ALS Environmental
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May 05, 2016

Analytical Report for Service Request No: K1604068

Marvin Heskett
Element Environmental, LLC
98-030 Hekaha St., Unit 9
Aiea, HI 96701

RE: Red Hill Bulk Fuel Storage Facility / 150027

Dear Marvin,

Enclosed are the results of the sample(s) submitted to our laboratory April 21, 2016
For your reference, these analyses have been assigned our service request number **K1604068.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at gregory.salata@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Gregory Salata, Ph.D.
Senior Project
Manager

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Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEC UST	http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L14-51
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	Not available	-
Idaho DHW	http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx	-
ISO 17025	http://www.pjlabs.com/	L14-50
Louisiana DEQ	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	03016
Maine DHS	Not available	WA01276
Michigan DEQ	http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html	9949
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Montana DPHHS	http://www.dphhs.mt.gov/publichealth/	CERT0047
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/oqa/	WA005
North Carolina DWQ	http://www.dwqlab.org/	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/envserv/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wisconsin DNR	http://dnr.wi.gov/	998386840
Wyoming (EPA Region 8)	http://www.epa.gov/region8/water/dwhome/wyomingdi.html	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Case Narrative

ALS Environmental—Kelso Laboratory
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ALS ENVIRONMENTAL

Client:	Elemental Environmental, LLC	**Service Request No.:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/ 150027	**Date Received:**	04/21/16
Sample Matrix:	Water		

Case Narrative

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Nine water samples were received for analysis at ALS Environmental on 04/21/16. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4ºC upon receipt at the laboratory.

Diesel and Residual Range Organics by EPA Method 8015

Sample Notes and Discussion:
Manual integration of one or more chromatographic peaks was required to correct the integration performed by the automated data processing program. The manual integration was performed in accordance with ALS policy, which is consistent with the National Environmental Laboratory Accreditation Program (NELAP), Department of Defense (DOD), and other certifying agencies. The analytes that required manual integrations are identified on each sample report contained in this data package.

No other anomalies associated with the analysis of these samples were observed.

Gasoline Range Organics by EPA Method 8015

Sample Notes and Discussion:
Manual integration of one or more chromatographic peaks was required to correct the integration performed by the automated data processing program. The manual integration was performed in accordance with ALS policy, which is consistent with the National Environmental Laboratory Accreditation Program (NELAP), Department of Defense (DOD), and other certifying agencies. The analytes that required manual integrations are identified on each sample report contained in this data package.

No other anomalies associated with the analysis of these samples were observed.

Approved by_____

Volatile Organic Compounds by EPA Method 8260

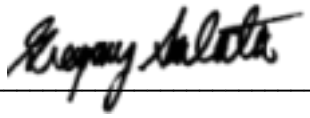
Sample Notes and Discussion:
Manual integration of one or more chromatographic peaks was required to correct the integration performed by the automated data processing program. The manual integration was performed in accordance with ALS policy, which is consistent with the National Environmental Laboratory Accreditation Program (NELAP), Department of Defense (DOD), and other certifying agencies. The analytes that required manual integrations are identified on each sample report contained in this data package.

No other anomalies associated with the analysis of these samples were observed.

Polynuclear Aromatic Hydrocarbons by EPA Method 8270

Sample Notes and Discussion:
Manual integration of one or more chromatographic peaks was required to correct the integration performed by the automated data processing program. The manual integration was performed in accordance with CAS policy, which is consistent with the National Environmental Laboratory Accreditation Program (NELAP), Department of Defense (DOD), and other certifying agencies. The analytes that required manual integrations are identified on each sample report contained in this data package.

No other anomalies associated with the analysis of these samples were observed.

Approved by 

Chain of Custody

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Chain of Custody

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Part of the ALS Group A Campbell Brothers Limited Company

Work Order No.: K1604068

Project Manager:	Matthew Neal	**Bill to:**	Accounting		
Client Name:	Element Environmental LLC	**Company:**	Element Environmental, LLC		
Address:	98-030 Hekaha St, Unit 9	**Address:**	98-030 Hekaha St., unit 9		
City, State ZIP:	Aiea, HI 96701	**City, State ZIP:**	Aiea HI 96701		
Email:	mheskett@e2hi.com, mneal@e2hi.com **Phone:** 808 728-4617	**Email:**	raoki@e2hi.com, mneal@e2hi.com	**po#**	150037
Project Name:	Red Hill Bulk Fuel Storage Facility				
Project Number:	150027				
P.O. Number:					
Sampler's Name:	M. Neal, M. Heskett, B. Balete				

SAMPLE RECEIPT

Temperature (°C):		Temp Blank Present		
Received Intact:	Yes	No	N/A	Wet Ice / Blue Ice
Cooler Custody Seals:	Yes	No	N/A	Total Containers:
Sample Custody Seals:	Yes	No	N/A	

REQUESTED ANALYSIS

TAT

- Routine 21day
- Same Day 100%
- Next Day ***
- 3 Day
- 5 Day 50%

Surcharges. Please call for availability

Due Date:

Comments

Sample Identification	Matrix	Date Sampled	Time Sampled	Lab ID	No. of Containers	8015C / DRO, ORO	8270D / PAH SIM*	8015C / VOC GRO	8260C VOC SIM**
ERH029	GW	4/19/2016	9:52		6	X	X	X	X
ERH030	GW	4/19/2016	12:28		6	X	X	X	X
ERH030 MS	GW	4/19/2016	12:28		6	X	X	X	X
ERH030 MSD	GW	4/19/2016	12:28		6	X	X	X	X
ERH031	GW	4/19/2016	13:08		6	X	X	X	X
ERH032	GW	4/19/2016	13:32		6	X	X	X	X
ERH033	GW	4/19/2016	14:05		6	X	X	X	X
ERH034	GW	4/19/2016	14:57		6	X	X	X	X
ERH035	GW	4/19/2016	15:00		6	X	X	X	X
ERH036	GW	4/19/2016	15:15		6	X	X	X	X

Dissolved	Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Si, Sn, Sr, Tl, V, Zn, Zr
Total	Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Si, Sn, Sr, Tl, V, Zn, Zr

Additional Methods Available Upon Request

RELINQUISHED BY

Notes:

*For PAHs analyze for Naphthalene, 1-methylnaphthalene, 2-methylnaphthalene only. **For 8260C VOCs analyze for BTEX only.

Print Name	Signature	Date/Time		Signature	Date/Time
Matt Neal		4/21/16 0930	Les Kennedy		4/21/16 0930

Revised: 4/20/2016

PC GS

Cooler Receipt and Preservation Form

Client Elemental Environmental Service Request K16 04068

Received: 4/21/16 Opened: 4/21/16 By: MM Unloaded: 4/21/16 By: MM

1. Samples were received via? *Mail* (*Fed Ex*) *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) (*Cooler*) *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA (Y) N If yes, how many and where? 1 front 1 back
   If present, were custody seals intact? (Y) N If present, were they signed and dated? (Y) N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID (NA)	Tracking Number NA	Filed
5.2	5.1	1.3	1.2	-0.1	323	/	7761 5173 8478	
5.4	5.7	0.3	0.6	+0.3	369	/	7761 5173 8445	

4. Packing material: *Inserts* *Baggies* (*Bubble Wrap*) (*Gel Packs*) *Wet Ice* *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
6. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA (Y) N
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA (Y) N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* (NA) Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* NA (Y) N
12. Was C12/Res negative? NA (Y) N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: _____

Page ____ *of* ____

Gasoline Range Organics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027

Cover Page - Organic Analysis Data Package
Gasoline Range Organics

Sample Name	Lab Code	Date Collected	Date Received
ERH029	K1604068-001	04/19/2016	04/21/2016
ERH030	K1604068-002	04/19/2016	04/21/2016
ERH031	K1604068-003	04/19/2016	04/21/2016
ERH032	K1604068-004	04/19/2016	04/21/2016
ERH033	K1604068-005	04/19/2016	04/21/2016
ERH034	K1604068-006	04/19/2016	04/21/2016
ERH035	K1604068-007	04/19/2016	04/21/2016
ERH036	K1604068-008	04/19/2016	04/21/2016
ERH030MS	KWG1603412-1	04/19/2016	04/21/2016
ERH030DMS	KWG1603412-2	04/19/2016	04/21/2016

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Gasoline Range Organics

Sample Name:	ERH029	**Units:**	ug/L
Lab Code:	K1604068-001	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	**21**	J	50	8.3	1	04/27/16	04/27/16	KWG1603412	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	101	80-107	04/27/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Gasoline Range Organics

Sample Name:	ERH030	**Units:**	ug/L
Lab Code:	K1604068-002	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	**13**	J	50	8.3	1	04/27/16	04/27/16	KWG1603412	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	103	80-107	04/27/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Gasoline Range Organics

Sample Name:	ERH031	**Units:**	ug/L
Lab Code:	K1604068-003	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	**9.0**	J	50	8.3	1	04/27/16	04/27/16	KWG1603412	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	103	80-107	04/27/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Gasoline Range Organics

Sample Name:	ERH032	**Units:**	ug/L
Lab Code:	K1604068-004	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	ND	U	50	8.3	1	04/27/16	04/27/16	KWG1603412	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	102	80-107	04/27/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Gasoline Range Organics

Sample Name:	ERH033	**Units:**	ug/L
Lab Code:	K1604068-005	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	ND	U	50	8.3	1	04/27/16	04/27/16	KWG1603412	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	102	80-107	04/27/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Gasoline Range Organics

Sample Name:	ERH034	**Units:**	ug/L
Lab Code:	K1604068-006	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	ND	U	50	8.3	1	04/27/16	04/27/16	KWG1603412	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	101	80-107	04/27/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Gasoline Range Organics

Sample Name:	ERH035	**Units:**	ug/L
Lab Code:	K1604068-007	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	**13**	J	50	8.3	1	04/27/16	04/27/16	KWG1603412	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	102	80-107	04/27/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Gasoline Range Organics

Sample Name:	ERH036	**Units:**	ug/L
Lab Code:	K1604068-008	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	**14**	J	50	8.3	1	04/27/16	04/27/16	KWG1603412	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	101	80-107	04/27/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Gasoline Range Organics

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1603412-5	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics (GRO)	ND	U	50	8.3	1	04/27/16	04/27/16	KWG1603412	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	102	80-107	04/27/16	Acceptable

Comments:

QA/QC Report

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027
Sample Matrix: Water

Surrogate Recovery Summary
Gasoline Range Organics

Extraction Method: EPA 5030B **Units:** Percent
Analysis Method: 8015C **Level:** Low

Sample Name	Lab Code	Sur1
ERH029	K1604068-001	101
ERH030	K1604068-002	103
ERH031	K1604068-003	103
ERH032	K1604068-004	102
ERH033	K1604068-005	102
ERH034	K1604068-006	101
ERH035	K1604068-007	102
ERH036	K1604068-008	101
Method Blank	KWG1603412-5	102
ERH030MS	KWG1603412-1	104
ERH030DMS	KWG1603412-2	103
Lab Control Sample	KWG1603412-3	102
Duplicate Lab Control Sample	KWG1603412-4	104

Surrogate Recovery Control Limits (%)

Sur1 = 1,4-Difluorobenzene 80-107

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Extracted:**	04/27/2016
Sample Matrix:	Water	**Date Analyzed:**	04/27/2016

Matrix Spike/Duplicate Matrix Spike Summary
Gasoline Range Organics

Sample Name:	ERH030	**Units:**	ug/L
Lab Code:	K1604068-002	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C	**Extraction Lot:**	KWG1603412

		ERH030MS KWG1603412-1 Matrix Spike			ERH030DMS KWG1603412-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Gasoline Range Organics (GRO)	13	453	500	88	414	500	80	71-131	9	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Extracted:**	04/27/2016
Sample Matrix:	Water	**Date Analyzed:**	04/27/2016

Lab Control Spike/Duplicate Lab Control Spike Summary
Gasoline Range Organics

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8015C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1603412

	Lab Control Sample KWG1603412-3 Lab Control Spike			Duplicate Lab Control Sample KWG1603412-4 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Gasoline Range Organics (GRO)	471	500	94	492	500	98	85-121	4	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Extracted:**	04/27/2016
Sample Matrix:	Water	**Date Analyzed:**	04/27/2016
		Time Analyzed:	06:32

Method Blank Summary
Gasoline Range Organics

Sample Name:	Method Blank	**Instrument ID:**	GC39
Lab Code:	KWG1603412-5	**File ID:**	J:\GC39\DATA\042616\0426F049.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C	**Extraction Lot:**	KWG1603412

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
ERH029	K1604068-001	J:\GC39\DATA\042616\0426F041.D	04/27/16	03:19
ERH030	K1604068-002	J:\GC39\DATA\042616\0426F042.D	04/27/16	03:43
ERH030MS	KWG1603412-1	J:\GC39\DATA\042616\0426F043.D	04/27/16	04:07
ERH030DMS	KWG1603412-2	J:\GC39\DATA\042616\0426F044.D	04/27/16	04:31
ERH031	K1604068-003	J:\GC39\DATA\042616\0426F045.D	04/27/16	04:56
ERH032	K1604068-004	J:\GC39\DATA\042616\0426F046.D	04/27/16	05:20
Lab Control Sample	KWG1603412-3	J:\GC39\DATA\042616\0426F047.D	04/27/16	05:44
Duplicate Lab Control Sample	KWG1603412-4	J:\GC39\DATA\042616\0426F048.D	04/27/16	06:08
ERH033	K1604068-005	J:\GC39\DATA\042616\0426F052.D	04/27/16	07:44
ERH034	K1604068-006	J:\GC39\DATA\042616\0426F053.D	04/27/16	08:09
ERH035	K1604068-007	J:\GC39\DATA\042616\0426F054.D	04/27/16	08:33
ERH036	K1604068-008	J:\GC39\DATA\042616\0426F055.D	04/27/16	08:57

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Extracted:**	04/27/2016
Sample Matrix:	Water	**Date Analyzed:**	04/27/2016
		Time Analyzed:	05:44

Lab Control Sample Summary
Gasoline Range Organics

Sample Name:	Lab Control Sample	**Instrument ID:**	GC39
Lab Code:	KWG1603412-3	**File ID:**	J:\GC39\DATA\042616\0426F047.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8015C	**Extraction Lot:**	KWG1603412

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
ERH029	K1604068-001	J:\GC39\DATA\042616\0426F041.D	04/27/16	03:19
ERH030	K1604068-002	J:\GC39\DATA\042616\0426F042.D	04/27/16	03:43
ERH030MS	KWG1603412-1	J:\GC39\DATA\042616\0426F043.D	04/27/16	04:07
ERH030DMS	KWG1603412-2	J:\GC39\DATA\042616\0426F044.D	04/27/16	04:31
ERH031	K1604068-003	J:\GC39\DATA\042616\0426F045.D	04/27/16	04:56
ERH032	K1604068-004	J:\GC39\DATA\042616\0426F046.D	04/27/16	05:20
Method Blank	KWG1603412-5	J:\GC39\DATA\042616\0426F049.D	04/27/16	06:32
ERH033	K1604068-005	J:\GC39\DATA\042616\0426F052.D	04/27/16	07:44
ERH034	K1604068-006	J:\GC39\DATA\042616\0426F053.D	04/27/16	08:09
ERH035	K1604068-007	J:\GC39\DATA\042616\0426F054.D	04/27/16	08:33
ERH036	K1604068-008	J:\GC39\DATA\042616\0426F055.D	04/27/16	08:57

QA/QC Results

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027 **Calibration Date:** 08/06/2015

Initial Calibration Summary
Gasoline Range Organics

Calibration ID: CAL14201 **Column:** DB-624
Instrument ID: GC39

Level ID	File ID	Level ID	File ID
A	J:\GC39\Data\080615\0806F009.D	E	J:\GC39\Data\080615\0806F013.D
B	J:\GC39\Data\080615\0806F010.D	F	J:\GC39\Data\080615\0806F014.D
C	J:\GC39\Data\080615\0806F011.D	G	J:\GC39\Data\080615\0806F015.D
D	J:\GC39\Data\080615\0806F012.D		

Analyte Name	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF
Gasoline Range Organics (GRO)	A	50	1.22E+5	B	100	1.08E+5	C	200	1.13E+5	D	500	1.09E+5	E	1000	1.08E+5
	F	5000	1.15E+5	G	10000	1.14E+5									
1,4-Difluorobenzene	A	20	1.23E+5	B	25	1.25E+5	C	50	1.20E+5	D	100	1.16E+5	E	150	1.18E+5

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027 **Calibration Date:** 08/06/2015

Initial Calibration Summary
Gasoline Range Organics

Calibration ID: CAL14201 **Column:** DB-624
Instrument ID: GC39

Analyte Name	Compound Type	Calibration Evaluation				
		Fit Type	Eval.	Eval. Result	Q	Control Criteria
Gasoline Range Organics (GRO)	MS	AverageRF	% RSD	4.5		≤ 20
1,4-Difluorobenzene	SURR	AverageRF	% RSD	3.0		≤ 20

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage Facility/150027

Service Request: K1604068
Calibration Date: 08/06/2015
Date Analyzed: 08/06/2015

Second Source Calibration Verification
Gasoline Range Organics

Calibration Type: External Standard
Analysis Method: 8015C

Calibration ID: CAL14201
Units: ug/L

File ID: J:\GC39\Data\080615\0806F018.D

Column ID: DB-624

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Gasoline Range Organics (GRO)	500	440	113000	99800	-11	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

QA/QC Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Analyzed:**	04/26/2016

Continuing Calibration Verification Summary
Gasoline Range Organics

Calibration Type:	External Standard	**Calibration Date:**	08/06/2015
Analysis Method:	8015C	**Calibration ID:**	CAL14201
		Analysis Lot:	KWG1603358
		Units:	ug/L
File ID:	J:\GC39\DATA\042616\0426F029.D	**Column ID:**	DB-624

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Gasoline Range Organics (GRO)	500	500	113000	112000	-1	NA	± 20	AverageRF
1,4-Difluorobenzene	100	100	120000	125000	4	NA	± 20	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage Facility/150027

Service Request: K1604068
Date Analyzed: 04/27/2016

Continuing Calibration Verification Summary
Gasoline Range Organics

Calibration Type: External Standard
Analysis Method: 8015C

Calibration Date: 08/06/2015
Calibration ID: CAL14201
Analysis Lot: KWG1603358
Units: ug/L

File ID: J:\GC39\DATA\042616\0426F050.D

Column ID: DB-624

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Gasoline Range Organics (GRO)	500	490	113000	111000	-2	NA	± 20	AverageRF
1,4-Difluorobenzene	100	100	120000	123000	2	NA	± 20	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Analyzed:**	04/27/2016

Continuing Calibration Verification Summary
Gasoline Range Organics

Calibration Type:	External Standard	**Calibration Date:**	08/06/2015
Analysis Method:	8015C	**Calibration ID:**	CAL14201
		Analysis Lot:	KWG1603358
		Units:	ug/L
File ID:	J:\GC39\DATA\042616\0426F062.D	**Column ID:**	DB-624

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Gasoline Range Organics (GRO)	500	470	113000	105000	-7	NA	± 20	AverageRF
1,4-Difluorobenzene	100	100	120000	125000	4	NA	± 20	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027

Analysis Run Log
Gasoline Range Organics

Analysis Method: 8015C **Analysis Lot:** KWG1603358
Instrument ID: GC39
Column: DB-624

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0426F006.D	Continuing Calibration Verification	KWG1603358-1	4/26/2016	11:56		4/26/2016	12:11
0426F007.D	Instrument Blank	KWG1603358-8	4/26/2016	12:38		4/26/2016	12:53
0426F015.D	ZZZZZZ	ZZZZZZ	4/26/2016	16:17		4/26/2016	16:32
0426F016.D	ZZZZZZ	ZZZZZZ	4/26/2016	16:41		4/26/2016	16:56
0426F018.D	ZZZZZZ	ZZZZZZ	4/26/2016	18:03		4/26/2016	18:18
0426F022.D	ZZZZZZ	ZZZZZZ	4/26/2016	19:40		4/26/2016	19:55
0426F025.D	ZZZZZZ	ZZZZZZ	4/26/2016	20:53		4/26/2016	21:08
0426F026.D	ZZZZZZ	ZZZZZZ	4/26/2016	21:17		4/26/2016	21:32
0426F027.D	ZZZZZZ	ZZZZZZ	4/26/2016	21:41		4/26/2016	21:56
0426F028.D	ZZZZZZ	ZZZZZZ	4/26/2016	22:05		4/26/2016	22:20
0426F029.D	Continuing Calibration Verification	KWG1603358-2	4/26/2016	22:29		4/26/2016	22:44
0426F030.D	Instrument Blank	KWG1603358-9	4/26/2016	22:53		4/26/2016	23:08
0426F031.D	ZZZZZZ	ZZZZZZ	4/26/2016	23:17		4/26/2016	23:32
0426F032.D	ZZZZZZ	ZZZZZZ	4/26/2016	23:41		4/26/2016	23:56
0426F035.D	ZZZZZZ	ZZZZZZ	4/27/2016	00:54		4/27/2016	01:09
0426F038.D	ZZZZZZ	ZZZZZZ	4/27/2016	02:06		4/27/2016	02:21
0426F041.D	ERH029	K1604068-001	4/27/2016	03:19		4/27/2016	03:34
0426F042.D	ERH030	K1604068-002	4/27/2016	03:43		4/27/2016	03:58
0426F043.D	ERH030MS	KWG1603412-1	4/27/2016	04:07		4/27/2016	04:22
0426F044.D	ERH030DMS	KWG1603412-2	4/27/2016	04:31		4/27/2016	04:46
0426F045.D	ERH031	K1604068-003	4/27/2016	04:56		4/27/2016	05:11
0426F046.D	ERH032	K1604068-004	4/27/2016	05:20		4/27/2016	05:35
0426F047.D	Lab Control Sample	KWG1603412-3	4/27/2016	05:44		4/27/2016	05:59
0426F048.D	Duplicate Lab Control Sample	KWG1603412-4	4/27/2016	06:08		4/27/2016	06:23
0426F049.D	Method Blank	KWG1603412-5	4/27/2016	06:32		4/27/2016	06:47
0426F050.D	Continuing Calibration Verification	KWG1603358-3	4/27/2016	06:56		4/27/2016	07:11
0426F051.D	Instrument Blank	KWG1603358-10	4/27/2016	07:20		4/27/2016	07:35
0426F052.D	ERH033	K1604068-005	4/27/2016	07:44		4/27/2016	07:59
0426F053.D	ERH034	K1604068-006	4/27/2016	08:09		4/27/2016	08:24
0426F054.D	ERH035	K1604068-007	4/27/2016	08:33		4/27/2016	08:48
0426F055.D	ERH036	K1604068-008	4/27/2016	08:57		4/27/2016	09:12
0426F056.D	ZZZZZZ	ZZZZZZ	4/27/2016	09:21		4/27/2016	09:36
0426F057.D	ZZZZZZ	ZZZZZZ	4/27/2016	09:45		4/27/2016	10:00
0426F058.D	ZZZZZZ	ZZZZZZ	4/27/2016	10:10		4/27/2016	10:25
0426F059.D	ZZZZZZ	ZZZZZZ	4/27/2016	10:34		4/27/2016	10:49

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027

Analysis Run Log
Gasoline Range Organics

Analysis Method: 8015C **Analysis Lot:** KWG1603358
Instrument ID: GC39
Column: DB-624

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0426F060.D	ZZZZZZ	ZZZZZZ	4/27/2016	10:58		4/27/2016	11:13
0426F061.D	ZZZZZZ	ZZZZZZ	4/27/2016	11:22		4/27/2016	11:37
0426F062.D	Continuing Calibration Verification	KWG1603358-4	4/27/2016	11:47		4/27/2016	12:02
0426F063.D	Instrument Blank	KWG1603358-11	4/27/2016	12:11		4/27/2016	12:26
0426F064.D	ZZZZZZ	ZZZZZZ	4/27/2016	12:35		4/27/2016	12:50
0426F066.D	ZZZZZZ	ZZZZZZ	4/27/2016	13:24		4/27/2016	13:39
0426F067.D	ZZZZZZ	ZZZZZZ	4/27/2016	13:48		4/27/2016	14:03
0426F068.D	ZZZZZZ	ZZZZZZ	4/27/2016	14:12		4/27/2016	14:27
0426F070.D	ZZZZZZ	ZZZZZZ	4/27/2016	15:01		4/27/2016	15:16
0426F071.D	Continuing Calibration Verification	KWG1603358-5	4/27/2016	15:25		4/27/2016	15:40
0426F073.D	Instrument Blank	KWG1603358-12	4/27/2016	16:13		4/27/2016	16:28
0426F074.D	ZZZZZZ	ZZZZZZ	4/27/2016	16:38		4/27/2016	16:53
0426F075.D	ZZZZZZ	ZZZZZZ	4/27/2016	17:02		4/27/2016	17:17
0426F076.D	ZZZZZZ	ZZZZZZ	4/27/2016	17:26		4/27/2016	17:41
0426F077.D	ZZZZZZ	ZZZZZZ	4/27/2016	17:50		4/27/2016	18:05
0426F078.D	ZZZZZZ	ZZZZZZ	4/27/2016	18:14		4/27/2016	18:29
0426F079.D	ZZZZZZ	ZZZZZZ	4/27/2016	18:38		4/27/2016	18:53
0426F080.D	ZZZZZZ	ZZZZZZ	4/27/2016	19:02		4/27/2016	19:17
0426F081.D	ZZZZZZ	ZZZZZZ	4/27/2016	19:27		4/27/2016	19:42
0426F082.D	ZZZZZZ	ZZZZZZ	4/27/2016	19:51		4/27/2016	20:06
0426F083.D	ZZZZZZ	ZZZZZZ	4/27/2016	20:15		4/27/2016	20:30
0426F084.D	ZZZZZZ	ZZZZZZ	4/27/2016	20:39		4/27/2016	20:54
0426F085.D	ZZZZZZ	ZZZZZZ	4/27/2016	21:03		4/27/2016	21:18
0426F087.D	Continuing Calibration Verification	KWG1603358-6	4/27/2016	21:52		4/27/2016	22:07
0426F088.D	Instrument Blank	KWG1603358-13	4/27/2016	22:16		4/27/2016	22:31
0426F089.D	ZZZZZZ	ZZZZZZ	4/27/2016	22:40		4/27/2016	22:55
0426F090.D	ZZZZZZ	ZZZZZZ	4/27/2016	23:04		4/27/2016	23:19
0426F103.D	ZZZZZZ	ZZZZZZ	4/28/2016	04:19		4/28/2016	04:34
0426F106.D	ZZZZZZ	ZZZZZZ	4/28/2016	05:31		4/28/2016	05:46
0426F107.D	ZZZZZZ	ZZZZZZ	4/28/2016	05:55		4/28/2016	06:10
0426F108.D	ZZZZZZ	ZZZZZZ	4/28/2016	06:19		4/28/2016	06:34
0426F109.D	Continuing Calibration Verification	KWG1603358-7	4/28/2016	06:43		4/28/2016	06:58
0426F110.D	Instrument Blank	KWG1603358-14	4/28/2016	07:07		4/28/2016	07:22

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage Facility/150027
Sample Matrix: Water

Service Request: K1604068
Date Extracted: 04/27/2016

Extraction Prep Log
Gasoline Range Organics

Extraction Method: EPA 5030B
Analysis Method: 8015C

Extraction Lot: KWG1603412
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
ERH029	K1604068-001	04/19/16	04/21/16	10ml	10ml	NA	
ERH030	K1604068-002	04/19/16	04/21/16	10ml	10ml	NA	
ERH031	K1604068-003	04/19/16	04/21/16	10ml	10ml	NA	
ERH032	K1604068-004	04/19/16	04/21/16	10ml	10ml	NA	
ERH033	K1604068-005	04/19/16	04/21/16	10ml	10ml	NA	
ERH034	K1604068-006	04/19/16	04/21/16	10ml	10ml	NA	
ERH035	K1604068-007	04/19/16	04/21/16	10ml	10ml	NA	
ERH036	K1604068-008	04/19/16	04/21/16	10ml	10ml	NA	
Method Blank	KWG1603412-5	NA	NA	10ml	10ml	NA	
ERH030MS	KWG1603412-1	04/19/16	04/21/16	10ml	10ml	NA	
ERH030DMS	KWG1603412-2	04/19/16	04/21/16	10ml	10ml	NA	
Lab Control Sample	KWG1603412-3	NA	NA	10ml	10ml	NA	
Duplicate Lab Control Sample	KWG1603412-4	NA	NA	10ml	10ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Diesel and Residual Range Organics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027

Cover Page - Organic Analysis Data Package
Diesel and Residual Range Organics

Sample Name	Lab Code	Date Collected	Date Received
ERH029	K1604068-001	04/19/2016	04/21/2016
ERH030	K1604068-002	04/19/2016	04/21/2016
ERH031	K1604068-003	04/19/2016	04/21/2016
ERH032	K1604068-004	04/19/2016	04/21/2016
ERH033	K1604068-005	04/19/2016	04/21/2016
ERH034	K1604068-006	04/19/2016	04/21/2016
ERH035	K1604068-007	04/19/2016	04/21/2016
ERH036	K1604068-008	04/19/2016	04/21/2016
ERH030MS	KWG1603188-1	04/19/2016	04/21/2016
ERH030DMS	KWG1603188-2	04/19/2016	04/21/2016

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Diesel and Residual Range Organics

Sample Name:	ERH029	**Units:**	ug/L
Lab Code:	K1604068-001	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**25**	J	55	22	12	1	04/26/16	04/29/16	KWG1603188	
Residual Range Organics (RRO)	**48**	J	110	55	21	1	04/26/16	04/29/16	KWG1603188	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	74	56-125	04/29/16	Acceptable
n-Triacontane	76	54-136	04/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Diesel and Residual Range Organics

Sample Name:	ERH030	**Units:**	ug/L
Lab Code:	K1604068-002	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**38**	J	51	21	12	1	04/26/16	04/29/16	KWG1603188	
Residual Range Organics (RRO)	**56**	J	110	51	20	1	04/26/16	04/29/16	KWG1603188	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	85	56-125	04/29/16	Acceptable
n-Triacontane	86	54-136	04/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Diesel and Residual Range Organics

Sample Name:	ERH031	**Units:**	ug/L
Lab Code:	K1604068-003	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**36**	J	52	21	12	1	04/26/16	04/29/16	KWG1603188	
Residual Range Organics (RRO)	**67**	J	110	52	20	1	04/26/16	04/29/16	KWG1603188	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	84	56-125	04/29/16	Acceptable
n-Triacontane	88	54-136	04/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Diesel and Residual Range Organics

Sample Name:	ERH032	**Units:**	ug/L
Lab Code:	K1604068-004	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**26**	J	53	21	12	1	04/26/16	04/29/16	KWG1603188	
Residual Range Organics (RRO)	**52**	J	110	53	20	1	04/26/16	04/29/16	KWG1603188	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	83	56-125	04/29/16	Acceptable
n-Triacontane	84	54-136	04/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Diesel and Residual Range Organics

Sample Name:	ERH033	**Units:**	ug/L
Lab Code:	K1604068-005	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**28**	J	51	21	12	1	04/26/16	04/29/16	KWG1603188	
Residual Range Organics (RRO)	**48**	J	110	51	20	1	04/26/16	04/29/16	KWG1603188	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	93	56-125	04/29/16	Acceptable
n-Triacontane	93	54-136	04/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Diesel and Residual Range Organics

Sample Name:	ERH034	**Units:**	ug/L
Lab Code:	K1604068-006	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**20**	J	53	21	12	1	04/26/16	04/29/16	KWG1603188	
Residual Range Organics (RRO)	**33**	J	110	53	20	1	04/26/16	04/29/16	KWG1603188	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	90	56-125	04/29/16	Acceptable
n-Triacontane	91	54-136	04/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Diesel and Residual Range Organics

Sample Name:	ERH035	**Units:**	ug/L
Lab Code:	K1604068-007	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**27**	J	54	22	12	1	04/26/16	04/29/16	KWG1603188	
Residual Range Organics (RRO)	**35**	J	110	54	21	1	04/26/16	04/29/16	KWG1603188	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	87	56-125	04/29/16	Acceptable
n-Triacontane	89	54-136	04/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Diesel and Residual Range Organics

Sample Name:	ERH036	**Units:**	ug/L
Lab Code:	K1604068-008	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**28**	J	52	21	12	1	04/26/16	04/29/16	KWG1603188	
Residual Range Organics (RRO)	**26**	J	110	52	20	1	04/26/16	04/29/16	KWG1603188	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	89	56-125	04/29/16	Acceptable
n-Triacontane	92	54-136	04/29/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Diesel and Residual Range Organics

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1603188-4	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**20**	J	50	20	11	1	04/26/16	04/28/16	KWG1603188	
Residual Range Organics (RRO)	**75**	J	100	50	19	1	04/26/16	04/28/16	KWG1603188	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	77	56-125	04/28/16	Acceptable
n-Triacontane	77	54-136	04/28/16	Acceptable

Comments:

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027
Sample Matrix: Water

Surrogate Recovery Summary
Diesel and Residual Range Organics

Extraction Method: EPA 3510C **Units:** Percent
Analysis Method: 8015C **Level:** Low

Sample Name	Lab Code	Sur1	Sur2
ERH029	K1604068-001	74	76
ERH030	K1604068-002	85	86
ERH031	K1604068-003	84	88
ERH032	K1604068-004	83	84
ERH033	K1604068-005	93	93
ERH034	K1604068-006	90	91
ERH035	K1604068-007	87	89
ERH036	K1604068-008	89	92
Method Blank	KWG1603188-4	77	77
ERH030MS	KWG1603188-1	86	83
ERH030DMS	KWG1603188-2	90	87
Lab Control Sample	KWG1603188-3	92	90

Surrogate Recovery Control Limits (%)

Sur1	=	o-Terphenyl	56-125
Sur2	=	n-Triacontane	54-136

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Extracted:**	04/26/2016
Sample Matrix:	Water	**Date Analyzed:**	04/29/2016

Matrix Spike/Duplicate Matrix Spike Summary
Diesel and Residual Range Organics

Sample Name:	ERH030	**Units:**	ug/L
Lab Code:	K1604068-002	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015C	**Extraction Lot:**	KWG1603188

		ERH030MS KWG1603188-1 Matrix Spike			ERH030DMS KWG1603188-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Diesel Range Organics (DRO)	38	2510	3330	74	2460	3230	75	36-132	2	30
Residual Range Organics (RRO)	56	1350	1670	78	1340	1620	79	41-113	1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Extracted:**	04/26/2016
Sample Matrix:	Water	**Date Analyzed:**	04/28/2016

Lab Control Spike Summary
Diesel and Residual Range Organics

Extraction Method:	EPA 3510C	**Units:**	ug/L
Analysis Method:	8015C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1603188

Lab Control Sample
KWG1603188-3
Lab Control Spike

Analyte Name	Result	Spike Amount	%Rec	%Rec Limits
Diesel Range Organics (DRO)	1190	1600	74	36-132
Residual Range Organics (RRO)	746	800	93	41-113

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Extracted:**	04/26/2016
Sample Matrix:	Water	**Date Analyzed:**	04/28/2016
		Time Analyzed:	16:59

Method Blank Summary
Diesel and Residual Range Organics

Sample Name:	Method Blank	**Instrument ID:**	GC21
Lab Code:	KWG1603188-4	**File ID:**	J:\GC21\DATA\042816F\0428F048.D
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015C	**Extraction Lot:**	KWG1603188

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1603188-3	J:\GC21\DATA\042816F\0428F046.D	04/28/16	16:37
ERH029	K1604068-001	J:\GC21\DATA\042916F\0429F050.D	04/29/16	19:03
ERH030	K1604068-002	J:\GC21\DATA\042916F\0429F052.D	04/29/16	19:25
ERH030MS	KWG1603188-1	J:\GC21\DATA\042916F\0429F054.D	04/29/16	19:47
ERH030DMS	KWG1603188-2	J:\GC21\DATA\042916F\0429F056.D	04/29/16	20:09
ERH031	K1604068-003	J:\GC21\DATA\042916F\0429F058.D	04/29/16	20:31
ERH032	K1604068-004	J:\GC21\DATA\042916F\0429F060.D	04/29/16	20:53
ERH033	K1604068-005	J:\GC21\DATA\042916F\0429F062.D	04/29/16	21:15
ERH034	K1604068-006	J:\GC21\DATA\042916F\0429F064.D	04/29/16	21:37
ERH035	K1604068-007	J:\GC21\DATA\042916F\0429F066.D	04/29/16	21:59
ERH036	K1604068-008	J:\GC21\DATA\042916F\0429F068.D	04/29/16	22:22

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Extracted:**	04/26/2016
Sample Matrix:	Water	**Date Analyzed:**	04/28/2016
		Time Analyzed:	16:37

Lab Control Sample Summary
Diesel and Residual Range Organics

Sample Name:	Lab Control Sample	**Instrument ID:**	GC21
Lab Code:	KWG1603188-3	**File ID:**	J:\GC21\DATA\042816F\0428F046.D
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8015C	**Extraction Lot:**	KWG1603188

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1603188-4	J:\GC21\DATA\042816F\0428F048.D	04/28/16	16:59
ERH029	K1604068-001	J:\GC21\DATA\042916F\0429F050.D	04/29/16	19:03
ERH030	K1604068-002	J:\GC21\DATA\042916F\0429F052.D	04/29/16	19:25
ERH030MS	KWG1603188-1	J:\GC21\DATA\042916F\0429F054.D	04/29/16	19:47
ERH030DMS	KWG1603188-2	J:\GC21\DATA\042916F\0429F056.D	04/29/16	20:09
ERH031	K1604068-003	J:\GC21\DATA\042916F\0429F058.D	04/29/16	20:31
ERH032	K1604068-004	J:\GC21\DATA\042916F\0429F060.D	04/29/16	20:53
ERH033	K1604068-005	J:\GC21\DATA\042916F\0429F062.D	04/29/16	21:15
ERH034	K1604068-006	J:\GC21\DATA\042916F\0429F064.D	04/29/16	21:37
ERH035	K1604068-007	J:\GC21\DATA\042916F\0429F066.D	04/29/16	21:59
ERH036	K1604068-008	J:\GC21\DATA\042916F\0429F068.D	04/29/16	22:22

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027 **Calibration Date:** 01/20/2016

Initial Calibration Summary
Diesel and Residual Range Organics

Calibration ID: CAL14548 **Column:** ZB-1
Instrument ID: GC21

Level ID	File ID	Level ID	File ID
A	J:\GC21\DATA\012016F\0120F016.D	K	J:\GC21\DATA\012016F\0120F040.D
B	J:\GC21\DATA\012016F\0120F018.D	L	J:\GC21\DATA\012016F\0120F042.D
C	J:\GC21\DATA\012016F\0120F020.D	M	J:\GC21\DATA\012016F\0120F044.D
D	J:\GC21\DATA\012016F\0120F022.D	N	J:\GC21\DATA\012016F\0120F052.D
E	J:\GC21\DATA\012016F\0120F024.D	O	J:\GC21\DATA\012016F\0120F054.D
F	J:\GC21\DATA\012016F\0120F030.D	P	J:\GC21\DATA\012016F\0120F056.D
G	J:\GC21\DATA\012016F\0120F032.D	Q	J:\GC21\DATA\012016F\0120F058.D
H	J:\GC21\DATA\012016F\0120F034.D	R	J:\GC21\DATA\012016F\0120F060.D
I	J:\GC21\DATA\012016F\0120F036.D		
J	J:\GC21\DATA\012016F\0120F038.D		

Analyte Name	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF	Level ID	Amt	RF
Diesel Range Organics (DRO)															
	F	20	1230	G	50	1150	H	200	1080	I	500	1070	J	2000	1110
	K	5000	1270	L	20000	1180	M	50000	1270						
Residual Range Organics (RRO)	A	50	679	B	200	619	C	500	607	D	2000	569	E	5000	601
o-Terphenyl															
	F	1.0	1540	G	2.5	1470	H	10	1450	I	25	1390	J	100	1470
	K	250	1600												
n-Triacontane															
	F	1.0	1300	G	2.5	1240	H	10	1260	I	25	1210	J	100	1230
	K	250	1370												

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027 **Calibration Date:** 01/20/2016

Initial Calibration Summary
Diesel and Residual Range Organics

Calibration ID: CAL14548 **Column:** ZB-1
Instrument ID: GC21

Analyte Name	Compound Type	Calibration Evaluation: Fit Type	Eval.	Eval. Result	Q	Control Criteria
Diesel Range Organics (DRO)	MS	AverageRF	% RSD	6.9		≤ 20
Residual Range Organics (RRO)	MS	AverageRF	% RSD	6.6		≤ 20
o-Terphenyl	SURR	AverageRF	% RSD	5.0		≤ 20
n-Triacontane	SURR	AverageRF	% RSD	4.7		≤ 20

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage Facility/150027

Service Request: K1604068
Calibration Date: 01/20/2016
Date Analyzed: 01/20/2016

Second Source Calibration Verification
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015C

Calibration ID: CAL14548
Units: ppm

File ID: J:\GC21\DATA\012016F\0120F028.D
J:\GC21\DATA\012016F\0120F048.D
J:\GC21\DATA\012016F\0120F064.D

Column ID: ZB-1

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1100	1170	1230	5	NA	± 20 %	AverageRF
Residual Range Organics (RRO)	1000	850	615	526	-15	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

QA/QC Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Analyzed:**	04/28/2016

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type:	External Standard	**Calibration Date:**	01/20/2016
Analysis Method:	8015C	**Calibration ID:**	CAL14548
		Analysis Lot:	KWG1603332
		Units:	ppm
File ID:	J:\GC21\DATA\042816F\0428F008.D J:\GC21\DATA\042816F\0428F014.D	**Column ID:**	ZB-1

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	920	1170	1080	-8	NA	± 20	AverageRF
Residual Range Organics (RRO)	1000	910	615	562	-9	NA	± 20	AverageRF
o-Terphenyl	50	52	1490	1550	4	NA	± 20	AverageRF
n-Triacontane	50	52	1270	1310	3	NA	± 20	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage Facility/150027

Service Request: K1604068
Date Analyzed: 04/28/2016

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type: External Standard
Analysis Method: 8015C

Calibration Date: 01/20/2016
Calibration ID: CAL14548
Analysis Lot: KWG1603332
Units: ppm

File ID: J:\GC21\DATA\042816F\0428F054.D
J:\GC21\DATA\042816F\0428F056.D

Column ID: ZB-1

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	960	1170	1130	-4	NA	± 20	AverageRF
Residual Range Organics (RRO)	1000	940	615	579	-6	NA	± 20	AverageRF
o-Terphenyl	50	54	1490	1600	7	NA	± 20	AverageRF
n-Triacontane	50	51	1270	1300	3	NA	± 20	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Analyzed:**	04/29/2016

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type:	External Standard	**Calibration Date:**	01/20/2016
Analysis Method:	8015C	**Calibration ID:**	CAL14548
		Analysis Lot:	KWG1603375
		Units:	ppm
File ID:	J:\GC21\DATA\042916F\0429F044.D J:\GC21\DATA\042916F\0429F046.D	**Column ID:**	ZB-1

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1000	1170	1210	3	NA	± 20	AverageRF
Residual Range Organics (RRO)	1000	970	615	596	-3	NA	± 20	AverageRF
o-Terphenyl	50	57	1490	1700	14	NA	± 20	AverageRF
n-Triacontane	50	55	1270	1400	10	NA	± 20	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Analyzed:**	04/29/2016

Continuing Calibration Verification Summary
Diesel and Residual Range Organics

Calibration Type:	External Standard	**Calibration Date:**	01/20/2016
Analysis Method:	8015C	**Calibration ID:**	CAL14548
		Analysis Lot:	KWG1603375
		Units:	ppm
File ID:	J:\GC21\DATA\042916F\0429F070.D J:\GC21\DATA\042916F\0429F072.D	**Column ID:**	ZB-1

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diesel Range Organics (DRO)	1000	1000	1170	1180	1	NA	± 20	AverageRF
Residual Range Organics (RRO)	1000	950	615	582	-5	NA	± 20	AverageRF
o-Terphenyl	50	56	1490	1650	11	NA	± 20	AverageRF
n-Triacontane	50	55	1270	1380	9	NA	± 20	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027

Analysis Run Log
Diesel and Residual Range Organics

Analysis Method: 8015C **Analysis Lot:** KWG1603332
Instrument ID: GC21
Column: ZB-1

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0428F008.D	Continuing Calibration Verification	KWG1603332-1	4/28/2016	09:38		4/28/2016	09:54
0428F014.D	Continuing Calibration Verification	KWG1603332-1	4/28/2016	10:44		4/28/2016	11:00
0428F016.D	Instrument Blank	KWG1603332-5	4/28/2016	11:06		4/28/2016	11:22
0428F018.D	ZZZZZZ	ZZZZZZ	4/28/2016	11:28		4/28/2016	11:44
0428F020.D	ZZZZZZ	ZZZZZZ	4/28/2016	11:50		4/28/2016	12:06
0428F022.D	ZZZZZZ	ZZZZZZ	4/28/2016	12:12		4/28/2016	12:28
0428F024.D	ZZZZZZ	ZZZZZZ	4/28/2016	12:34		4/28/2016	12:50
0428F026.D	ZZZZZZ	ZZZZZZ	4/28/2016	12:57		4/28/2016	13:13
0428F028.D	ZZZZZZ	ZZZZZZ	4/28/2016	13:18		4/28/2016	13:34
0428F030.D	ZZZZZZ	ZZZZZZ	4/28/2016	13:40		4/28/2016	13:56
0428F032.D	ZZZZZZ	ZZZZZZ	4/28/2016	14:02		4/28/2016	14:18
0428F034.D	ZZZZZZ	ZZZZZZ	4/28/2016	14:24		4/28/2016	14:40
0428F036.D	ZZZZZZ	ZZZZZZ	4/28/2016	14:46		4/28/2016	15:02
0428F038.D	ZZZZZZ	ZZZZZZ	4/28/2016	15:08		4/28/2016	15:24
0428F040.D	ZZZZZZ	ZZZZZZ	4/28/2016	15:30		4/28/2016	15:46
0428F042.D	ZZZZZZ	ZZZZZZ	4/28/2016	15:53		4/28/2016	16:09
0428F044.D	ZZZZZZ	ZZZZZZ	4/28/2016	16:15		4/28/2016	16:31
0428F046.D	Lab Control Sample	KWG1603188-3	4/28/2016	16:37		4/28/2016	16:53
0428F048.D	Method Blank	KWG1603188-4	4/28/2016	16:59		4/28/2016	17:15
0428F050.D	ZZZZZZ	ZZZZZZ	4/28/2016	17:21		4/28/2016	17:37
0428F052.D	ZZZZZZ	ZZZZZZ	4/28/2016	17:43		4/28/2016	17:59
0428F054.D	Continuing Calibration Verification	KWG1603332-2	4/28/2016	18:05		4/28/2016	18:21
0428F056.D	Continuing Calibration Verification	KWG1603332-2	4/28/2016	18:27		4/28/2016	18:43
0428F058.D	Instrument Blank	KWG1603332-6	4/28/2016	18:49		4/28/2016	19:05
0428F060.D	ZZZZZZ	ZZZZZZ	4/28/2016	19:11		4/28/2016	19:27
0428F062.D	ZZZZZZ	ZZZZZZ	4/28/2016	19:33		4/28/2016	19:49
0428F064.D	ZZZZZZ	ZZZZZZ	4/28/2016	19:55		4/28/2016	20:11
0428F066.D	ZZZZZZ	ZZZZZZ	4/28/2016	20:17		4/28/2016	20:33
0428F068.D	ZZZZZZ	ZZZZZZ	4/28/2016	20:39		4/28/2016	20:55
0428F070.D	ZZZZZZ	ZZZZZZ	4/28/2016	21:01		4/28/2016	21:17
0428F072.D	ZZZZZZ	ZZZZZZ	4/28/2016	21:23		4/28/2016	21:39
0428F074.D	ZZZZZZ	ZZZZZZ	4/28/2016	21:46		4/28/2016	22:02
0428F076.D	ZZZZZZ	ZZZZZZ	4/28/2016	22:08		4/28/2016	22:24
0428F078.D	ZZZZZZ	ZZZZZZ	4/28/2016	22:30		4/28/2016	22:46

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027

Analysis Run Log
Diesel and Residual Range Organics

Analysis Method: 8015C **Analysis Lot:** KWG1603332
Instrument ID: GC21
Column: ZB-1

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0428F080.D	ZZZZZZ	ZZZZZZ	4/28/2016	22:52		4/28/2016	23:08
0428F082.D	ZZZZZZ	ZZZZZZ	4/28/2016	23:14		4/28/2016	23:30
0428F084.D	ZZZZZZ	ZZZZZZ	4/28/2016	23:36		4/28/2016	23:52
0428F086.D	Continuing Calibration Verification	KWG1603332-3	4/28/2016	23:58		4/29/2016	00:14
0428F088.D	Continuing Calibration Verification	KWG1603332-3	4/29/2016	00:20		4/29/2016	00:36
0428F090.D	Instrument Blank	KWG1603332-7	4/29/2016	00:42		4/29/2016	00:58
0428F092.D	ZZZZZZ	ZZZZZZ	4/29/2016	01:05		4/29/2016	01:21
0428F094.D	ZZZZZZ	ZZZZZZ	4/29/2016	01:27		4/29/2016	01:43
0428F096.D	ZZZZZZ	ZZZZZZ	4/29/2016	01:49		4/29/2016	02:05
0428F098.D	ZZZZZZ	ZZZZZZ	4/29/2016	02:11		4/29/2016	02:27
0428F100.D	ZZZZZZ	ZZZZZZ	4/29/2016	02:33		4/29/2016	02:49
0428F102.D	ZZZZZZ	ZZZZZZ	4/29/2016	02:55		4/29/2016	03:11
0428F104.D	ZZZZZZ	ZZZZZZ	4/29/2016	03:17		4/29/2016	03:33
0428F106.D	ZZZZZZ	ZZZZZZ	4/29/2016	03:39		4/29/2016	03:55
0428F108.D	ZZZZZZ	ZZZZZZ	4/29/2016	04:01		4/29/2016	04:17
0428F110.D	ZZZZZZ	ZZZZZZ	4/29/2016	04:23		4/29/2016	04:39
0428F112.D	ZZZZZZ	ZZZZZZ	4/29/2016	04:45		4/29/2016	05:01
0428F114.D	ZZZZZZ	ZZZZZZ	4/29/2016	05:07		4/29/2016	05:23
0428F116.D	Continuing Calibration Verification	KWG1603332-4	4/29/2016	05:30		4/29/2016	05:46
0428F118.D	Continuing Calibration Verification	KWG1603332-4	4/29/2016	05:52		4/29/2016	06:08
0428F120.D	Instrument Blank	KWG1603332-8	4/29/2016	06:14		4/29/2016	06:30

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027

Analysis Run Log
Diesel and Residual Range Organics

Analysis Method: 8015C **Analysis Lot:** KWG1603375
Instrument ID: GC21
Column: ZB-1

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0429F010.D	Continuing Calibration Verification	KWG1603375-1	4/29/2016	11:43		4/29/2016	11:59
0429F012.D	Continuing Calibration Verification	KWG1603375-1	4/29/2016	12:05		4/29/2016	12:21
0429F014.D	Instrument Blank	KWG1603375-5	4/29/2016	12:27		4/29/2016	12:43
0429F020.D	ZZZZZZ	ZZZZZZ	4/29/2016	13:33		4/29/2016	13:49
0429F022.D	ZZZZZZ	ZZZZZZ	4/29/2016	13:55		4/29/2016	14:11
0429F024.D	ZZZZZZ	ZZZZZZ	4/29/2016	14:17		4/29/2016	14:33
0429F026.D	ZZZZZZ	ZZZZZZ	4/29/2016	14:39		4/29/2016	14:55
0429F028.D	ZZZZZZ	ZZZZZZ	4/29/2016	15:01		4/29/2016	15:17
0429F030.D	ZZZZZZ	ZZZZZZ	4/29/2016	15:23		4/29/2016	15:39
0429F032.D	ZZZZZZ	ZZZZZZ	4/29/2016	15:45		4/29/2016	16:01
0429F034.D	ZZZZZZ	ZZZZZZ	4/29/2016	16:07		4/29/2016	16:23
0429F036.D	ZZZZZZ	ZZZZZZ	4/29/2016	16:29		4/29/2016	16:45
0429F038.D	ZZZZZZ	ZZZZZZ	4/29/2016	16:51		4/29/2016	17:07
0429F040.D	ZZZZZZ	ZZZZZZ	4/29/2016	17:13		4/29/2016	17:29
0429F042.D	ZZZZZZ	ZZZZZZ	4/29/2016	17:35		4/29/2016	17:51
0429F044.D	Continuing Calibration Verification	KWG1603375-2	4/29/2016	17:57		4/29/2016	18:13
0429F046.D	Continuing Calibration Verification	KWG1603375-2	4/29/2016	18:19		4/29/2016	18:35
0429F048.D	Instrument Blank	KWG1603375-6	4/29/2016	18:41		4/29/2016	18:57
0429F050.D	ERH029	K1604068-001	4/29/2016	19:03		4/29/2016	19:19
0429F052.D	ERH030	K1604068-002	4/29/2016	19:25		4/29/2016	19:41
0429F054.D	ERH030MS	KWG1603188-1	4/29/2016	19:47		4/29/2016	20:03
0429F056.D	ERH030DMS	KWG1603188-2	4/29/2016	20:09		4/29/2016	20:25
0429F058.D	ERH031	K1604068-003	4/29/2016	20:31		4/29/2016	20:47
0429F060.D	ERH032	K1604068-004	4/29/2016	20:53		4/29/2016	21:09
0429F062.D	ERH033	K1604068-005	4/29/2016	21:15		4/29/2016	21:31
0429F064.D	ERH034	K1604068-006	4/29/2016	21:37		4/29/2016	21:53
0429F066.D	ERH035	K1604068-007	4/29/2016	21:59		4/29/2016	22:15
0429F068.D	ERH036	K1604068-008	4/29/2016	22:22		4/29/2016	22:38
0429F070.D	Continuing Calibration Verification	KWG1603375-3	4/29/2016	22:44		4/29/2016	23:00
0429F072.D	Continuing Calibration Verification	KWG1603375-3	4/29/2016	23:06		4/29/2016	23:22
0429F074.D	Instrument Blank	KWG1603375-7	4/29/2016	23:28		4/29/2016	23:44
0429F076.D	ZZZZZZ	ZZZZZZ	4/29/2016	23:50		4/30/2016	00:06
0429F078.D	ZZZZZZ	ZZZZZZ	4/30/2016	00:12		4/30/2016	00:28
0429F080.D	ZZZZZZ	ZZZZZZ	4/30/2016	00:34		4/30/2016	00:50

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027

Analysis Run Log
Diesel and Residual Range Organics

Analysis Method: 8015C **Analysis Lot:** KWG1603375
Instrument ID: GC21
Column: ZB-1

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0429F082.D	ZZZZZZ	ZZZZZZ	4/30/2016	00:56		4/30/2016	01:12
0429F084.D	ZZZZZZ	ZZZZZZ	4/30/2016	01:18		4/30/2016	01:34
0429F086.D	ZZZZZZ	ZZZZZZ	4/30/2016	01:40		4/30/2016	01:56
0429F088.D	ZZZZZZ	ZZZZZZ	4/30/2016	02:02		4/30/2016	02:18
0429F090.D	ZZZZZZ	ZZZZZZ	4/30/2016	02:24		4/30/2016	02:40
0429F092.D	ZZZZZZ	ZZZZZZ	4/30/2016	02:46		4/30/2016	03:02
0429F094.D	ZZZZZZ	ZZZZZZ	4/30/2016	03:08		4/30/2016	03:24
0429F096.D	Continuing Calibration Verification	KWG1603375-4	4/30/2016	03:30		4/30/2016	03:46
0429F098.D	Continuing Calibration Verification	KWG1603375-4	4/30/2016	03:52		4/30/2016	04:08
0429F100.D	Instrument Blank	KWG1603375-8	4/30/2016	04:14		4/30/2016	04:30

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage Facility/150027
Sample Matrix: Water

Service Request: K1604068
Date Extracted: 04/26/2016

Extraction Prep Log
Diesel and Residual Range Organics

Extraction Method: EPA 3510C
Analysis Method: 8015C

Extraction Lot: KWG1603188
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
ERH029	K1604068-001	04/19/16	04/21/16	460ml	1ml	NA	
ERH030	K1604068-002	04/19/16	04/21/16	495ml	1ml	NA	
ERH031	K1604068-003	04/19/16	04/21/16	485ml	1ml	NA	
ERH032	K1604068-004	04/19/16	04/21/16	480ml	1ml	NA	
ERH033	K1604068-005	04/19/16	04/21/16	495ml	1ml	NA	
ERH034	K1604068-006	04/19/16	04/21/16	480ml	1ml	NA	
ERH035	K1604068-007	04/19/16	04/21/16	465ml	1ml	NA	
ERH036	K1604068-008	04/19/16	04/21/16	485ml	1ml	NA	
Method Blank	KWG1603188-4	NA	NA	1000ml	2ml	NA	
ERH030MS	KWG1603188-1	04/19/16	04/21/16	480ml	1ml	NA	
ERH030DMS	KWG1603188-2	04/19/16	04/21/16	495ml	1ml	NA	
Lab Control Sample	KWG1603188-3	NA	NA	1000ml	2ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Volatile Organic Compounds

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027

Cover Page - Organic Analysis Data Package
Volatile Organic Compounds

Sample Name	Lab Code	Date Collected	Date Received
ERH029	K1604068-001	04/19/2016	04/21/2016
ERH030	K1604068-002	04/19/2016	04/21/2016
ERH031	K1604068-003	04/19/2016	04/21/2016
ERH032	K1604068-004	04/19/2016	04/21/2016
ERH033	K1604068-005	04/19/2016	04/21/2016
ERH034	K1604068-006	04/19/2016	04/21/2016
ERH035	K1604068-007	04/19/2016	04/21/2016
ERH036	K1604068-008	04/19/2016	04/21/2016
ERH030MS	KWG1603424-1	04/19/2016	04/21/2016
ERH030DMS	KWG1603424-2	04/19/2016	04/21/2016

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Volatile Organic Compounds

Sample Name:	ERH029	**Units:**	ug/L
Lab Code:	K1604068-001	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzene	ND	U	0.50	0.10	0.062	1	05/02/16	05/02/16	KWG1603424	
Toluene	ND	U	0.50	0.10	0.054	1	05/02/16	05/02/16	KWG1603424	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	05/02/16	05/02/16	KWG1603424	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	05/02/16	05/02/16	KWG1603424	
o-Xylene	ND	U	0.50	0.20	0.074	1	05/02/16	05/02/16	KWG1603424	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	96	81-118	05/02/16	Acceptable
Dibromofluoromethane	91	80-119	05/02/16	Acceptable
Toluene-d8	104	89-112	05/02/16	Acceptable
4-Bromofluorobenzene	95	85-114	05/02/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Volatile Organic Compounds

Sample Name:	ERH030	**Units:**	ug/L
Lab Code:	K1604068-002	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzene	ND	U	0.50	0.10	0.062	1	05/02/16	05/02/16	KWG1603424	
Toluene	ND	U	0.50	0.10	0.054	1	05/02/16	05/02/16	KWG1603424	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	05/02/16	05/02/16	KWG1603424	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	05/02/16	05/02/16	KWG1603424	
o-Xylene	ND	U	0.50	0.20	0.074	1	05/02/16	05/02/16	KWG1603424	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	99	81-118	05/02/16	Acceptable
Dibromofluoromethane	92	80-119	05/02/16	Acceptable
Toluene-d8	103	89-112	05/02/16	Acceptable
4-Bromofluorobenzene	94	85-114	05/02/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Volatile Organic Compounds

Sample Name:	ERH031	**Units:**	ug/L
Lab Code:	K1604068-003	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzene	ND	U	0.50	0.10	0.062	1	05/02/16	05/02/16	KWG1603424	
Toluene	ND	U	0.50	0.10	0.054	1	05/02/16	05/02/16	KWG1603424	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	05/02/16	05/02/16	KWG1603424	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	05/02/16	05/02/16	KWG1603424	
o-Xylene	ND	U	0.50	0.20	0.074	1	05/02/16	05/02/16	KWG1603424	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	81-118	05/02/16	Acceptable
Dibromofluoromethane	90	80-119	05/02/16	Acceptable
Toluene-d8	103	89-112	05/02/16	Acceptable
4-Bromofluorobenzene	94	85-114	05/02/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Volatile Organic Compounds

Sample Name:	ERH032	**Units:**	ug/L
Lab Code:	K1604068-004	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzene	ND	U	0.50	0.10	0.062	1	05/02/16	05/02/16	KWG1603424	
Toluene	ND	U	0.50	0.10	0.054	1	05/02/16	05/02/16	KWG1603424	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	05/02/16	05/02/16	KWG1603424	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	05/02/16	05/02/16	KWG1603424	
o-Xylene	ND	U	0.50	0.20	0.074	1	05/02/16	05/02/16	KWG1603424	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	81-118	05/02/16	Acceptable
Dibromofluoromethane	90	80-119	05/02/16	Acceptable
Toluene-d8	104	89-112	05/02/16	Acceptable
4-Bromofluorobenzene	93	85-114	05/02/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Volatile Organic Compounds

Sample Name:	ERH033	**Units:**	ug/L
Lab Code:	K1604068-005	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzene	ND	U	0.50	0.10	0.062	1	05/02/16	05/02/16	KWG1603424	
Toluene	ND	U	0.50	0.10	0.054	1	05/02/16	05/02/16	KWG1603424	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	05/02/16	05/02/16	KWG1603424	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	05/02/16	05/02/16	KWG1603424	
o-Xylene	ND	U	0.50	0.20	0.074	1	05/02/16	05/02/16	KWG1603424	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	81-118	05/02/16	Acceptable
Dibromofluoromethane	90	80-119	05/02/16	Acceptable
Toluene-d8	103	89-112	05/02/16	Acceptable
4-Bromofluorobenzene	92	85-114	05/02/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Volatile Organic Compounds

Sample Name:	ERH034	**Units:**	ug/L
Lab Code:	K1604068-006	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzene	ND	U	0.50	0.10	0.062	1	05/02/16	05/02/16	KWG1603424	
Toluene	ND	U	0.50	0.10	0.054	1	05/02/16	05/02/16	KWG1603424	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	05/02/16	05/02/16	KWG1603424	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	05/02/16	05/02/16	KWG1603424	
o-Xylene	ND	U	0.50	0.20	0.074	1	05/02/16	05/02/16	KWG1603424	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	97	81-118	05/02/16	Acceptable
Dibromofluoromethane	91	80-119	05/02/16	Acceptable
Toluene-d8	103	89-112	05/02/16	Acceptable
4-Bromofluorobenzene	92	85-114	05/02/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Volatile Organic Compounds

Sample Name:	ERH035	**Units:**	ug/L
Lab Code:	K1604068-007	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzene	ND	U	0.50	0.10	0.062	1	05/03/16	05/03/16	KWG1603424	
Toluene	**0.060**	J	0.50	0.10	0.054	1	05/03/16	05/03/16	KWG1603424	
Ethylbenzene	**0.85**		0.50	0.10	0.050	1	05/03/16	05/03/16	KWG1603424	
m,p-Xylenes	**2.3**		0.50	0.20	0.11	1	05/03/16	05/03/16	KWG1603424	
o-Xylene	**1.6**		0.50	0.20	0.074	1	05/03/16	05/03/16	KWG1603424	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	99	81-118	05/03/16	Acceptable
Dibromofluoromethane	91	80-119	05/03/16	Acceptable
Toluene-d8	103	89-112	05/03/16	Acceptable
4-Bromofluorobenzene	95	85-114	05/03/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Volatile Organic Compounds

Sample Name:	ERH036	**Units:**	ug/L
Lab Code:	K1604068-008	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzene	ND	U	0.50	0.10	0.062	1	05/03/16	05/03/16	KWG1603424	
Toluene	**0.060**	J	0.50	0.10	0.054	1	05/03/16	05/03/16	KWG1603424	
Ethylbenzene	**1.1**		0.50	0.10	0.050	1	05/03/16	05/03/16	KWG1603424	
m,p-Xylenes	**2.9**		0.50	0.20	0.11	1	05/03/16	05/03/16	KWG1603424	
o-Xylene	**2.1**		0.50	0.20	0.074	1	05/03/16	05/03/16	KWG1603424	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	97	81-118	05/03/16	Acceptable
Dibromofluoromethane	90	80-119	05/03/16	Acceptable
Toluene-d8	103	89-112	05/03/16	Acceptable
4-Bromofluorobenzene	95	85-114	05/03/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1603424-4	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzene	ND	U	0.50	0.10	0.062	1	05/02/16	05/02/16	KWG1603424	
Toluene	ND	U	0.50	0.10	0.054	1	05/02/16	05/02/16	KWG1603424	
Ethylbenzene	ND	U	0.50	0.10	0.050	1	05/02/16	05/02/16	KWG1603424	
m,p-Xylenes	ND	U	0.50	0.20	0.11	1	05/02/16	05/02/16	KWG1603424	
o-Xylene	ND	U	0.50	0.20	0.074	1	05/02/16	05/02/16	KWG1603424	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	98	81-118	05/02/16	Acceptable
Dibromofluoromethane	90	80-119	05/02/16	Acceptable
Toluene-d8	104	89-112	05/02/16	Acceptable
4-Bromofluorobenzene	94	85-114	05/02/16	Acceptable

Comments:

QA/QC Report

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027
Sample Matrix: Water

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B **Units:** Percent
Analysis Method: 8260C **Level:** Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4
ERH029	K1604068-001	96	91	104	95
ERH030	K1604068-002	99	92	103	94
ERH031	K1604068-003	98	90	103	94
ERH032	K1604068-004	98	90	104	93
ERH033	K1604068-005	98	90	103	92
ERH034	K1604068-006	97	91	103	92
ERH035	K1604068-007	99	91	103	95
ERH036	K1604068-008	97	90	103	95
Method Blank	KWG1603424-4	98	90	104	94
ERH030MS	KWG1603424-1	99	104	112	102
ERH030DMS	KWG1603424-2	100	105	111	102
Lab Control Sample	KWG1603424-3	98	102	111	103

Surrogate Recovery Control Limits (%)

Sur1	1,2-Dichloroethane-d4	81-118
Sur2	Dibromofluoromethane	80-119
Sur3	Toluene-d8	89-112
Sur4	4-Bromofluorobenzene	85-114

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage Facility/150027

Service Request: K1604068
Date Analyzed: 05/02/2016
Time Analyzed: 17:32

Internal Standard Area and RT Summary
Volatile Organic Compounds

File ID: J:\MS18\DATA\050216\0502F008.D
Instrument ID: GC-MS 18
Analysis Method: 8260C

Lab Code: KWG1603423-2
Analysis Lot: KWG1603423

		Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	ICAL Result ==>	674,911	5.55	264,357	9.02	240,805	11.43
	Upper Limit ==>	1,349,822	5.72	528,714	9.19	481,610	11.60
	Lower Limit ==>	337,456	5.38	132,179	8.85	120,403	11.26
Associated Analyses							
Continuing Calibration VerificationCCV	KWG1603423-2	674,577	5.55	256,506	9.02	241,354	11.43
Lab Control Sample	KWG1603424-3	651,397	5.55	247,336	9.02	238,462	11.43
ERH030MS	KWG1603424-1	644,926	5.55	252,196	9.02	244,960	11.44
ERH030DMS	KWG1603424-2	667,265	5.55	261,083	9.02	249,169	11.44
Method Blank	KWG1603424-4	665,369	5.55	252,175	9.02	232,882	11.43
ERH030	K1604068-002	643,227	5.55	245,779	9.02	228,704	11.44
ERH029	K1604068-001	661,563	5.55	250,013	9.02	233,675	11.44
ERH031	K1604068-003	652,083	5.55	247,059	9.02	227,840	11.44
ERH032	K1604068-004	653,719	5.55	249,307	9.02	228,866	11.44
ERH033	K1604068-005	632,192	5.55	237,243	9.02	217,927	11.44
ERH034	K1604068-006	639,558	5.55	244,578	9.02	224,554	11.44
ERH035	K1604068-007	644,840	5.55	244,274	9.02	227,344	11.44
ERH036	K1604068-008	645,076	5.55	243,709	9.02	226,489	11.44

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Extracted:**	05/02/2016
Sample Matrix:	Water	**Date Analyzed:**	05/02/2016

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name:	ERH030	**Units:**	ug/L
Lab Code:	K1604068-002	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1603424

		ERH030MS KWG1603424-1 Matrix Spike			ERH030DMS KWG1603424-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Benzene	ND	9.52	10.0	95	9.19	10.0	92	79-120	4	20
Toluene	ND	9.60	10.0	96	9.41	10.0	94	80-121	2	20
Ethylbenzene	ND	10.3	10.0	103	9.88	10.0	99	79-121	4	20
m,p-Xylenes	ND	20.5	20.0	103	19.7	20.0	99	80-121	4	20
o-Xylene	ND	10.2	10.0	102	9.95	10.0	100	78-122	3	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Extracted:**	05/02/2016
Sample Matrix:	Water	**Date Analyzed:**	05/02/2016

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1603424

Lab Control Sample
KWG1603424-3
Lab Control Spike

Analyte Name	Result	Spike Amount	%Rec	%Rec Limits
Benzene	8.42	10.0	84	79-120
Toluene	8.55	10.0	86	80-121
Ethylbenzene	9.35	10.0	94	79-121
m,p-Xylenes	18.7	20.0	94	80-121
o-Xylene	9.48	10.0	95	78-122

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Extracted:**	05/02/2016
Sample Matrix:	Water	**Date Analyzed:**	05/02/2016
		Time Analyzed:	20:14

Method Blank Summary
Volatile Organic Compounds

Sample Name:	Method Blank	**Instrument ID:**	GC-MS 18
Lab Code:	KWG1603424-4	**File ID:**	J:\MS18\DATA\050216\0502F015.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1603424

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1603424-3	J:\MS18\DATA\050216\0502F009.D	05/02/16	17:59
ERH030MS	KWG1603424-1	J:\MS18\DATA\050216\0502F010.D	05/02/16	18:23
ERH030DMS	KWG1603424-2	J:\MS18\DATA\050216\0502F011.D	05/02/16	18:45
ERH030	K1604068-002	J:\MS18\DATA\050216\0502F018.D	05/02/16	21:18
ERH029	K1604068-001	J:\MS18\DATA\050216\0502F021.D	05/02/16	22:27
ERH031	K1604068-003	J:\MS18\DATA\050216\0502F022.D	05/02/16	22:48
ERH032	K1604068-004	J:\MS18\DATA\050216\0502F023.D	05/02/16	23:09
ERH033	K1604068-005	J:\MS18\DATA\050216\0502F024.D	05/02/16	23:31
ERH034	K1604068-006	J:\MS18\DATA\050216\0502F025.D	05/02/16	23:53
ERH035	K1604068-007	J:\MS18\DATA\050216\0502F026.D	05/03/16	00:15
ERH036	K1604068-008	J:\MS18\DATA\050216\0502F027.D	05/03/16	00:38

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Extracted:**	05/02/2016
Sample Matrix:	Water	**Date Analyzed:**	05/02/2016
		Time Analyzed:	17:59

Lab Control Sample Summary
Volatile Organic Compounds

Sample Name:	Lab Control Sample	**Instrument ID:**	GC-MS 18
Lab Code:	KWG1603424-3	**File ID:**	J:\MS18\DATA\050216\0502F009.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1603424

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
ERH030MS	KWG1603424-1	J:\MS18\DATA\050216\0502F010.D	05/02/16	18:23
ERH030DMS	KWG1603424-2	J:\MS18\DATA\050216\0502F011.D	05/02/16	18:45
Method Blank	KWG1603424-4	J:\MS18\DATA\050216\0502F015.D	05/02/16	20:14
ERH030	K1604068-002	J:\MS18\DATA\050216\0502F018.D	05/02/16	21:18
ERH029	K1604068-001	J:\MS18\DATA\050216\0502F021.D	05/02/16	22:27
ERH031	K1604068-003	J:\MS18\DATA\050216\0502F022.D	05/02/16	22:48
ERH032	K1604068-004	J:\MS18\DATA\050216\0502F023.D	05/02/16	23:09
ERH033	K1604068-005	J:\MS18\DATA\050216\0502F024.D	05/02/16	23:31
ERH034	K1604068-006	J:\MS18\DATA\050216\0502F025.D	05/02/16	23:53
ERH035	K1604068-007	J:\MS18\DATA\050216\0502F026.D	05/03/16	00:15
ERH036	K1604068-008	J:\MS18\DATA\050216\0502F027.D	05/03/16	00:38

QA/QC Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage Facility/150027

Service Request: K1604068
Date Analyzed: 05/02/2016
Time Analyzed: 17:06

Tune Summary
Volatile Organic Compounds

File ID: J:\MS18\DATA\050216\0502F007.D
Instrument ID: GC-MS 18
Column:

Analysis Method: 8260C
Analysis Lot: KWG1603423

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	15.2	2533	PASS
75	95	30	60	44.8	7487	PASS
95	95	100	100	100.0	16702	PASS
96	95	5	9	8.0	1343	PASS
173	174	0	2	0.4	53	PASS
174	95	50	120	81.0	13530	PASS
175	174	5	9	7.2	968	PASS
176	174	95	101	97.6	13210	PASS
177	176	5	9	6.4	848	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1603423-2	J:\MS18\DATA\050216\0502F008.D	05/02/2016	17:32	
Lab Control Sample	KWG1603424-3	J:\MS18\DATA\050216\0502F009.D	05/02/2016	17:59	
ERH030MS	KWG1603424-1	J:\MS18\DATA\050216\0502F010.D	05/02/2016	18:23	
ERH030DMS	KWG1603424-2	J:\MS18\DATA\050216\0502F011.D	05/02/2016	18:45	
Method Blank	KWG1603424-4	J:\MS18\DATA\050216\0502F015.D	05/02/2016	20:14	
ERH030	K1604068-002	J:\MS18\DATA\050216\0502F018.D	05/02/2016	21:18	
ERH029	K1604068-001	J:\MS18\DATA\050216\0502F021.D	05/02/2016	22:27	
ERH031	K1604068-003	J:\MS18\DATA\050216\0502F022.D	05/02/2016	22:48	
ERH032	K1604068-004	J:\MS18\DATA\050216\0502F023.D	05/02/2016	23:09	
ERH033	K1604068-005	J:\MS18\DATA\050216\0502F024.D	05/02/2016	23:31	
ERH034	K1604068-006	J:\MS18\DATA\050216\0502F025.D	05/02/2016	23:53	
ERH035	K1604068-007	J:\MS18\DATA\050216\0502F026.D	05/03/2016	00:15	
ERH036	K1604068-008	J:\MS18\DATA\050216\0502F027.D	05/03/2016	00:38	
Continuing Calibration Verification	KWG1603423-3	J:\MS18\DATA\050216\0502F036.D	05/03/2016	03:56	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027 **Calibration Date:** 04/13/2016

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL14682 **Column:** MS
Instrument ID: GC-MS 18

Level ID	File ID	Level ID	File ID
A	J:\MS18\DATA\041316\0413F012.D	G	J:\MS18\DATA\041316\0413F018.D
B	J:\MS18\DATA\041316\0413F013.D	H	J:\MS18\DATA\041316\0413F019.D
C	J:\MS18\DATA\041316\0413F014.D	I	J:\MS18\DATA\041316\0413F020.D
D	J:\MS18\DATA\041316\0413F015.D	J	J:\MS18\DATA\041316\0413F021.D
E	J:\MS18\DATA\041316\0413F016.D	K	J:\MS18\DATA\041316\0413F022.D
F	J:\MS18\DATA\041316\0413F017.D		

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
1,2-Dichloroethane-d4										D	4.0	0.230	E	6.0	0.232
	F	8.0	0.228	G	10	0.228	H	12	0.229	I	14	0.229	J	16	0.226
	K	20	0.229												
Benzene	A	0.10	1.28	B	0.20	1.06	C	0.50	1.08	D	1.0	1.08	E	2.0	1.05
	F	5.0	1.07	G	10	1.06	H	20	1.08	I	40	1.11	J	60	1.06
	K	80	1.09												
Toluene	A	0.10	0.773	B	0.20	0.668	C	0.50	0.693	D	1.0	0.698	E	2.0	0.676
	F	5.0	0.685	G	10	0.679	H	20	0.703	I	40	0.721	J	60	0.689
	K	80	0.711												
Ethylbenzene	A	0.10	1.00	B	0.20	0.845	C	0.50	0.944	D	1.0	0.987	E	2.0	0.954
	F	5.0	1.01	G	10	1.00	H	20	1.04	I	40	1.08	J	60	1.04
	K	80	1.07												
m,p-Xylenes	A	0.20	1.15	B	0.40	1.13	C	1.0	1.15	D	2.0	1.20	E	4.0	1.18
	F	10	1.27	G	20	1.24	H	40	1.28	I	80	1.33	J	120	1.29
	K	160	1.32												
o-Xylene	A	0.10	1.04	B	0.20	1.06	C	0.50	1.08	D	1.0	1.15	E	2.0	1.14
	F	5.0	1.22	G	10	1.22	H	20	1.26	I	40	1.30	J	60	1.27
	K	80	1.30												
Dibromofluoromethane										D	4.0	0.174	E	6.0	0.188
	F	8.0	0.185	G	10	0.196	H	12	0.206	I	14	0.209	J	16	0.210
	K	20	0.216												
Toluene-d8										D	4.0	0.833	E	6.0	0.903
	F	8.0	0.851	G	10	0.872	H	12	0.927	I	14	0.918	J	16	0.929
	K	20	0.929												
4-Bromofluorobenzene										D	4.0	0.792	E	6.0	0.876
	F	8.0	0.838	G	10	0.870	H	12	0.891	I	14	0.892	J	16	0.894
	K	20	0.908												

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027 **Calibration Date:** 04/13/2016

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL14682 **Column:** MS
Instrument ID: GC-MS 18

		Calibration Evaluation					RRF Evaluation		
Analyte Name	**Compound Type**	**Fit Type**	**Eval.**	**Eval. Result**	**Q**	**Control Criteria**	**Average RRF**	**Q**	**Minimum RRF**
1,2-Dichloroethane-d4	SURR	AverageRF	% RSD	0.7		≤ 15	0.229		0.01
Benzene	MS	AverageRF	% RSD	5.8		≤ 15	1.09		0.500
Toluene	MS	AverageRF	% RSD	4.1		≤ 15	0.700		0.400
Ethylbenzene	MS	AverageRF	% RSD	6.7		≤ 15	0.998		0.100
m,p-Xylenes	MS	AverageRF	% RSD	6.0		≤ 15	1.23		0.100
o-Xylene	MS	AverageRF	% RSD	8.1		≤ 15	1.19		0.300
Dibromofluoromethane	SURR	AverageRF	% RSD	7.4		≤ 15	0.198		0.01
Toluene-d8	SURR	AverageRF	% RSD	4.3		≤ 15	0.895		0.01
4-Bromofluorobenzene	SURR	AverageRF	% RSD	4.4		≤ 15	0.870		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

QA/QC Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage Facility/150027

Service Request: K1604068
Calibration Date: 04/13/2016
Date Analyzed: 04/13/2016

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C

Calibration ID: CAL14682
Units: PPB

File ID: J:\MS18\DATA\041316\0413F025.D
J:\MS18\DATA\041316\0413F027.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Benzene	10	9.5	1.09	1.04	-5	NA	± 20 %	AverageRF
Toluene	10	9.6	0.700	0.673	-4	NA	± 20 %	AverageRF
Ethylbenzene	10	10	0.998	1.00	0	NA	± 20 %	AverageRF
m,p-Xylenes	20	20	1.23	1.23	0	NA	± 20 %	AverageRF
o-Xylene	10	10	1.19	1.23	4	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage Facility/150027

Service Request: K1604068
Date Analyzed: 05/02/2016

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C

Calibration Date: 04/13/2016
Calibration ID: CAL14682
Analysis Lot: KWG1603423
Units: PPB

File ID: J:\MS18\DATA\050216\0502F008.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,2-Dichloroethane-d4	10	9.3	0.01	0.229	0.213	-7	NA	± 20	AverageRF
Benzene	10	8.9	0.500	1.09	0.971	-11	NA	± 20	AverageRF
Toluene	10	9.1	0.400	0.700	0.635	-9	NA	± 20	AverageRF
Ethylbenzene	10	9.6	0.100	0.998	0.957	-4	NA	± 20	AverageRF
m,p-Xylenes	20	20	0.100	1.23	1.20	-2	NA	± 20	AverageRF
o-Xylene	10	9.9	0.300	1.19	1.18	-1	NA	± 20	AverageRF
Dibromofluoromethane	10	10	0.01	0.198	0.201	1	NA	± 20	AverageRF
Toluene-d8	10	11	0.01	0.895	0.969	8	NA	± 20	AverageRF
4-Bromofluorobenzene	10	10	0.01	0.870	0.877	1	NA	± 20	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage Facility/150027

Service Request: K1604068
Date Analyzed: 05/03/2016

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C

Calibration Date: 04/13/2016
Calibration ID: CAL14682
Analysis Lot: KWG1603423
Units: PPB

File ID: J:\MS18\DATA\050216\0502F036.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,2-Dichloroethane-d4	10	9.6	0.01	0.229	0.220	-4	NA	± 50 %	AverageRF
Benzene	10	10	0.500	1.09	1.10	1	NA	± 50 %	AverageRF
Toluene	10	10	0.400	0.700	0.723	3	NA	± 50 %	AverageRF
Ethylbenzene	10	11	0.100	0.998	1.08	8	NA	± 50 %	AverageRF
m,p-Xylenes	20	22	0.100	1.23	1.35	9	NA	± 50 %	AverageRF
o-Xylene	10	11	0.300	1.19	1.29	9	NA	± 50 %	AverageRF
Dibromofluoromethane	10	10	0.01	0.198	0.202	2	NA	± 50 %	AverageRF
Toluene-d8	10	11	0.01	0.895	0.985	10	NA	± 50 %	AverageRF
4-Bromofluorobenzene	10	10	0.01	0.870	0.889	2	NA	± 50 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

QA/QC Results

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027

Analysis Run Log
Volatile Organic Compounds

Analysis Method: 8260C **Analysis Lot:** KWG1603423
Instrument ID: GC-MS 18

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0502F007.D	GC/MS Tuning - Bromofluorobenzene	KWG1603423-1	5/2/2016	17:06		5/2/2016	17:22
0502F008.D	Continuing Calibration Verification	KWG1603423-2	5/2/2016	17:32		5/2/2016	17:48
0502F009.D	Lab Control Sample	KWG1603424-3	5/2/2016	17:59		5/2/2016	18:15
0502F010.D	ERH030MS	KWG1603424-1	5/2/2016	18:23		5/2/2016	18:39
0502F011.D	ERH030DMS	KWG1603424-2	5/2/2016	18:45		5/2/2016	19:01
0502F012.D	ZZZZZZ	ZZZZZZ	5/2/2016	19:08		5/2/2016	19:24
0502F013.D	ZZZZZZ	ZZZZZZ	5/2/2016	19:31		5/2/2016	19:47
0502F015.D	Method Blank	KWG1603424-4	5/2/2016	20:14		5/2/2016	20:30
0502F016.D	ZZZZZZ	ZZZZZZ	5/2/2016	20:36		5/2/2016	20:52
0502F017.D	ZZZZZZ	ZZZZZZ	5/2/2016	20:57		5/2/2016	21:13
0502F018.D	ERH030	K1604068-002	5/2/2016	21:18		5/2/2016	21:34
0502F019.D	ZZZZZZ	ZZZZZZ	5/2/2016	21:40		5/2/2016	21:56
0502F020.D	ZZZZZZ	ZZZZZZ	5/2/2016	22:04		5/2/2016	22:20
0502F021.D	ERH029	K1604068-001	5/2/2016	22:27		5/2/2016	22:43
0502F022.D	ERH031	K1604068-003	5/2/2016	22:48		5/2/2016	23:04
0502F023.D	ERH032	K1604068-004	5/2/2016	23:09		5/2/2016	23:25
0502F024.D	ERH033	K1604068-005	5/2/2016	23:31		5/2/2016	23:47
0502F025.D	ERH034	K1604068-006	5/2/2016	23:53		5/3/2016	00:09
0502F026.D	ERH035	K1604068-007	5/3/2016	00:15		5/3/2016	00:31
0502F027.D	ERH036	K1604068-008	5/3/2016	00:38		5/3/2016	00:54
0502F028.D	ZZZZZZ	ZZZZZZ	5/3/2016	01:00		5/3/2016	01:16
0502F029.D	ZZZZZZ	ZZZZZZ	5/3/2016	01:22		5/3/2016	01:38
0502F030.D	ZZZZZZ	ZZZZZZ	5/3/2016	01:43		5/3/2016	01:59
0502F031.D	ZZZZZZ	ZZZZZZ	5/3/2016	02:05		5/3/2016	02:21
0502F032.D	ZZZZZZ	ZZZZZZ	5/3/2016	02:27		5/3/2016	02:43
0502F033.D	ZZZZZZ	ZZZZZZ	5/3/2016	02:50		5/3/2016	03:06
0502F034.D	ZZZZZZ	ZZZZZZ	5/3/2016	03:13		5/3/2016	03:29
0502F035.D	ZZZZZZ	ZZZZZZ	5/3/2016	03:35		5/3/2016	03:51
0502F036.D	Continuing Calibration Verification	KWG1603423-3	5/3/2016	03:56		5/3/2016	04:12

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage Facility/150027
Sample Matrix: Water

Service Request: K1604068
Date Extracted: 05/02/2016

Extraction Prep Log
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Extraction Lot: KWG1603424
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
ERH029	K1604068-001	04/19/16	04/21/16	10ml	10ml	NA	
ERH030	K1604068-002	04/19/16	04/21/16	10ml	10ml	NA	
ERH031	K1604068-003	04/19/16	04/21/16	10ml	10ml	NA	
ERH032	K1604068-004	04/19/16	04/21/16	10ml	10ml	NA	
ERH033	K1604068-005	04/19/16	04/21/16	10ml	10ml	NA	
ERH034	K1604068-006	04/19/16	04/21/16	10ml	10ml	NA	
ERH035	K1604068-007	04/19/16	04/21/16	10ml	10ml	NA	
ERH036	K1604068-008	04/19/16	04/21/16	10ml	10ml	NA	
Method Blank	KWG1603424-4	NA	NA	10ml	10ml	NA	
ERH030MS	KWG1603424-1	04/19/16	04/21/16	10ml	10ml	NA	
ERH030DMS	KWG1603424-2	04/19/16	04/21/16	10ml	10ml	NA	
Lab Control Sample	KWG1603424-3	NA	NA	10ml	10ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Polynuclear Aromatic Hydrocarbons

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027

Cover Page - Organic Analysis Data Package
Polynuclear Aromatic Hydrocarbons

Sample Name	Lab Code	Date Collected	Date Received
ERH029	K1604068-001	04/19/2016	04/21/2016
ERH030	K1604068-002	04/19/2016	04/21/2016
ERH031	K1604068-003	04/19/2016	04/21/2016
ERH032	K1604068-004	04/19/2016	04/21/2016
ERH033	K1604068-005	04/19/2016	04/21/2016
ERH034	K1604068-006	04/19/2016	04/21/2016
ERH035	K1604068-007	04/19/2016	04/21/2016
ERH036	K1604068-008	04/19/2016	04/21/2016
ERH030MS	KWG1603185-1	04/19/2016	04/21/2016
ERH030DMS	KWG1603185-2	04/19/2016	04/21/2016

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH029	**Units:**	ug/L
Lab Code:	K1604068-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	ND	U	0.020	0.0050	0.0038	1	04/26/16	05/02/16	KWG1603185	
2-Methylnaphthalene	ND	U	0.020	0.0050	0.0023	1	04/26/16	05/02/16	KWG1603185	
1-Methylnaphthalene	ND	U	0.020	0.0050	0.0035	1	04/26/16	05/02/16	KWG1603185	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	104	46-114	05/02/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH030	**Units:**	ug/L
Lab Code:	K1604068-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	ND	U	0.020	0.0050	0.0038	1	04/26/16	05/02/16	KWG1603185	
2-Methylnaphthalene	ND	U	0.020	0.0050	0.0023	1	04/26/16	05/02/16	KWG1603185	
1-Methylnaphthalene	ND	U	0.020	0.0050	0.0035	1	04/26/16	05/02/16	KWG1603185	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	98	46-114	05/02/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH031	**Units:**	ug/L
Lab Code:	K1604068-003	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	ND	U	0.020	0.0050	0.0038	1	04/26/16	05/02/16	KWG1603185	
2-Methylnaphthalene	ND	U	0.020	0.0050	0.0023	1	04/26/16	05/02/16	KWG1603185	
1-Methylnaphthalene	ND	U	0.020	0.0050	0.0035	1	04/26/16	05/02/16	KWG1603185	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	103	46-114	05/02/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH032	**Units:**	ug/L
Lab Code:	K1604068-004	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	ND	U	0.019	0.0050	0.0038	1	04/26/16	05/02/16	KWG1603185	
2-Methylnaphthalene	**0.0036**	J	0.019	0.0050	0.0023	1	04/26/16	05/02/16	KWG1603185	
1-Methylnaphthalene	ND	U	0.019	0.0050	0.0035	1	04/26/16	05/02/16	KWG1603185	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	99	46-114	05/02/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH033	**Units:**	ug/L
Lab Code:	K1604068-005	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	ND	U	0.020	0.0050	0.0038	1	04/26/16	05/02/16	KWG1603185	
2-Methylnaphthalene	ND	U	0.020	0.0050	0.0023	1	04/26/16	05/02/16	KWG1603185	
1-Methylnaphthalene	ND	U	0.020	0.0050	0.0035	1	04/26/16	05/02/16	KWG1603185	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	100	46-114	05/02/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH034	**Units:**	ug/L
Lab Code:	K1604068-006	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	ND	U	0.020	0.0050	0.0038	1	04/26/16	05/02/16	KWG1603185	
2-Methylnaphthalene	ND	U	0.020	0.0050	0.0023	1	04/26/16	05/02/16	KWG1603185	
1-Methylnaphthalene	ND	U	0.020	0.0050	0.0035	1	04/26/16	05/02/16	KWG1603185	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	94	46-114	05/02/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH035	**Units:**	ug/L
Lab Code:	K1604068-007	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.15**		0.020	0.0050	0.0038	1	04/26/16	05/02/16	KWG1603185	
2-Methylnaphthalene	**0.016**	J	0.020	0.0050	0.0023	1	04/26/16	05/02/16	KWG1603185	
1-Methylnaphthalene	**0.0085**	J	0.020	0.0050	0.0035	1	04/26/16	05/02/16	KWG1603185	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	100	46-114	05/02/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	04/19/2016
Sample Matrix:	Water	**Date Received:**	04/21/2016

Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH036	**Units:**	ug/L
Lab Code:	K1604068-008	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.14**		0.019	0.0050	0.0038	1	04/26/16	05/02/16	KWG1603185	
2-Methylnaphthalene	**0.015**	J	0.019	0.0050	0.0023	1	04/26/16	05/02/16	KWG1603185	
1-Methylnaphthalene	**0.0085**	J	0.019	0.0050	0.0035	1	04/26/16	05/02/16	KWG1603185	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	101	46-114	05/02/16	Acceptable

Comments:

Analytical Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1603185-7	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	ND	U	0.019	0.0050	0.0038	1	04/26/16	05/02/16	KWG1603185	
2-Methylnaphthalene	ND	U	0.019	0.0050	0.0023	1	04/26/16	05/02/16	KWG1603185	
1-Methylnaphthalene	ND	U	0.019	0.0050	0.0035	1	04/26/16	05/02/16	KWG1603185	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	92	46-114	05/02/16	Acceptable

Comments:

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027
Sample Matrix: Water

Surrogate Recovery Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3520C **Units:** Percent
Analysis Method: 8270D SIM **Level:** Low

Sample Name	Lab Code	Sur1
ERH029	K1604068-001	104
ERH030	K1604068-002	98
ERH031	K1604068-003	103
ERH032	K1604068-004	99
ERH033	K1604068-005	100
ERH034	K1604068-006	94
ERH035	K1604068-007	100
ERH036	K1604068-008	101
Method Blank	KWG1603185-7	92
ERH030MS	KWG1603185-1	97
ERH030DMS	KWG1603185-2	100
Lab Control Sample	KWG1603185-5	101
Duplicate Lab Control Sample	KWG1603185-6	99

Surrogate Recovery Control Limits (%)

Sur1 = Fluorene-d10 46-114

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

QA/QC Report

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage Facility/150027

Service Request: K1604068
Date Analyzed: 05/02/2016
Time Analyzed: 07:50

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\050216\0502F002.D
Instrument ID: MS14
Analysis Method: 8270D SIM

Lab Code: KWG1603396-2
Analysis Lot: KWG1603396

		Naphthalene-d8		Acenaphthene-d10	
		Area	**RT**	**Area**	**RT**
	ICAL Result ==>	55,758	4.69	27,190	6.28
	Upper Limit ==>	111,516	4.86	54,380	6.45
	Lower Limit ==>	27,879	4.52	13,595	6.11
Associated Analyses					
Continuing Calibration VerificationCCV	KWG1603396-2	81,940	4.59	42,422	6.20
Method Blank	KWG1603185-7	71,038	4.60	39,296	6.20
Lab Control Sample	KWG1603185-5	69,601	4.59	35,265	6.20
Duplicate Lab Control Sample	KWG1603185-6	68,522	4.59	35,089	6.20
ERH030MS	KWG1603185-1	67,224	4.59	34,215	6.20
ERH030DMS	KWG1603185-2	66,266	4.59	34,009	6.20
ERH030	K1604068-002	67,143	4.59	37,038	6.20
ERH029	K1604068-001	65,426	4.60	35,864	6.21
ERH031	K1604068-003	65,680	4.59	36,064	6.20
ERH032	K1604068-004	66,287	4.59	36,755	6.20
ERH033	K1604068-005	66,242	4.60	36,289	6.20
ERH034	K1604068-006	65,459	4.59	36,096	6.20
ERH035	K1604068-007	66,619	4.59	36,081	6.20
ERH036	K1604068-008	63,825	4.59	34,601	6.20

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Extracted:**	04/26/2016
Sample Matrix:	Water	**Date Analyzed:**	05/02/2016

Matrix Spike/Duplicate Matrix Spike Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	ERH030	**Units:**	ug/L
Lab Code:	K1604068-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM	**Extraction Lot:**	KWG1603185

		ERH030MS KWG1603185-1 Matrix Spike			ERH030DMS KWG1603185-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	ND	1.88	2.36	80	2.01	2.45	82	43-114	7	20
2-Methylnaphthalene	ND	1.78	2.36	75	1.92	2.45	78	39-114	8	20
1-Methylnaphthalene	ND	1.76	2.36	75	1.90	2.45	77	41-115	7	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Extracted:**	04/26/2016
Sample Matrix:	Water	**Date Analyzed:**	05/02/2016

Lab Control Spike/Duplicate Lab Control Spike Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method:	EPA 3520C	**Units:**	ug/L
Analysis Method:	8270D SIM	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1603185

	Lab Control Sample KWG1603185-5 Lab Control Spike			Duplicate Lab Control Sample KWG1603185-6 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	2.06	2.50	82	2.01	2.50	81	43-114	2	20
2-Methylnaphthalene	1.94	2.50	77	1.92	2.50	77	39-114	1	20
1-Methylnaphthalene	1.93	2.50	77	1.92	2.50	77	41-115	0	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Extracted:**	04/26/2016
Sample Matrix:	Water	**Date Analyzed:**	05/02/2016
		Time Analyzed:	12:17

Method Blank Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Instrument ID:**	MS14
Lab Code:	KWG1603185-7	**File ID:**	J:\MS14\DATA\050216\0502F011.D
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM	**Extraction Lot:**	KWG1603185

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1603185-5	J:\MS14\DATA\050216\0502F012.D	05/02/16	12:42
Duplicate Lab Control Sample	KWG1603185-6	J:\MS14\DATA\050216\0502F013.D	05/02/16	13:08
ERH030MS	KWG1603185-1	J:\MS14\DATA\050216\0502F014.D	05/02/16	13:33
ERH030DMS	KWG1603185-2	J:\MS14\DATA\050216\0502F015.D	05/02/16	13:59
ERH030	K1604068-002	J:\MS14\DATA\050216\0502F016.D	05/02/16	14:24
ERH029	K1604068-001	J:\MS14\DATA\050216\0502F017.D	05/02/16	14:49
ERH031	K1604068-003	J:\MS14\DATA\050216\0502F018.D	05/02/16	15:15
ERH032	K1604068-004	J:\MS14\DATA\050216\0502F019.D	05/02/16	15:40
ERH033	K1604068-005	J:\MS14\DATA\050216\0502F020.D	05/02/16	16:05
ERH034	K1604068-006	J:\MS14\DATA\050216\0502F021.D	05/02/16	16:30
ERH035	K1604068-007	J:\MS14\DATA\050216\0502F022.D	05/02/16	16:56
ERH036	K1604068-008	J:\MS14\DATA\050216\0502F023.D	05/02/16	17:21

QA/QC Report

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Extracted:**	04/26/2016
Sample Matrix:	Water	**Date Analyzed:**	05/02/2016
		Time Analyzed:	12:42

Lab Control Sample Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Lab Control Sample	**Instrument ID:**	MS14
Lab Code:	KWG1603185-5	**File ID:**	J:\MS14\DATA\050216\0502F012.D
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM	**Extraction Lot:**	KWG1603185

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1603185-7	J:\MS14\DATA\050216\0502F011.D	05/02/16	12:17
ERH030MS	KWG1603185-1	J:\MS14\DATA\050216\0502F014.D	05/02/16	13:33
ERH030DMS	KWG1603185-2	J:\MS14\DATA\050216\0502F015.D	05/02/16	13:59
ERH030	K1604068-002	J:\MS14\DATA\050216\0502F016.D	05/02/16	14:24
ERH029	K1604068-001	J:\MS14\DATA\050216\0502F017.D	05/02/16	14:49
ERH031	K1604068-003	J:\MS14\DATA\050216\0502F018.D	05/02/16	15:15
ERH032	K1604068-004	J:\MS14\DATA\050216\0502F019.D	05/02/16	15:40
ERH033	K1604068-005	J:\MS14\DATA\050216\0502F020.D	05/02/16	16:05
ERH034	K1604068-006	J:\MS14\DATA\050216\0502F021.D	05/02/16	16:30
ERH035	K1604068-007	J:\MS14\DATA\050216\0502F022.D	05/02/16	16:56
ERH036	K1604068-008	J:\MS14\DATA\050216\0502F023.D	05/02/16	17:21

QA/QC Results

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage Facility/150027

Service Request: K1604068
Date Analyzed: 05/02/2016
Time Analyzed: 07:23

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\050216\0502F001.D
Instrument ID: MS14
Column:

Analysis Method: 8270D SIM
Analysis Lot: KWG1603396

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	41.3	332493	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	43.9	353220	PASS
70	69	0	2	0.7	2324	PASS
127	198	10	80	47.4	381725	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	57.1	804949	PASS
199	198	5	9	6.9	55738	PASS
275	198	10	60	34.2	275541	PASS
365	442	1	50	2.9	41461	PASS
441	443	0	100	77.2	215352	PASS
442	442	100	100	100.0	1409984	PASS
443	442	15	24	19.8	278869	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1603396-2	J:\MS14\DATA\050216\0502F002.D	05/02/2016	07:50	
Method Blank	KWG1603185-7	J:\MS14\DATA\050216\0502F011.D	05/02/2016	12:17	
Lab Control Sample	KWG1603185-5	J:\MS14\DATA\050216\0502F012.D	05/02/2016	12:42	
Duplicate Lab Control Sample	KWG1603185-6	J:\MS14\DATA\050216\0502F013.D	05/02/2016	13:08	
ERH030MS	KWG1603185-1	J:\MS14\DATA\050216\0502F014.D	05/02/2016	13:33	
ERH030DMS	KWG1603185-2	J:\MS14\DATA\050216\0502F015.D	05/02/2016	13:59	
ERH030	K1604068-002	J:\MS14\DATA\050216\0502F016.D	05/02/2016	14:24	
ERH029	K1604068-001	J:\MS14\DATA\050216\0502F017.D	05/02/2016	14:49	
ERH031	K1604068-003	J:\MS14\DATA\050216\0502F018.D	05/02/2016	15:15	
ERH032	K1604068-004	J:\MS14\DATA\050216\0502F019.D	05/02/2016	15:40	
ERH033	K1604068-005	J:\MS14\DATA\050216\0502F020.D	05/02/2016	16:05	
ERH034	K1604068-006	J:\MS14\DATA\050216\0502F021.D	05/02/2016	16:30	
ERH035	K1604068-007	J:\MS14\DATA\050216\0502F022.D	05/02/2016	16:56	
ERH036	K1604068-008	J:\MS14\DATA\050216\0502F023.D	05/02/2016	17:21	
Continuing Calibration Verification	KWG1603396-3	J:\MS14\DATA\050216\0502F024.D	05/02/2016	17:46	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027 **Calibration Date:** 01/11/2016

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL14530 **Column:** MS
Instrument ID: MS14

Level ID	File ID	Level ID	File ID
A	J:\MS14\DATA\011116\0111F003.D	G	J:\MS14\DATA\011116\0111F009.D
B	J:\MS14\DATA\011116\0111F004.D	H	J:\MS14\DATA\011116\0111F010.D
C	J:\MS14\DATA\011116\0111F005.D	I	J:\MS14\DATA\011116\0111F011.D
D	J:\MS14\DATA\011116\0111F006.D	J	J:\MS14\DATA\011116\0111F012.D
E	J:\MS14\DATA\011116\0111F007.D		
F	J:\MS14\DATA\011116\0111F008.D		

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Naphthalene	A	2.0	0.964	B	4.0	0.868	C	8.0	1.11	D	20	1.06	E	100	1.06
	F	200	1.05	G	400	0.920	H	1000	1.04	I	1600	1.01	J	2000	1.01
2-Methylnaphthalene	A	2.0	0.750	B	4.0	0.666	C	8.0	0.742	D	20	0.713	E	100	0.708
	F	200	0.696	G	400	0.607	H	1000	0.682	I	1600	0.663	J	2000	0.669
1-Methylnaphthalene	A	2.0	0.638	B	4.0	0.570	C	8.0	0.650	D	20	0.631	E	100	0.626
	F	200	0.608	G	400	0.530	H	1000	0.591	I	1600	0.580	J	2000	0.585
Fluorene-d10				B	4.0	1.25	C	8.0	1.22	D	20	1.11	E	100	1.08
	F	200	1.07	G	400	0.940	H	1000	1.10	I	1600	1.07	J	2000	1.09

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027 **Calibration Date:** 01/11/2016

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL14530 **Column:** MS
Instrument ID: MS14

		Calibration Evaluation					RRF Evaluation		
Analyte Name	**Compound Type**	**Fit Type**	**Eval.**	**Eval. Result**	**Q**	**Control Criteria**	**Average RRF**	**Q**	**Minimum RRF**
Naphthalene	MS	AverageRF	% RSD	7.3		≤ 15	1.01		0.70
2-Methylnaphthalene	MS	AverageRF	% RSD	6.1		≤ 15	0.690		0.40
1-Methylnaphthalene	MS	AverageRF	% RSD	6.1		≤ 15	0.601		0.05
Fluorene-d10	SURR	AverageRF	% RSD	8.1		≤ 15	1.10		0.05

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage Facility/150027

Service Request: K1604068
Calibration Date: 01/11/2016
Date Analyzed: 01/11/2016

Second Source Calibration Verification
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270D SIM

Calibration ID: CAL14530
Units: ng/ml

File ID: J:\MS14\DATA\011116\0111F013.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	400	410	1.01	1.04	3	NA	± 20 %	AverageRF
2-Methylnaphthalene	400	390	0.690	0.674	-2	NA	± 20 %	AverageRF
1-Methylnaphthalene	400	400	0.601	0.595	-1	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage Facility/150027

Service Request: K1604068
Date Analyzed: 05/02/2016

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270D SIM

Calibration Date: 01/11/2016
Calibration ID: CAL14530
Analysis Lot: KWG1603396
Units: ng/ml

File ID: J:\MS14\DATA\050216\0502F002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	400	460	0.70	1.01	1.17	16	NA	± 20	AverageRF
2-Methylnaphthalene	400	410	0.40	0.690	0.713	3	NA	± 20	AverageRF
1-Methylnaphthalene	400	410	0.05	0.601	0.613	2	NA	± 20	AverageRF
Fluorene-d10	400	380	0.05	1.10	1.05	-5	NA	± 20	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: Element Environmental, LLC
Project: Red Hill Bulk Fuel Storage Facility/150027

Service Request: K1604068
Date Analyzed: 05/02/2016

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270D SIM

Calibration Date: 01/11/2016
Calibration ID: CAL14530
Analysis Lot: KWG1603396
Units: ng/ml

File ID: J:\MS14\DATA\050216\0502F024.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	400	470	0.70	1.01	1.18	17	NA	± 50 %	AverageRF
2-Methylnaphthalene	400	410	0.40	0.690	0.709	3	NA	± 50 %	AverageRF
1-Methylnaphthalene	400	410	0.05	0.601	0.610	2	NA	± 50 %	AverageRF
Fluorene-d10	400	380	0.05	1.10	1.05	-5	NA	± 50 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

QA/QC Results

Client: Element Environmental, LLC **Service Request:** K1604068
Project: Red Hill Bulk Fuel Storage Facility/150027

Analysis Run Log
Polynuclear Aromatic Hydrocarbons

Analysis Method: 8270D SIM **Analysis Lot:** KWG1603396
Instrument ID: MS14

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0502F001.D	GC/MS Tuning - Decafluorotriphenylphosph	KWG1603396-1	5/2/2016	07:23		5/2/2016	07:42
0502F002.D	Continuing Calibration Verification	KWG1603396-2	5/2/2016	07:50		5/2/2016	08:09
0502F003.D	Method Blank	KWG1603228-10	5/2/2016	08:18		5/2/2016	08:37
0502F004.D	ZZZZZZ	ZZZZZZ	5/2/2016	09:14		5/2/2016	09:33
0502F005.D	ZZZZZZ	ZZZZZZ	5/2/2016	09:41		5/2/2016	10:00
0502F006.D	ZZZZZZ	ZZZZZZ	5/2/2016	10:07		5/2/2016	10:26
0502F007.D	ZZZZZZ	ZZZZZZ	5/2/2016	10:33		5/2/2016	10:52
0502F008.D	ZZZZZZ	ZZZZZZ	5/2/2016	10:59		5/2/2016	11:18
0502F009.D	ZZZZZZ	ZZZZZZ	5/2/2016	11:25		5/2/2016	11:44
0502F011.D	Method Blank	KWG1603185-7	5/2/2016	12:17		5/2/2016	12:36
0502F012.D	Lab Control Sample	KWG1603185-5	5/2/2016	12:42		5/2/2016	13:01
0502F013.D	Duplicate Lab Control Sample	KWG1603185-6	5/2/2016	13:08		5/2/2016	13:27
0502F014.D	ERH030MS	KWG1603185-1	5/2/2016	13:33		5/2/2016	13:52
0502F015.D	ERH030DMS	KWG1603185-2	5/2/2016	13:59		5/2/2016	14:18
0502F016.D	ERH030	K1604068-002	5/2/2016	14:24		5/2/2016	14:43
0502F017.D	ERH029	K1604068-001	5/2/2016	14:49		5/2/2016	15:08
0502F018.D	ERH031	K1604068-003	5/2/2016	15:15		5/2/2016	15:34
0502F019.D	ERH032	K1604068-004	5/2/2016	15:40		5/2/2016	15:59
0502F020.D	ERH033	K1604068-005	5/2/2016	16:05		5/2/2016	16:24
0502F021.D	ERH034	K1604068-006	5/2/2016	16:30		5/2/2016	16:49
0502F022.D	ERH035	K1604068-007	5/2/2016	16:56		5/2/2016	17:15
0502F023.D	ERH036	K1604068-008	5/2/2016	17:21		5/2/2016	17:40
0502F024.D	Continuing Calibration Verification	KWG1603396-3	5/2/2016	17:46		5/2/2016	18:05

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client:	Element Environmental, LLC	**Service Request:**	K1604068
Project:	Red Hill Bulk Fuel Storage Facility/150027	**Date Extracted:**	04/26/2016
Sample Matrix:	Water		

Extraction Prep Log
Polynuclear Aromatic Hydrocarbons

Extraction Method:	EPA 3520C	**Extraction Lot:**	KWG1603185
Analysis Method:	8270D SIM	**Level:**	Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
ERH029	K1604068-001	04/19/16	04/21/16	1020ml	5ml	NA	
ERH030	K1604068-002	04/19/16	04/21/16	1020ml	5ml	NA	
ERH031	K1604068-003	04/19/16	04/21/16	1000ml	5ml	NA	
ERH032	K1604068-004	04/19/16	04/21/16	1060ml	5ml	NA	
ERH033	K1604068-005	04/19/16	04/21/16	1020ml	5ml	NA	
ERH034	K1604068-006	04/19/16	04/21/16	1020ml	5ml	NA	
ERH035	K1604068-007	04/19/16	04/21/16	1020ml	5ml	NA	
ERH036	K1604068-008	04/19/16	04/21/16	1060ml	5ml	NA	
Method Blank	KWG1603185-7	NA	NA	1060ml	5ml	NA	
ERH030MS	KWG1603185-1	04/19/16	04/21/16	1060ml	5ml	NA	
ERH030DMS	KWG1603185-2	04/19/16	04/21/16	1020ml	5ml	NA	
Lab Control Sample	KWG1603185-5	NA	NA	1000ml	5ml	NA	
Duplicate Lab Control Sample	KWG1603185-6	NA	NA	1000ml	5ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Raw Data

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Gasoline Range Organics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Exception Report

Data File: J:\GC39\DATA\042616\0426F041.D
Lab ID: K1604068-001
RunType: SMPL
Matrix: WATER

Date Acquired: 04/27/2016 03:19
Date Quantitated: 04/28/2016 17:33
Batch ID: KWG1603358
Analysis Method: 8015C
ListJoinID: LJ1015

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/2/16

Secondary Review:

Printed: 05/02/2016 15:42:11
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F041.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 03:19	**Quant Date:**	04/28/2016 17:33	**Vial:**	38
Run Type:	SMPL	**ListJoinID:**	LJ1015	**Dilution:**	1.0
Lab ID:	K1604068-001			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603358	**Prep Lot:**	KWG1603412	**Report Group:**	K1604068
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514253	**Prep Date:**	04/27/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ1015
		Method ID:	MJ183
MB Ref:	J:\GC39\DATA\042616\0426F049.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49	0.00	12179232	101.16	101	80-107	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics (GRO)	2.29		2352972	20.89	21	J	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F041.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 3:19 am
Operator : GH
Sample : K4068-001
Misc :
ALS Vial : 38 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:33:34 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

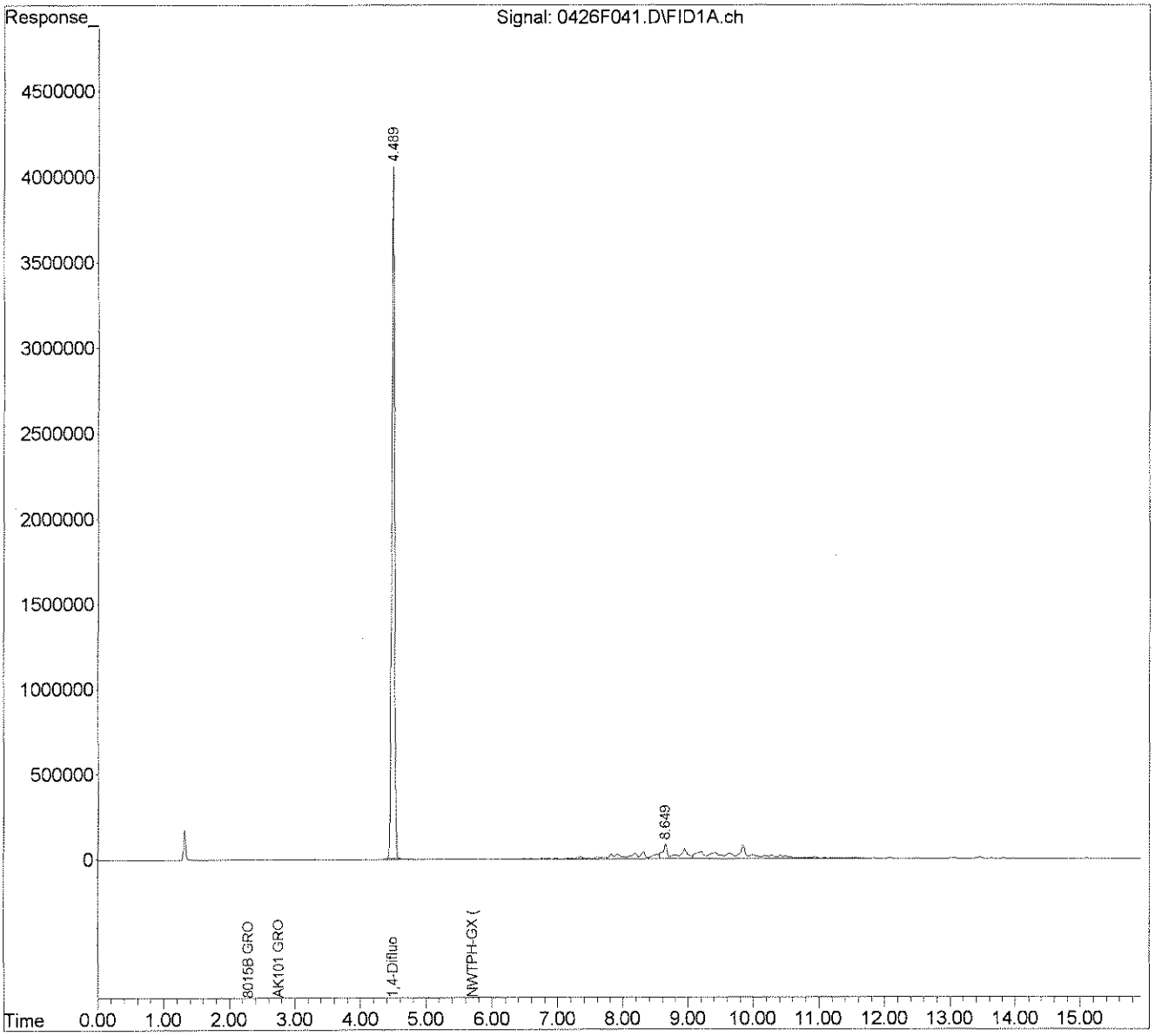
	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.489	12179232	101.161 ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D. ug/L d
Target Compounds				
3) H	AK101 GRO (C6-C10)	2.755	1370137	13.844 ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	2352972	20.887 ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	4542863	65.575 ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F041.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 3:19 am
Operator : GH
Sample : K4068-001
Misc :
ALS Vial : 38 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:33:34 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F042.D
Lab ID: K1604068-002
RunType: SMPL
Matrix: WATER

Date Acquired: 04/27/2016 03:43
Date Quantitated: 04/28/2016 17:33
Batch ID: KWG1603358
Analysis Method: 8015C
ListJoinID: LJ1015

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/2/16

Secondary Review: 5/3/16

Printed: 05/02/2016 15:42:14
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F042.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 03:43	**Quant Date:**	04/28/2016 17:33	**Vial:**	39
Run Type:	SMPL	**ListJoinID:**	LJ1015	**Dilution:**	1.0
Lab ID:	K1604068-002			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603358	**Prep Lot:**	KWG1603412	**Report Group:**	K1604068
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
		Prep Date:	04/27/2016		
Prep Ref:	1514254				

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ1015
		Method ID:	MJ183
MB Ref:	J:\GC39\DATA\042616\0426F049.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49	0.00	12350918	102.59	103	80-107	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics (GRO)	2.29		1490280	13.23	13	J	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F042.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 3:43 am
Operator : GH
Sample : K4068-002
Misc :
ALS Vial : 39 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:33:43 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

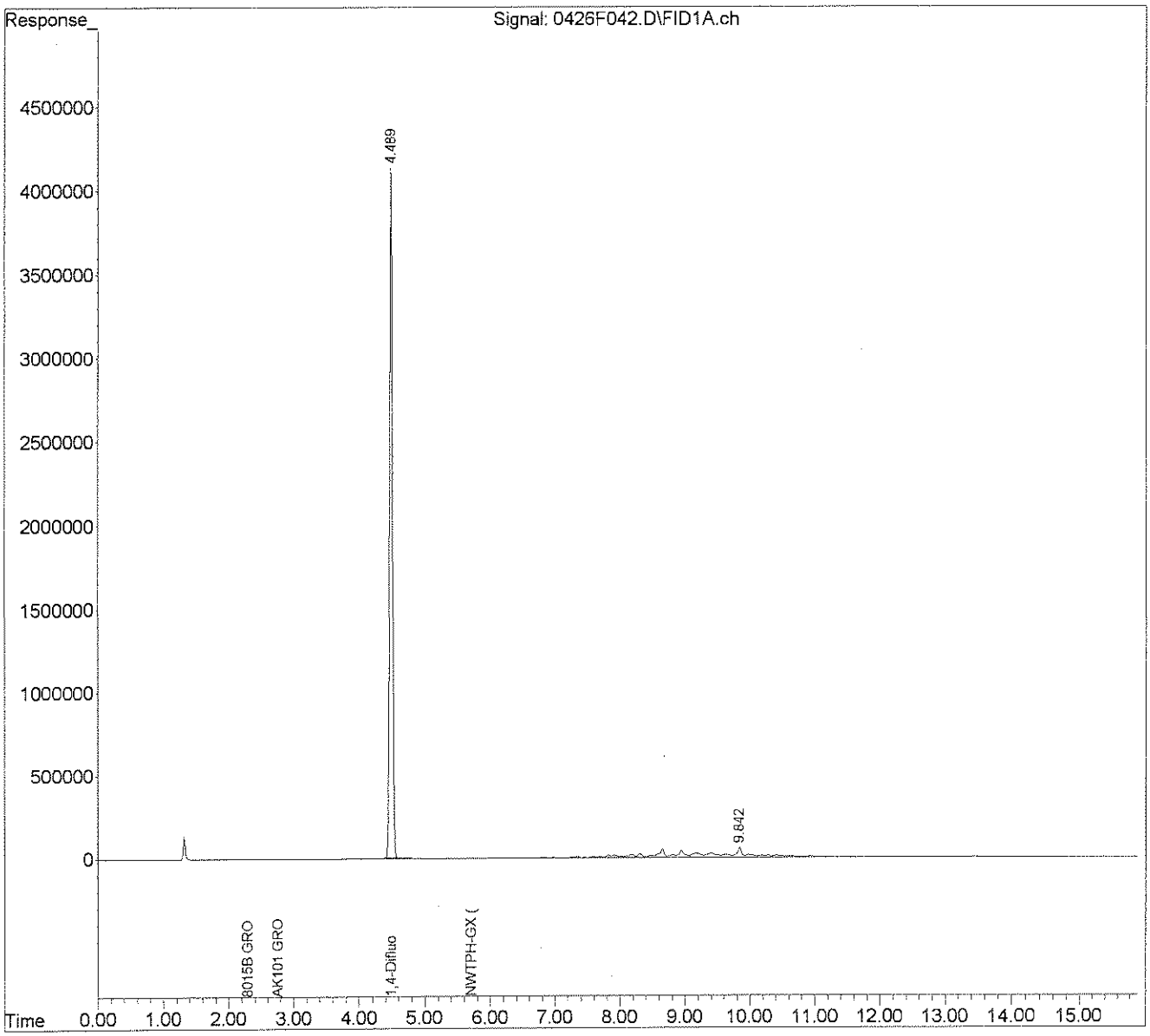
	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1)	S 1,4-Difluorobenzene	4.489	12350918	102.587	ug/L	
2)	S 4-Bromofluorobenzene	0.000	0	N.D.	ug/L	d
	Target Compounds					
3)	H AK101 GRO (C6-C10)	2.755	878979	8.881	ug/L	
4)	H 8015B GRO (2mp-1,2,4tmb)	2.295	1490280	13.229	ug/L	
5)	H NWTPH-GX (Tol.-Naph.)	5.713	2864421	41.347	ug/L	

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F042.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 3:43 am
Operator : GH
Sample : K4068-002
Misc :
ALS Vial : 39 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:33:43 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F045.D
Lab ID: K1604068-003
RunType: SMPL
Matrix: WATER

Date Acquired: 04/27/2016 04:56
Date Quantitated: 04/28/2016 17:34
Batch ID: KWG1603358
Analysis Method: 8015C
ListJoinID: LJ1015

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/2/16

Secondary Review:

Printed: 05/02/2016 15:42:23
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F045.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 04:56	**Quant Date:**	04/28/2016 17:34	**Vial:**	41
Run Type:	SMPL	**ListJoinID:**	LJ1015	**Dilution:**	1.0
Lab ID:	K1604068-003			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603358	**Prep Lot:**	KWG1603412	**Report Group:**	K1604068
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514255	**Prep Date:**	04/27/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ1015
		Method ID:	MJ183
MB Ref:	J:\GC39\DATA\042616\0426F049.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49	0.00	12371777	102.76	103	80-107	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics (GRO)	2.29		1011871	8.98	9.0	J	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F045.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 4:56 am
Operator : GH
Sample : K4068-003
Misc :
ALS Vial : 41 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:34:14 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

