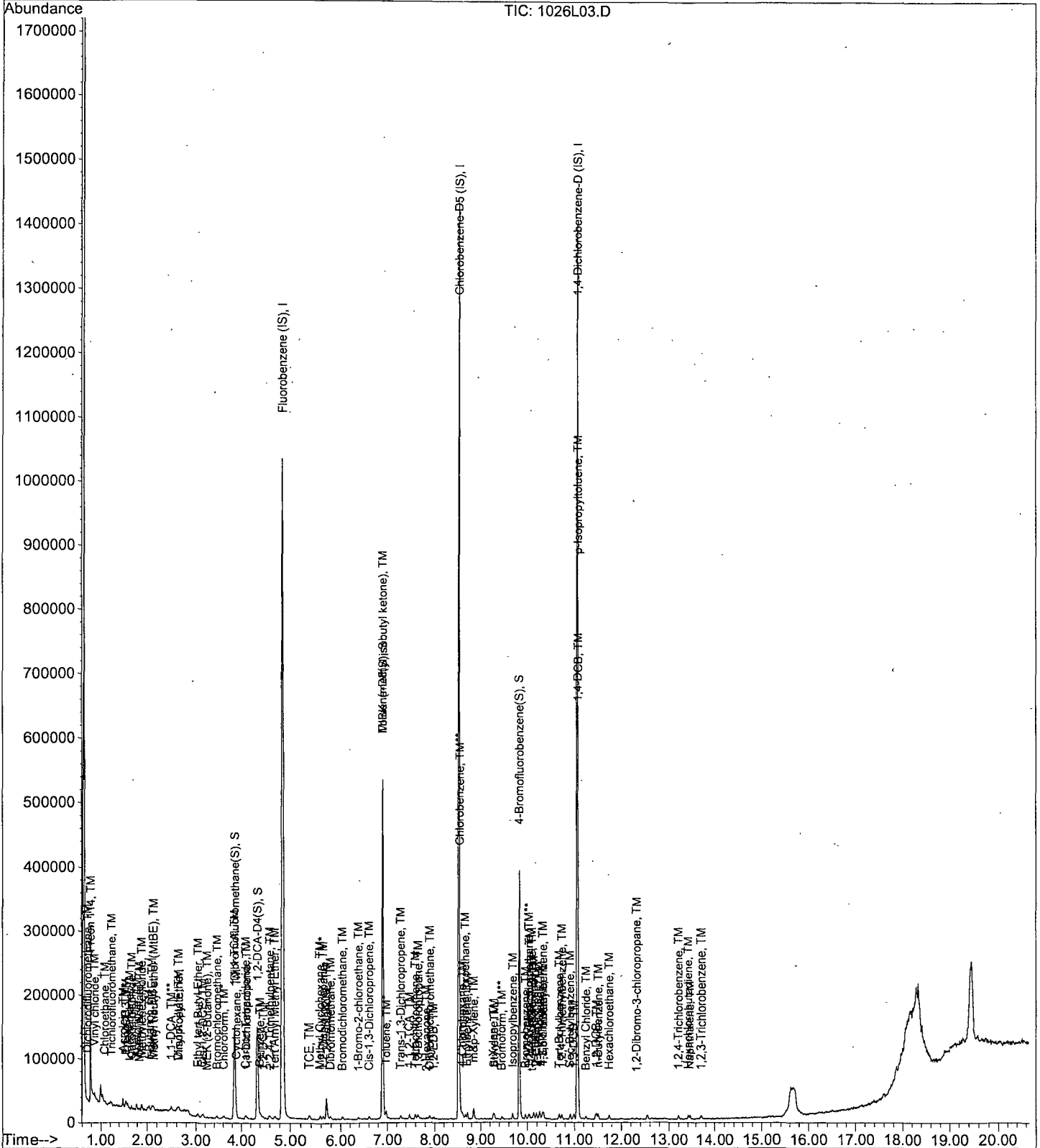
Data File : M:\LOKI\DATA\181026\1026L03.D  
Acq On : 26 Oct 18 10:28  
Sample : 0.3ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 2  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181026\1026L04.D  
 Acq On : 26 Oct 18 10:57  
 Sample : 0.5ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 3  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	513856	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	505216	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	239616	25.0000	ppb	0.00

System Monitoring Compounds

32) Dibromofluoromethane(S)	3.85	111	106270	5.1037	ppb	0.00
Spiked Amount	25.000		Recovery	=	20.416%	
37) 1,2-DCA-D4(S)	4.35	65	115366	4.4216	ppb	0.00
Spiked Amount	25.000		Recovery	=	17.688%	
57) Toluene-D8(S)	6.90	98	336267	6.9754	ppb	0.00
Spiked Amount	25.000		Recovery	=	27.900%	
65) 4-Bromofluorobenzene(S)	9.83	95	109990	6.6956	ppb	0.00
Spiked Amount	25.000		Recovery	=	26.784%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	3168	0.4365	ppb	90
3) Freon 114	0.79	85	2899	0.5821	ppb	98
5) Vinyl chloride	0.87	62	3215	0.4724	ppb #	52
6) Bromomethane	1.03	94	3895	-1.2809	ppb	82
7) Chloroethane	1.09	64	1931	0.4973	ppb	87
8) Dichlorofluoromethane	1.21	67	6714	0.6526	ppb	92
9) Trichlorofluoromethane	1.24	101	4628	0.5239	ppb	90
10) Acrolein	1.49	56	15073	24.2066	ppb #	100
12) Freon-113	1.56	101	2274	0.4964	ppb	88
13) 1,1-DCE	1.55	63	1254	0.6019	ppb #	56
14) t-Butanol	2.04	59	20238	27.8511	ppb	93
15) Acetonitrile	1.78	41	27169	26.0431	ppb	92
16) Methyl Acetate	1.84	43	3458	0.6072	ppb	98
17) Iodomethane	1.64	142	703	1.8728	ppb	85
18) Acrylonitrile	2.26	52	2113	0.1630	ppb #	7
19) Methylene chloride	1.90	84	5175	0.7784	ppb	78
20) Carbon disulfide	1.68	76	8134	0.5071	ppb #	90
21) Methyl t-butyl ether (MtBE)	2.14	73	8236	0.5088	ppb #	85
22) Trans-1,2-DCE	2.11	96	3203	0.5470	ppb	96
23) Diisopropyl Ether	2.64	45	12562	0.7353	ppb #	88
24) 1,1-DCA	2.49	63	5869	0.5082	ppb #	92
25) Vinyl Acetate	2.61	43	2528	0.6075	ppb #	91
26) Ethyl tert Butyl Ether	3.05	59	7261	0.4911	ppb	90
27) MEK (2-Butanone)	3.24	43	2561	0.8476	ppb	100
28) Cis-1,2-DCE	3.16	96	3636	0.5445	ppb	96
29) 2,2-Dichloropropane	3.14	77	5267	0.2195	ppb #	90
30) Chloroform	3.62	83	5628	0.4931	ppb	91
31) Bromochloromethane	3.46	128	2213	0.6053	ppb	81
33) 1,1,1-TCA	3.83	97	4355	0.4782	ppb	100
34) Cyclohexane	3.90	41	2786	0.7302	ppb #	74
35) 1,1-Dichloropropene	4.12	75	3635	0.5236	ppb	95
36) 2,2,4-Trimethylpentane	4.62	57	6667	0.5294	ppb #	20
38) Carbon Tetrachloride	4.08	117	3714	0.4971	ppb	80
39) Tert Amyl Methyl Ether	4.70	73	6489	0.4802	ppb #	96
40) 1,2-DCA	4.47	62	4324	0.5122	ppb #	76
41) Benzene	4.42	78	11838	0.4982	ppb	95
42) TCE	5.37	95	1706	0.5855	ppb	92
43) 2-Pentanone	5.71	43	106101	24.8587	ppb	98
44) 1,2-Dichloropropane	5.65	63	3261	0.5110	ppb #	86

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

Data File : M:\LOKI\DATA\181026\1026L04.D  
 Acq On : 26 Oct 18 10:57  
 Sample : 0.5ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) Bromodichloromethane	6.04	83	4663	0.5090	ppb	# 78
46) Methyl Cyclohexane	5.58	83	3440	0.5352	ppb	75
47) Dibromomethane	5.80	93	2218	0.4626	ppb	82
49) MIBK (methyl isobutyl ket	6.85	43	5152	0.9165	ppb	# 77
50) 1-Bromo-2-chloroethane	6.37	63	2260	0.4874	ppb	97
51) Cis-1,3-Dichloropropene	6.61	75	4353	0.4635	ppb	93
52) Toluene	6.98	91	11217	0.4557	ppb	95
53) Trans-1,3-Dichloropropene	7.29	75	3844	0.4352	ppb	88
54) 1,1,2-TCA	7.48	83	2829	0.5144	ppb	83
55) 2-Hexanone	7.83	43	2034	0.5709	ppb	94
58) 1,2-EDB	7.98	107	2674	0.4038	ppb	90
59) Tetrachloroethene	7.60	166	3468	0.4833	ppb	86
60) 1-Chlorohexane	8.60	91	2346	0.4485	ppb	89
61) 1,1,1,2-Tetrachloroethane	8.67	131	3600	0.5137	ppb	78
62) m&p-Xylene	8.85	91	7652	3.3859	ppb	92
63) o-Xylene	9.27	106	3697	0.4336	ppb	92
64) Styrene	9.30	104	2714	1.7603	ppb	97
66) 1,3-Dichloropropane	7.65	76	4684	0.4613	ppb	83
67) Dibromochloromethane	7.89	129	3145	0.4186	ppb	93
68) Chlorobenzene	8.55	112	7965	0.4633	ppb	# 90
69) Ethylbenzene	8.71	91	10996	0.4526	ppb	96
70) Bromoform	9.45	173	2943	0.5224	ppb	88
72) Isopropylbenzene	9.69	105	8867	0.4902	ppb	93
73) 1,1,2,2-Tetrachloroethane	10.03	83	4772	0.5812	ppb	98
74) 1,2,3-Trichloropropane	10.05	110	1140	0.4774	ppb	89
75) t-1,4-Dichloro-2-Butene	10.08	53	857	0.5081	ppb	# 62
76) Bromobenzene	9.96	156	3491	0.5130	ppb	81
77) n-Propylbenzene	10.13	91	6393	0.4577	ppb	94
78) 4-Ethyltoluene	10.27	105	7780	0.4480	ppb	97
79) 2-Chlorotoluene	10.19	91	6863	0.4714	ppb	95
80) 1,3,5-Trimethylbenzene	10.34	105	4062	0.6346	ppb	95
81) 4-Chlorotoluene	10.32	91	7830	0.4714	ppb	100
82) Tert-Butylbenzene	10.67	119	5979	0.4527	ppb	94
83) 1,2,4-Trimethylbenzene	10.73	105	6310	0.9613	ppb	97
84) Sec-Butylbenzene	10.91	105	8618	0.4503	ppb	90
85) p-Isopropyltoluene	11.08	119	8172	0.4601	ppb	# 89
86) Benzyl Chloride	11.25	91	4648	0.5162	ppb	99
87) 1,3-DCB	10.99	146	6009	0.4988	ppb	88
88) 1,4-DCB	11.09	146	6684	0.5168	ppb	95
89) n-Butylbenzene	11.52	91	7023	0.4664	ppb	# 91
90) 1,2-DCB	11.48	146	6344	0.5434	ppb	87
91) Hexachloroethane	11.74	117	2351	0.5996	ppb	# 73
92) 1,2-Dibromo-3-chloropropan	12.31	75	898	0.5923	ppb	# 53
93) 1,2,4-Trichlorobenzene	13.20	180	2979	0.4215	ppb	96
94) Hexachlorobutadiene	13.41	225	2147	0.5298	ppb	82
95) Naphthalene	13.45	128	6494	2.2861	ppb	99
96) 1,2,3-Trichlorobenzene	13.71	180	2110	0.5235	ppb	96

Quantitation Report

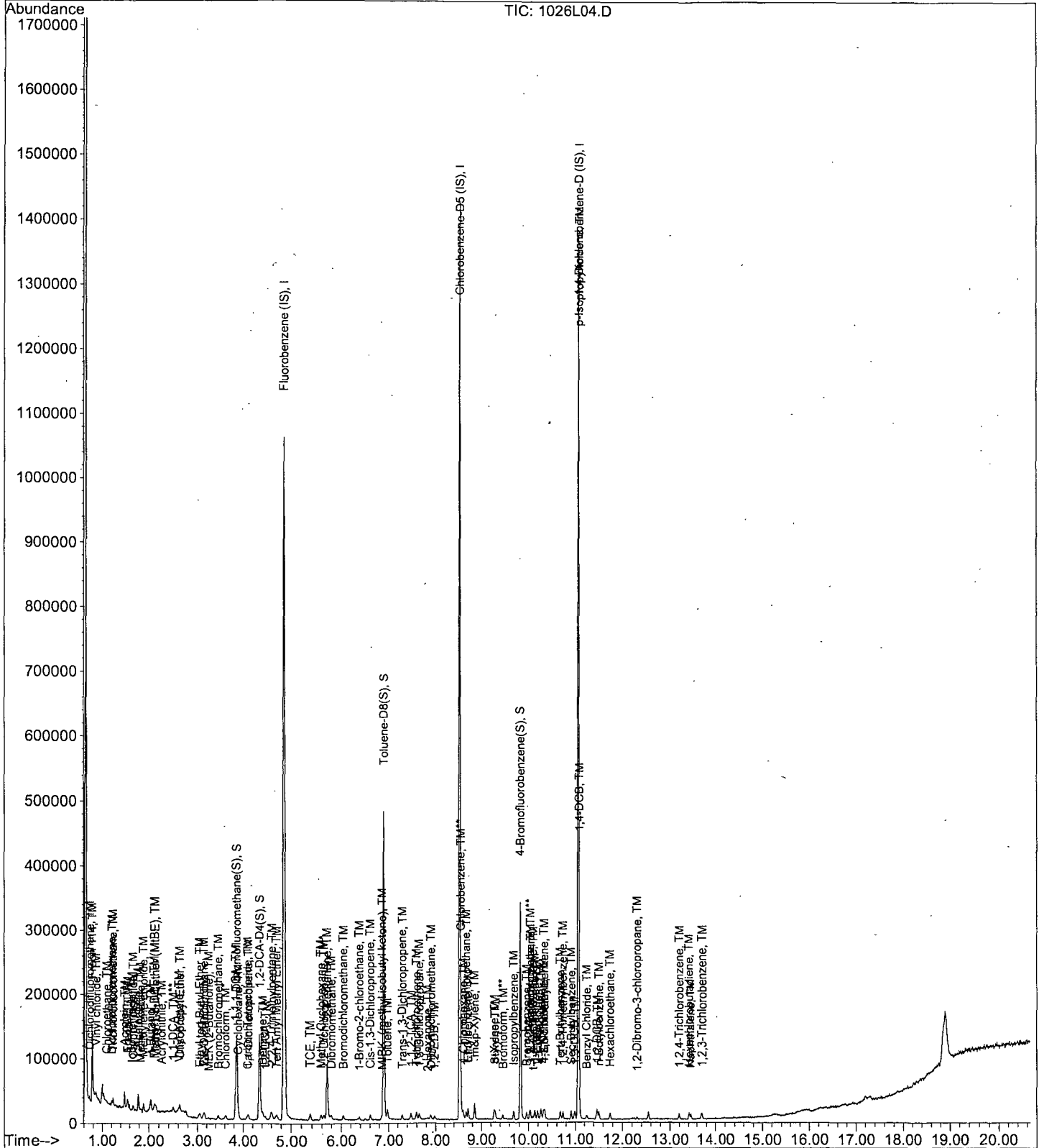
Data File : M:\LOKI\DATA\181026\1026L04.D  
 Acq On : 26 Oct 18 10:57  
 Sample : 0.5ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 3  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L05.D  
 Acq On : 26 Oct 18 11:25  
 Sample : 1.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	505920	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	497728	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	254912	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.86	111	148372	8.6635	ppb	0.00
Spiked Amount	25.000					
Recovery				=	34.656%	
37) 1,2-DCA-D4(S)	4.35	65	161909	8.1545	ppb	0.00
Spiked Amount	25.000					
Recovery				=	32.616%	
57) Toluene-D8(S)	6.90	98	470130	9.8990	ppb	0.00
Spiked Amount	25.000					
Recovery				=	39.596%	
65) 4-Bromofluorobenzene(S)	9.83	95	149696	9.2498	ppb	0.00
Spiked Amount	25.000					
Recovery				=	37.000%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.72	85	7815	1.0937	ppb	92
3) Freon 114	0.79	85	4939	1.0072	ppb	91
4) Chloromethane	0.81	50	10276	0.5740	ppb	92
5) Vinyl chloride	0.87	62	6843	1.0212	ppb	85
6) Bromomethane	1.03	94	6400	-0.6957	ppb	89
7) Chloroethane	1.09	64	4177	1.0925	ppb	95
8) Dichlorofluoromethane	1.21	67	9912	0.9785	ppb	100
9) Trichlorofluoromethane	1.24	101	8940	1.0279	ppb	90
10) Acrolein	1.49	56	29924	48.8106	ppb	97
11) Acetone	1.60	43	9162	0.4627	ppb	99
12) Freon-113	1.56	101	4428	0.9818	ppb	96
13) 1,1-DCE	1.55	63	2326	1.1340	ppb	# 75
14) t-Butanol	2.05	59	36698	51.2951	ppb	100
15) Acetonitrile	1.78	41	51986	50.6134	ppb	94
16) Methyl Acetate	1.84	43	6414	1.1439	ppb	92
17) Iodomethane	1.64	142	1350	2.1110	ppb	# 91
18) Acrylonitrile	2.10	52	2894	0.5581	ppb	# 65
19) Methylene chloride	1.89	84	7994	1.2213	ppb	96
20) Carbon disulfide	1.68	76	16752	1.0607	ppb	98
21) Methyl t-butyl ether (MtBE)	2.14	73	16717	1.0489	ppb	95
22) Trans-1,2-DCE	2.11	96	6609	1.1463	ppb	91
23) Diisopropyl Ether	2.63	45	17847	1.0610	ppb	# 87
24) 1,1-DCA	2.49	63	11959	1.0518	ppb	94
25) Vinyl Acetate	2.63	43	4588	1.1198	ppb	# 97
26) Ethyl tert Butyl Ether	3.05	59	14485	0.9951	ppb	94
27) MEK (2-Butanone)	3.24	43	3383	1.1372	ppb	90
28) Cis-1,2-DCE	3.16	96	6881	1.0466	ppb	77
29) 2,2-Dichloropropane	3.14	77	9448	0.7741	ppb	# 89
30) Chloroform	3.62	83	10999	0.9788	ppb	97
31) Bromochloromethane	3.46	128	3670	1.0195	ppb	83
33) 1,1,1-TCA	3.83	97	9586	1.0691	ppb	# 71
34) Cyclohexane	3.88	41	4205	1.1195	ppb	82
35) 1,1-Dichloropropene	4.10	75	6802	0.9951	ppb	88
36) 2,2,4-Trimethylpentane	4.61	57	11863	0.9567	ppb	# 21
38) Carbon Tetrachloride	4.09	117	7362	1.0008	ppb	91
39) Tert Amyl Methyl Ether	4.71	73	13150	0.9885	ppb	# 95
40) 1,2-DCA	4.47	62	8111	0.9759	ppb	# 88
41) Benzene	4.41	78	23172	0.9906	ppb	92
42) TCE	5.37	95	2926	1.0200	ppb	91

(#) = qualifier out of range (m) = manual integration  
 1026L05.D L1026W.M Mon Oct 29 06:55:17 2018

Data File : M:\LOKI\DATA\181026\1026L05.D  
 Acq On : 26 Oct 18 11:25  
 Sample : 1.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 4  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	211886	50.4220	ppb	99
44) 1,2-Dichloropropane	5.64	63	6264	0.9970	ppb #	86
45) Bromodichloromethane	6.04	83	9332	1.0346	ppb #	86
46) Methyl Cyclohexane	5.59	83	5806	0.9174	ppb	98
47) Dibromomethane	5.79	93	4783	1.0133	ppb	95
49) MIBK (methyl isobutyl ket	6.85	43	5121	0.9253	ppb	97
50) 1-Bromo-2-chloroethane	6.37	63	4515	0.9891	ppb	99
51) Cis-1,3-Dichloropropene	6.61	75	9202	0.9951	ppb	95
52) Toluene	6.98	91	22652	0.9347	ppb	85
53) Trans-1,3-Dichloropropene	7.29	75	8210	0.9441	ppb	93
54) 1,1,2-TCA	7.48	83	5504	1.0165	ppb	97
55) 2-Hexanone	7.83	43	3609	1.0289	ppb #	86
58) 1,2-EDB	7.98	107	6787	1.0404	ppb	95
59) Tetrachloroethene	7.60	166	7105	1.0051	ppb	90
60) 1-Chlorohexane	8.60	91	4549	0.8827	ppb	87
61) 1,1,1,2-Tetrachloroethane	8.67	131	6857	0.9931	ppb	99
62) m&p-Xylene	8.85	91	16320	4.0326	ppb	97
63) o-Xylene	9.27	106	6969	0.8297	ppb	99
64) Styrene	9.29	104	6697	2.1008	ppb	91
66) 1,3-Dichloropropane	7.65	76	9295	0.9291	ppb	92
67) Dibromochloromethane	7.89	129	8021	1.0837	ppb	99
68) Chlorobenzene	8.55	112	16248	0.9594	ppb	92
69) Ethylbenzene	8.71	91	21454	0.8963	ppb	92
70) Bromoform	9.45	173	5943	1.0708	ppb	98
72) Isopropylbenzene	9.69	105	16589	0.8620	ppb	94
73) 1,1,2,2-Tetrachloroethane	10.03	83	9026	1.0334	ppb #	92
74) 1,2,3-Trichloropropane	10.04	110	2499	0.9837	ppb	95
75) t-1,4-Dichloro-2-Butene	10.10	53	2006	1.1180	ppb	82
76) Bromobenzene	9.96	156	6934	0.9578	ppb	97
77) n-Propylbenzene	10.13	91	13678	0.9205	ppb	93
78) 4-Ethyltoluene	10.26	105	14994	0.8116	ppb	93
79) 2-Chlorotoluene	10.19	91	12865	0.8306	ppb	95
80) 1,3,5-Trimethylbenzene	10.34	105	7923	0.9272	ppb	99
81) 4-Chlorotoluene	10.32	91	15878	0.8986	ppb	91
82) Tert-Butylbenzene	10.67	119	12770	0.9089	ppb	99
83) 1,2,4-Trimethylbenzene	10.73	105	12840	1.2717	ppb	82
84) Sec-Butylbenzene	10.91	105	17162	0.8430	ppb	96
85) p-Isopropyltoluene	11.08	119	16797	0.8889	ppb	88
86) Benzyl Chloride	11.25	91	9208	0.9613	ppb #	86
87) 1,3-DCB	10.99	146	12498	0.9753	ppb	94
88) 1,4-DCB	11.09	146	13322	0.9683	ppb	97
89) n-Butylbenzene	11.52	91	14099	0.8801	ppb	97
90) 1,2-DCB	11.48	146	12059	0.9710	ppb	89
91) Hexachloroethane	11.74	117	4224	1.0127	ppb	90
92) 1,2-Dibromo-3-chloropropan	12.31	75	1900	1.1781	ppb #	73
93) 1,2,4-Trichlorobenzene	13.20	180	6794	0.9035	ppb	98
94) Hexachlorobutadiene	13.41	225	4070	0.9440	ppb	94
95) Naphthalene	13.45	128	12974	2.5702	ppb	92
96) 1,2,3-Trichlorobenzene	13.71	180	3800	0.8863	ppb #	95

Quantitation Report

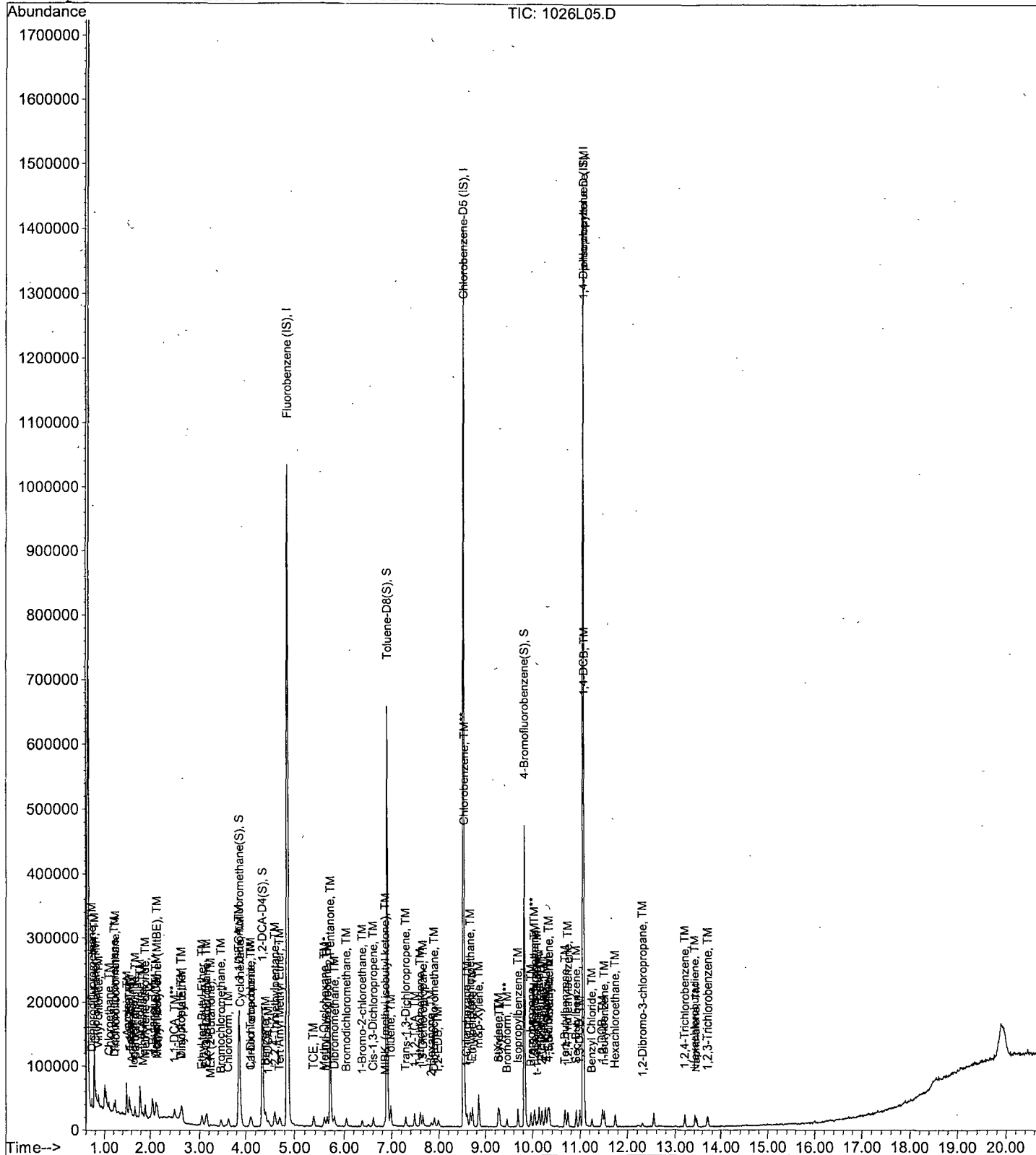
Data File : M:\LOKI\DATA\181026\1026L05.D  
Acq On : 26 Oct 18 11:25  
Sample : 1.0ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 4  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L06.D  
 Acq On : 26 Oct 18 11:54  
 Sample : 2.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 5  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.86	96	528768	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	515904	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	268608	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Dibromofluoromethane (S)	3.85	111	149525	8.2316	ppb	0.00
Spiked Amount	25.000		Recovery	=	32.928%	
37) 1,2-DCA-D4 (S)	4.35	65	165668	7.8919	ppb	0.00
Spiked Amount	25.000		Recovery	=	31.568%	
57) Toluene-D8 (S)	6.90	98	478316	9.7165	ppb	0.00
Spiked Amount	25.000		Recovery	=	38.864%	
65) 4-Bromofluorobenzene (S)	9.83	95	155110	9.2467	ppb	0.00
Spiked Amount	25.000		Recovery	=	36.988%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	16912	2.2646	ppb	91
3) Freon 114	0.79	85	10627	2.0736	ppb	79
4) Chloromethane	0.81	50	16195	1.3220	ppb	96
5) Vinyl chloride	0.87	62	13293	1.8981	ppb	84
6) Bromomethane	1.03	94	12382	0.5470	ppb	99
7) Chloroethane	1.09	64	7967	1.9938	ppb	97
8) Dichlorofluoromethane	1.21	67	20463	1.9328	ppb	97
9) Trichlorofluoromethane	1.24	101	16828	1.8513	ppb	94
10) Acrolein	1.49	56	44406	69.3031	ppb	# 94
11) Acetone	1.60	43	10993	1.1649	ppb	# 85
12) Freon-113	1.56	101	10230	2.1703	ppb	90
13) 1,1-DCE	1.55	63	3670	1.7119	ppb	94
14) t-Butanol	2.05	59	52587	70.3281	ppb	99
15) Acetonitrile	1.78	41	76479	71.2423	ppb	91
16) Methyl Acetate	1.84	43	11909	2.0320	ppb	90
17) Iodomethane	1.64	142	3115	2.7014	ppb	94
18) Acrylonitrile	2.10	52	6560	2.2009	ppb	74
19) Methylene chloride	1.89	84	14238	2.0813	ppb	95
20) Carbon disulfide	1.68	76	32838	1.9894	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	31870	1.9132	ppb	95
22) Trans-1,2-DCE	2.11	96	11865	1.9691	ppb	95
23) Diisopropyl Ether	2.63	45	37423	2.1286	ppb	92
24) 1,1-DCA	2.49	63	23600	1.9859	ppb	95
25) Vinyl Acetate	2.63	43	8448	1.9728	ppb	# 96
26) Ethyl tert Butyl Ether	3.05	59	30063	1.9760	ppb	93
27) MEK (2-Butanone)	3.24	43	6116	1.9671	ppb	98
28) Cis-1,2-DCE	3.16	96	13775	2.0046	ppb	87
29) 2,2-Dichloropropane	3.13	77	18055	1.7923	ppb	97
30) Chloroform	3.62	83	22127	1.8840	ppb	96
31) Bromochloromethane	3.46	128	7193	1.9118	ppb	89
33) 1,1,1-TCA	3.83	97	18420	1.9655	ppb	97
34) Cyclohexane	3.90	41	8087	2.0599	ppb	98
35) 1,1-Dichloropropene	4.12	75	14135	1.9785	ppb	93
36) 2,2,4-Trimethylpentane	4.60	57	24980	1.9275	ppb	# 55
38) Carbon Tetrachloride	4.10	117	14770	1.9211	ppb	91
39) Tert Amyl Methyl Ether	4.71	73	24701	1.7765	ppb	# 93
40) 1,2-DCA	4.46	62	17038	1.9614	ppb	# 89
41) Benzene	4.41	78	45902	1.8775	ppb	98
42) TCE	5.37	95	5706	1.9032	ppb	97

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

Data File : M:\LOKI\DATA\181026\1026L06.D  
 Acq On : 26 Oct 18 11:54  
 Sample : 2.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 5  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	316951	72.1650	ppb	100
44) 1,2-Dichloropropane	5.64	63	13178	2.0069	ppb #	94
45) Bromodichloromethane	6.04	83	17430	1.8489	ppb	97
46) Methyl Cyclohexane	5.59	83	11768	1.7791	ppb	97
47) Dibromomethane	5.79	93	9702	1.9665	ppb	90
49) MIBK (methyl isobutyl ket	6.85	43	11834	2.0458	ppb #	90
50) 1-Bromo-2-chloroethane	6.37	63	9606	2.0134	ppb	100
51) Cis-1,3-Dichloropropene	6.61	75	17851	1.8471	ppb	96
52) Toluene	6.98	91	47158	1.8618	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	17208	1.8934	ppb	89
54) 1,1,2-TCA	7.48	83	10698	1.8904	ppb	97
55) 2-Hexanone	7.83	43	7052	1.9235	ppb	99
58) 1,2-EDB	7.98	107	12314	1.8211	ppb	95
59) Tetrachloroethene	7.60	166	14887	2.0317	ppb	90
60) 1-Chlorohexane	8.60	91	10310	1.9301	ppb	98
61) 1,1,1,2-Tetrachloroethane	8.66	131	14504	2.0267	ppb	86
62) m&p-Xylene	8.85	91	34392	5.2743	ppb	98
63) o-Xylene	9.27	106	15479	1.7778	ppb	88
64) Styrene	9.29	104	14618	2.7275	ppb	96
66) 1,3-Dichloropropane	7.65	76	19922	1.9212	ppb	94
67) Dibromochloromethane	7.89	129	13887	1.8102	ppb	97
68) Chlorobenzene	8.55	112	33981	1.9358	ppb	98
69) Ethylbenzene	8.71	91	43926	1.7704	ppb	97
70) Bromoform	9.45	173	11445	1.9894	ppb	97
72) Isopropylbenzene	9.69	105	37467	1.8477	ppb	95
73) 1,1,2,2-Tetrachloroethane	10.03	83	18241	1.9819	ppb	91
74) 1,2,3-Trichloropropane	10.04	110	5147	1.9227	ppb	92
75) t-1,4-Dichloro-2-Butene	10.09	53	3231	1.7089	ppb #	75
76) Bromobenzene	9.96	156	14742	1.9326	ppb	89
77) n-Propylbenzene	10.13	91	27152	1.7341	ppb	100
78) 4-Ethyltoluene	10.26	105	32383	1.6634	ppb	93
79) 2-Chlorotoluene	10.19	91	30329	1.8583	ppb	96
80) 1,3,5-Trimethylbenzene	10.34	105	16856	1.5829	ppb	92
81) 4-Chlorotoluene	10.31	91	32027	1.7201	ppb	100
82) Tert-Butylbenzene	10.67	119	25759	1.7399	ppb	98
83) 1,2,4-Trimethylbenzene	10.73	105	26887	1.9140	ppb	99
84) Sec-Butylbenzene	10.91	105	36246	1.6896	ppb	98
85) p-Isopropyltoluene	11.08	119	34770	1.7463	ppb	98
86) Benzyl Chloride	11.25	91	16537	1.6384	ppb #	89
87) 1,3-DCB	10.99	146	24403	1.8072	ppb	98
88) 1,4-DCB	11.09	146	27234	1.8786	ppb	95
89) n-Butylbenzene	11.52	91	29260	1.7334	ppb	95
90) 1,2-DCB	11.48	146	24155	1.8457	ppb	93
91) Hexachloroethane	11.75	117	8091	1.8409	ppb	90
92) 1,2-Dibromo-3-chloropropan	12.31	75	3442	2.0254	ppb #	84
93) 1,2,4-Trichlorobenzene	13.20	180	14033	1.7710	ppb	99
94) Hexachlorobutadiene	13.41	225	9324	2.0524	ppb	92
95) Naphthalene	13.45	128	25823	3.1105	ppb #	90
96) 1,2,3-Trichlorobenzene	13.71	180	6840	1.5139	ppb	99



Quantitation Report

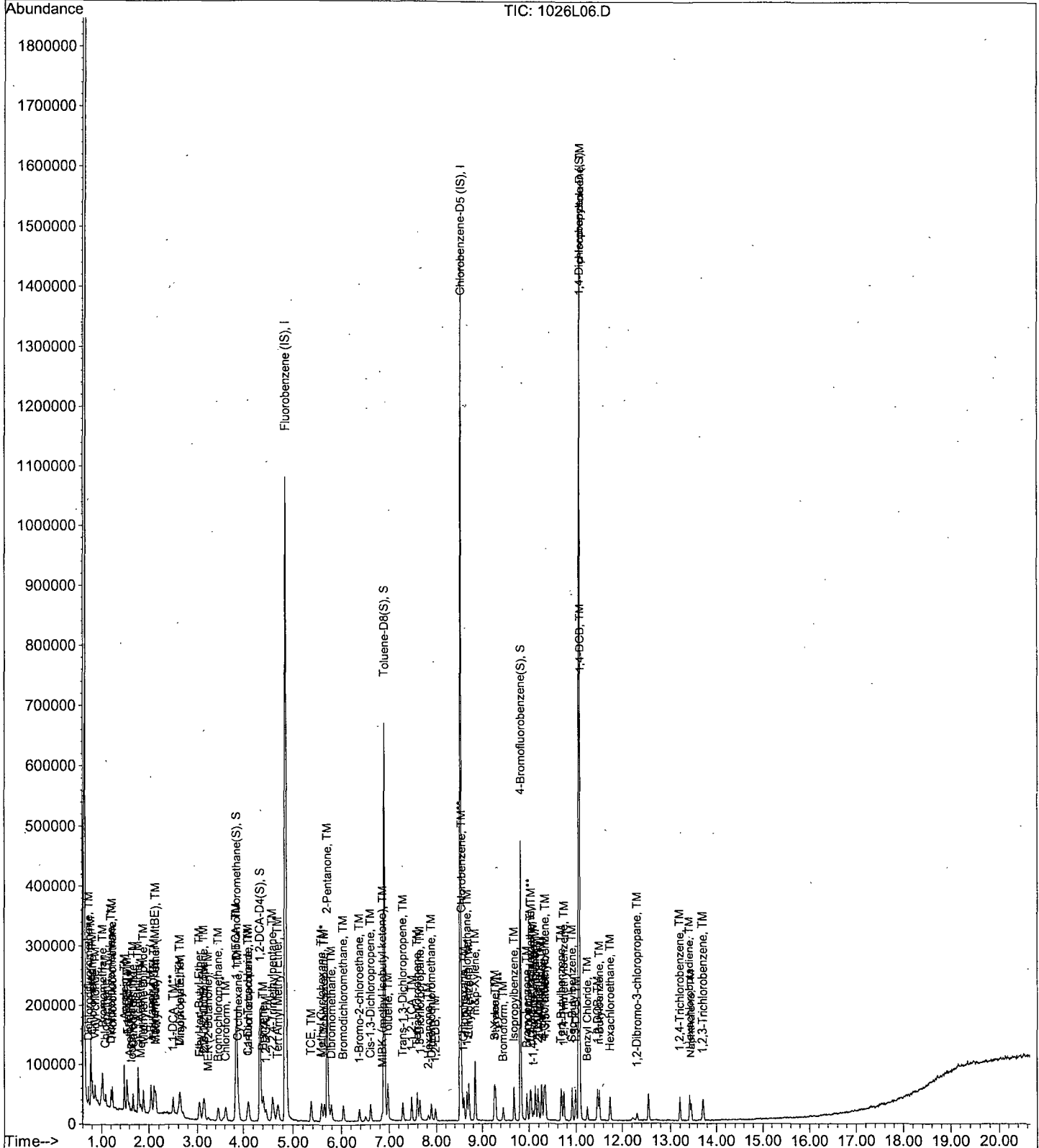
Data File : M:\LOKI\DATA\181026\1026L06.D  
Acq On : 26 Oct 18 11:54  
Sample : 2.0ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 5  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L07.D  
 Acq On : 26 Oct 18 12:22  
 Sample : 5.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 6  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.86	96	500096	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	496128	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	275392	25.0000	ppb	0.00
System Monitoring Compounds						
32) Dibromofluoromethane(S)	3.86	111	357287	26.0037	ppb	0.00
Spiked Amount	25.000		Recovery	=	104.016%	
37) 1,2-DCA-D4 (S)	4.35	65	388947	26.0419	ppb	0.00
Spiked Amount	25.000		Recovery	=	104.168%	
57) Toluene-D8 (S)	6.90	98	1174648	24.8129	ppb	0.00
Spiked Amount	25.000		Recovery	=	99.252%	
65) 4-Bromofluorobenzene(S)	9.83	95	396415	24.5737	ppb	0.00
Spiked Amount	25.000		Recovery	=	98.296%	
Target Compounds						
2) Dichlorodifluoromethane	0.73	85	35624	5.0436	ppb	Qvalue 95
3) Freon 114	0.79	85	22026	4.5442	ppb	99
4) Chloromethane	0.81	50	42866	5.3161	ppb	98
5) Vinyl chloride	0.87	62	36614	5.5279	ppb	99
6) Bromomethane	1.03	94	29487	4.6497	ppb	99
7) Chloroethane	1.09	64	20925	5.5369	ppb	98
8) Dichlorofluoromethane	1.21	67	48975	4.8910	ppb	97
9) Trichlorofluoromethane	1.24	101	43721	5.0856	ppb	96
10) Acrolein	1.49	56	59261	97.7894	ppb	# 99
11) Acetone	1.60	43	17986	5.1410	ppb	91
12) Freon-113	1.56	101	22440	5.0337	ppb	92
13) 1,1-DCE	1.55	63	9631	4.7501	ppb	91
14) t-Butanol	2.05	59	63668	90.0292	ppb	99
15) Acetonitrile	1.79	41	100503	98.9888	ppb	97
16) Methyl Acetate	1.84	43	27026	4.8759	ppb	100
17) Iodomethane	1.63	142	8089	4.5855	ppb	94
18) Acrylonitrile	2.10	52	11052	4.5827	ppb	88
19) Methylene chloride	1.90	84	32618	5.0415	ppb	93
20) Carbon disulfide	1.68	76	73767	4.7251	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	77279	4.9051	ppb	98
22) Trans-1,2-DCE	2.11	96	28104	4.9314	ppb	96
23) Diisopropyl Ether	2.63	45	85262	5.1277	ppb	99
24) 1,1-DCA	2.50	63	54489	4.8481	ppb	99
25) Vinyl Acetate	2.63	43	21489	5.3058	ppb	100
26) Ethyl tert Butyl Ether	3.05	59	68776	4.7796	ppb	94
27) MEK (2-Butanone)	3.24	43	15625	5.3137	ppb	95
28) Cis-1,2-DCE	3.15	96	31539	4.8529	ppb	98
29) 2,2-Dichloropropane	3.13	77	40641	4.8939	ppb	98
30) Chloroform	3.62	83	56857	5.1185	ppb	93
31) Bromochloromethane	3.46	128	18026	5.0658	ppb	98
33) 1,1,1-TCA	3.84	97	44105	4.9760	ppb	92
34) Cyclohexane	3.90	41	16598	4.4702	ppb	94
35) 1,1-Dichloropropene	4.11	75	31289	4.6307	ppb	95
36) 2,2,4-Trimethylpentane	4.61	57	56990	4.6497	ppb	# 76
38) Carbon Tetrachloride	4.09	117	35125	4.8306	ppb	97
39) Tert Amyl Methyl Ether	4.70	73	62739	4.7710	ppb	# 93
40) 1,2-DCA	4.47	62	41264	5.0226	ppb	93
41) Benzene	4.41	78	108250	4.6814	ppb	98
42) TCE	5.37	95	14194	5.0056	ppb	89

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

Data File : M:\LOKI\DATA\181026\1026L07.D  
 Acq On : 26 Oct 18 12:22  
 Sample : 5.0ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 6  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	420781	101.2984	ppb	98
44) 1,2-Dichloropropane	5.64	63	31448	5.0639	ppb	99
45) Bromodichloromethane	6.04	83	44221	4.9596	ppb	96
46) Methyl Cyclohexane	5.58	83	28307	4.5249	ppb	96
47) Dibromomethane	5.79	93	23137	4.9586	ppb	87
49) MIBK (methyl isobutyl ket	6.85	43	28137	5.1430	ppb	94
50) 1-Bromo-2-chloroethane	6.37	63	21368	4.7355	ppb	97
51) Cis-1,3-Dichloropropene	6.61	75	45720	5.0019	ppb	95
52) Toluene	6.98	91	118547	4.9487	ppb	98
53) Trans-1,3-Dichloropropene	7.29	75	42272	4.9178	ppb	98
54) 1,1,2-TCA	7.48	83	27307	5.1019	ppb	98
55) 2-Hexanone	7.83	43	17526	5.0546	ppb	98
58) 1,2-EDB	7.98	107	32552	5.0059	ppb	99
59) Tetrachloroethene	7.60	166	34790	4.9372	ppb	96
60) 1-Chlorohexane	8.60	91	23375	4.5504	ppb	94
61) 1,1,1,2-Tetrachloroethane	8.67	131	34108	4.9560	ppb	91
62) m&p-Xylene	8.85	91	91672	9.6039	ppb	97
63) o-Xylene	9.27	106	38109	4.5515	ppb	89
64) Styrene	9.29	104	36928	4.6691	ppb	94
66) 1,3-Dichloropropane	7.65	76	48341	4.8477	ppb	98
67) Dibromochloromethane	7.89	129	36107	4.8943	ppb	94
68) Chlorobenzene	8.55	112	81296	4.8159	ppb	95
69) Ethylbenzene	8.71	91	110477	4.6302	ppb	94
70) Bromoform	9.45	173	27649	4.9976	ppb	92
72) Isopropylbenzene	9.69	105	92204	4.4350	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	43347	4.5937	ppb	97
74) 1,2,3-Trichloropropane	10.04	110	13899	5.0642	ppb	95
75) t-1,4-Dichloro-2-Butene	10.09	53	9134	4.7121	ppb	90
76) Bromobenzene	9.96	156	38530	4.9266	ppb	94
77) n-Propylbenzene	10.13	91	71128	4.4308	ppb	98
78) 4-Ethyltoluene	10.26	105	89515	4.4847	ppb	99
79) 2-Chlorotoluene	10.19	91	78089	4.6667	ppb	96
80) 1,3,5-Trimethylbenzene	10.34	105	50544	4.0836	ppb	98
81) 4-Chlorotoluene	10.31	91	91283	4.7818	ppb	98
82) Tert-Butylbenzene	10.67	119	68712	4.5269	ppb	97
83) 1,2,4-Trimethylbenzene	10.73	105	77345	4.2485	ppb	98
84) Sec-Butylbenzene	10.91	105	98860	4.4947	ppb	98
85) p-Isopropyltoluene	11.08	119	91671	4.4907	ppb	98
86) Benzyl Chloride	11.25	91	51074	4.9354	ppb	99
87) 1,3-DCB	10.99	146	66347	4.7924	ppb	95
88) 1,4-DCB	11.09	146	70330	4.7318	ppb	94
89) n-Butylbenzene	11.52	91	75877	4.3842	ppb	95
90) 1,2-DCB	11.48	146	65287	4.8658	ppb	97
91) Hexachloroethane	11.74	117	22777	5.0546	ppb	91
92) 1,2-Dibromo-3-chloropropan	12.31	75	8125	4.6632	ppb	92
93) 1,2,4-Trichlorobenzene	13.20	180	36516	4.4950	ppb	95
94) Hexachlorobutadiene	13.41	225	21452	4.6056	ppb	96
95) Naphthalene	13.45	128	70733	5.0297	ppb	96
96) 1,2,3-Trichlorobenzene	13.71	180	21624	4.6683	ppb	93

Quantitation Report

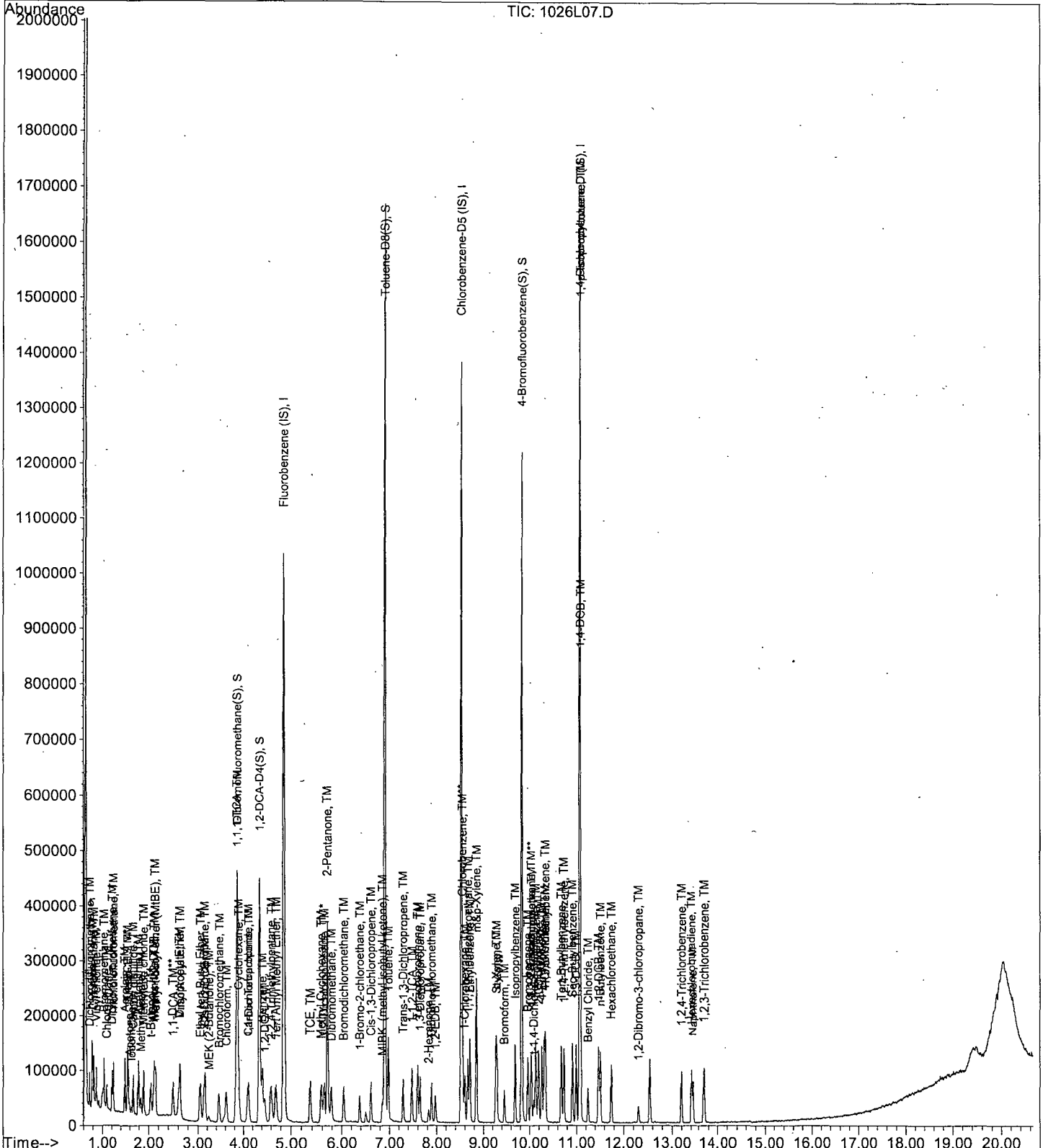
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Acq On : 26 Oct 18 12:22  
Sample : 5.0ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18, 8/23/18

Vial: 6  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L08.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 10ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 7  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	526592	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	505536	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	278912	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	382323	26.4812	ppb	0.00
Spiked Amount 25.000			Recovery = 105.924%			
37) 1,2-DCA-D4(S)	4.35	65	421224	26.9079	ppb	0.00
Spiked Amount 25.000			Recovery = 107.632%			
57) Toluene-D8(S)	6.90	98	1311127	27.1804	ppb	0.00
Spiked Amount 25.000			Recovery = 108.720%			
65) 4-Bromofluorobenzene(S)	9.83	95	447107	27.2003	ppb	0.00
Spiked Amount 25.000			Recovery = 108.800%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	72472	9.7443	ppb	96
3) Freon 114	0.79	85	45764	8.9665	ppb	92
4) Chloromethane	0.81	50	79537	10.0526	ppb	99
5) Vinyl chloride	0.87	62	72846	10.4448	ppb	98
6) Bromomethane	1.03	94	59255	10.8319	ppb	97
7) Chloroethane	1.09	64	37935	9.5328	ppb	97
8) Dichlorofluoromethane	1.21	67	104273	9.8895	ppb	97
9) Trichlorofluoromethane	1.24	101	88360	9.7609	ppb	97
10) Acrolein	1.49	56	74598	116.9039	ppb #	98
11) Acetone	1.59	43	27603	9.4519	ppb	95
12) Freon-113	1.56	101	42796	9.1169	ppb	99
13) 1,1-DCE	1.54	63	19928	9.3342	ppb	97
14) t-Butanol	2.05	59	85501	114.8187	ppb	100
15) Acetonitrile	1.79	41	126977	118.7713	ppb	96
16) Methyl Acetate	1.84	43	54083	9.2664	ppb	97
17) Iodomethane	1.64	142	19448	8.3882	ppb	90
18) Acrylonitrile	2.10	52	23249	10.0007	ppb	94
19) Methylene chloride	1.90	84	66430	9.7509	ppb	97
20) Carbon disulfide	1.68	76	156404	9.5144	ppb	100
21) Methyl t-butyl ether (MtBE)	2.14	73	160687	9.6861	ppb	97
22) Trans-1,2-DCE	2.11	96	57297	9.5481	ppb	99
23) Diisopropyl Ether	2.63	45	172733	9.8656	ppb	94
24) 1,1-DCA	2.49	63	115174	9.7319	ppb	98
25) Vinyl Acetate	2.63	43	38835	9.1062	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	150801	9.9527	ppb	98
27) MEK (2-Butanone)	3.23	43	29194	9.4286	ppb	88
28) Cis-1,2-DCE	3.16	96	67403	9.8494	ppb	99
29) 2,2-Dichloropropane	3.13	77	85249	10.2004	ppb	98
30) Chloroform	3.62	83	117806	10.0718	ppb	97
31) Bromochloromethane	3.46	128	38417	10.2530	ppb	100
33) 1,1,1-TCA	3.83	97	90290	9.6741	ppb	93
34) Cyclohexane	3.89	41	37569	9.6090	ppb	97
35) 1,1-Dichloropropene	4.11	75	65346	9.1845	ppb	95
36) 2,2,4-Trimethylpentane	4.61	57	121315	9.3997	ppb	89
38) Carbon Tetrachloride	4.09	117	74629	9.7471	ppb	97
39) Tert Amyl Methyl Ether	4.70	73	139607	10.0822	ppb	98
40) 1,2-DCA	4.47	62	89015	10.2896	ppb	95
41) Benzene	4.41	78	241301	9.9104	ppb	99
42) TCE	5.37	95	28216	9.4500	ppb	97

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

Data File : M:\LOKI\DATA\181026\1026L08.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 10ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 7  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	561343	128.3375	ppb	98
44) 1,2-Dichloropropane	5.64	63	65117	9.9578	ppb	97
45) Bromodichloromethane	6.04	83	93532	9.9622	ppb	98
46) Methyl Cyclohexane	5.58	83	59683	9.0603	ppb	98
47) Dibromomethane	5.79	93	48104	9.7906	ppb	86
49) MIBK (methyl isobutyl ket	6.85	43	54041	9.3809	ppb	95
50) 1-Bromo-2-chloroethane	6.37	63	47312	9.9575	ppb	98
51) Cis-1,3-Dichloropropene	6.61	75	95750	9.9483	ppb	97
52) Toluene	6.97	91	256455	10.1669	ppb	98
53) Trans-1,3-Dichloropropene	7.29	75	90828	10.0350	ppb	95
54) 1,1,2-TCA	7.47	83	57502	10.2028	ppb	96
55) 2-Hexanone	7.82	43	35499	9.7230	ppb	98
58) 1,2-EDB	7.98	107	70287	10.6077	ppb	96
59) Tetrachloroethene	7.60	166	73834	10.2831	ppb	95
60) 1-Chlorohexane	8.60	91	52527	10.0351	ppb	100
61) 1,1,1,2-Tetrachloroethane	8.67	131	71337	10.1726	ppb	97
62) m&p-Xylene	8.85	91	215023	18.4221	ppb	100
63) o-Xylene	9.27	106	88477	10.3704	ppb	91
64) Styrene	9.29	104	92784	9.2645	ppb	98
66) 1,3-Dichloropropane	7.65	76	106876	10.5183	ppb	95
67) Dibromochloromethane	7.89	129	77052	10.2500	ppb	96
68) Chlorobenzene	8.55	112	175169	10.1837	ppb	99
69) Ethylbenzene	8.71	91	243015	9.9955	ppb	96
70) Bromoform	9.45	173	59638	10.5791	ppb	100
72) Isopropylbenzene	9.69	105	212410	10.0879	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	93008	9.7321	ppb	91
74) 1,2,3-Trichloropropane	10.04	110	27685	9.9599	ppb	92
75) t-1,4-Dichloro-2-Butene	10.09	53	18738	9.5446	ppb	96
76) Bromobenzene	9.96	156	81119	10.2412	ppb	99
77) n-Propylbenzene	10.13	91	165888	10.2033	ppb	98
78) 4-Ethyltoluene	10.26	105	216107	10.6904	ppb	99
79) 2-Chlorotoluene	10.19	91	177648	10.4825	ppb	97
80) 1,3,5-Trimethylbenzene	10.34	105	123512	9.4522	ppb	99
81) 4-Chlorotoluene	10.31	91	210980	10.9126	ppb	99
82) Tert-Butylbenzene	10.67	119	157165	10.2238	ppb	98
83) 1,2,4-Trimethylbenzene	10.73	105	189355	9.3894	ppb	97
84) Sec-Butylbenzene	10.91	105	231854	10.4084	ppb	100
85) p-Isopropyltoluene	11.08	119	212102	10.2591	ppb	98
86) Benzyl Chloride	11.25	91	100111	9.5519	ppb	98
87) 1,3-DCB	10.99	146	144789	10.3264	ppb	98
88) 1,4-DCB	11.09	146	152999	10.1638	ppb	97
89) n-Butylbenzene	11.52	91	171481	9.7832	ppb	98
90) 1,2-DCB	11.48	146	139587	10.2721	ppb	97
91) Hexachloroethane	11.74	117	44106	9.6643	ppb	89
92) 1,2-Dibromo-3-chloropropan	12.31	75	16267	9.2183	ppb	94
93) 1,2,4-Trichlorobenzene	13.20	180	81368	9.8897	ppb	96
94) Hexachlorobutadiene	13.41	225	44004	9.3282	ppb	92
95) Naphthalene	13.45	128	166397	9.0872	ppb	100
96) 1,2,3-Trichlorobenzene	13.71	180	47416	10.1072	ppb	98

Quantitation Report

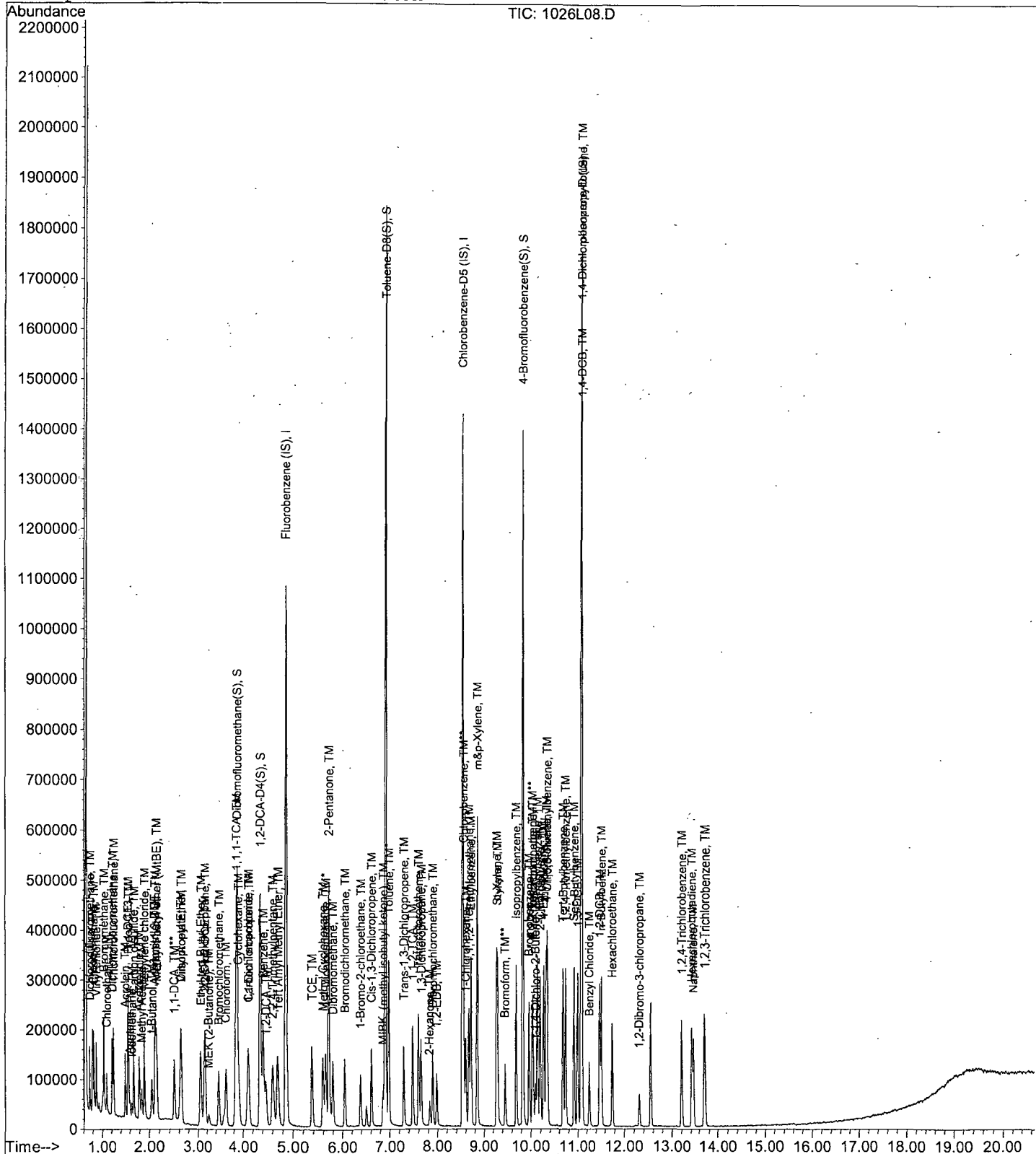
Data File : M:\LOKI\DATA\181026\1026L08.D  
 Acq On : 26 Oct 18 12:50  
 Sample : 10ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 7  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L09.D  
 Acq On : 26 Oct 18 13:19  
 Sample : 20ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 8  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	538688	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	513856	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	292416	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	694433	49.6646	ppb	0.00
Spiked Amount 25.000			Recovery = 198.660%			
37) 1,2-DCA-D4(S)	4.35	65	768279	51.3835	ppb	0.00
Spiked Amount 25.000			Recovery = 205.536%			
57) Toluene-D8(S)	6.90	98	2497738	50.9412	ppb	0.00
Spiked Amount 25.000			Recovery = 203.764%			
65) 4-Bromofluorobenzene(S)	9.83	95	876354	52.4509	ppb	0.00
Spiked Amount 25.000			Recovery = 209.804%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	154368	20.2896	ppb	96
3) Freon 114	0.79	85	105676	20.2401	ppb	92
4) Chloromethane	0.81	50	159183	20.5267	ppb	100
5) Vinyl chloride	0.87	62	145292	20.3644	ppb	99
6) Bromomethane	1.03	94	115660	22.6256	ppb	98
7) Chloroethane	1.09	64	78152	19.1981	ppb	98
8) Dichlorofluoromethane	1.20	67	208270	19.3092	ppb	100
9) Trichlorofluoromethane	1.23	101	182837	19.7440	ppb	98
10) Acrolein	1.49	56	146004	223.6678	ppb	# 95
11) Acetone	1.60	43	50452	20.2570	ppb	# 86
12) Freon-113	1.56	101	97702	20.3462	ppb	94
13) 1,1-DCE	1.55	63	40664	18.6191	ppb	93
14) t-Butanol	2.05	59	164176	215.5203	ppb	97
15) Acetonitrile	1.79	41	247127	225.9662	ppb	98
16) Methyl Acetate	1.84	43	111921	18.7455	ppb	98
17) Iodomethane	1.64	142	50456	18.7817	ppb	87
18) Acrylonitrile	2.10	52	46666	20.4383	ppb	91
19) Methylene chloride	1.89	84	131009	18.7982	ppb	94
20) Carbon disulfide	1.68	76	317658	18.8898	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	326935	19.2649	ppb	99
22) Trans-1,2-DCE	2.11	96	120782	19.6754	ppb	97
23) Diisopropyl Ether	2.64	45	330504	18.4529	ppb	100
24) 1,1-DCA	2.49	63	226918	18.7435	ppb	97
25) Vinyl Acetate	2.63	43	76981	17.6455	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	304202	19.6262	ppb	98
27) MEK (2-Butanone)	3.23	43	60166	18.9951	ppb	88
28) Cis-1,2-DCE	3.15	96	138155	19.7348	ppb	98
29) 2,2-Dichloropropane	3.13	77	170975	20.4358	ppb	# 95
30) Chloroform	3.62	83	235766	19.7042	ppb	96
31) Bromochloromethane	3.46	128	75919	19.8068	ppb	93
33) 1,1,1-TCA	3.83	97	187473	19.6357	ppb	93
34) Cyclohexane	3.90	41	79094	19.7755	ppb	90
35) 1,1-Dichloropropene	4.11	75	141599	19.4552	ppb	94
36) 2,2,4-Trimethylpentane	4.61	57	270812	20.5119	ppb	94
38) Carbon Tetrachloride	4.09	117	162724	20.7757	ppb	96
39) Tert Amyl Methyl Ether	4.70	73	297986	21.0368	ppb	98
40) 1,2-DCA	4.47	62	174615	19.7311	ppb	97
41) Benzene	4.41	78	492266	19.7636	ppb	100
42) TCE	5.36	95	58400	19.1199	ppb	95



Data File : M:\LOKI\DATA\181026\1026L09.D  
 Acq On : 26 Oct 18 13:19  
 Sample : 20ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 8  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	1192715	266.5625	ppb	99
44) 1,2-Dichloropropane	5.64	63	132596	19.8216	ppb	99
45) Bromodichloromethane	6.04	83	187599	19.5327	ppb	99
46) Methyl Cyclohexane	5.58	83	135421	20.0962	ppb	98
47) Dibromomethane	5.79	93	97440	19.3866	ppb	92
49) MIBK (methyl isobutyl ket	6.85	43	127877	21.6995	ppb	93
50) 1-Bromo-2-chloroethane	6.37	63	98216	20.2069	ppb	100
51) Cis-1,3-Dichloropropene	6.61	75	199338	20.2458	ppb	96
52) Toluene	6.97	91	536079	20.7751	ppb	97
53) Trans-1,3-Dichloropropene	7.29	75	187734	20.2758	ppb	98
54) 1,1,2-TCA	7.47	83	112358	19.4884	ppb	98
55) 2-Hexanone	7.82	43	72028	19.2850	ppb	95
58) 1,2-EDB	7.98	107	140567	20.8708	ppb	98
59) Tetrachloroethene	7.59	166	151835	20.8041	ppb	94
60) 1-Chlorohexane	8.60	91	121903	22.9121	ppb	96
61) 1,1,1,2-Tetrachloroethane	8.67	131	142907	20.0484	ppb	97
62) m&p-Xylene	8.85	91	481159	37.1550	ppb	100
63) o-Xylene	9.27	106	193489	22.3117	ppb	99
64) Styrene	9.29	104	212736	18.9714	ppb	96
66) 1,3-Dichloropropane	7.65	76	214943	20.8113	ppb	98
67) Dibromochloromethane	7.89	129	154783	20.2569	ppb	99
68) Chlorobenzene	8.55	112	356456	20.3875	ppb	100
69) Ethylbenzene	8.71	91	542807	21.9647	ppb	96
70) Bromoform	9.45	173	122818	21.4337	ppb	100
72) Isopropylbenzene	9.69	105	473198	21.4355	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	193070	19.2693	ppb	95
74) 1,2,3-Trichloropropane	10.04	110	58401	20.0399	ppb	95
75) t-1,4-Dichloro-2-Butene	10.09	53	39021	18.9583	ppb	97
76) Bromobenzene	9.96	156	167724	20.1972	ppb	98
77) n-Propylbenzene	10.13	91	376640	22.0962	ppb	98
78) 4-Ethyltoluene	10.26	105	487551	23.0043	ppb	99
79) 2-Chlorotoluene	10.19	91	386663	21.7623	ppb	99
80) 1,3,5-Trimethylbenzene	10.34	105	286848	20.5936	ppb	100
81) 4-Chlorotoluene	10.31	91	458250	22.6077	ppb	100
82) Tert-Butylbenzene	10.67	119	353963	21.9623	ppb	98
83) 1,2,4-Trimethylbenzene	10.73	105	434178	19.7978	ppb	96
84) Sec-Butylbenzene	10.91	105	537842	23.0297	ppb	100
85) p-Isopropyltoluene	11.08	119	484282	22.3424	ppb	99
86) Benzyl Chloride	11.25	91	210494	19.1565	ppb	99
87) 1,3-DCB	10.99	146	302382	20.5701	ppb	99
88) 1,4-DCB	11.09	146	320873	20.3314	ppb	96
89) n-Butylbenzene	11.52	91	384279	20.9112	ppb	98
90) 1,2-DCB	11.48	146	288789	20.2703	ppb	99
91) Hexachloroethane	11.75	117	92091	19.2467	ppb	94
92) 1,2-Dibromo-3-chloropropan	12.31	75	33496	18.1051	ppb	96
93) 1,2,4-Trichlorobenzene	13.20	180	176202	20.4271	ppb	96
94) Hexachlorobutadiene	13.41	225	95041	19.2169	ppb	98
95) Naphthalene	13.45	128	378527	17.4216	ppb	99
96) 1,2,3-Trichlorobenzene	13.71	180	104104	21.1660	ppb	99

Quantitation Report

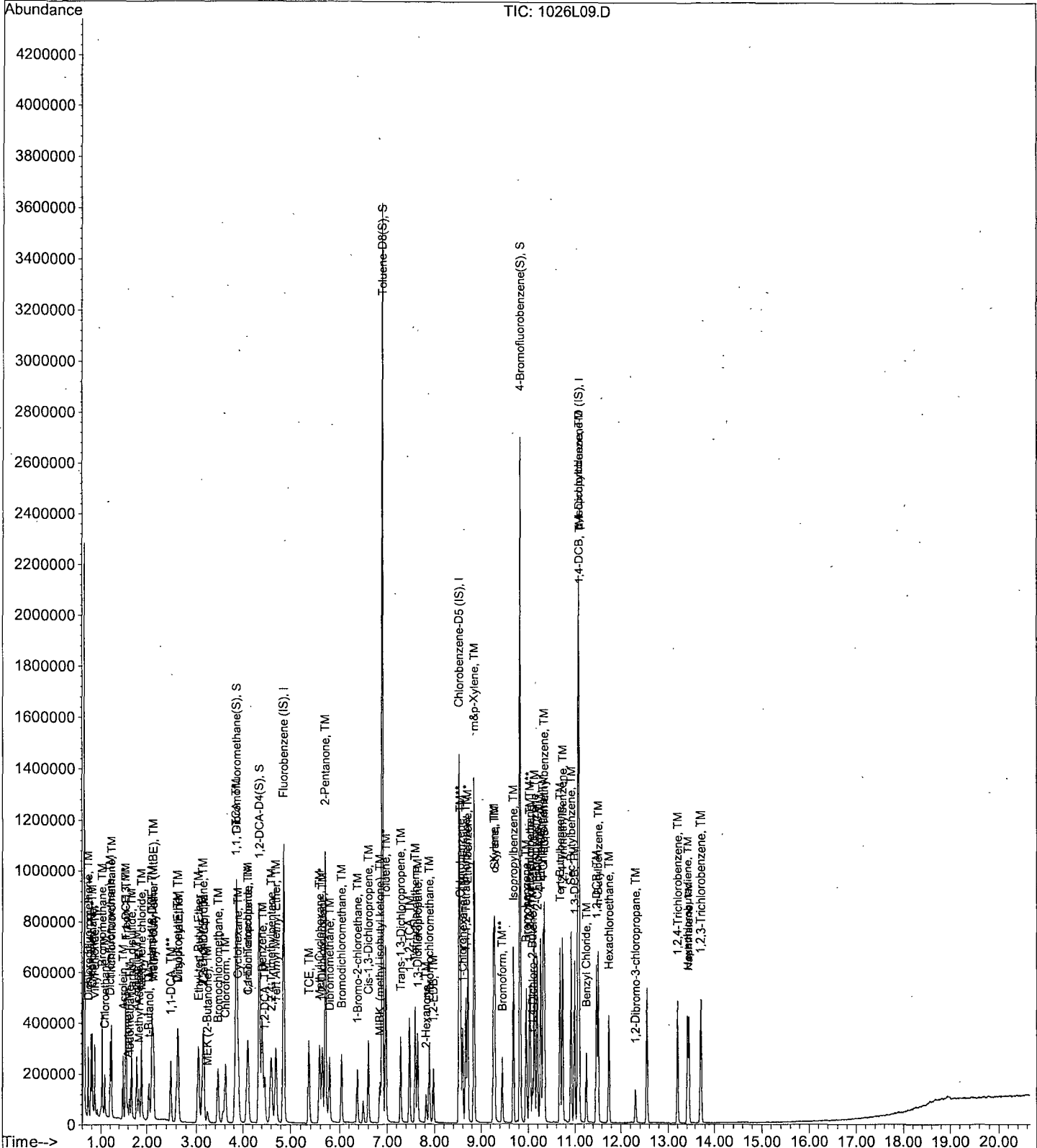
Data File : M:\LOKI\DATA\181026\1026L09.D  
Acq On : 26 Oct 18 13:19  
Sample : 20ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 8  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L10.D  
 Acq On : 26 Oct 18 13:47  
 Sample : 40ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 9  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	553216	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	542016	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	306688	25.0000	ppb	0.00