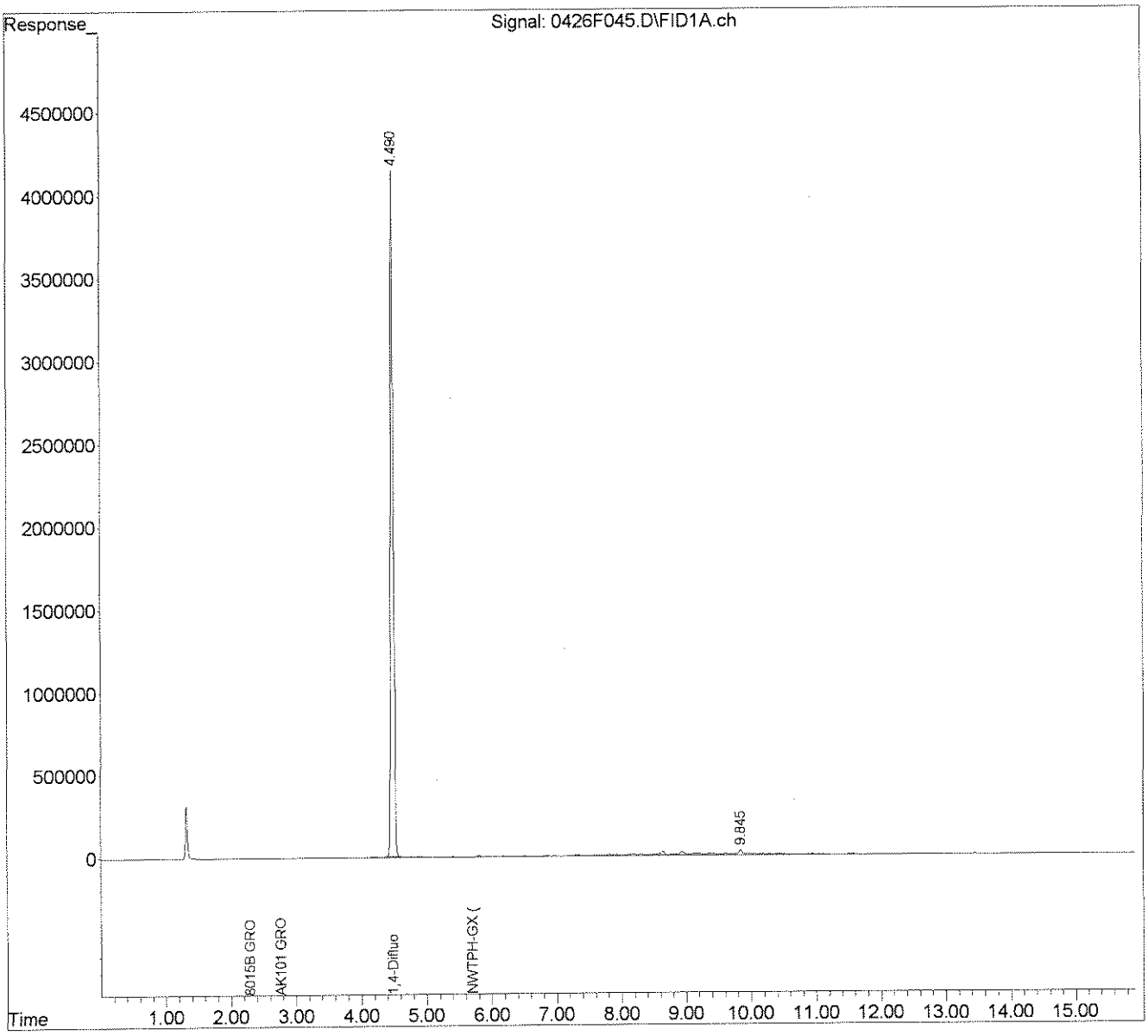
	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) S	1,4-Difluorobenzene	4.490	12371777	102.760	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L d
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.755	698127	7.054	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	1011871	8.982	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	1542318	22.263	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F045.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 4:56 am
Operator : GH
Sample : K4068-003
Misc :
ALS Vial : 41 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:34:14 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F046.D
Lab ID: K1604068-004
RunType: SMPL
Matrix: WATER

Date Acquired: 04/27/2016 05:20
Date Quantitated: 04/28/2016 17:34
Batch ID: KWG1603358
Analysis Method: 8015C
ListJoinID: LJ1015

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/2/16

Secondary Review:

Printed: 05/02/2016 15:42:26
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F046.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 05:20	**Quant Date:**	04/28/2016 17:34	**Vial:**	42
Run Type:	SMPL	**ListJoinID:**	LJ1015	**Dilution:**	1.0
Lab ID:	K1604068-004			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603358	**Prep Lot:**	KWG1603412	**Report Group:**	K1604068
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514256	**Prep Date:**	04/27/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ1015
		Method ID:	MJ183
MB Ref:	J:\GC39\DATA\042616\0426F049.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49	0.00	12286501	102.05	102	80-107	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics (GRO)	2.29		689204	6.12	8.3	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F046.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 5:20 am
Operator : GH
Sample : K4068-004
Misc :
ALS Vial : 42 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:34:22 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

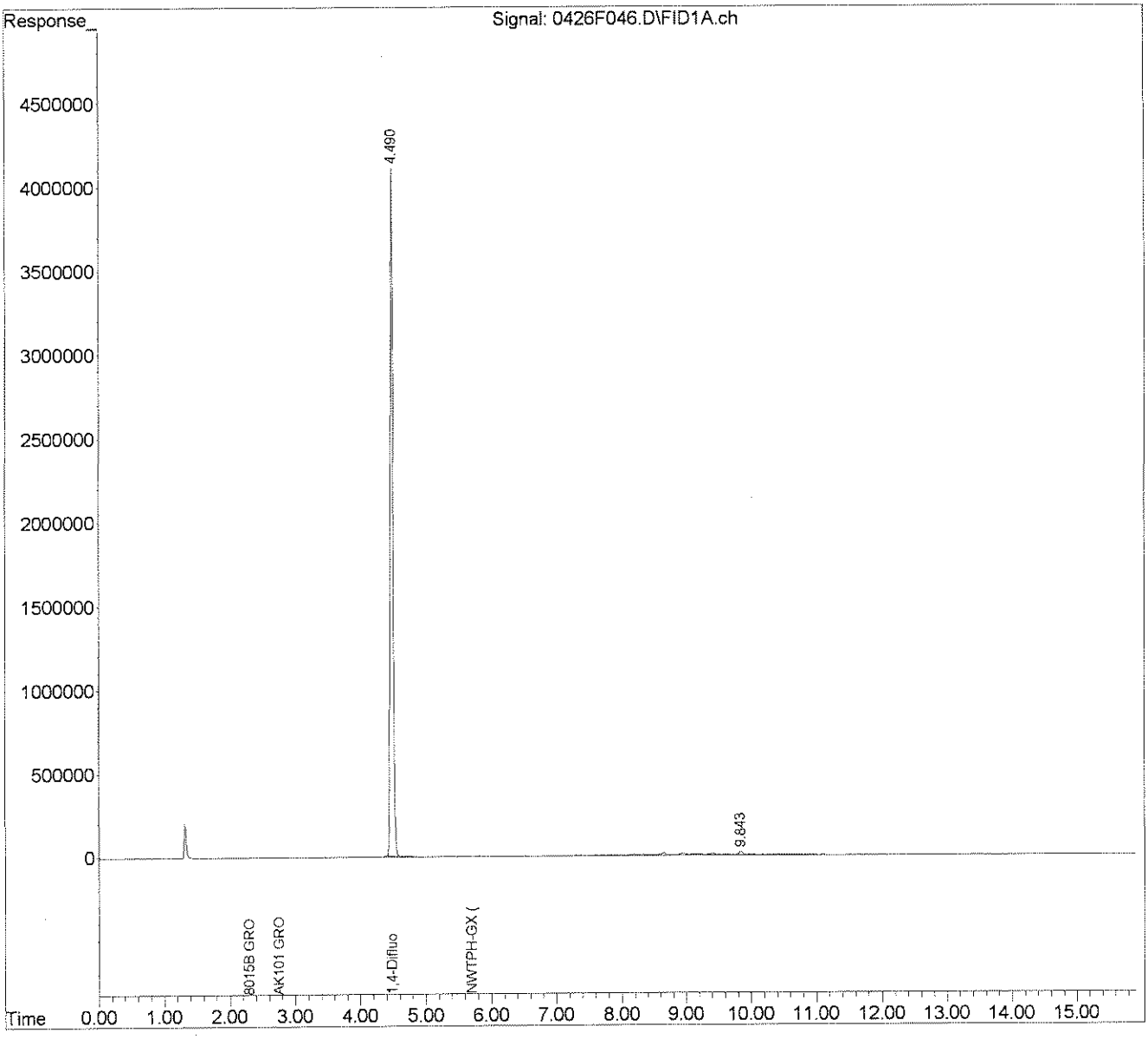
	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1)	S 1,4-Difluorobenzene	4.490	12286501	102.052 ug/L
2)	S 4-Bromofluorobenzene	0.000	0	N.D. ug/L d
	Target Compounds			
3)	H AK101 GRO (C6-C10)	2.755	473842	4.788 ug/L
4)	H 8015B GRO (2mp-1,2,4tmb)	2.295	689204	6.118 ug/L
5)	H NWTPH-GX (Tol.-Naph.)	5.713	1092604	15.771 ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F046.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 5:20 am
Operator : GH
Sample : K4068-004
Misc :
ALS Vial : 42 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:34:22 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F052.D
Lab ID: K1604068-005
RunType: SMPL
Matrix: WATER

Date Acquired: 04/27/2016 07:44
Date Quantitated: 04/27/2016 09:18
Batch ID: KWG1603358
Analysis Method: 8015C
ListJoinID: LJ1015

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/2/16

Secondary Review: 5/3/16

Printed: 05/02/2016 15:42:44
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F052.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 07:44	**Quant Date:**	04/27/2016 09:18	**Vial:**	48
Run Type:	SMPL	**ListJoinID:**	LJ1015	**Dilution:**	1.0
Lab ID:	K1604068-005			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603358	**Prep Lot:**	KWG1603412	**Report Group:**	K1604068
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514257	**Prep Date:**	04/27/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ1015
		Method ID:	MJ183
MB Ref:	J:\GC39\DATA\042616\0426F049.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49	0.00	12257369	101.81	102	80-107	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics (GRO)	2.29		481740	4.28	8.3	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F052.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 7:44 am
Operator : GH
Sample : K4068-005
Misc :
ALS Vial : 48 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 09:18:06 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

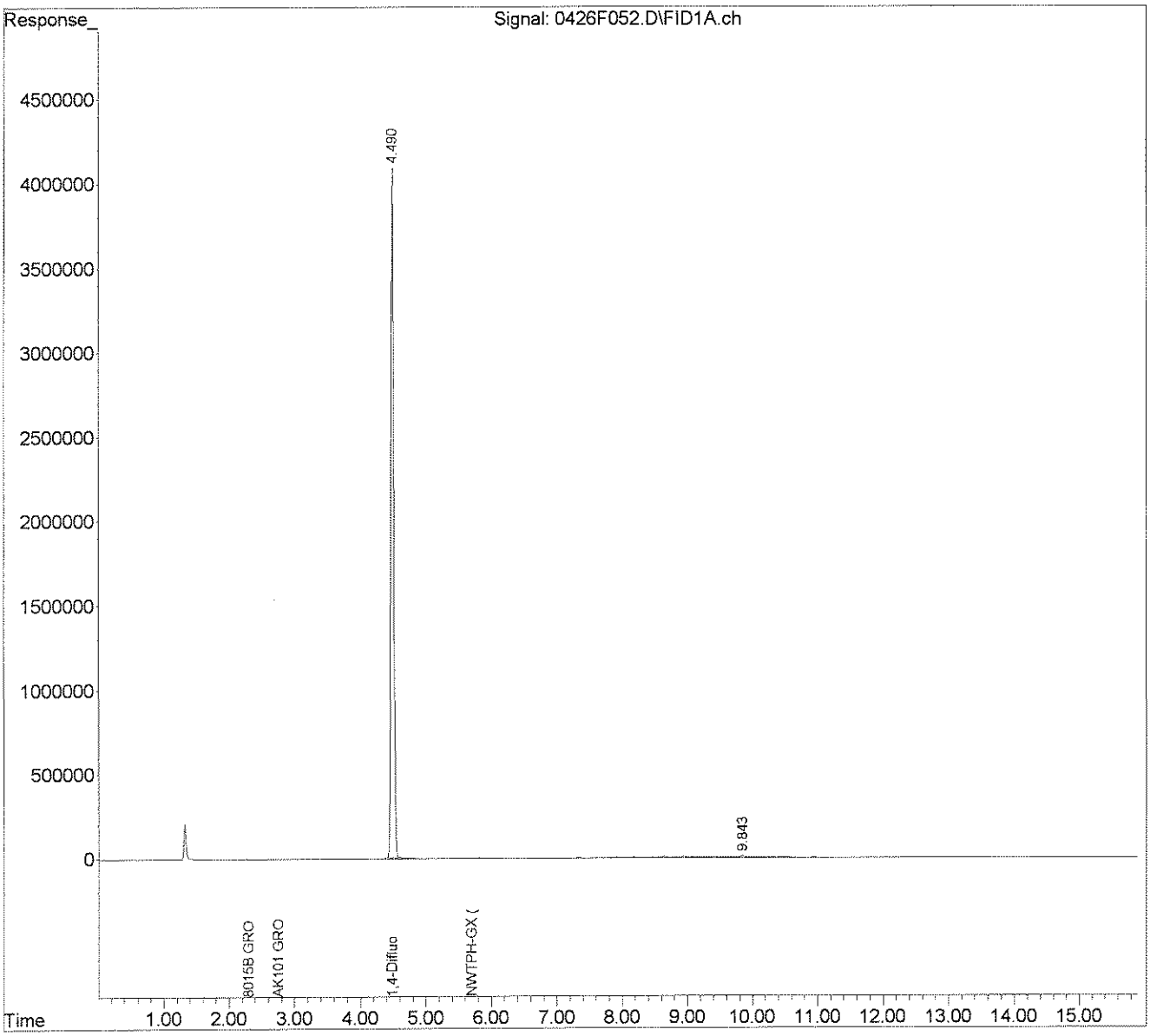
	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) S	1,4-Difluorobenzene	4.490	12257369	101.810	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.755	357815	3.615	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	481740	4.276	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	623568	9.001	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F052.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 7:44 am
Operator : GH
Sample : K4068-005
Misc :
ALS Vial : 48 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 09:18:06 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F053.D
Lab ID: K1604068-006
RunType: SMPL
Matrix: WATER

Date Acquired: 04/27/2016 08:09
Date Quantitated: 04/27/2016 09:18
Batch ID: KWG1603358
Analysis Method: 8015C
ListJoinID: LJ1015

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/2/16

Secondary Review:

Printed: 05/02/2016 15:42:47
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F053.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 08:09	**Quant Date:**	04/27/2016 09:18	**Vial:**	49
Run Type:	SMPL	**ListJoinID:**	LJ1015	**Dilution:**	1.0
Lab ID:	K1604068-006			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603358	**Prep Lot:**	KWG1603412	**Report Group:**	K1604068
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514258	**Prep Date:**	04/27/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ1015
		Method ID:	MJ183
MB Ref:	J:\GC39\DATA\042616\0426F049.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49	0.00	12210701	101.42	101	80-107	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics (GRO)	2.29		483448	4.29	8.3	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 05/02/2016 15:32:54
u:\Stealth\Crystal.rpt\quant1.rpt

J:\GC39\DATA\042616\0426F053.D

Data Path : J:\GC39\Data\042616\
Data File : 0426F053.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 8:09 am
Operator : GH
Sample : K4068-006
Misc :
ALS Vial : 49 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 09:18:19 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

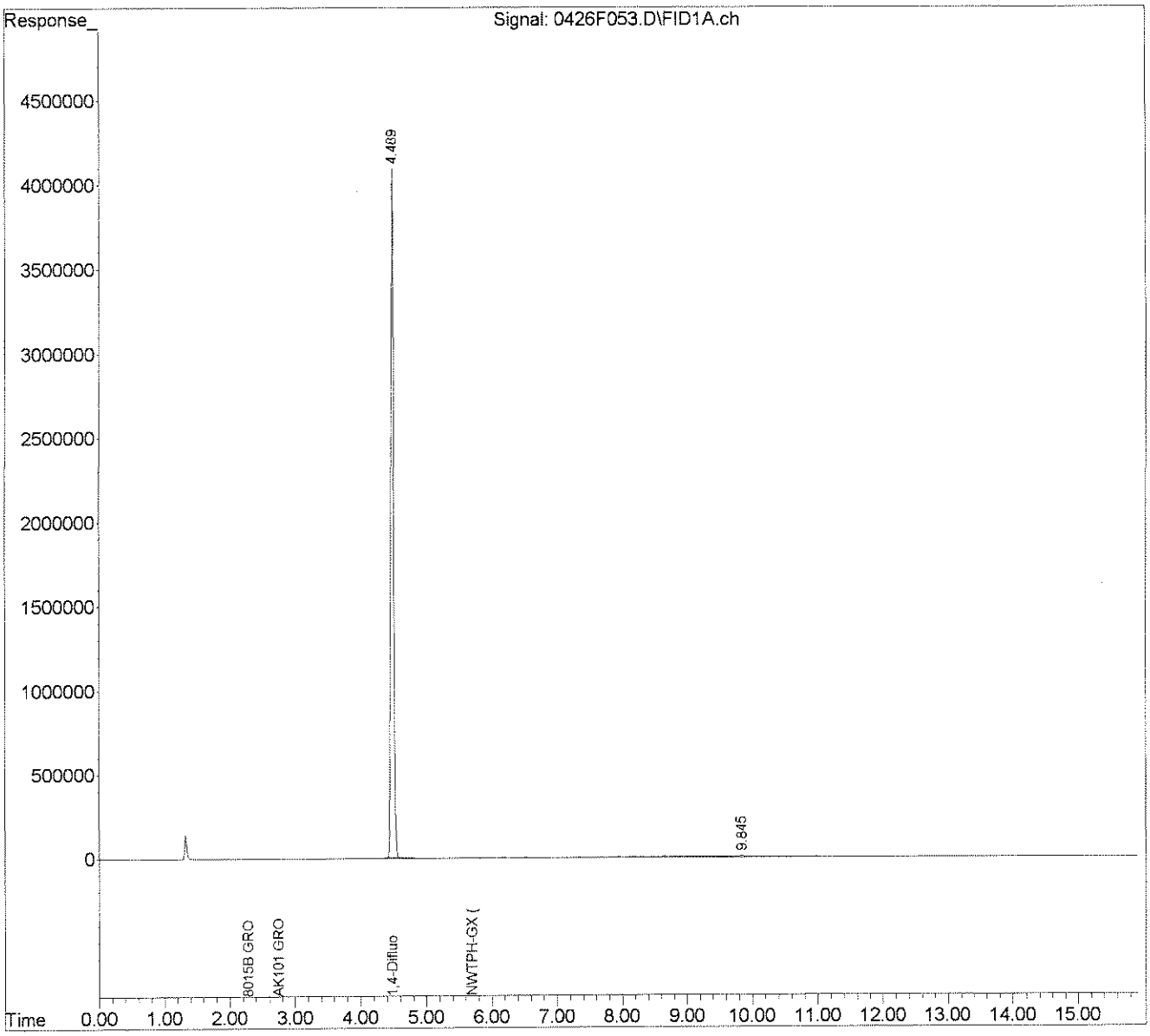
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S 1,4-Difluorobenzene	4.489	12210701	101.422	ug/L
2)	S 4-Bromofluorobenzene	0.000	0	N.D.	ug/L
	Target Compounds				
3)	H AK101 GRO (C6-C10)	2.755	364651	3.684	ug/L
4)	H 8015B GRO (2mp-1,2,4tmb)	2.295	483448	4.292	ug/L
5)	H NWTPH-GX (Tol.-Naph.)	5.713	603018	8.704	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F053.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 8:09 am
Operator : GH
Sample : K4068-006
Misc :
ALS Vial : 49 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 09:18:19 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F054.D
Lab ID: K1604068-007
RunType: SMPL
Matrix: WATER

Date Acquired: 04/27/2016 08:33
Date Quantitated: 04/27/2016 09:50
Batch ID: KWG1603358
Analysis Method: 8015C
ListJoinID: LJ1015

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/2/16

Secondary Review:

Printed: 05/02/2016 15:42:50
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F054.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 08:33	**Quant Date:**	04/27/2016 09:50	**Vial:**	50
Run Type:	SMPL	**ListJoinID:**	LJ1015	**Dilution:**	1.0
Lab ID:	K1604068-007			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603358	**Prep Lot:**	KWG1603412	**Report Group:**	K1604068
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514259	**Prep Date:**	04/27/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ1015
		Method ID:	MJ183
MB Ref:	J:\GC39\DATA\042616\0426F049.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49	0.00	12330795	102.42	102	80-107	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics (GRO)	2.29		1448444	12.86	13	J	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F054.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 8:33 am
Operator : GH
Sample : K4068-007
Misc :
ALS Vial : 50 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 09:50:24 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

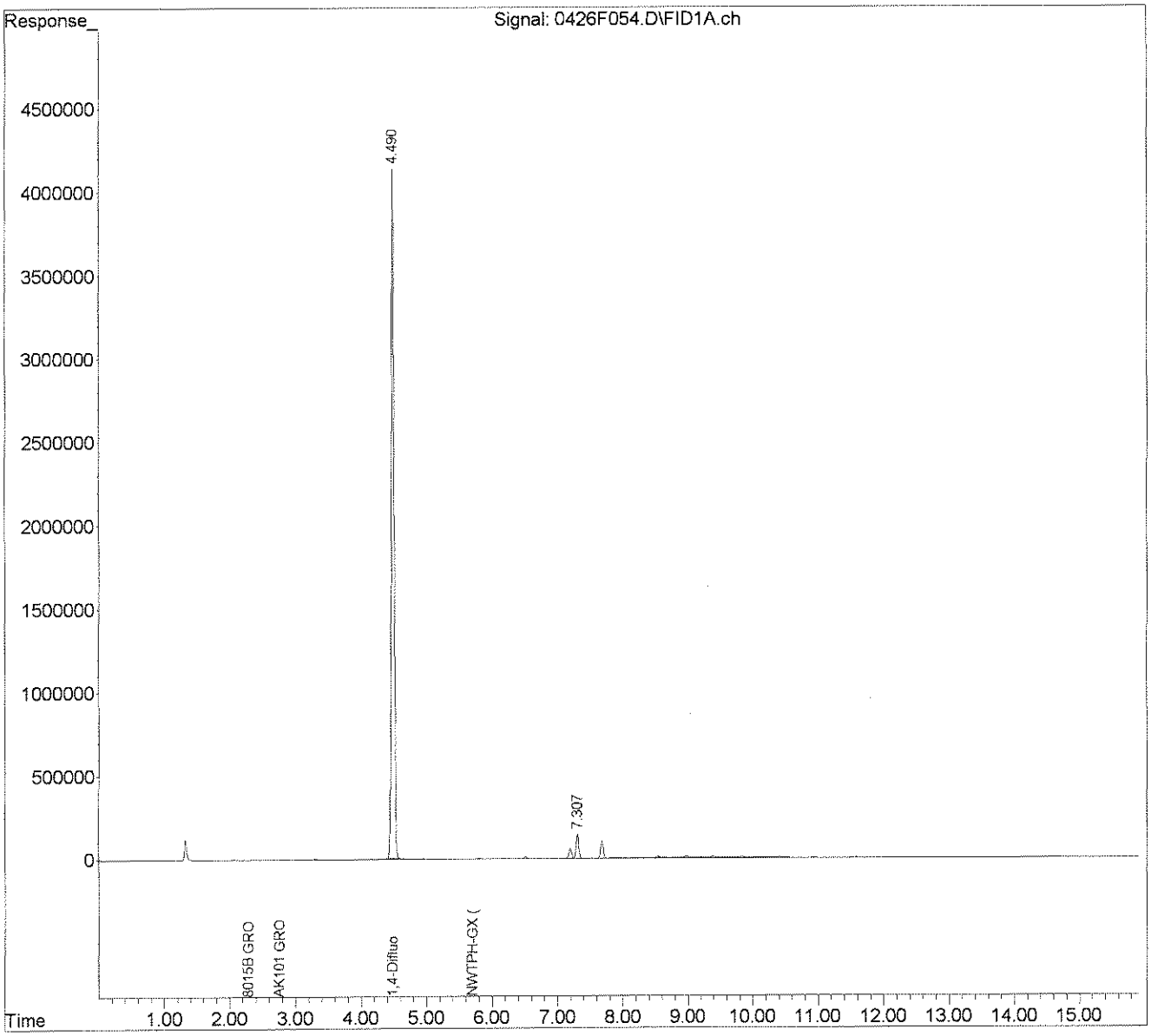
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.490	12330795	102.420	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.755	1303387	13.170	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	1448444	12.858	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	1625215	23.459	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F054.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 8:33 am
Operator : GH
Sample : K4068-007
Misc :
ALS Vial : 50 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 09:50:24 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F055.D
Lab ID: K1604068-008
RunType: SMPL
Matrix: WATER

Date Acquired: 04/27/2016 08:57
Date Quantitated: 04/27/2016 09:50
Batch ID: KWG1603358
Analysis Method: 8015C
ListJoinID: LJ1015

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: VEH 5/2/16

Secondary Review: [illegible]

Printed: 05/02/2016 15:42:53
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F055.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 08:57	**Quant Date:**	04/27/2016 09:50	**Vial:**	51
Run Type:	SMPL	**ListJoinID:**	LJ1015	**Dilution:**	1.0
Lab ID:	K1604068-008			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603358	**Prep Lot:**	KWG1603412	**Report Group:**	K1604068
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514260	**Prep Date:**	04/27/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:	Gasoline Range Organics	**Report List ID:**	LJ1015
		Method ID:	MJ183
MB Ref:	J:\GC39\DATA\042616\0426F049.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49	0.00	12170904	101.09	101	80-107	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics (GRO)	2.29		1618506	14.37	14	J	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F055.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 8:57 am
Operator : GH
Sample : K4068-008
Misc :
ALS Vial : 51 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 09:50:41 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

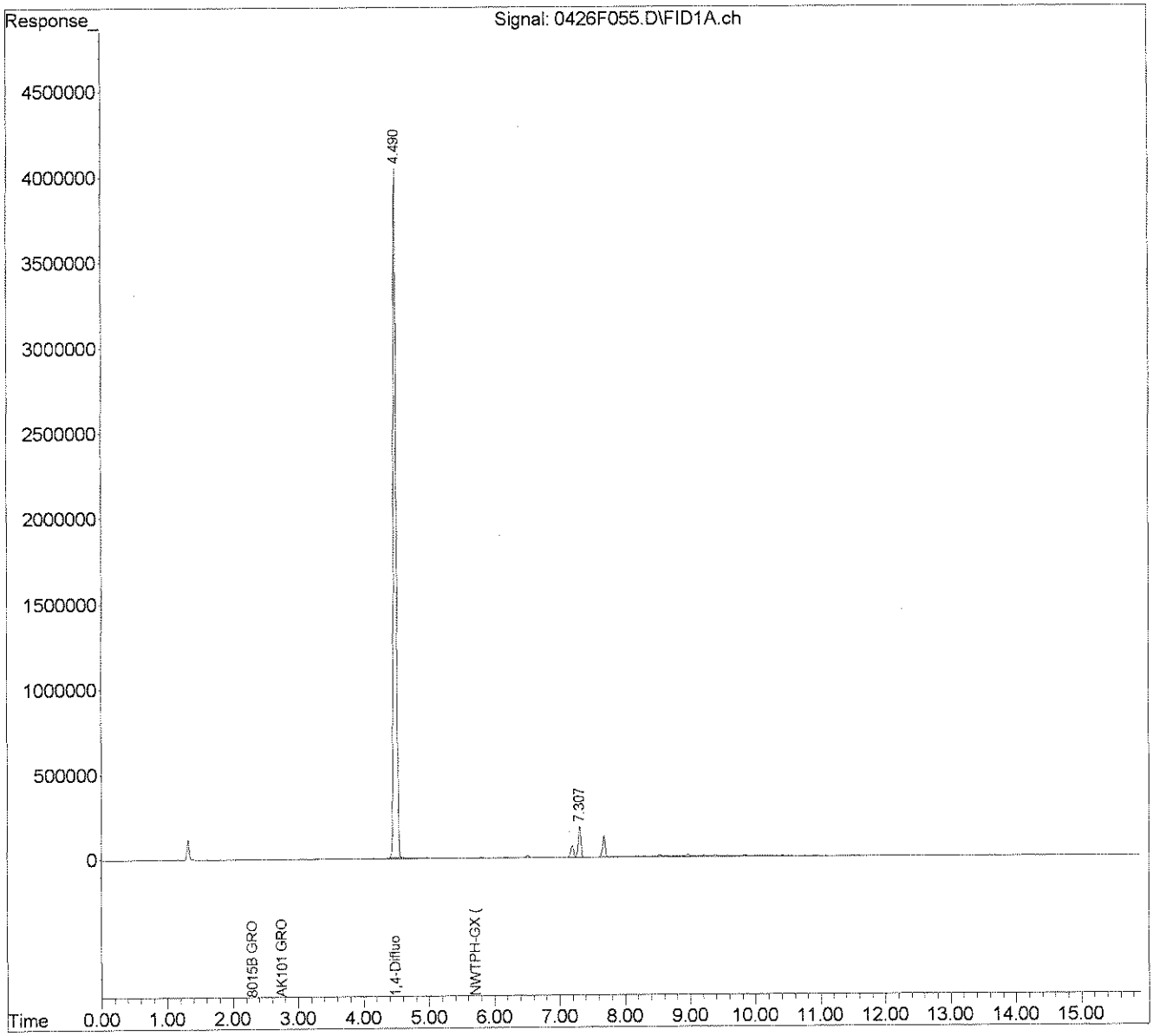
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.490	12170904	101.092	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.755	1479850	14.953	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	1618506	14.368	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	1796276	25.929	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F055.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 8:57 am
Operator : GH
Sample : K4068-008
Misc :
ALS Vial : 51 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 09:50:41 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F049.D
Lab ID: KWG1603412-5
RunType: MB
Matrix: WATER

Date Acquired: 04/27/2016 06:32
Date Quantitated: 04/28/2016 17:34
Batch ID: KWG1603358
Analysis Method: 8015C
MethodJoinID: MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Surrogates	4-Bromofluorobenzene	0	70	130	okay

Primary Review: 5/2/16

Secondary Review: 5/3/16

Printed: 05/02/2016 15:42:35
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F049.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 06:32	**Quant Date:**	04/28/2016 17:34	**Vial:**	45
Run Type:	MB	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603412-5			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	05/02/2016

Analysis Lot:	KWG1603358	**Prep Lot:**	KWG1603412	**Report Group:**	
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514275	**Prep Date:**	04/27/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ183
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49	0.00	12297785	102.15	102	80-107	OK	
4-Bromofluorobenzene			0d		0	70-130	*	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		656912	6.64	8.3	U	
Gasoline Range Organics (GRO)	2.29		856675	7.61	8.3	U	
Gasoline Range Organics-NWTF	5.71		1017788	14.69	14.7	J	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F049.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 06:32	**Quant Date:**	04/28/2016 17:34	**Vial:**	45
Run Type:	MB	**MethodJoinID:**	MJ186	**Dilution:**	1.0
Lab ID:	KWG1603412-5			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	05/02/2016

Analysis Lot:	KWG1603358	**Prep Lot:**	KWG1603412	**Report Group:**	
Analysis Method:	AK101	**Prep Method:**	EPA 5030B		
Prep Ref:	1514275	**Prep Date:**	04/27/2016		

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ186
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49	0.00	12297785	102.15	102	50-150	OK	
4-Bromofluorobenzene			0d		0	50-150	*	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		656912	6.64	8.3	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F049.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 6:32 am
Operator : GH
Sample : K4068/72/83/4156 MB
Misc :
ALS Vial : 45 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:34:50 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

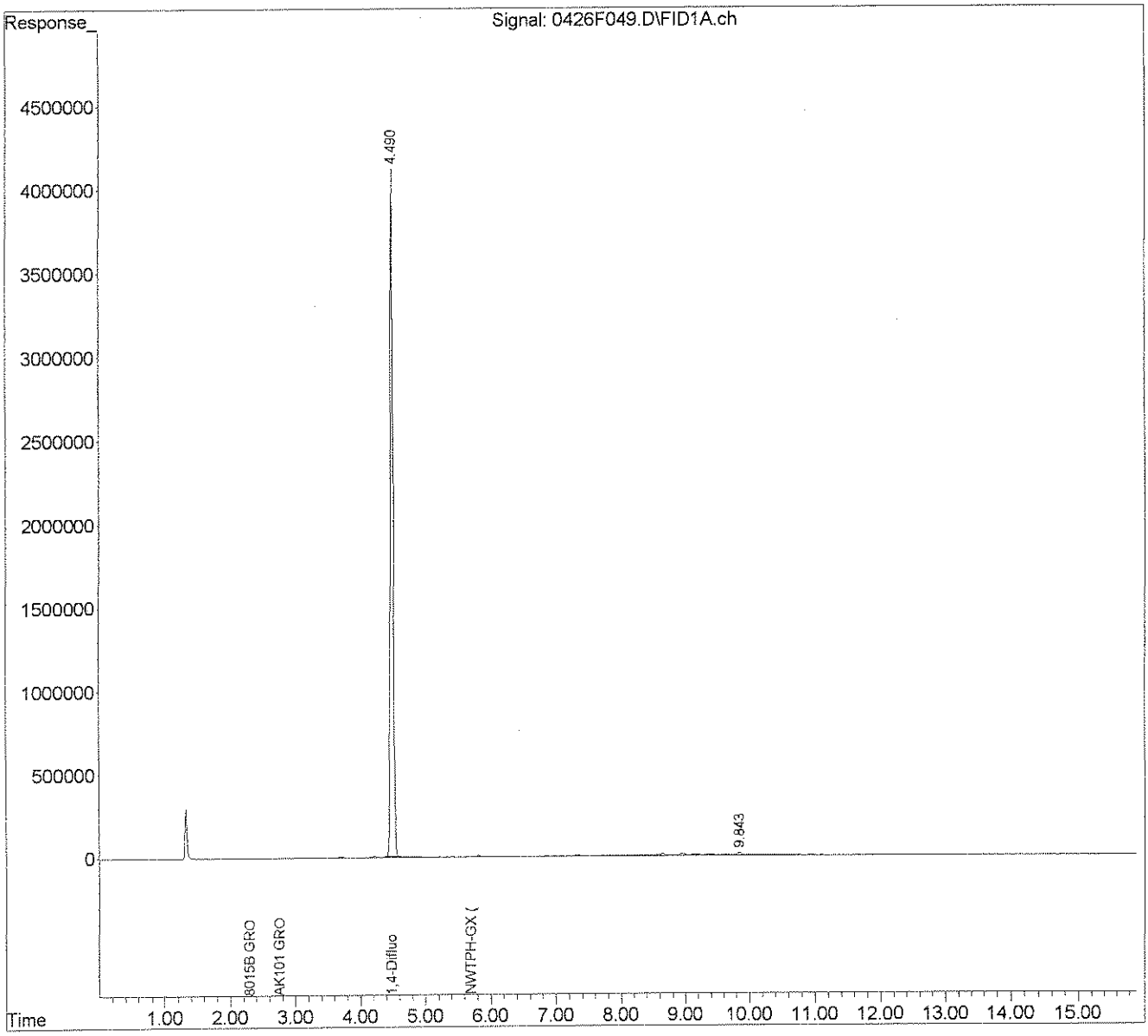
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.490	12297785	102.146	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L d
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.755	656912	6.638	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	856675	7.605	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	1017788	14.691	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F049.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 6:32 am
Operator : GH
Sample : K4068/72/83/4156 MB
Misc :
ALS Vial : 45 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:34:50 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F043.D
Lab ID: KWG1603412-1 -- K1604068-002MS
RunType: MS
Matrix: WATER

Date Acquired: 04/27/2016 04:07
Date Quantitated: 04/28/2016 17:33
Batch ID: KWG1603358
Analysis Method: 8015C
MethodJoinID: MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Surrogates	4-Bromofluorobenzene	0	70	130	okay

Primary Review: 5/2/16

Secondary Review: 5/3/16

Printed: 05/02/2016 15:42:17
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F043.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 04:07	**Quant Date:**	04/28/2016 17:33	**Vial:**	40
Run Type:	MS	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603412-1 -- K1604068-002MS			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	05/02/2016

Analysis Lot:	KWG1603358	**Prep Lot:**	KWG1603412	**Report Group:**	
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
		Prep Date:	04/27/2016		
Prep Ref:	1514271				

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ183
MB Ref:	J:\GC39\DATA\042616\0426F049.D	**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49	0.00	12470656	103.58	104	80-107	OK	
4-Bromofluorobenzene			0d		0	70-130	*	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		44621477	450.86	451		
Gasoline Range Organics (GRO)	2.29		51086303	453.50	453		
Gasoline Range Organics-NWTF	5.71		34206327	493.76	494		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F043.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 4:07 am
Operator : GH
Sample : K4068-002MS
Misc :
ALS Vial : 40 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:33:55 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

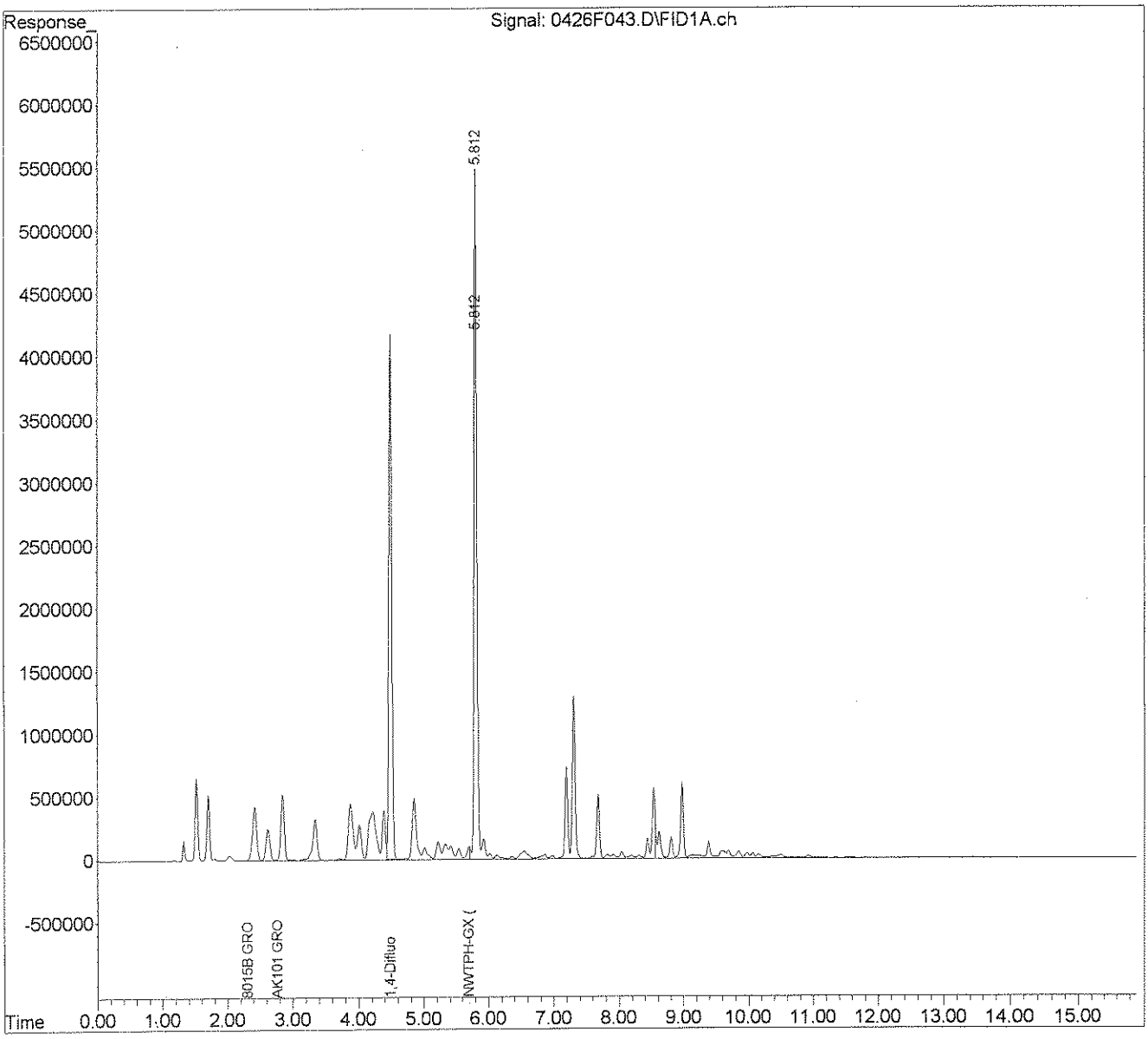
	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	1,4-Difluorobenzene	4.490	12470656	103.582	ug/L	
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L	d
Target Compounds						
3) H	AK101 GRO (C6-C10)	2.755	44621477	450.863	ug/L	
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	51086303	453.496	ug/L	
5) H	NWTPH-GX (Tol.-Naph.)	5.713	34206327	493.756	ug/L	

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F043.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 4:07 am
Operator : GH
Sample : K4068-002MS
Misc :
ALS Vial : 40 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:33:55 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F044.D
Lab ID: KWG1603412-2 -- K1604068-002DMS
RunType: DMS
Matrix: WATER

Date Acquired: 04/27/2016 04:31
Date Quantitated: 04/28/2016 17:34
Batch ID: KWG1603358
Analysis Method: 8015C
MethodJoinID: MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Surrogates	4-Bromofluorobenzene	0	70	130	okay

Primary Review: 5/2/16

Secondary Review: 5/3/16

Printed: 05/02/2016 15:42:20
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F044.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 04:31	**Quant Date:**	04/28/2016 17:34	**Vial:**	40
Run Type:	DMS	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603412-2 -- K1604068-002DMS			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	05/02/2016

Analysis Lot:	KWG1603358	**Prep Lot:**	KWG1603412	**Report Group:**	
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
		Prep Date:	04/27/2016		
Prep Ref:	1514272				

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ183
MB Ref:	J:\GC39\DATA\042616\0426F049.D	**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49	0.00	12432062	103.26	103	80-107	OK	
4-Bromofluorobenzene			0d		0	70-130	*	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		40821562	412.47	412		
Gasoline Range Organics (GRO)	2.29		46688527	414.46	414		
Gasoline Range Organics-NWTF	5.71		31550149	455.42	455		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F044.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 4:31 am
Operator : GH
Sample : K4068-002DMS
Misc :
ALS Vial : 40 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:34:05 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

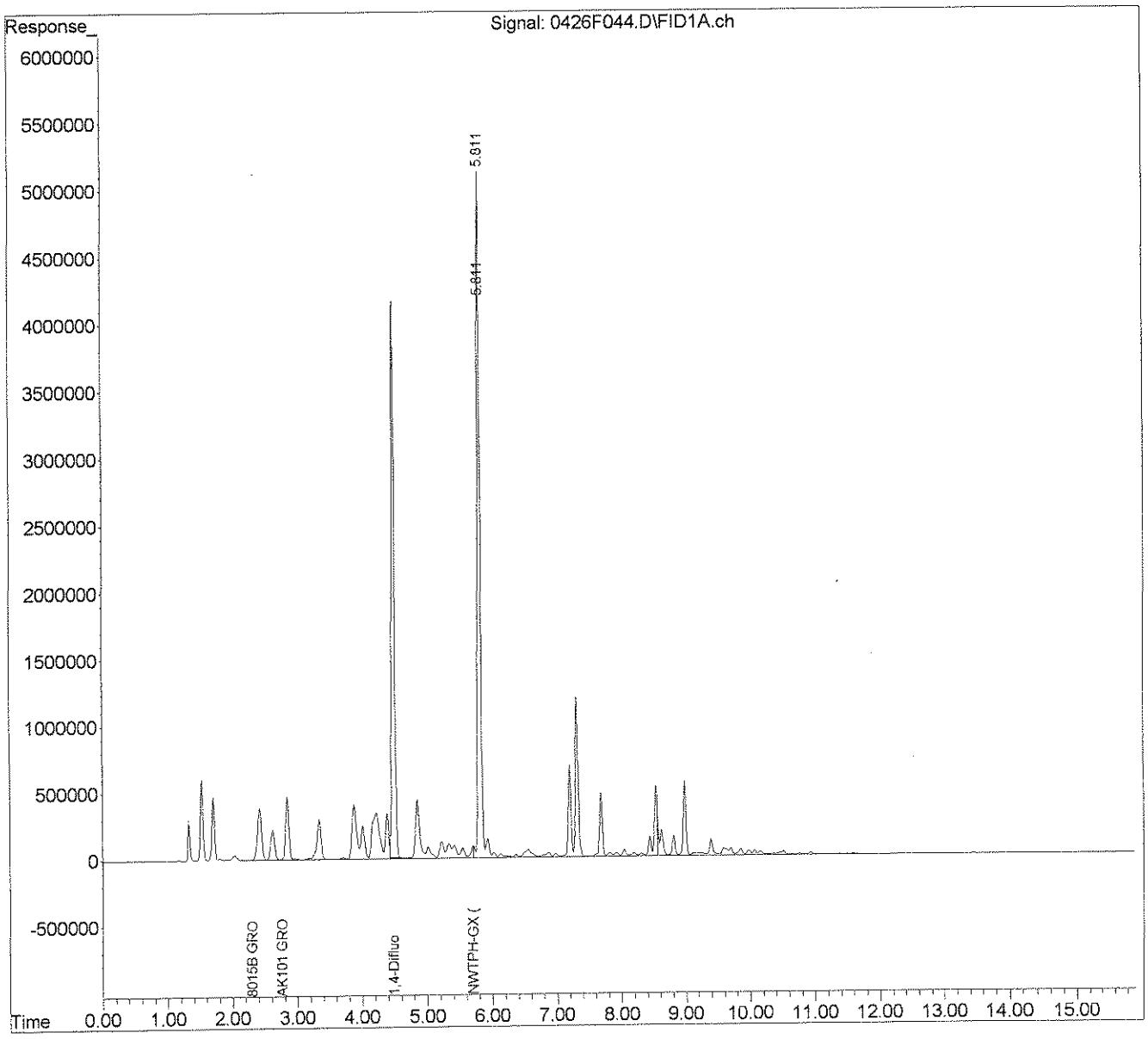
	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) S	1,4-Difluorobenzene	4.490	12432062	103.261	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L d
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.755	40821562	412.468	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	46688527	414.456	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	31550149	455.415	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F044.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 4:31 am
Operator : GH
Sample : K4068-002DMS
Misc :
ALS Vial : 40 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:34:05 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F047.D
Lab ID: KWG1603412-3
RunType: LCS
Matrix: WATER

Date Acquired: 04/27/2016 05:44
Date Quantitated: 04/28/2016 17:34
Batch ID: KWG1603358
Analysis Method: 8015C
MethodJoinID: MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Surrogates	4-Bromofluorobenzene	0	70	130	DL

Primary Review: DM 5/2/16

Secondary Review: KR 5/3/16

Printed: 05/02/2016 15:42:29
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F047.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 05:44	**Quant Date:**	04/28/2016 17:34	**Vial:**	43
Run Type:	LCS	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603412-3			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	05/02/2016

Analysis Lot:	KWG1603358	**Prep Lot:**	KWG1603412	**Report Group:**	
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
		Prep Date:	04/27/2016		
Prep Ref:	1514273				

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ183
MB Ref:	J:\GC39\DATA\042616\0426F049.D	**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49	0.00	12340031	102.50	102	80-107	OK	
4-Bromofluorobenzene			0d		0	70-130	*	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		46557664	470.43	470		
Gasoline Range Orgauics (GRO)	2.29		53012677	470.60	471		
Gasoline Range Organics-NWTF	5.71		34316241	495.34	495		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F047.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 5:44 am
Operator : GH
Sample : K4068/72/83/4156 LCS
Misc :
ALS Vial : 43 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:34:31 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

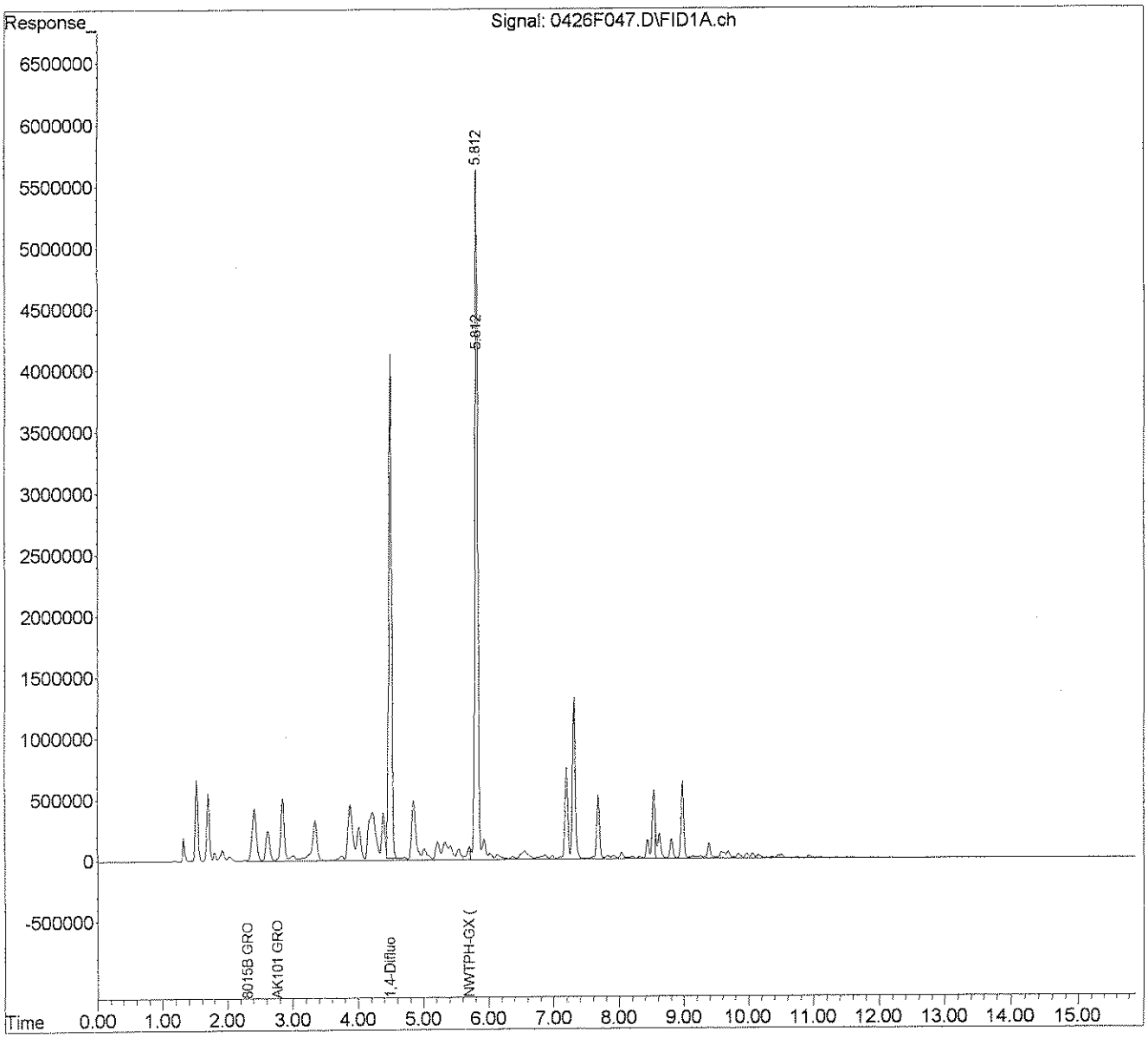
	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	1,4-Difluorobenzene	4.490	12340031	102.497	ug/L	
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L	d
Target Compounds						
3) H	AK101 GRO (C6-C10)	2.755	46557664	470.427	ug/L	
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	53012677	470.596	ug/L	
5) H	NWTPH-GX (Tol.-Naph.)	5.713	34316241	495.343	ug/L	

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F047.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 5:44 am
Operator : GH
Sample : K4068/72/83/4156 LCS
Misc :
ALS Vial : 43 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:34:31 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F048.D
Lab ID: KWG1603412-4
RunType: DLCS
Matrix: WATER

Date Acquired: 04/27/2016 06:08
Date Quantitated: 04/28/2016 17:34
Batch ID: KWG1603358
Analysis Method: 8015C
MethodJoinID: MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA		x
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Surrogates	4-Bromofluorobenzene	0	70	130	okay

Primary Review: 5/2/16

Secondary Review:

Printed: 05/02/2016 15:42:32
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F048.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 06:08	**Quant Date:**	04/28/2016 17:34	**Vial:**	44
Run Type:	DLCS	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603412-4			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C VOC GRO	**Collect Date:**		**Receive Date:**	05/02/2016

Analysis Lot:	KWG1603358	**Prep Lot:**	KWG1603412	**Report Group:**	
Analysis Method:	8015C	**Prep Method:**	EPA 5030B		
		Prep Date:	04/27/2016		
Prep Ref:	1514274				

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ183
MB Ref:	J:\GC39\DATA\042616\0426F049.D	**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49	0.00	12548001	104.22	104	80-107	OK	
4-Bromofluorobenzene			0d		0	70-130	*	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		48656355	491.63	492		
Gasoline Range Organics (GRO)	2.29		55393494	491.73	492		
Gasoline Range Organics-NWTF	5.71		35326729	509.93	510		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F048.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 6:08 am
Operator : GH
Sample : K4068/72/83/4156 DLCS
Misc :
ALS Vial : 44 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:34:41 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

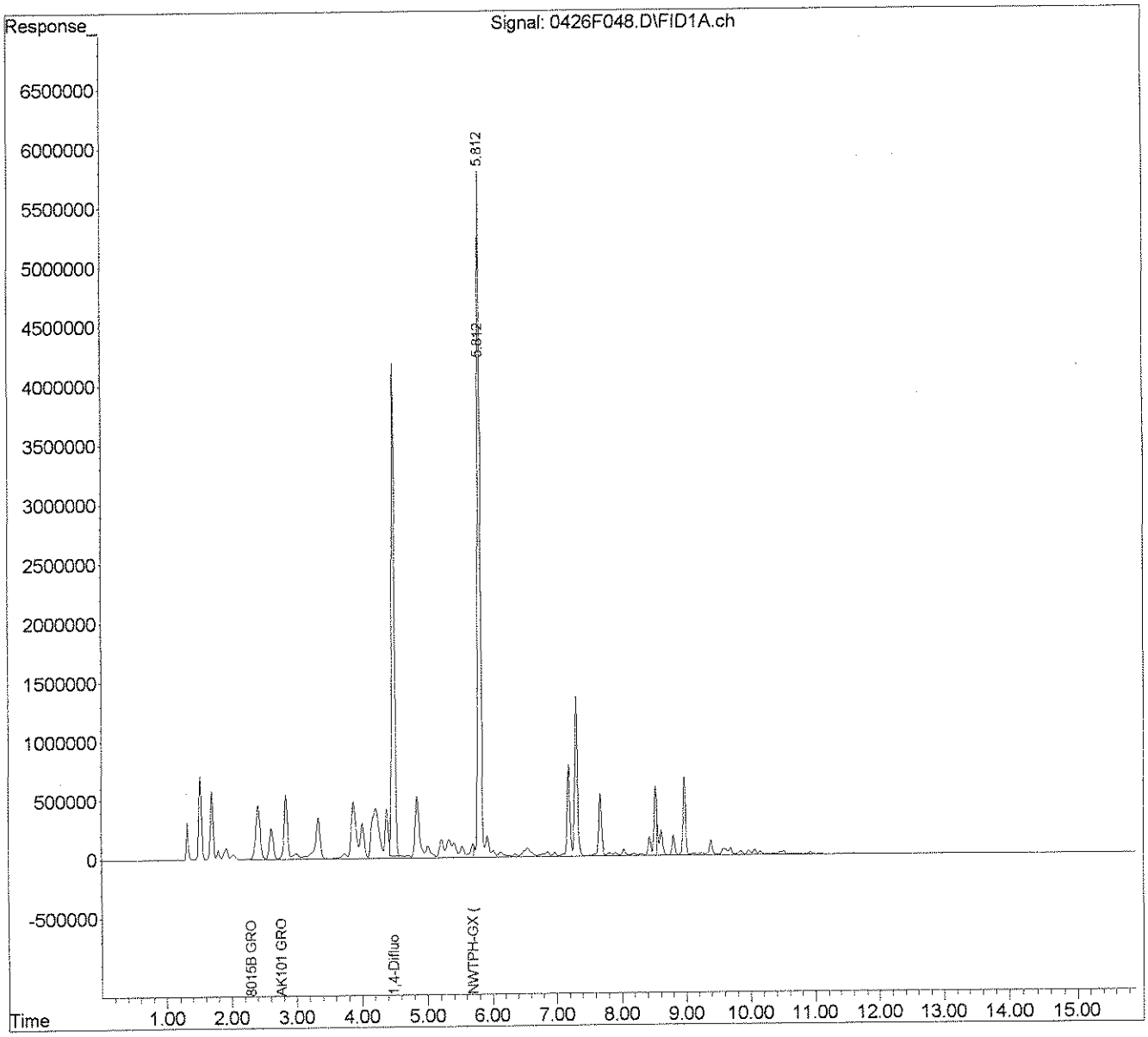
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.490	12548001	104.224	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L d
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.755	48656355	491.632	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	55393494	491.731	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	35326729	509.929	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F048.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 6:08 am
Operator : GH
Sample : K4068/72/83/4156 DLCS
Misc :
ALS Vial : 44 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:34:41 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Date: 4/26/16

By: KH

ALS Environmental
Injection Log
GC39 Agilent 7890B

LIMS ID 493499

IS/SS Std. ID: HCV 7.52 G 5/26/16

CCV Std ID: HCV 7.52I 4/27/16

ICAL Date: 8/8/15 Col 14201

MS/DMS/LCS/ICV Std ID: See prep sheets

Second RV: KA 6/3/16

Marker Std. ID: HCV 7.52H 4/27/16

Stealth ID: KW0160335B(A)/3361(4069)

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	Marker	0426F006	B015C.M	10µl→50ml		3411 (4292)
2	CCV	6		50/20µl→50ml		3412 (H2O)
3	IB	7				3414 (4135/9200)
4	4069-8ML	8		50x 1ml→50ml		NR overrange
5	IB	9				
6	4069-11ML	10		50x 1ml→50ml		NR overrange
7	IB	11				
8	IB	12				
9	IB	13				
10	IB	14				
11	4069-4ML	15		50x 1ml→50ml		
12	2 3ML	16		〃		
13	IB	17				
14	4069-2ML	18		50x 1ml→50ml		
15	IB	19				
16	4069-7ML	20		50x 1ml→50ml		NR c/o
17	IB	21				
18	4069-9ML	22		50x 1ml→50ml		
19	IB	23				
20	4069-1ML	24		50x 1ml→50ml		NR c/o
21	4MS	25				
22	40MS	26				
23	LCS	27				
24	MB	28				
25	CCV	29		50/20µl→50ml		
26	IB	30				
27	4069-6ML	31		50x 1ml→50ml		

Date: 4/26/16

By: [illegible]

IS/SS Std. ID:

CCV Std ID:

MS/DMS/LCS/ICV Std ID:

Marker Std. ID:

ALS Environmental
Injection Log
GC39 Agilent 7890B

LIMS ID

See pg. 1

ICAL Date:

Second RV:

Stealth ID:

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	4069-8ML	0426F032	8015C.M	500x 100µl→50ml		
2	1B	33				
3	1B	34				
4	4069-11ML	35		500x 100µl→50ml		
5	1B	36				
6	1B	37				
7	4069-5ML	38		500x 100µl→50ml		
8	1B	39				
9	1B	40				
10	4068-1	41			/	
11	2	42			/	
12	2MS	43		40µl→40ml ~~50µl→50ml~~ see 4/26/16	/	
13	2DMS	44 ~~43~~ 4/26/16		↓	/	
14	3	45			/	
15	4	46			/	
16	4068/72/83/4156 LCS	47		50µl→50ml		
17	DLCS	48		↓		
18	MB	49				
19	CCV	50		50/20µl→50ml		
20	1B	51				
21	4068-5	52			/	
22	6	53			/	
23	7	54 ~~54~~ 4/26/16			/	
24	8	55			/	
25	4072-1	56			6	
26	2	57			6	
27	4156-1	58			/	

R:\VOA\Injection Logs\INJLOG_GC39_Rev1.XLS

Date: 4/26/16

By: MM

ALS Environmental
Injection Log
GC39 Agilent 7890B

IS/SS Std. ID:

LIMS ID

CCV Std ID:

See pg. 1

ICAL Date:

MS/DMS/LCS/ICV Std ID:

Second RV:

Marker Std. ID:

Stealth ID:

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	4156-2	0426F059	8015C_M		—	
2	4069-12TB	60			—	040616
3	4072-3TB	61			—	031516
4	CCV	62		50/20 µl → 5 mL		
5	LB	63				
6	4083-2	64			—	Lot # 17424-002
7	LB	65				
8	4156-3	66			—	
9	4	67			—	
10	5	68			—	
11	LB	69				
12	4156-6	70			—	
13	CCV	71		50/20 µl → 5 mL		
14	Marker	72		10 µl → 5 mL		HCV7-52J 4/28/16
15	LB	73				
16	4135-1	74			—	
17	2	75			—	
18	3	76			—	
19	3DUP	77			—	
20	3MS	78			—	
21	3DMS	79			—	
22	4	80			—	
23	5	81			—	
24	6	82			—	
25	7TB	83			—	040616
26	4135/4260 LCS	84				
27	MB	85				

Date: 4/26/10

By: AM

IS/SS Std. ID:

CCV Std ID:

MS/DMS/LCS/ICV Std ID:

Marker Std. ID:

ALS Environmental
Injection Log
GC39 Agilent 7890B

LIMS ID

See pg 1 ICAL Date:

Second RV:

Stealth ID:

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	St. Blk 4/26/10 104-R-07 4/28/10	0426F086	8015C.M			
2	CCV	87		50/2ml→5ml		HCN7.5.2L 4/28/10
3	LB	88				
4	4260-1	89				
5	4292-1ML	90		5ml→5ml		
6	LB's	91-92				
7	4292-2ML	93		5ml→5ml		(NE) c/o
8	LB's	94-95				
9	4292-3ML	96		5ml→5ml		(NR) c/o
10	LB's	97-98				
11	4292-3DUP	99		5ml→5ml		(NR) c/o
12	LB's	100-102				
13	4069-7ML	103		5ml→5ml		
14	LB's	104-105				
15	4069-1ML	106		5ml→5ml		
16	4292 LCS	107				
17	2 MB	108				
18	CCV	109		5ml→5ml		HCN7.5.2L 4/28/10
19	LB	110				
20						
21						
22						
23			AM 5/2/10			
24						
25						
26						
27						

Preparation Information

Group ID:	KWG1603412	**Prep Method:**	EPA 5030B	**Prep Date:**	04/27/16 00:00
Department:	VOA GCMS				

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.
K1604068-001	ERH029	8015C VOC GRO	WATER	10ml	10ml
K1604068-002	ERH030	8015C VOC GRO	WATER	10ml	10ml
K1604068-003	ERH031	8015C VOC GRO	WATER	10ml	10ml
K1604068-004	ERH032	8015C VOC GRO	WATER	10ml	10ml
K1604068-005	ERH033	8015C VOC GRO	WATER	10ml	10ml
K1604068-006	ERH034	8015C VOC GRO	WATER	10ml	10ml
K1604068-007	ERH035	8015C VOC GRO	WATER	10ml	10ml
K1604068-008	ERH036	8015C VOC GRO	WATER	10ml	10ml
K1604069-012	Trip Blank	8015C VOC GRO	WATER	10ml	10ml
K1604072-001	GW-A8	8015C VOC GRO	WATER	10ml	10ml
K1604072-002	GW-A4	8015C VOC GRO	WATER	10ml	10ml
K1604072-003	TB05	8015C VOC GRO	WATER	10ml	10ml
K1604083-002	2016_LaMP_GRO	8015C VOC GRO	WATER	10ml	10ml
K1604156-001	ERH037	8015C VOC GRO	WATER	10ml	10ml
K1604156-002	ERH038	8015C VOC GRO	WATER	10ml	10ml
K1604156-003	ERH039	8015C VOC GRO	WATER	10ml	10ml
K1604156-004	ERH040	8015C VOC GRO	WATER	10ml	10ml
K1604156-005	ERH041	8015C VOC GRO	WATER	10ml	10ml
K1604156-006	ERH042	8015C VOC GRO	WATER	10ml	10ml
KWG1603412-1	Matrix Spike	8015C VOC GRO	WATER	10ml	10ml
KWG1603412-2	Duplicate Matrix Spike	8015C VOC GRO	WATER	10ml	10ml
KWG1603412-3	Lab Control Sample	8015C VOC GRO	WATER	10ml	10ml
KWG1603412-4	Duplicate Lab Control Sampl	8015C VOC GRO	WATER	10ml	10ml
KWG1603412-5	Method Blank	8015C VOC GRO	WATER	10ml	10ml

Lab Code	Parent Lab Code	Comments
KWG1603412-1	K1604068-002	
KWG1603412-2	K1604068-002	

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1604068-001	1514253	HCV7-52G 5/26/1				
K1604068-002	1514254	HCV7-52G 5/26/1				
K1604068-003	1514255	HCV7-52G 5/26/1				
K1604068-004	1514256	HCV7-52G 5/26/1				
K1604068-005	1514257	HCV7-52G 5/26/1				

Comments:

Started By: GRoettge Assisted By: Training Yes No

Completed By: GRoettge Assisted By: Yes No

Reviewed By: Date: Storage:

Chain of Custody

Relinquished By: Date: Extracts Examined

Received By: Date: Yes No

Group ID:	KWG1603412	**Prep Method:**	EPA 5030B	**Prep Date:**	04/27/16 00:00
Department:	VOA GCMS				

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1604068-006	1514258	HCV7-52G 5/26/1				
K1604068-007	1514259	HCV7-52G 5/26/1				
K1604068-008	1514260	HCV7-52G 5/26/1				
K1604069-012	1514261	HCV7-52G 5/26/1				
K1604072-001	1514262	HCV7-52G 5/26/1				
K1604072-002	1514263	HCV7-52G 5/26/1				
K1604072-003	1514264	HCV7-52G 5/26/1				
K1604083-002	1514265	HCV7-52G 5/26/1				
K1604156-001	1514266	HCV7-52G 5/26/1				
K1604156-002	1514267	HCV7-52G 5/26/1				
K1604156-003	1514268	HCV7-52G 5/26/1				
K1604156-004	1514269	HCV7-52G 5/26/1				
K1604156-005	1514270	HCV7-52G 5/26/1				
K1604156-006	1514252	HCV7-52G 5/26/1				
KWG1603412-1	1514271	HCV7-52G 5/26/1		HCV7-51O 4/27/1	40uL	
KWG1603412-2	1514272	HCV7-52G 5/26/1		HCV7-51O 4/27/1	40uL	
KWG1603412-3	1514273	HCV7-52G 5/26/1		HCV7-51O 4/27/1	50uL	
KWG1603412-4	1514274	HCV7-52G 5/26/1		HCV7-51O 4/27/1	50uL	
KWG1603412-5	1514275	HCV7-52G 5/26/1				

Comments:

Started By: GRoettge Assisted By: Training Yes No

Completed By: GRoettge Assisted By: Yes No

Reviewed By: Date: Storage:

Chain of Custody

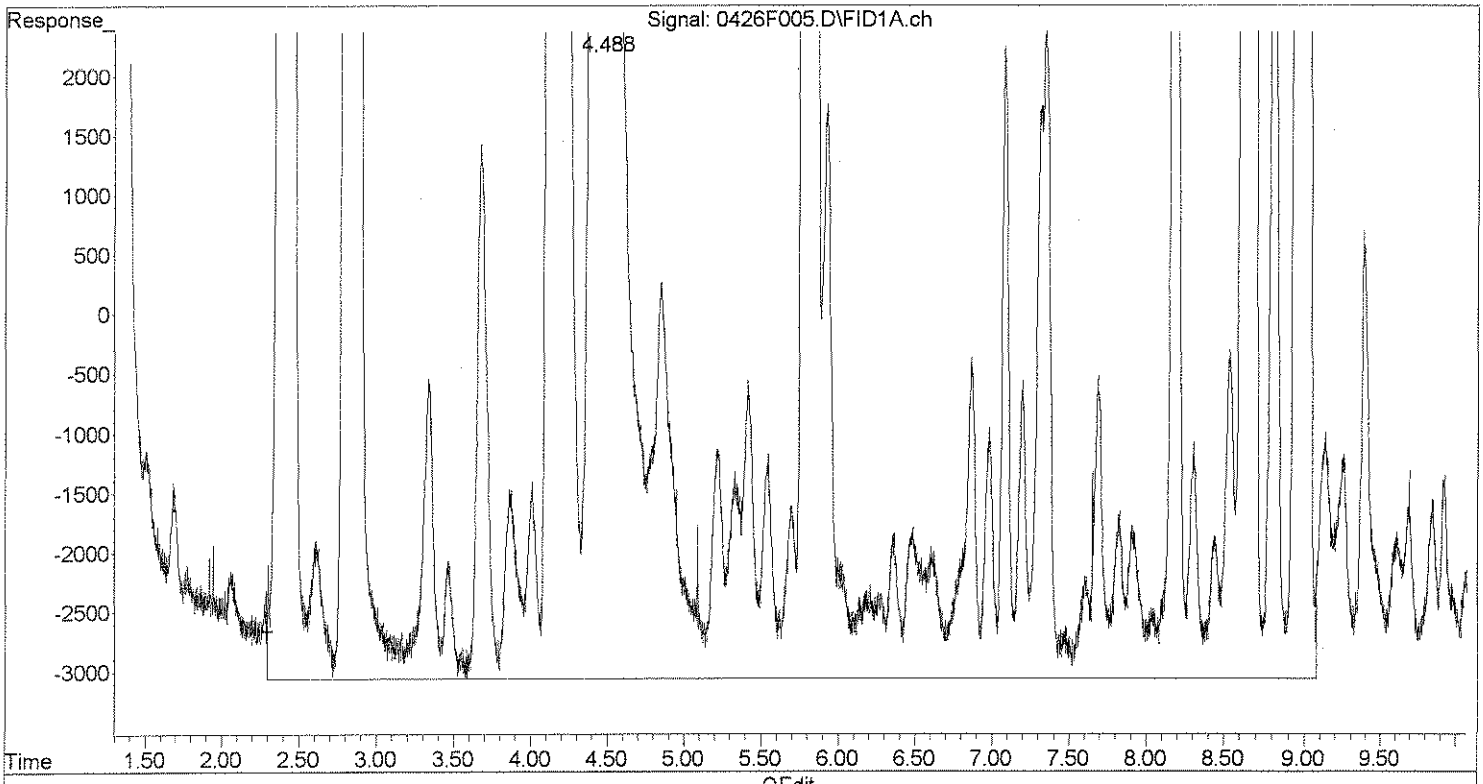
Relinquished By: Date: Extracts Examined

Received By: Date: Yes No

Data Path : J:\GC39\Data\042616\
Data File : 0426F005.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 11:32 am
Operator : GH
Sample : MARKER HCV7-52H 4/27/16
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 26 12:22:51 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



(4) 8015B GRO (2mp-1,2,4tmb) (H)
2.295min 89.511 ug/L m
response 10083419

4/28/16

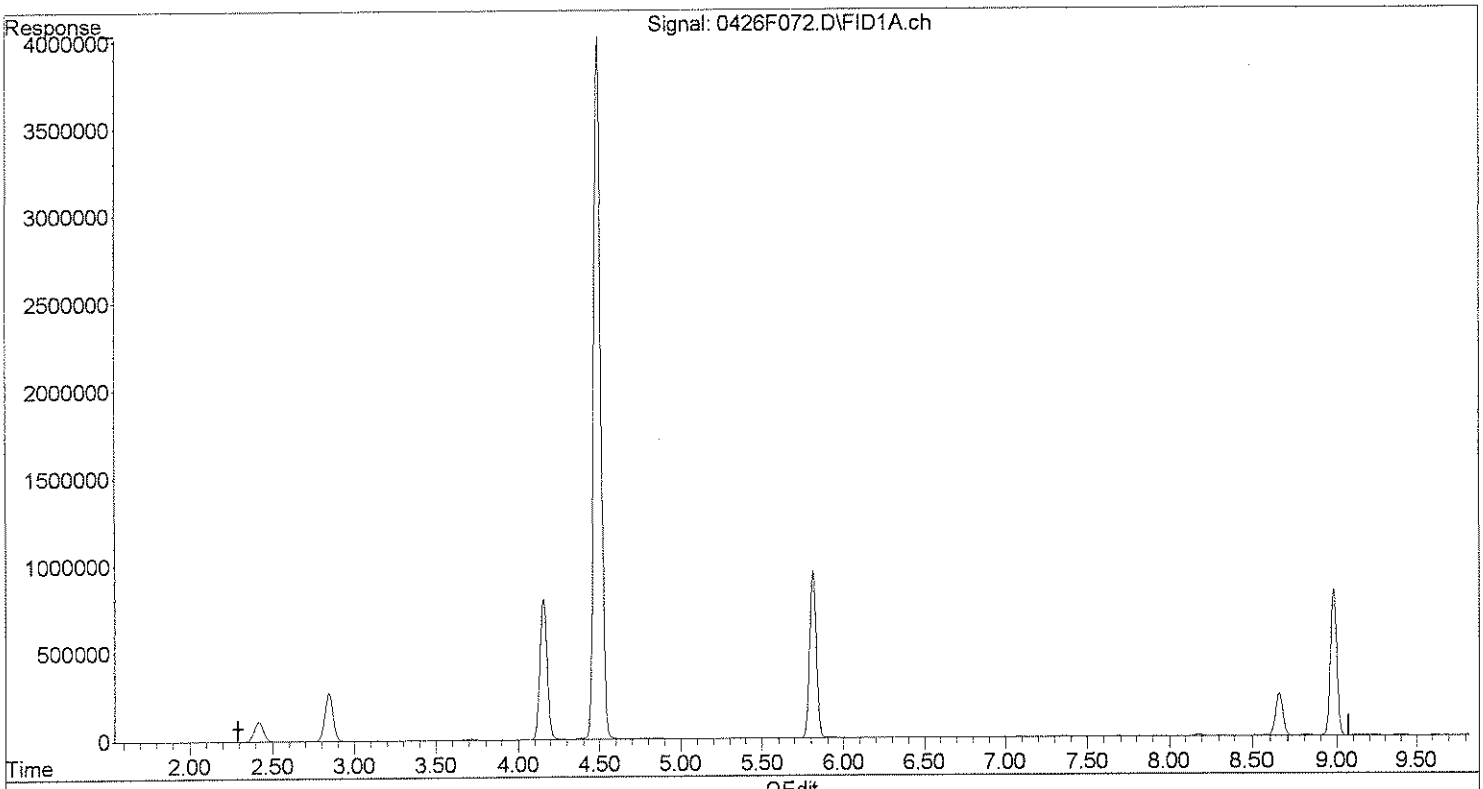
4/28/16

(+) = Expected Retention Time
080615GAS_GC39.M Thu Apr 28 17:27:32 2016 Page: 1

Data Path : J:\GC39\Data\042616\
Data File : 0426F072.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 3:49 pm
Operator : GH
Sample : MARKER HCV7-52J 4/28/16
Misc :
ALS Vial : 68 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 16:07:46 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



(4) 8015B GRO (2mp-1,2,4tmb) (H)
2.295min 90.037 ug/L m
response 10142635

(+) = Expected Retention Time
080615GAS_GC39.M Fri Apr 29 10:06:09 2016 Page: 1

Exception Report

Data File: J:\GC39\DATA\042616\0426F006.D
Lab ID: KWG1603358-1
RunType: CCV
Matrix: SOIL

Date Acquired: 04/26/2016 11:56
Date Quantitated: 04/26/2016 12:22
Batch ID: KWG1603358
Analysis Method: 8015C
MethodJoinID: MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	1,4-Difluorobenzene	Calc	S-0.000	I-104.515	okay
	Gasoline Range Organics-NWTPH	Calc	S-0.000	I-508.244	ok

Primary Review: 5/2/16

Secondary Review:

Printed: 05/02/2016 15:41:23
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F006.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 11:56	**Quant Date:**	04/26/2016 12:22	**Vial:**	6
Run Type:	CCV	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603358-1			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ183
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12583051	104.52		80-107	NA	
4-Bromofluorobenzene	8.18		6822790	104.77		70-130	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		50117407	506.40			
Gasoline Range Organics (GRO)	2.29		56975624	505.78			
Gasoline Range Organics-NWTF	5.71		35209989	508.24			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ183
DataFile: J:\GC39\DATA\042616\0426F006.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff		Sol'n Conc.	True Value	% Drift
Gasoline Range Organics (GRO)		MS	AverageRF	20		1.1E+5	1.1E+5	1				
C6 - C10 GRO		MS	AverageRF	25		9.9E+4	1.0E+5	1				
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.3E+5	5				
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	7.0E+4	2				
4-Bromofluorobenzene		SURR	AverageRF			6.5E+4	6.8E+4	5	*			

1 Compounds Failed CCV Criteria (20.00 Percent)

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F006.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 11:56	**Quant Date:**	04/26/2016 12:22	**Vial:**	6
Run Type:	CCV	**MethodJoinID:**	MJ184	**Dilution:**	1.0
Lab ID:	KWG1603358-1			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ184
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	8.18		6822790	104.77		83-119	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		50117407	506.40			
Gasoline Range Organics (GRO)	2.29		56975624	505.78			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ184
DataFile: J:\GC39\DATA\042616\0426F006.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
Gasoline Range Organics (GRO)		MS	AverageRF	20		1.1E+5	1.1E+5	1			
C6 - C10 GRO		MS	AverageRF	20		9.9E+4	1.0E+5	1			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.8E+4	5			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F006.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 11:56	**Quant Date:**	04/26/2016 12:22	**Vial:**	6
Run Type:	CCV	**MethodJoinID:**	MJ186	**Dilution:**	1.0
Lab ID:	KWG1603358-1			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK101	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ186
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12583051	104.52		50-150	NA	
4-Bromofluorobenzene	8.18		6822790	104.77		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		50117407	506.40			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ186
DataFile: J:\GC39\DATA\042616\0426F006.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
C6 - C10 GRO		MS	AverageRF	25		9.9E+4	1.0E+5	1			
1,4-Difluorobenzene		SURR	AverageRF	25		1.2E+5	1.3E+5	5			
4-Bromofluorobenzene		SURR	AverageRF	25		6.5E+4	6.8E+4	5			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F006.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 11:56	**Quant Date:**	04/26/2016 12:22	**Vial:**	6
Run Type:	CCV	**MethodJoinID:**	MJ202	**Dilution:**	1.0
Lab ID:	KWG1603358-1			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ202
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12583051	104.52		50-150	NA	
4-Bromofluorobenzene	8.18		6822790	104.77		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		35209989	508.24			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ202
DataFile: J:\GC39\DATA\042616\0426F006.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.3E+5	5			
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	7.0E+4	2			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.8E+4	5			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F006.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 11:56	**Quant Date:**	04/26/2016 12:22	**Vial:**	6
Run Type:	CCV	**MethodJoinID:**	MJ203	**Dilution:**	1.0
Lab ID:	KWG1603358-1			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ203
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	8.18		6822790	104.77		50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		35209989	508.24			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ203
DataFile: J:\GC39\DATA\042616\0426F006.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	7.0E+4	2			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.8E+4	5			

Data Path : J:\GC39\Data\042616\
Data File : 0426F006.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 11:56 am
Operator : GH
Sample : CCV HCV7-52I 4/27/16
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 26 12:22:59 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

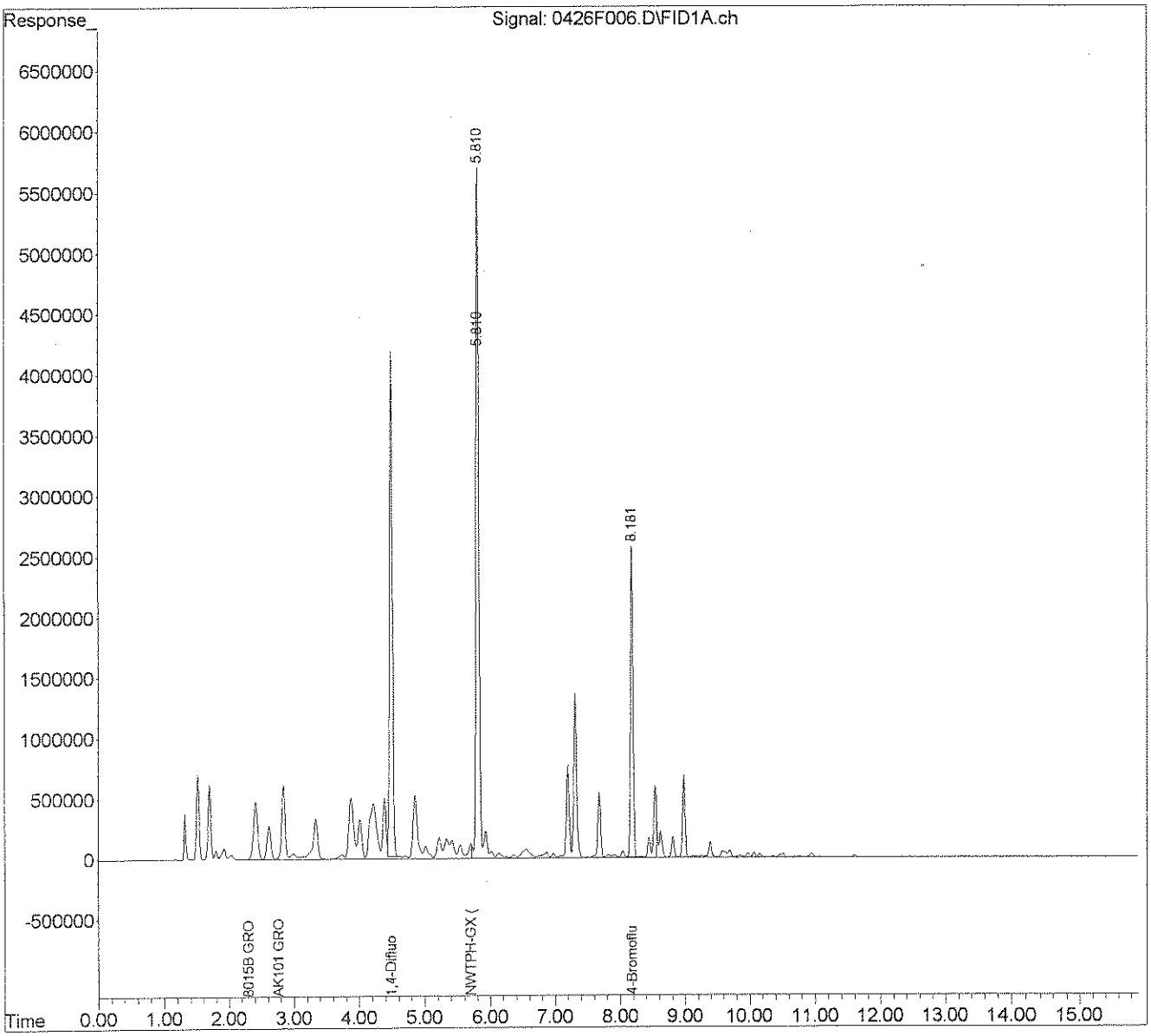
	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) S	1,4-Difluorobenzene	4.488	12583051	104.515	ug/L
2) S	4-Bromofluorobenzene	8.181	6822790	104.768	ug/L
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.755	50117407	506.395	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	56975624	505.775	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	35209989	508.244	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F006.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 11:56 am
Operator : GH
Sample : CCV HCV7-52I 4/27/16
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 26 12:22:59 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F007.D
Lab ID: KWG1603358-8
RunType: IB
Matrix: SOIL

Date Acquired: 04/26/2016 12:38
Date Quantitated: 04/28/2016 17:27
Batch ID: KWG1603358
Analysis Method: 8015C
MethodJoinID: MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	1,4-Difluorobenzene	Calc	S-0.000	I-108.774	okay
	Gasoline Range Organics-NWTPH	Calc	S-0.000	I-8.115	JD

Primary Review: 5/2/16

Secondary Review:

Printed: 05/02/2016 15:41:26
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F007.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 12:38	**Quant Date:**	04/28/2016 17:27	**Vial:**	7
Run Type:	IB	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603358-8			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**	**Report Group:**
Analysis Method:	8015C	**Prep Method:**	
Prep Ref:		**Prep Date:**	

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ183
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		13095801	108.77		80-107	NA	
4-Bromofluorobenzene			0d			70-130	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		590980	5.97			
Gasoline Range Organics (GRO)	2.29		685514	6.09			
Gasoline Range Organics-NWTF	5.71		562169	8.12			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F007.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 12:38	**Quant Date:**	04/28/2016 17:27	**Vial:**	7
Run Type:	IB	**MethodJoinID:**	MJ184	**Dilution:**	1.0
Lah ID:	KWG1603358-8			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ184
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0d			83-119	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		590980	5.97			
Gasoline Range Organics (GRO)	2.29		685514	6.09			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F007.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 12:38	**Quant Date:**	04/28/2016 17:27	**Vial:**	7
Run Type:	IB	**MethodJoinID:**	MJ186	**Dilution:**	1.0
Lab ID:	KWG1603358-8			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK101	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ186
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		13095801	108.77		50-150	NA	
4-Bromofluorobenzene			0d			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		590980	5.97			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F007.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 12:38	**Quant Date:**	04/28/2016 17:27	**Vial:**	7
Run Type:	IB	**MethodJoinID:**	MJ202	**Dilution:**	1.0
Lab ID:	KWG1603358-8			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ202
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		13095801	108.77		50-150	NA	
4-Bromofluorobenzene			0d			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		562169	8.12			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F007.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 12:38	**Quant Date:**	04/28/2016 17:27	**Vial:**	7
Run Type:	IB	**MethodJoinID:**	MJ203	**Dilution:**	1.0
Lab ID:	KWG1603358-8			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ203
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0d			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		562169	8.12			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F007.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 12:38 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:27:50 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

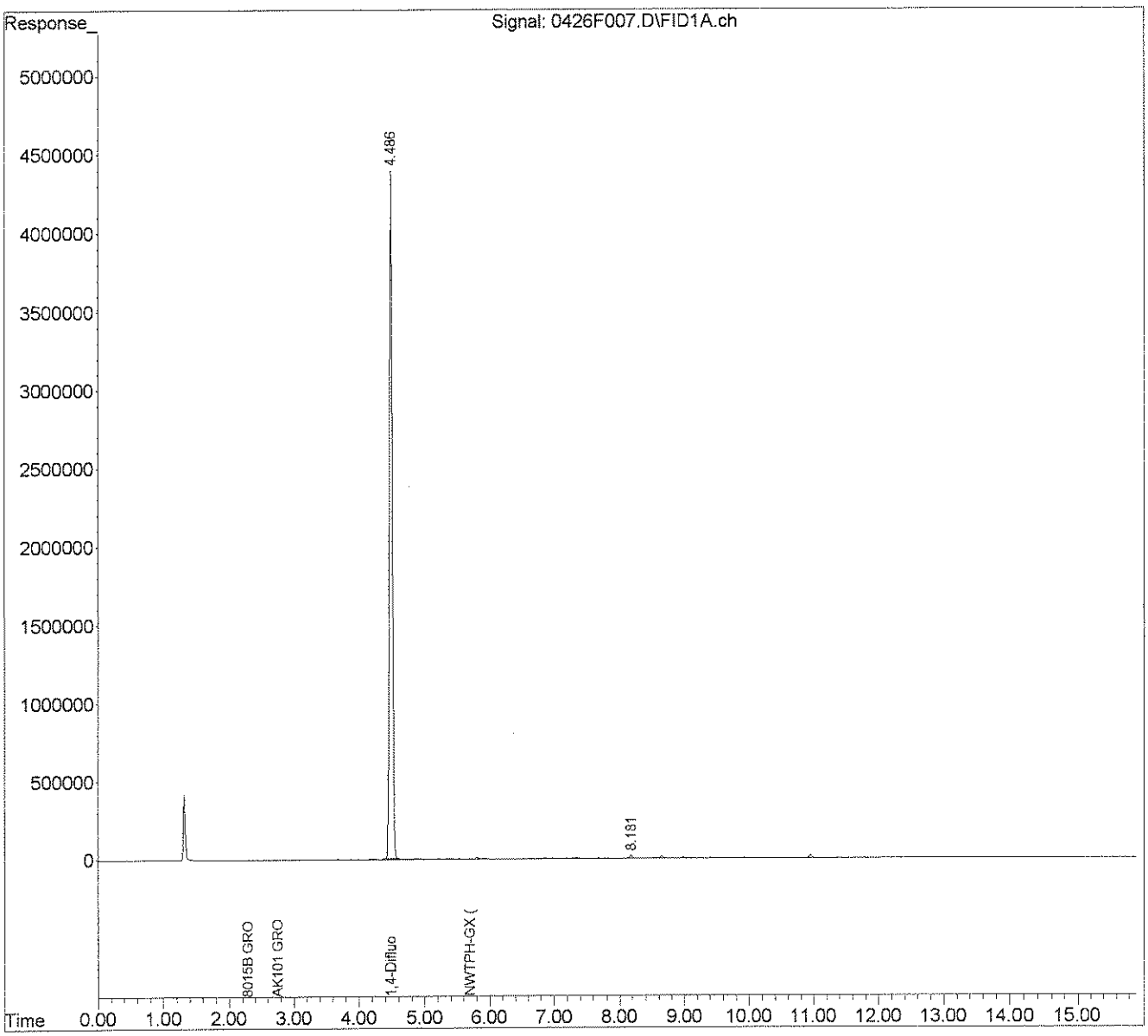
	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) S	1,4-Difluorobenzene	4.486	13095801	108.774	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L d
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.755	590980	5.971	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	685514	6.085	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	562169	8.115	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F007.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 12:38 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:27:50 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Data Path : J:\GC39\Data\042616\
Data File : 0426F014.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 3:43 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 26 16:01:35 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S 1,4-Difluorobenzene	4.488	12293456	102.110	ug/L
2)	S 4-Bromofluorobenzene	8.182	19151	0.294	ug/L
	Target Compounds				
3)	H AK101 GRO (C6-C10)	2.755	1805281	18.241	ug/L
4)	H 8015B GRO (2mp-1,2,4tmb)	2.295	3319790	29.470	ug/L
5)	H NWTPH-GX (Tol.-Naph.)	5.713	7424869	107.175	ug/L

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

5/2/16

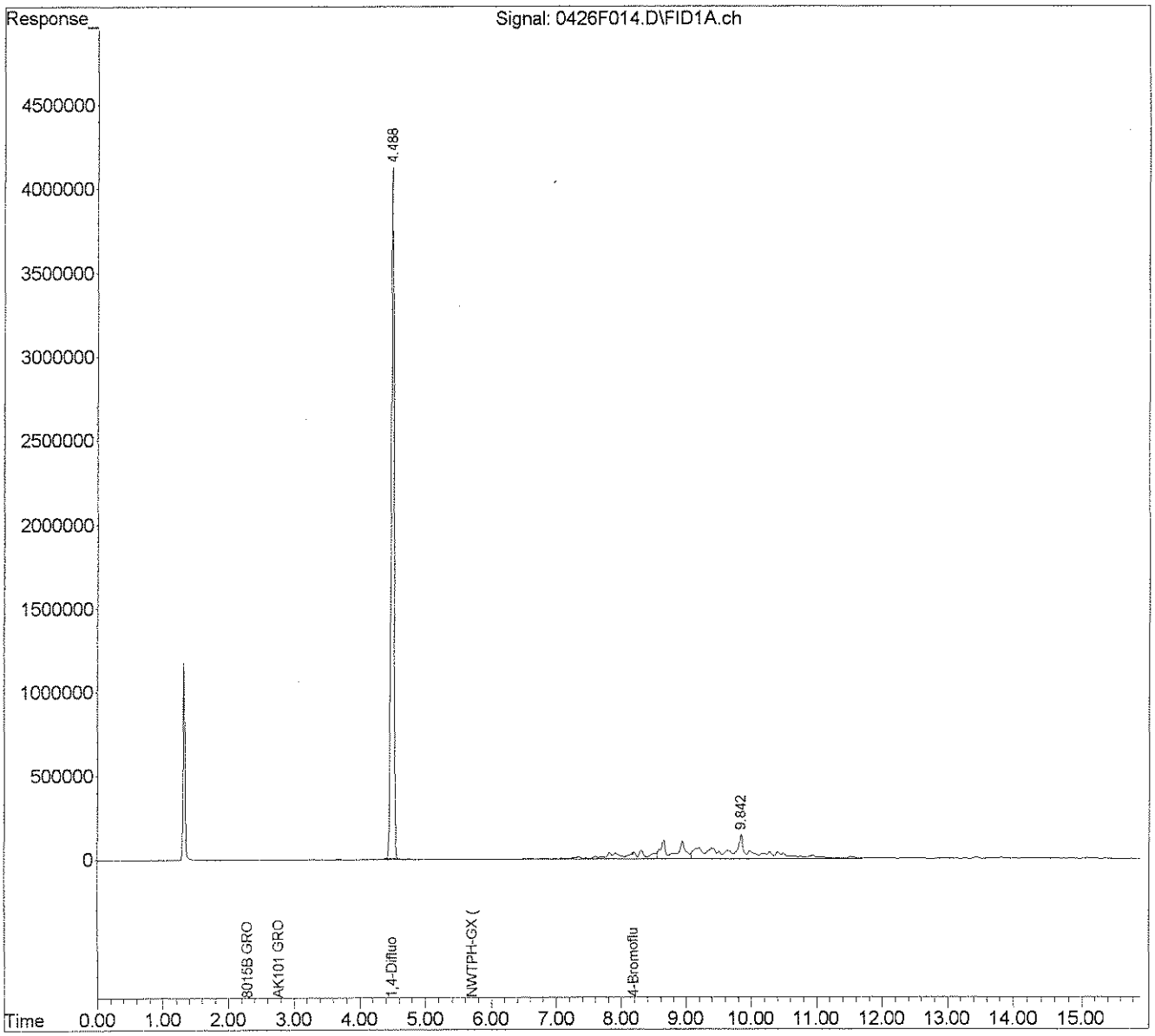
5/3/16

Quantitation Report (Not Reviewed)

Data Path : J:\GC39\Data\042616\
Data File : 0426F014.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 3:43 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 26 16:01:35 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Quantitation Report (Not Reviewed)

Data Path : J:\GC39\Data\042616\
Data File : 0426F017.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 5:39 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 08:48:02 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

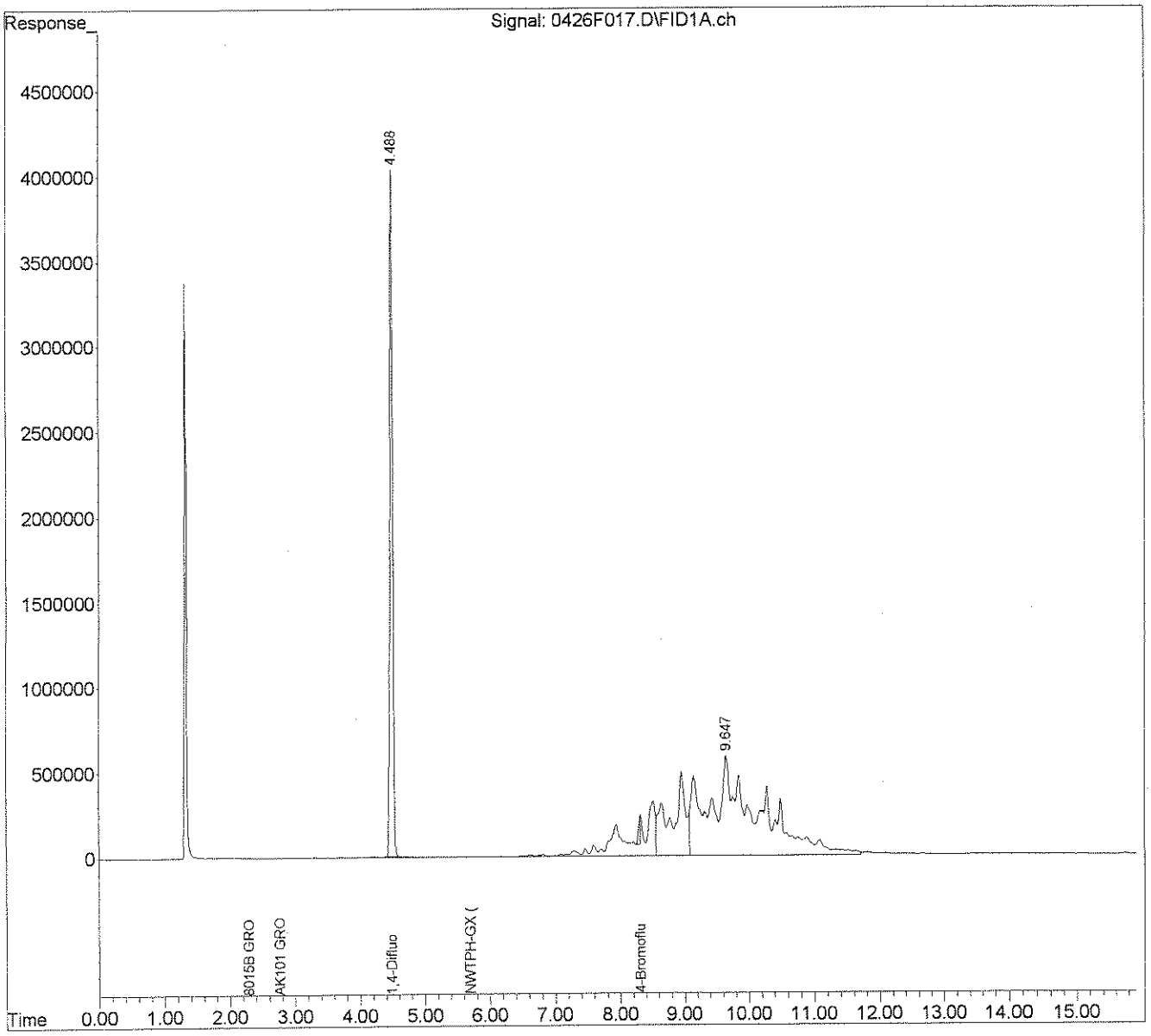
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.488	12088034	100.404	ug/L
2) S	4-Bromofluorobenzene	8.311f	304499	4.676	ug/L
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.755	7494028	75.721	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	15414157	136.832	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	45032751	650.032	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F017.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 5:39 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 08:48:02 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Quantitation Report (Not Reviewed)

Data Path : J:\GC39\Data\042616\
Data File : 0426F021.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 7:16 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 08:50:07 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.488	12502328	103.845	ug/L
2) S	4-Bromofluorobenzene	8.313f	1116128	17.139	ug/L
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.755	8594276	86.838	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	16951763	150.482	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	38031043	548.965	ug/L

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

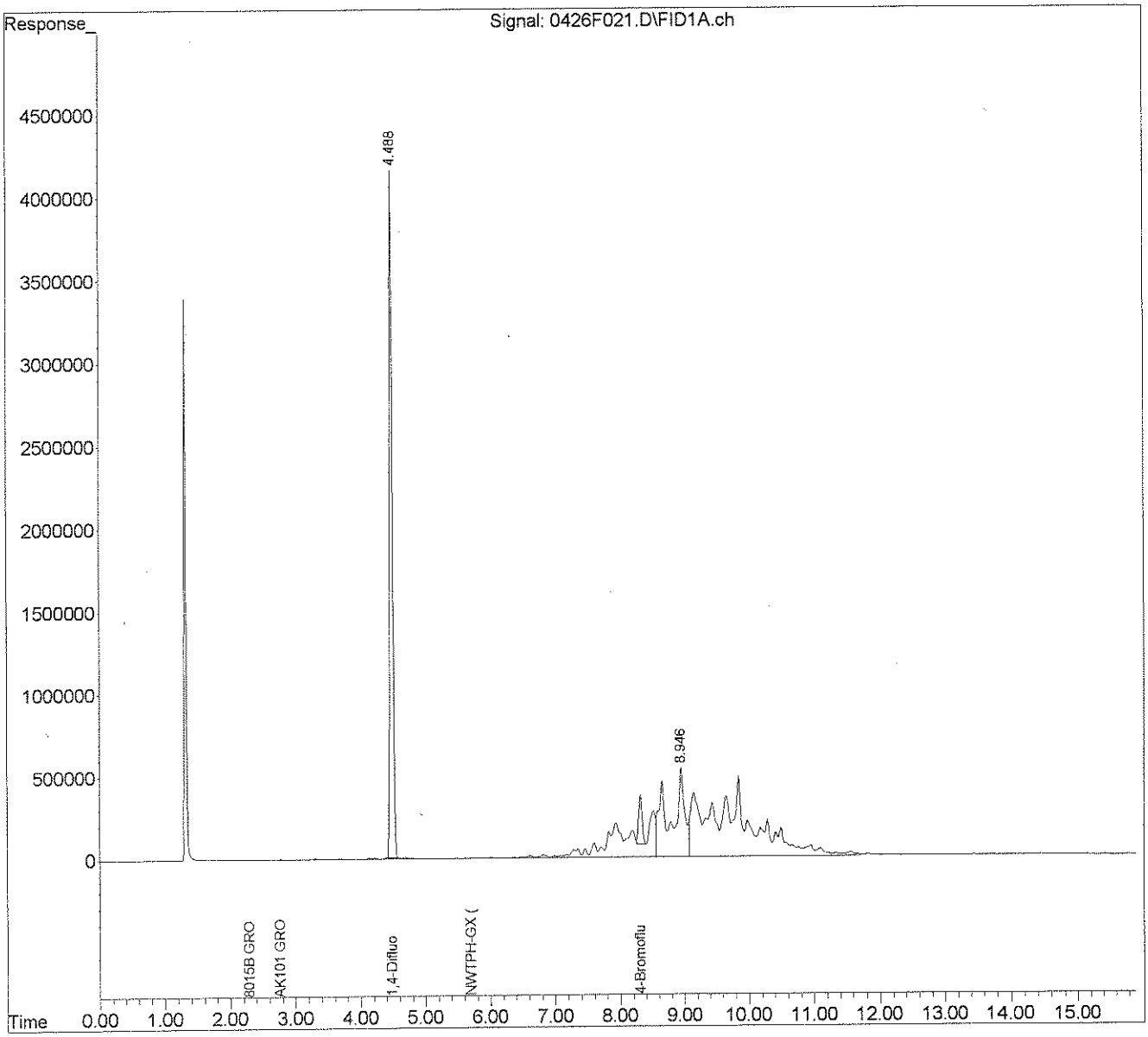
5/2/16

5/3/16

Data Path : J:\GC39\Data\042616\
Data File : 0426F021.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 7:16 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 08:50:07 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Quantitation Report (Not Reviewed)

Data Path : J:\GC39\Data\042616\
Data File : 0426F023.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 8:04 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 08:50:46 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) S	1,4-Difluorobenzene	4.489	12369421	102.741	ug/L
2) S	4-Bromofluorobenzene	8.187	1880234	28.872	ug/L
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.755	38730818	391.343	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	63047685	559.677	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	101479764	1464.825	ug/L

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

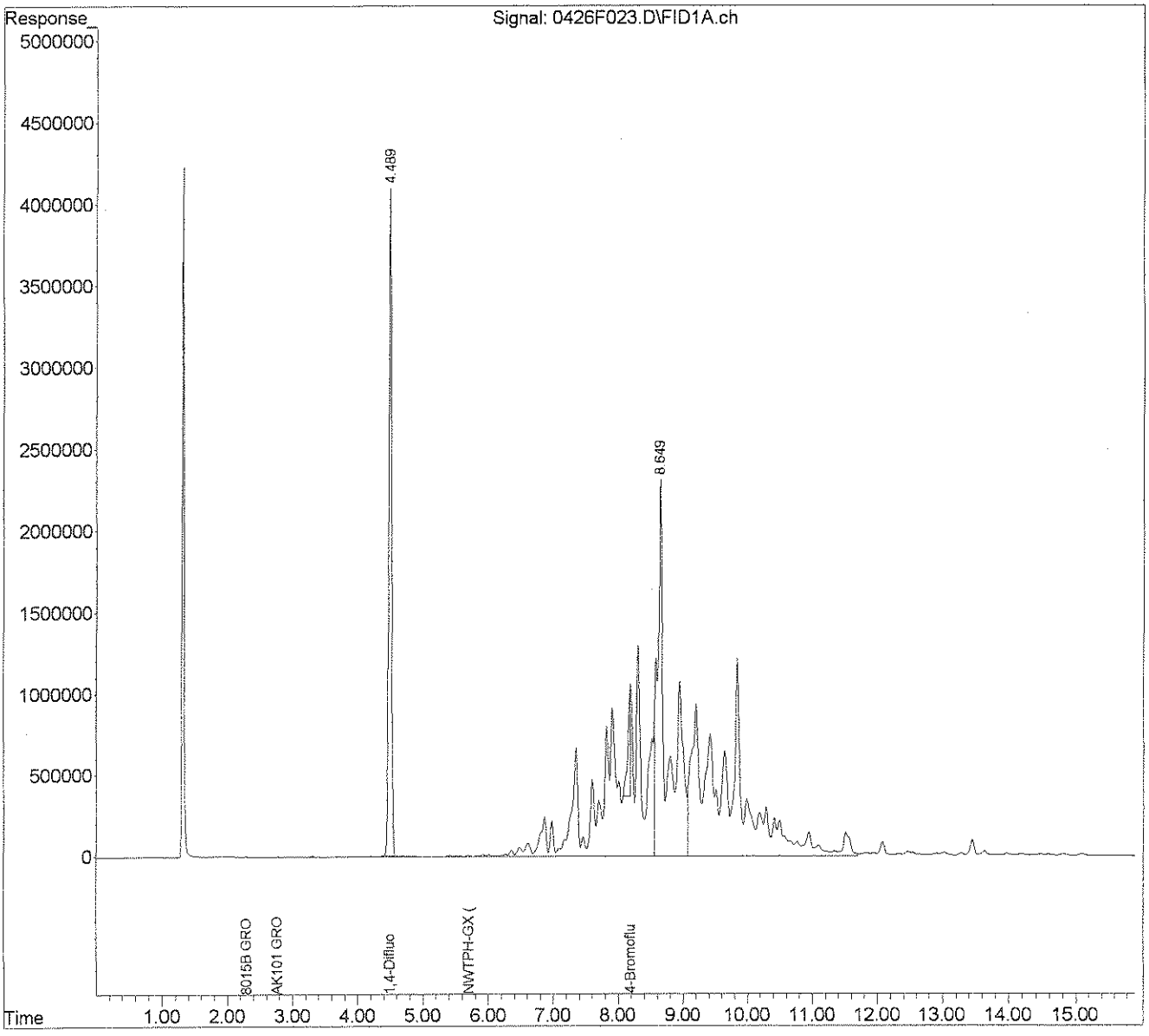
5/2/16

5-3-16

Data Path : J:\GC39\Data\042616\
Data File : 0426F023.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 8:04 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 08:50:46 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F029.D
Lab ID: KWG1603358-2
RunType: CCV
Matrix: SOIL

Date Acquired: 04/26/2016 22:29
Date Quantitated: 04/27/2016 08:52
Batch ID: KWG1603358
Analysis Method: 8015C
MethodJoinID: MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	1,4-Difluorobenzene	Calc	S-0.000	I-103.799	ok
	Gasoline Range Organics-NWTPH	Calc	S-0.000	I-528.139	2

Primary Review: 5/2/16

Secondary Review: 5/2/16

Printed: 05/02/2016 15:41:53
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F029.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 22:29	**Quant Date:**	04/27/2016 08:52	**Vial:**	26
Run Type:	CCV	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603358-2			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ183
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12496882	103.80		80-107	NA	
4-Bromofluorobenzene	8.18		6613511	101.55		70-130	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		48844038	493.53			
Gasoline Range Organics (GRO)	2.29		55922529	496.43			
Gasoline Range Organics-NWTF	5.71		36588281	528.14			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F029.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 22:29	**Quant Date:**	04/27/2016 08:52	**Vial:**	26
Run Type:	CCV	**MethodJoinID:**	MJ184	**Dilution:**	1.0
Lab ID:	KWG1603358-2			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ184
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	8.18		6613511	101.55		83-119	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		48844038	493.53			
Gasoline Range Organics (GRO)	2.29		55922529	496.43			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ183

DataFile: J:\GC39\DATA\042616\0426F029.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff		Sol'n Conc.	True Value	% Drift
Gasoline Range Organics (GRO)		MS	AverageRF	20		1.1E+5	1.1E+5	-1				
C6 - C10 GRO		MS	AverageRF	25		9.9E+4	9.8E+4	-1				
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.2E+5	4				
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	7.3E+4	6				
4-Bromofluorobenzene		SURR	AverageRF			6.5E+4	6.6E+4	2	*			

1 Compounds Failed CCV Criteria (20.00 Percent)

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ184
DataFile: J:\GC39\DATA\042616\0426F029.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
Gasoline Range Organics (GRO)		MS	AverageRF	20		1.1E+5	1.1E+5	-1			
C6 - C10 GRO		MS	AverageRF	20		9.9E+4	9.8E+4	-1			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.6E+4	2			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F029.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 22:29	**Quant Date:**	04/27/2016 08:52	**Vial:**	26
Run Type:	CCV	**MethodJoinID:**	MJ186	**Dilution:**	1.0
Lab ID:	KWG1603358-2			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK101	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ186
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12496882	103.80		50-150	NA	
4-Bromofluorobenzene	8.18		6613511	101.55		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		48844038	493.53			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ186
DataFile: J:\GC39\DATA\042616\0426F029.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
C6 - C10 GRO		MS	AverageRF	25		9.9E+4	9.8E+4	-1			
1,4-Difluorobenzene		SURR	AverageRF	25		1.2E+5	1.2E+5	4			
4-Bromofluorobenzene		SURR	AverageRF	25		6.5E+4	6.6E+4	2			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F029.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 22:29	**Quant Date:**	04/27/2016 08:52	**Vial:**	26
Run Type:	CCV	**MethodJoinID:**	MJ202	**Dilution:**	1.0
Lab ID:	KWG1603358-2			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ202
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12496882	103.80		50-150	NA	
4-Bromofluorobenzene	8.18		6613511	101.55		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTP	5.71		36588281	528.14			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ202
DataFile: J:\GC39\DATA\042616\0426F029.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.2E+5	4			
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	7.3E+4	6			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.6E+4	2			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F029.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 22:29	**Quant Date:**	04/27/2016 08:52	**Vial:**	26
Run Type:	CCV	**MethodJoinID:**	MJ203	**Dilution:**	1.0
Lab ID:	KWG1603358-2			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ203
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	8.18		6613511	101.55		50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		36588281	528.14			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ203
DataFile: J:\GC39\DATA\042616\0426F029.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	7.3E+4	6			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.6E+4	2			

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\042616\
Data File : 0426F029.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 10:29 pm
Operator : GH
Sample : CCV HCV7-52I 4/27/16
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 08:52:09 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

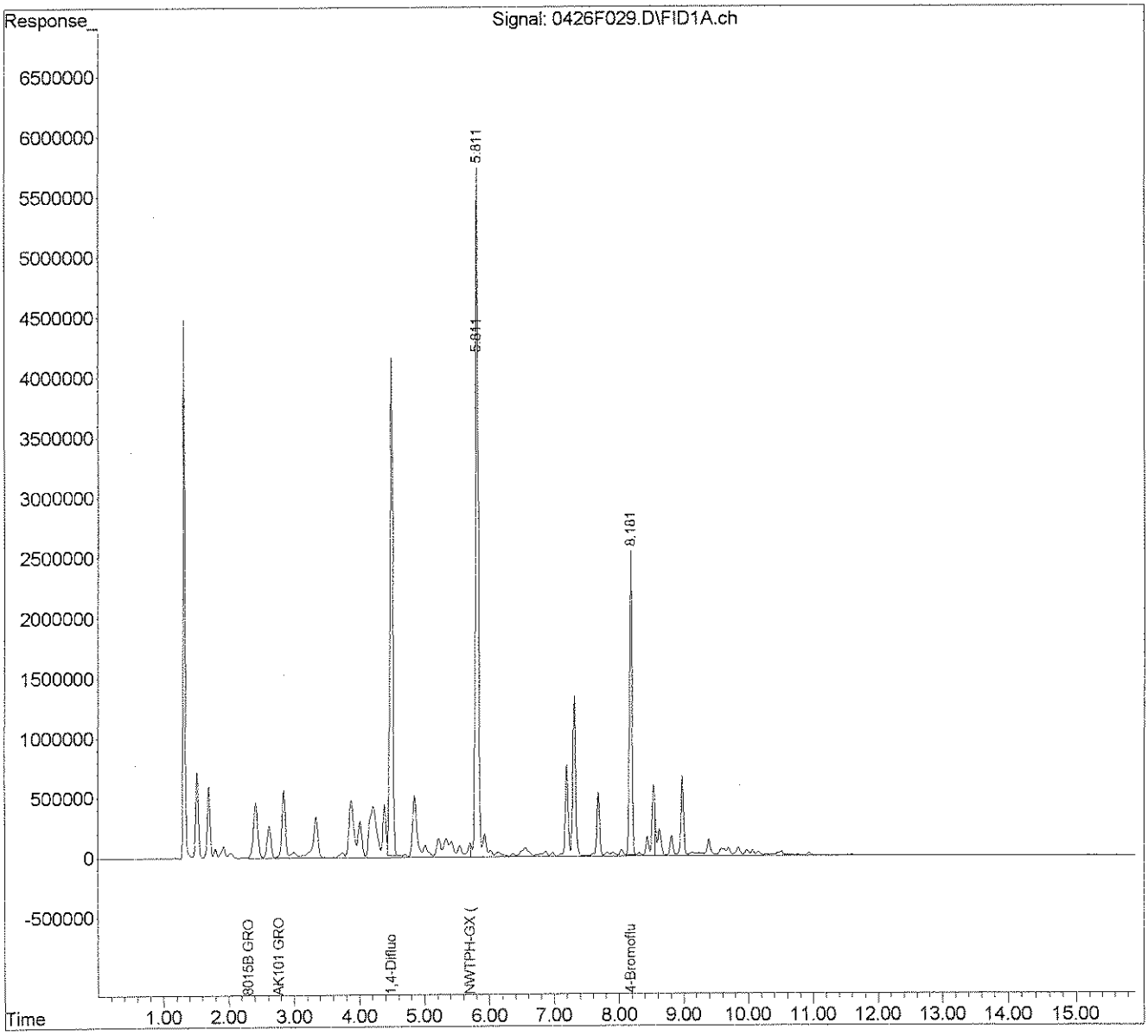
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1,4-Difluorobenzene	4.489	12496882	103.799 ug/L
2) S 4-Bromofluorobenzene	8.181	6613511	101.554 ug/L
Target Compounds			
3) H AK101 GRO (C6-C10)	2.755	48844038	493.529 ug/L
4) H 8015B GRO (2mp-1,2,4tmb)	2.295	55922529	496.427 ug/L
5) H NWTPH-GX (Tol.-Naph.)	5.713	36588281	528.139 ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F029.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 10:29 pm
Operator : GH
Sample : CCV HCV7-52I 4/27/16
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 08:52:09 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F030.D
Lab ID: KWG1603358-9
RunType: IB
Matrix: SOIL

Date Acquired: 04/26/2016 22:53
Date Quantitated: 04/28/2016 17:31
Batch ID: KWG1603358
Analysis Method: 8015C
MethodJoinID: MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	1,4-Difluorobenzene	Calc	S-0.000	I-103.285	okay
	Gasoline Range Organics-NWTPH	Calc	S-0.000	I-32.112	ZO

Primary Review: 5/2/16

Secondary Review: 5/3/16

Printed: 05/02/2016 15:41:56
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F030.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 22:53	**Quant Date:**	04/28/2016 17:31	**Vial:**	27
Run Type:	IB	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603358-9			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ183
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12435001m	103.29		80-107	NA	
4-Bromofluorobenzene			0d			70-130	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		834229	8.43			
Gasoline Range Organics (GRO)	2.29		1291851	11.47			
Gasoline Range Organics-NWTF	5.71		2224628	32.11			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F030.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 22:53	**Quant Date:**	04/28/2016 17:31	**Vial:**	27
Run Type:	IB	**MethodJoinID:**	MJ184	**Dilution:**	1.0
Lab ID:	KWG1603358-9			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ184
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0d			83-119	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		834229	8.43			
Gasoline Range Organics (GRO)	2.29		1291851	11.47			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F030.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 22:53	**Quant Date:**	04/28/2016 17:31	**Vial:**	27
Run Type:	IB	**MethodJoinID:**	MJ186	**Dilution:**	1.0
Lab ID:	KWG1603358-9			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK101	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ186
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12435001m	103.29		50-150	NA	
4-Bromofluorobenzene			0d			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Respouse	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		834229	8.43			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F030.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 22:53	**Quant Date:**	04/28/2016 17:31	**Vial:**	27
Run Type:	IB	**MethodJoinID:**	MJ202	**Dilution:**	1.0
Lab ID:	KWG1603358-9			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ202
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12435001m	103.29		50-150	NA	
4-Bromofluorobenzene			0d			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		2224628	32.11			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F030.D			**Instrument:**	GC39
Acqu Date:	04/26/2016 22:53	**Quant Date:**	04/28/2016 17:31	**Vial:**	27
Ruu Type:	IB	**MethodJoinID:**	MJ203	**Dilution:**	1.0
Lab ID:	KWG1603358-9			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ203
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0d			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		2224628	32.11			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F030.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 10:53 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 27 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:31:25 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

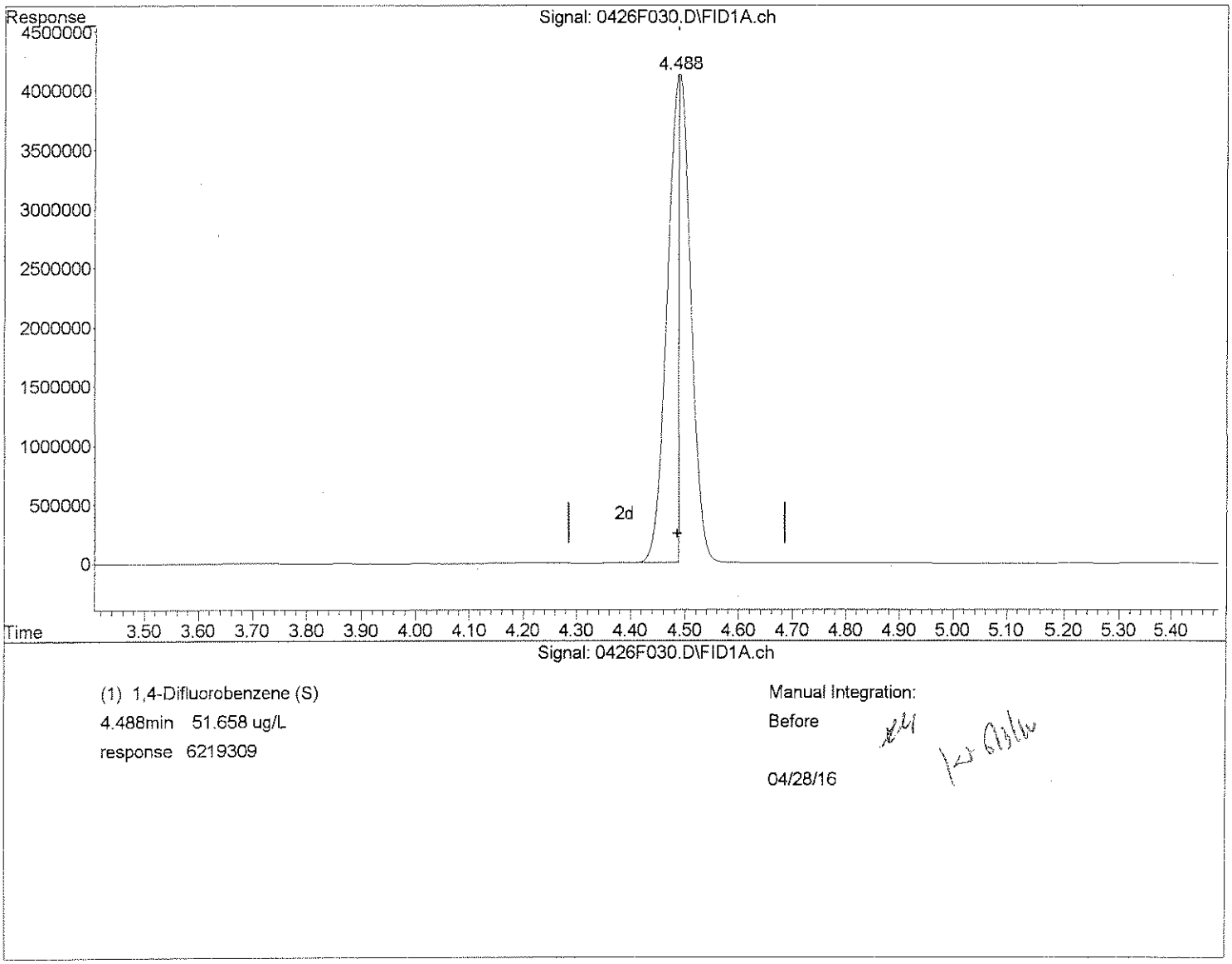
	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	1,4-Difluorobenzene	4.488	12435001	103.285	ug/L	m
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L	d
Target Compounds						
3) H	AK101 GRO (C6-C10)	2.755	834229	8.429	ug/L	
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	1291851	11.468	ug/L	
5) H	NWTPH-GX (Tol.-Naph.)	5.713	2224628	32.112	ug/L	

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F030.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 10:53 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 27 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 08:56:57 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

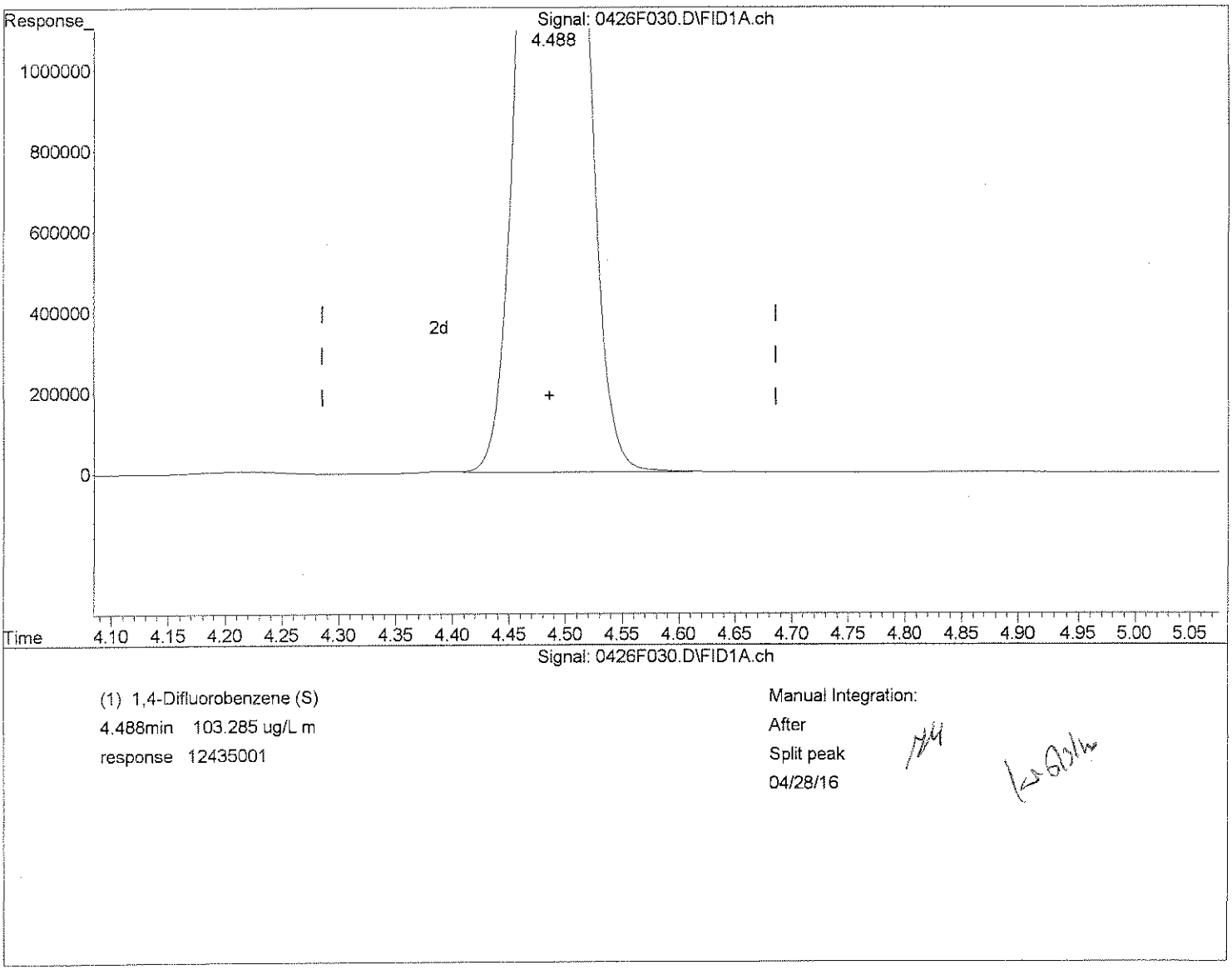


(+) = Expected Retention Time
080615GAS_GC39.M Thu Apr 28 17:31:12 2016 Page: 1

Data Path : J:\GC39\Data\042616\
Data File : 0426F030.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 10:53 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 27 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 08:56:57 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

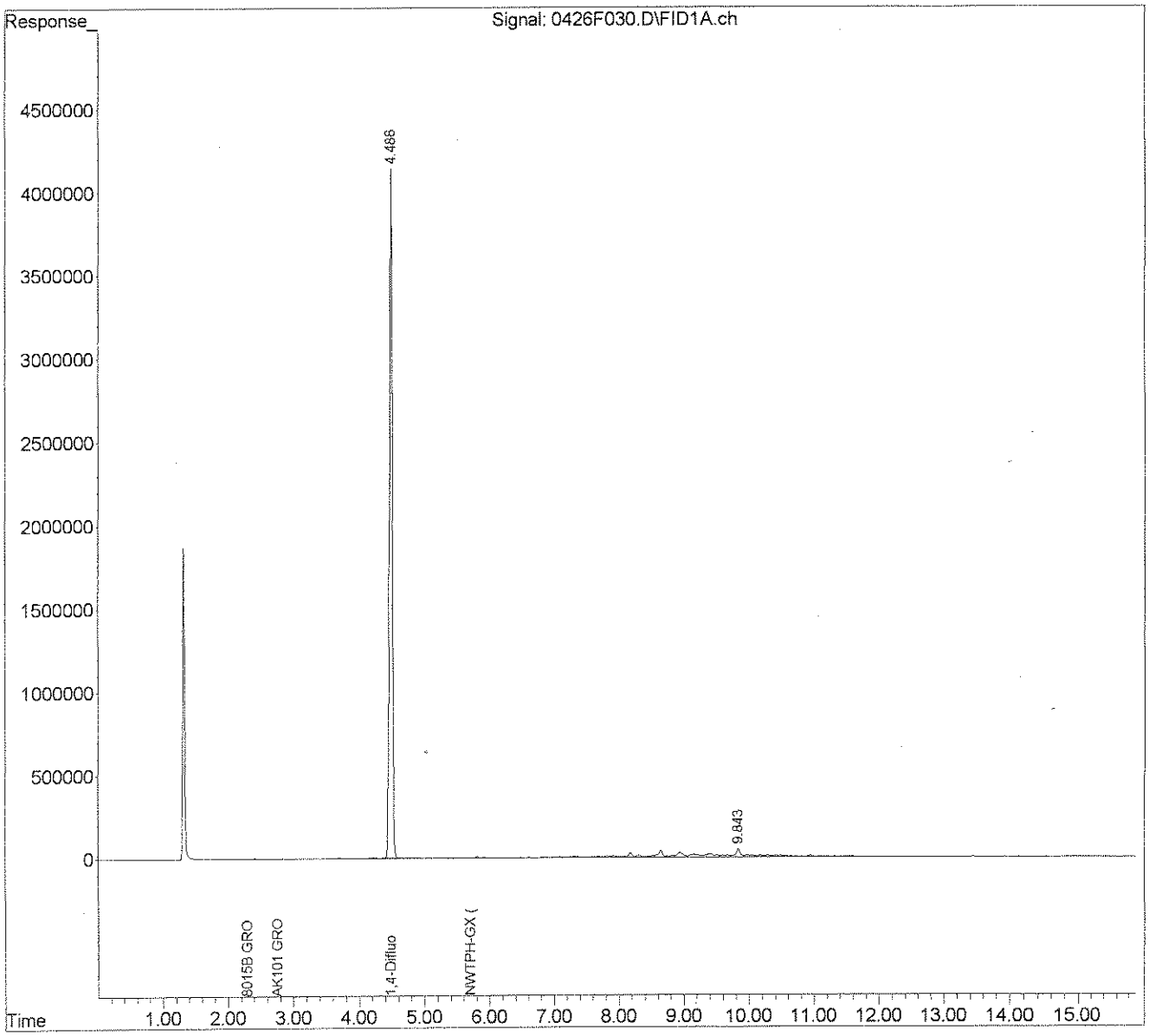


(+) = Expected Retention Time
080615GAS_GC39.M Thu Apr 28 17:31:21 2016 Page: 1

Data Path : J:\GC39\Data\042616\
Data File : 0426F030.D
Signal(s) : FID1A.ch
Acq On : 26 Apr 2016 10:53 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 27 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 17:31:25 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Quantitation Report (Not Reviewed)

Data Path : J:\GC39\Data\042616\
Data File : 0426F034.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 12:30 am
Operator : GH
Sample : IB
Misc :
ALS Vial : 31 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 09:00:09 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.490	12476767	103.632	ug/L
2) S	4-Bromofluorobenzene	8.110	25633	0.394	ug/L
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.755	2823838	28.533	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	4786872	42.493	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	9047119	130.592	ug/L

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

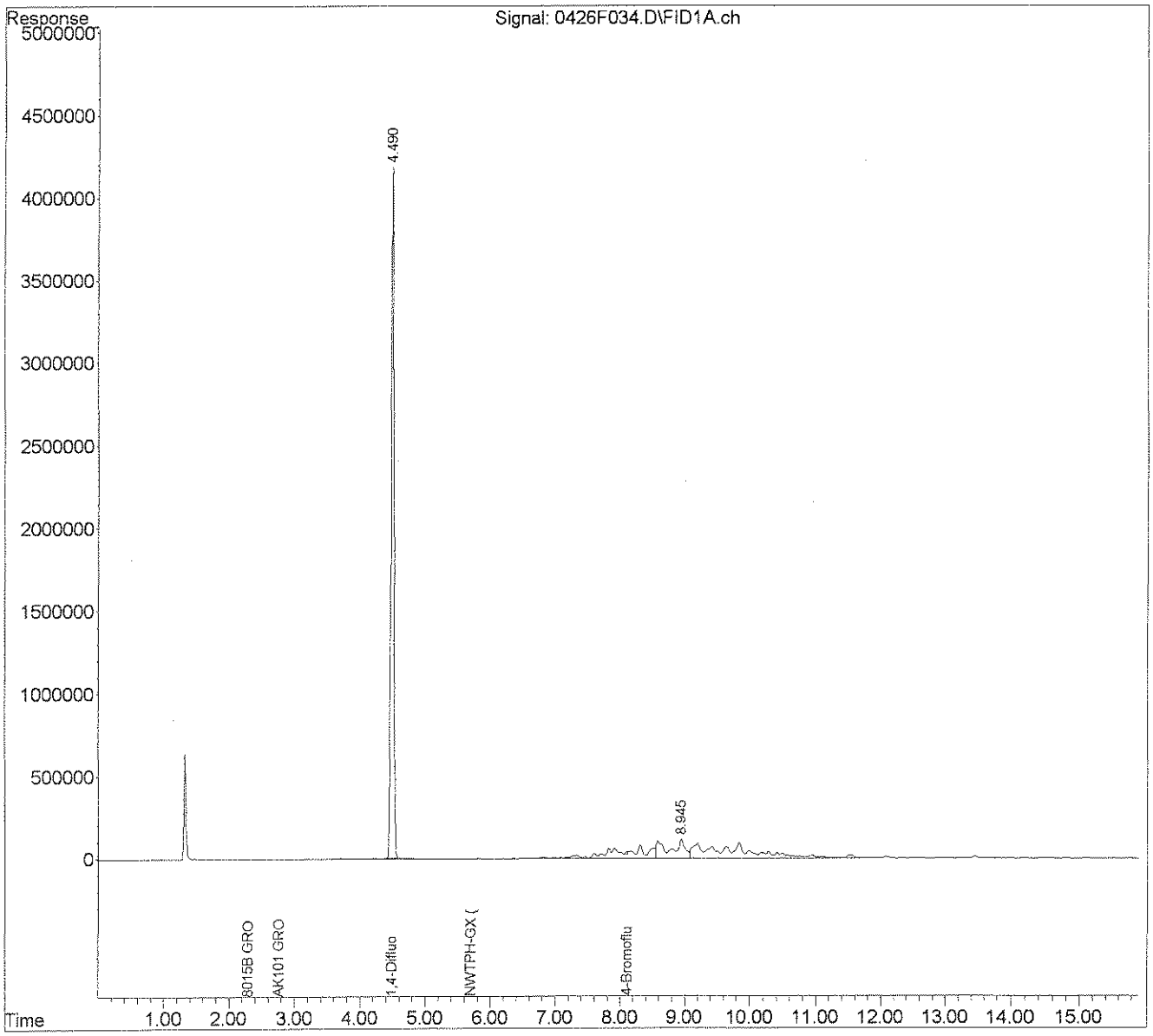
5/2/16

080615GAS_GC39.M Mon May 02 15:44:34 2016 Page: 1

Data Path : J:\GC39\Data\042616\
Data File : 0426F034.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 12:30 am
Operator : GH
Sample : IB
Misc :
ALS Vial : 31 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 09:00:09 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Data Path : J:\GC39\Data\042616\
Data File : 0426F037.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 1:42 am
Operator : GH
Sample : IB
Misc :
ALS Vial : 34 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 09:00:43 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.490	12075301	100.298	ug/L
2) S	4-Bromofluorobenzene	8.185	29257	0.449	ug/L
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.755	2754736	27.834	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	4740024	42.077	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	9019129	130.188	ug/L

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

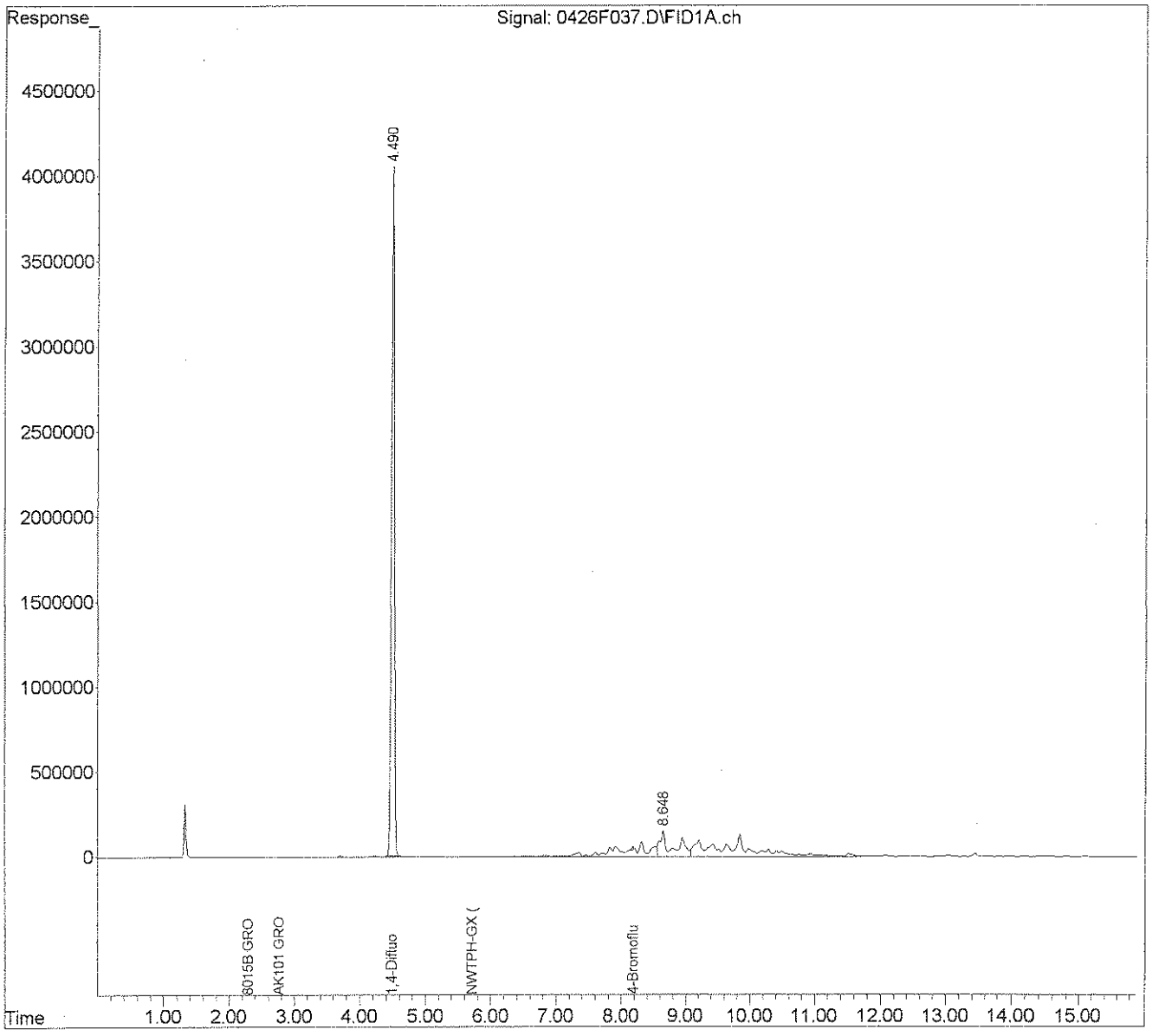
5/2/16

5/2/16

Data Path : J:\GC39\Data\042616\
Data File : 0426F037.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 1:42 am
Operator : GH
Sample : IB
Misc :
ALS Vial : 34 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 09:00:43 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Quantitation Report (Not Reviewed)

Data Path : J:\GC39\Data\042616\
Data File : 0426F040.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 2:54 am
Operator : GH
Sample : IB
Misc :
ALS Vial : 37 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 09:01:26 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.490	12137481	100.814	ug/L
2) S	4-Bromofluorobenzene	8.186	47544	0.730	ug/L
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.755	2832494	28.620	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	4928340	43.749	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	9340093	134.821	ug/L

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

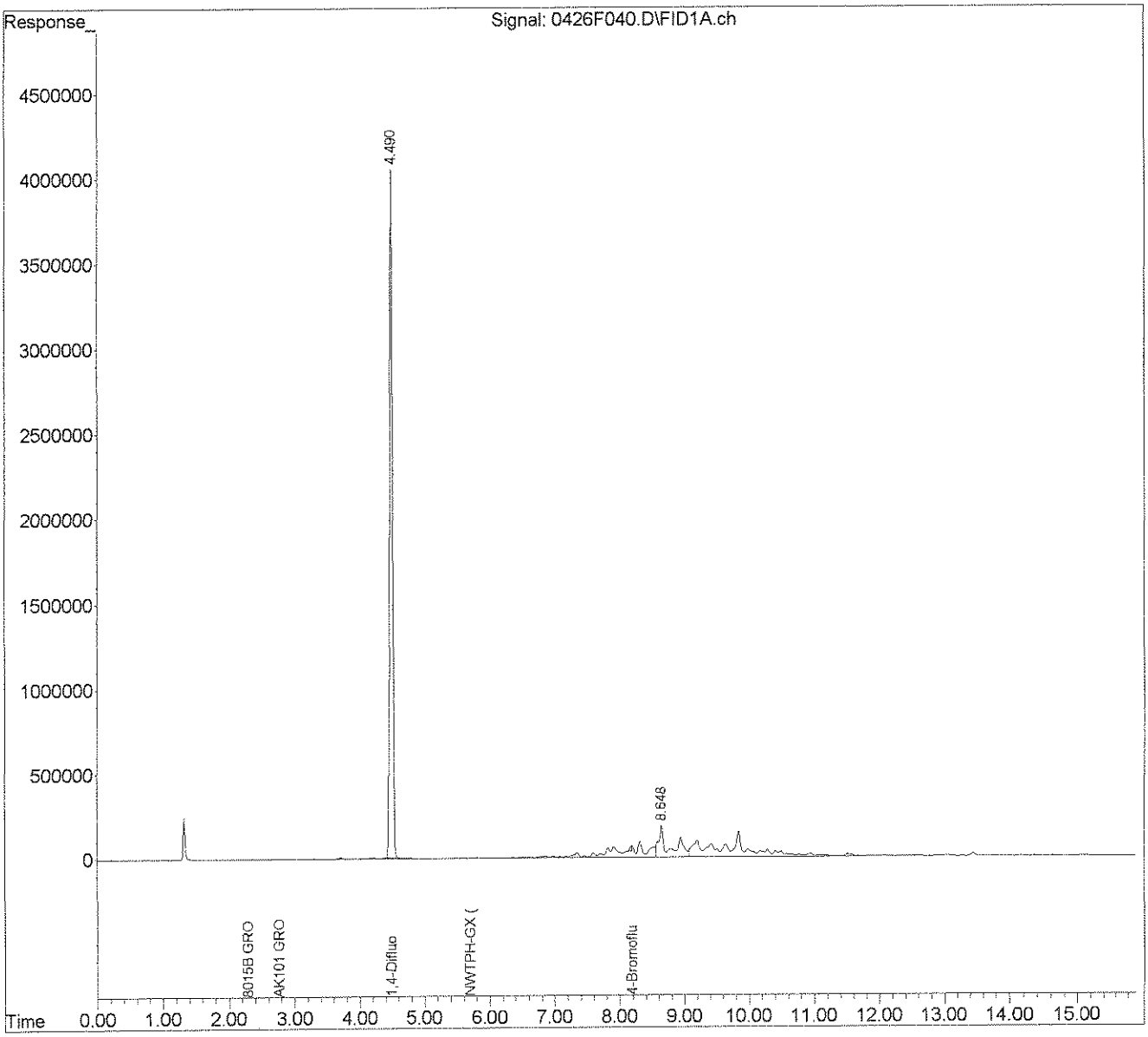
5/2/16

5-6-16

Data Path : J:\GC39\Data\042616\
Data File : 0426F040.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 2:54 am
Operator : GH
Sample : IB
Misc :
ALS Vial : 37 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 09:01:26 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F050.D
Lab ID: KWG1603358-3
RunType: CCV
Matrix: SOIL

Date Acquired: 04/27/2016 06:56
Date Quantitated: 04/27/2016 09:16
Batch ID: KWG1603358
Analysis Method: 8015C
MethodJoinID: MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: 5/2/16

Secondary Review: 5/2/16

Printed: 05/02/2016 15:42:38
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F050.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 06:56	**Quant Date:**	04/27/2016 09:16	**Vial:**	46
Run Type:	CCV	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603358-3			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ183
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12259676	101.83		80-107	NA	
4-Bromofluorobenzene	8.18		6514986	100.04		70-130	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		48671133	491.78			
Gasoline Range Organics (GRO)	2.29		55473156	492.44			
Gasoline Range Organics-NWTF	5.71		35004532	505.28			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ183

DataFile: J:\GC39\DATA\042616\0426F050.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
Gasoline Range Organics (GRO)		MS	AverageRF	20		1.1E+5	1.1E+5	-2			
C6 - C10 GRO		MS	AverageRF	25		9.9E+4	9.7E+4	-2			
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.2E+5	2			
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	7.0E+4	1			
4-Bromofluorobenzene		SURR	AverageRF			6.5E+4	6.5E+4	0			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F050.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 06:56	**Quant Date:**	04/27/2016 09:16	**Vial:**	46
Run Type:	CCV	**MethodJoinID:**	MJ184	**Dilution:**	1.0
Lab ID:	KWG1603358-3			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ184
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	8.18		6514986	100.04		83-119	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		48671133	491.78			
Gasoline Range Organics (GRO)	2.29		55473156	492.44			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ184
DataFile: J:\GC39\DATA\042616\0426F050.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
Gasoline Range Organics (GRO)		MS	AverageRF	20		1.1E+5	1.1E+5	-2			
C6 - C10 GRO		MS	AverageRF	20		9.9E+4	9.7E+4	-2			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.5E+4	0			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F050.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 06:56	**Quant Date:**	04/27/2016 09:16	**Vial:**	46
Run Type:	CCV	**MethodJoinID:**	MJ186	**Dilution:**	1.0
Lab ID:	KWG1603358-3			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK101	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ186
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12259676	101.83		50-150	NA	
4-Bromofluorobenzene	8.18		6514986	100.04		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		48671133	491.78			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ186
DataFile: J:\GC39\DATA\042616\0426F050.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
C6 - C10 GRO		MS	AverageRF	25		9.9E+4	9.7E+4	-2			
1,4-Difluorobenzene		SURR	AverageRF	25		1.2E+5	1.2E+5	2			
4-Bromofluorobenzene		SURR	AverageRF	25		6.5E+4	6.5E+4	0			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F050.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 06:56	**Quant Date:**	04/27/2016 09:16	**Vial:**	46
Rnn Type:	CCV	**MethodJoinID:**	MJ202	**Dilution:**	1.0
Lab ID:	KWG1603358-3			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
		Prep Date:			
Prep Ref:					

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ202
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12259676	101.83		50-150	NA	
4-Bromofluorobenzene	8.18		6514986	100.04		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		35004532	505.28			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ202

DataFile: J:\GC39\DATA\042616\0426F050.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.2E+5	2			
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	7.0E+4	1			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.5E+4	0			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F050.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 06:56	**Quant Date:**	04/27/2016 09:16	**Vial:**	46
Run Type:	CCV	**MethodJoinID:**	MJ203	**Dilution:**	1.0
Lab ID:	KWG1603358-3			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ203
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	8.18		6514986	100.04		50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		35004532	505.28			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ203
DataFile: J:\GC39\DATA\042616\0426F050.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	7.0E+4	1			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.5E+4	0			

Data Path : J:\GC39\Data\042616\
Data File : 0426F050.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 6:56 am
Operator : GH
Sample : CCV HCV7-52I 4/27/16
Misc :
ALS Vial : 46 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 09:16:44 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

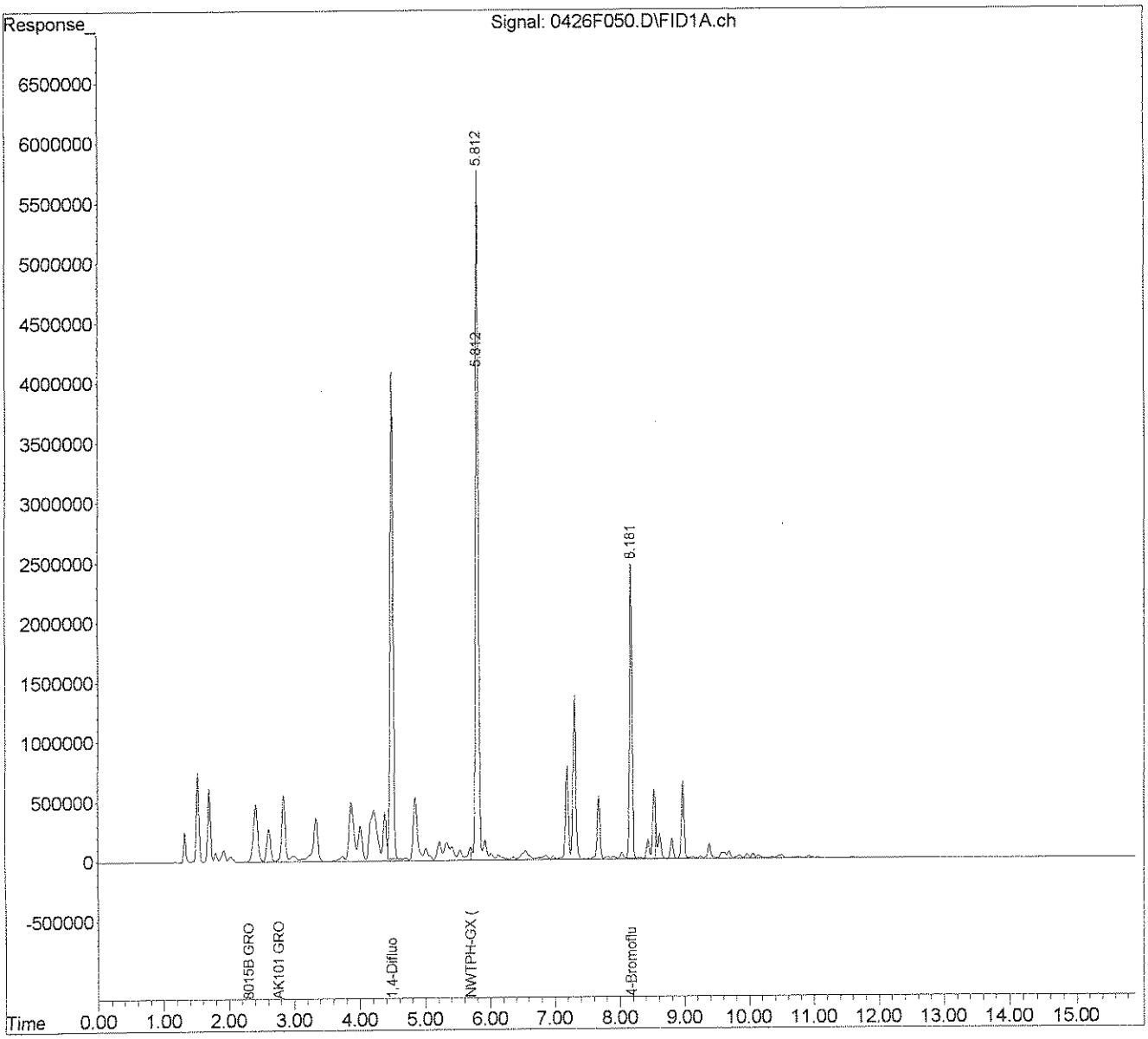
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 1,4-Difluorobenzene	4.490	12259676	101.829	ug/L
2) S 4-Bromofluorobenzene	8.181	6514986	100.041	ug/L
Target Compounds				
3) H AK101 GRO (C6-C10)	2.755	48671133	491.782	ug/L
4) H 8015B GRO (2mp-1,2,4tmb)	2.295	55473156	492.438	ug/L
5) H NWTPH-GX (Tol.-Naph.)	5.713	35004532	505.278	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F050.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 6:56 am
Operator : GH
Sample : CCV HCV7-52I 4/27/16
Misc :
ALS Vial : 46 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 09:16:44 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F051.D
Lab ID: KWG1603358-10
RunType: IB
Matrix: SOIL

Date Acquired: 04/27/2016 07:20
Date Quantitated: 04/29/2016 10:02
Batch ID: KWG1603358
Analysis Method: 8015C
MethodJoinID: MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	1,4-Difluorobenzene	Calc	S-0.000	I-101.486	okay
	Gasoline Range Organics-NWTPH	Calc	S-0.000	I-12.301	Z

Primary Review: 5/2/16

Secondary Review: 5/2/16

Printed: 05/02/2016 15:42:41
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F051.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 07:20	**Quant Date:**	04/29/2016 10:02	**Vial:**	47
Run Type:	IB	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603358-10			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ183
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12218418	101.49		80-107	NA	
4-Bromofluorobenzene			0d			70-130	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		607072	6.13			
Gasoline Range Organics (GRO)	2.29		769867	6.83			
Gasoline Range Organics-NWTF	5.71		852165	12.30			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F051.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 07:20	**Quant Date:**	04/29/2016 10:02	**Vial:**	47
Run Type:	IB	**MethodJoinID:**	MJ184	**Dilution:**	1.0
Lab ID:	KWG1603358-10			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ184
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0d			83-119	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		607072	6.13			
Gasoline Range Organics (GRO)	2.29		769867	6.83			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F051.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 07:20	**Quant Date:**	04/29/2016 10:02	**Vial:**	47
Run Type:	IB	**MethodJoinID:**	MJ186	**Dilution:**	1.0
Lab ID:	KWG1603358-10			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK101	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ186
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12218418	101.49		50-150	NA	
4-Bromofluorobenzene			0d			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		607072	6.13			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F051.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 07:20	**Quant Date:**	04/29/2016 10:02	**Vial:**	47
Run Type:	IB	**MethodJoinID:**	MJ202	**Dilution:**	1.0
Lab ID:	KWG1603358-10			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ202
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12218418	101.49		50-150	NA	
4-Bromofluorobenzene			0d			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		852165	12.30			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F051.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 07:20	**Quant Date:**	04/29/2016 10:02	**Vial:**	47
Run Type:	IB	**MethodJoinID:**	MJ203	**Dilution:**	1.0
Lab ID:	KWG1603358-10			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ203
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0d			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		852165	12.30			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F051.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 7:20 am
Operator : GH
Sample : IB
Misc :
ALS Vial : 47 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 29 10:02:53 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

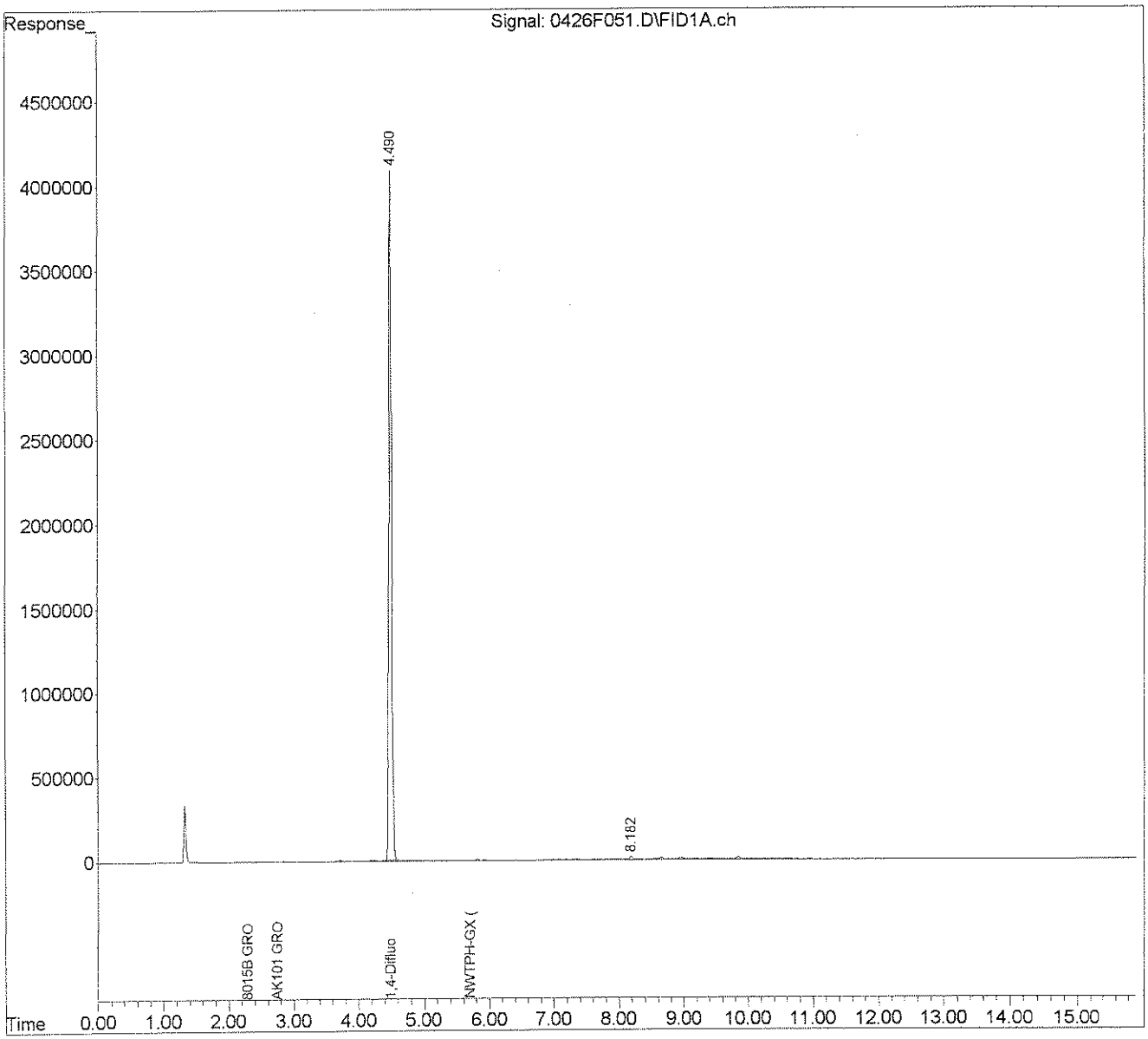
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.490	12218418	101.486	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L d
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.755	607072	6.134	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	769867	6.834	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	852165	12.301	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F051.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 7:20 am
Operator : GH
Sample : IB
Misc :
ALS Vial : 47 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 29 10:02:53 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F062.D
Lab ID: KWG1603358-4
RunType: CCV
Matrix: SOIL

Date Acquired: 04/27/2016 11:47
Date Quantitated: 04/27/2016 12:11
Batch ID: KWG1603358
Analysis Method: 8015C
MethodJoinID: MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: 5/2/16

Secondary Review:

Printed: 05/02/2016 15:43:14
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F062.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 11:47	**Quant Date:**	04/27/2016 12:11	**Vial:**	58
Run Type:	CCV	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603358-4			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ183
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12465512	103.54		80-107	NA	
4-Bromofluorobenzene	8.18		6431501	98.76		70-130	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		46222552	467.04			
Gasoline Range Organics (GRO)	2.29		52607072	467.00			
Gasoline Range Organics-NWTF	5.71		33544433	484.20			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ183

DataFile: J:\GC39\DATA\042616\0426F062.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff		Sol'n Conc.	True Value	% Drift
Gasoline Range Organics (GRO)		MS	AverageRF	20		1.1E+5	1.1E+5	-7				
C6 - C10 GRO		MS	AverageRF	25		9.9E+4	9.2E+4	-7				
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.2E+5	4				
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	6.7E+4	-3				
4-Bromofluorobenzene		SURR	AverageRF			6.5E+4	6.4E+4	-1	*			

1 Compounds Failed CCV Criteria (20.00 Percent)

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F062.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 11:47	**Quant Date:**	04/27/2016 12:11	**Vial:**	58
Run Type:	CCV	**MethodJoinID:**	MJ184	**Dilution:**	1.0
Lab ID:	KWG1603358-4			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ184
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	8.18		6431501	98.76		83-119	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		46222552	467.04			
Gasoline Range Organics (GRO)	2.29		52607072	467.00			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ184
DataFile: J:\GC39\DATA\042616\0426F062.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
Gasoline Range Organics (GRO)		MS	AverageRF	20		1.1E+5	1.1E+5	-7			
C6 - C10 GRO		MS	AverageRF	20		9.9E+4	9.2E+4	-7			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.4E+4	-1			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F062.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 11:47	**Quant Date:**	04/27/2016 12:11	**Vial:**	58
Run Type:	CCV	**MethodJoinID:**	MJ186	**Dilution:**	1.0
Lab ID:	KWG1603358-4			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**	**Report Group:**
Analysis Method:	AK101	**Prep Method:**	
Prep Ref:		**Prep Date:**	

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ186
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12465512	103.54		50-150	NA	
4-Bromofluorobenzene	8.18		6431501	98.76		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		46222552	467.04			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ186
DataFile: J:\GC39\DATA\042616\0426F062.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
C6 - C10 GRO		MS	AverageRF	25		9.9E+4	9.2E+4	-7			
1,4-Difluorobenzene		SURR	AverageRF	25		1.2E+5	1.2E+5	4			
4-Bromofluorobenzene		SURR	AverageRF	25		6.5E+4	6.4E+4	-1			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F062.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 11:47	**Quant Date:**	04/27/2016 12:11	**Vial:**	58
Run Type:	CCV	**MethodJoinID:**	MJ202	**Dilution:**	1.0
Lab ID:	KWG1603358-4			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ202
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12465512	103.54		50-150	NA	
4-Bromofluorobenzene	8.18		6431501	98.76		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		33544433	484.20			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ202
DataFile: J:\GC39\DATA\042616\0426F062.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.2E+5	4			
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	6.7E+4	-3			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.4E+4	-1			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F062.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 11:47	**Quant Date:**	04/27/2016 12:11	**Vial:**	58
Run Type:	CCV	**MethodJoinID:**	MJ203	**Dilution:**	1.0
Lab ID:	KWG1603358-4			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ203
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	8.18		6431501	98.76		50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		33544433	484.20			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ203
DataFile: J:\GC39\DATA\042616\0426F062.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	6.7E+4	-3			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.4E+4	-1			

Data Path : J:\GC39\Data\042616\
Data File : 0426F062.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 11:47 am
Operator : GH
Sample : CCV HCV7-52I 4/27/16
Misc :
ALS Vial : 58 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 12:11:13 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

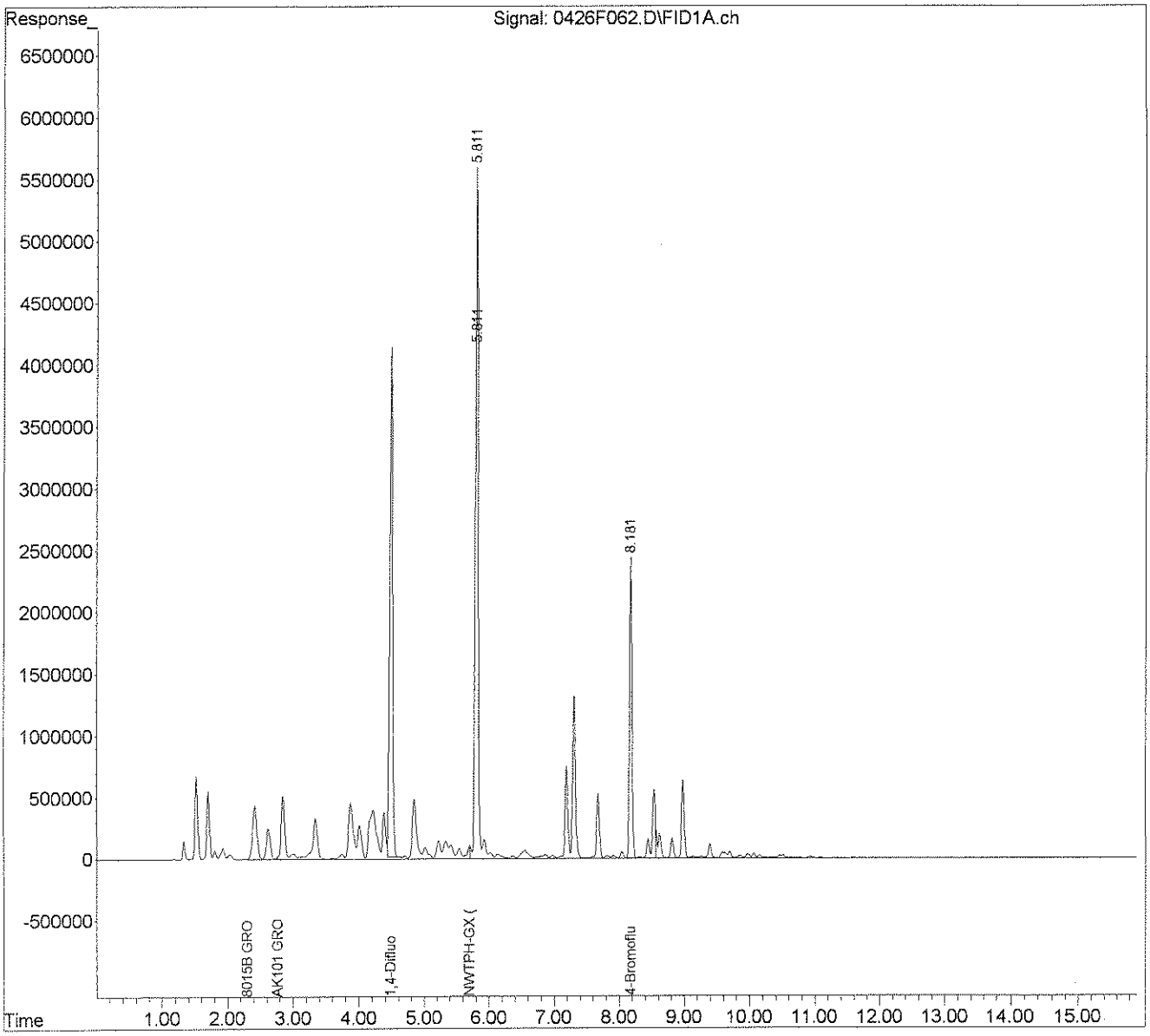
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S 1,4-Difluorobenzene	4.491	12465512	103.539	ug/L
2) S 4-Bromofluorobenzene	8.181	6431501	98.759	ug/L
Target Compounds				
3) H AK101 GRO (C6-C10)	2.755	46222552	467.041	ug/L
4) H 8015B GRO (2mp-1,2,4tmb)	2.295	52607072	466.996	ug/L
5) H NWTPH-GX (Tol.-Naph.)	5.713	33544433	484.202	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F062.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 11:47 am
Operator : GH
Sample : CCV HCV7-52I 4/27/16
Misc :
ALS Vial : 58 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 12:11:13 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File:	J:\GC39\DATA\042616\0426F063.D	**Date Acquired:**	04/27/2016 12:11
Lab ID:	KWG1603358-11	**Date Quantitated:**	04/29/2016 10:04
RunType:	IB	**Batch ID:**	KWG1603358
Matrix:	SOIL	**Analysis Method:**	8015C
		MethodJoinID:	MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	1,4-Difluorobenzene	Calc	S-0.000	I-101.323	okay
	Gasoline Range Organics-NWTPH	Calc	S-0.000	I-8.216	J

Primary Review: 5/2/16

Secondary Review: 5/3/16

Printed: 05/02/2016 15:43:17

u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F063.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 12:11	**Quant Date:**	04/29/2016 10:04	**Vial:**	59
Run Type:	IB	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603358-11			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ183
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12198729	101.32		80-107	NA	
4-Bromofluorobenzene			0d			70-130	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		547871	5.54			
Gasoline Range Organics (GRO)	2.29		650791	5.78			
Gasoline Range Organics-NWTF	5.71		569207	8.22			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F063.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 12:11	**Quant Date:**	04/29/2016 10:04	**Vial:**	59
Run Type:	IB	**MethodJoinID:**	MJ184	**Dilution:**	1.0
Lab ID:	KWG1603358-11			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ184
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0d			83-119	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		547871	5.54			
Gasoline Range Organics (GRO)	2.29		650791	5.78			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F063.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 12:11	**Quant Date:**	04/29/2016 10:04	**Vial:**	59
Run Type:	IB	**MethodJoinID:**	MJ186	**Dilution:**	1.0
Lab ID:	KWG1603358-11			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK101	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ186
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12198729	101.32		50-150	NA	
4-Bromofluorobenzene			0d			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		547871	5.54			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F063.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 12:11	**Quant Date:**	04/29/2016 10:04	**Vial:**	59
Run Type:	IB	**MethodJoinID:**	MJ202	**Dilution:**	1.0
Lab ID:	KWG1603358-11			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ202
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12198729	101.32		50-150	NA	
4-Bromofluorobenzene			0d			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		569207	8.22			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F063.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 12:11	**Quant Date:**	04/29/2016 10:04	**Vial:**	59
Run Type:	IB	**MethodJoinID:**	MJ203	**Dilution:**	1.0
Lab ID:	KWG1603358-11			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ203
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0d			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		569207	8.22			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F063.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 12:11 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 59 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 29 10:04:38 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

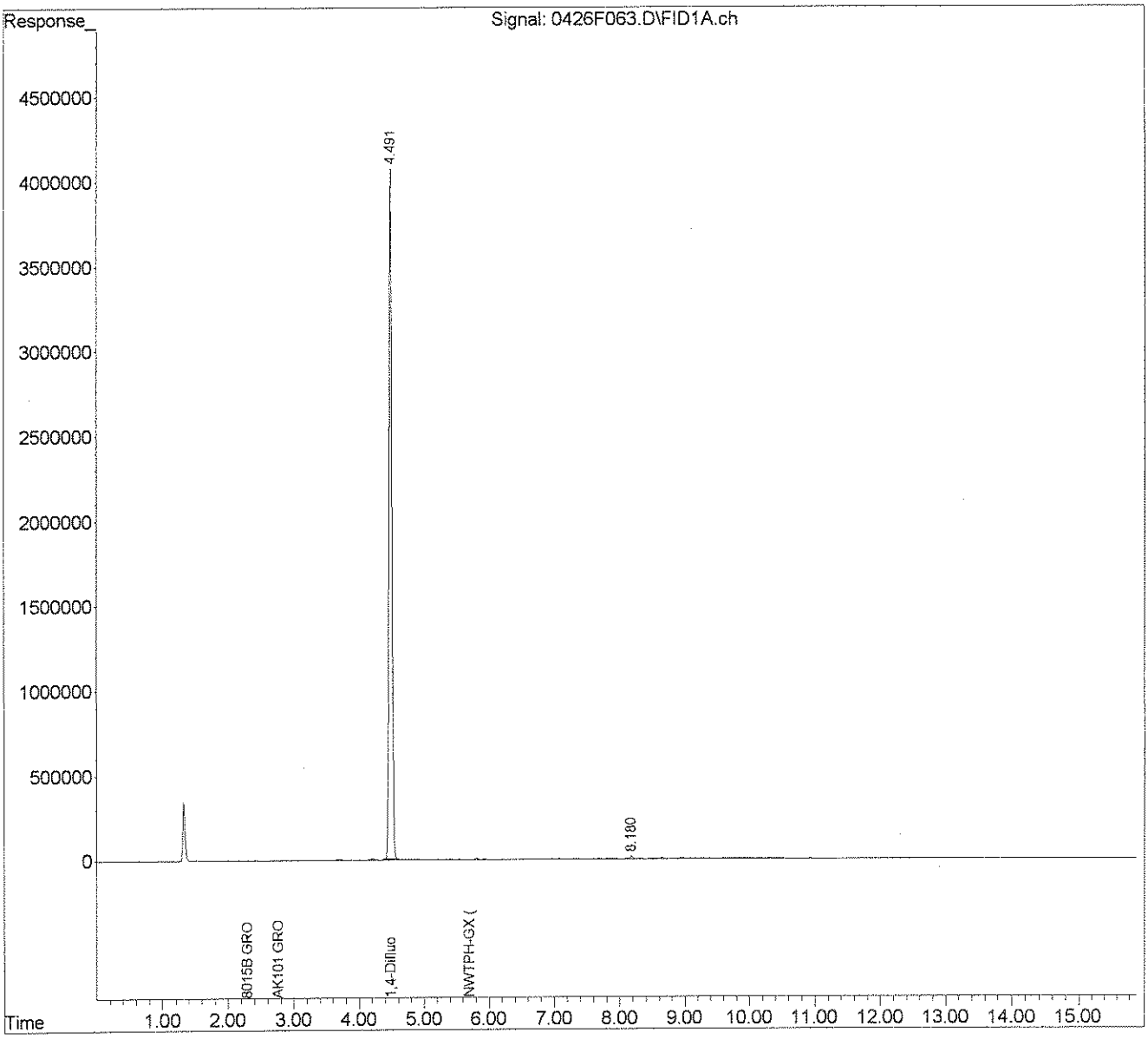
	Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds						
1) S	1,4-Difluorobenzene	4.491	12198729	101.323	ug/L	
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L	d
Target Compounds						
3) H	AK101 GRO (C6-C10)	2.755	547871	5.536	ug/L	
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	650791	5.777	ug/L	
5) H	NWTPH-GX (Tol.-Naph.)	5.713	569207	8.216	ug/L	

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F063.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 12:11 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 59 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 29 10:04:38 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Data Path : J:\GC39\Data\042616\
Data File : 0426F065.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 12:59 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 61 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 14:35:40 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.490	11978740	99.496	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.755	501940	5.072	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	601469	5.339	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	571087	8.243	ug/L

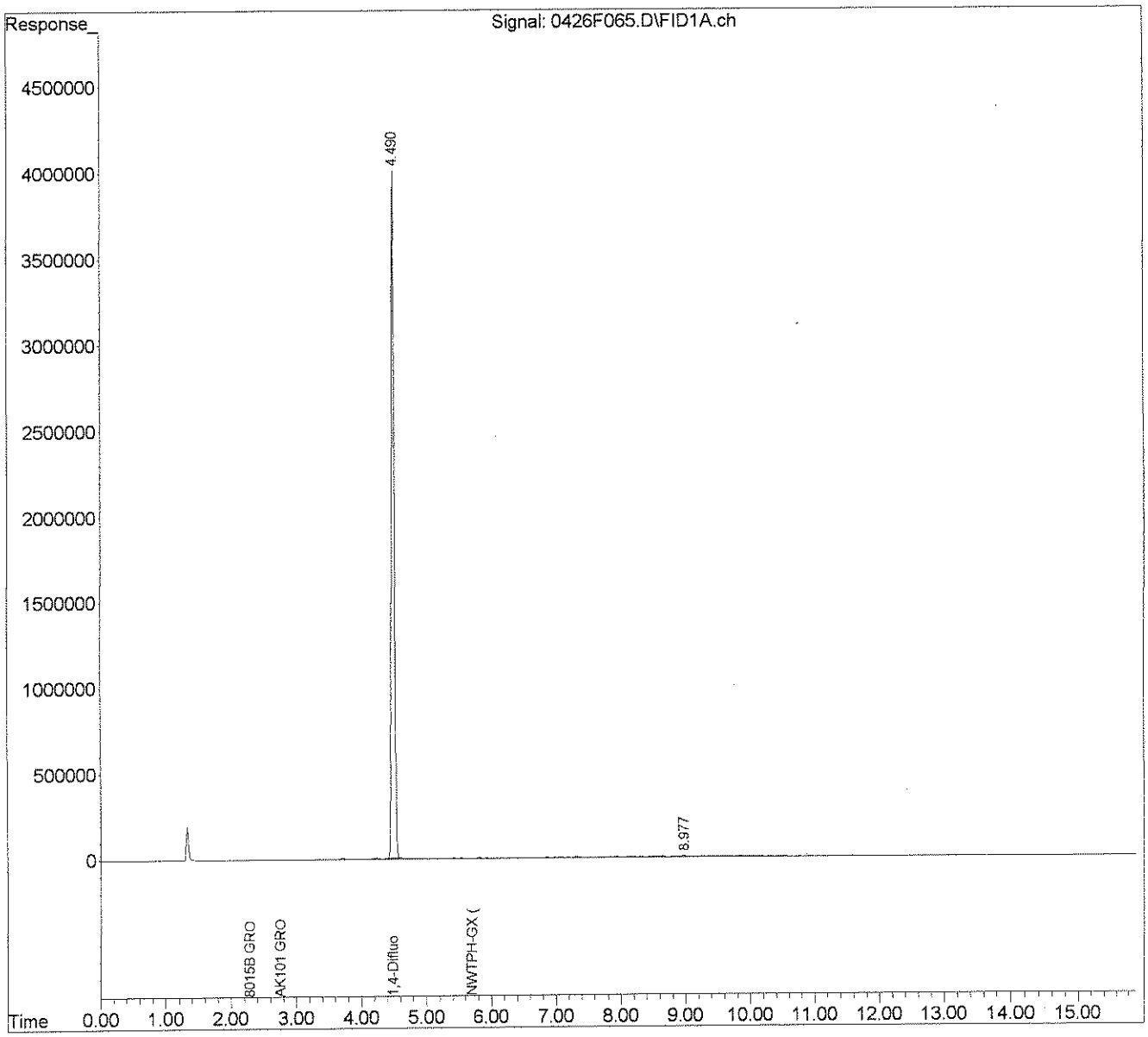
(f)=RT Delta > 1/2 Window (m)=manual int.

5/2/16

Data Path : J:\GC39\Data\042616\
Data File : 0426F065.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 12:59 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 61 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 14:35:40 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Data Path : J:\GC39\Data\042616\
Data File : 0426F069.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 2:36 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 65 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 16:07:02 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) S	1,4-Difluorobenzene	4.490	12251239	101.759	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.755	378182	3.821	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	457190	4.058	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	1028584	14.847	ug/L

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

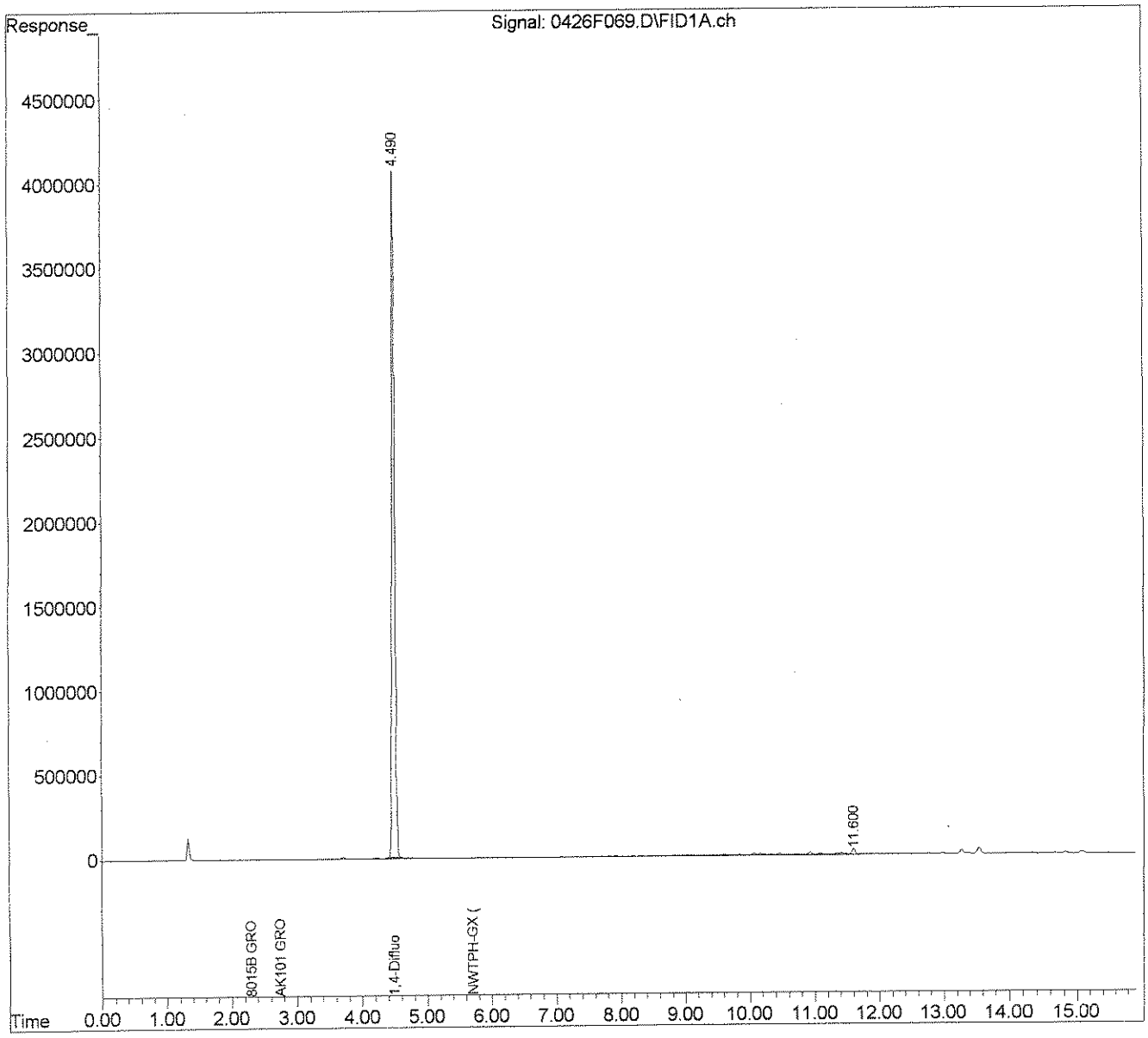
5/2/16

5/3/16

Data Path : J:\GC39\Data\042616\
Data File : 0426F069.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 2:36 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 65 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 16:07:02 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F071.D
Lab ID: KWG1603358-5
RunType: CCV
Matrix: SOIL

Date Acquired: 04/27/2016 15:25
Date Quantitated: 04/27/2016 16:07
Batch ID: KWG1603358
Analysis Method: 8015C
MethodJoinID: MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: 5/2/16

Secondary Review: 5/3/16

Printed: 05/02/2016 15:43:35
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F071.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 15:25	**Quant Date:**	04/27/2016 16:07	**Vial:**	67
Run Type:	CCV	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603358-5			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ183
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12310747	102.25		80-107	NA	
4-Bromofluorobenzene	8.18		6490380	99.66		70-130	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		46915661	474.04			
Gasoline Range Organics (GRO)	2.29		53379197	473.85			
Gasoline Range Organics-NWTF	5.71		33841835	488.50			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ183
DataFile: J:\GC39\DATA\042616\0426F071.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
Gasoline Range Organics (GRO)		MS	AverageRF	20		1.1E+5	1.1E+5	-5			
C6 - C10 GRO		MS	AverageRF	25		9.9E+4	9.4E+4	-5			
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.2E+5	2			
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	6.8E+4	-2			
4-Bromofluorobenzene		SURR	AverageRF			6.5E+4	6.5E+4	0			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F071.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 15:25	**Quant Date:**	04/27/2016 16:07	**Vial:**	67
Run Type:	CCV	**MethodJoinID:**	MJ184	**Dilution:**	1.0
Lab ID:	KWG1603358-5			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ184
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	8.18		6490380	99.66		83-119	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		46915661	474.04			
Gasoline Range Organics (GRO)	2.29		53379197	473.85			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ184
DataFile: J:\GC39\DATA\042616\0426F071.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
Gasoline Range Organics (GRO)		MS	AverageRF	20		1.1E+5	1.1E+5	-5			
C6 - C10 GRO		MS	AverageRF	20		9.9E+4	9.4E+4	-5			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.5E+4	0			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F071.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 15:25	**Quant Date:**	04/27/2016 16:07	**Vial:**	67
Run Type:	CCV	**MethodJoinID:**	MJ186	**Dilution:**	1.0
Lab ID:	KWG1603358-5			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK101	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ186
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12310747	102.25		50-150	NA	
4-Bromofluorobenzene	8.18		6490380	99.66		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		46915661	474.04			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ186
DataFile: J:\GC39\DATA\042616\0426F071.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
C6 - C10 GRO		MS	AverageRF	25		9.9E+4	9.4E+4	-5			
1,4-Difluorobenzene		SURR	AverageRF	25		1.2E+5	1.2E+5	2			
4-Bromofluorobenzene		SURR	AverageRF	25		6.5E+4	6.5E+4	0			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F071.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 15:25	**Quant Date:**	04/27/2016 16:07	**Vial:**	67
Run Type:	CCV	**MethodJoinID:**	MJ202	**Dilution:**	1.0
Lab ID:	KWG1603358-5			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ202
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12310747	102.25		50-150	NA	
4-Bromofluorobenzene	8.18		6490380	99.66		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		33841835	488.50			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ202
DataFile: J:\GC39\DATA\042616\0426F071.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.2E+5	2			
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	6.8E+4	-2			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.5E+4	0			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F071.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 15:25	**Quant Date:**	04/27/2016 16:07	**Vial:**	67
Run Type:	CCV	**MethodJoinID:**	MJ203	**Dilution:**	1.0
Lab ID:	KWG1603358-5			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ203
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	8.18		6490380	99.66		50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		33841835	488.50			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ203
DataFile: J:\GC39\DATA\042616\0426F071.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	6.8E+4	-2			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.5E+4	0			

Data Path : J:\GC39\Data\042616\
Data File : 0426F071.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 3:25 pm
Operator : GH
Sample : CCV HCV7-52I 4/27/16
Misc :
ALS Vial : 67 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 16:07:38 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

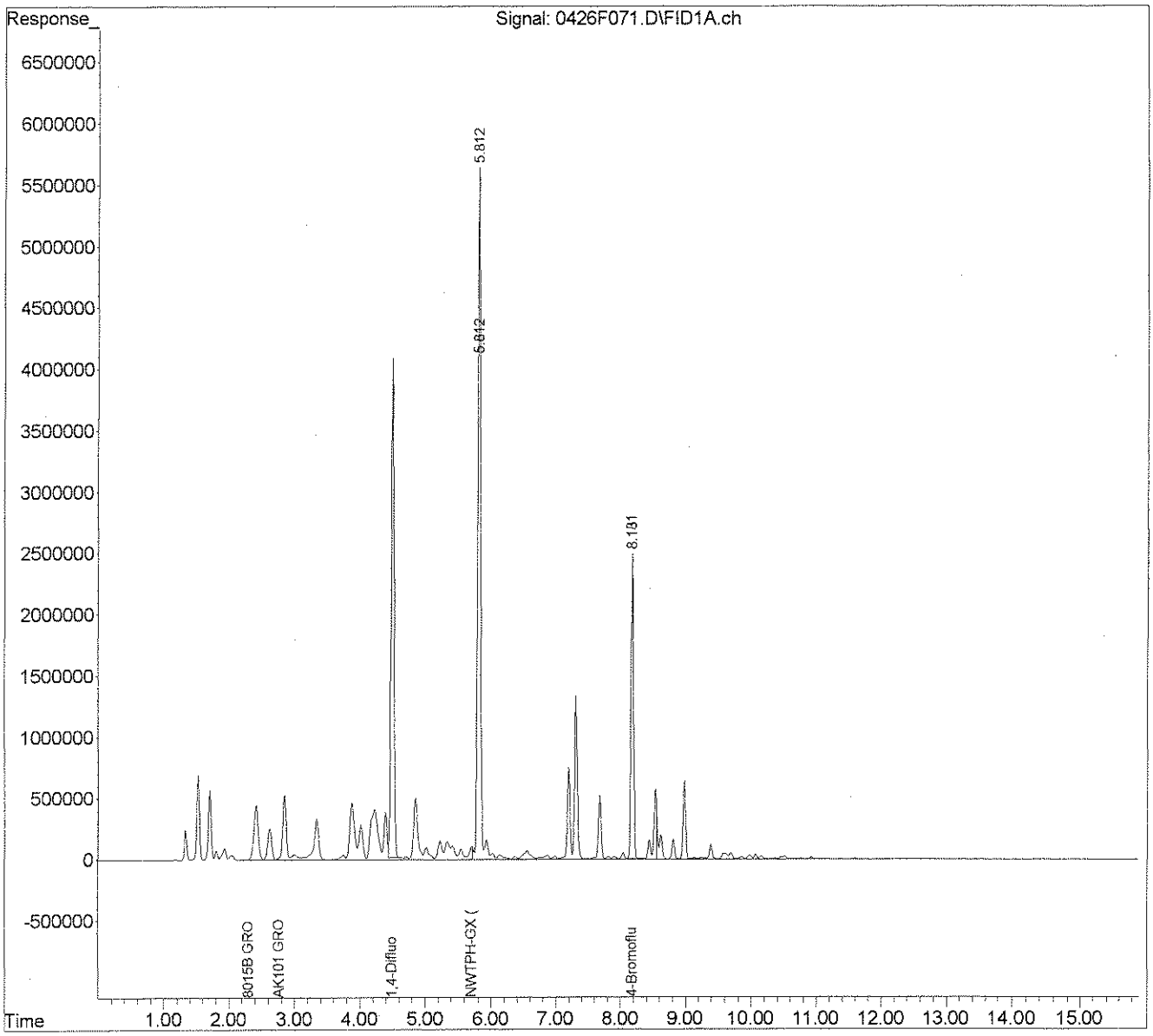
	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) S	1,4-Difluorobenzene	4.492	12310747	102.253	ug/L
2) S	4-Bromofluorobenzene	8.181	6490380	99.663	ug/L
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.755	46915661	474.044	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	53379197	473.850	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	33841835	488.495	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F071.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 3:25 pm
Operator : GH
Sample : CCV HCV7-52I 4/27/16
Misc :
ALS Vial : 67 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 27 16:07:38 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File:	J:\GC39\DATA\042616\0426F073.D	**Date Acquired:**	04/27/2016 16:13
Lab ID:	KWG1603358-12	**Date Quantitated:**	04/28/2016 08:35
RunType:	IB	**Batch ID:**	KWG1603358
Matrix:	SOIL	**Analysis Method:**	8015C
		MethodJoinID:	MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	1,4-Difluorobenzene	Calc	S-0.000	I-102.357	Okay
	Gasoline Range Organics-NWTPH	Calc	S-0.000	I-8.423	2

Primary Review: 5/2/16

Secondary Review: 5/3/16

Printed: 05/02/2016 15:43:38
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F073.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 16:13	**Quant Date:**	04/28/2016 08:35	**Vial:**	69
Run Type:	IB	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603358-12			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ183
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12323248	102.36		80-107	NA	
4-Bromofluorobenzene			0			70-130	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		376927	3.81			
Gasoline Range Organics (GRO)	2.29		539813	4.79			
Gasoline Range Organics-NWTF	5.71		583501	8.42			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F073.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 16:13	**Quant Date:**	04/28/2016 08:35	**Vial:**	69
Run Type:	IB	**MethodJoinID:**	MJ184	**Dilution:**	1.0
Lab ID:	KWG1603358-12			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ184
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			83-119	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		376927	3.81			
Gasoline Range Organics (GRO)	2.29		539813	4.79			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F073.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 16:13	**Quant Date:**	04/28/2016 08:35	**Vial:**	69
Run Type:	IB	**MethodJoinID:**	MJ186	**Dilution:**	1.0
Lab ID:	KWG1603358-12			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK101	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ186
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12323248	102.36		50-150	NA	
4-Bromofluorobenzene			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		376927	3.81			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result falls acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F073.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 16:13	**Quant Date:**	04/28/2016 08:35	**Vial:**	69
Run Type:	IB	**MethodJoinID:**	MJ202	**Dilution:**	1.0
Lab ID:	KWG1603358-12			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ202
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12323248	102.36		50-150	NA	
4-Bromofluorobenzene			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		583501	8.42			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F073.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 16:13	**Quant Date:**	04/28/2016 08:35	**Vial:**	69
Run Type:	IB	**MethodJoinID:**	MJ203	**Dilution:**	1.0
Lab ID:	KWG1603358-12			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ203
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		583501	8.42			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F073.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 4:13 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 69 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 08:35:20 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

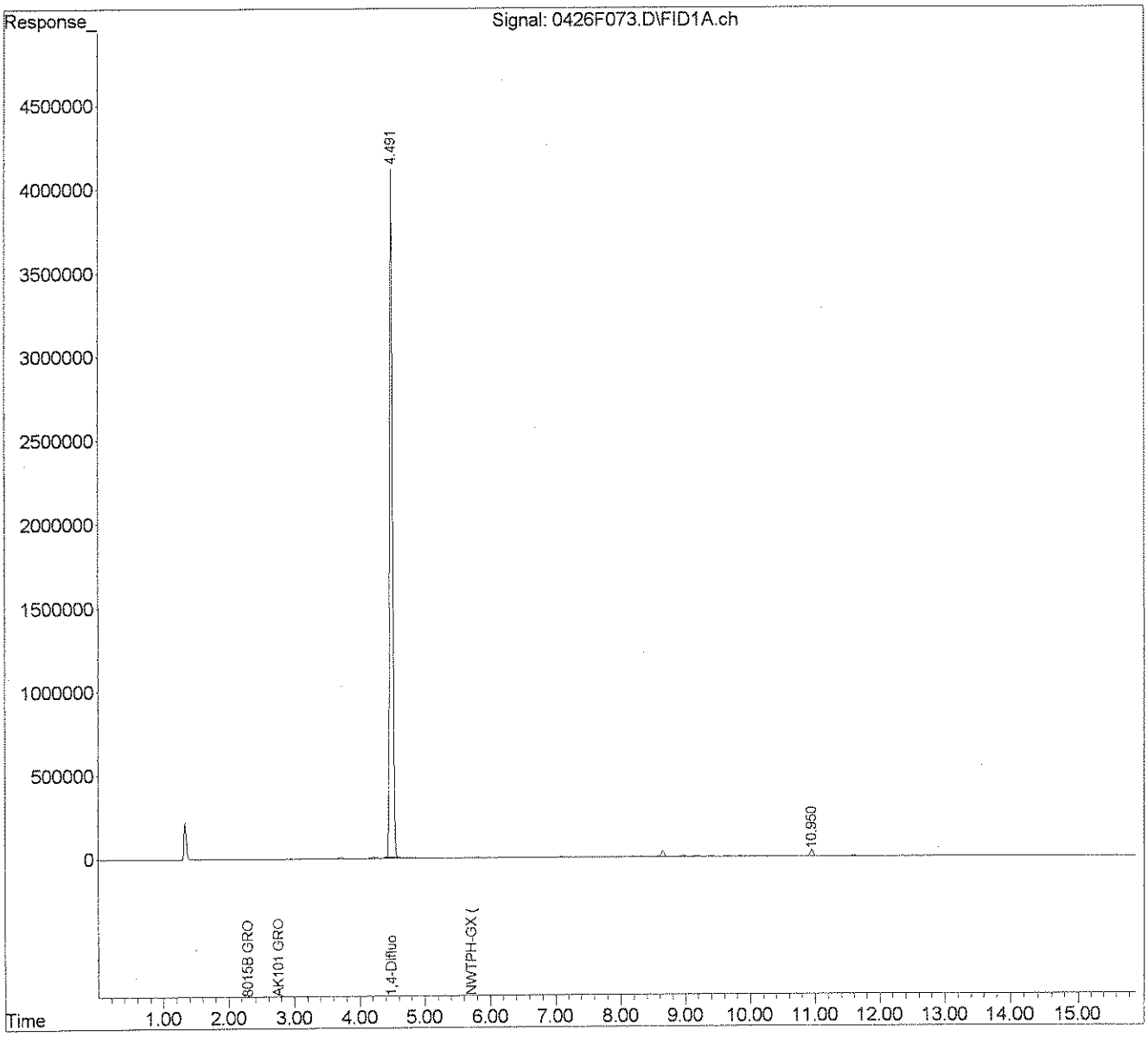
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.491	12323248	102.357	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.755	376927	3.809	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	539813	4.792	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	583501	8.423	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F073.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 4:13 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 69 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 08:35:20 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F087.D
Lab ID: KWG1603358-6
RunType: CCV
Matrix: SOIL

Date Acquired: 04/27/2016 21:52
Date Quantitated: 04/28/2016 08:37
Batch ID: KWG1603358
Analysis Method: 8015C
MethodJoinID: MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: 5/2/16

Secondary Review:

Printed: 05/02/2016 15:44:17
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F087.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 21:52	**Quant Date:**	04/28/2016 08:37	**Vial:**	14
Run Type:	CCV	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603358-6			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ183
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12382168	102.85		80-107	NA	
4-Bromofluorobenzene	8.18		6464722	99.27		70-130	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		47045896	475.36			
Gasoline Range Organics (GRO)	2.29		53512829	475.04			
Gasoline Range Organics-NWTF	5.71		33161216	478.67			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ183
DataFile: J:\GC39\DATA\042616\0426F087.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff		Sol'n Conc.	True Value	% Drift
Gasoline Range Organics (GRO)		MS	AverageRF	20		1.1E+5	1.1E+5	-5				
C6 - C10 GRO		MS	AverageRF	25		9.9E+4	9.4E+4	-5				
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.2E+5	3				
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	6.6E+4	-4				
4-Bromofluorobenzene		SURR	AverageRF			6.5E+4	6.5E+4	-1	*			

1 Compounds Failed CCV Criteria (20.00 Percent)

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F087.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 21:52	**Quant Date:**	04/28/2016 08:37	**Vial:**	14
Run Type:	CCV	**MethodJoinID:**	MJ184	**Dilution:**	1.0
Lab ID:	KWG1603358-6			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ184
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	8.18		6464722	99.27		83-119	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		47045896	475.36			
Gasoline Range Organics (GRO)	2.29		53512829	475.04			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ184

DataFile: J:\GC39\DATA\042616\0426F087.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
Gasoline Range Organics (GRO)		MS	AverageRF	20		1.1E+5	1.1E+5	-5			
C6 - C10 GRO		MS	AverageRF	20		9.9E+4	9.4E+4	-5			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.5E+4	-1			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F087.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 21:52	**Quant Date:**	04/28/2016 08:37	**Vial:**	14
Run Type:	CCV	**MethodJoinID:**	MJ186	**Dilution:**	1.0
Lab ID:	KWG1603358-6			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK101	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ186
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12382168	102.85		50-150	NA	
4-Bromofluorobenzene	8.18		6464722	99.27		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		47045896	475.36			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ186
DataFile: J:\GC39\DATA\042616\0426F087.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
C6 - C10 GRO		MS	AverageRF	25		9.9E+4	9.4E+4	-5			
1,4-Difluorobenzene		SURR	AverageRF	25		1.2E+5	1.2E+5	3			
4-Bromofluorobenzene		SURR	AverageRF	25		6.5E+4	6.5E+4	-1			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F087.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 21:52	**Quant Date:**	04/28/2016 08:37	**Vial:**	14
Run Type:	CCV	**MethodJoinID:**	MJ202	**Dilution:**	1.0
Lab ID:	KWG1603358-6			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ202
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		12382168	102.85		50-150	NA	
4-Bromofluorobenzene	8.18		6464722	99.27		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		33161216	478.67			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ202
DataFile: J:\GC39\DATA\042616\0426F087.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.2E+5	3			
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	6.6E+4	-4			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.5E+4	-1			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F087.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 21:52	**Quant Date:**	04/28/2016 08:37	**Vial:**	14
Run Type:	CCV	**MethodJoinID:**	MJ203	**Dilution:**	1.0
Lab ID:	KWG1603358-6			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ203
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	8.18		6464722	99.27		50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		33161216	478.67			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ203

DataFile: J:\GC39\DATA\042616\0426F087.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	6.6E+4	-4			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.5E+4	-1			

Data Path : J:\GC39\Data\042616\
Data File : 0426F087.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 9:52 pm
Operator : GH
Sample : CCV HCV7-52L 4/28/16
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 08:37:03 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

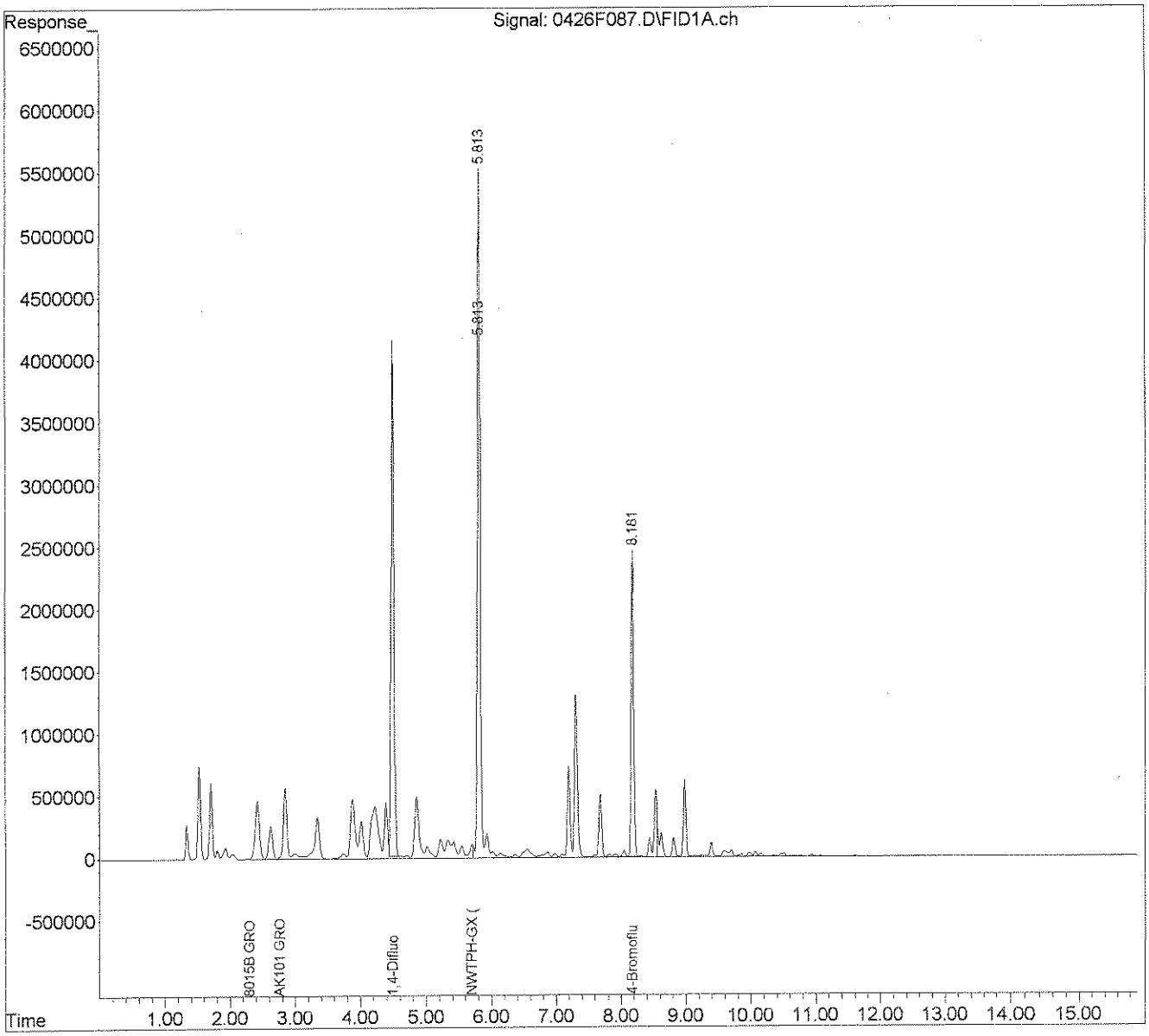
	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) S	1,4-Difluorobenzene	4.492	12382168	102.847	ug/L
2) S	4-Bromofluorobenzene	8.181	6464722	99.269	ug/L
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.755	47045896	475.360	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	53512829	475.036	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	33161216	478.670	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F087.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 9:52 pm
Operator : GH
Sample : CCV HCV7-52L 4/28/16
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 08:37:03 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File:	J:\GC39\DATA\042616\0426F088.D	**Date Acquired:**	04/27/2016 22:16
Lab ID:	KWG1603358-13	**Date Quantitated:**	04/29/2016 10:08
RunType:	IB	**Batch ID:**	KWG1603358
Matrix:	SOIL	**Analysis Method:**	8015C
		MethodJoinID:	MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	1,4-Difluorobenzene	Calc	S-0.000	I-98.781	okay 2.0
	Gasoline Range Organics-NWTPH	Calc	S-0.000	I-5.955	

Primary Review: 5/2/16

Secondary Review: 5/3/16

Printed: 05/02/2016 15:44:20

u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F088.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 22:16	**Quant Date:**	04/29/2016 10:08	**Vial:**	15
Run Type:	IB	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603358-13			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ183
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		11892729	98.78		80-107	NA	
4-Bromofluorobenzene			0**d**			70-130	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		474626	4.80			
Gasoline Range Organics (GRO)	2.29		545086	4.84			
Gasoline Range Organics-NWTF	5.71		412546	5.96			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F088.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 22:16	**Quant Date:**	04/29/2016 10:08	**Vial:**	15
Run Type:	IB	**MethodJoinID:**	MJ184	**Dilution:**	1.0
Lab ID:	KWG1603358-13			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ184
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0d			83-119	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		474626	4.80			
Gasoline Range Organics (GRO)	2.29		545086	4.84			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F088.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 22:16	**Quant Date:**	04/29/2016 10:08	**Vial:**	15
Run Type:	IB	**MethodJoinID:**	MJ186	**Dilution:**	1.0
Lab ID:	KWG1603358-13			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK101	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ186
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		11892729	98.78		50-150	NA	
4-Bromofluorobenzene			0d			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		474626	4.80			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F088.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 22:16	**Quant Date:**	04/29/2016 10:08	**Vial:**	15
Run Type:	IB	**MethodJoinID:**	MJ202	**Dilution:**	1.0
Lab ID:	KWG1603358-13			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ202
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		11892729	98.78		50-150	NA	
4-Bromofluorobenzene			0d			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		412546	5.96			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F088.D			**Instrument:**	GC39
Acqu Date:	04/27/2016 22:16	**Quant Date:**	04/29/2016 10:08	**Vial:**	15
Run Type:	IB	**MethodJoinID:**	MJ203	**Dilution:**	1.0
Lab ID:	KWG1603358-13			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ203
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0d			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		412546	5.96			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F088.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 10:16 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 29 10:08:30 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

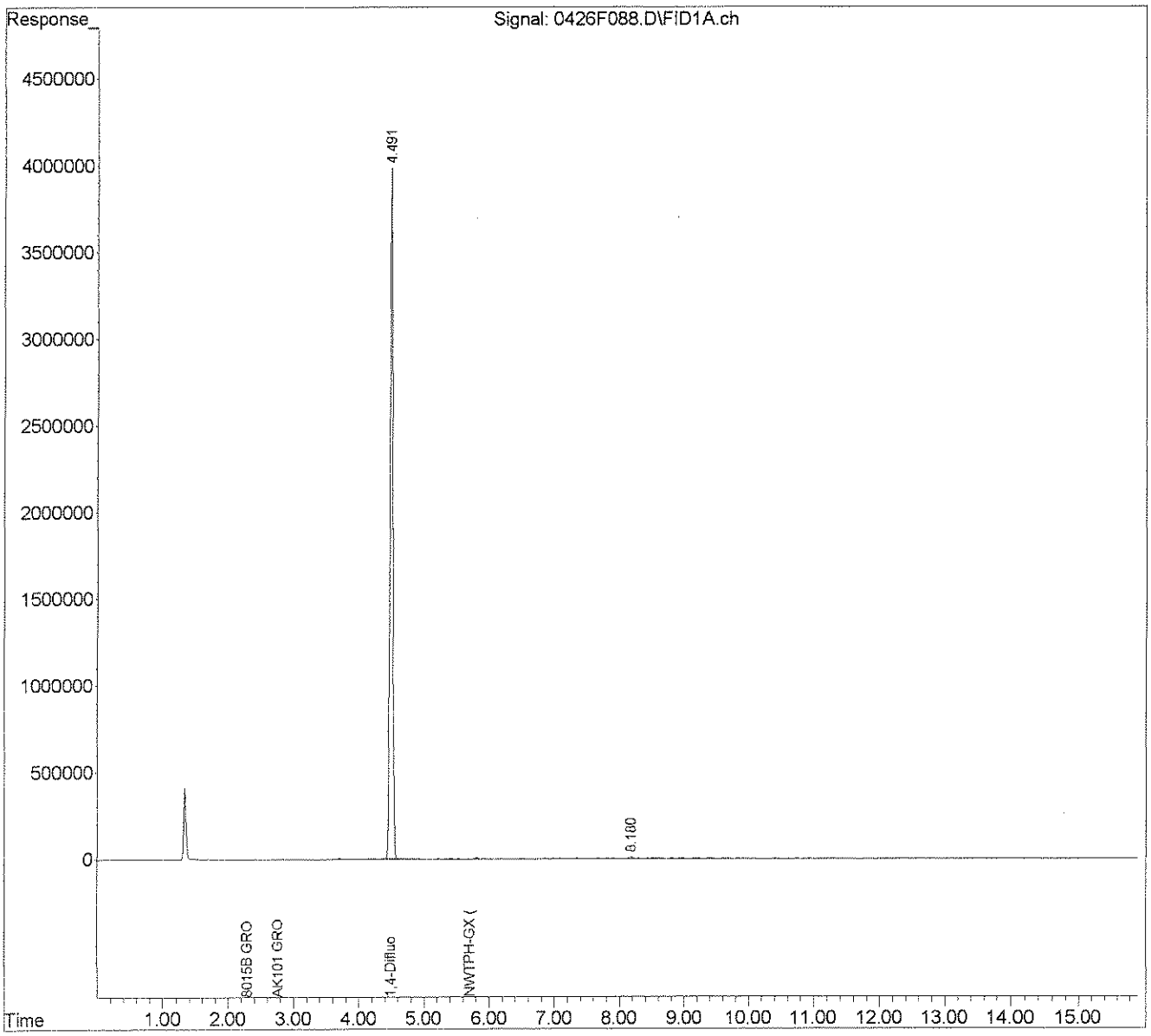
	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) S	1,4-Difluorobenzene	4.491	11892729	98.781	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L d
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.755	474626	4.796	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	545086	4.839	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	412546	5.955	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F088.D
Signal(s) : FID1A.ch
Acq On : 27 Apr 2016 10:16 pm
Operator : GH
Sample : IB
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 29 10:08:30 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Data Path : J:\GC39\Data\042616\
Data File : 0426F102.D
Signal(s) : FID1A.ch
Acq On : 28 Apr 2016 3:54 am
Operator : GH
Sample : IB
Misc :
ALS Vial : 29 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 08:39:35 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) S	1,4-Difluorobenzene	4.491	11947475	99.236	ug/L
2) S	4-Bromofluorobenzene	8.181	8739	0.134	ug/L
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.755	570708	5.767	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	867671	7.702	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	5111192	73.778	ug/L

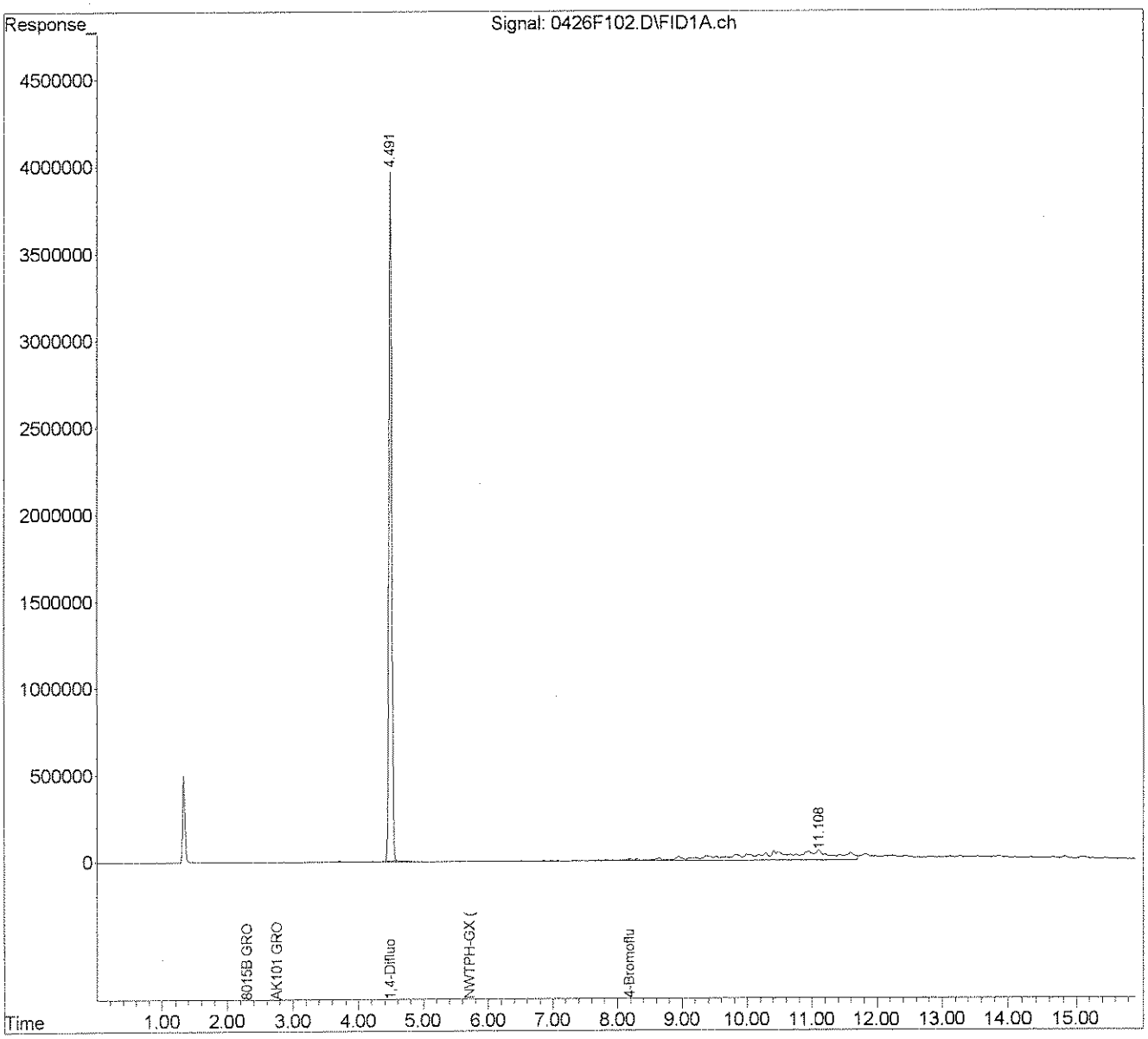
(f)=RT Delta > 1/2 Window (m)=manual int.

5/2/16

Data Path : J:\GC39\Data\042616\
Data File : 0426F102.D
Signal(s) : FID1A.ch
Acq On : 28 Apr 2016 3:54 am
Operator : GH
Sample : IB
Misc :
ALS Vial : 29 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 08:39:35 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Data Path : J:\GC39\Data\042616\
Data File : 0426F105.D
Signal(s) : FID1A.ch
Acq On : 28 Apr 2016 5:07 am
Operator : GH
Sample : IB
Misc :
ALS Vial : 32 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 08:40:09 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 1,4-Difluorobenzene	4.491	11751913	97.612 ug/L
2) S 4-Bromofluorobenzene	8.176	1366	0.021 ug/L
Target Compounds			
3) H AK101 GRO (C6-C10)	2.755	1566552	15.829 ug/L
4) H 8015B GRO (2mp-1,2,4tmb)	2.295	3047737	27.055 ug/L
5) H NWTPH-GX (Tol.-Naph.)	5.713	8681262	125.311 ug/L

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

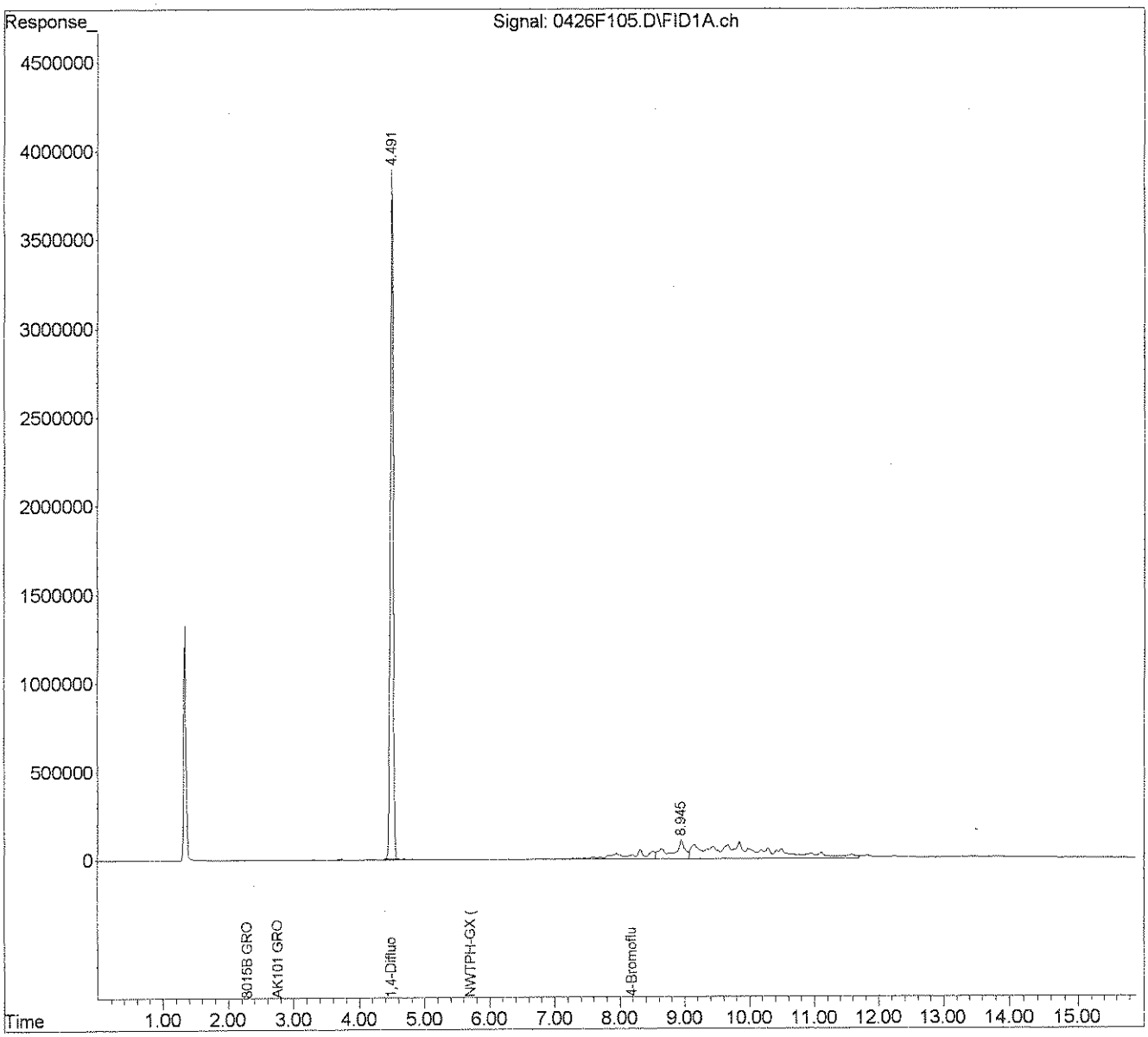
5/2/16

5-6-16

Data Path : J:\GC39\Data\042616\
Data File : 0426F105.D
Signal(s) : FID1A.ch
Acq On : 28 Apr 2016 5:07 am
Operator : GH
Sample : IB
Misc :
ALS Vial : 32 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 08:40:09 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F109.D
Lab ID: KWG1603358-7
RunType: CCV
Matrix: SOIL

Date Acquired: 04/28/2016 06:43
Date Quantitated: 04/28/2016 08:41
Batch ID: KWG1603358
Analysis Method: 8015C
MethodJoinID: MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: 5/2/16

Secondary Review: 5/3/16

Printed: 05/02/2016 15:44:41
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F109.D			**Instrument:**	GC39
Acqu Date:	04/28/2016 06:43	**Quant Date:**	04/28/2016 08:41	**Vial:**	36
Run Type:	CCV	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603358-7			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ183
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Ree Limits		Rpt?
1,4-Difluorobenzene	4.49		11946580	99.23		80-107	NA	
4-Bromofluorobenzene	8.18		5976493	91.77		70-130	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		48057327	485.58			
Gasoline Range Organics (GRO)	2.29		54952373	487.82			
Gasoline Range Organics-NWTF	5.71		34882507	503.52			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ183
DataFile: J:\GC39\DATA\042616\0426F109.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff		Sol'n Conc.	True Value	% Drift
Gasoline Range Organics (GRO)		MS	AverageRF	20		1.1E+5	1.1E+5	-2				
C6 - C10 GRO		MS	AverageRF	25		9.9E+4	9.6E+4	-3				
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.2E+5	-1				
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	7.0E+4	1				
4-Bromofluorobenzene		SURR	AverageRF			6.5E+4	6.0E+4	-8	*			

1 Compounds Failed CCV Criteria (20.00 Percent)

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F109.D			**Instrument:**	GC39
Acqu Date:	04/28/2016 06:43	**Quant Date:**	04/28/2016 08:41	**Vial:**	36
Run Type:	CCV	**MethodJoinID:**	MJ184	**Dilution:**	1.0
Lab ID:	KWG1603358-7			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ184
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	8.18		5976493	91.77		83-119	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		48057327	485.58			
Gasoline Range Organics (GRO)	2.29		54952373	487.82			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ184
DataFile: J:\GC39\DATA\042616\0426F109.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
Gasoline Range Organics (GRO)		MS	AverageRF	20		1.1E+5	1.1E+5	-2			
C6 - C10 GRO		MS	AverageRF	20		9.9E+4	9.6E+4	-3			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.0E+4	-8			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F109.D			**Instrument:**	GC39
Acqu Date:	04/28/2016 06:43	**Quant Date:**	04/28/2016 08:41	**Vial:**	36
Run Type:	CCV	**MethodJoinID:**	MJ186	**Dilution:**	1.0
Lab ID:	KWG1603358-7			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK101	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ186
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		11946580	99.23		50-150	NA	
4-Bromofluorobenzene	8.18		5976493	91.77		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		48057327	485.58			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance.
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ186
DataFile: J:\GC39\DATA\042616\0426F109.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
C6 - C10 GRO		MS	AverageRF	25		9.9E+4	9.6E+4	-3			
1,4-Difluorobenzene		SURR	AverageRF	25		1.2E+5	1.2E+5	-1			
4-Bromofluorobenzene		SURR	AverageRF	25		6.5E+4	6.0E+4	-8			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F109.D			**Instrument:**	GC39
Acqu Date:	04/28/2016 06:43	**Quant Date:**	04/28/2016 08:41	**Vial:**	36
Run Type:	CCV	**MethodJoinID:**	MJ202	**Dilution:**	1.0
Lab ID:	KWG1603358-7			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ202
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		11946580	99.23		50-150	NA	
4-Bromofluorobenzene	8.18		5976493	91.77		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		34882507	503.52			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ202
DataFile: J:\GC39\DATA\042616\0426F109.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
1,4-Difluorobenzene		SURR	AverageRF	20		1.2E+5	1.2E+5	-1			
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	7.0E+4	1			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.0E+4	-8			

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F109.D			**Instrument:**	GC39
Acqu Date:	04/28/2016 06:43	**Quant Date:**	04/28/2016 08:41	**Vial:**	36
Run Type:	CCV	**MethodJoinID:**	MJ203	**Dilution:**	1.0
Lab ID:	KWG1603358-7			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**	**Report Group:**
Analysis Method:	NWTPH-Gx	**Prep Method:**	
Prep Ref:		**Prep Date:**	

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ203
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	8.18		5976493	91.77		50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		34882507	503.52			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14201
Method ID: MJ203
DataFile: J:\GC39\DATA\042616\0426F109.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
Gasoline Range Organics-NWTPH		MS	AverageRF	20		6.9E+4	7.0E+4	1			
4-Bromofluorobenzene		SURR	AverageRF	20		6.5E+4	6.0E+4	-8			

Data Path : J:\GC39\Data\042616\
Data File : 0426F109.D
Signal(s) : FID1A.ch
Acq On : 28 Apr 2016 6:43 am
Operator : GH
Sample : CCV HCV7-52L 4/28/16
Misc :
ALS Vial : 36 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 08:41:28 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

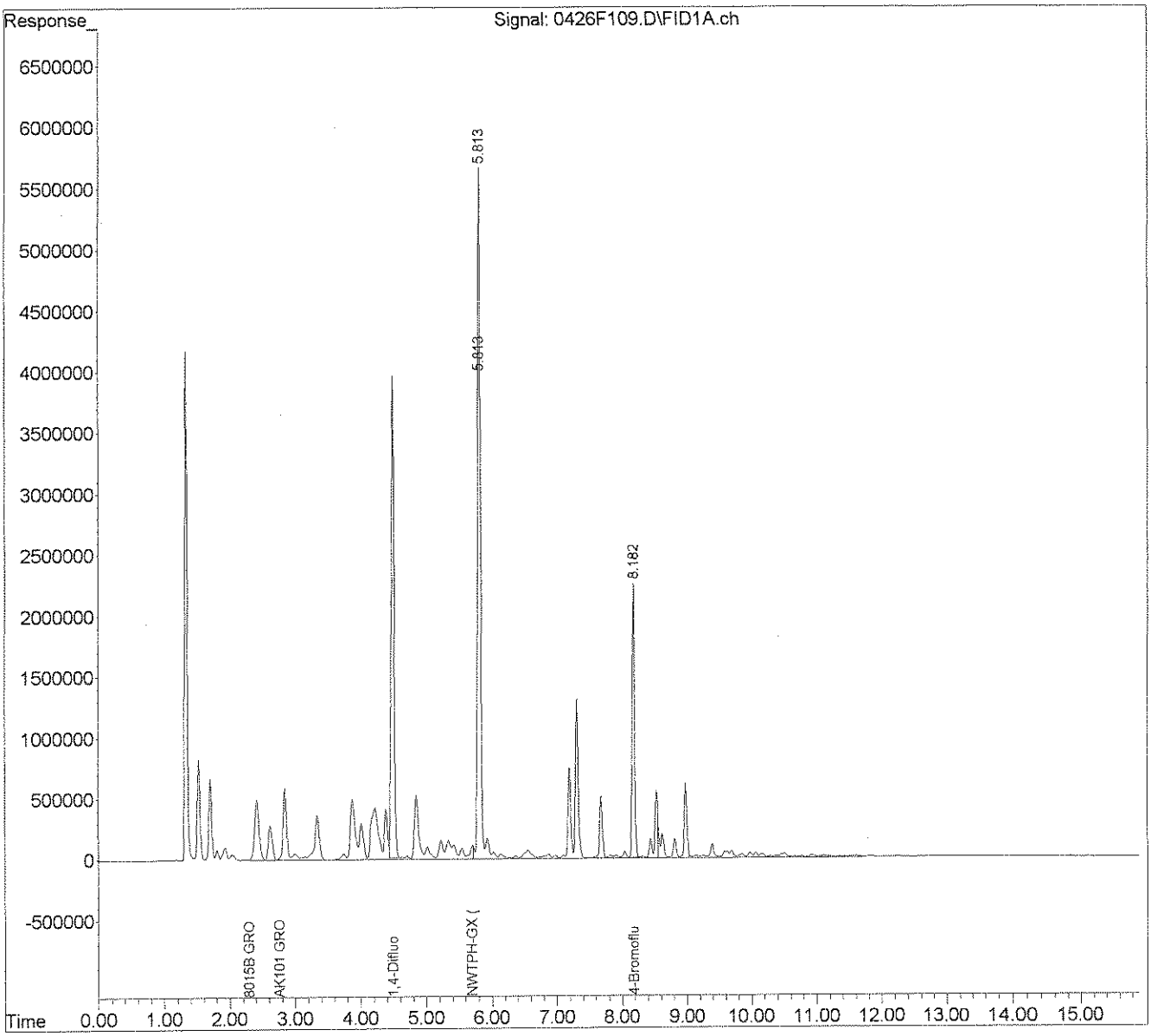
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.492	11946580	99.229	ug/L
2) S	4-Bromofluorobenzene	8.182	5976493	91.772	ug/L
	Target Compounds				
3) H	AK101 GRO (C6-C10)	2.755	48057327	485.580	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	54952373	487.815	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	34882507	503.517	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F109.D
Signal(s) : FID1A.ch
Acq On : 28 Apr 2016 6:43 am
Operator : GH
Sample : CCV HCV7-52L 4/28/16
Misc :
ALS Vial : 36 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 28 08:41:28 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Exception Report

Data File: J:\GC39\DATA\042616\0426F110.D
Lab ID: KWG1603358-14
RunType: IB
Matrix: SOIL

Date Acquired: 04/28/2016 07:07
Date Quantitated: 04/29/2016 10:26
Batch ID: KWG1603358
Analysis Method: 8015C
MethodJoinID: MJ183

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	1,4-Difluorobenzene	Calc	S-0.000	I-98.548	okay
	Gasoline Range Organics-NWTPH	Calc	S-0.000	I-21.577	2

Primary Review: [signature] 5/2/16

Secondary Review: [signature] 6/3/16

Printed: 05/02/2016 15:44:44
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F110.D			**Instrument:**	GC39
Acqu Date:	04/28/2016 07:07	**Quant Date:**	04/29/2016 10:26	**Vial:**	37
Run Type:	IB	**MethodJoinID:**	MJ183	**Dilution:**	1.0
Lab ID:	KWG1603358-14			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ183
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		11864644	98.55		80-107	NA	
4-Bromofluorobenzene			0d			70-130	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		570786	5.77			
Gasoline Range Organics (GRO)	2.29		745100	6.61			
Gasoline Range Organics-NWTF	5.71		1494807	21.58			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F110.D			**Instrument:**	GC39
Acqu Date:	04/28/2016 07:07	**Quant Date:**	04/29/2016 10:26	**Vial:**	37
Run Type:	IB	**MethodJoinID:**	MJ184	**Dilution:**	1.0
Lab ID:	KWG1603358-14			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ184
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0d			83-119	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		570786	5.77			
Gasoline Range Organics (GRO)	2.29		745100	6.61			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F110.D			**Instrument:**	GC39
Acqu Date:	04/28/2016 07:07	**Quant Date:**	04/29/2016 10:26	**Vial:**	37
Run Type:	IB	**MethodJoinID:**	MJ186	**Dilution:**	1.0
Lab ID:	KWG1603358-14			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK101	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ186
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		11864644	98.55		50-150	NA	
4-Bromofluorobenzene			0d			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C6 - C10 GRO	2.75		570786	5.77			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F110.D			**Instrument:**	GC39
Acqu Date:	04/28/2016 07:07	**Quant Date:**	04/29/2016 10:26	**Vial:**	37
Run Type:	IB	**MethodJoinID:**	MJ202	**Dilution:**	1.0
Lab ID:	KWG1603358-14			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:		**Method ID:**	MJ202
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1,4-Difluorobenzene	4.49		11864644	98.55		50-150	NA	
4-Bromofluorobenzene			0d			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		1494807	21.58			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report

Data File:	J:\GC39\DATA\042616\0426F110.D			**Instrument:**	GC39
Acqu Date:	04/28/2016 07:07	**Quant Date:**	04/29/2016 10:26	**Vial:**	37
Run Type:	IB	**MethodJoinID:**	MJ203	**Dilution:**	1.0
Lab ID:	KWG1603358-14			**Soln Conc. Units:**	ug/L

Bottle ID:		**Tier:**		**Matrix:**	SOIL
Prod Code:	8015B VOC_GRO	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603358	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Gx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC39\METHODS\080615GAS_GC	**Calibration ID:**	CAL14201
Title:			
		Method ID:	MJ203
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0d			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Gasoline Range Organics-NWTF	5.71		1494807	21.58			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data Path : J:\GC39\Data\042616\
Data File : 0426F110.D
Signal(s) : FID1A.ch
Acq On : 28 Apr 2016 7:07 am
Operator : GH
Sample : IB
Misc :
ALS Vial : 37 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 29 10:26:47 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

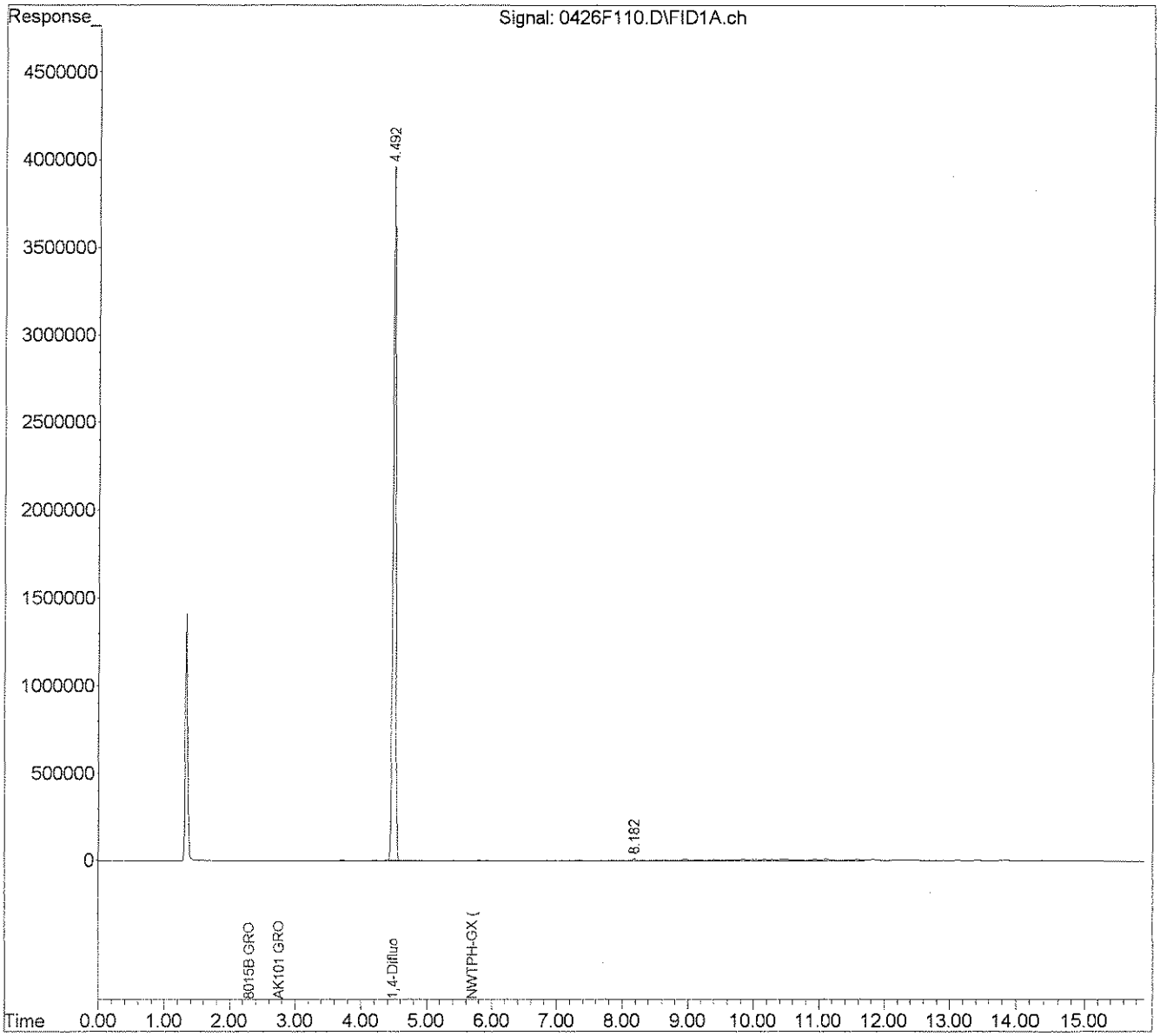
	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) S	1,4-Difluorobenzene	4.492	11864644	98.548	ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L d
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.755	570786	5.767	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.295	745100	6.614	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.713	1494807	21.577	ug/L

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

Data Path : J:\GC39\Data\042616\
Data File : 0426F110.D
Signal(s) : FID1A.ch
Acq On : 28 Apr 2016 7:07 am
Operator : GH
Sample : IB
Misc :
ALS Vial : 37 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Apr 29 10:26:47 2016
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Date: 8/6/15

By: SC

IS/SS Std. ID: —

CCV Std ID: —

MS/DMS/LCS/ICV Std ID: —

Marker Std. ID: HCV7-16 G N/A

ALS Environmental
Injection Log
GC39 Agilent 7890B

pg 1 of 1

LIMS ID —

ICAL Date: 8/6/15 CAL 14201

Second RV: [illegible] 8/10/15

Stealth ID: —

	Sample Name	File Name	Method	Dilution	pH-2	Comments
1	Marker	0806F007	8015C	10ml→50ml		HCV7-27K 8/7/15
2	IB	008				
3	50/20ppb	009		5/8ml→100ml		HCV7-28A 8/7/15
4	100/25ppb	010		5/5ml→50ml		HCV7-28B 8/7/15
5	200/50ppb	011		10/10ml→50ml		HCV7-28C 8/7/15
6	500/100ppb	012		25/20ml→50ml		HCV7-28D 8/7/15
7	1000/150ppb	013		50/30ml→50ml		HCV7-28E 8/7/15
8	5000ppb	014		50ml→50ml		HCV7-28F 8/7/15
9	10000ppb	015		100ml→50ml		HCV7-28G 8/7/15
10	IB	016				
11	IB	017				
12	ICV	018	↓	5/20ml→50ml		HCV7-27L 8/7/15
13						
14						
15						
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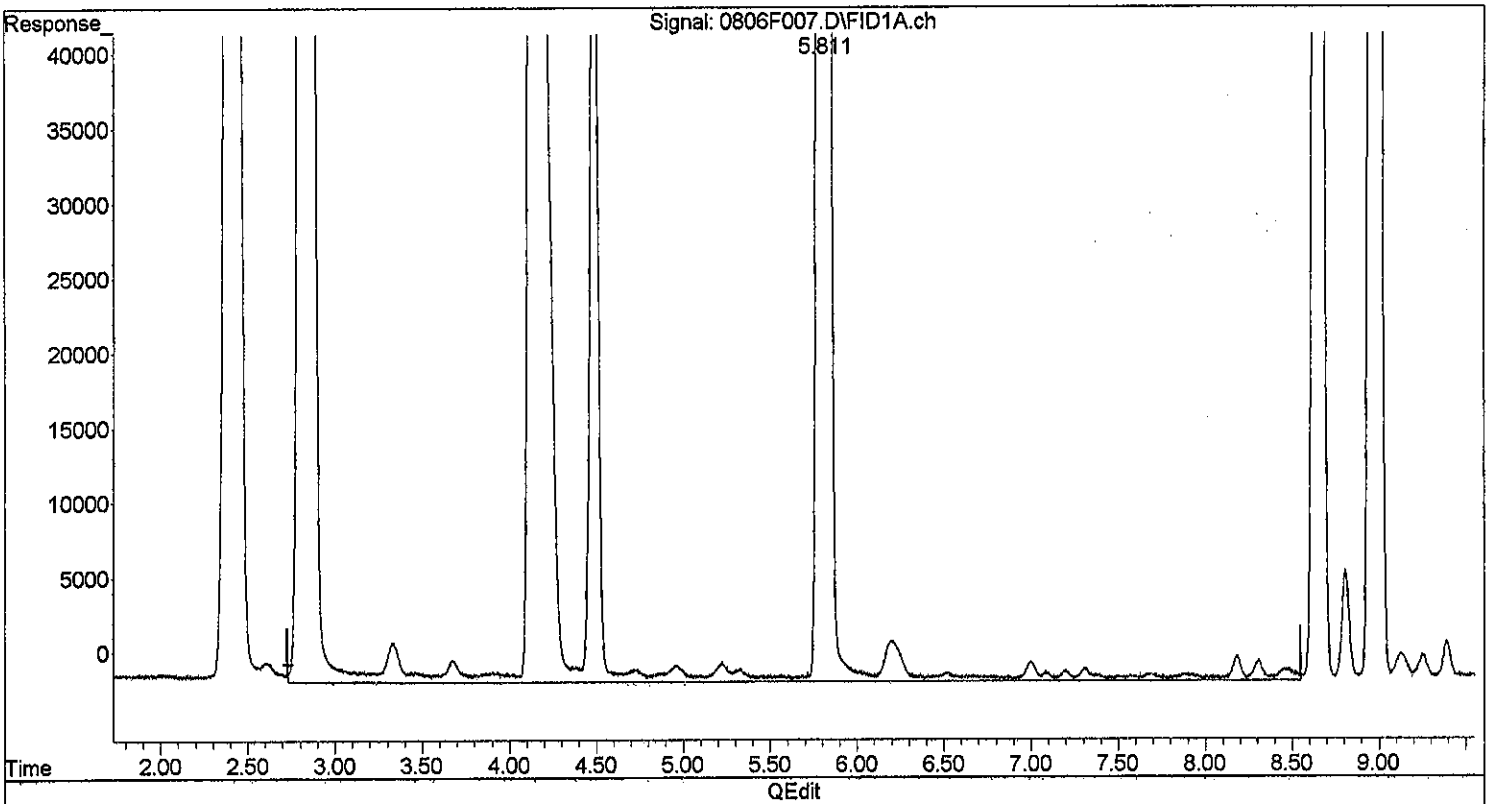
24						
25						
26						
27						

Quantitation Report (Qedit)

Data Path : J:\GC39\Data\080615\
Data File : 0806F007.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 12:09 pm
Operator : SC
Sample : MARKER HCV7-27K 8/7/15
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 13:23:33 2015
Quant Method : J:\GC39\Methods\073015GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Mon Jul 20 09:51:53 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



(3) AK101 GRO (C6-C10) (H)
2.730min 78.624 ug/L m
response 7948388

SC 8/6/15

(+) = Expected Retention Time
073015GAS_GC39.M Thu Aug 06 15:44:35 2015

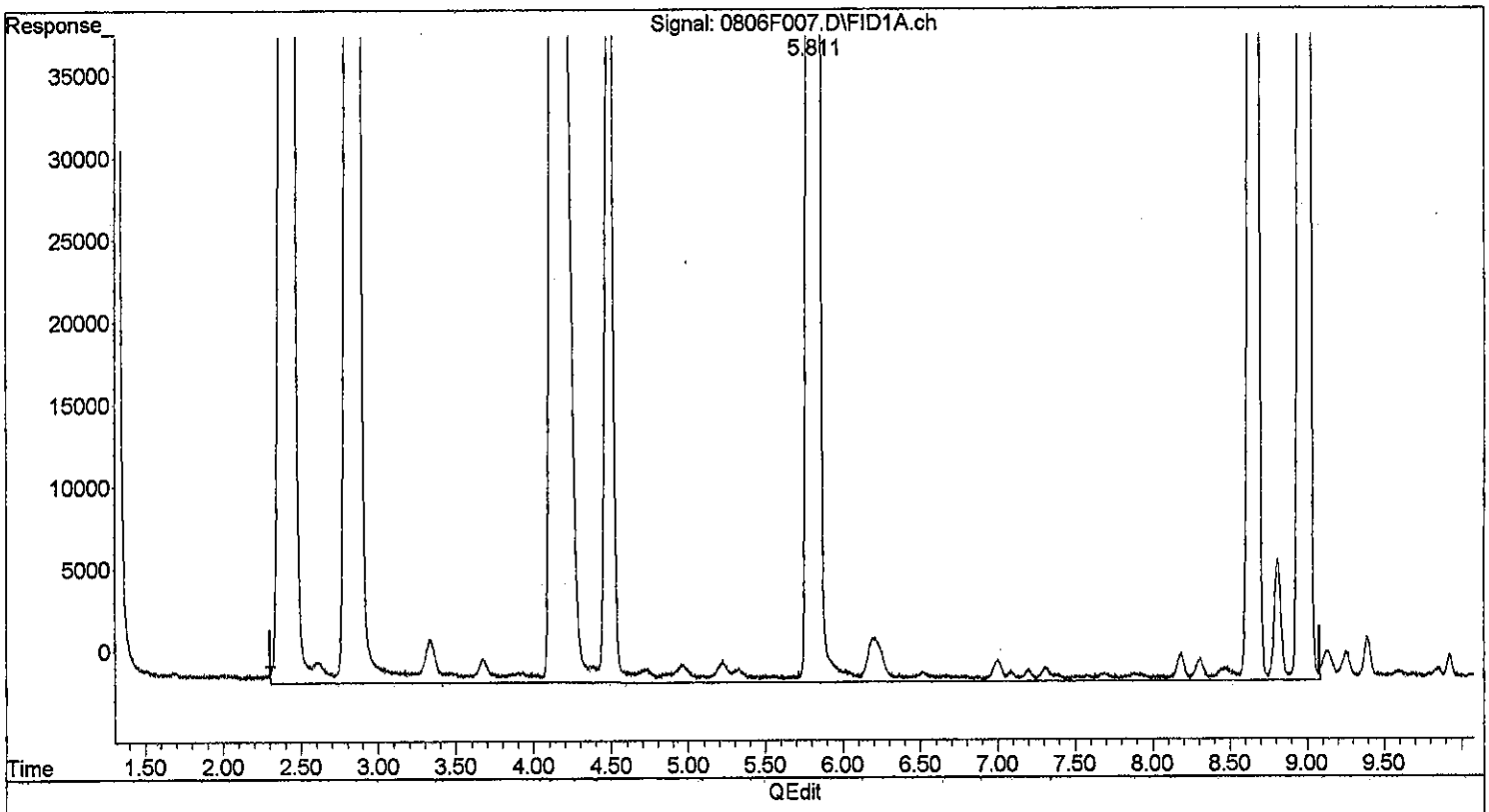
8.10.15 Page: 1

Quantitation Report (Qedit)

Data Path : J:\GC39\Data\080615\
Data File : 0806F007.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 12:09 pm
Operator : SC
Sample : MARKER HCV7-27K 8/7/15
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 13:23:33 2015
Quant Method : J:\GC39\Methods\073015GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Mon Jul 20 09:51:53 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