System Monitoring Compounds

32) Dibromofluoromethane(S)	3.85	111	711689	49.5550	ppb	0.00
Spiked Amount	25.000		Recovery	=	198.220%	
37) 1,2-DCA-D4 (S)	4.35	65	784592	51.0722	ppb	0.00
Spiked Amount	25.000		Recovery	=	204.288%	
57) Toluene-D8 (S)	6.90	98	2595482	50.1845	ppb	0.00
Spiked Amount	25.000		Recovery	=	200.736%	
65) 4-Bromofluorobenzene(S)	9.83	95	907950	51.5186	ppb	0.00
Spiked Amount	25.000		Recovery	=	206.076%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.73	85	312896	40.0460	ppb	99
3) Freon 114	0.79	85	213056	39.7349	ppb	90
4) Chloromethane	0.81	50	322973	41.4305	ppb	99
5) Vinyl chloride	0.87	62	289916	39.5680	ppb	98
6) Bromomethane	1.03	94	220002	43.7441	ppb	97
7) Chloroethane	1.09	64	157403	37.6508	ppb	100
8) Dichlorofluoromethane	1.20	67	419264	37.8503	ppb	98
9) Trichlorofluoromethane	1.23	101	371728	39.0877	ppb	98
10) Acrolein	1.49	56	108301	161.5526	ppb #	98
11) Acetone	1.60	43	98821	42.5209	ppb #	88
12) Freon-113	1.56	101	195033	39.5485	ppb	94
13) 1,1-DCE	1.54	63	79680	35.5255	ppb	94
14) t-Butanol	2.05	59	122907	157.1078	ppb	96
15) Acetonitrile	1.79	41	180728	160.9131	ppb	98
16) Methyl Acetate	1.84	43	220509	35.9629	ppb	98
17) Iodomethane	1.63	142	114208	39.4431	ppb	92
18) Acrylonitrile	2.10	52	94322	41.0458	ppb	91
19) Methylene chloride	1.89	84	264380	36.9391	ppb	95
20) Carbon disulfide	1.68	76	643979	37.2892	ppb	99
21) Methyl t-butyl ether (MtBE)	2.14	73	666599	38.2483	ppb	98
22) Trans-1,2-DCE	2.11	96	235075	37.2882	ppb	97
23) Diisopropyl Ether	2.63	45	726988	39.5236	ppb	96
24) 1,1-DCA	2.50	63	456778	36.7392	ppb	98
25) Vinyl Acetate	2.63	43	168468	37.6020	ppb	99
26) Ethyl tert Butyl Ether	3.05	59	649461	40.8009	ppb	97
27) MEK (2-Butanone)	3.23	43	129152	39.7039	ppb	90
28) Cis-1,2-DCE	3.15	96	281784	39.1945	ppb	98
29) 2,2-Dichloropropane	3.13	77	343917	40.4635	ppb	96
30) Chloroform	3.62	83	472850	38.4808	ppb	92
31) Bromochloromethane	3.46	128	150291	38.1803	ppb	95
33) 1,1,1-TCA	3.83	97	373675	38.1105	ppb	95
34) Cyclohexane	3.90	41	161374	39.2880	ppb	85
35) 1,1-Dichloropropene	4.11	75	296818	39.7108	ppb	93
36) 2,2,4-Trimethylpentane	4.61	57	564455	41.6303	ppb	95
38) Carbon Tetrachloride	4.09	117	328542	40.8448	ppb	96
39) Tert Amyl Methyl Ether	4.70	73	635878	43.7120	ppb	97
40) 1,2-DCA	4.46	62	360243	39.6377	ppb	95
41) Benzene	4.41	78	1005113	39.2938	ppb	99
42) TCE	5.37	95	121400	38.7020	ppb	95

(#) = qualifier out of range (m) = manual integration  
 1026L10.D L1026W.M Mon Oct 29 06:55:36 2018

Data File : M:\LOKI\DATA\181026\1026L10.D  
 Acq On : 26 Oct 18 13:47  
 Sample : 40ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 9  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.70	43	875854	190.6060	ppb	98
44) 1,2-Dichloropropane	5.64	63	272621	39.6835	ppb	99
45) Bromodichloromethane	6.04	83	382481	38.7780	ppb	99
46) Methyl Cyclohexane	5.59	83	287160	41.4948	ppb	99
47) Dibromomethane	5.79	93	194078	37.5997	ppb	90
49) MIBK (methyl isobutyl ket	6.85	43	238819	39.4611	ppb	92
50) 1-Bromo-2-chloroethane	6.37	63	200192	40.1058	ppb	100
51) Cis-1,3-Dichloropropene	6.61	75	418570	41.3957	ppb	98
52) Toluene	6.97	91	1105755	41.7270	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	389231	40.9342	ppb	100
54) 1,1,2-TCA	7.47	83	228943	38.6671	ppb	97
55) 2-Hexanone	7.82	43	156193	40.7214	ppb	98
58) 1,2-EDB	7.98	107	290829	40.9377	ppb	97
59) Tetrachloroethene	7.60	166	303873	39.4729	ppb	98
60) 1-Chlorohexane	8.60	91	268497	47.8431	ppb	92
61) 1,1,1,2-Tetrachloroethane	8.67	131	289246	38.4701	ppb	99
62) m&p-Xylene	8.85	91	1102533	77.3955	ppb	100
63) o-Xylene	9.27	106	424480	46.4048	ppb	97
64) Styrene	9.29	104	468032	37.9042	ppb	99
66) 1,3-Dichloropropane	7.65	76	447303	41.0588	ppb	98
67) Dibromochloromethane	7.89	129	320346	39.7464	ppb	95
68) Chlorobenzene	8.55	112	733514	39.7737	ppb	99
69) Ethylbenzene	8.71	91	1175141	45.0816	ppb	97
70) Bromoform	9.45	173	245442	40.6081	ppb	100
72) Isopropylbenzene	9.69	105	1061428	45.8443	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	382594	36.4078	ppb	95
74) 1,2,3-Trichloropropane	10.04	110	118004	38.6079	ppb	97
75) t-1,4-Dichloro-2-Butene	10.09	53	81237	37.6323	ppb	92
76) Bromobenzene	9.96	156	343750	39.4678	ppb	98
77) n-Propylbenzene	10.13	91	837376	46.8398	ppb	97
78) 4-Ethyltoluene	10.26	105	1072183	48.2350	ppb	99
79) 2-Chlorotoluene	10.19	91	820320	44.0209	ppb	99
80) 1,3,5-Trimethylbenzene	10.34	105	618820	42.0595	ppb	99
81) 4-Chlorotoluene	10.31	91	956370	44.9868	ppb	99
82) Tert-Butylbenzene	10.67	119	772262	45.6867	ppb	98
83) 1,2,4-Trimethylbenzene	10.73	105	966025	41.3026	ppb	96
84) Sec-Butylbenzene	10.91	105	1163305	47.4932	ppb	99
85) p-Isopropyltoluene	11.08	119	1028910	45.2598	ppb	99
86) Benzyl Chloride	11.25	91	447039	38.7906	ppb	99
87) 1,3-DCB	10.99	146	623996	40.4732	ppb	99
88) 1,4-DCB	11.09	146	645934	39.0235	ppb	97
89) n-Butylbenzene	11.52	91	854784	44.3499	ppb	97
90) 1,2-DCB	11.48	146	603500	40.3887	ppb	98
91) Hexachloroethane	11.75	117	190651	37.9911	ppb	94
92) 1,2-Dibromo-3-chloropropan	12.31	75	72631	37.4312	ppb	96
93) 1,2,4-Trichlorobenzene	13.20	180	389525	43.0561	ppb	97
94) Hexachlorobutadiene	13.41	225	199340	38.4300	ppb	96
95) Naphthalene	13.45	128	909888	37.3934	ppb	98
96) 1,2,3-Trichlorobenzene	13.71	180	218752	42.4061	ppb	100

Quantitation Report

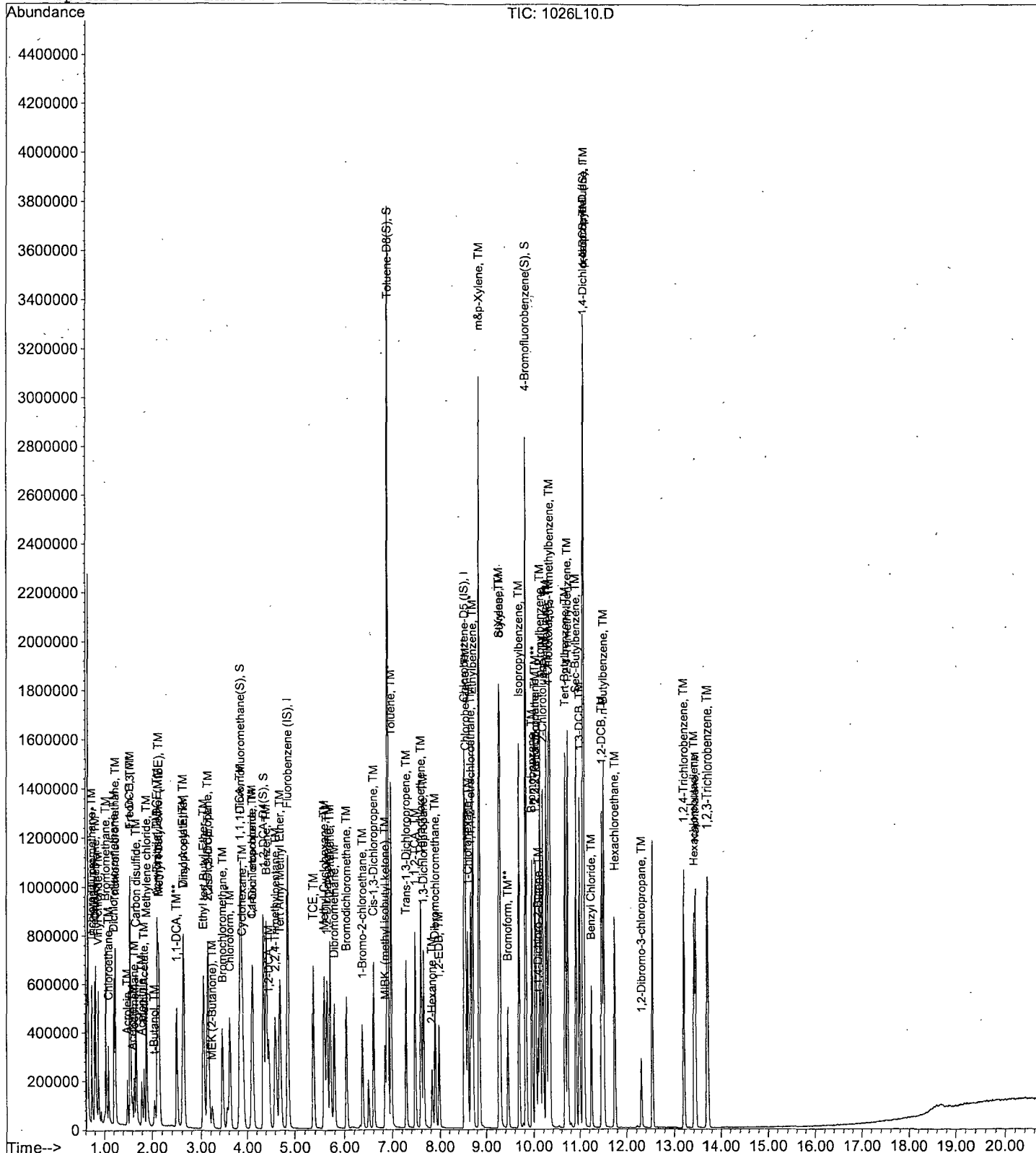
Data File : M:\LOKI\DATA\181026\1026L10.D  
Acq On : 26 Oct 18 13:47  
Sample : 40ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 9  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1026L11.D  
 Acq On : 26 Oct 18 14:16  
 Sample : 100ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18, 8/23/18

Vial: 10  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	543168	25.0000	ppb	0.00
56) Chlorobenzene-D5 (IS)	8.52	117	516992	25.0000	ppb	0.00
71) 1,4-Dichlorobenzene-D (IS)	11.07	152	330368	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Dibromofluoromethane(S)	3.85	111	1288990	94.2941	ppb	0.00
Spiked Amount	25.000		Recovery	=	377.176%	
37) 1,2-DCA-D4(S)	4.35	65	1428480	98.4238	ppb	0.00
Spiked Amount	25.000		Recovery	=	393.696%	
57) Toluene-D8(S)	6.90	98	4870231	98.7255	ppb	0.00
Spiked Amount	25.000		Recovery	=	394.900%	
65) 4-Bromofluorobenzene(S)	9.83	95	1754528	104.3737	ppb	0.00
Spiked Amount	25.000		Recovery	=	417.496%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	0.72	85	775296	101.0620	ppb	97
3) Freon 114	0.79	85	530727	100.8115	ppb	91
4) Chloromethane	0.81	50	751116	99.3644	ppb	99
5) Vinyl chloride	0.87	62	697865	97.0073	ppb	99
6) Bromomethane	1.03	94	470846	97.8958	ppb	100
7) Chloroethane	1.08	64	246296	60.0038	ppb	99
8) Dichlorofluoromethane	1.20	67	1011038	92.9628	ppb	100
9) Trichlorofluoromethane	1.22	101	869492	93.1195	ppb	98
10) Acrolein	1.49	56	119522	181.5891	ppb	# 95
11) Acetone	1.60	43	214134	99.0110	ppb	90
12) Freon-113	1.55	101	465612	96.1626	ppb	95
13) 1,1-DCE	1.54	63	196529	89.2438	ppb	98
14) t-Butanol	2.07	59	154831	201.5763	ppb	98
15) Acetonitrile	1.79	41	198553	180.0540	ppb	97
16) Methyl Acetate	1.84	43	534374	88.7635	ppb	96
17) Iodomethane	1.63	142	293504	100.6163	ppb	92
18) Acrylonitrile	2.10	52	221865	99.5171	ppb	94
19) Methylene chloride	1.89	84	626293	89.1243	ppb	92
20) Carbon disulfide	1.67	76	1550711	91.4539	ppb	98
21) Methyl t-butyl ether (MtBE)	2.14	73	1583614	92.5459	ppb	98
22) Trans-1,2-DCE	2.11	96	568103	91.7809	ppb	98
23) Diisopropyl Ether	2.64	45	1719467	95.2103	ppb	98
24) 1,1-DCA	2.49	63	1079130	88.4014	ppb	98
25) Vinyl Acetate	2.64	43	384458	87.3982	ppb	# 99
26) Ethyl tert Butyl Ether	3.05	59	1629892	104.2884	ppb	99
27) MEK (2-Butanone)	3.23	43	297432	93.1280	ppb	91
28) Cis-1,2-DCE	3.15	96	692193	98.0611	ppb	98
29) 2,2-Dichloropropane	3.13	77	826674	99.7205	ppb	97
30) Chloroform	3.62	83	1111028	92.0886	ppb	93
31) Bromochloromethane	3.46	128	336164	86.9798	ppb	94
33) 1,1,1-TCA	3.83	97	898007	93.2805	ppb	93
34) Cyclohexane	3.89	41	412380	102.2549	ppb	83
35) 1,1-Dichloropropene	4.11	75	744290	101.4193	ppb	94
36) 2,2,4-Trimethylpentane	4.61	57	1462269	109.8419	ppb	88
38) Carbon Tetrachloride	4.09	117	796507	100.8546	ppb	96
39) Tert Amyl Methyl Ether	4.70	73	1594044	111.6060	ppb	95
40) 1,2-DCA	4.46	62	835170	93.5940	ppb	94
41) Benzene	4.41	78	2434775	96.9458	ppb	100
42) TCE	5.36	95	304192	98.7695	ppb	96

Data File : M:\LOKI\DATA\181026\1026L11.D  
 Acq On : 26 Oct 18 14:16  
 Sample : 100ug/L VOC STD 18/10/26  
 Misc : IS&S 9/28/18,8/23/18

Vial: 10  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

Quant Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) 2-Pentanone	5.71	43	958198	212.3835	ppb	100
44) 1,2-Dichloropropane	5.64	63	637973	94.5831	ppb	99
45) Bromodichloromethane	6.04	83	901140	93.0525	ppb	100
46) Methyl Cyclohexane	5.58	83	778712	114.6060	ppb	99
47) Dibromomethane	5.79	93	457827	90.3379	ppb	91
49) MIBK (methyl isobutyl ket	6.85	43	599499	100.8903	ppb	93
50) 1-Bromo-2-chloroethane	6.37	63	476608	97.2483	ppb	99
51) Cis-1,3-Dichloropropene	6.61	75	1049793	105.7430	ppb	98
52) Toluene	6.97	91	2706244	104.0124	ppb	99
53) Trans-1,3-Dichloropropene	7.29	75	957584	102.5690	ppb	98
54) 1,1,2-TCA	7.47	83	540684	93.0075	ppb	96
55) 2-Hexanone	7.82	43	397453	105.5378	ppb	95
58) 1,2-EDB	7.98	107	687129	101.4034	ppb	98
59) Tetrachloroethene	7.60	166	754773	102.7901	ppb	96
60) 1-Chlorohexane	8.60	91	727935	135.9882	ppb	89
61) 1,1,1,2-Tetrachloroethane	8.67	131	695184	96.9358	ppb	97
62) m&p-Xylene	8.85	91	2805200	201.7306	ppb	99
63) o-Xylene	9.27	106	1104769	126.6208	ppb	97
64) Styrene	9.29	104	1222144	101.1023	ppb	97
66) 1,3-Dichloropropane	7.65	76	1074255	103.3809	ppb	97
67) Dibromochloromethane	7.89	129	768983	100.0284	ppb	97
68) Chlorobenzene	8.55	112	1796449	102.1248	ppb	99
69) Ethylbenzene	8.71	91	2972354	119.5470	ppb	96
70) Bromoform	9.45	173	595426	103.2810	ppb	97
72) Isopropylbenzene	9.69	105	2815956	112.9066	ppb	98
73) 1,1,2,2-Tetrachloroethane	10.03	83	937001	82.7742	ppb	95
74) 1,2,3-Trichloropropane	10.04	110	289809	88.0218	ppb	95
75) t-1,4-Dichloro-2-Butene	10.09	53	213174	91.6726	ppb	96
76) Bromobenzene	9.96	156	837446	89.2599	ppb	99
77) n-Propylbenzene	10.13	91	2215814	115.0607	ppb	97
78) 4-Ethyltoluene	10.26	105	2778255	116.0285	ppb	98
79) 2-Chlorotoluene	10.19	91	2055810	102.4135	ppb	99
80) 1,3,5-Trimethylbenzene	10.34	105	1577835	99.1665	ppb	100
81) 4-Chlorotoluene	10.31	91	2410773	105.2723	ppb	100
82) Tert-Butylbenzene	10.67	119	2066769	113.5052	ppb	99
83) 1,2,4-Trimethylbenzene	10.73	105	2532211	99.6147	ppb	96
84) Sec-Butylbenzene	10.91	105	3089057	117.0747	ppb	99
85) p-Isopropyltoluene	11.08	119	2744042	112.0534	ppb	99
86) Benzyl Chloride	11.25	91	1262087	101.6644	ppb	98
87) 1,3-DCB	10.99	146	1592038	95.8601	ppb	99
88) 1,4-DCB	11.09	146	1650079	92.5427	ppb	97
89) n-Butylbenzene	11.51	91	2383099	114.7829	ppb	98
90) 1,2-DCB	11.48	146	1608094	99.9064	ppb	99
91) Hexachloroethane	11.75	117	480289	88.8473	ppb	95
92) 1,2-Dibromo-3-chloropropan	12.31	75	192835	92.2564	ppb	97
93) 1,2,4-Trichlorobenzene	13.20	180	1163249	119.3633	ppb	97
94) Hexachlorobutadiene	13.41	225	555782	99.4670	ppb	97
95) Naphthalene	13.44	128	2756349	101.6013	ppb	98
96) 1,2,3-Trichlorobenzene	13.71	180	674688	121.4166	ppb	99

Quantitation Report

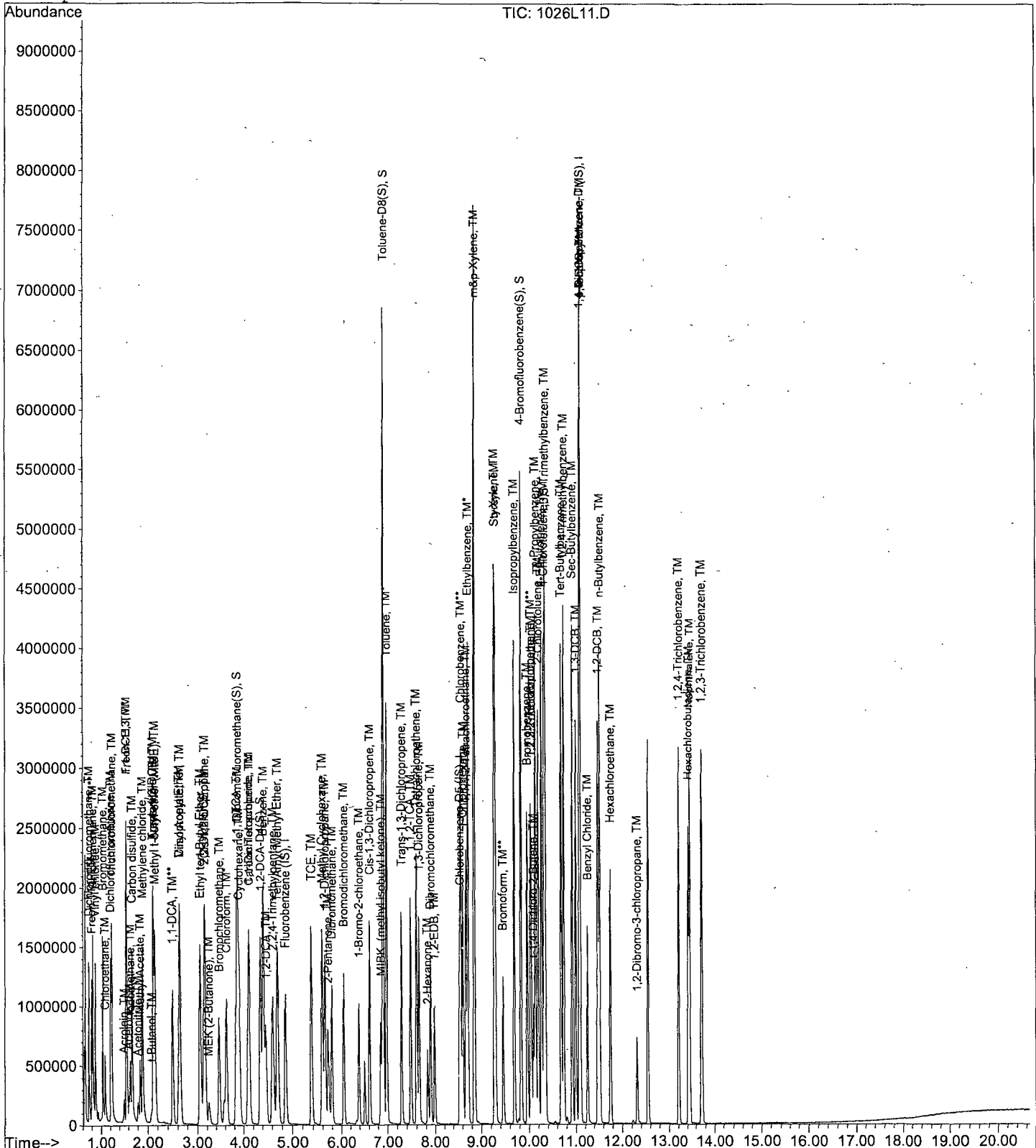
Data File : M:\LOKI\DATA\181026\1026L11.D  
Acq On : 26 Oct 18 14:16  
Sample : 100ug/L VOC STD 18/10/26  
Misc : IS&S 9/28/18,8/23/18

Vial: 10  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 29 6:51 2018

Quant Results File: L1026W.RES

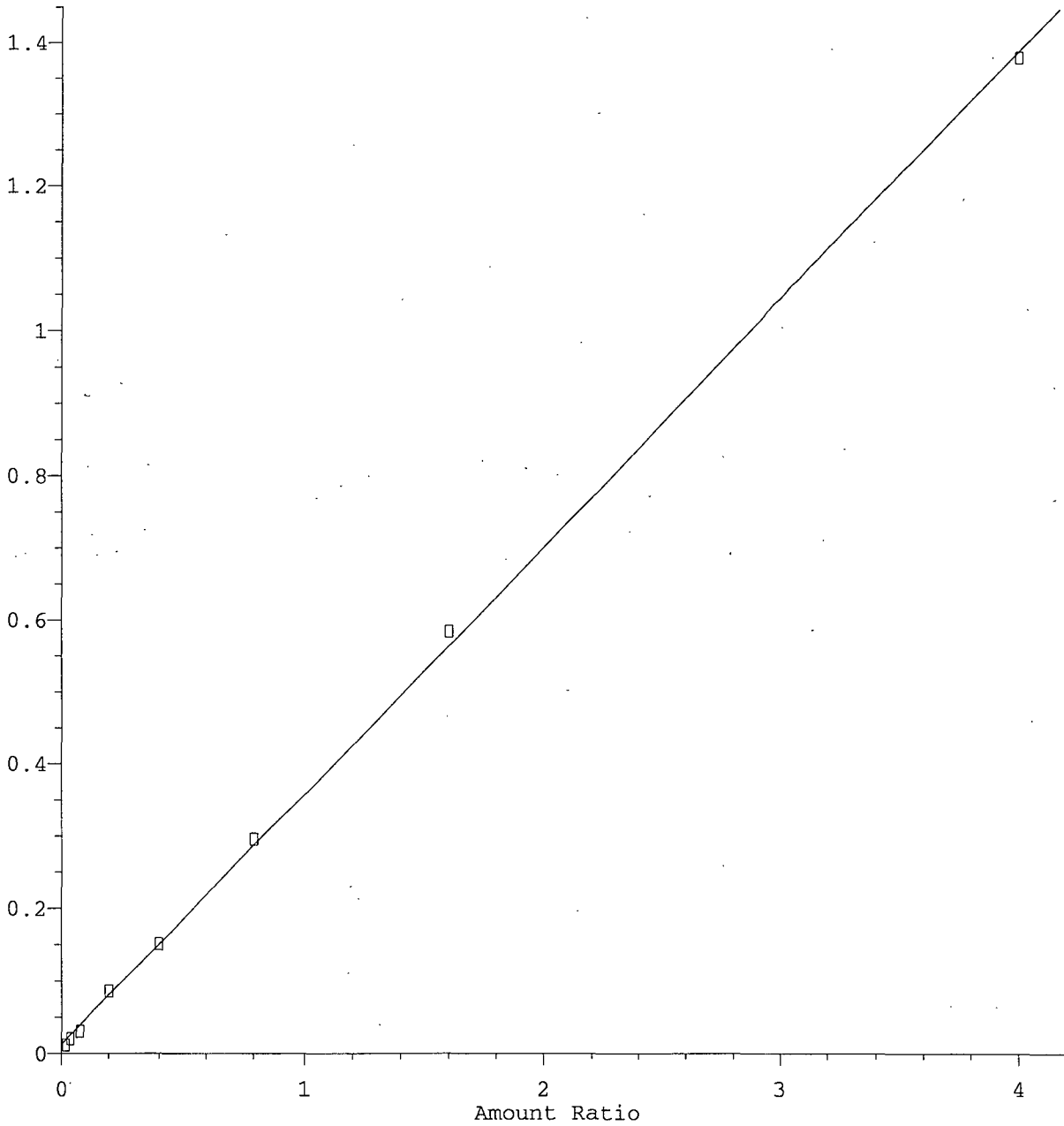
Method : M:\LOKI\DATA\181026\L1026W.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Mon Oct 29 06:47:10 2018  
Response via : Initial Calibration





Chloromethane

Response Ratio

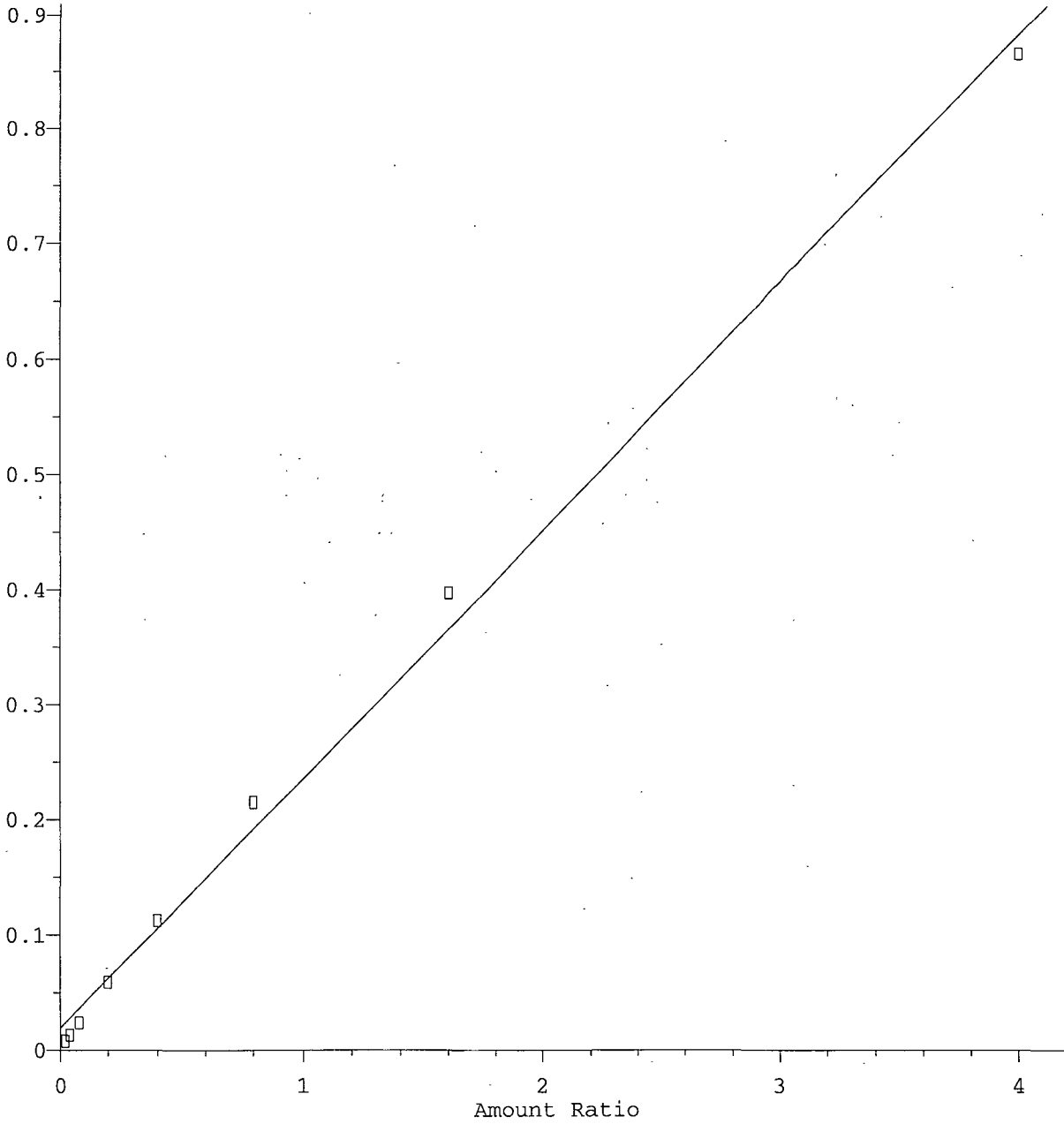


Resp Ratio =  $3.45e-001 * Amt + 1.24e-002$   
Coef of Det ( $r^2$ ) = 1.000 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

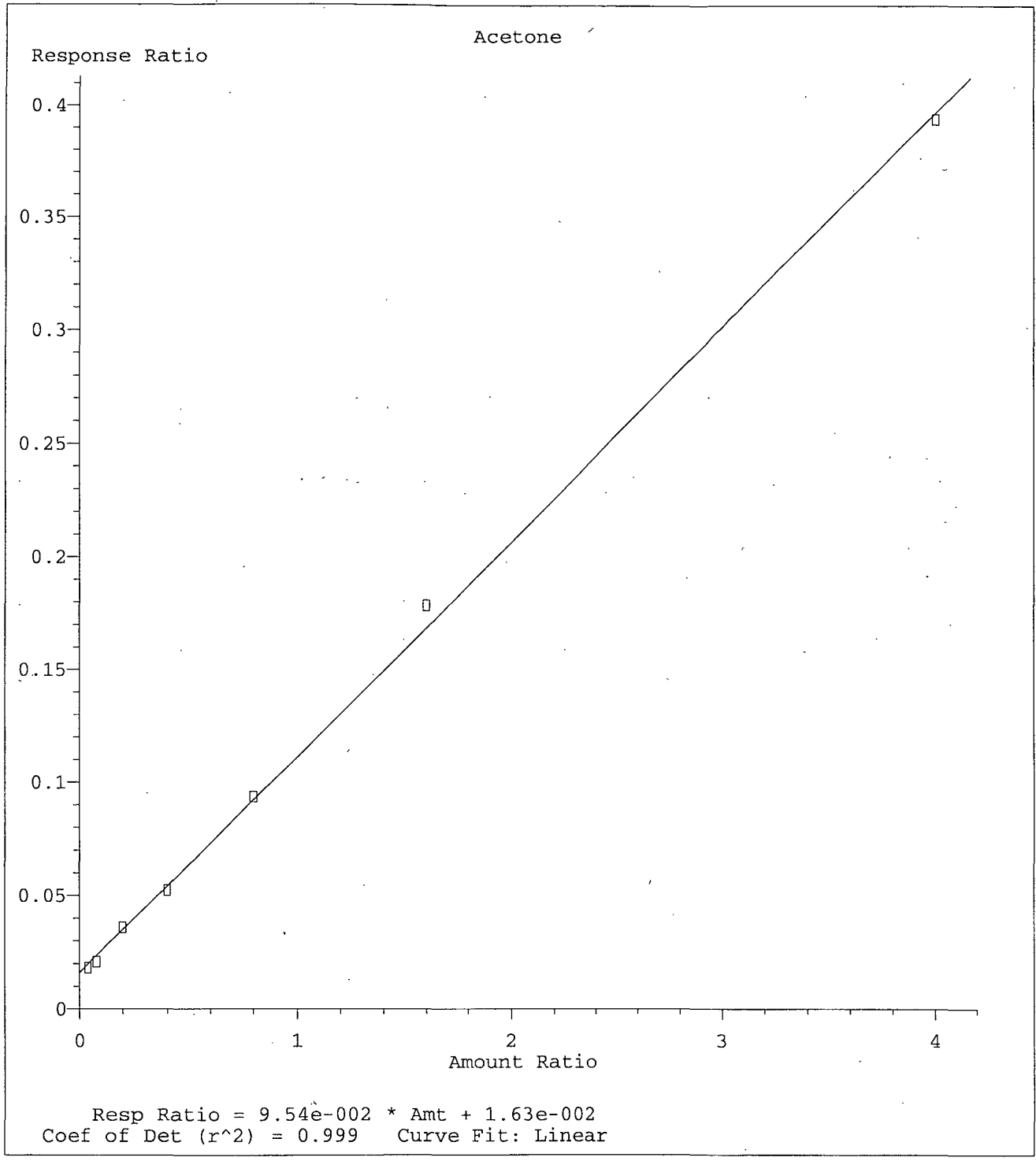
Bromomethane

Response Ratio

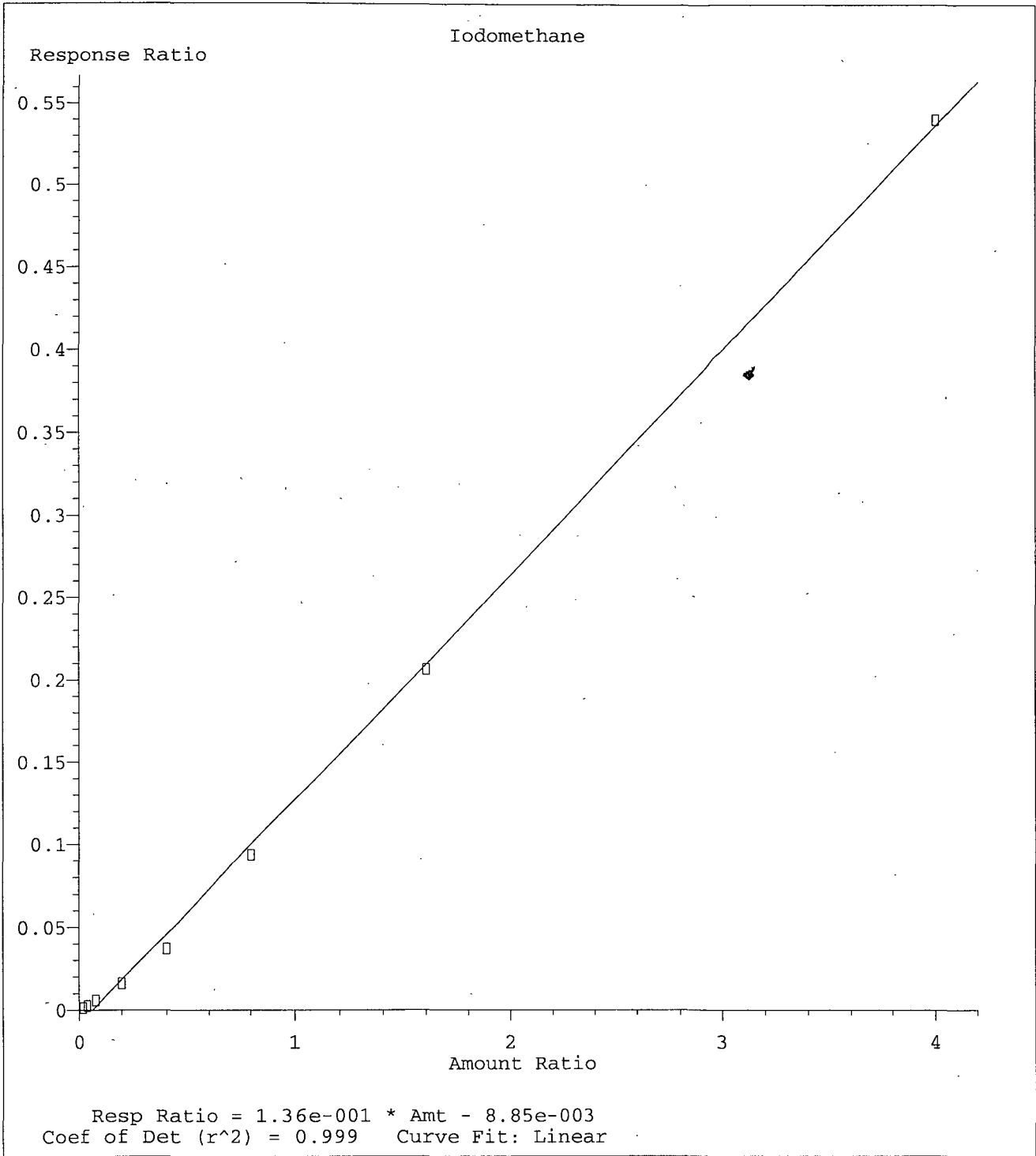


Resp Ratio =  $2.17e-001 * Amt + 1.87e-002$   
Coef of Det ( $r^2$ ) = 0.996 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018



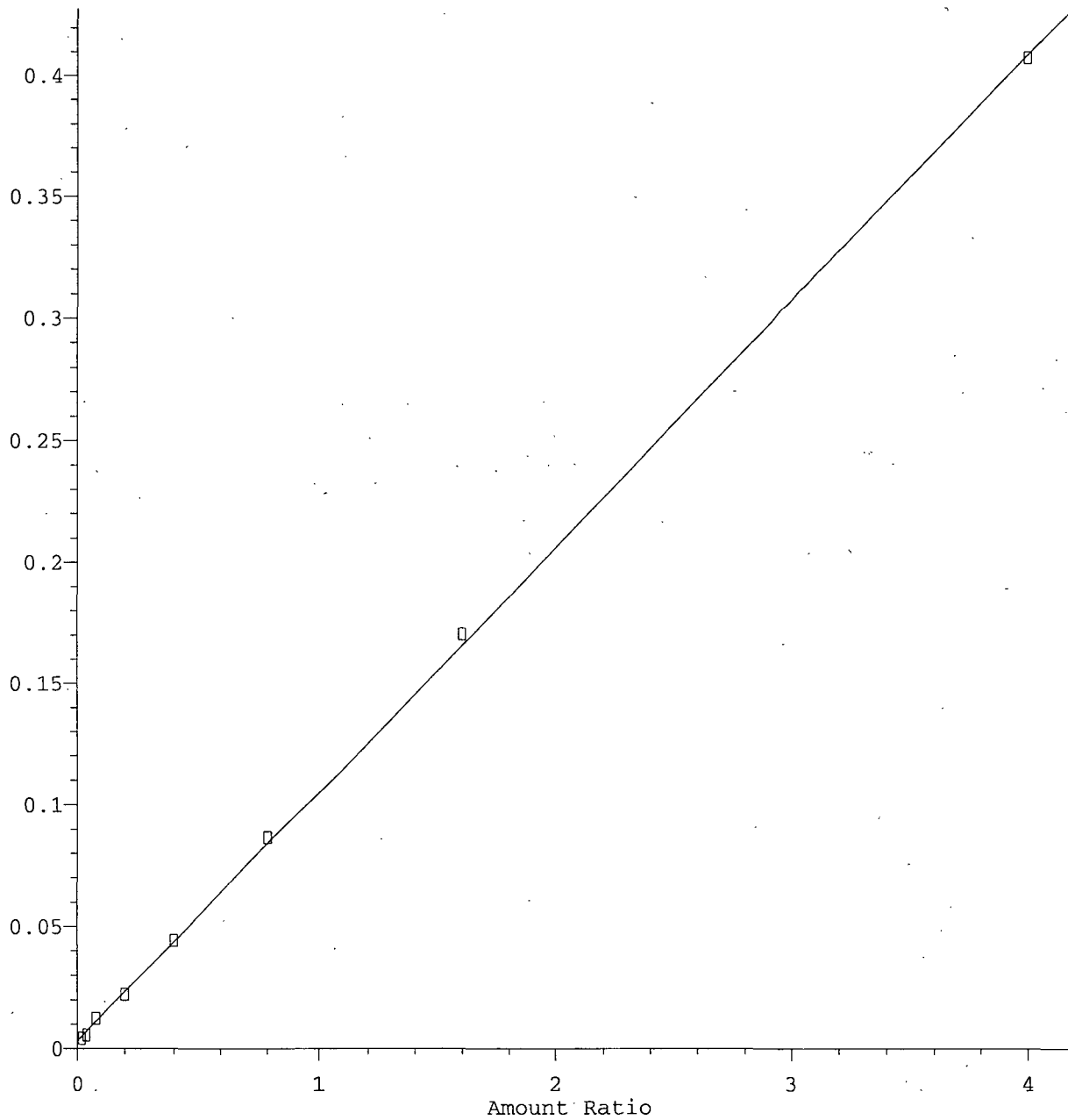
Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018



Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

Acrylonitrile

Response Ratio

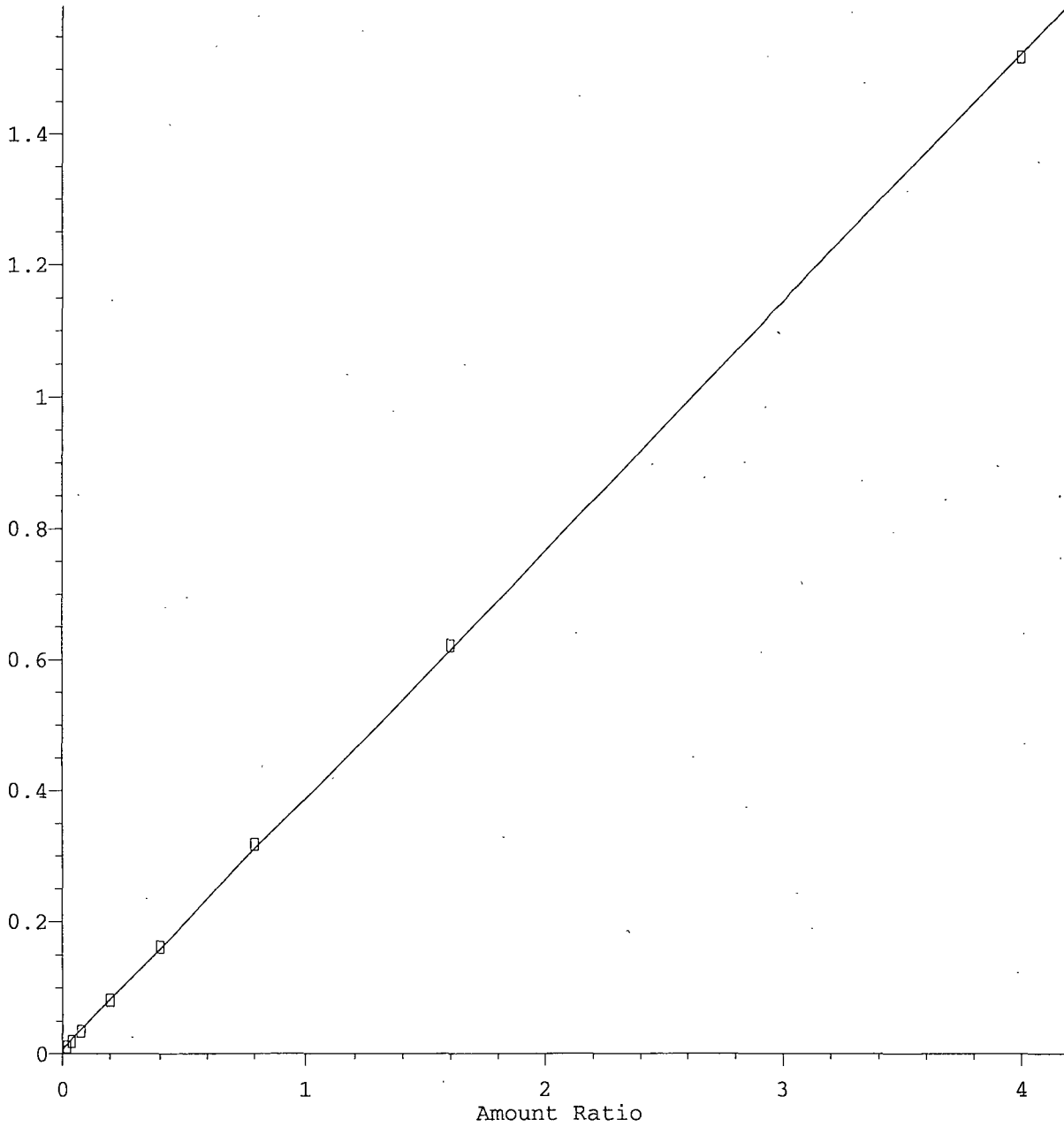


Resp Ratio = 1.02e-001 \* Amt + 3.45e-003  
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

2,2-Dichloropropane

Response Ratio

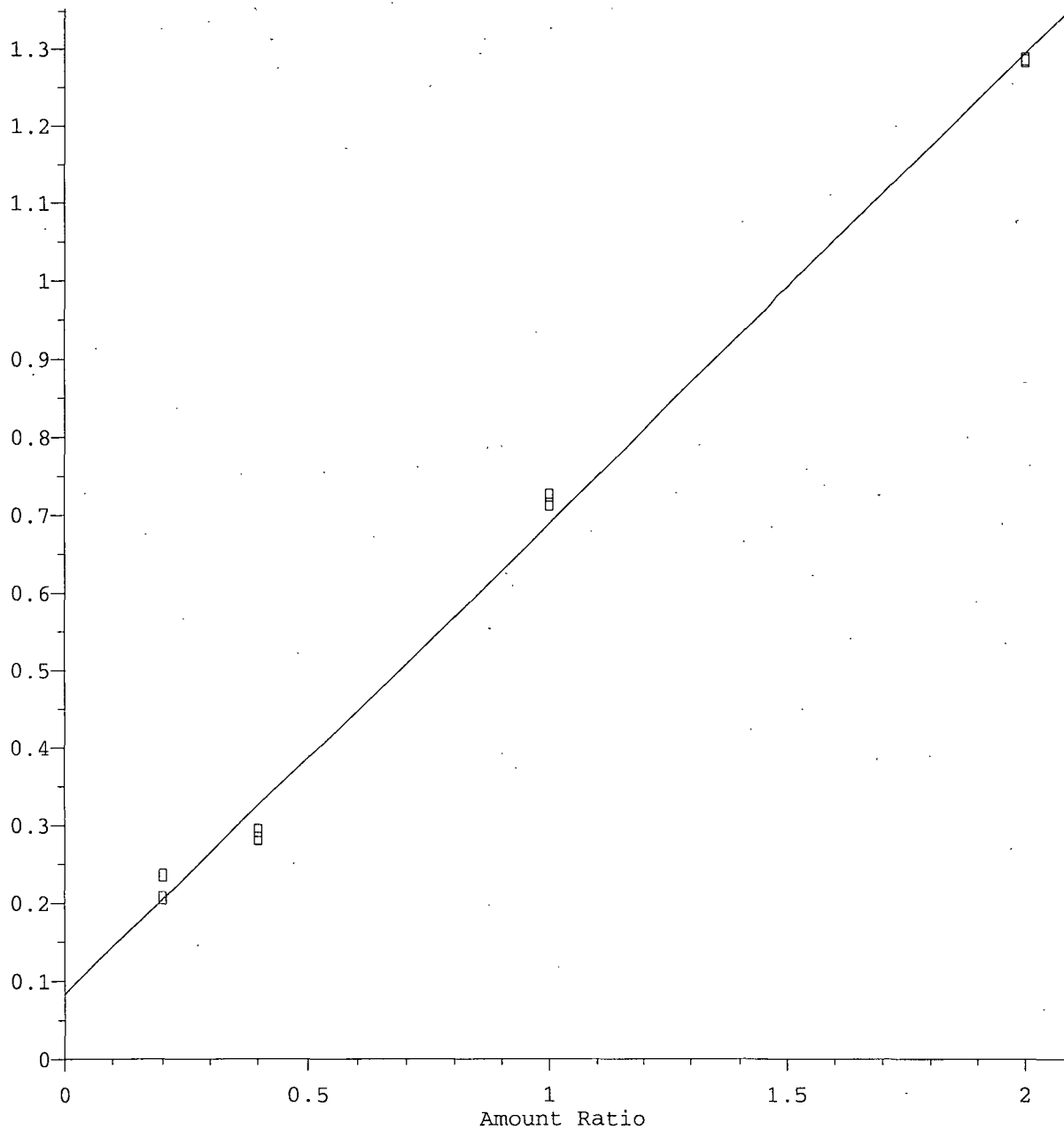


Resp Ratio =  $3.80e-001 * Amt + 6.91e-003$   
Coef of Det ( $r^2$ ) = 1.000 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

Dibromofluoromethane(S)

Response Ratio

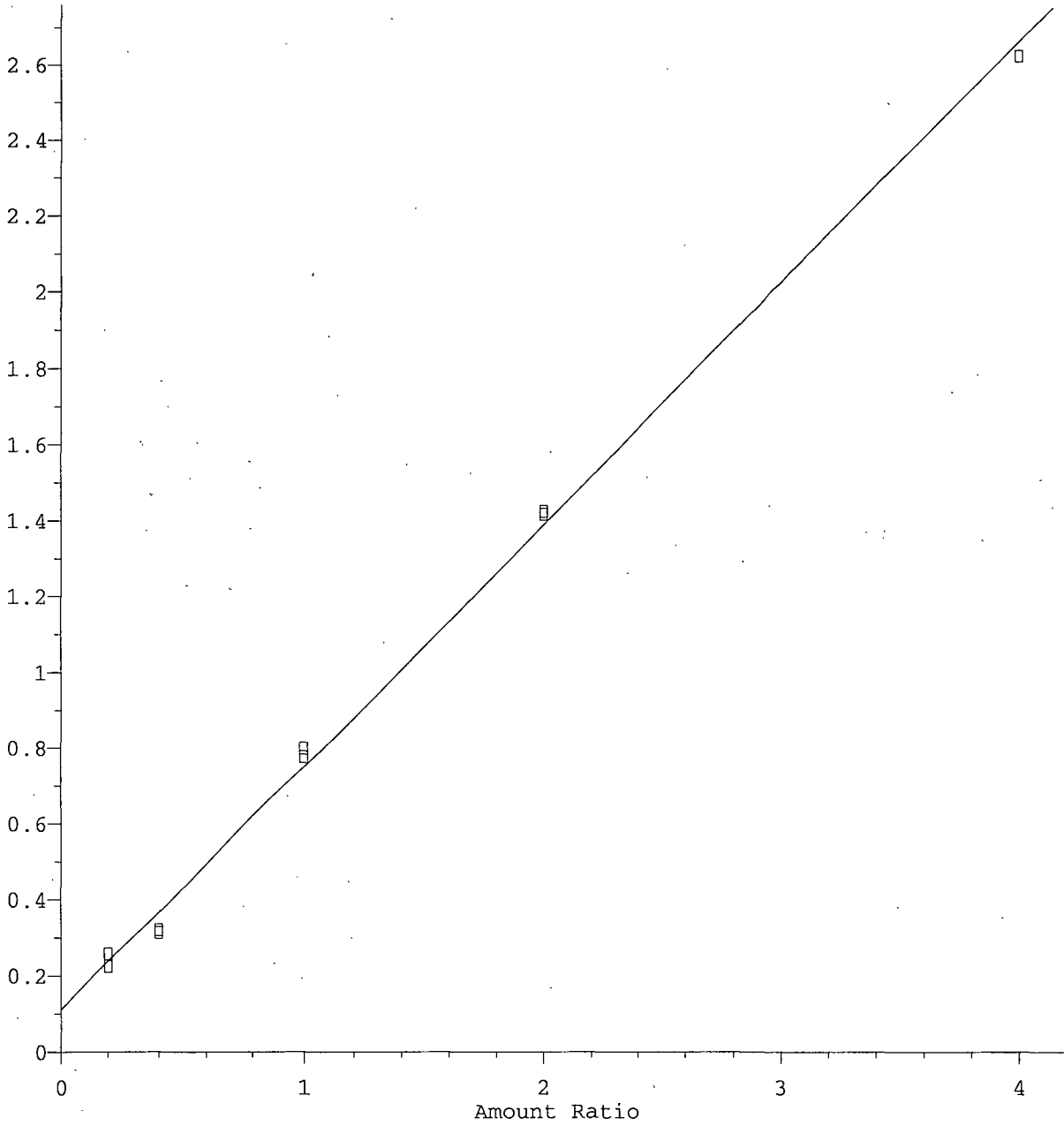


Resp Ratio =  $6.07e-001 * Amt + 8.28e-002$   
Coef of Det ( $r^2$ ) = 0.996 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

1,2-DCA-D4(S)

Response Ratio



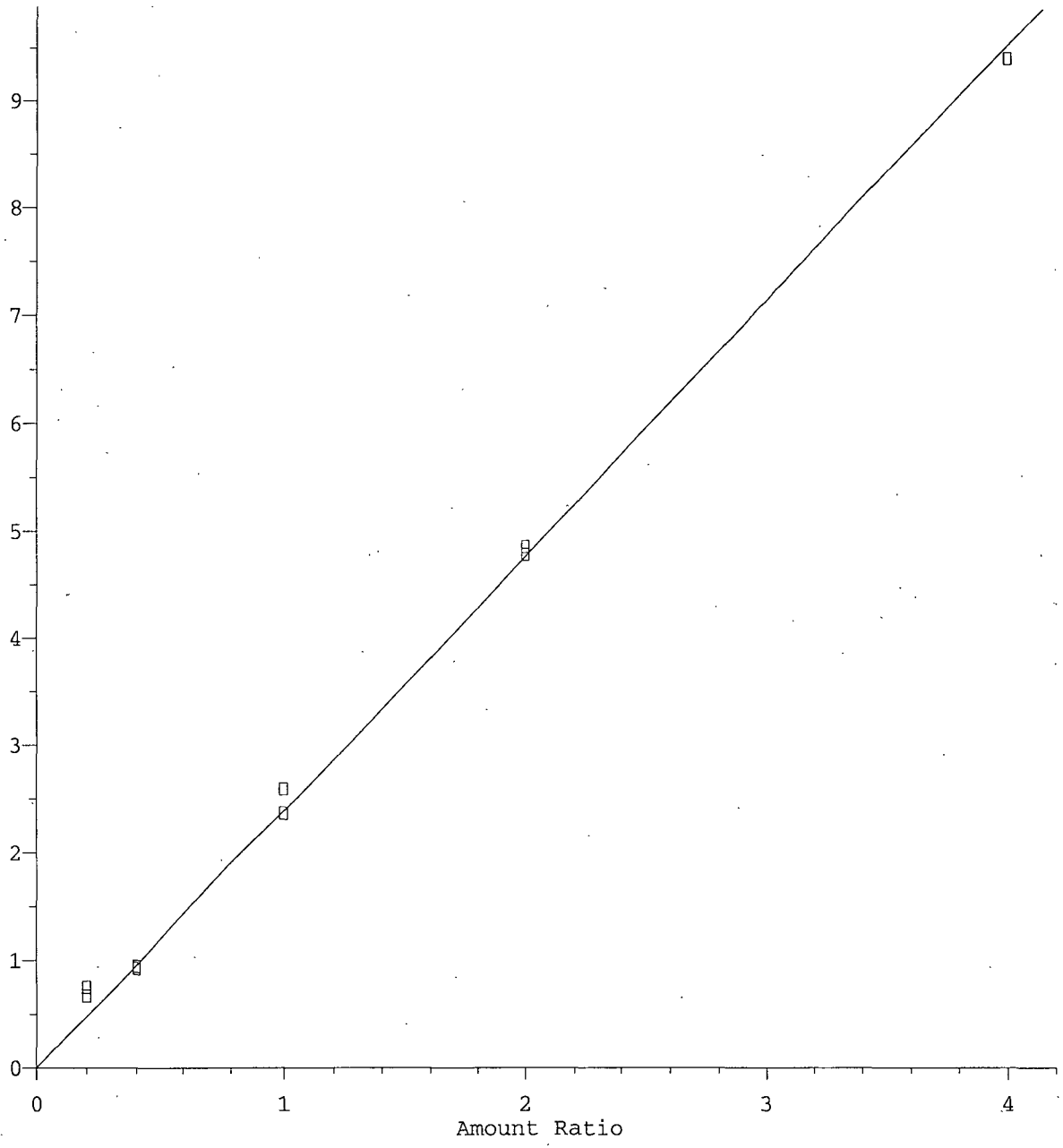
Resp Ratio =  $6.40e-001 * Amt + 1.11e-001$   
Coef of Det ( $r^2$ ) = 0.998 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018



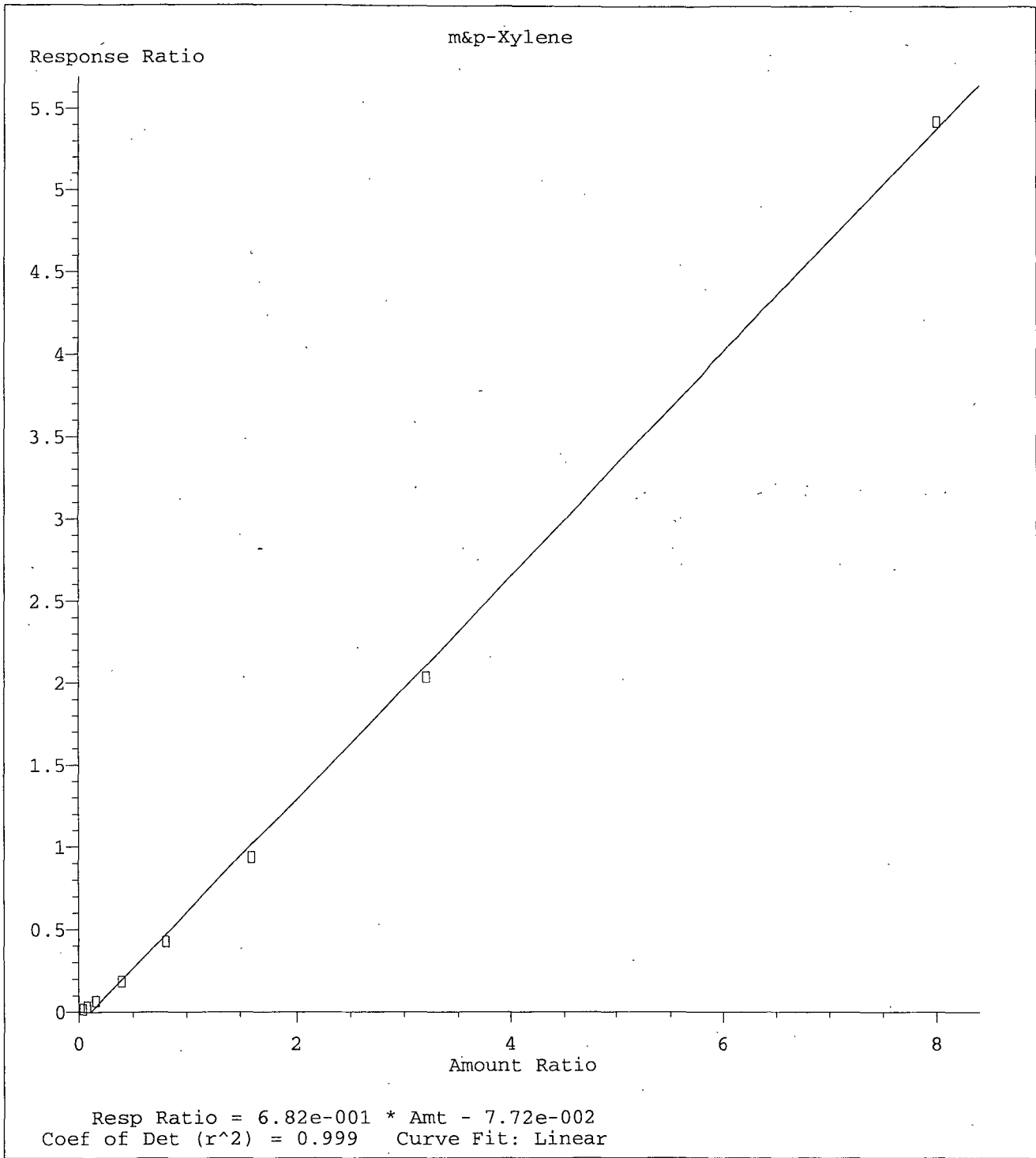
Toluene-D8 (S)

Response Ratio



Resp Ratio = 2.39e+000 \* Amt  
Coef of Det (r^2) = 0.999 Curve Fit: Linear/(0,0)

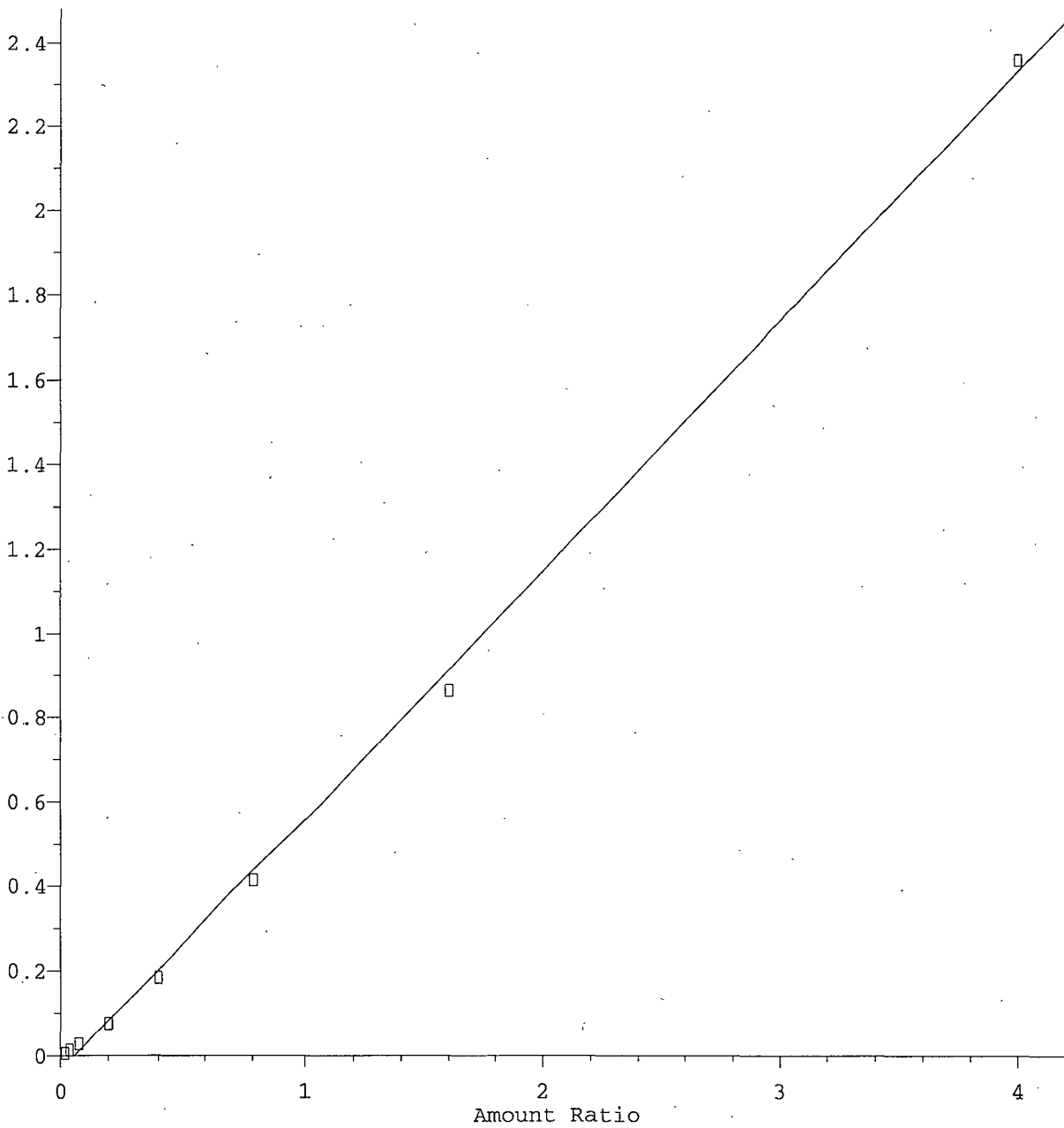
Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018



Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

Styrene

Response Ratio

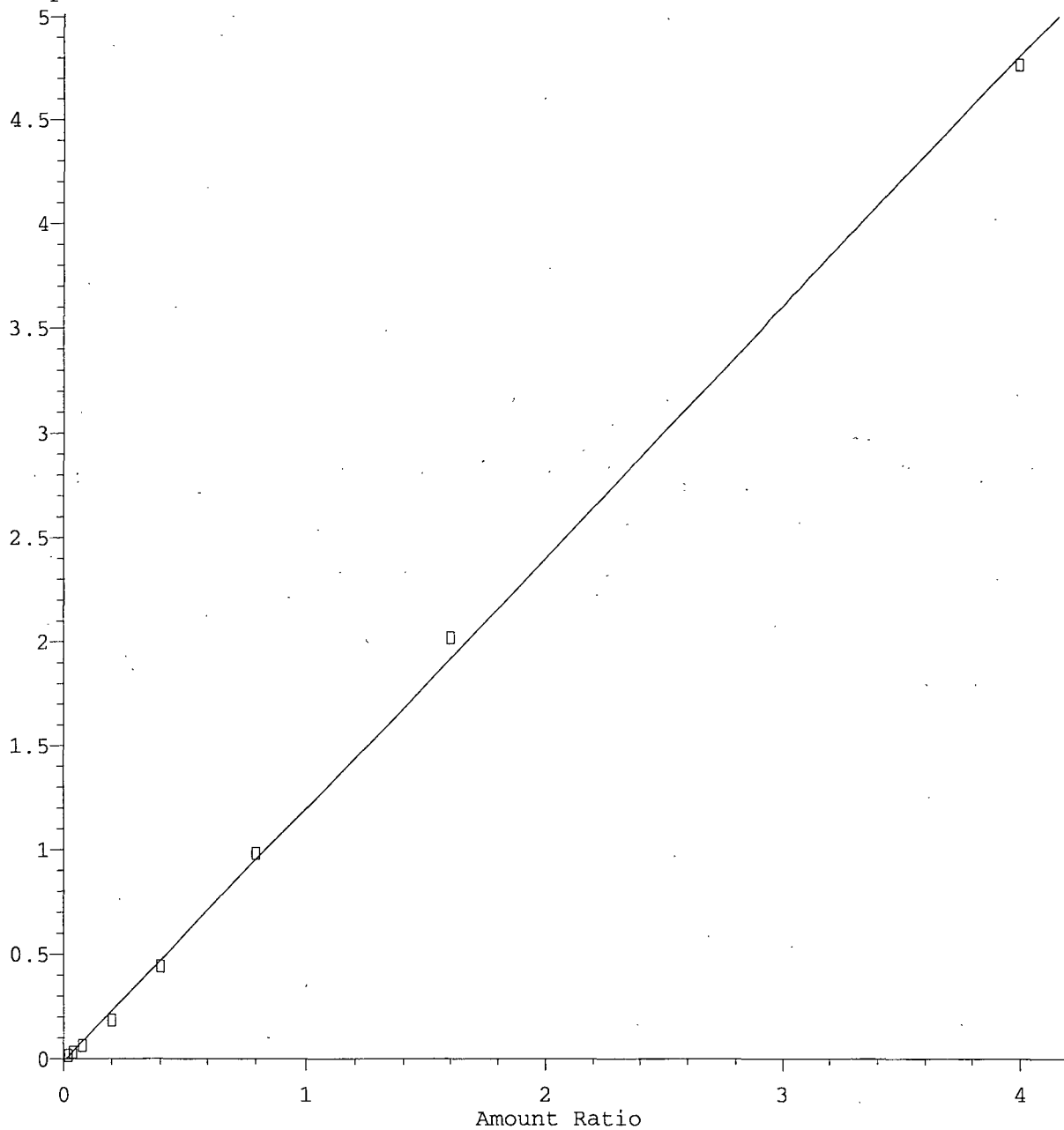


Resp Ratio = 5.94e-001 \* Amt - 3.64e-002  
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

1,3,5-Trimethylbenzene

Response Ratio

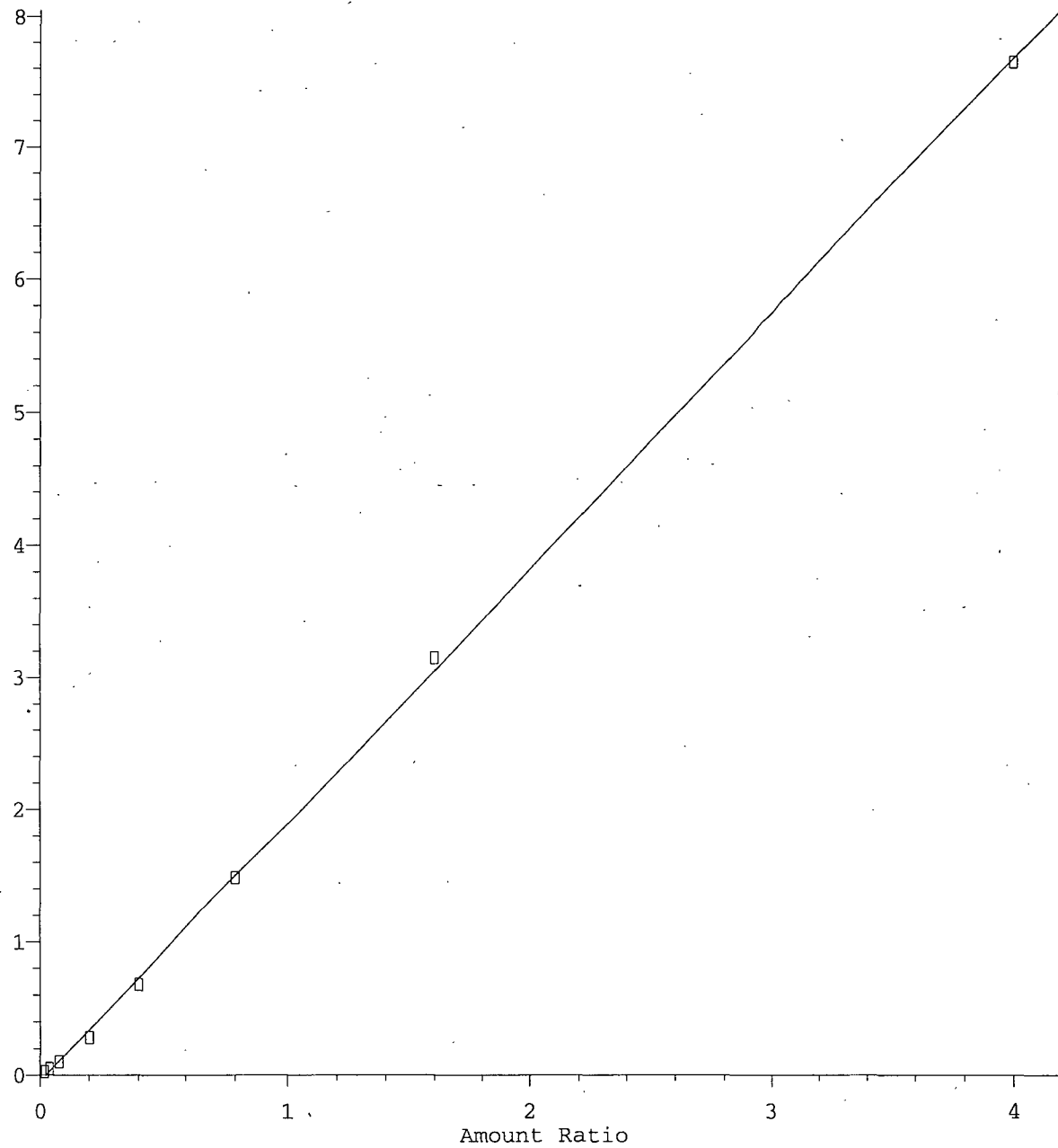


Resp Ratio = 1.21e+000 \* Amt - 1.37e-002  
Coef of Det (r<sup>2</sup>) = 0.999 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