(4) 8015B GRO (2mp-1,2,4tmb) (H)
2.304min 108.814 ug/L m
response 12497977

SC 8/16/15

(+) = Expected Retention Time
073015GAS_GC39.M Thu Aug 06 15:44:39 2015

8.10.15

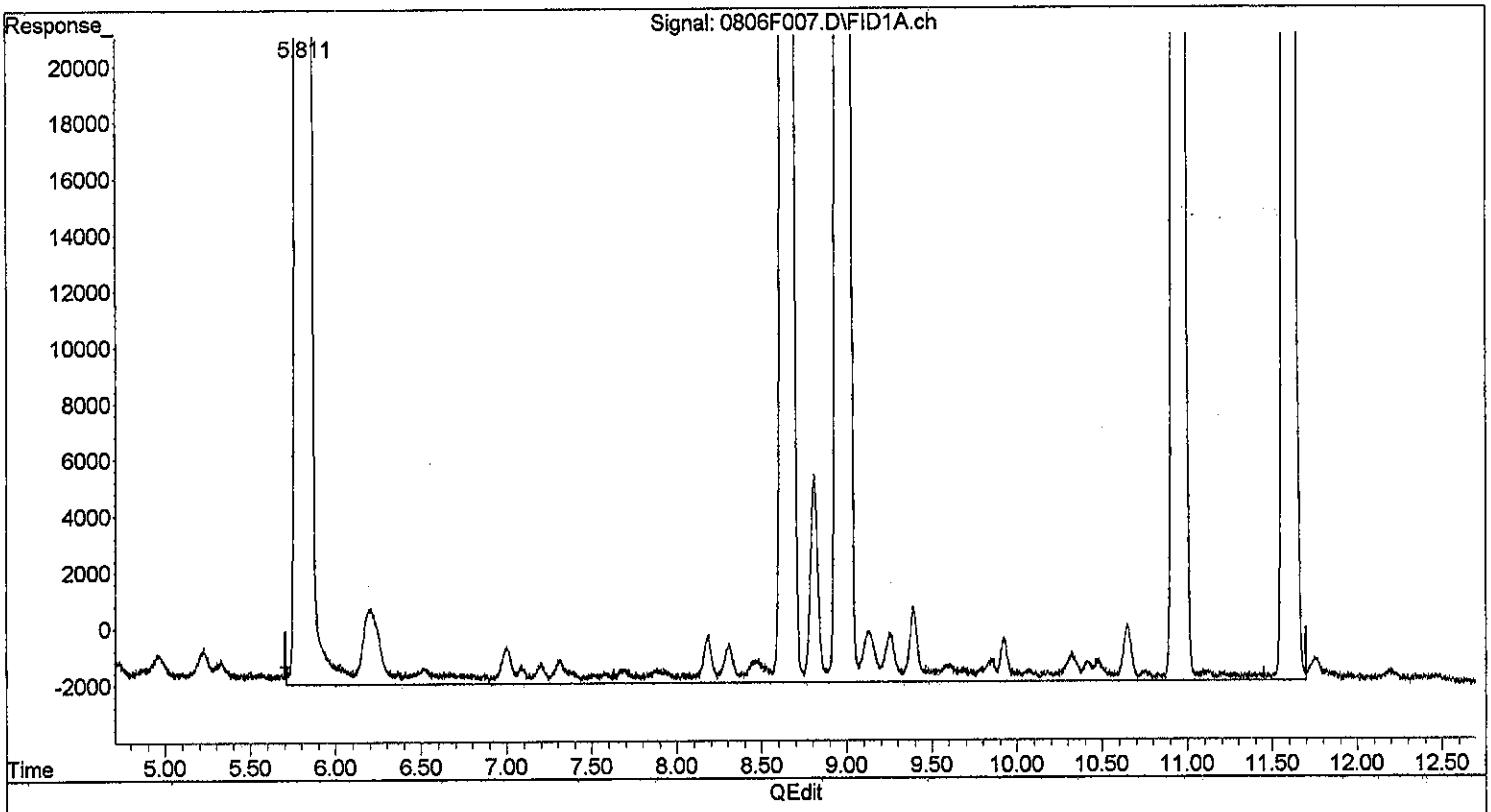
Page: 1

Quantitation Report (Qedit)

Data Path : J:\GC39\Data\080615\
Data File : 0806F007.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 12:09 pm
Operator : SC
Sample : MARKER HCV7-27K 8/7/15
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 13:23:33 2015
Quant Method : J:\GC39\Methods\073015GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Mon Jul 20 09:51:53 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



(5) NWTPH-GX (Tol.-Naph.) (H)
5.708min 107.238 ug/L m
response 7652873

SC 8/6/15

(+) = Expected Retention Time
073015GAS_GC39.M Thu Aug 06 15:44:42 2015

8/6/15 Page: 1

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\080615\
Data File : 0806F008.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 12:33 pm
Operator : SC
Sample : IB
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 13:25:04 2015
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Mon Jul 20 09:51:53 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.487	176532	1.497 ug/L
2) S	4-Bromofluorobenzene	0.000	0	N.D. ug/L
Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	357364	3.535 ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	443240	3.859 ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	372397	5.218 ug/L

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

SC 8/6/15

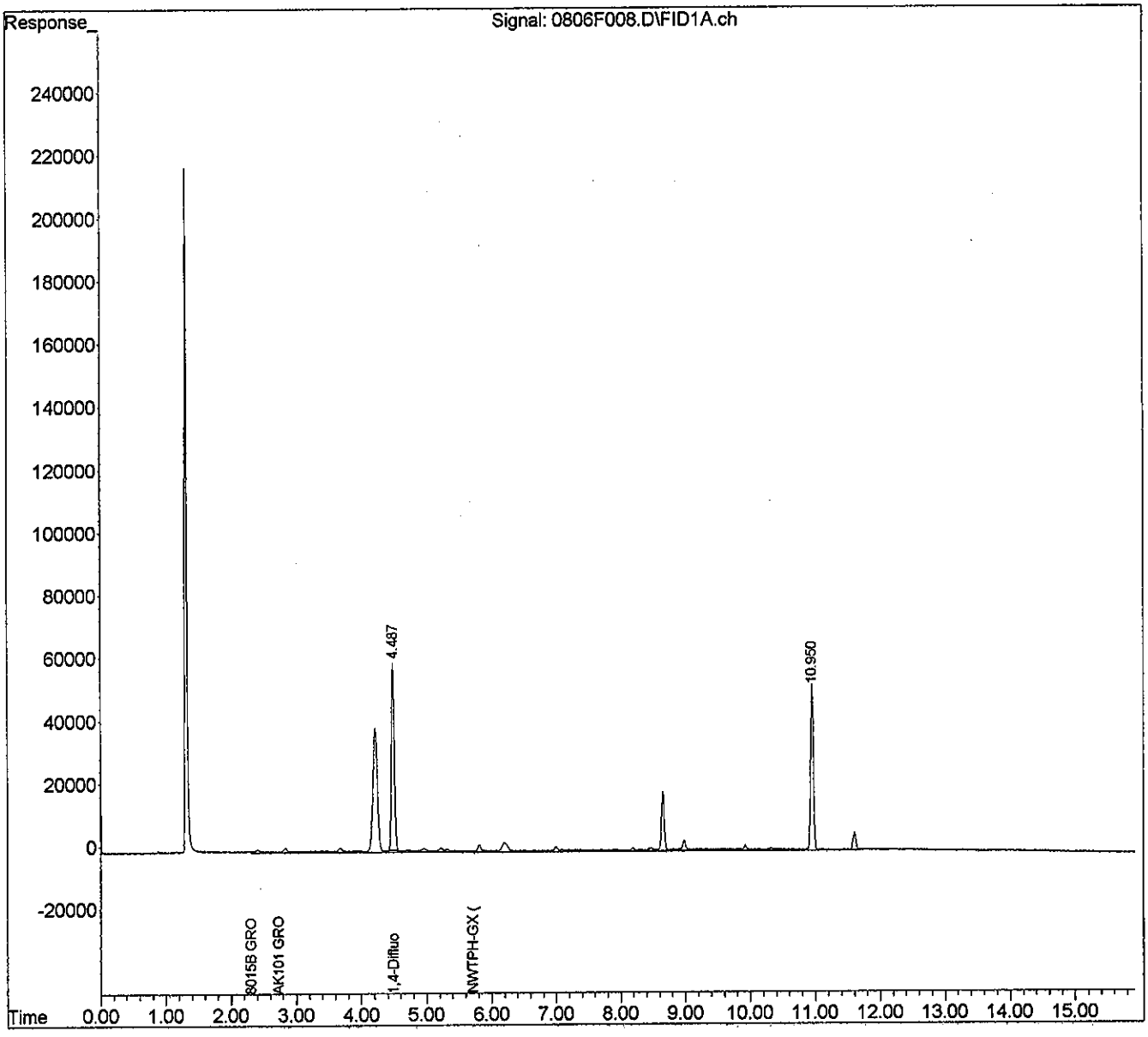
8/10/15

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\080615\
Data File : 0806F008.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 12:33 pm
Operator : SC
Sample : IB
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 13:25:04 2015
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Mon Jul 20 09:51:53 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\080615\
Data File : 0806F009.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 12:57 pm
Operator : SC
Sample : 50/20 HCV7-28A 8/7/15
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 13:25:22 2015
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Mon Jul 20 09:51:53 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.487	2464512	20.899 ug/L
2) S	4-Bromofluorobenzene	8.181	1267557	19.752 ug/L
Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	5352111	52.942 ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	6095970	53.075 ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	3708183	51.962 ug/L

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

SC 8/6/15

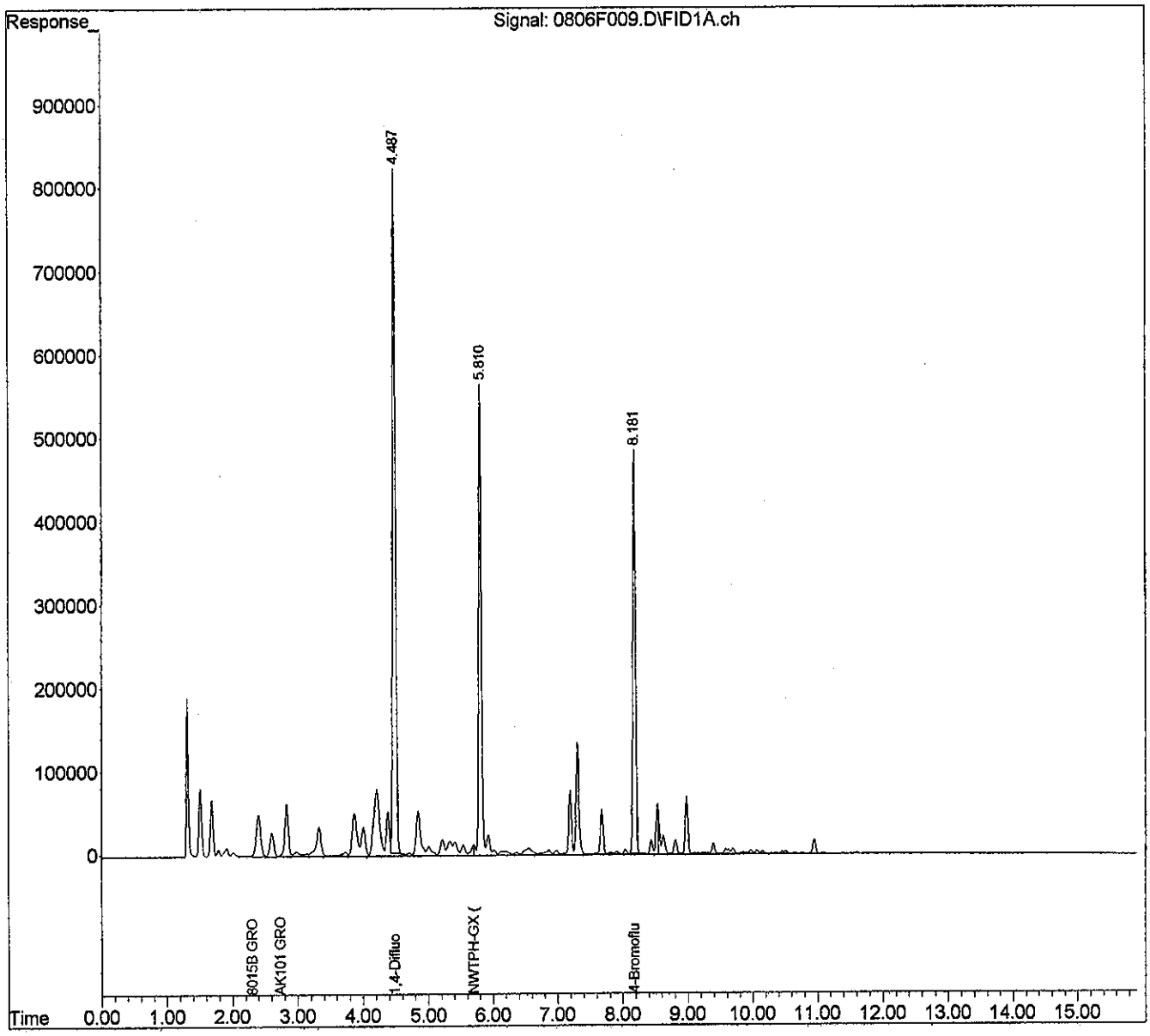
8.10.15

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\080615\
Data File : 0806F009.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 12:57 pm
Operator : SC
Sample : 50/20 HCV7-28A 8/7/15
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 13:25:22 2015
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Mon Jul 20 09:51:53 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\080615\
Data File : 0806F010.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 1:22 pm
Operator : SC
Sample : 100/25 HCV7-28B 8/7/15
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 13:40:28 2015
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 13:26:05 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.489	3117318	26.209 ug/L
2) S	4-Bromofluorobenzene	8.181	1617782	25.163 ug/L
Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	9522357	93.214 ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	10783464	92.938 ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	6380055	88.955 ug/L

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

SC 8/6/15

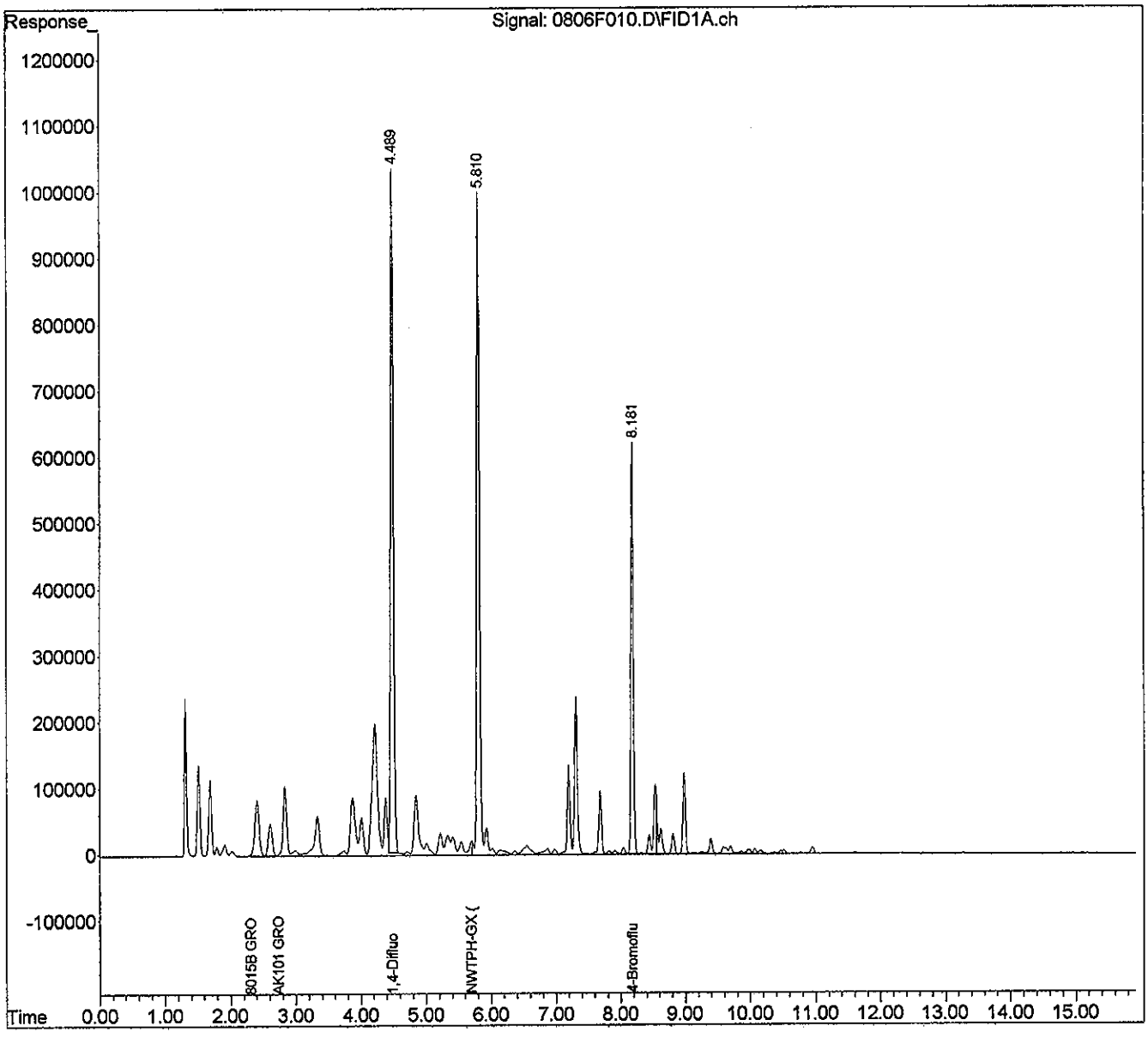
8.10.15

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\080615\
Data File : 0806F010.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 1:22 pm
Operator : SC
Sample : 100/25 HCV7-28B 8/7/15
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 13:40:28 2015
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 13:26:05 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\080615\
Data File : 0806F011.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 1:46 pm
Operator : SC
Sample : 200/50 HCV7-28C 8/7/15
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 14:02:56 2015
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 13:41:25 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.489	5994386	49.580 ug/L
2) S	4-Bromofluorobenzene	8.181	3251000	50.240 ug/L
Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	19954801	194.969 ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	22676387	195.209 ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	13583818	190.583 ug/L

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

SC 8/6/15

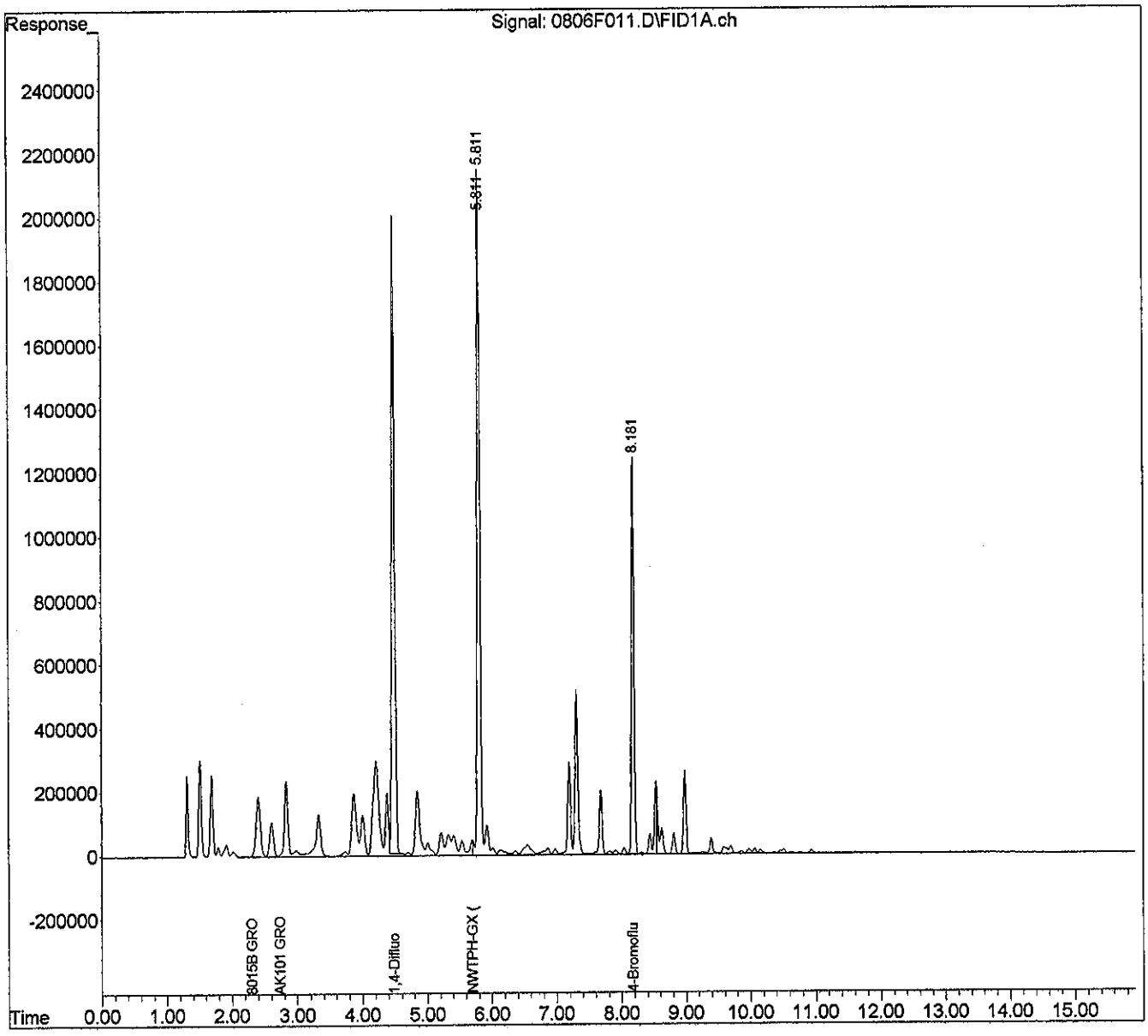
8.10.15

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\080615\
Data File : 0806F011.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 1:46 pm
Operator : SC
Sample : 200/50 HCV7-28C 8/7/15
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 14:02:56 2015
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 13:41:25 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\080615\
Data File : 0806F012.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 2:10 pm
Operator : SC
Sample : 500/100 HCV7-28D 8/7/15
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 14:32:37 2015
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 14:03:43 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.489	11603735	96.696 ug/L
2) S	4-Bromofluorobenzene	8.181	6533531	101.475 ug/L
Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	47952704	472.973 ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	54535324	474.085 ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	33423992	474.388 ug/L

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

SC 8/6/15

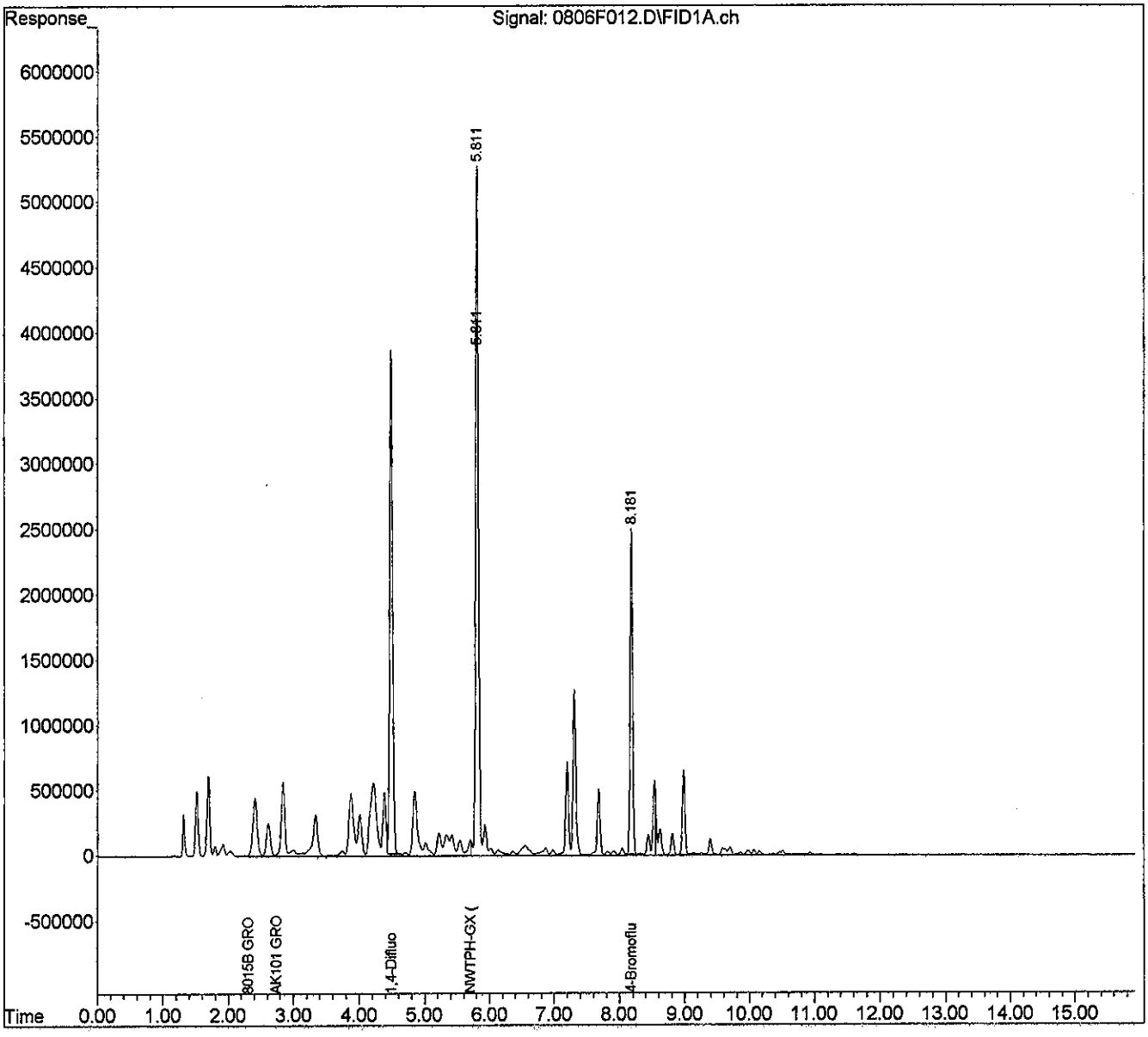
8.10.15

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\080615\
Data File : 0806F012.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 2:10 pm
Operator : SC
Sample : 500/100 HCV7-28D 8/7/15
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 14:32:37 2015
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 14:03:43 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\080615\
Data File : 0806F013.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 2:34 pm
Operator : SC
Sample : 1000/150 HCV7-28E 8/7/15
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 14:53:11 2015
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 14:33:15 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.491	17719385	147.460 ug/L
2) S	4-Bromofluorobenzene	8.181	10075629	156.178 ug/L
Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	94498950	928.819 ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	107516712	931.204 ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	66942922	949.013 ug/L

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

SC 8/16/15

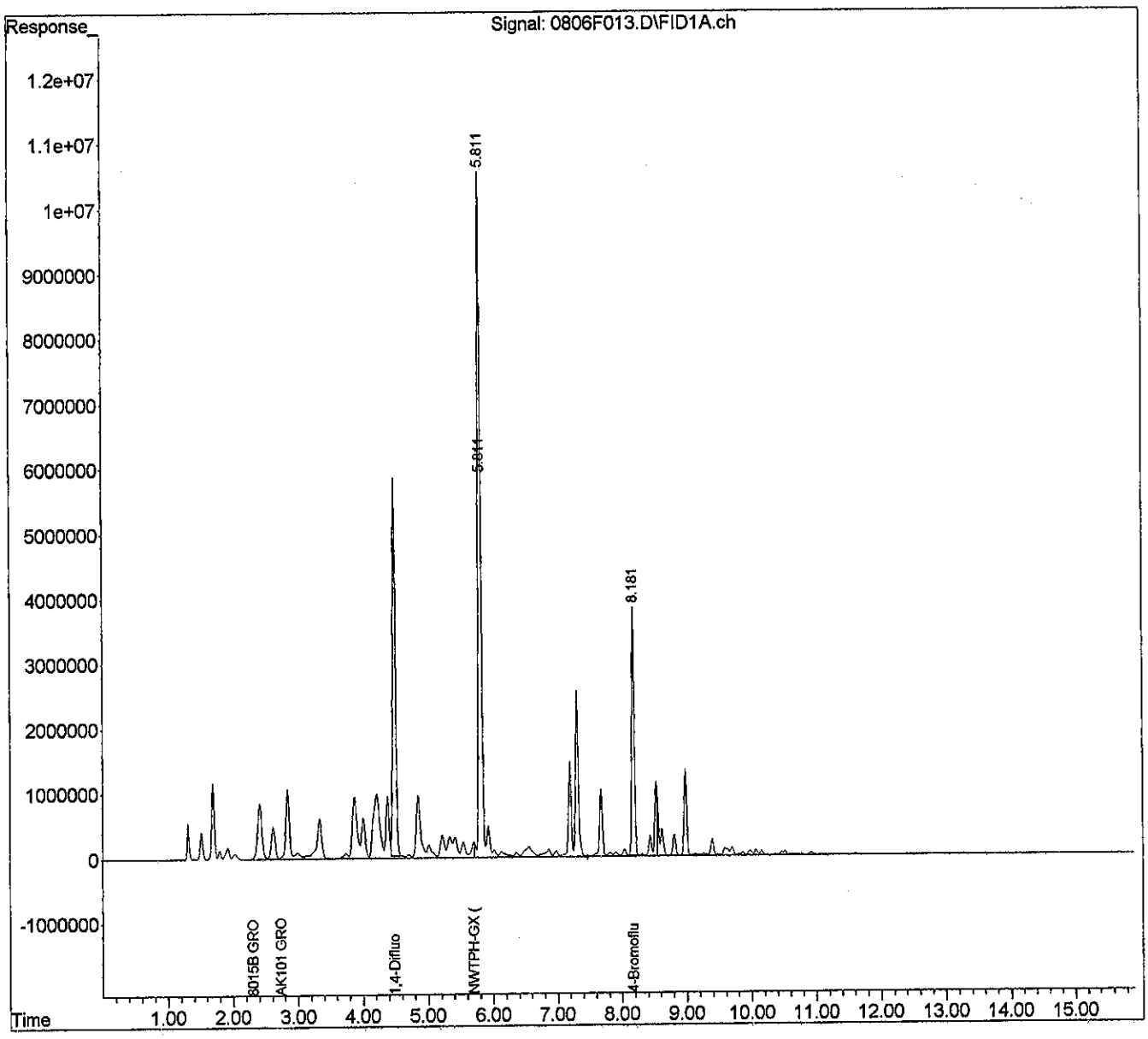
8.10.15

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\080615\
Data File : 0806F013.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 2:34 pm
Operator : SC
Sample : 1000/150 HCV7-28E 8/7/15
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 14:53:11 2015
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 14:33:15 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\080615\
Data File : 0806F014.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 2:58 pm
Operator : SC
Sample : 5000 HCV7-28F 8/7/15
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 15:26:04 2015
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 14:53:54 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) S	1,4-Difluorobenzene	0.000	0	N.D.	ug/L d
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L d
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.730	502071322	4939.932	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	573317210	4968.259	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	359170134	5103.569	ug/L

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

SC 8/6/15

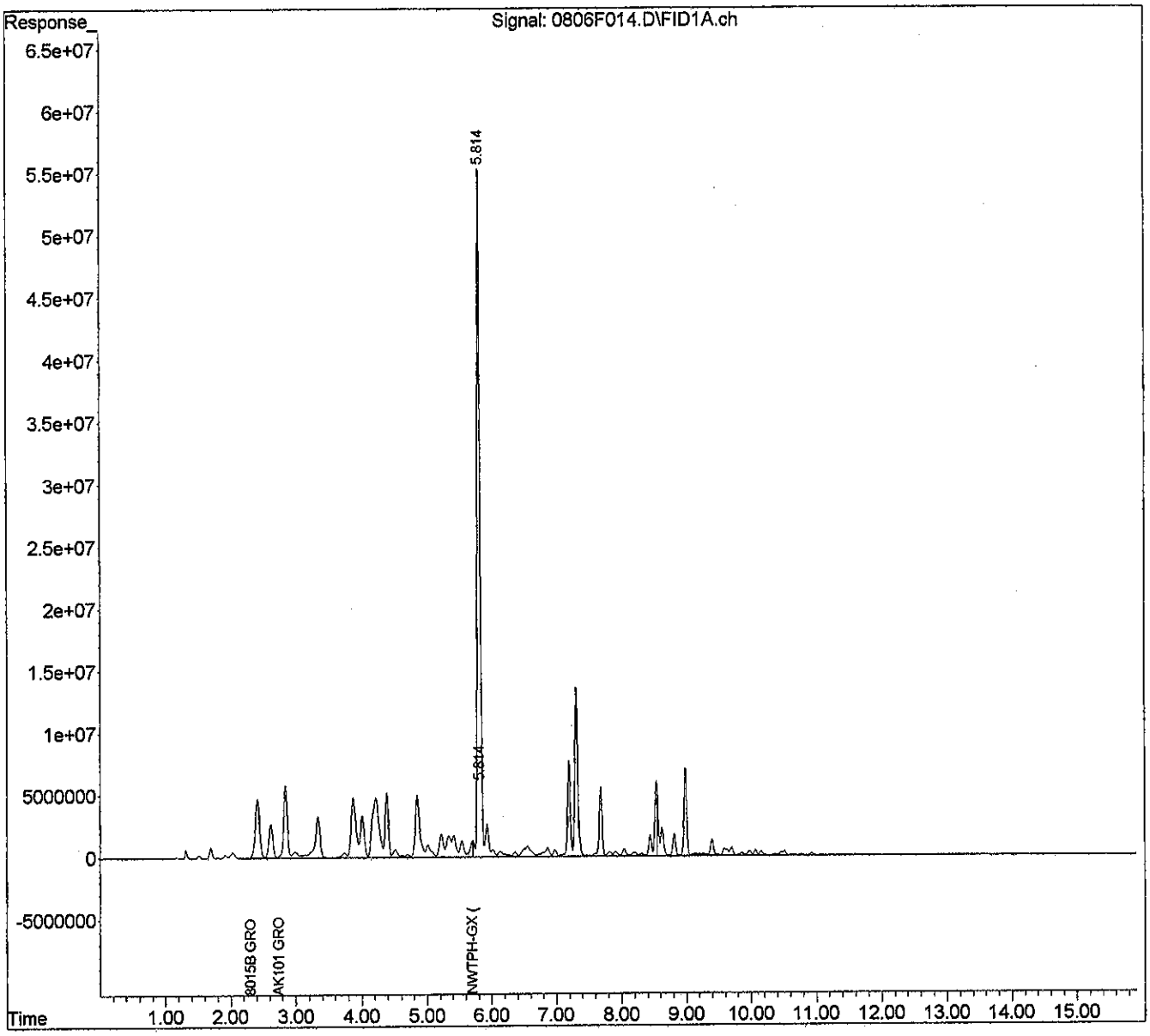
8/10/15

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\080615\
Data File : 0806F014.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 2:58 pm
Operator : SC
Sample : 5000 HCV7-28F 8/7/15
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 15:26:04 2015
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 14:53:54 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\080615\
Data File : 0806F015.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 3:23 pm
Operator : SC
Sample : 10000 HCV7-28G 8/7/15
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 15:41:03 2015
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:26:33 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) S	1,4-Difluorobenzene	0.000	0	N.D.	ug/L d
2) S	4-Bromofluorobenzene	0.000	0	N.D.	ug/L d
Target Compounds					
3) H	AK101 GRO (C6-C10)	2.730	999246587	9906.324	ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	1141635387	9957.133	ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	734360471	10491.936	ug/L

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

SC 8/6/15

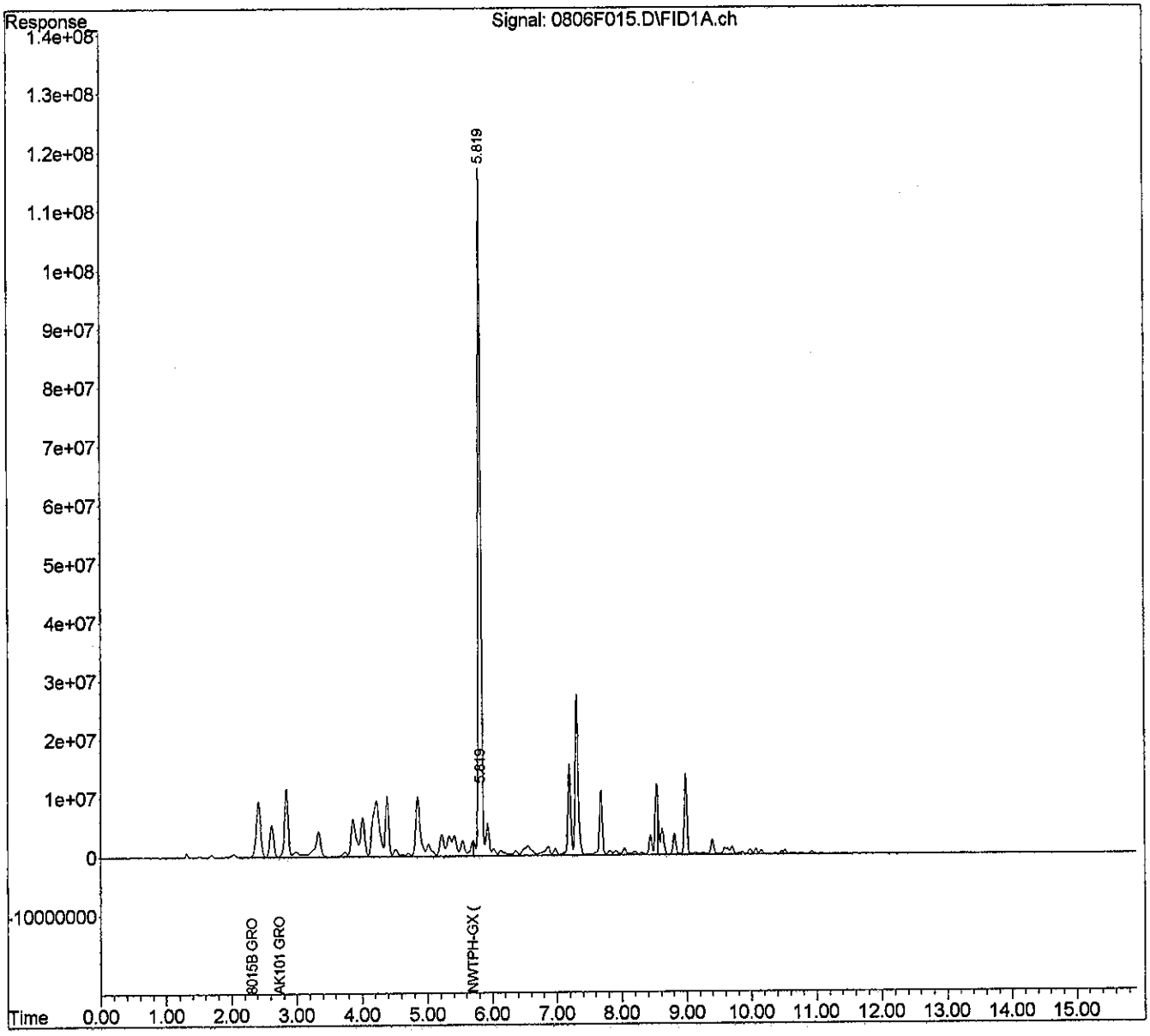
8.10.15

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\080615\
Data File : 0806F015.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 3:23 pm
Operator : SC
Sample : 10000 HCV7-28G 8/7/15
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 15:41:03 2015
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:26:33 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\080615\
Data File : 0806F018.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 4:35 pm
Operator : SC
Sample : ICV HCV7-27L 8/7/15
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 16:52:16 2015
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
1) S	1,4-Difluorobenzene	4.489	11236386	93.330 ug/L
2) S	4-Bromofluorobenzene	8.182	6201507	95.228 ug/L
Target Compounds				
3) H	AK101 GRO (C6-C10)	2.730	41903408	423.399 ug/L
4) H	8015B GRO (2mp-1,2,4tmb)	2.304	49908411	443.039 ug/L
5) H	NWTPH-GX (Tol.-Naph.)	5.708	30106955	434.583 ug/L

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

SC 8/6/15

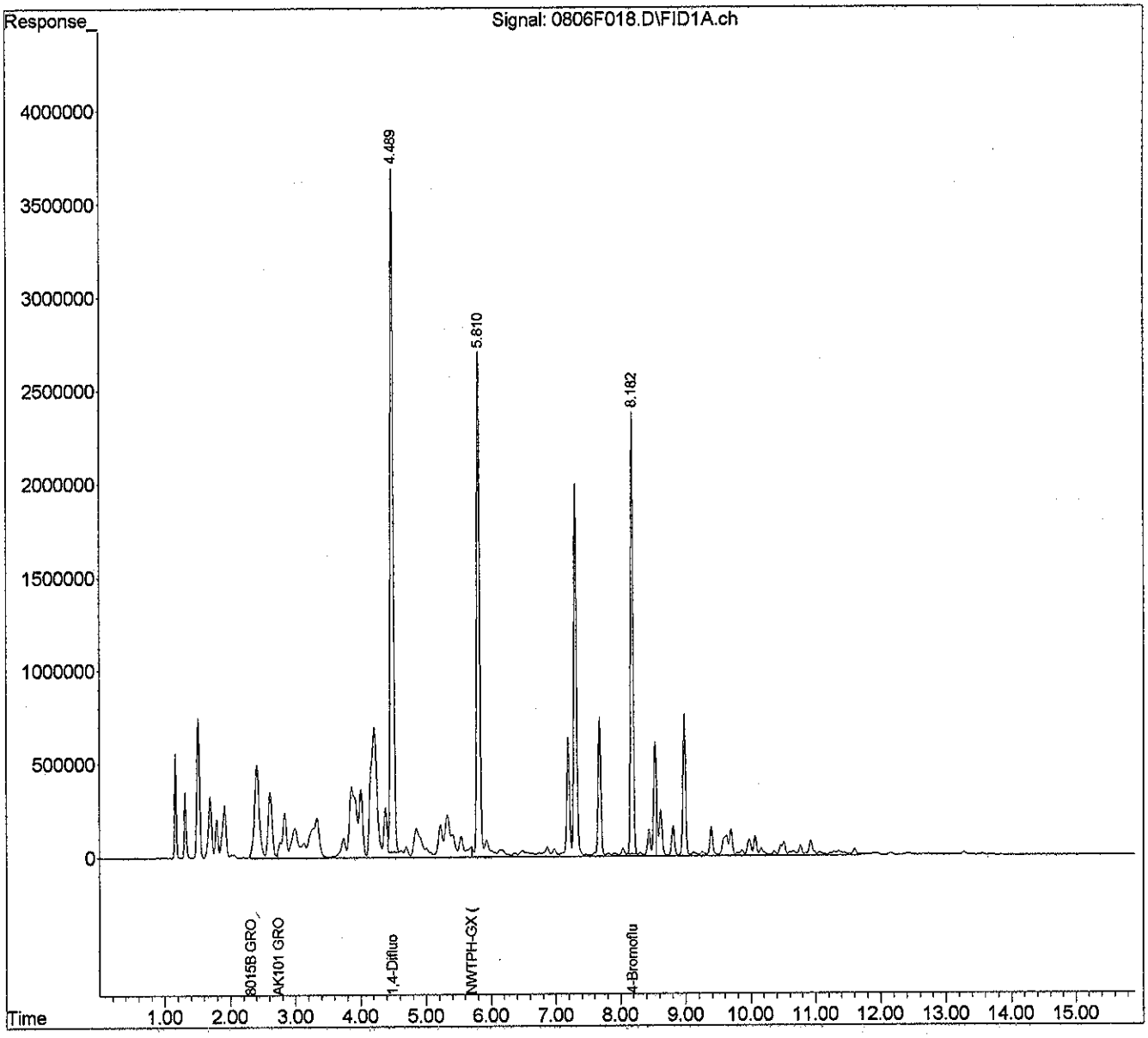
8.10.15

Quantitation Report (QT Reviewed)

Data Path : J:\GC39\Data\080615\
Data File : 0806F018.D
Signal(s) : FID1A.ch
Acq On : 6 Aug 2015 4:35 pm
Operator : SC
Sample : ICV HCV7-27L 8/7/15
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: RTEINT.P
Quant Time: Aug 06 16:52:16 2015
Quant Method : J:\GC39\Methods\080615GAS_GC39.M
Quant Title : Gas CAL14121
QLast Update : Thu Aug 06 15:41:27 2015
Response via : Initial Calibration
Integrator: RTE

Volume Inj. : 10mL
Signal Phase : DB-624
Signal Info : 0.53mm



Diesel and Residual Range Organics

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

1st CH 05/02/16
2nd JMS 05/03/16

Exception Report

Data File: J:\GC21\DATA\042916F\0429F050.D
Lab ID: K1604068-001
RunType: SMPL
Matrix: WATER

Date Acquired: 04/29/2016 19:03
Date Quantitated: 04/30/2016 10:00
Batch ID: KWG1603375
Analysis Method: 8015C
ListJoinID: LJ16459

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F050.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 19:03	**Quant Date:**	04/30/2016 10:00	**Vial:**	13
Run Type:	SMPL	**ListJoinID:**	LJ16459	**Dilution:**	1.0
Lab ID:	K1604068-001			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603375	**Prep Lot:**	KWG1603188	**Report Group:**	K1604068
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1512574	**Prep Date:**	04/26/2016		

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\042816F\0428F048.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57	0.00?	55060	37.03	74	56-125	OK	
n-Triacontane	7.72	0.00?	47932	37.79	76	54-136	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	3.88		13274	11.35	25	J	
Residual Range Organics (RRO)	6.74		13483	21.92	48	J	

Prep Amount:	460 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F050.D Vial: 13
Acq On : 29 Apr 2016 7:03 pm Operator: SMS
Sample : K1604068-001 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:00:40 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	4-Bromofluorobenzene	2.93	23796	32.587 ppm
Spiked Amount	50.000	Recovery	=	65.17%
2) S	o-Terphenyl	5.57	55060	37.034 ppm
Spiked Amount	50.000	Recovery	=	74.07%
3) S	n-Triacontane	7.72	47932	37.787 ppm
Spiked Amount	50.000	Recovery	=	75.57%
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	19485	13.882 ppm
5) H	C10-C22ex DRO [AZ]	3.33	12928	9.902 ppm
6) H	C10-C25ex DRO [AK102]	3.25	17714	12.988 ppm
7) H	C10-C28in DRO [8015]	3.35	21805	15.636 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	13274	11.350 ppm
9) H	C22-C32in RRO [AZ]	6.23	11577	30.219 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	13483	21.924 ppm
11) H	C25-C36in RRO [AK103]	6.74	13513	18.111 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	30576	28.264 ppm

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

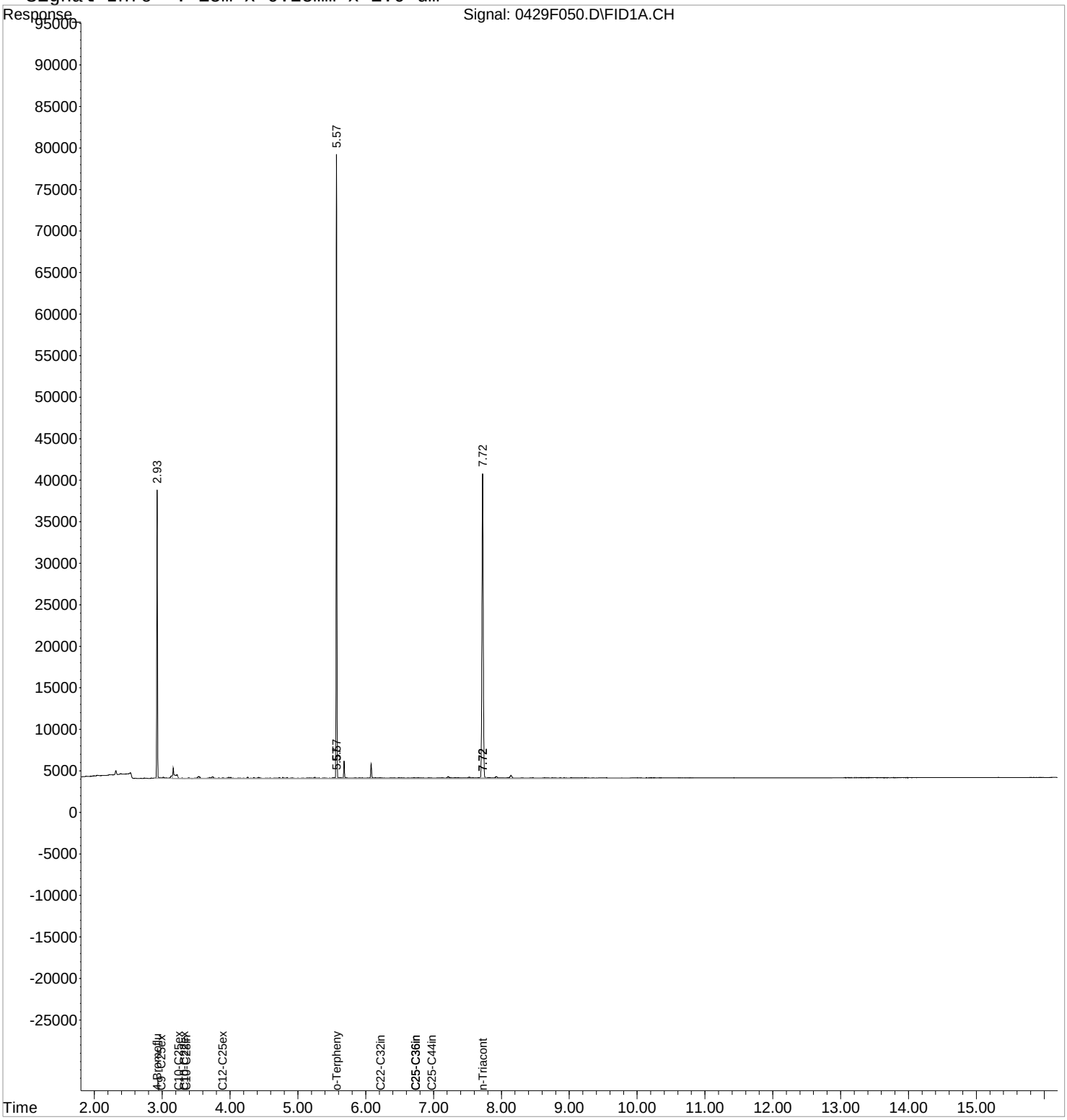
Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F050.D Vial: 13
Acq On : 29 Apr 2016 7:03 pm Operator: SMS
Sample : K1604068-001 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:00 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st CH 05/02/16
2nd JMS 05/03/16

Exception Report

Data File: J:\GC21\DATA\042916F\0429F052.D
Lab ID: K1604068-002
RunType: SMPL
Matrix: WATER

Date Acquired: 04/29/2016 19:25
Date Quantitated: 04/30/2016 10:01
Batch ID: KWG1603375
Analysis Method: 8015C
ListJoinID: LJ16459

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F052.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 19:25	**Quant Date:**	04/30/2016 10:01	**Vial:**	14
Run Type:	SMPL	**ListJoinID:**	LJ16459	**Dilution:**	1.0
Lab ID:	K1604068-002			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603375	**Prep Lot:**	KWG1603188	**Report Group:**	K1604068
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1512575	**Prep Date:**	04/26/2016		

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\042816F\0428F048.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57	0.00?	63531	42.73	85	56-125	OK	
n-Triacontane	7.72	0.00?	54715	43.14	86	54-136	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	3.88		22150	18.94	38	J	
Residual Range Organics (RRO)	6.74		17007	27.65	56	J	

Prep Amount:	495 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F052.D Vial: 14
Acq On : 29 Apr 2016 7:25 pm Operator: SMS
Sample : K1604068-002 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:01:13 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	4-Bromofluorobenzene	2.93	26144	35.803 ppm
Spiked Amount	50.000	Recovery	=	71.61%
2) S	o-Terphenyl	5.57	63531	42.731 ppm
Spiked Amount	50.000	Recovery	=	85.46%
3) S	n-Triacontane	7.72	54715	43.135 ppm
Spiked Amount	50.000	Recovery	=	86.27%
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	33314	23.734 ppm
5) H	C10-C22ex DRO [AZ]	3.33	21897	16.772 ppm
6) H	C10-C25ex DRO [AK102]	3.25	27443	20.121 ppm
7) H	C10-C28in DRO [8015]	3.35	33333	23.903 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	22150	18.939 ppm
9) H	C22-C32in RRO [AZ]	6.23	15086	39.379 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	17007	27.654 ppm
11) H	C25-C36in RRO [AK103]	6.74	17137	22.968 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	34179	31.595 ppm

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

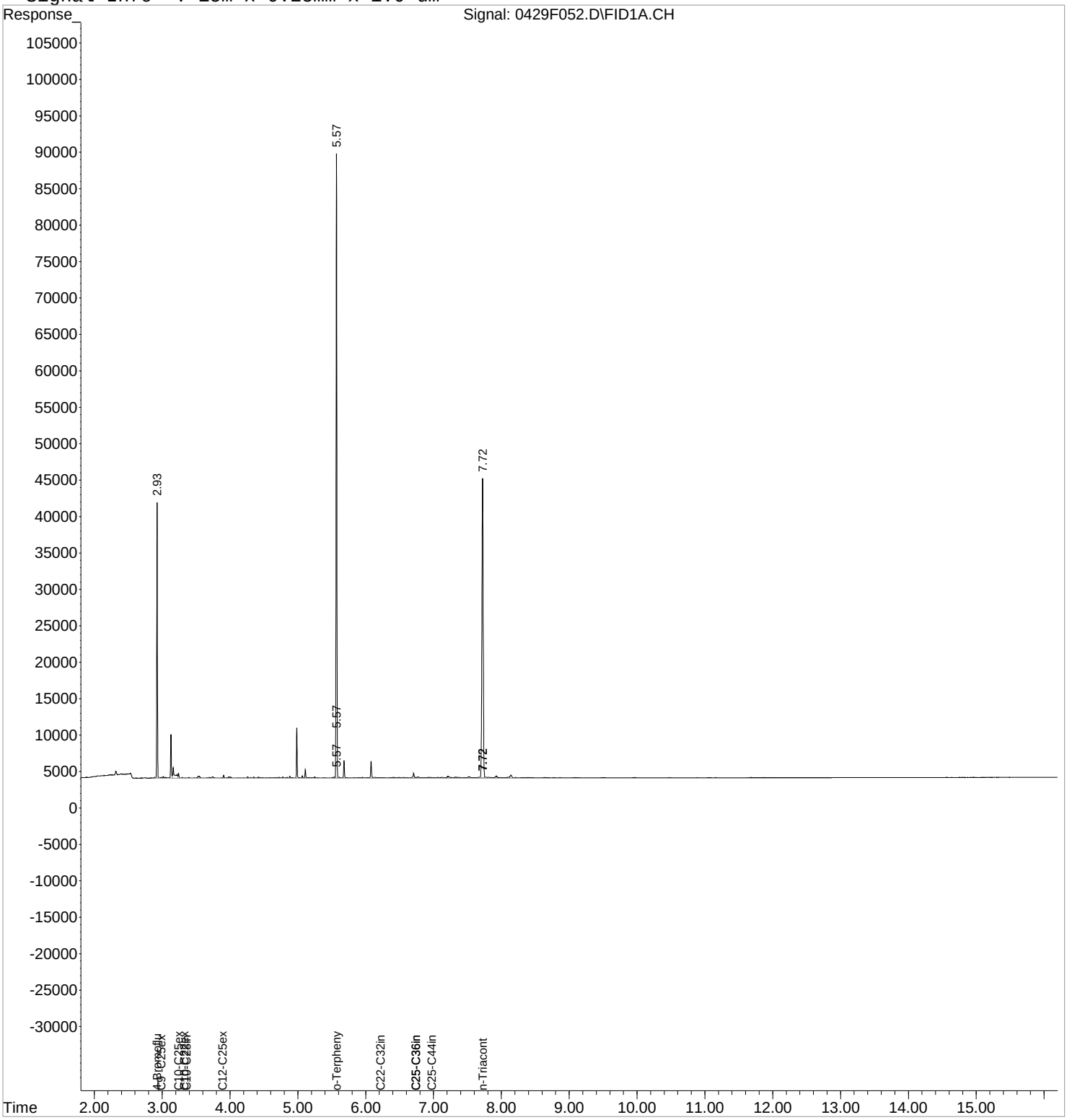
Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F052.D Vial: 14
Acq On : 29 Apr 2016 7:25 pm Operator: SMS
Sample : K1604068-002 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:01 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st CH 05/02/16
2nd JMS 05/03/16

Exception Report

Data File: J:\GC21\DATA\042916F\0429F058.D
Lab ID: K1604068-003
RunType: SMPL
Matrix: WATER

Date Acquired: 04/29/2016 20:31
Date Quantitated: 04/30/2016 10:02
Batch ID: KWG1603375
Analysis Method: 8015C
ListJoinID: LJ16459

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F058.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 20:31	**Quant Date:**	04/30/2016 10:02	**Vial:**	17
Run Type:	SMPL	**ListJoinID:**	LJ16459	**Dilution:**	1.0
Lab ID:	K1604068-003			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603375	**Prep Lot:**	KWG1603188	**Report Group:**	K1604068
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1512576	**Prep Date:**	04/26/2016		

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\042816F\0428F048.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57	0.00?	62314	41.91	84	56-125	OK	
n-Triacontane	7.72	0.00?	55555	43.80	88	54-136	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	3.88		20622	17.63	36	J	
Residual Range Organics (RRO)	6.74		20006	32.53	67	J	

Prep Amount:	485 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F058.D Vial: 17
Acq On : 29 Apr 2016 8:31 pm Operator: SMS
Sample : K1604068-003 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:02:31 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	4-Bromofluorobenzene	2.93	25648	35.124 ppm
Spiked Amount	50.000	Recovery	=	70.25%
2) S	o-Terphenyl	5.57	62314	41.913 ppm
Spiked Amount	50.000	Recovery	=	83.83%
3) S	n-Triacontane	7.72	55555	43.797 ppm
Spiked Amount	50.000	Recovery	=	87.59%
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	28617	20.388 ppm
5) H	C10-C22ex DRO [AZ]	3.33	19758	15.134 ppm
6) H	C10-C25ex DRO [AK102]	3.25	25644	18.802 ppm
7) H	C10-C28in DRO [8015]	3.35	31271	22.424 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	20622	17.632 ppm
9) H	C22-C32in RRO [AZ]	6.23	15780	41.190 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	20006	32.531 ppm
11) H	C25-C36in RRO [AK103]	6.74	19833	26.582 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	46217	42.722 ppm

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

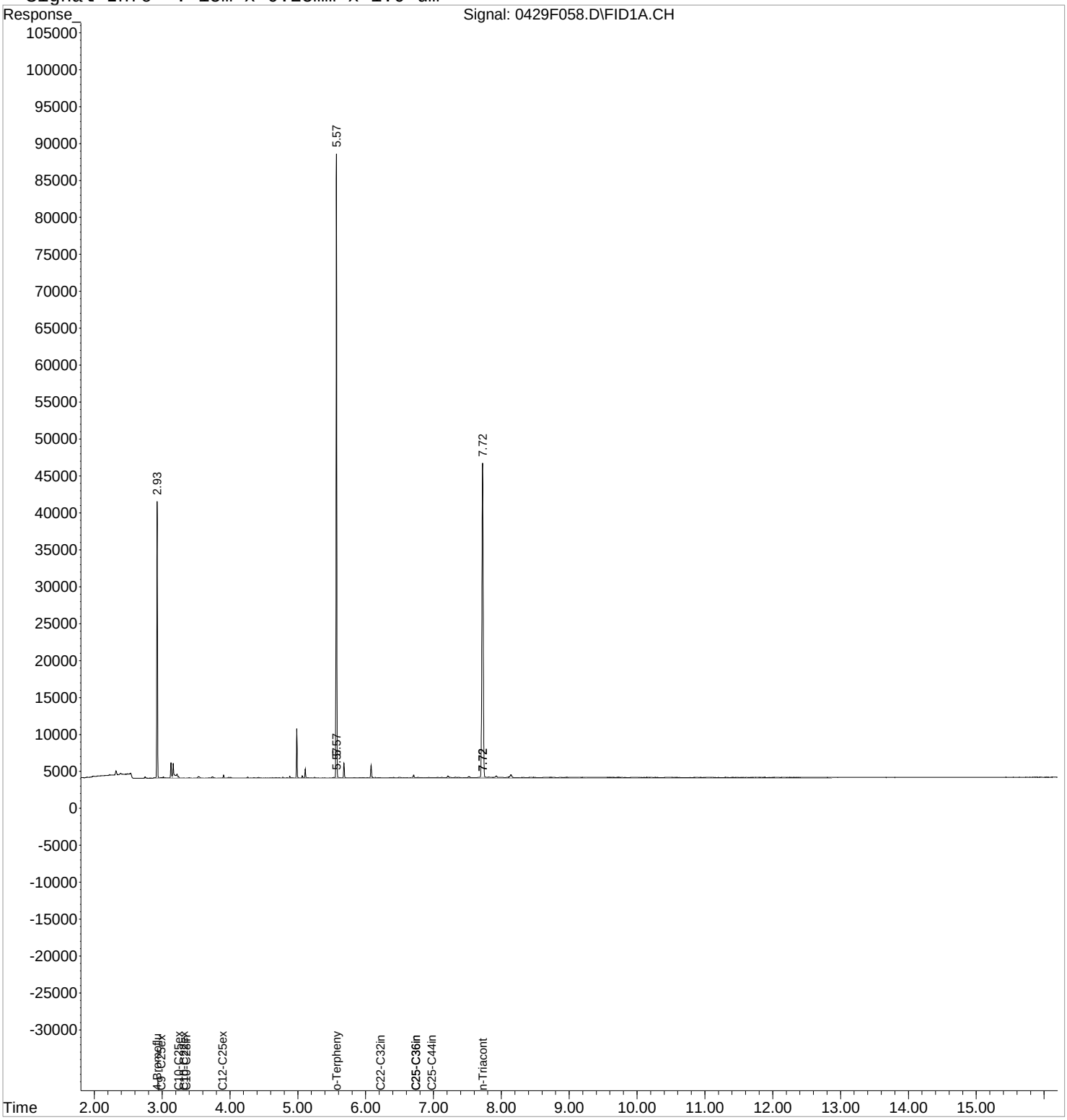
Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F058.D Vial: 17
Acq On : 29 Apr 2016 8:31 pm Operator: SMS
Sample : K1604068-003 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:02 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st CH 05/02/16
2nd JMS 05/03/16

Exception Report

Data File: J:\GC21\DATA\042916F\0429F060.D
Lab ID: K1604068-004
RunType: SMPL
Matrix: WATER

Date Acquired: 04/29/2016 20:53
Date Quantitated: 04/30/2016 10:02
Batch ID: KWG1603375
Analysis Method: 8015C
ListJoinID: LJ16459

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F060.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 20:53	**Quant Date:**	04/30/2016 10:02	**Vial:**	18
Run Type:	SMPL	**ListJoinID:**	LJ16459	**Dilution:**	1.0
Lab ID:	K1604068-004			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603375	**Prep Lot:**	KWG1603188	**Report Group:**	K1604068
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1512577	**Prep Date:**	04/26/2016		

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\042816F\0428F048.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57	0.00?	61653	41.47	83	56-125	OK	
n-Triacontane	7.72	0.00?	53163	41.91	84	54-136	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	3.88		14414	12.32	26	J	
Residual Range Organics (RRO)	6.74		15235	24.77	52	J	

Prep Amount:	480 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F060.D Vial: 18
Acq On : 29 Apr 2016 8:53 pm Operator: SMS
Sample : K1604068-004 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:02:56 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	4-Bromofluorobenzene	2.93	26592	36.416 ppm
Spiked Amount	50.000	Recovery	=	72.83%
2) S	o-Terphenyl	5.57	61653	41.468 ppm
Spiked Amount	50.000	Recovery	=	82.94%
3) S	n-Triacontane	7.72	53163	41.911 ppm
Spiked Amount	50.000	Recovery	=	83.82%
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	22630	16.122 ppm
5) H	C10-C22ex DRO [AZ]	3.33	13494	10.336 ppm
6) H	C10-C25ex DRO [AK102]	3.25	19432	14.248 ppm
7) H	C10-C28in DRO [8015]	3.35	24228	17.374 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	14414	12.324 ppm
9) H	C22-C32in RRO [AZ]	6.23	13645	35.617 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	15235	24.773 ppm
11) H	C25-C36in RRO [AK103]	6.74	15354	20.579 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	32618	30.152 ppm

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

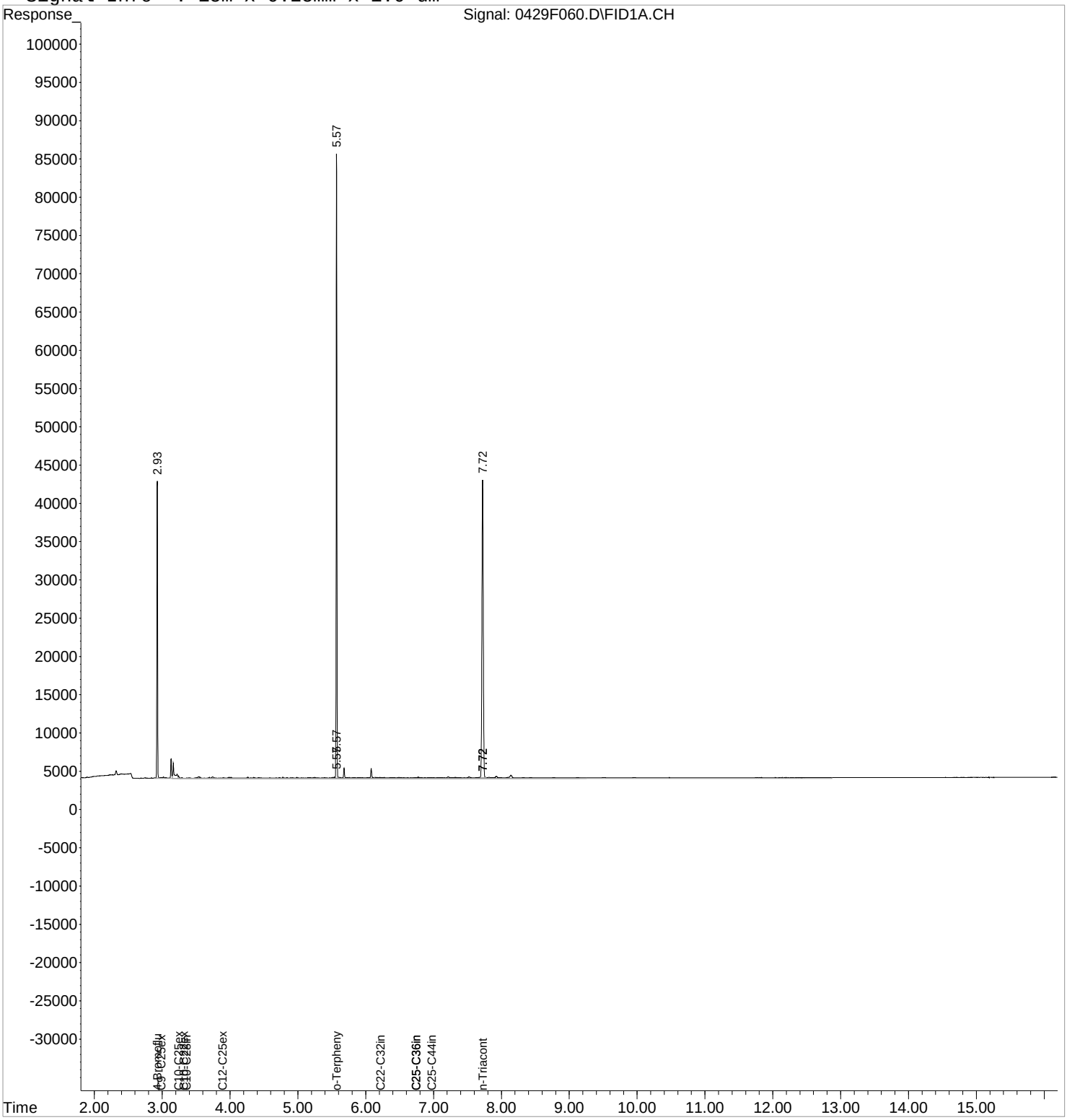
Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F060.D Vial: 18
Acq On : 29 Apr 2016 8:53 pm Operator: SMS
Sample : K1604068-004 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:02 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st CH 05/02/16
2nd JMS 05/03/16

Exception Report

Data File: J:\GC21\DATA\042916F\0429F062.D
Lab ID: K1604068-005
RunType: SMPL
Matrix: WATER

Date Acquired: 04/29/2016 21:15
Date Quantitated: 04/30/2016 10:03
Batch ID: KWG1603375
Analysis Method: 8015C
ListJoinID: LJ16459

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F062.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 21:15	**Quant Date:**	04/30/2016 10:03	**Vial:**	19
Run Type:	SMPL	**ListJoinID:**	LJ16459	**Dilution:**	1.0
Lab ID:	K1604068-005			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603375	**Prep Lot:**	KWG1603188	**Report Group:**	K1604068
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1512578	**Prep Date:**	04/26/2016		

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\042816F\0428F048.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57	0.00?	69320	46.63	93	56-125	OK	
n-Triacontane	7.72	0.00?	58774	46.34	93	54-136	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	3.88		16257	13.90	28	J	
Residual Range Organics (RRO)	6.74		14602	23.74	48	J	

Prep Amount:	495 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F062.D Vial: 19
Acq On : 29 Apr 2016 9:15 pm Operator: SMS
Sample : K1604068-005 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:03:18 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	4-Bromofluorobenzene	2.92	30212	41.374 ppm
Spiked Amount	50.000	Recovery	=	82.75%
2) S	o-Terphenyl	5.57	69320	46.625 ppm
Spiked Amount	50.000	Recovery	=	93.25%
3) S	n-Triacontane	7.72	58774	46.335 ppm
Spiked Amount	50.000	Recovery	=	92.67%
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	23121	16.472 ppm
5) H	C10-C22ex DRO [AZ]	3.33	15361	11.766 ppm
6) H	C10-C25ex DRO [AK102]	3.25	20639	15.133 ppm
7) H	C10-C28in DRO [8015]	3.35	25278	18.127 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	16257	13.900 ppm
9) H	C22-C32in RRO [AZ]	6.23	13365	34.886 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	14602	23.744 ppm
11) H	C25-C36in RRO [AK103]	6.74	14759	19.781 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	29964	27.698 ppm

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

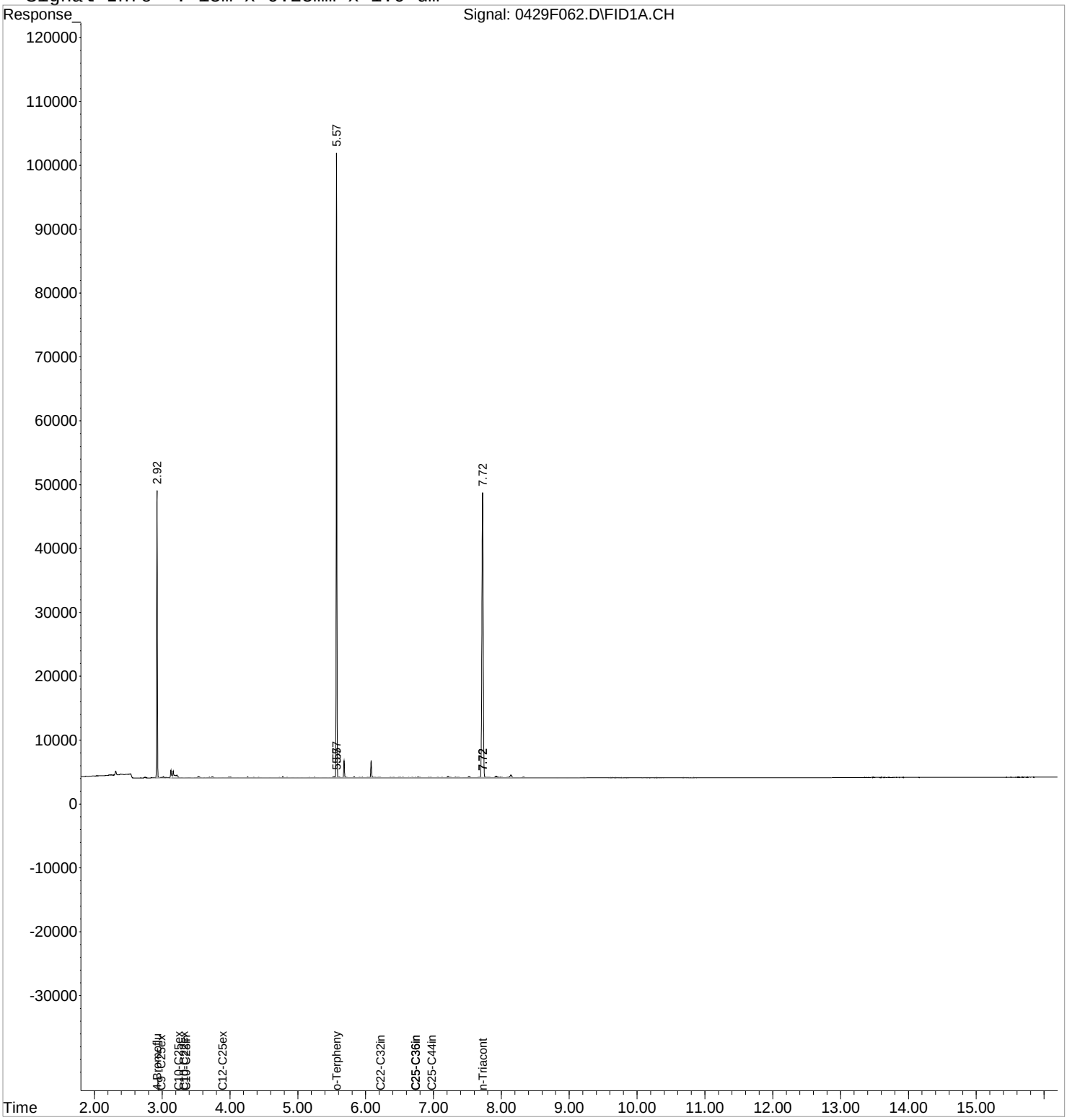
Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F062.D Vial: 19
Acq On : 29 Apr 2016 9:15 pm Operator: SMS
Sample : K1604068-005 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:03 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st CH 05/02/16
2nd JMS 05/03/16

Exception Report

Data File: J:\GC21\DATA\042916F\0429F064.D
Lab ID: K1604068-006
RunType: SMPL
Matrix: WATER

Date Acquired: 04/29/2016 21:37
Date Quantitated: 04/30/2016 10:03
Batch ID: KWG1603375
Analysis Method: 8015C
ListJoinID: LJ16459

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F064.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 21:37	**Quant Date:**	04/30/2016 10:03	**Vial:**	20
Run Type:	SMPL	**ListJoinID:**	LJ16459	**Dilution:**	1.0
Lab ID:	K1604068-006			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603375	**Prep Lot:**	KWG1603188	**Report Group:**	K1604068
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1512579	**Prep Date:**	04/26/2016		

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\042816F\0428F048.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57	0.00?	66828	44.95	90	56-125	OK	
n-Triacontane	7.72	0.00?	57522	45.35	91	54-136	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	3.88		11218	9.59	20	J	
Residual Range Organics (RRO)	6.74		9801	15.94	33	J	

Prep Amount:	480 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F064.D Vial: 20
Acq On : 29 Apr 2016 9:37 pm Operator: SMS
Sample : K1604068-006 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:03:53 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	4-Bromofluorobenzene	2.93	27699	37.932 ppm
Spiked Amount	50.000	Recovery	=	75.86%
2) S	o-Terphenyl	5.57	66828	44.949 ppm
Spiked Amount	50.000	Recovery	=	89.90%
3) S	n-Triacontane	7.72	57522	45.348 ppm
Spiked Amount	50.000	Recovery	=	90.70%
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	16637	11.853 ppm
5) H	C10-C22ex DRO [AZ]	3.33	10896	8.346 ppm
6) H	C10-C25ex DRO [AK102]	3.25	15224	11.162 ppm
7) H	C10-C28in DRO [8015]	3.35	18205	13.055 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	11218	9.592 ppm
9) H	C22-C32in RRO [AZ]	6.23	8922	23.289 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	9801	15.937 ppm
11) H	C25-C36in RRO [AK103]	6.74	9876	13.237 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	21170	19.569 ppm

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

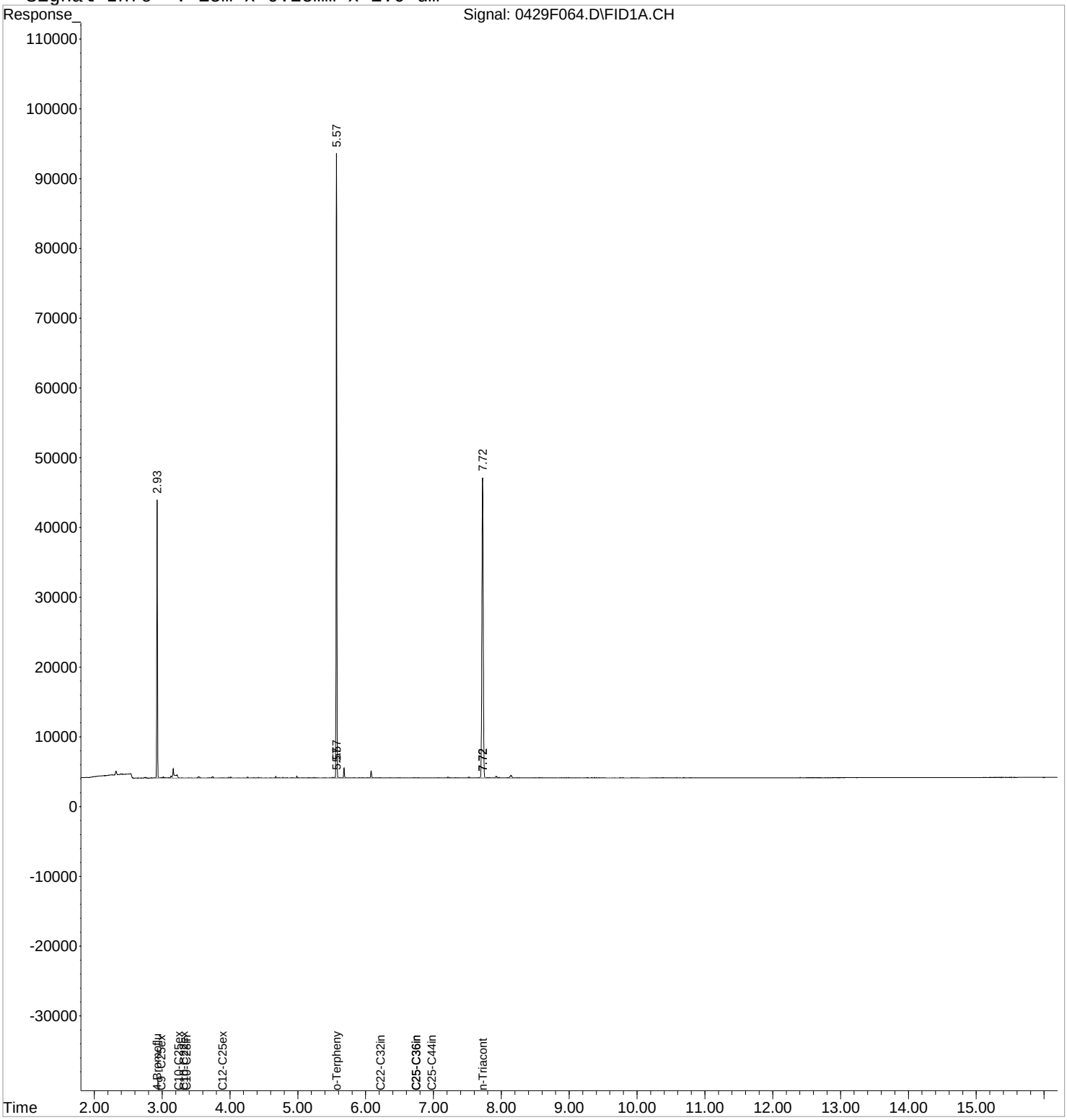
Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F064.D Vial: 20
Acq On : 29 Apr 2016 9:37 pm Operator: SMS
Sample : K1604068-006 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:03 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st CH 05/02/16
2nd JMS 05/03/16

Exception Report

Data File: J:\GC21\DATA\042916F\0429F066.D
Lab ID: K1604068-007
RunType: SMPL
Matrix: WATER

Date Acquired: 04/29/2016 21:59
Date Quantitated: 04/30/2016 10:04
Batch ID: KWG1603375
Analysis Method: 8015C
ListJoinID: LJ16459

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F066.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 21:59	**Quant Date:**	04/30/2016 10:04	**Vial:**	21
Run Type:	SMPL	**ListJoinID:**	LJ16459	**Dilution:**	1.0
Lab ID:	K1604068-007			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603375	**Prep Lot:**	KWG1603188	**Report Group:**	K1604068
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1512580	**Prep Date:**	04/26/2016		

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\042816F\0428F048.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57	0.00?	64389	43.31	87	56-125	OK	
n-Triacontane	7.72	0.00?	56282	44.37	89	54-136	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	3.88		14950	12.78	27	J	
Residual Range Organics (RRO)	6.74		9952	16.18	35	J	

Prep Amount:	465 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F066.D Vial: 21
Acq On : 29 Apr 2016 9:59 pm Operator: SMS
Sample : K1604068-007 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:04:15 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	4-Bromofluorobenzene	2.93	26855	36.777 ppm
Spiked Amount	50.000	Recovery	=	73.55%
2) S	o-Terphenyl	5.57	64389	43.308 ppm
Spiked Amount	50.000	Recovery	=	86.62%
3) S	n-Triacontane	7.72	56282	44.370 ppm
Spiked Amount	50.000	Recovery	=	88.74%
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	23584	16.802 ppm
5) H	C10-C22ex DRO [AZ]	3.33	17258	13.219 ppm
6) H	C10-C25ex DRO [AK102]	3.25	21343	15.649 ppm
7) H	C10-C28in DRO [8015]	3.35	25287	18.133 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	14950	12.783 ppm
9) H	C22-C32in RRO [AZ]	6.23	9238	24.114 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	9952	16.183 ppm
11) H	C25-C36in RRO [AK103]	6.74	10026	13.438 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	20370	18.830 ppm

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

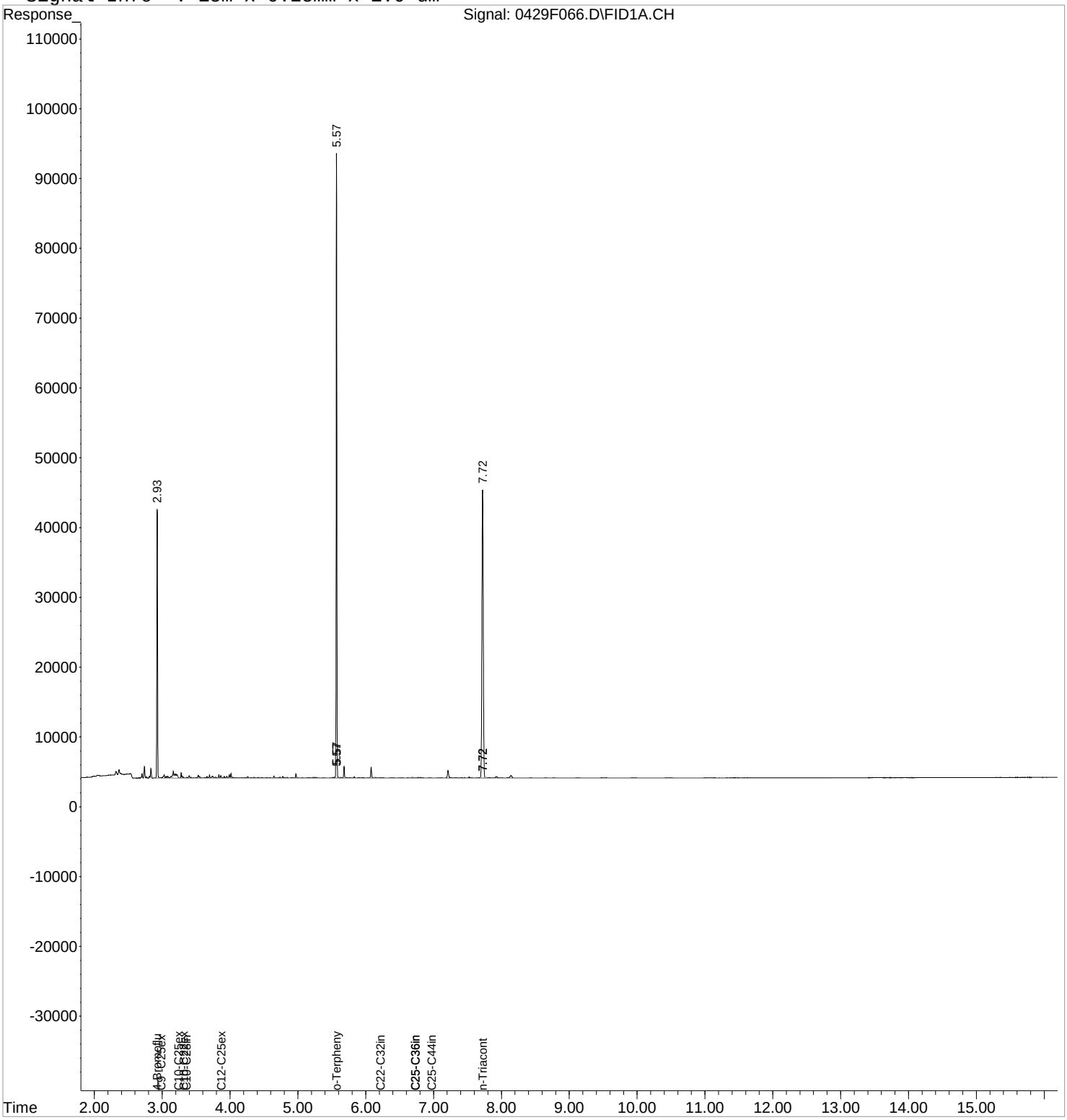
Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F066.D Vial: 21
Acq On : 29 Apr 2016 9:59 pm Operator: SMS
Sample : K1604068-007 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:04 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st CH 05/02/16
2nd JMS 05/03/16

Exception Report

Data File: J:\GC21\DATA\042916F\0429F068.D
Lab ID: K1604068-008
RunType: SMPL
Matrix: WATER

Date Acquired: 04/29/2016 22:22
Date Quantitated: 04/30/2016 10:04
Batch ID: KWG1603375
Analysis Method: 8015C
ListJoinID: LJ16459

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F068.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 22:22	**Quant Date:**	04/30/2016 10:04	**Vial:**	22
Run Type:	SMPL	**ListJoinID:**	LJ16459	**Dilution:**	1.0
Lab ID:	K1604068-008			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603375	**Prep Lot:**	KWG1603188	**Report Group:**	K1604068
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1512573	**Prep Date:**	04/26/2016		

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:	Diesel and Residual Range Organics	**Report List ID:**	LJ16459
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\042816F\0428F048.D	**Quant based on Report List**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57	0.00?	66365	44.64	89	56-125	OK	
n-Triacontane	7.72	0.00?	58362	46.01	92	54-136	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	3.88		15984	13.67	28	J	
Residual Range Organics (RRO)	6.74		7786	12.66	26	J	

Prep Amount:	485 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\042916F\0429F068.D Vial: 22
Acq On : 29 Apr 2016 10:22 pm Operator: SMS
Sample : K1604068-008 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:04:47 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	4-Bromofluorobenzene	2.93	26669	36.522 ppm
Spiked Amount	50.000	Recovery	=	73.04%
2) S	o-Terphenyl	5.57	66365	44.637 ppm
Spiked Amount	50.000	Recovery	=	89.27%
3) S	n-Triacontane	7.72	58362	46.010 ppm
Spiked Amount	50.000	Recovery	=	92.02%
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	25251	17.990 ppm
5) H	C10-C22ex DRO [AZ]	3.33	18590	14.239 ppm
6) H	C10-C25ex DRO [AK102]	3.25	22644	16.603 ppm
7) H	C10-C28in DRO [8015]	3.35	25523	18.302 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	15984	13.667 ppm
9) H	C22-C32in RRO [AZ]	6.23	7604	19.849 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	7786	12.660 ppm
11) H	C25-C36in RRO [AK103]	6.74	7889	10.573 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	15360	14.199 ppm

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

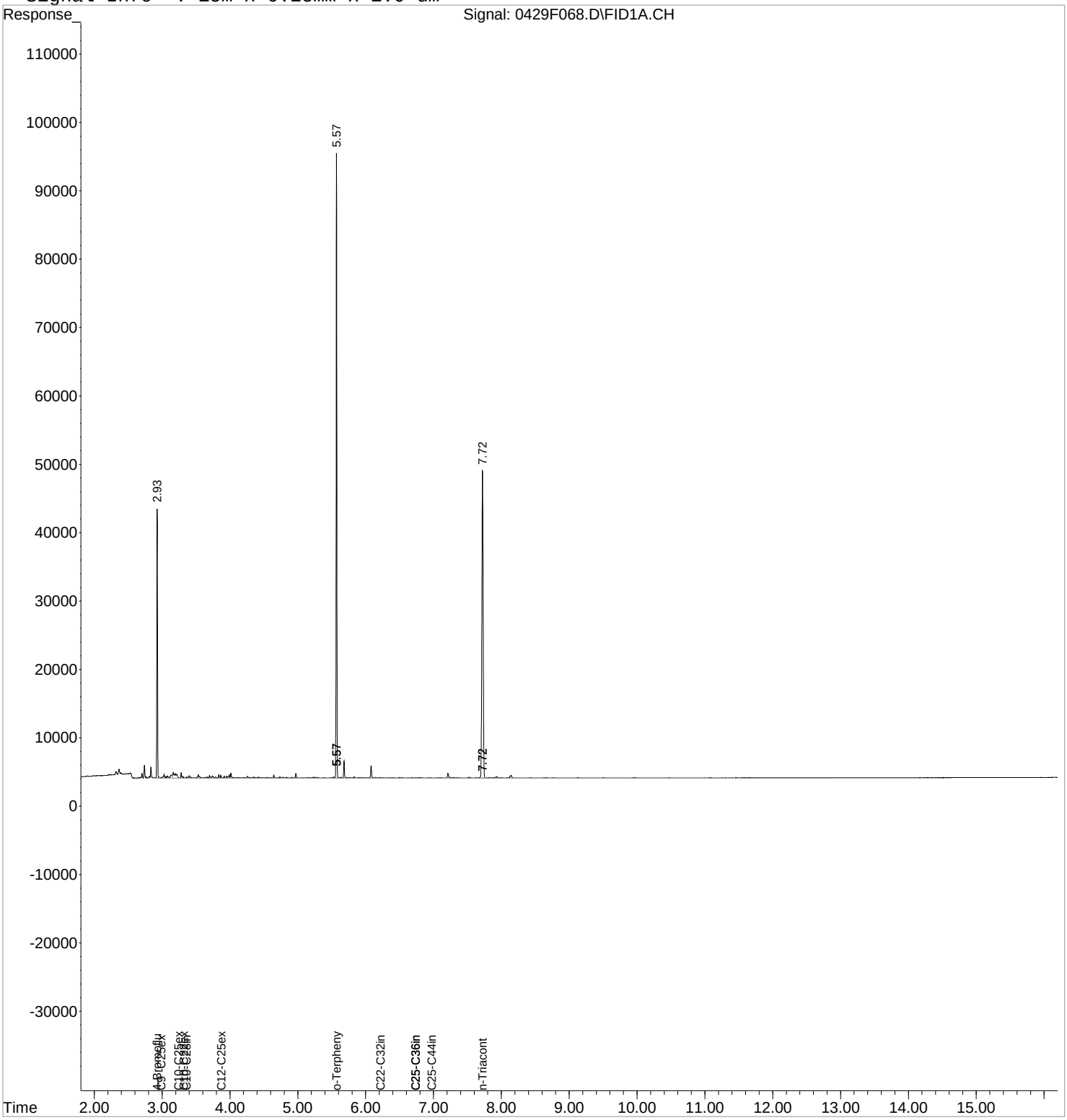
Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F068.D Vial: 22
Acq On : 29 Apr 2016 10:22 pm Operator: SMS
Sample : K1604068-008 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:04 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st JMS 04/29/16
2nd JEP 04/30/16

Exception Report

Data File: J:\GC21\DATA\042816F\0428F048.D
Lab ID: KWG1603188-4
RunType: MB
Matrix: WATER

Date Acquired: 04/28/2016 16:59
Date Quantitated: 04/29/2016 07:21
Batch ID: KWG1603332
Analysis Method: NWTPH-Dx
MethodJoinID: MJ227

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F048.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 16:59	**Quant Date:**	04/29/2016 07:21	**Vial:**	16
Run Type:	MB	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603188-4			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	04/27/2016

Analysis Lot:	KWG1603332	**Prep Lot:**	KWG1603188	**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**	EPA 3510C		
Prep Ref:	1512584	**Prep Date:**	04/26/2016		

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57	0.00	28671	19.28	77	50-150	OK	
n-Triacontane	7.72	0.00	24312	19.17	77	50-150	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		16307	11.62	250	U	
Diesel Range Organics (DRO)	3.88		11812	10.10	20.2	J	
Residual Range Organics (RRO)	6.74		22996	37.39	74.8	J	
C25 - C44 RRO	6.98		63924	59.09	500	U	

Prep Amount:	1000 ml	**Dilution:**	1.0
Prep Final Vol:	2 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F048.D Vial: 16
Acq On : 28 Apr 2016 4:59 pm Operator: SMS
Sample : KWG1603188-4MB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 07:21:51 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	4-Bromofluorobenzene	2.92	10751	14.723 ppm
Spiked Amount	50.000	Recovery	=	29.45%
2) S	o-Terphenyl	5.57	28671	19.284 ppm
Spiked Amount	50.000	Recovery	=	38.57%
3) S	n-Triacontane	7.72	24312	19.166 ppm
Spiked Amount	50.000	Recovery	=	38.33%
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	16307	11.618 ppm
5) H	C10-C22ex DRO [AZ]	3.33	9892	7.577 ppm
6) H	C10-C25ex DRO [AK102]	3.25	15061	11.043 ppm
7) H	C10-C28in DRO [8015]	3.35	20984	15.047 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	11812	10.100 ppm
9) H	C22-C32in RRO [AZ]	6.23	17174	44.829 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	22996	37.393 ppm
11) H	C25-C36in RRO [AK103]	6.74	22763	30.509 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	63924	59.091 ppm

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

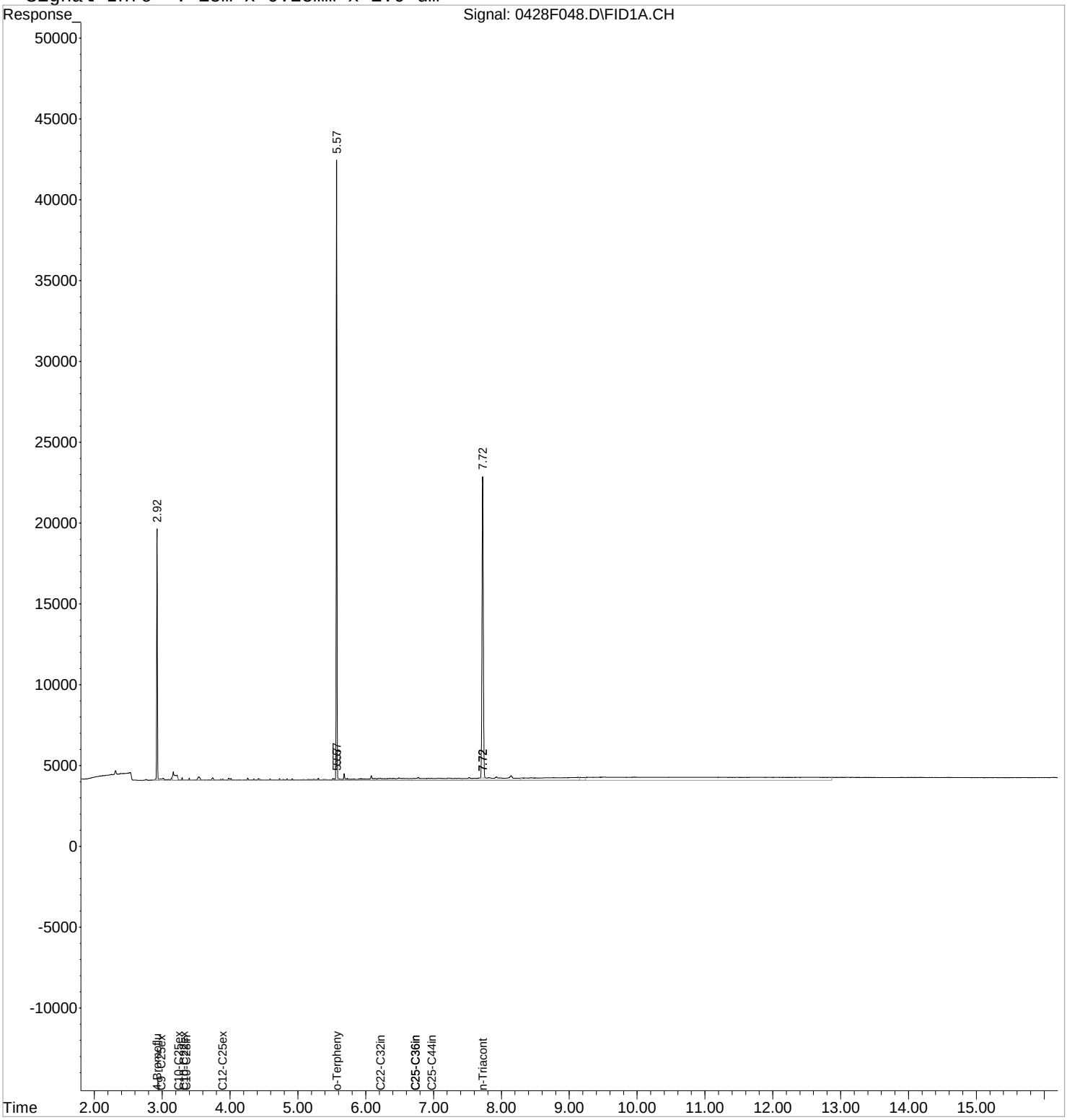
Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F048.D Vial: 16
Acq On : 28 Apr 2016 4:59 pm Operator: SMS
Sample : KWG1603188-4MB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 7:21 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st CH 05/02/16
2nd JMS 05/03/16

Exception Report

Data File: J:\GC21\DATA\042916F\0429F054.D
Lab ID: KWG1603188-1 -- K1604068-002MS
RunType: MS
Matrix: WATER

Date Acquired: 04/29/2016 19:47
Date Quantitated: 04/30/2016 10:01
Batch ID: KWG1603375
Analysis Method: 8015C
MethodJoinID: MJ1099

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F054.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 19:47	**Quant Date:**	04/30/2016 10:01	**Vial:**	15
Run Type:	MS	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603188-1 -- K1604068-002MS			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	04/27/2016

Analysis Lot:	KWG1603375	**Prep Lot:**	KWG1603188	**Report Group:**	
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1512581	**Prep Date:**	04/26/2016		

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\042816F\0428F048.D	**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57	0.00?	63580	42.76	86	55-133	OK	
n-Triacontane	7.72	0.00?	52925	41.72	83	50-150	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		1620352	1,188	2480		
C10 - C28 DRO	3.35		1724074	1,236	2580		
Diesel Range Organics (DRO)	3.88		1410240	1,206	2510		
Residual Range Organics (RRO)	6.74		399070	648.91	1350		

Prep Amount:	480 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F054.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 19:47	**Quant Date:**	04/30/2016 10:01	**Vial:**	15
Run Type:	MS	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603188-1 -- K1604068-002MS			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	04/27/2016

Analysis Lot:	KWG1603375	**Prep Lot:**	KWG1603188	**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**	EPA 3510C		
Prep Ref:	1512581	**Prep Date:**	04/26/2016		

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:	J:\GC21\DATA\042816F\0428F048.D	**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57	0.00	63580	42.76	86	50-150	OK	
n-Triacontane	7.72	0.00	52925	41.72	83	50-150	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		1664897	1,186	2470		
Diesel Range Organics (DRO)	3.88		1410240	1,206	2510		
Residual Range Organics (RRO)	6.74		399070	648.91	1350		
C25 - C44 RRO	6.98		667459	616.99	1290		

Prep Amount:	480 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F054.D Vial: 15
Acq On : 29 Apr 2016 7:47 pm Operator: SMS
Sample : K1604068-002MS Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:01:33 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	4-Bromofluorobenzene	2.93	24169	33.098	ppm
Spiked Amount	50.000	Recovery	=	66.20%	
2) S	o-Terphenyl	5.57	63580	42.764	ppm
Spiked Amount	50.000	Recovery	=	85.53%	
3) S	n-Triacontane	7.72	52925	41.724	ppm
Spiked Amount	50.000	Recovery	=	83.45%	
	Target Compounds				
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	1664897	1186.125	ppm
5) H	C10-C22ex DRO [AZ]	3.33	1512173	1158.279	ppm
6) H	C10-C25ex DRO [AK102]	3.25	1620352	1188.058	ppm
7) H	C10-C28in DRO [8015]	3.35	1724074	1236.323	ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	1410240	1205.786	ppm
9) H	C22-C32in RRO [AZ]	6.23	329655	860.491	ppm
10) H	C25-C36in RRO [NWTPH]	6.74	399070	648.910	ppm
11) H	C25-C36in RRO [AK103]	6.74	397810	533.176	ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	667459	616.991	ppm

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

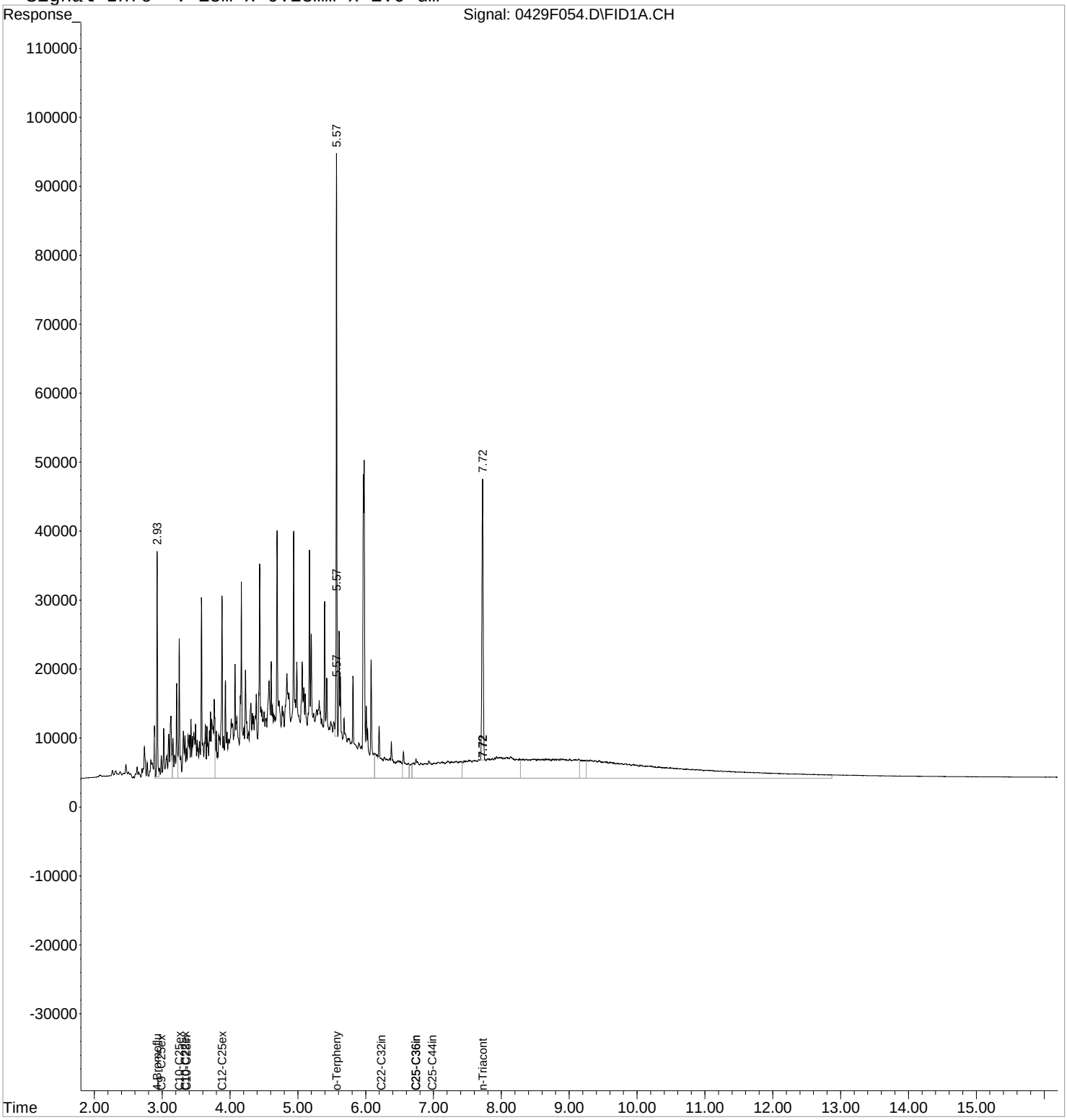
Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F054.D Vial: 15
Acq On : 29 Apr 2016 7:47 pm Operator: SMS
Sample : K1604068-002MS Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:01 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st CH 05/02/16
2nd JMS 05/03/16

Exception Report

Data File: J:\GC21\DATA\042916F\0429F056.D
Lab ID: KWG1603188-2 -- K1604068-002DMS
RunType: DMS
Matrix: WATER

Date Acquired: 04/29/2016 20:09
Date Quantitated: 04/30/2016 10:02
Batch ID: KWG1603375
Analysis Method: 8015C
MethodJoinID: MJ1099

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F056.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 20:09	**Quant Date:**	04/30/2016 10:02	**Vial:**	16
Run Type:	DMS	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603188-2 -- K1604068-002DMS			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	04/27/2016

Analysis Lot:	KWG1603375	**Prep Lot:**	KWG1603188	**Report Group:**	
Analysis Method:	8015C	**Prep Method:**	EPA 3510C		
Prep Ref:	1512582	**Prep Date:**	04/26/2016		

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:	J:\GC21\DATA\042816F\0428F048.D	**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57	0.00?	66771	44.91	90	55-133	OK	
n-Triacontane	7.72	0.00?	55299	43.60	87	50-150	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		1625790	1,192	2410		
C10 - C28 DRO	3.35		1730887	1,241	2510		
Diesel Range Organics (DRO)	3.88		1426455	1,220	2460		
Residual Range Organics (RRO)	6.74		407643	662.85	1340		

Prep Amount:	495 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F056.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 20:09	**Quant Date:**	04/30/2016 10:02	**Vial:**	16
Run Type:	DMS	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603188-2 -- K1604068-002DMS			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	04/27/2016

Analysis Lot:	KWG1603375	**Prep Lot:**	KWG1603188	**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**	EPA 3510C		
Prep Ref:	1512582	**Prep Date:**	04/26/2016		

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:	J:\GC21\DATA\042816F\0428F048.D	**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57	0.00	66771	44.91	90	50-150	OK	
n-Triacontane	7.72	0.00	55299	43.60	87	50-150	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		1667918	1,188	2400		
Diesel Range Organics (DRO)	3.88		1426455	1,220	2460		
Residual Range Organics (RRO)	6.74		407643	662.85	1340		
C25 - C44 RRO	6.98		683939	632.23	1280		

Prep Amount:	495 ml	**Dilution:**	1.0
Prep Final Vol:	1 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F056.D Vial: 16
Acq On : 29 Apr 2016 8:09 pm Operator: SMS
Sample : K1604068-002DMS Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:02:01 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	4-Bromofluorobenzene	2.93	21366	29.260	ppm
Spiked Amount	50.000	Recovery	=	58.52%	
2) S	o-Terphenyl	5.57	66771	44.910	ppm
Spiked Amount	50.000	Recovery	=	89.82%	
3) S	n-Triacontane	7.72	55299	43.595	ppm
Spiked Amount	50.000	Recovery	=	87.19%	
	Target Compounds				
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	1667918	1188.277	ppm
5) H	C10-C22ex DRO [AZ]	3.33	1517908	1162.671	ppm
6) H	C10-C25ex DRO [AK102]	3.25	1625790	1192.045	ppm
7) H	C10-C28in DRO [8015]	3.35	1730887	1241.209	ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	1426455	1219.651	ppm
9) H	C22-C32in RRO [AZ]	6.23	334675	873.595	ppm
10) H	C25-C36in RRO [NWTPH]	6.74	407643	662.851	ppm
11) H	C25-C36in RRO [AK103]	6.74	405862	543.968	ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	683939	632.225	ppm

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

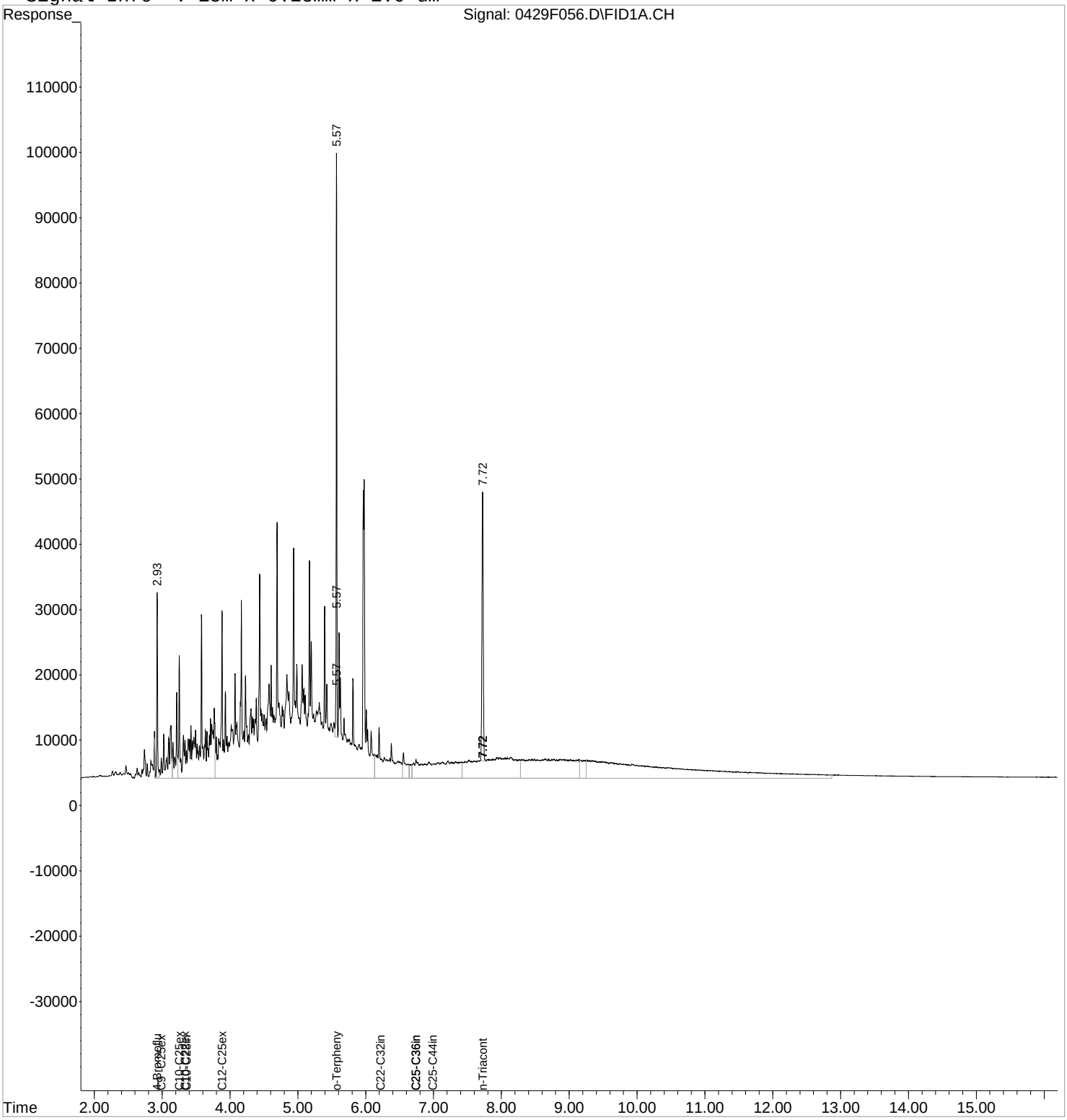
Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F056.D Vial: 16
Acq On : 29 Apr 2016 8:09 pm Operator: SMS
Sample : K1604068-002DMS Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:02 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st JMS 04/29/16
2nd JEP 04/30/16

Exception Report

Data File: J:\GC21\DATA\042816F\0428F046.D
Lab ID: KWG1603188-3
RunType: LCS
Matrix: WATER

Date Acquired: 04/28/2016 16:37
Date Quantitated: 04/29/2016 07:21
Batch ID: KWG1603332
Analysis Method: NWTPH-Dx
MethodJoinID: MJ227

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Analytical Holding Time	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F046.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 16:37	**Quant Date:**	04/29/2016 07:21	**Vial:**	15
Run Type:	LCS	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603188-3			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8015C DRO RRO	**Collect Date:**		**Receive Date:**	04/27/2016

Analysis Lot:	KWG1603332	**Prep Lot:**	KWG1603188	**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**	EPA 3510C		
Prep Ref:	1512583	**Prep Date:**	04/26/2016		

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:	J:\GC21\DATA\042816F\0428F048.D	**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57	0.00	34274	23.05	92	50-150	OK	
n-Triacontane	7.72	0.00	28689	22.62	90	50-150	OK	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		808365	575.91	1150		
Diesel Range Organics (DRO)	3.88		694191	593.55	1190		
Residual Range Organics (RRO)	6.74		229388	373.00	746		
C25 - C44 RRO	6.98		420451	388.66	777		

Prep Amount:	1000 ml	**Dilution:**	1.0
Prep Final Vol:	2 ml	**Unit Factor:**	1000

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F046.D Vial: 15
Acq On : 28 Apr 2016 4:37 pm Operator: SMS
Sample : KWG1603188-3LCS Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 07:21:50 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	4-Bromofluorobenzene	2.93	10808	14.801 ppm
Spiked Amount	50.000	Recovery	=	29.60%
2) S	o-Terphenyl	5.57	34274	23.053 ppm
Spiked Amount	50.000	Recovery	=	46.11%
3) S	n-Triacontane	7.72	28689	22.617 ppm
Spiked Amount	50.000	Recovery	=	45.23%
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	808365	575.905 ppm
5) H	C10-C22ex DRO [AZ]	3.33	731635	560.410 ppm
6) H	C10-C25ex DRO [AK102]	3.25	789190	578.642 ppm
7) H	C10-C28in DRO [8015]	3.35	847007	607.384 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	694191	593.549 ppm
9) H	C22-C32in RRO [AZ]	6.23	185154	483.303 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	229388	372.998 ppm
11) H	C25-C36in RRO [AK103]	6.74	228780	306.629 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	420451	388.660 ppm

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

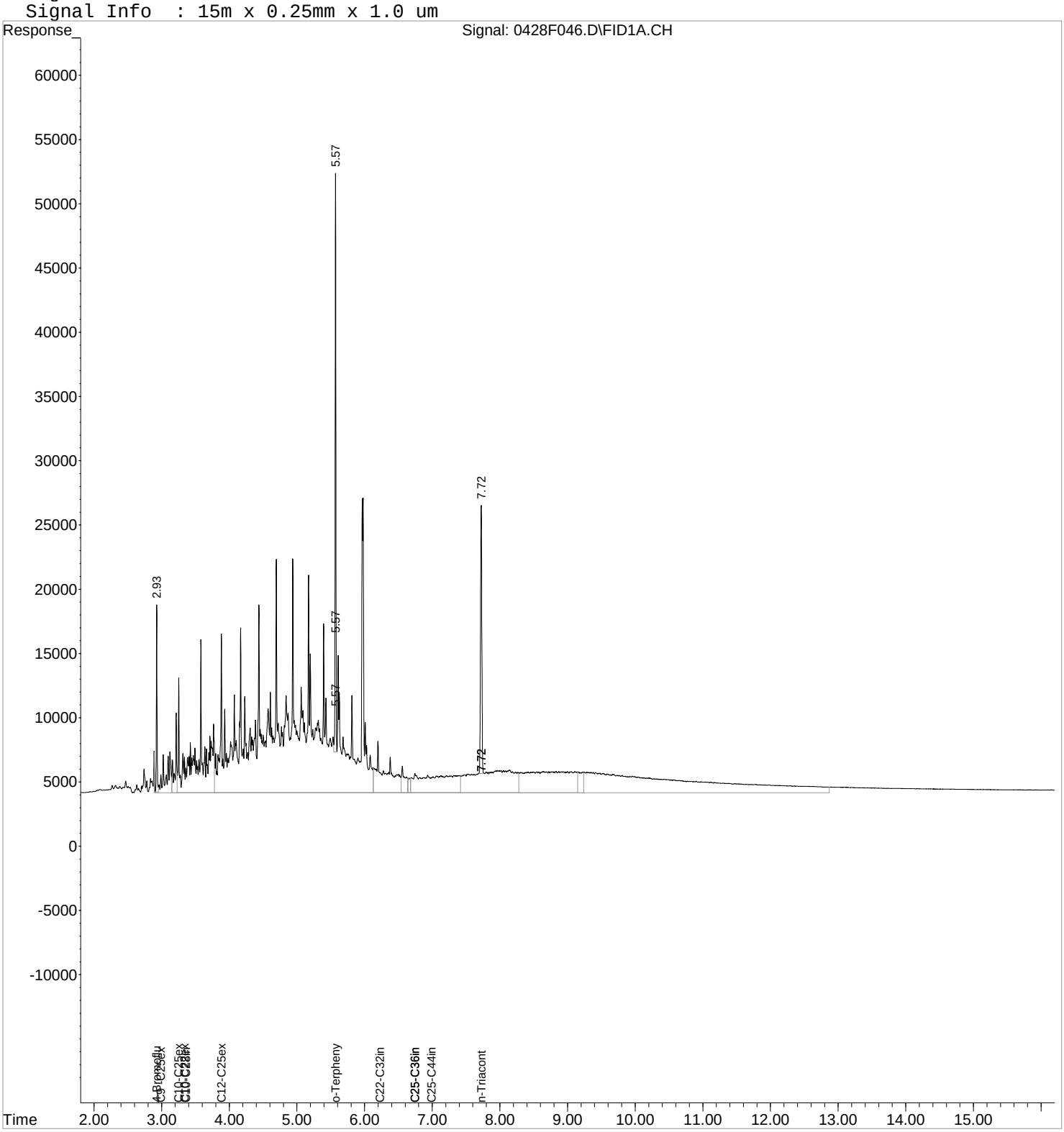
Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F046.D Vial: 15
Acq On : 28 Apr 2016 4:37 pm Operator: SMS
Sample : KWG1603188-3LCS Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 7:21 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st JMS 04/29/16
2nd JEP 04/30/16

Exception Report

Data File: J:\GC21\DATA\042816F\0428F008.D
Lab ID: KWG1603332-1
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 04/28/2016 09:38
Date Quantitated: 04/28/2016 09:55
Batch ID: KWG1603332
Analysis Method: 8015C
MethodJoinID: MJ1099

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F008.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 09:38	**Quant Date:**	04/28/2016 09:55	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603332-1			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			55-133	NA	NR
n-Triacontane	7.72	?	260	0.2050		50-150	NA	NR

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		40913	30.00			
C10 - C28 DRO	3.35		167083	119.81			
Diesel Range Organics (DRO)	3.88		37906	32.41			NR
Residual Range Organics (RRO)	6.74		562129	914.05			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F008.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 09:38	**Quant Date:**	04/28/2016 09:55	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ126	**Dilution:**	1.0
Lab ID:	KWG1603332-1			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ126
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	NR

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		40913	30.00			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F008.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 09:38	**Quant Date:**	04/28/2016 09:55	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ1574	**Dilution:**	1.0
Lab ID:	KWG1603332-1			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1574
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	NR

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		40913	30.00			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F008.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 09:38	**Quant Date:**	04/28/2016 09:55	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603332-1			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	NR
n-Triacontane	7.72		260	0.2050		50-150	NA	NR

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		0				
Diesel Range Organics (DRO)	3.88		37906	32.41			NR
Residual Range Organics (RRO)	6.74		562129	914.05			
C25 - C44 RRO	6.98		983939	909.54			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F008.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 09:38	**Quant Date:**	04/28/2016 09:55	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603332-1			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			50-150	NA	NR
n-Triacontane	7.72		260	0.2050		50-150	NA	NR

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		167083	119.81			
Diesel Range Organics (DRO)	3.88		37906	32.41			NR
Residual Range Organics (RRO)	6.74		562129	914.05			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F008.D Vial: 97
Acq On : 28 Apr 2016 9:38 am Operator: SMS
Sample : RRO@1000 SVF01-84L Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 28 09:55:17 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3) S	n-Triacontane	7.72	260	0.205 ppm
Spiked Amount	50.000	Recovery	=	0.41%
	Target Compounds			
5) H	C10-C22ex DRO [AZ]	3.33	12940	9.912 ppm
6) H	C10-C25ex DRO [AK102]	3.25	40913	29.998 ppm
7) H	C10-C28in DRO [8015]	3.35	167083	119.814 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	37906	32.410 ppm
9) H	C22-C32in RRO [AZ]	6.23	356742	931.196 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	562129	914.054 ppm
11) H	C25-C36in RRO [AK103]	6.74	549945	737.079 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	983939	909.541 ppm

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

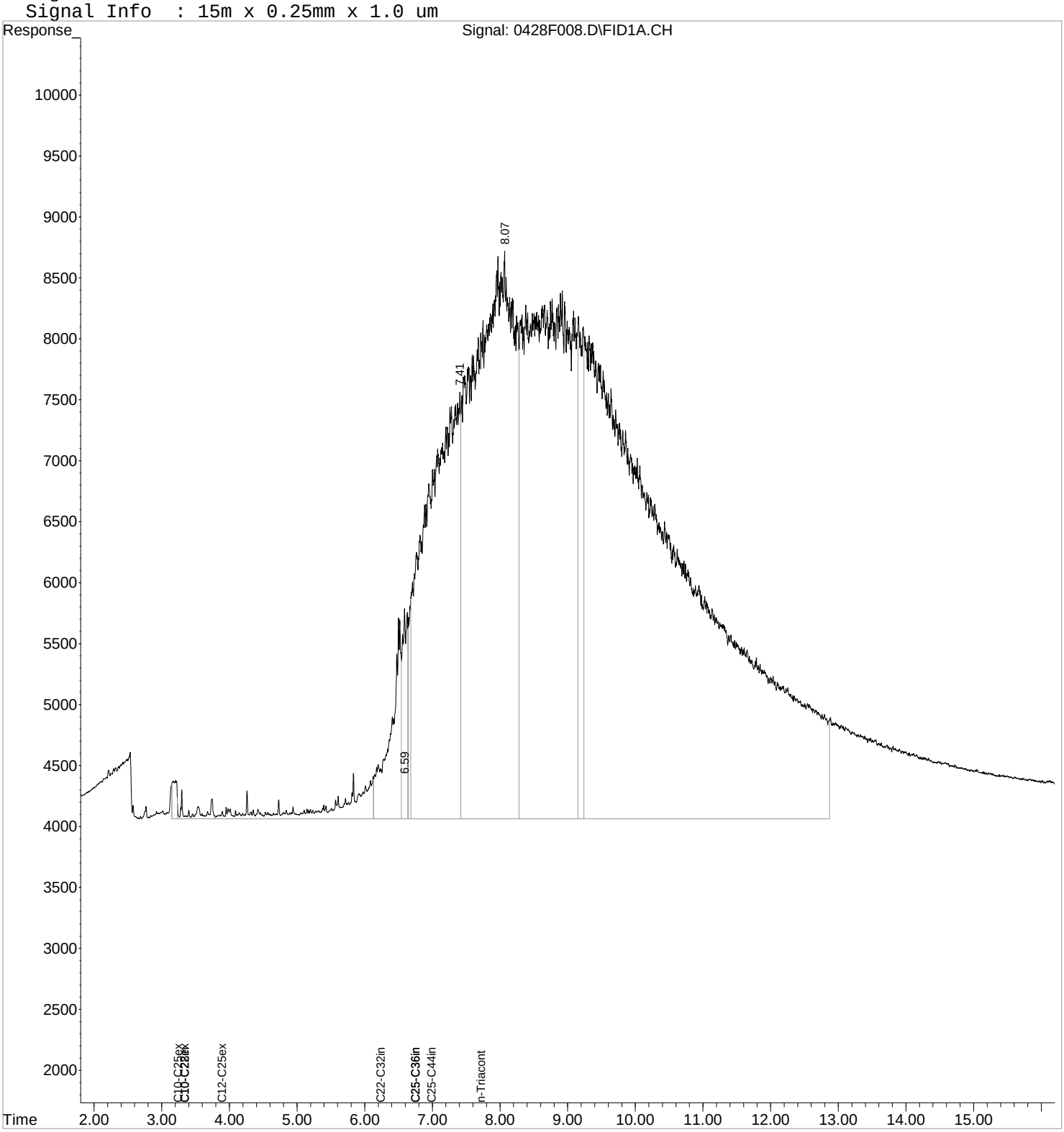
Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F008.D Vial: 97
Acq On : 28 Apr 2016 9:38 am Operator: SMS
Sample : RRO@1000 SVF01-84L Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 28 9:55 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st JMS 04/29/16
2nd JEP 04/30/16

Exception Report

Data File: J:\GC21\DATA\042816F\0428F014.D
Lab ID: KWG1603332-1
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 04/28/2016 10:44
Date Quantitated: 04/28/2016 11:00
Batch ID: KWG1603332
Analysis Method: 8015C
MethodJoinID: MJ1099

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F014.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 10:44	**Quant Date:**	04/28/2016 11:00	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603332-1			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57	?	77341	52.02		55-133	NA	
n-Triacontane	7.72	?	65538	51.67		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		1269890	931.10			
C10 - C28 DRO	3.35		1282884	919.95			
Diesel Range Organics (DRO)	3.88		1081087	924.35			
Residual Range Organics (RRO)	6.74		11306	18.38			NR

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F014.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 10:44	**Quant Date:**	04/28/2016 11:00	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ126	**Dilution:**	1.0
Lab ID:	KWG1603332-1			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ126
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57		77341	52.02		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		1269890	931.10			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F014.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 10:44	**Quant Date:**	04/28/2016 11:00	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ1574	**Dilution:**	1.0
Lab ID:	KWG1603332-1			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1574
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57		77341	52.02		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		1269890	931.10			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F014.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 10:44	**Quant Date:**	04/28/2016 11:00	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603332-1			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57		77341	52.02		50-150	NA	
n-Triacontane	7.72		65538	51.67		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		1304962	929.70			
Diesel Range Organics (DRO)	3.88		1081087	924.35			
Residual Range Organics (RRO)	6.74		11306	18.38			NR
C25 - C44 RRO	6.98		14013	12.95			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F014.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 10:44	**Quant Date:**	04/28/2016 11:00	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603332-1			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	2.93		38456	52.66		50-150	NA	
o-Terphenyl	5.57		77341	52.02		50-150	NA	
n-Triacontane	7.72		65538	51.67		50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		1282884	919.95			
Diesel Range Organics (DRO)	3.88		1081087	924.35			
Residual Range Organics (RRO)	6.74		11306	18.38			NR

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F014.D Vial: 96
Acq On : 28 Apr 2016 10:44 am Operator: SMS
Sample : DRO@1000/50 SVF01-80C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 28 11:00:49 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	4-Bromofluorobenzene	2.93	38456	52.664	ppm
Spiked Amount	50.000	Recovery	=	105.33%	
2) S	o-Terphenyl	5.57	77341	52.020	ppm
Spiked Amount	50.000	Recovery	=	104.04%	
3) S	n-Triacontane	7.72	65538	51.667	ppm
Spiked Amount	50.000	Recovery	=	103.33%	
	Target Compounds				
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	1304962	929.696	ppm
5) H	C10-C22ex DRO [AZ]	3.33	1210776	927.418	ppm
6) H	C10-C25ex DRO [AK102]	3.25	1269890	931.096	ppm
7) H	C10-C28in DRO [8015]	3.35	1282884	919.948	ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	1081087	924.353	ppm
9) H	C22-C32in RRO [AZ]	6.23	50354	131.438	ppm
10) H	C25-C36in RRO [NWTPH]	6.74	11306	18.384	ppm
11) H	C25-C36in RRO [AK103]	6.74	15780	21.150	ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	14013	12.953	ppm

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

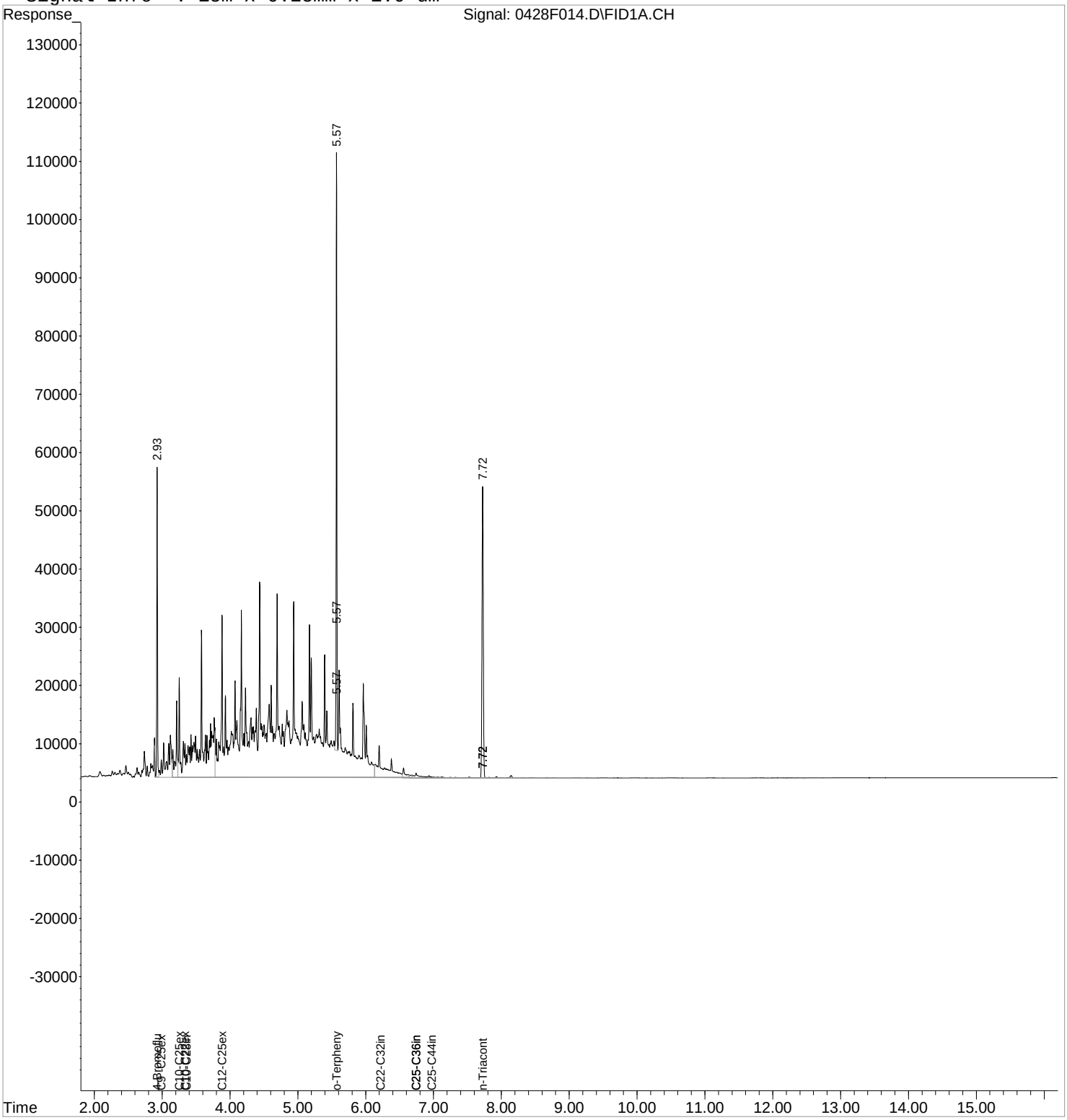
Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F014.D Vial: 96
Acq On : 28 Apr 2016 10:44 am Operator: SMS
Sample : DRO@1000/50 SVF01-80C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 28 11:00 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st JMS 04/29/16
2nd JEP 04/30/16

Exception Report

Data File: J:\GC21\DATA\042816F\0428F054.D
Lab ID: KWG1603332-2
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 04/28/2016 18:05
Date Quantitated: 04/29/2016 07:21
Batch ID: KWG1603332
Analysis Method: 8015C
MethodJoinID: MJ1099

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F054.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:05	**Quant Date:**	04/29/2016 07:21	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603332-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			55-133	NA	NR
n-Triacontane	7.73	?	247	0.1950		50-150	NA	NR

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		45902	33.66			
C10 - C28 DRO	3.35		175349	125.74			
Diesel Range Organics (DRO)	3.88		43038	36.80			NR
Residual Range Organics (RRO)	6.74		579075	941.61			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F054.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:05	**Quant Date:**	04/29/2016 07:21	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ126	**Dilution:**	1.0
Lab ID:	KWG1603332-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ126
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	NR

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		45902	33.66			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F054.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:05	**Quant Date:**	04/29/2016 07:21	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ1574	**Dilution:**	1.0
Lab ID:	KWG1603332-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1574
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	NR

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		45902	33.66			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F054.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:05	**Quant Date:**	04/29/2016 07:21	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603332-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	NR
n-Triacontane	7.73		247	0.1950		50-150	NA	NR

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		0				
Diesel Range Organics (DRO)	3.88		43038	36.80			NR
Residual Range Organics (RRO)	6.74		579075	941.61			
C25 - C44 RRO	6.98		1048927	969.62			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F054.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:05	**Quant Date:**	04/29/2016 07:21	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603332-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			50-150	NA	NR
n-Triacontane	7.73		247	0.1950		50-150	NA	NR

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		175349	125.74			
Diesel Range Organics (DRO)	3.88		43038	36.80			NR
Residual Range Organics (RRO)	6.74		579075	941.61			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\042816F\0428F054.D Vial: 97
Acq On : 28 Apr 2016 6:05 pm Operator: SMS
Sample : RRO@1000 SVF01-84L Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 07:21:54 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3) S	n-Triacontane	7.73	247	0.195 ppm
Spiked Amount	50.000	Recovery	=	0.39%
	Target Compounds			
5) H	C10-C22ex DRO [AZ]	3.33	16465	12.612 ppm
6) H	C10-C25ex DRO [AK102]	3.25	45902	33.656 ppm
7) H	C10-C28in DRO [8015]	3.35	175349	125.742 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	43038	36.798 ppm
9) H	C22-C32in RRO [AZ]	6.23	366686	957.152 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	579075	941.609 ppm
11) H	C25-C36in RRO [AK103]	6.74	566456	759.208 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	1048927	969.615 ppm

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

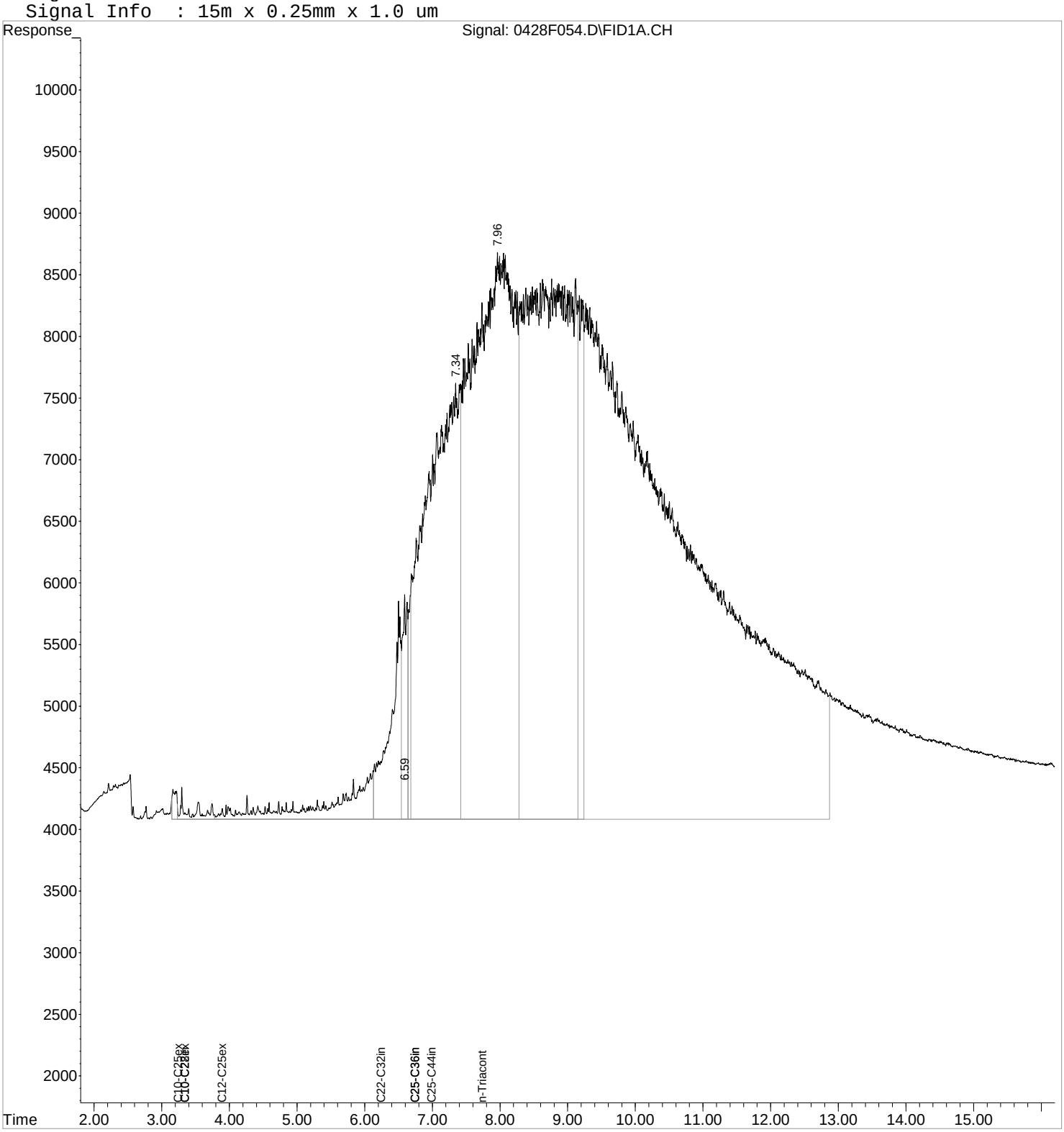
Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F054.D Vial: 97
Acq On : 28 Apr 2016 6:05 pm Operator: SMS
Sample : RRO@1000 SVF01-84L Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 7:21 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st JMS 04/29/16
2nd JEP 04/30/16

Exception Report

Data File: J:\GC21\DATA\042816F\0428F056.D
Lab ID: KWG1603332-2
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 04/28/2016 18:27
Date Quantitated: 04/29/2016 07:21
Batch ID: KWG1603332
Analysis Method: 8015C
MethodJoinID: MJ1099

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F056.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:27	**Quant Date:**	04/29/2016 07:21	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603332-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57	?	79773	53.66		55-133	NA	
n-Triacontane	7.72	?	65229	51.42		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		1322208	969.46			
C10 - C28 DRO	3.35		1331551	954.85			
Diesel Range Organics (DRO)	3.88		1126572	963.24			
Residual Range Organics (RRO)	6.74		21684	35.26			NR

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F056.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:27	**Quant Date:**	04/29/2016 07:21	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ126	**Dilution:**	1.0
Lab ID:	KWG1603332-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ126
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57		79773	53.66		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		1322208	969.46			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F056.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:27	**Quant Date:**	04/29/2016 07:21	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ1574	**Dilution:**	1.0
Lab ID:	KWG1603332-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1574
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57		79773	53.66		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		1322208	969.46			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F056.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:27	**Quant Date:**	04/29/2016 07:21	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603332-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57		79773	53.66		50-150	NA	
n-Triacontane	7.72		65229	51.42		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		1358972	968.18			
Diesel Range Organics (DRO)	3.88		1126572	963.24			
Residual Range Organics (RRO)	6.74		21684	35.26			NR
C25 - C44 RRO	6.98		60846	56.25			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F056.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:27	**Quant Date:**	04/29/2016 07:21	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603332-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	2.93		39791	54.49		50-150	NA	
o-Terphenyl	5.57		79773	53.66		50-150	NA	
n-Triacontane	7.72		65229	51.42		50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		1331551	954.85			
Diesel Range Organics (DRO)	3.88		1126572	963.24			
Residual Range Organics (RRO)	6.74		21684	35.26			NR

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F056.D Vial: 96
Acq On : 28 Apr 2016 6:27 pm Operator: SMS
Sample : DRO@1000/50 SVF01-80C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 07:21:54 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	4-Bromofluorobenzene	2.93	39791	54.492 ppm
Spiked Amount	50.000	Recovery	=	108.98%
2) S	o-Terphenyl	5.57	79773	53.656 ppm
Spiked Amount	50.000	Recovery	=	107.31%
3) S	n-Triacontane	7.72	65229	51.423 ppm
Spiked Amount	50.000	Recovery	=	102.85%
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	1358972	968.175 ppm
5) H	C10-C22ex DRO [AZ]	3.33	1259197	964.507 ppm
6) H	C10-C25ex DRO [AK102]	3.25	1322208	969.456 ppm
7) H	C10-C28in DRO [8015]	3.35	1331551	954.847 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	1126572	963.244 ppm
9) H	C22-C32in RRO [AZ]	6.23	58248	152.043 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	21684	35.259 ppm
11) H	C25-C36in RRO [AK103]	6.74	25466	34.132 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	60846	56.245 ppm

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

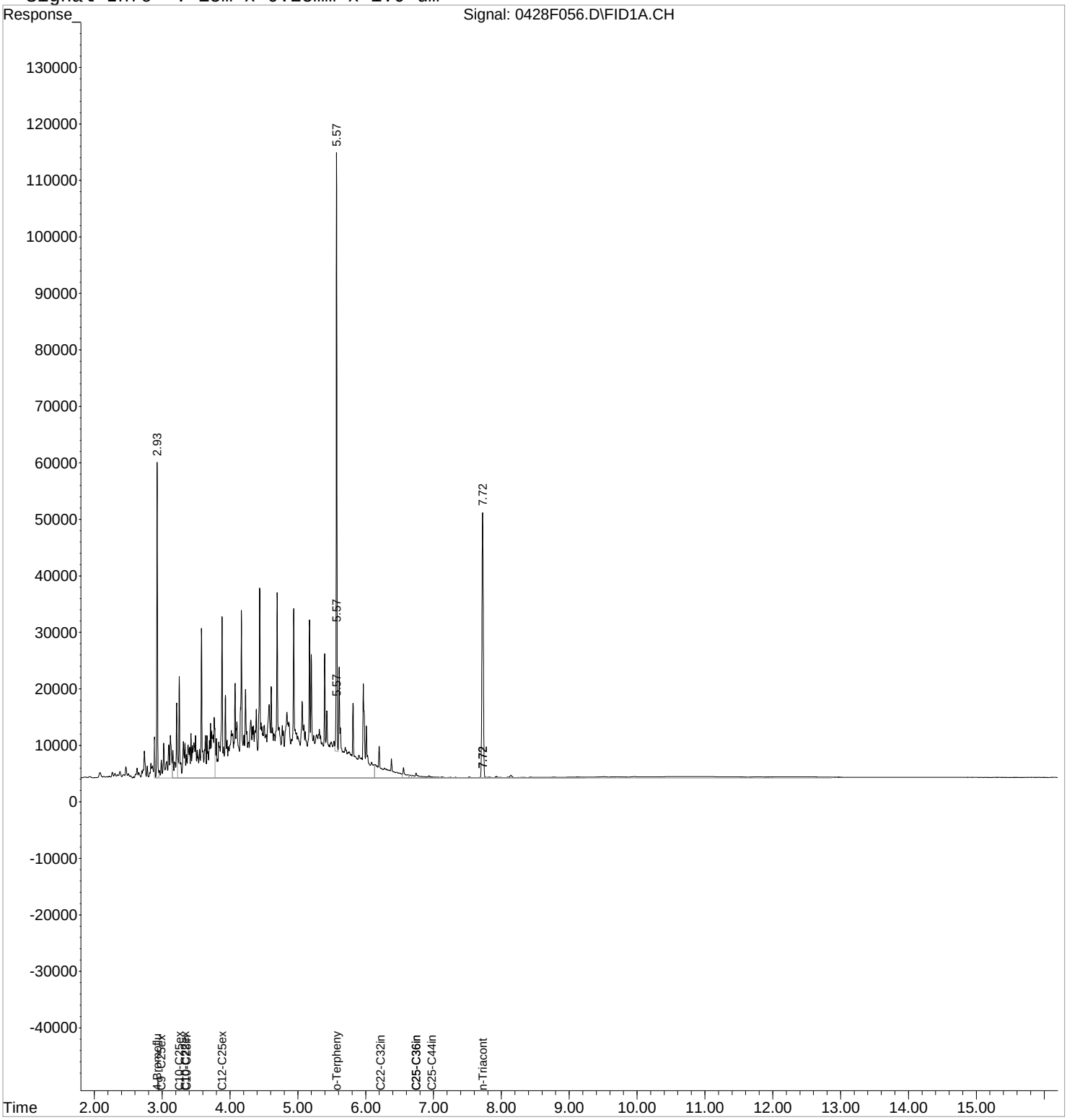
Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F056.D Vial: 96
Acq On : 28 Apr 2016 6:27 pm Operator: SMS
Sample : DRO@1000/50 SVF01-80C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 7:21 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st CH 05/02/16
2nd JMS 05/03/16

Exception Report

Data File: J:\GC21\DATA\042916F\0429F044.D
Lab ID: KWG1603375-2
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 04/29/2016 17:57
Date Quantitated: 04/30/2016 09:30
Batch ID: KWG1603375
Analysis Method: NWTPH-Dx
MethodJoinID: MJ1081

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F044.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 17:57	**Quant Date:**	04/30/2016 09:30	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ1081	**Dilution:**	1.0
Lab ID:	KWG1603375-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1081
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	NR
n-Triacontane			0			50-150	NA	NR

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	3.88		42324	36.19			NR
Residual Range Organics (RRO)	6.74		596383	969.75			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F044.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 17:57	**Quant Date:**	04/30/2016 09:30	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603375-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			55-133	NA	NR
n-Triacontane			0			50-150	NA	NR

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		45821	33.60			
C10 - C28 DRO	3.35		179487	128.71			
Diesel Range Organics (DRO)	3.88		42324	36.19			NR
Residual Range Organics (RRO)	6.74		596383	969.75			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F044.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 17:57	**Quant Date:**	04/30/2016 09:30	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603375-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	NR
n-Triacontane			0			50-150	NA	NR

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		51473	36.67			
Diesel Range Organics (DRO)	3.88		42324	36.19			NR
Residual Range Organics (RRO)	6.74		596383	969.75			
C25 - C44 RRO	6.98		1056745	976.84			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F044.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 17:57	**Quant Date:**	04/30/2016 09:30	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603375-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			50-150	NA	NR
n-Triacontane			0			50-150	NA	NR

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		179487	128.71			
Diesel Range Organics (DRO)	3.88		42324	36.19			NR
Residual Range Organics (RRO)	6.74		596383	969.75			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F044.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 17:57	**Quant Date:**	04/30/2016 09:30	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ234	**Dilution:**	1.0
Lab ID:	KWG1603375-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ234
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			51-126	NA	NR
n-Triacontane			0			50-150	NA	NR

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		51473	36.67			
C10 - C25 DRO	3.25		45821	33.60			
C10 - C28 DRO	3.35		179487	128.71			
Diesel Range Organics (DRO)	3.88		42324	36.19			NR
Residual Range Organics (RRO)	6.74		596383	969.75			
C25 - C44 RRO	6.98		1056745	976.84			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\042916F\0429F044.D Vial: 97
Acq On : 29 Apr 2016 5:57 pm Operator: SMS
Sample : RRO@1000 SVF01-84L Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 09:30:49 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	51473	36.671 ppm
5) H	C10-C22ex DRO [AZ]	3.33	14984	11.477 ppm
6) H	C10-C25ex DRO [AK102]	3.25	45821	33.596 ppm
7) H	C10-C28in DRO [8015]	3.35	179487	128.709 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	42324	36.188 ppm
9) H	C22-C32in RRO [AZ]	6.23	377585	985.602 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	596383	969.753 ppm
11) H	C25-C36in RRO [AK103]	6.74	581351	779.172 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	1056745	976.842 ppm

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

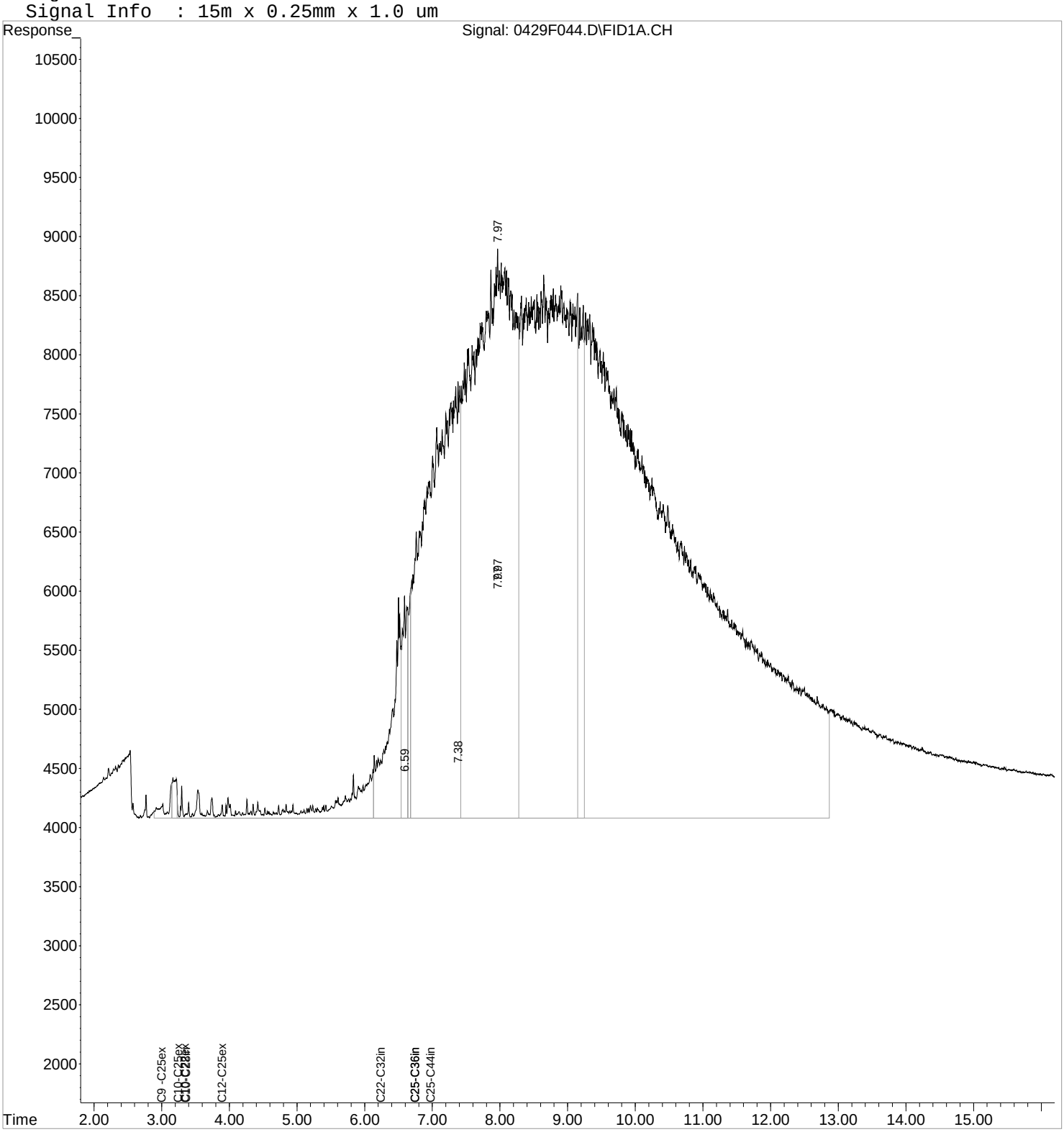
Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F044.D Vial: 97
Acq On : 29 Apr 2016 5:57 pm Operator: SMS
Sample : RRO@1000 SVF01-84L Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 9:30 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st CH 05/02/16
2nd JMS 05/03/16

Exception Report

Data File: J:\GC21\DATA\042916F\0429F046.D
Lab ID: KWG1603375-2
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 04/29/2016 18:19
Date Quantitated: 04/30/2016 09:31
Batch ID: KWG1603375
Analysis Method: NWTPH-Dx
MethodJoinID: MJ1081

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F046.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 18:19	**Quant Date:**	04/30/2016 09:31	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ1081	**Dilution:**	1.0
Lab ID:	KWG1603375-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1081
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57		84961	57.15		50-150	NA	
n-Triacontane	7.72		69933	55.13		50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	3.88		1210348	1,035			
Residual Range Organics (RRO)	6.74		14325	23.29			NR

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F046.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 18:19	**Quant Date:**	04/30/2016 09:31	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603375-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57	?	84961	57.15		55-133	NA	
n-Triacontane	7.72	?	69933	55.13		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		1419307	1,041			
C10 - C28 DRO	3.35		1428186	1,024			
Diesel Range Organics (DRO)	3.88		1210348	1,035			
Residual Range Organics (RRO)	6.74		14325	23.29			NR

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F046.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 18:19	**Quant Date:**	04/30/2016 09:31	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603375-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57		84961	57.15		50-150	NA	
n-Triacontane	7.72		69933	55.13		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		1458396	1,039			
Diesel Range Organics (DRO)	3.88		1210348	1,035			
Residual Range Organics (RRO)	6.74		14325	23.29			NR
C25 - C44 RRO	6.98		23685	21.89			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F046.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 18:19	**Quant Date:**	04/30/2016 09:31	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603375-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	2.93		41925	57.41		50-150	NA	
o-Terphenyl	5.57		84961	57.15		50-150	NA	
n-Triacontane	7.72		69933	55.13		50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		1428186	1,024			
Diesel Range Organics (DRO)	3.88		1210348	1,035			
Residual Range Organics (RRO)	6.74		14325	23.29			NR

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F046.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 18:19	**Quant Date:**	04/30/2016 09:31	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ234	**Dilution:**	1.0
Lab ID:	KWG1603375-2			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ234
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	2.93	?	41925	57.41		50-150	NA	
o-Terphenyl	5.57	?	84961	57.15		51-126	NA	
n-Triacontane	7.72	?	69933	55.13		50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		1458396	1,039			
C10 - C25 DRO	3.25		1419307	1,041			
C10 - C28 DRO	3.35		1428186	1,024			
Diesel Range Organics (DRO)	3.88		1210348	1,035			
Residual Range Organics (RRO)	6.74		14325	23.29			NR
C25 - C44 RRO	6.98		23685	21.89			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F046.D Vial: 96
Acq On : 29 Apr 2016 6:19 pm Operator: SMS
Sample : DRO@1000/50 SVF01-80C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 09:31:35 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	4-Bromofluorobenzene	2.93	41925	57.414 ppm
Spiked Amount	50.000	Recovery	=	114.83%
2) S	o-Terphenyl	5.57	84961	57.145 ppm
Spiked Amount	50.000	Recovery	=	114.29%
3) S	n-Triacontane	7.72	69933	55.132 ppm
Spiked Amount	50.000	Recovery	=	110.26%
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	1458396	1039.007 ppm
5) H	C10-C22ex DRO [AZ]	3.33	1351955	1035.556 ppm
6) H	C10-C25ex DRO [AK102]	3.25	1419307	1040.650 ppm
7) H	C10-C28in DRO [8015]	3.35	1428186	1024.143 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	1210348	1034.874 ppm
9) H	C22-C32in RRO [AZ]	6.23	58294	152.164 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	14325	23.293 ppm
11) H	C25-C36in RRO [AK103]	6.74	18826	25.232 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	23685	21.894 ppm

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

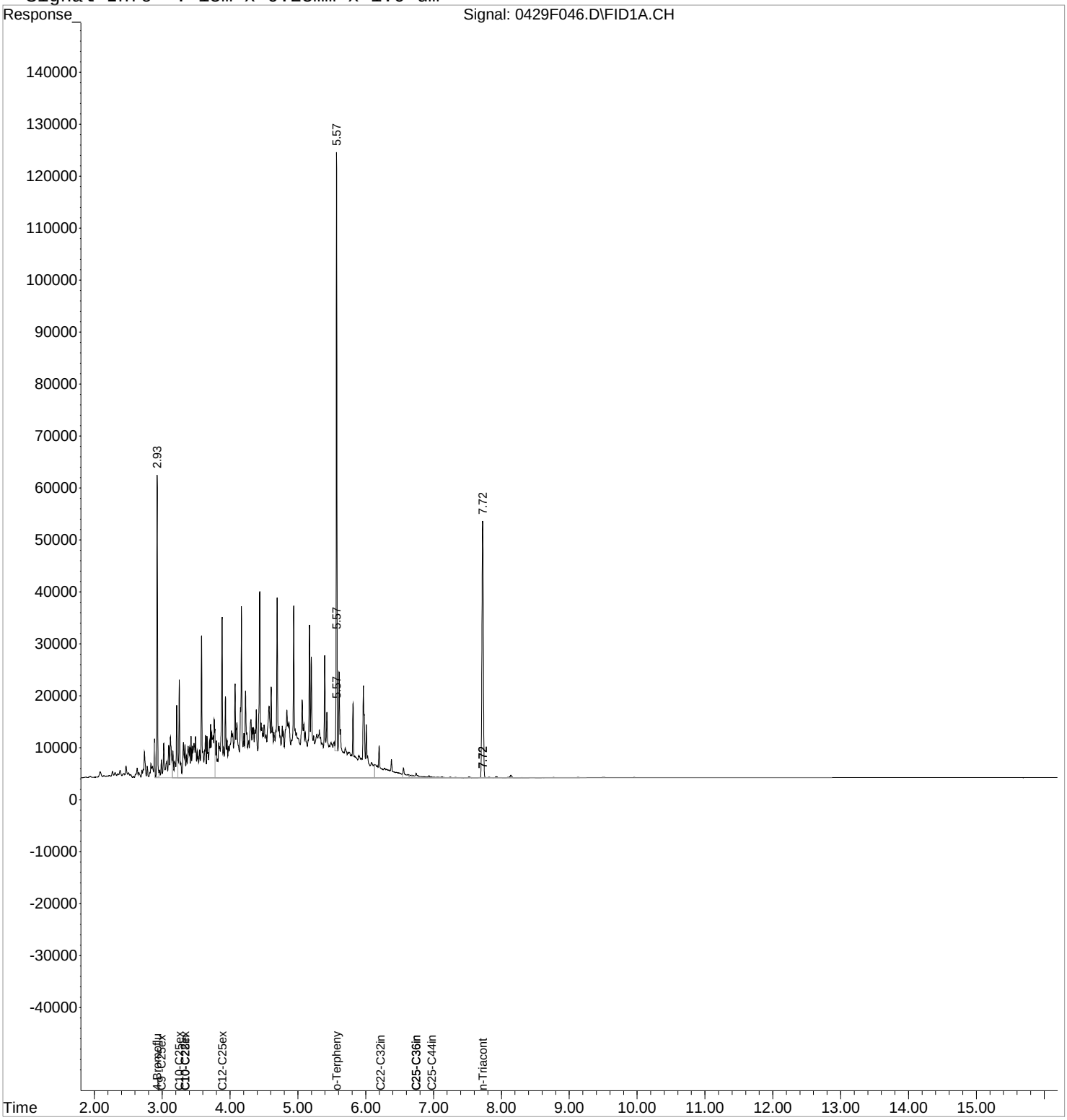
Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F046.D Vial: 96
Acq On : 29 Apr 2016 6:19 pm Operator: SMS
Sample : DRO@1000/50 SVF01-80C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 9:31 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st CH 05/02/16
2nd JMS 05/03/16

Exception Report

Data File: J:\GC21\DATA\042916F\0429F070.D
Lab ID: KWG1603375-3
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 04/29/2016 22:44
Date Quantitated: 04/30/2016 09:32
Batch ID: KWG1603375
Analysis Method: NWTPH-Dx
MethodJoinID: MJ1081

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F070.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 22:44	**Quant Date:**	04/30/2016 09:32	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ1081	**Dilution:**	1.0
Lab ID:	KWG1603375-3			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1081
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	NR
n-Triacontane			0			50-150	NA	NR

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	3.88		37765	32.29			NR
Residual Range Organics (RRO)	6.74		582162	946.63			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F070.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 22:44	**Quant Date:**	04/30/2016 09:32	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603375-3			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			55-133	NA	NR
n-Triacontane			0			50-150	NA	NR

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		41330	30.30			
C10 - C28 DRO	3.35		171657	123.09			
Diesel Range Organics (DRO)	3.88		37765	32.29			NR
Residual Range Organics (RRO)	6.74		582162	946.63			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F070.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 22:44	**Quant Date:**	04/30/2016 09:32	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603375-3			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	NR
n-Triacontane			0			50-150	NA	NR

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		0				
Diesel Range Organics (DRO)	3.88		37765	32.29			NR
Residual Range Organics (RRO)	6.74		582162	946.63			
C25 - C44 RRO	6.98		1003783	927.89			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F070.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 22:44	**Quant Date:**	04/30/2016 09:32	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603375-3			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			50-150	NA	NR
n-Triacontane			0			50-150	NA	NR

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		171657	123.09			
Diesel Range Organics (DRO)	3.88		37765	32.29			NR
Residual Range Organics (RRO)	6.74		582162	946.63			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F070.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 22:44	**Quant Date:**	04/30/2016 09:32	**Vial:**	97
Run Type:	CCV	**MethodJoinID:**	MJ234	**Dilution:**	1.0
Lab ID:	KWG1603375-3			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ234
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			51-126	NA	NR
n-Triacontane			0			50-150	NA	NR

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		0				
C10 - C25 DRO	3.25		41330	30.30			
C10 - C28 DRO	3.35		171657	123.09			
Diesel Range Organics (DRO)	3.88		37765	32.29			NR
Residual Range Organics (RRO)	6.74		582162	946.63			
C25 - C44 RRO	6.98		1003783	927.89			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F070.D Vial: 97
Acq On : 29 Apr 2016 10:44 pm Operator: SMS
Sample : RRO@1000 SVF01-84L Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 09:32:14 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
	Target Compounds				
5)	H C10-C22ex DRO [AZ]	3.33	12459	9.543	ppm
6)	H C10-C25ex DRO [AK102]	3.25	41330	30.304	ppm
7)	H C10-C28in DRO [8015]	3.35	171657	123.094	ppm
8)	H C12-C25ex DRO [NWTPH]	3.88	37765	32.290	ppm
9)	H C22-C32in RRO [AZ]	6.23	368051	960.715	ppm
10)	H C25-C36in RRO [NWTPH]	6.74	582162	946.628	ppm
11)	H C25-C36in RRO [AK103]	6.74	567421	760.502	ppm
12)	H C25-C44in RRO [TPH-Oil]	6.98	1003783	927.885	ppm

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

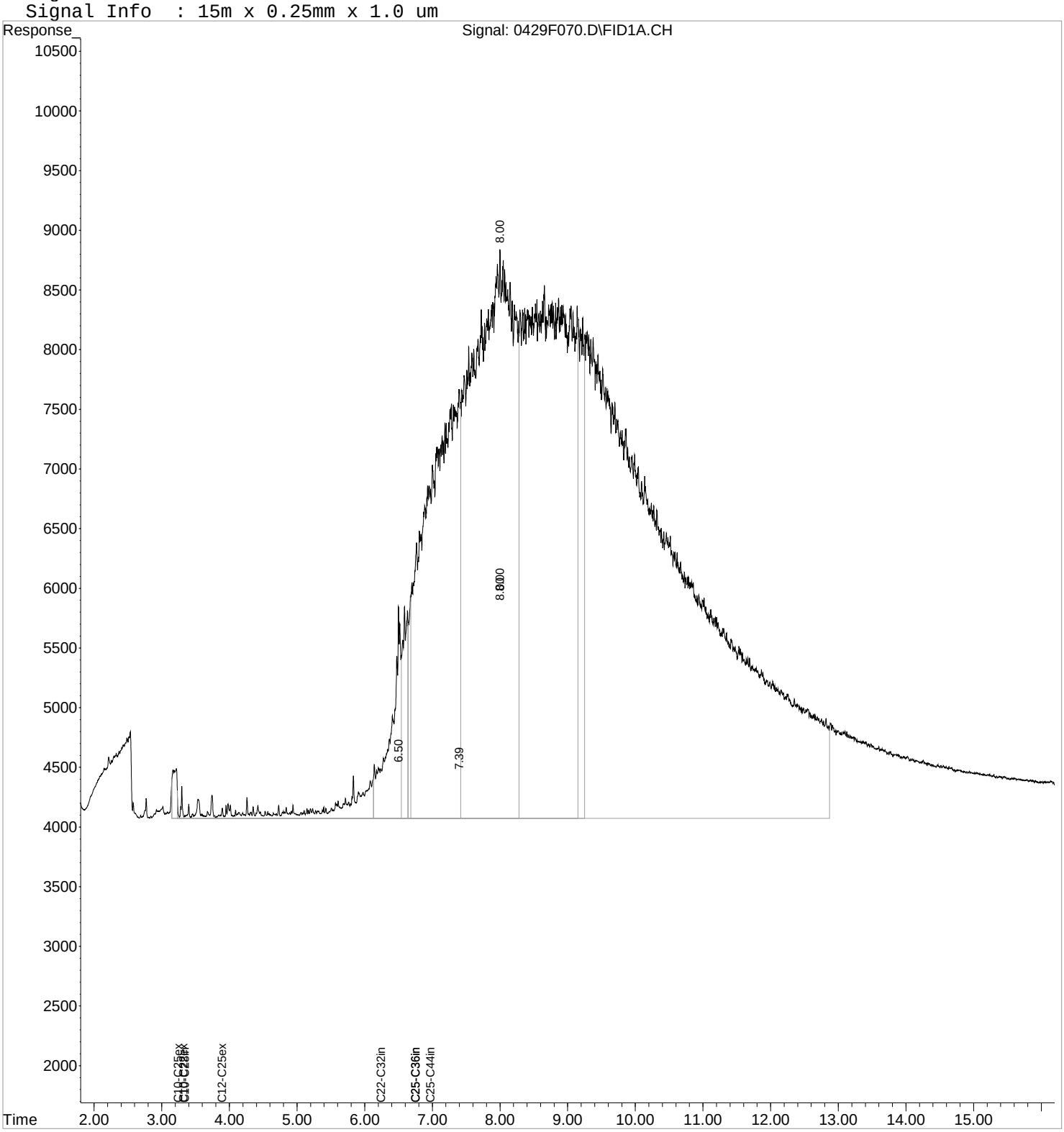
Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F070.D Vial: 97
Acq On : 29 Apr 2016 10:44 pm Operator: SMS
Sample : RRO@1000 SVF01-84L Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 9:32 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st CH 05/02/16
2nd JMS 05/03/16

Exception Report

Data File: J:\GC21\DATA\042916F\0429F072.D
Lab ID: KWG1603375-3
RunType: CCV
Matrix: NOT APPLICABLE

Date Acquired: 04/29/2016 23:06
Date Quantitated: 04/30/2016 10:06
Batch ID: KWG1603375
Analysis Method: NWTPH-Dx
MethodJoinID: MJ1081

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F072.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 23:06	**Quant Date:**	04/30/2016 10:06	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ1081	**Dilution:**	1.0
Lab ID:	KWG1603375-3			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1081
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57		82710**m**	55.63		50-150	NA	
n-Triacontane	7.72		69176	54.54		50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	3.88		1178522	1,008			
Residual Range Organics (RRO)	6.74		12545	20.40			NR

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F072.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 23:06	**Quant Date:**	04/30/2016 10:06	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603375-3			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57	?	82710**m**	55.63		55-133	NA	
n-Triacontane	7.72	?	69176	54.54		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		1383028	1,014			
C10 - C28 DRO	3.35		1391857	998.09			
Diesel Range Organics (DRO)	3.88		1178522	1,008			
Residual Range Organics (RRO)	6.74		12545	20.40			NR

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F072.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 23:06	**Quant Date:**	04/30/2016 10:06	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603375-3			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl	5.57		82710**m**	55.63		50-150	NA	
n-Triacontane	7.72		69176	54.54		50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		1421445	1,013			
Diesel Range Organics (DRO)	3.88		1178522	1,008			
Residual Range Organics (RRO)	6.74		12545	20.40			NR
C25 - C44 RRO	6.98		17438	16.12			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F072.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 23:06	**Quant Date:**	04/30/2016 10:06	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603375-3			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	2.93		41047	56.21		50-150	NA	
o-Terphenyl	5.57		82710**m**	55.63		50-150	NA	
n-Triacontane	7.72		69176	54.54		50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		1391857	998.09			
Diesel Range Organics (DRO)	3.88		1178522	1,008			
Residual Range Organics (RRO)	6.74		12545	20.40			NR

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F072.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 23:06	**Quant Date:**	04/30/2016 10:06	**Vial:**	96
Run Type:	CCV	**MethodJoinID:**	MJ234	**Dilution:**	1.0
Lab ID:	KWG1603375-3			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ234
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene	2.93	?	41047	56.21		50-150	NA	
o-Terphenyl	5.57	?	82710**m**	55.63		51-126	NA	
n-Triacontane	7.72	?	69176	54.54		50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		1421445	1,013			
C10 - C25 DRO	3.25		1383028	1,014			
C10 - C28 DRO	3.35		1391857	998.09			
Diesel Range Organics (DRO)	3.88		1178522	1,008			
Residual Range Organics (RRO)	6.74		12545	20.40			NR
C25 - C44 RRO	6.98		17438	16.12			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F072.D Vial: 96
Acq On : 29 Apr 2016 11:06 pm Operator: SMS
Sample : DRO@1000/50 SVF01-80C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 09:32:28 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
1) S	4-Bromofluorobenzene	2.93	41047	56.212	ppm	
Spiked Amount	50.000	Recovery	=	112.42%		
2) S	o-Terphenyl	5.57	82710	55.631	ppm	m
Spiked Amount	50.000	Recovery	=	111.26%		
3) S	n-Triacontane	7.72	69176	54.535	ppm	
Spiked Amount	50.000	Recovery	=	109.07%		
	Target Compounds					
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	1421445	1012.682	ppm	
5) H	C10-C22ex DRO [AZ]	3.33	1317673	1009.297	ppm	
6) H	C10-C25ex DRO [AK102]	3.25	1383028	1014.050	ppm	
7) H	C10-C28in DRO [8015]	3.35	1391857	998.092	ppm	
8) H	C12-C25ex DRO [NWTPH]	3.88	1178522	1007.662	ppm	
9) H	C22-C32in RRO [AZ]	6.23	54342	141.848	ppm	
10) H	C25-C36in RRO [NWTPH]	6.74	12545	20.399	ppm	
11) H	C25-C36in RRO [AK103]	6.74	17060	22.865	ppm	
12) H	C25-C44in RRO [TPH-Oil]	6.98	17438	16.119	ppm	

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

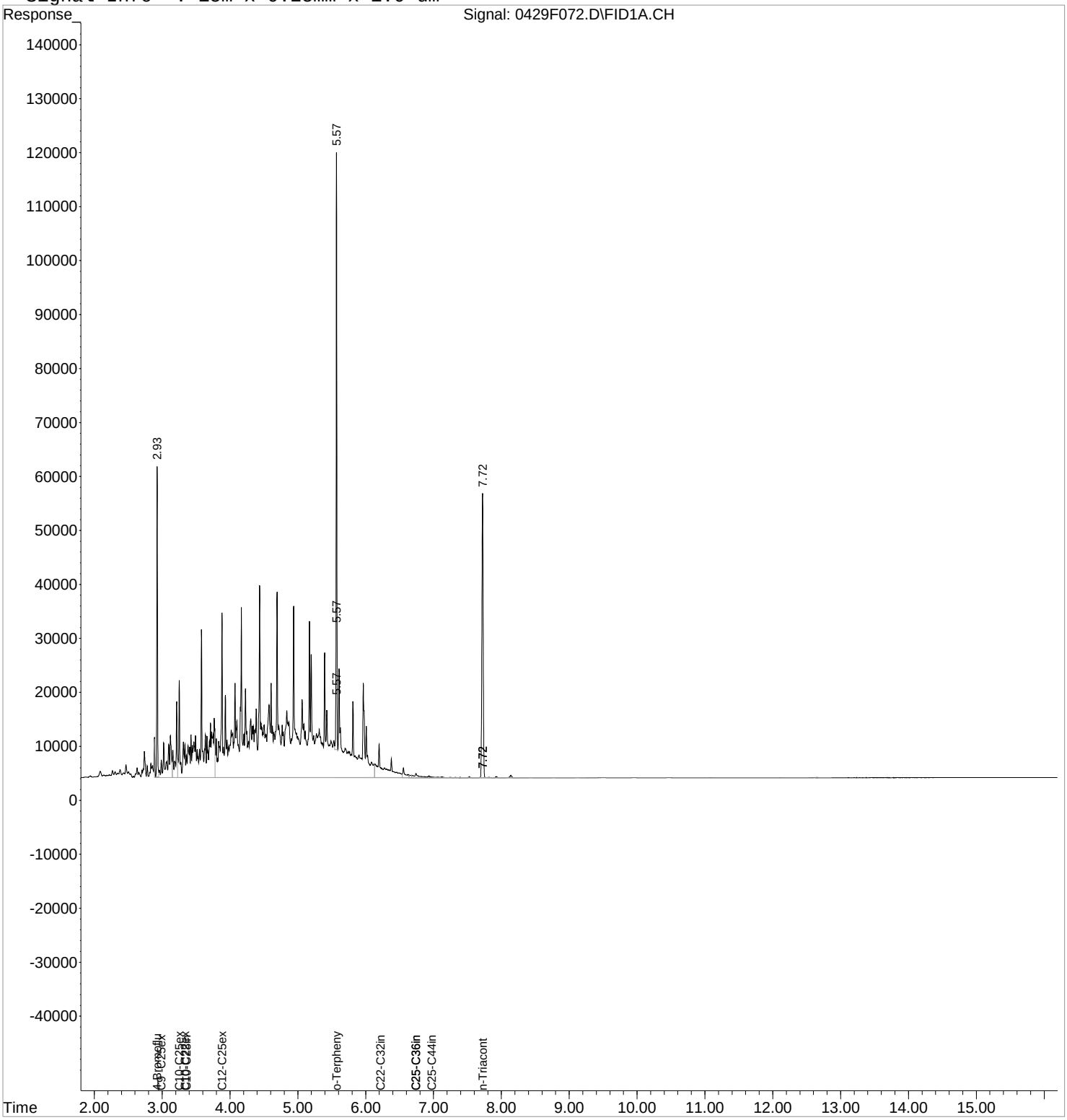
Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F072.D Vial: 96
Acq On : 29 Apr 2016 11:06 pm Operator: SMS
Sample : DRO@1000/50 SVF01-80C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:06 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

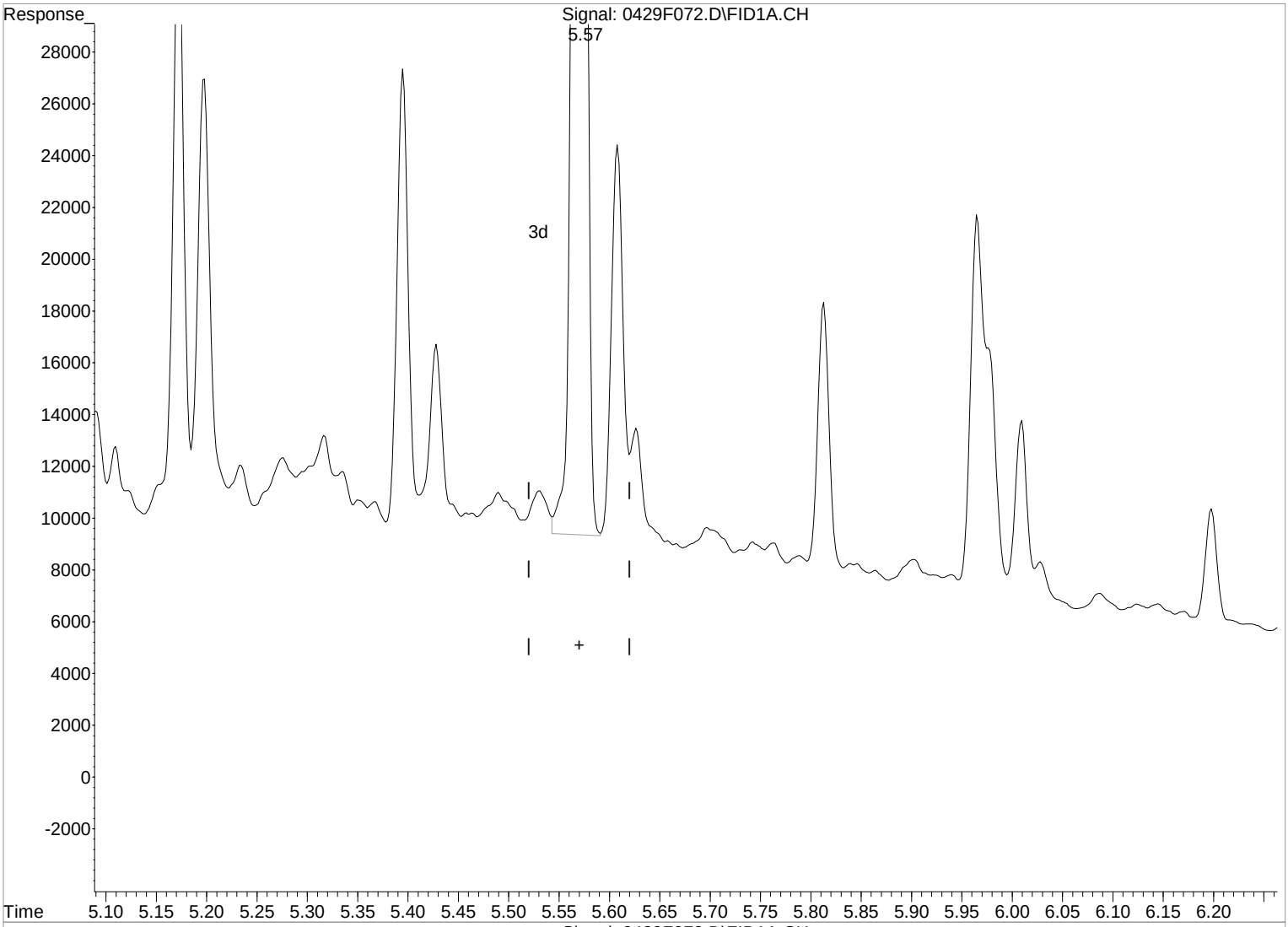


Quantitation Report (Qedit)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F072.D Vial: 96
Acq On : 29 Apr 2016 11:06 pm Operator: SMS
Sample : DRO@1000/50 SVF01-80C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 9:32 2016 Quant Results File: 011916F.RES

Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Multiple Level Calibration



Signal: 0429F072.D\FID1A.CH

(2) o-Terphenyl (S)

5.57min 55.698ppm

response 82810

Manual Integration:

Before

04/30/16

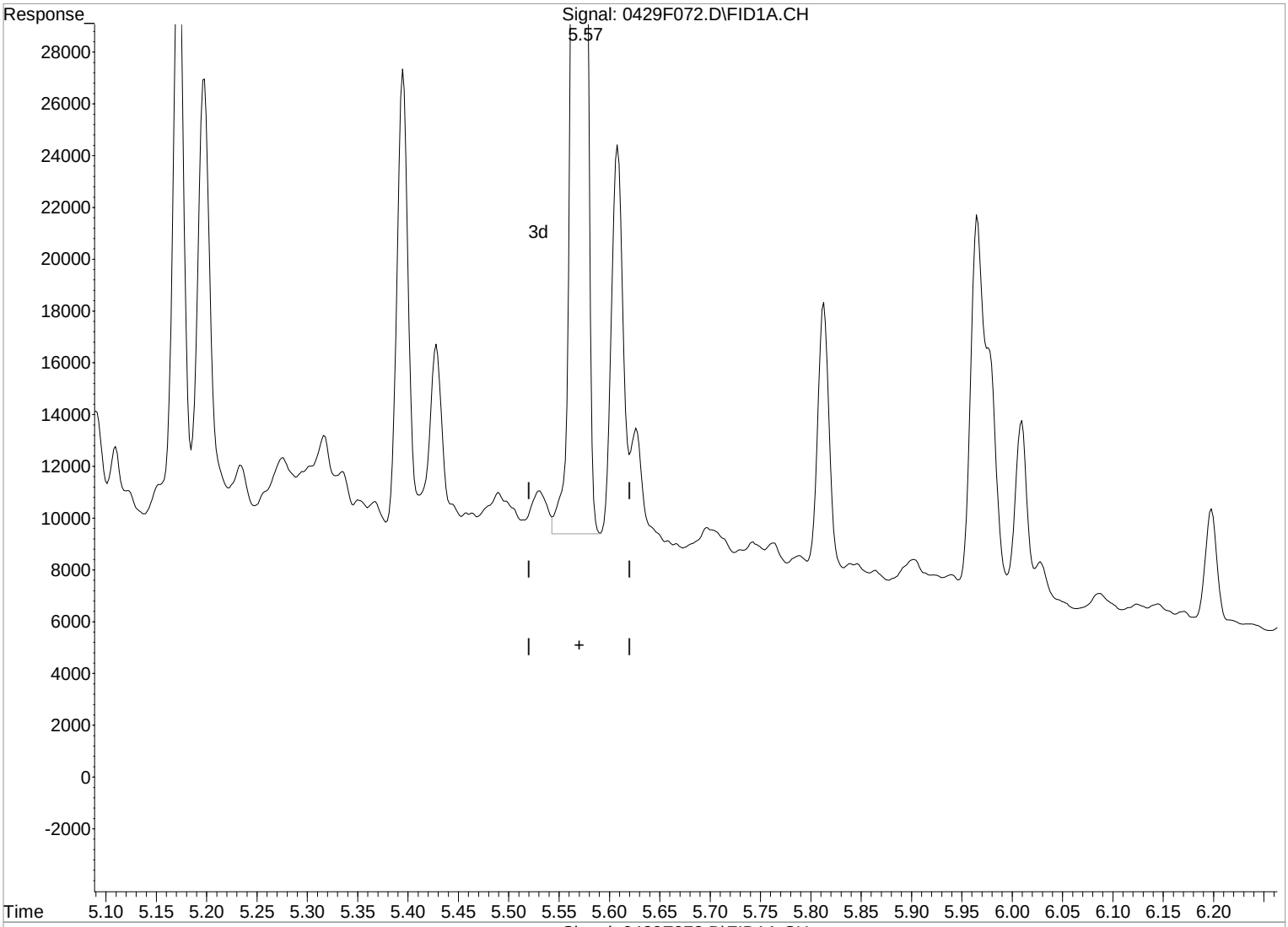
(+) = Expected Retention Time

Quantitation Report (Qedit)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F072.D Vial: 96
Acq On : 29 Apr 2016 11:06 pm Operator: SMS
Sample : DRO@1000/50 SVF01-80C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 9:32 2016 Quant Results File: 011916F.RES

Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Multiple Level Calibration



Signal: 0429F072.D\FID1A.CH

(2) o-Terphenyl (S)

5.57min 55.631ppm m

response 82710

Manual Integration:

After

Baseline/Shoulder

04/30/16

(+) = Expected Retention Time

1st JMS 04/29/16
2nd JEP 04/30/16

Exception Report

Data File: J:\GC21\DATA\042816F\0428F016.D
Lab ID: KWG1603332-5
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 04/28/2016 11:06
Date Quantitated: 04/29/2016 07:21
Batch ID: KWG1603332
Analysis Method: 8015C
MethodJoinID: MJ1099

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	C10 - C25 DRO	Calc	S-0.000	I-5.719	NA

Primary Review: _____

Secondary Review: _____

Printed: 04/29/2016 11:51:54
u:\Stealth\Crystal.rpt\except2.rpt

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F016.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 11:06	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603332-5			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			55-133	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		7800	5.72			
C10 - C28 DRO	3.35		9669	6.93			
Diesel Range Organics (DRO)	3.88		5250	4.49			
Residual Range Organics (RRO)	6.74		7262	11.81			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F016.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 11:06	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ126	**Dilution:**	1.0
Lab ID:	KWG1603332-5			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ126
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		7800	5.72			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F016.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 11:06	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1574	**Dilution:**	1.0
Lab ID:	KWG1603332-5			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1574
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		7800	5.72			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F016.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 11:06	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603332-5			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		8771	6.25			
Diesel Range Organics (DRO)	3.88		5250	4.49			
Residual Range Organics (RRO)	6.74		7262	11.81			
C25 - C44 RRO	6.98		20766	19.20			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F016.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 11:06	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603332-5			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		9669	6.93			
Diesel Range Organics (DRO)	3.88		5250	4.49			
Residual Range Organics (RRO)	6.74		7262	11.81			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F016.D Vial: 87
Acq On : 28 Apr 2016 11:06 am Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 07:21:38 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	8771	6.249 ppm
6) H	C10-C25ex DRO [AK102]	3.25	7800	5.719 ppm
7) H	C10-C28in DRO [8015]	3.35	9669	6.934 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	5250	4.489 ppm
9) H	C22-C32in RRO [AZ]	6.23	5295	13.821 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	7262	11.808 ppm
11) H	C25-C36in RRO [AK103]	6.74	7175	9.616 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	20766	19.196 ppm

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

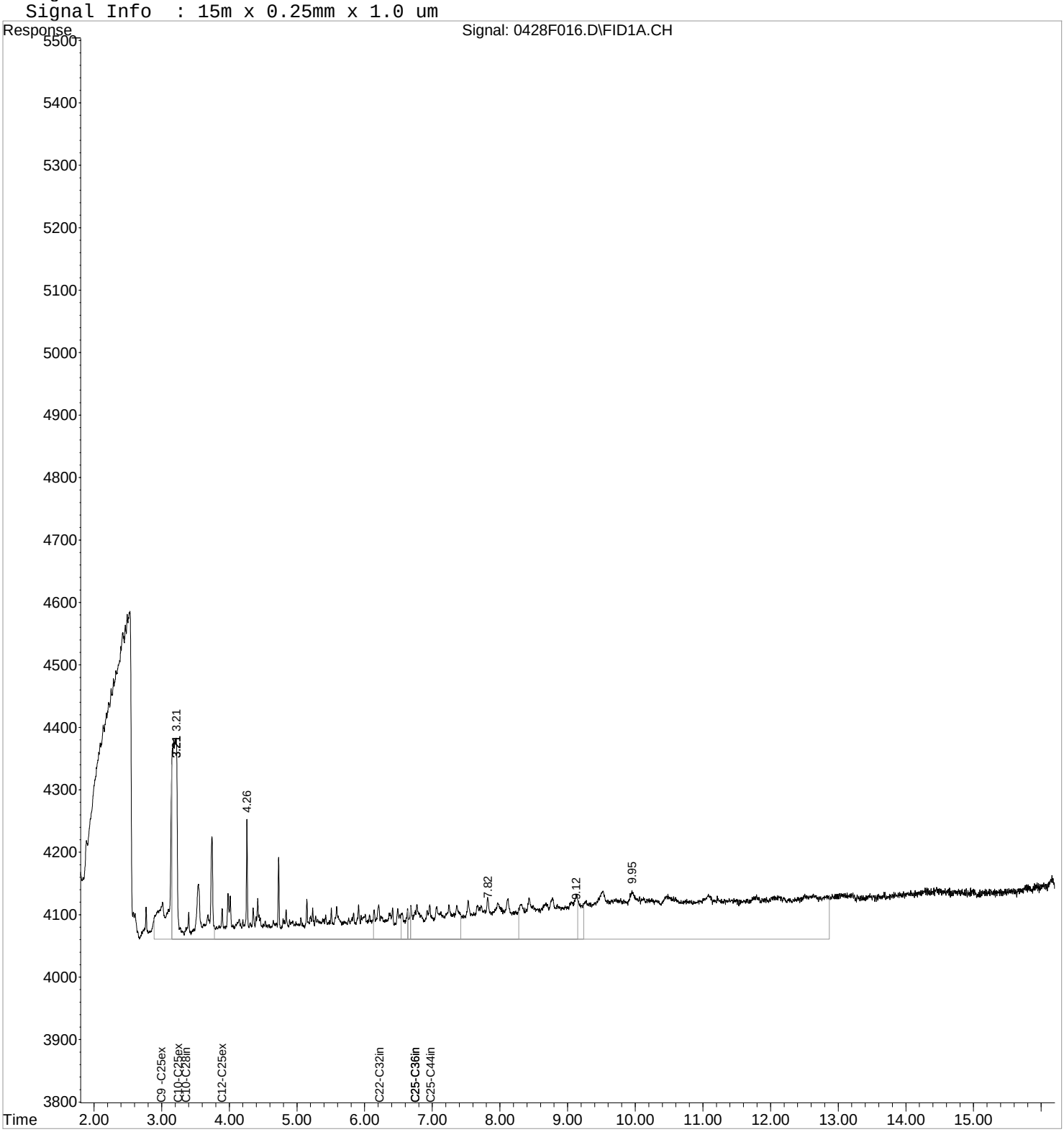
Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F016.D Vial: 87
Acq On : 28 Apr 2016 11:06 am Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 7:21 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st JMS 04/29/16
2nd JEP 04/30/16

Exception Report

Data File: J:\GC21\DATA\042816F\0428F016.D
Lab ID: KWG1603332-5
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 04/28/2016 11:06
Date Quantitated: 04/29/2016 07:21
Batch ID: KWG1603332
Analysis Method: 8015C
MethodJoinID: MJ1099

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	C10 - C25 DRO	Calc	S-0.000	I-5.719	NA

Primary Review: _____

Secondary Review: _____

Printed: 04/29/2016 11:51:54
u:\Stealth\Crystal.rpt\except2.rpt

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F016.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 11:06	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603332-5			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			55-133	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		7800	5.72			
C10 - C28 DRO	3.35		9669	6.93			
Diesel Range Organics (DRO)	3.88		5250	4.49			
Residual Range Organics (RRO)	6.74		7262	11.81			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F016.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 11:06	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ126	**Dilution:**	1.0
Lab ID:	KWG1603332-5			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ126
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		7800	5.72			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F016.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 11:06	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1574	**Dilution:**	1.0
Lab ID:	KWG1603332-5			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1574
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		7800	5.72			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F016.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 11:06	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603332-5			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		8771	6.25			
Diesel Range Organics (DRO)	3.88		5250	4.49			
Residual Range Organics (RRO)	6.74		7262	11.81			
C25 - C44 RRO	6.98		20766	19.20			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F016.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 11:06	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603332-5			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		9669	6.93			
Diesel Range Organics (DRO)	3.88		5250	4.49			
Residual Range Organics (RRO)	6.74		7262	11.81			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F016.D Vial: 87
Acq On : 28 Apr 2016 11:06 am Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 07:21:38 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	8771	6.249 ppm
6) H	C10-C25ex DRO [AK102]	3.25	7800	5.719 ppm
7) H	C10-C28in DRO [8015]	3.35	9669	6.934 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	5250	4.489 ppm
9) H	C22-C32in RRO [AZ]	6.23	5295	13.821 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	7262	11.808 ppm
11) H	C25-C36in RRO [AK103]	6.74	7175	9.616 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	20766	19.196 ppm

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

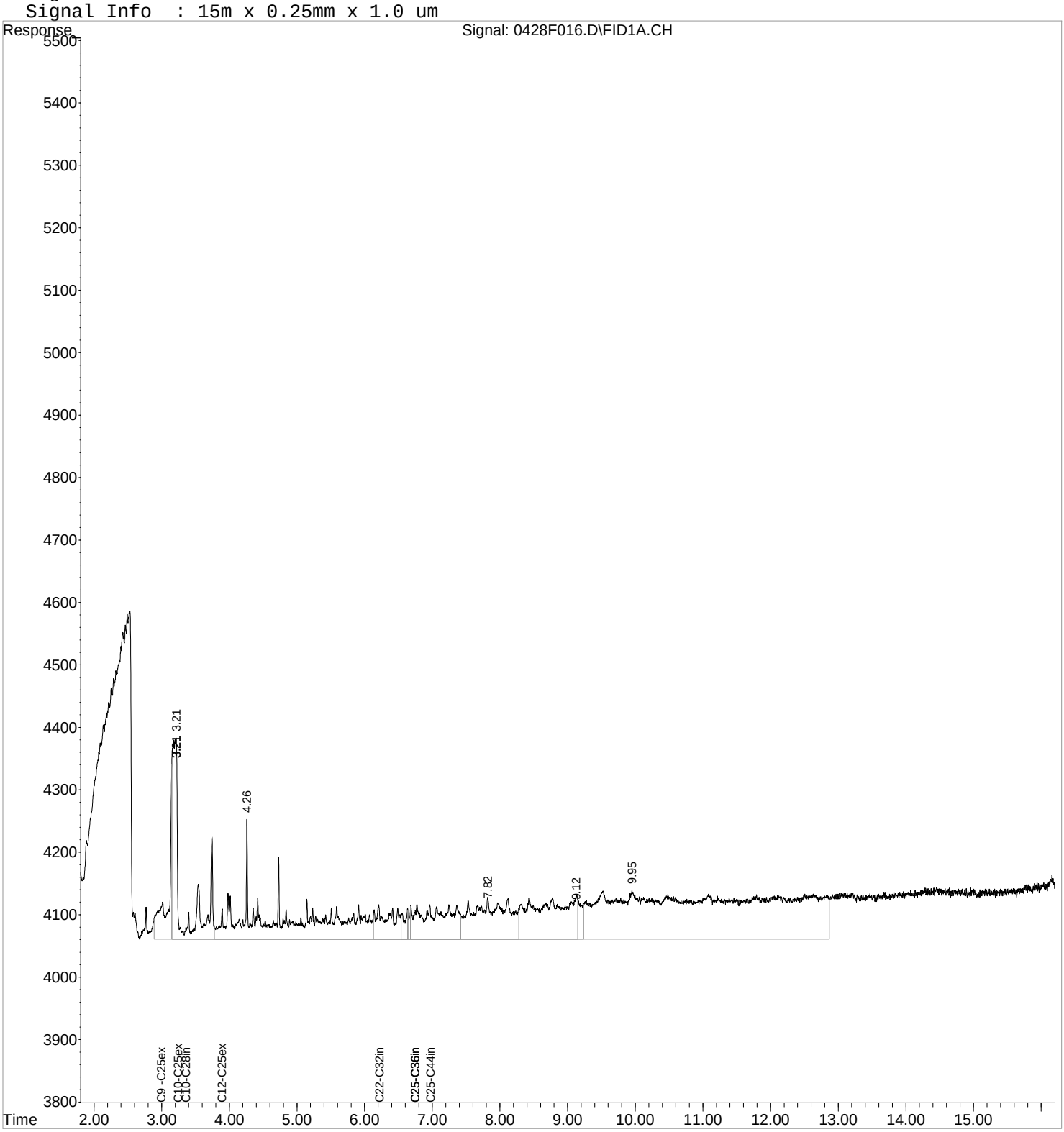
Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F016.D Vial: 87
Acq On : 28 Apr 2016 11:06 am Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 7:21 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st JMS 04/29/16
2nd JEP 04/30/16

Exception Report

Data File: J:\GC21\DATA\042816F\0428F058.D
Lab ID: KWG1603332-6
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 04/28/2016 18:49
Date Quantitated: 04/29/2016 07:21
Batch ID: KWG1603332
Analysis Method: 8015C
MethodJoinID: MJ1099

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	C10 - C25 DRO	Calc	S-0.000	I-7.665	NA
	C10 - C28 DRO	Calc	S-0.000	I-10.911	NA

Primary Review: _____

Secondary Review: _____

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F058.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:49	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603332-6			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			55-133	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		10454	7.67			
C10 - C28 DRO	3.35		15215	10.91			
Diesel Range Organics (DRO)	3.88		8047	6.88			
Residual Range Organics (RRO)	6.74		21419	34.83			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F058.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:49	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ126	**Dilution:**	1.0
Lab ID:	KWG1603332-6			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ126
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		10454	7.67			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F058.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:49	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1574	**Dilution:**	1.0
Lab ID:	KWG1603332-6			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1574
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		10454	7.67			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F058.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:49	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603332-6			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		11646	8.30			
Diesel Range Organics (DRO)	3.88		8047	6.88			
Residual Range Organics (RRO)	6.74		21419	34.83			
C25 - C44 RRO	6.98		76496	70.71			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F058.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:49	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603332-6			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		15215	10.91			
Diesel Range Organics (DRO)	3.88		8047	6.88			
Residual Range Organics (RRO)	6.74		21419	34.83			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F058.D Vial: 87
Acq On : 28 Apr 2016 6:49 pm Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 07:21:55 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	11646	8.297 ppm
5) H	C10-C22ex DRO [AZ]	3.33	6992	5.356 ppm
6) H	C10-C25ex DRO [AK102]	3.25	10454	7.665 ppm
7) H	C10-C28in DRO [8015]	3.35	15215	10.911 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	8047	6.880 ppm
9) H	C22-C32in RRO [AZ]	6.23	13936	36.377 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	21419	34.829 ppm
11) H	C25-C36in RRO [AK103]	6.74	20889	27.997 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	76496	70.712 ppm

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

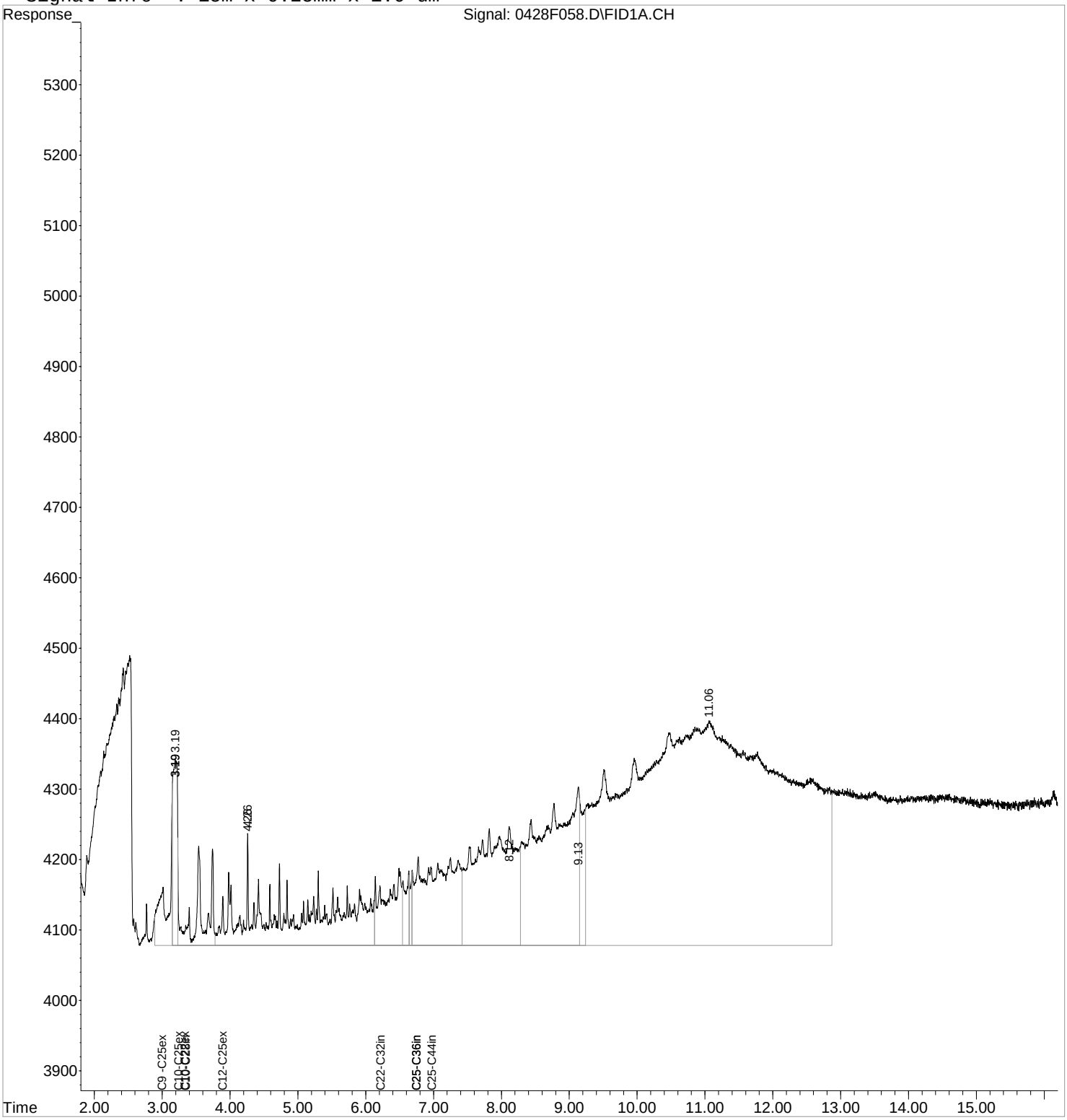
Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F058.D Vial: 87
Acq On : 28 Apr 2016 6:49 pm Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 7:21 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st JMS 04/29/16
2nd JEP 04/30/16

Exception Report

Data File: J:\GC21\DATA\042816F\0428F058.D
Lab ID: KWG1603332-6
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 04/28/2016 18:49
Date Quantitated: 04/29/2016 07:21
Batch ID: KWG1603332
Analysis Method: 8015C
MethodJoinID: MJ1099

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	C10 - C25 DRO	Calc	S-0.000	I-7.665	NA
	C10 - C28 DRO	Calc	S-0.000	I-10.911	NA

Primary Review: _____

Secondary Review: _____

Printed: 04/29/2016 11:54:57
u:\Stealth\Crystal.rpt\except2.rpt

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F058.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:49	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603332-6			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			55-133	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		10454	7.67			
C10 - C28 DRO	3.35		15215	10.91			
Diesel Range Organics (DRO)	3.88		8047	6.88			
Residual Range Organics (RRO)	6.74		21419	34.83			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F058.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:49	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ126	**Dilution:**	1.0
Lab ID:	KWG1603332-6			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ126
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		10454	7.67			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F058.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:49	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1574	**Dilution:**	1.0
Lab ID:	KWG1603332-6			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1574
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		10454	7.67			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F058.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:49	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603332-6			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		11646	8.30			
Diesel Range Organics (DRO)	3.88		8047	6.88			
Residual Range Organics (RRO)	6.74		21419	34.83			
C25 - C44 RRO	6.98		76496	70.71			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F058.D			**Instrument:**	GC21
Acqu Date:	04/28/2016 18:49	**Quant Date:**	04/29/2016 07:21	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603332-6			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		15215	10.91			
Diesel Range Organics (DRO)	3.88		8047	6.88			
Residual Range Organics (RRO)	6.74		21419	34.83			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F058.D Vial: 87
Acq On : 28 Apr 2016 6:49 pm Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 07:21:55 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	11646	8.297 ppm
5) H	C10-C22ex DRO [AZ]	3.33	6992	5.356 ppm
6) H	C10-C25ex DRO [AK102]	3.25	10454	7.665 ppm
7) H	C10-C28in DRO [8015]	3.35	15215	10.911 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	8047	6.880 ppm
9) H	C22-C32in RRO [AZ]	6.23	13936	36.377 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	21419	34.829 ppm
11) H	C25-C36in RRO [AK103]	6.74	20889	27.997 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	76496	70.712 ppm

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

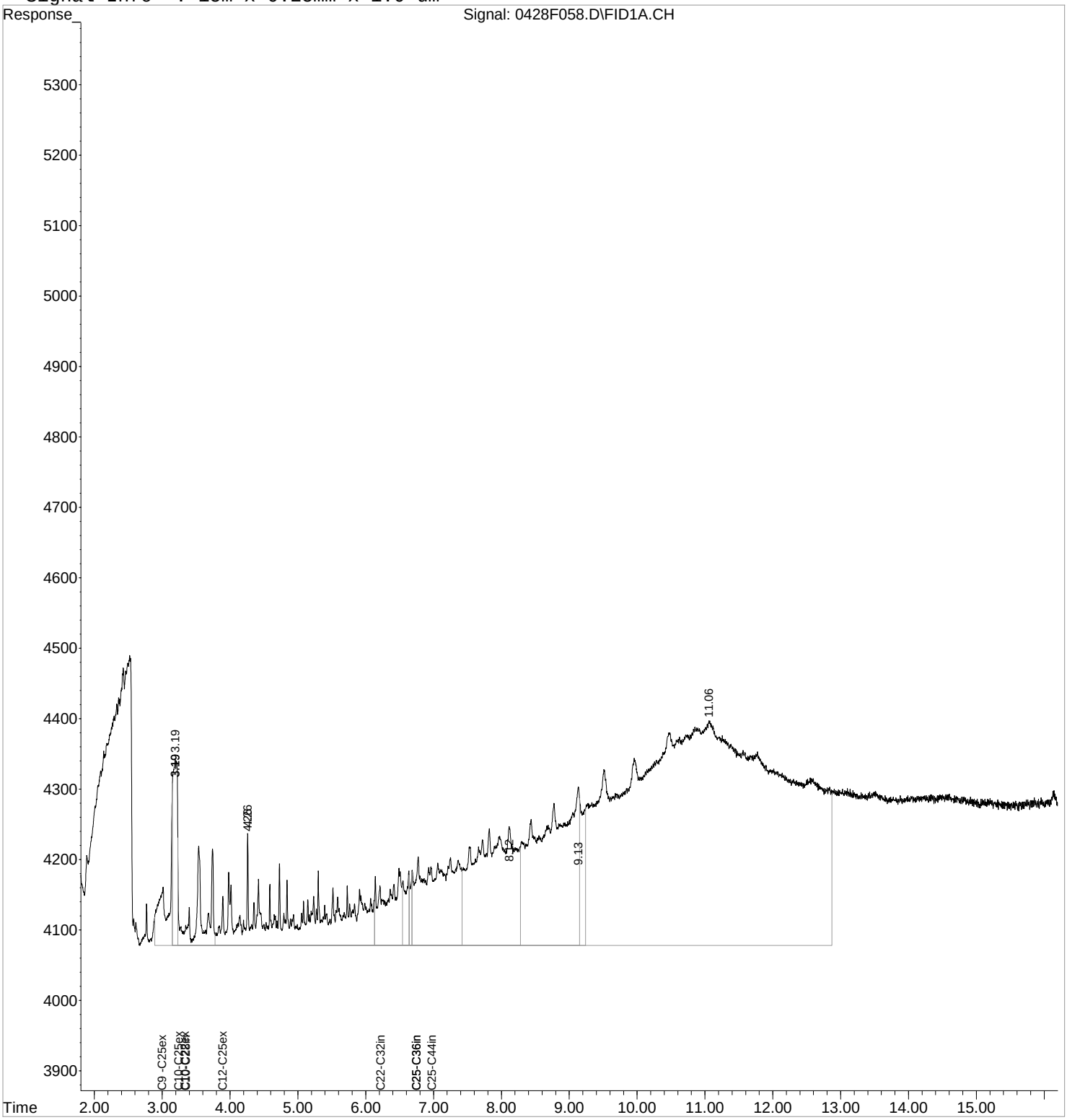
Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F058.D Vial: 87
Acq On : 28 Apr 2016 6:49 pm Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 7:21 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st JMS 04/29/16
2nd JEP 04/30/16

Exception Report

Data File: J:\GC21\DATA\042816F\0428F090.D
Lab ID: KWG1603332-7
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 04/29/2016 00:42
Date Quantitated: 04/29/2016 07:22
Batch ID: KWG1603332
Analysis Method: 8015C
MethodJoinID: MJ1099

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	C10 - C25 DRO	Calc	S-0.000	I-7.121	NA
	C10 - C28 DRO	Calc	S-0.000	I-8.997	NA

Primary Review: _____

Secondary Review: _____

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F090.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 00:42	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603332-7			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			55-133	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		9712	7.12			
C10 - C28 DRO	3.35		12546	9.00			
Diesel Range Organics (DRO)	3.88		5937	5.08			
Residual Range Organics (RRO)	6.74		13709	22.29			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F090.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 00:42	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ126	**Dilution:**	1.0
Lab ID:	KWG1603332-7			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ126
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		9712	7.12			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F090.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 00:42	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1574	**Dilution:**	1.0
Lab ID:	KWG1603332-7			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1574
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		9712	7.12			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F090.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 00:42	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603332-7			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		11079	7.89			
Diesel Range Organics (DRO)	3.88		5937	5.08			
Residual Range Organics (RRO)	6.74		13709	22.29			
C25 - C44 RRO	6.98		44366	41.01			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F090.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 00:42	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603332-7			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		12546	9.00			
Diesel Range Organics (DRO)	3.88		5937	5.08			
Residual Range Organics (RRO)	6.74		13709	22.29			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F090.D Vial: 87
Acq On : 29 Apr 2016 12:42 am Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 07:22:07 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
	Target Compounds				
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	11079	7.893	ppm
5) H	C10-C22ex DRO [AZ]	3.33	6154	4.714	ppm
6) H	C10-C25ex DRO [AK102]	3.25	9712	7.121	ppm
7) H	C10-C28in DRO [8015]	3.35	12546	8.997	ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	5937	5.076	ppm
9) H	C22-C32in RRO [AZ]	6.23	8619	22.498	ppm
10) H	C25-C36in RRO [NWTPH]	6.74	13709	22.292	ppm
11) H	C25-C36in RRO [AK103]	6.74	13306	17.834	ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	44366	41.011	ppm

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

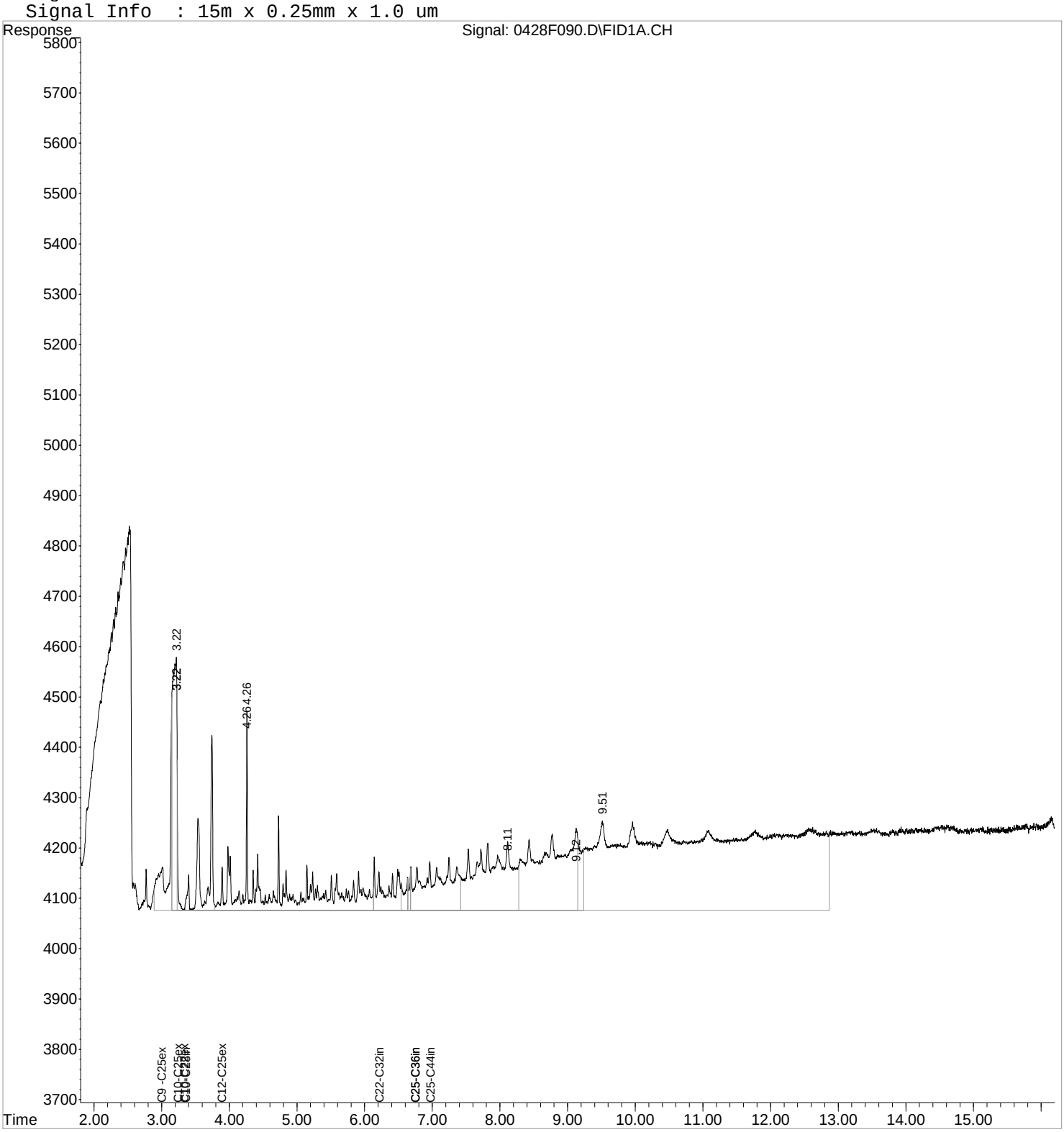
Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F090.D Vial: 87
Acq On : 29 Apr 2016 12:42 am Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 7:22 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st JMS 04/29/16
2nd JEP 04/30/16

Exception Report

Data File: J:\GC21\DATA\042816F\0428F090.D
Lab ID: KWG1603332-7
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 04/29/2016 00:42
Date Quantitated: 04/29/2016 07:22
Batch ID: KWG1603332
Analysis Method: 8015C
MethodJoinID: MJ1099

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	C10 - C25 DRO	Calc	S-0.000	I-7.121	NA
	C10 - C28 DRO	Calc	S-0.000	I-8.997	NA

Primary Review: _____

Secondary Review: _____

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F090.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 00:42	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603332-7			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			55-133	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		9712	7.12			
C10 - C28 DRO	3.35		12546	9.00			
Diesel Range Organics (DRO)	3.88		5937	5.08			
Residual Range Organics (RRO)	6.74		13709	22.29			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F090.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 00:42	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ126	**Dilution:**	1.0
Lab ID:	KWG1603332-7			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ126
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		9712	7.12			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F090.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 00:42	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1574	**Dilution:**	1.0
Lab ID:	KWG1603332-7			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1574
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		9712	7.12			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F090.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 00:42	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603332-7			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		11079	7.89			
Diesel Range Organics (DRO)	3.88		5937	5.08			
Residual Range Organics (RRO)	6.74		13709	22.29			
C25 - C44 RRO	6.98		44366	41.01			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F090.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 00:42	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603332-7			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		12546	9.00			
Diesel Range Organics (DRO)	3.88		5937	5.08			
Residual Range Organics (RRO)	6.74		13709	22.29			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F090.D Vial: 87
Acq On : 29 Apr 2016 12:42 am Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 07:22:07 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
4)	H C9 -C25ex DRO [TPH-Diesel]	2.99	11079	7.893 ppm
5)	H C10-C22ex DRO [AZ]	3.33	6154	4.714 ppm
6)	H C10-C25ex DRO [AK102]	3.25	9712	7.121 ppm
7)	H C10-C28in DRO [8015]	3.35	12546	8.997 ppm
8)	H C12-C25ex DRO [NWTPH]	3.88	5937	5.076 ppm
9)	H C22-C32in RRO [AZ]	6.23	8619	22.498 ppm
10)	H C25-C36in RRO [NWTPH]	6.74	13709	22.292 ppm
11)	H C25-C36in RRO [AK103]	6.74	13306	17.834 ppm
12)	H C25-C44in RRO [TPH-Oil]	6.98	44366	41.011 ppm

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

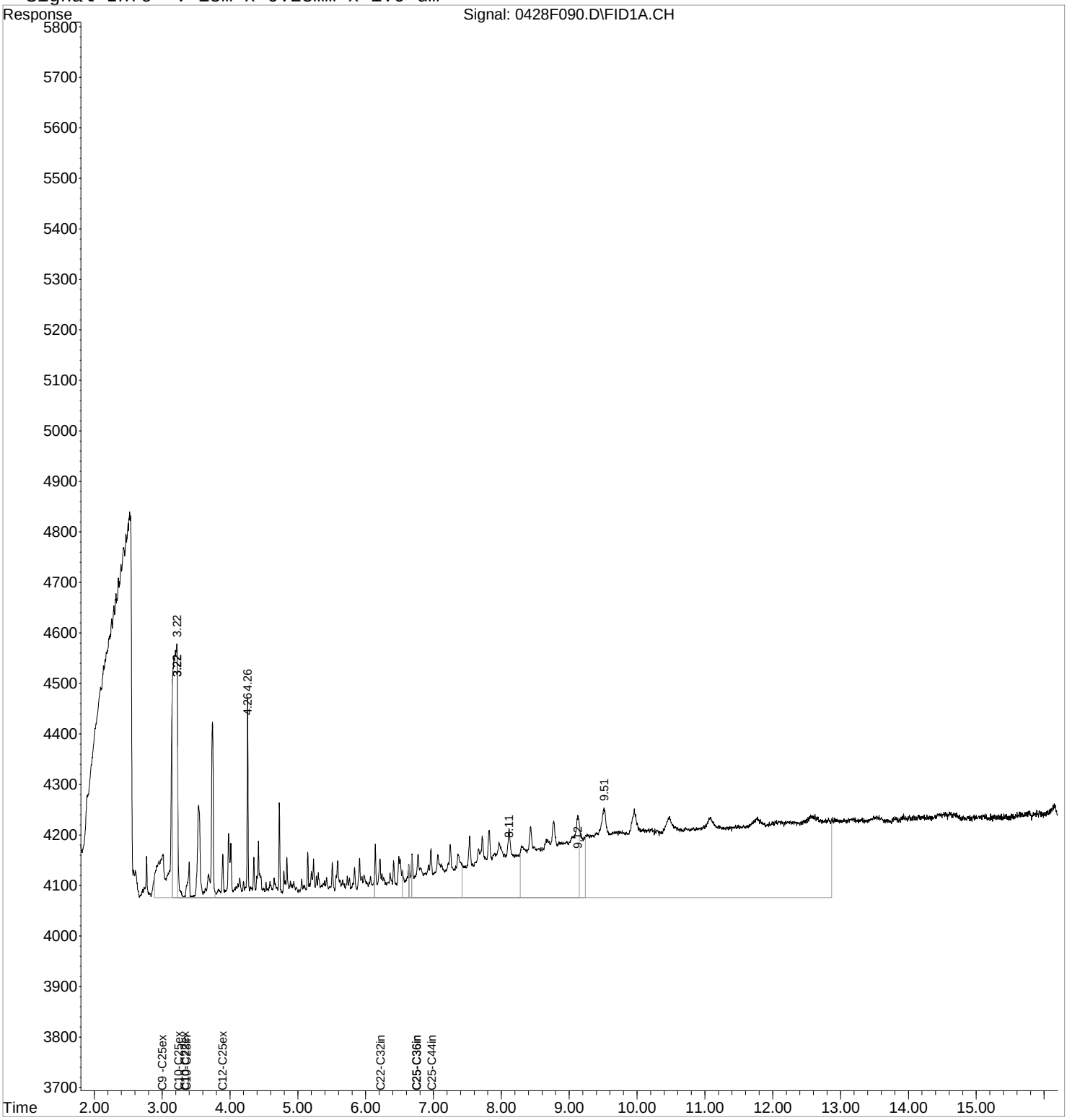
Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F090.D Vial: 87
Acq On : 29 Apr 2016 12:42 am Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 7:22 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st JMS 04/29/16
2nd JEP 04/30/16

Exception Report

Data File: J:\GC21\DATA\042816F\0428F120.D
Lab ID: KWG1603332-8
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 04/29/2016 06:14
Date Quantitated: 04/29/2016 07:22
Batch ID: KWG1603332
Analysis Method: 8015C
MethodJoinID: MJ1099

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	C10 - C25 DRO	Calc	S-0.000	I-9.503	NA
	C10 - C28 DRO	Calc	S-0.000	I-13.123	NA

Primary Review: _____

Secondary Review: _____

Printed: 04/29/2016 11:59:12
u:\Stealth\Crystal.rpt\except2.rpt

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F120.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 06:14	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603332-8			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			55-133	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		12961	9.50			
C10 - C28 DRO	3.35		18300	13.12			
Diesel Range Organics (DRO)	3.88		10443	8.93			
Residual Range Organics (RRO)	6.74		26736	43.47			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F120.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 06:14	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ126	**Dilution:**	1.0
Lab ID:	KWG1603332-8			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ126
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		12961	9.50			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F120.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 06:14	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1574	**Dilution:**	1.0
Lab ID:	KWG1603332-8			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1574
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		12961	9.50			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F120.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 06:14	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603332-8			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		14164	10.09			
Diesel Range Organics (DRO)	3.88		10443	8.93			
Residual Range Organics (RRO)	6.74		26736	43.47			
C25 - C44 RRO	6.98		90147	83.33			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F120.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 06:14	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603332-8			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		18300	13.12			
Diesel Range Organics (DRO)	3.88		10443	8.93			
Residual Range Organics (RRO)	6.74		26736	43.47			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F120.D Vial: 87
Acq On : 29 Apr 2016 6:14 am Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 07:22:19 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	14164	10.091 ppm
5) H	C10-C22ex DRO [AZ]	3.33	9116	6.983 ppm
6) H	C10-C25ex DRO [AK102]	3.25	12961	9.503 ppm
7) H	C10-C28in DRO [8015]	3.35	18300	13.123 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	10443	8.929 ppm
9) H	C22-C32in RRO [AZ]	6.23	16681	43.542 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	26736	43.474 ppm
11) H	C25-C36in RRO [AK103]	6.74	25920	34.740 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	90147	83.331 ppm

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

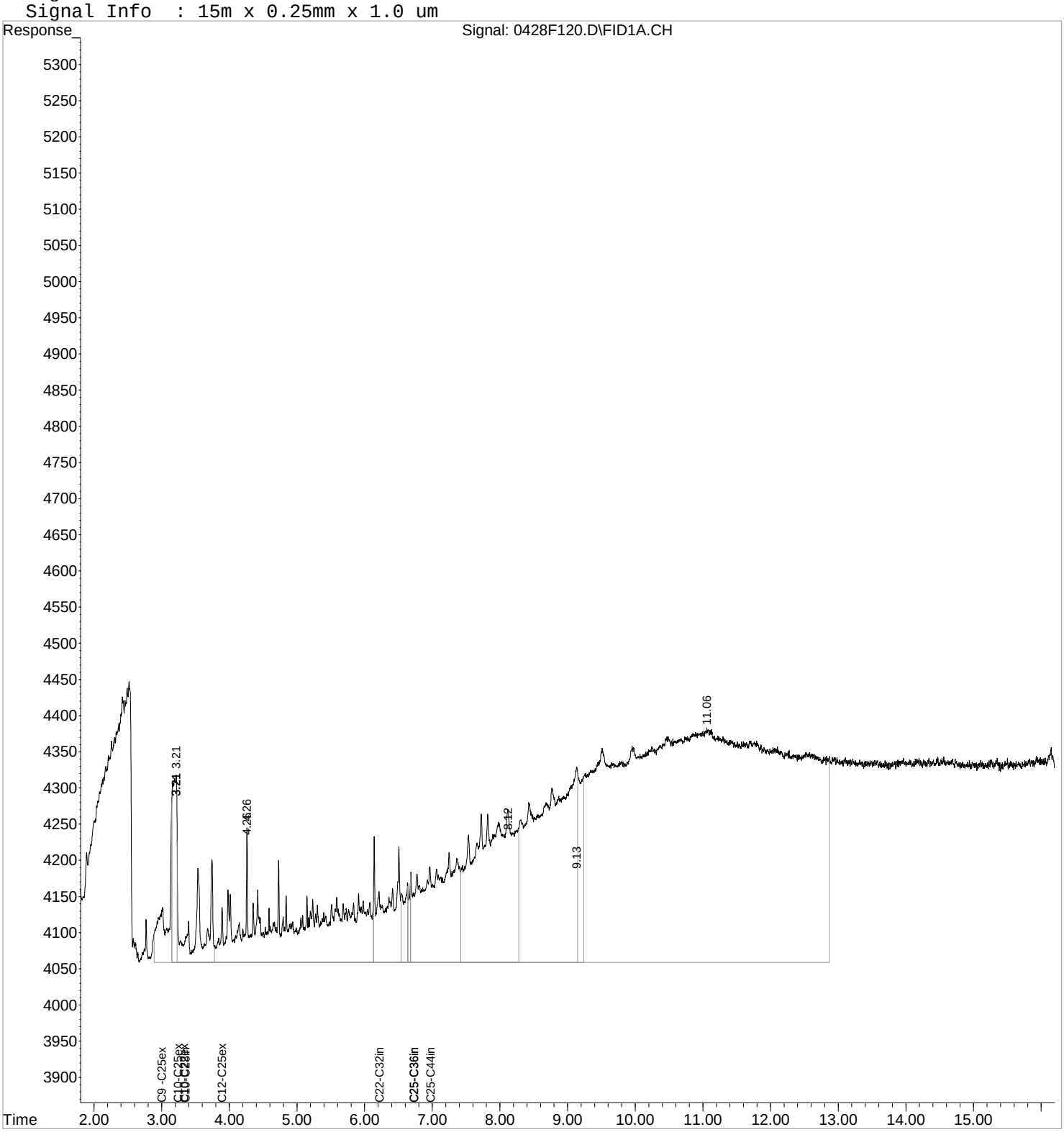
Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F120.D Vial: 87
Acq On : 29 Apr 2016 6:14 am Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 7:22 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st JMS 04/29/16
2nd JEP 04/30/16

Exception Report

Data File: J:\GC21\DATA\042816F\0428F120.D
Lab ID: KWG1603332-8
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 04/29/2016 06:14
Date Quantitated: 04/29/2016 07:22
Batch ID: KWG1603332
Analysis Method: 8015C
MethodJoinID: MJ1099

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA		x

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Enviroquant/Stealth Calibration Check	C10 - C25 DRO	Calc	S-0.000	I-9.503	NA
	C10 - C28 DRO	Calc	S-0.000	I-13.123	NA

Primary Review: _____

Secondary Review: _____

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F120.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 06:14	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603332-8			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			55-133	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		12961	9.50			
C10 - C28 DRO	3.35		18300	13.12			
Diesel Range Organics (DRO)	3.88		10443	8.93			
Residual Range Organics (RRO)	6.74		26736	43.47			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F120.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 06:14	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ126	**Dilution:**	1.0
Lab ID:	KWG1603332-8			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ126
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		12961	9.50			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F120.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 06:14	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1574	**Dilution:**	1.0
Lab ID:	KWG1603332-8			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	AK102	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1574
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		12961	9.50			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F120.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 06:14	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603332-8			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		14164	10.09			
Diesel Range Organics (DRO)	3.88		10443	8.93			
Residual Range Organics (RRO)	6.74		26736	43.47			
C25 - C44 RRO	6.98		90147	83.33			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st JMS 04/29/16
2nd JEP 04/30/16

Quantitation Report

Data File:	J:\GC21\DATA\042816F\0428F120.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 06:14	**Quant Date:**	04/29/2016 07:22	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603332-8			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/29/2016

Analysis Lot:	KWG1603332	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		18300	13.12			
Diesel Range Organics (DRO)	3.88		10443	8.93			
Residual Range Organics (RRO)	6.74		26736	43.47			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F120.D Vial: 87
Acq On : 29 Apr 2016 6:14 am Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 07:22:19 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	14164	10.091 ppm
5) H	C10-C22ex DRO [AZ]	3.33	9116	6.983 ppm
6) H	C10-C25ex DRO [AK102]	3.25	12961	9.503 ppm
7) H	C10-C28in DRO [8015]	3.35	18300	13.123 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	10443	8.929 ppm
9) H	C22-C32in RRO [AZ]	6.23	16681	43.542 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	26736	43.474 ppm
11) H	C25-C36in RRO [AK103]	6.74	25920	34.740 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	90147	83.331 ppm

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

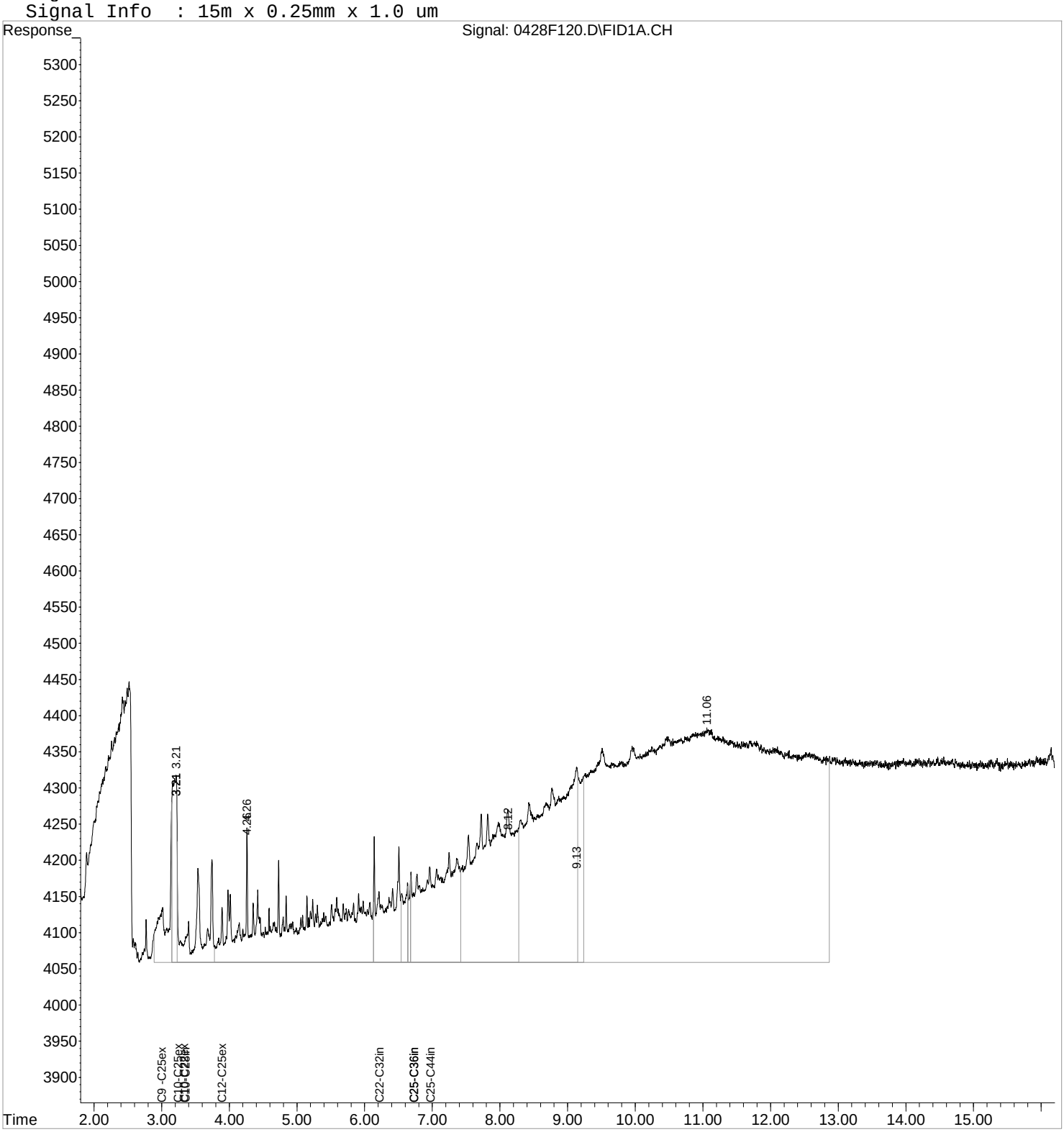
Quantitation Report (QT Reviewed)

1st JMS 04/29/16
2nd JEP 04/30/16

Data File : J:\GC21\DATA\042816F\0428F120.D Vial: 87
Acq On : 29 Apr 2016 6:14 am Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 7:22 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Tue Apr 26 10:01:01 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st CH 05/02/16
2nd JMS 05/03/16

Exception Report

Data File: J:\GC21\DATA\042916F\0429F014.D
Lab ID: KWG1603375-5
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 04/29/2016 12:27
Date Quantitated: 04/29/2016 14:10
Batch ID: KWG1603375
Analysis Method: NWTPH-Dx
MethodJoinID: MJ1081

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F014.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 12:27	**Quant Date:**	04/29/2016 14:10	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1081	**Dilution:**	1.0
Lab ID:	KWG1603375-5			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1081
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	3.88		5251	4.49			
Residual Range Organics (RRO)	6.74		6709	10.91			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F014.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 12:27	**Quant Date:**	04/29/2016 14:10	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603375-5			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			55-133	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		8346	6.12			
C10 - C28 DRO	3.35		10148	7.28			
Diesel Range Organics (DRO)	3.88		5251	4.49			
Residual Range Organics (RRO)	6.74		6709	10.91			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F014.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 12:27	**Quant Date:**	04/29/2016 14:10	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603375-5			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		9731	6.93			
Diesel Range Organics (DRO)	3.88		5251	4.49			
Residual Range Organics (RRO)	6.74		6709	10.91			
C25 - C44 RRO	6.98		19182	17.73			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F014.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 12:27	**Quant Date:**	04/29/2016 14:10	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603375-5			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		10148	7.28			
Diesel Range Organics (DRO)	3.88		5251	4.49			
Residual Range Organics (RRO)	6.74		6709	10.91			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F014.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 12:27	**Quant Date:**	04/29/2016 14:10	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ234	**Dilution:**	1.0
Lab ID:	KWG1603375-5			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ234
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			51-126	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		9731	6.93			
C10 - C25 DRO	3.25		8346	6.12			
C10 - C28 DRO	3.35		10148	7.28			
Diesel Range Organics (DRO)	3.88		5251	4.49			
Residual Range Organics (RRO)	6.74		6709	10.91			
C25 - C44 RRO	6.98		19182	17.73			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F014.D Vial: 87
Acq On : 29 Apr 2016 12:27 pm Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 14:10:33 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	9731	6.933 ppm
6) H	C10-C25ex DRO [AK102]	3.25	8346	6.119 ppm
7) H	C10-C28in DRO [8015]	3.35	10148	7.277 ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	5251	4.490 ppm
9) H	C22-C32in RRO [AZ]	6.23	5023	13.111 ppm
10) H	C25-C36in RRO [NWTPH]	6.74	6709	10.909 ppm
11) H	C25-C36in RRO [AK103]	6.74	6619	8.871 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	19182	17.732 ppm

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

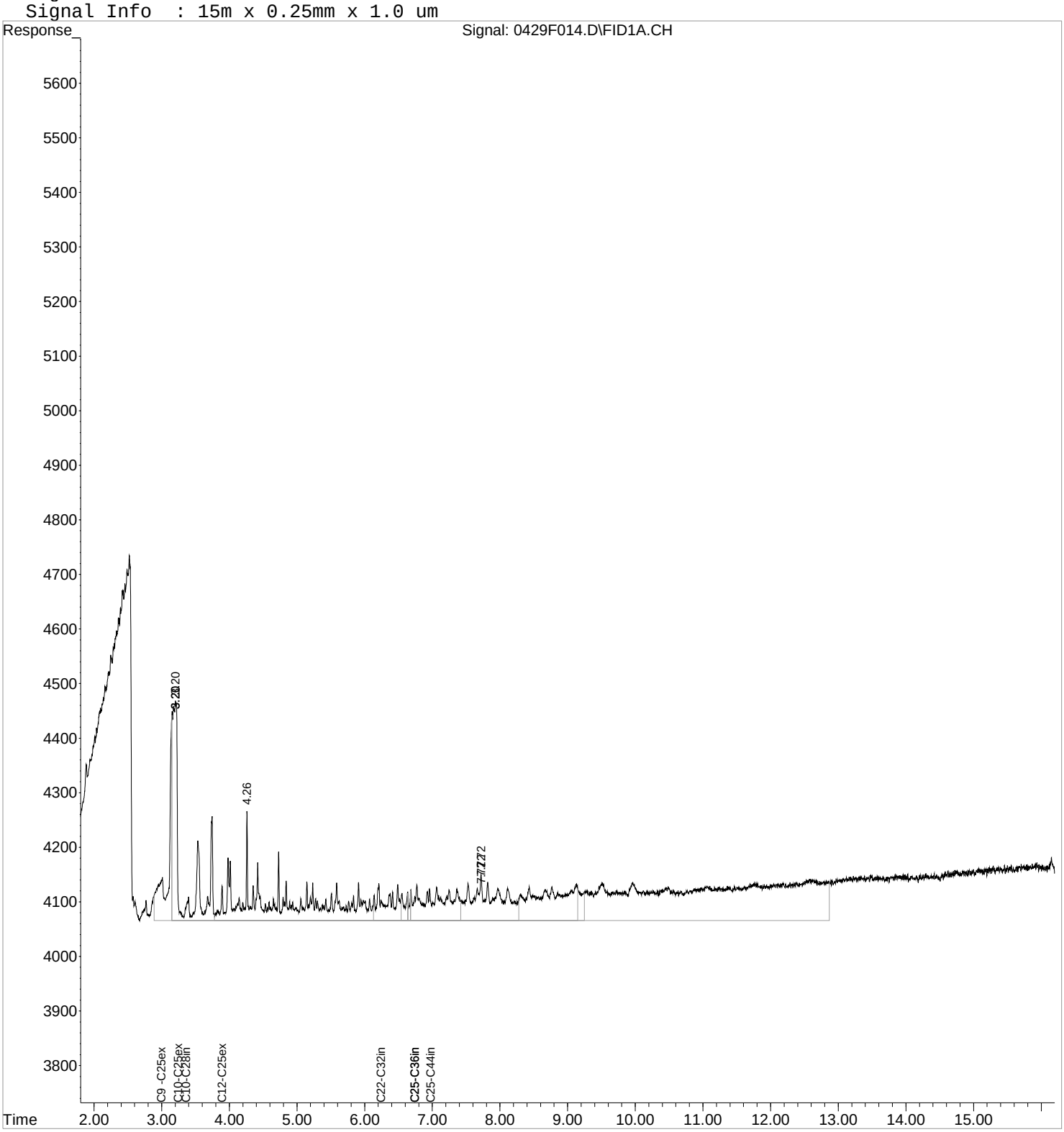
Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F014.D Vial: 87
Acq On : 29 Apr 2016 12:27 pm Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 29 14:10 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st CH 05/02/16
2nd JMS 05/03/16

Exception Report

Data File: J:\GC21\DATA\042916F\0429F048.D
Lab ID: KWG1603375-6
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 04/29/2016 18:41
Date Quantitated: 04/30/2016 09:59
Batch ID: KWG1603375
Analysis Method: NWTPH-Dx
MethodJoinID: MJ1081

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F048.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 18:41	**Quant Date:**	04/30/2016 09:59	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1081	**Dilution:**	1.0
Lab ID:	KWG1603375-6			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1081
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	3.88		6119	5.23			
Residual Range Organics (RRO)	6.74		11743	19.10			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F048.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 18:41	**Quant Date:**	04/30/2016 09:59	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603375-6			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			55-133	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		8969	6.58			
C10 - C28 DRO	3.35		12182	8.74			
Diesel Range Organics (DRO)	3.88		6119	5.23			
Residual Range Organics (RRO)	6.74		11743	19.10			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F048.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 18:41	**Quant Date:**	04/30/2016 09:59	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603375-6			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		10172	7.25			
Diesel Range Organics (DRO)	3.88		6119	5.23			
Residual Range Organics (RRO)	6.74		11743	19.10			
C25 - C44 RRO	6.98		33505	30.97			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F048.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 18:41	**Quant Date:**	04/30/2016 09:59	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603375-6			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		12182	8.74			
Diesel Range Organics (DRO)	3.88		6119	5.23			
Residual Range Organics (RRO)	6.74		11743	19.10			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F048.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 18:41	**Quant Date:**	04/30/2016 09:59	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ234	**Dilution:**	1.0
Lab ID:	KWG1603375-6			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ234
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			51-126	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		10172	7.25			
C10 - C25 DRO	3.25		8969	6.58			
C10 - C28 DRO	3.35		12182	8.74			
Diesel Range Organics (DRO)	3.88		6119	5.23			
Residual Range Organics (RRO)	6.74		11743	19.10			
C25 - C44 RRO	6.98		33505	30.97			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F048.D Vial: 87
Acq On : 29 Apr 2016 6:41 pm Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 09:59:48 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
	Target Compounds				
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	10172	7.247	ppm
6) H	C10-C25ex DRO [AK102]	3.25	8969	6.576	ppm
7) H	C10-C28in DRO [8015]	3.35	12182	8.736	ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	6119	5.232	ppm
9) H	C22-C32in RRO [AZ]	6.23	8859	23.124	ppm
10) H	C25-C36in RRO [NWTPH]	6.74	11743	19.095	ppm
11) H	C25-C36in RRO [AK103]	6.74	11607	15.557	ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	33505	30.972	ppm

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

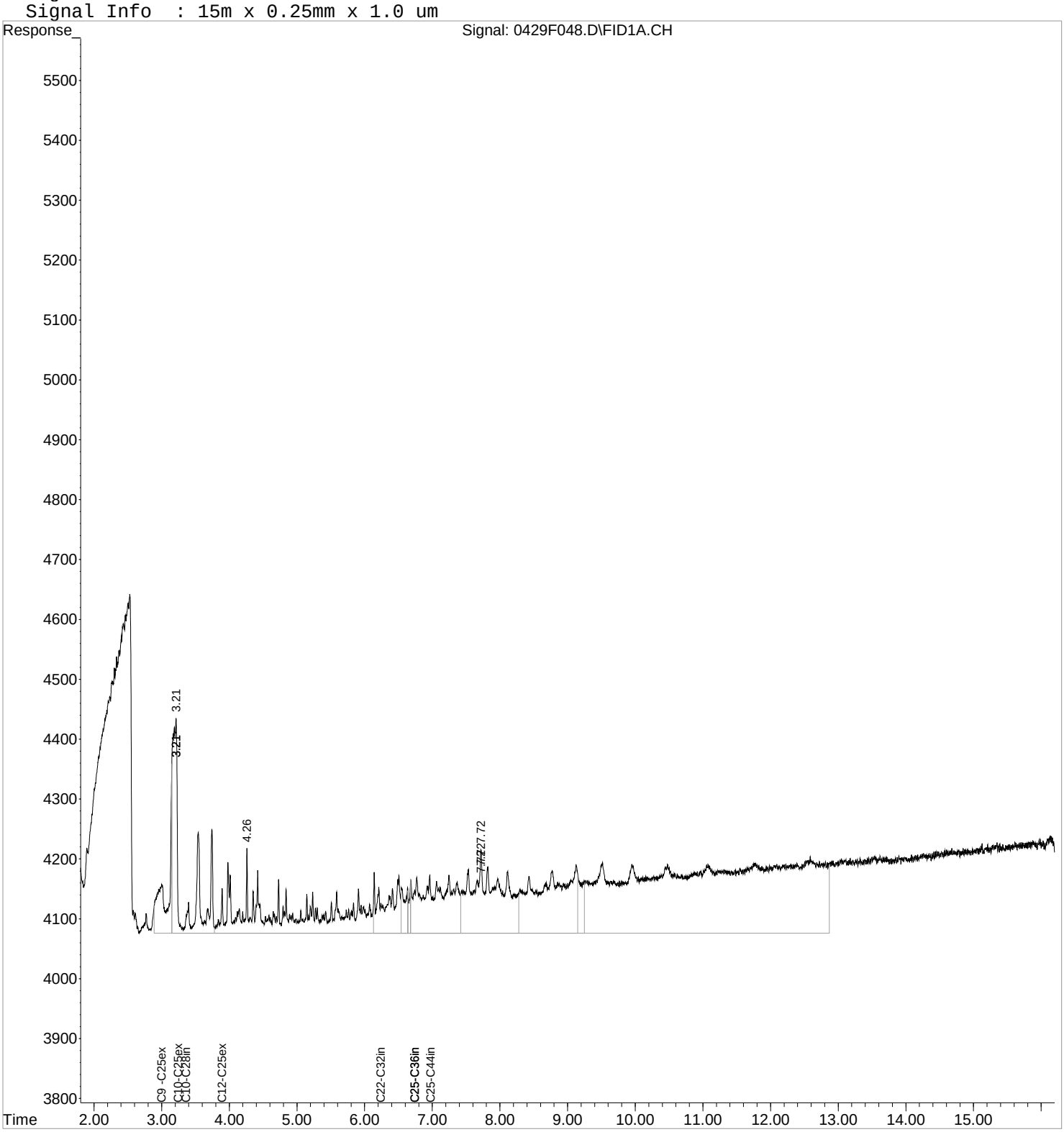
Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F048.D Vial: 87
Acq On : 29 Apr 2016 6:41 pm Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 9:59 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st CH 05/02/16
2nd JMS 05/03/16