1,2,4-Trimethylbenzene

Response Ratio

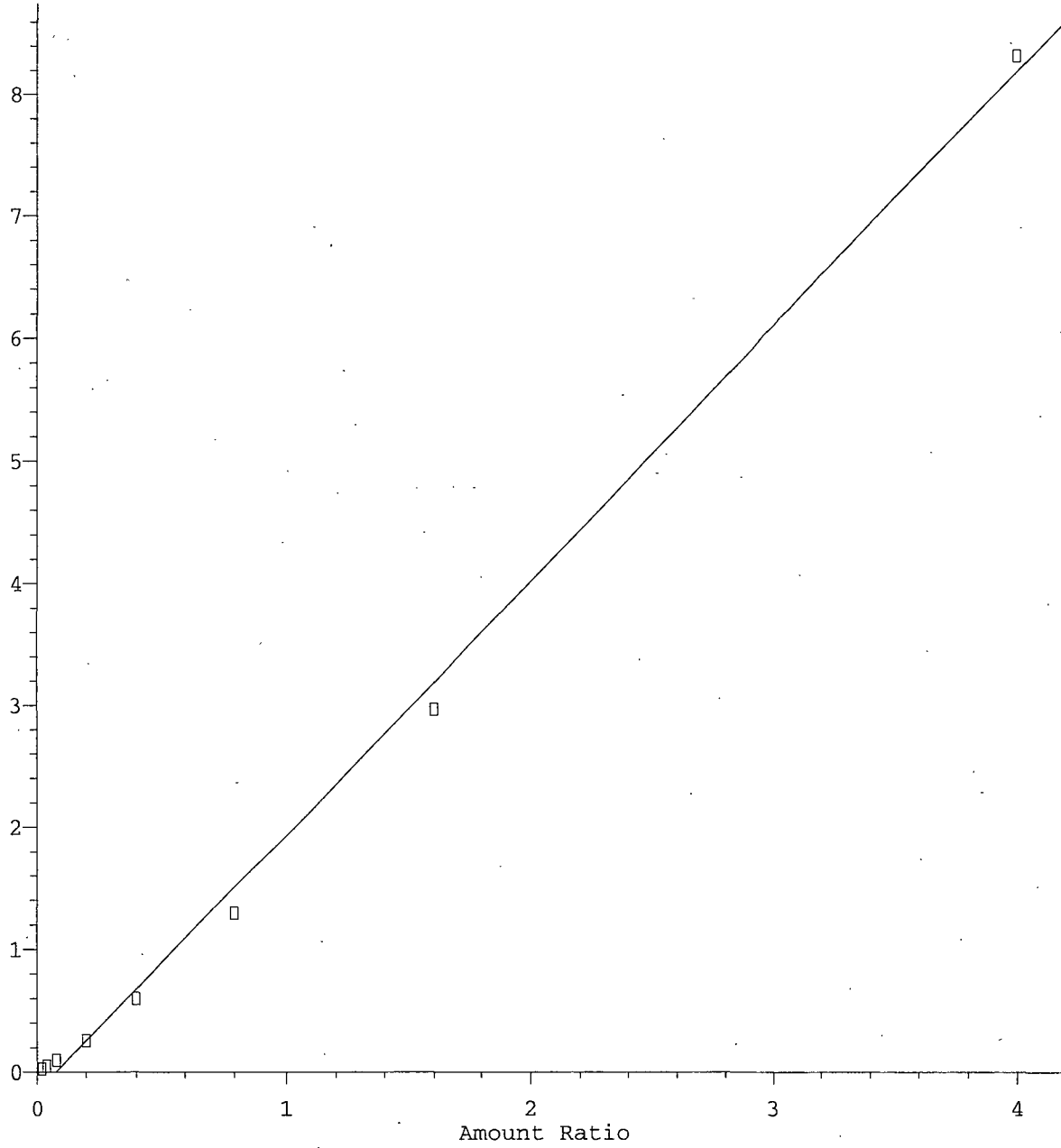


Resp Ratio = 1.94e+000 \* Amt - 4.81e-002  
Coef of Det (r^2) = 1.000 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

Naphthalene

Response Ratio



Resp Ratio = 2.09e+000 \* Amt - 1.64e-001  
Coef of Det (r^2) = 0.997 Curve Fit: Linear

Method Name: M:\LOKI\DATA\181026\L1026W.M  
Calibration Table Last Updated: Mon Oct 29 06:47:10 2018

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 6  
Initial Calibration

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

SDG No: \_\_\_\_\_  
Initial Cal. Date: 10/29/18  
Instrument: Loki

Initials: \_\_\_\_\_

1029L06.D    1029L07.D    1029L08.D    1029L09.D    1029L10.D    1029L11.D    1029L12.D

	Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r <sup>2</sup>	Q	MRF
1	I Fluorobenzene (IS)																
2	TMHBL Gasoline C6-C10	13.6	5.820	3.119	1.266	0.8131	0.6987	0.6450				3.7	128	TMHBL	0.999		
3	I Chlorobenzene-D5 (IS)																
4	I 1,4-Dichlorobenzene-D (IS)																
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
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31																	
32																	
33																	
34																	
35																	

Data File : M:\LOKI\DATA\181026\1029L06.D Vial: 1  
 Acq On : 29 Oct 18 11:16 Operator: PM, DG, SV, CMM, KV  
 Sample : 20ug/L GAS STD 10/29/18 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 50.00

Quant Time: Oct 30 6:54 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 06:41:57 2018  
 Response via : Initial Calibration.  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	914501	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1251501	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1190902	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	9958266m	23.2218	ppb	100



Quantitation Report

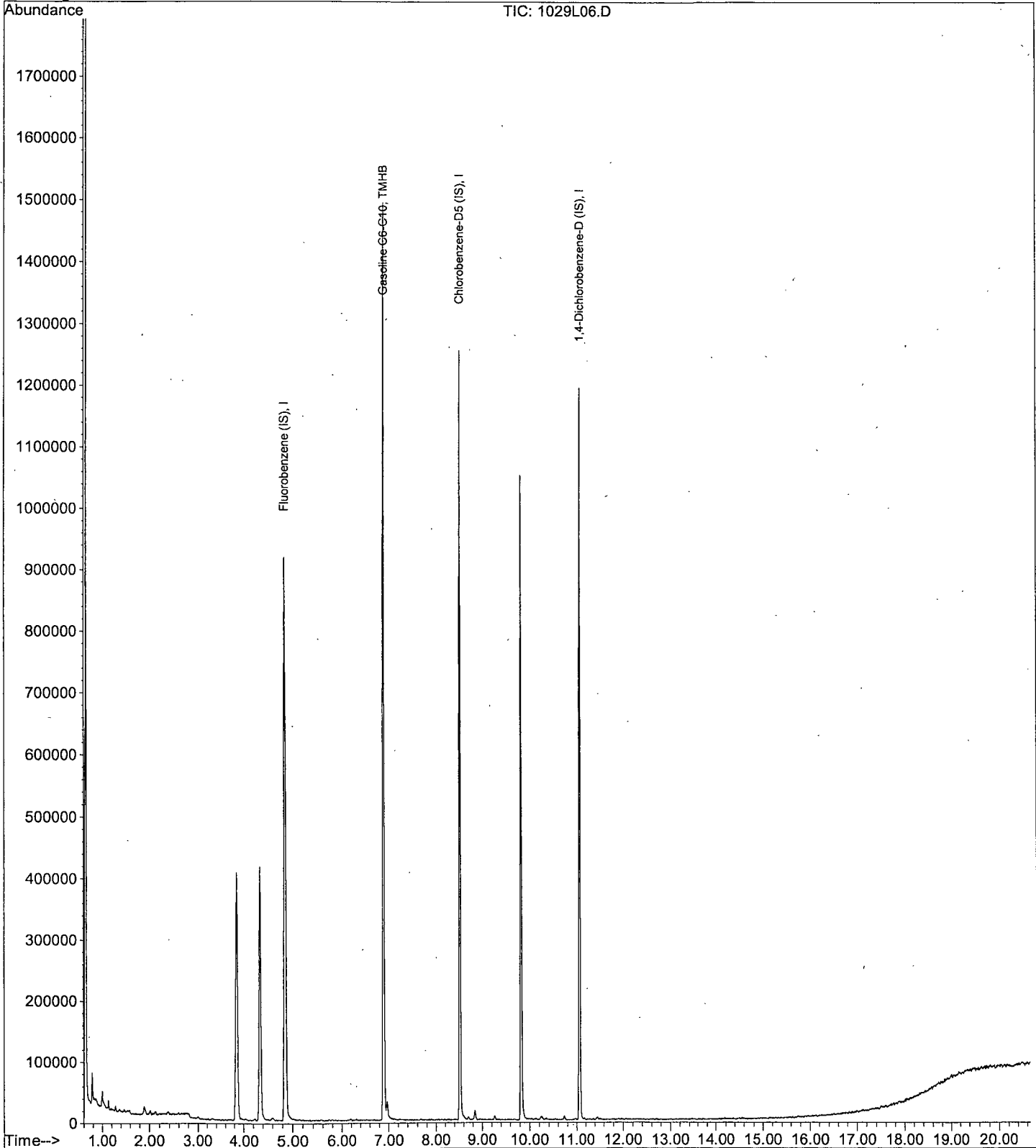
Data File : M:\LOKI\DATA\181026\1029L06.D  
Acq On : 29 Oct 18 11:16  
Sample : 20ug/L GAS STD 10/29/18  
Misc : IS&S 9/28/18, 8/23/18

Vial: 1  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 50.00

Quant Time: Oct 30 6:54 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L07.D Vial: 2  
 Acq On : 29 Oct 18 11:45 Operator: PM, DG, SV, CMM, KV  
 Sample : 50ug/L GAS STD 10/29/18 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 30 6:57 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 06:41:57 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	949396	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1244787	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1142138	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	11050558m	53.6272	ppb	100

Quantitation Report

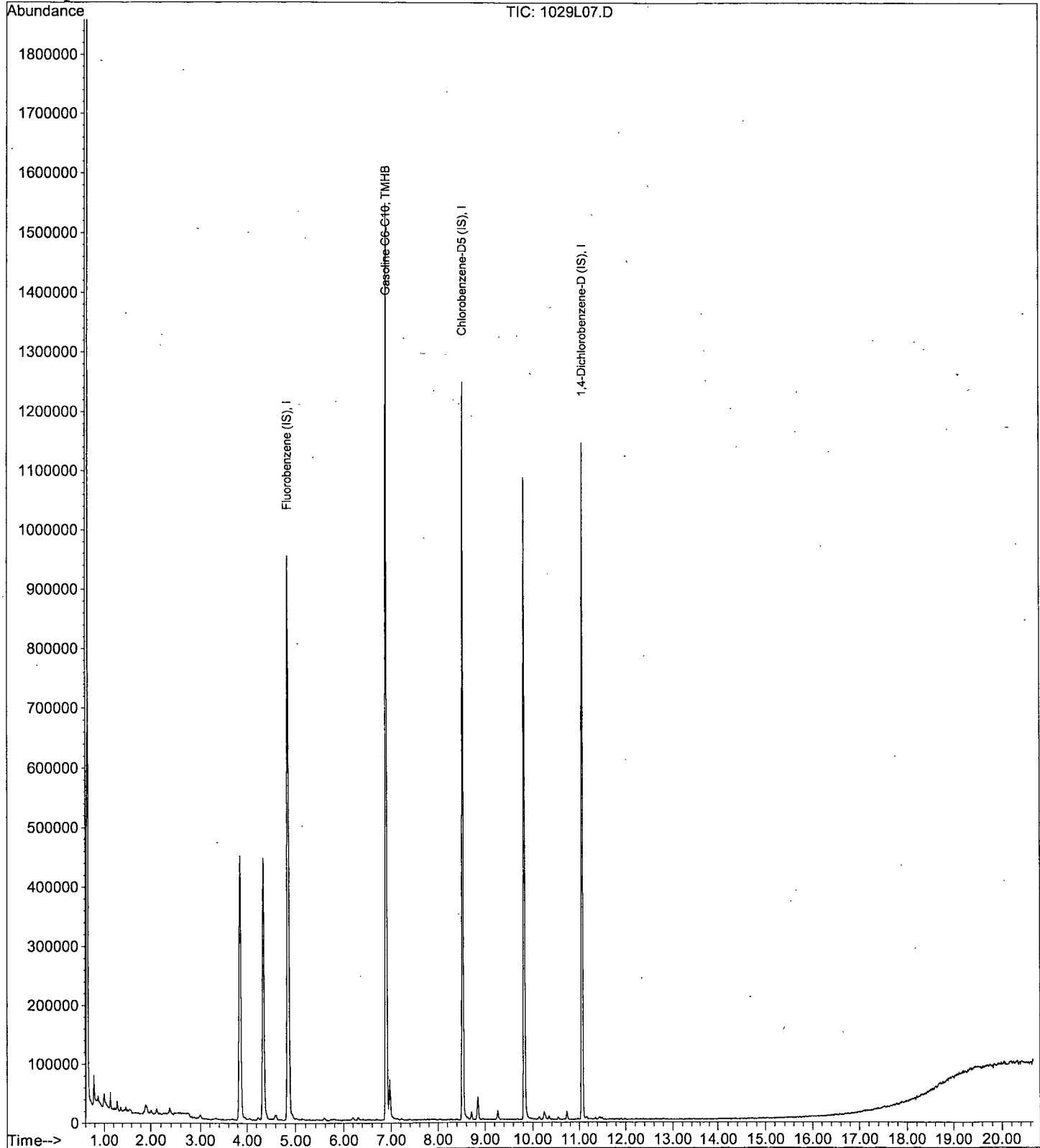
Data File : M:\LOKI\DATA\181026\1029L07.D  
Acq On : 29 Oct 18 11:45  
Sample : 50ug/L GAS STD 10/29/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 2  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 6:57 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L08.D  
Acq On : 29 Oct 18 12:13  
Sample : 100ug/L GAS STD 10/29/18  
Misc : IS&S 9/28/18, 8/23/18

Vial: 3  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 6:58 2018

Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 06:41:57 2018  
Response via : Initial Calibration  
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	955627	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1266285	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1303457	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	11923729m	112.9931	ppb	100

Quantitation Report

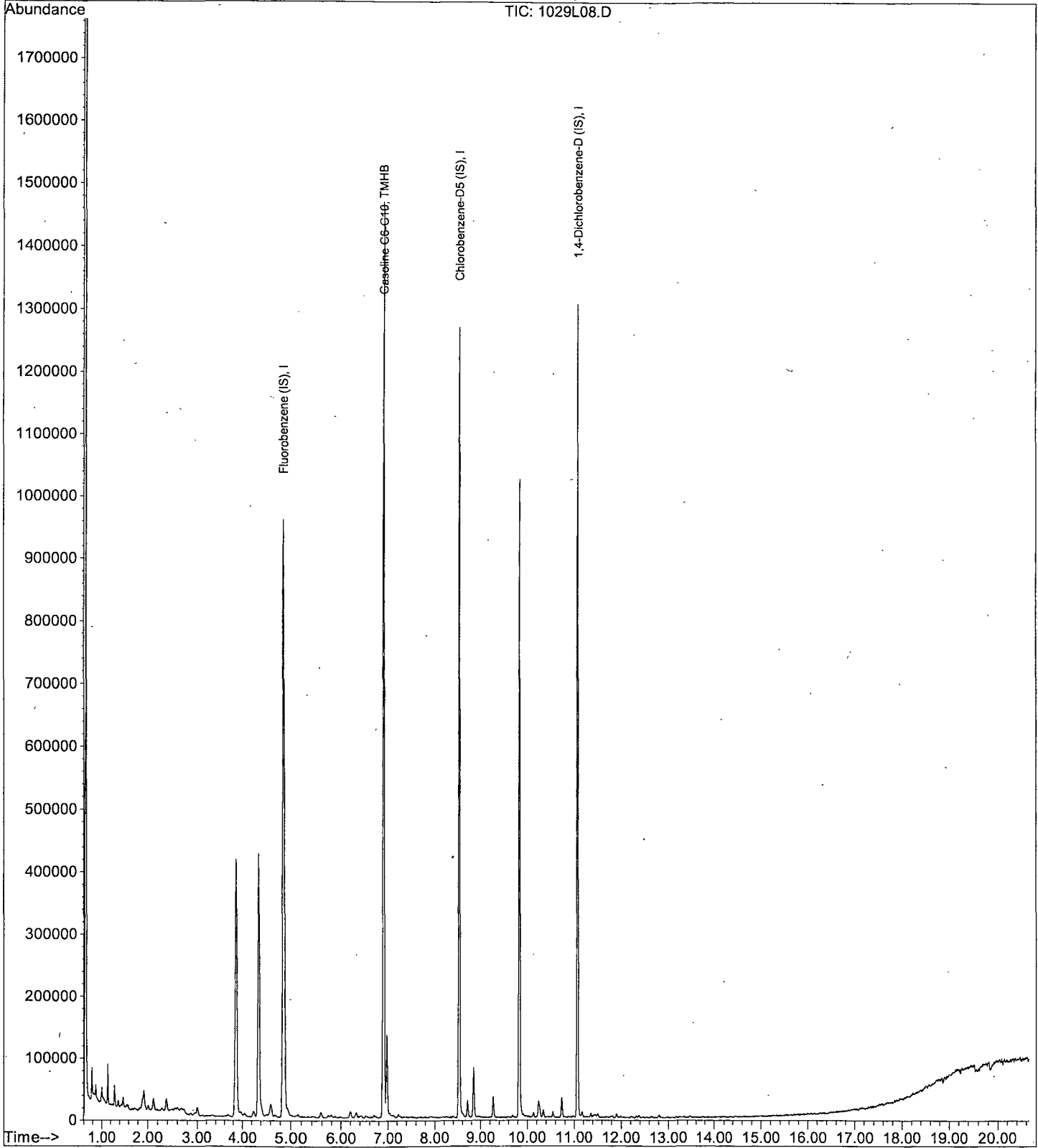
Data File : M:\LOKI\DATA\181026\1029L08.D  
Acq On : 29 Oct 18 12:13  
Sample : 100ug/L GAS STD 10/29/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 3  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 6:58 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L09.D Vial: 4  
 Acq On : 29 Oct 18 12:42 Operator: PM, DG, SV, CMM, KV  
 Sample : 300ug/L GAS STD 10/29/18 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 30 6:59 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 06:41:57 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	973491	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1314393	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1338683	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	14791231m	305.4859	ppb	100

Quantitation Report

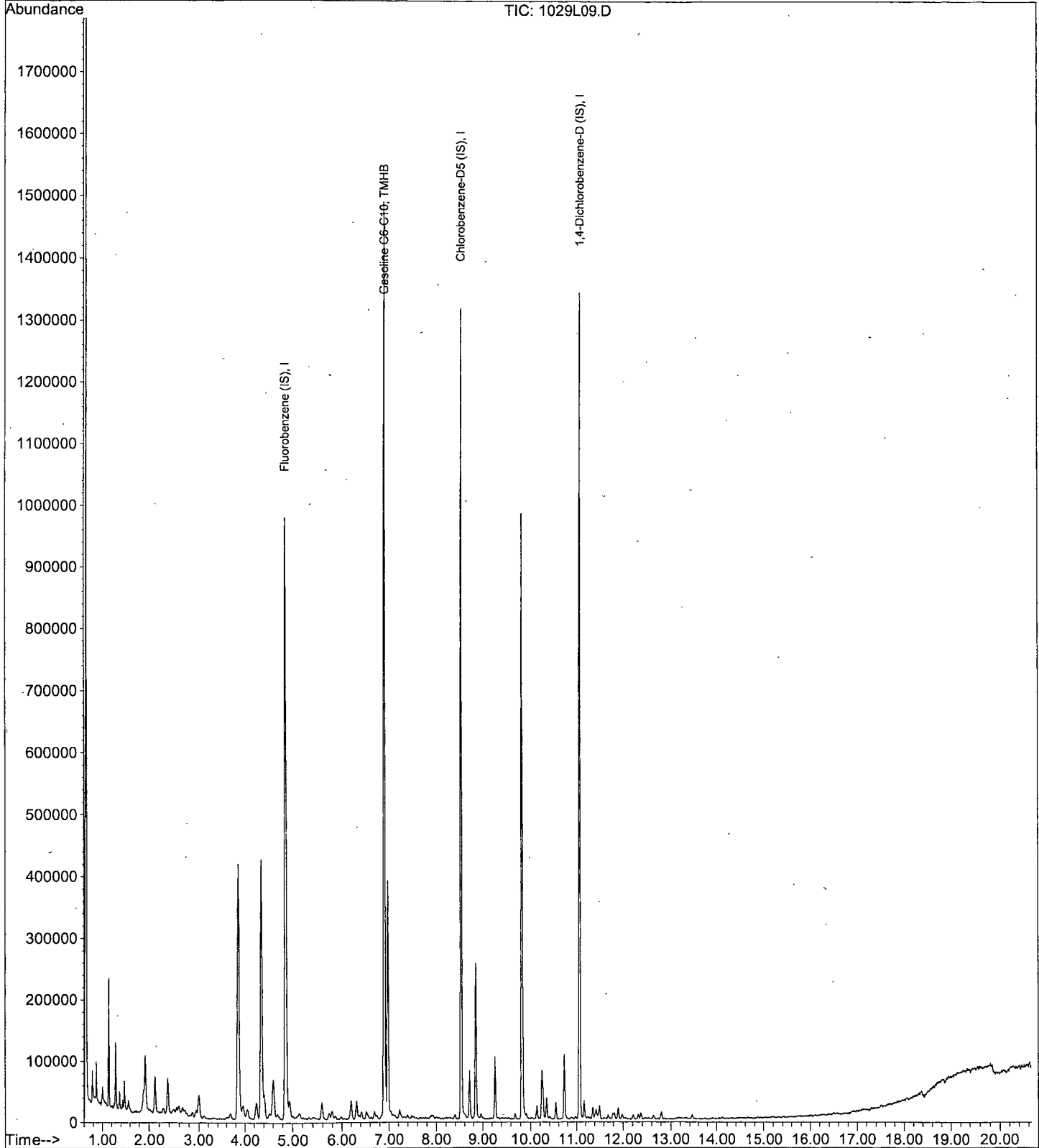
Data File : M:\LOKI\DATA\181026\1029L09.D  
Acq On : 29 Oct 18 12:42  
Sample : 300ug/L GAS STD 10/29/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 4  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 6:59 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L10.D Vial: 5  
 Acq On : 29 Oct 18 13:10 Operator: PM,DG,SV,CMM,KV  
 Sample : 600ug/L GAS STD 10/29/18 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:00 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 06:41:57 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	984070	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1268164	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1403205	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	19202778m	611.5632	ppb	100



Quantitation Report

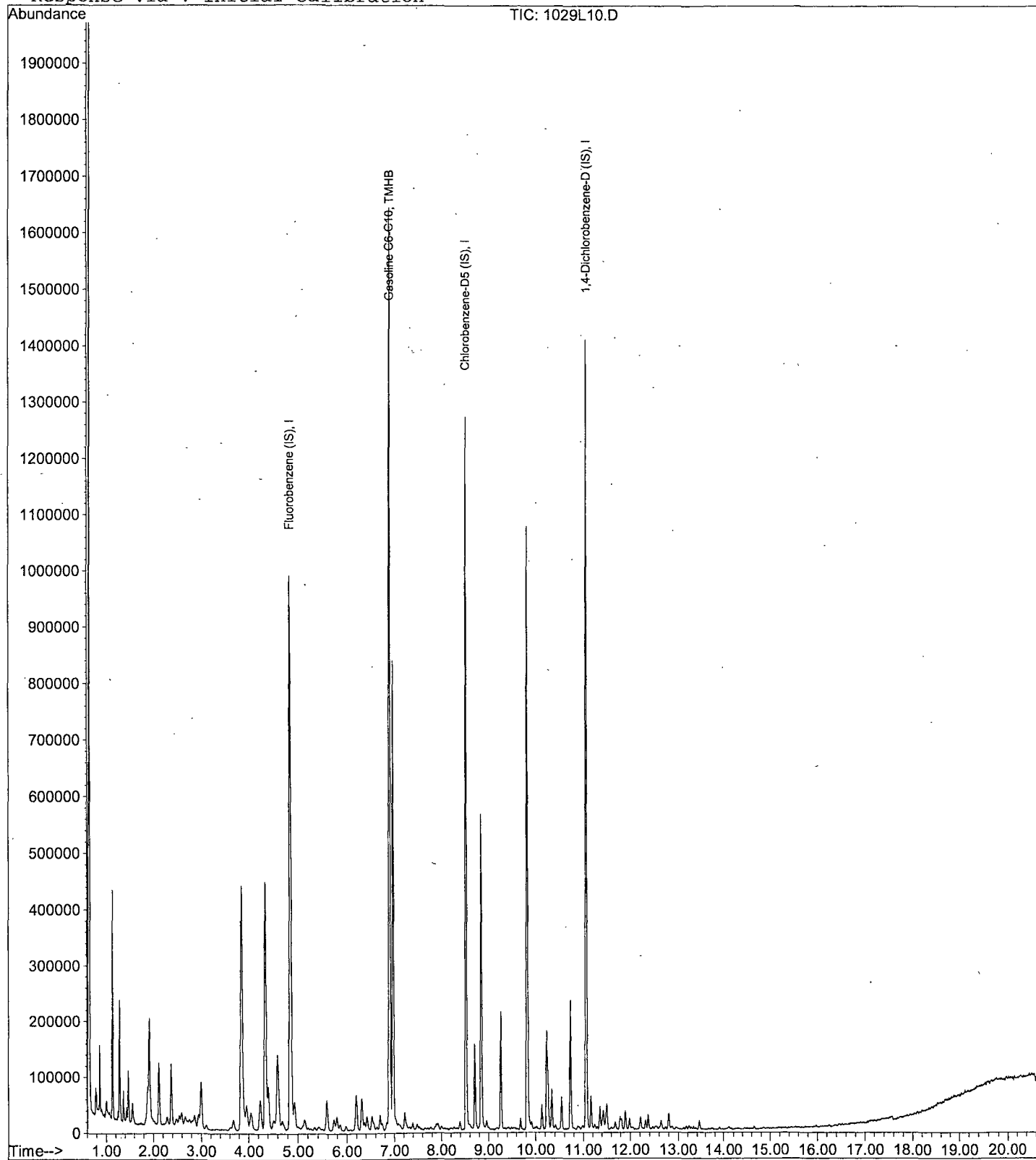
Data File : M:\LOKI\DATA\181026\1029L10.D  
Acq On : 29 Oct 18 13:10  
Sample : 600ug/L GAS STD 10/29/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 5  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:00 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD. 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L11.D Vial: 6  
 Acq On : 29 Oct 18 13:39 Operator: PM,DG,SV,CMM,KV  
 Sample : 800ug/L GAS STD 10/29/18 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:01 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 06:41:57 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	1011270	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1305553	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1333848	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	22611900m	813.2429	ppb	100

Quantitation Report

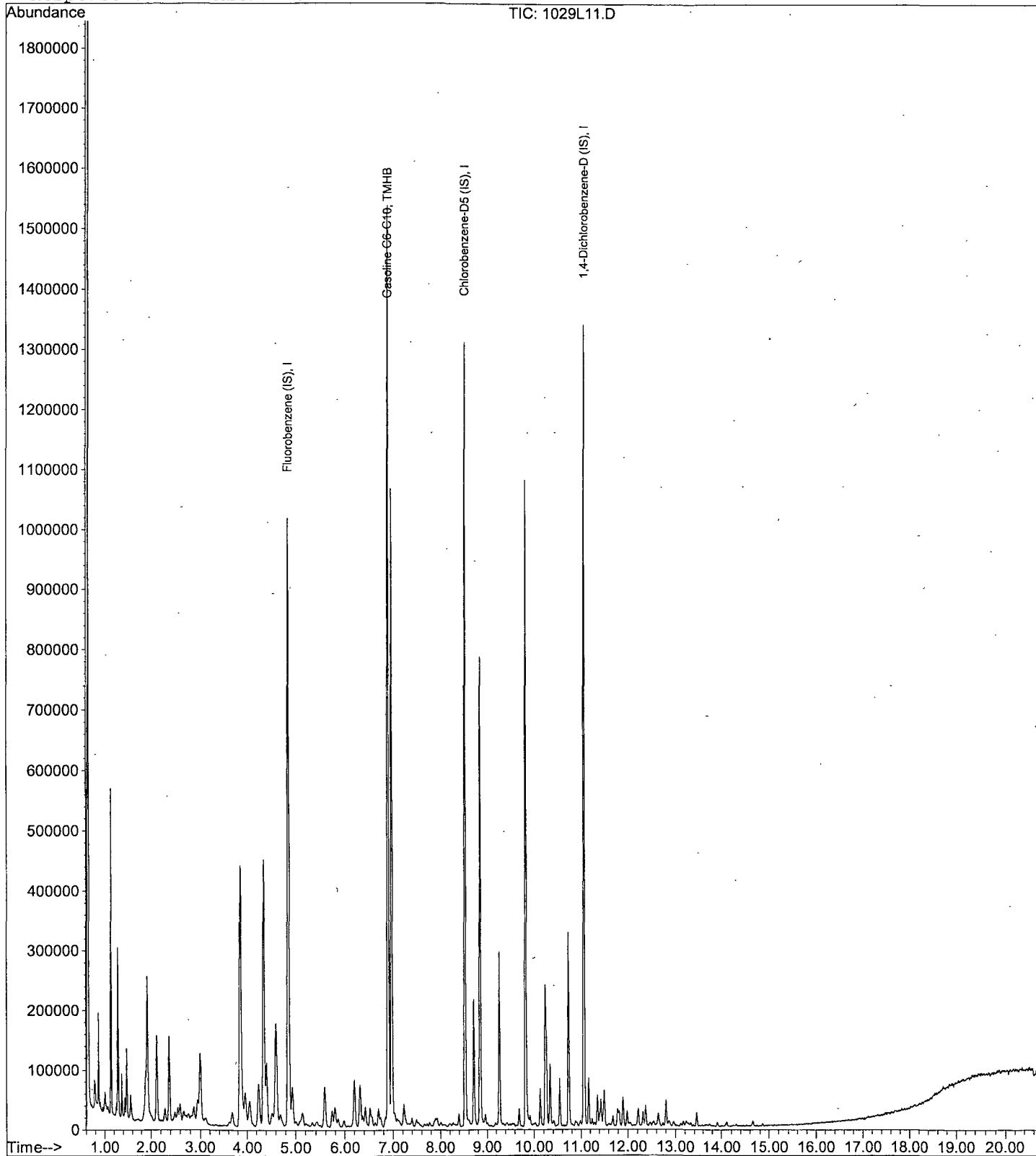
Data File : M:\LOKI\DATA\181026\1029L11.D  
Acq On : 29 Oct 18 13:39  
Sample : 800ug/L GAS STD 10/29/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 6  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:01 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L12.D Vial: 7  
 Acq On : 29 Oct 18 14:07 Operator: PM, DG, SV, CMM, KV  
 Sample : 1000ug/L GAS STD 10/29/18 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:02 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 06:41:57 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	958810	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1255164	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1358704	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	24738349m	1057.0770	ppb	100

Quantitation Report

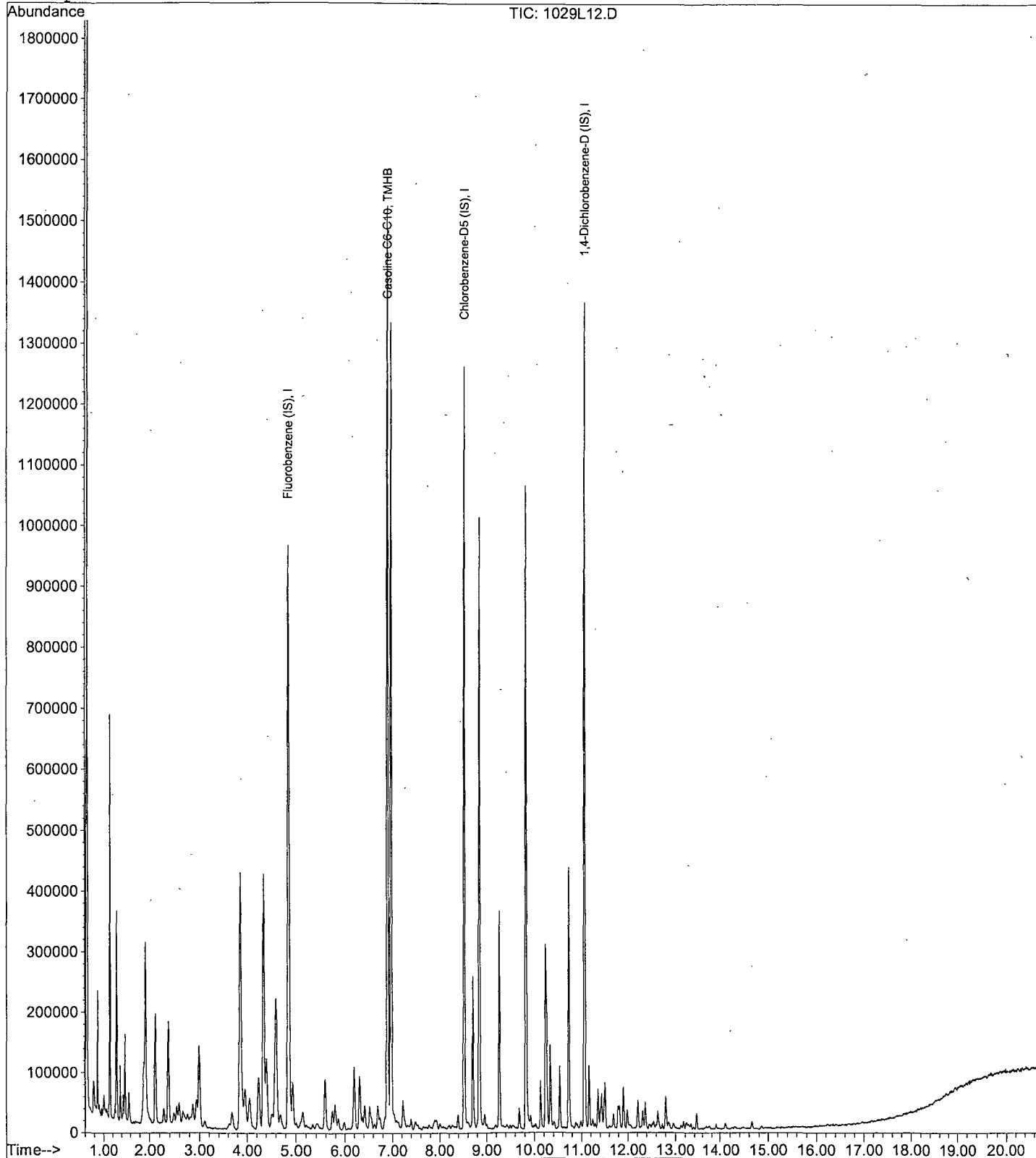
Data File : M:\LOKI\DATA\181026\1029L12.D  
Acq On : 29 Oct 18 14:07  
Sample : 1000ug/L GAS STD 10/29/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 7  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:02 2018

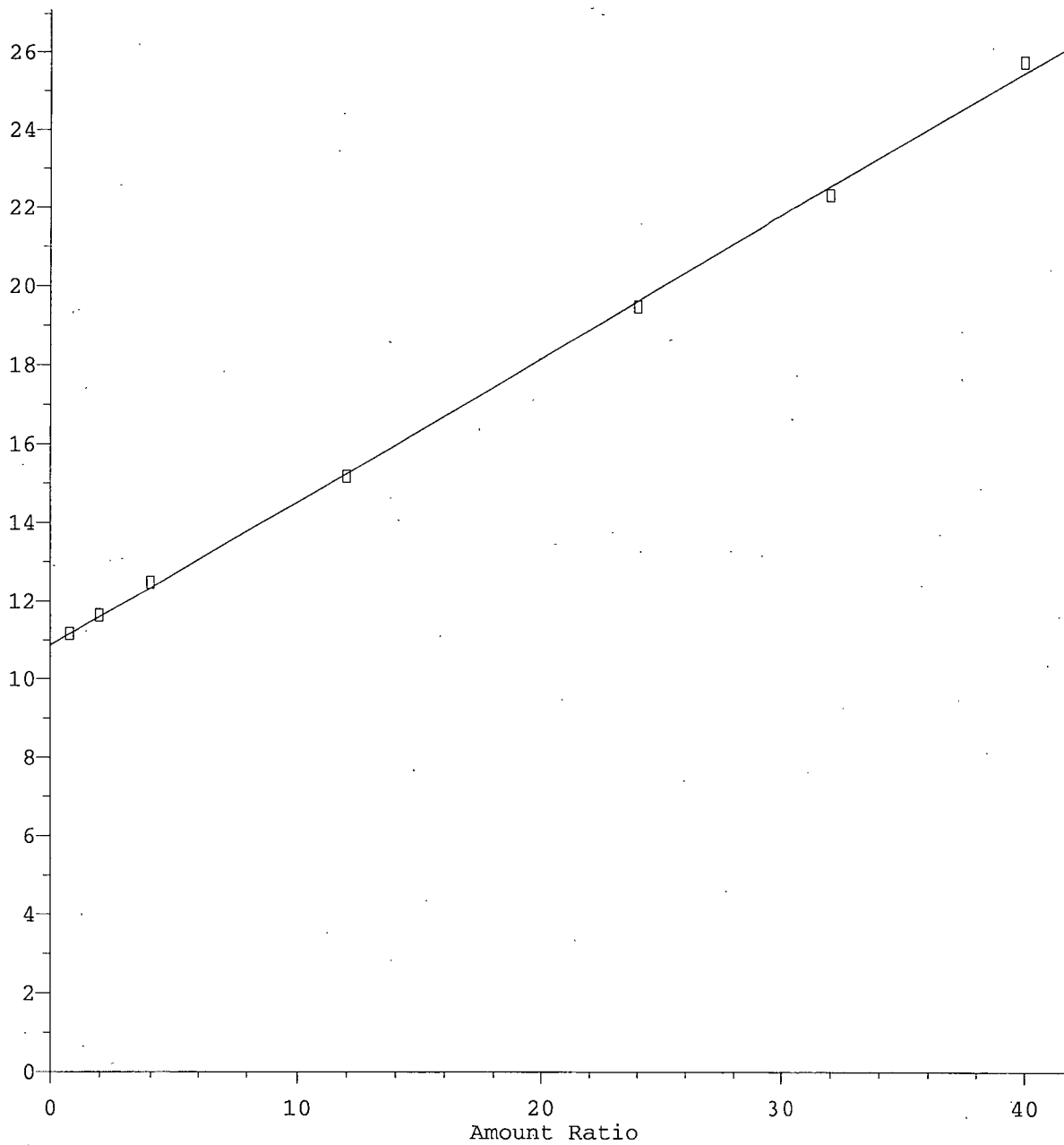
Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Gasoline C6-C10

Response Ratio



Resp Ratio = 3.66e-001 \* Amt + 1.09e+001  
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Method Name: M:\LOKI\DATA\180915\LGAS1029.M  
Calibration Table Last Updated: Tue Oct 30 07:46:13 2018

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/29/18

Matrix: \_\_\_\_\_

Instrument: Loki

Initial Cal. Date: 10/29/18

Data File: 1029L17.D

	Compound	MEAN	CCRF	%D	%Drift
1	TMHB Gasoline C6-C10	3.760	1.304	65	TMHBL 8.6
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
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36					
37					
38					
39					
40	Average			65.0	

Data File : M:\LOKI\DATA\181026\1029L17.D Vial: 12  
 Acq On : 29 Oct 18 16:29 Operator: PM, DG, SV, CMM, KV  
 Sample : (SS)300ug/L GAS STD 10/29/18 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:47 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:46:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	978885	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1336205	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1313561	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	15313535m	325.6686	ppb	100



Quantitation Report

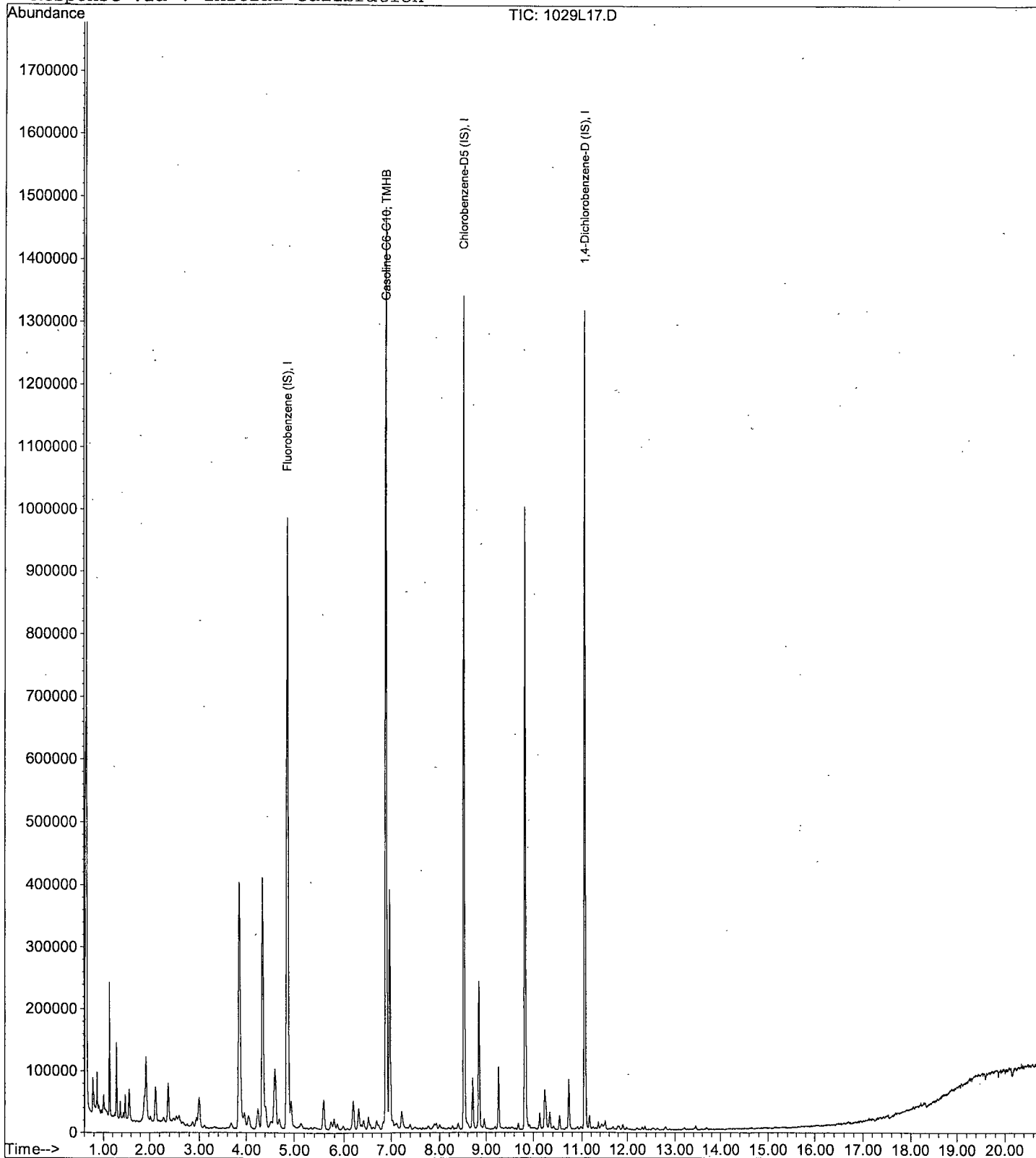
Data File : M:\LOKI\DATA\181026\1029L17.D  
Acq On : 29 Oct 18 16:29  
Sample : (SS)300ug/L GAS STD 10/29/18  
Misc : IS&S 9/28/18,8/23/18

Vial: 12  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:47 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:46:13 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/30/18

Matrix: \_\_\_\_\_

Instrument: Loki

Initial Cal. Date: 10/29/18

Data File: 1029L37.D

	Compound	MEAN	CCRF	%D	%Drift
1	Fluorobenzene (IS)	ISTD			
2	TMHB Gasoline C6-C10	3.760	1.293	66	TMHBL 5.6
3	Chlorobenzene-D5 (IS)	ISTD			
4	1,4-Dichlorobenzene-D (IS)	ISTD			
5					
6					
7					
8					
9					
10					
11					
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33					
34					
35					
36					
37					
38					
39					
40	Average			66.0	

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Loki  
Initial Cal. Date: 10/26/18  
Data File: 1029L37.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	SL	Dibromofluoromethane(S)	0.7974	0.7776	2.5	SL	14
3	SL	1,2-DCA-D4(S)	0.8500	0.8722	2.6	SL	19
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	SL	Toluene-D8(S)	2.655	2.449	7.8	SL	2.7
6	S	4-Bromofluorobenzene(S)	0.8129	0.7966	2.0	S	
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
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34							
35							
36							
37							
38							
39							
40		Average			3.7		

Data File : M:\LOKI\DATA\181026\1029L37.D Vial: 32  
 Acq On : 30 Oct 18 1:58 Operator: PM,DG,SV,CMM,KV  
 Sample : Ending CCV 8260 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:52 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:46:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	868220	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1171437	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D' (IS)	11.07	TIC	1148058	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	13470233m	316.8553	ppb	100

Data File : M:\LOKI\DATA\181026\1029L37.D  
 Acq On : 30 Oct 18 1:58  
 Sample : Ending CCV 8260 300ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 32  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 9:14 2018

Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	417600	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	406080	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	202048	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.85	111	324722	28.6039	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	114.416%
3) 1,2-DCA-D4(S)	4.35	65	364220	29.7322	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	118.928%
5) Toluene-D8(S)	6.90	98	994582	25.6680	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	102.672%
6) 4-Bromofluorobenzene(S)	9.83	95	323472	24.4985	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	97.996%

Target Compounds Qvalue

Quantitation Report

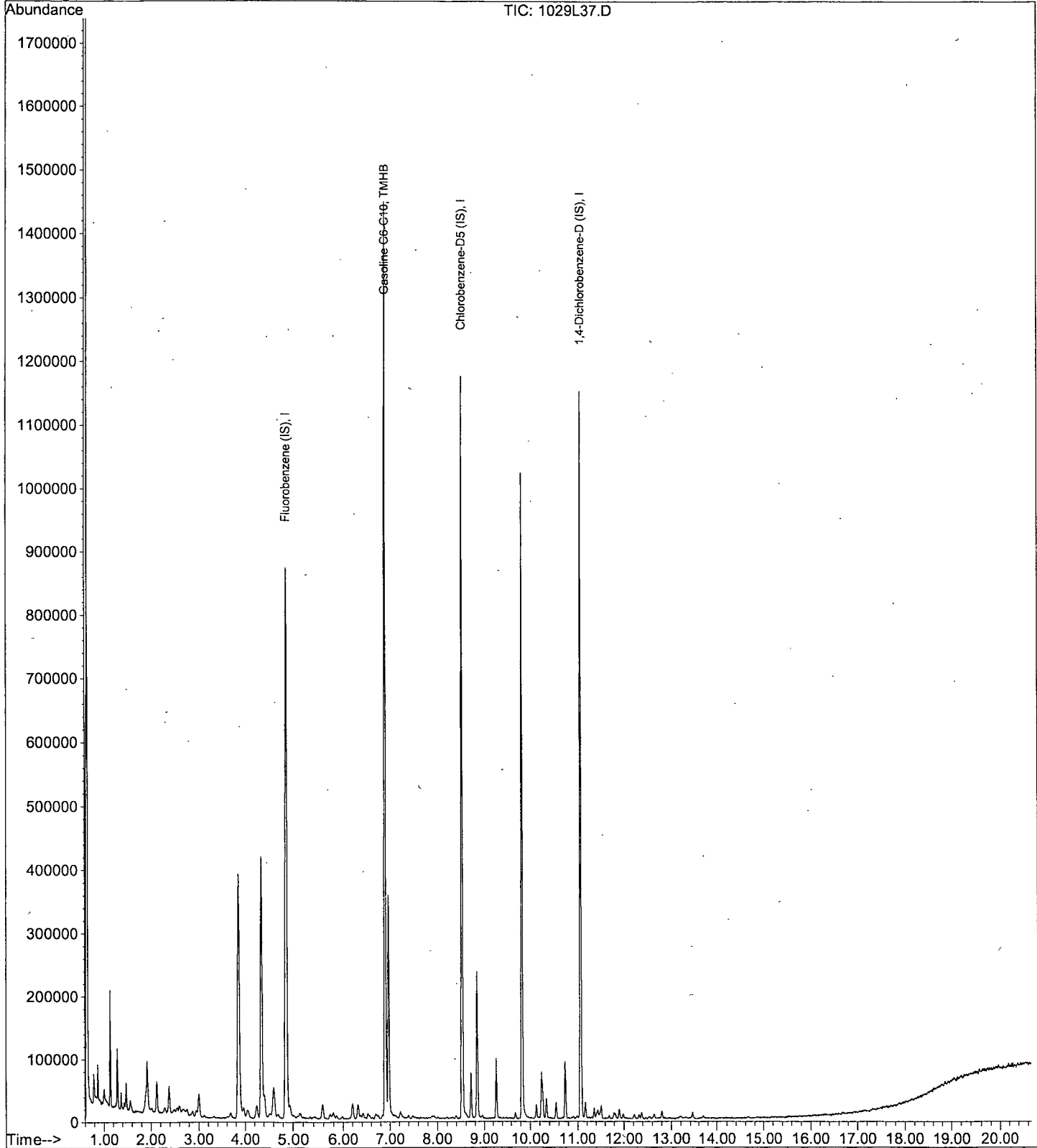
Data File : M:\LOKI\DATA\181026\1029L37.D  
Acq On : 30 Oct 18 1:58  
Sample : Ending CCV 8260 300ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 32  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:52 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:46:13 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Loki  
Initial Cal. Date: 10/29/18  
Data File: 1030L06.D

	Compound	MEAN	CCRF	%D	%Drift
1	I Fluorobenzene (IS)	ISTD			I
2	TMHB Gasoline C6-C10	3.760	1.290	66	TMHBL 4.7
3	I Chlorobenzene-D5 (IS)	ISTD			I
4	I 1,4-Dichlorobenzene-D (IS)	ISTD			I
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
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30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40	Average			66.0	

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Loki  
Initial Cal. Date: 10/26/18  
Data File: 1030L06.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	SL	Dibromofluoromethane(S)	0.7974	0.7558	5.2	SL	11
3	SL	1,2-DCA-D4(S)	0.8500	0.8587	1.0	SL	17
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	SL	Toluene-D8(S)	2.655	2.425	8.7	SL	1.7
6	S	4-Bromofluorobenzene(S)	0.8129	0.7838	3.6	S	
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
8							
9							
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16							
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40							

Average

4.6



Data File : M:\LOKI\DATA\181026\1030L06.D Vial: 5  
 Acq On : 30 Oct 18 10:57 Operator: PM, DG, SV, CMM, KV  
 Sample : 181030A CCV 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 31 8:39 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\181026\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:46:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	882662	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1176039	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1152065	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	13660393m	314.2327	ppb	100

Data File : M:\LOKI\DATA\181026\1030L06.D Vial: 5  
 Acq On : 30 Oct 18 10:57 Operator: PM, DG, SV, CMM, KV  
 Sample : 181030A CCV 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 31 8:54 2018 Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	423680	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	410560	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	201152	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.85	111	320234	27.7084	ppb	0.00
Spiked Amount	25.000					
					Recovery = 110.832%	
3) 1,2-DCA-D4(S)	4.35	65	363811	29.2053	ppb	0.00
Spiked Amount	25.000					
					Recovery = 116.820%	
5) Toluene-D8(S)	6.90	98	995549	25.4126	ppb	0.00
Spiked Amount	25.000					
					Recovery = 101.652%	
6) 4-Bromofluorobenzene(S)	9.83	95	321794	24.1055	ppb	0.00
Spiked Amount	25.000					
					Recovery = 96.420%	

Target Compounds Qvalue

Quantitation Report

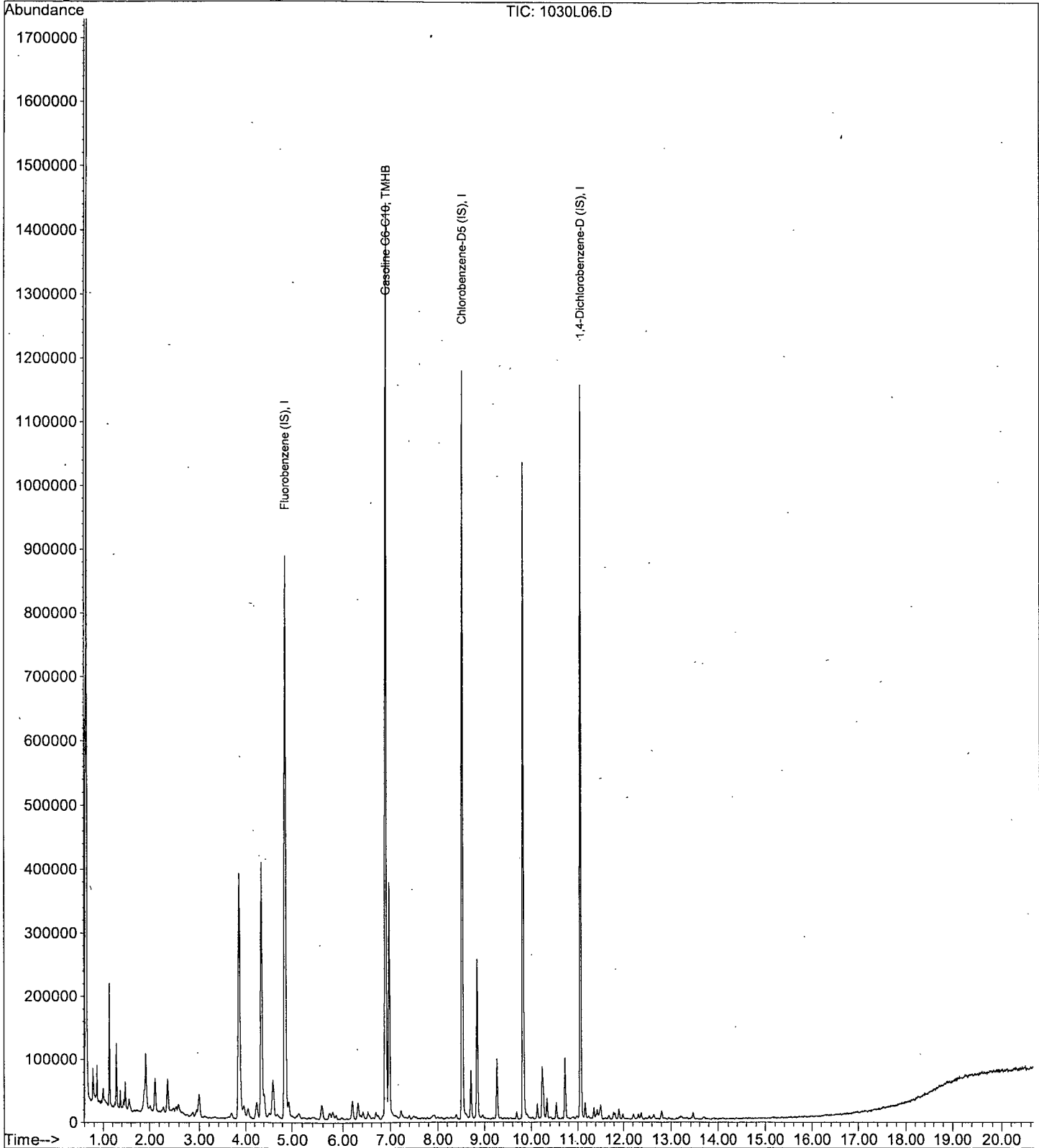
Data File : M:\LOKI\DATA\181026\1030L06.D  
Acq On : 30 Oct 18 10:57  
Sample : 181030A CCV 300ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 5  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 31 8:39 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\181026\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:46:13 2018  
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/30/18

Matrix: \_\_\_\_\_

Instrument: Loki

Initial Cal. Date: 10/29/18

Data File: 1030L26.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	3.760	1.231	67	TMHBL	11
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
6							
7							
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37							
38							
39							
40							

Average

67.0

VOLATILE ORGANIC ANALYSIS  
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: Loki  
Initial Cal. Date: 10/26/18  
Data File: 1030L26.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	SL	Dibromofluoromethane(S)	0.7974	0.7689	3.6	SL	13
3	SL	1,2-DCA-D4(S)	0.8500	0.8504	0.05	SL	16
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	SL	Toluene-D8(S)	2.655	2.238	16	SL	6.2
6	S	4-Bromofluorobenzene(S)	0.8129	0.7496	7.8	S	
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
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32							
33							
34							
35							
36							
37							
38							
39							
40		Average			6.9		

Data File : M:\LOKI\DATA\181026\1030L26.D Vial: 25  
 Acq On : 30 Oct 18 20:26 Operator: PM, DG, SV, CMM, KV  
 Sample : Ending CCV 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 31 8:49 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\181026\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:46:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	919759	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1230232	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1223928	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	13587998m	266.2403	ppb	100

Data File : M:\LOKI\DATA\181026\1030L26.D Vial: 25  
 Acq On : 30 Oct 18 20:26 Operator: PM,DG,SV,CMM,KV  
 Sample : Ending CCV 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 31 8:54 2018 Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	440896	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	428096	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	215744	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.85	111	339008	28.2464	ppb	0.00
Spiked Amount	25.000		Recovery	=	112.984%	
3) 1,2-DCA-D4(S)	4.35	65	374933	28.8808	ppb	0.00
Spiked Amount	25.000		Recovery	=	115.524%	
5) Toluene-D8(S)	6.90	98	957896	23.4499	ppb	0.00
Spiked Amount	25.000		Recovery	=	93.800%	
6) 4-Bromofluorobenzene(S)	9.83	95	320883	23.0526	ppb	0.00
Spiked Amount	25.000		Recovery	=	92.212%	

Target Compounds Qvalue

Quantitation Report

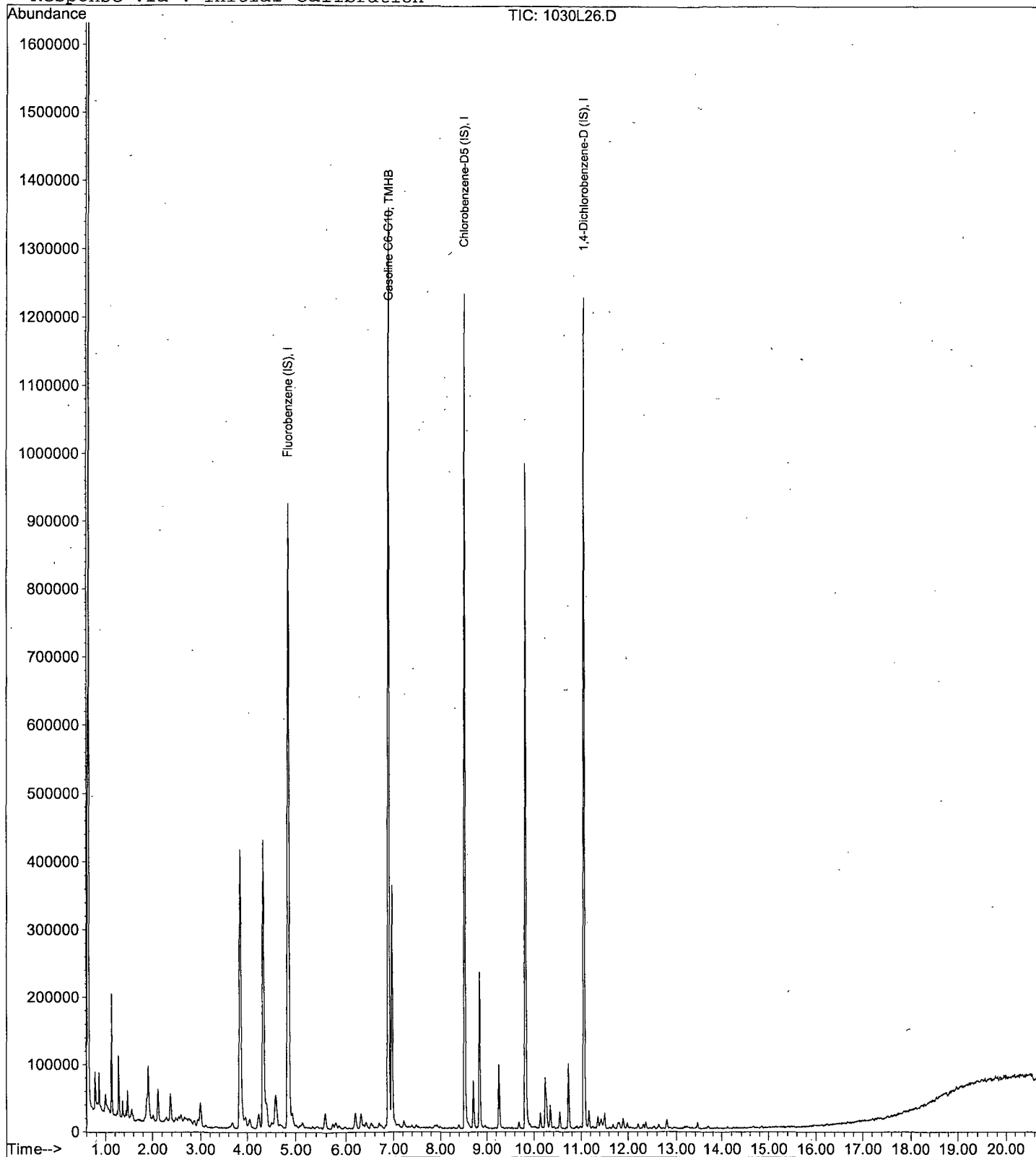
Data File : M:\LOKI\DATA\181026\1030L26.D  
Acq On : 30 Oct 18 20:26  
Sample : Ending CCV 300ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 25  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 31 8:49 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\181026\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:46:13 2018  
Response via : Initial Calibration





**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : M:\LOKI\DATA\181026\1029L28.D Vial: 23  
Acq On : 29 Oct 18 21:42 Operator: PM,DG,SV,CMM,KV  
Sample : AZ81837W01 Inst : Loki  
Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:19 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration  
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	856016	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1142778	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1038707	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181026\1029L28.D Vial: 23  
 Acq On : 29 Oct 18 21:42 Operator: PM, DG, SV, CMM, KV  
 Sample : AZ81837W01 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 30 9:14 2018 Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.86	96	410304	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	398144	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	183872	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
2) Dibromofluoromethane (S)	3.85	111	321849	28.8849	ppb	0.00
Spiked Amount				25.000		
				Recovery	= 115.540%	
3) 1,2-DCA-D4 (S)	4.35	65	365366	30.4474	ppb	0.00
Spiked Amount				25.000		
				Recovery	= 121.788%	
5) Toluene-D8 (S)	6.90	98	938382	24.7003	ppb	0.00
Spiked Amount				25.000		
				Recovery	= 98.800%	
6) 4-Bromofluorobenzene (S)	9.83	95	286869	22.1594	ppb	0.00
Spiked Amount				25.000		
				Recovery	= 88.636%	

Target Compounds Qvalue

Quantitation Report

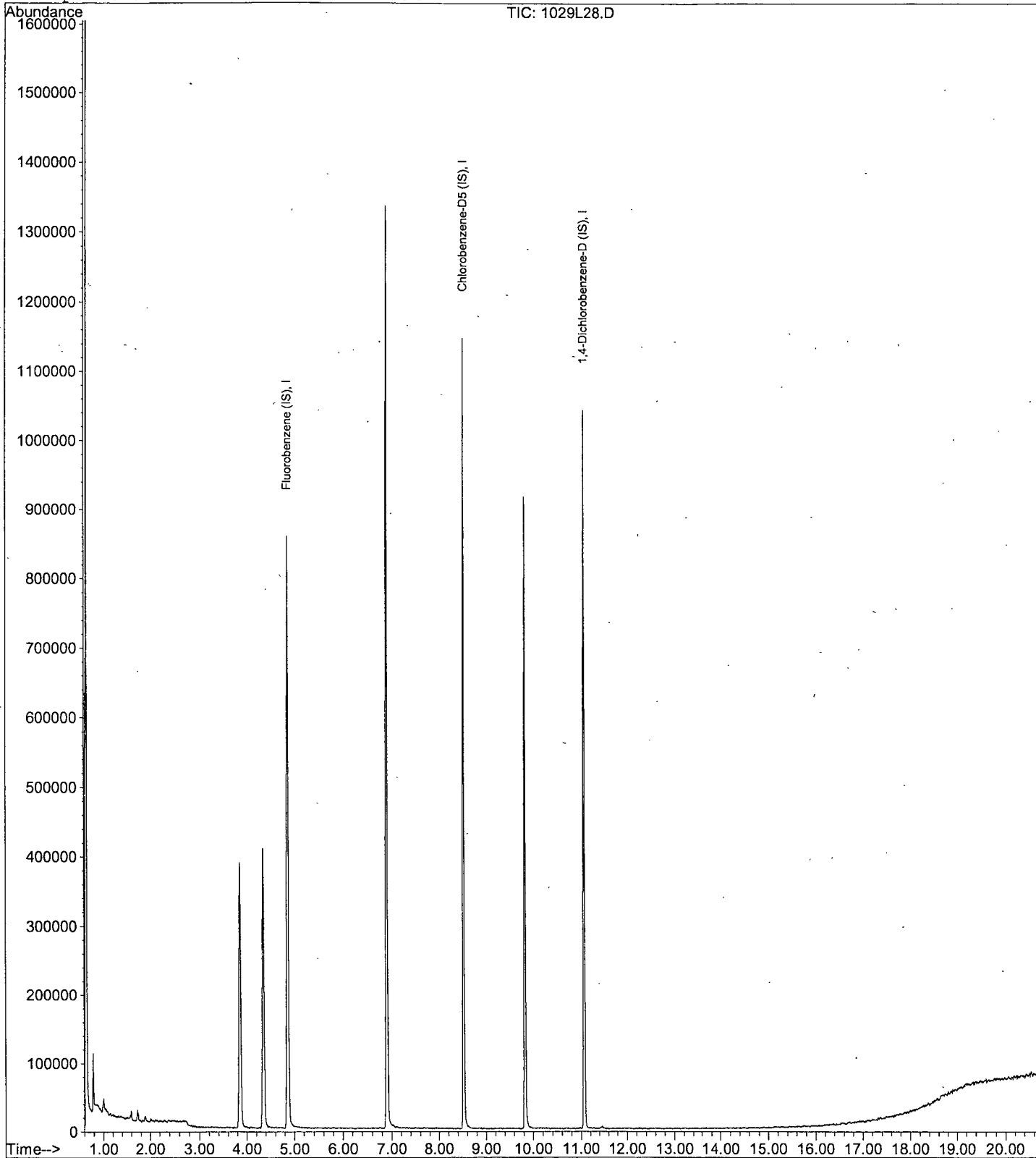
Data File : M:\LOKI\DATA\181026\1029L28.D  
Acq On : 29 Oct 18 21:42  
Sample : AZ81837W01  
Misc : IS&S 9/28/18, 8/23/18

Vial: 23  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:19 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1030L14.D Vial: 13  
 Acq On : 30 Oct 18 14:44 Operator: PM, DG, SV, CMM, KV  
 Sample : AZ81838W02 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 31 8:46 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\181026\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:46:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	844439	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1183972	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1085949	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181026\1030L14.D  
 Acq On : 30 Oct 18 14:44  
 Sample : AZ81838W02  
 Misc : IS&S 9/28/18,8/23/18

Vial: 13  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 31 7:36 2018

Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Wed Oct 31 07:35:53 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	404160	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	417792	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	191616	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.85	111	314137	28.5902	ppb	0.00
Spiked Amount 25.000						
					Recovery = 114.360%	
3) 1,2-DCA-D4(S)	4.35	65	348541	29.3496	ppb	0.00
Spiked Amount 25.000						
					Recovery = 117.400%	
5) Toluene-D8(S)	6.90	98	902454	22.6375	ppb	0.00
Spiked Amount 25.000						
					Recovery = 90.548%	
6) 4-Bromofluorobenzene(S)	9.83	95	286176	21.8009	ppb	0.00
Spiked Amount 25.000						
					Recovery = 87.204%	

Target Compounds Qvalue

Quantitation Report

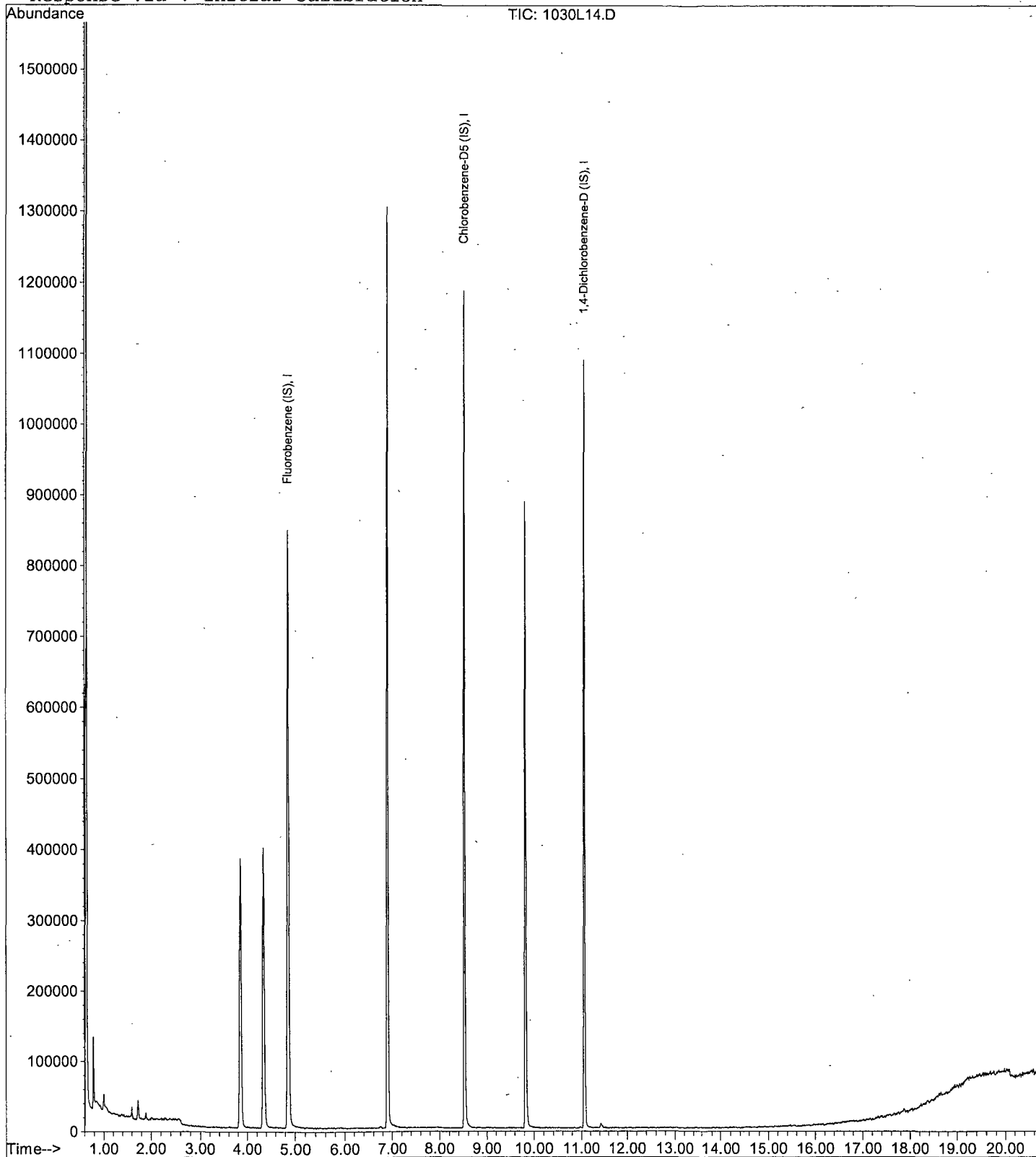
Data File : M:\LOKI\DATA\181026\1030L14.D  
Acq On : 30 Oct 18 14:44  
Sample : AZ81838W02  
Misc : IS&S 9/28/18,8/23/18

Vial: 13  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 31 8:46 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\181026\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:46:13 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L30.D Vial: 25  
 Acq On : 29 Oct 18 22:39 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81839W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:20 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:05:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	814663	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1106497	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1053151	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue



Data File : M:\LOKI\DATA\181026\1029L30.D Vial: 25  
 Acq On : 29 Oct 18 22:39 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81839W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 9:14 2018 Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.86	96	394880	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	382848	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	184192	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
2) Dibromofluoromethane (S)	3.86	111	327681	30.7545	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	123.016%
3) 1,2-DCA-D4 (S)	4.35	65	366624	31.9312	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	127.724%
5) Toluene-D8 (S)	6.90	98	951137	26.0364	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	104.144%
6) 4-Bromofluorobenzene (S)	9.83	95	290439	23.3315	ppb	0.00
Spiked Amount				25.000		
				Recovery	=	93.328%