Exception Report

Data File: J:\GC21\DATA\042916F\0429F074.D
Lab ID: KWG1603375-7
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 04/29/2016 23:28
Date Quantitated: 04/30/2016 10:07
Batch ID: KWG1603375
Analysis Method: NWTPH-Dx
MethodJoinID: MJ1081

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F074.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 23:28	**Quant Date:**	04/30/2016 10:07	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1081	**Dilution:**	1.0
Lab ID:	KWG1603375-7			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1081
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	3.88		5751	4.92			
Residual Range Organics (RRO)	6.74		7003	11.39			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F074.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 23:28	**Quant Date:**	04/30/2016 10:07	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603375-7			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			55-133	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		8950	6.56			
C10 - C28 DRO	3.35		10853	7.78			
Diesel Range Organics (DRO)	3.88		5751	4.92			
Residual Range Organics (RRO)	6.74		7003	11.39			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F074.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 23:28	**Quant Date:**	04/30/2016 10:07	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603375-7			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		10454	7.45			
Diesel Range Organics (DRO)	3.88		5751	4.92			
Residual Range Organics (RRO)	6.74		7003	11.39			
C25 - C44 RRO	6.98		19708	18.22			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F074.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 23:28	**Quant Date:**	04/30/2016 10:07	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603375-7			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		10853	7.78			
Diesel Range Organics (DRO)	3.88		5751	4.92			
Residual Range Organics (RRO)	6.74		7003	11.39			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F074.D			**Instrument:**	GC21
Acqu Date:	04/29/2016 23:28	**Quant Date:**	04/30/2016 10:07	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ234	**Dilution:**	1.0
Lab ID:	KWG1603375-7			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ234
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			51-126	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		10454	7.45			
C10 - C25 DRO	3.25		8950	6.56			
C10 - C28 DRO	3.35		10853	7.78			
Diesel Range Organics (DRO)	3.88		5751	4.92			
Residual Range Organics (RRO)	6.74		7003	11.39			
C25 - C44 RRO	6.98		19708	18.22			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F074.D Vial: 87
Acq On : 29 Apr 2016 11:28 pm Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:07:44 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
	Target Compounds				
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	10454	7.448	ppm
5) H	C10-C22ex DRO [AZ]	3.33	5903	4.522	ppm
6) H	C10-C25ex DRO [AK102]	3.25	8950	6.562	ppm
7) H	C10-C28in DRO [8015]	3.35	10853	7.783	ppm
8) H	C12-C25ex DRO [NWTPH]	3.88	5751	4.917	ppm
9) H	C22-C32in RRO [AZ]	6.23	5582	14.571	ppm
10) H	C25-C36in RRO [NWTPH]	6.74	7003	11.387	ppm
11) H	C25-C36in RRO [AK103]	6.74	6948	9.312	ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	19708	18.218	ppm

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

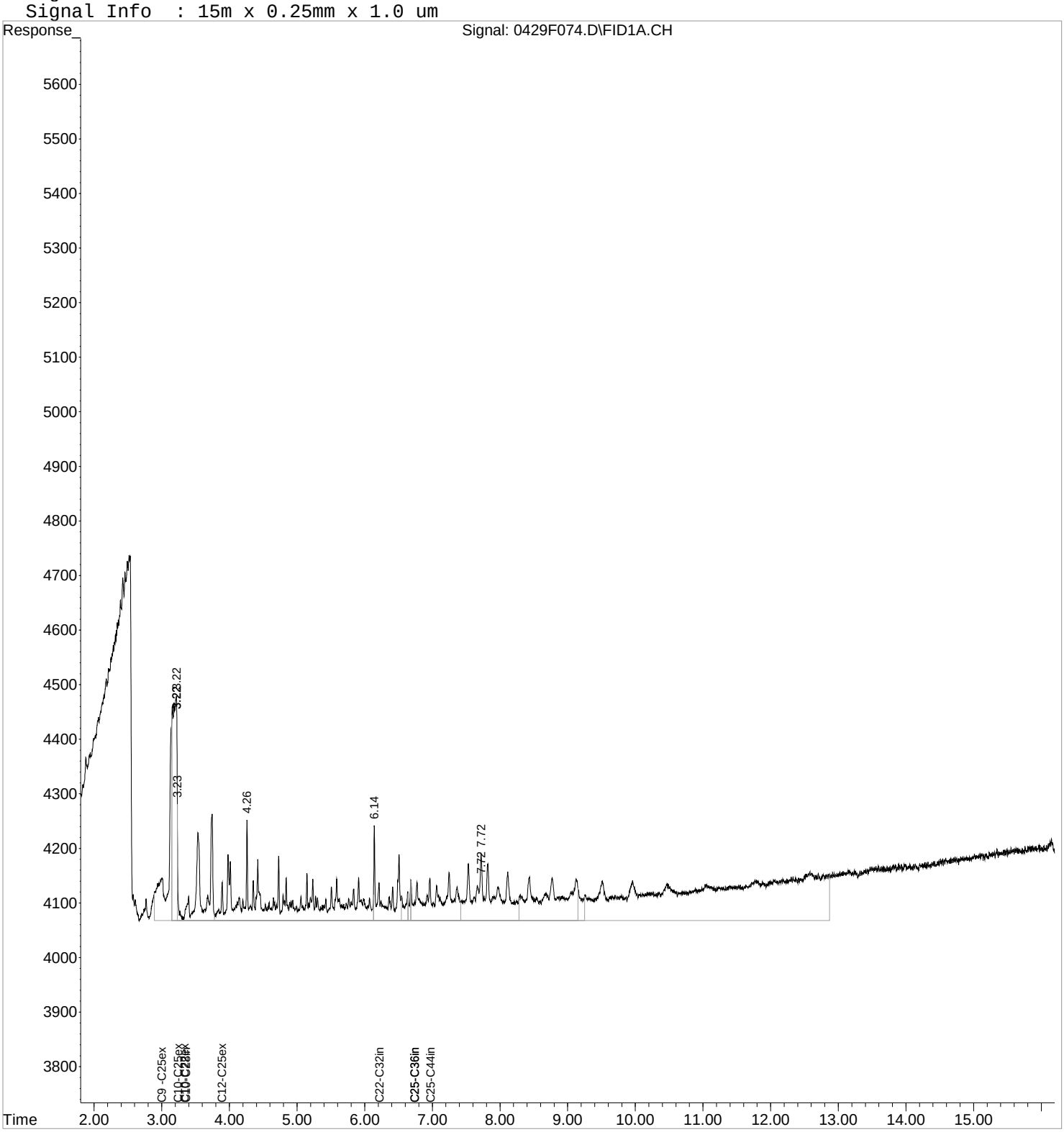
Quantitation Report (QT Reviewed)

1st CH 05/02/16
2nd JMS 05/03/16

Data File : J:\GC21\DATA\042916F\0429F074.D Vial: 87
Acq On : 29 Apr 2016 11:28 pm Operator: SMS
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Apr 30 10:07 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Fri Apr 29 12:14:50 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



1st CH 05/02/16
2nd JMS 05/03/16

Exception Report

Data File: J:\GC21\DATA\042916F\0429F100.D
Lab ID: KWG1603375-8
RunType: IB
Matrix: NOT APPLICABLE

Date Acquired: 04/30/2016 04:14
Date Quantitated: 04/30/2016 10:16
Batch ID: KWG1603375
Analysis Method: NWTPH-Dx
MethodJoinID: MJ1081

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Analyte Recovery	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: _____

Secondary Review: _____

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F100.D			**Instrument:**	GC21
Acqu Date:	04/30/2016 04:14	**Quant Date:**	04/30/2016 10:16	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1081	**Dilution:**	1.0
Lab ID:	KWG1603375-8			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLE
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1081
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Diesel Range Organics (DRO)	3.88		7950	6.80			
Residual Range Organics (RRO)	6.74		15171	24.67			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F100.D			**Instrument:**	GC21
Acqu Date:	04/30/2016 04:14	**Quant Date:**	04/30/2016 10:16	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ1099	**Dilution:**	1.0
Lab ID:	KWG1603375-8			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ1099
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			55-133	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C25 DRO	3.25		10427	7.65			
C10 - C28 DRO	3.35		13722	9.84			
Diesel Range Organics (DRO)	3.88		7950	6.80			
Residual Range Organics (RRO)	6.74		15171	24.67			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F100.D			**Instrument:**	GC21
Acqu Date:	04/30/2016 04:14	**Quant Date:**	04/30/2016 10:16	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ227	**Dilution:**	1.0
Lab ID:	KWG1603375-8			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ227
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units: ug/L

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		11514	8.20			
Diesel Range Organics (DRO)	3.88		7950	6.80			
Residual Range Organics (RRO)	6.74		15171	24.67			
C25 - C44 RRO	6.98		47716	44.11			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F100.D			**Instrument:**	GC21
Acqu Date:	04/30/2016 04:14	**Quant Date:**	04/30/2016 10:16	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ229	**Dilution:**	1.0
Lab ID:	KWG1603375-8			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	NWTPH-Dx	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ229
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			50-150	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C10 - C28 DRO	3.35		13722	9.84			
Diesel Range Organics (DRO)	3.88		7950	6.80			
Residual Range Organics (RRO)	6.74		15171	24.67			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

1st CH 05/02/16
2nd JMS 05/03/16

Quantitation Report

Data File:	J:\GC21\DATA\042916F\0429F100.D			**Instrument:**	GC21
Acqu Date:	04/30/2016 04:14	**Quant Date:**	04/30/2016 10:16	**Vial:**	87
Run Type:	IB	**MethodJoinID:**	MJ234	**Dilution:**	1.0
Lab ID:	KWG1603375-8			**Soln Conc. Units:**	ppm

Bottle ID:		**Tier:**		**Matrix:**	NOT APPLICABLI
Prod Code:	NWTPH-DX NW_TPH	**Collect Date:**		**Receive Date:**	04/30/2016

Analysis Lot:	KWG1603375	**Prep Lot:**		**Report Group:**	
Analysis Method:	8015C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\GC21\METHODS\011916F.M	**Calibration ID:**	CAL14548
Title:			
		Method ID:	MJ234
MB Ref:		**Quant based on Method**	

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
4-Bromofluorobenzene			0			50-150	NA	
o-Terphenyl			0			51-126	NA	
n-Triacontane			0			50-150	NA	

Target Compounds

Final Conc. Units:

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
C9 - C24 DRO	2.99		11514	8.20			
C10 - C25 DRO	3.25		10427	7.65			
C10 - C28 DRO	3.35		13722	9.84			
Diesel Range Organics (DRO)	3.88		7950	6.80			
Residual Range Organics (RRO)	6.74		15171	24.67			
C25 - C44 RRO	6.98		47716	44.11			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Injection Log

Directory: J:\GC21\DATA\012016F

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	90	0120F002.D	1.	DCM		01/20/22016 9:25
2	90	0120F004.D	1.	DCM		01/20/22016 9:47
3	92	0120F006.D	1.	AROMATICS MARKER SVF01-75I		01/20/22016 10:0
4	93	0120F008.D	1.	PAH MARKER SVF01-75J		01/20/22016 10:3
5	91	0120F010.D	1.	ALIPHATICS MARKER SVF01-75G		01/20/22016 10:5
6	87	0120F012.D	1.	IB - not used. used 0120FZ12.D		01/20/22016 11:3
7	10	0120F014.D	1.	RRO 20 SVF01-81Q		01/20/22016 12:2
8	11	0120F016.D	1.	RRO 50 SVF01-81P		01/20/22016 12:4
9	12	0120F018.D	1.	RRO 200 SVF01-81O		01/20/22016 1:08
10	13	0120F020.D	1.	RRO 500 SVF01-81N		01/20/22016 1:31
11	14	0120F022.D	1.	RRO 2000 SVF01-81M		01/20/22016 1:53
12	15	0120F024.D	1.	RRO 5000 SVF01-81L		01/20/22016 2:16
13	87	0120F026.D	1.	IB		01/20/22016 2:38
14	16	0120F028.D	1.	RRO ICV 1000 SVF01-82B		01/20/22016 3:00
15	1	0120F030.D	1.	DRO/SURR 20/1.0 SVF01-81I		01/20/22016 3:22
16	2	0120F032.D	1.	DRO/SURR 50/2.5 SVF01-81H		01/20/22016 3:44
17	3	0120F034.D	1.	DRO/ SURR 200/10 SVF01-81G		01/20/22016 4:07
18	4	0120F036.D	1.	DRO/ SURR 500/25 SVF01-81F		01/20/22016 4:29
19	5	0120F038.D	1.	DRO/ SURR 2000/100 SVF01-81E		01/20/22016 4:51
20	6	0120F040.D	1.	DRO/ SURR 5000/250 SVF01-81D	Cal# 14548	01/20/22016 5:13
21	7	0120F042.D	1.	DRO 20000 SVF01-81C		01/20/22016 5:35
22	8	0120F044.D	1.	DRO 50000 SVF01-81B		01/20/22016 5:57
23	87	0120F046.D	1.	IB	CH 1/21/16	01/20/22016 6:19
24	9	0120F048.D	1.	DRO ICV 1000 SVF01-81J		01/20/22016 6:41
25	17	0120F050.D	1.	AK103 20 SVF01-82H		01/20/22016 7:03
26	18	0120F052.D	1.	AK103 50 SVF01-82G		01/20/22016 7:26
27	19	0120F054.D	1.	AK103 200 SVF01-82F	MM 1/21/16	01/20/22016 7:48
28	20	0120F056.D	1.	AK103 500 SVF01-82E		01/20/22016 8:10
29	21	0120F058.D	1.	AK103 2000 SVF01-82D		01/20/22016 8:32
30	22	0120F060.D	1.	AK103 5000 SVF01-82C		01/20/22016 8:54
31	87	0120F062.D	1.	IB		01/20/22016 9:16
32	23	0120F064.D	1.	AK103 ICV 1000 SVF01-82J		01/20/22016 9:38
33	90	0120F066.D	1.	DCM		01/20/22016 10:0
34	90	0120F068.D	1.	DCM		01/20/22016 10:2
35	90	0120F070.D	1.	DCM		01/20/22016 10:4
36	90	0120F072.D	1.	DCM		01/20/22016 11:0
37	90	0120F074.D	1.	DCM		01/20/22016 11:2
38	90	0120F076.D	1.	DCM		01/20/22016 11:5
39	90	0120F078.D	1.	DCM		01/21/22016 12:1
40	90	0120F080.D	1.	DCM		01/21/22016 12:3
41	90	0120F082.D	1.	DCM		01/21/22016 12:5
42	90	0120F084.D	1.	DCM		01/21/22016 1:20
43	90	0120F086.D	1.	DCM		01/21/22016 1:42
44	90	0120F088.D	1.	DCM		01/21/22016 2:04
45	90	0120F090.D	1.	DCM		01/21/22016 2:26
46	90	0120F092.D	1.	DCM		01/21/22016 2:49
47	90	0120F094.D	1.	DCM		01/21/22016 3:11
48	90	0120F096.D	1.	DCM		01/21/22016 3:33
49	90	0120F098.D	1.	DCM		01/21/22016 3:55
50	90	0120F100.D	1.	DCM		01/21/22016 4:17
51	90	0120F102.D	1.	DCM		01/21/22016 4:39
52	90	0120F104.D	1.	DCM		01/21/22016 5:01
53	90	0120F106.D	1.	DCM		01/21/22016 5:24
54	90	0120F108.D	1.	DCM		01/21/22016 5:46
55	90	0120F110.D	1.	DCM		01/21/22016 6:08

Injection Log

Directory: J:\GC21\DATA\012016F

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
56	90	0120F112.D	1.	DCM		01/21/22016 6:3C
57	90	0120F114.D	1.	DCM		01/21/22016 6:52
58	90	0120F116.D	1.	DCM		01/21/22016 7:14
59	90	0120F118.D	1.	DCM		01/21/22016 7:36
60	90	0120F120.D	1.	DCM		01/21/22016 7:58
61	90	0120F122.D	1.	DCM		01/21/22016 8:2C
62	90	0120F124.D	1.	DCM		01/21/22016 8:43
63	90	0120F126.D	1.	DCM		01/21/22016 9:05
64	90	0120F128.D	1.	DCM		01/21/22016 9:27
65	90	0120F130.D	1.	DCM		01/21/22016 9:49
66	87	0120FZ12.D	1.	IB		01/20/22016 12:0:

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\012016F\0120F006.D Vial: 92
Acq On : 20 Jan 2016 10:09 am Operator: CHARVEY
Sample : AROMATICS MARKER SVF01-75I Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 10:11:41 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Thu Jan 21 09:23:10 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
		Target Compounds				
4)	H	C9 -C25ex DRO [TPH-Diesel]	2.99	4760987	3391.877	ppm
5)	H	C10-C22ex DRO [AZ]	3.33	4704243	3603.307	ppm
6)	H	C10-C25ex DRO [AK102]	3.33	4705232	3449.922	ppm
7)	H	C10-C28in DRO [8015]	3.43	4707335	3375.601	ppm
8)	H	C12-C25ex DRO [NWTPH]	3.94	20071	17.161	ppm
9)	H	C22-C32in RRO [AZ]	6.23	5046	13.171	ppm
10)	H	C25-C36in RRO [NWTPH]	6.78	6362	10.345	ppm
11)	H	C25-C36in RRO [AK103]	6.88	6362	8.527	ppm
12)	H	C25-C44in RRO [TPH-Oil]	6.98	14346	13.261	ppm

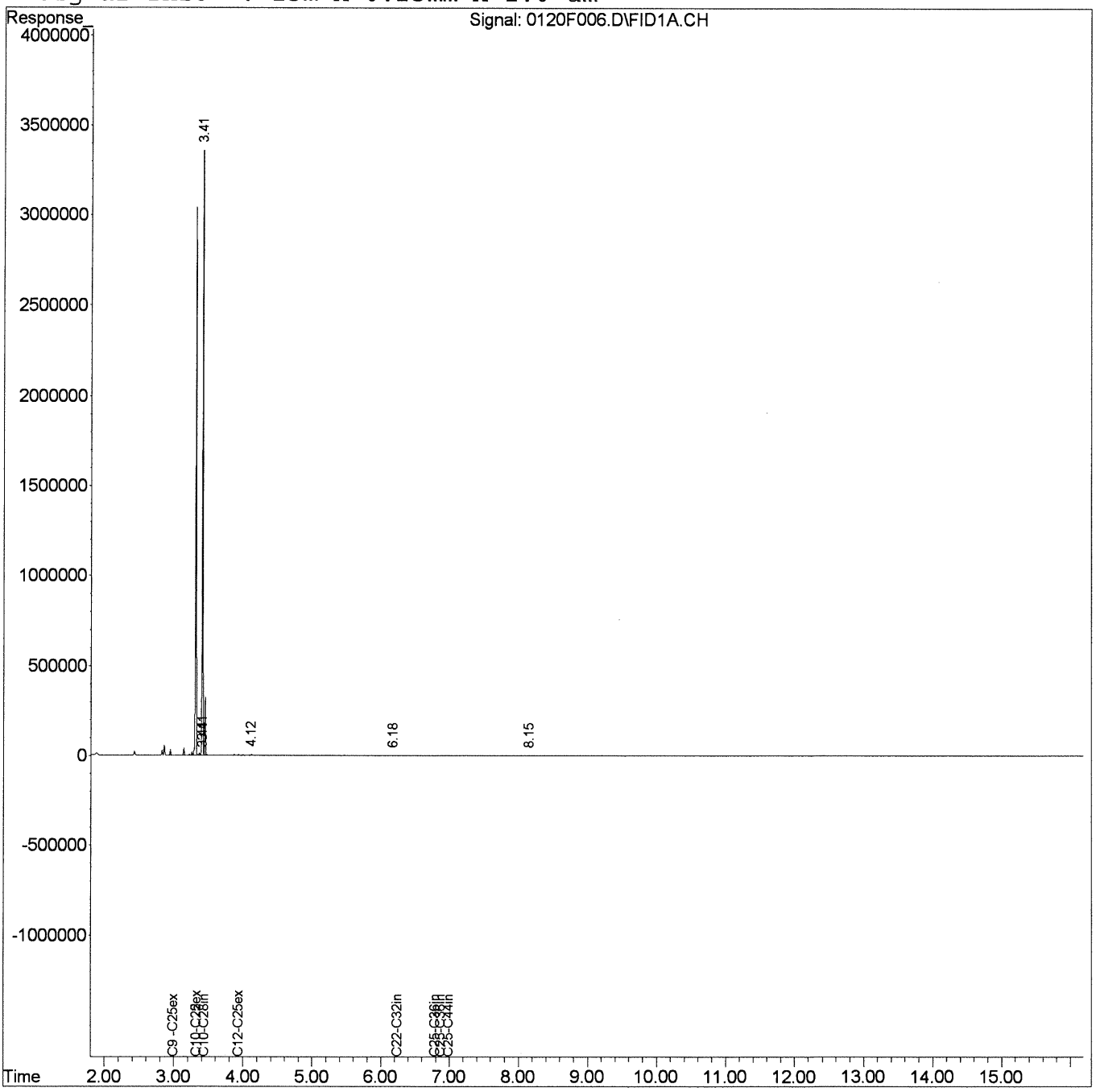
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\012016F\0120F006.D Vial: 92
Acq On : 20 Jan 2016 10:09 am Operator: CHARVEY
Sample : AROMATICS MARKER SVF01-75I Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 10:11 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Thu Jan 21 09:23:10 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\012016F\0120F008.D Vial: 93
Acq On : 20 Jan 2016 10:31 am Operator: CHARVEY
Sample : PAH MARKER SVF01-75J Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 10:11:46 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Thu Jan 21 09:23:10 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

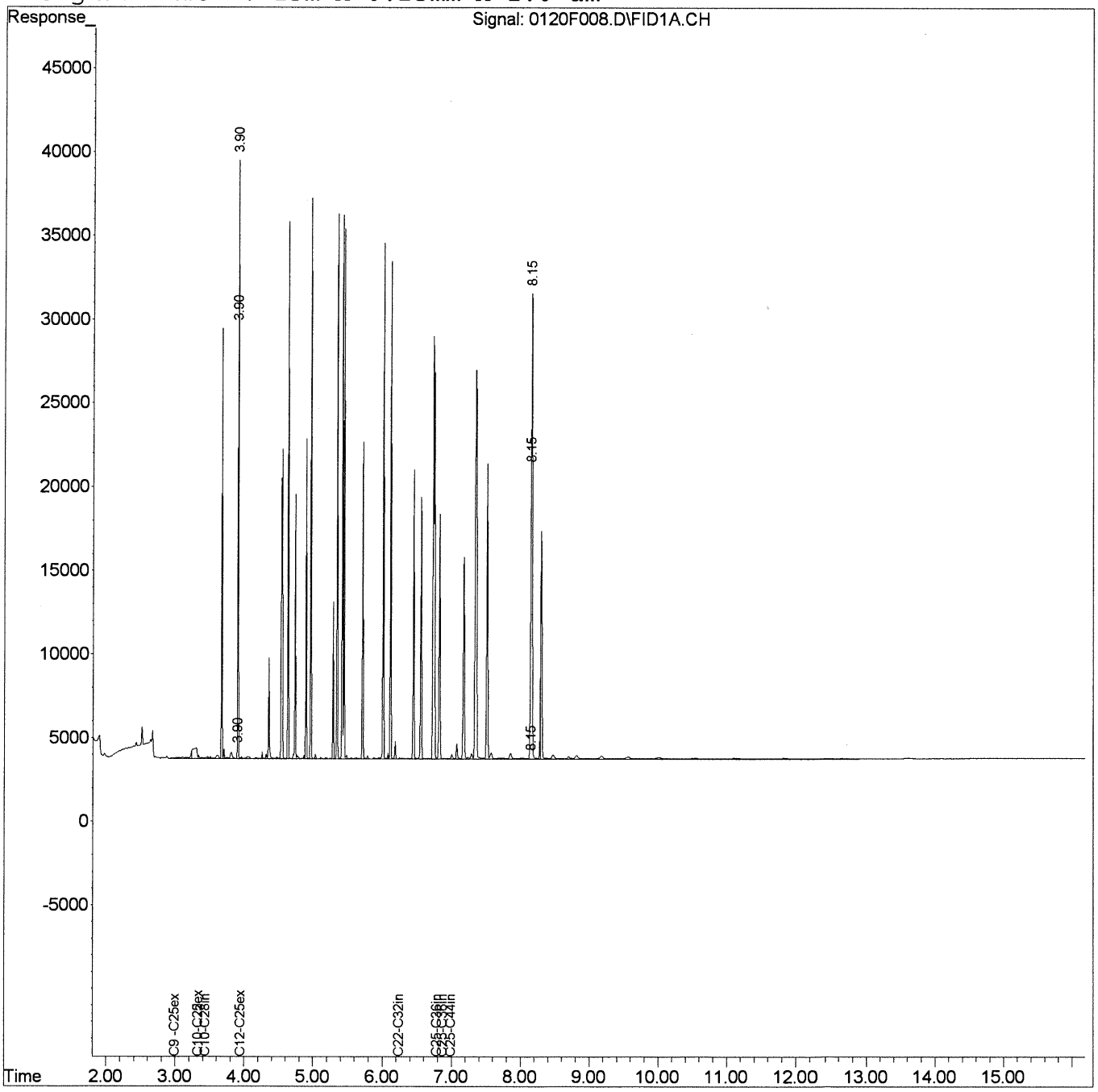
		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
		Target Compounds				
4)	H	C9 -C25ex DRO [TPH-Diesel]	2.99	298976	213.000	ppm
5)	H	C10-C22ex DRO [AZ]	3.33	267226	204.687	ppm
6)	H	C10-C25ex DRO [AK102]	3.33	297643	218.235	ppm
7)	H	C10-C28in DRO [8015]	3.43	410179	294.137	ppm
8)	H	C12-C25ex DRO [NWTPH]	3.94	276554	236.460	ppm
9)	H	C22-C32in RRO [AZ]	6.23	203991	532.473	ppm
10)	H	C25-C36in RRO [NWTPH]	6.78	193679	314.933	ppm
11)	H	C25-C36in RRO [AK103]	6.88	193679	259.584	ppm
12)	H	C25-C44in RRO [TPH-Oil]	6.98	201331	186.108	ppm

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

Data File : J:\GC21\DATA\012016F\0120F008.D Vial: 93
Acq On : 20 Jan 2016 10:31 am Operator: CHARVEY
Sample : PAH MARKER SVF01-75J Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 10:11 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Thu Jan 21 09:23:10 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\012016F\0120F010.D Vial: 91
Acq On : 20 Jan 2016 10:53 am Operator: CHARVEY
Sample : ALIPHATICS MARKER SVF01-75G Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 10:11:51 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Thu Jan 21 09:23:10 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	4-Bromofluorobenzene	2.99f	43611	59.723	ppm
Spiked Amount	50.000	Recovery	=	119.45%	
2) S	o-Terphenyl	5.65f	44609	30.004	ppm
Spiked Amount	50.000	Recovery	=	60.01%	
3) S	n-Triacontane	7.76	40611	32.016	ppm
Spiked Amount	50.000	Recovery	=	64.03%	
	Target Compounds				
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	753959	537.144	ppm
5) H	C10-C22ex DRO [AZ]	3.33	615754	471.649	ppm
6) H	C10-C25ex DRO [AK102]	3.33	752530	551.762	ppm
7) H	C10-C28in DRO [8015]	3.43	925219	663.469	ppm
8) H	C12-C25ex DRO [NWTPH]	3.94	659815	564.156	ppm
9) H	C22-C32in RRO [AZ]	6.23	476031	1242.573	ppm
10) H	C25-C36in RRO [NWTPH]	6.78	511913	832.400	ppm
11) H	C25-C36in RRO [AK103]	6.88	511913	686.106	ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	736021	680.369	ppm

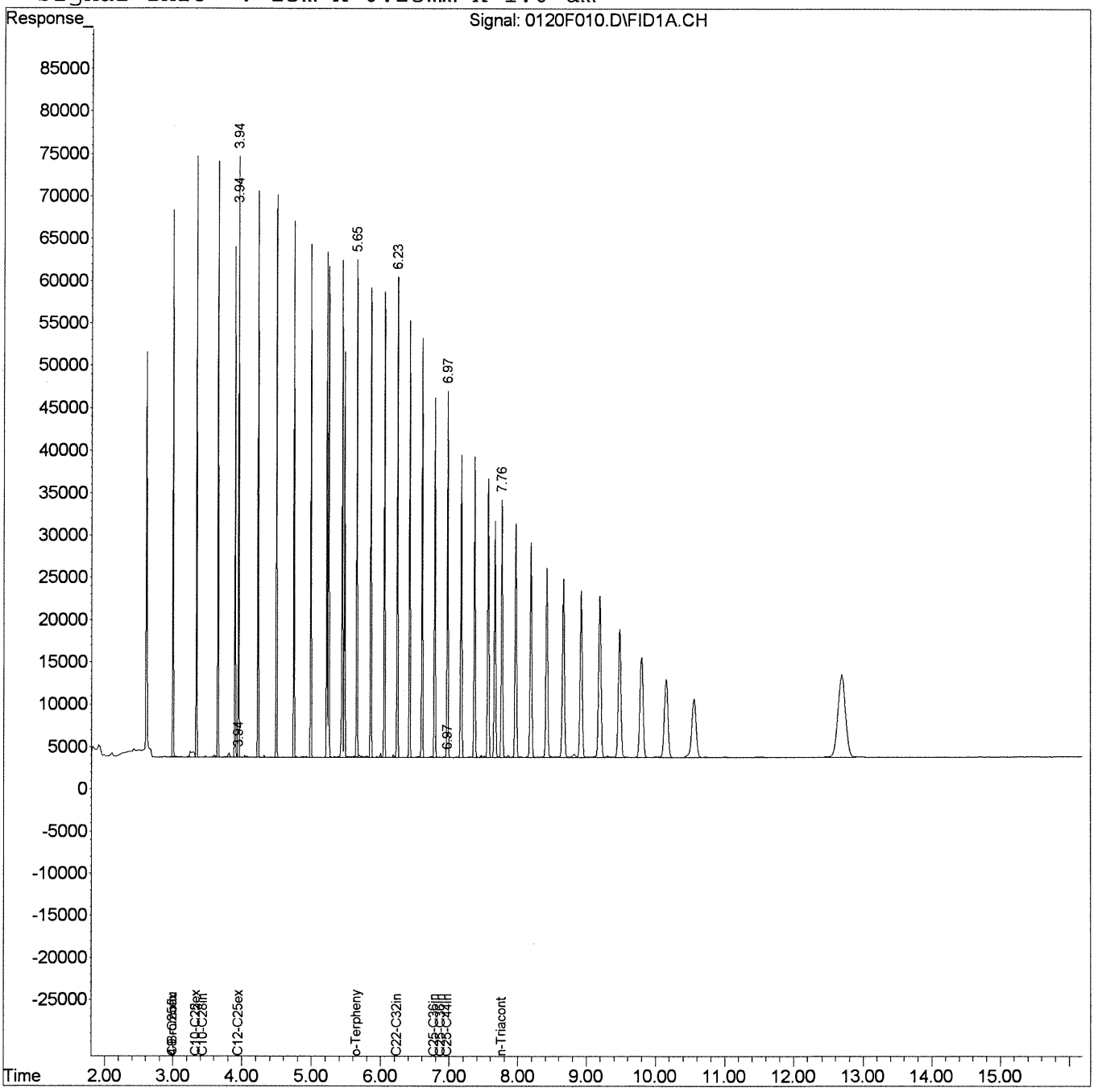
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\012016F\0120F010.D Vial: 91
Acq On : 20 Jan 2016 10:53 am Operator: CHARVEY
Sample : ALIPHATICS MARKER SVF01-75G Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 10:11 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Thu Jan 21 09:23:10 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120FZ12.D Vial: 87
Acq On : 20 Jan 2016 12:02 pm Operator: CHARVEY
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 10:07:51 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:23:10 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
Target Compounds						
4)	H	C9 -C25ex DRO [TPH-Diesel]	2.99	7911	5.636	ppm
5)	H	C10-C22ex DRO [AZ]	3.33	6351	4.865	ppm
6)	H	C10-C25ex DRO [AK102]	3.33	6934	5.084	ppm
7)	H	C10-C28in DRO [8015]	3.43	8415	6.034	ppm
8)	H	C12-C25ex DRO [NWTPH]	3.94	3116	2.664	ppm
9)	H	C22-C32in RRO [AZ]	6.23	3463	9.039	ppm
10)	H	C25-C36in RRO [NWTPH]	6.78	4769	7.755	ppm
11)	H	C25-C36in RRO [AK103]	6.88	4769	6.392	ppm
12)	H	C25-C44in RRO [TPH-Oil]	6.98	10753	9.940	ppm

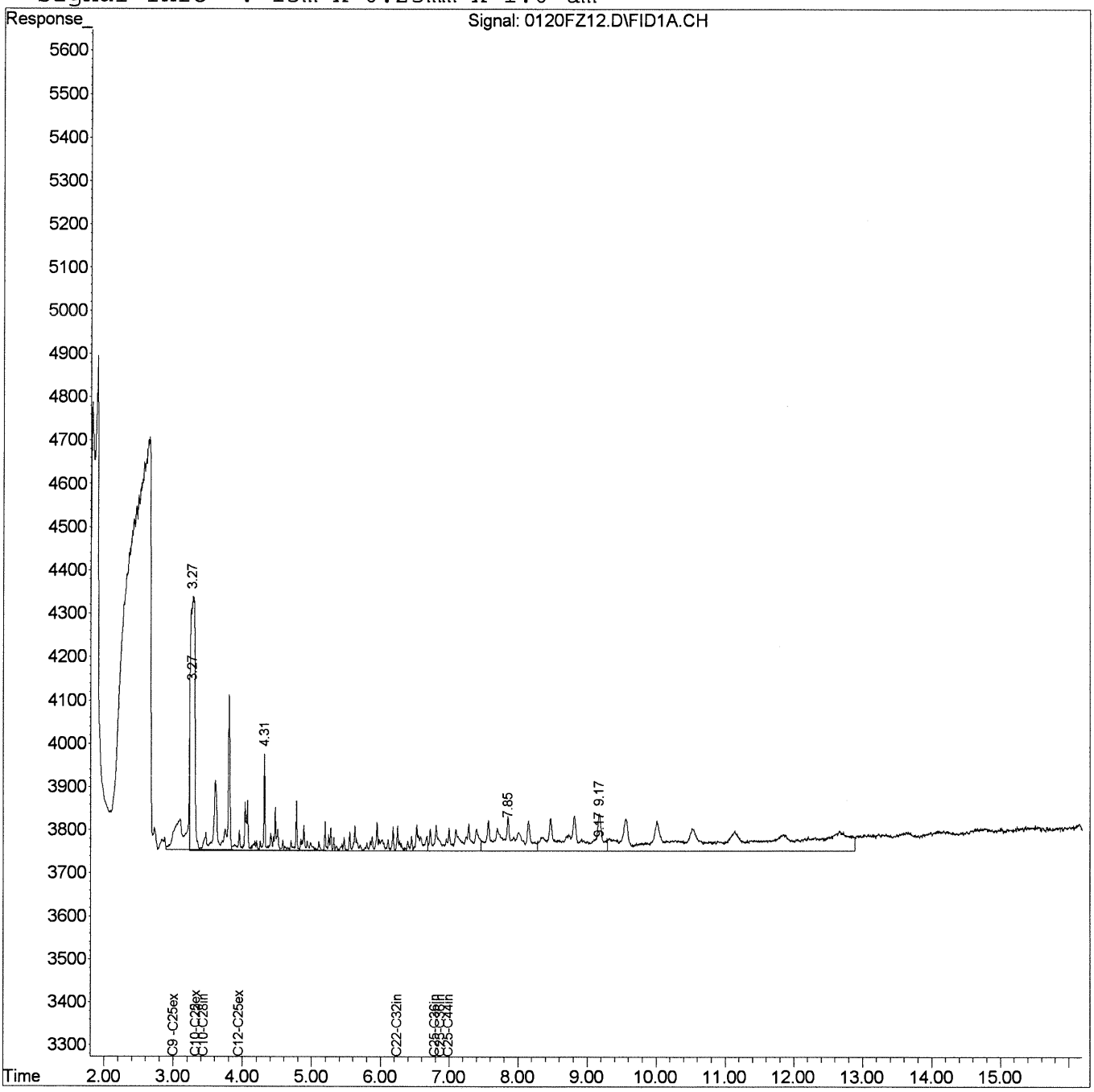
(f)=RT Delta > 1/2 Window (m)=manual int.
0120FZ12.D 011916F.M Thu Jan 21 10:08:17 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120FZ12.D Vial: 87
Acq On : 20 Jan 2016 12:02 pm Operator: CHARVEY
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 10:07 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:23:10 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F014.D Vial: 10
Acq On : 20 Jan 2016 12:24 pm Operator: CHARVEY
Sample : RRO 20 SVF01-81Q Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 13:17:36 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
9) H	C22-C32in RRO [AZ]	6.23	10205	23.741 ppm
10) H	C25-C36in RRO [NWTPH]	6.78	15456	22.486 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	28418	23.277 ppm

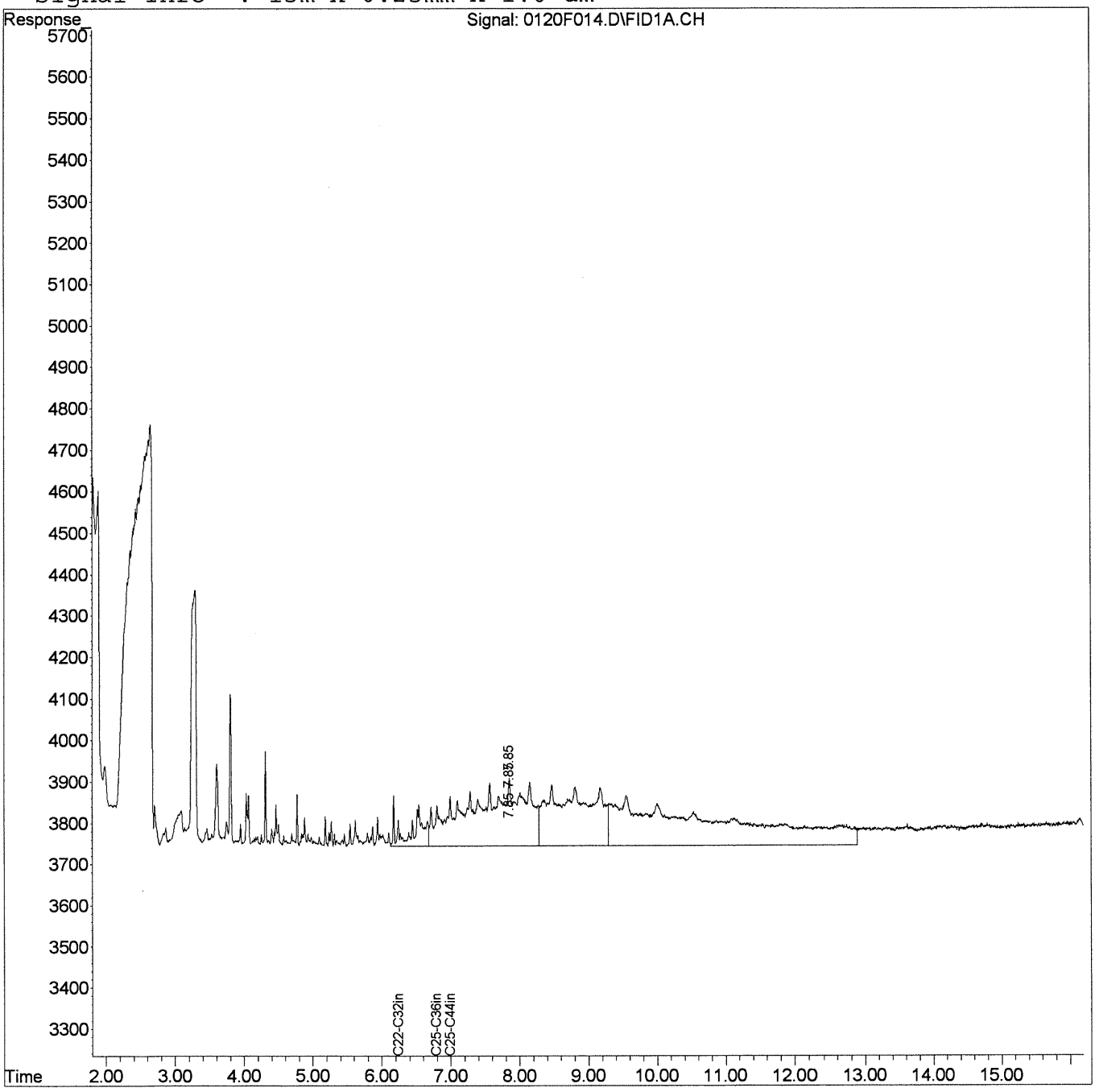
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F014.D Vial: 10
Acq On : 20 Jan 2016 12:24 pm Operator: CHARVEY
Sample : RRO 20 SVF01-81Q Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 13:18 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F016.D Vial: 11
Acq On : 20 Jan 2016 12:46 pm Operator: CHARVEY
Sample : RRO 50 SVF01-81P Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 13:18:23 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
Target Compounds						
9)	H	C22-C32in RRO [AZ]	6.23	21903	50.956	ppm
10)	H	C25-C36in RRO [NWTPH]	6.78	33966	49.415	ppm
12)	H	C25-C44in RRO [TPH-Oil]	6.98	60103	49.230	ppm

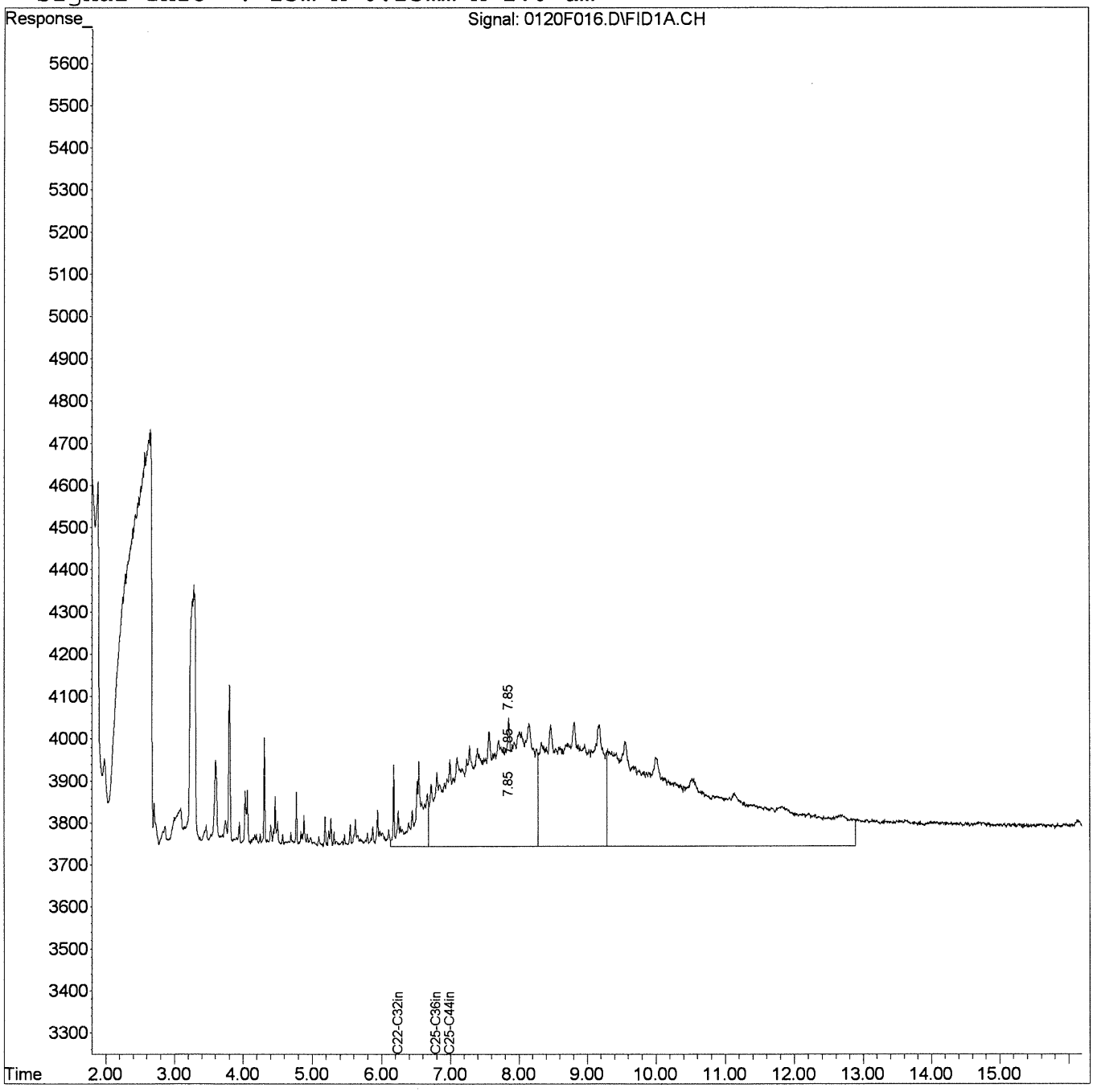
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F016.D Vial: 11
Acq On : 20 Jan 2016 12:46 pm Operator: CHARVEY
Sample : RRO 50 SVF01-81P Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 13:18 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F018.D Vial: 12
Acq On : 20 Jan 2016 1:08 pm Operator: CHARVEY
Sample : RRO 200 SVF01-810 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 14:39:38 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
	Target Compounds				
9)	H C22-C32in RRO [AZ]	6.23	76862	178.815	ppm
10)	H C25-C36in RRO [NWTPH]	6.78	123758	180.046	ppm
12)	H C25-C44in RRO [TPH-Oil]	6.98	220525	180.630	ppm

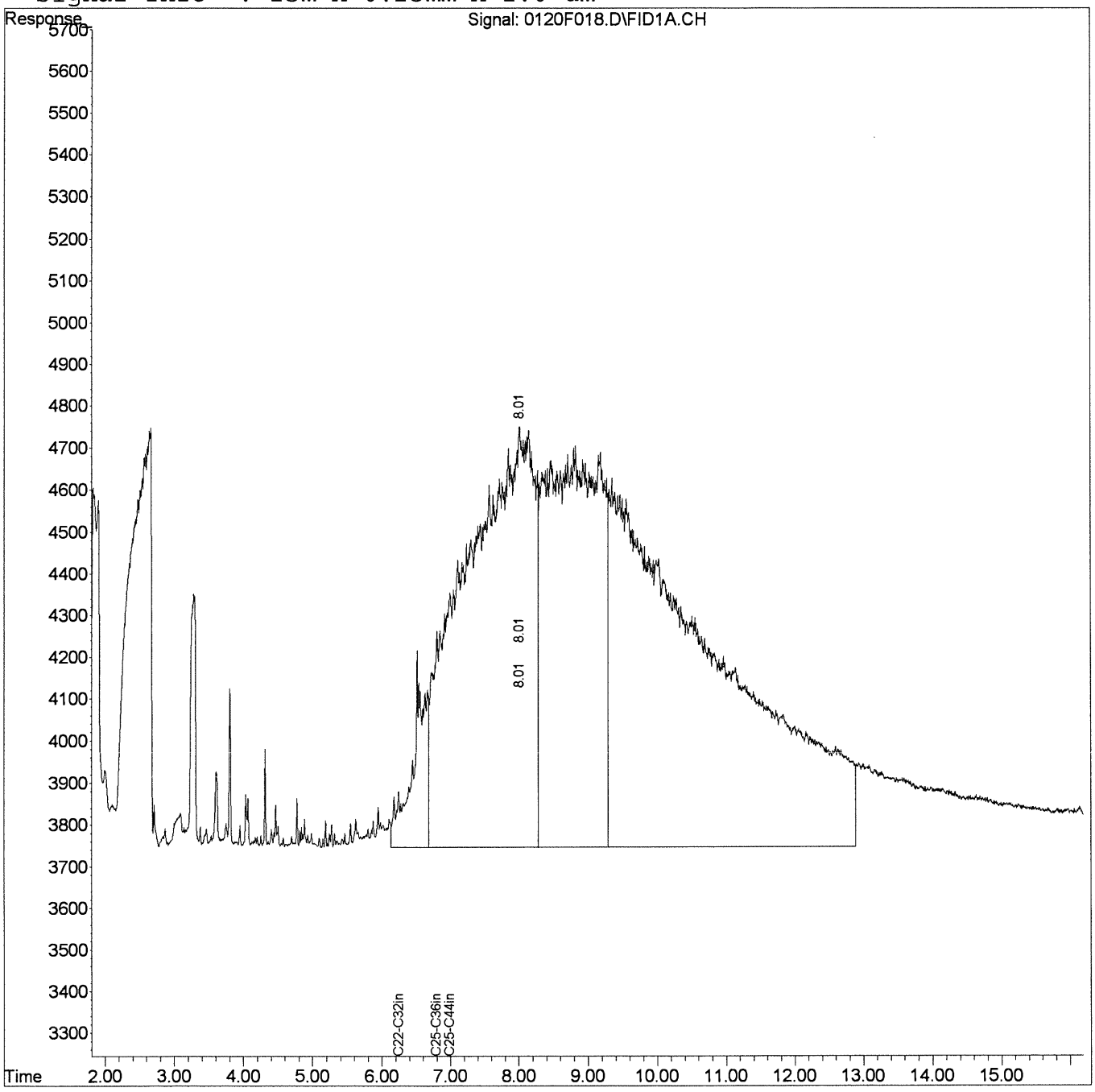
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F018.D Vial: 12
Acq On : 20 Jan 2016 1:08 pm Operator: CHARVEY
Sample : RRO 200 SVF01-810 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 14:40 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F020.D Vial: 13
Acq On : 20 Jan 2016 1:31 pm Operator: CHARVEY
Sample : RRO 500 SVF01-81N Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 14:40:16 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
9) H	C22-C32in RRO [AZ]	6.23	187993	437.355 ppm
10) H	C25-C36in RRO [NWTPH]	6.78	303685	441.808 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	540967	443.101 ppm

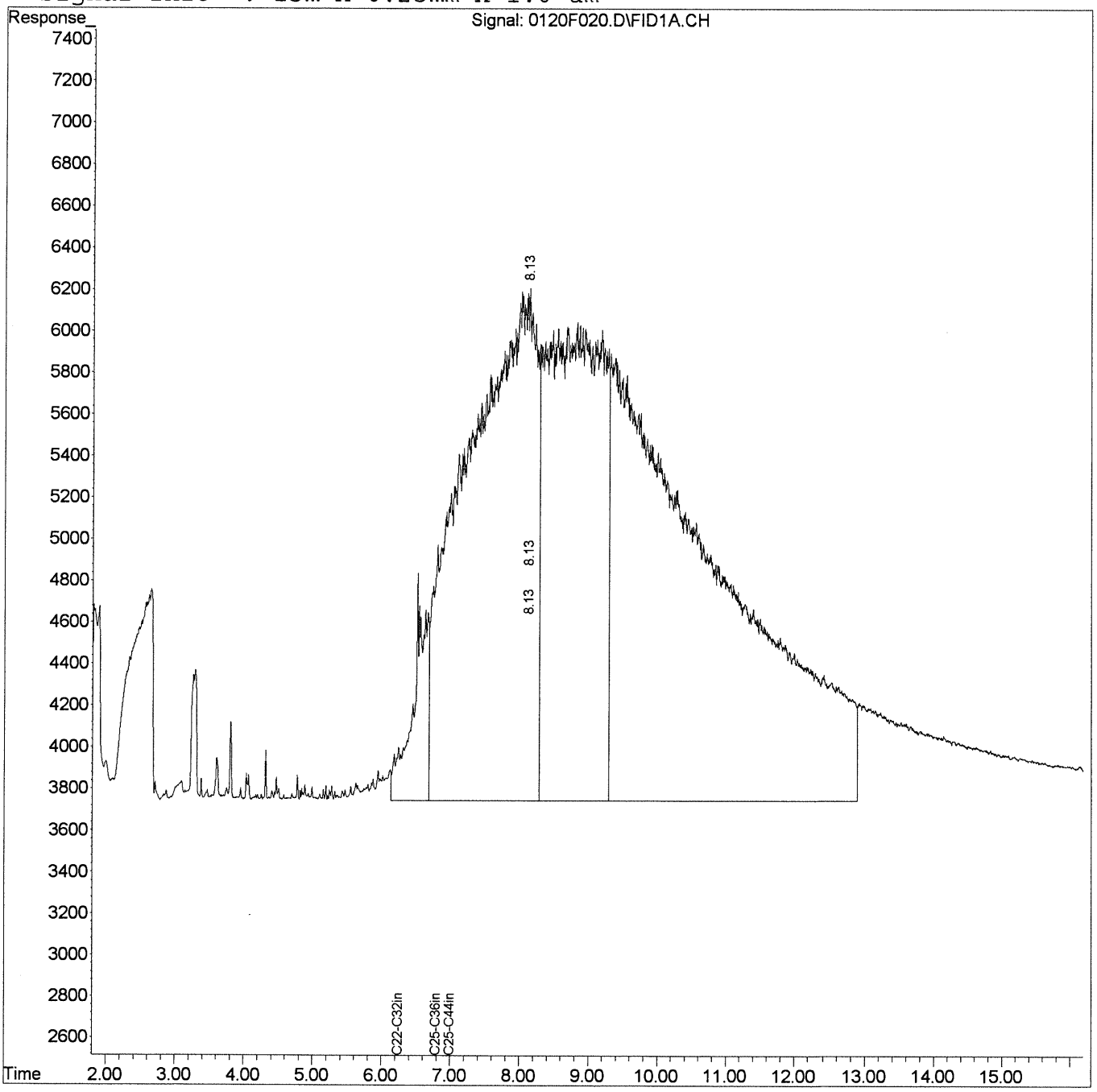
(f)=RT Delta > 1/2 Window (m)=manual int.
0120F020.D 011916F.M Thu Jan 21 09:26:12 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F020.D Vial: 13
Acq On : 20 Jan 2016 1:31 pm Operator: CHARVEY
Sample : RRO 500 SVF01-81N Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 14:40 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F022.D Vial: 14
Acq On : 20 Jan 2016 1:53 pm Operator: CHARVEY
Sample : RRO 2000 SVF01-81M Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 14:40:49 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
	Target Compounds				
9) H	C22-C32in RRO [AZ]	6.23	702156	1633.527	ppm
10) H	C25-C36in RRO [NWTPH]	6.78	1137140	1654.337	ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	2018831	1653.606	ppm

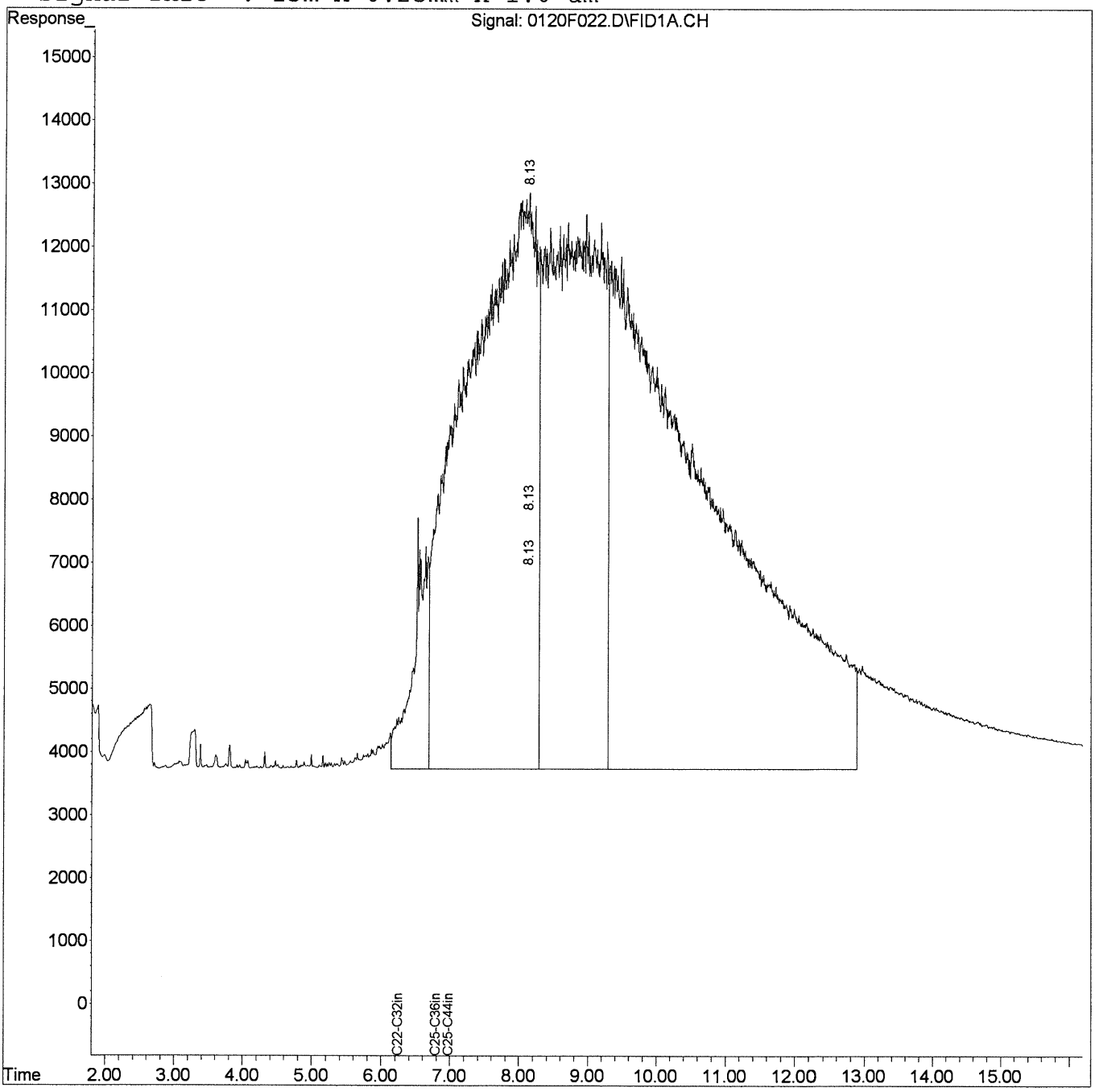
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F022.D Vial: 14
Acq On : 20 Jan 2016 1:53 pm Operator: CHARVEY
Sample : RRO 2000 SVF01-81M Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 14:41 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F024.D Vial: 15
Acq On : 20 Jan 2016 2:16 pm Operator: CHARVEY
Sample : RRO 5000 SVF01-81L Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 14:41:20 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
	Target Compounds				
9)	H C22-C32in RRO [AZ]	6.23	1830354	4258.218	ppm
10)	H C25-C36in RRO [NWTPH]	6.78	3004367	4370.821	ppm
12)	H C25-C44in RRO [TPH-Oil]	6.98	5064760	4148.498	ppm

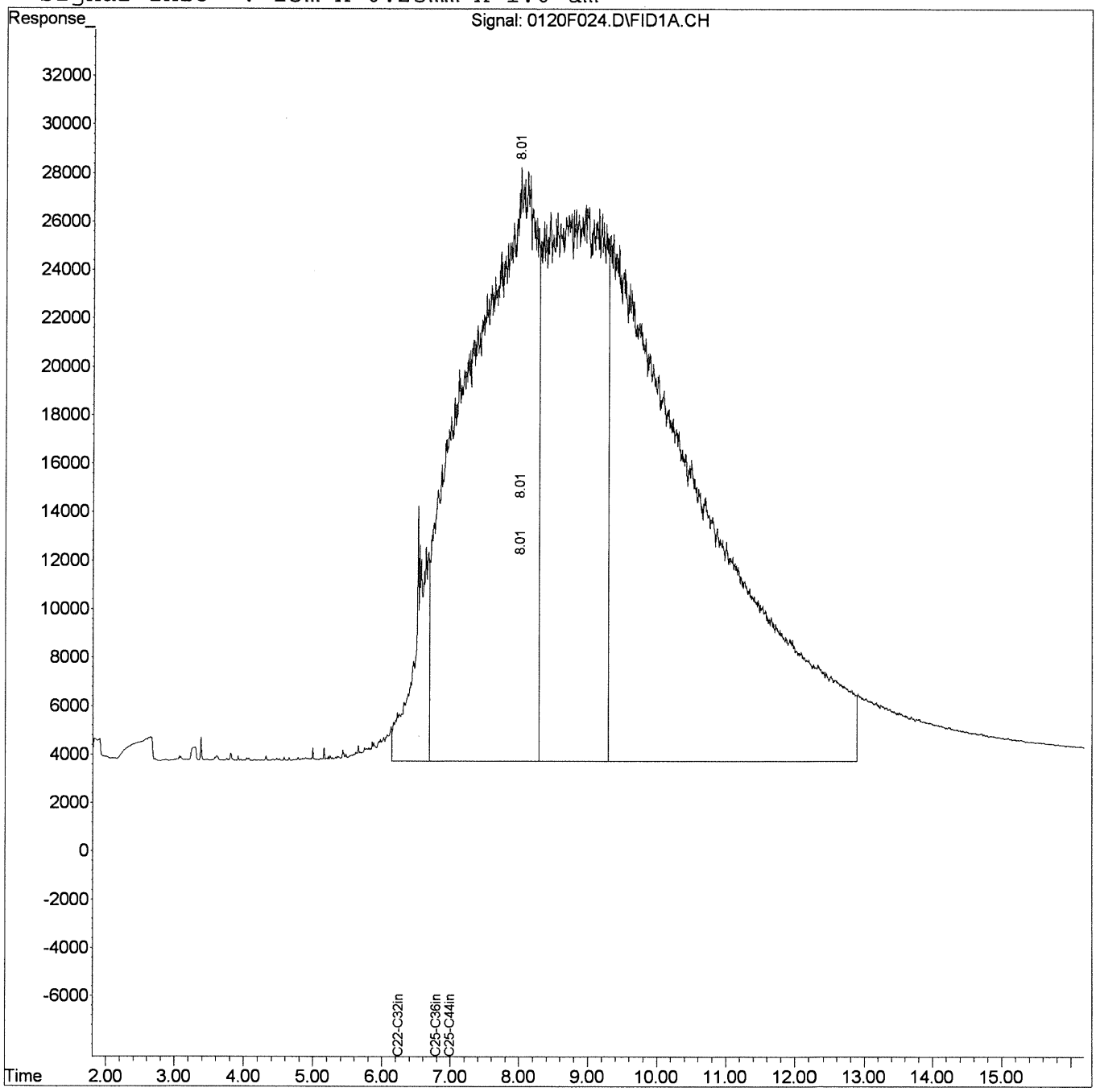
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F024.D Vial: 15
Acq On : 20 Jan 2016 2:16 pm Operator: CHARVEY
Sample : RRO 5000 SVF01-81L Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 14:41 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F028.D Vial: 16
Acq On : 20 Jan 2016 3:00 pm Operator: CHARVEY
Sample : RRO ICV 1000 SVF01-82B Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:37:25 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:23:10 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
Target Compounds						
9)	H	C22-C32in RRO [AZ]	6.23	222194	579.988	ppm
10)	H	C25-C36in RRO [NWTPH]	6.78	525626	854.698	ppm
12)	H	C25-C44in RRO [TPH-Oil]	6.98	1087606	1005.369	ppm

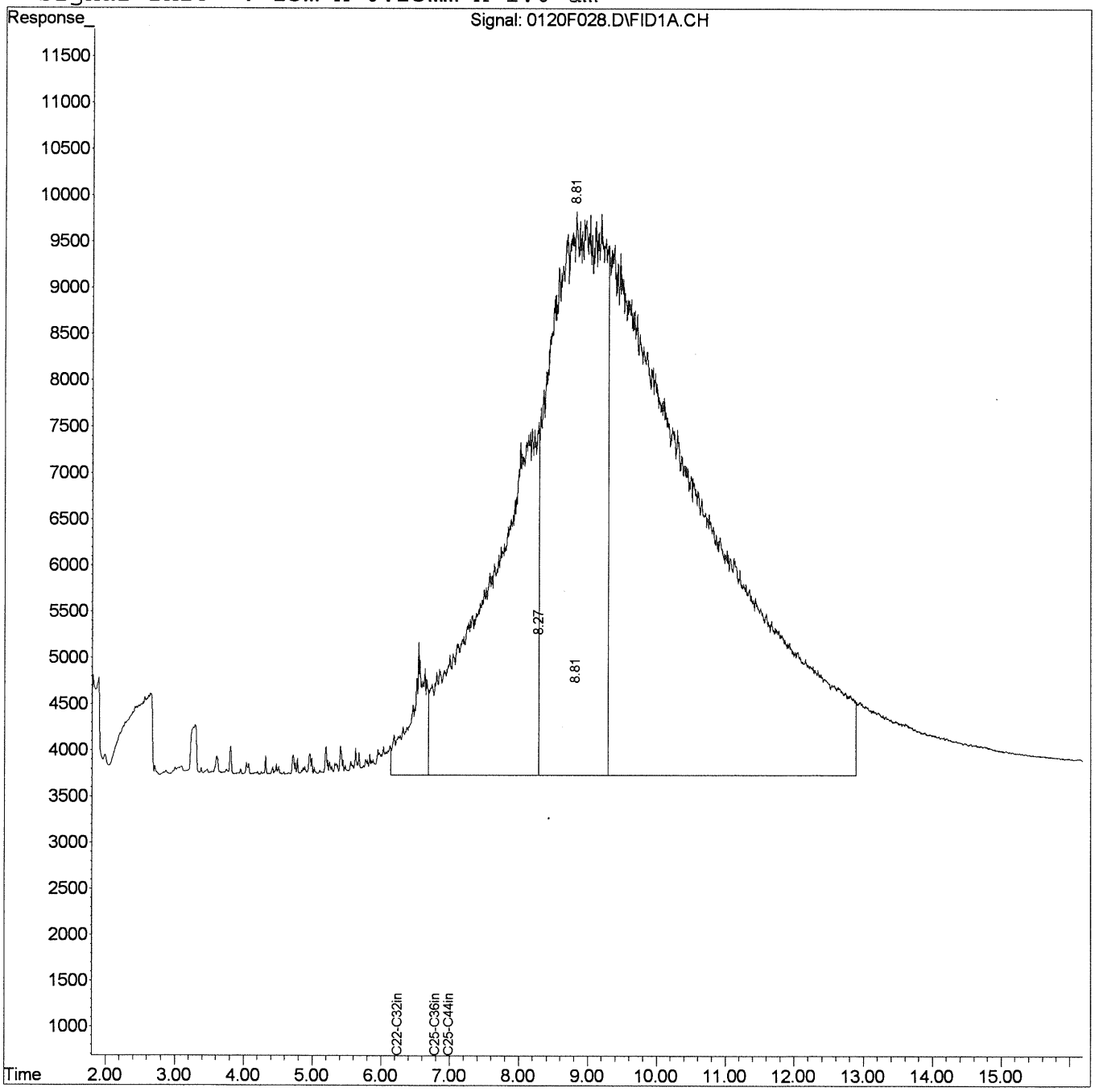
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F028.D Vial: 16
Acq On : 20 Jan 2016 3:00 pm Operator: CHARVEY
Sample : RRO ICV 1000 SVF01-82B Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:37 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:23:10 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F030.D Vial: 1
Acq On : 20 Jan 2016 3:22 pm Operator: CHARVEY
Sample : DRO/SURR 20/1.0 SVF01-81I Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:00:50 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 14:44:51 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	4-Bromofluorobenzene	3.03f	768	0.894 ppm
Spiked Amount	50.000	Recovery	=	1.79%
2) S	o-Terphenyl	5.61	1537	0.875 ppm
Spiked Amount	50.000	Recovery	=	1.75%
3) S	n-Triacontane	7.76	1300	1.152 ppm
Spiked Amount	50.000	Recovery	=	2.30%
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	32758	20.478 ppm
5) H	C10-C22ex DRO [AZ]	3.33	29830	19.717 ppm
6) H	C10-C25ex DRO [AK102]	3.33	31327	20.557 ppm
7) H	C10-C28in DRO [8015]	3.43	32375	20.992 ppm
8) H	C12-C25ex DRO [NWTPH]	3.94	24558	19.172 ppm

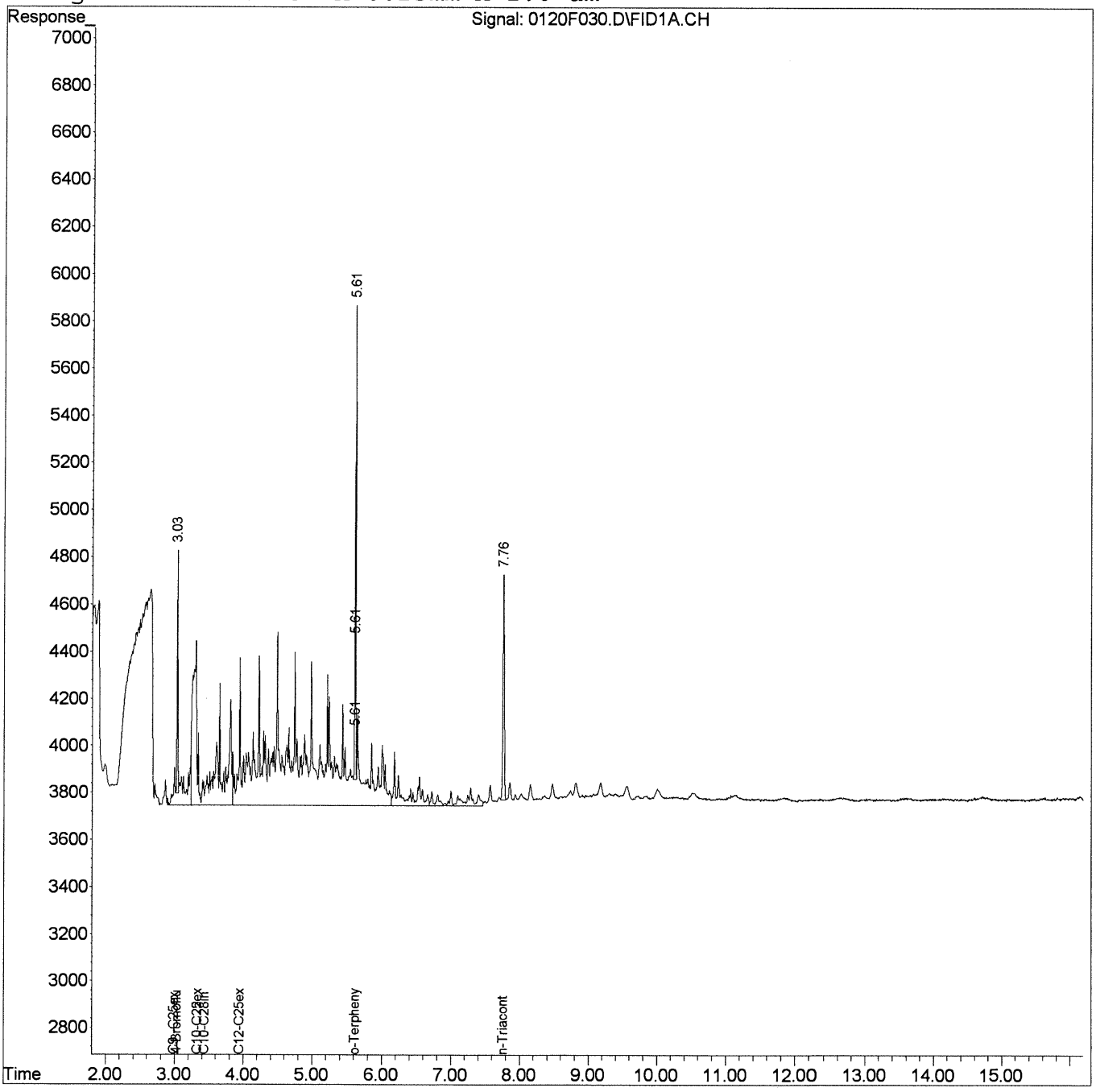
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F030.D Vial: 1
Acq On : 20 Jan 2016 3:22 pm Operator: CHARVEY
Sample : DRO/SURR 20/1.0 SVF01-81I Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:02 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 14:44:51 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F032.D Vial: 2
Acq On : 20 Jan 2016 3:44 pm Operator: CHARVEY
Sample : DRO/SURR 50/2.5 SVF01-81H Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:04:49 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	4-Bromofluorobenzene	3.03	1826	2.125 ppm
Spiked Amount	50.000	Recovery	=	4.25%
2) S	o-Terphenyl	5.61	3681	2.095 ppm
Spiked Amount	50.000	Recovery	=	4.19%
3) S	n-Triacontane	7.76	3091	2.738 ppm
Spiked Amount	50.000	Recovery	=	5.48%
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	71113	44.455 ppm
5) H	C10-C22ex DRO [AZ]	3.33	66434	43.912 ppm
6) H	C10-C25ex DRO [AK102]	3.33	68842	45.174 ppm
7) H	C10-C28in DRO [8015]	3.43	72499	47.008 ppm
8) H	C12-C25ex DRO [NWTPH]	3.94	57461	44.860 ppm

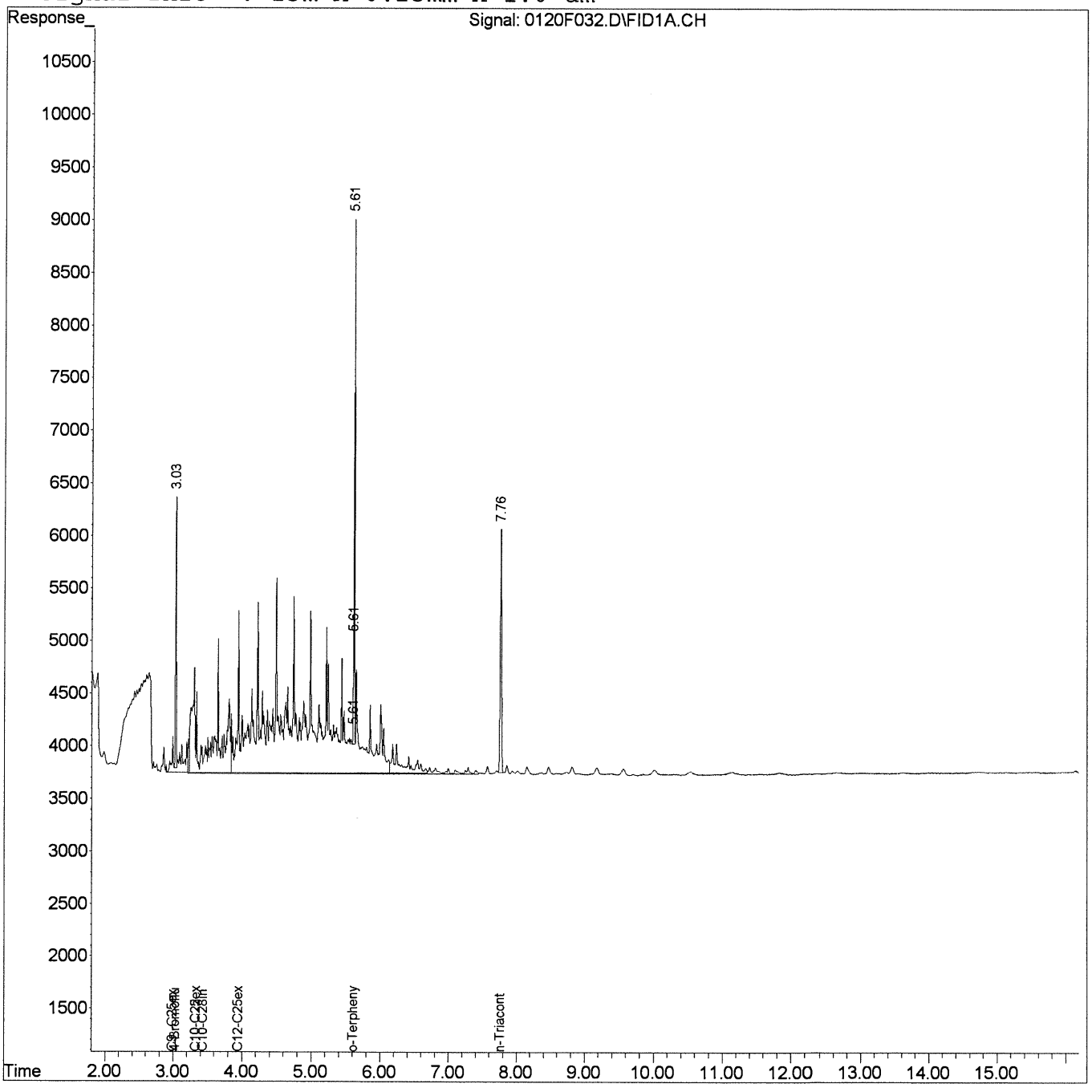
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F032.D Vial: 2
Acq On : 20 Jan 2016 3:44 pm Operator: CHARVEY
Sample : DRO/SURR 50/2.5 SVF01-81H Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:06 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

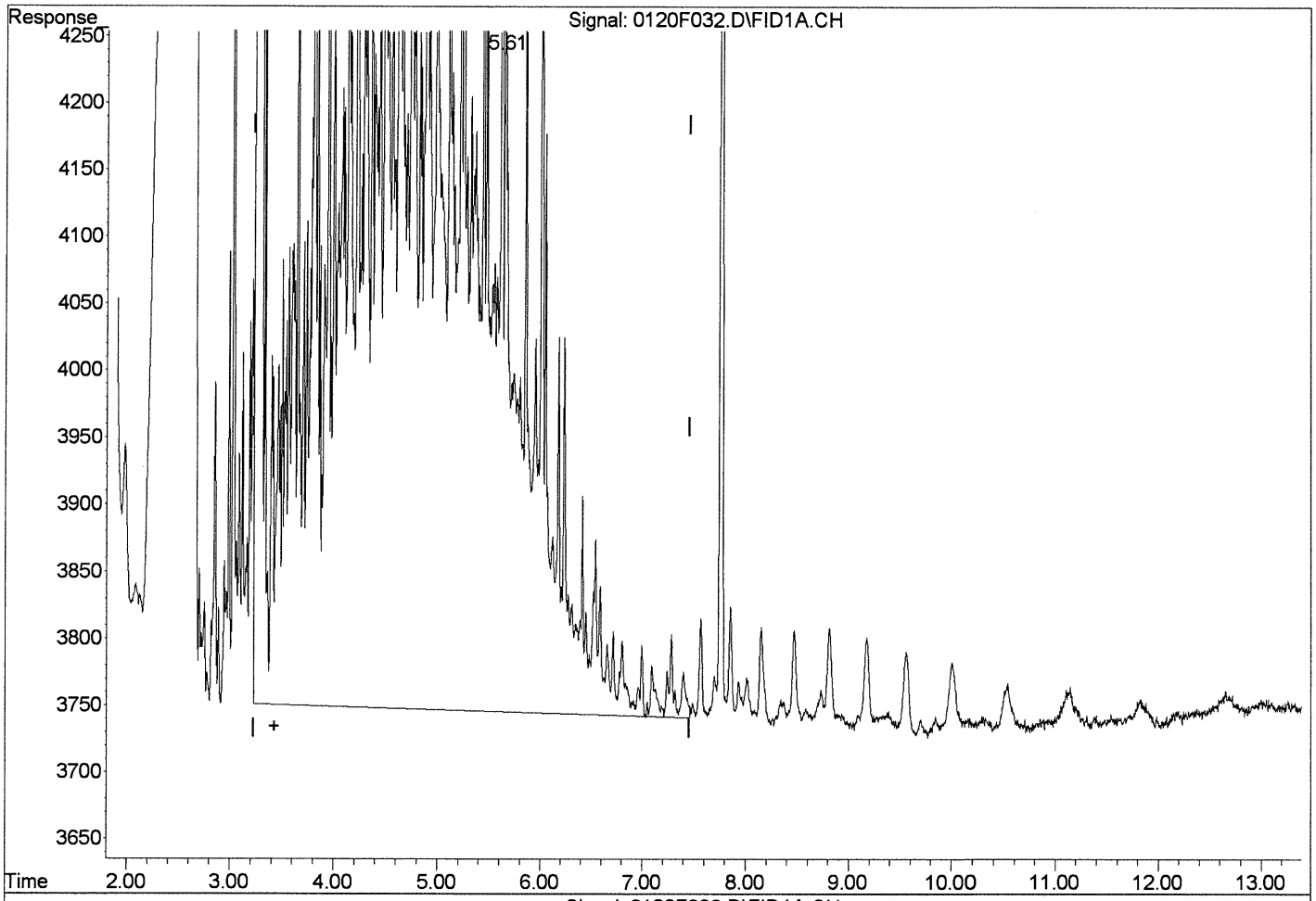
Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (Qedit)

Data File : J:\GC21\DATA\012016F\0120F032.D Vial: 2
Acq On : 20 Jan 2016 3:44 pm Operator: CHARVEY
Sample : DRO/SURR 50/2.5 SVF01-81H Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:04 2016 Quant Results File: 011916F.RES

Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Multiple Level Calibration



Signal: 0120F032.D\FID1A.CH

(7) C10-C28in DRO [8015] (H)

3.43min 45.757ppm

response 70570

Manual Integration:

Before

01/21/16

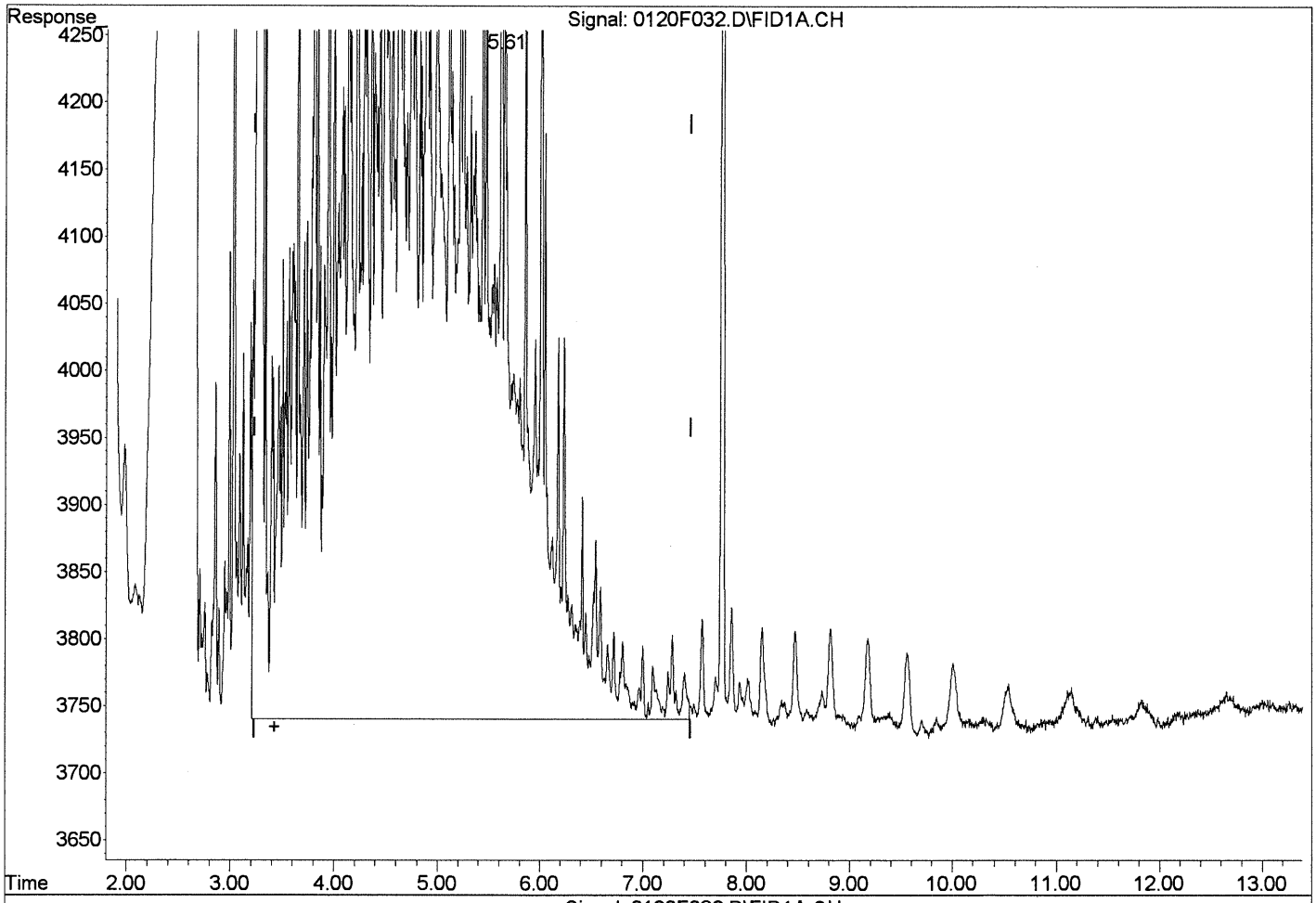
(+) = Expected Retention Time

0120F032.D 011916F.M Thu Jan 21 09:05:47 2016

Quantitation Report (Qedit)

Data File : J:\GC21\DATA\012016F\0120F032.D Vial: 2
Acq On : 20 Jan 2016 3:44 pm Operator: CHARVEY
Sample : DRO/SURR 50/2.5 SVF01-81H Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:04 2016 Quant Results File: 011916F.RES

Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Multiple Level Calibration



Signal: 0120F032.D\FID1A.CH

(7) C10-C28in DRO [8015] (H)

3.43min 47.008ppm

response 72499

Manual Integration:

After

Baseline/Shoulder

01/21/16

(+) = Expected Retention Time

0120F032.D 011916F.M Thu Jan 21 09:06:28 2016

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F034.D Vial: 3
Acq On : 20 Jan 2016 4:07 pm Operator: CHARVEY
Sample : DRO/ SURR 200/10 SVF01-81G Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:07:07 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S 4-Bromofluorobenzene	3.03	7149	8.319	ppm
Spiked Amount	50.000	Recovery	=	16.64%	
2)	S o-Terphenyl	5.61	14491	8.249	ppm
Spiked Amount	50.000	Recovery	=	16.50%	
3)	S n-Triacontane	7.76	12645	11.202	ppm
Spiked Amount	50.000	Recovery	=	22.40%	
	Target Compounds				
4)	H C9 -C25ex DRO [TPH-Diesel]	2.99	255868	159.951	ppm
5)	H C10-C22ex DRO [AZ]	3.33	241516	159.639	ppm
6)	H C10-C25ex DRO [AK102]	3.33	249140	163.484	ppm
7)	H C10-C28in DRO [8015]	3.43	260168	168.693	ppm
8)	H C12-C25ex DRO [NWTPH]	3.94	215638	168.349	ppm

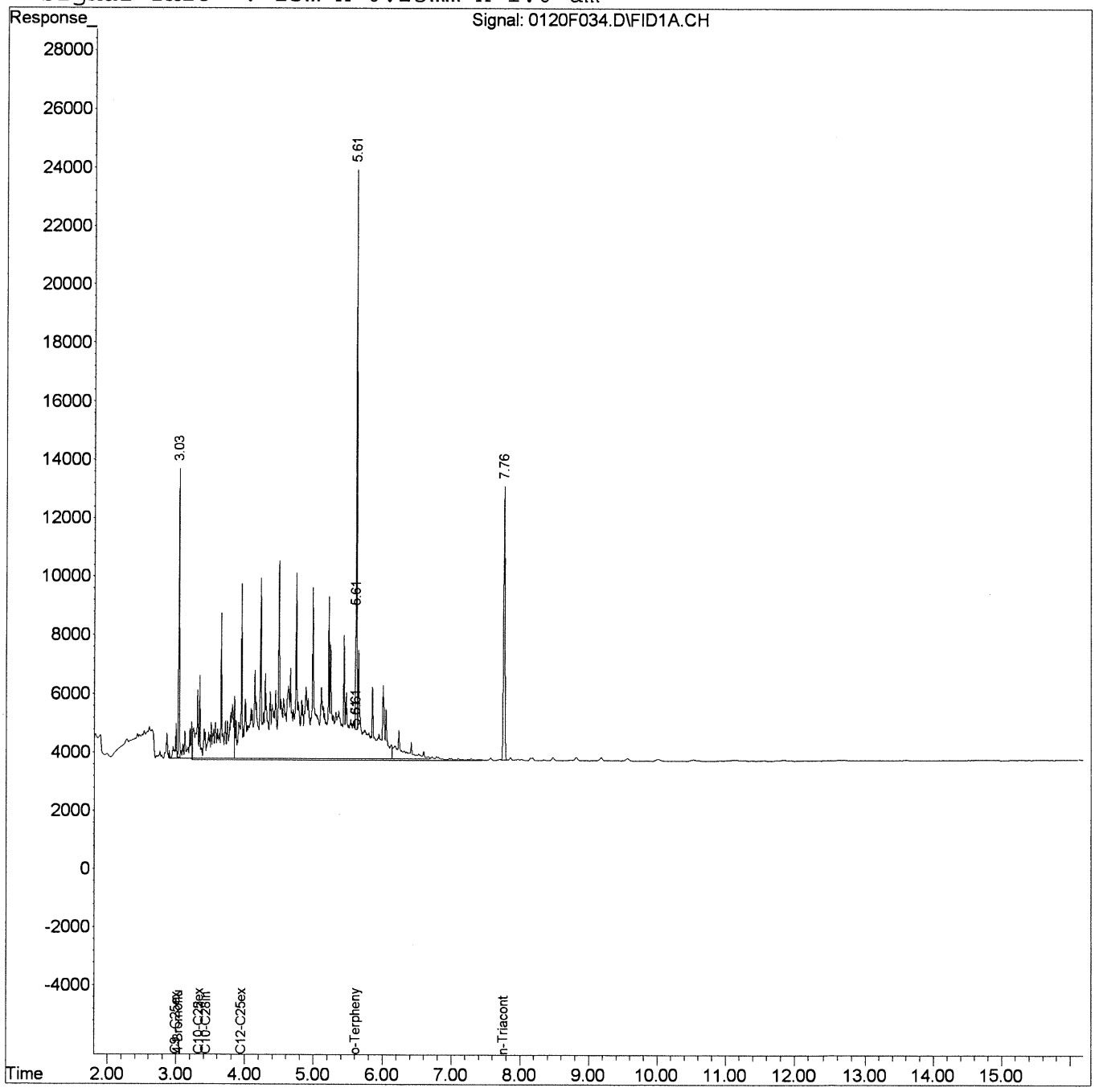
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F034.D Vial: 3
Acq On : 20 Jan 2016 4:07 pm Operator: CHARVEY
Sample : DRO/ SURR 200/10 SVF01-81G Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:08 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

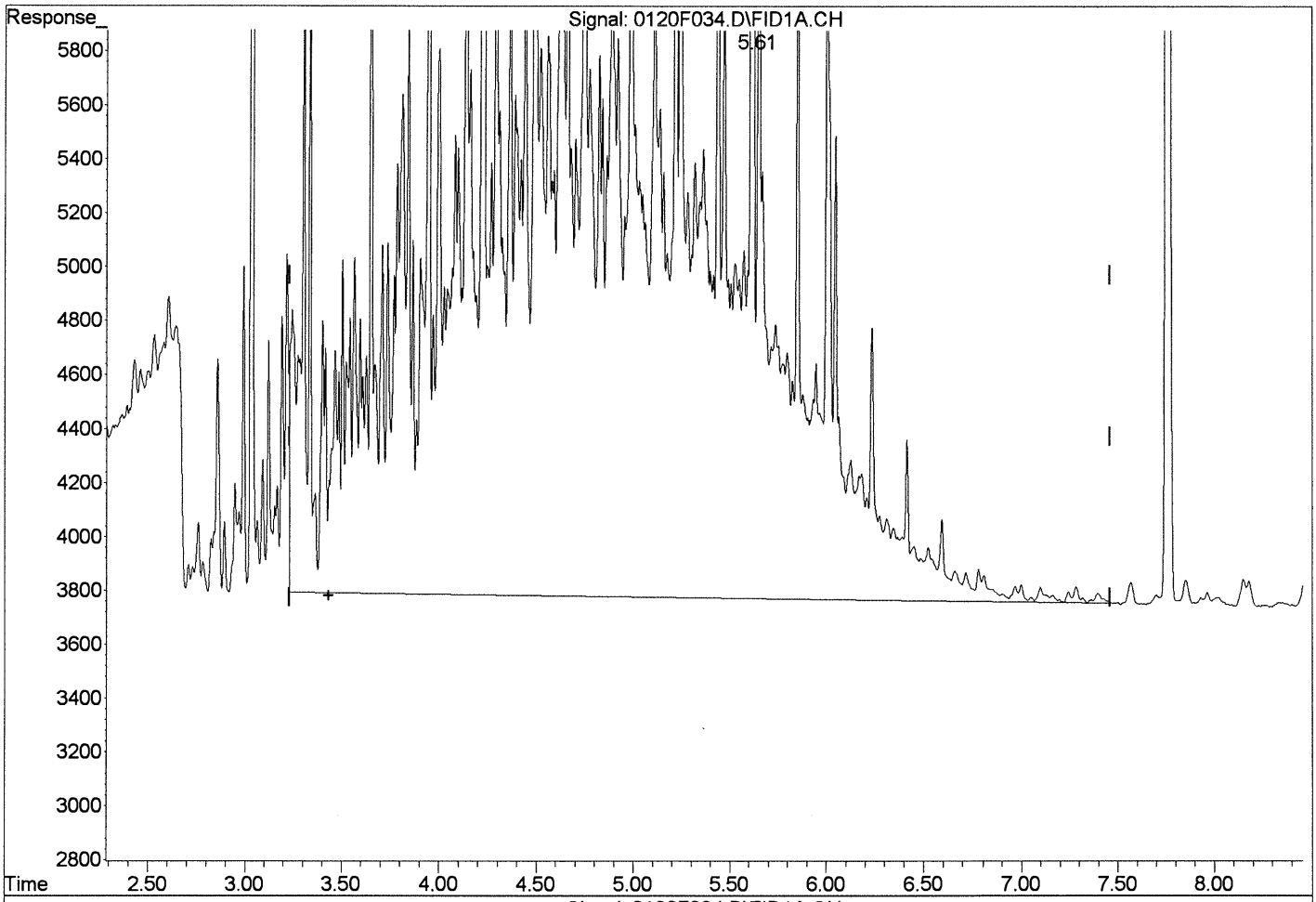
Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (Qedit)

Data File : J:\GC21\DATA\012016F\0120F034.D Vial: 3
Acq On : 20 Jan 2016 4:07 pm Operator: CHARVEY
Sample : DRO/ SURR 200/10 SVF01-81G Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:07 2016 Quant Results File: 011916F.RES

Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Multiple Level Calibration



Signal: 0120F034.D\FID1A.CH

(7) C10-C28in DRO [8015] (H)

3.43min 164.728ppm

response 254054

Manual Integration:

Before

01/21/16

(+) = Expected Retention Time

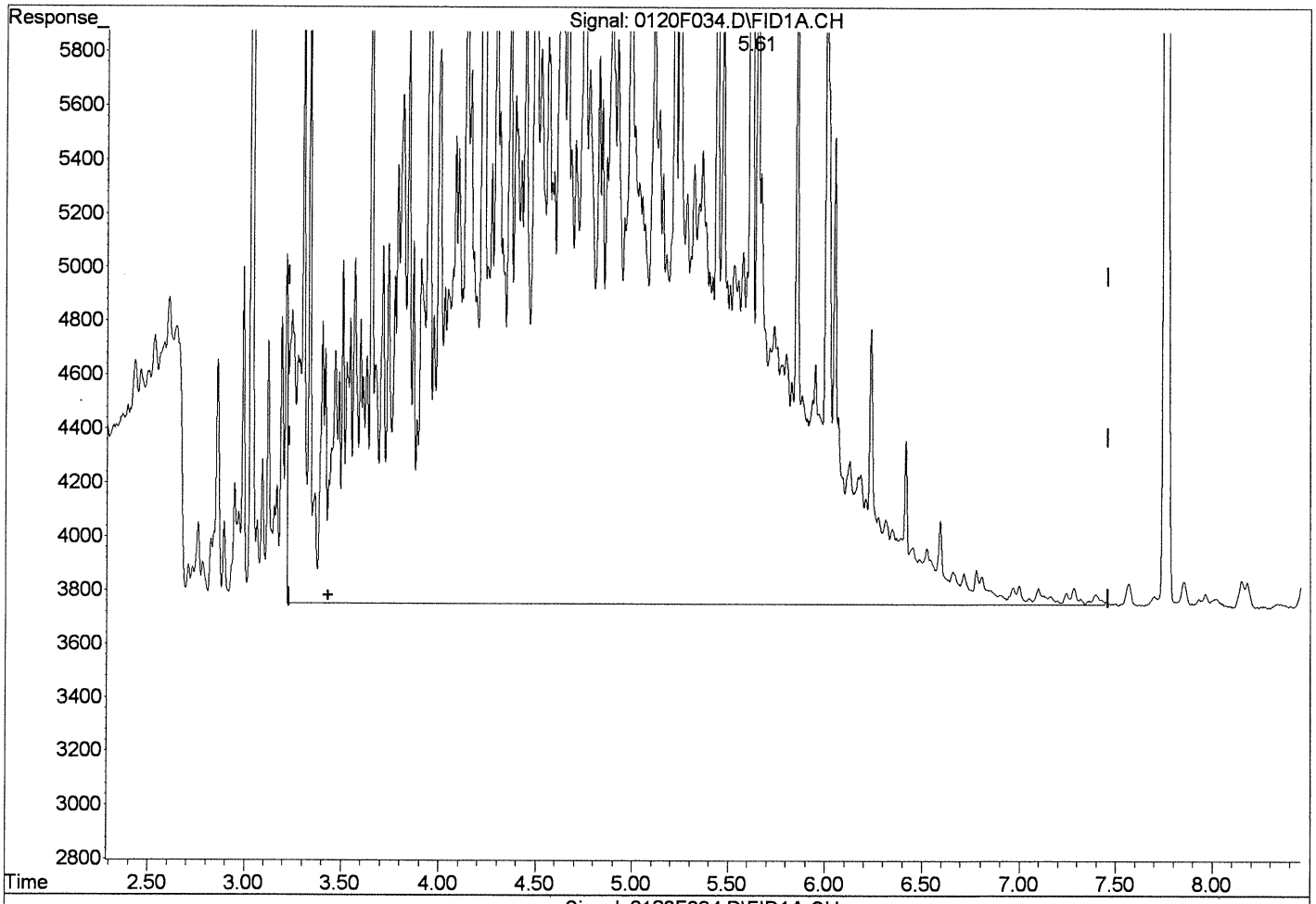
0120F034.D 011916F.M Thu Jan 21 09:07:26 2016

Quantitation Report (Qedit)

Data File : J:\GC21\DATA\012016F\0120F034.D
Acq On : 20 Jan 2016 4:07 pm
Sample : DRO/ SURR 200/10 SVF01-81G
Misc :
IntFile : rteint.p
Quant Time: Jan 21 9:07 2016 Quant Results File: 011916F.RES

Vial: 3
Operator: CHARVEY
Inst : GC21
Multiplr: 1.00

Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Multiple Level Calibration



Signal: 0120F034.D\FID1A.CH

(7) C10-C28in DRO [8015] (H)

3.43min 168.693ppm

response 260168

Manual Integration:

After

Baseline/Shoulder

01/21/16

(+) = Expected Retention Time

0120F034.D 011916F.M Thu Jan 21 09:07:51 2016

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F036.D Vial: 4
Acq On : 20 Jan 2016 4:29 pm Operator: CHARVEY
Sample : DRO/ SURR 500/25 SVF01-81F Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:08:12 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	4-Bromofluorobenzene	3.03	17027	19.812 ppm
Spiked Amount	50.000	Recovery	=	39.62%
2) S	o-Terphenyl	5.61	34752	19.783 ppm
Spiked Amount	50.000	Recovery	=	39.57%
3) S	n-Triacontane	7.76	30248	26.795 ppm
Spiked Amount	50.000	Recovery	=	53.59%
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	629768	393.687 ppm
5) H	C10-C22ex DRO [AZ]	3.33	594525	392.974 ppm
6) H	C10-C25ex DRO [AK102]	3.33	614426	403.181 ppm
7) H	C10-C28in DRO [8015]	3.43	630969	409.119 ppm
8) H	C12-C25ex DRO [NWTPH]	3.94	536330	418.713 ppm

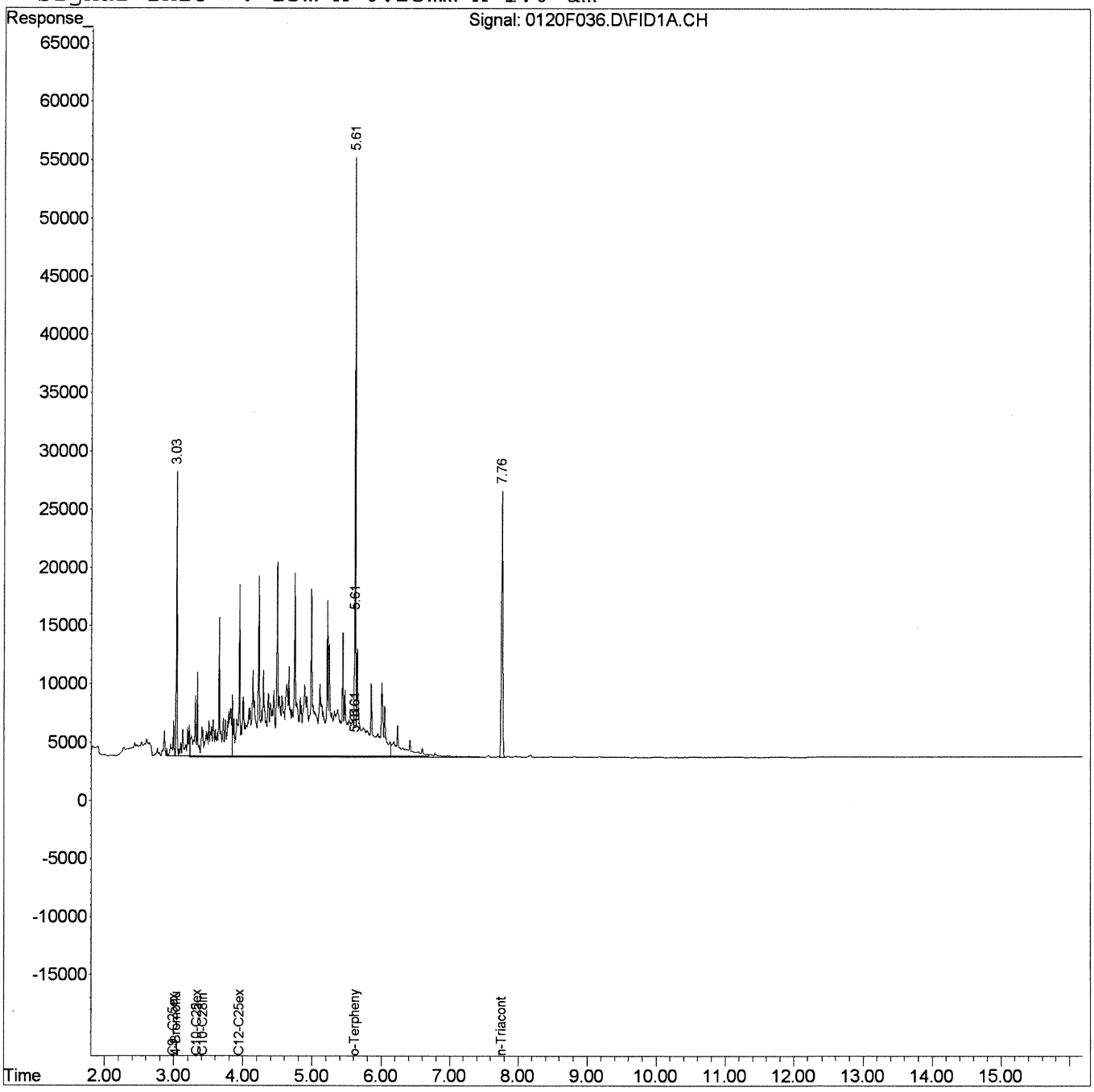
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F036.D Vial: 4
Acq On : 20 Jan 2016 4:29 pm Operator: CHARVEY
Sample : DRO/ SURR 500/25 SVF01-81F Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:09 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

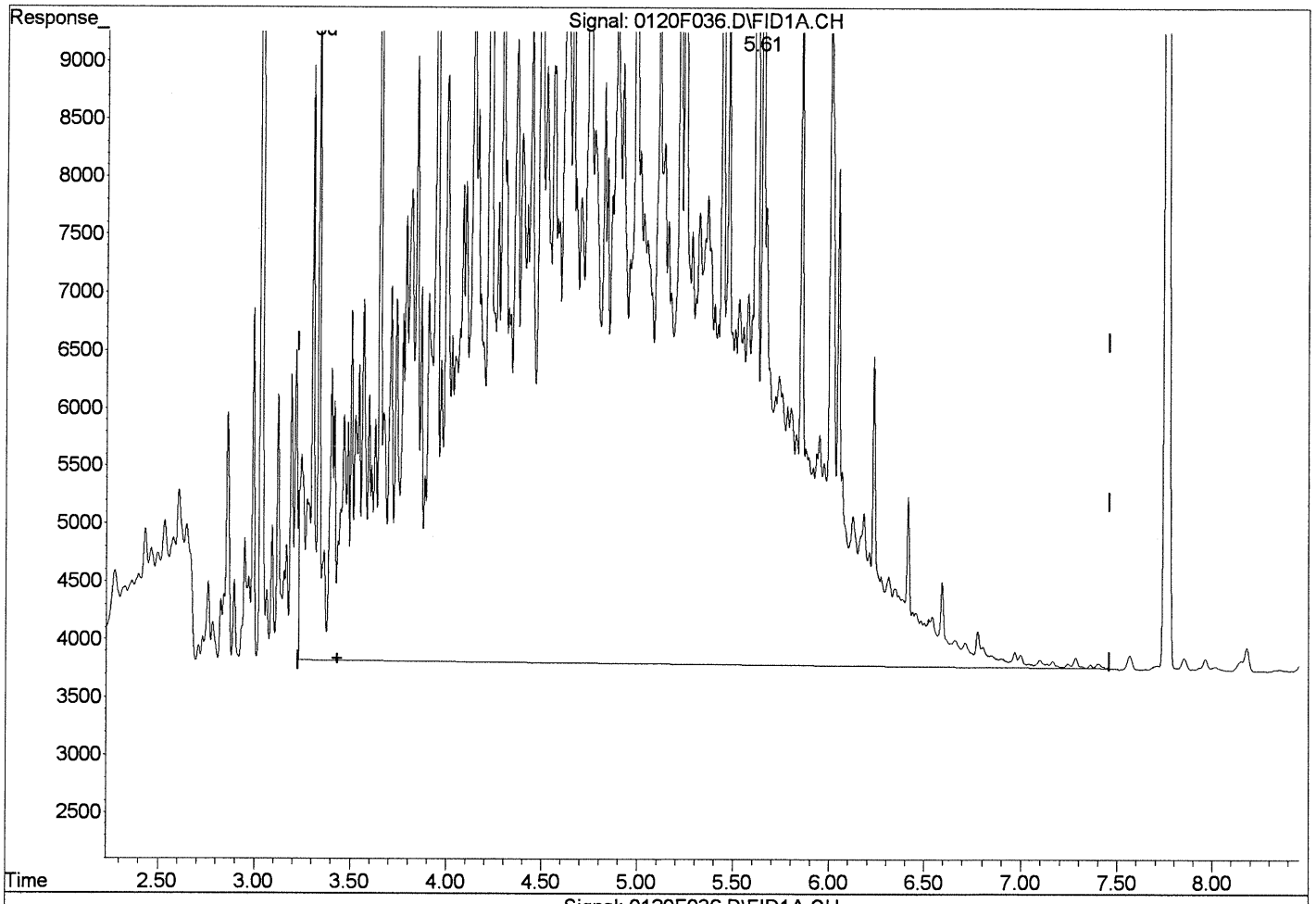


Quantitation Report (Qedit)

Data File : J:\GC21\DATA\012016F\0120F036.D
Acq On : 20 Jan 2016 4:29 pm
Sample : DRO/ SURR 500/25 SVF01-81F
Misc :
IntFile : rteint.p
Quant Time: Jan 21 9:08 2016 Quant Results File: 011916F.RES

Vial: 4
Operator: CHARVEY
Inst : GC21
Multiplr: 1.00

Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Multiple Level Calibration



Signal: 0120F036.D\FID1A.CH

(7) C10-C28in DRO [8015] (H)

3.43min 403.557ppm

response 622390

Manual Integration:

Before

01/21/16

(+) = Expected Retention Time

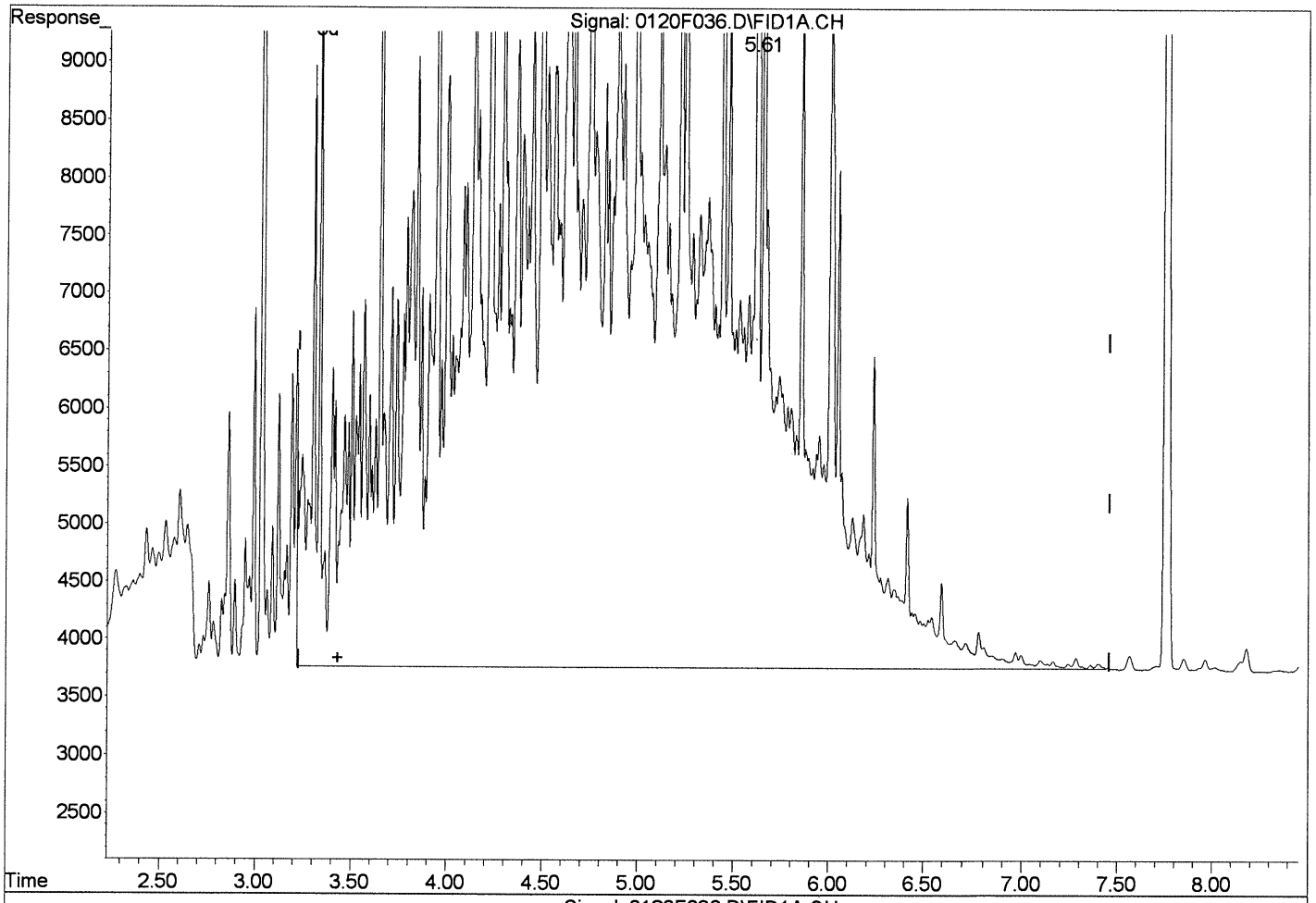
0120F036.D 011916F.M Thu Jan 21 09:09:08 2016

Quantitation Report (Qedit)

Data File : J:\GC21\DATA\012016F\0120F036.D
Acq On : 20 Jan 2016 4:29 pm
Sample : DRO/ SURR 500/25 SVF01-81F
Misc :
IntFile : rteint.p
Quant Time: Jan 21 9:08 2016 Quant Results File: 011916F.RES

Vial: 4
Operator: CHARVEY
Inst : GC21
Multiplr: 1.00

Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Multiple Level Calibration



Signal: 0120F036.D\FID1A.CH

(7) C10-C28in DRO [8015] (H)

3.43min 409.119ppm

response 630969

Manual Integration:

After

Baseline/Shoulder

01/21/16

(+) = Expected Retention Time

0120F036.D 011916F.M Thu Jan 21 09:09:27 2016

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F038.D Vial: 5
Acq On : 20 Jan 2016 4:51 pm Operator: CHARVEY
Sample : DRO/ SURR 2000/100 SVF01-81E Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:10:47 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S 4-Bromofluorobenzene	3.03	70637	82.193	ppm
Spiked Amount	50.000	Recovery	=	164.39%	
2)	S o-Terphenyl	5.61	146710	83.518	ppm
Spiked Amount	50.000	Recovery	=	167.04%	
3)	S n-Triacontane	7.76	122840	108.817	ppm
Spiked Amount	50.000	Recovery	=	217.63%	
	Target Compounds				
4)	H C9 -C25ex DRO [TPH-Diesel]	2.99	2593017	1620.974	ppm
5)	H C10-C22ex DRO [AZ]	3.33	2444207	1615.593	ppm
6)	H C10-C25ex DRO [AK102]	3.33	2529664	1659.944	ppm
7)	H C10-C28in DRO [8015]	3.43	2544015	1649.536	ppm
8)	H C12-C25ex DRO [NWTPH]	3.94	2218911	1732.306	ppm

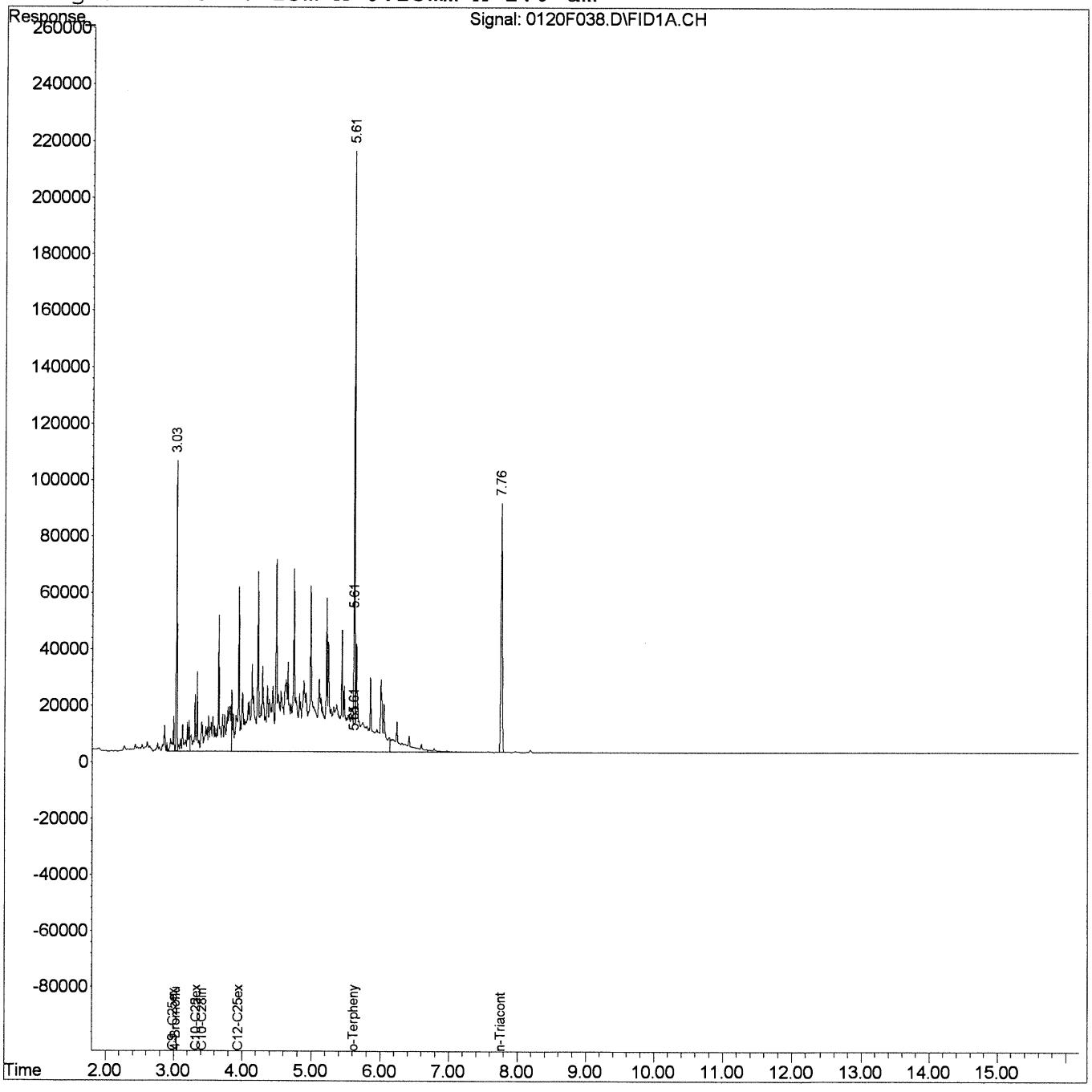
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F038.D Vial: 5
Acq On : 20 Jan 2016 4:51 pm Operator: CHARVEY
Sample : DRO/ SURR 2000/100 SVF01-81E Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:11 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F040.D Vial: 6
Acq On : 20 Jan 2016 5:13 pm Operator: CHARVEY
Sample : DRO/ SURR 5000/250 SVF01-81D Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:11:56 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	4-Bromofluorobenzene	3.03	195142	227.066	ppm
Spiked Amount	50.000	Recovery	=	454.13%	
2) S	o-Terphenyl	5.62	401220	228.403	ppm
Spiked Amount	50.000	Recovery	=	456.81%	
3) S	n-Triacontane	7.76	342898	303.755	ppm
Spiked Amount	50.000	Recovery	=	607.51%	
	Target Compounds				
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	7401627	4626.984	ppm
5) H	C10-C22ex DRO [AZ]	3.33	6971477	4608.067	ppm
6) H	C10-C25ex DRO [AK102]	3.33	7220559	4738.069	ppm
7) H	C10-C28in DRO [8015]	3.43	7256375	4705.023	ppm
8) H	C12-C25ex DRO [NWTPH]	3.94	6338944	4948.821	ppm

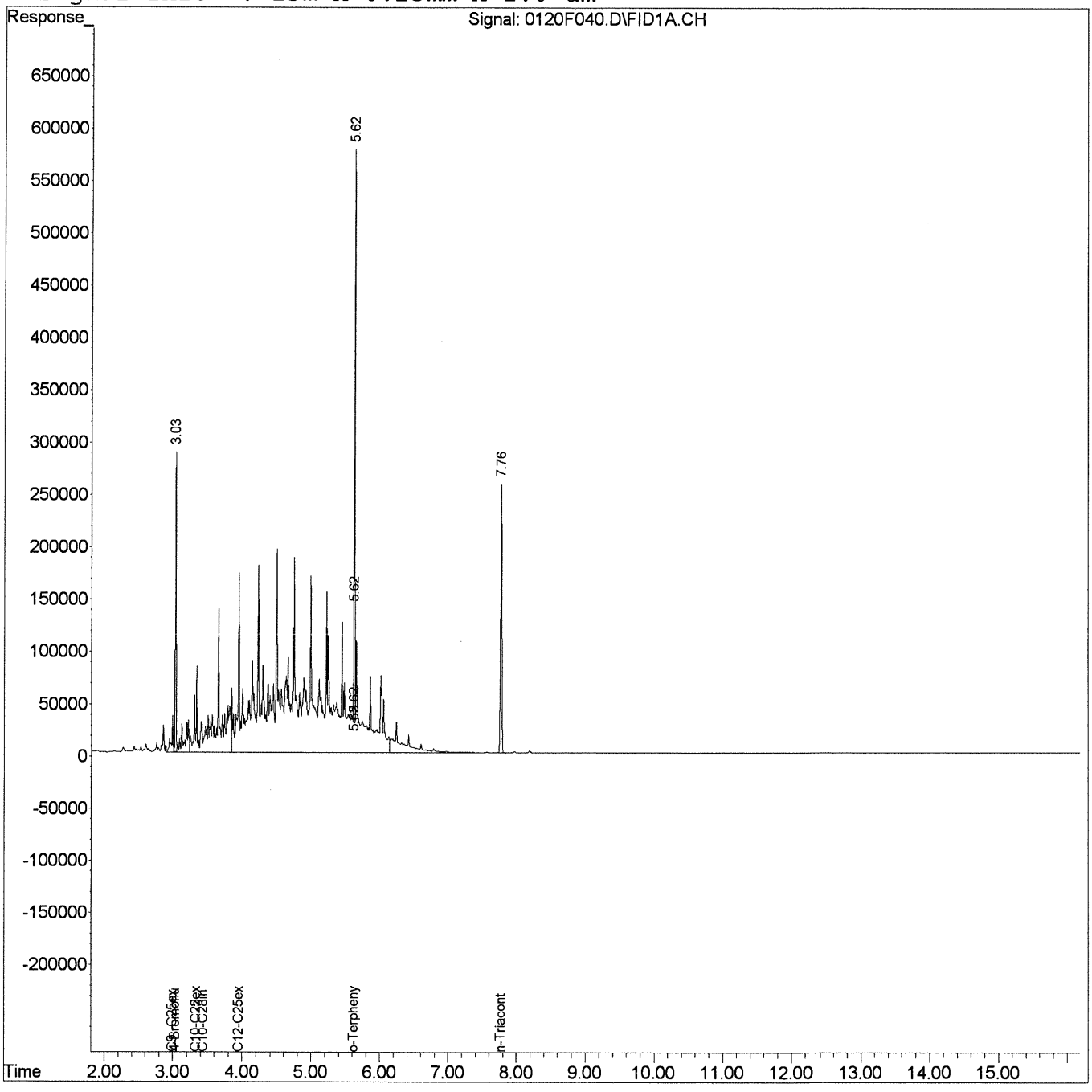
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F040.D Vial: 6
Acq On : 20 Jan 2016 5:13 pm Operator: CHARVEY
Sample : DRO/ SURR 5000/250 SVF01-81D Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:12 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F042.D Vial: 7
Acq On : 20 Jan 2016 5:35 pm Operator: CHARVEY
Sample : DRO 20000 SVF01-81C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:12:27 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
Target Compounds						
4)	H	C9 -C25ex DRO [TPH-Diesel]	2.99	27559415	17228.234	ppm
5)	H	C10-C22ex DRO [AZ]	3.33	25920907	17133.425	ppm
6)	H	C10-C25ex DRO [AK102]	3.33	26881748	17639.573	ppm
7)	H	C10-C28in DRO [8015]	3.43	27043752	17535.130	ppm
8)	H	C12-C25ex DRO [NWTPH]	3.94	23627468	18445.990	ppm