Target Compounds Qvalue

Quantitation Report

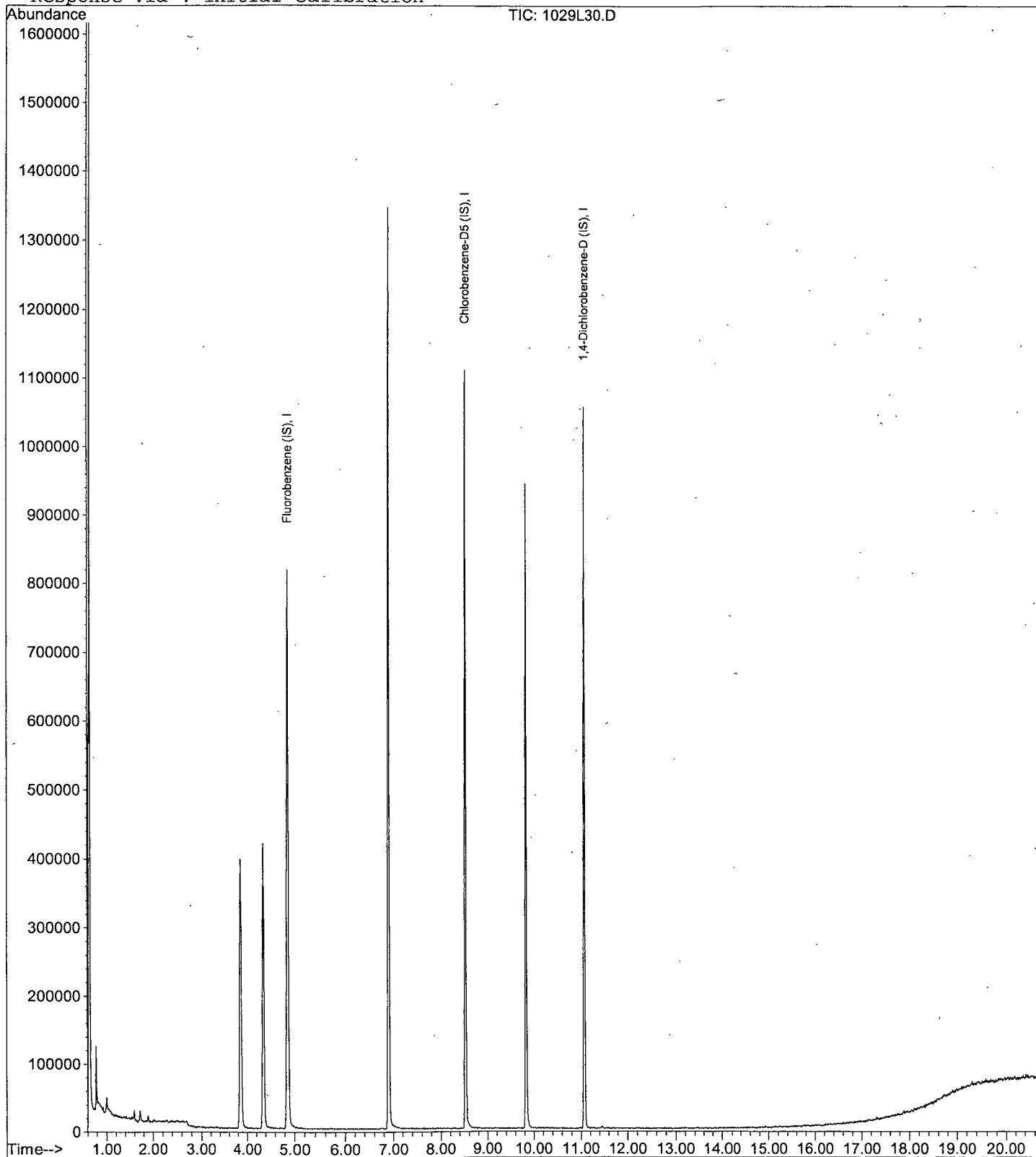
Data File : M:\LOKI\DATA\181026\1029L30.D  
Acq On : 29 Oct 18 22:39  
Sample : AZ81839W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 25  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:20 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L31.D Vial: 26  
 Acq On : 29 Oct 18 23:08 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81840W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:20 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:05:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	811480	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1090056	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	987243	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181026\1029L31.D Vial: 26  
 Acq On : 29 Oct 18 23:08 Operator: PM, DG, SV, CMM, KV  
 Sample : AZ81840W01 Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 30 9:14 2018 Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Fluorobenzene (IS)	4.86	96	390976	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	379520	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	171840	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane (S)	3.86	111	320988	30.3908	ppb	0.00
Spiked Amount	25.000		Recovery	=	121.564%	
3) 1,2-DCA-D4 (S)	4.35	65	354214	31.0531	ppb	0.00
Spiked Amount	25.000		Recovery	=	124.212%	
5) Toluene-D8 (S)	6.90	98	901876	24.9044	ppb	0.00
Spiked Amount	25.000		Recovery	=	99.616%	
6) 4-Bromofluorobenzene (S)	9.83	95	280734	22.7497	ppb	0.00
Spiked Amount	25.000		Recovery	=	91.000%	

Target Compounds Qvalue

Quantitation Report

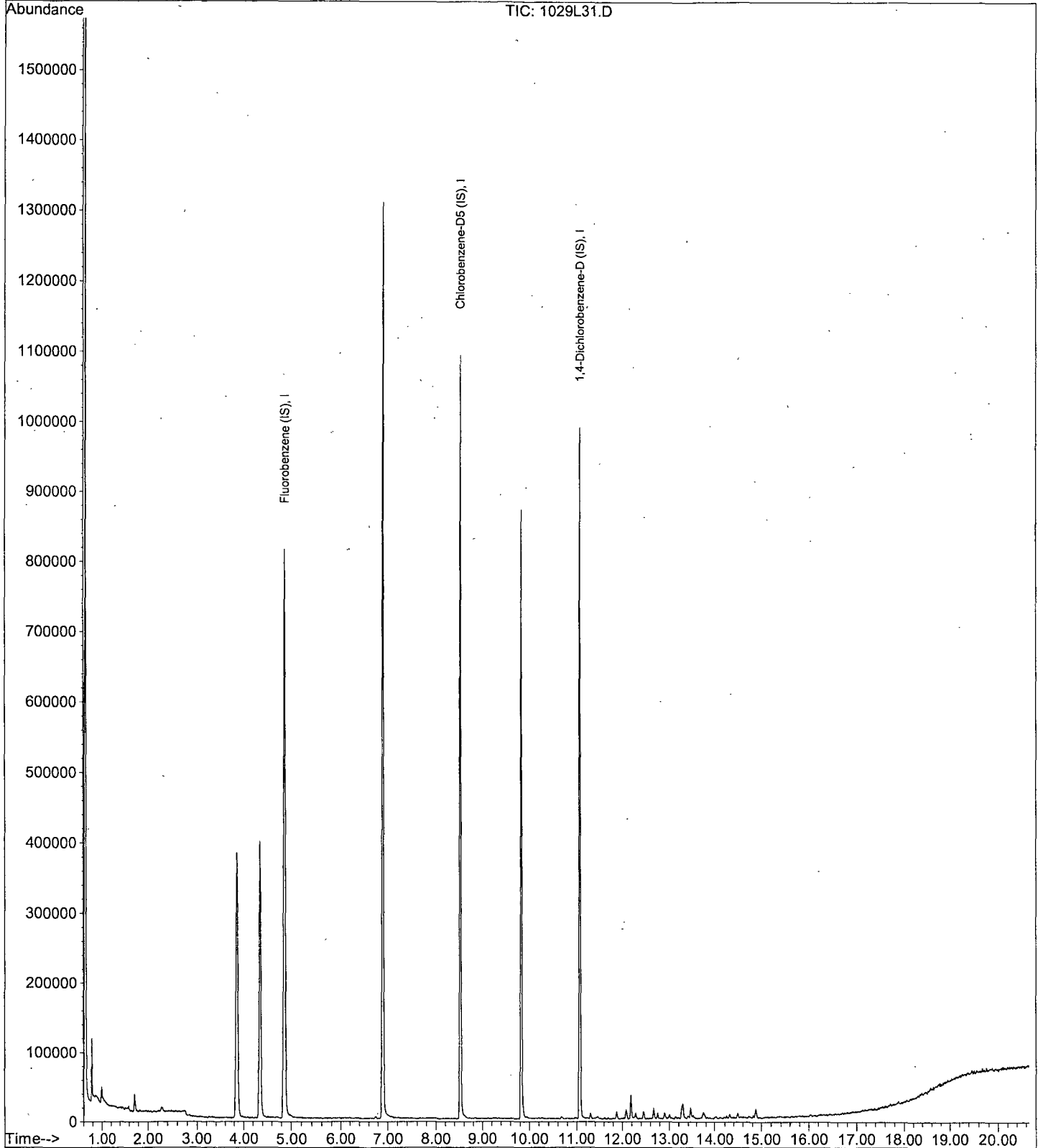
Data File : M:\LOKI\DATA\181026\1029L31.D  
Acq On : 29 Oct 18 23:08  
Sample : AZ81840W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 26  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:20 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L32.D Vial: 27  
 Acq On : 29 Oct 18 23:36 Operator: PM,DG,SV,CMM,KV  
 Sample : AZ81841W01 Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:20 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:05:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	798941	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1079220	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	995487	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181026\1029L32.D  
 Acq On : 29 Oct 18 23:36  
 Sample : AZ81841W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 27  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 9:14 2018

Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	381248	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	374208	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	174400	25.0000	ppb	0.00
<b>System Monitoring Compounds</b>						
2) Dibromofluoromethane(S)	3.85	111	310197	30.0879	ppb	0.00
Spiked Amount	25.000					
					Recovery = 120.352%	
3) 1,2-DCA-D4(S)	4.35	65	348906	31.4124	ppb	0.00
Spiked Amount	25.000					
					Recovery = 125.648%	
5) Toluene-D8(S)	6.90	98	894962	25.0643	ppb	0.00
Spiked Amount	25.000					
					Recovery = 100.256%	
6) 4-Bromofluorobenzene(S)	9.83	95	274675	22.5746	ppb	0.00
Spiked Amount	25.000					
					Recovery = 90.300%	

Target Compounds Qvalue

Quantitation Report

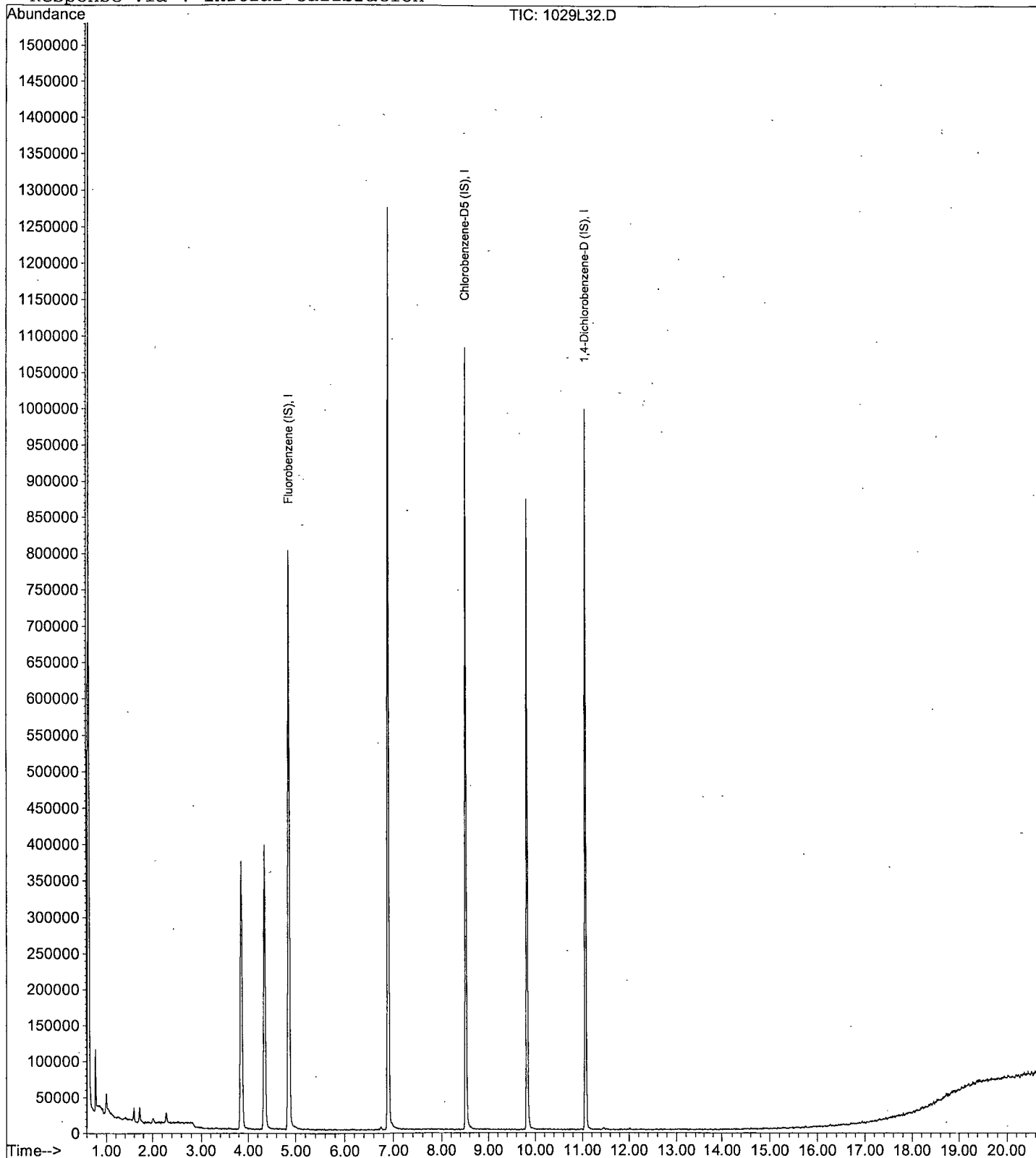
Data File : M:\LOKI\DATA\181026\1029L32.D  
Acq On : 29 Oct 18 23:36  
Sample : AZ81841W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 27  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:20 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181026\1029L33.D  
Acq On : 30 Oct 18 00:04  
Sample : AZ81842W01  
Misc : IS&S 9/28/18, 8/23/18

Vial: 28  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:20 2018

Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration  
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	816606	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1111565	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1021671	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds

Qvalue

Data File : M:\LOKI\DATA\181026\1029L33.D  
 Acq On : 30 Oct 18 00:04  
 Sample : AZ81842W01  
 Misc : IS&S 9/28/18,8/23/18

Vial: 28  
 Operator: PM,DG,SV,CMM,KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 9:14 2018

Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	390464	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	392064	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	180032	25.0000	ppb	0.00

System Monitoring Compounds

2) Dibromofluoromethane(S)	3.86	111	332734	31.6737	ppb	0.00
Spiked Amount				25.000		
					Recovery = 126.696%	
3) 1,2-DCA-D4(S)	4.35	65	368910	32.5703	ppb	0.00
Spiked Amount				25.000		
					Recovery = 130.280%	
5) Toluene-D8(S)	6.90	98	968845	25.8977	ppb	0.00
Spiked Amount				25.000		
					Recovery = 103.592%	
6) 4-Bromofluorobenzene(S)	9.83	95	291940	22.9008	ppb	0.00
Spiked Amount				25.000		
					Recovery = 91.604%	

Target Compounds

Qvalue

Quantitation Report

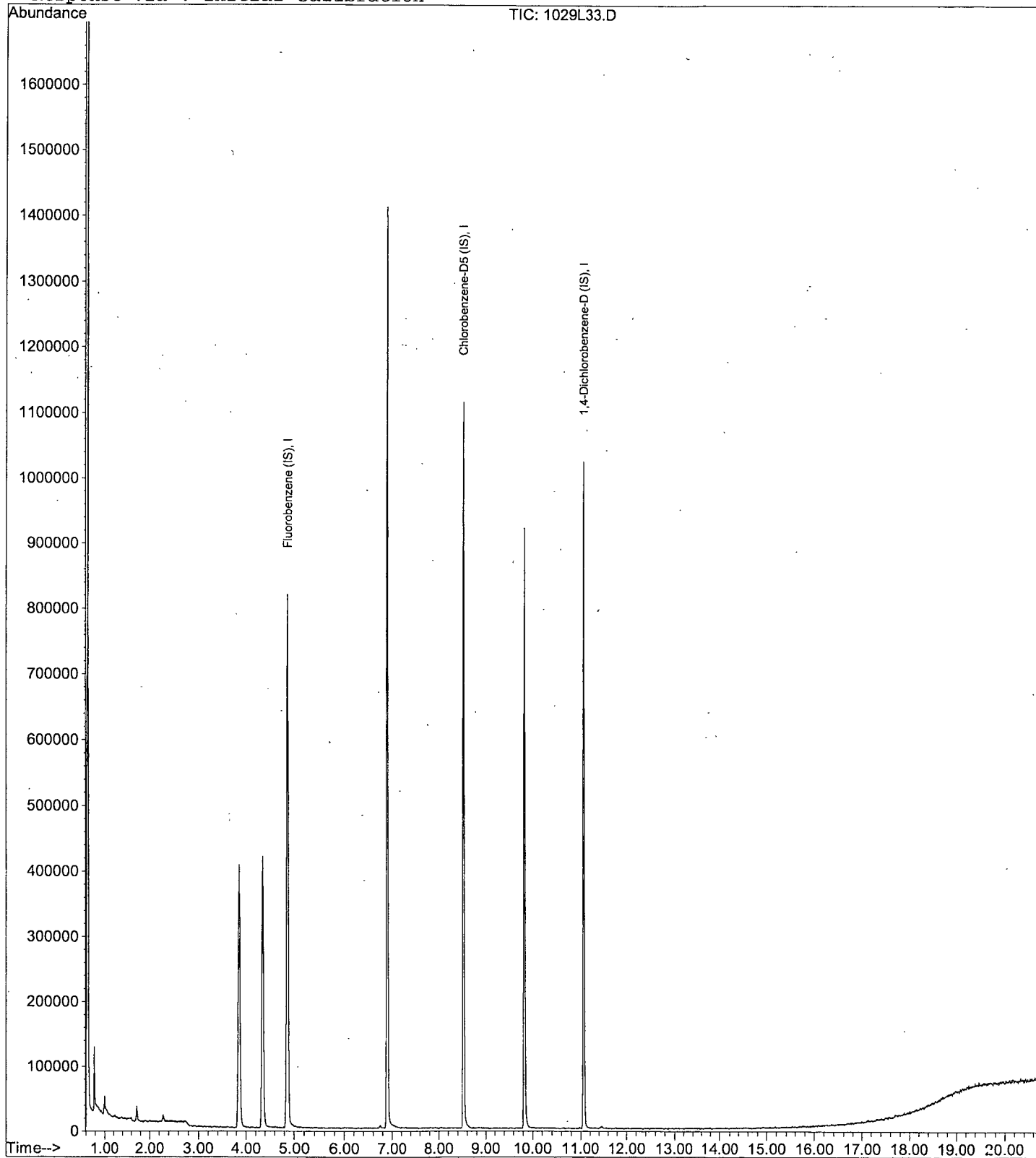
Data File : M:\LOKI\DATA\181026\1029L33.D  
Acq On : 30 Oct 18 00:04  
Sample : AZ81842W01  
Misc : IS&S 9/28/18,8/23/18

Vial: 28  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:20 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct. 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L21.D Vial: 16  
 Acq On : 29 Oct 18 18:23 Operator: PM,DG,SV,CMM,KV  
 Sample : 181029A BLK Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:18 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:05:14 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	927190	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1169042	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1173707	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

Data File : M:\LOKI\DATA\181026\1029L21.D Vial: 16  
 Acq On : 29 Oct 18 18:23 Operator: PM,DG,SV,CMM,KV  
 Sample : 181029A BLK Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 9:14 2018 Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	444416	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	409664	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	204480	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.85	111	345802	28.6250	ppb	0.00
Spiked Amount	25.000					
					Recovery = 114.500%	
3) 1,2-DCA-D4(S)	4.35	65	378966	28.9722	ppb	0.00
Spiked Amount	25.000					
					Recovery = 115.888%	
5) Toluene-D8(S)	6.90	98	970025	24.8152	ppb	0.00
Spiked Amount	25.000					
					Recovery = 99.260%	
6) 4-Bromofluorobenzene(S)	9.83	95	305500	22.9350	ppb	0.00
Spiked Amount	25.000					
					Recovery = 91.740%	

Target Compounds Qvalue

Quantitation Report

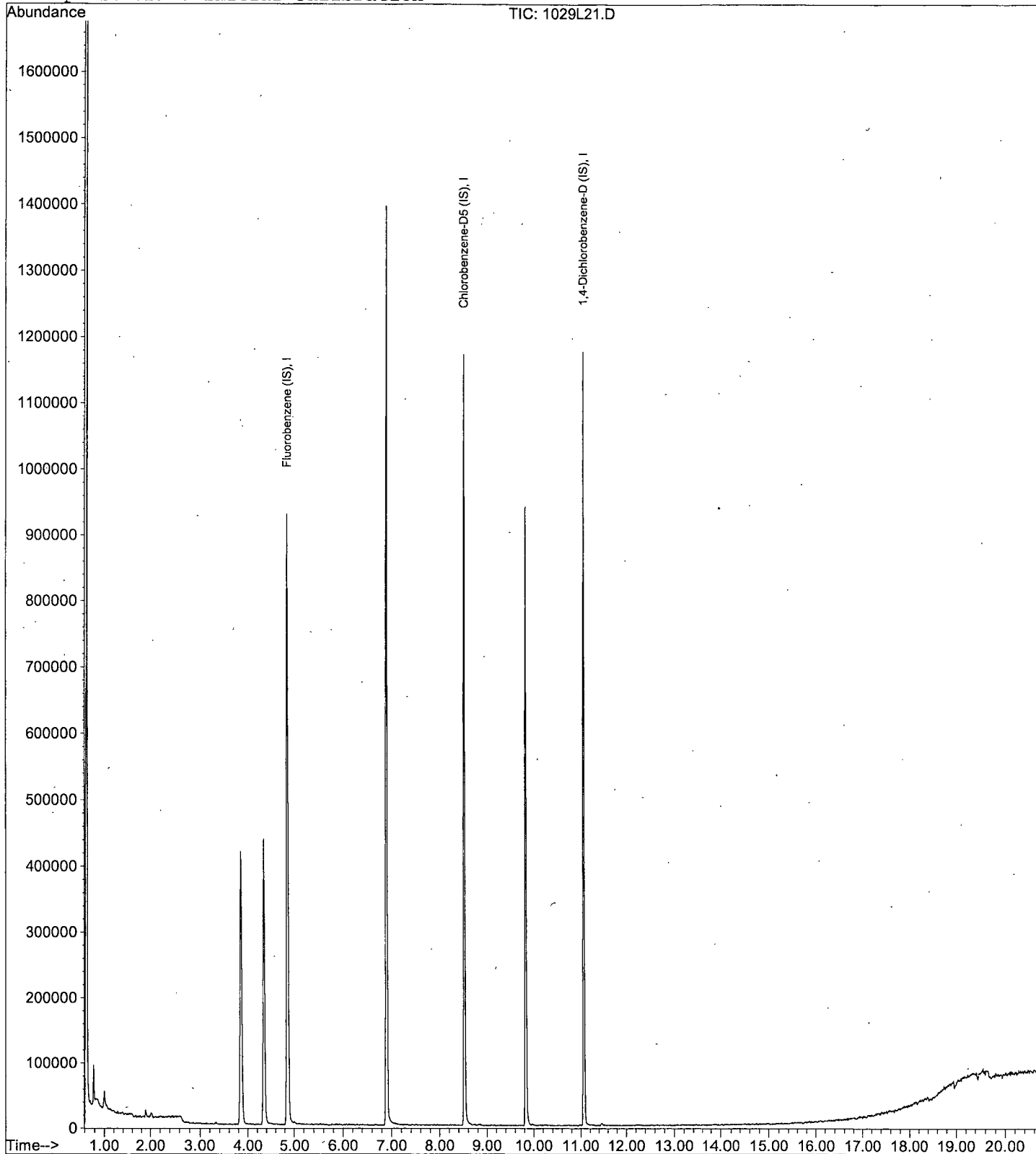
Data File : M:\LOKI\DATA\181026\1029L21.D  
Acq On : 29 Oct 18 18:23  
Sample : 181029A BLK  
Misc : IS&S 9/28/18,8/23/18

Vial: 16  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:18 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:05:14 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1030L12.D Vial: 11  
 Acq On : 30 Oct 18 13:48 Operator: PM, DG, SV, CMM, KV  
 Sample : 181030A BLK Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 31 8:54 2018 Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	415680	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	403712	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	190720	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.86	111	309575	27.2515	ppb	0.00
Spiked Amount				25.000		
					Recovery = 109.008%	
3) 1,2-DCA-D4(S)	4.35	65	354617	28.9868	ppb	0.00
Spiked Amount				25.000		
					Recovery = 115.948%	
5) Toluene-D8(S)	6.90	98	910494	23.6357	ppb	0.00
Spiked Amount				25.000		
					Recovery = 94.544%	
6) 4-Bromofluorobenzene(S)	9.83	95	282058	21.4873	ppb	0.00
Spiked Amount				25.000		
					Recovery = 85.948%	

Target Compounds Qvalue

Quantitation Report

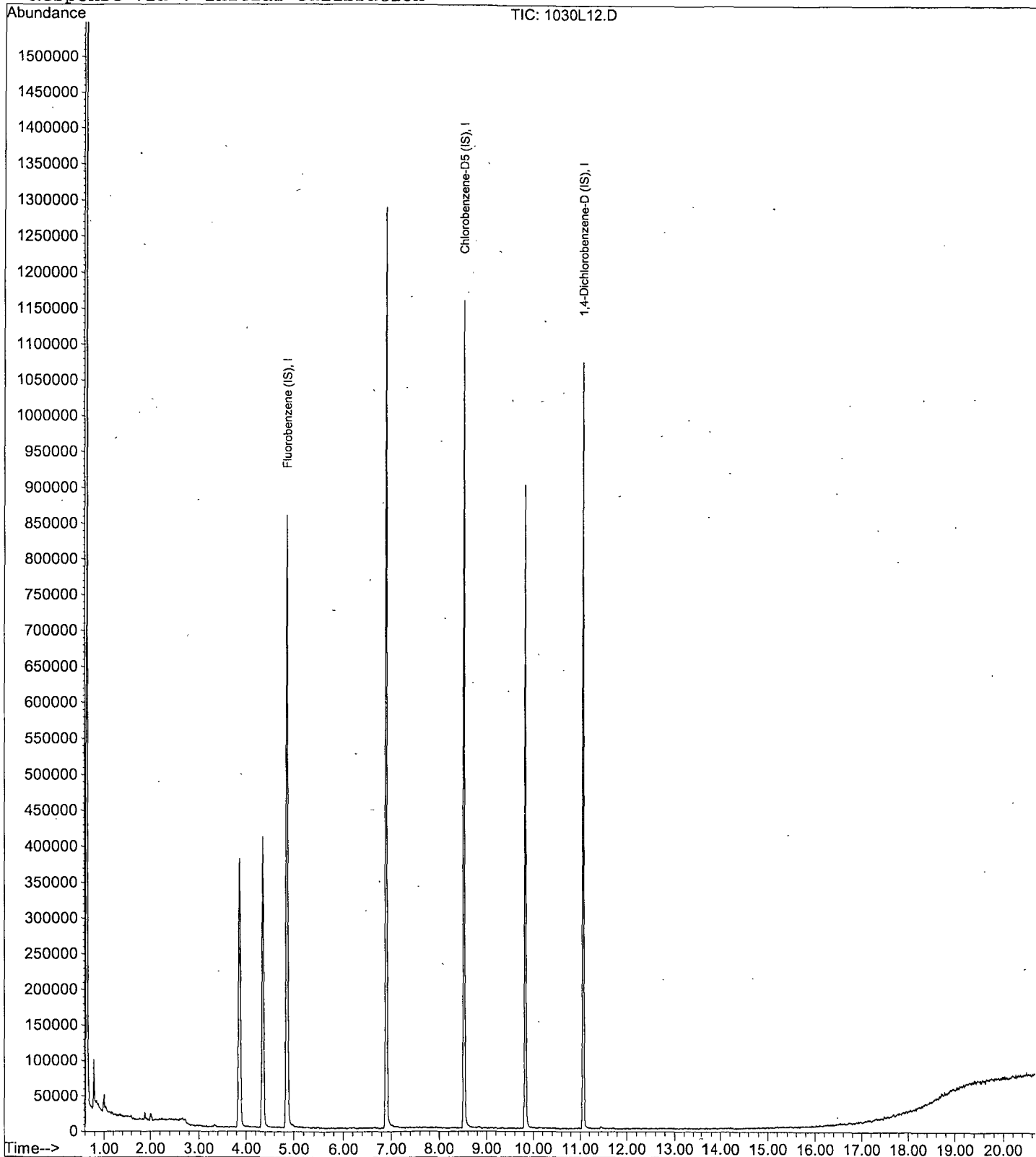
Data File : M:\LOKI\DATA\181026\1030L12.D  
Acq On : 30 Oct 18 13:48  
Sample : 181030A BLK  
Misc : IS&S 9/28/18,8/23/18

Vial: 11  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 31 8:45 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\181026\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:46:13 2018  
Response via : Initial Calibration





Data File : M:\LOKI\DATA\181026\1029L19.D Vial: 14  
 Acq On : 29 Oct 18 17:26 Operator: PM,DG,SV,CMM,KV  
 Sample : 181029A LCS 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:50 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:46:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	992331	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1295248	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1337612	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	15416156m	318.2567	ppb	100

Data File : M:\LOKI\DATA\181026\1029L19.D  
 Acq On : 29 Oct 18 17:26  
 Sample : 181029A LCS 300ug/L  
 Misc : IS&S 9/28/18, 8/23/18.

Vial: 14  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 30 9:14 2018

Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	482880	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	451776	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	240960	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	3.86	111	362305	27.4803	ppb	0.00
Spiked Amount	25.000					
					Recovery = 109.920%	
3) 1,2-DCA-D4(S)	4.35	65	396806	27.7616	ppb	0.00
Spiked Amount	25.000					
					Recovery = 111.048%	
5) Toluene-D8(S)	6.90	98	1108503	25.7144	ppb	0.00
Spiked Amount	25.000					
					Recovery = 102.856%	
6) 4-Bromofluorobenzene(S)	9.83	95	362595	24.6839	ppb	0.00
Spiked Amount	25.000					
					Recovery = 98.736%	

Target Compounds

Qvalue

Quantitation Report

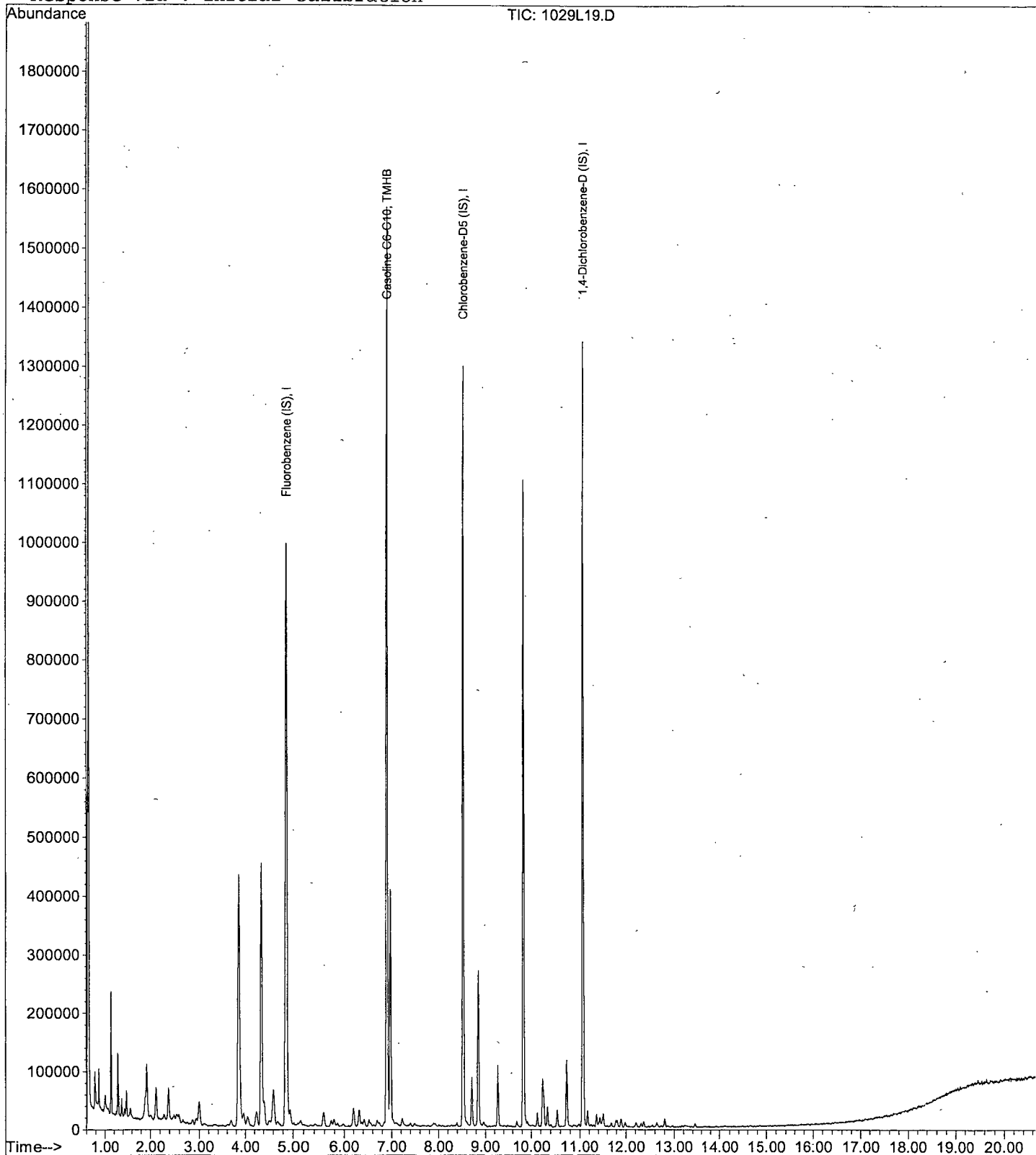
Data File : M:\LOKI\DATA\181026\1029L19.D  
Acq On : 29 Oct 18 17:26  
Sample : 181029A LCS 300ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 14  
Operator: PM,DG,SV,CMM,KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:50 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:46:13 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1029L20.D Vial: 15  
 Acq On : 29 Oct 18 17:55 Operator: PM, DG, SV, CMM, KV  
 Sample : 181029A LCSD 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 30 7:51 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:46:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	982488	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1290411	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1367207	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	15211837m	314.6845	ppb	100

Data File : M:\LOKI\DATA\181026\1029L20.D Vial: 15  
 Acq On : 29 Oct 18 17:55 Operator: PM,DG,SV,CMM,KV  
 Sample : 181029A LCSD 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18,8/23/18 Multiplr: 1.00

Quant Time: Oct 30 9:14 2018 Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	479872	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	447872	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	241536	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane (S)	3.85	111	353225	26.8949	ppb	0.00
Spiked Amount				25.000		
					Recovery = 107.580%	
3) 1,2-DCA-D4 (S)	4.35	65	389273	27.3494	ppb	0.00
Spiked Amount				25.000		
					Recovery = 109.396%	
5) Toluene-D8 (S)	6.90	98	1109087	25.9523	ppb	0.00
Spiked Amount				25.000		
					Recovery = 103.808%	
6) 4-Bromofluorobenzene (S)	9.83	95	344599	23.6633	ppb	0.00
Spiked Amount				25.000		
					Recovery = 94.652%	

Target Compounds Qvalue

Quantitation Report

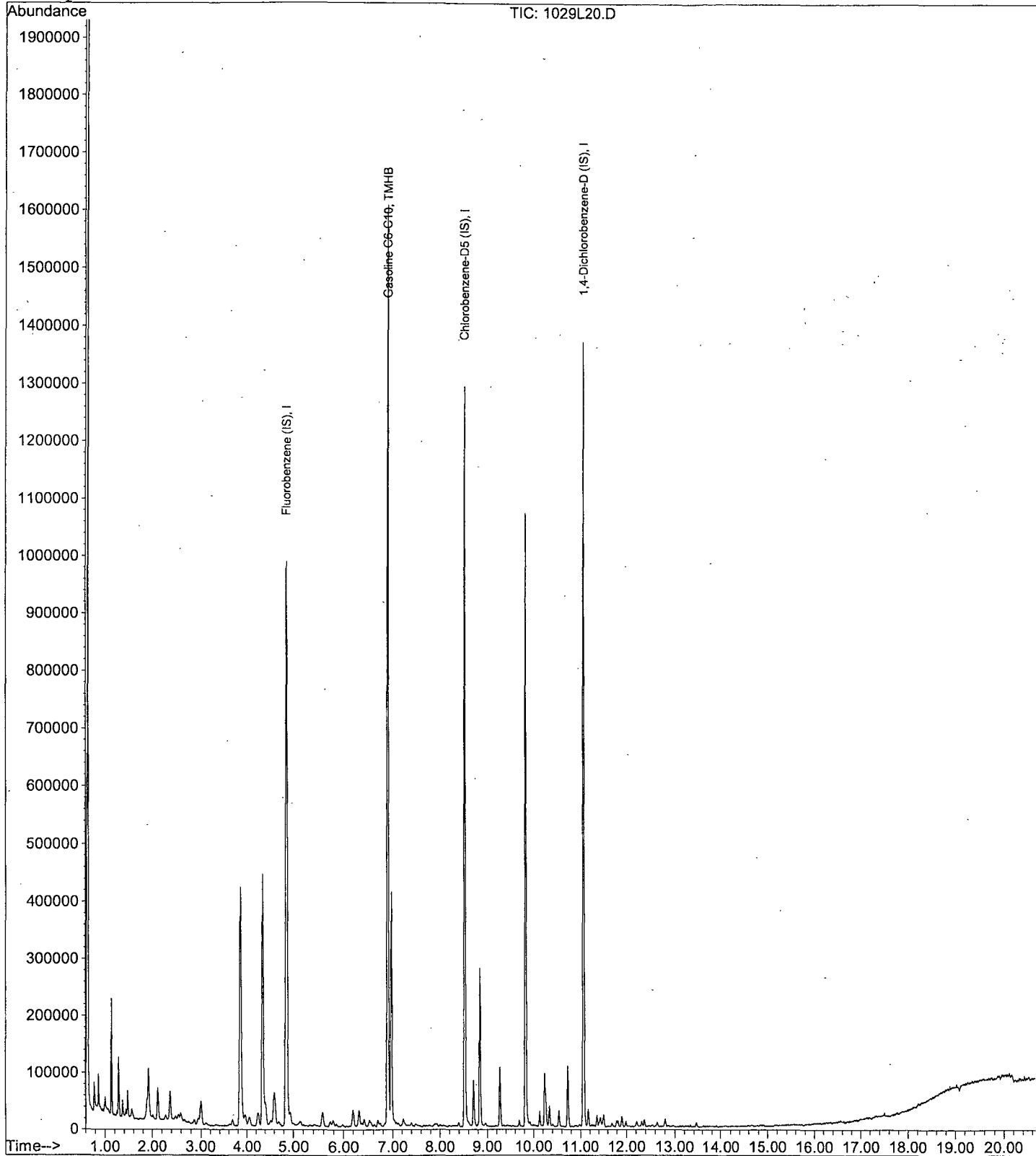
Data File : M:\LOKI\DATA\181026\1029L20.D  
Acq On : 29 Oct 18 17:55  
Sample : 181029A LCSD 300ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 15  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 30 7:51 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\180915\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:46:13 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1030L07.D Vial: 6  
 Acq On : 30 Oct 18 11:25 Operator: PM, DG, SV, CMM, KV  
 Sample : 181030A LCS 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 31 8:42 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\181026\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:46:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	894103	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1203988	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1188404	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	13918446m	320.4171	ppb	100

Data File : M:\LOKI\DATA\181026\1030L07.D  
 Acq On : 30 Oct 18 11:25  
 Sample : 181030A LCS 300ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 6  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 31 8:54 2018

Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	430656	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	417216	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	207488	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.86	111	316397	26.8374	ppb	0.00
Spiked Amount 25.000						
					Recovery = 107.348%	
3) 1,2-DCA-D4(S)	4.35	65	354906	27.8537	ppb	0.00
Spiked Amount 25.000						
					Recovery = 111.416%	
5) Toluene-D8(S)	6.90	98	976751	24.5350	ppb	0.00
Spiked Amount 25.000						
					Recovery = 98.140%	
6) 4-Bromofluorobenzene(S)	9.83	95	316667	23.3430	ppb	0.00
Spiked Amount 25.000						
					Recovery = 93.372%	

Target Compounds Qvalue



Quantitation Report

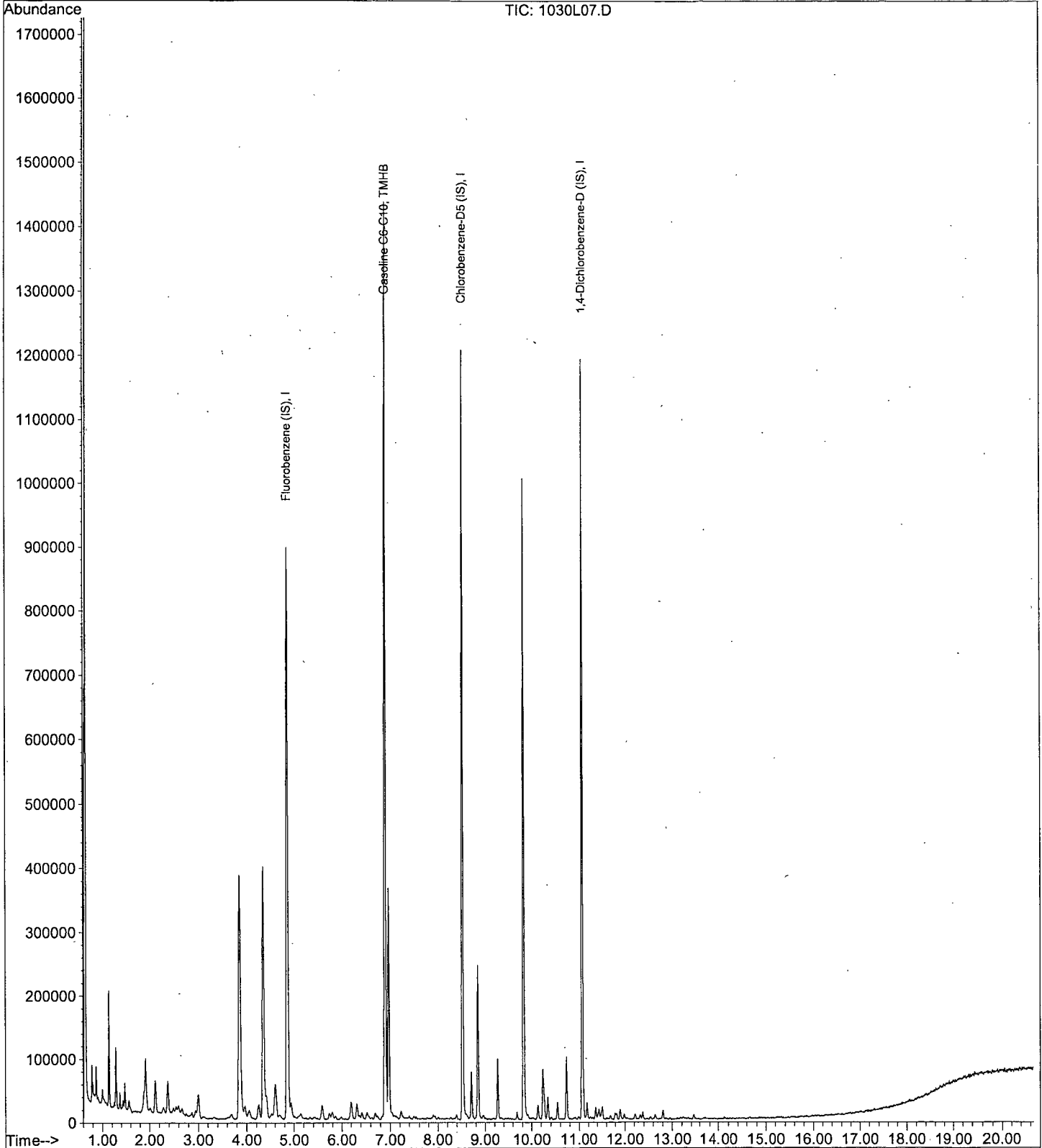
Data File : M:\LOKI\DATA\181026\1030L07.D  
Acq On : 30 Oct 18 11:25  
Sample : 181030A LCS 300ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 6  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 31 8:42 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\181026\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:46:13 2018  
Response via : Initial Calibration



Data File : M:\LOKI\DATA\181026\1030L08.D Vial: 7  
 Acq On : 30 Oct 18 11:54 Operator: PM, DG, SV, CMM, KV  
 Sample : 181030A LCSD 300ug/L Inst : Loki  
 Misc : IS&S 9/28/18, 8/23/18 Multiplr: 1.00

Quant Time: Oct 31 8:41 2018 Quant Results File: LGAS1029.RES

Quant Method : M:\LOKI\DATA\181026\LGAS1029.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Tue Oct 30 07:46:13 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	TIC	891702	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.52	TIC	1205351	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.07	TIC	1200205	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Gasoline C6-C10	6.90	TIC	13889496m	321.0623	ppb	100

Data File : M:\LOKI\DATA\181026\1030L08.D  
 Acq On : 30 Oct 18 11:54  
 Sample : 181030A LCSD 300ug/L  
 Misc : IS&S 9/28/18,8/23/18

Vial: 7  
 Operator: PM, DG, SV, CMM, KV  
 Inst : Loki  
 Multiplr: 1.00

Quant Time: Oct 31 8:54 2018

Quant Results File: LSUR1026.RES

Quant Method : M:\LOKI\DATA\181026\LSUR1026.M (RTE Integrator)  
 Title : METHOD 8260B  
 Last Update : Mon Oct 29 06:47:10 2018  
 Response via : Initial Calibration  
 DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	4.86	96	431296	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.52	117	418240	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.07	152	211072	25.0000	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Dibromofluoromethane(S)	3.85	111	319467	27.0856	ppb	0.00
Spiked Amount 25.000						
					Recovery = 108.344%	
3) 1,2-DCA-D4(S)	4.35	65	362268	28.4729	ppb	0.00
Spiked Amount 25.000						
					Recovery = 113.892%	
5) Toluene-D8(S)	6.90	98	979629	24.5471	ppb	0.00
Spiked Amount 25.000						
					Recovery = 98.188%	
6) 4-Bromofluorobenzene(S)	9.83	95	315390	23.1919	ppb	0.00
Spiked Amount 25.000						
					Recovery = 92.768%	

Target Compounds Qvalue

Quantitation Report

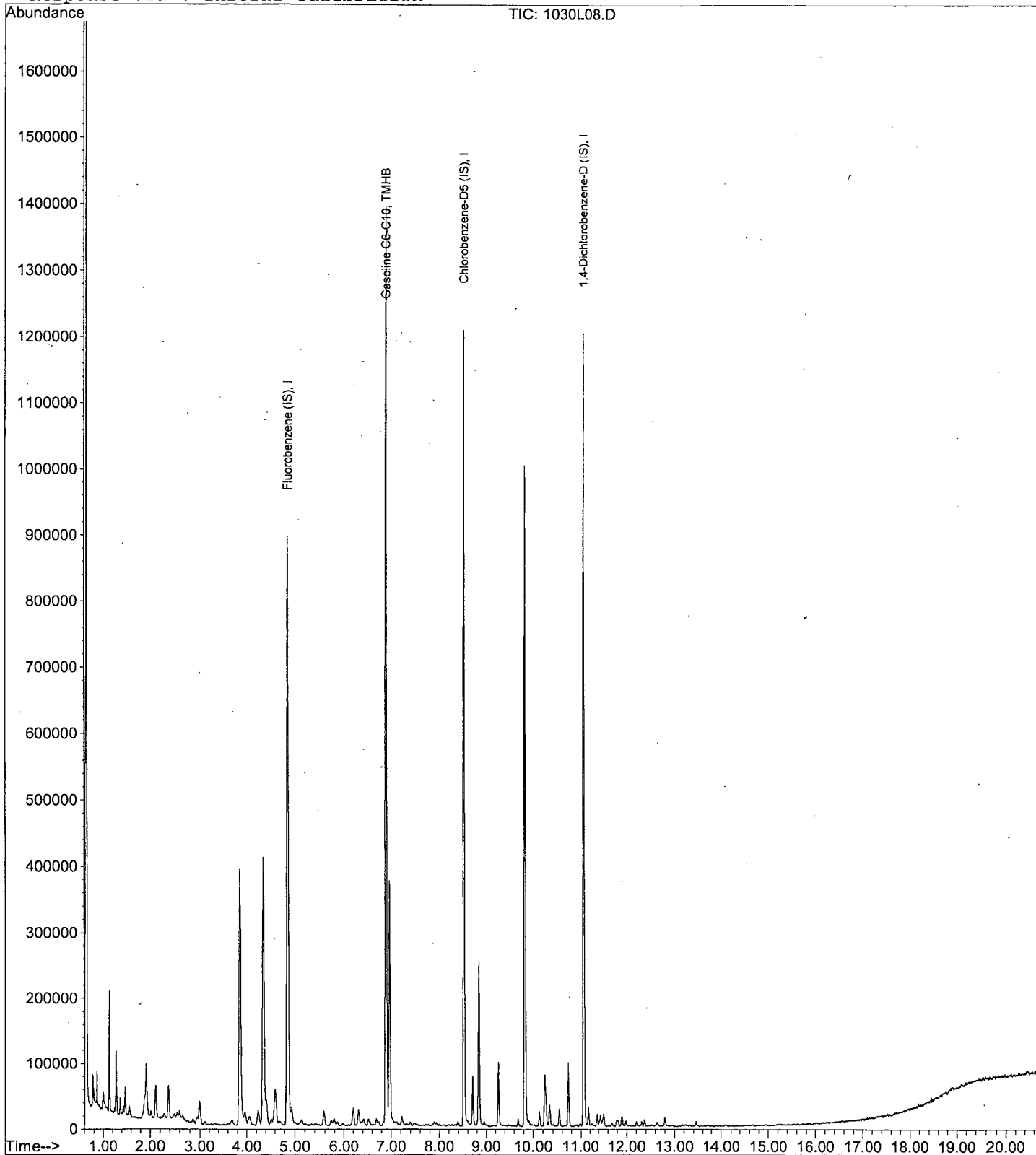
Data File : M:\LOKI\DATA\181026\1030L08.D  
Acq On : 30 Oct 18 11:54  
Sample : 181030A LCSD 300ug/L  
Misc : IS&S 9/28/18,8/23/18

Vial: 7  
Operator: PM, DG, SV, CMM, KV  
Inst : Loki  
Multiplr: 1.00

Quant Time: Oct 31 8:41 2018

Quant Results File: LGAS1029.RES

Method : M:\LOKI\DATA\181026\LGAS1029.M (RTE Integrator)  
Title : METHOD 8260B  
Last Update : Tue Oct 30 07:46:13 2018  
Response via : Initial Calibration



### Loki Gas Standard Prep

Gas Primary Working Standard										
Prepared: 09/11/18						Prepared By (Initials): <u>CMM</u>				
Expires: 04/27/19										
Methanol Lot No. 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
50,000ug/mL Gas STD	Restek	30205	50,000	A092370-36126	04/27/19	01/31/20	80uL	2mL	Methanol	2,000
Gas Second Source (SS) Working Standard										
Prepared: 04/27/18						Prepared By (Initials): <u>PC</u>				
Expires: 04/27/19										
Methanol Lot No. 57159										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Gasoline (5,000ppm)	O2SI	020246-06	5,000	G34-325261-38383	04/27/19	07/23/20	200uL	500uL	Methanol	2,000
Loki Gas Calibration Curve										
Prepared: 10/29/18						Prepared By (Initials): <u>PC</u>				
Expires: 12/28/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA Gasses Standards	Phenova	20ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	1uL	100mL	P&T Water	20
VOA Gasses Standards	Phenova	50ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	2.5uL	100mL	P&T Water	50
VOA Gasses Standards	Phenova	100ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	5uL	100mL	P&T Water	100
VOA Gasses Standards	Phenova	300ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	15uL	100mL	P&T Water	300
VOA Gasses Standards	Phenova	600ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	30uL	100mL	P&T Water	600
VOA Gasses Standards	Phenova	800ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	40uL	100mL	P&T Water	800
VOA Gasses Standards	Phenova	1,000ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	50uL	100mL	P&T Water	1,000
Loki Gas Second Source										
Prepared: 10/29/18						Prepared By (Initials): <u>PC</u>				
Expires: 12/28/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
50,000ug/mL Gas STD	Phenova	SS 300ug/L	2,000	Prepared 04/27/18	04/27/19	N/A	15uL	100mL	P&T Water	300
Loki Gas Continuing Calibrations/Lab Control Spikes										
Prepared: 10/29/18						Prepared By (Initials): <u>PC</u>				
Expires: 10/30/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses Standards	Phenova	300ug/L	2,000	Prepared 09/11/18	04/27/19	N/A	15uL	100mL	P&T Water	300

## Primary and Secondary Working Standards

Primary Standards										
VOA STD 7										
Prepared: 10/23/18 C										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses STD	Phenova	ALO-101206	2,000	CL12418-39660	09/13/19	04/30/23	100uL	4mL	Methanol	50
Hexachloroethane	Absolute	70199	1,000	071317-39700	09/04/19	05/14/28	200uL			50
Benzyl Chloride	O2SI	020228-02	1,000	041918-39343	09/04/19	04/19/19	200uL			50
VOA STD 8										
Prepared: 10/23/18 D										
Expires: 10/31/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Additions STD	Phenova	ALO-101206	2,000	CL12622-39323	06/20/19	05/31/20	100uL	4mL	Methanol	50
VOC's-54 COMP	Phenova	ALO-101200	2,000	CL12490-39490	06/20/19	05/30/20	100uL			50
Vinyl Acetate	Phenova	ALO-101228	2,000	CL12805-39766	09/06/19	10/31/18	100uL			50
VOA STD TBA										
Prepared: 10/23/18 E										
Expires: 10/31/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOC Mix	Phenova	ALO-130176	2,000	CL12228-39680	09/06/19	08/31/28	500uL	4mL	Methanol	250
Acrolein	Phenova	ALO-101224	5,000	CL12863-39768	09/06/19	10/31/18	200uL			250
VOA STD 1										
Prepared: 10/23/18 F										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
2-CEVE	O2SI	020145-02	2,000	292247-38407	09/06/19	11/12/19	50	2mL	Methanol	50
VOA STD 2										
Prepared: 10/23/18 G										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
HSL's Ketone Solution	O2SI	121020-05	2,000	CL12729-39663	10/17/19	08/01/28	100	4mL	Methanol	50
VOA STD 9										
Prepared: 10/23/18 H										
Expires: 10/31/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 7	O2SI	VOA STD. 9	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5
VOA STD. 8	O2SI		50	Prepared 10/23/18	10/31/18	N/A	200uL			5
VOA STD. 10										
Prepared: 10/23/18 I										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 1	O2SI	VOA STD. 10	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5
VOA STD. 12										
Prepared: 10/23/18 J										
Expires: 12/22/18										
Prepared By (Initials): PC										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 2	O2SI	VOA STD. 12	50	Prepared 10/23/18	12/22/18	N/A	200uL	2mL	Methanol	5

Second Source (SS) Standards										
VOA STD. 3										
Prepared: 10/23/18 K						Prepared By (Initials): PC				
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Ketones Standard	Phenova	ALO-101211	2,000	CL12730-39669	07/25/19	08/01/28	50uL	2mL	Methanol	50
VOA STD. 5										
Prepared: 10/23/18 L						Prepared By (Initials): PC				
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260 Gases (SS)	Phenova	ALO-101206	2,000	CL12417-39649	09/13/19	04/30/23	50uL	2mL	Methanol	50
2-CEVE (SS)	O2SI	020145-02-02-SS	2,000	71018-39539	06/20/19	11/12/19	50uL			50
VOA STD. 6										
Prepared: 10/23/18 M						Prepared By (Initials): PC				
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
502.2 Calibration STD. (54-compounds)	Phenova	ALO-101200	2,000	CL12489-39484	06/20/19	05/31/23	50uL	2mL	Methanol	50
Vinyl Acetate	Phenova	ALO-101228	1,000	CL12869-39767	09/06/19	10/31/18	50uL			50
Hexachloroethane	O2SI	020049-02	1,000	218051281	06/20/19	05/14/28	50uL			50
VOA STD. TBA										
Prepared: 10/23/18 N						Prepared By (Initials): PC				
Expires: 10/31/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOA Mix (4-3)	Phenova	ALO-130179	2,000	CL12228-39309	08/13/19	08/31/20	250uL	2mL	Methanol	250
Acrolein	Phenova	ALO-101224	5,000	CL12868-39769	09/06/19	10/31/18	100uL			250
VOA STD. 0										
Prepared: 10/23/18 O						Prepared By (Initials): PC				
Expires: 12/22/18										
Methanol Lot No. 907702-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Addition STD.	Phenova	ALO-130175	2,000	CL12230-39138	07/25/19	01/31/20	50uL	2mL	Methanol	50
BFB Tune										
Prepared: 08/29/18						Prepared By (Initials): PC				
Expires: 08/07/19										
Methanol Lot No. 9077-202404										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
4-Bromofluorobenzene	O2SI	020135-03	2,500	320514-38965	08/07/19	09/03/20	20uL	2mL	Methanol	25

### Loki 8260 Standard Prep

Loki 8260 Water Calibration Curve										
0.3ug/L										
Prepared By (Initials): DG										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.3ug/L	5	Prepared 10/23/18	10/31/18	N/A	3uL	50mL	P&T Water	0.3
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	3uL			0.3
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	3uL			0.3
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	2uL			10
0.5ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.5ug/L	5	Prepared 10/23/18	10/31/18	N/A	5uL	50mL	P&T Water	0.5
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	5uL			0.5
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	5uL			0.5
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	5uL			25
1.0ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	1.0ug/L	5	Prepared 10/23/18	10/31/18	N/A	10uL	50mL	P&T Water	1
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	10uL			1
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	10uL			1
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	10uL			50
2.0ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	2.0ug/L	5	Prepared 10/23/18	10/31/18	N/A	20uL	50mL	P&T Water	2
VOA STD. 10	O2SI		5	Prepared 10/23/18	12/22/18	N/A	20uL			2
VOA STD. 12	O2SI		5	Prepared 10/23/18	12/22/18	N/A	20uL			2
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	15uL			75
5ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	5ug/L	50	Prepared 10/23/18	12/22/18	N/A	5uL	50mL	P&T Water	5
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	5uL			5
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	5uL			5
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	5uL			5
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	20uL			100
10ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	10ug/L	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	25uL			125



20ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	20ug/L	50	Prepared 10/23/18	12/22/18	N/A	20uL	50mL	P&T Water	20
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	20uL			20
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	20uL			20
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	20uL			20
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	30uL			150
40ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	40ug/L	50	Prepared 10/23/18	12/22/18	N/A	40uL	50mL	P&T Water	40
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	40uL			40
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	35uL			175
100ug/L										
Prepared: 10/26/18										
Expires: 11/25/18										
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	100ug/L	50	Prepared 10/23/18	12/22/18	N/A	100uL	50mL	P&T Water	100
VOA STD. 8	Phenova		50	Prepared 10/23/18	10/31/18	N/A	100uL			100
VOA STD. 1	O2SI		50	Prepared 10/23/18	12/22/18	N/A	100uL			100
VOA STD. 2	O2SI		50	Prepared 10/23/18	12/22/18	N/A	100uL			100
VOA STD. TBA	Various		250	Prepared 10/23/18	10/31/18	N/A	40uL			200
Loki 8260 Water Second Source (SS)										
Prepared: 10/26/18										
Expires: 11/25/18										
						Prepared By (Initials): <u>DG</u>				
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 4	Phenova	8260 Water SS	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 5	O2SI	8260 Water SS	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 6	Various	8260 Water SS	50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. TBA	Various	8260 Water SS	250	Prepared 10/23/18	10/31/18	N/A	25uL			250
8260 Water Continuing Calibrations (CCV)/ Lab Control Spikes (LCS)										
Prepared: 10/26/18										
Expires: 10/27/18										
						Prepared By (Initials): <u>DG</u>				
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	CCV/ LCS	50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI	CCV/ LCS	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. TBA	Various	CCV/ LCS	250	Prepared 10/23/18	10/31/18	N/A	25uL			125
LCS (X4 Ketones)										
Prepared: 10/26/18										
Expires: 10/27/18										
						Prepared By (Initials): <u>DG</u>				
Initial Standard Information						Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	LCS X4 Ketones	50	Prepared 10/23/18	10/31/18	N/A	10uL			10
VOA STD. 1	O2SI	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	10uL			10
VOA STD. 2	O2SI	LCS X4 Ketones	50	Prepared 10/23/18	12/22/18	N/A	40uL			40
VOA STD. TBA	Various	LCS X4 Ketones	250	Prepared 10/23/18	10/31/18	N/A	25uL			125

<b>Loki 8260 Water Surrogate</b>											
Prepared: 09/28/18						Prepared By (Initials): <u>DG</u>					
Expires: 04/02/19											
Methanol Lot No: 57159											
Initial Standard Information						Final Standard Information					
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)	
8260 Surrogate Solution	O2SI	120002-01	2,000	275545-36334	09/28/19	04/02/19	375uL	15mL	Methanol	50	
<b>Loki 8260 Water Internal Standard</b>											
Prepared: 09/28/18						Prepared By (Initials): <u>DG</u>					
Expires: 06/29/19											
Methanol Lot No: 57159											
Initial Standard Information						Final Standard Information					
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)	
Internal Standard Solution	O2SI	120004-02	2,000	326533-38434	06/29/19	04/27/21	375uL	15mL	Methanol	50	

## Injection Log

Directory: M:\LOKI\DATA\181026\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1026L03.D	1	0.3ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 10:28
2	3	1026L04.D	1	0.5ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 10:57
3	4	1026L05.D	1	1.0ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 11:25
4	5	1026L06.D	1	2.0ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 11:54
5	6	1026L07.D	1	5.0ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 12:22
6	7	1026L08.D	1	10ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 12:50
7	8	1026L09.D	1	20ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 13:19
8	9	1026L10.D	1	40ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 13:47
9	10	1026L11.D	1	100ug/L VOC STD 18/10/26	IS&S 9/28/18,8/23/18	26 Oct 18 14:16
10	1	1029L06.D	1	20ug/L GAS STD 10/29/18	IS&S 9/28/18,8/23/18	29 Oct 18 11:16
11	2	1029L07.D	1	50ug/L GAS STD 10/29/18	IS&S 9/28/18,8/23/18	29 Oct 18 11:45
12	3	1029L08.D	1	100ug/L GAS STD 10/29/18	IS&S 9/28/18,8/23/18	29 Oct 18 12:13
13	4	1029L09.D	1	300ug/L GAS STD 10/29/18	IS&S 9/28/18,8/23/18	29 Oct 18 12:42
14	5	1029L10.D	1	600ug/L GAS STD 10/29/18	IS&S 9/28/18,8/23/18	29 Oct 18 13:10
15	6	1029L11.D	1	800ug/L GAS STD 10/29/18	IS&S 9/28/18,8/23/18	29 Oct 18 13:39
16	7	1029L12.D	1	1000ug/L GAS STD 10/29/18	IS&S 9/28/18,8/23/18	29 Oct 18 14:07
17	12	1029L17.D	1	(SS)300ug/L GAS STD 10/29/18	IS&S 9/28/18,8/23/18	29 Oct 18 16:29
18	14	1029L19.D	1	181029A LCS 300ug/L	IS&S 9/28/18,8/23/18	29 Oct 18 17:26
19	15	1029L20.D	1	181029A LCSD 300ug/L	IS&S 9/28/18,8/23/18	29 Oct 18 17:55
20	16	1029L21.D	1	181029A BLK	IS&S 9/28/18,8/23/18	29 Oct 18 18:23
21	23	1029L28.D	1	AZ81837W01	IS&S 9/28/18,8/23/18	29 Oct 18 21:42
22	25	1029L30.D	1	AZ81839W01	IS&S 9/28/18,8/23/18	29 Oct 18 22:39
23	26	1029L31.D	1	AZ81840W01	IS&S 9/28/18,8/23/18	29 Oct 18 23:08
24	27	1029L32.D	1	AZ81841W01	IS&S 9/28/18,8/23/18	29 Oct 18 23:36
25	28	1029L33.D	1	AZ81842W01	IS&S 9/28/18,8/23/18	30 Oct 18 00:04
26	32	1029L37.D	1	Ending CCV 8260 300ug/L	IS&S 9/28/18,8/23/18	30 Oct 18 1:58
27	5	1030L06.D	1	181030A CCV 300ug/L	IS&S 9/28/18,8/23/18	30 Oct 18 10:57
28	6	1030L07.D	1	181030A LCS 300ug/L	IS&S 9/28/18,8/23/18	30 Oct 18 11:25
29	7	1030L08.D	1	181030A LCSD 300ug/L	IS&S 9/28/18,8/23/18	30 Oct 18 11:54
30	11	1030L12.D	1	181030A BLK	IS&S 9/28/18,8/23/18	30 Oct 18 13:48
31	13	1030L14.D	1	AZ81838W02	IS&S 9/28/18,8/23/18	30 Oct 18 14:44
32	25	1030L26.D	1	Ending CCV 300ug/L	IS&S 9/28/18,8/23/18	30 Oct 18 20:26

**ORGANICS**  
**Calibration Data**

**APPL, INC.**

**Form 6**  
**Initial Calibration**

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Initial Cal. Date: 10/29/18

Matrix: \_\_\_\_\_

Instrument: 7890

Initials: \_\_\_\_\_

18102900.D    18102901.D    18102903.D    18102904.D    18102905.D    18102906.D    18102907.D

	Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r <sup>2</sup>	Q
1	ATML Methane	19615	9373	10954	15702	14030	13431	10703				13401	26	ATM	0.996	
2	ATM Ethane	14917	8316	8621	12025	10728	10915	8329				10550	23	ATM		*
3	ATM Ethene	12812	7388	7413	10412	9206	9538	7250				9145	22	ATM		*
4																
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6																
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2.038643

Data File : G:\ROCKY\DATA\181029RS\18102900.D Vial: 1  
 Acq On : 29 Oct 18 10:29 Operator: cmm  
 Sample : RSK Std 1 10/29/18 Inst : 7890  
 Misc : 125uL from RSK Std 3 Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:07 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:05:00 2018  
 Response via : Multiple Level Calibration

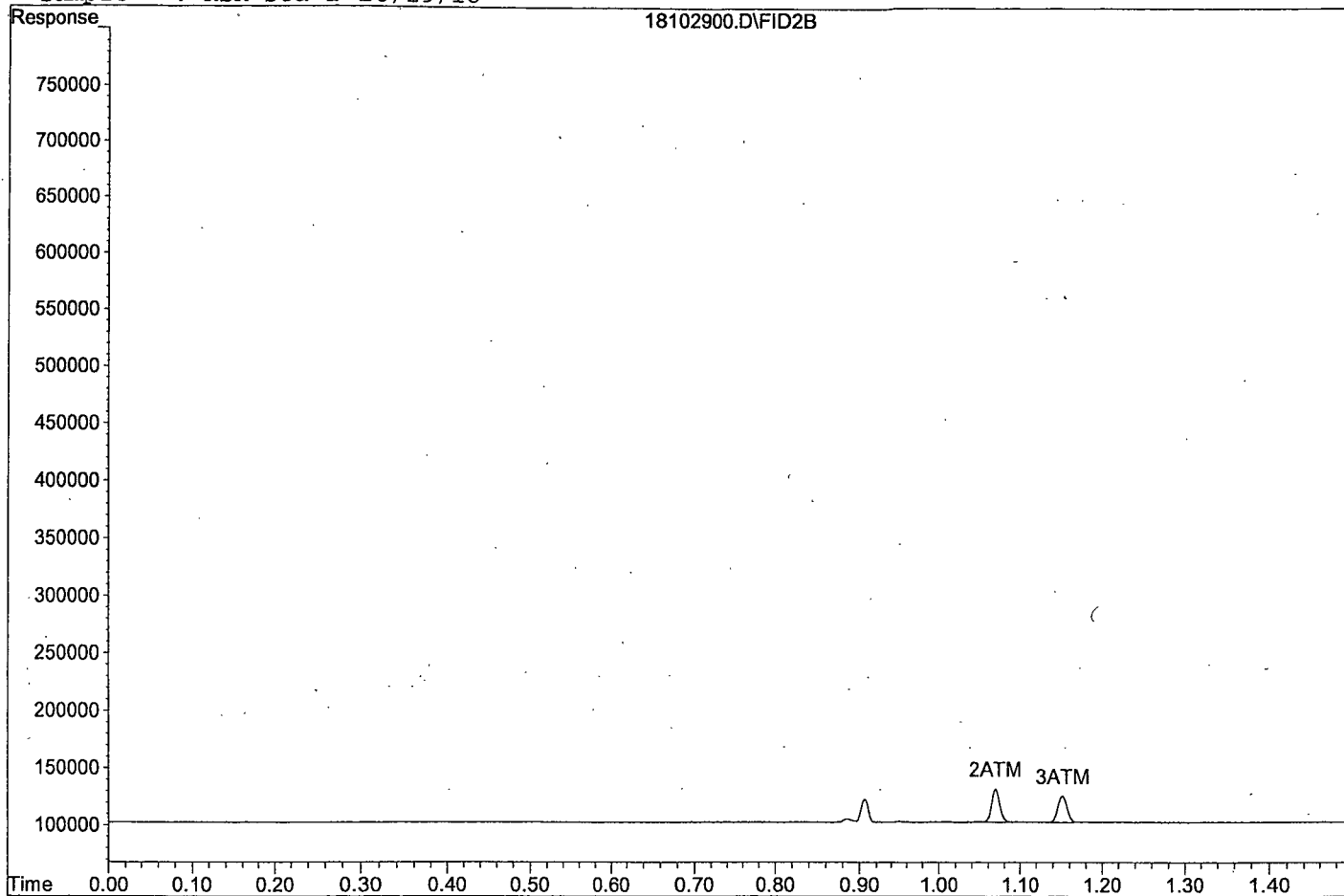
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
2) ATM Ethane	1.07	29163	5.528 ppb
3) ATM Ethene	1.15	23381	5.113 ppb
Target Compounds			
1) ATM Methane	0.91	20400	N.D. ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102900.D

Sample : RSK Std 1 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102901.D Vial: 2  
 Acq On : 29 Oct 18 10:32 Operator: cmm  
 Sample : RSK Std 2 10/29/18 Inst : 7890  
 Misc : 250uL from RSK Std 3 Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:07 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:05:00 2018  
 Response via : Multiple Level Calibration

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

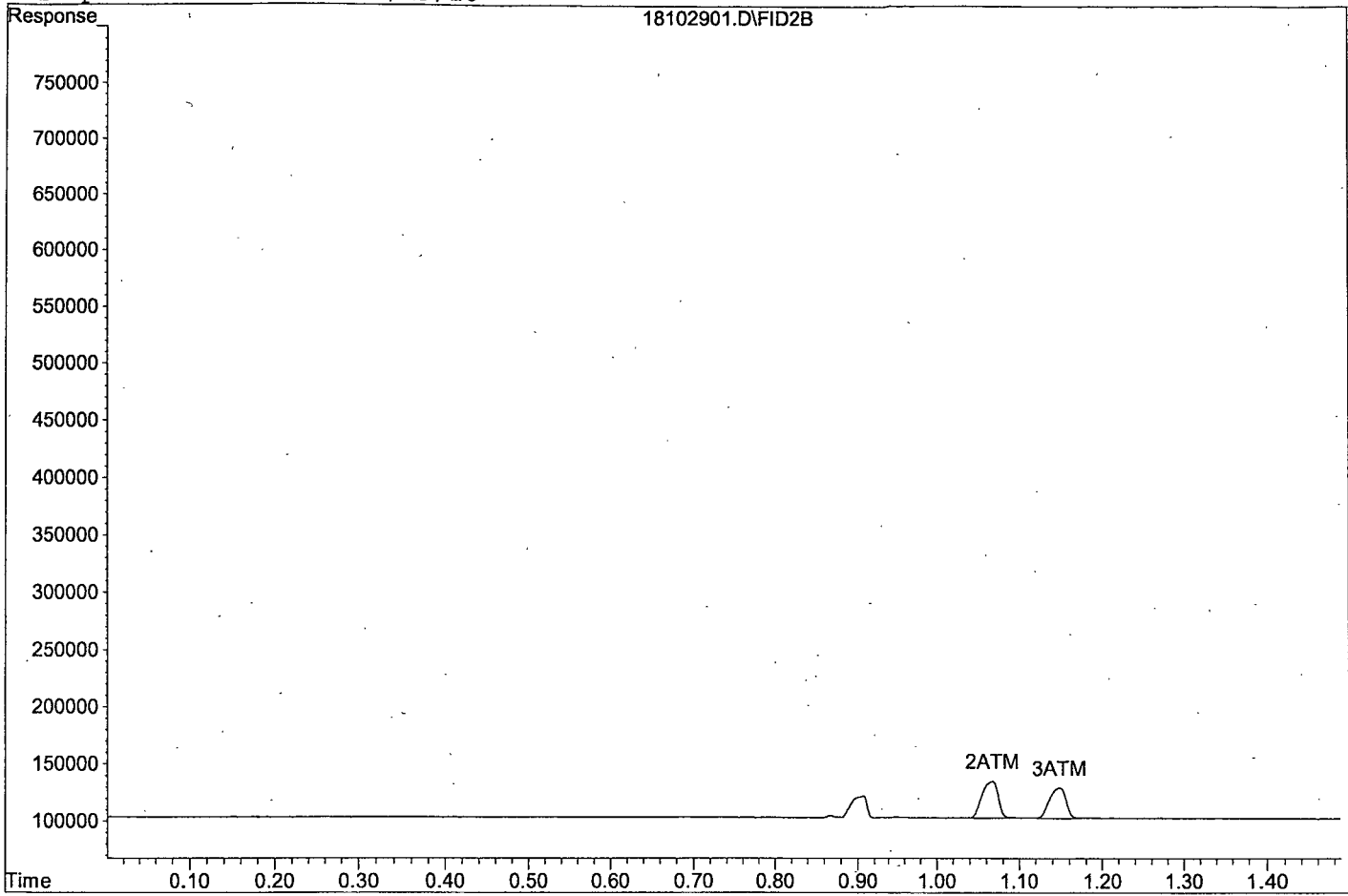
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
2) ATM Ethane	1.07	32474	6.156 ppb
3) ATM Ethene	1.15	26966	5.897 ppb
Target Compounds			
1) ATM Methane	0.91	19495	N.D. ppb



Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102901.D

Sample : RSK Std 2 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102903.D Vial: 4  
 Acq On : 29 Oct 18 10:40 Operator: cmm  
 Sample : RSK Std 3 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:07 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:05:00 2018  
 Response via : Multiple Level Calibration

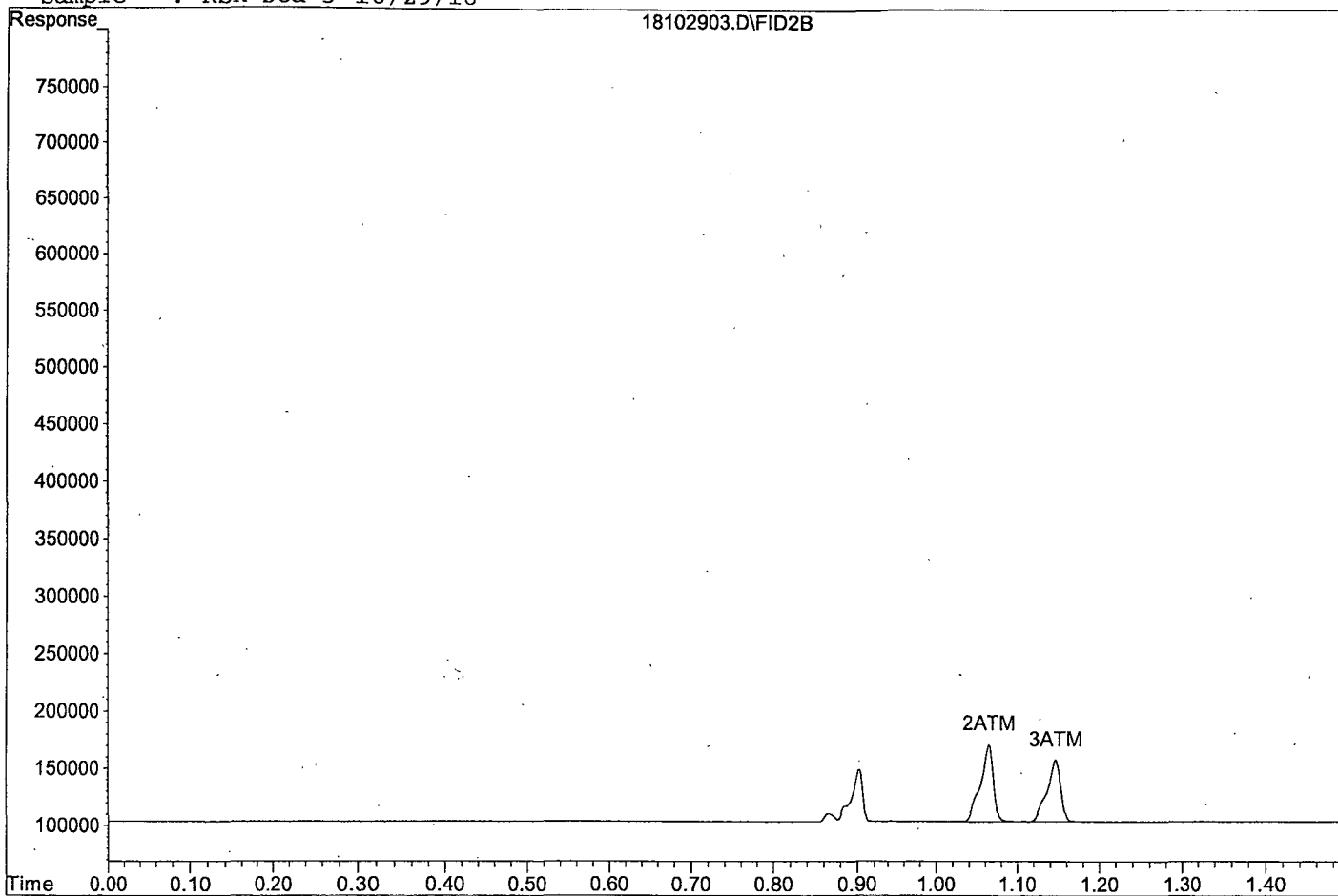
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
2) ATM Ethane	1.07	67242	12.747 ppb
3) ATM Ethene	1.15	54115	11.834 ppb
Target Compounds			
1) ATM Methane	0.90	45677	N.D. ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102903.D

Sample : RSK Std 3 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102904.D Vial: 5  
 Acq On : 29 Oct 18 10:42 Operator: cmm  
 Sample : RSK Std 4 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:02 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:02:34 2018  
 Response via : Multiple Level Calibration

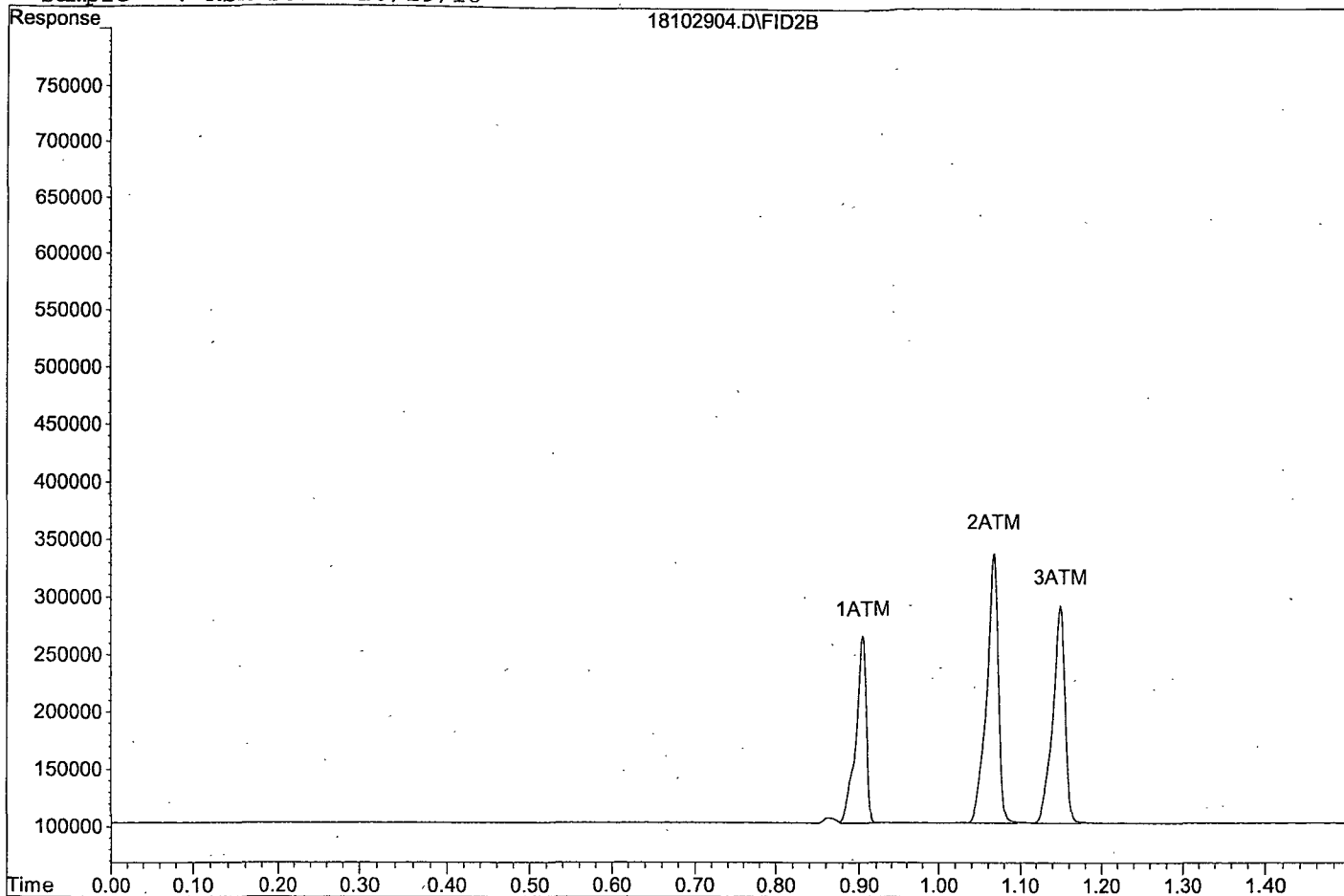
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.91	163698	17.293 ppb
2) ATM Ethane	1.07	235032	44.556 ppb
3) ATM Ethene	1.15	189804	41.508 ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102904.D

Sample : RSK Std 4 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102905.D Vial: 6  
 Acq On : 29 Oct 18 10:44 Operator: cmm  
 Sample : RSK Std 5 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:02 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:02:34 2018  
 Response via : Multiple Level Calibration

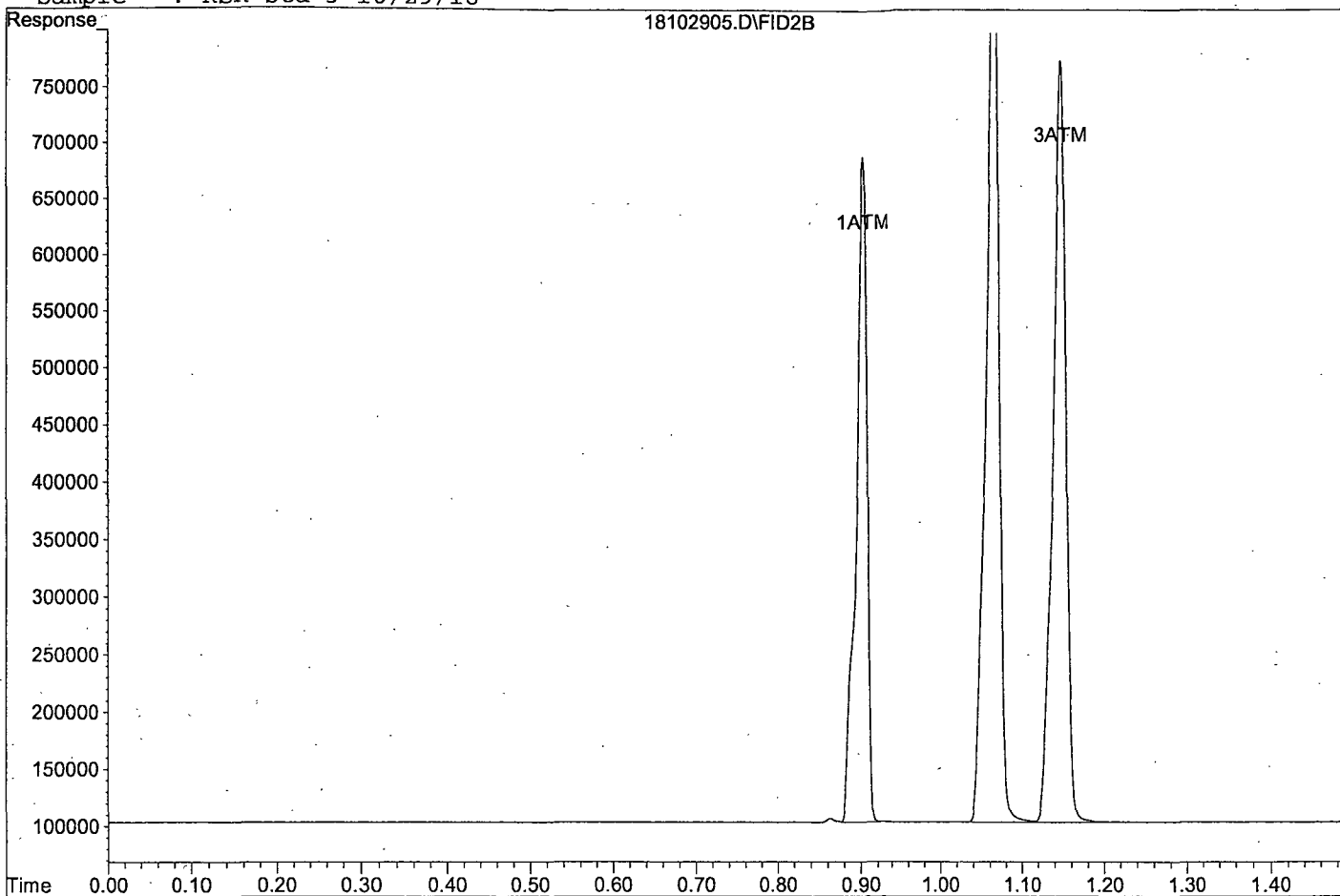
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.90	585044	96.247 ppb
2) ATM Ethane	1.07	838627	158.980 ppb
3) ATM Ethene	1.15	671284	146.802 ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102905.D

Sample : RSK Std 5 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102906.D Vial: 7  
 Acq On : 29 Oct 18 10:47 Operator: cmm  
 Sample : RSK Std 6 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:02 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:02:34 2018  
 Response via : Multiple Level Calibration

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

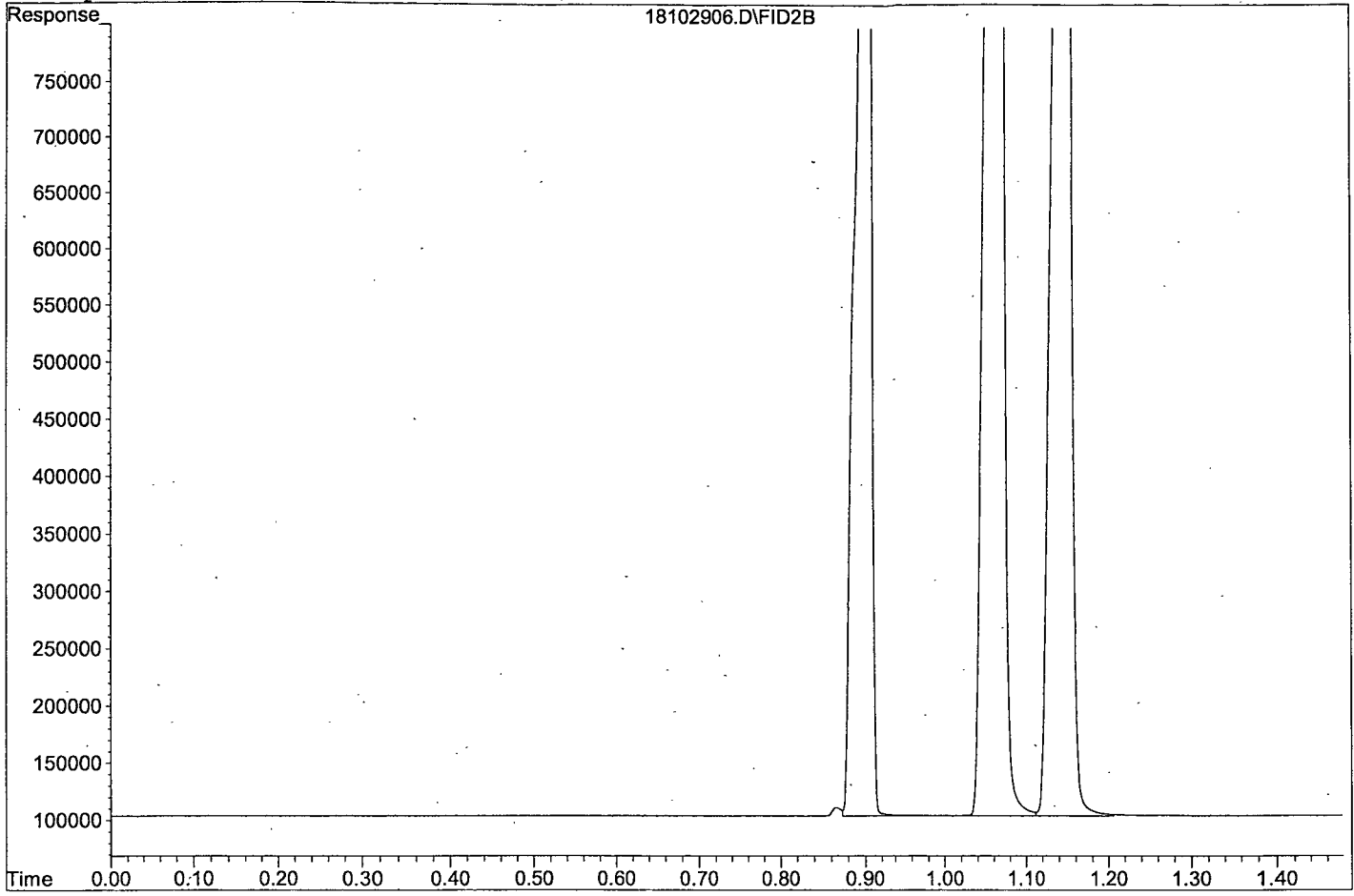
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.90	1400165	248.989 ppb
2) ATM Ethane	1.06	2133368	404.427 ppb
3) ATM Ethene	1.15	1738763	380.248 ppb



Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102906.D

Sample : RSK Std 6 10/29/18



Data File : G:\ROCKY\DATA\181029RS\18102907.D Vial: 8  
 Acq On : 29 Oct 18 10:49 Operator: cmm  
 Sample : RSK Std 7 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:02 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:02:34 2018  
 Response via : Multiple Level Calibration

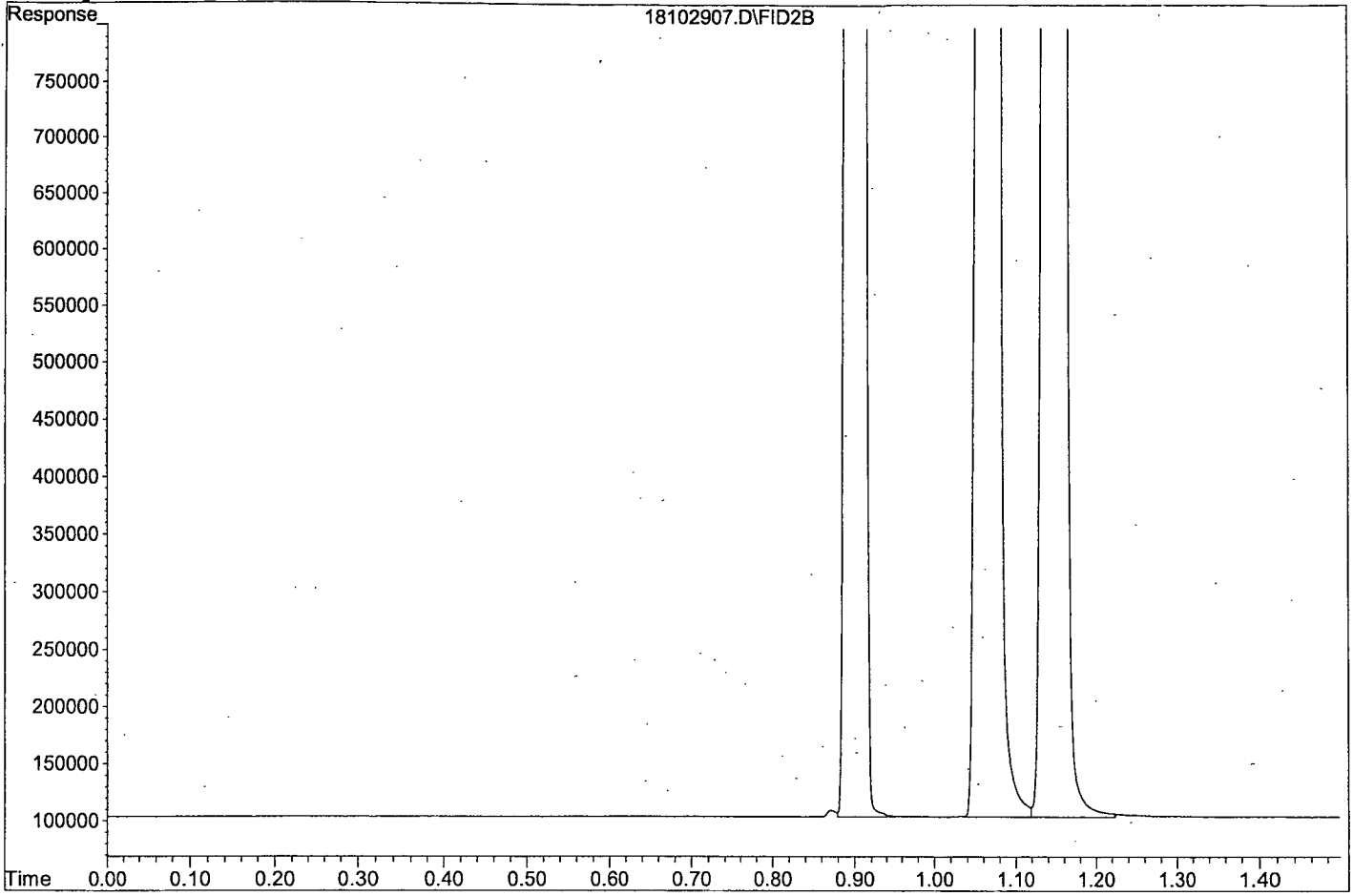
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.91	4462952	822.912 ppb
2) ATM Ethane	1.07	6510961	1234.297 ppb
3) ATM Ethene	1.15	5286849	1156.173 ppb

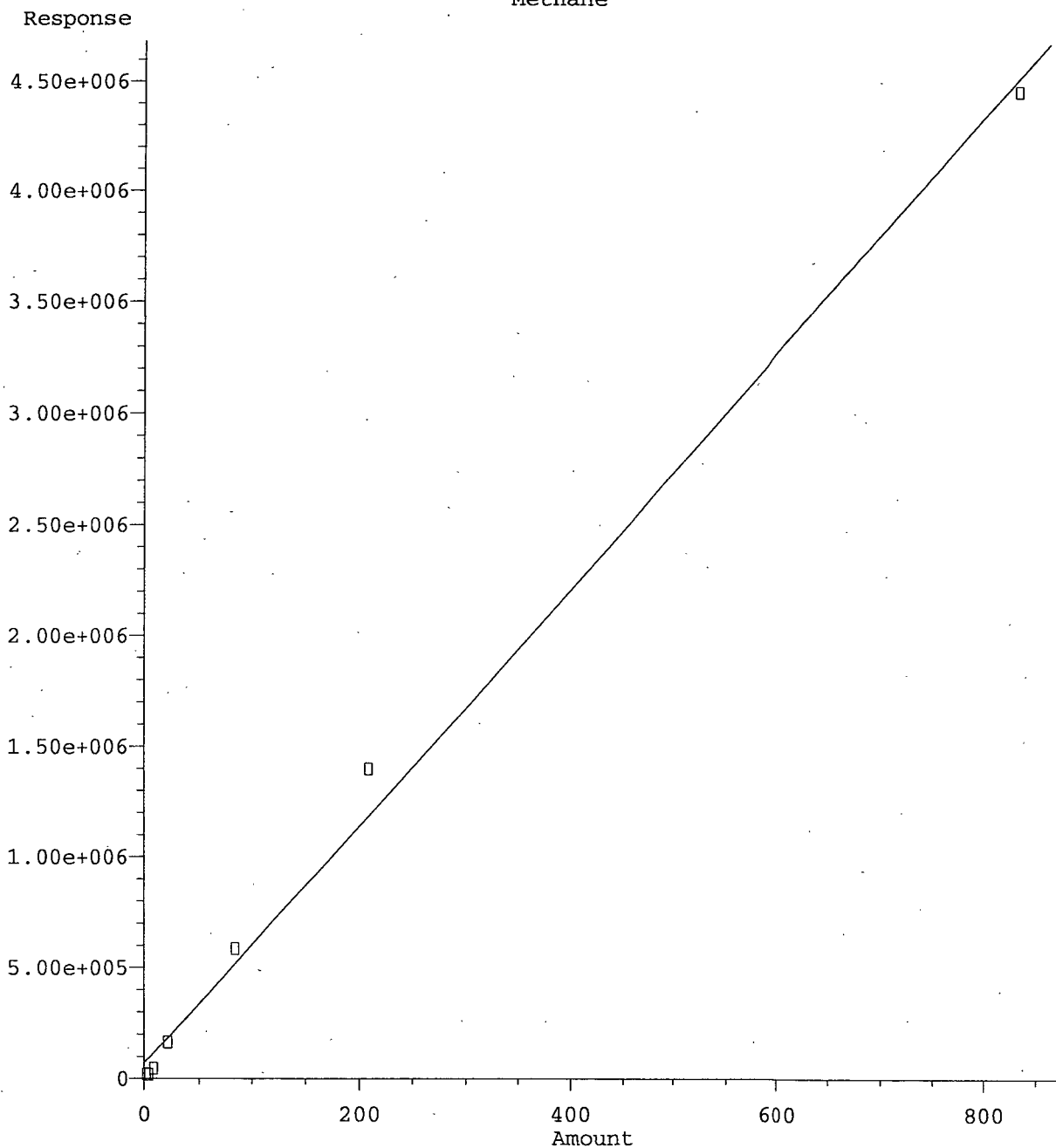
Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102907.D

Sample : RSK Std 7 10/29/18



Methane



Response = 5.34e+003 \* Amt + 7.14e+004  
Coef of Det (r^2) = 0.996 Curve Fit: Linear

Method Name: G:\ROCKY\DATA\181029RS\RSK1029.M  
Calibration Table Last Updated: Mon Oct 29 11:05:00 2018

RSK 175  
RSK 175

Form 7

### Second Source Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/29/18  
Instrument: 7890  
Initial Cal. Date: 10/29/18  
Data File: 18102908.D

		Compound	MEAN	CCRF	%D	%Drift	
1	ATML	Methane	13401	11162	17	ATML	11
2	ATM	Ethane	10550	8709	17	ATM	
3	ATM	Ethene	9145	7473	18	ATM	
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
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30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							

Average

17.3

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\181029RS\18102908.D Vial: 9  
 Acq On : 29 Oct 18 10:51 Operator: cmm  
 Sample : SS RSK Std 5 10/29/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 29 11:05 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Mon Oct 29 11:05:00 2018  
 Response via : Multiple Level Calibration

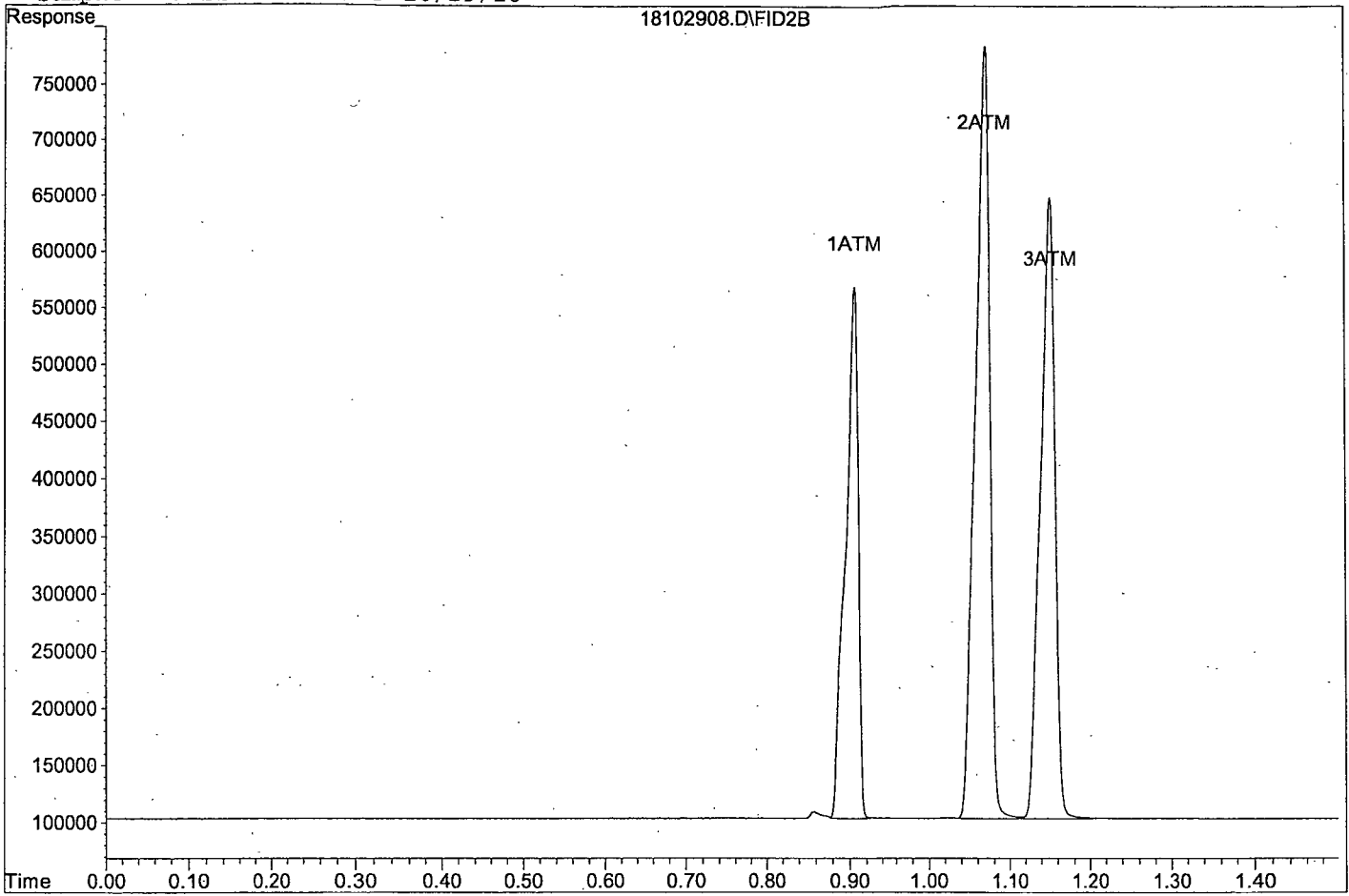
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.91	465450	73.837 ppb
2) ATM Ethane	1.07	680794	129.060 ppb
3) ATM Ethene	1.15	544918	119.167 ppb

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18102908.D

Sample : SS RSK Std 5 10/29/18



RSK 175  
RSK 175

Form 7

### Continuing Calibration

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

SDG No: \_\_\_\_\_  
Date Analyzed: 10/30/18  
Instrument: 7890  
Initial Cal. Date: 10/29/18  
Data File: 18103000.D

		Compound	MEAN	CCRF	%D	%Drift	
1	ATML	Methane	13401	14674	9.5	ATML	21
2	ATM	Ethane	10550	12315	17	ATM	
3	ATM	Ethene	9145	11404	25	ATM	*nt
4							
5							
6							
7							
8							
9							
10							
11							
12							
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14							
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36							
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38							
39							
40							

Average

17.2



Data File : G:\ROCKY\DATA\181029RS\18103000.D Vial: 1  
 Acq On : 30 Oct 18 9:56 Operator: cmm  
 Sample : 181030A LCS/CCV RSK Std 5 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 30 9:59 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Tue Oct 30 09:59:11 2018  
 Response via : Multiple Level Calibration

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

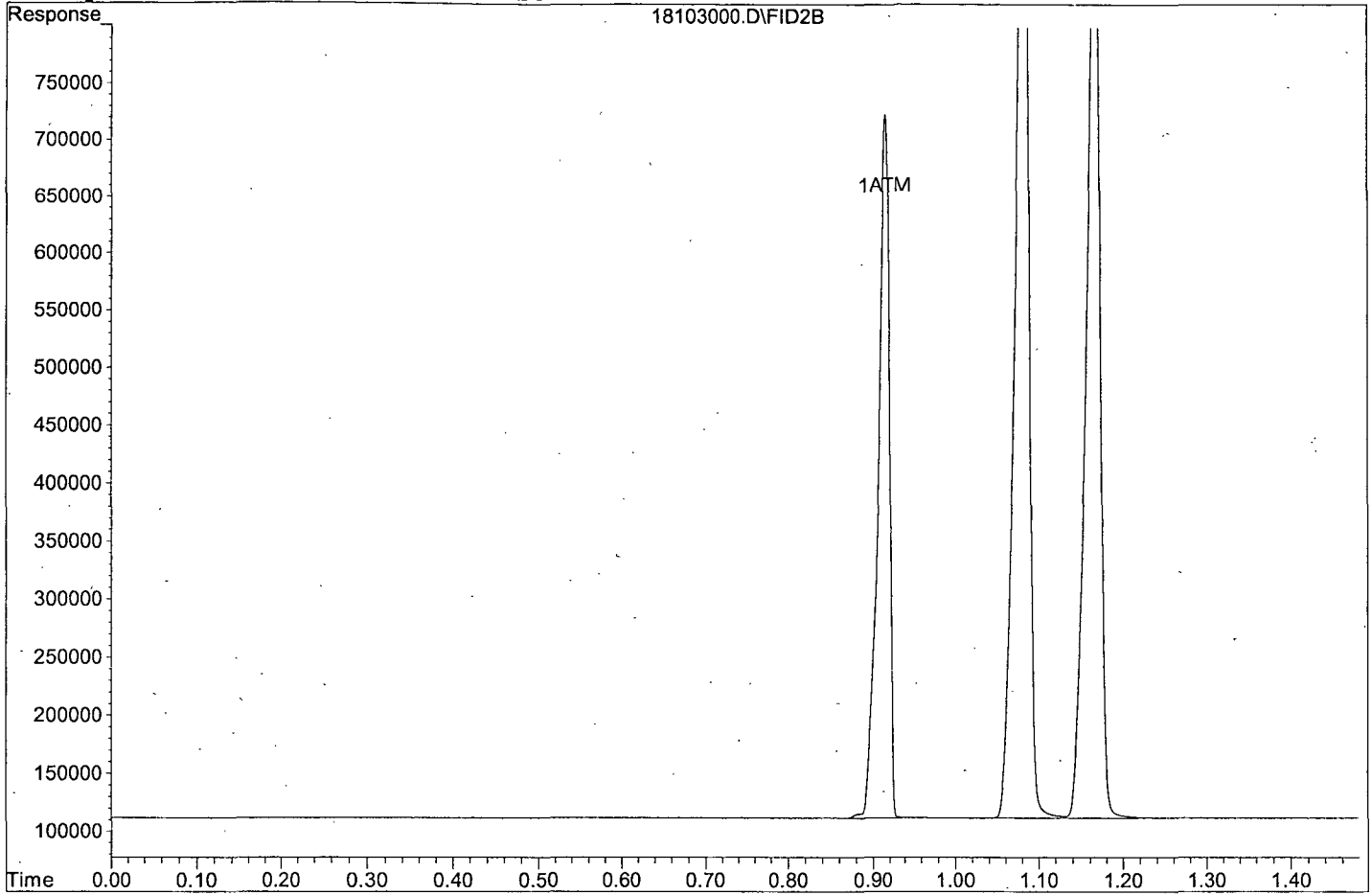
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.92	611916	101.282 ppb
2) ATM Ethane	1.08	962746	182.510 ppb
3) ATM Ethene	1.17	831579	181.857 ppb

Target Compounds

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18103000.D

Sample : 181030A LCS/CCV RSK Std 5



RSK 175  
RSK 175

Form 7

Ending Calibration

Lab Name: APPL, Inc.

SDG No: \_\_\_\_\_

Case No: \_\_\_\_\_

Date Analyzed: 10/30/18

Matrix: \_\_\_\_\_

Instrument: 7890

Initial Cal. Date: 10/29/18

Data File: 18103010.D

		Compound	MEAN	CCRF	%D	%Drift	
1	ATML	Methane	13401	12266	8.5	ATML	1.1
2	ATM	Ethane	10550	10047	4.8	ATM	
3	ATM	Ethene	9145	9108	0.41	ATM	
4							
5							
6							
7							
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34							
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38							
39							
40							

Average

4.6

Data File : G:\ROCKY\DATA\181029RS\18103010.D Vial: 11  
 Acq On : 30 Oct 18 10:22 Operator: cmm  
 Sample : Ending CCV RSK Std 5 10/30/18 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 30 10:25 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Tue Oct 30 10:25:02 2018  
 Response via : Multiple Level Calibration

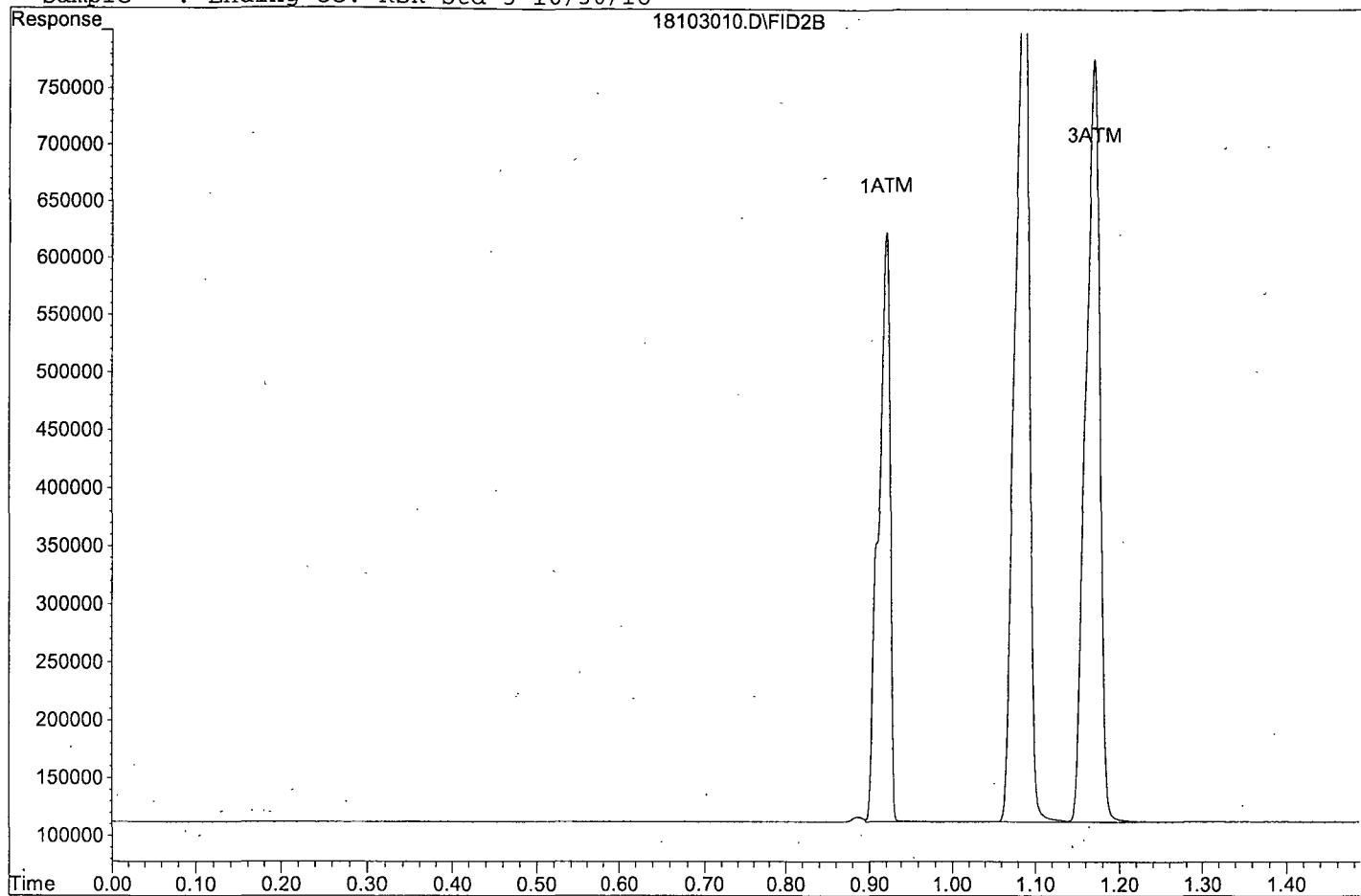
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.92	511492	82.464 ppb
2) ATM Ethane	1.09	785434	148.896 ppb
3) ATM Ethene	1.17	664172	145.247 ppb

Target Compounds

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18103010.D  
Sample : Ending CCV RSK Std 5 10/30/18



**ORGANICS**  
**Raw Data**

**APPL, INC.**

Data File : G:\ROCKY\DATA\181029RS\18103003.D Vial: 4  
 Acq On : 30 Oct 18 10:05 Operator: cmm  
 Sample : AZ81837W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 30 10:08 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Tue Oct 30 10:02:05 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
----------	------	----------	------	-------

Target Compounds

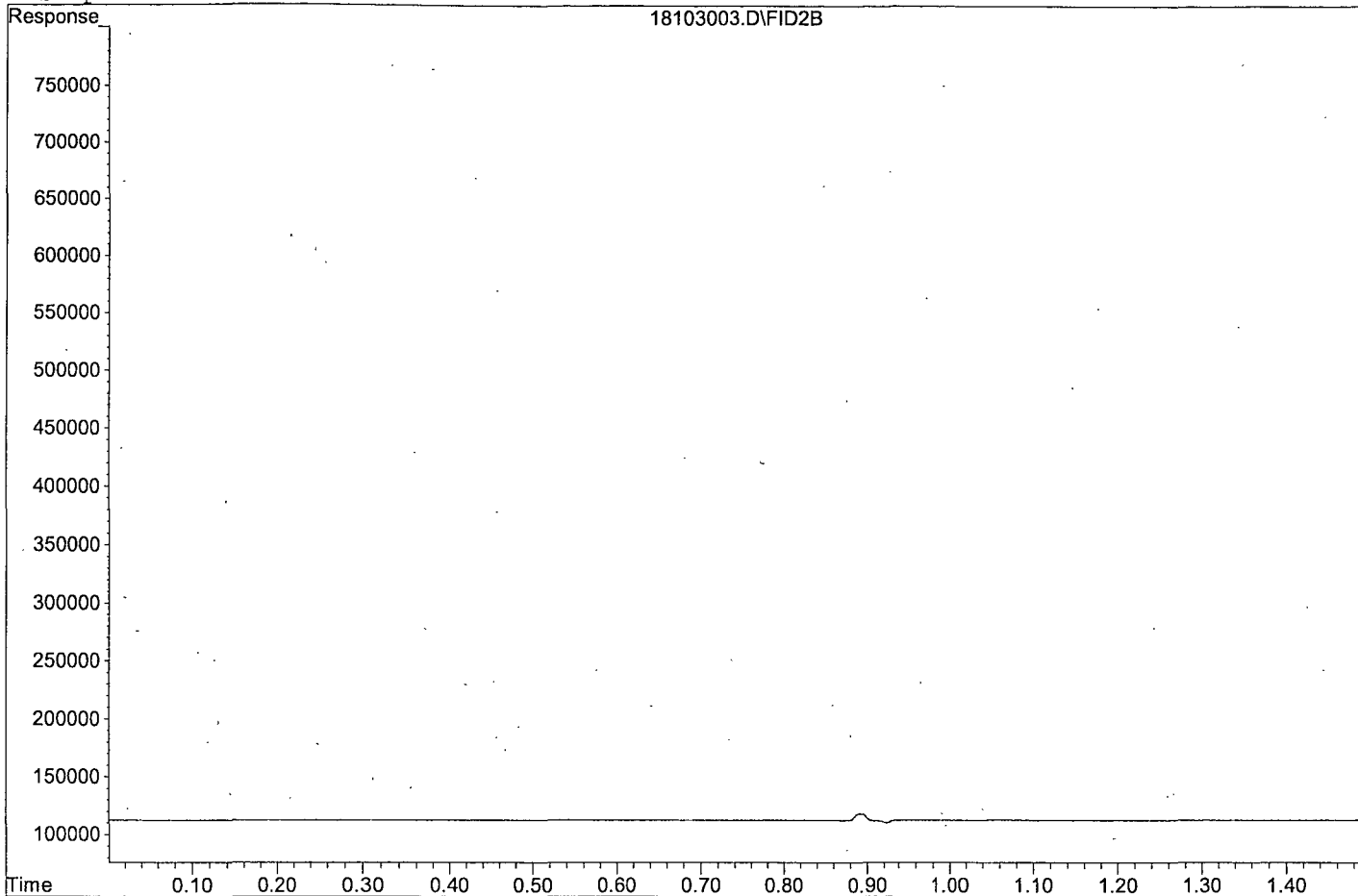
Target Compounds

1) ATM Methane	0.00	0	N.D.	ppb d
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18103003.D

Sample : AZ81837W04





Data File : G:\ROCKY\DATA\181029RS\18103004.D Vial: 5  
 Acq On : 30 Oct 18 10:07 Operator: cmm  
 Sample : AZ81838W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 30 10:09 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Tue Oct 30 10:02:05 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
----------	------	----------	------	-------

Target Compounds

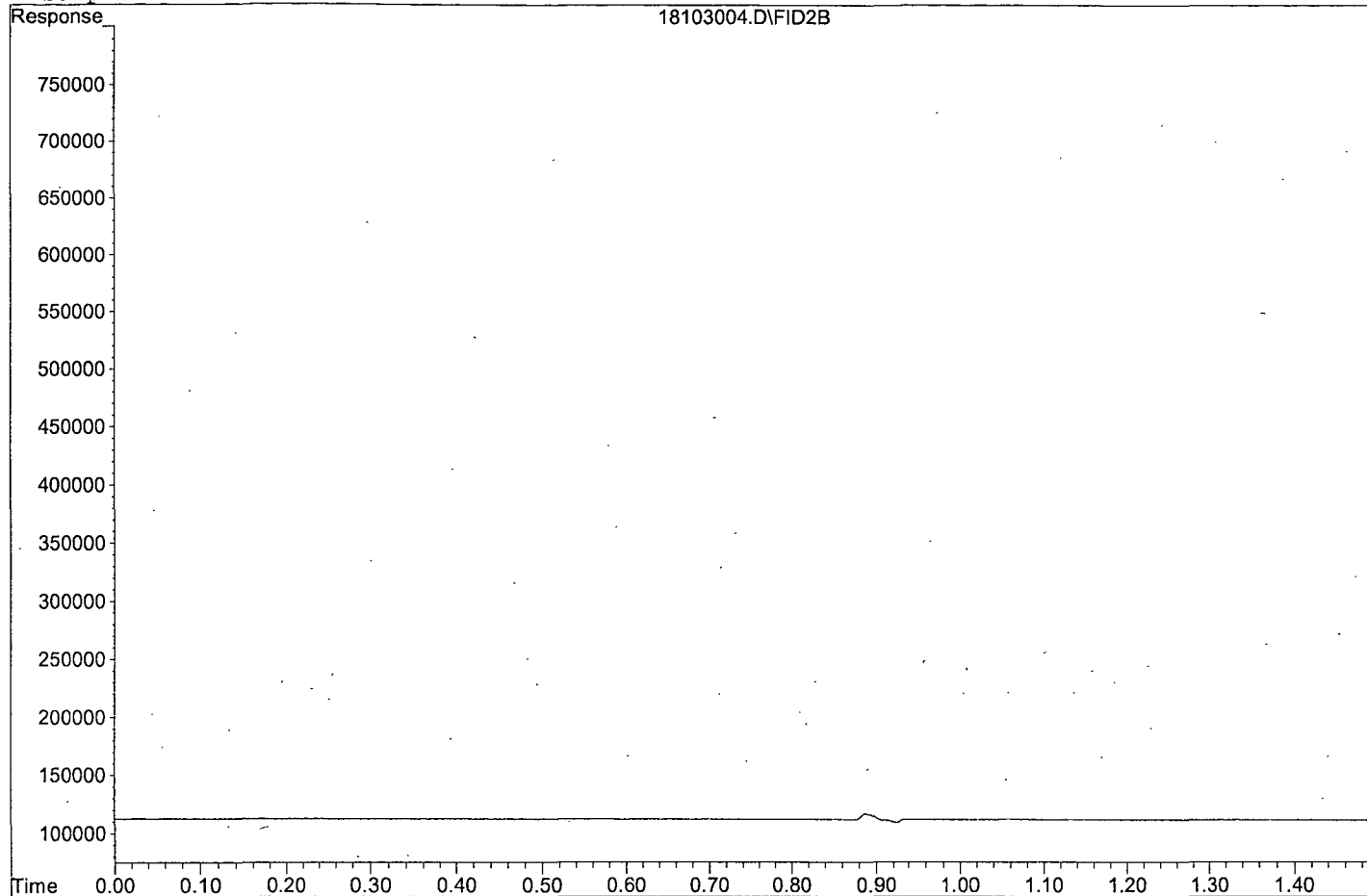
Target Compounds

1) ATM Methane	0.00	0	N.D.	ppb d
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18103004.D

Sample : AZ81838W04



Data File : G:\ROCKY\DATA\181029RS\18103005.D Vial: 6  
 Acq On : 30 Oct 18 10:09 Operator: cmm  
 Sample : AZ81839W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 30 10:12 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Tue Oct 30 10:02:05 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
----------	------	----------	------	-------

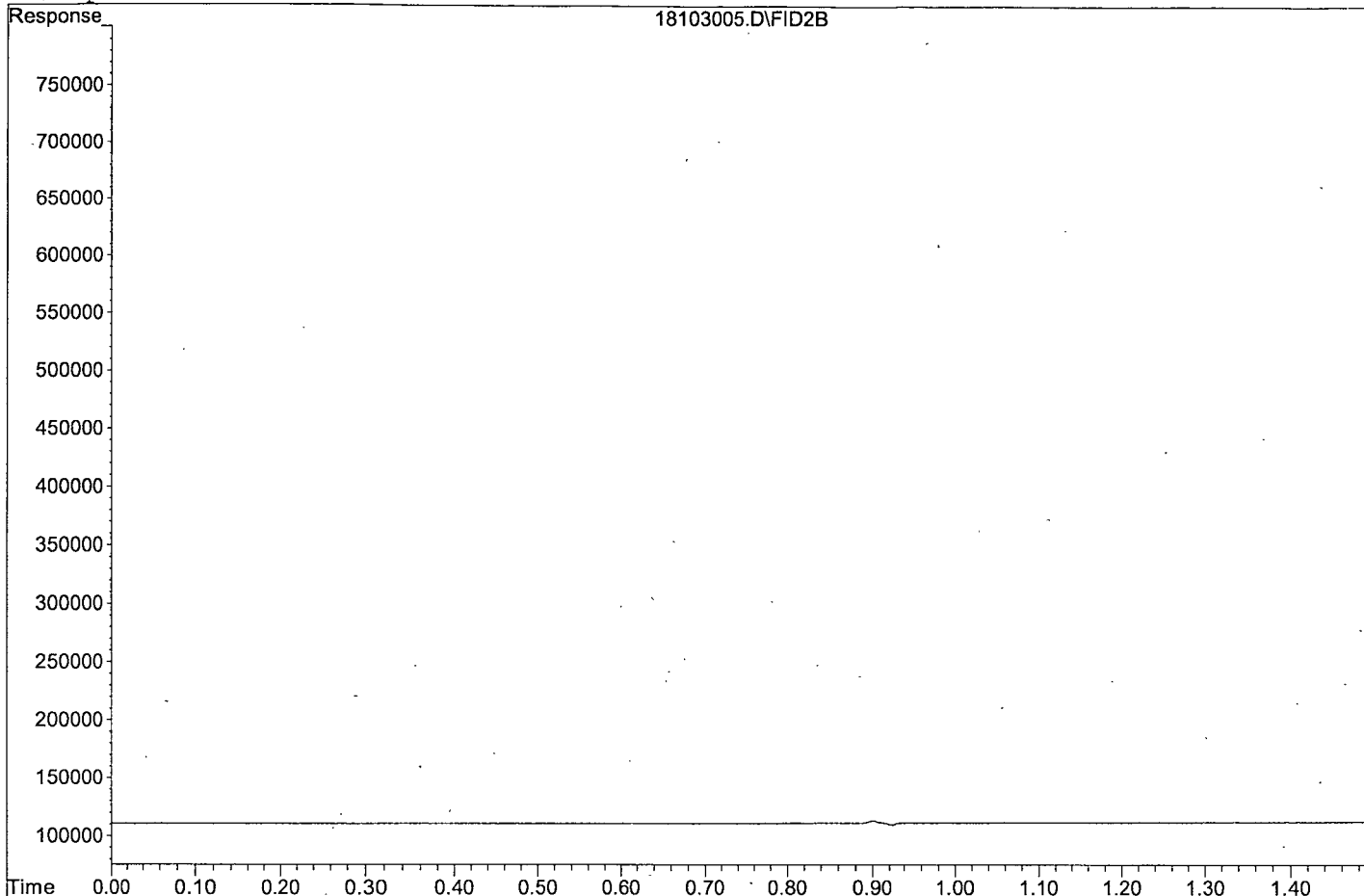
Target Compounds

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

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18103005.D

Sample : AZ81839W04



Data File : G:\ROCKY\DATA\181029RS\18103006.D Vial: 7  
 Acq On : 30 Oct 18 10:11 Operator: cmm  
 Sample : AZ81840W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 30 10:16 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Tue Oct 30 10:16:33 2018  
 Response via : Multiple Level Calibration

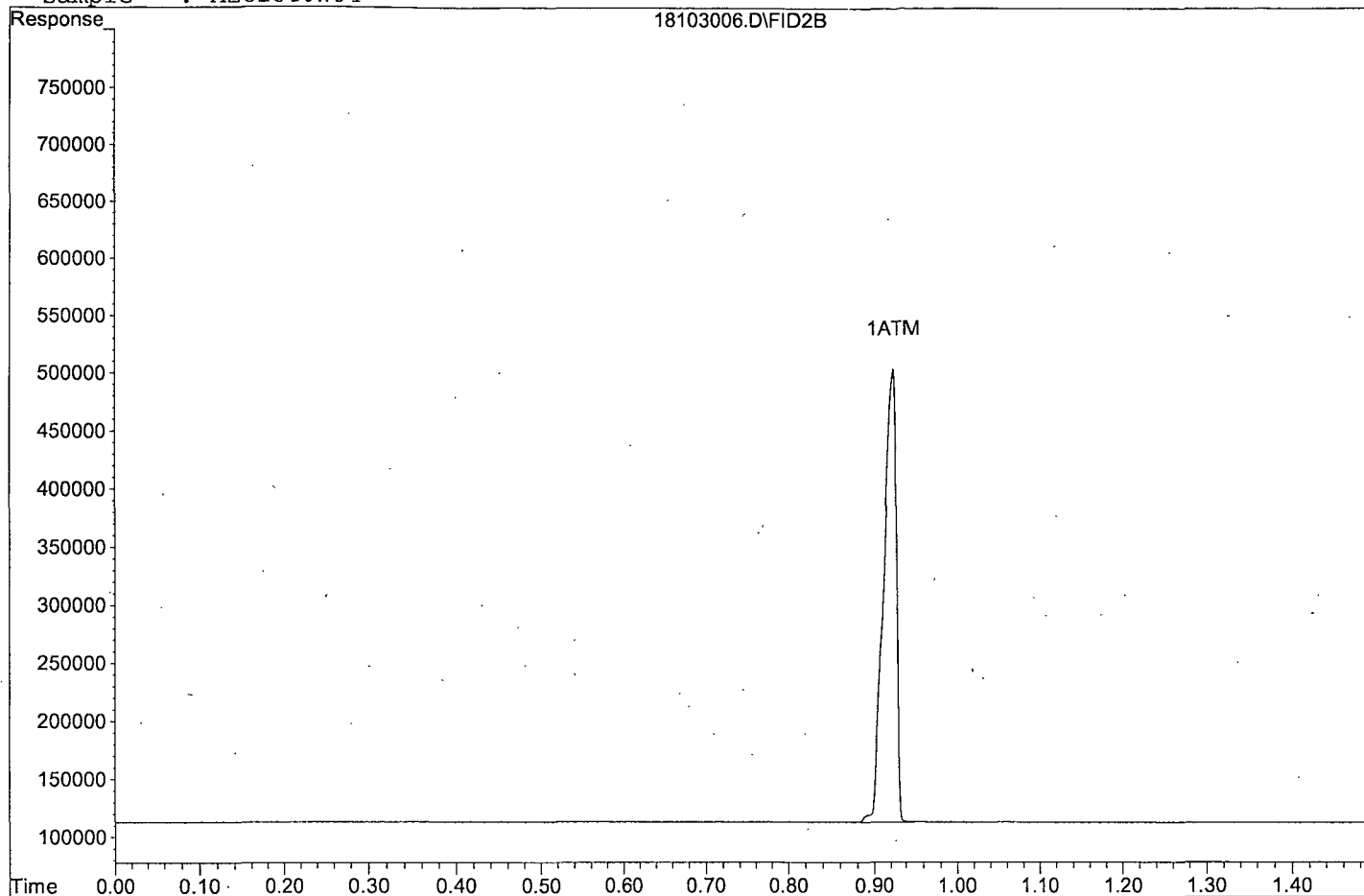
Volume Inj. : 0.500 mL  
 Signal Phase : CARBOPACK  
 Signal Info :

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) ATM Methane	0.92	390970	59.880	ppb
Target Compounds				
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18103006.D

Sample : AZ81840W04



Data File : G:\ROCKY\DATA\181029RS\18103008.D Vial: 9  
 Acq On : 30 Oct 18 10:17 Operator: cmm  
 Sample : AZ81841W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 30 10:21 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Tue Oct 30 10:16:33 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
----------	------	----------	------	-------

Target Compounds

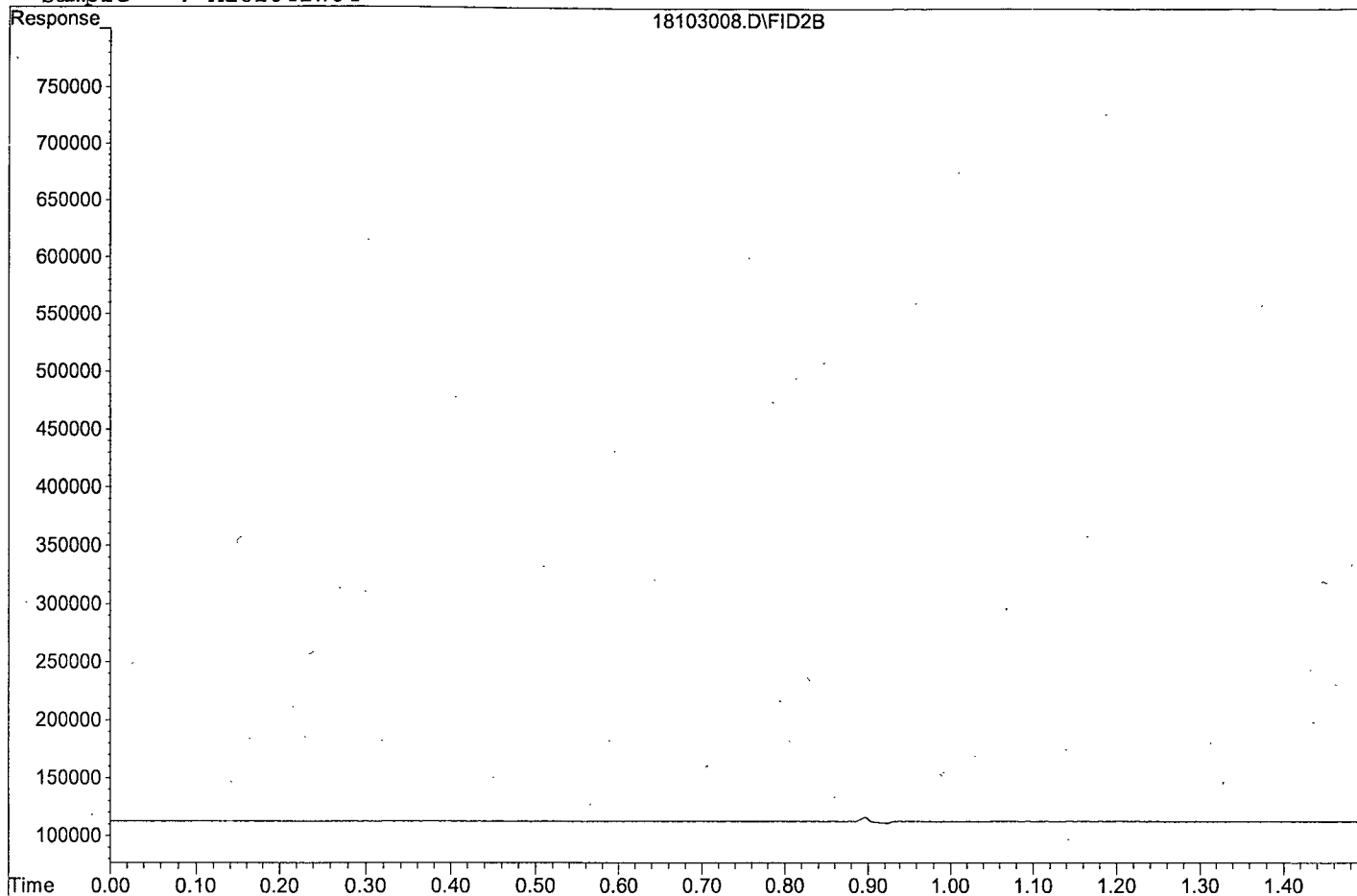
Target Compounds

1) ATM Methane	0.00	0	N.D.	ppb d
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18103008.D

Sample : AZ81841W04





Data File : G:\ROCKY\DATA\181029RS\18103009.D Vial: 10  
 Acq On : 30 Oct 18 10:20 Operator: cmm  
 Sample : AZ81842W04 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 30 10:23 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Tue Oct 30 10:16:33 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
----------	------	----------	------	-------

Target Compounds

Target Compounds

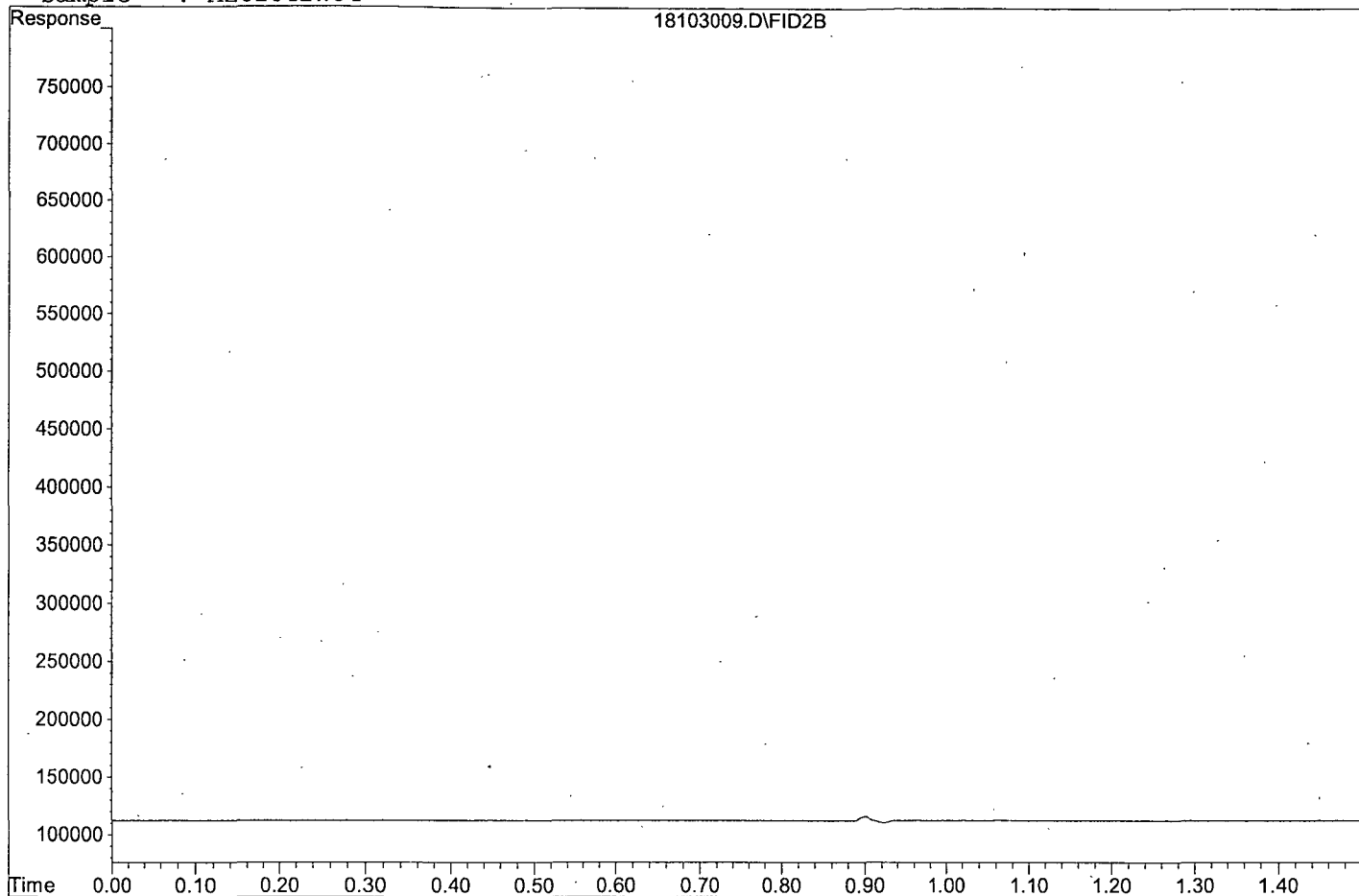
1) ATM Methane	0.00	0	N.D.	ppb d
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18103009.D

Sample : AZ81842W04

18103009.D\FID2B



Data File : G:\ROCKY\DATA\181029RS\18103002.D Vial: 3  
 Acq On : 30 Oct 18 10:02 Operator: cmm  
 Sample : 181030A Blk Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 30 10:06 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Tue Oct 30 10:02:05 2018  
 Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units
----------	------	----------	------	-------

Target Compounds

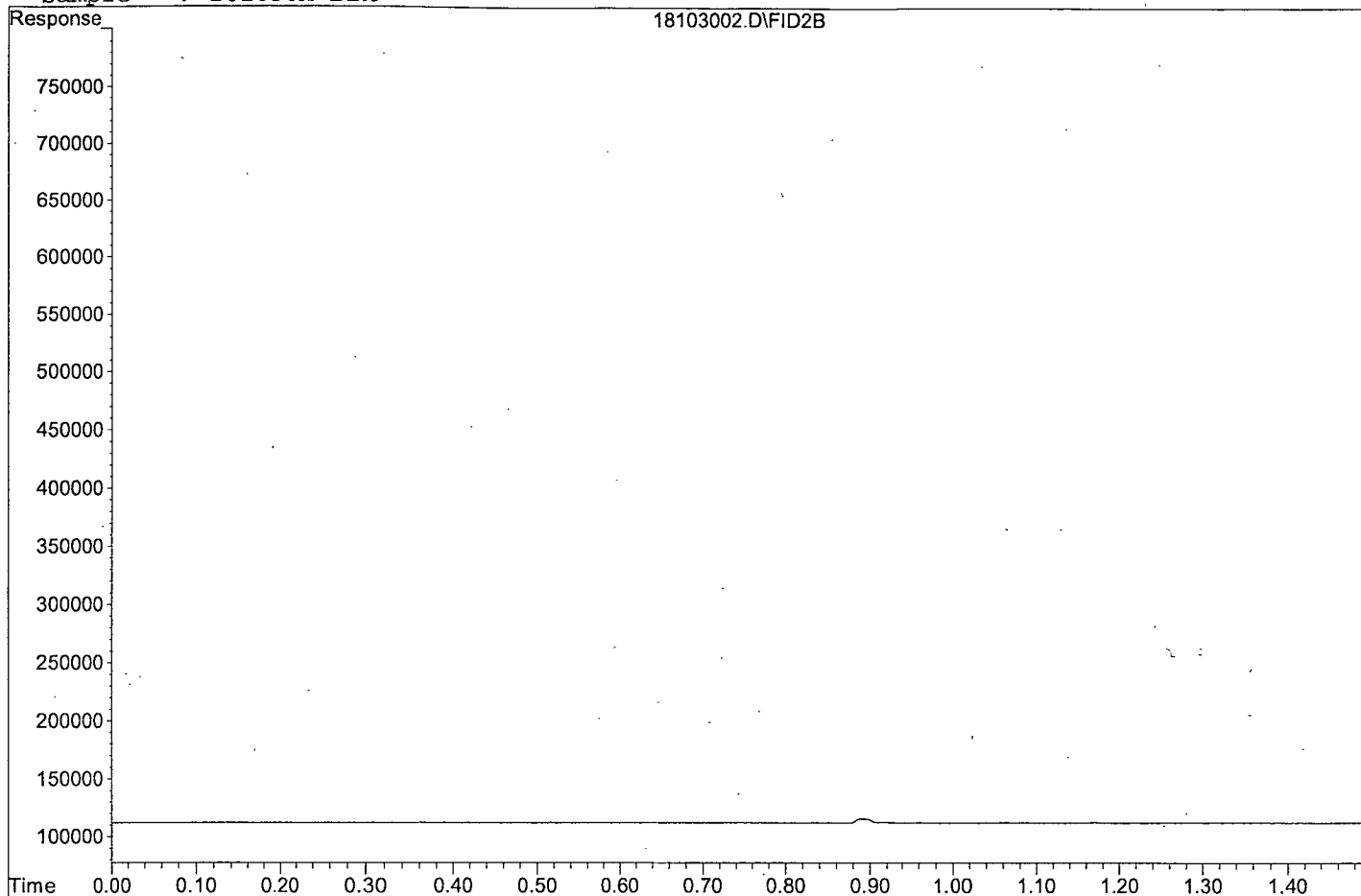
Target Compounds

1) ATM Methane	0.00	0	N.D.	ppb d
2) ATM Ethane	0.00	0	N.D.	ppb d
3) ATM Ethene	0.00	0	N.D.	ppb d

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18103002.D

Sample : 181030A Blk



Data File : G:\ROCKY\DATA\181029RS\18103000.D Vial: 1  
 Acq On : 30 Oct 18 9:56 Operator: cmm  
 Sample : 181030A LCS/CCV RSK Std 5 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 30 9:59 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Tue Oct 30 09:59:11 2018  
 Response via : Multiple Level Calibration

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

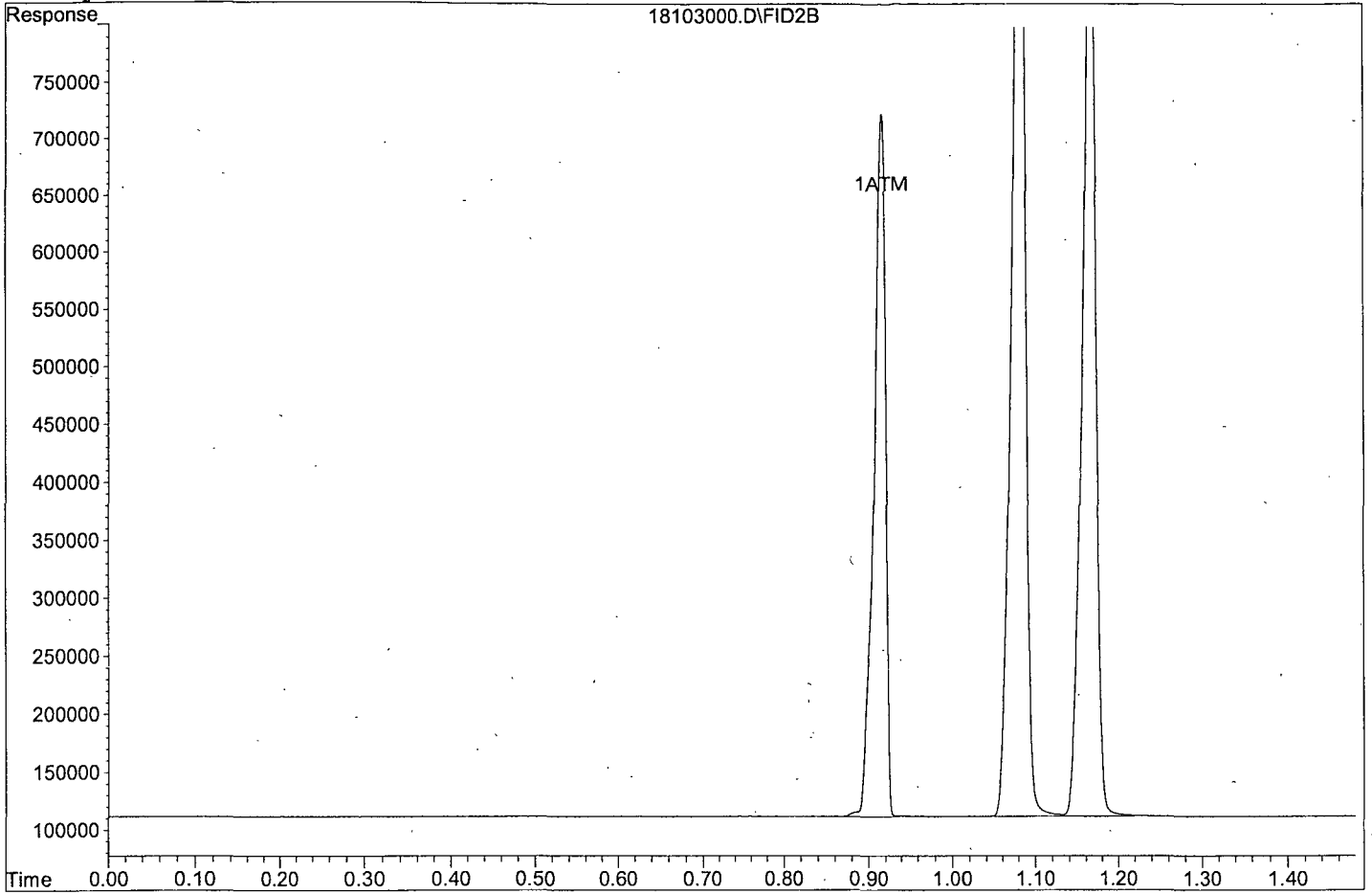
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.92	611916	101.282 ppb
2) ATM Ethane	1.08	962746	182.510 ppb
3) ATM Ethene	1.17	831579	181.857 ppb

Target Compounds

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18103000.D

Sample : 181030A LCS/CCV RSK Std 5



Data File : G:\ROCKY\DATA\181029RS\18103001.D Vial: 2  
 Acq On : 30 Oct 18 9:59 Operator: cmm  
 Sample : 181030A LCSD RSK Std 5 Inst : 7890  
 Misc : Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Oct 30 10:02 2018 Quant Results File: RSK1029.RES

Method : G:\ROCKY\DATA\181029RS\RSK1029.M (Chemstation Integrator)  
 Title : RSK 175  
 Last Update : Tue Oct 30 10:02:05 2018  
 Response via : Multiple Level Calibration

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

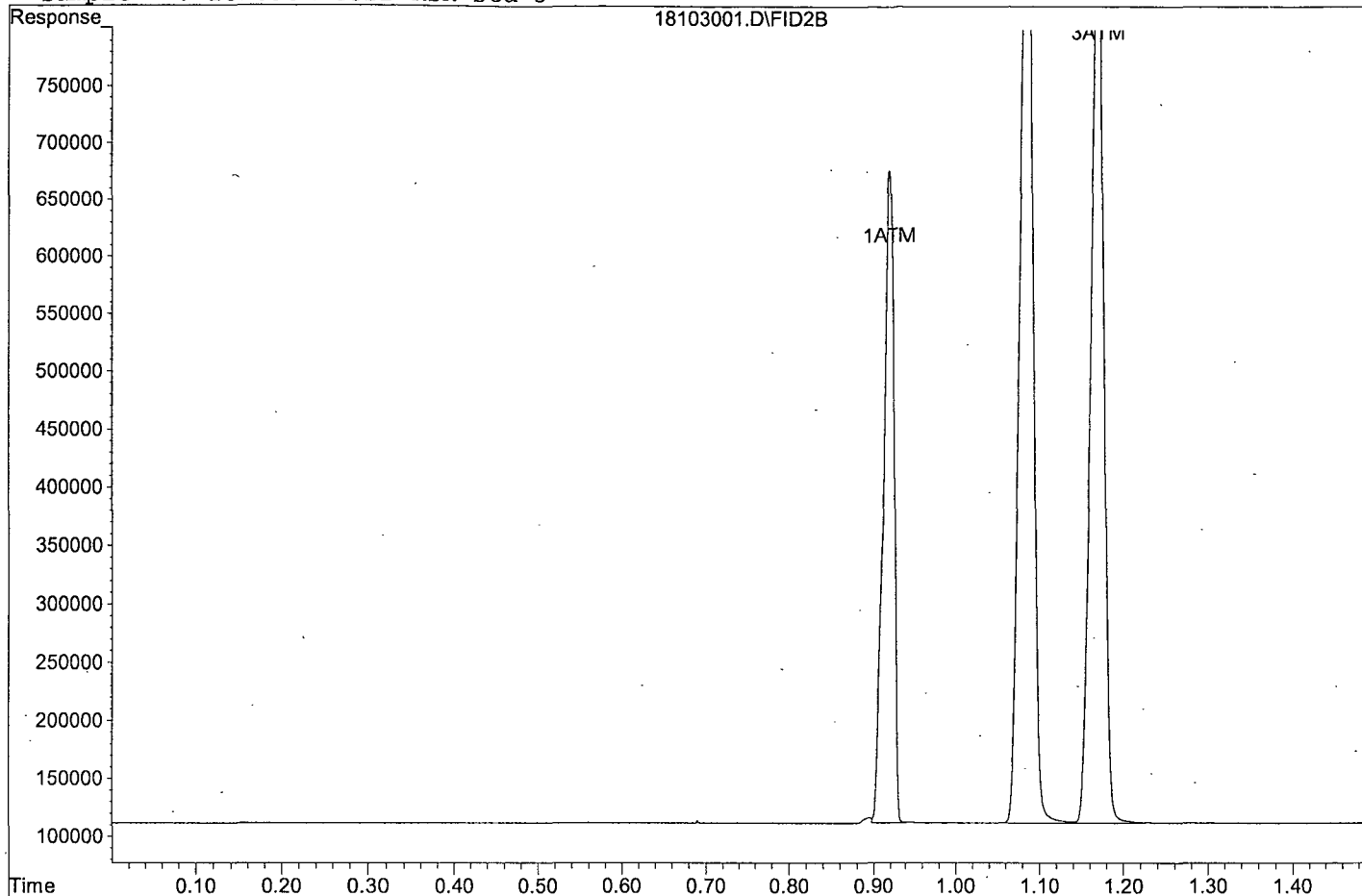
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) ATM Methane	0.92	565107	92.511 ppb
2) ATM Ethane	1.09	887112	168.172 ppb
3) ATM Ethene	1.17	763284	166.921 ppb

Target Compounds

Quantitation Report

Data File: G:\ROCKY\DATA\181029RS\18103001.D

Sample : 181030A LCSD RSK Std 5





**Primary Source Stock Standard 10,000ppmV**

Manufacturer Exp Date 09-21-2021

RSK Gas Mix (Scott Mini-Mix) Cat.# X04NI97CP140001, Lot # 16-401303031-1

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

**RSK Calibration Curve (prepared in 1.0 L Tedlar Bags at room temp)**

Expires 12/24/18

CMM 08/05/18

Analyte	Conc Std 1 (1/2 = LOD) (ug/L)	Conc Std 2 (LOQ Chk) (ug/L)	Conc Std 3 (ug/L)	Conc Std 4 (ug/L)	Conc Std 5 (ug/L)	Conc Std 6 (ug/L)	Conc Std 7 (ug/L)
Methane (MW 16.04)	2.08	4.16	8.34	20.85	83.40	208.5	834.0
Ethane (MW 30.07)	3.91	7.81	15.6	39.09	156.35	390.9	1563.5
Ethene (MW 28.05)	3.65	7.30	14.6	36.46	145.84	364.6	1458.4
Stock Source	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC 06L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410	RSK Tank Lot #170PLU5SPC0 6L-35410
Stock Conc (ppmv)	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV
Stock Aliquot (mL)	0.010	0.020	0.040	0.100	0.400	1.00	4.00
Final Volume P&T Water	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL

**Second Source Stock Standard 10,000ppmV**

Manufacturer Exp date 09/21/2021

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

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

**Second Source**

Expires 10/29/18

CMM 10/29/18

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

**CCV/LCS/LCSD**

CMM 10/30/18

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

## Injection Log

Directory: G:\ROCKY\DATA\181029RS\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	18102900.D	1	RSK Std 1 10/29/18	125uL from RSK Std 3	29 Oct 18 10:29
2	2	18102901.D	1	RSK Std 2 10/29/18	250uL from RSK Std 3	29 Oct 18 10:32
3	4	18102903.D	1	RSK Std 3 10/29/18		29 Oct 18 10:40
4	5	18102904.D	1	RSK Std 4 10/29/18		29 Oct 18 10:42
5	6	18102905.D	1	RSK Std 5 10/29/18		29 Oct 18 10:44
6	7	18102906.D	1	RSK Std 6 10/29/18		29 Oct 18 10:47
7	8	18102907.D	1	RSK Std 7 10/29/18		29 Oct 18 10:49
8	9	18102908.D	1	SS RSK Std 5 10/29/18		29 Oct 18 10:51
9	1	18103000.D	1	181030A LCS/CCV RSK Std 5		30 Oct 18 9:56
10	2	18103001.D	1	181030A LCSD RSK Std 5		30 Oct 18 9:59
11	3	18103002.D	1	181030A Blk		30 Oct 18 10:02
12	4	18103003.D	1	AZ81837W04		30 Oct 18 10:05
13	5	18103004.D	1	AZ81838W04		30 Oct 18 10:07
14	6	18103005.D	1	AZ81839W04		30 Oct 18 10:09
15	7	18103006.D	1	AZ81840W04		30 Oct 18 10:11
16	9	18103008.D	1	AZ81841W04		30 Oct 18 10:17
17	10	18103009.D	1	AZ81842W04		30 Oct 18 10:20
18	11	18103010.D	1	Ending CCV RSK Std 5 10/30/18		30 Oct 18 10:22

**INORGANIC ANALYSIS**  
**Calibration Data**

**APPL, INC.**

INITIAL AND CONTINUING CALIBRATION VERIFICATION

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

ARF No: 87238 SDG: 87238

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 06/15/18

Analyte	Calibration Verification									M
	True ICV	Found 12:31	%R(1)	True CCV1	Found 11:44	%R(1)	True CCV1	Found 11:50	%R(1)	
Ferrous Iron	3	3.16507	106	4	3.99494	99.9	4	3.99494	99.9	

A.P.P.L. INC.

3

BLANKS

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

Contract: AECOM

ARF No.: 87238

SDG: 87238

Preparation Blank Matrix (soil/water): water

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

Analyte	Calibration Blanks										M
	ICB 06/15/18 12:32	C	CCB 10/26/18 11:44	C	CCB 10/26/18 11:51	C		C		C	
Ferrous Iron	1.000	U	1.000	U	1.000	U					

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: \_\_\_\_\_

ARF No: \_\_\_\_\_ SDG: \_\_\_\_\_

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: \_\_\_\_\_

Analysis Date: 09/24/18

Analyte	Calibration Verification									M
	True ICV	Found 11:51	%R(1)	True	Found	%R(1)	True	Found	%R(1)	
bromide	12.5	12.7618	102							
chloride	20	18.7141	93.6							
fluoride	2.5	2.3808	95.2							
Nitrate(NO3)	22.1	21.9977	99.5							
Nitrate(NO3)-N	5	4.9672	99.3							
Nitrite(NO2)	9.98	10.2042	102							
Nitrite(NO2)-N	3.04	3.1067	102							
phosphate-p	5	4.9649	99.3							
sulfate	20	19.129	95.6							

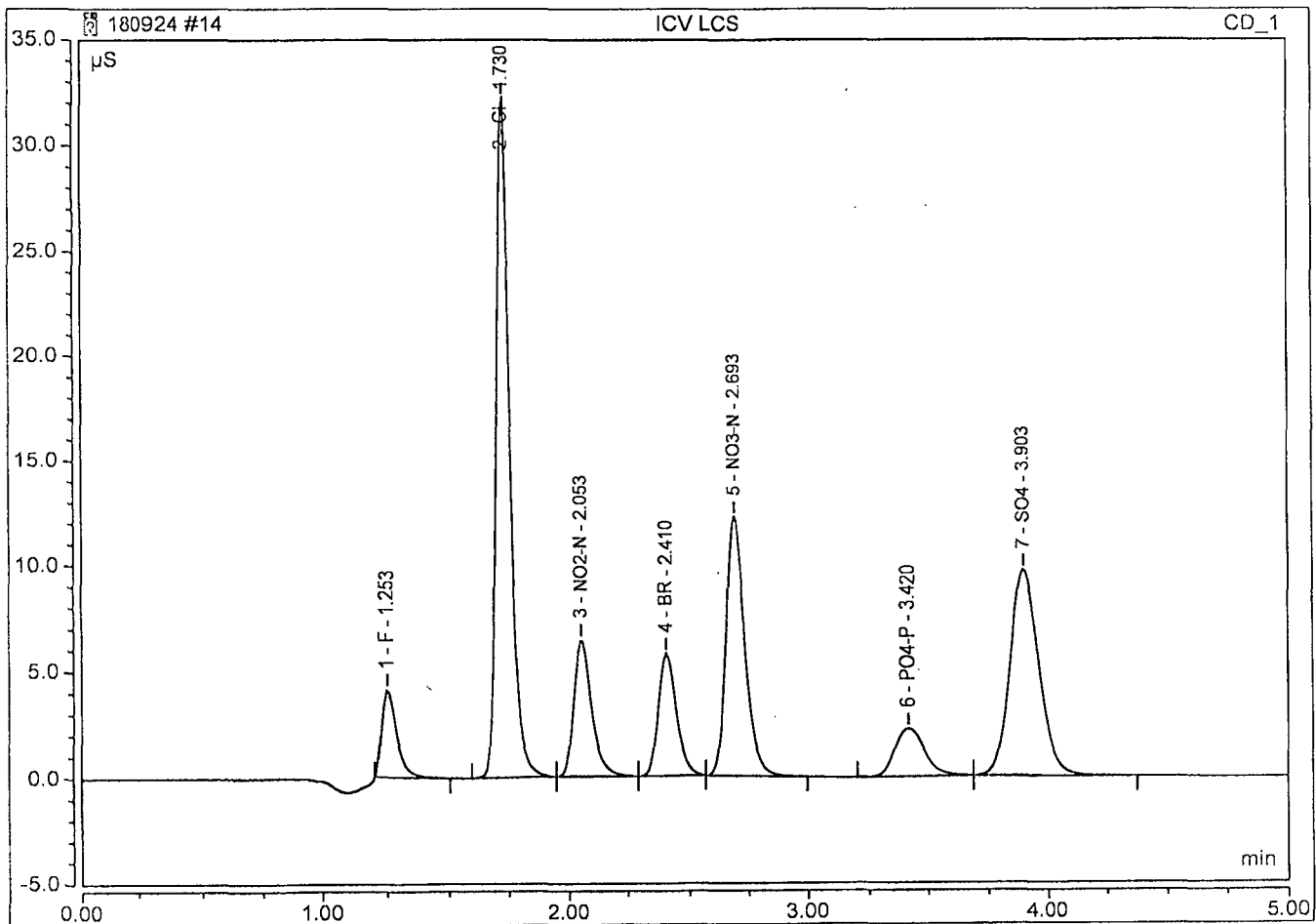
(1) Control Limits: 90-110

ILM02.0

### Peak Integration Report

Sample Name:	ICV LCS	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:51	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.25	F	BMB	0.271	4.107	2.3807
2	1.73	Cl	BMB	2.043	32.215	18.7141
3	2.05	NO2-N	BMB	0.562	6.419	3.1067
4	2.41	BR	BMB	0.480	5.743	12.7618
5	2.69	NO3-N	BMB	1.141	12.194	4.9672
6	3.42	PO4-P	BMB	0.319	2.256	4.9649
7	3.90	SO4	BMB	1.364	9.663	19.1290
TOTAL:				6.18	72.60	66.02



Algorithm Check: HH 180926  
 $y = \text{Peak Area}$   
 $x = \text{mg/L NO}_3\text{-N}$   
 $y = 1.141 \therefore x = 4.966 \checkmark$

A.P.P.L. INC.

3

BLANKS

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

Contract: \_\_\_\_\_

ARF No.: \_\_\_\_\_

SDG: \_\_\_\_\_

Preparation Blank Matrix (soil/water): water

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

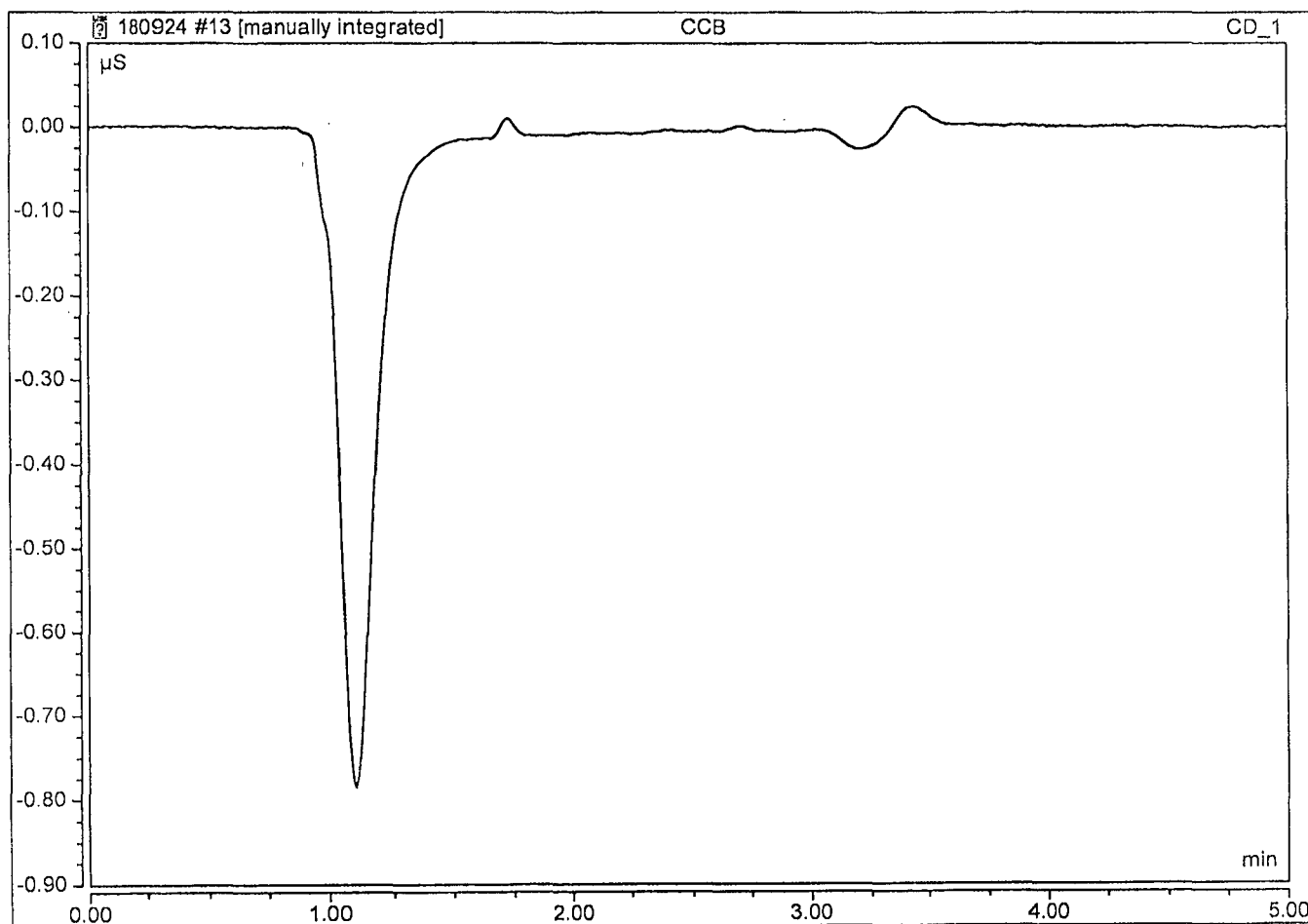
Analyte	Calibration Blanks										M
	CCB 09/24/18 11:43	C		C		C		C		C	
bromide	.500	U									
chloride	1.000	U									
fluoride	.100	U									
Nitrate(NO3)	.500	U									
Nitrate(NO3)-N	.200	U									
Nitrite(NO2)	.300	U									
Nitrite(NO2)-N	.100	U									
phosphate-p	.200	U									
sulfate	1.000	U									



### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:43	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00



## INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOMARF No: 87219 SDG: 87219Initial Calibration Source: CPIContinuing Calibration Source: Environmental ExpressAnalysis Date: 10/26/18

Analyte	Calibration Verification									M
	True CCV1	Found 9:42	%R(1)	True CCV1	Found 11:05	%R(1)	True CCV1	Found 12:07	%R(1)	
chloride	25	23.9479	95.8	25	24.1223	96.5	25	24.045	96.2	
Nitrate(NO3)	22.1	21.8803	99.0	22.1	21.9286	99.2	22.1	21.9445	99.3	
sulfate	25	24.505	98.0	25	24.6738	98.7	25	24.5937	98.4	

## INITIAL AND CONTINUING CALIBRATION VERIFICATION

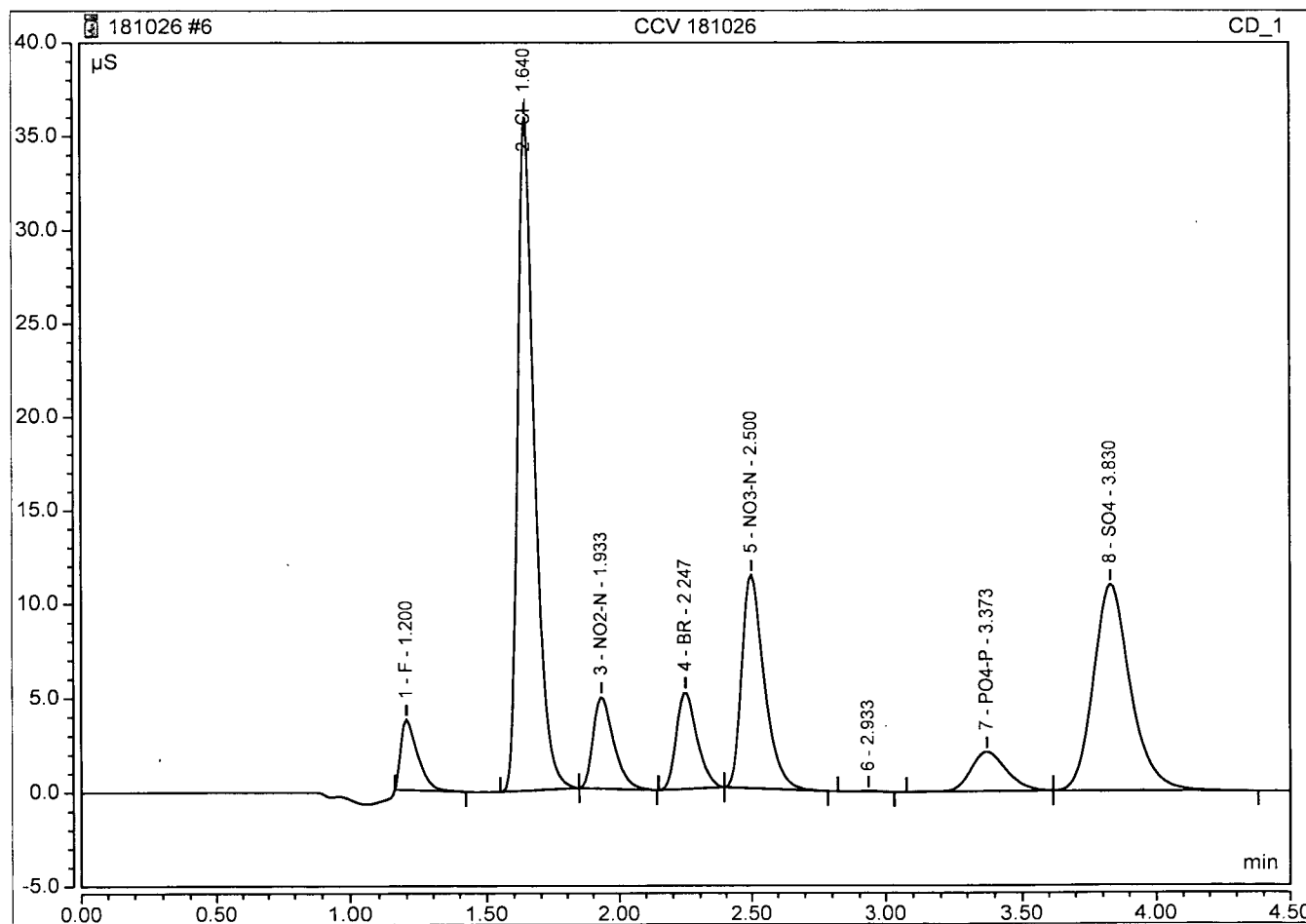
Lab Name: A.P.P.L. INC. Contract: AECOMARF No: 87219 SDG: 87219Initial Calibration Source: CPIContinuing Calibration Source: Environmental ExpressAnalysis Date: 10/26/18

Analyte	Calibration Verification									M
	True CCVI	Found 13:02	%R(1)	True	Found	%R(1)	True	Found	%R(1)	
chloride	25	23.8949	95.6							
Nitrate(NO3)	22.1	21.7063	98.2							
sulfate	25	25.5379	102							

### Peak Integration Report

Sample Name:	CCV 181026	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 09:42	Run Time:	4.50

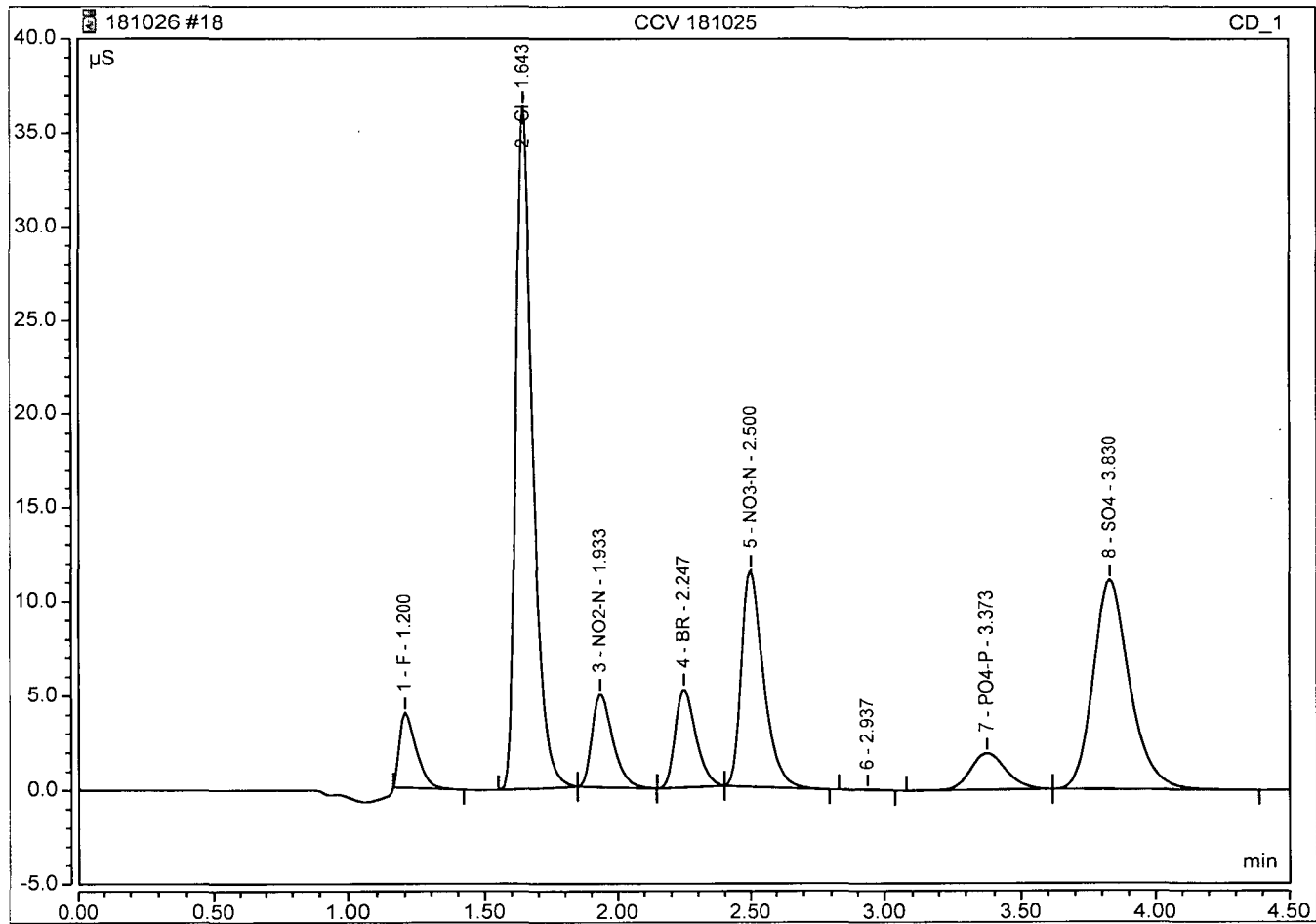
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.20	F	BMB	0.272	3.728	2.3878
2	1.64	Cl	BMB	2.621	35.926	23.9479
3	1.93	NO <sub>2</sub> -N	BMB	0.447	4.876	2.4751
4	2.25	BR	BMB	0.461	5.151	12.2479
5	2.50	NO <sub>3</sub> -N	BMB	1.135	11.332	4.9407
7	3.37	PO <sub>4</sub> -P	BMB	0.311	2.092	4.8385
8	3.83	SO <sub>4</sub>	BMB	1.750	10.938	24.5050
TOTAL:				7.00	74.04	75.34



### Peak Integration Report

Sample Name:	CCV 181025	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 11:05	Run Time:	4.50

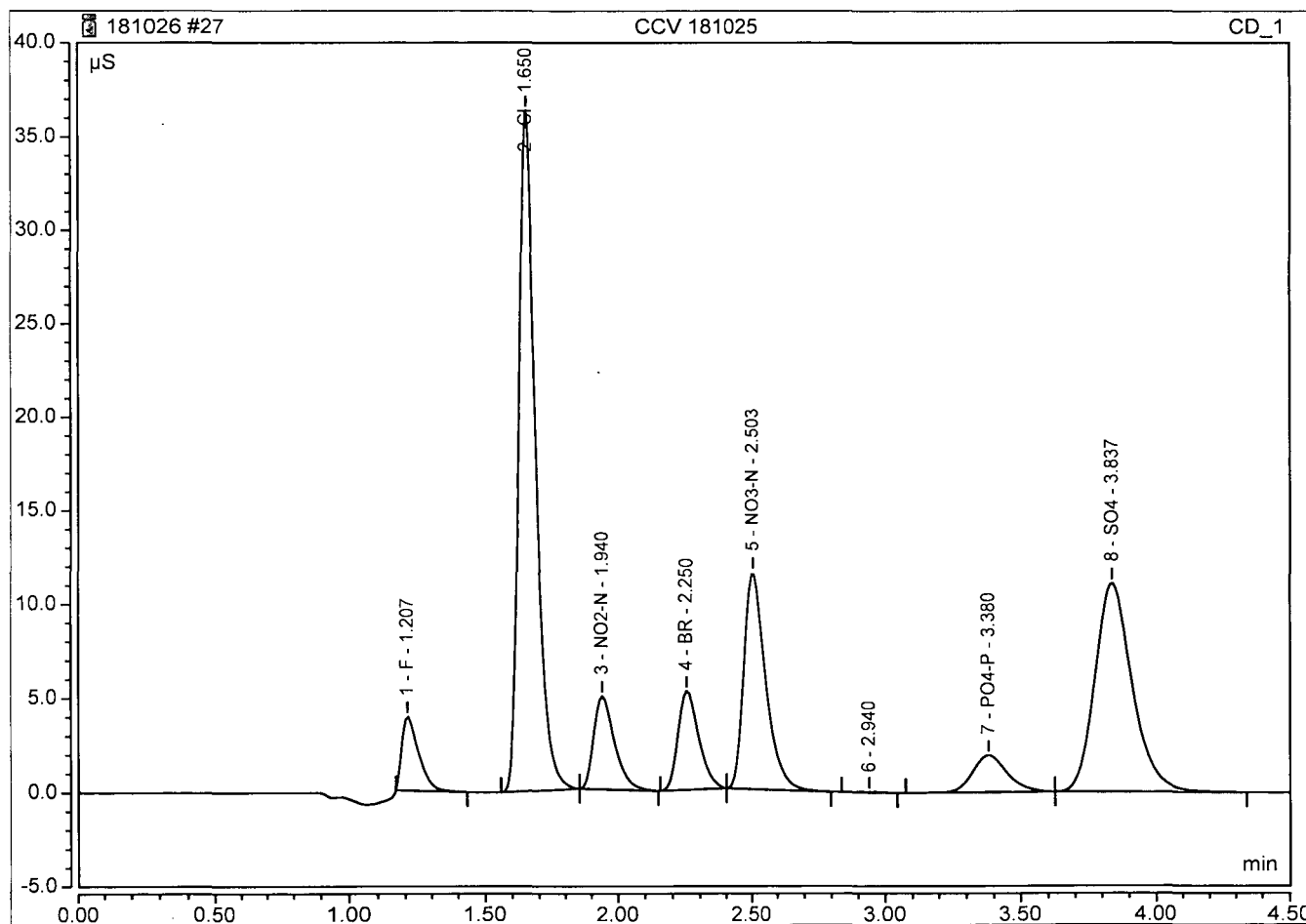
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.20	F	BMB	0.290	3.981	2.5368
2	1.64	Cl	BMB	2.641	36.347	24.1223
3	1.93	NO2-N	BMB	0.450	4.937	2.4885
4	2.25	BR	BMB	0.462	5.220	12.2971
5	2.50	NO3-N	BMB	1.137	11.475	4.9515
7	3.37	PO4-P	BMB	0.288	1.939	4.4980
8	3.83	SO4	BMB	1.762	11.094	24.6738
TOTAL:				7.03	74.99	75.57



### Peak Integration Report

Sample Name:	CCV 181025	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 12:07	Run Time:	4.50

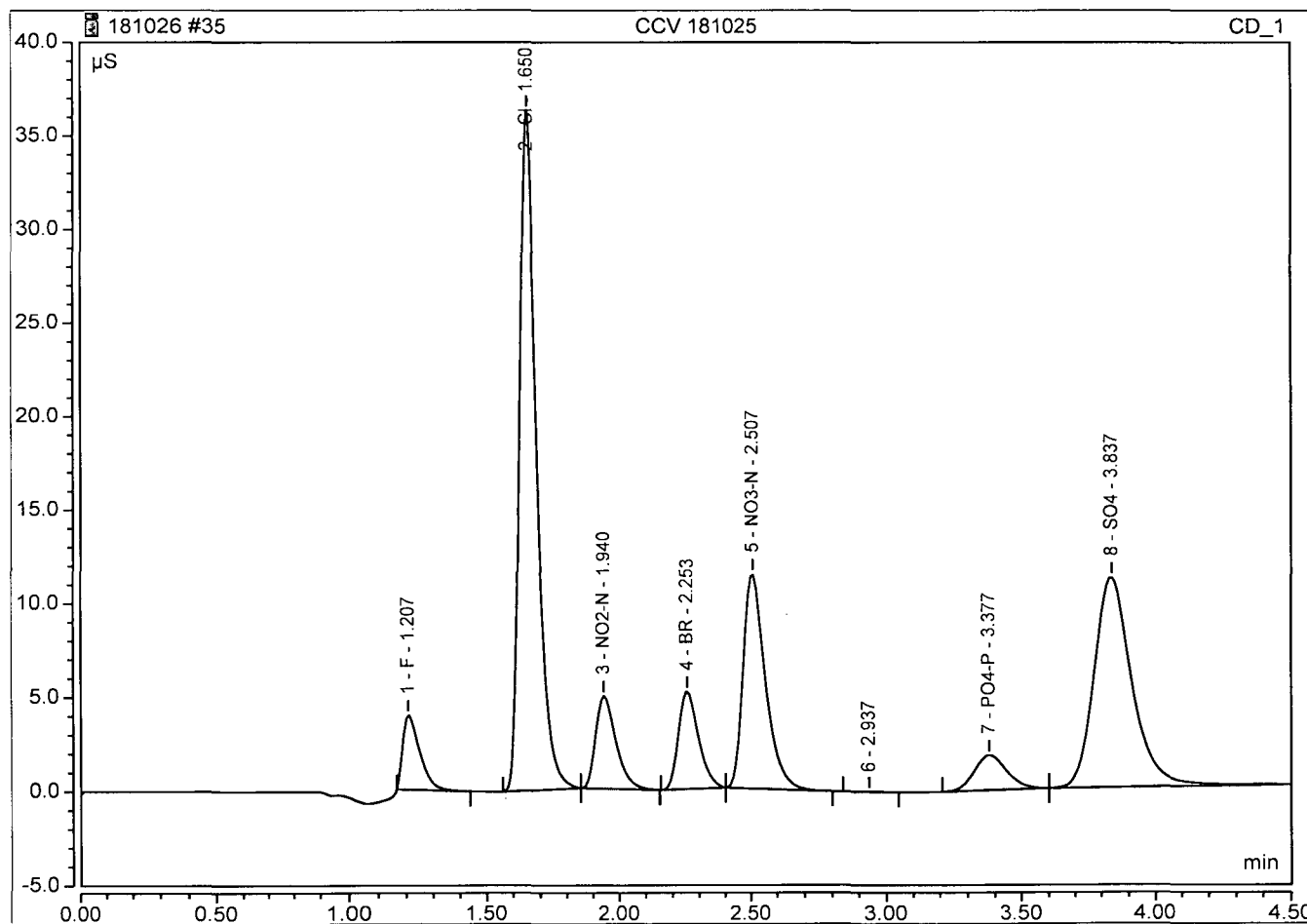
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.21	F	BMB	0.286	3.918	2.5078
2	1.65	Cl	BMB	2.632	36.301	24.0450
3	1.94	NO <sub>2</sub> -N	BMB	0.449	4.945	2.4839
4	2.25	BR	BMB	0.463	5.231	12.3053
5	2.50	NO <sub>3</sub> -N	BMB	1.138	11.503	4.9551
7	3.38	PO <sub>4</sub> -P	BMB	0.290	1.957	4.5248
8	3.84	SO <sub>4</sub>	BMB	1.756	11.081	24.5937
TOTAL:				7.01	74.94	75.42



### Peak Integration Report

Sample Name:	CCV 181025	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 13:02	Run Time:	4.50

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}^*\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.21	F	BMB	0.288	3.964	2.5241
2	1.65	Cl	BMB	2.616	36.309	23.8949
3	1.94	NO <sub>2</sub> -N	BMB	0.445	4.930	2.4640
4	2.25	BR	BMB	0.457	5.193	12.1598
5	2.51	NO <sub>3</sub> -N	BMB	1.126	11.426	4.9014
7	3.38	PO <sub>4</sub> -P	BMB	0.263	1.865	4.1330
8	3.84	SO <sub>4</sub>	BMB	1.824	11.176	25.5379
TOTAL:				7.02	74.86	75.62



A.P.P.L. INC.

3

BLANKS

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

Contract: AECOM

ARF No.: 87219

SDG: 87219

Preparation Blank Matrix (soil/water): water

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

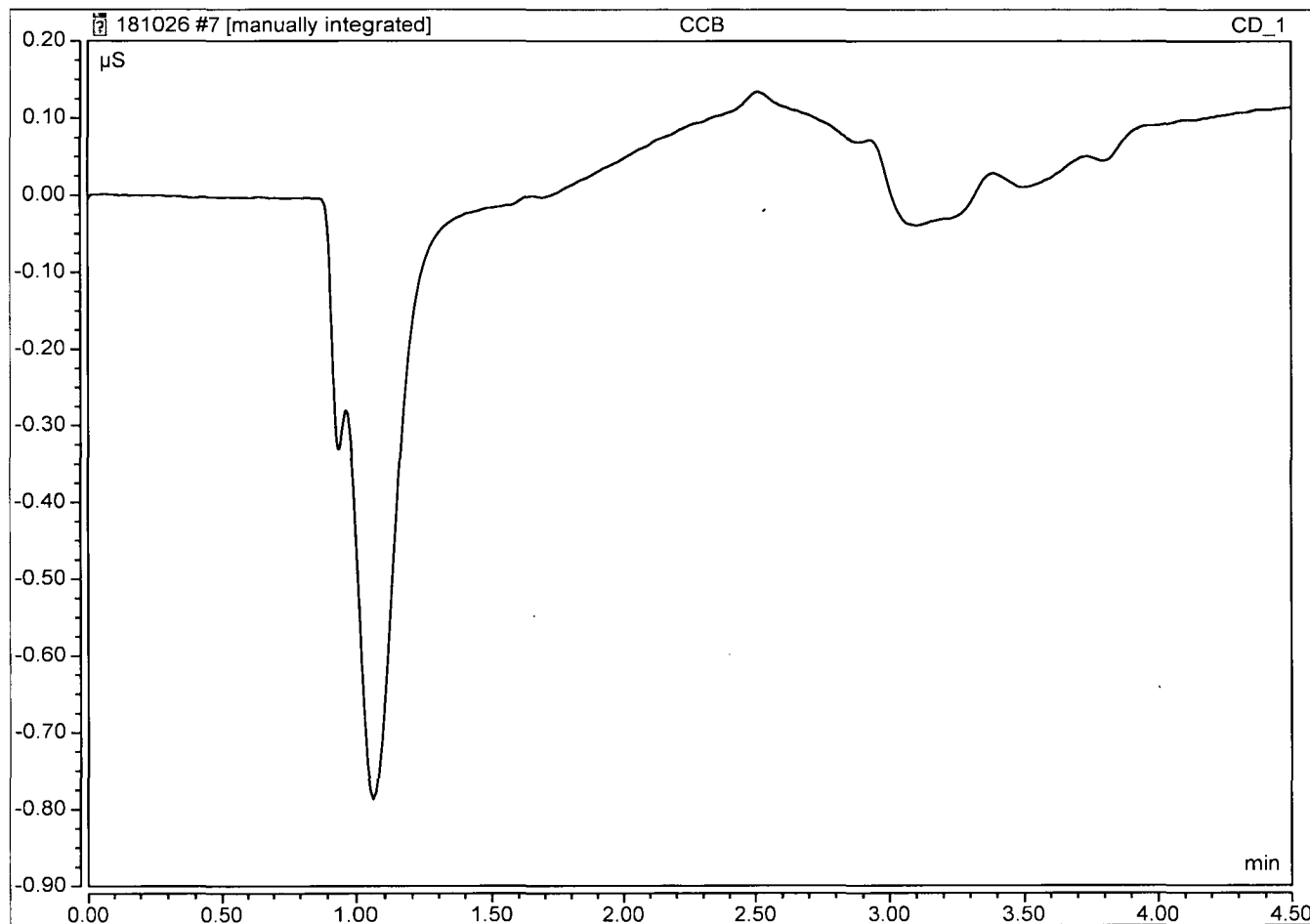
Analyte	Calibration Blanks										M
	CCB 10/26/18 09:49	C	CCB 10/26/18 11:11	C	CCB 10/26/18 12:14	C	CCB 10/26/18 13:09	C		C	
chloride	1.000	U	1.000	U	1.000	U	1.000	U			
Nitrate(NO3)	.500	U	.500	U	.500	U	.500	U			
sulfate	1.000	U	1.000	U	1.000	U	1.000	U			



### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 09:49	Run Time:	4.50

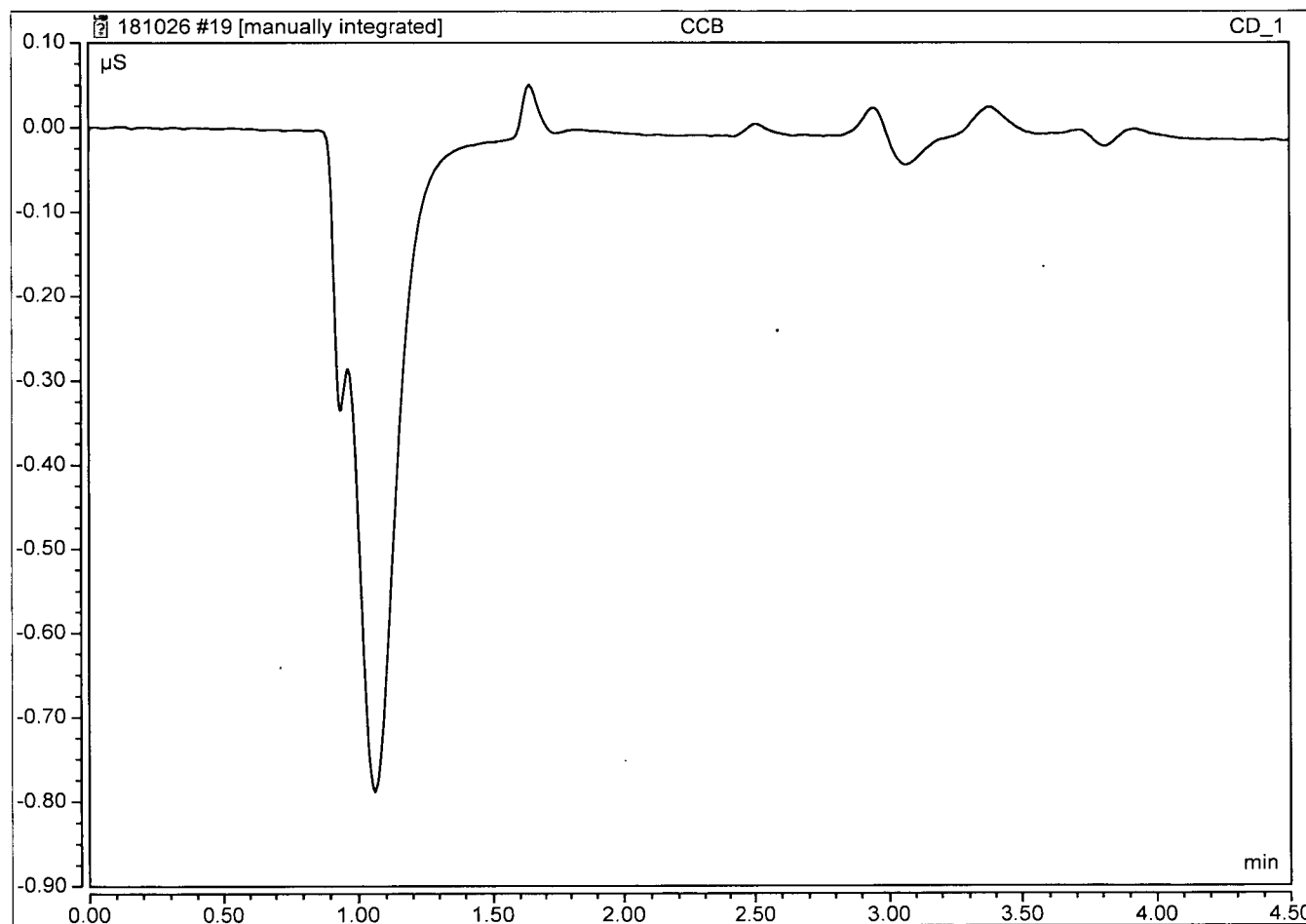
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00



### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 11:11	Run Time:	4.50

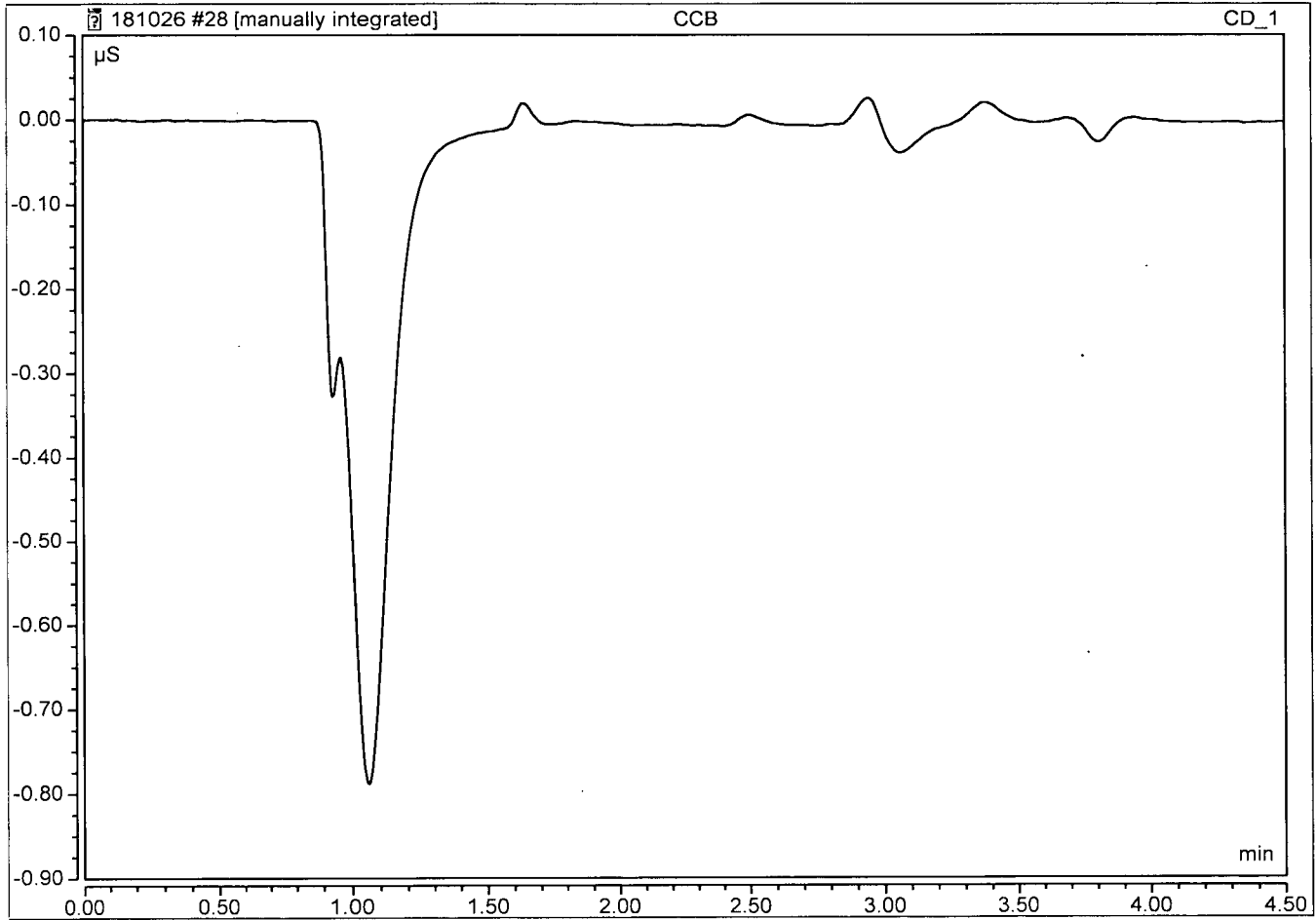
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00



### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 12:14	Run Time:	4.50

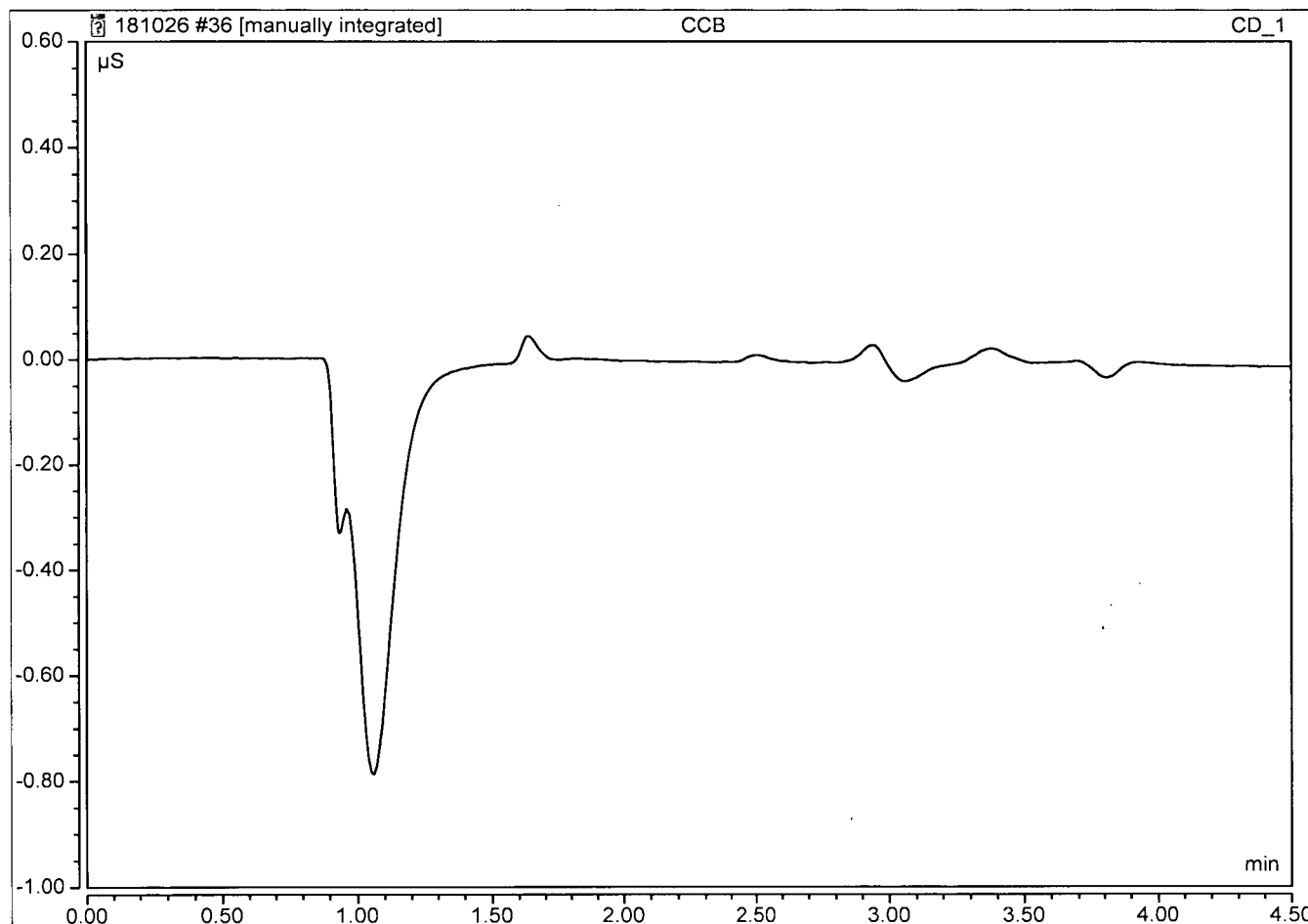
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00



### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 13:09	Run Time:	4.50

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00



INITIAL AND CONTINUING CALIBRATION VERIFICATION

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

ARF No: 87219 SDG: 87219

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

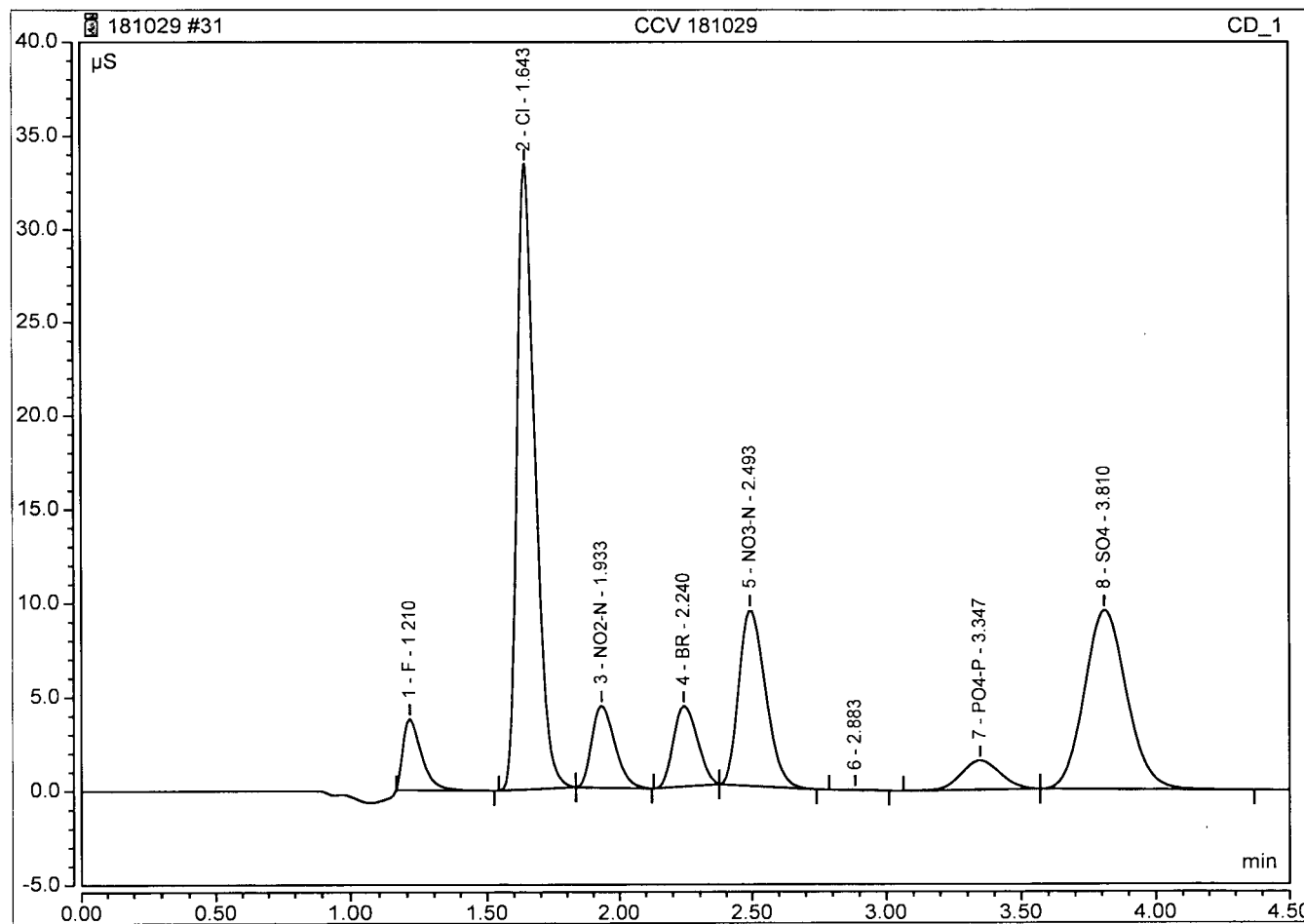
Analysis Date: 10/29/18

Analyte	Calibration Verification									M
	True CCV1	Found 11:09	%R(1)	True CCV1	Found 12:05	%R(1)	True	Found	%R(1)	
chloride	25	24.0839	96.3	25	24.084	96.3				
sulfate	25	24.4018	97.6	25	24.276	97.1				

### Peak Integration Report

Sample Name:	CCV 181029	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	29-Oct-2018 / 11:09	Run Time:	4.50

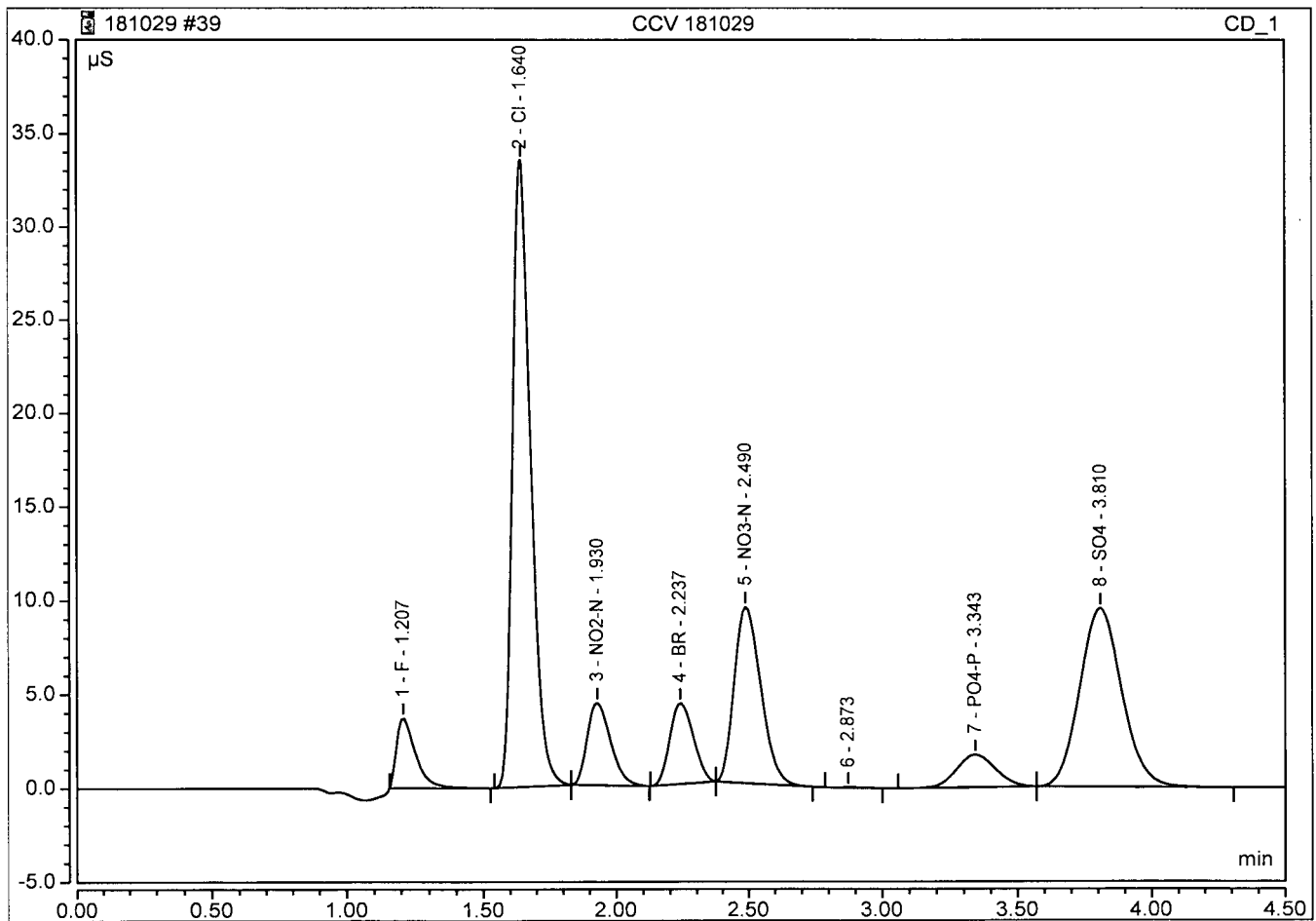
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.21	F	BMB	0.304	3.814	2.6544
2	1.64	Cl	BMB	2.636	33.442	24.0839
3	1.93	NO2-N	BMB	0.447	4.378	2.4720
4	2.24	BR	BMB	0.444	4.304	11.8079
5	2.49	NO3-N	BMB	1.105	9.365	4.8126
7	3.35	PO4-P	BMB	0.262	1.563	4.1086
8	3.81	SO4	BMB	1.742	9.546	24.4018
TOTAL:				6.94	66.41	74.34



### Peak Integration Report

Sample Name:	CCV 181029	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	29-Oct-2018 / 12:05	Run Time:	4.50

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.21	F	BMB	0.300	3.729	2.6204
2	1.64	Cl	BMB	2.636	33.514	24.0840
3	1.93	NO2-N	BMB	0.448	4.390	2.4785
4	2.24	BR	BMB	0.444	4.310	11.8084
5	2.49	NO3-N	BMB	1.105	9.395	4.8118
7	3.34	PO4-P	BMB	0.292	1.748	4.5542
8	3.81	SO4	BMB	1.733	9.522	24.2760
TOTAL:				6.96	66.61	74.63



A.P.P.L. INC.

3

BLANKS

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

Contract: AECOM

ARF No.: 87219

SDG: 87219

Preparation Blank Matrix (soil/water): water

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

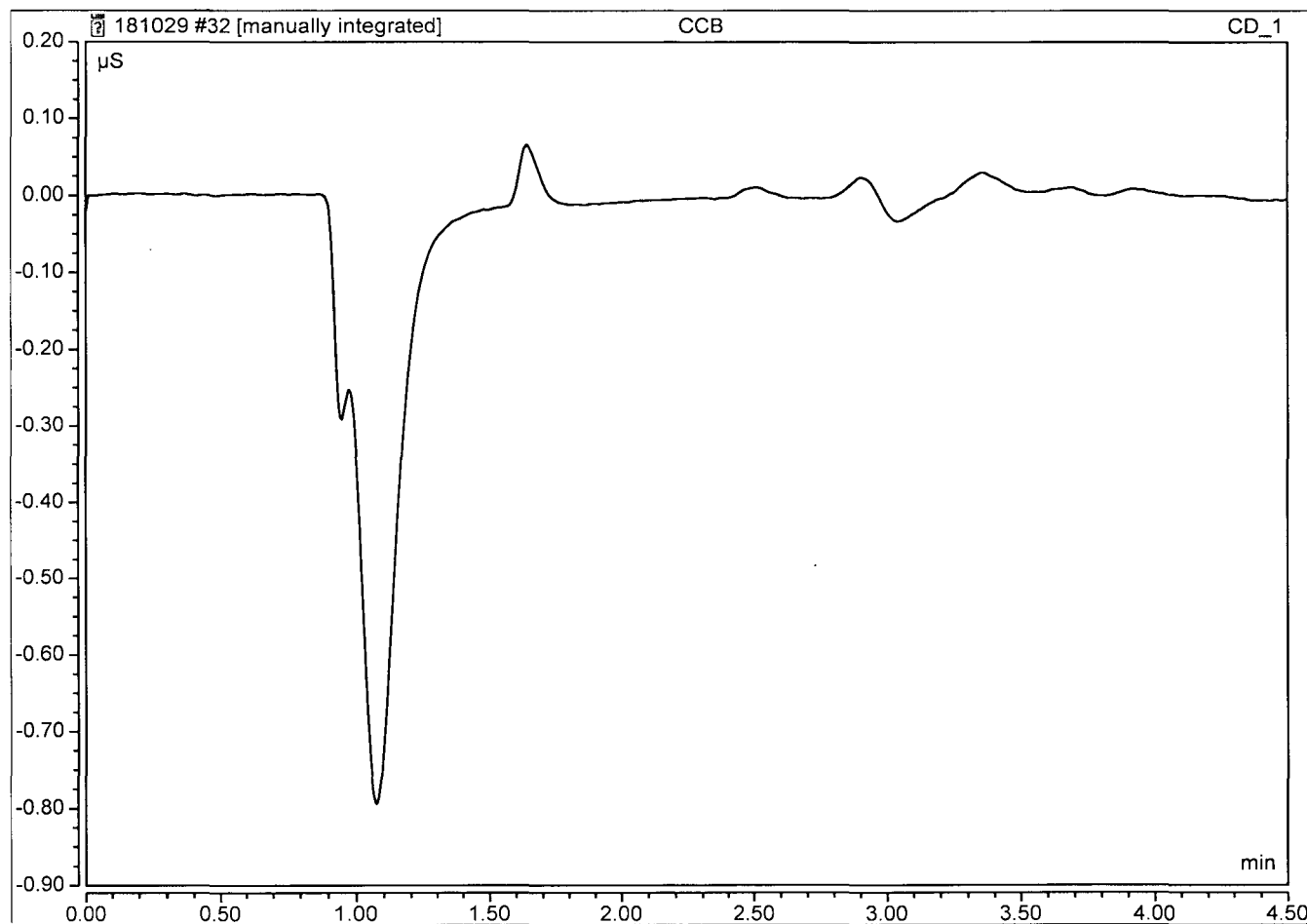
Analyte	Calibration Blanks								M
	CCB 10/29/18 11:16	C	CCB 10/29/18 12:11	C		C		C	
chloride	1.000	U	1.000	U					
sulfate	1.000	U	1.000	U					



### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	29-Oct-2018 / 11:16	Run Time:	4.50

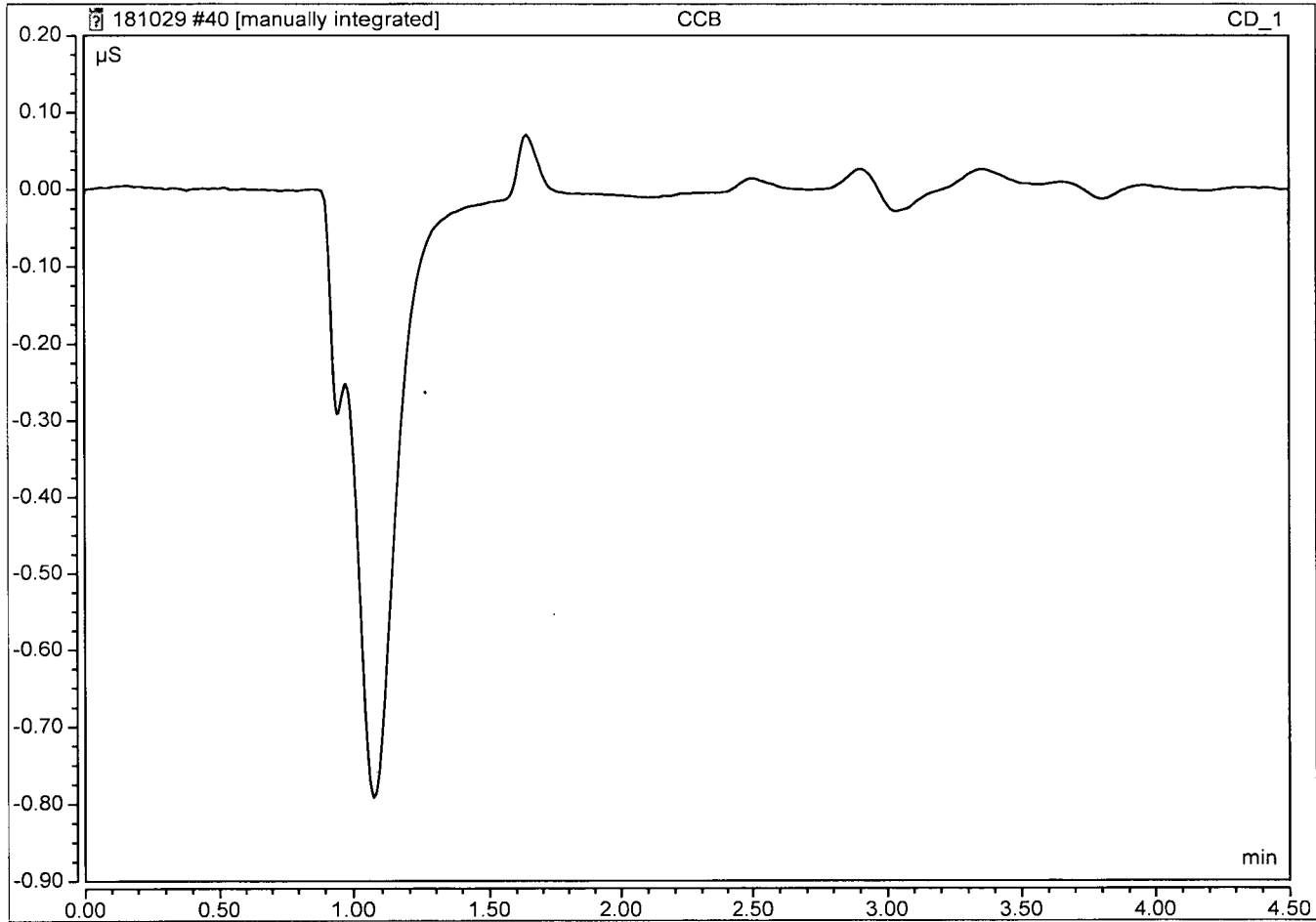
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount
TOTAL:				0.00	0.00	n.a.



### Peak Integration Report

Sample Name:	CCB	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	29-Oct-2018 / 12:11	Run Time:	4.50

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount n.a.
TOTAL:				0.00	0.00	0.00



A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

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

ARF No: 87238 SDG: 87238

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 10/30/18

Analyte	Calibration Verification									M
	True ICV	Found 14:32	%R(1)	True CCV1	Found 15:04	%R(1)	True CCV1	Found 15:14	%R(1)	
TOXN	3	3.0057	100	3	2.9472	98.2	3	2.9304	97.7	

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.