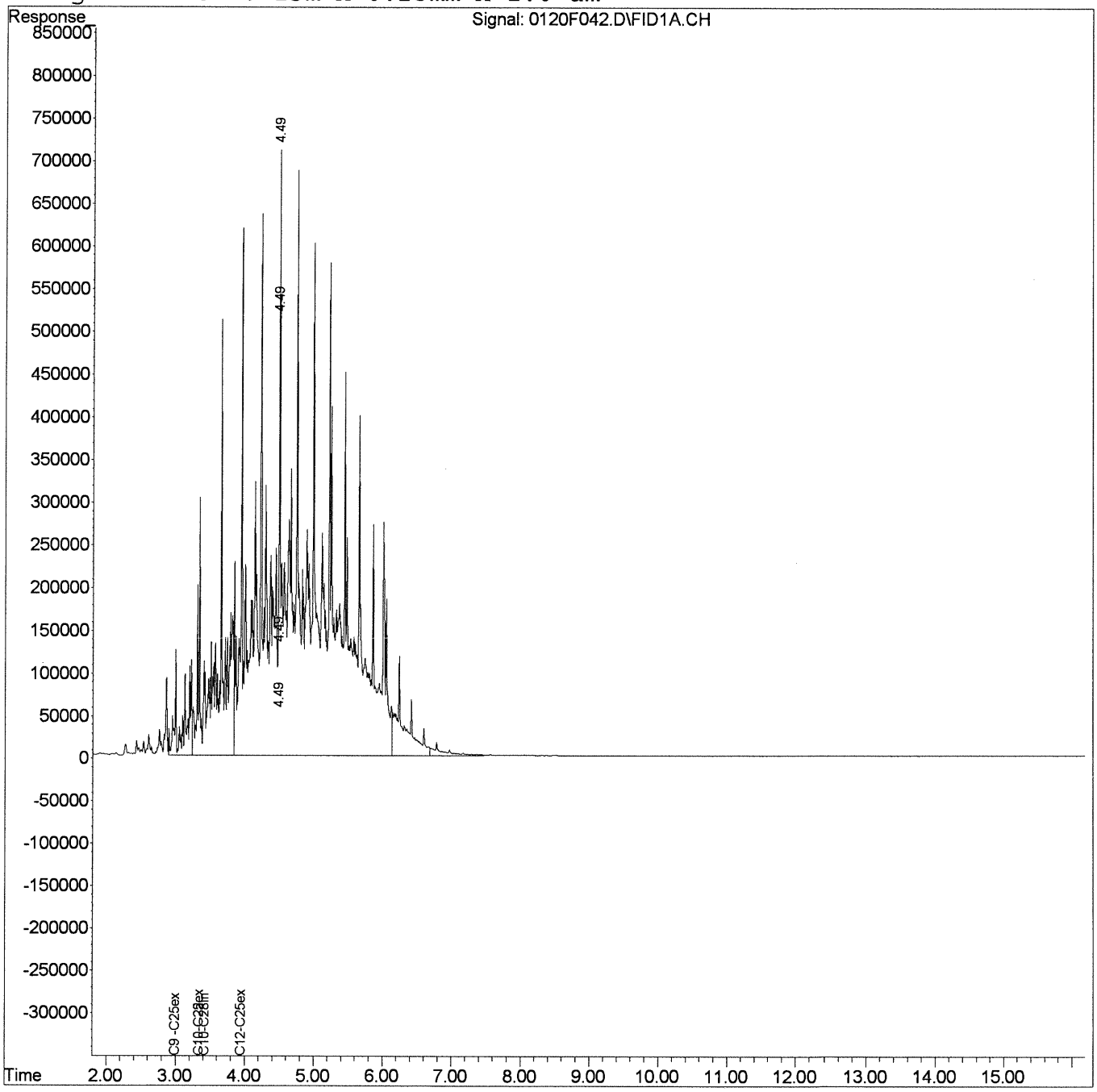
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F042.D Vial: 7
Acq On : 20 Jan 2016 5:35 pm Operator: CHARVEY
Sample : DRO 20000 SVF01-81C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:12 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F044.D Vial: 8
Acq On : 20 Jan 2016 5:57 pm Operator: CHARVEY
Sample : DRO 50000 SVF01-81B Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:12:57 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
Target Compounds						
4)	H	C9 -C25ex DRO [TPH-Diesel]	2.99	73765416	46113.019	ppm
5)	H	C10-C22ex DRO [AZ]	3.33	69405407	45876.184	ppm
6)	H	C10-C25ex DRO [AK102]	3.33	72007750	47250.870	ppm
7)	H	C10-C28in DRO [8015]	3.43	72458098	46981.726	ppm
8)	H	C12-C25ex DRO [NWTPH]	3.94	63494736	49570.410	ppm

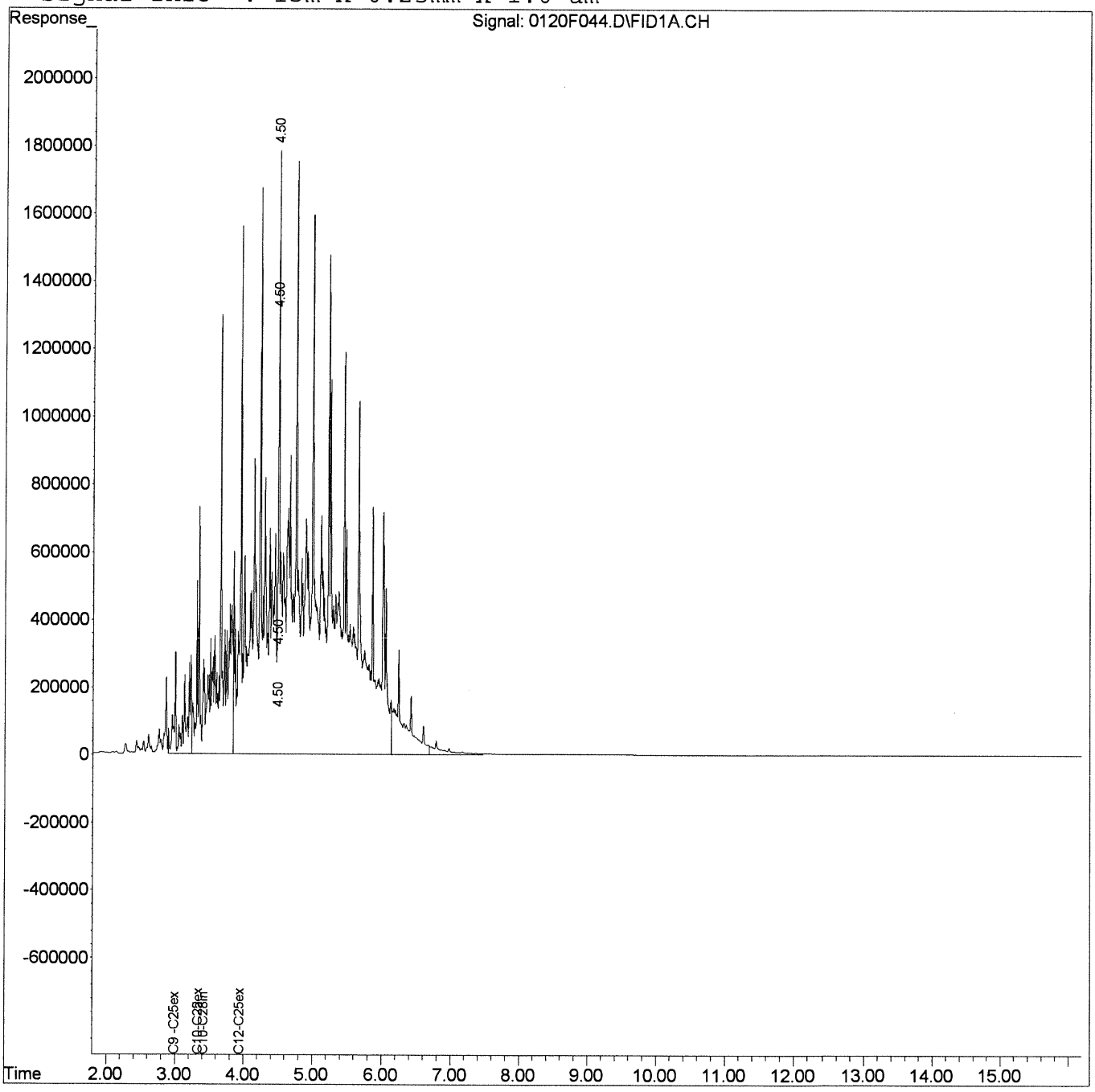
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F044.D Vial: 8
Acq On : 20 Jan 2016 5:57 pm Operator: CHARVEY
Sample : DRO 50000 SVF01-81B Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:13 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F048.D Vial: 9
Acq On : 20 Jan 2016 6:41 pm Operator: CHARVEY
Sample : DRO ICV 1000 SVF01-81J Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:38:28 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:23:10 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
Target Compounds						
4)	H	C9 -C25ex DRO [TPH-Diesel]	2.99	1490487	1061.870	ppm
5)	H	C10-C22ex DRO [AZ]	3.33	1374388	1052.739	ppm
6)	H	C10-C25ex DRO [AK102]	3.33	1438393	1054.644	ppm
7)	H	C10-C28in DRO [8015]	3.43	1451284	1040.707	ppm
8)	H	C12-C25ex DRO [NWTPH]	3.94	1230847	1052.401	ppm

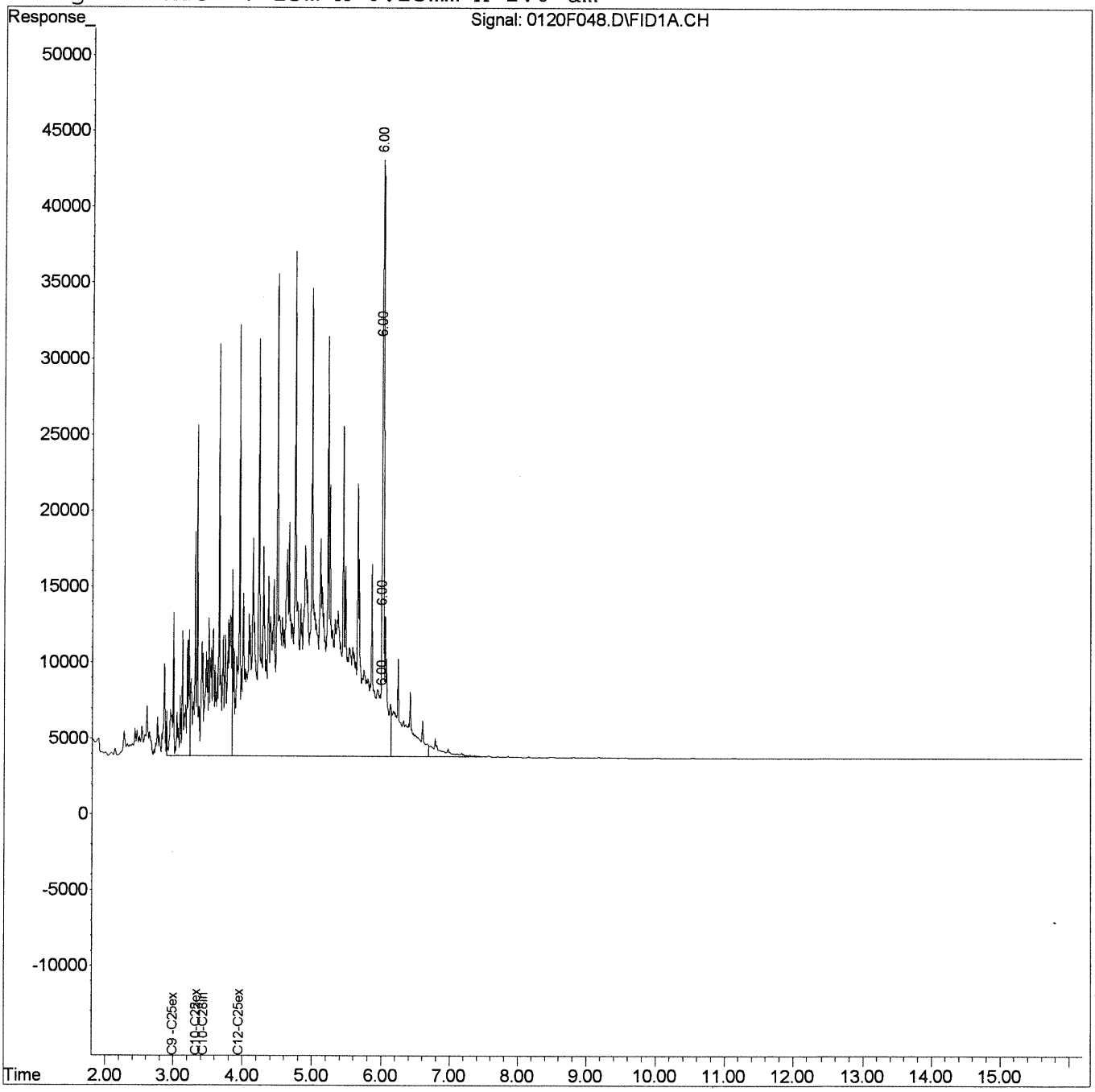
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F048.D Vial: 9
Acq On : 20 Jan 2016 6:41 pm Operator: CHARVEY
Sample : DRO ICV 1000 SVF01-81J Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:38 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:23:10 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F050.D Vial: 17
Acq On : 20 Jan 2016 7:03 pm Operator: CHARVEY
Sample : AK103 20 SVF01-82H Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:18:35 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
	Target Compounds				
11) H	C25-C36in RRO [AK103]	6.88	18085	21.347	ppm

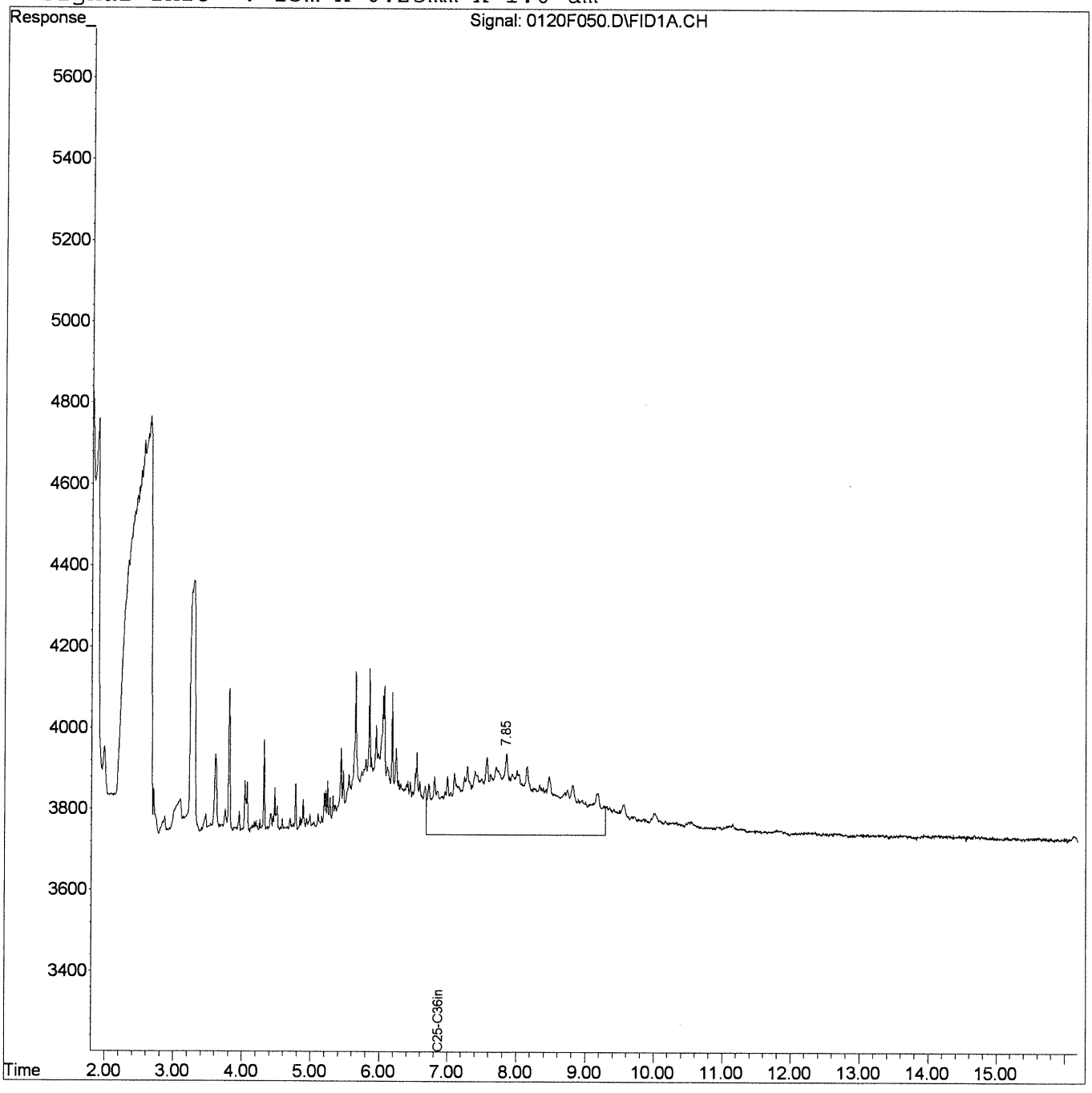
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F050.D Vial: 17
Acq On : 20 Jan 2016 7:03 pm Operator: CHARVEY
Sample : AK103 20 SVF01-82H Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:18 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F052.D Vial: 18
Acq On : 20 Jan 2016 7:26 pm Operator: CHARVEY
Sample : AK103 50 SVF01-82G Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:19:07 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

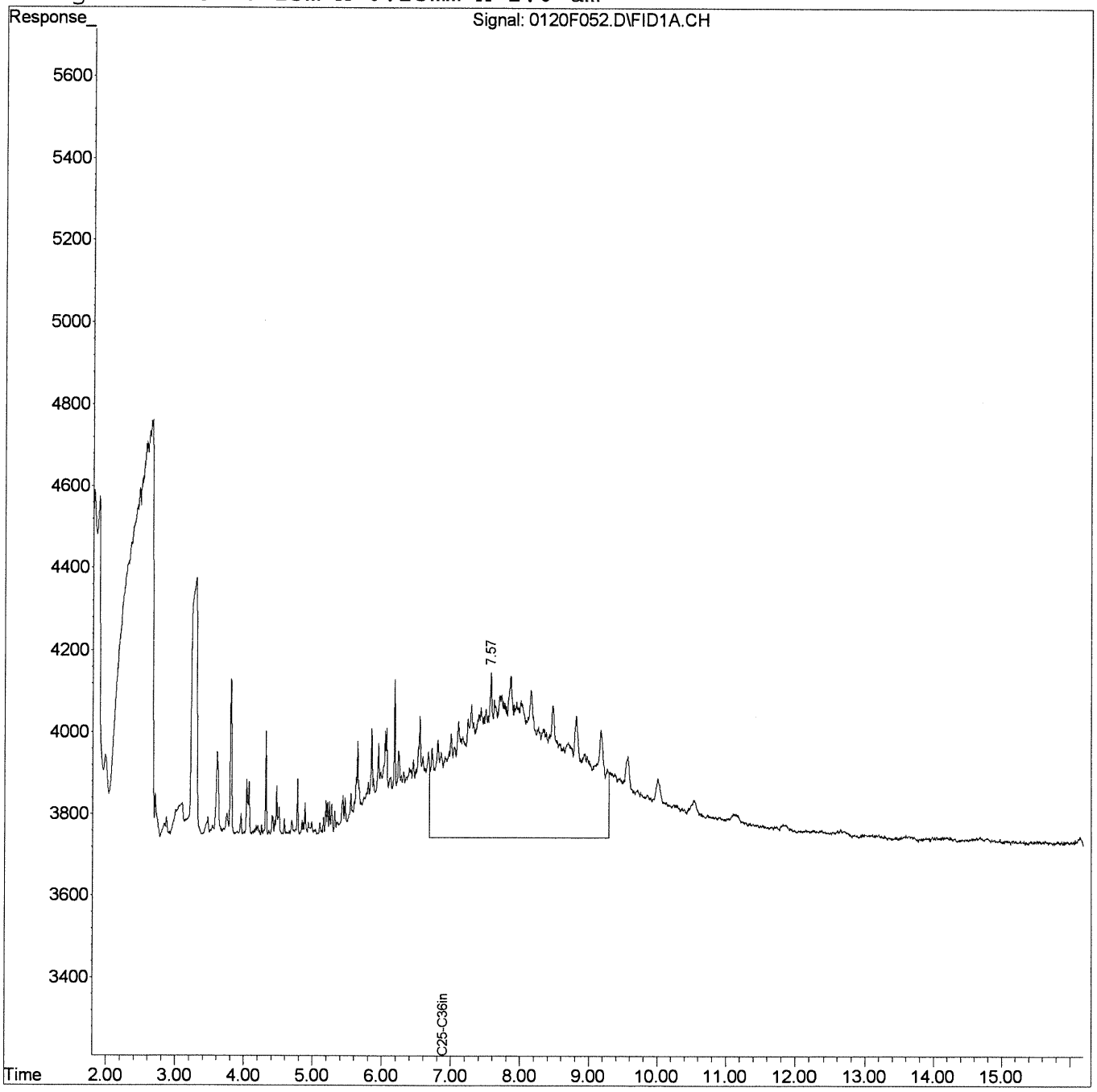
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
Target Compounds			
11) H C25-C36in RRO [AK103]	6.88	39584	46.724 ppm

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

Data File : J:\GC21\DATA\012016F\0120F052.D Vial: 18
Acq On : 20 Jan 2016 7:26 pm Operator: CHARVEY
Sample : AK103 50 SVF01-82G Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:19 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F054.D Vial: 19
Acq On : 20 Jan 2016 7:48 pm Operator: CHARVEY
Sample : AK103 200 SVF01-82F Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:19:37 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
11)	H C25-C36in RRO [AK103]	6.88	144944	171.087 ppm

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

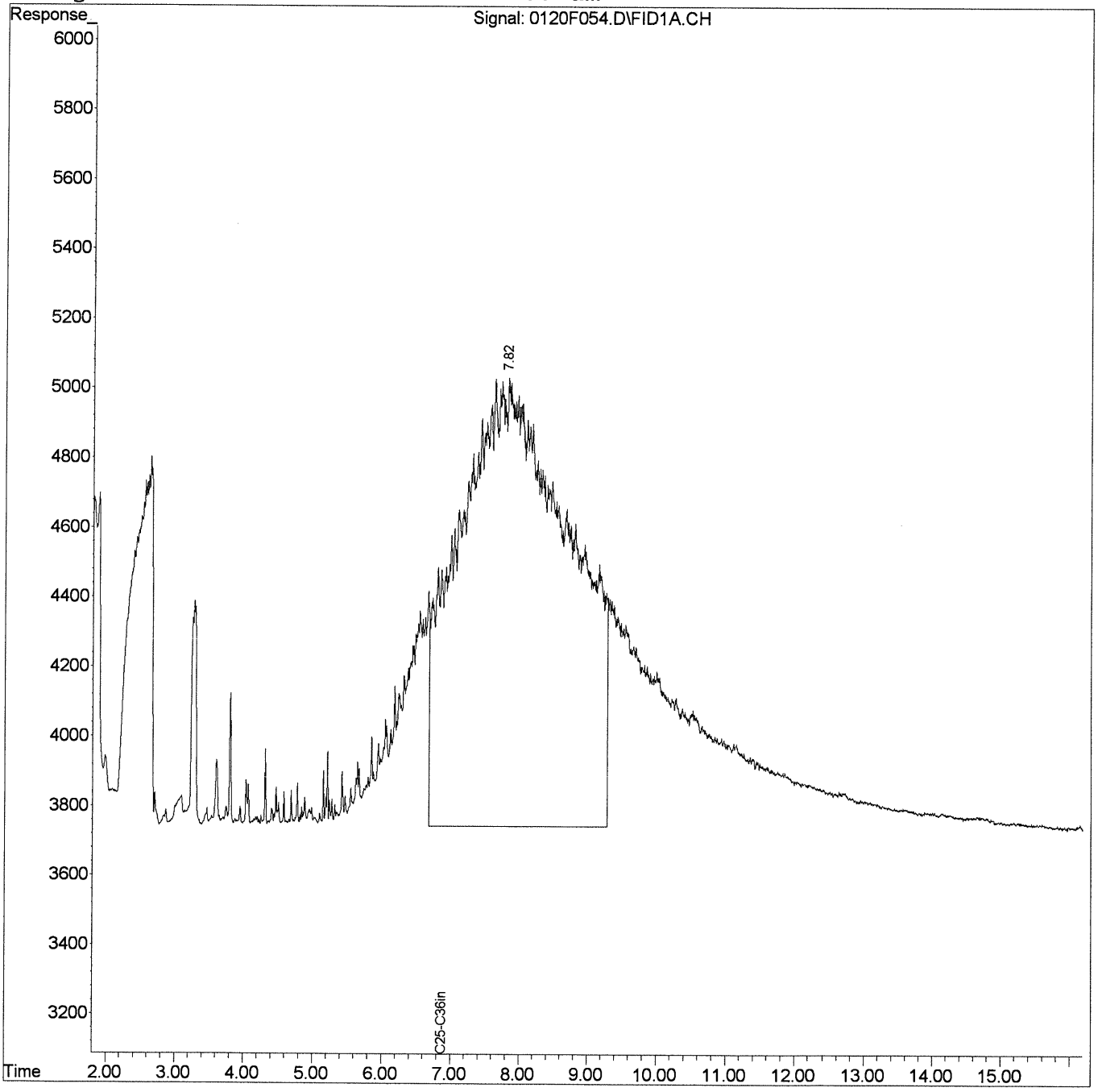
Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F054.D
Acq On : 20 Jan 2016 7:48 pm
Sample : AK103 200 SVF01-82F
Misc :
IntFile : rteint.p
Quant Time: Jan 21 9:19 2016 Quant Results File: 011916F.RES

Vial: 19
Operator: CHARVEY
Inst : GC21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F056.D Vial: 20
Acq On : 20 Jan 2016 8:10 pm Operator: CHARVEY
Sample : AK103 500 SVF01-82E Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:20:10 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
	Target Compounds				
11)	H C25-C36in RRO [AK103]	6.88	365877	431.868	ppm

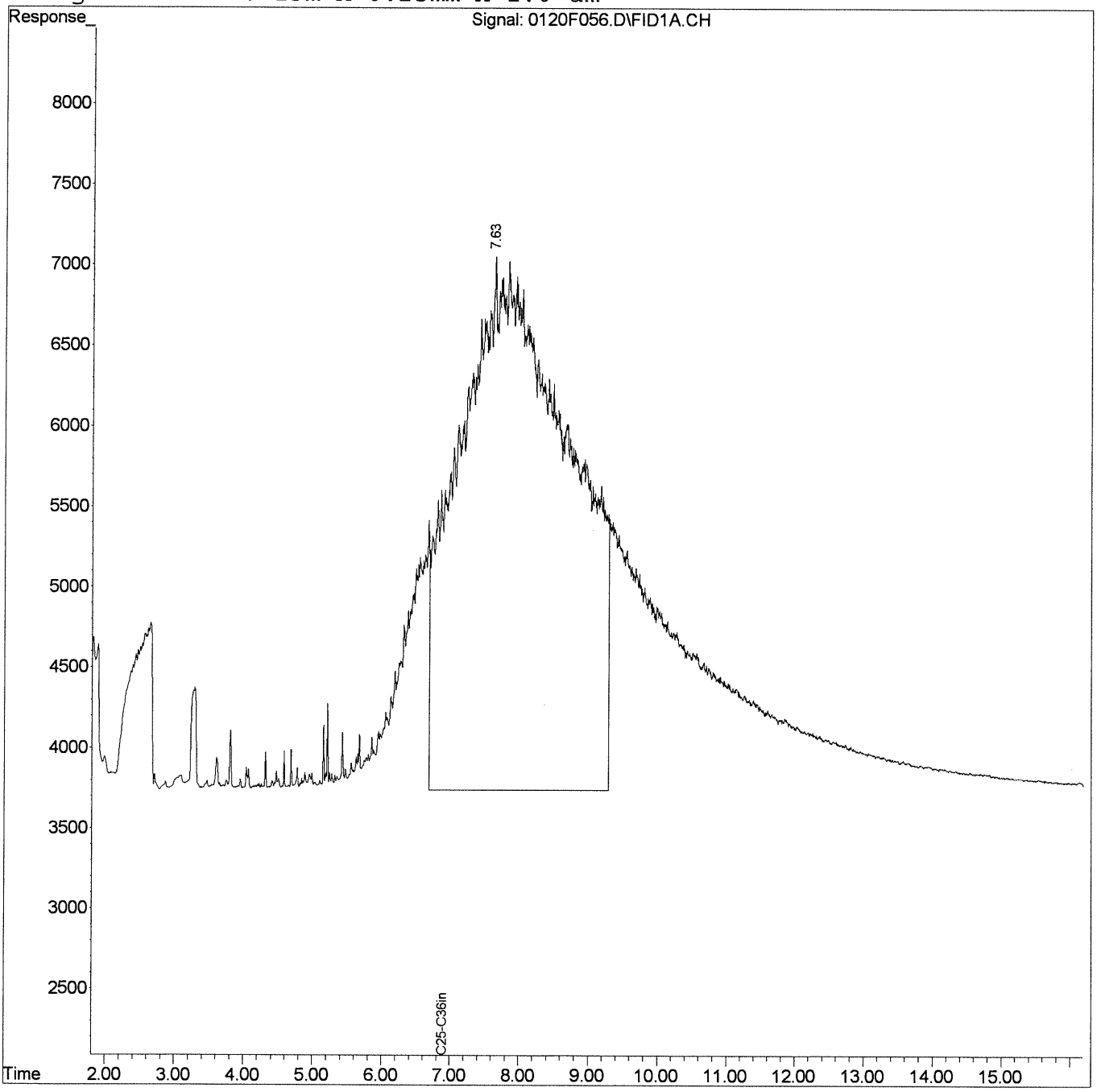
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F056.D Vial: 20
Acq On : 20 Jan 2016 8:10 pm Operator: CHARVEY
Sample : AK103 500 SVF01-82E Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:20 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F058.D Vial: 21
Acq On : 20 Jan 2016 8:32 pm Operator: CHARVEY
Sample : AK103 2000 SVF01-82D Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:20:37 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
	Target Compounds				
11)	H C25-C36in RRO [AK103]	6.88	1486588	1754.714	ppm

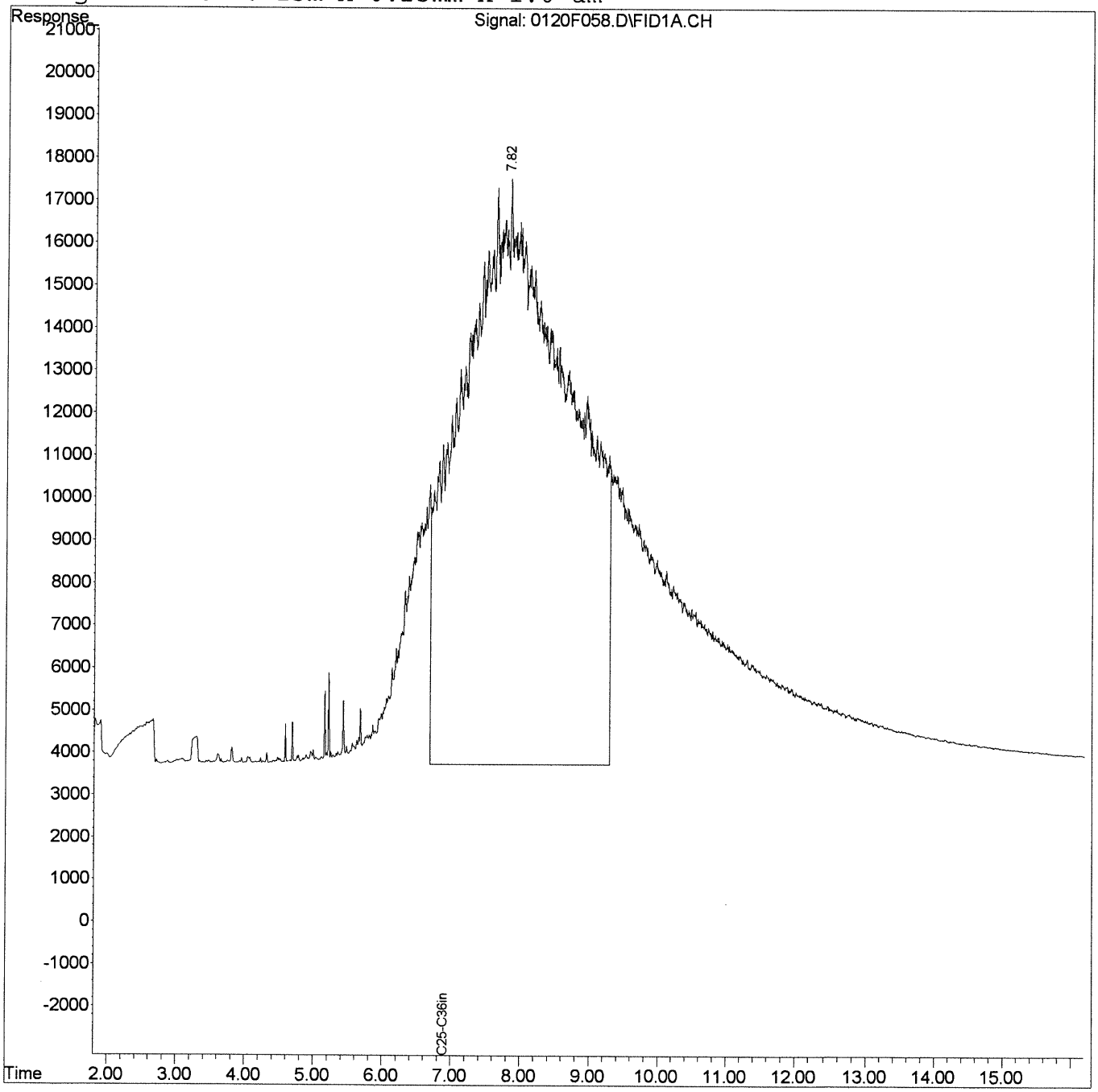
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F058.D Vial: 21
Acq On : 20 Jan 2016 8:32 pm Operator: CHARVEY
Sample : AK103 2000 SVF01-82D Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:20 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F060.D Vial: 22
Acq On : 20 Jan 2016 8:54 pm Operator: CHARVEY
Sample : AK103 5000 SVF01-82C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:20:57 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
	Target Compounds				
11)	H C25-C36in RRO [AK103]	6.88	3695608	4362.161	ppm

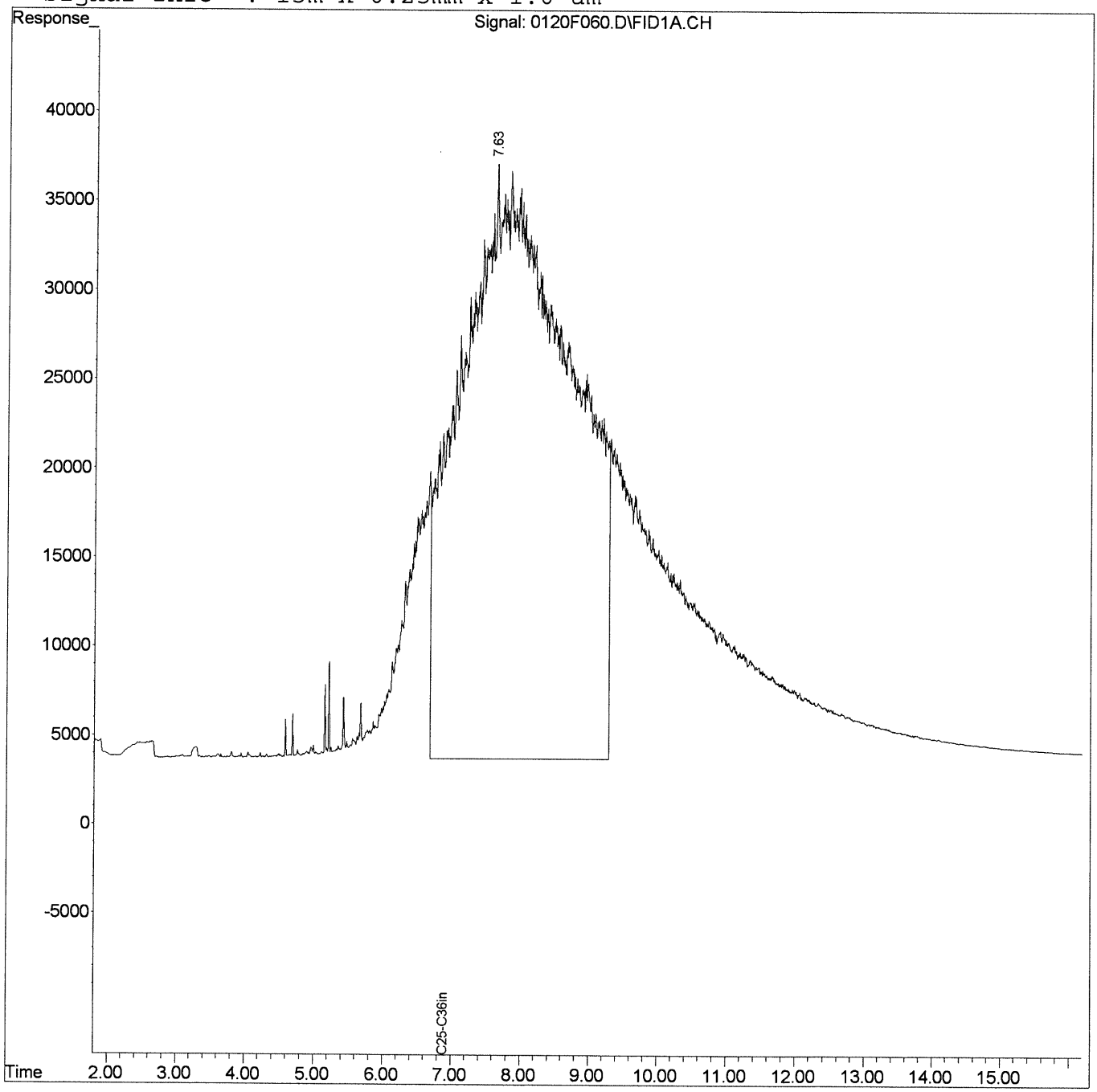
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F060.D Vial: 22
Acq On : 20 Jan 2016 8:54 pm Operator: CHARVEY
Sample : AK103 5000 SVF01-82C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:21 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F064.D Vial: 23
Acq On : 20 Jan 2016 9:38 pm Operator: CHARVEY
Sample : AK103 ICV 1000 SVF01-82J Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:39:13 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:23:10 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
	Target Compounds				
11)	H C25-C36in RRO [AK103]	6.88	753563	1009.984	ppm

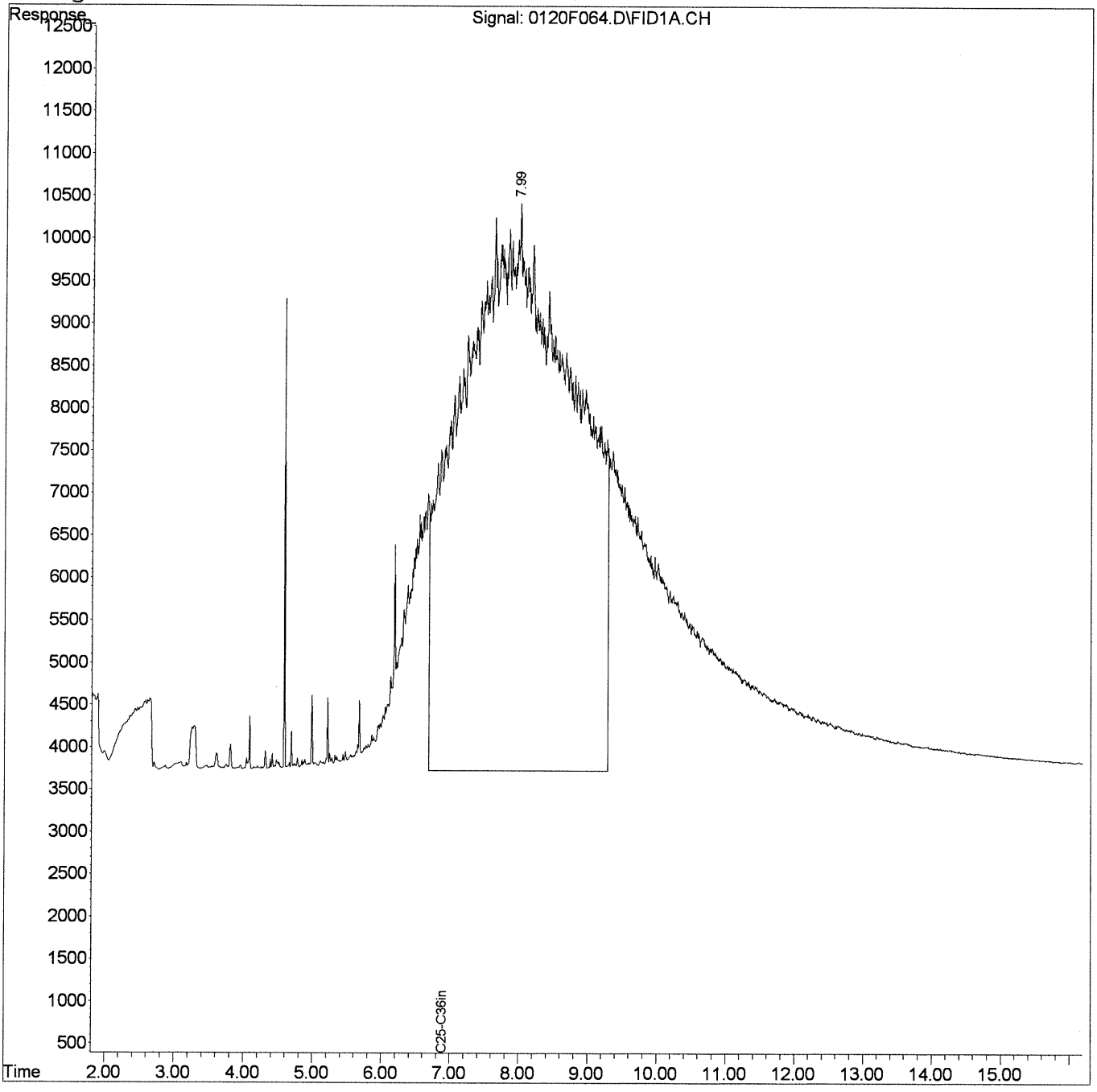
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F064.D Vial: 23
Acq On : 20 Jan 2016 9:38 pm Operator: CHARVEY
Sample : AK103 ICV 1000 SVF01-82J Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:39 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:23:10 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Preparation Information

Group ID:	KWG1603188	**Prep Method:**	EPA 3510C	**Prep Date:**	04/26/16 11:16
Department:	Semivoa GC				

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.
K1603690-001	NEDC I-5 Grab	NWTPH-Dx NW_TPH	WATER	940ml	2ml
K1604068-001	ERH029	8015C DRO RRO	WATER	460ml	1ml
K1604068-002	ERH030	8015C DRO RRO	WATER	495ml	1ml
K1604068-003	ERH031	8015C DRO RRO	WATER	485ml	1ml
K1604068-004	ERH032	8015C DRO RRO	WATER	480ml	1ml
K1604068-005	ERH033	8015C DRO RRO	WATER	495ml	1ml
K1604068-006	ERH034	8015C DRO RRO	WATER	480ml	1ml
K1604068-007	ERH035	8015C DRO RRO	WATER	465ml	1ml
K1604068-008	ERH036	8015C DRO RRO	WATER	485ml	1ml
KWG1603188-1	Matrix Spike	8015C DRO RRO	WATER	480ml	1ml
KWG1603188-2	Duplicate Matrix Spike	8015C DRO RRO	WATER	495ml	1ml
KWG1603188-3	Lab Control Sample	8015C DRO RRO	WATER	1000ml	2ml
KWG1603188-4	Method Blank	8015C DRO RRO	WATER	1000ml	2ml
KWG1603188-5	Duplicate Client Sample	NWTPH-Dx NW_TPH	WATER	940ml	2ml

Lab Code	Parent Lab Code	Comments
KWG1603188-1	K1604068-002	
KWG1603188-2	K1604068-002	
KWG1603188-5	K1603690-001	

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1603690-001	1512688					CPollard
K1604068-001	1512574					CPollard
K1604068-002	1512575					CPollard
K1604068-003	1512576					CPollard
K1604068-004	1512577					CPollard
K1604068-005	1512578					CPollard
K1604068-006	1512579					CPollard
K1604068-007	1512580					CPollard
K1604068-008	1512573					CPollard
KWG1603188-1	1512581					CPollard
KWG1603188-2	1512582					CPollard
KWG1603188-3	1512583					CPollard
KWG1603188-4	1512584					CPollard
KWG1603188-5	1512689					CPollard

Comments:

Started By: JJohnson Assisted By: Training: Yes / No

Completed By: KMiller Assisted By: Yes / No

Reviewed By: Date: 4/29/16 Storage:

Chain of Custody

Relinquished By: Date: 4.27.16

Received By: Date: 4/28/16 Extracts Examined: Yes / No

Preparation Information

WO 4126116 JJ
Hold: 4/26/16

Group ID:	KWG1603188	**Prep Method:**	EPA 3510C	**Prep Date:**	04/26/16 00:00
Department:	Semivoa GC				

Due: 4/21/16

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. mL	pH	Int. Vol.	Final Vol.	Surr. Added µL	Spike Added µL
1	K1603690-001	NEDC I-5 Grab (e)	.05	✓	NWTPH-Dx NW_TPH	WATER	940	KZ	NA	2	100	—
2	K1604068-001	ERH029	.08	✓	8015C DRO RRO	WATER	460	KZ		1		—
3	K1604068-002	ERH030	.08	✓	8015C DRO RRO	WATER	495	KZ		1		—
4	K1604068-003	ERH031	.08	✓	8015C DRO RRO	WATER	485	KZ		1		—
5	K1604068-004	ERH032	.08	✓	8015C DRO RRO	WATER	480	KZ		1		—
6	K1604068-005	ERH033	.08	✓	8015C DRO RRO	WATER	495	KZ		1		—
7	K1604068-006	ERH034	.08	✓	8015C DRO RRO	WATER	480	KZ		1		—
8	K1604068-007	ERH035	.08	✓	8015C DRO RRO	WATER	465	KZ		1		—
9	K1604068-008	ERH036	.08	✓	8015C DRO RRO	WATER	485	KZ		1		—
10	KWG1603188-1 4068-002	Matrix Spike	.11	✓	8015C DRO RRO	WATER	480	KZ		1		100
11	KWG1603188-2 4068-002	Duplicate Matrix Spike	.12	✓	8015C DRO RRO	WATER	495	KZ		1		
12	KWG1603188-3	Lab Control Sample	—		8015C DRO RRO	WATER	1000	KZ		2		
13	KWG1603188-4	Method Blank	—		8015C DRO RRO	WATER	1000	KZ		2		—
14	KWG1603188-5 3690-001 (A)	Duplicate Client Sample (e)	.18	✓	NWTPH-Dx NW_TPH	WATER	940	KZ	✓	2		—

Comments: (e)=Heavy emulsion — DRO Prep Run: 260142

(A) Sample Became Super foamy while S-Evaping, went to Near dryness. NW Prep Run: 260144
KZ 4-27-16

Surrogate ID: SUF01-80A XP: 5/24/16 500ppm 100uL (epp128)

Spike ID: SUF01-81A XP: 7/12/16 16000/8000ppm 100uL (epp128)

Witness: Kellar 4/26/16

Started By: JJohnson — Assisted By:

Completed By: — Assisted By:

Additional Prep Information for EPA 3510C
Fuel Hydrocarbons in Water

Service Request # K1604068, 3690 **Work Group #** KWG1603188

DCM Lot # DP022 HCl Lot # 54128

Extraction Start (time/date/initial): 11:16 4/26/16 JJ

Extraction Stop (time/date/initial): 12:20 4/26/16 JJ

Sulfate Lot # 153214 Glass Wool Lot # 30714002

S-Evap (time/date/initial): 10:30 4-27-16 K S-Evap Thermometer ID: XSVM006

Temp as measured: 75 °C Correction factor: 0 °C Adjusted temp: 75 °C

N-Evap (time/date/initial): 12:30 4-27-16 K N-Evap Thermometer ID: XSVM001

Temp as measured: 32 °C Correction factor: 0 °C Adjusted temp: 32 °C

Sulfuric Acid Clean-up (3665) (time/date/initial): — Acid Lot #:

Silica Gel Clean-up (3630) (time/date/initial): — Silica Gel Lot #:

Pipette (5 mL) Lot # — Pipette (2 mL) Lot # 05615645 Pipette (1 mL) Lot # 22215646

Vial: White Vial Storage: Fuel Box

Archived Extract Storage: Caged wisdom (QC + 3690)

Additional Comments:

Bench Sheet Review Check List	
☑	Hold times met (if no, reason:)
☑	Prep date, time, method, department, product code correct in stealth
☑	Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
☑	Weights/Volumes and units correct on raw and final bench sheets
☑	Sample IDs have been checked - bottle numbers appended if required
☑	Names present for: started by, completed by, relinquished by, and witnessed by. Training circled.
☑	Extract storage recorded
☑	Additional prep sheet completely filled out (NA or line out blanks)
☑	All clean-ups have been noted on additional prep sheet
☑	Signed service request with Form V, if applicable, has been attached

DILUTION LOG

LAB ID	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	DATE	ANALYST	DCM SOLVENT LOT	COMMENTS
3690-1	200ul	1ml	5x	042816	JMS	DN388	BROWN
↓ -1DUP							

Injection Log

Directory: J:\GC21\DATA\042916F

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	90	0429F002.D	1.	DCM		04/29/22016 10:1
2	90	0429F004.D	1.	DCM		04/29/22016 10:3
3	100	0429F006.D	1.	MC252 PRIMER		04/29/22016 10:5
4	91	0429F008.D	1.	ALIPHATICS MARKER SVF01-75G		04/29/22016 11:2
5	97	0429F010.D	1.	RRO 1000 SVF01-84L		04/29/22016 11:4
6	96	0429F012.D	1.	DRO 1000/50 SVF01-80C		04/29/22016 12:0
7	87	0429F014.D	1.	IB		04/29/22016 12:2
8	92	0429F016.D	1.	AROMATICS MARKER SVF01-75I		04/29/22016 12:4
9	93	0429F018.D	1.	PAH MARKER SVF01-75J		04/29/22016 1:11
10	1	0429F020.D	1.	K1604292-003 10X		04/29/22016 1:33
11	2	0429F022.D	1.	K1604292-001 10X		04/29/22016 1:55
12	3	0429F024.D	1.	KWG1603265-2LCS SGT		04/29/22016 2:17
13	4	0429F026.D	1.	KWG1603265-3DLCS SGT		04/29/22016 2:39
14	5	0429F028.D	1.	KWG1603265-4MB SGT		04/29/22016 3:01
15	6	0429F030.D	1.	K1604325-001SGT - ~~DRO 20X~~ OK	SVI 5/2/16 EE	04/29/22016 3:23
16	7	0429F032.D	1.	K1604325-001DUPSGT - +	run # 493807	04/29/22016 3:45
17	8	0429F034.D	1.	K1603244-2LCS SGT	KWG1603375	04/29/22016 4:07
18	9	0429F036.D	1.	K1603244-3MB SGT	Cal # 14548	04/29/22016 4:29
19	10	0429F038.D	1.	K1603943-001SGT		04/29/22016 4:51
20	11	0429F040.D	1.	K1604292-002SGT		04/29/22016 5:13
21	12	0429F042.D	1.	K1604292-002DUP SGT		04/29/22016 5:35
22	97	0429F044.D	1.	RRO@1000 SVF01-84L		04/29/22016 5:57
23	96	0429F046.D	1.	DRO@1000/50 SVF01-80C		04/29/22016 6:19
24	87	0429F048.D	1.	IB		04/29/22016 6:41
25	13	0429F050.D	1.	K1604068-001		04/29/22016 7:03
26	14	0429F052.D	1.	K1604068-002		04/29/22016 7:25
27	15	0429F054.D	1.	K1604068-002MS		04/29/22016 7:47
28	16	0429F056.D	1.	K1604068-002DMS		04/29/22016 8:09
29	17	0429F058.D	1.	K1604068-003		04/29/22016 8:31
30	18	0429F060.D	1.	K1604068-004		04/29/22016 8:53
31	19	0429F062.D	1.	K1604068-005		04/29/22016 9:15
32	20	0429F064.D	1.	K1604068-006		04/29/22016 9:37
33	21	0429F066.D	1.	K1604068-007		04/29/22016 9:59
34	22	0429F068.D	1.	K1604068-008		04/29/22016 10:2
35	97	0429F070.D	1.	RRO@1000 SVF01-84L		04/29/22016 10:4
36	96	0429F072.D	1.	DRO@1000/50 SVF01-80C		04/29/22016 11:0
37	87	0429F074.D	1.	IB		04/29/22016 11:2
38	23	0429F076.D	1.	K1603852-001		04/29/22016 11:5
39	24	0429F078.D	1.	K1603852-002		04/30/22016 12:1
40	25	0429F080.D	1.	K1603859-010		04/30/22016 12:3
41	26	0429F082.D	1.	K1603859-011 5X		04/30/22016 12:5
42	27	0429F084.D	1.	K1603859-007 10X		04/30/22016 1:18
43	28	0429F086.D	1.	K1603859-008 10X		04/30/22016 1:40
44	29	0429F088.D	1.	K1603859-014 10X		04/30/22016 2:02
45	30	0429F090.D	1.	K1603859-001 10X		04/30/22016 2:24
46	31	0429F092.D	1.	K1603859-002 10X		04/30/22016 2:46
47	32	0429F094.D	1.	K1603859-003 10X		04/30/22016 3:08
48	97	0429F096.D	1.	RRO@1000 SVF01-84L		04/30/22016 3:30
49	96	0429F098.D	1.	DRO@1000/50 SVF01-80C		04/30/22016 3:52
50	87	0429F100.D	1.	IB		04/30/22016 4:14
51	90	0429F102.D	1.	DCM		04/30/22016 4:36
52	90	0429F104.D	1.	DCM		04/30/22016 4:58
53	90	0429F106.D	1.	DCM		04/30/22016 5:20
54	90	0429F108.D	1.	DCM		04/30/22016 5:42
55	90	0429F110.D	1.	DCM		04/30/22016 6:04

Injection Log

Directory: J:\GC21\DATA\012016F

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	90	0120F002.D	1.	DCM		01/20/22016 9:25
2	90	0120F004.D	1.	DCM		01/20/22016 9:47
3	92	0120F006.D	1.	AROMATICS MARKER SVF01-75I		01/20/22016 10:0
4	93	0120F008.D	1.	PAH MARKER SVF01-75J		01/20/22016 10:3
5	91	0120F010.D	1.	ALIPHATICS MARKER SVF01-75G		01/20/22016 10:5
6	87	0120F012.D	1.	IB - not used. used 0120FZ12.D		01/20/22016 11:3
7	10	0120F014.D	1.	RRO 20 SVF01-81Q		01/20/22016 12:2
8	11	0120F016.D	1.	RRO 50 SVF01-81P		01/20/22016 12:4
9	12	0120F018.D	1.	RRO 200 SVF01-81O		01/20/22016 1:08
10	13	0120F020.D	1.	RRO 500 SVF01-81N		01/20/22016 1:31
11	14	0120F022.D	1.	RRO 2000 SVF01-81M		01/20/22016 1:53
12	15	0120F024.D	1.	RRO 5000 SVF01-81L		01/20/22016 2:16
13	87	0120F026.D	1.	IB		01/20/22016 2:38
14	16	0120F028.D	1.	RRO ICV 1000 SVF01-82B		01/20/22016 3:00
15	1	0120F030.D	1.	DRO/SURR 20/1.0 SVF01-81I		01/20/22016 3:22
16	2	0120F032.D	1.	DRO/SURR 50/2.5 SVF01-81H		01/20/22016 3:44
17	3	0120F034.D	1.	DRO/ SURR 200/10 SVF01-81G		01/20/22016 4:07
18	4	0120F036.D	1.	DRO/ SURR 500/25 SVF01-81F		01/20/22016 4:29
19	5	0120F038.D	1.	DRO/ SURR 2000/100 SVF01-81E		01/20/22016 4:51
20	6	0120F040.D	1.	DRO/ SURR 5000/250 SVF01-81D	Cal# 14548	01/20/22016 5:13
21	7	0120F042.D	1.	DRO 20000 SVF01-81C		01/20/22016 5:35
22	8	0120F044.D	1.	DRO 50000 SVF01-81B		01/20/22016 5:57
23	87	0120F046.D	1.	IB	CH 1/21/16	01/20/22016 6:19
24	9	0120F048.D	1.	DRO ICV 1000 SVF01-81J		01/20/22016 6:41
25	17	0120F050.D	1.	AK103 20 SVF01-82H		01/20/22016 7:03
26	18	0120F052.D	1.	AK103 50 SVF01-82G		01/20/22016 7:26
27	19	0120F054.D	1.	AK103 200 SVF01-82F	MM 1/21/16	01/20/22016 7:48
28	20	0120F056.D	1.	AK103 500 SVF01-82E		01/20/22016 8:10
29	21	0120F058.D	1.	AK103 2000 SVF01-82D		01/20/22016 8:32
30	22	0120F060.D	1.	AK103 5000 SVF01-82C		01/20/22016 8:54
31	87	0120F062.D	1.	IB		01/20/22016 9:16
32	23	0120F064.D	1.	AK103 ICV 1000 SVF01-82J		01/20/22016 9:38
33	90	0120F066.D	1.	DCM		01/20/22016 10:0
34	90	0120F068.D	1.	DCM		01/20/22016 10:2
35	90	0120F070.D	1.	DCM		01/20/22016 10:4
36	90	0120F072.D	1.	DCM		01/20/22016 11:0
37	90	0120F074.D	1.	DCM		01/20/22016 11:2
38	90	0120F076.D	1.	DCM		01/20/22016 11:5
39	90	0120F078.D	1.	DCM		01/21/22016 12:1
40	90	0120F080.D	1.	DCM		01/21/22016 12:3
41	90	0120F082.D	1.	DCM		01/21/22016 12:5
42	90	0120F084.D	1.	DCM		01/21/22016 1:20
43	90	0120F086.D	1.	DCM		01/21/22016 1:42
44	90	0120F088.D	1.	DCM		01/21/22016 2:04
45	90	0120F090.D	1.	DCM		01/21/22016 2:26
46	90	0120F092.D	1.	DCM		01/21/22016 2:49
47	90	0120F094.D	1.	DCM		01/21/22016 3:11
48	90	0120F096.D	1.	DCM		01/21/22016 3:33
49	90	0120F098.D	1.	DCM		01/21/22016 3:55
50	90	0120F100.D	1.	DCM		01/21/22016 4:17
51	90	0120F102.D	1.	DCM		01/21/22016 4:39
52	90	0120F104.D	1.	DCM		01/21/22016 5:01
53	90	0120F106.D	1.	DCM		01/21/22016 5:24
54	90	0120F108.D	1.	DCM		01/21/22016 5:46
55	90	0120F110.D	1.	DCM		01/21/22016 6:08

Injection Log

Directory: J:\GC21\DATA\012016F

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
56	90	0120F112.D	1.	DCM		01/21/22016 6:3C
57	90	0120F114.D	1.	DCM		01/21/22016 6:52
58	90	0120F116.D	1.	DCM		01/21/22016 7:14
59	90	0120F118.D	1.	DCM		01/21/22016 7:36
60	90	0120F120.D	1.	DCM		01/21/22016 7:58
61	90	0120F122.D	1.	DCM		01/21/22016 8:2C
62	90	0120F124.D	1.	DCM		01/21/22016 8:43
63	90	0120F126.D	1.	DCM		01/21/22016 9:05
64	90	0120F128.D	1.	DCM		01/21/22016 9:27
65	90	0120F130.D	1.	DCM		01/21/22016 9:49
66	87	0120FZ12.D	1.	IB		01/20/22016 12:0:

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\012016F\0120F006.D Vial: 92
Acq On : 20 Jan 2016 10:09 am Operator: CHARVEY
Sample : AROMATICS MARKER SVF01-75I Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 10:11:41 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Thu Jan 21 09:23:10 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
		Target Compounds				
4)	H	C9 -C25ex DRO [TPH-Diesel]	2.99	4760987	3391.877	ppm
5)	H	C10-C22ex DRO [AZ]	3.33	4704243	3603.307	ppm
6)	H	C10-C25ex DRO [AK102]	3.33	4705232	3449.922	ppm
7)	H	C10-C28in DRO [8015]	3.43	4707335	3375.601	ppm
8)	H	C12-C25ex DRO [NWTPH]	3.94	20071	17.161	ppm
9)	H	C22-C32in RRO [AZ]	6.23	5046	13.171	ppm
10)	H	C25-C36in RRO [NWTPH]	6.78	6362	10.345	ppm
11)	H	C25-C36in RRO [AK103]	6.88	6362	8.527	ppm
12)	H	C25-C44in RRO [TPH-Oil]	6.98	14346	13.261	ppm

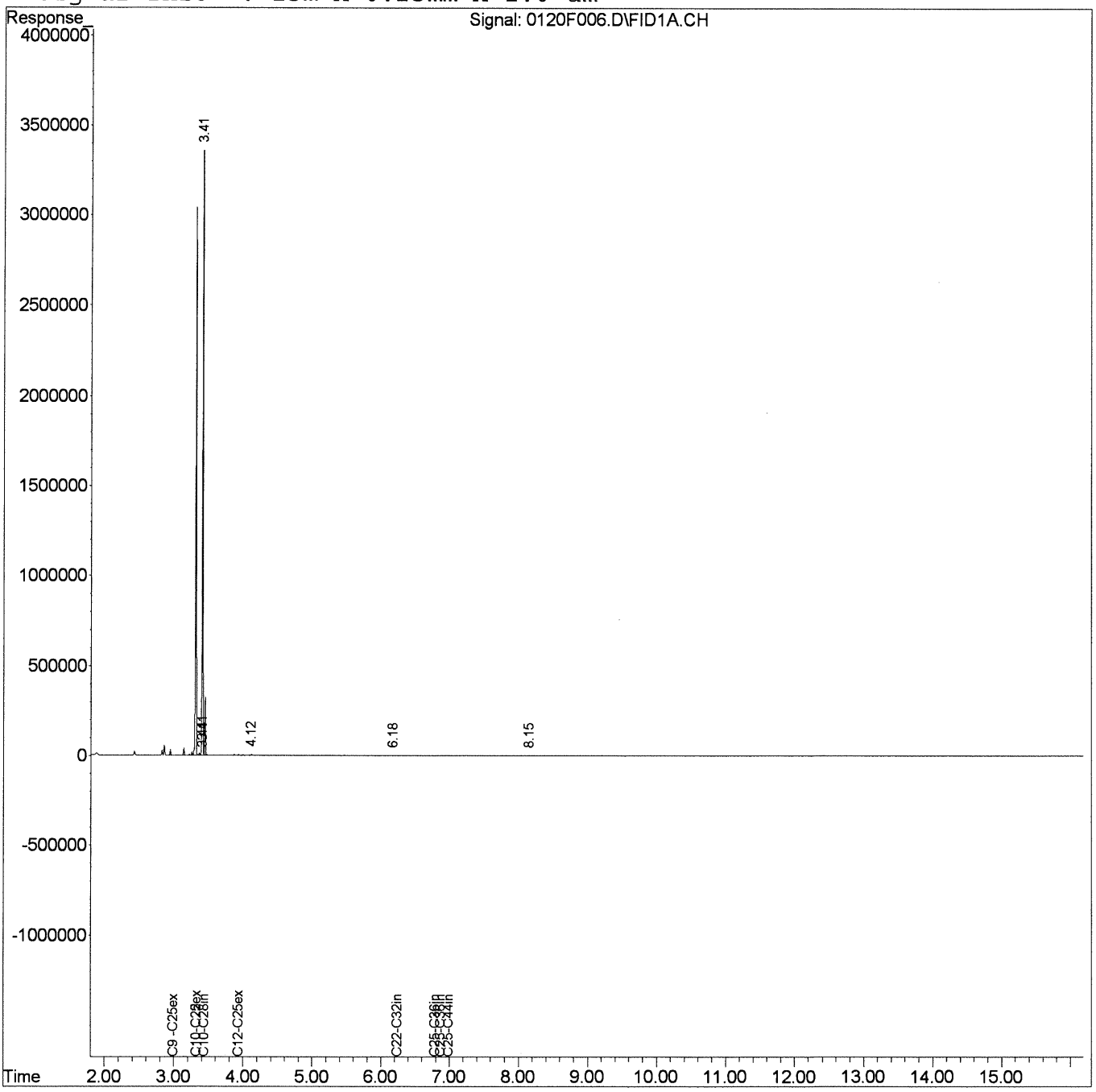
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\012016F\0120F006.D Vial: 92
Acq On : 20 Jan 2016 10:09 am Operator: CHARVEY
Sample : AROMATICS MARKER SVF01-75I Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 10:11 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Thu Jan 21 09:23:10 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\012016F\0120F008.D Vial: 93
Acq On : 20 Jan 2016 10:31 am Operator: CHARVEY
Sample : PAH MARKER SVF01-75J Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 10:11:46 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Thu Jan 21 09:23:10 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

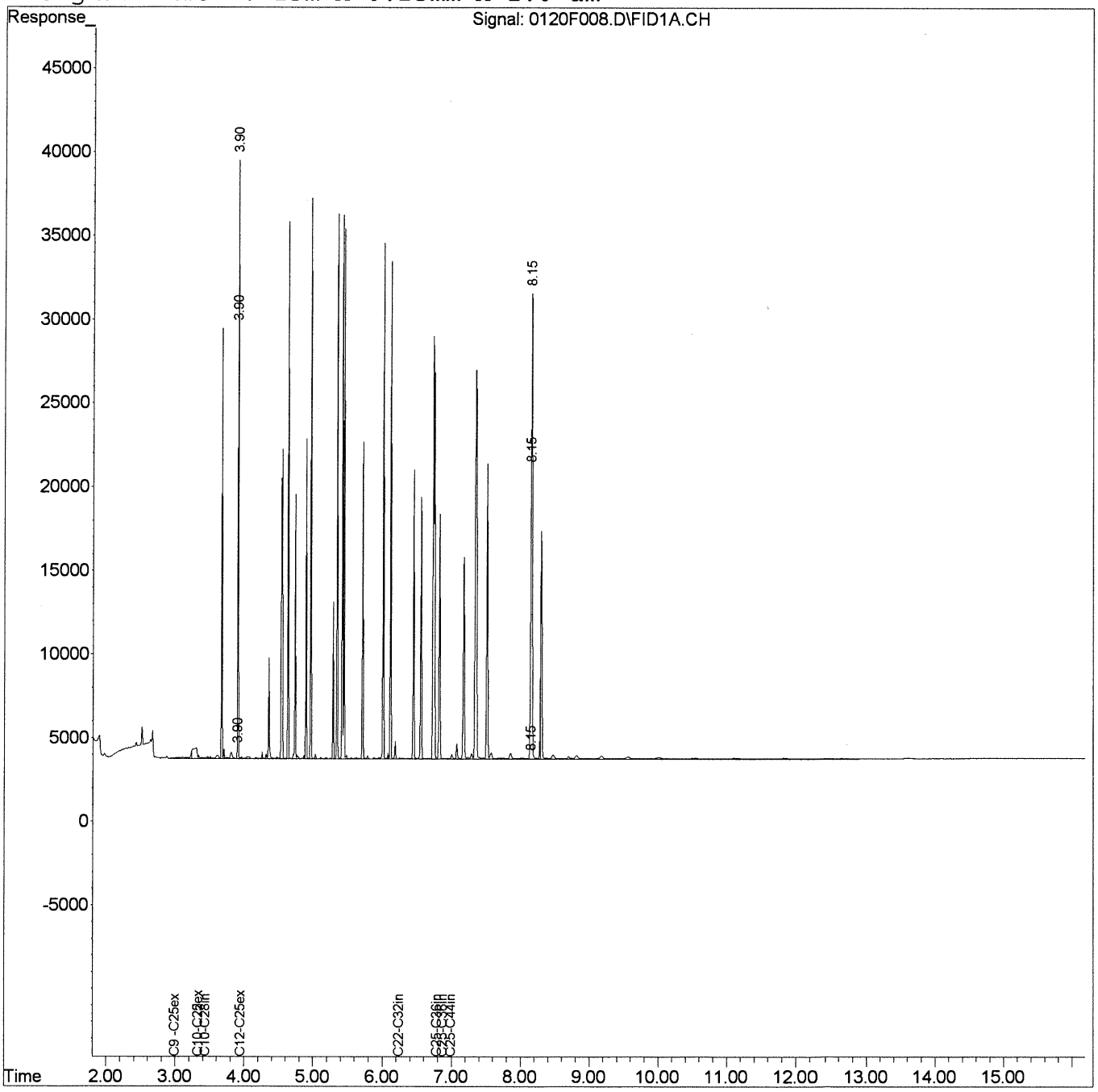
		Compound	R.T.	Response	Conc	Units
		System Monitoring Compounds				
		Target Compounds				
4)	H	C9 -C25ex DRO [TPH-Diesel]	2.99	298976	213.000	ppm
5)	H	C10-C22ex DRO [AZ]	3.33	267226	204.687	ppm
6)	H	C10-C25ex DRO [AK102]	3.33	297643	218.235	ppm
7)	H	C10-C28in DRO [8015]	3.43	410179	294.137	ppm
8)	H	C12-C25ex DRO [NWTPH]	3.94	276554	236.460	ppm
9)	H	C22-C32in RRO [AZ]	6.23	203991	532.473	ppm
10)	H	C25-C36in RRO [NWTPH]	6.78	193679	314.933	ppm
11)	H	C25-C36in RRO [AK103]	6.88	193679	259.584	ppm
12)	H	C25-C44in RRO [TPH-Oil]	6.98	201331	186.108	ppm

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

Data File : J:\GC21\DATA\012016F\0120F008.D Vial: 93
Acq On : 20 Jan 2016 10:31 am Operator: CHARVEY
Sample : PAH MARKER SVF01-75J Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 10:11 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Thu Jan 21 09:23:10 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\012016F\0120F010.D Vial: 91
Acq On : 20 Jan 2016 10:53 am Operator: CHARVEY
Sample : ALIPHATICS MARKER SVF01-75G Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 10:11:51 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Thu Jan 21 09:23:10 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	4-Bromofluorobenzene	2.99f	43611	59.723	ppm
Spiked Amount	50.000	Recovery	=	119.45%	
2) S	o-Terphenyl	5.65f	44609	30.004	ppm
Spiked Amount	50.000	Recovery	=	60.01%	
3) S	n-Triacontane	7.76	40611	32.016	ppm
Spiked Amount	50.000	Recovery	=	64.03%	
	Target Compounds				
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	753959	537.144	ppm
5) H	C10-C22ex DRO [AZ]	3.33	615754	471.649	ppm
6) H	C10-C25ex DRO [AK102]	3.33	752530	551.762	ppm
7) H	C10-C28in DRO [8015]	3.43	925219	663.469	ppm
8) H	C12-C25ex DRO [NWTPH]	3.94	659815	564.156	ppm
9) H	C22-C32in RRO [AZ]	6.23	476031	1242.573	ppm
10) H	C25-C36in RRO [NWTPH]	6.78	511913	832.400	ppm
11) H	C25-C36in RRO [AK103]	6.88	511913	686.106	ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	736021	680.369	ppm

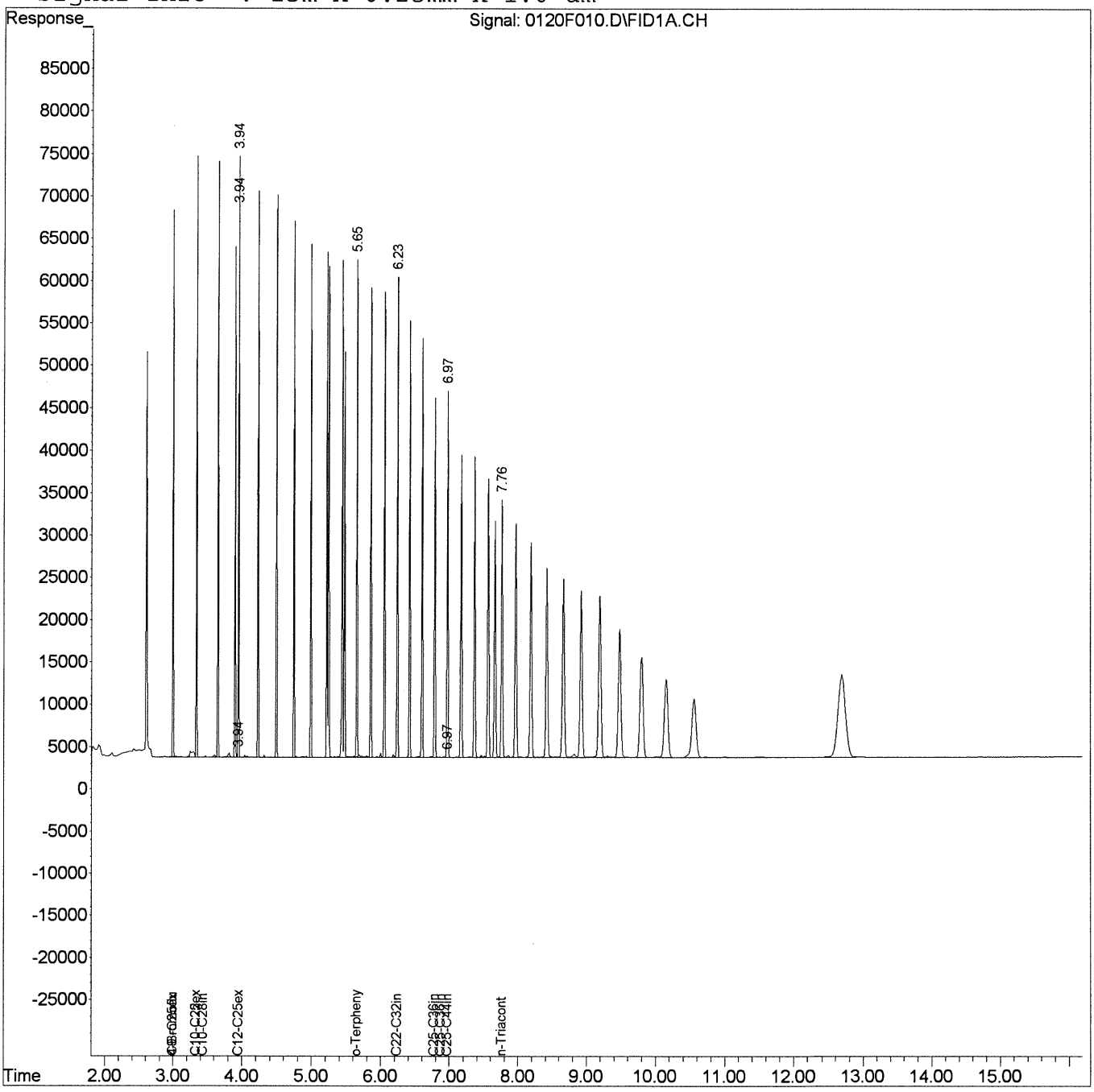
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : J:\GC21\DATA\012016F\0120F010.D Vial: 91
Acq On : 20 Jan 2016 10:53 am Operator: CHARVEY
Sample : ALIPHATICS MARKER SVF01-75G Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 10:11 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL 14548
Last Update : Thu Jan 21 09:23:10 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120FZ12.D Vial: 87
Acq On : 20 Jan 2016 12:02 pm Operator: CHARVEY
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 10:07:51 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:23:10 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
Target Compounds						
4)	H	C9 -C25ex DRO [TPH-Diesel]	2.99	7911	5.636	ppm
5)	H	C10-C22ex DRO [AZ]	3.33	6351	4.865	ppm
6)	H	C10-C25ex DRO [AK102]	3.33	6934	5.084	ppm
7)	H	C10-C28in DRO [8015]	3.43	8415	6.034	ppm
8)	H	C12-C25ex DRO [NWTPH]	3.94	3116	2.664	ppm
9)	H	C22-C32in RRO [AZ]	6.23	3463	9.039	ppm
10)	H	C25-C36in RRO [NWTPH]	6.78	4769	7.755	ppm
11)	H	C25-C36in RRO [AK103]	6.88	4769	6.392	ppm
12)	H	C25-C44in RRO [TPH-Oil]	6.98	10753	9.940	ppm

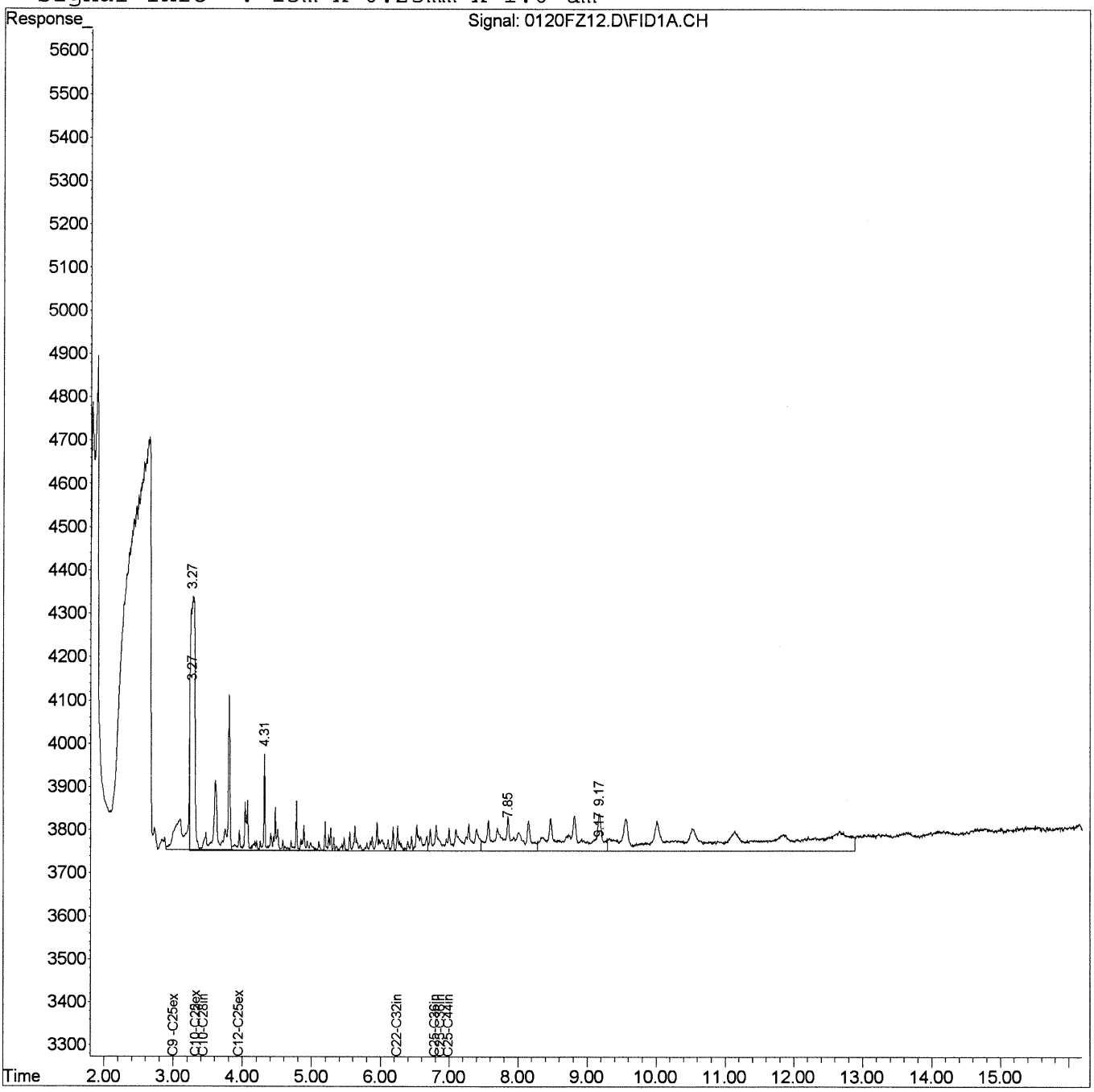
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120FZ12.D Vial: 87
Acq On : 20 Jan 2016 12:02 pm Operator: CHARVEY
Sample : IB Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 10:07 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:23:10 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F014.D Vial: 10
Acq On : 20 Jan 2016 12:24 pm Operator: CHARVEY
Sample : RRO 20 SVF01-81Q Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 13:17:36 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
9) H	C22-C32in RRO [AZ]	6.23	10205	23.741 ppm
10) H	C25-C36in RRO [NWTPH]	6.78	15456	22.486 ppm
12) H	C25-C44in RRO [TPH-Oil]	6.98	28418	23.277 ppm

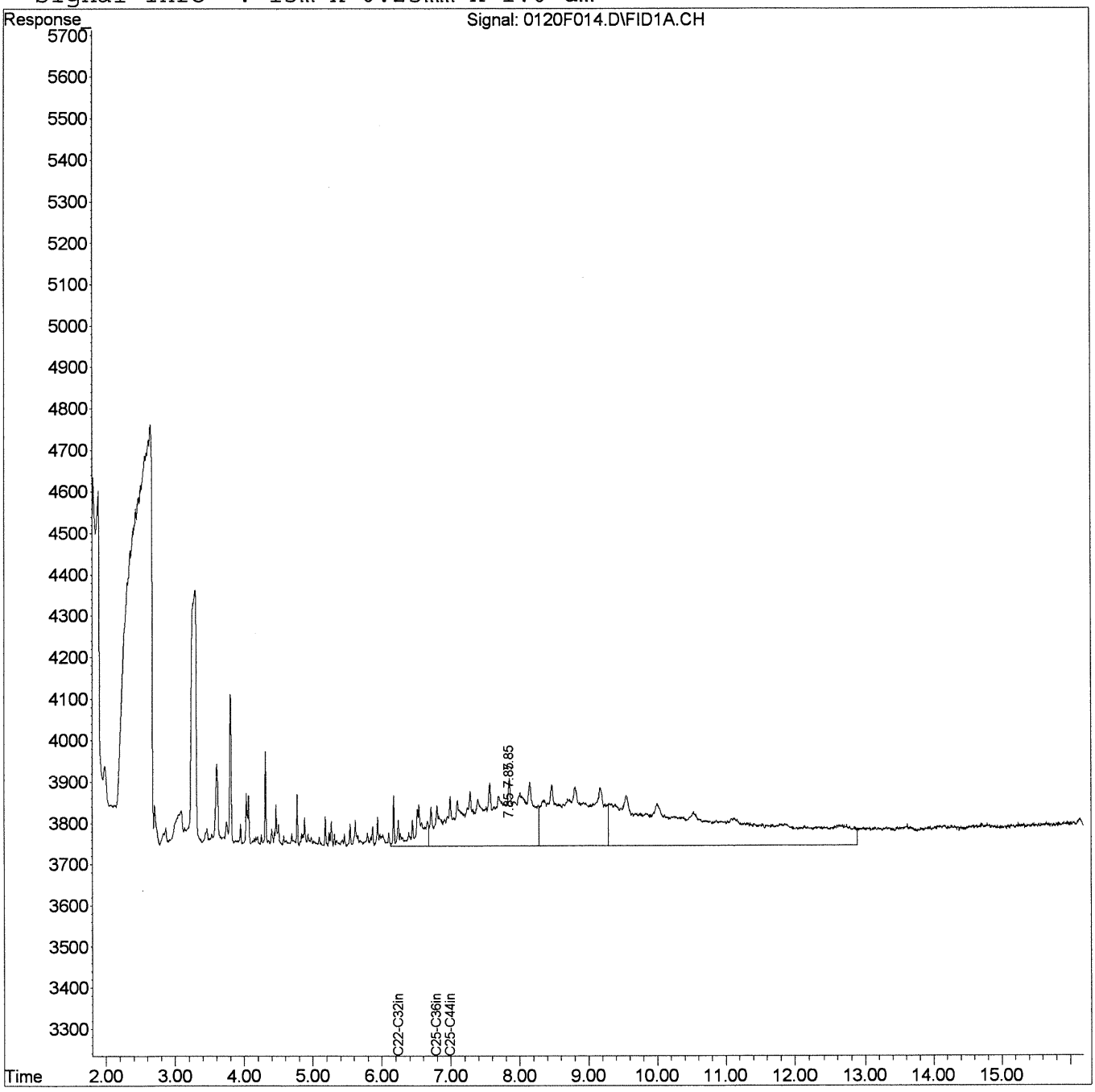
(f)=RT Delta > 1/2 Window (m)=manual int.
0120F014.D 011916F.M Thu Jan 21 09:25:59 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F014.D Vial: 10
Acq On : 20 Jan 2016 12:24 pm Operator: CHARVEY
Sample : RRO 20 SVF01-81Q Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 13:18 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F016.D Vial: 11
Acq On : 20 Jan 2016 12:46 pm Operator: CHARVEY
Sample : RRO 50 SVF01-81P Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 13:18:23 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
Target Compounds						
9)	H	C22-C32in RRO [AZ]	6.23	21903	50.956	ppm
10)	H	C25-C36in RRO [NWTPH]	6.78	33966	49.415	ppm
12)	H	C25-C44in RRO [TPH-Oil]	6.98	60103	49.230	ppm

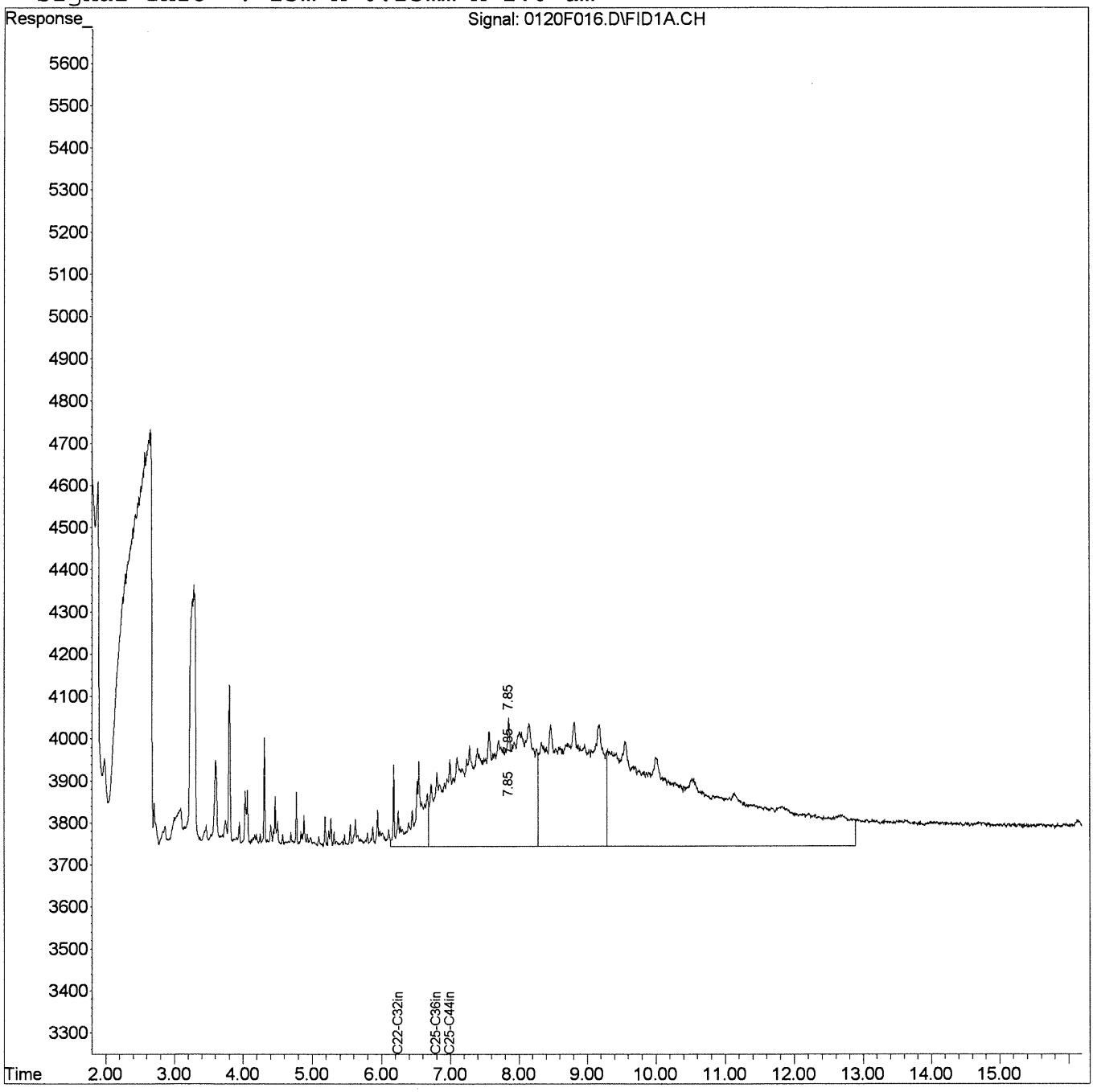
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F016.D Vial: 11
Acq On : 20 Jan 2016 12:46 pm Operator: CHARVEY
Sample : RRO 50 SVF01-81P Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 13:18 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F018.D Vial: 12
Acq On : 20 Jan 2016 1:08 pm Operator: CHARVEY
Sample : RRO 200 SVF01-810 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 14:39:38 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
	Target Compounds				
9)	H C22-C32in RRO [AZ]	6.23	76862	178.815	ppm
10)	H C25-C36in RRO [NWTPH]	6.78	123758	180.046	ppm
12)	H C25-C44in RRO [TPH-Oil]	6.98	220525	180.630	ppm

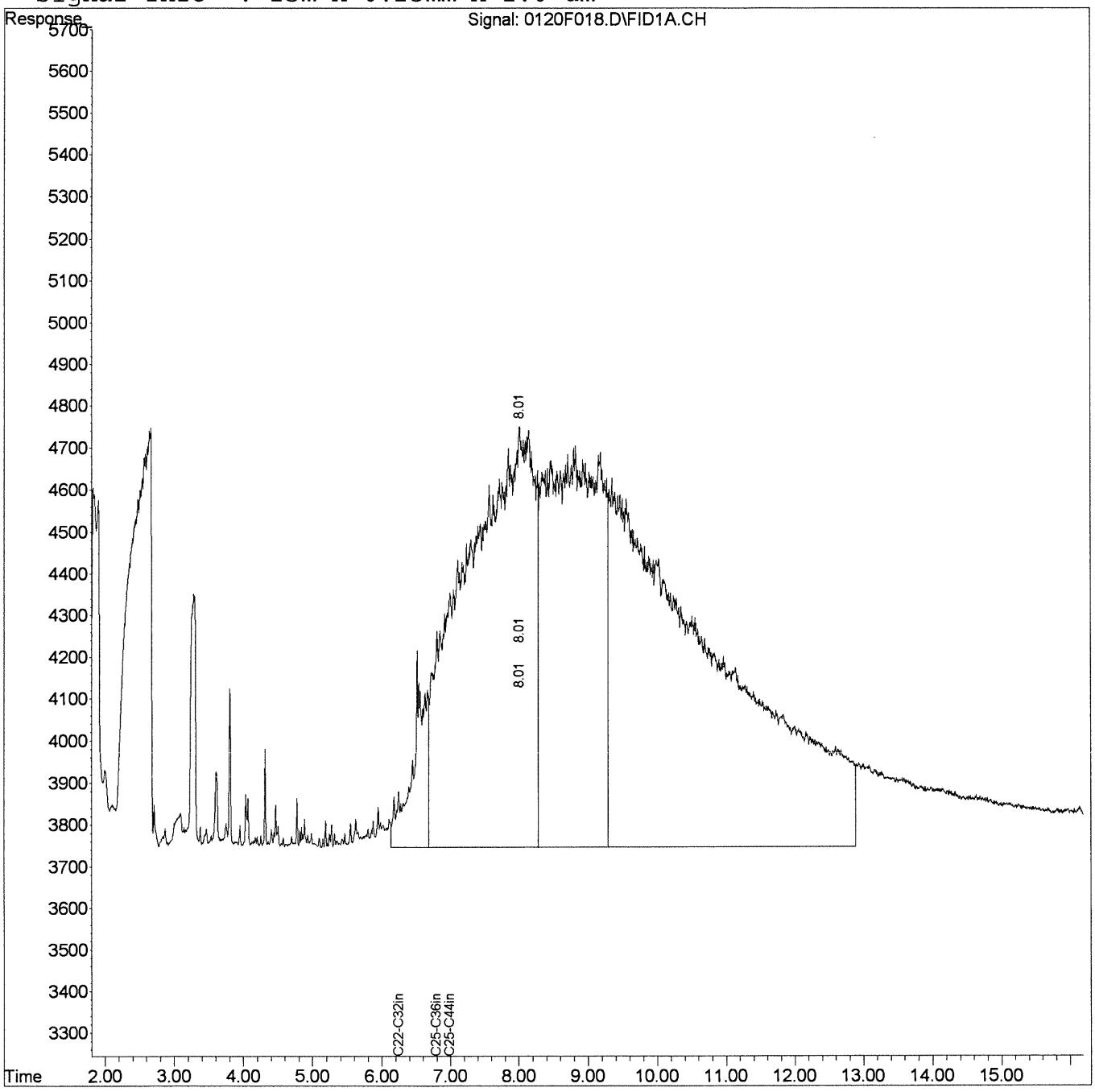
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F018.D Vial: 12
Acq On : 20 Jan 2016 1:08 pm Operator: CHARVEY
Sample : RRO 200 SVF01-810 Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 14:40 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F020.D Vial: 13
Acq On : 20 Jan 2016 1:31 pm Operator: CHARVEY
Sample : RRO 500 SVF01-81N Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 14:40:16 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
9)	H C22-C32in RRO [AZ]	6.23	187993	437.355 ppm
10)	H C25-C36in RRO [NWTPH]	6.78	303685	441.808 ppm
12)	H C25-C44in RRO [TPH-Oil]	6.98	540967	443.101 ppm

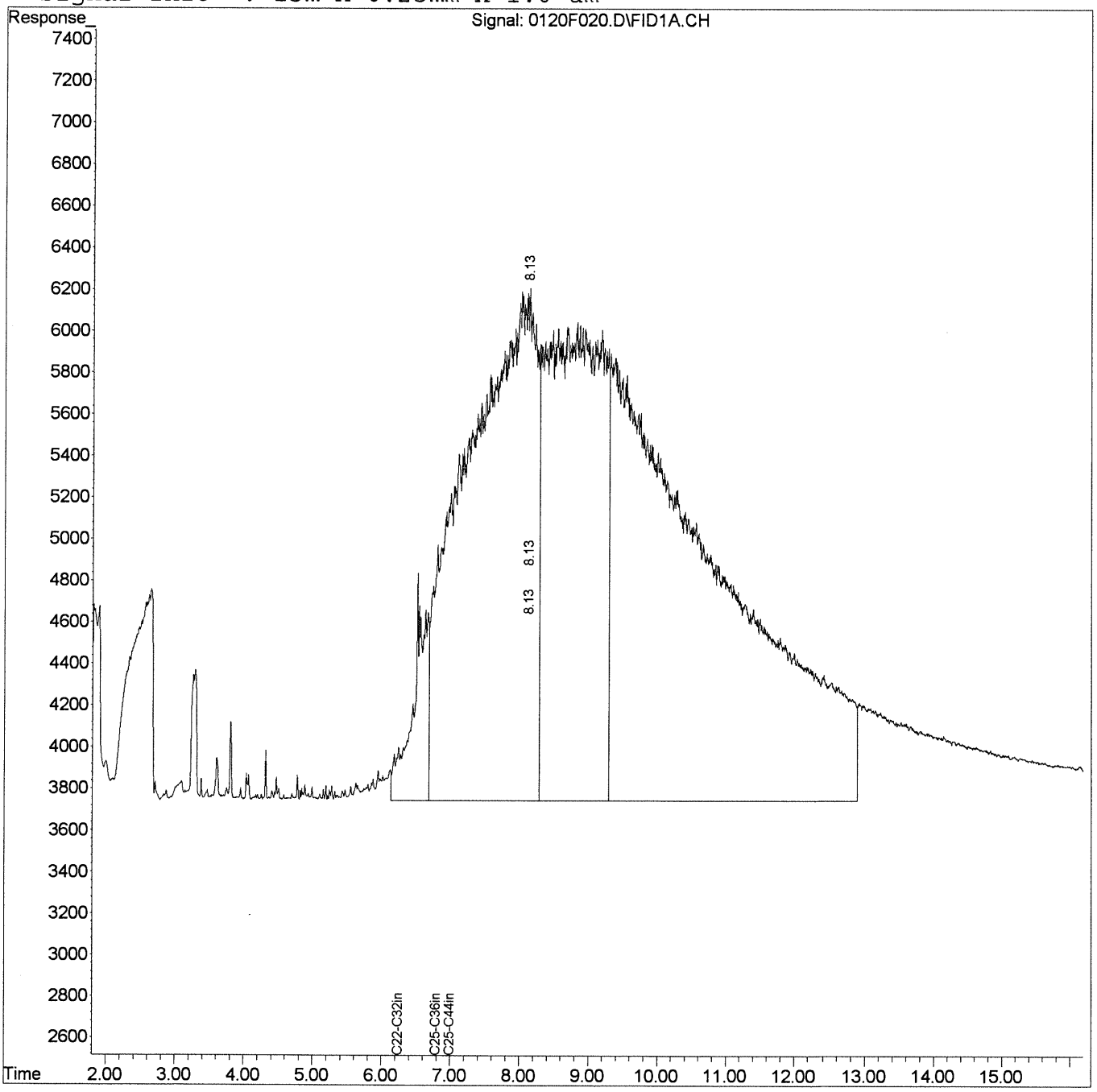
(f)=RT Delta > 1/2 Window (m)=manual int.
0120F020.D 011916F.M Thu Jan 21 09:26:12 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F020.D Vial: 13
Acq On : 20 Jan 2016 1:31 pm Operator: CHARVEY
Sample : RRO 500 SVF01-81N Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 14:40 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F022.D Vial: 14
Acq On : 20 Jan 2016 1:53 pm Operator: CHARVEY
Sample : RRO 2000 SVF01-81M Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 14:40:49 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
Target Compounds						
9)	H	C22-C32in RRO [AZ]	6.23	702156	1633.527	ppm
10)	H	C25-C36in RRO [NWTPH]	6.78	1137140	1654.337	ppm
12)	H	C25-C44in RRO [TPH-Oil]	6.98	2018831	1653.606	ppm

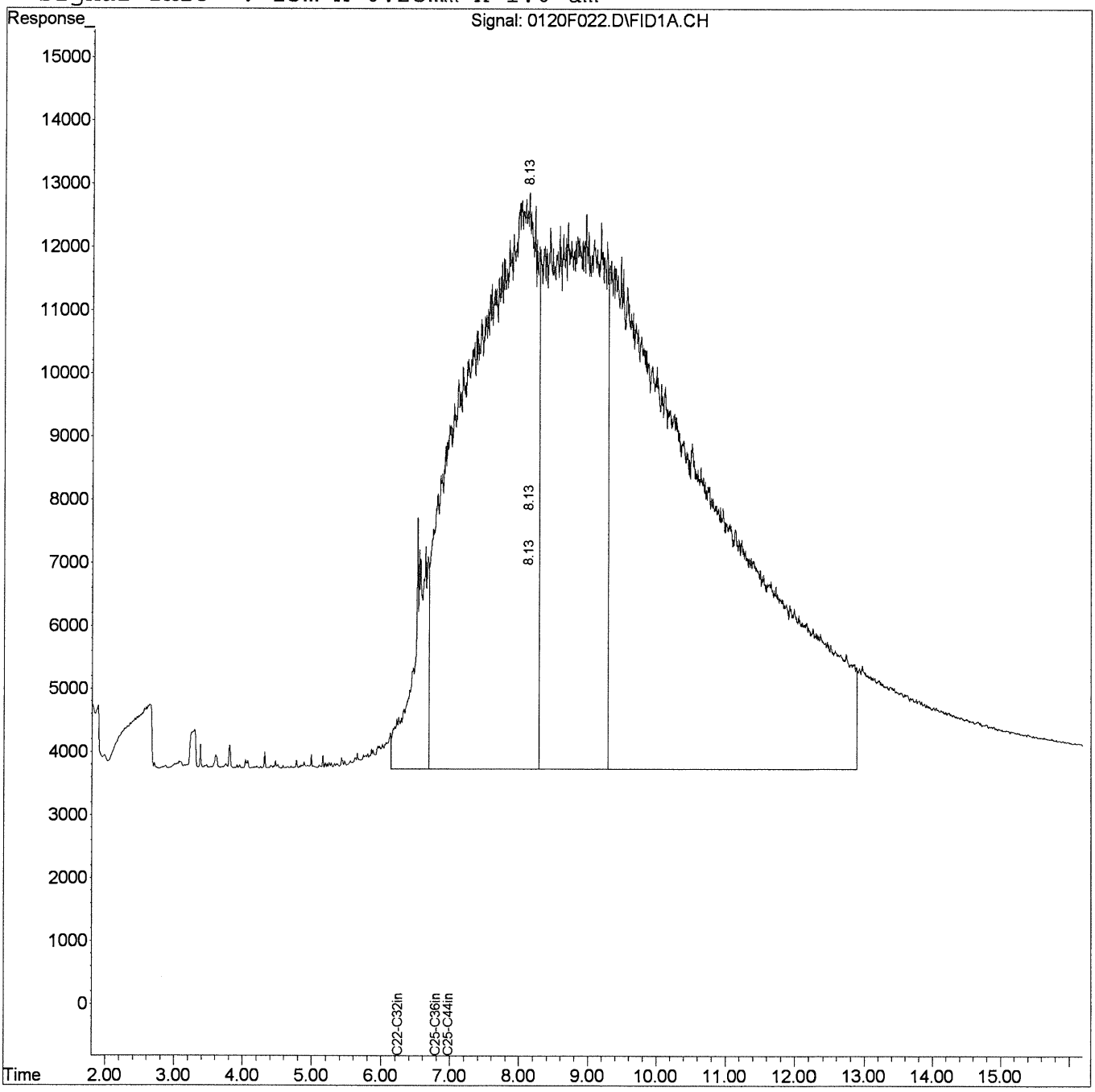
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F022.D Vial: 14
Acq On : 20 Jan 2016 1:53 pm Operator: CHARVEY
Sample : RRO 2000 SVF01-81M Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 14:41 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F024.D Vial: 15
Acq On : 20 Jan 2016 2:16 pm Operator: CHARVEY
Sample : RRO 5000 SVF01-81L Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 14:41:20 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
	Target Compounds				
9)	H C22-C32in RRO [AZ]	6.23	1830354	4258.218	ppm
10)	H C25-C36in RRO [NWTPH]	6.78	3004367	4370.821	ppm
12)	H C25-C44in RRO [TPH-Oil]	6.98	5064760	4148.498	ppm

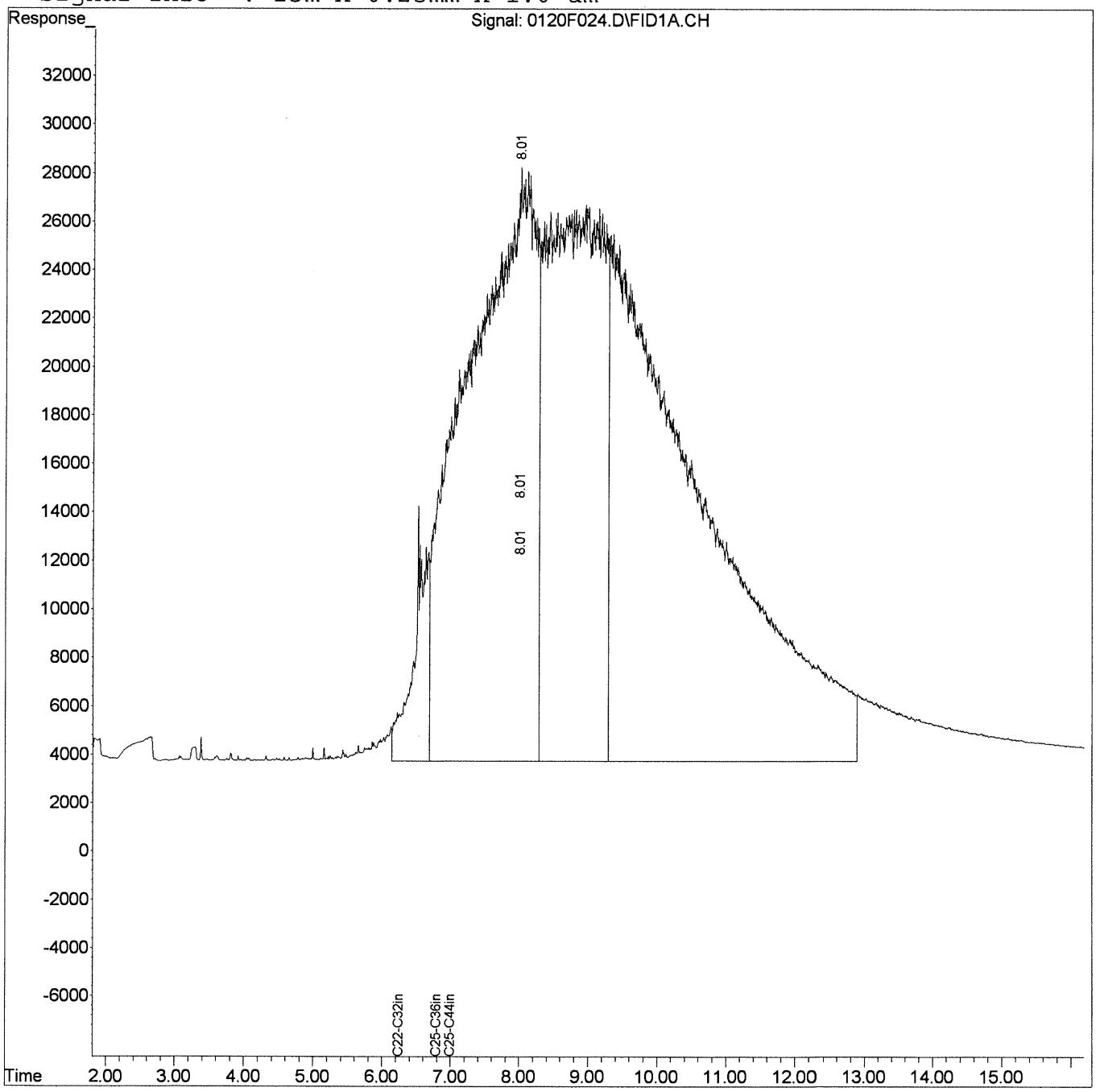
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F024.D Vial: 15
Acq On : 20 Jan 2016 2:16 pm Operator: CHARVEY
Sample : RRO 5000 SVF01-81L Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 20 14:41 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 11:43:34 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F028.D Vial: 16
Acq On : 20 Jan 2016 3:00 pm Operator: CHARVEY
Sample : RRO ICV 1000 SVF01-82B Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:37:25 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:23:10 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
Target Compounds						
9)	H	C22-C32in RRO [AZ]	6.23	222194	579.988	ppm
10)	H	C25-C36in RRO [NWTPH]	6.78	525626	854.698	ppm
12)	H	C25-C44in RRO [TPH-Oil]	6.98	1087606	1005.369	ppm

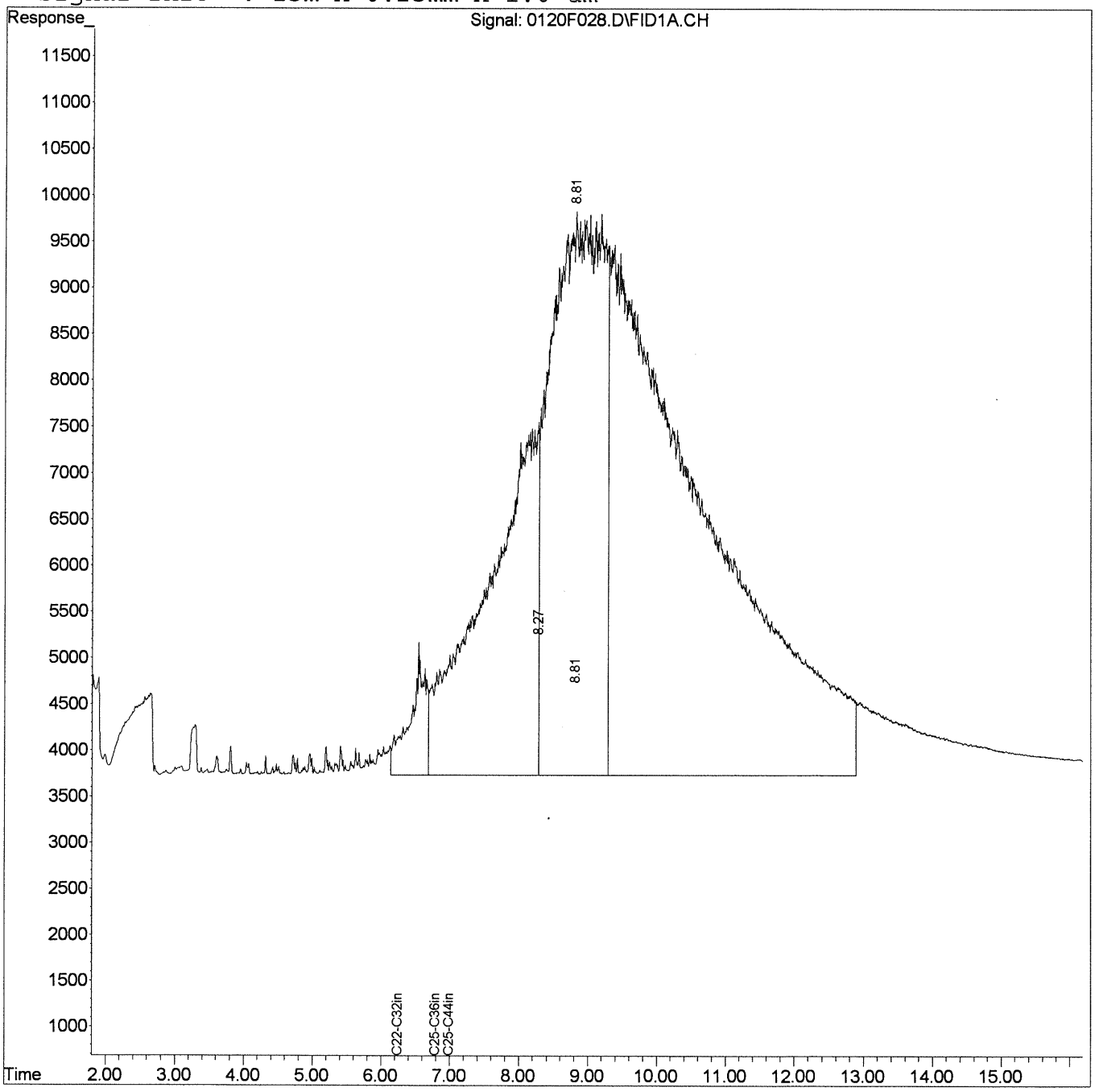
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F028.D Vial: 16
Acq On : 20 Jan 2016 3:00 pm Operator: CHARVEY
Sample : RRO ICV 1000 SVF01-82B Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:37 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:23:10 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F030.D Vial: 1
Acq On : 20 Jan 2016 3:22 pm Operator: CHARVEY
Sample : DRO/SURR 20/1.0 SVF01-81I Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:00:50 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 14:44:51 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	4-Bromofluorobenzene	3.03f	768	0.894 ppm
Spiked Amount	50.000	Recovery	=	1.79%
2) S	o-Terphenyl	5.61	1537	0.875 ppm
Spiked Amount	50.000	Recovery	=	1.75%
3) S	n-Triacontane	7.76	1300	1.152 ppm
Spiked Amount	50.000	Recovery	=	2.30%
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	32758	20.478 ppm
5) H	C10-C22ex DRO [AZ]	3.33	29830	19.717 ppm
6) H	C10-C25ex DRO [AK102]	3.33	31327	20.557 ppm
7) H	C10-C28in DRO [8015]	3.43	32375	20.992 ppm
8) H	C12-C25ex DRO [NWTPH]	3.94	24558	19.172 ppm

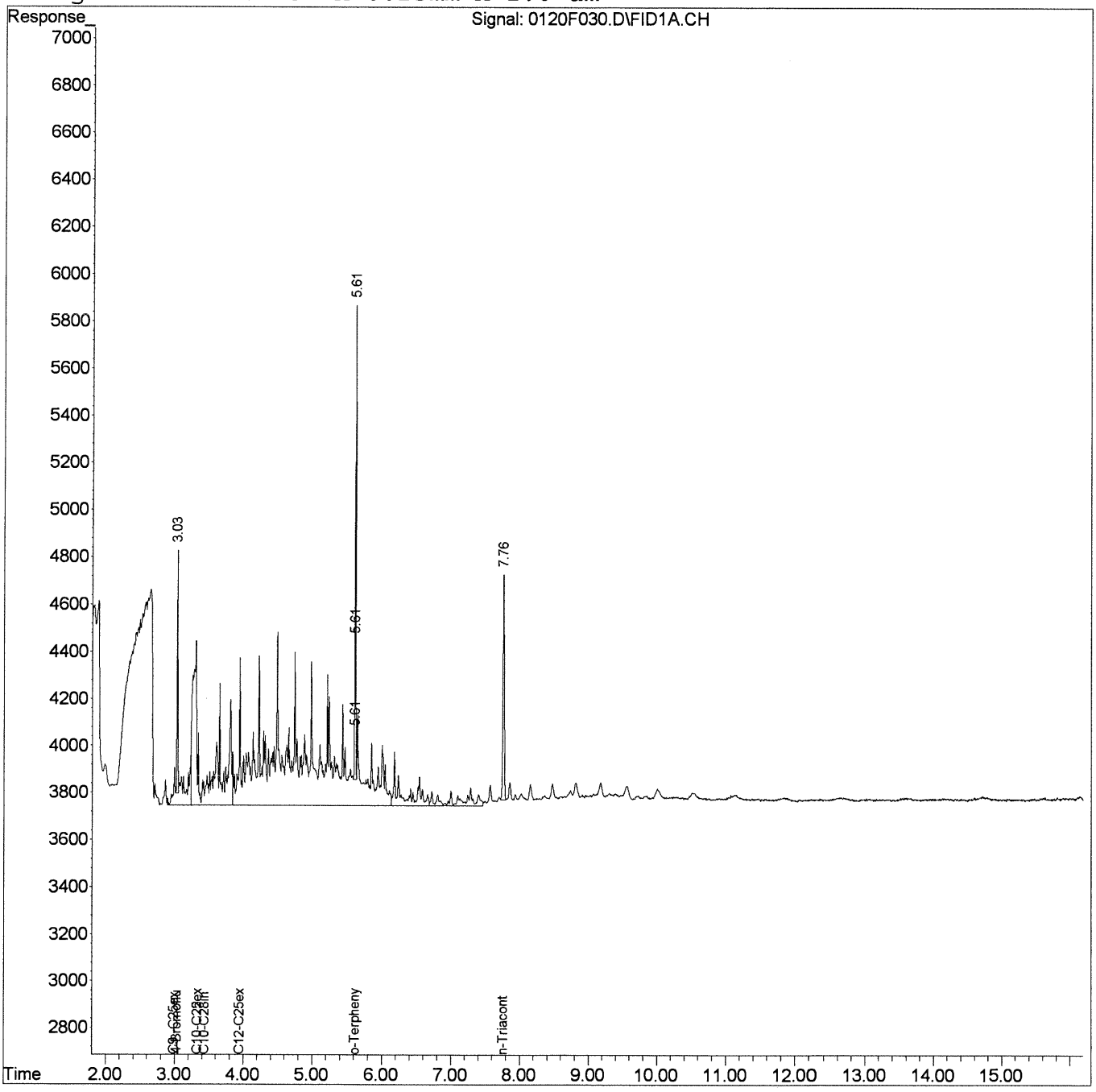
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F030.D Vial: 1
Acq On : 20 Jan 2016 3:22 pm Operator: CHARVEY
Sample : DRO/SURR 20/1.0 SVF01-81I Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:02 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Wed Jan 20 14:44:51 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F032.D Vial: 2
Acq On : 20 Jan 2016 3:44 pm Operator: CHARVEY
Sample : DRO/SURR 50/2.5 SVF01-81H Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:04:49 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
1) S	4-Bromofluorobenzene	3.03	1826	2.125 ppm
Spiked Amount	50.000	Recovery	=	4.25%
2) S	o-Terphenyl	5.61	3681	2.095 ppm
Spiked Amount	50.000	Recovery	=	4.19%
3) S	n-Triacontane	7.76	3091	2.738 ppm
Spiked Amount	50.000	Recovery	=	5.48%
	Target Compounds			
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	71113	44.455 ppm
5) H	C10-C22ex DRO [AZ]	3.33	66434	43.912 ppm
6) H	C10-C25ex DRO [AK102]	3.33	68842	45.174 ppm
7) H	C10-C28in DRO [8015]	3.43	72499	47.008 ppm
8) H	C12-C25ex DRO [NWTPH]	3.94	57461	44.860 ppm

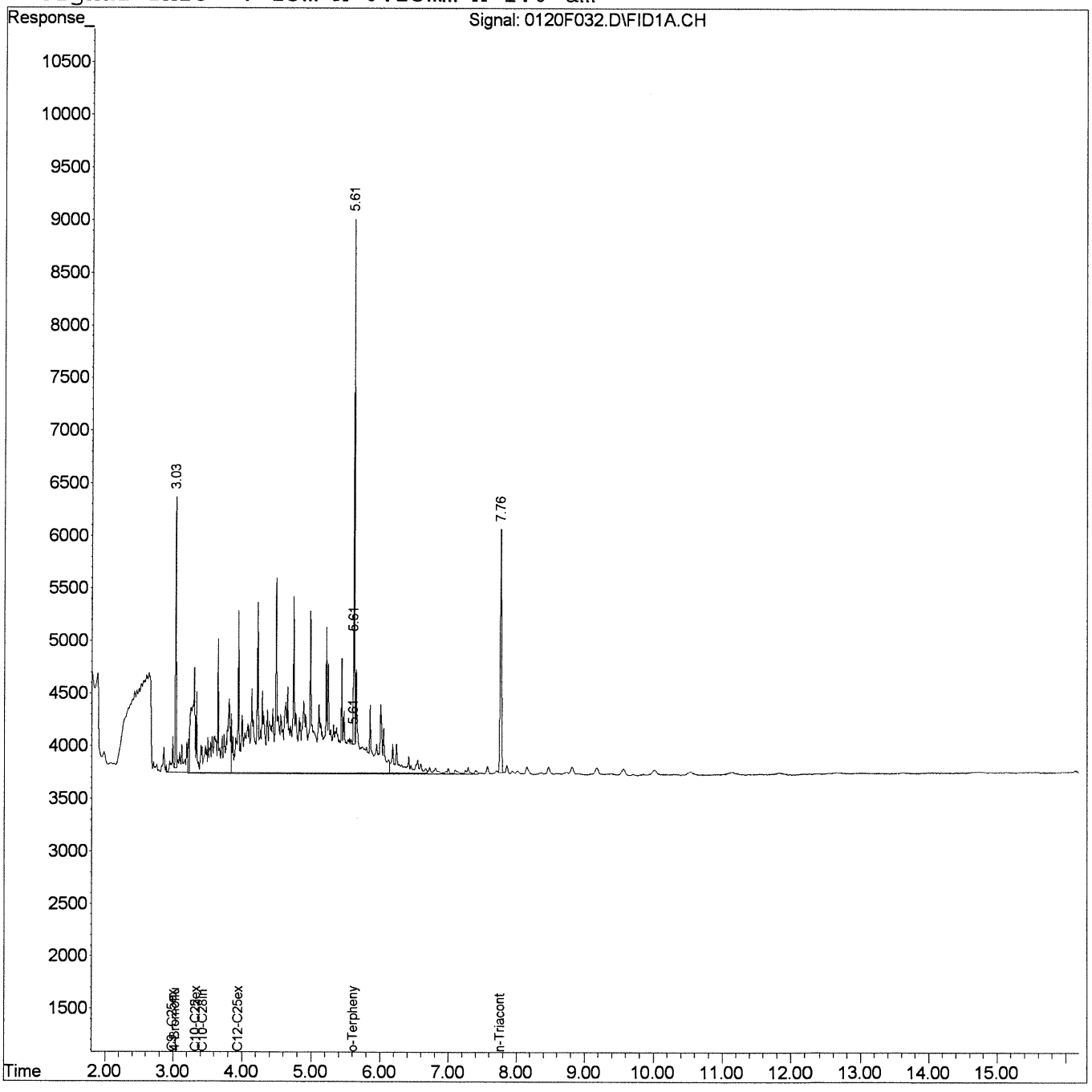
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F032.D Vial: 2
Acq On : 20 Jan 2016 3:44 pm Operator: CHARVEY
Sample : DRO/SURR 50/2.5 SVF01-81H Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:06 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