3

BLANKS

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

Contract: AECOM

ARF No.: 87238

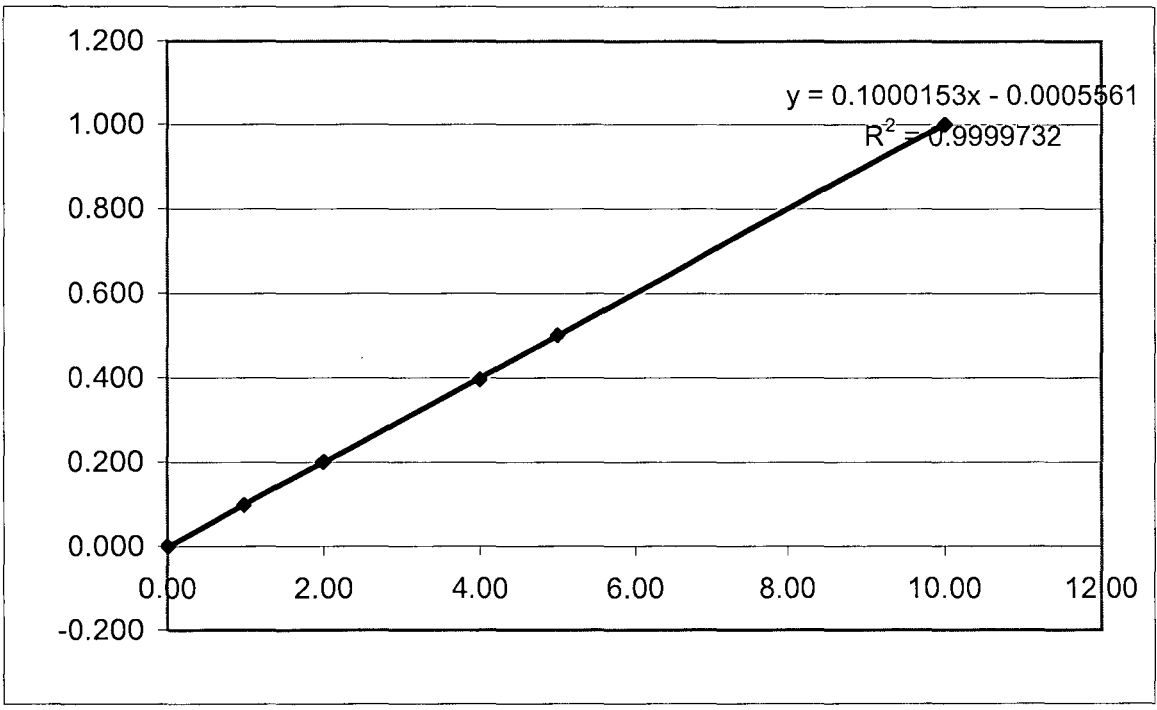
SDG: 87238

Preparation Blank Matrix (soil/water): water

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

Analyte	Calibration Blanks										M
	ICB 10/30/18 14:34	C	CCB 10/30/18 15:06	C	CCB 10/30/18 15:15	C		C		C	
TOXN	.100	U	.100	U	.100	U					

181026 Ferrous Iron



X	Y
0.00	0.000
1.00	0.099
2.00	0.201
4.00	0.396
5.00	0.501
10.00	1.000

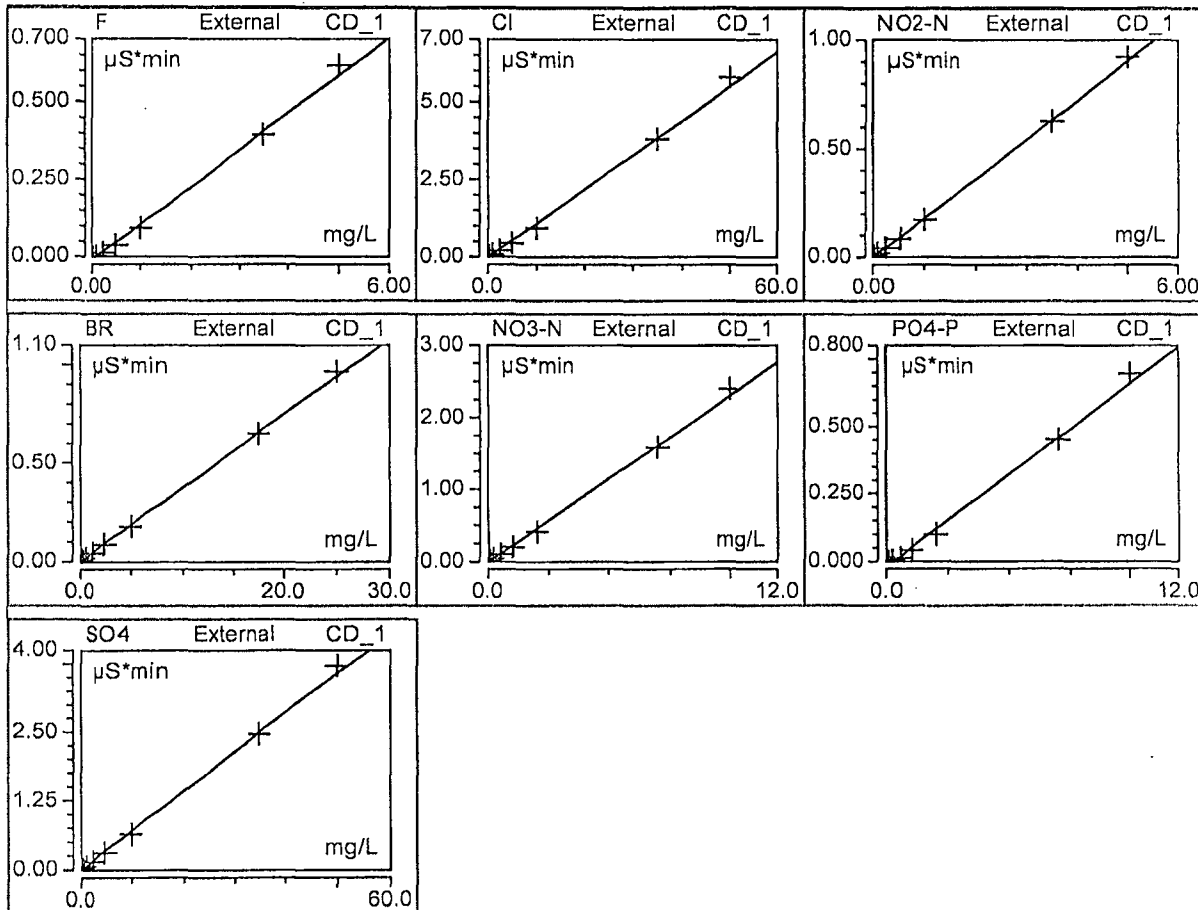
Algorithm Check  
 reading (y)= 0.314  
 dilution= 1  
 result (x)= 3.15  
 3.14507983

10/31/18 14:21  
 HH

### Calibration Batch Report

Sequence:	180924	Injection Volume:	25.00
Instrument Method:	Anions IM	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:36	Run Time:	5

Calibration Summary						
Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Coeff.Det. %
F	Area	Lin, WithOffset, 1/A	6	-0.013904	0.119725	99.34
Cl	Area	Lin, WithOffset, 1/A	7	-0.023621	0.110450	99.36
NO2-N	Area	Lin, WithOffset, 1/A	7	-0.001107	0.181176	99.92
BR	Area	Lin, WithOffset, 1/A	7	-0.000715	0.037662	99.88
NO3-N	Area	Lin, WithOffset, 1/A	7	-0.005336	0.230793	99.68
PO4-P	Area	Lin, WithOffset, 1/A	6	-0.015615	0.067471	99.04
SO4	Area	Lin, WithOffset, 1/A	7	-0.008285	0.071734	99.71

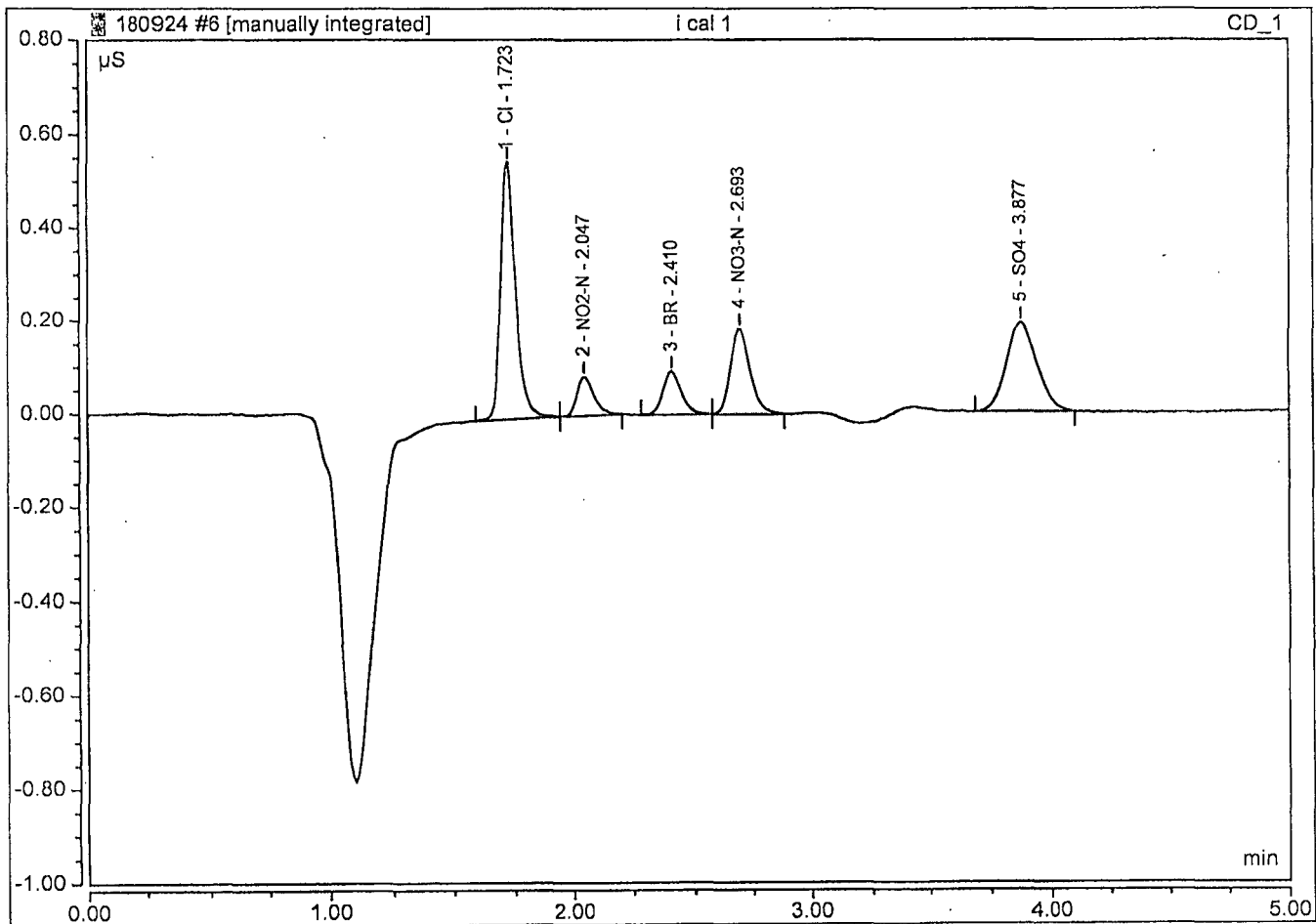


Injection Name	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1	Amount mg/L CD 1
	F	Cl	NO2-N	BR	NO3-N	PO4-P	SO4
ical 1	n.a.	0.5622	0.0441	0.2341	0.1016	n.a.	0.5074
ical 2	0.135	0.9959	0.1035	0.4942	0.1991	0.2894	0.9909
ical 3	0.220	2.1289	0.2368	1.1823	0.4535	0.4157	2.2625
ical 4	0.427	4.2154	0.4726	2.3380	0.8947	0.8302	4.4921
ical 5	0.889	8.5779	0.9575	4.7219	1.8093	1.6962	9.0988
ical 6	3.410	34.7347	3.4715	17.2981	6.9001	6.9186	34.5706
ical 7	5.269	52.6849	5.1040	25.6813	10.4216	10.5499	51.9777

### Peak Integration Report

Sample Name:	i cal 1	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 10:51	Run Time:	5.00

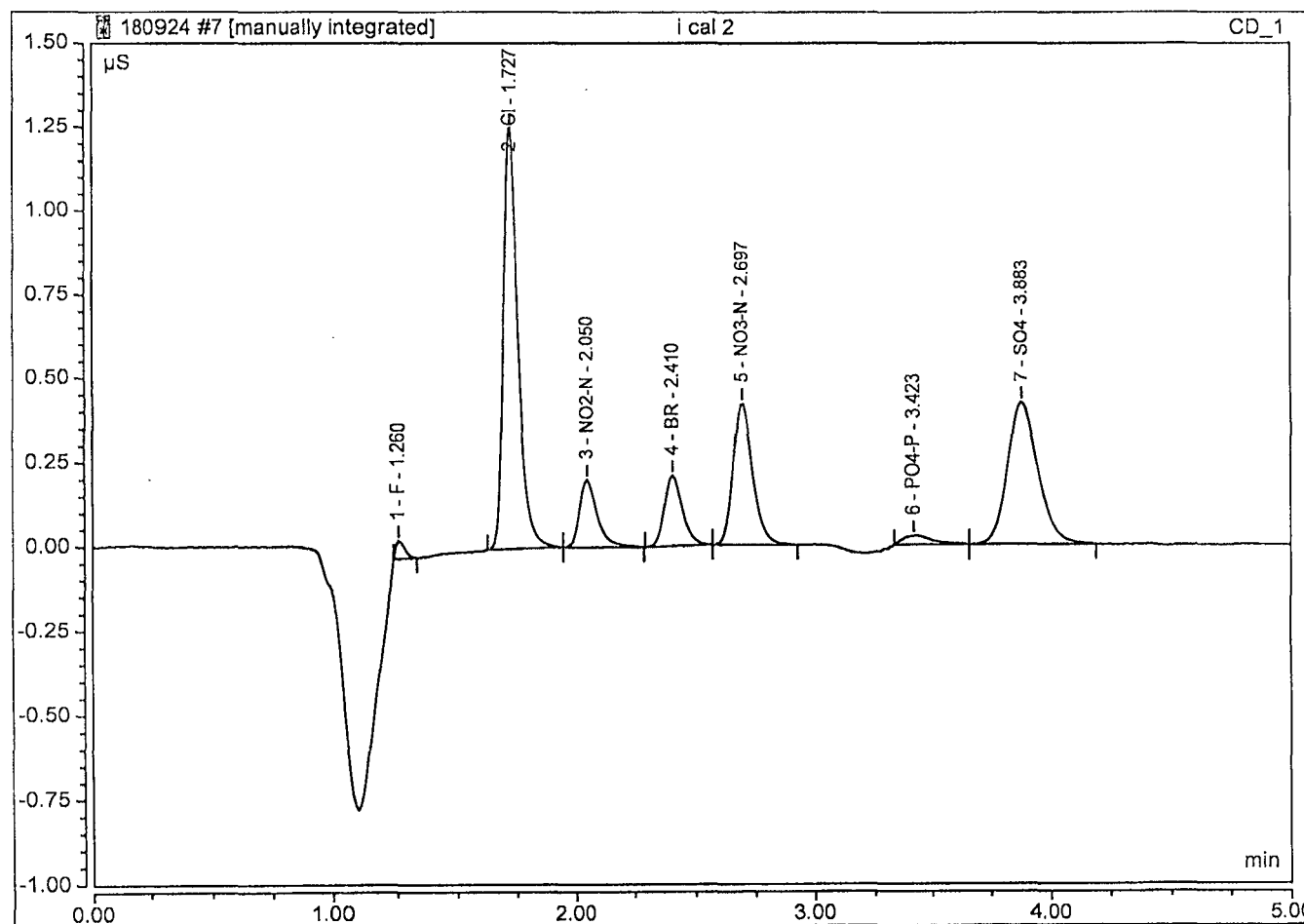
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.72	Cl	BMB	0.038	0.553	0.5622
2	2.05	NO2-N	BMB	0.007	0.083	0.0441
3	2.41	BR	BMB	0.008	0.093	0.2341
4	2.69	NO3-N	BMB	0.018	0.184	0.1016
5	3.88	SO4	BMB	0.028	0.192	0.5074
TOTAL:				0.10	1.10	1.45



### Peak Integration Report

Sample Name:	i cal 2	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 10:59	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB*	0.002	0.053	0.1347
2	1.73	Cl	BMB	0.086	1.253	0.9959
3	2.05	NO2-N	BMB	0.018	0.200	0.1035
4	2.41	BR	BMB	0.018	0.209	0.4942
5	2.70	NO3-N	BMB	0.041	0.418	0.1991
6	3.42	PO4-P	BMB*	0.004	0.027	0.2894
7	3.88	SO4	bBMB*	0.063	0.420	0.9909
TOTAL:				0.23	2.58	3.21



F M: 1 180926 HH  
 PO<sub>4</sub> M: 1 180926 HH

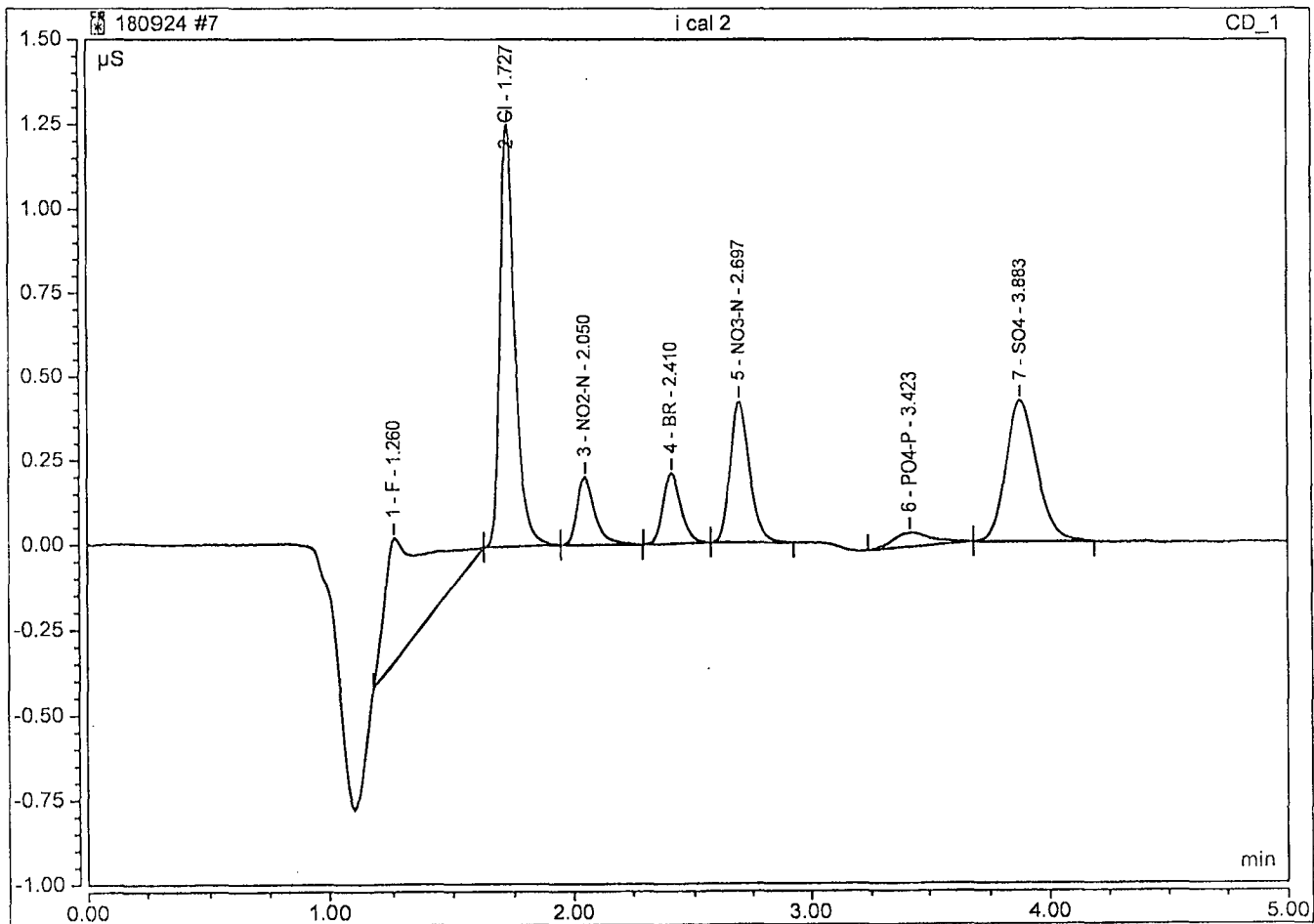
JR 09-26-18



### Peak Integration Report

Sample Name:	i cal 2	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 10:59	Run Time:	5.00

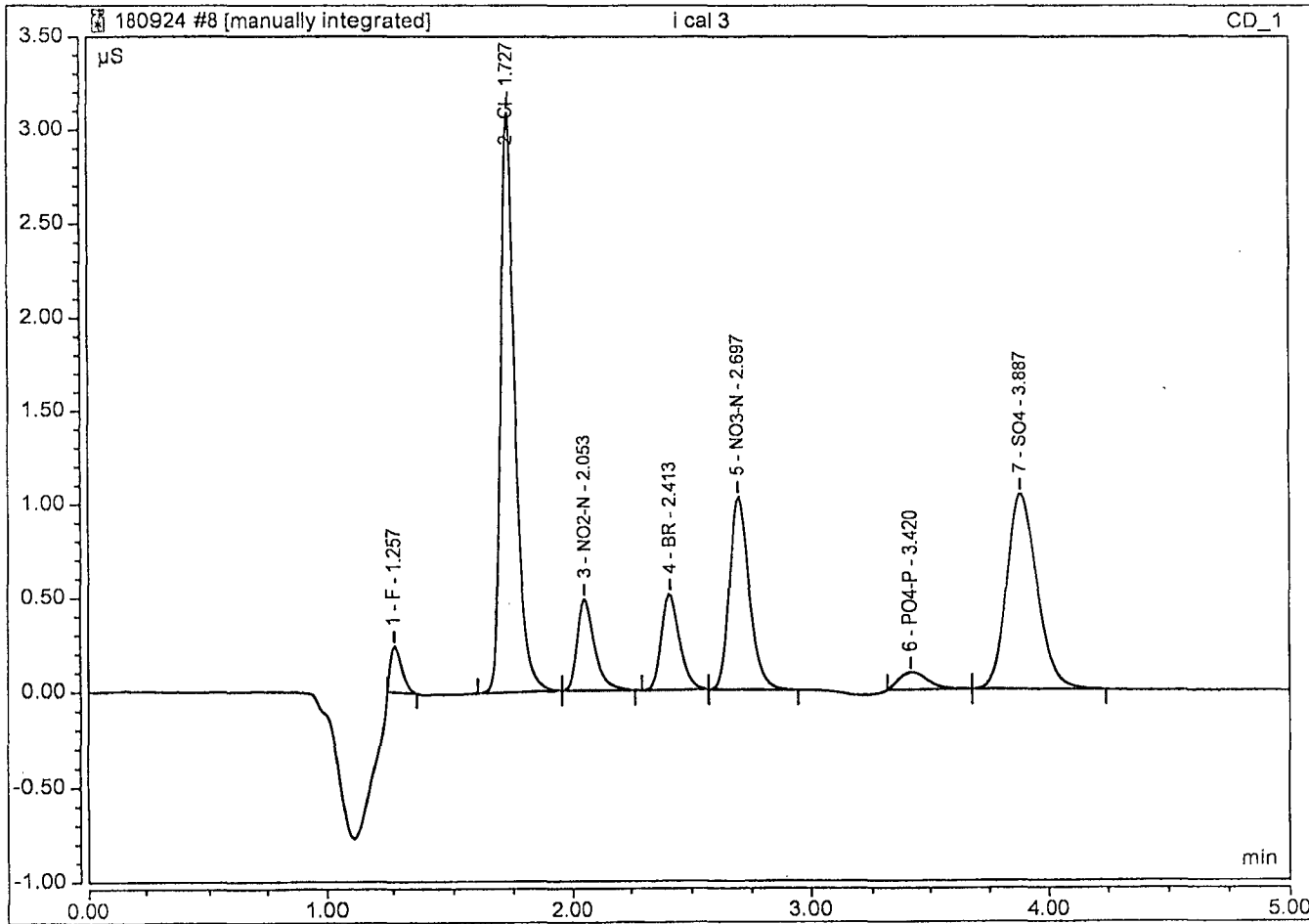
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB	0.075	0.362	0.7410
2	1.73	Cl	BMB	0.086	1.253	0.9959
3	2.05	NO2-N	BMB	0.018	0.200	0.1035
4	2.41	BR	BMB	0.018	0.209	0.4942
5	2.70	NO3-N	BMB	0.041	0.418	0.1991
6	3.42	PO4-P	BMB	0.008	0.040	0.3441
7	3.88	SO4	BMB	0.063	0.419	0.9886
TOTAL:				0.31	2.90	3.87



Peak Integration Report

Sample Name:	i cal 3	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:06	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB*	0.012	0.245	0.2204
2	1.73	Cl	BMB	0.212	3.095	2.1289
3	2.05	NO2-N	BMB	0.042	0.484	0.2368
4	2.41	BR	BMB	0.044	0.508	1.1823
5	2.70	NO3-N	BMB	0.099	1.026	0.4535
6	3.42	PO4-P	BMB*	0.012	0.090	0.4157
7	3.89	SO4	BMB	0.154	1.039	2.2625
TOTAL:				0.58	6.49	6.90

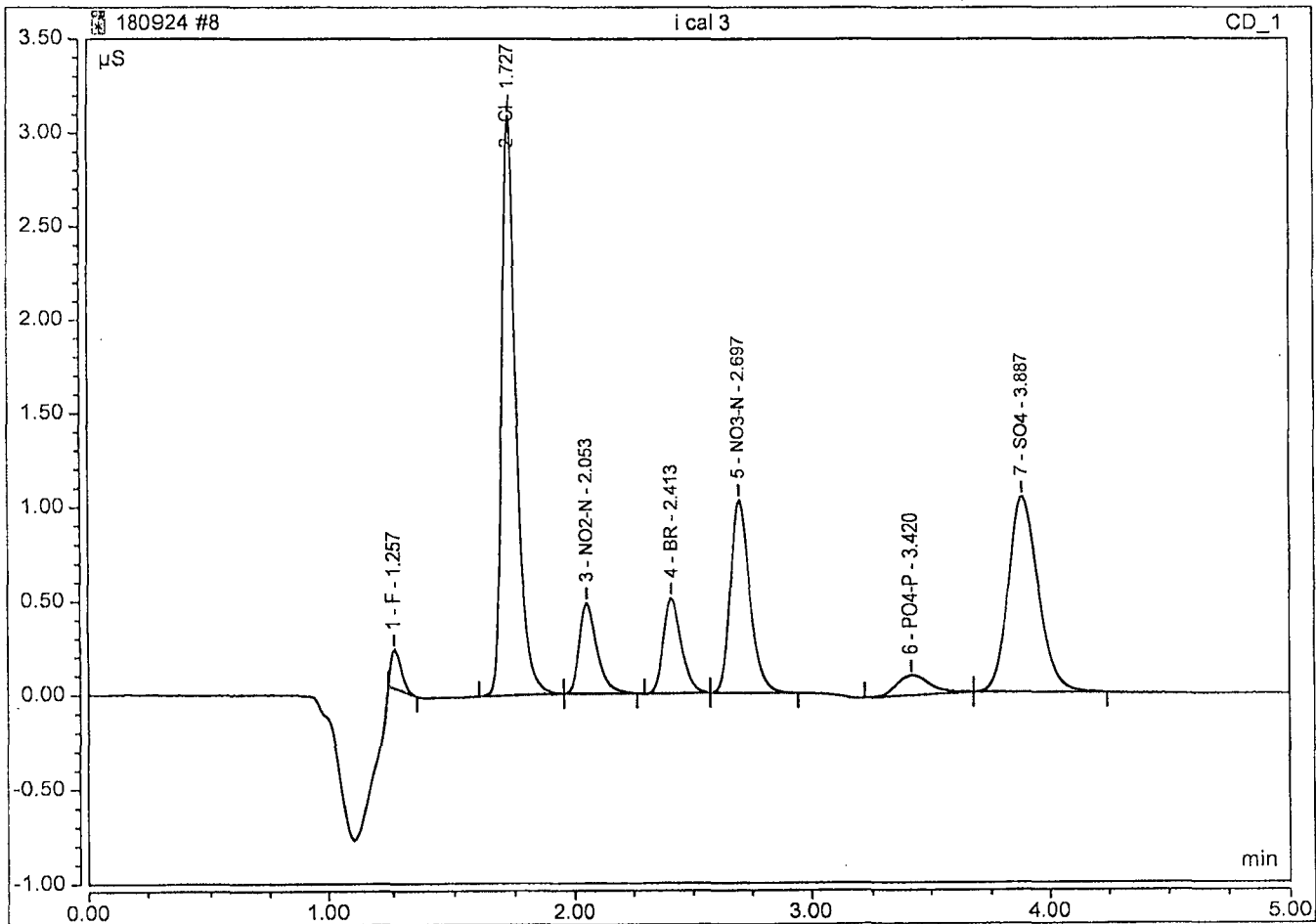


F M:1 180926 HH  
 PO4 M:1 180926 HH  
 JR 09-26-18

### Peak Integration Report

Sample Name:	i cal 3	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:06	Run Time:	5.00

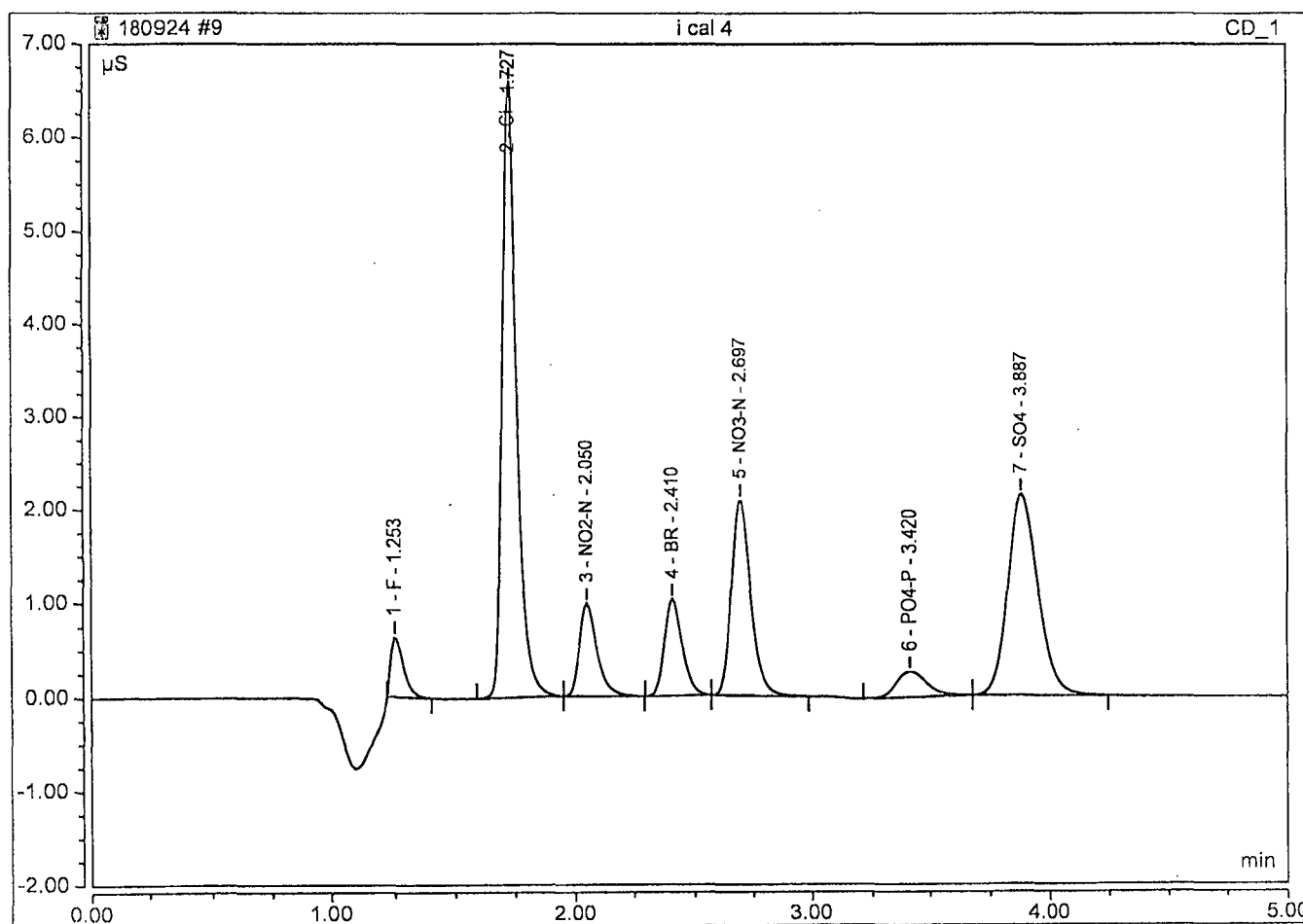
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB	0.010	0.207	0.1969
2	1.73	Cl	BMB	0.212	3.095	2.1289
3	2.05	NO2-N	BMB	0.042	0.484	0.2368
4	2.41	BR	BMB	0.044	0.508	1.1823
5	2.70	NO3-N	BMB	0.099	1.026	0.4535
6	3.42	PO4-P	BMB	0.017	0.105	0.4781
7	3.89	SO4	BMB	0.154	1.039	2.2625
TOTAL:				0.58	6.46	6.94



### Peak Integration Report

Sample Name:	i cal 4	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:14	Run Time:	5.00

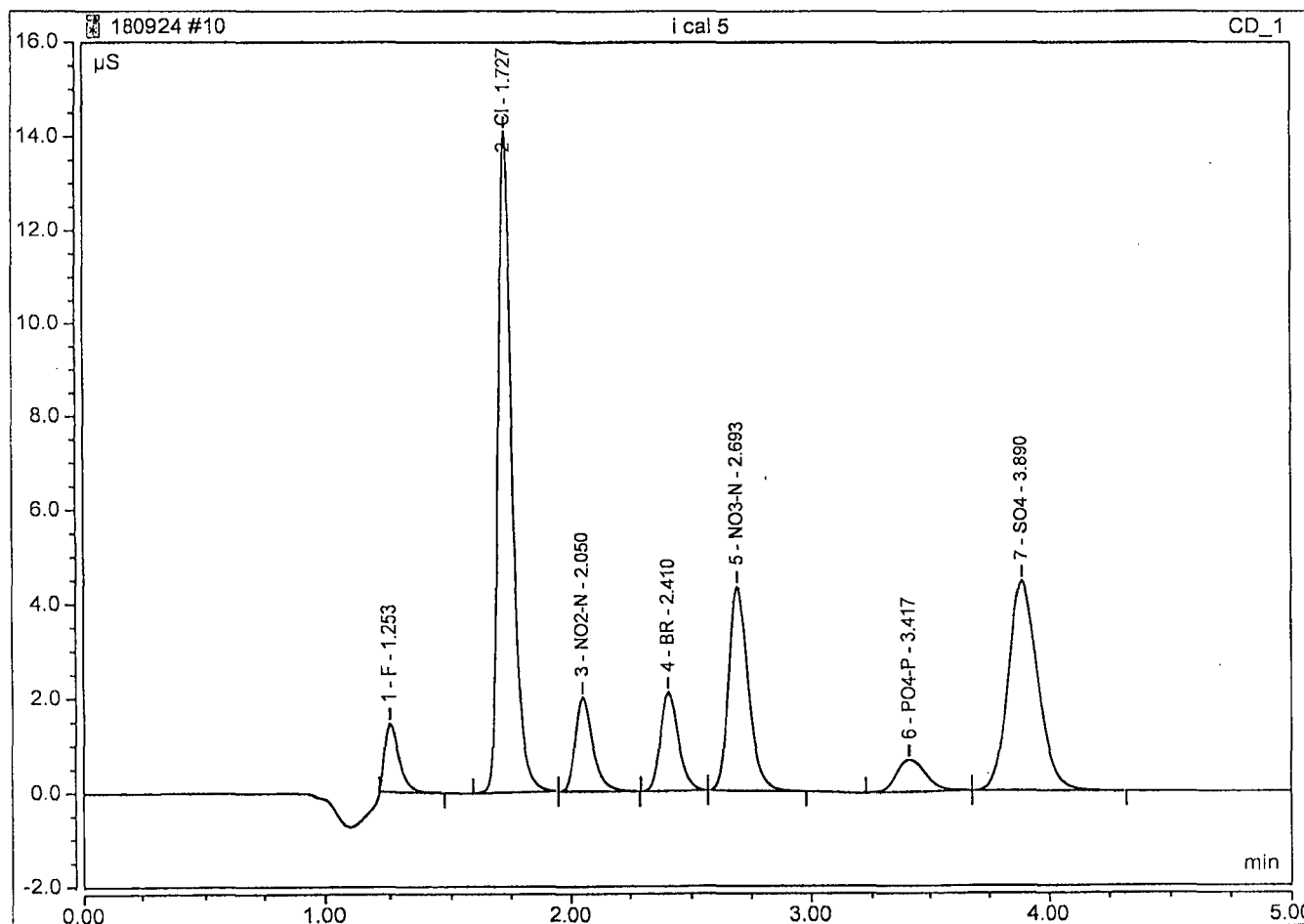
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.25	F	BMB	0.037	0.633	0.4272
2	1.73	Cl	BMB	0.442	6.587	4.2154
3	2.05	NO <sub>2</sub> -N	BMB	0.085	0.978	0.4726
4	2.41	BR	BMB	0.087	1.020	2.3380
5	2.70	NO <sub>3</sub> -N	BMB	0.201	2.080	0.8947
6	3.42	PO <sub>4</sub> -P	BMB	0.040	0.267	0.8302
7	3.89	SO <sub>4</sub>	BMB	0.314	2.135	4.4921
TOTAL:				1.21	13.70	13.67



### Peak Integration Report

Sample Name:	I cal 5	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:21	Run Time:	5.00

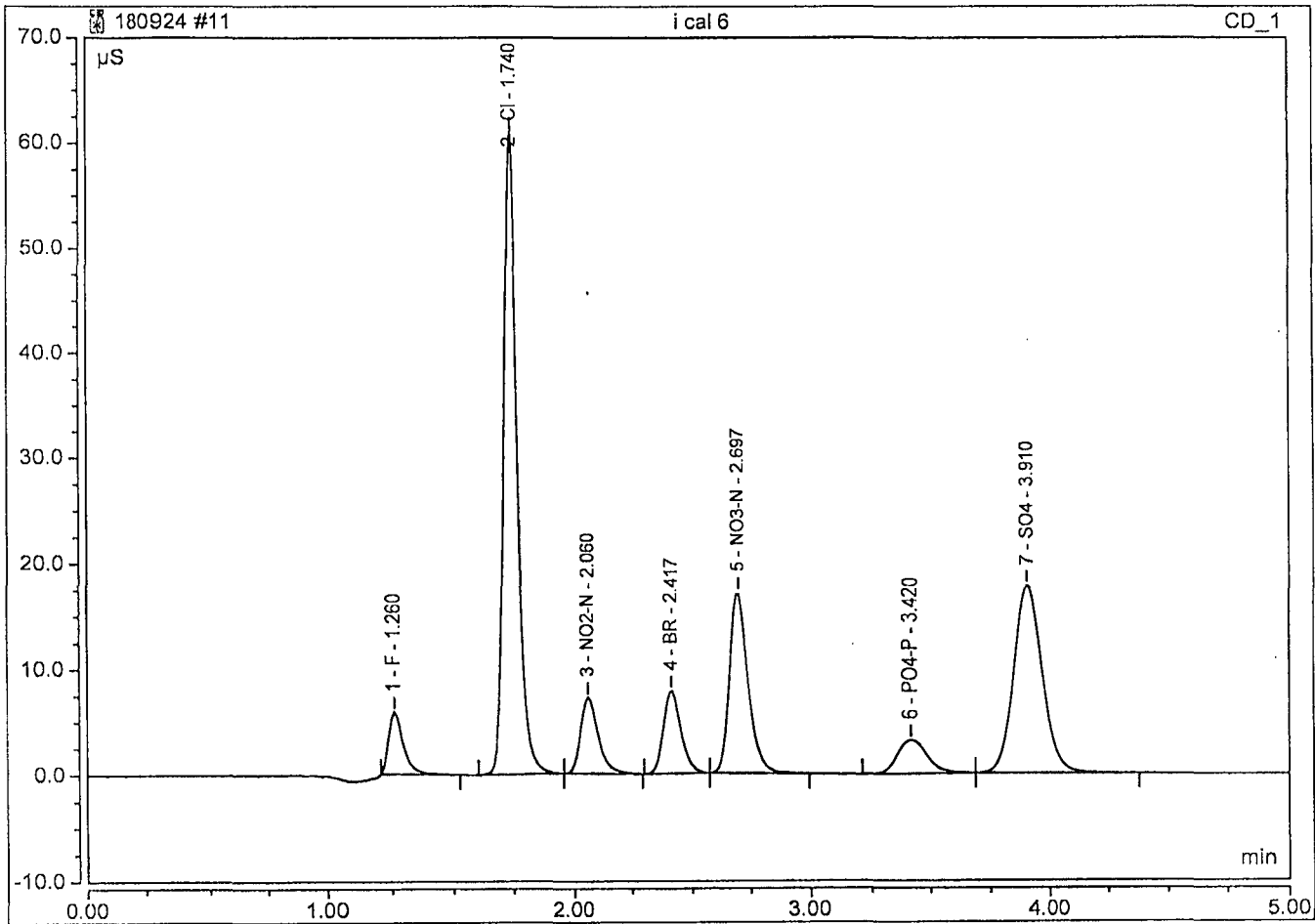
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.25	F	BMB	0.093	1.455	0.8893
2	1.73	Cl	BMB	0.924	14.090	8.5779
3	2.05	NO2-N	BMB	0.172	1.985	0.9575
4	2.41	BR	BMB	0.177	2.085	4.7219
5	2.69	NO3-N	BMB	0.412	4.323	1.8093
6	3.42	PO4-P	BMB	0.099	0.678	1.6962
7	3.89	SO4	BMB	0.644	4.443	9.0988
TOTAL:				2.52	29.06	27.75



### Peak Integration Report

Sample Name:	i cal 6	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:28	Run Time:	5.00

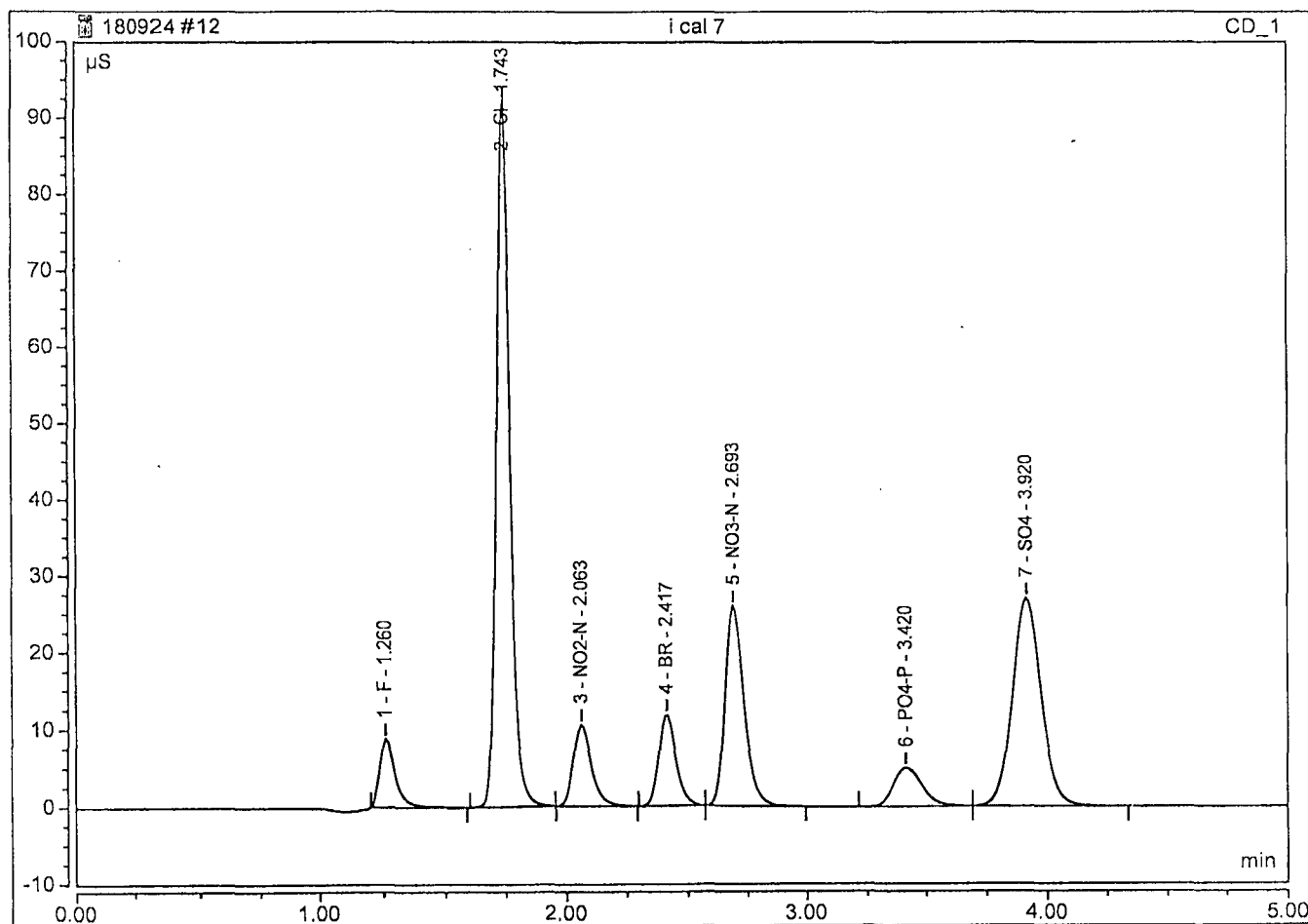
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB	0.394	5.883	3.4098
2	1.74	Cl	BMB	3.813	60.935	34.7347
3	2.06	NO2-N	BMB	0.628	7.206	3.4715
4	2.42	BR	BMB	0.651	7.839	17.2981
5	2.70	NO3-N	BMB	1.587	17.063	6.9001
6	3.42	PO4-P	BMB	0.451	3.196	6.9186
7	3.91	SO4	BMB	2.472	17.710	34.5706
TOTAL:				10.00	119.83	107.30

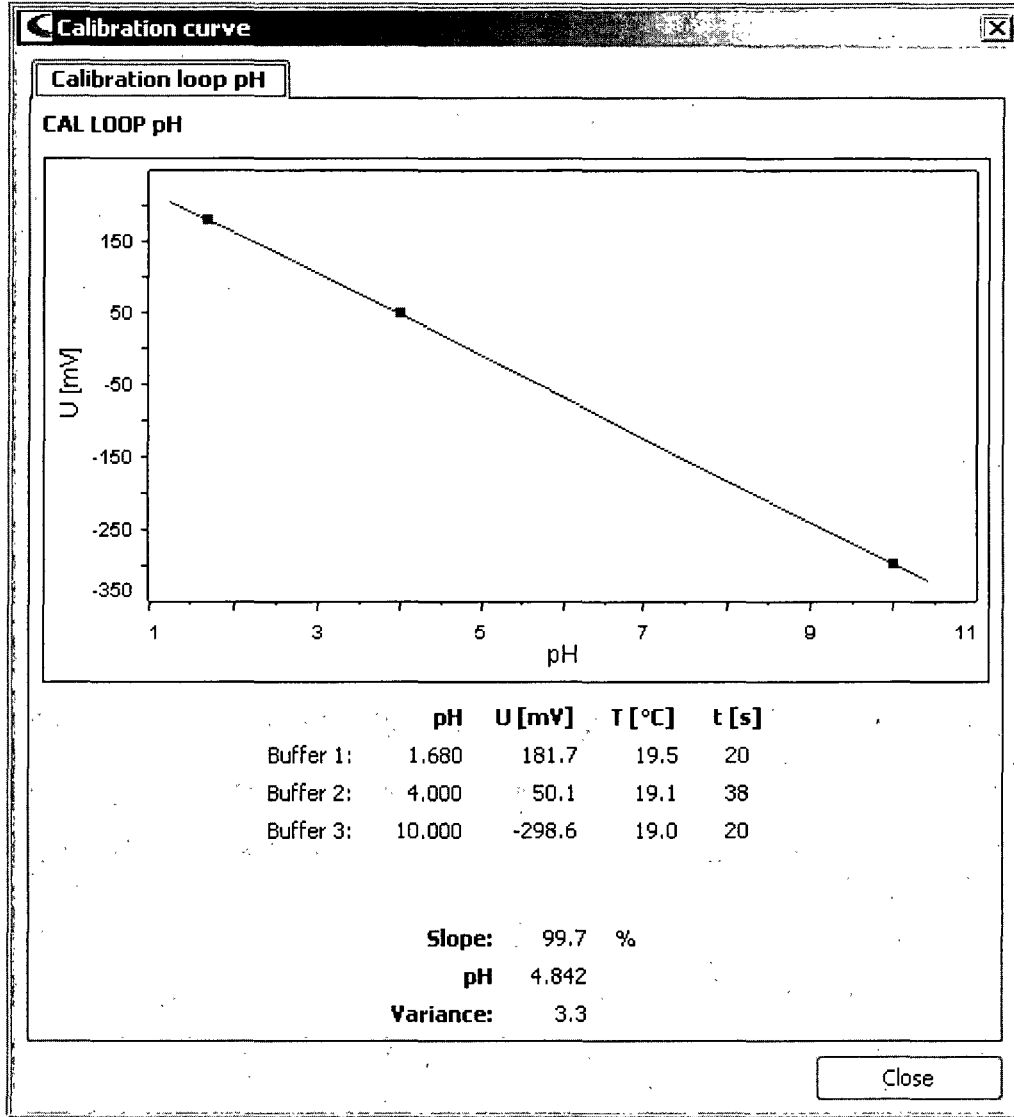


### Peak Integration Report

Sample Name:	i cal 7	Inj. Vol.:	25.00
Injection Type:	Calibration Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	24-Sep-2018 / 11:36	Run Time:	5.00

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.26	F	BMB	0.617	8.838	5.2687
2	1.74	Cl	BMB	5.795	92.222	52.6849
3	2.06	NO2-N	BMB	0.924	10.519	5.1040
4	2.42	BR	BMB	0.966	11.770	25.6813
5	2.69	NO3-N	BMB	2.400	25.942	10.4216
6	3.42	PO4-P	BMB	0.696	4.987	10.5499
7	3.92	SO4	BMB	3.720	26.940	51.9777
TOTAL:				15.12	181.22	161.69







**INORGANIC ANALYSIS**  
**Raw Data**

**APPL, INC.**

**SPECTROPHOTOMETRIC ANALYSIS (Ferrous Iron)**

Method: SM3500Fe  
 Analyte: Ferrous Iron  
 Analyst: HH  
 Units: mg/L  
 QCG: 181026  
 Notes:  
 Final Volume: 50mL

Instrument: GENESYS 10UV  
 Raw Spec: abs. @ 510nm  
 R-Squared: 0.99997  
 Reagent (lot#): COLORIZING REAGENT (181024)  
 BUFFER (09/19/18)

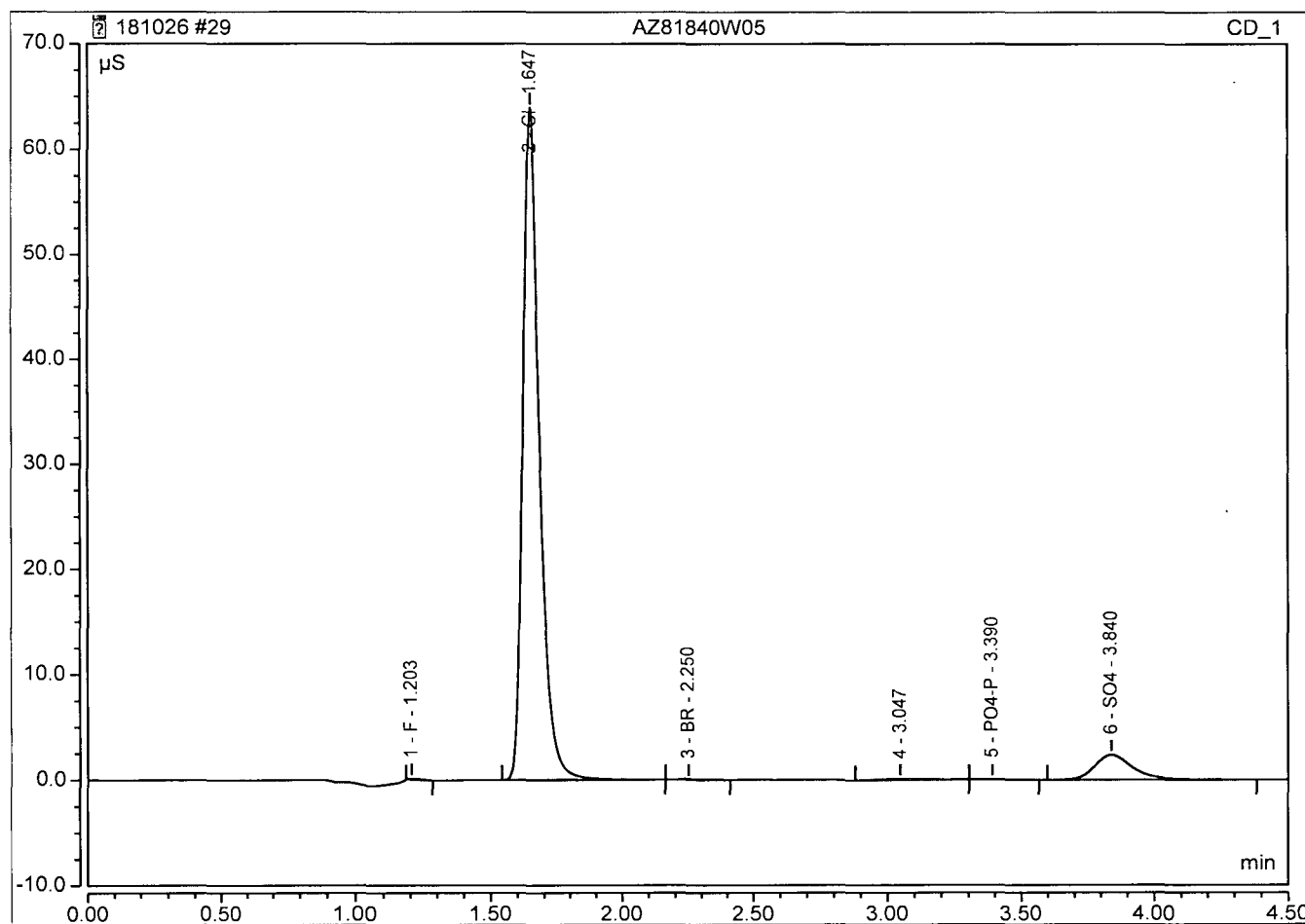
Analyst Completes  
 Formula Locked Cells

Date	Time	APPL ID	DF	Raw Result	SubSample Amt	Raw BLK	Calc Conc	Result	QC True	QC%	Row Complete
06/15/18	12:27	0 HH 180615	1	0.000	25mL						
06/15/18	12:27	1	1	0.099	25mL						
06/15/18	12:28	2	1	0.201	25mL						
06/15/18	12:28	3	1	0.396	25mL						
06/15/18	12:29	4	1	0.501	25mL						
06/15/18	12:30	5	1	1.000	25mL						
06/15/18	12:31	180615A ICV	1	0.316	25mL		3.17	3.17	3.000	105.5%	#NAME?
06/15/18	12:32	180615A ICB	1	0.000	25mL		0.01	0.01			#NAME?
10/26/18	11:44 AM	CCV 4.0 181026	1	0.399	25mL		3.99	3.995	4.000	99.9%	#NAME?
10/26/18	11:44	CCB 181026	1	0.002	25mL		0.03	0.026			#NAME?
10/26/18	11:46	181026A LCS	1	0.314			3.15	3.145	3.000	104.8%	#NAME?
10/26/18	11:46	181026A LCSD	1	0.311			3.12	3.115	3.000	103.8%	#NAME?
10/26/18	11:47	AZ81840W07	1	0.050			0.51	0.505			#REF!
10/26/18	11:47	AZ81842W07	1	0.014			0.15	0.146			#REF!
10/26/18	11:48	AZ81841W07	1	0.008			0.09	0.086			
10/26/18	11:49	AZ81840W07 MS	1	0.366			3.67	3.665	3.09	118.8%	
10/26/18	11:49	AZ81840W07 DUP	1	0.052			0.53	0.525	3.09	17.0%	
10/26/18	11:50	CCV 4.0 181026	1	0.399			3.99	3.995	4.00	99.9%	
10/26/18	11:51 AM	CCB 181026	1	0.002			0.03	0.026			

### Peak Integration Report

Sample Name:	AZ81840W05	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 12:20	Run Time:	4.50

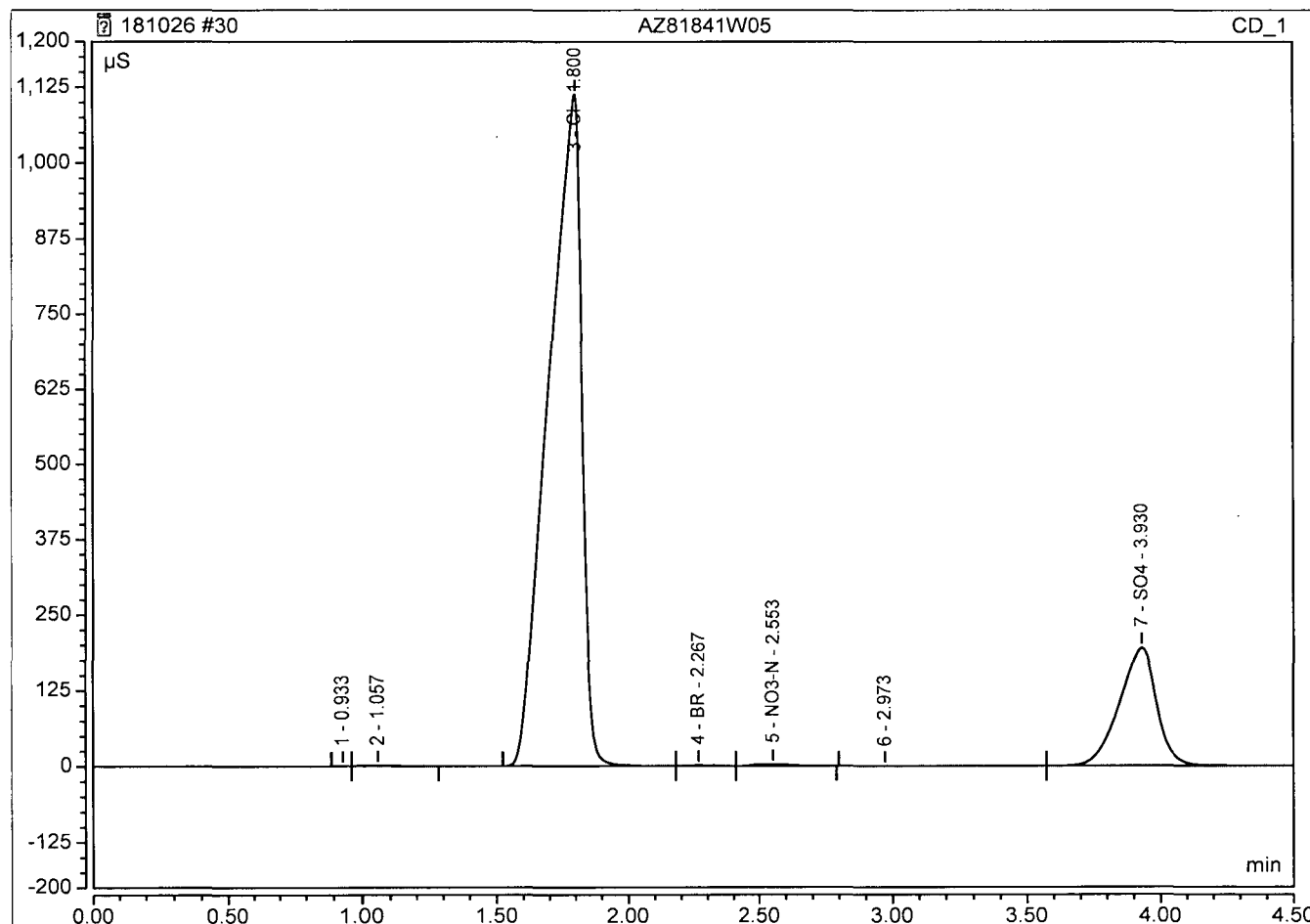
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.20	F	BMB	.0007	0.134	0.1706
2	1.65	Cl	BMB	4.638	63.971	42.2077
3	2.25	BR	BMB	0.005	0.060	0.1645
5	3.39	PO4-P	BMB	0.002	0.018	0.2630
6	3.84	SO4	BMB	0.380	2.335	5.4156
TOTAL:				5.03	66.52	48.22



### Peak Integration Report

Sample Name:	AZ81841W05	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 12:27	Run Time:	4.50

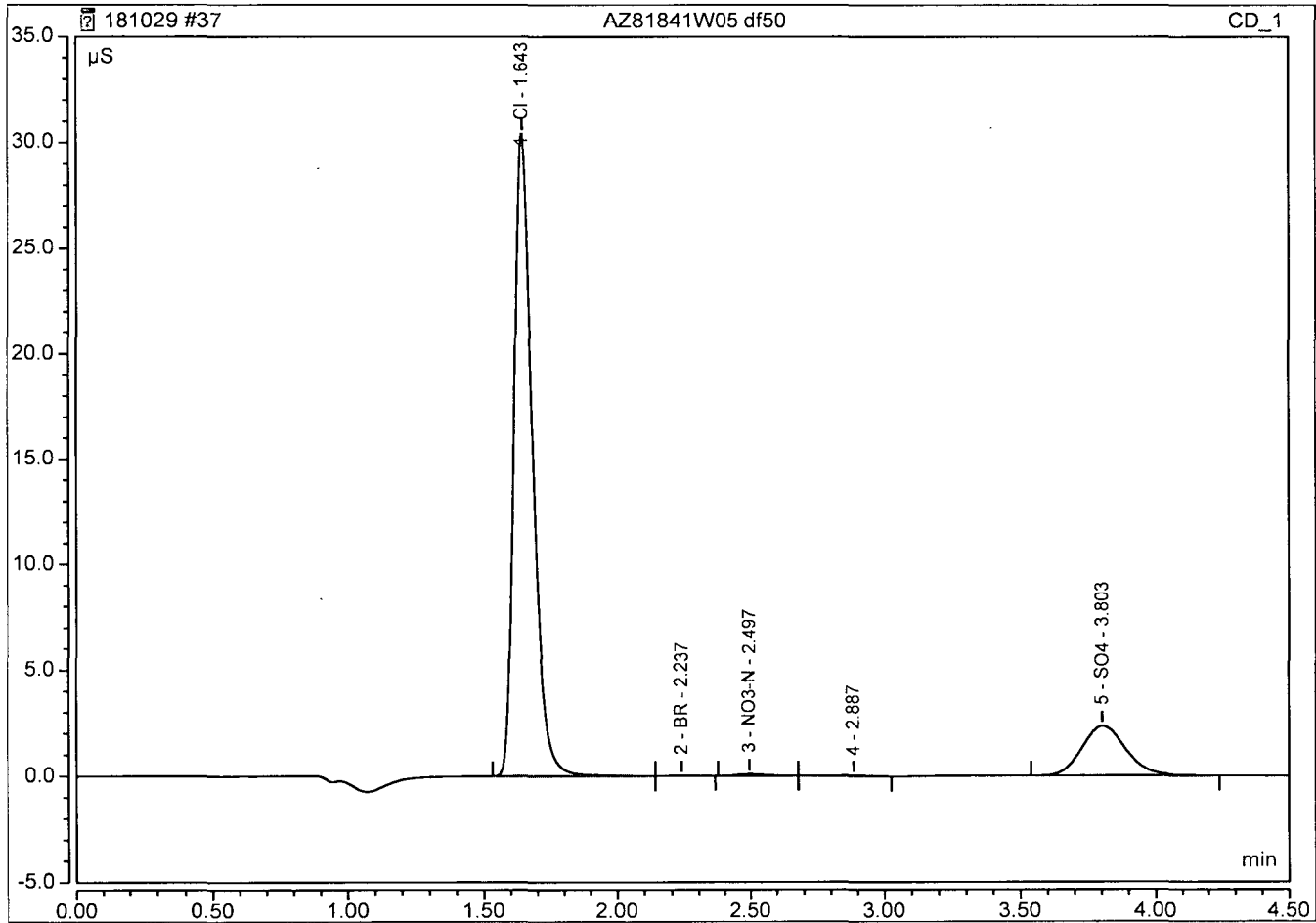
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Height $\mu\text{S}$	Amount mg/L
3	1.80	Cl	BMB	163.035	1113.072	1476.3085
4	2.27	BR	BMB	0.109	1.122	2.9250
5	2.55	NO3-N	BMB	0.399	2.633	1.7521
7	3.93	SO4	BMB	31.439	194.579	438.3862
TOTAL:				194.98	1311.41	1919.37



### Peak Integration Report

Sample Name:	AZ81841W05 df50	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	50.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	29-Oct-2018 / 11:51	Run Time:	4.50

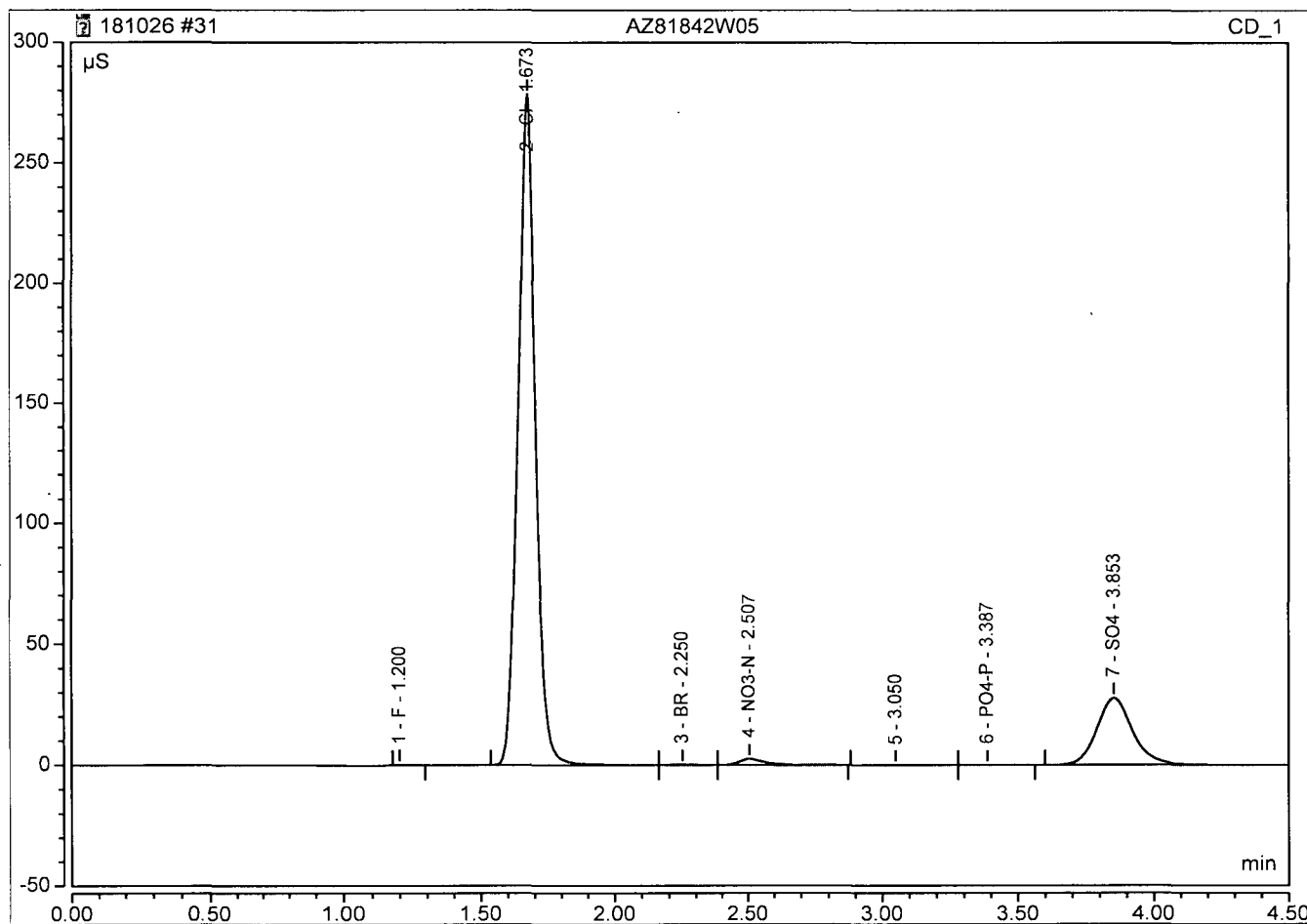
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.64	Cl	BMB	2.430	30.408	1110.5687
2	2.24	BR	BMB	0.002	0.024	4.0174
3	2.50	NO3-N	BMB	0.010	0.086	3.3950
5	3.80	SO4	BMB	0.441	2.329	312.8220
TOTAL:				2.88	32.85	1430.80



### Peak Integration Report

Sample Name:	AZ81842W05	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 12:34	Run Time:	4.50

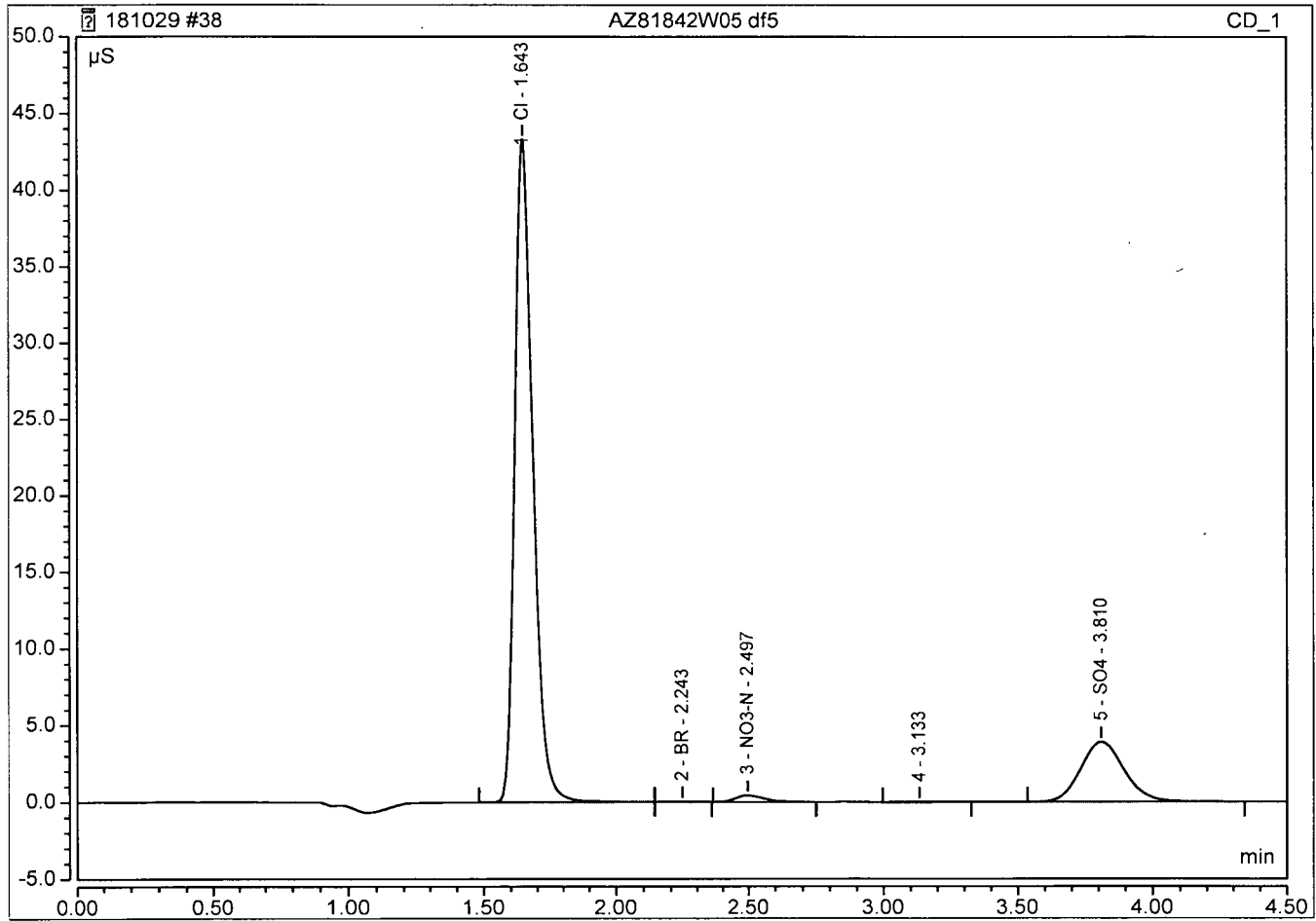
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.20	F	BMB	0.011	0.202	0.2104
2	1.67	Cl	BMB	20.710	278.441	187.7214
3	2.25	BR	BMB	0.018	0.203	0.4959
4	2.51	NO3-N	BMB	0.279	2.494	1.2318
6	3.39	PO4-P	BMB	0.003	0.021	0.2717
7	3.85	SO4	BMB	4.188	27.593	58.4992
TOTAL:				25.21	308.95	248.43



### Peak Integration Report

Sample Name:	AZ81842W05 df5	Inj. Vol.:	25.00
Injection Type:	Unknown	Dilution Factor:	5.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	29-Oct-2018 / 11:58	Run Time:	4.50

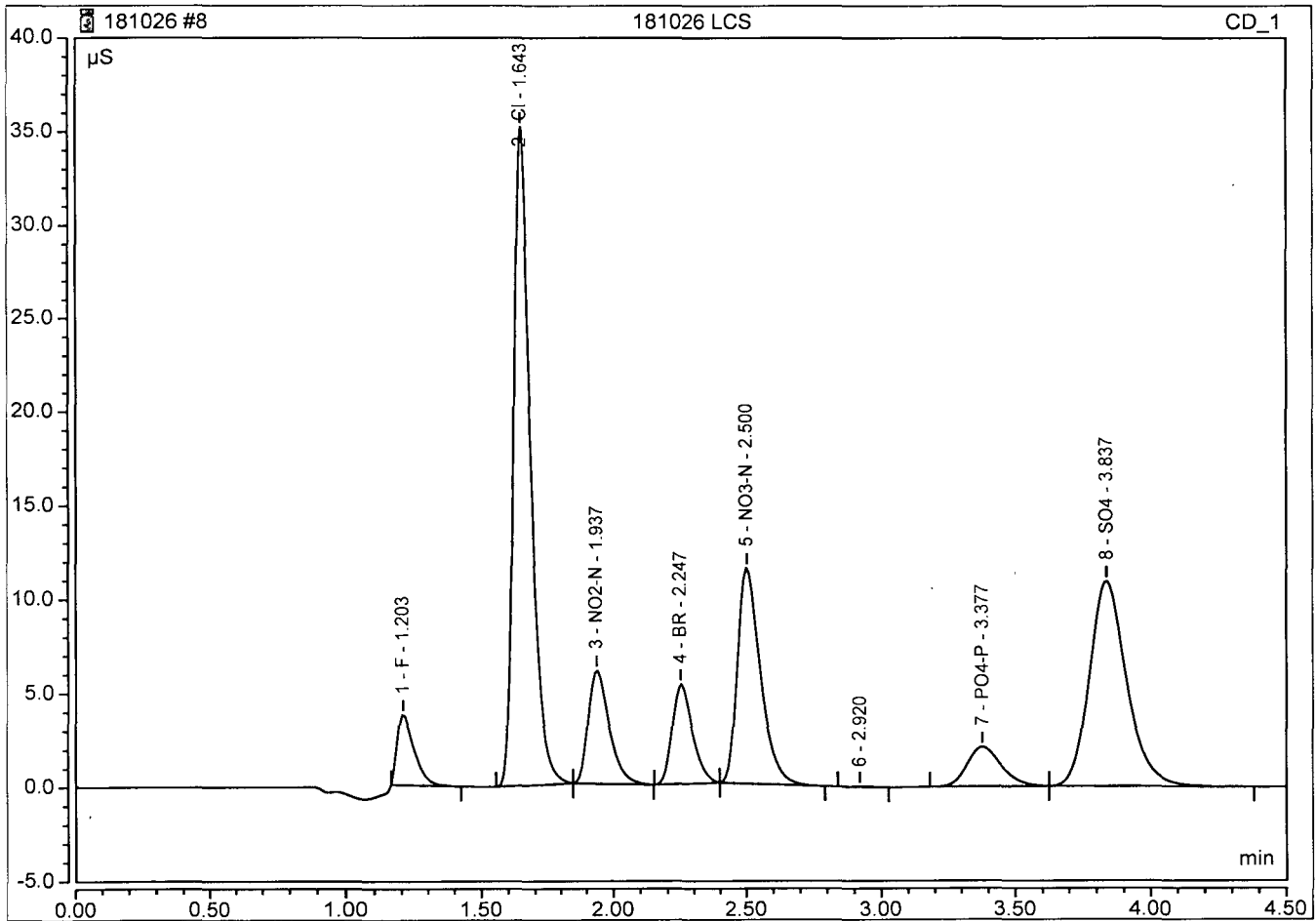
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.64	Cl	BMB	3.407	43.329	155.3036
2	2.24	BR	BMB	0.003	0.033	0.5422
3	2.50	NO3-N	BMB	0.051	0.419	1.2273
5	3.81	SO4	BMB	0.728	3.903	51.3154
TOTAL:				4.19	47.68	208.39



### Peak Integration Report

Sample Name:	181026 LCS	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 09:56	Run Time:	4.50

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.20	F	BMB	0.277	3.769	2.4302
2	1.64	Cl	BMB	2.566	35.178	23.4493
3	1.94	NO2-N	BMB	0.556	6.044	3.0746
4	2.25	BR	BMB	0.472	5.298	12.5420
5	2.50	NO3-N	BMB	1.145	11.474	4.9857
7	3.38	PO4-P	BMB	0.312	2.121	4.8520
8	3.84	SO4	BMB	1.735	10.919	24.3052
TOTAL:				7.06	74.80	75.64



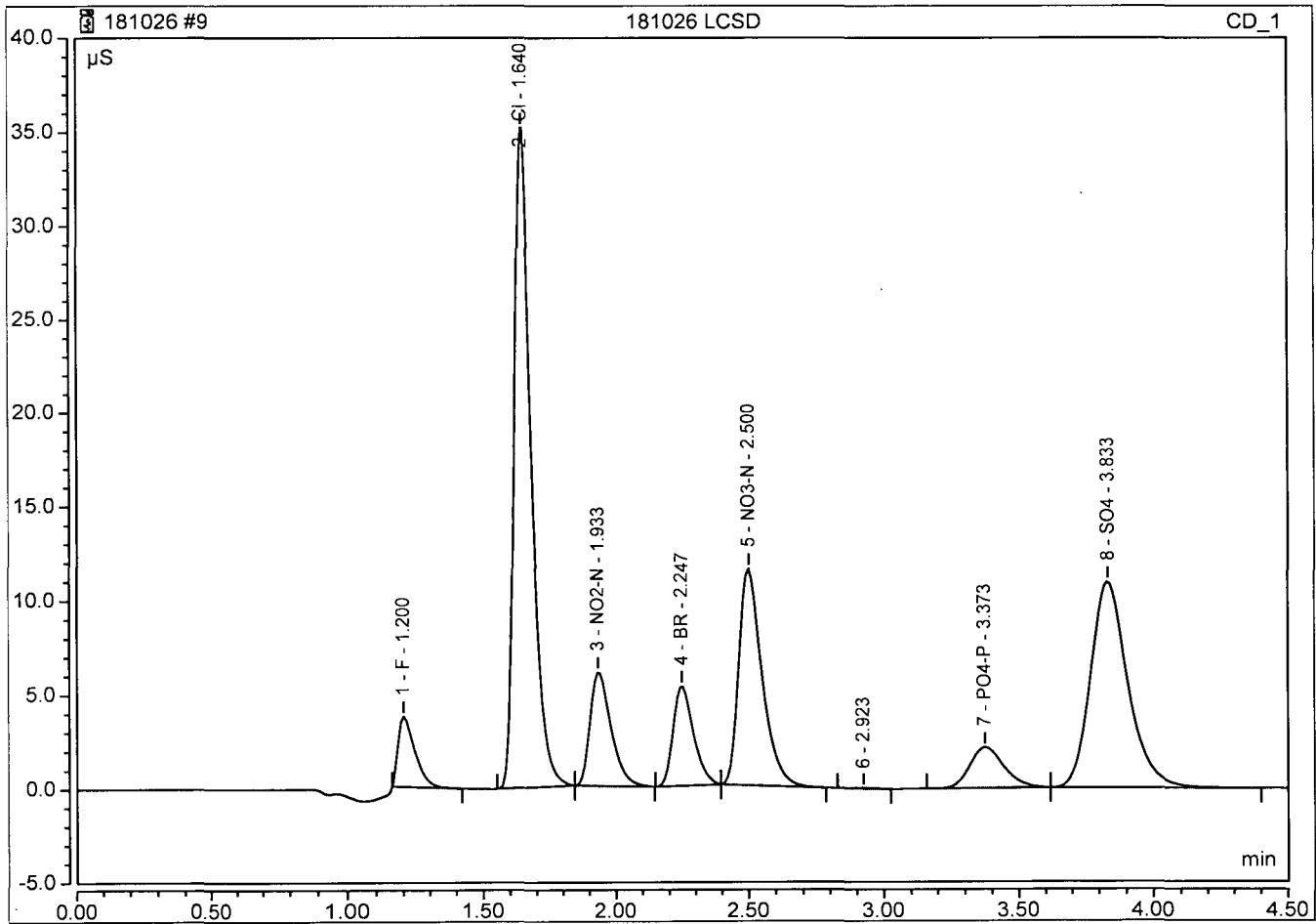
Algorithm Check: HH IN 030  
 $y = \text{Peak Area}$   
 $x = \text{mg/L Br}$   
 $y = .0377 x - .0007$   
 $y = .472 \dots x = 12.53$



### Peak Integration Report

Sample Name:	181026 LCSD	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	26-Oct-2018 / 10:03	Run Time:	4.50

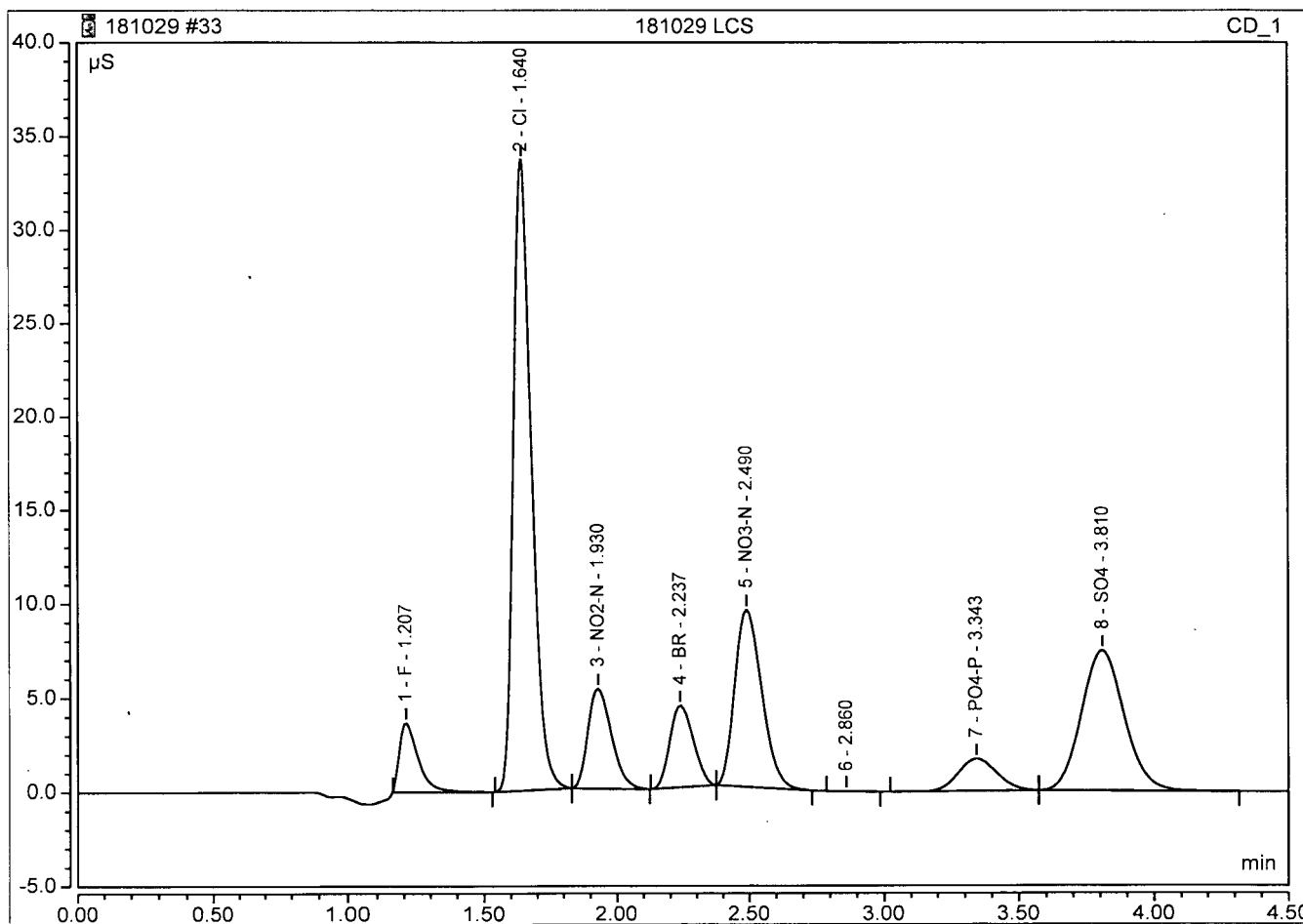
No.	Time min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.20	F	BMB	0.274	3.749	2.4063
2	1.64	Cl	BMB	2.566	35.165	23.4475
3	1.93	NO2-N	BMB	0.557	6.046	3.0786
4	2.25	BR	BMB	0.471	5.292	12.5341
5	2.50	NO3-N	BMB	1.145	11.478	4.9826
7	3.37	PO4-P	BMB	0.319	2.174	4.9658
8	3.83	SO4	BMB	1.738	10.907	24.3397
TOTAL:				7.07	74.81	75.75



### Peak Integration Report

Sample Name:	181029 LCS	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	29-Oct-2018 / 11:23	Run Time:	4.50

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}^*\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.21	F	BMB	0.299	3.669	2.6096
2	1.64	Cl	BMB	2.656	33.670	24.2629
3	1.93	NO2-N	BMB	0.545	5.322	3.0135
4	2.24	BR	BMB	0.449	4.350	11.9382
5	2.49	NO3-N	BMB	1.109	9.393	4.8262
7	3.34	PO4-P	BMB	0.287	1.720	4.4855
8	3.81	SO4	BMB	1.360	7.433	19.0807
TOTAL:				6.70	65.56	70.22

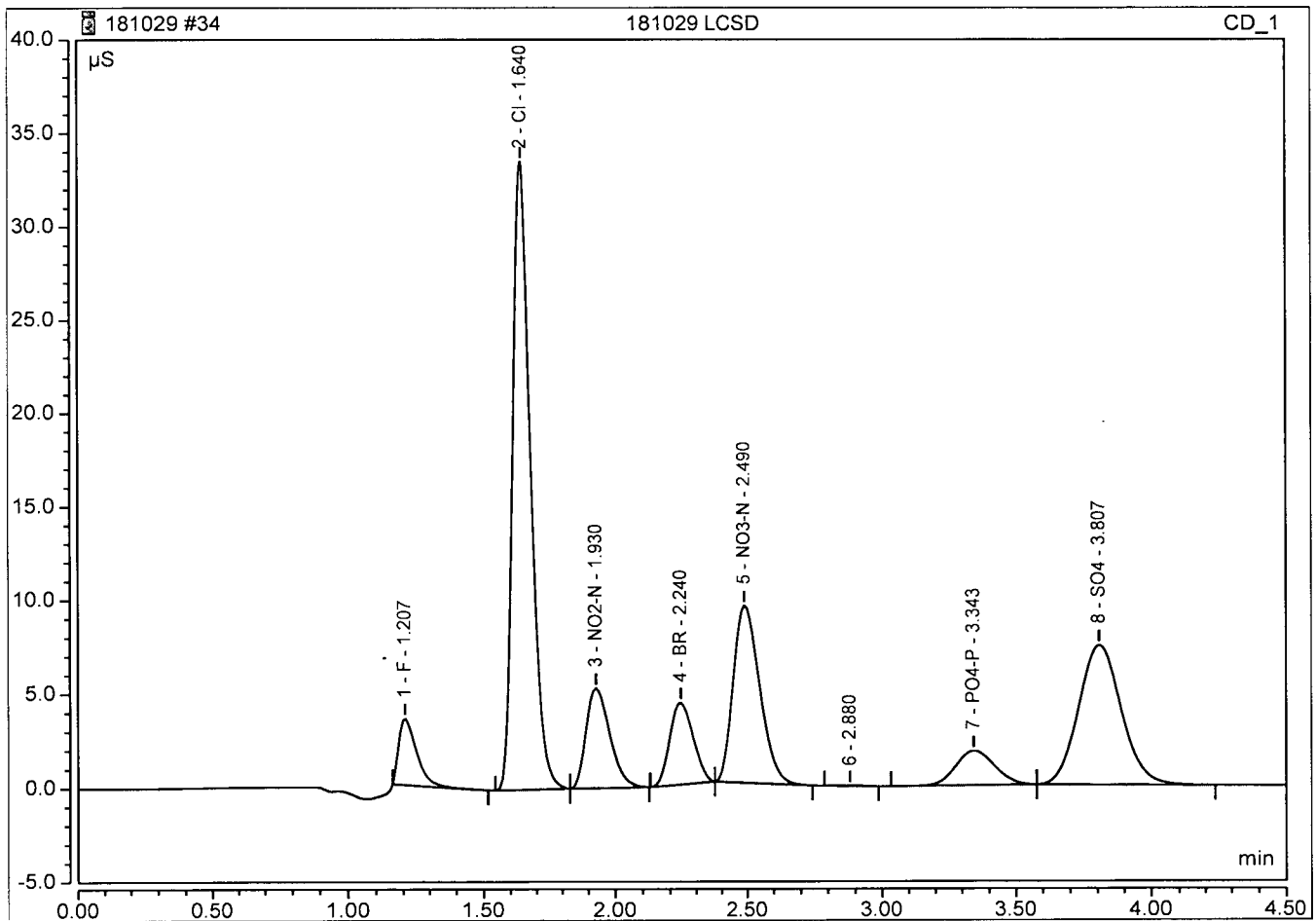


Algorithm Check: HH 181030  
 $y = \text{Peak Area}$   
 $x = \text{mg/L Br}$   
 $y = .0377x - .0007$   
 $y = .499 \therefore x = 11.93$

### Peak Integration Report

Sample Name:	181029 LCSD	Inj. Vol.:	25.00
Injection Type:	Check Standard	Dilution Factor:	1.0000
Program:	Anion APM 180923	Operator:	chemist_wetlab
Inj. Date / Time:	29-Oct-2018 / 11:30	Run Time:	4.50

No.	Time min	Peak Name	Peak Type	Area $\mu\text{S}^{\cdot}\text{min}$	Height $\mu\text{S}$	Amount mg/L
1	1.21	F	BMB	0.276	3.524	2.4183
2	1.64	Cl	BMB	2.634	33.565	24.0628
3	1.93	NO2-N	BMB	0.543	5.308	3.0029
4	2.24	BR	BMB	0.449	4.349	11.9501
5	2.49	NO3-N	BMB	1.112	9.416	4.8419
7	3.34	PO4-P	BMB	0.305	1.830	4.7569
8	3.81	SO4	BMB	1.359	7.440	19.0563
TOTAL:				6.68	65.43	70.09



## Metrohm 814/809 Titrando Data

Sample ID	Analysis Date/Time	Method	Titration Volume		OH	CO3	HCO3	Total Alk	Unit	Sample Vol	N	Batch	Initials
			(to 8.3)	(total)									
AZ81842W05	2018-10-30 09:28:30 UTC-8	Alkalinity	0.000	2.232	0.00	0.00	89.28	89.28	mg/L	25 mL	0.0200	181030A	AR
AZ81841W05	2018-10-30 09:22:23 UTC-8	Alkalinity	0.000	3.176	0.00	0.00	127.04	127.04	mg/L	25 mL	0.0200	181030A	AR
AZ81840W05	2018-10-30 08:43:55 UTC-8	Alkalinity	0.000	2.022	0.00	0.00	80.88	80.88	mg/L	25 mL	0.0200	181030A	AR
181030A LCSD	2018-10-30 08:34:45 UTC-8	Alkalinity	0.000	5.762	0.00	0.00	230.48	230.48	mg/L	25 mL	0.0200	181030A	AR
181030A LCS	2018-10-30 08:25:43 UTC-8	Alkalinity	0.000	5.840	0.00	0.00	233.60	233.60	mg/L	25 mL	0.0200	181030A	AR
181030A BLK	2018-10-30 08:22:34 UTC-8	Alkalinity	0.000	0.034	0.00	0.00	1.36	1.36	mg/L	25 mL	0.0200	181030A	AR

# AQ2 Tray Report



**Serial Number:** 190170  
**Software Version:** 2.1.0  
**Report Requested By:** Joel  
**Date & Time:** 2018-10-30 15:18:17  
**Tray Number:** 93  
**Tray Name:** 181030A TOXN

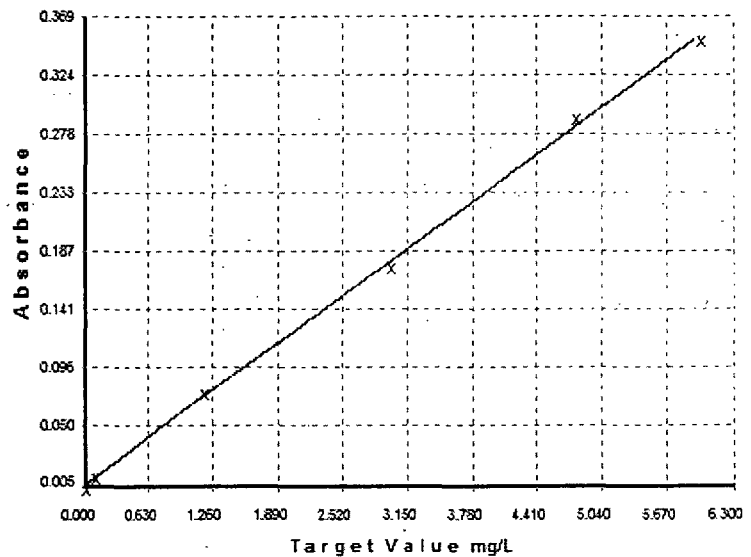
## TOXN

### Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0047	-0.0454	0.0000	
S90	0.0142	0.1183	0.1000	18.29
S91	0.0799	1.2507	1.2000	4.23
S92	0.1773	2.9314	3.0000	-2.29
S93	0.2918	4.9058	4.8000	2.20
S94	0.3517	5.9392	6.0000	-1.01
S0	0.0054	-0.0339	0.0000	

**Polynomial Order:** 1  
**Correlation Coefficient:** 0.9996  
**Carryover(%):** 0.2  
**Calibration equation:**  $y = bx + a$   
**y =:** Concentration mg/L  
**x =:** Measured absorbance  
**a =:** -1.270205E-001  
**b =:** 1.724661E+001  
**Date & Time:** 2018-10-30 14:29:48

### Calibration Graph



## Reagents

Name	Batch	Prepared By	Expiry Date
NO3 W Buffer	Algorithm Check	Joel	
Sulfa-NEDD	$y = 17.25x - 0.13$ $y = 3.00$	Joel	
		JR	
		11-9-18	

## Test Results

Cup Type	ID	Result	Units	QC Pro.	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
S1	Standard 1	0.0047			0.004732			JR	2018-10-30 14:16:00
S90	Standard 90	0.0142			0.014223			JR	2018-10-30 14:18:20
S91	Standard 91	0.0799			0.079884			JR	2018-10-30 14:20:37
S92	Standard 92	0.1773			0.177333			JR	2018-10-30 14:22:55
S93	Standard 93	0.2918			0.291817			JR	2018-10-30 14:25:13
S94	Standard 94	0.3517			0.351734			JR	2018-10-30 14:27:31
S0	Standard 0	0.0054			0.005402			JR	2018-10-30 14:29:48
2	ICV	3.0057	mg/L	✓	0.181641			JR	2018-10-30 14:32:06
3	ICB	-0.0254	mg/L		0.005891			JR	2018-10-30 14:34:24
	CCV	2.8860	mg/L		0.174701			JR	2018-10-30 14:36:42
	CCB	-0.0265	mg/L		0.005827			JR	2018-10-30 14:39:01
4	U1	181030A BLK	mg/L		0.005183			JR	2018-10-30 14:41:19
5	U2	181030A LCS	mg/L		0.180348			JR	2018-10-30 14:43:37
6	U3	181030A LCSD	mg/L		0.179040			JR	2018-10-30 14:45:57
7	U4	AZ81584W10	mg/L		0.038552			JR	2018-10-30 14:48:15
8	U5	AZ81584W10 MS	mg/L		0.184200			JR	2018-10-30 14:50:33
9	U6	AZ81584W10 MSD	mg/L		0.188282			JR	2018-10-30 14:52:51

10	U7	AZ81587W06	0.2006	mg/L	0.018995	JR	2018-10-30 14:55:10
11	U8	AZ81636W06	0.7206	mg/L	0.049149	JR	2018-10-30 14:57:28
12	U9	AZ81640W06	-0.0014	mg/L	0.007286	JR	2018-10-30 14:59:47
13	U10	AZ81642W06	0.9302	mg/L	0.061297	JR	2018-10-30 15:02:05
	CCV	CCV	2.9472	mg/L	0.178253	JR	2018-10-30 15:04:24
	CCB	CCB	-0.0167	mg/L	0.006395	JR	2018-10-30 15:06:43
14	U11	AZ81644W06	0.5641	mg/L	0.040070	JR	2018-10-30 15:07:51
15	U12	AZ81676W06	1.5066	mg/L	0.094721	JR	2018-10-30 15:08:47
16	U13	AZ81677W06	0.4253	mg/L	0.032026	JR	2018-10-30 15:09:44
17	U14	AZ81678W06	0.4665	mg/L	0.034416	JR	2018-10-30 15:10:40
18	U15	AZ81840W06	0.0293	mg/L	0.009062	JR	2018-10-30 15:11:36
19	U16	AZ81841W06	1.8760	mg/L	0.116141	JR	2018-10-30 15:12:33
20	U17	AZ81842W06	1.9744	mg/L	0.121846	JR	2018-10-30 15:13:29
	CCV	CCV	2.9304	mg/L	0.177276	JR	2018-10-30 15:14:25
	CCB	CCB	-0.0243	mg/L	0.005956	JR	2018-10-30 15:15:22

Method Ferrous Iron Standards Prep'd By (Initials) HH  
 Prep Date 06/15/18  
 Exp Date 06/15/19

Stock Label	Supplier	Batch Number	Exp Date	Aliquot from Stock	Final Volume	Solvent	Ferrous Iron Concentration
Ferrous Ammonium Sulfate	J.T.Baker	0000184592	08/21/20	0.351	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L
Ferrous Sulfate	Mallinckrodt	Lot 5056 KDRX	NA	0.249	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L

Method Ferrous Iron CCV/LCS/MS/ICV Prep'd By (Initials) HH  
 Prep Date See Injection Log  
 Exp Date 24 Hours

Initial Standard Information	Supplier	Batch Number	Exp Date	Final Standard Information			
Ferrous Iron CCV	J.T.Baker	0000184592	06/14/19	500uL	25mL	Deionized water	4mg/L
Ferrous Iron LCS	Mallinckrodt	Lot 5056 KDRX	06/14/19	375uL	25mL	Deionized water	3mg/L

Method Ferrous Iron Calibration Curve Prep'd By (Initials) HH  
 Prep Date 06/15/18  
 Exp Date 06/16/18

Final Standard Information

Point Label	Supplier	Batch Number	Exp Date	Aliquot from Stock	Final Volume	Solvent	Ferrous Iron Concentration
0 HH 180615	J.T.Baker	0000184592	06/14/19	0	25mL	Deionized water	0mg/L
1	J.T.Baker	0000184592	06/14/19	0.125	25mL	Deionized water	1mg/L
2	J.T.Baker	0000184592	06/14/19	0.25	25mL	Deionized water	2mg/L
3	J.T.Baker	0000184592	06/14/19	0.5	25mL	Deionized water	4mg/L
4	J.T.Baker	0000184592	06/14/19	0.625	25mL	Deionized water	5mg/L
5	J.T.Baker	0000184592	06/14/19	1.25	25mL	Deionized water	10mg/L
Ferrous Iron ICV	Mallinckrodt	Lot 5056 KDRX	06/14/19	375uL	25mL	Deionized water	3mg/L

Anion Chromatography Working Standard									
Prep Date: 09/24/18					Prep'd By (Initials): HH				
Exp Date: 09/25/18									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (ug/mL)
Ion Chromatography Standard Fluoride 1000ug/mL in H2O	o2si	O2SI-062002-01-01	1000	142626-24-38407	04/20/19	125 uL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O	o2si	O2SI-062004-01-01	1000	142626-24-38408	04/20/19	125 uL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	250 uL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	250 uL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	250 uL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	625 uL	25 mL	Millipore Water	12.5
Sulfate Standard	Ultra Scientific	ICC-006	1000	G34-CR-2905-39056	07/31/21	1250 uL	25 mL	Millipore Water	25

Anion Chromatography Calibration Curve									
Prep Date: 09/24/18					Prep'd By (Initials): HH				
Exp Date: 09/25/18									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/mL)	Reference To APPL Prep Date	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
Anion Chromatography Working Standard	Varies	ICal1	5.0-50.0	Prepared 09/24/18	09/25/18	8 µL	1000 µL	Millipore Water	0.08-0.40
Anion Chromatography Working Standard	Varies	ICal2	5.0-50.0	Prepared 09/24/18	09/25/18	20 µL	1000 µL	Millipore Water	0.1-1.0
Anion Chromatography Working Standard	Varies	ICal3	5.0-50.0	Prepared 09/24/18	09/25/18	50 µL	1000 µL	Millipore Water	0.25-2.5
Anion Chromatography Working Standard	Varies	ICal4	5.0-50.0	Prepared 09/24/18	09/25/18	100 µL	1000 µL	Millipore Water	0.5-5.0
Anion Chromatography Working Standard	Varies	ICal5	5.0-50.0	Prepared 09/24/18	09/25/18	200 µL	1000 µL	Millipore Water	1.0-10.0
Anion Chromatography Working Standard	Varies	ICal6	5.0-50.0	Prepared 09/24/18	09/25/18	700 µL	1000 µL	Millipore Water	3.5-35.0
Anion Chromatography Working Standard	Varies	ICal7	5.0-50.0	Prepared 09/24/18	09/25/18	1000 µL	1000 µL	Millipore Water	5.0-50.0

Anion Chromatography LCS/ICV									
Prep Date: See Injection Log					Prep'd By (Initials): HH				
Exp Date: 24 hours after prep									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (ug/mL)
Fluoride	Inorganic Ventures	ICF1	993-999	K2-F652018-38331	10/19/18	62.5 µL	25 mL	Millipore Water	2.5
Nitrite	Inorganic Ventures	ICNO21	993-1001	M2-NOX660562-38333	10/19/18	250 µL	25 mL	Millipore Water	3.04
Chloride	Inorganic Ventures	ICCL1	995-1001	N2CL664868-39036	04/16/19	500 µL	25 mL	Millipore Water	20
O-Phosphate as P	Inorganic Ventures	IPPO41	1001-1009	M2-POX655826-38334	10/19/18	125 µL	25 mL	Millipore Water	5
Nitrate as N	Inorganic Ventures	ICNNO31	994-1002	N2-NOX667147-39509	09/12/19	125 µL	25 mL	Millipore Water	5
Ion Chromatography Bromide Standard	CPI International	4400-IC8M	1000	161681-8-39539	02/06/20	312.5 µL	25 mL	Millipore Water	12.5
Sulfate	Inorganic Ventures	ICSO41	998-1006	N2-SOX664928-39508	08/13/19	500 µL	25 mL	Millipore Water	20

Anion Chromatography CCV									
Prep Date: See Injection Log					Prep'd By (Initials): HH				
Exp Date: 24 hours after prep									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (ug/mL)
Ion Chromatography Standard Fluoride 1000ug/mL in H2O	o2si	O2SI-062002-01-01	1000	142626-24-38407	04/20/19	62.5 µL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O	o2si	O2SI-062004-01-01	1000	142626-24-38408	04/20/19	62.5 µL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	125 µL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	125 µL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	312.5 µL	25 mL	Millipore Water	12.5
Sulfate Standard	Ultra Scientific	ICC-006	1000	G34-CR-2905-39056	07/31/21	625 µL	25 mL	Millipore Water	25



Anion Chromatography Working Standard									
Prep Date: 10/23/18					Prep'd By (Initials): HH				
Exp Date: 10/24/18									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000µg/mL in H2O	o2si	O2SI-062002-01-01	1000	142626-24-38407	04/20/19	125 uL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O	o2si	O2SI-062004-01-01	1000	142626-24-38408	04/20/19	125 uL	25 mL	Millipore Water	5
Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	250 uL	25 mL	Millipore Water	50
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	250 uL	25 mL	Millipore Water	10
Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	250 uL	25 mL	Millipore Water	10
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	625 uL	25 mL	Millipore Water	25
Sulfate Standard	Ultra Scientific	ICC-006	1000	G34-CR-2905-39056	07/31/21	1250 uL	25 mL	Millipore Water	50

Anion Chromatography Calibration Curve									
Prep Date: 10/23/18					Prep'd By (Initials): HH				
Exp Date: 10/24/18									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/mL)	Reference To APPL Prep Date	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Conc. Range (µg/mL)
Anion Chromatography Working Standard	Varries	ICal1	5.0-50.0	Prepared 10/23/18	10/24/18	200 µL	25000 µL	Millipore Water	0.08-0.40
Anion Chromatography Working Standard	Varries	ICal2	5.0-50.0	Prepared 10/23/18	10/24/18	20 µL	1000 µL	Millipore Water	0.1-1.0
Anion Chromatography Working Standard	Varries	ICal3	5.0-50.0	Prepared 10/23/18	10/24/18	50 µL	1000 µL	Millipore Water	0.25-2.5
Anion Chromatography Working Standard	Varries	ICal4	5.0-50.0	Prepared 10/23/18	10/24/18	100 µL	1000 µL	Millipore Water	0.5-5.0
Anion Chromatography Working Standard	Varries	ICal5	5.0-50.0	Prepared 10/23/18	10/24/18	200 µL	1000 µL	Millipore Water	1.0-10.0
Anion Chromatography Working Standard	Varries	ICal6	5.0-50.0	Prepared 10/23/18	10/24/18	700 µL	1000 µL	Millipore Water	3.5-35.0
Anion Chromatography Working Standard	Varries	ICal7	5.0-50.0	Prepared 10/23/18	10/24/18	1000 µL	1000 µL	Millipore Water	5.0-50.0

Anion Chromatography LCS/ICV									
Prep Date: See injection Log					Prep'd By (Initials): HH				
Exp Date: 24 hours after prep									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Flouride	Inorganic Ventures	ICF1	993-999	K-F652018-39801	10/23/19	62.5 µL	25 mL	Millipore Water	2.5
Nitrite	Inorganic Ventures	ICNO21	993-1001	M2-NOX660562-39802	10/23/19	250 µL	25 mL	Millipore Water	3.04
Chloride	Inorganic Ventures	ICCL1	995-1001	N2CL664868-39036	04/16/19	500 µL	25 mL	Millipore Water	20
O-Phosphate as P	Inorganic Ventures	IPPO41	1001-1009	M2-POX655826-39803	10/23/19	125 µL	25 mL	Millipore Water	5
Nitrate as N	Inorganic Ventures	ICNNO31	994-1002	N2-NOX667147-39510	10/23/19	125 µL	25 mL	Millipore Water	5
Ion Chromatography Bromide Standard	CPI International	4400-IC8M	995-1005	16H087-37320	01/15/19	312.5 µL	25 mL	Millipore Water	12.5
Sulfate	Inorganic Ventures	ICSO41	998-1006	K2-SOX01111-38875	08/13/19	500 µL	25 mL	Millipore Water	20

Anion Chromatography CCV									
Prep Date: See injection Log					Prep'd By (Initials): HH				
Exp Date: 24 hours after prep									
Initial Standard Information					Final Standard Information				
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000µg/mL in H2O	o2si	O2SI-062002-01-01	1000	142626-24-38407	04/20/19	62.5 µL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Nitrite as N 1000 ug/mL in H2O	o2si	O2SI-062004-01-01	1000	142626-24-38408	04/20/19	62.5 µL	25 mL	Millipore Water	2.5
Ion Chromatography Standard Chloride, 500mL 5,000 mg/L in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	125 µL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrate as N, 500mL 1,000 mg/L in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	125 µL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	312.5 µL	25 mL	Millipore Water	12.5
Sulfate Standard	Ultra Scientific	ICC-006	1000	G34-CR-2905-39056	07/31/21	625 µL	25 mL	Millipore Water	25

Tiamo Alkalinity Standard Prep										
Prep Date:							Prep'd By (Initials): AR			
Exp Date:										
Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Unit	Conc	Lot Number - QA Number	Prep/Opened	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc
Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	J.T.Baker	NA	NA	167828	NA	NA	PURCHASED	NA	NA	NA
0.10N Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	J.T.Baker	Normality	0.1N	167828	09/05/18	09/05/19	3ml	1L	DI	0.10N
0.02N Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	J.T.Baker	Normality	0.02N	167828	09/05/18	09/05/19	200mL	1L	DI	0.02N
Inorganic Spike(NaHCO <sub>3</sub> )	BDH	NA	NA	1575C510	10/18/18	08/14/20	PURCHASED	NA	NA	NA
Inorganic Spike Solution	BDH	Milligrams/Liters	250mg/L	1575C510	09/21/18	09/21/19	3.5g	500mL	DI	250mg/L
Standarizing Solution(NaCO <sub>3</sub> )	J.T.Baker	Normality	1N	178494	07/25/17	07/25/19	PURCHASED	NA	NA	NA

## Nitrite

### High Point @ 1.5 mg/L

0.075 mL NO<sub>2</sub> O<sub>2</sub>Si lot 142626-24 – 38408 exp: 04/20/19  
50 mL DI Water

### CCV @ 0.75 mg/L

0.0375 mL NO<sub>2</sub> O<sub>2</sub>Si lot 142626-24 – 38408 exp: 4/20/19  
50 mL DI Water

### ICV/LCS @ 0.73 mg/L

0.12mL NO<sub>2</sub> Inorganic Ventures lot M2-NOX660562 – 38802 exp: 10/23/19  
50 mL DI Water

### 1 mg/L NO<sub>2</sub>

400 uL of High point and 200 uL of DI made directly into a sample cup

Prep 10/23/18  
Exp 10/30/18  
JR

## Nitrate/TOXN

### High Point @ 6 mg/L

0.30 mL NO<sub>3</sub> O<sub>2</sub>Si lot 880117-4 – 39577 exp: 02/21/20  
50 mL DI Water

### CCV @ 3.0 mg/L

0.15 mL NO<sub>3</sub> O<sub>2</sub>Si lot 880117-4 – 39577 exp: 02/21/20  
50 mL DI Water

### ICV/LCS @ 3.0 mg/L

0.150 mL NO<sub>3</sub> Inorganic Ventures lot M2-NOX667147 – 39510 exp: 10/23/18  
50 mL DI Water

### 1 mg/L NO<sub>3</sub>

100 uL of High point and 500 uL of DI made directly into a sample cup

### MS @ 2.5 mg/L NO<sub>3</sub> and 0.73 mg/L NO<sub>2</sub>

0.125 mL NO<sub>3</sub> Inorganic Ventures lot M2-NOX667147 – 39510 M2-NOX667147 – 39510 and 0.12mL  
M2-NOX660562 – 38802 exp: 10/23/19  
Final volume 50 mL of sample

Prep 10/23/18  
Exp 10/30/18  
JR

# SM3500FeB Injection Log

Directory: I:\Spec Sheets\Ferrous Iron (Fe2)\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
2	15 Jun 2018	12:27	0 HH 180615		Upload Temp	1.
1	15 Jun 2018	12:27	1		Upload Temp	1.
3	15 Jun 2018	12:28	2		Upload Temp	1.
4	15 Jun 2018	12:28	3		Upload Temp	1.
5	15 Jun 2018	12:29	4		Upload Temp	1.
6	15 Jun 2018	12:30	5		Upload Temp	1.
7	15 Jun 2018	12:31	180615A ICV		Upload Temp	1.
8	15 Jun 2018	12:32	180615A ICB		Upload Temp	1.
10	26 Oct 2018	11:44	CCV 4.0 181026		Upload Temp	1.
9	26 Oct 2018	11:44	CCB 181026		Upload Temp	1.
12	26 Oct 2018	11:46	181026A LCS		Upload Temp	1.
11	26 Oct 2018	11:46	181026A LCSD		Upload Temp	1.
13	26 Oct 2018	11:47	AZ81842W07		Upload Temp	1.
14	26 Oct 2018	11:47	AZ81840W07		Upload Temp	1.
15	26 Oct 2018	11:48	AZ81841W07		Upload Temp	1.
16	26 Oct 2018	11:49	AZ81840W07 MS		Upload Temp	1.
17	26 Oct 2018	11:49	AZ81840W07 DUP		Upload Temp	1.
18	26 Oct 2018	11:50	CCV 4.0 181026		Upload Temp	1.
19	26 Oct 2018	11:51	CCB 181026		Upload Temp	1.

## EPA 9056A Injection Log

Directory: I:\Dionex\Charlie\

unID	Injected		Sample Name	Misc Info	FileName	Multiplier
	24 Sep 2018	10:51	i cal 1		Anions	1.
	24 Sep 2018	10:59	i cal 2		Anions	1.
	24 Sep 2018	11:06	i cal 3		Anions	1.
	24 Sep 2018	11:14	i cal 4		Anions	1.
)	24 Sep 2018	11:21	i cal 5		Anions	1.
i	24 Sep 2018	11:28	i cal 6		Anions	1.
2	24 Sep 2018	11:36	i cal 7		Anions	1.
3	24 Sep 2018	11:43	CCB		Anions	1.
4	24 Sep 2018	11:51	ICV LCS		Anions	1.

# EPA 300.0 Injection Log

Directory: I:\Dionex\Charlie\

RunID	Injected	Sample Name	Misc Info	FileName	Multiplier
6	26 Oct 2018 09:42	CCV 181026		Anions	1.
7	26 Oct 2018 09:49	CCB		Anions	1.
8	26 Oct 2018 09:56	181026 LCS		Anions	1.
9	26 Oct 2018 10:03	181026 LCSD		Anions	1.
18	26 Oct 2018 11:05	CCV 181025		Anions	1.
19	26 Oct 2018 11:11	CCB		Anions	1.
27	26 Oct 2018 12:07	CCV 181025		Anions	1.
28	26 Oct 2018 12:14	CCB		Anions	1.
29	26 Oct 2018 12:20	AZ81840W05		Anions	1.
30	26 Oct 2018 12:27	AZ81841W05		Anions	1.
31	26 Oct 2018 12:34	AZ81842W05		Anions	1.
35	26 Oct 2018 13:02	CCV 181025		Anions	1.
36	26 Oct 2018 13:09	CCB		Anions	1.

# EPA 300.0 Injection Log

Directory: I:\Dionex\Charlie\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
31	29 Oct 2018	11:09	CCV 181029		Anions	1.
32	29 Oct 2018	11:16	CCB		Anions	1.
33	29 Oct 2018	11:23	181029 LCS		Anions	1.
34	29 Oct 2018	11:30	181029 LCSD		Anions	1.
37	29 Oct 2018	11:51	AZ81841W05 df50		Anions	50.
38	29 Oct 2018	11:58	AZ81842W05 df5		Anions	5.
39	29 Oct 2018	12:05	CCV 181029		Anions	1.
40	29 Oct 2018	12:11	CCB		Anions	1.

# SM 2320B Injection Log

Directory: I:\Tiamo\EXPORT\

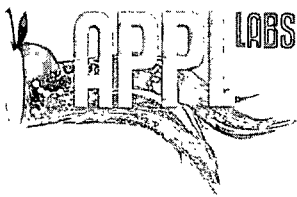
RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	30 Oct 2018	08:22	181030A BLK		181030A_AL	1.
2	30 Oct 2018	08:25	181030A LCS		181030A_AL	1.
3	30 Oct 2018	08:34	181030A LCSD		181030A_AL	1.
4	30 Oct 2018	08:43	AZ81840W05		181030A_AL	1.
8	30 Oct 2018	09:22	AZ81841W05		181030A_AL	1.
9	30 Oct 2018	09:28	AZ81842W05		181030A_AL	1.



# EPA 353.2 Injection Log

Directory: I:\EVE\Export\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	30 Oct 2018	14:16	Standard 1 TOXN/NO3		181030A TO	1.
2	30 Oct 2018	14:18	Standard 90 TOXN/NO3		181030A TO	1.
3	30 Oct 2018	14:20	Standard 91 TOXN/NO3		181030A TO	1.
4	30 Oct 2018	14:22	Standard 92 TOXN/NO3		181030A TO	1.
5	30 Oct 2018	14:25	Standard 93 TOXN/NO3		181030A TO	1.
6	30 Oct 2018	14:27	Standard 94 TOXN/NO3		181030A TO	1.
7	30 Oct 2018	14:29	Standard 0 TOXN/NO3		181030A TO	1.
8	30 Oct 2018	14:32	ICV TOXN/NO3		181030A TO	1.
9	30 Oct 2018	14:34	ICB TOXN/NO3		181030A TO	1.
12	30 Oct 2018	14:41	181030A BLK TOXN/NO3		181030A TO	1.
13	30 Oct 2018	14:43	181030A LCS TOXN/NO3		181030A TO	1.
14	30 Oct 2018	14:45	181030A LCSD TOXN/NO3		181030A TO	1.
22	30 Oct 2018	15:04	CCV TOXN/NO3		181030A TO	1.
23	30 Oct 2018	15:06	CCB TOXN/NO3		181030A TO	1.
28	30 Oct 2018	15:11	AZ81840W06 TOXN/NO3		181030A TO	1.
29	30 Oct 2018	15:12	AZ81841W06 TOXN/NO3		181030A TO	1.
30	30 Oct 2018	15:13	AZ81842W06 TOXN/NO3		181030A TO	1.
31	30 Oct 2018	15:14	CCV TOXN/NO3		181030A TO	1.
32	30 Oct 2018	15:15	CCB TOXN/NO3		181030A TO	1.



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

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

## Data Validatable Report

November 13, 2018

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, Hawaii 96813

Attn: Margie Pascua

Title: Report of Data: Case 87248

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

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

Dear Ms. Pascua:

Three water samples were received October 27, 2018. Written results for the requested analyses are being provided on this November 13, 2018.

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

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

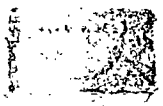
I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory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

A handwritten signature in black ink that reads 'Paula McCartney'.

Paula McCartney, Laboratory Director  
APPL, Inc.

PM/rp  
Enclosure  
cc: File

Number of pages in this report: 647



# Data Validation Package

for

## 60481245 CIV 0053 Red Hill Fuel Storage

### APPL SDG 87248

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## **CASE NARRATIVE**

# Case Narrative

ARF: 87248

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

## Sample Receipt Information:

Three water samples were received October 27, 2018, at 2.0°C. The sample group was assigned Analytical Request Form (ARF) number 87248.

## Sample Preparation and Analysis Information:

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

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

For the EPA 8270D SIM analysis, the samples were extracted according to EPA method 3520C.

For the EPA 8270D Phenol analysis, the samples were extracted according to EPA method 3520C. The samples were screened for Tentatively Identified Compounds (TICs).

For the APPL SOP ANA2MEE analysis, the samples were extracted according to EPA method 3535.

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

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

## Analytical Exceptions, Deviations and Abnormalities.

**EPA 8015B:** In the 181029A method blank, Diesel (C10-C24) and Oil (C24-C40) were detected at concentration greater than the LOQ. Corrective action: All of the samples were re-extracted and re-analyzed. Both sets of data are reported.

In the 181029A LCS, Oil (C24-C40) recovered above the 113% upper control limit. Corrective action: All of the samples were re-extracted and re-analyzed. Both sets of data are reported.

**APPL SOP ANA2MEE:** In the 181029A LCS/LCSD, the RPD exceeded the 20% limit. All spike recoveries were acceptable.

**EPA 8260B:** The surrogates 1,2-Dichloroethane-d4 and Dibromofluoromethane recovered above the upper control limit in two samples. Corrective action: None, no target compound was detected in the samples.

The surrogate Toluene-d8 recovered below the 89% lower control limit in for the LCSD  
Corrective action: All target analyte spike recoveries are within the control limits. The client was notified.

tbICOC\_APPLCaseNarrative


SDG	Received	Client ID	APPL ID	Collected DateTime	Matrix	Method	Method Description
87248	10/27/18	ERH707	AZ81901	10/25/18 9:45:00 AM	WATER	8011	EPA 8011
87248	10/27/18	ERH707	AZ81901	10/25/18 9:45:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA
87248	10/27/18	ERH707	AZ81901	10/25/18 9:45:00 AM	WATER	EPA 8270D	EPA 8270D WATER
87248	10/27/18	ERH707	AZ81901	10/25/18 9:45:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
87248	10/27/18	ERH707	AZ81901	10/25/18 9:45:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
87248	10/27/18	ERH707	AZ81901	10/25/18 9:45:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH RE-EXTRACT
87248	10/27/18	ERH707	AZ81901	10/25/18 9:45:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87248	10/27/18	ERH707	AZ81901	10/25/18 9:45:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ
87248	10/27/18	ERH705	AZ81902	10/25/18 8:22:00 AM	WATER	8011	EPA 8011
87248	10/27/18	ERH705	AZ81902	10/25/18 8:22:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA
87248	10/27/18	ERH705	AZ81902	10/25/18 8:22:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87248	10/27/18	ERH706	AZ81903	10/25/18 9:15:00 AM	WATER	8011	EPA 8011
87248	10/27/18	ERH706	AZ81903	10/25/18 9:15:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA
87248	10/27/18	ERH706	AZ81903	10/25/18 9:15:00 AM	WATER	EPA 8270D	EPA 8270D WATER
87248	10/27/18	ERH706	AZ81903	10/25/18 9:15:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
87248	10/27/18	ERH706	AZ81903	10/25/18 9:15:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
87248	10/27/18	ERH706	AZ81903	10/25/18 9:15:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH RE-EXTRACT
87248	10/27/18	ERH706	AZ81903	10/25/18 9:15:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
87248	10/27/18	ERH706	AZ81903	10/25/18 9:15:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ

**SAMPLE RECORDS MANAGEMENT  
CHAIN OF CUSTODY,  
ARF, CRF, AND  
CLIENT COMMUNICATION**

# APPL - Analysis Request Form

**87248**

Client: AECOM  
 Address: 1001 Bishop Street, Suite 1600  
Honolulu, HI 96813  
 Attn: Margie Pascua  
 Phone: 808-356-5373 Fax: 808-523-8950  
 Job: 60571032 CV18F0126 Red Hill Fuel Storage  
 PO #: 18S-S22209-HI27 PO# 102604  
 Chain of Custody (Y/N): Y # RH102618-1, 2  
 RAD Screen (Y/N): Y pH (Y/N): N  
 Turn Around Type: 1 WEEK

Received by: AAR   
 Date Received: 10/27/18 Time: 10:05  
 Delivered by: FEDEX  
 Shuttle Custody Seals (Y/N): Y Time Zone: -10  
 Chest Temp(s): 2.0°C  
 Color: VOA/J-PurpBlack  
 Samples Chilled until Placed in Refrig/Freezer: Y  
 Project Manager: Libby Cheesebor  
 QC Report Type: DVP4DOD/EQUIS/HI  
 Due Date: 11/05/18

Comments:

*PM: login and F1s to Margie.Pascua@aecom.com*

*AN: 7 day TAT for Form 1s; 21 day TAT for PKG STYLE 1; DOD v5.1; DOD Forms (LOQ/LOD database/DL)*

*8260: BTEX & TPH-G only; 8270 SIM: 1-methylnaphthalene, 2-methylnaphthalene & naphthalene only.*

*TPH D & O both with and w/o SGC, reverse surrogate for the SGC; analyze SGC if detections*

*8011: EDB only; \$87DC53W5: report phenol + TICs; \$87DMEEW5: 2-MEE (LCS Spk 80ppb).*

*FR: HC to LDC, 2 labeled CDs to Margie Pascua.*

*EDD: AECOM EQUIS EDD 2.5.3 Red Hill 87DMEE->3535A to Margie.Pascua@aecom.com & jecklund@lab-data.com*

Sample Distribution:

**GC: 3-\$8011, 2-\$87DC53W5, 2-\$87DMEEW5, 2-\$DOC53W5LIQ, 2-\$SIM53LIQ51**  
**Extractions: 2- LIQ003, 2- LIQ005, 2- LIQ005SGC, 3- MWE012, 2- MWE2MEE**  
**VOA: 3-\$86BTOTXDCAW, 3-\$GASBL, 3-\$GRO86BW**

Charges:




Invoice To:

**ACCOUNTS PAYABLE**

**1001 Bishop Street, Ste 1600**

**USAPImaging@aecom.com**

**mary.basano@aecom.com**

Client ID	APPL ID	Sampled	Analyses Requested
1. ERH707	AZ81901W LCSD 	10/25/18 09:45	\$8011, \$86BTOTXDCAW, \$87DC53W5, \$87DMEEW5, \$DOC53W5LIQ, \$GASBL, \$GRO86BW, \$SIM53LIQ51 -- D&O-SGC analysis if detections
2. ERH705	AZ81902W LCSD 	10/25/18 08:22	\$8011, \$86BTOTXDCAW, \$GASBL, \$GRO86BW
3. ERH706	AZ81903W LCSD 	10/25/18 09:15	\$8011, \$86BTOTXDCAW, \$87DC53W5, \$87DMEEW5, \$DOC53W5LIQ, \$GASBL, \$GRO86BW, \$SIM53LIQ51 -- D&O-SGC analysis if detections

Note: All times, excluding sample collection times, are Pacific Time Zone unless noted otherwise. Collection times are in: -10 UTC

**# 87248**



# APPL Sample Receipt Form

ARF# 87248

Sample	Container Type	Count	p
AZ81901	13 VOAs - HCL	3	NA
	15 VOAs - NP	3	NA
	17 Amber Liter	5	NA
	40 500mL Amber, unprsvd	2	NA
AZ81902	13 VOAs - HCL	3	NA
	15 VOAs - NP	3	NA
AZ81903	13 VOAs - HCL	3	NA
	15 VOAs - NP	3	NA
	17 Amber Liter	5	NA
	40 500mL Amber, unprsvd	2	NA

Sample    Container Type    Count    p

87248



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

CHAIN OF CUSTODY RECORD

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

C.O.C. RH102614-2

Report to: <u>PLEASE PRINT</u> Company Name: <u>AECOM</u> Phone: <u>808-356-5373</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u> Attn: <u>Margie Pascua</u> Email: <u>margie.pascua@aecom.com</u>	Invoice to: <u>PLEASE PRINT</u> Company Name: <u>AECOM</u> Phone: <u>808-529-7249</u> Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u> Attn: <u>Mary Basano</u> Email: <u>mary.basano@aecom.com; usapimaging@aecom.com</u>
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Project Name/Number CIV 53 / 60481245	Sampler (Print) <u>MC, TV, MH</u>											Analysis Requested/Method Number	Date Shipped: <u>10/26/18</u>								
Purchase Order Number 77265	Sampler (Signature) <u>[Signature]</u>	No. of Containers	Matrix			8260C BTEX, TPH-g	8260C DCA 8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/SGT	8270DSIM PAHs short list	8270D Phenol, TICs	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity	300.0 Nitrate, Sulfate, Chloride	300.0 Bromide/Fluoride	8010 Total Ca, Mg, Mn, K, Na	SM4500 Total & Dissolved Silica	Carrier: <u>FedEx</u>
Sample Identification	Location		Date Collected	Time Collected	Time Zone																Aq
<u>ERH 705</u>	<u>TB-RHMW</u>	<u>10/25/18</u>	<u>0802</u>	<u>HST</u>	<u>6</u>	<u>X</u>															
<u>ERH 706</u>	<u>FB-RHMW</u>	<u>10/25/18</u>	<u>0915</u>	<u>HST</u>	<u>13</u>	<u>X</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>									
<u>ERH 707</u>	<u>EB-RHMW</u>	<u>10/25/18</u>	<u>0945</u>	<u>HST</u>	<u>6</u>	<u>X</u>			<u>X</u>	<u>X</u>											<u>see other label for non-VOCs</u>
<u>[Large Signature]</u>																					

Shuttle Temperature: <u>2°C</u>	Turnaround Requested: Check one <input type="checkbox"/> Standard 2-3 wk <input checked="" type="checkbox"/> One week <input type="checkbox"/> 3 days <input type="checkbox"/> 24/48 Hrs. <input type="checkbox"/> Other: _____	Sample Disposal: <input type="checkbox"/> Return to client <input checked="" type="checkbox"/> Disposal by Lab (30-day retention)
Relinquished by sampler: <u>AECOM</u> <u>[Signature]</u>	Date: <u>10/26/18</u> Time: <u>1000</u>	Received by: _____ Date: _____ Time: _____
Relinquished by: _____	Date: _____ Time: _____	Received at lab by: <u>Daniel Salata</u>

87248



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

CHAIN OF CUSTODY RECORD

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

C.O.C. PH102618-1

<p>Report to: <u>PLEASE PRINT</u></p> <p>Company Name: <u>AECOM</u> Phone: <u>808-356-5373</u></p> <p>Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u></p> <p>Attn: <u>Margie Pascua</u></p> <p>Email: <u>margie.pascua@aecom.com</u></p>	<p>Invoice to: <u>PLEASE PRINT</u></p> <p>Company Name: <u>AECOM</u> Phone: <u>808-529-7249</u></p> <p>Address: <u>1001 Bishop St, Suite 1600</u> <u>Honolulu, HI 96813</u> Fax: <u>808-523-8950</u></p> <p>Attn: <u>Mary Basano</u></p> <p>Email: <u>mary.basano@aecom.com; usapimaging@aecom.com</u></p>
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Project Name/Number CIV 53 / 60481245	Sampler (Print) <u>MC, TV, MH</u>											Analysis Requested/Method Number	Date Shipped: <u>10/26/18</u>															
Purchase Order Number 77265	Sampler (Signature) <u>Margie</u>											8260C BTEX, TPH-g	Carrier: <u>FedEx</u>															
Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Aq	Sed.	Soil	8260C DCA	8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/g w/ SGT	8270DSIM PAHs short list	8270D Phenol, TICs	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity	300.0 Nitrate, Sulfate, Chloride	300.0 Bromide/Fluoride	8010 Total Ca, Mg, Mn, K, Na	SM4500 Total & Dissolved Silica	Waybill No.:	Comments:			
<u>ERH707</u>	<u>EB - PHMWII</u>	<u>10/25/18</u>	<u>0945</u>	<u>HST</u>	<u>7</u>	<u>X</u>					<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>													<u>see other cooler for WAS</u>
<p><i>[Large diagonal scribble across the table]</i></p>																												
<p><u>10/20/18</u></p>																												
<p><u>MC - CO</u></p>																												
															*Analyze TPH w/SGT only if TPH-d/o detected.					TPH-d/o & PAHs need liquid-liquid extraction.								

Shuttle Temperature: <u>20°C</u>	Turnaround Requested: Check one <input type="checkbox"/> Standard 2-3 wk <input checked="" type="checkbox"/> One week <input type="checkbox"/> 3 days <input type="checkbox"/> 24/48 Hrs. <input type="checkbox"/> Other: _____	Sample Disposal: <input type="checkbox"/> Return to client <input checked="" type="checkbox"/> Disposal by Lab (30-day retention)					
Relinquished by sampler: <u>AECOM</u> <u>Margie</u>	Date: <u>10/26/18</u> Time: <u>1:00</u>	Received by:	Relinquished by:	Date:	Time:	Received by:	
Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date: <u>10/27/18</u>	Time: <u>10:05am</u>	Received at lab by: <u>Daniel Salata</u>

COOLER RECEIPT FORM

ARF: 87248

- 1) Project: 60571032 CV18F0126 Red Hill Fuel Storage Date Received: 10/27/18
- 2) Coolers: Number of Coolers: 2
- 3) YES Were custody seals present and intact?  
How many? 4 Name/Date on seal? SEE BELOW
- 4) YES Was there a shipping slip? Carrier name: FEDEX
- 5) Type of packing in cooler:  bubble wrap  popcorn  foam  plastic bags  other  
 wet ice  dry ice  no ice  gel ice
- 6) YES Were cooler temperatures acceptable?
- 7) Serial number of certified NIST thermometer use R3
- 8) Cooler temp(s): In °C  
1: 2.0 2: 2.0 3: \_\_\_\_\_ 4: \_\_\_\_\_ 5: \_\_\_\_\_ 6: \_\_\_\_\_  
7: \_\_\_\_\_ 8: \_\_\_\_\_ 9: \_\_\_\_\_ 10: \_\_\_\_\_ 11: \_\_\_\_\_ 12: \_\_\_\_\_

Chain of custody:

- 9) YES Was a chain of custody received?
- 10) YES Were the custody papers complete/signed in the appropriate places?

Sample Labels:

- 11) YES Were all sample labels complete (sample ID, date/time of sampling, etc.)?
- 12) YES Did all container labels agree with custody papers?

Sample Containers:

- 13) YES Were all containers sealed in separate bags?
- 14) YES Did all containers arrive in good condition:(unbroken, no leakage, no cracked/broken...)?
- 15) YES Were correct containers and preservatives used for the tests indicated?
- 16) YES Was a sufficient amount of sample sent for tests indicated?
- 17) YES Were bubbles present in volatile samples?

If yes, the following were received with air bubbles:

Larger than a pea: \_\_\_\_\_

Smaller than a pea: AZ81901(W04-W06); AZ81902(W02-W06); AZ(W06)

Preservation Hold time:

- 18) YES Was a sufficient amount of holding time remaining to analyze the samples?
- 19) NA Was the pH taken of all non-VOA preserved samples and written on the sample container?
- 20) NA Was the pH of acid preserved non-VOA samples < 2?
- 21) NA Was the pH of sodium hydroxide preserved samples for Cyanide > 12 and Sulfide >9?
- 22) NO Were unpreserved VOA Vials received?
- 23) NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?

pH strip lot number: \_\_\_\_\_

Lab notified if pH was not adequate: \_\_\_\_\_

Notes/Deficiencies:

Initials MC  
 Date 10/26  
**CUSTODY SEAL**  
 AECOM (808) 521-3051

Personnel receiving samples: RB Second reviewer: AA  
 Personnel labeling samples: RB  
 Project manager notified: AA Date/Time of notification 10/29/18  
 Name of client notified: \_\_\_\_\_ Date/Time of notification \_\_\_\_\_

## **SAMPLE RESULTS**

**EPA 8011**

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87248

**Sample ID: ERH707**

**APPL ID: AZ81901**

Sample Collection Date: 10/25/18

QCG: #8011-181101A-234847

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Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/01/18	11/02/18
8011	SURROGATE: 1,3-DIBROMOPROPANE	99.5	70-132			%	11/01/18	11/02/18

Quant Method: 8011102A.M  
Run #: 0926256  
Instrument: Herbie  
Sequence: 180926  
Dilution Factor: 1  
Initials: AAB

Printed: 11/05/18 10:16:04 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8011

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87248

**Sample ID: ERH705**

**APPL ID: AZ81902**

Sample Collection Date: 10/25/18

QCG: #8011-181101A-234847

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/01/18	11/02/18
8011	SURROGATE: 1,3-DIBROMOPROPANE	100	70-132			%	11/01/18	11/02/18

Quant Method: 8011102A.M  
Run #: 0926257  
Instrument: Herbie  
Sequence: 180926  
Dilution Factor: 1  
Initials: AAB

Printed: 11/05/18 10:16:04 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

**EPA 8011**

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87248

**Sample ID: ERH706**

**APPL ID: AZ81903**

Sample Collection Date: 10/25/18

QCG: #8011-181101A-234847

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Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/01/18	11/02/18
8011	SURROGATE: 1,3-DIBROMOPROPANE	103	70-132			%	11/01/18	11/02/18

Quant Method: 8011102A.M  
Run #: 0926258  
Instrument: Herbie  
Sequence: 180926  
Dilution Factor: 1  
Initials: AAB

Printed: 11/05/18 10:16:04 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD



## EPA 8015B TPH LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH707**

Sample Collection Date: 10/25/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87248

**APPL ID: AZ81901**

QCG: #DOC53-181029A-234822

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	120 B ++	40.0	25.00	13.07	ug/L	10/29/18	10/31/18
EPA 8015B-eL	OIL (C24-C40)	140 B	40.0	40.00	5.54	ug/L	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	130	60-142			%	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	115	56-125			%	10/29/18	10/31/18

B = The analyte was found in a method blank, as well as in the sample.  
++(T3M) The analyst has noted that the chromatogram of this sample is mainly higher boiling hydrocarbons.

Quant Method: DOC0905.M
Run #: 1031030
Instrument: Apollo
Sequence: 181031
Dilution Factor: 1
Initials: DPO

Printed: 11/02/18 2:30:36 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87248  
APPL ID: **AZ81901**  
QCG: #DOC53-181105A-234971

**Sample ID: ERH707**

Sample Collection Date: 10/25/18

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	117	60-142			%	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	107	56-125			%	11/05/18	11/07/18

Quant Method: DOC0905.M
Run #: 1107025
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

Printed: 11/08/18 10:08:24 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8015B TPH LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87248

**Sample ID: ERH706**

**APPL ID: AZ81903**

Sample Collection Date: 10/25/18

QCG: #DOC53-181029A-234822

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	120 B ++	40.0	25.00	13.07	ug/L	10/29/18	10/31/18
EPA 8015B-eL	OIL (C24-C40)	150 B	40.0	40.00	5.54	ug/L	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	100	60-142			%	10/29/18	10/31/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	86.8	56-125			%	10/29/18	10/31/18

B = The analyte was found in a method blank, as well as in the sample.  
++(T3M) The analyst has noted that the chromatogram of this sample is mainly higher boiling hydrocarbons.

Quant Method: DOC0905.M
Run #: 1031031
Instrument: Apollo
Sequence: 181031
Dilution Factor: 1
Initials: DPO

*Printed: 11/02/18 2:30:36 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD*

## EPA 8015B TPH LIQ-LIQ RE-EXTRACT

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH706**

Sample Collection Date: 10/25/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87248

**APPL ID: AZ81903**

QCG: #DOC53-181105A-234971

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/05/18	11/07/18
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	122	60-142			%	11/05/18	11/07/18
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	111	56-125			%	11/05/18	11/07/18

Quant Method: DOC0905.M
Run #: 1107026
Instrument: Apollo
Sequence: 181107
Dilution Factor: 1
Initials: DPO

Printed: 11/08/18 10:08:24 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D SIM LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH707**

Sample Collection Date: 10/25/18

ARF: 87248

**APPL ID: AZ81901**

QCG: #SIM53-181030A-234793

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALE	88.1	39-114			%	10/30/18	11/01/18
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (	98.2	58-120			%	10/30/18	11/01/18

Quant Method: L1026.M
Run #: 1026L080
Instrument: Linus
Sequence: L181026
Dilution Factor: 1
Initials: MA

Printed: 11/02/18 10:55:59 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8270D SIM LIQ-LIQ

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH706**

Sample Collection Date: 10/25/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87248

**APPL ID: AZ81903**

QCG: #SIM53-181030A-234793

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	10/30/18	11/01/18
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALE	91.6	39-114			%	10/30/18	11/01/18
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (	101	58-120			%	10/30/18	11/01/18

Quant Method: L1026.M
Run #: 1026L081
Instrument: Linus
Sequence: L181026
Dilution Factor: 1
Initials: MA

Printed: 11/02/18 10:55:59 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH707

Sample Collection Date: 10/25/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87248

APPL ID: AZ81901

QCG: #87DC5-181030A-234799

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	4H-PYRAN-4-ONE, TETRAHYDRO-	33 T	TIC			ug/L	10/30/18	11/01/18
EPA 8270D	BENZENESULFONOTHIOIC ACID, S-P	5.0 T	TIC			ug/L	10/30/18	11/01/18
EPA 8270D	ETHANOL, 2-BUTOXY-	5.6 T	TIC			ug/L	10/30/18	11/01/18
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	74.1	43-140			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	72.3	44-119			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	84.1	19-119			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	82.6	44-120			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: PHENOL-D6 (S)	88.3	10-115			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	65.8	50-134			%	10/30/18	11/01/18

T = Tentatively identified compound.

Quant Method: Y1025NC.M  
Run #: 1025Y115  
Instrument: Yoda  
Sequence: Y181025  
Dilution Factor: 1  
Initials: AAB

Printed: 11/09/18 4:26:06 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH706**

Sample Collection Date: 10/25/18

ARF: 87248

**APPL ID: AZ81903**

QCG: #87DC5-181030A-234799

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-HEXENE, 2,5,5-TRIMETHYL-	6.8 T	TIC			ug/L	10/30/18	11/01/18
EPA 8270D	ETHANOL, 2-BUTOXY-	6.6 T	TIC			ug/L	10/30/18	11/01/18
EPA 8270D	HEXANEDIOIC ACID, DIOCTYL ESTER	14 T	TIC			ug/L	10/30/18	11/01/18
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	75.5	43-140			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	78.4	44-119			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	95.0	19-119			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	93.3	44-120			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: PHENOL-D6 (S)	100	10-115			%	10/30/18	11/01/18
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	66.7	50-134			%	10/30/18	11/01/18

T = Tentatively identified compound.

Quant Method: Y1025NC.M
Run #: 1025Y116
Instrument: Yoda
Sequence: Y181025
Dilution Factor: 1
Initials: AAB

Printed: 11/09/18 4:26:06 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD



# EPA 8270D MODIFIED WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87248

**Sample ID: ERH707**

**APPL ID: AZ81901**

Sample Collection Date: 10/25/18

QCG: #87DME-181029A-234791

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method: YMEE0801.M  
Run #: 0801Y093  
Instrument: Yoda  
Sequence: Y180801M  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 4:02:24 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8270D MODIFIED WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua  
Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87248

**Sample ID: ERH706**

**APPL ID: AZ81903**

Sample Collection Date: 10/25/18

QCG: #87DME-181029A-234791

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/29/18	10/31/18

Quant Method: YMEE0801.M  
Run #: 0801Y094  
Instrument: Yoda  
Sequence: Y180801M  
Dilution Factor: 1  
Initials: MA

Printed: 11/01/18 4:02:24 PM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8260B BTEX & 1,2-DCA WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87248

**Sample ID: ERH707**

**APPL ID: AZ81901**

Sample Collection Date: 10/25/18

QCG: #86BTO-181030AL1-234715

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	10/30/18	10/30/18
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/30/18	10/30/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/30/18	10/30/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/30/18	10/30/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/30/18	10/30/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	115	81-118			%	10/30/18	10/30/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	85.6	85-114			%	10/30/18	10/30/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	111	80-119			%	10/30/18	10/30/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	90.2	89-112			%	10/30/18	10/30/18

Quant Method: L1026W.M
Run #: 1030L15
Instrument: Loki
Sequence: 181026
Dilution Factor: 1
Initials: SV

Printed: 10/31/18 10:42:36 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8260B BTEX & 1,2-DCA WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87248

**Sample ID: ERH705**

**APPL ID: AZ81902**

Sample Collection Date: 10/25/18

QCG: #86BTO-181030AL1-234715

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	10/30/18	10/30/18
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/30/18	10/30/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/30/18	10/30/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/30/18	10/30/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/30/18	10/30/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	130 #	81-118			%	10/30/18	10/30/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	88.3	85-114			%	10/30/18	10/30/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	126 #	80-119			%	10/30/18	10/30/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	93.5	89-112			%	10/30/18	10/30/18

# = Recovery (or RPD) is outside QC limits.

Quant Method: L1026W.M
Run #: 1030L17
Instrument: Loki
Sequence: 181026
Dilution Factor: 1
Initials: SV

Printed: 10/31/18 10:42:36 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

## EPA 8260B BTEX & 1,2-DCA WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 87248

**Sample ID: ERH706**

**APPL ID: AZ81903**

Sample Collection Date: 10/25/18

QCG: #86BTO-181030AL1-234715

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	10/30/18	10/30/18
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	10/30/18	10/30/18
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	10/30/18	10/30/18
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	10/30/18	10/30/18
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	10/30/18	10/30/18
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	123 #	81-118			%	10/30/18	10/30/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	88.0	85-114			%	10/30/18	10/30/18
EPA 8260B	SURROGATE: DIBROMOFLUOROMET	122 #	80-119			%	10/30/18	10/30/18
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	96.9	89-112			%	10/30/18	10/30/18

# = Recovery (or RPD) is outside QC limits.

Quant Method: L1026W.M
Run #: 1030L16
Instrument: Loki
Sequence: 181026
Dilution Factor: 1
Initials: SV

Printed: 10/31/18 10:42:36 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH707**

Sample Collection Date: 10/25/18

ARF: 87248

**APPL ID: AZ81901**

QCG: #GRO86-181030AL-234719

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/30/18	10/30/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	86.6	85-114			%	10/30/18	10/30/18

Quant Method: LGAS1029.M  
Run #: 1030L15  
Instrument: Loki  
Sequence: 181026  
Dilution Factor: 1  
Initials: SV

Printed: 10/31/18 10:44:09 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH705**

Sample Collection Date: 10/25/18

ARF: 87248

**APPL ID: AZ81902**

QCG: #GRO86-181030AL-234719

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/30/18	10/30/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	88.3	85-114			%	10/30/18	10/30/18

Quant Method: LGAS1029.M
Run #: 1030L17
Instrument: Loki
Sequence: 181026
Dilution Factor: 1
Initials: SV

Printed: 10/31/18 10:44:09 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD

# EPA 8260B GRO WATER

AECOM  
1001 Bishop Street, Suite 1600  
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

**Sample ID: ERH706**

Sample Collection Date: 10/25/18

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

ARF: 87248

**APPL ID: AZ81903**

QCG: #GRO86-181030AL-234719

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	10/30/18	10/30/18
EPA 8260B	SURROGATE: 4-BROMOFLUOROBEN	88.0	85-114			%	10/30/18	10/30/18

Quant Method: LGAS1029.M  
Run #: 1030L16  
Instrument: Loki  
Sequence: 181026  
Dilution Factor: 1  
Initials: SV

Printed: 10/31/18 10:44:09 AM  
APPL-F1-SC-NoMC-REG MDLs-DOD