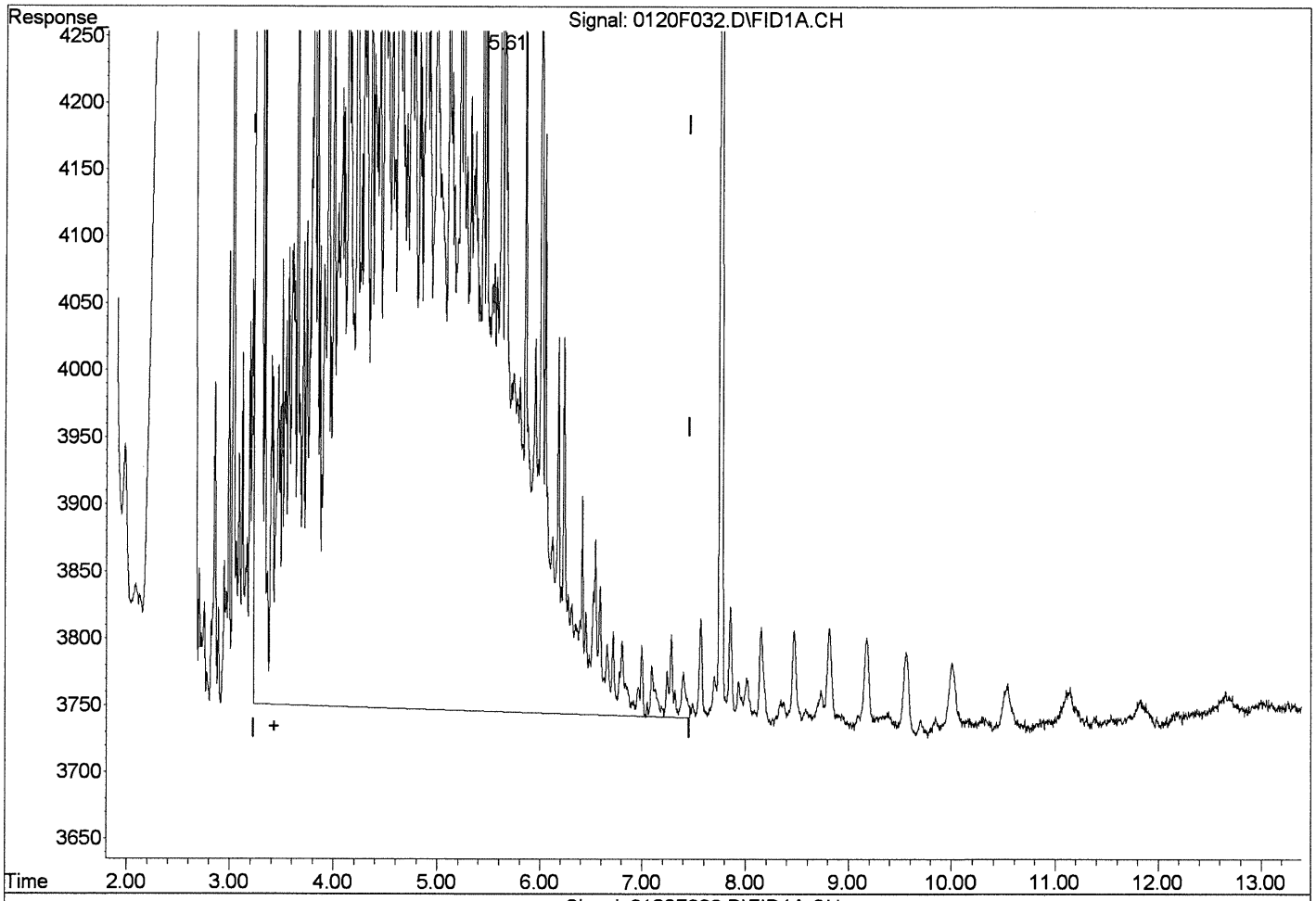
Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (Qedit)

Data File : J:\GC21\DATA\012016F\0120F032.D Vial: 2
Acq On : 20 Jan 2016 3:44 pm Operator: CHARVEY
Sample : DRO/SURR 50/2.5 SVF01-81H Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:04 2016 Quant Results File: 011916F.RES

Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Multiple Level Calibration



Signal: 0120F032.D\FID1A.CH

(7) C10-C28in DRO [8015] (H)

3.43min 45.757ppm

response 70570

Manual Integration:

Before

01/21/16

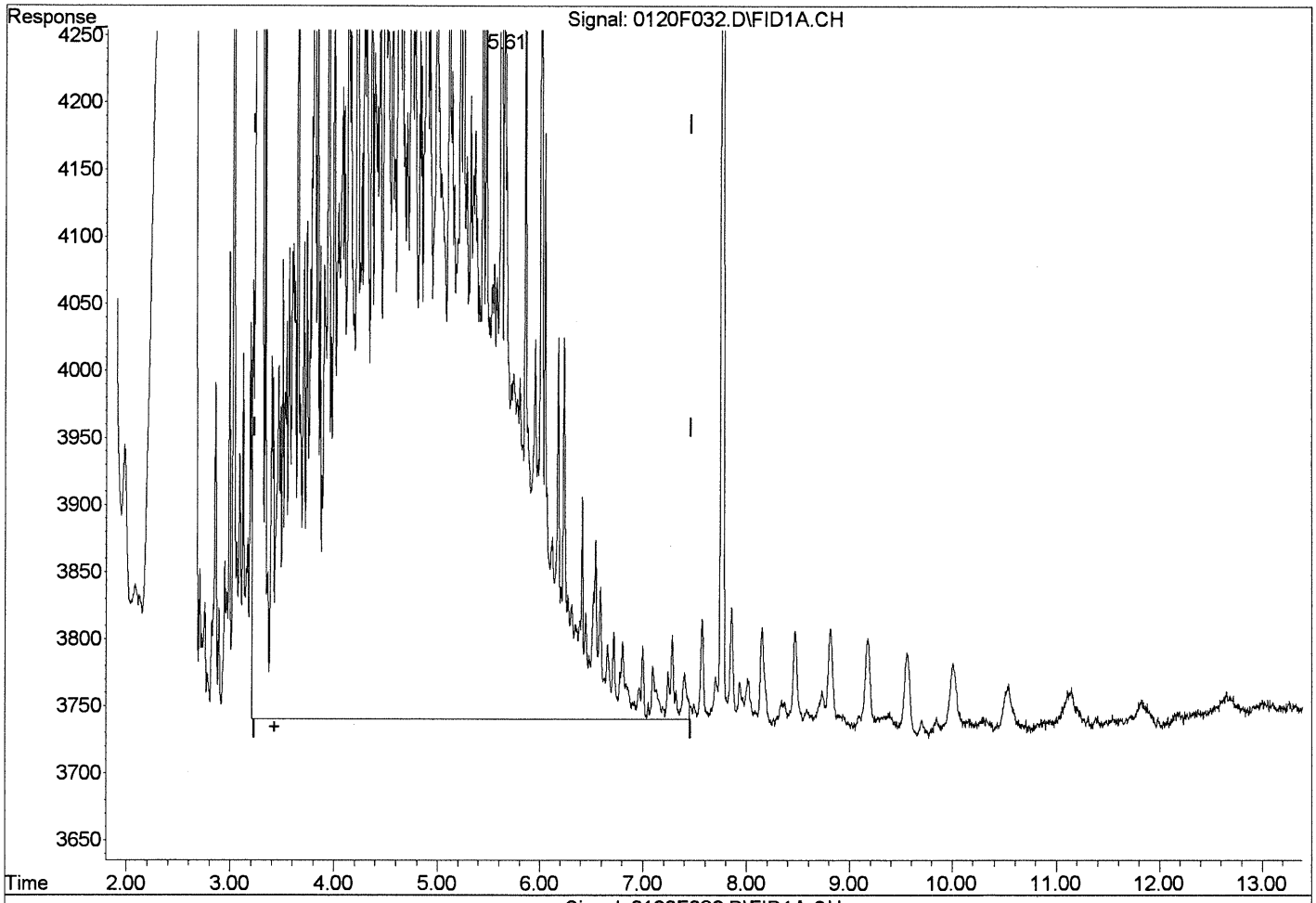
(+) = Expected Retention Time

0120F032.D 011916F.M Thu Jan 21 09:05:47 2016

Quantitation Report (Qedit)

Data File : J:\GC21\DATA\012016F\0120F032.D Vial: 2
Acq On : 20 Jan 2016 3:44 pm Operator: CHARVEY
Sample : DRO/SURR 50/2.5 SVF01-81H Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:04 2016 Quant Results File: 011916F.RES

Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Multiple Level Calibration



(7) C10-C28in DRO [8015] (H)

3.43min 47.008ppm

response 72499

Manual Integration:

After

Baseline/Shoulder

01/21/16

(+) = Expected Retention Time

0120F032.D 011916F.M Thu Jan 21 09:06:28 2016

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F034.D Vial: 3
Acq On : 20 Jan 2016 4:07 pm Operator: CHARVEY
Sample : DRO/ SURR 200/10 SVF01-81G Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:07:07 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	3.03	7149	8.319 ppm
Spiked Amount 50.000	Recovery =		16.64%
2) S o-Terphenyl	5.61	14491	8.249 ppm
Spiked Amount 50.000	Recovery =		16.50%
3) S n-Triacontane	7.76	12645	11.202 ppm
Spiked Amount 50.000	Recovery =		22.40%
Target Compounds			
4) H C9 -C25ex DRO [TPH-Diesel]	2.99	255868	159.951 ppm
5) H C10-C22ex DRO [AZ]	3.33	241516	159.639 ppm
6) H C10-C25ex DRO [AK102]	3.33	249140	163.484 ppm
7) H C10-C28in DRO [8015]	3.43	260168	168.693 ppm
8) H C12-C25ex DRO [NWTPH]	3.94	215638	168.349 ppm

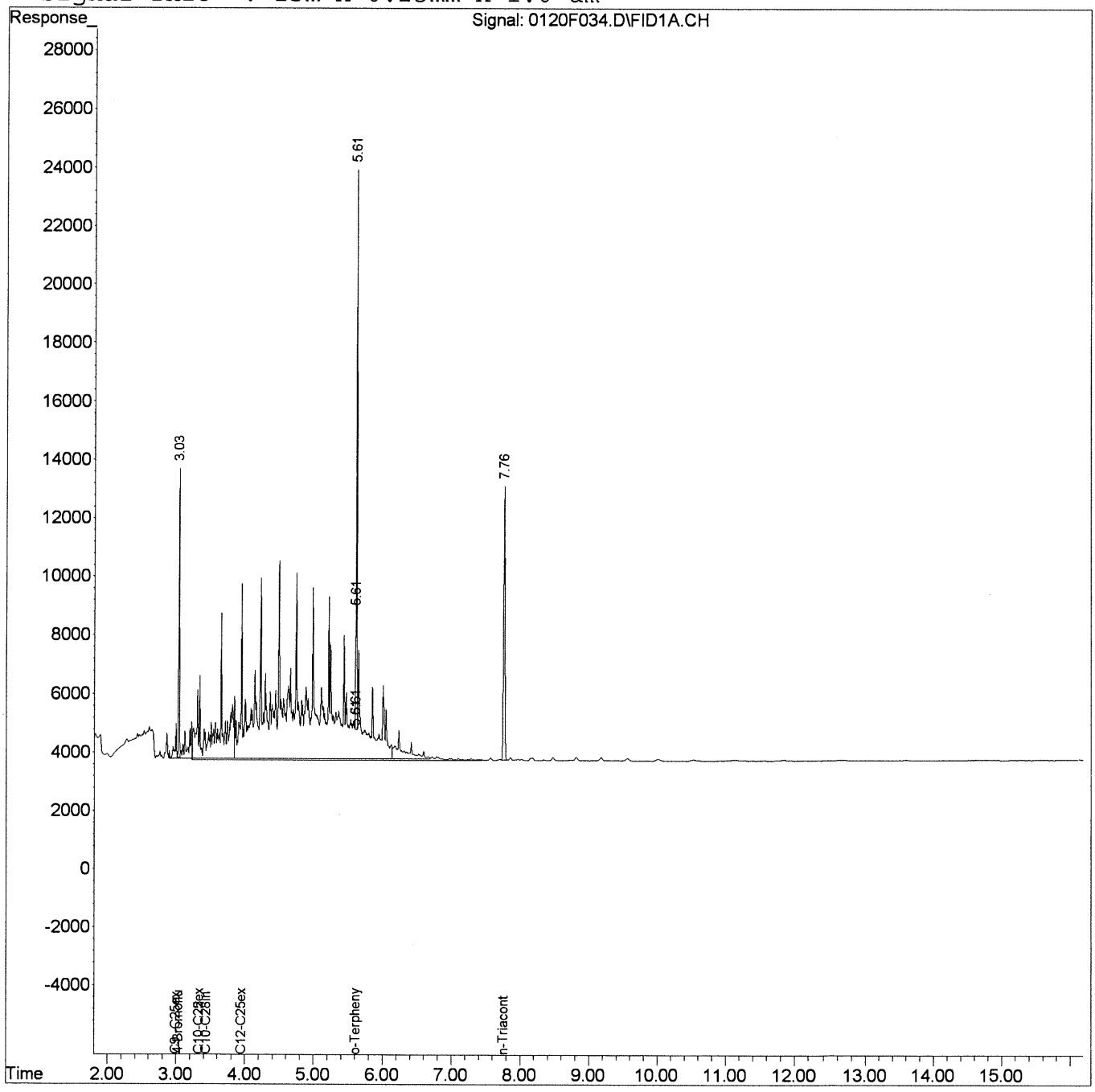
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F034.D Vial: 3
Acq On : 20 Jan 2016 4:07 pm Operator: CHARVEY
Sample : DRO/ SURR 200/10 SVF01-81G Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:08 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

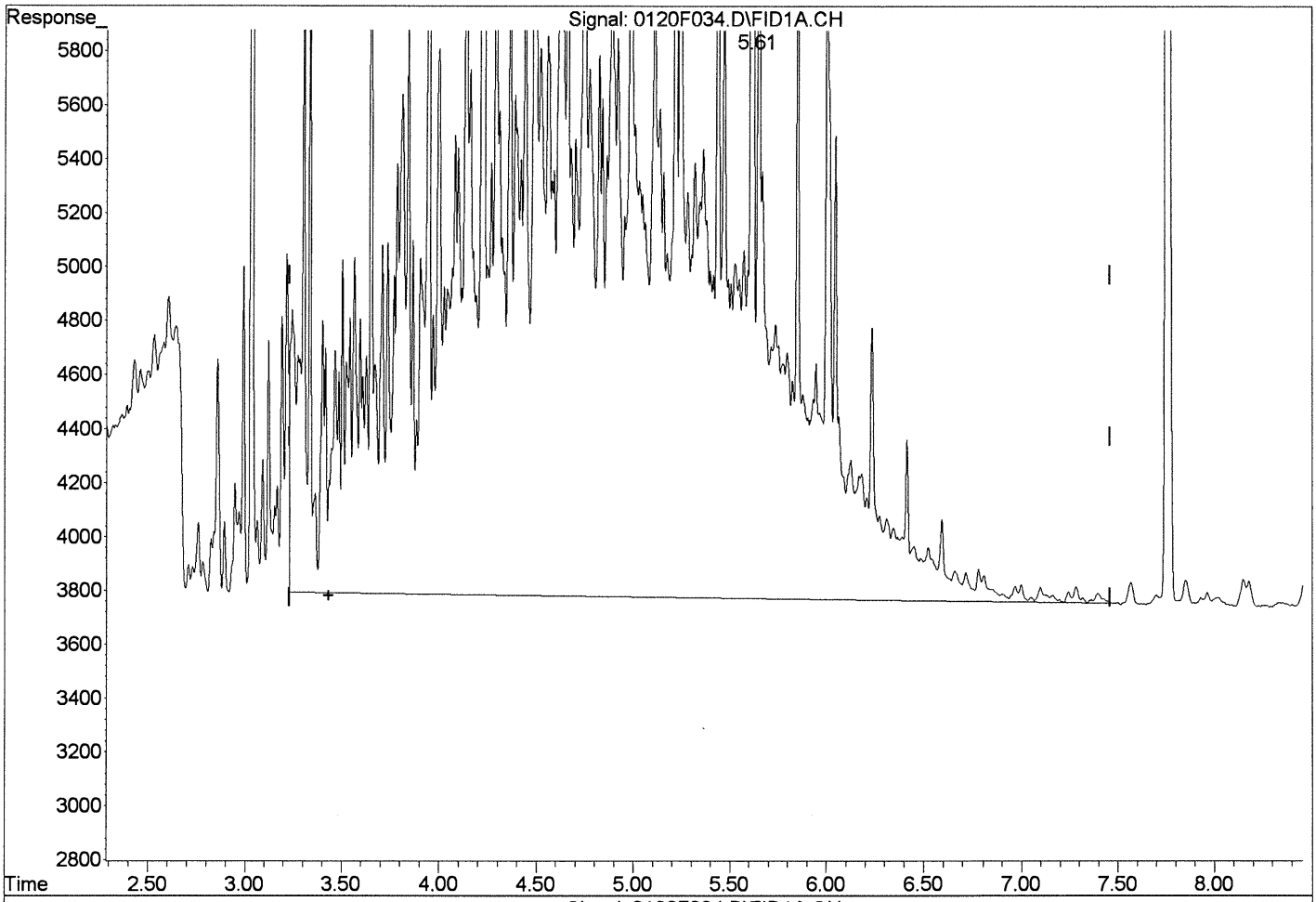
Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (Qedit)

Data File : J:\GC21\DATA\012016F\0120F034.D Vial: 3
Acq On : 20 Jan 2016 4:07 pm Operator: CHARVEY
Sample : DRO/ SURR 200/10 SVF01-81G Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:07 2016 Quant Results File: 011916F.RES

Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Multiple Level Calibration



Signal: 0120F034.D\FID1A.CH

(7) C10-C28in DRO [8015] (H)

3.43min 164.728ppm

response 254054

Manual Integration:

Before

01/21/16

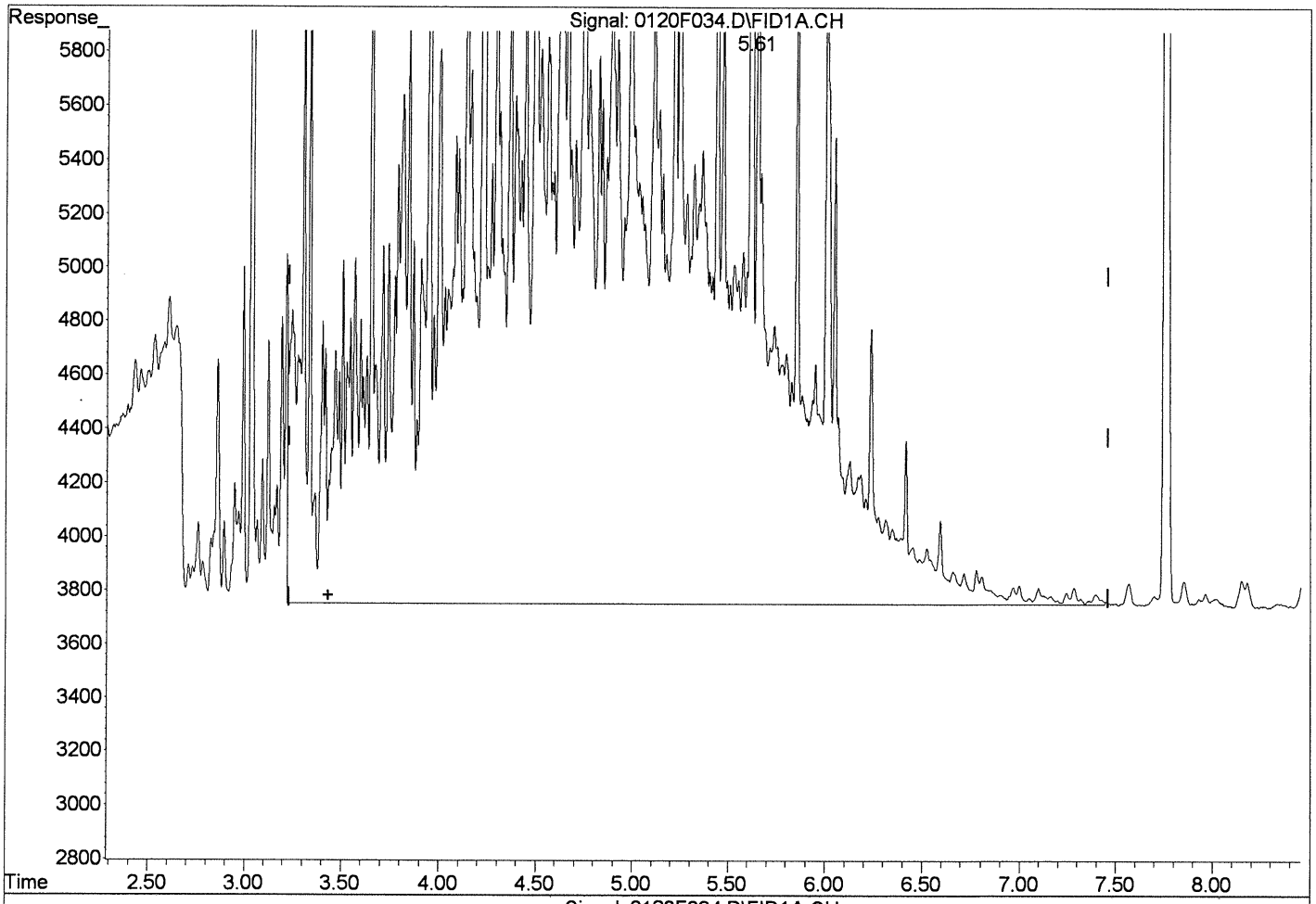
(+) = Expected Retention Time
0120F034.D 011916F.M Thu Jan 21 09:07:26 2016

Quantitation Report (Qedit)

Data File : J:\GC21\DATA\012016F\0120F034.D
Acq On : 20 Jan 2016 4:07 pm
Sample : DRO/ SURR 200/10 SVF01-81G
Misc :
IntFile : rteint.p
Quant Time: Jan 21 9:07 2016 Quant Results File: 011916F.RES

Vial: 3
Operator: CHARVEY
Inst : GC21
Multiplr: 1.00

Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Multiple Level Calibration



Signal: 0120F034.D\FID1A.CH

(7) C10-C28in DRO [8015] (H)

3.43min 168.693ppm

response 260168

Manual Integration:

After

Baseline/Shoulder

01/21/16

(+) = Expected Retention Time

0120F034.D 011916F.M Thu Jan 21 09:07:51 2016

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F036.D Vial: 4
Acq On : 20 Jan 2016 4:29 pm Operator: CHARVEY
Sample : DRO/ SURR 500/25 SVF01-81F Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:08:12 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S 4-Bromofluorobenzene	3.03	17027	19.812 ppm
Spiked Amount 50.000	Recovery =		39.62%
2) S o-Terphenyl	5.61	34752	19.783 ppm
Spiked Amount 50.000	Recovery =		39.57%
3) S n-Triacontane	7.76	30248	26.795 ppm
Spiked Amount 50.000	Recovery =		53.59%
Target Compounds			
4) H C9 -C25ex DRO [TPH-Diesel]	2.99	629768	393.687 ppm
5) H C10-C22ex DRO [AZ]	3.33	594525	392.974 ppm
6) H C10-C25ex DRO [AK102]	3.33	614426	403.181 ppm
7) H C10-C28in DRO [8015]	3.43	630969	409.119 ppm
8) H C12-C25ex DRO [NWTPH]	3.94	536330	418.713 ppm

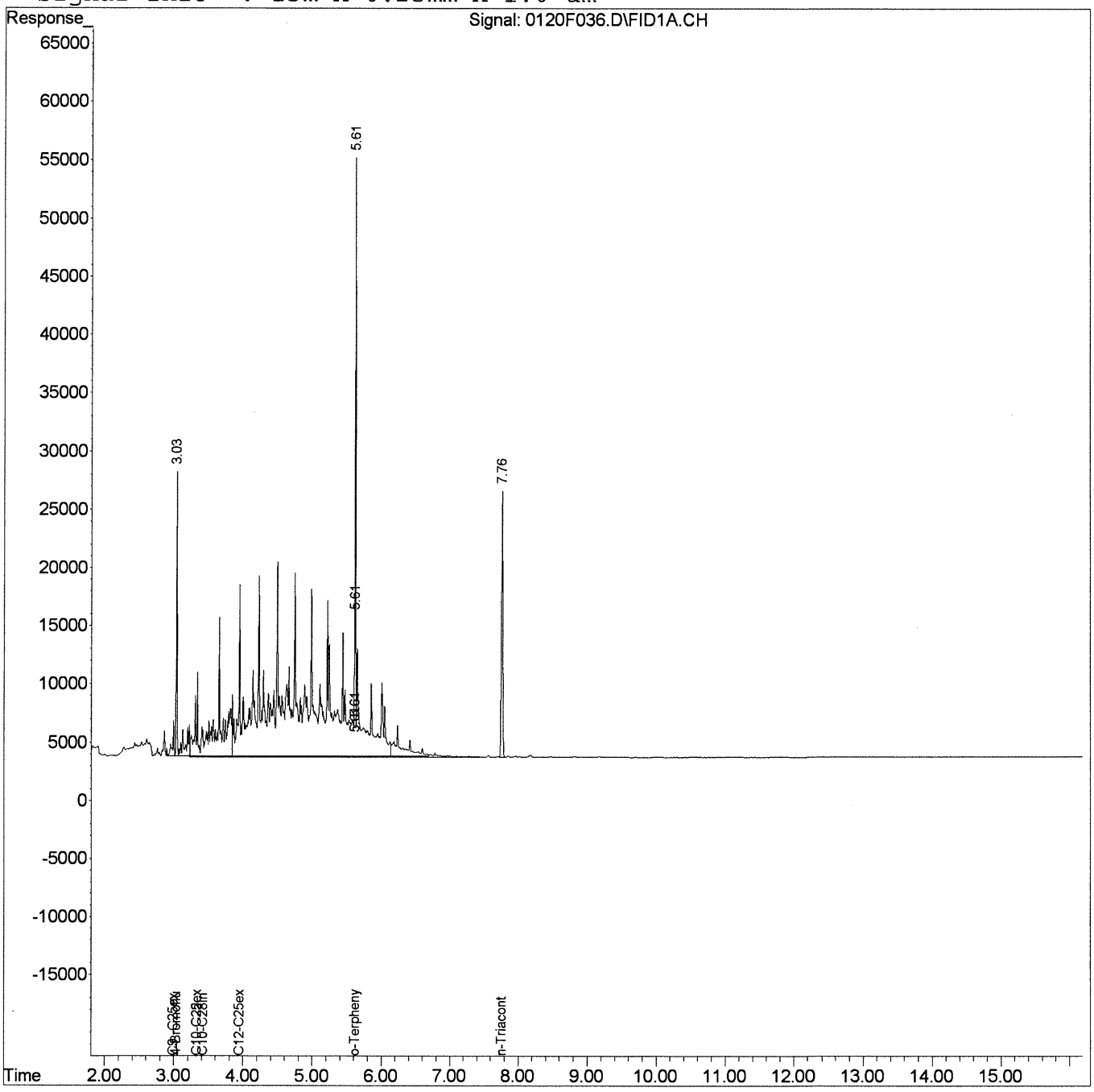
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F036.D Vial: 4
Acq On : 20 Jan 2016 4:29 pm Operator: CHARVEY
Sample : DRO/ SURR 500/25 SVF01-81F Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:09 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

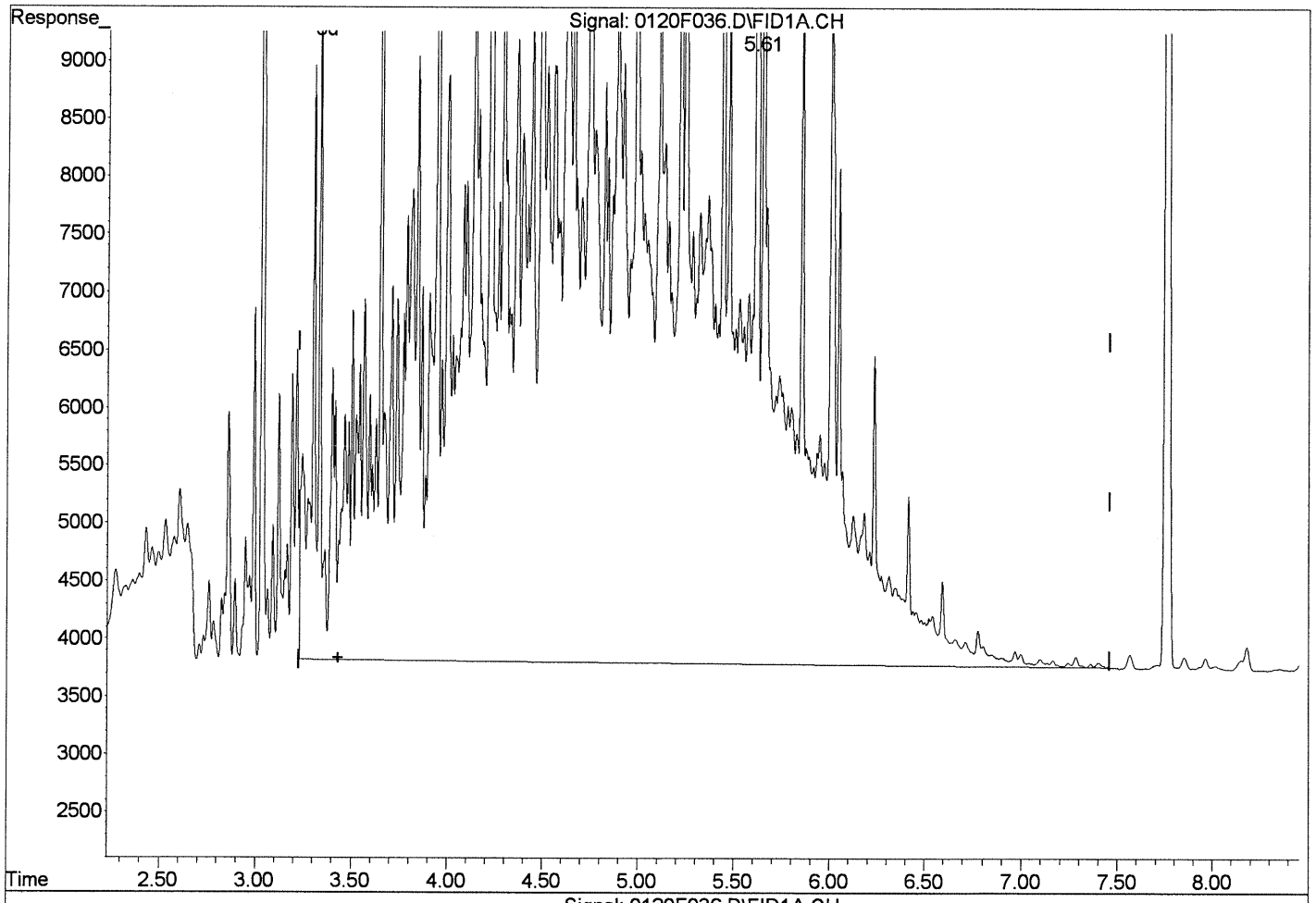
Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (Qedit)

Data File : J:\GC21\DATA\012016F\0120F036.D Vial: 4
Acq On : 20 Jan 2016 4:29 pm Operator: CHARVEY
Sample : DRO/ SURR 500/25 SVF01-81F Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:08 2016 Quant Results File: 011916F.RES

Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Multiple Level Calibration



Signal: 0120F036.D\FID1A.CH

(7) C10-C28in DRO [8015] (H)

3.43min 403.557ppm

response 622390

Manual Integration:

Before

01/21/16

(+) = Expected Retention Time

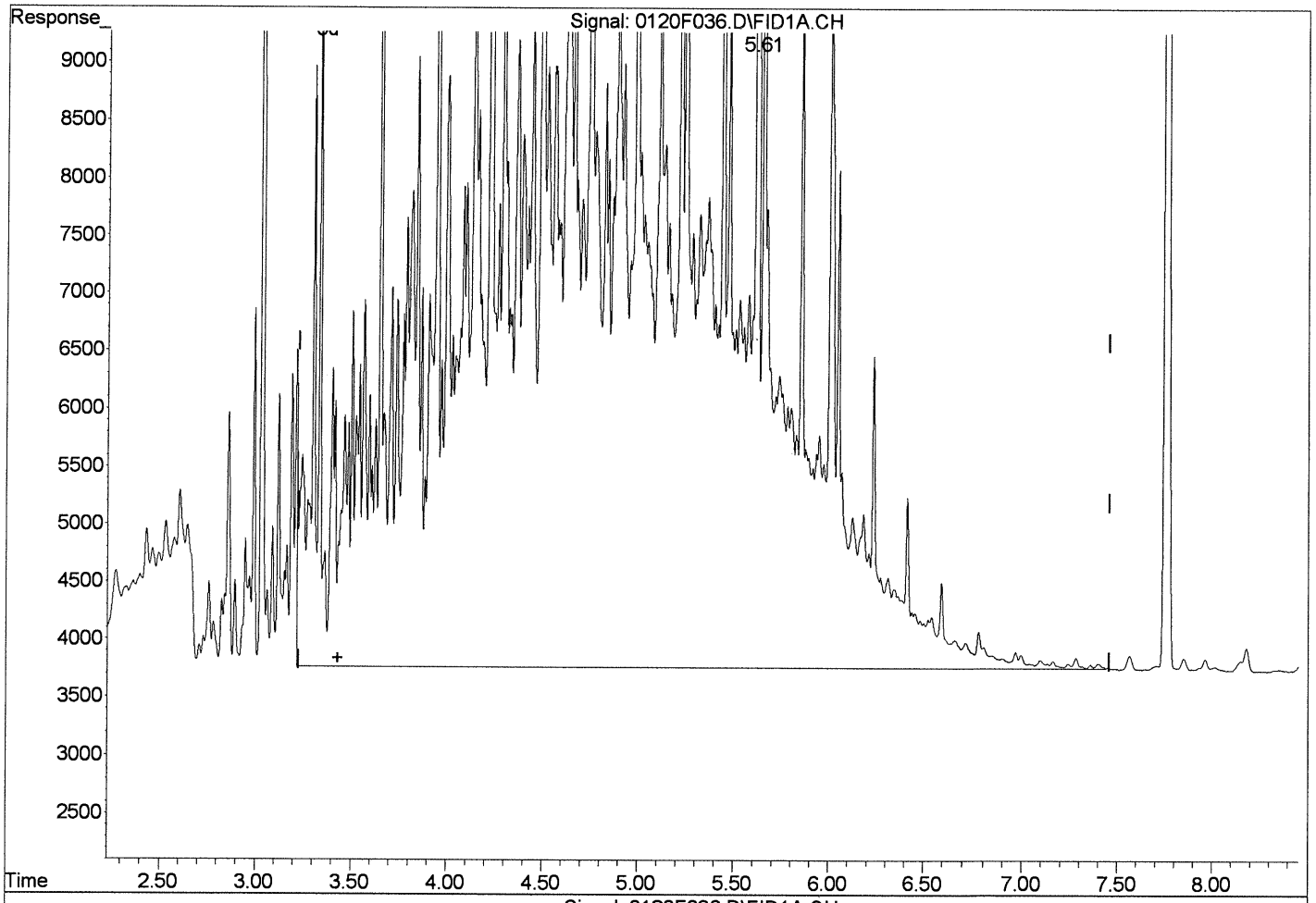
0120F036.D 011916F.M Thu Jan 21 09:09:08 2016

Quantitation Report (Qedit)

Data File : J:\GC21\DATA\012016F\0120F036.D
Acq On : 20 Jan 2016 4:29 pm
Sample : DRO/ SURR 500/25 SVF01-81F
Misc :
IntFile : rteint.p
Quant Time: Jan 21 9:08 2016 Quant Results File: 011916F.RES

Vial: 4
Operator: CHARVEY
Inst : GC21
Multiplr: 1.00

Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Multiple Level Calibration



Signal: 0120F036.D\FID1A.CH

(7) C10-C28in DRO [8015] (H)

3.43min 409.119ppm

response 630969

Manual Integration:

After

Baseline/Shoulder

01/21/16

(+) = Expected Retention Time

0120F036.D 011916F.M Thu Jan 21 09:09:27 2016

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F038.D Vial: 5
Acq On : 20 Jan 2016 4:51 pm Operator: CHARVEY
Sample : DRO/ SURR 2000/100 SVF01-81E Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:10:47 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1)	S 4-Bromofluorobenzene	3.03	70637	82.193	ppm
Spiked Amount	50.000	Recovery	=	164.39%	
2)	S o-Terphenyl	5.61	146710	83.518	ppm
Spiked Amount	50.000	Recovery	=	167.04%	
3)	S n-Triacontane	7.76	122840	108.817	ppm
Spiked Amount	50.000	Recovery	=	217.63%	
	Target Compounds				
4)	H C9 -C25ex DRO [TPH-Diesel]	2.99	2593017	1620.974	ppm
5)	H C10-C22ex DRO [AZ]	3.33	2444207	1615.593	ppm
6)	H C10-C25ex DRO [AK102]	3.33	2529664	1659.944	ppm
7)	H C10-C28in DRO [8015]	3.43	2544015	1649.536	ppm
8)	H C12-C25ex DRO [NWTPH]	3.94	2218911	1732.306	ppm

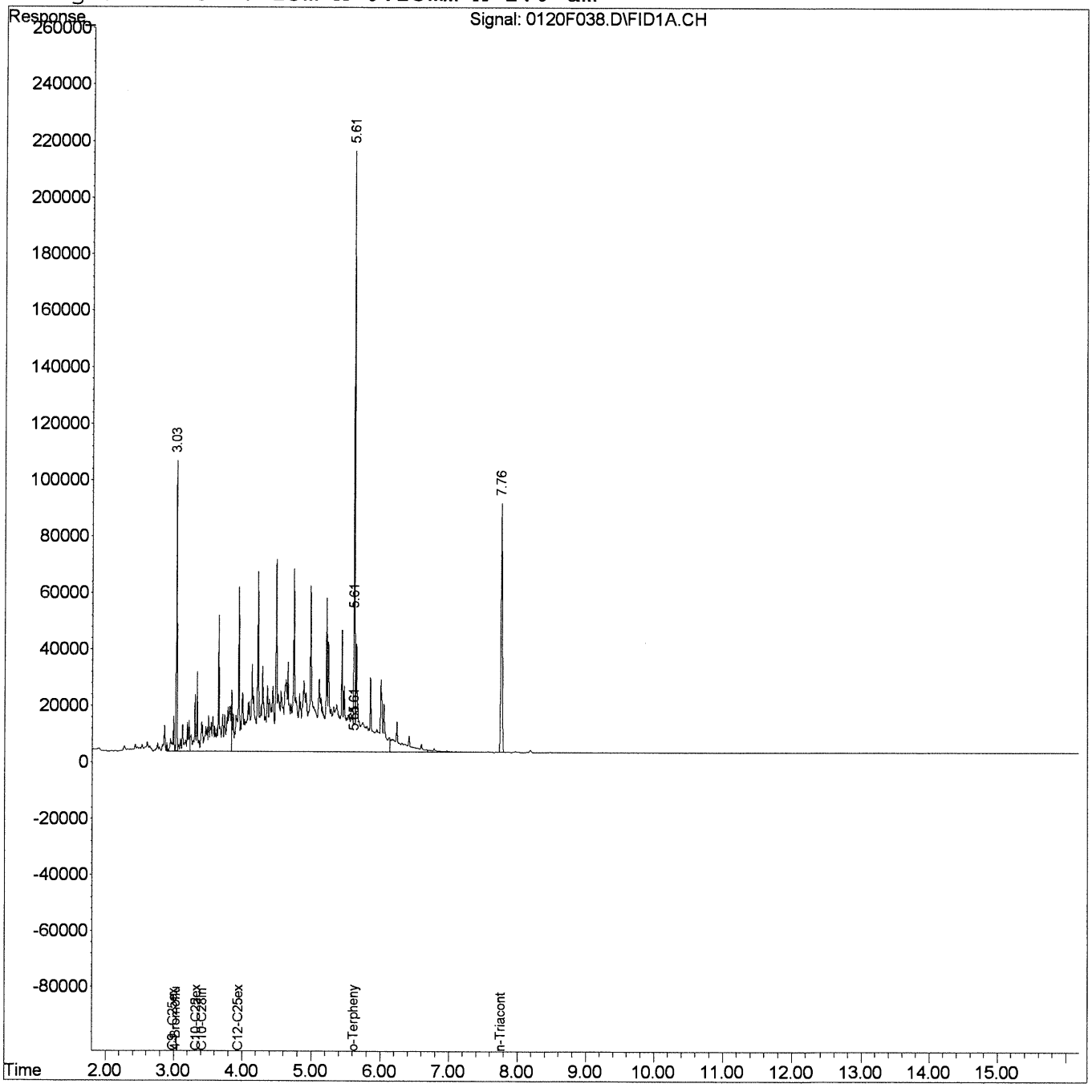
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F038.D Vial: 5
Acq On : 20 Jan 2016 4:51 pm Operator: CHARVEY
Sample : DRO/ SURR 2000/100 SVF01-81E Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:11 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F040.D Vial: 6
Acq On : 20 Jan 2016 5:13 pm Operator: CHARVEY
Sample : DRO/ SURR 5000/250 SVF01-81D Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:11:56 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
1) S	4-Bromofluorobenzene	3.03	195142	227.066	ppm
Spiked Amount	50.000	Recovery	=	454.13%	
2) S	o-Terphenyl	5.62	401220	228.403	ppm
Spiked Amount	50.000	Recovery	=	456.81%	
3) S	n-Triacontane	7.76	342898	303.755	ppm
Spiked Amount	50.000	Recovery	=	607.51%	
	Target Compounds				
4) H	C9 -C25ex DRO [TPH-Diesel]	2.99	7401627	4626.984	ppm
5) H	C10-C22ex DRO [AZ]	3.33	6971477	4608.067	ppm
6) H	C10-C25ex DRO [AK102]	3.33	7220559	4738.069	ppm
7) H	C10-C28in DRO [8015]	3.43	7256375	4705.023	ppm
8) H	C12-C25ex DRO [NWTPH]	3.94	6338944	4948.821	ppm

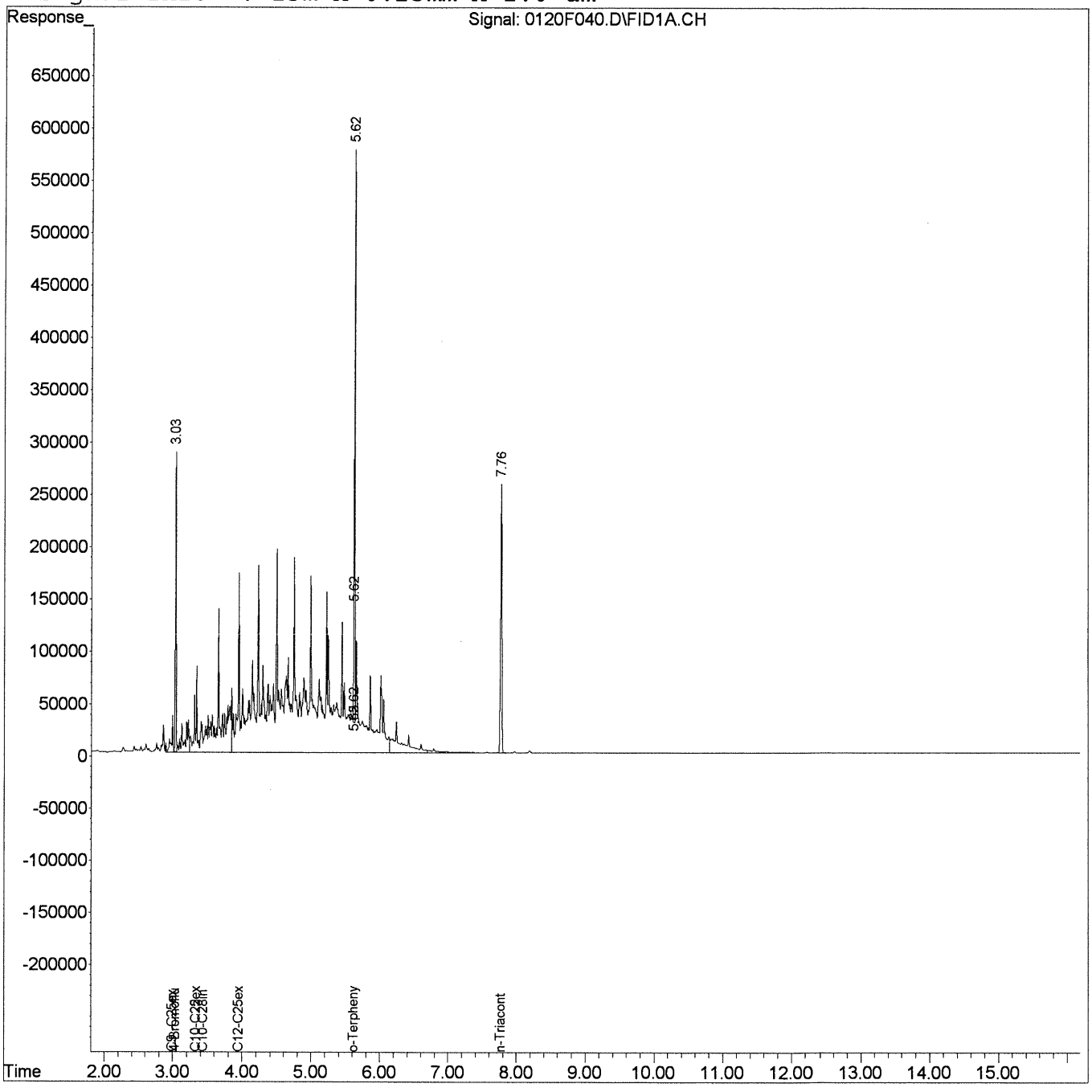
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F040.D Vial: 6
Acq On : 20 Jan 2016 5:13 pm Operator: CHARVEY
Sample : DRO/ SURR 5000/250 SVF01-81D Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:12 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F042.D Vial: 7
Acq On : 20 Jan 2016 5:35 pm Operator: CHARVEY
Sample : DRO 20000 SVF01-81C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:12:27 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
Target Compounds						
4)	H	C9 -C25ex DRO [TPH-Diesel]	2.99	27559415	17228.234	ppm
5)	H	C10-C22ex DRO [AZ]	3.33	25920907	17133.425	ppm
6)	H	C10-C25ex DRO [AK102]	3.33	26881748	17639.573	ppm
7)	H	C10-C28in DRO [8015]	3.43	27043752	17535.130	ppm
8)	H	C12-C25ex DRO [NWTPH]	3.94	23627468	18445.990	ppm

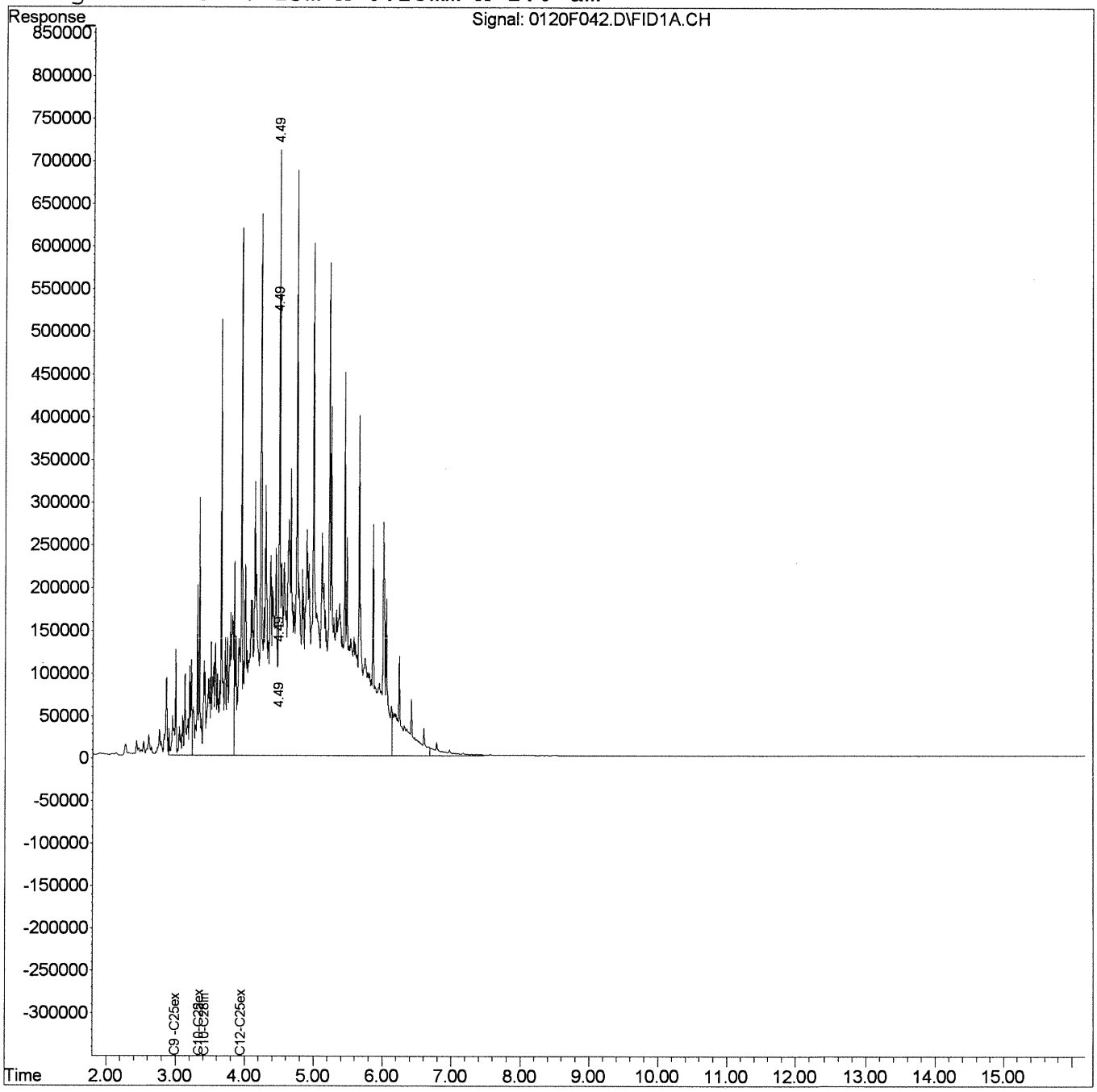
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F042.D Vial: 7
Acq On : 20 Jan 2016 5:35 pm Operator: CHARVEY
Sample : DRO 20000 SVF01-81C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:12 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F044.D Vial: 8
Acq On : 20 Jan 2016 5:57 pm Operator: CHARVEY
Sample : DRO 50000 SVF01-81B Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:12:57 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
Target Compounds						
4)	H	C9 -C25ex DRO [TPH-Diesel]	2.99	73765416	46113.019	ppm
5)	H	C10-C22ex DRO [AZ]	3.33	69405407	45876.184	ppm
6)	H	C10-C25ex DRO [AK102]	3.33	72007750	47250.870	ppm
7)	H	C10-C28in DRO [8015]	3.43	72458098	46981.726	ppm
8)	H	C12-C25ex DRO [NWTPH]	3.94	63494736	49570.410	ppm

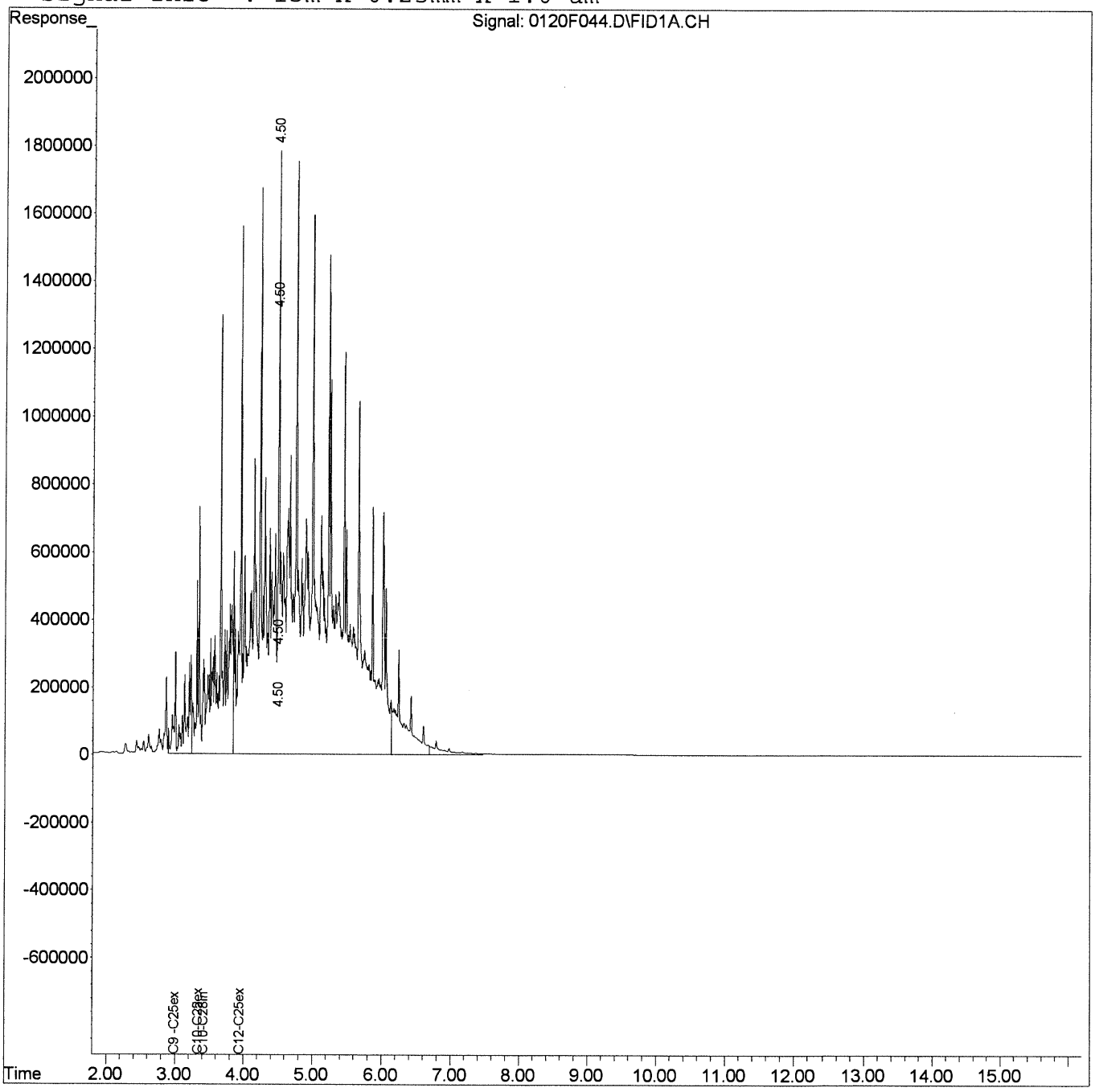
(f)=RT Delta > 1/2 Window (m)=manual int.
0120F044.D 011916F.M Thu Jan 21 09:26:53 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F044.D Vial: 8
Acq On : 20 Jan 2016 5:57 pm Operator: CHARVEY
Sample : DRO 50000 SVF01-81B Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:13 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:03:27 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F048.D Vial: 9
Acq On : 20 Jan 2016 6:41 pm Operator: CHARVEY
Sample : DRO ICV 1000 SVF01-81J Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:38:28 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:23:10 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

		Compound	R.T.	Response	Conc	Units
System Monitoring Compounds						
Target Compounds						
4)	H	C9 -C25ex DRO [TPH-Diesel]	2.99	1490487	1061.870	ppm
5)	H	C10-C22ex DRO [AZ]	3.33	1374388	1052.739	ppm
6)	H	C10-C25ex DRO [AK102]	3.33	1438393	1054.644	ppm
7)	H	C10-C28in DRO [8015]	3.43	1451284	1040.707	ppm
8)	H	C12-C25ex DRO [NWTPH]	3.94	1230847	1052.401	ppm

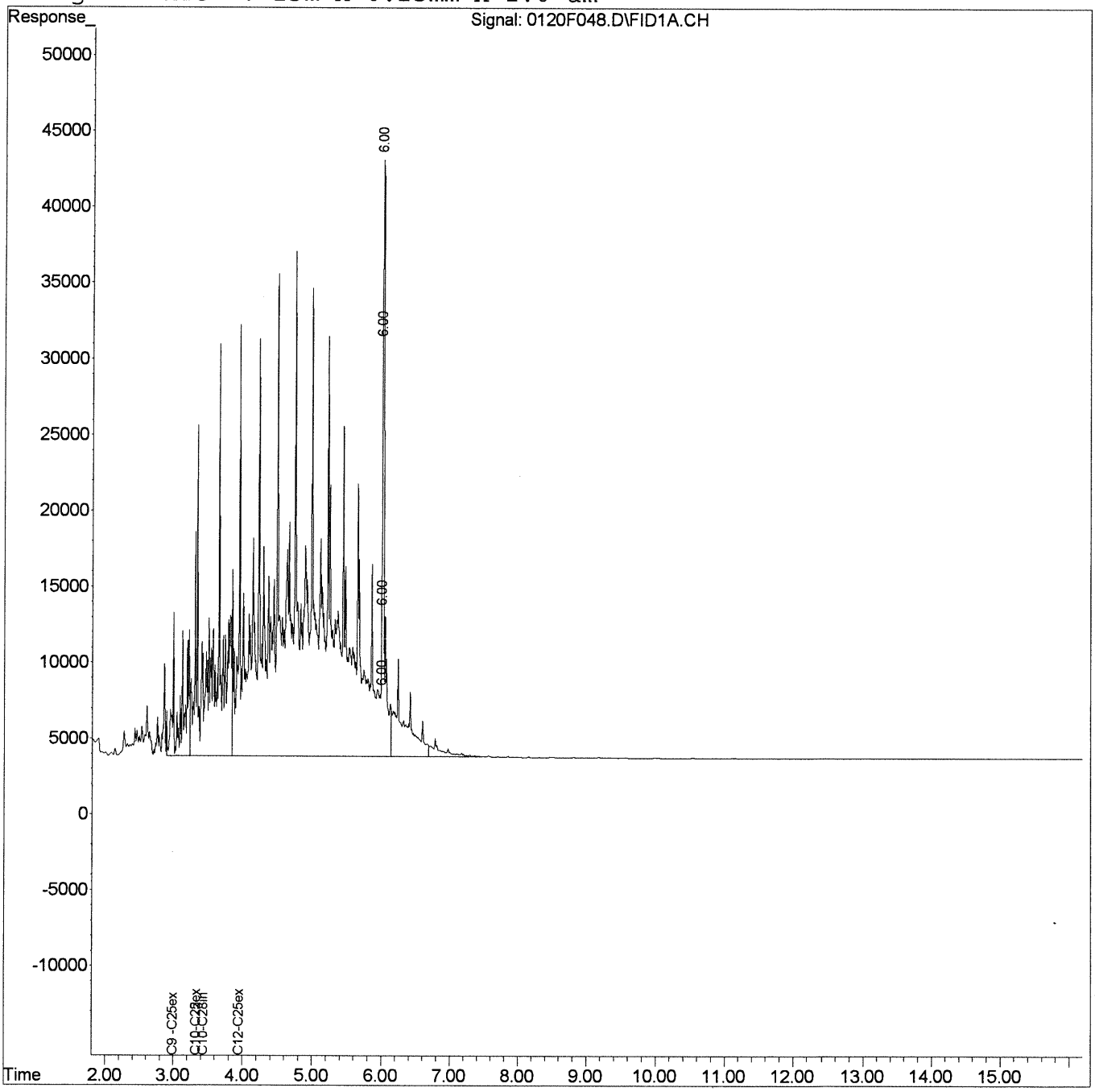
(f)=RT Delta > 1/2 Window (m)=manual int.
0120F048.D 011916F.M Thu Jan 21 09:40:32 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F048.D Vial: 9
Acq On : 20 Jan 2016 6:41 pm Operator: CHARVEY
Sample : DRO ICV 1000 SVF01-81J Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:38 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:23:10 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F050.D Vial: 17
Acq On : 20 Jan 2016 7:03 pm Operator: CHARVEY
Sample : AK103 20 SVF01-82H Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:18:35 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
11) H	C25-C36in RRO [AK103]	6.88	18085	21.347 ppm

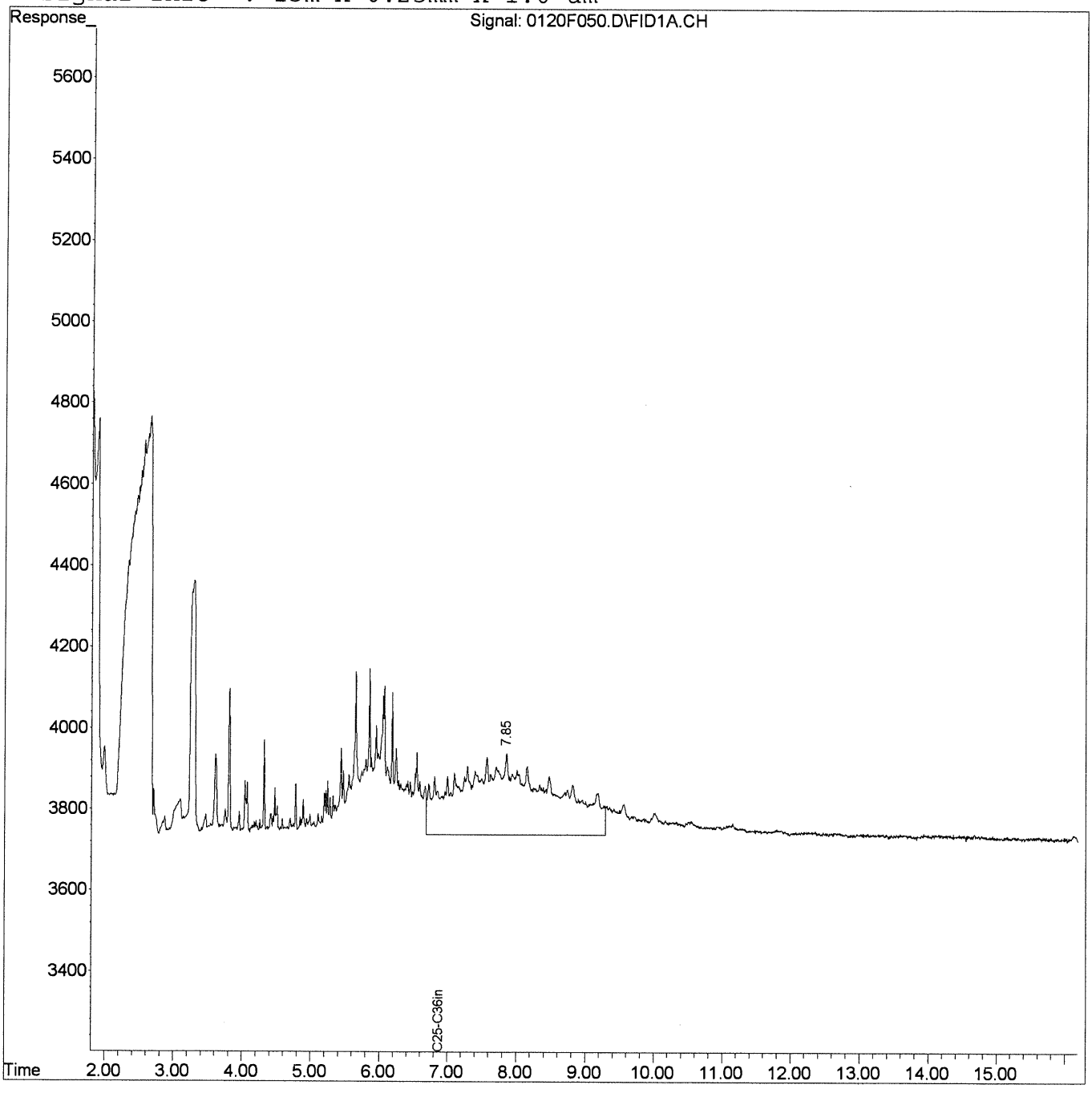
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F050.D Vial: 17
Acq On : 20 Jan 2016 7:03 pm Operator: CHARVEY
Sample : AK103 20 SVF01-82H Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:18 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F052.D Vial: 18
Acq On : 20 Jan 2016 7:26 pm Operator: CHARVEY
Sample : AK103 50 SVF01-82G Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:19:07 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

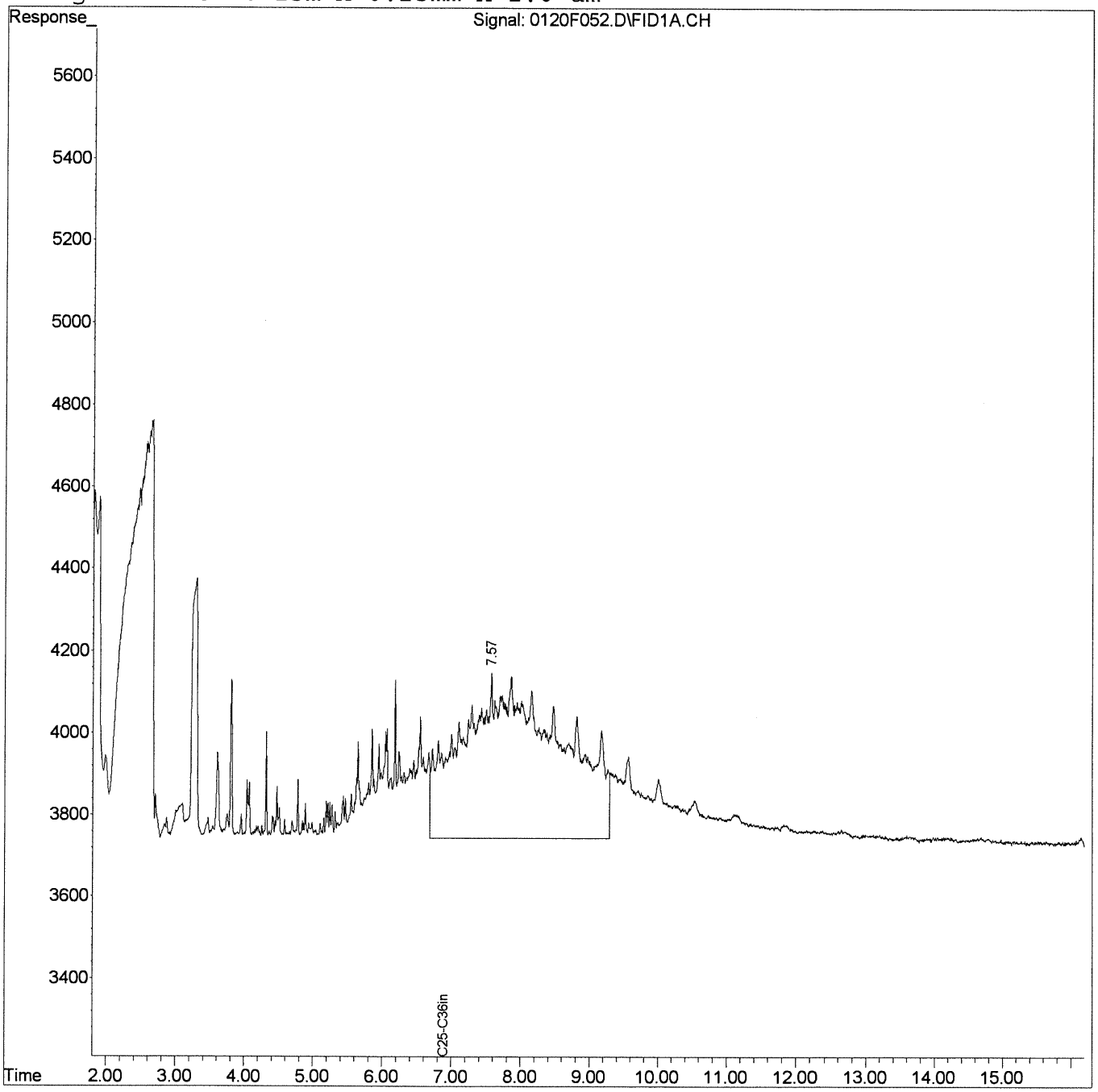
	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
11)	H C25-C36in RRO [AK103]	6.88	39584	46.724 ppm

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

Data File : J:\GC21\DATA\012016F\0120F052.D Vial: 18
Acq On : 20 Jan 2016 7:26 pm Operator: CHARVEY
Sample : AK103 50 SVF01-82G Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:19 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F054.D Vial: 19
Acq On : 20 Jan 2016 7:48 pm Operator: CHARVEY
Sample : AK103 200 SVF01-82F Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:19:37 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
11)	H C25-C36in RRO [AK103]	6.88	144944	171.087 ppm

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

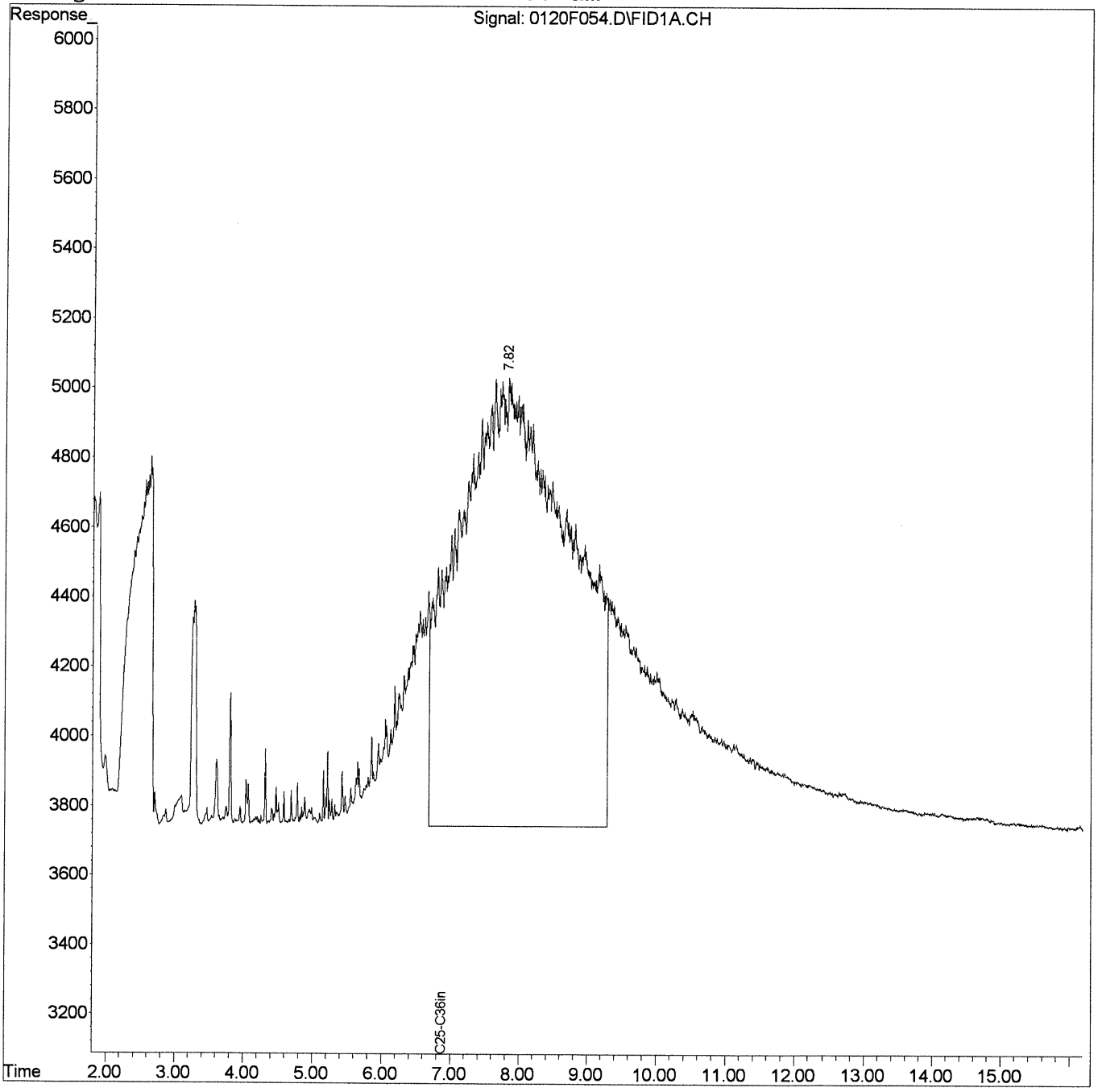
Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F054.D
Acq On : 20 Jan 2016 7:48 pm
Sample : AK103 200 SVF01-82F
Misc :
IntFile : rteint.p
Quant Time: Jan 21 9:19 2016 Quant Results File: 011916F.RES

Vial: 19
Operator: CHARVEY
Inst : GC21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F056.D Vial: 20
Acq On : 20 Jan 2016 8:10 pm Operator: CHARVEY
Sample : AK103 500 SVF01-82E Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:20:10 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
	Target Compounds				
11)	H C25-C36in RRO [AK103]	6.88	365877	431.868	ppm

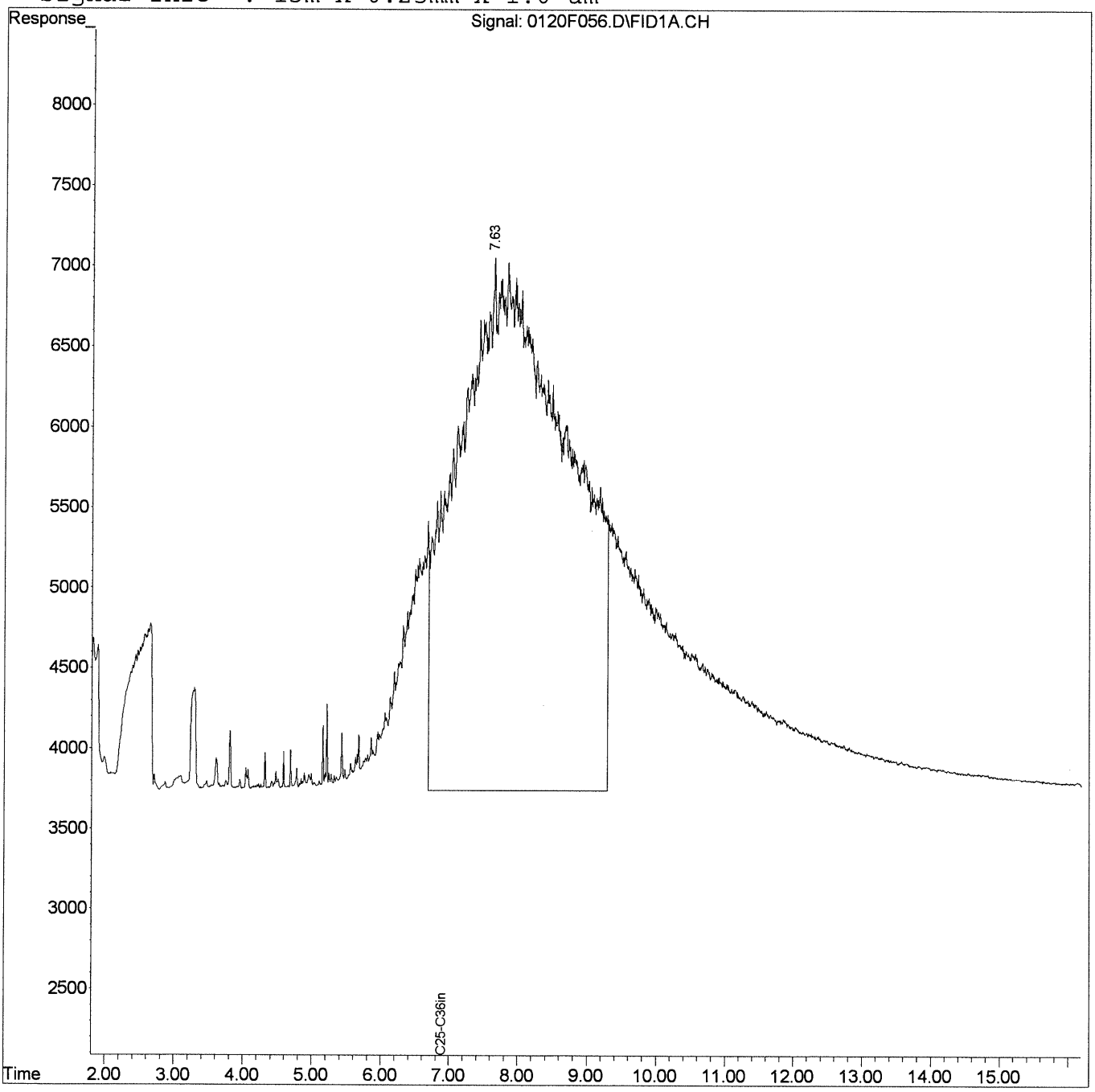
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F056.D Vial: 20
Acq On : 20 Jan 2016 8:10 pm Operator: CHARVEY
Sample : AK103 500 SVF01-82E Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:20 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F058.D Vial: 21
Acq On : 20 Jan 2016 8:32 pm Operator: CHARVEY
Sample : AK103 2000 SVF01-82D Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:20:37 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
	Target Compounds				
11)	H C25-C36in RRO [AK103]	6.88	1486588	1754.714	ppm

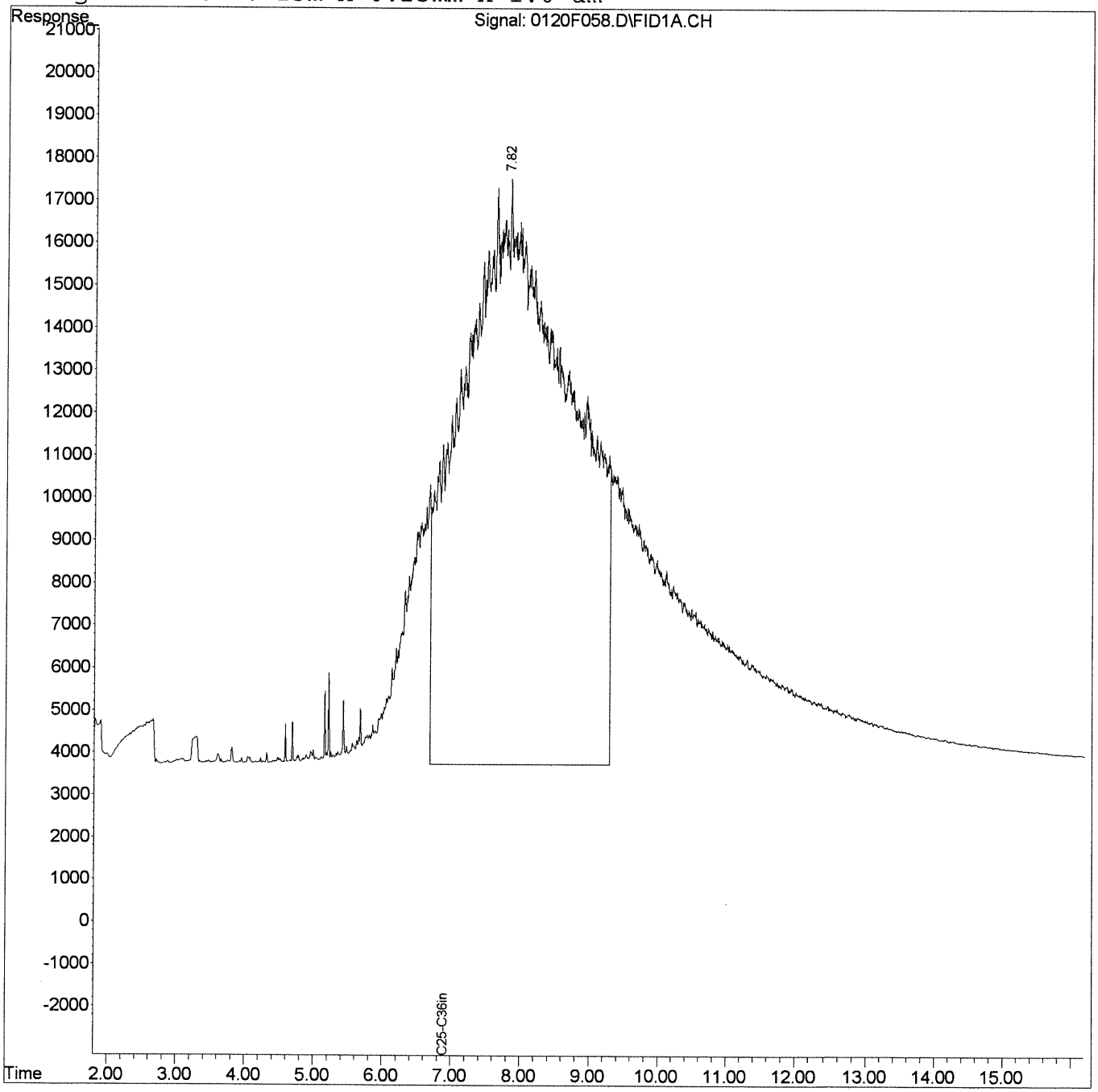
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F058.D Vial: 21
Acq On : 20 Jan 2016 8:32 pm Operator: CHARVEY
Sample : AK103 2000 SVF01-82D Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:20 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F060.D Vial: 22
Acq On : 20 Jan 2016 8:54 pm Operator: CHARVEY
Sample : AK103 5000 SVF01-82C Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:20:57 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
	Target Compounds			
11)	H C25-C36in RRO [AK103]	6.88	3695608	4362.161 ppm

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

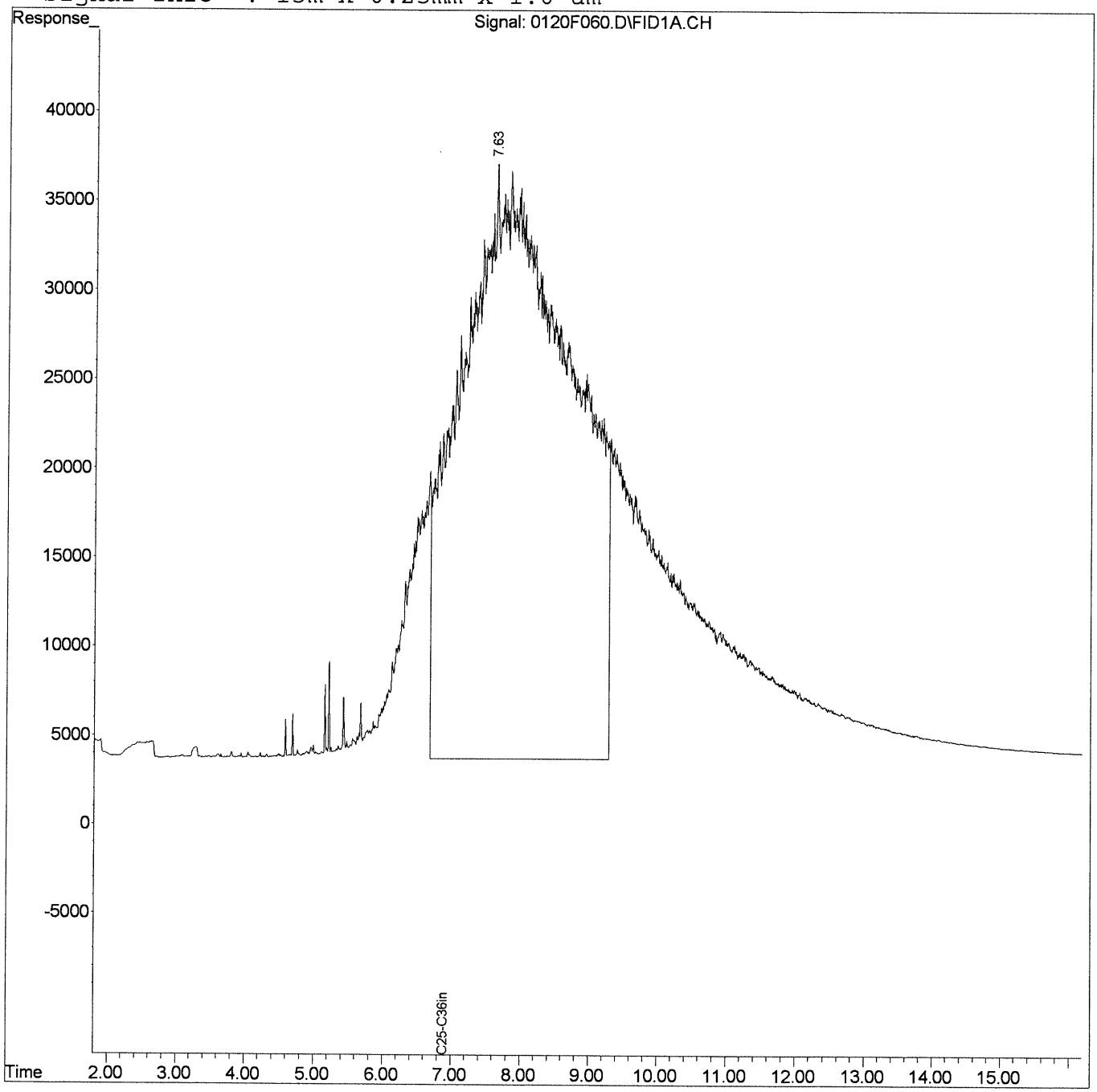
Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F060.D
Acq On : 20 Jan 2016 8:54 pm
Sample : AK103 5000 SVF01-82C
Misc :
IntFile : rteint.p
Quant Time: Jan 21 9:21 2016 Quant Results File: 011916F.RES

Vial: 22
Operator: CHARVEY
Inst : GC21
Multiplr: 1.00

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:17:07 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F064.D Vial: 23
Acq On : 20 Jan 2016 9:38 pm Operator: CHARVEY
Sample : AK103 ICV 1000 SVF01-82J Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 09:39:13 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:23:10 2016
Response via : Initial Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
	Target Compounds				
11)	H C25-C36in RRO [AK103]	6.88	753563	1009.984	ppm

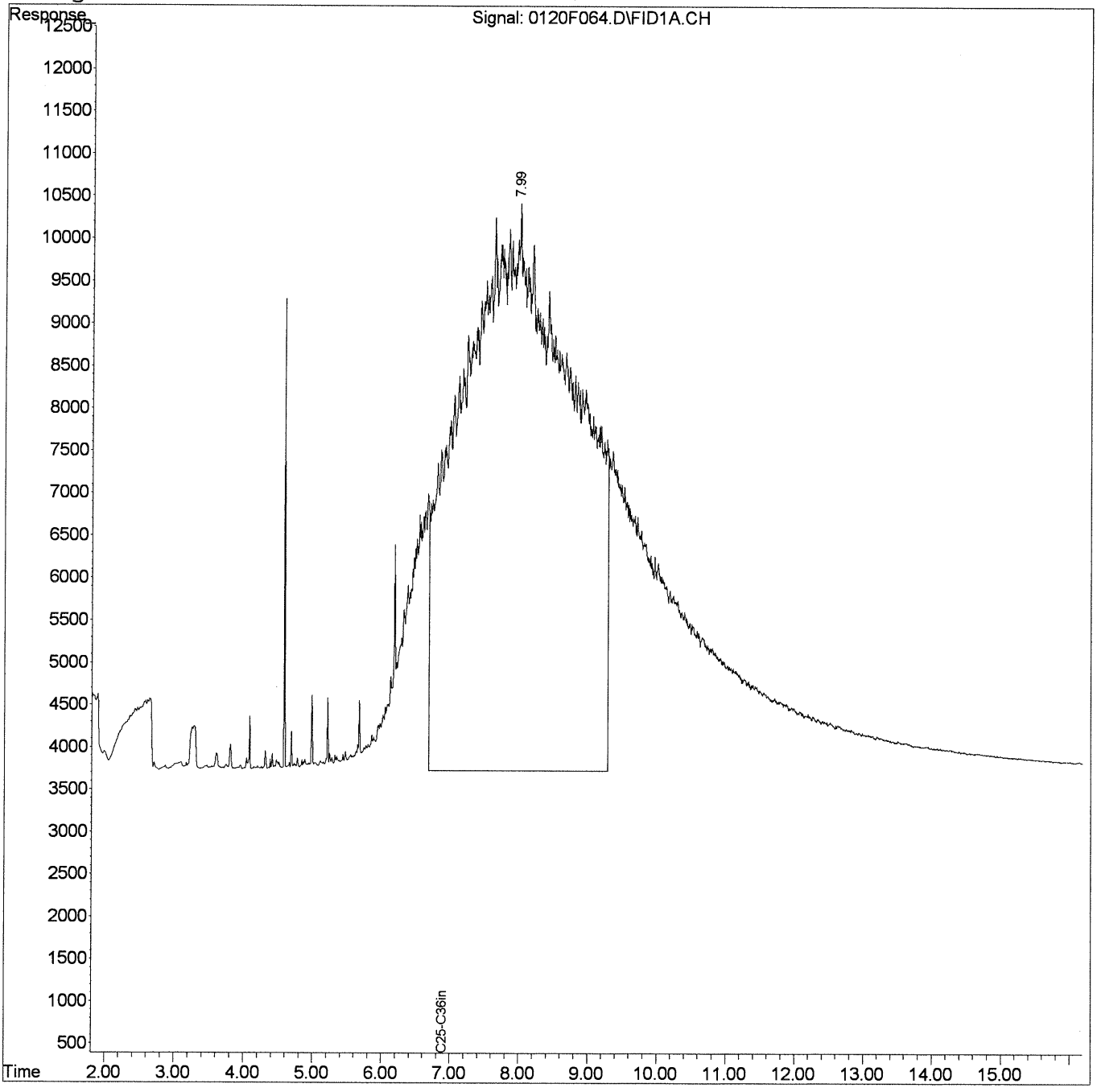
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : J:\GC21\DATA\012016F\0120F064.D Vial: 23
Acq On : 20 Jan 2016 9:38 pm Operator: CHARVEY
Sample : AK103 ICV 1000 SVF01-82J Inst : GC21
Misc : Multiplr: 1.00
IntFile : rteint.p
Quant Time: Jan 21 9:39 2016 Quant Results File: 011916F.RES

Quant Method : J:\GC21\METHODS\011916F.M (RTE Integrator)
Title : 8015/NWTPH/AK SVF MJ257 CAL
Last Update : Thu Jan 21 09:23:10 2016
Response via : Single Level Calibration
DataAcq Meth : SVF_FB.M

Volume Inj. : 1 uL
Signal Phase : ZB-1
Signal Info : 15m x 0.25mm x 1.0 um



Preparation Information

Group ID:	KWG1603188	**Prep Method:**	EPA 3510C	**Prep Date:**	04/26/16 11:16
Department:	Semivoa GC				

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.
K1603690-001	NEDC I-5 Grab	NWTPH-Dx NW_TPH	WATER	940ml	2ml
K1604068-001	ERH029	8015C DRO RRO	WATER	460ml	1ml
K1604068-002	ERH030	8015C DRO RRO	WATER	495ml	1ml
K1604068-003	ERH031	8015C DRO RRO	WATER	485ml	1ml
K1604068-004	ERH032	8015C DRO RRO	WATER	480ml	1ml
K1604068-005	ERH033	8015C DRO RRO	WATER	495ml	1ml
K1604068-006	ERH034	8015C DRO RRO	WATER	480ml	1ml
K1604068-007	ERH035	8015C DRO RRO	WATER	465ml	1ml
K1604068-008	ERH036	8015C DRO RRO	WATER	485ml	1ml
KWG1603188-1	Matrix Spike	8015C DRO RRO	WATER	480ml	1ml
KWG1603188-2	Duplicate Matrix Spike	8015C DRO RRO	WATER	495ml	1ml
KWG1603188-3	Lab Control Sample	8015C DRO RRO	WATER	1000ml	2ml
KWG1603188-4	Method Blank	8015C DRO RRO	WATER	1000ml	2ml
KWG1603188-5	Duplicate Client Sample	NWTPH-Dx NW_TPH	WATER	940ml	2ml

Lab Code	Parent Lab Code	Comments
KWG1603188-1	K1604068-002	
KWG1603188-2	K1604068-002	
KWG1603188-5	K1603690-001	

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1603690-001	1512688					CPollard
K1604068-001	1512574					CPollard
K1604068-002	1512575					CPollard
K1604068-003	1512576					CPollard
K1604068-004	1512577					CPollard
K1604068-005	1512578					CPollard
K1604068-006	1512579					CPollard
K1604068-007	1512580					CPollard
K1604068-008	1512573					CPollard
KWG1603188-1	1512581					CPollard
KWG1603188-2	1512582					CPollard
KWG1603188-3	1512583					CPollard
KWG1603188-4	1512584					CPollard
KWG1603188-5	1512689					CPollard

Comments:

Started By: JJohnson Assisted By: Training: Yes / No

Completed By: KMiller Assisted By: Yes / No

Reviewed By: Date: 4/29/16 Storage:

Chain of Custody

Relinquished By: Date: 4.27.16

Received By: Date: 4/28/16 Extracts Examined: Yes / No

Preparation Information

WO 4126116 JJ
Hold: 4/26/16

Group ID:	KWG1603188	**Prep Method:**	EPA 3510C	**Prep Date:**	04/26/16 00:00
Department:	Semivoa GC				

Due: 4/21/16

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. mL	pH	Int. Vol.	Final Vol.	Surr. Added µL	Spike Added µL
1	K1603690-001	NEDC I-5 Grab (e)	.05	✓	NWTPH-Dx NW_TPH	WATER	940	KZ	NA	2	100	—
2	K1604068-001	ERH029	.08	✓	8015C DRO RRO	WATER	460	KZ		1		—
3	K1604068-002	ERH030	.08	✓	8015C DRO RRO	WATER	495	KZ		1		—
4	K1604068-003	ERH031	.08	✓	8015C DRO RRO	WATER	485	KZ		1		—
5	K1604068-004	ERH032	.08	✓	8015C DRO RRO	WATER	480	KZ		1		—
6	K1604068-005	ERH033	.08	✓	8015C DRO RRO	WATER	495	KZ		1		—
7	K1604068-006	ERH034	.08	✓	8015C DRO RRO	WATER	480	KZ		1		—
8	K1604068-007	ERH035	.08	✓	8015C DRO RRO	WATER	465	KZ		1		—
9	K1604068-008	ERH036	.08	✓	8015C DRO RRO	WATER	485	KZ		1		—
10	KWG1603188-1 4068-002	Matrix Spike	.11	✓	8015C DRO RRO	WATER	480	KZ		1		100
11	KWG1603188-2 4068-002	Duplicate Matrix Spike	.12	✓	8015C DRO RRO	WATER	495	KZ		1		
12	KWG1603188-3	Lab Control Sample	—		8015C DRO RRO	WATER	1000	KZ		2		
13	KWG1603188-4	Method Blank	—		8015C DRO RRO	WATER	1000	KZ		2		—
14	KWG1603188-5 3690-001 (A)	Duplicate Client Sample (e)	.18	✓	NWTPH-Dx NW_TPH	WATER	940	KZ	✓	2		—

Comments: (e)=Heavy emulsion — DRO Prep Run: 260142

(A) Sample Became Super foamy while S-Evaping, went to Near dryness. NW Prep Run: 260144
KZ 4-27-16

Surrogate ID: SUF01-80A XP: 5/24/16 500ppm 100uL (epp'28)

Spike ID: SUF01-81A XP: 7/12/16 16000/8000ppm 100uL (epp'28)

Witness: Kellar 4/26/16

Started By: JJohnson — Assisted By:

Completed By: — Assisted By:

Additional Prep Information for EPA 3510C
Fuel Hydrocarbons in Water

Service Request # K1604068, 3690 **Work Group #** KWG1603188

DCM Lot # DP022 HCl Lot # 54128

Extraction Start (time/date/initial): 11:16 4/26/16 JJ

Extraction Stop (time/date/initial): 12:20 4/26/16 JJ

Sulfate Lot # 153214 Glass Wool Lot # 30714002

S-Evap (time/date/initial): 10:30 4-27-16 K S-Evap Thermometer ID: XSVM006

Temp as measured: 75 °C Correction factor: 0 °C Adjusted temp: 75 °C

N-Evap (time/date/initial): 12:30 4-27-16 K N-Evap Thermometer ID: XSVM001

Temp as measured: 32 °C Correction factor: 0 °C Adjusted temp: 32 °C

Sulfuric Acid Clean-up (3665) (time/date/initial): — Acid Lot #:

Silica Gel Clean-up (3630) (time/date/initial): — Silica Gel Lot #:

Pipette (5 mL) Lot # — Pipette (2 mL) Lot # 05615645 Pipette (1 mL) Lot # 22215646

Vial: White Vial Storage: Fuel Box

Archived Extract Storage: Caged wisdom (QC + 3690)

Additional Comments:

Bench Sheet Review Check List	
☑	Hold times met (if no, reason:)
☑	Prep date, time, method, department, product code correct in stealth
☑	Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
☑	Weights/Volumes and units correct on raw and final bench sheets
☑	Sample IDs have been checked - bottle numbers appended if required
☑	Names present for: started by, completed by, relinquished by, and witnessed by. Training circled.
☑	Extract storage recorded
☑	Additional prep sheet completely filled out (NA or line out blanks)
☑	All clean-ups have been noted on additional prep sheet
☑	Signed service request with Form V, if applicable, has been attached

DILUTION LOG

LAB ID	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	DATE	ANALYST	DCM SOLVENT LOT	COMMENTS
3690-1	200ul	1ml	5x	042816	JMS	DN388	BROWN
↓ -1DUP							

Volatile Organic Compounds

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Exception Report

Data File: J:\MS18\DATA\050216\0502F021.D
Lab ID: K1604068-001
RunType: SMPL
Matrix: WATER

Date Acquired: 05/02/2016 22:27
Date Quantitated: 05/03/2016 08:35
Batch ID: KWG1603423
Analysis Method: 8260C
ListJoinID: LJ17286

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/3/16

Secondary Review: 5/3/16

Printed: 05/03/2016 10:06:17
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS18\DATA\050216\0502F021.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 22:27	**Quant Date:**	05/03/2016 08:35	**Vial:**	21
Run Type:	SMPL	**ListJoinID:**	LJ17286	**Dilution:**	1.0
Lab ID:	K1604068-001			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603423	**Prep Lot:**	KWG1603424	**Report Group:**	K1604068
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514329	**Prep Date:**	05/02/2016		

Quant Method:	J:\MS18\METHODS\041316MS18_8	**Calibration ID:**	CAL14682
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17286
Tune Ref:	J:\MS18\DATA\050216\0502F007.D	**Method ID:**	MJ1465
MB Ref:	J:\MS18\DATA\050216\0502F015.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.55	0.00	96	661563	10.00	OK
2	Chlorobenzene-d5	9.02	0.00	82	250013	10.00	OK
3	1,4-Dichlorobenzene-d4	11.44	0.01	152	233675	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	4.70	0.00	0.00	113	119151	9.09	91	80-119	OK	
1	1,2-Dichloroethane-d4	5.19	0.00	0.00	65	144889	9.57	96	81-118	OK	
1	Toluene-d8	7.43	0.00	0.00	98	616446	10.41	104	89-112	OK	
2	4-Bromofluorobenzene	10.27	0.00	0.00	95	206409	9.49	95	85-114	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Benzene				78	0d		0.062	U	
1	Toluene				92	0d		0.054	U	
2	Ethylbenzene				106	0		0.050	U	
2	m,p-Xylenes				106	0		0.11	U	
2	o-Xylene				106	0		0.074	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS18\DATA\050216\0502F021.D Vial: 21
Acq On : 2 May 2016 22:27 Operator: YX
Sample : K1604068-001 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 03 08:12:06 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

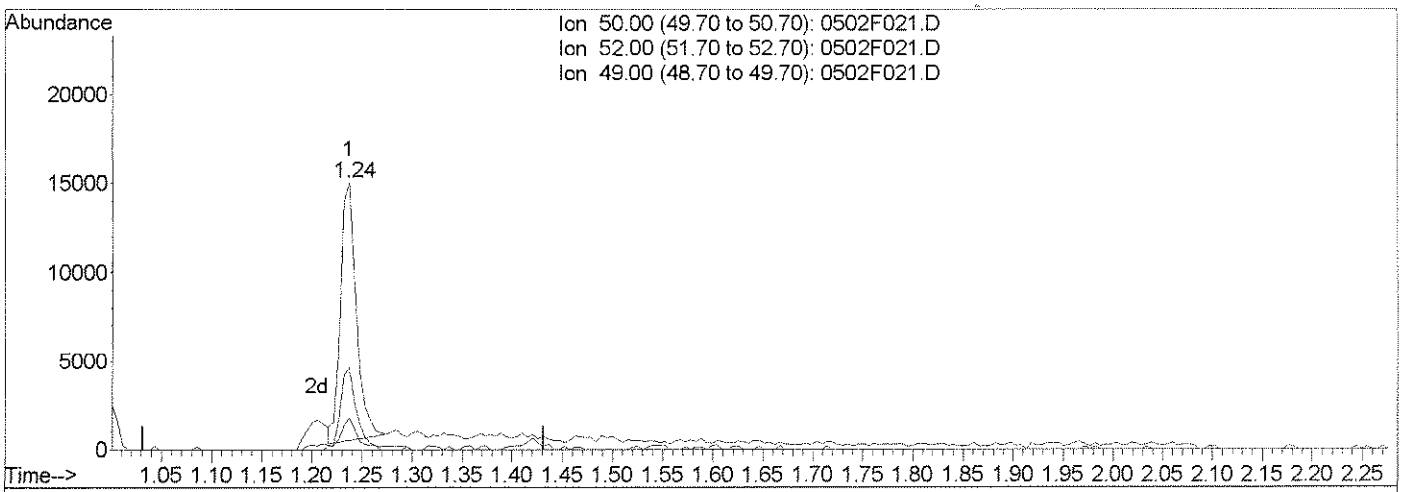
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.55	96	661563	10.00	PPB		0.00
65) Chlorobenzene-d5	9.02	82	250013	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	233675	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	4.70	113	119151	9.09	PPB		0.00
Spiked Amount 10.000			Recovery = 90.90%				
48) 1,2-Dichloroethane-d4	5.19	65	144889	9.57	PPB		0.00
Spiked Amount 10.000			Recovery = 95.70%				
63) Toluene-d8	7.43	98	616446	10.41	PPB		0.00
Spiked Amount 10.000			Recovery = 104.10%				
85) 4-Bromofluorobenzene	10.27	95	206409	9.49	PPB		0.00
Spiked Amount 10.000			Recovery = 94.90%				
Target Compounds							Qvalue
3) Chloromethane	1.24	50	15050m	0.70	PPB		
14) Acetone	2.33	43	13581	6.42	PPB		93
21) Methylene Chloride	2.71	84	1004	0.06	PPB	#	74
26) Hexane	3.09	57	665	0.04	PPB		86
90) n-Propylbenzene	10.49	91	3473	0.04	PPB		84
97) sec-Butylbenzene	11.22	105	2528	0.03	PPB		91
101) n-Butylbenzene	11.80	91	3622	0.07	PPB		99
104) 1,3,5-Trichlorobenzene	12.63	180	908	0.04	PPB		71
105) 1,2,4-Trichlorobenzene	13.07	180	867	0.04	PPB	#	17
107) Naphthalene	13.25	128	92779	2.41	PPB		98
108) 1,2,3-Trichlorobenzene	13.44	180	545	0.03	PPB	#	71

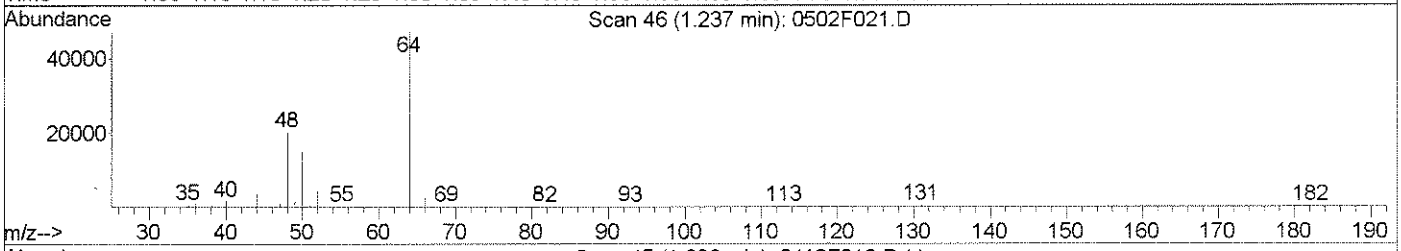
(#) = qualifier out of range (m) = manual integration

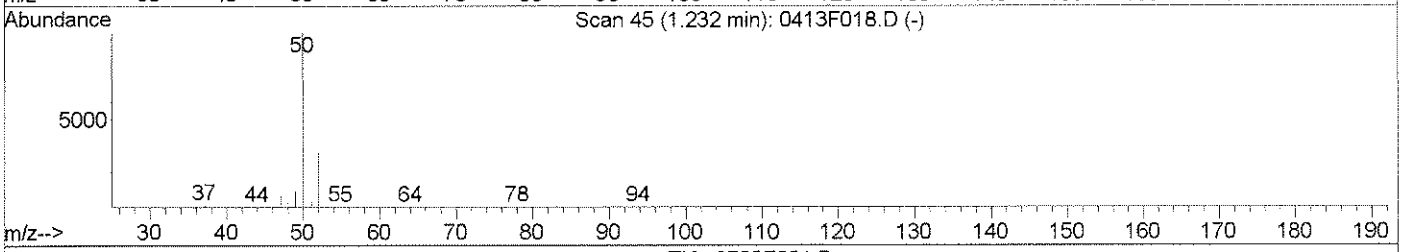
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\050216\0502F021.D Vial: 21
Acq On : 2 May 2016 22:27 Operator: YX
Sample : K1604068-001 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:12 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Multiple Level Calibration







TIC: 0502F021.D

(3) Chloromethane (PT)

1.24min 0.74PPB

response 15916

Ion	Exp%	Act%
50.00	100	100
52.00	31.50	32.61
49.00	9.20	11.35
0.00	0.00	0.00

Manual Integration:

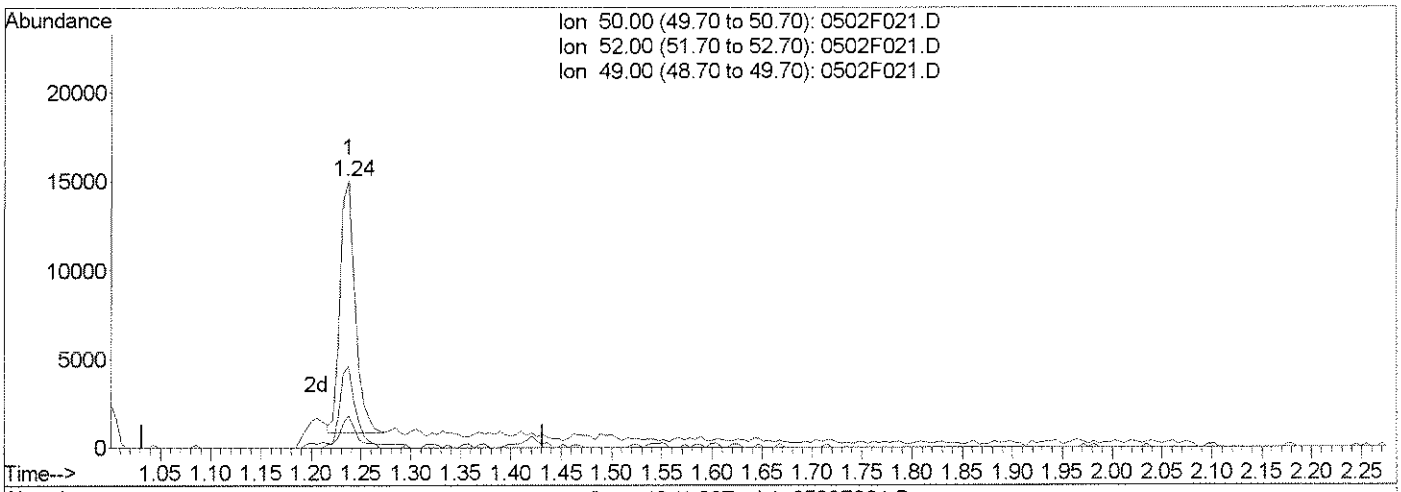
Before

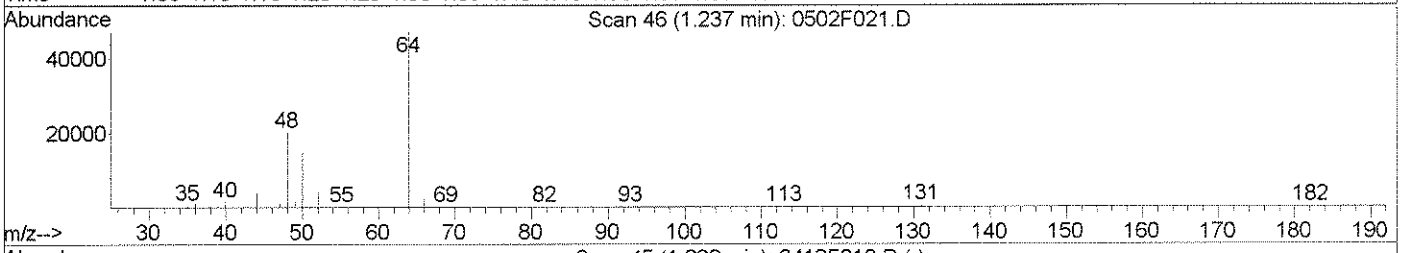
05/03/16

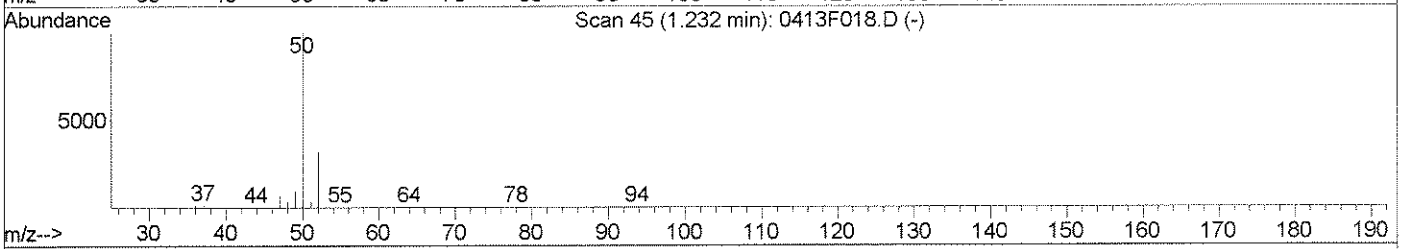
0502F021.D 041316MS18_8260.M Tue May 03 08:34:25 2016

Data File : J:\MS18\DATA\050216\0502F021.D Vial: 21
Acq On : 2 May 2016 22:27 Operator: YX
Sample : K1604068-001 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:34 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Multiple Level Calibration







TIC: 0502F021.D

(3) Chloromethane (PT)

1.24min 0.70PPB m

response 15050

Ion	Exp%	Act%
50.00	100	100
52.00	31.50	30.73
49.00	9.20	12.08
0.00	0.00	0.00

Manual Integration:

After

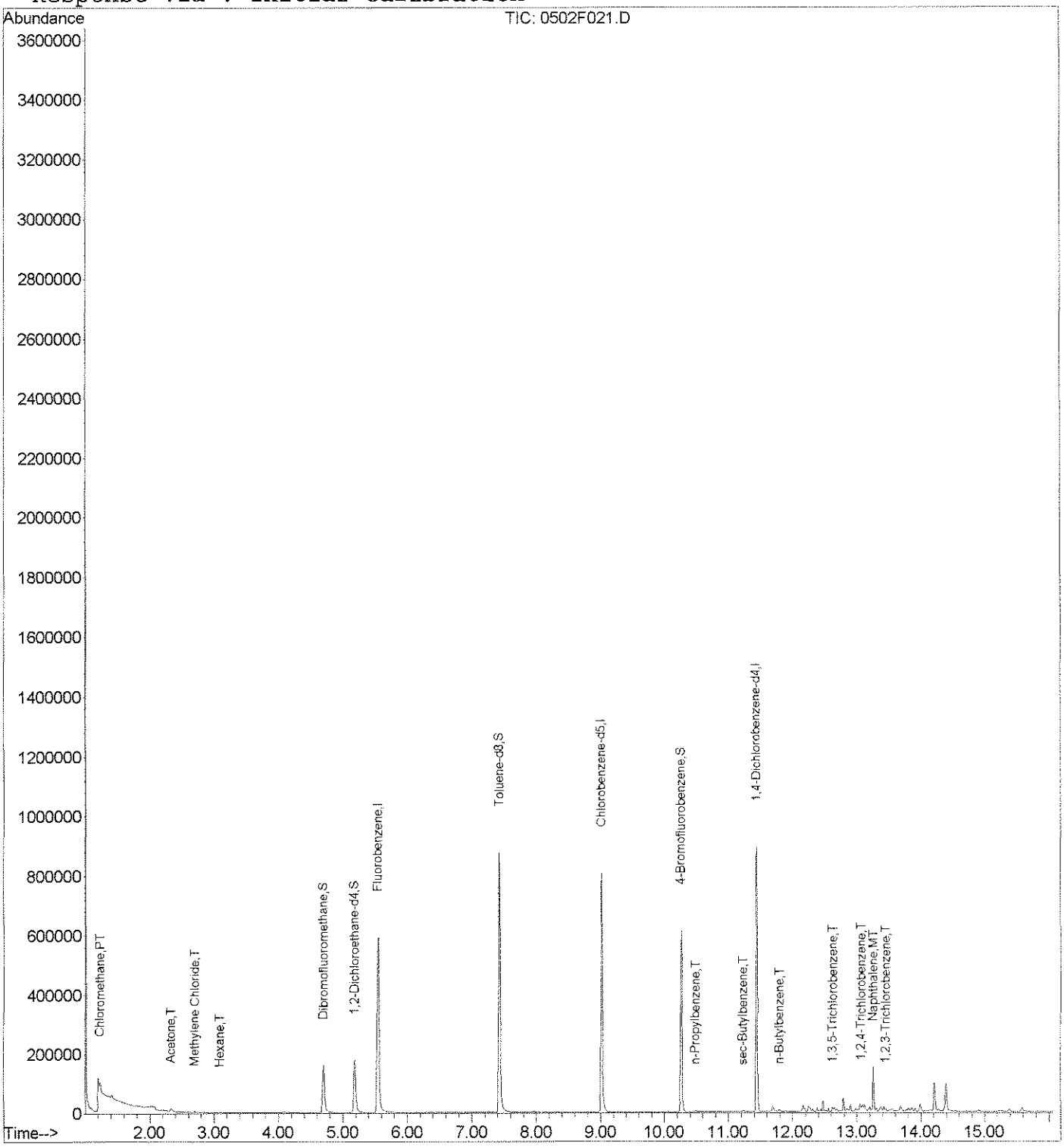
Baseline correction

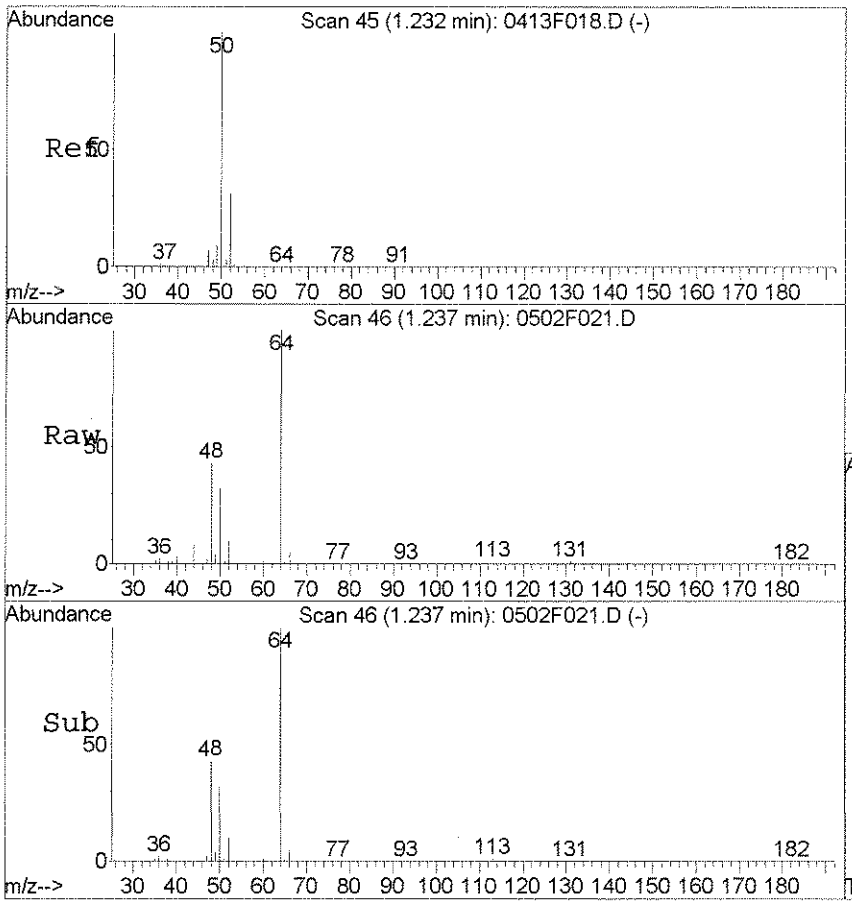
05/03/16

0502F021.D 041316MS18_8260.M Tue May 03 08:34:32 2016

Data File : J:\MS18\DATA\050216\0502F021.D Vial: 21
Acq On : 2 May 2016 22:27 Operator: YX
Sample : K1604068-001 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:35 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration

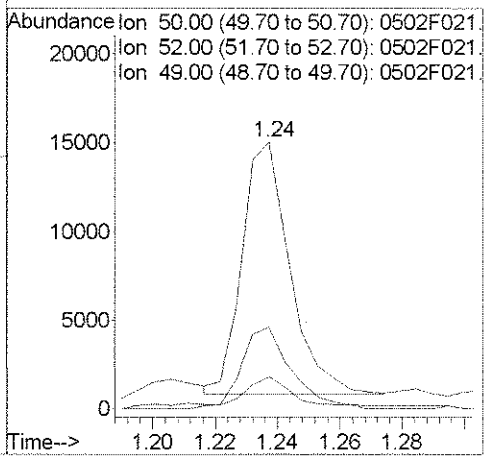


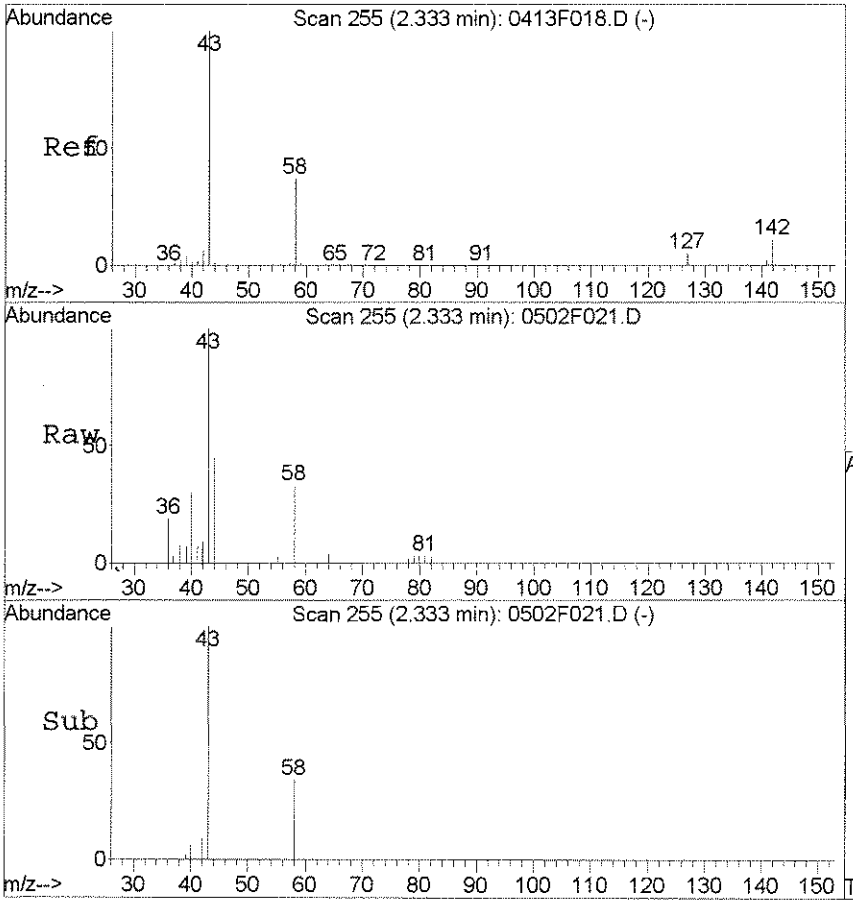


#3
Chloromethane
Concen: 0.70 PPB m
RT: 1.24 min Scan# 46
Delta R.T. 0.01 min
Lab File: 0502F021.D
Acq: 2 May 2016 22:27

Tgt Ion: 50 Resp: 15050

Ion	Ratio	Lower	Upper
50	100		
52	30.7	1.5	61.5
49	12.1	0.0	39.2

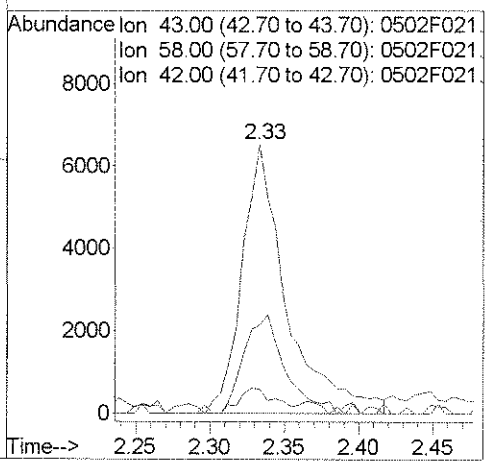


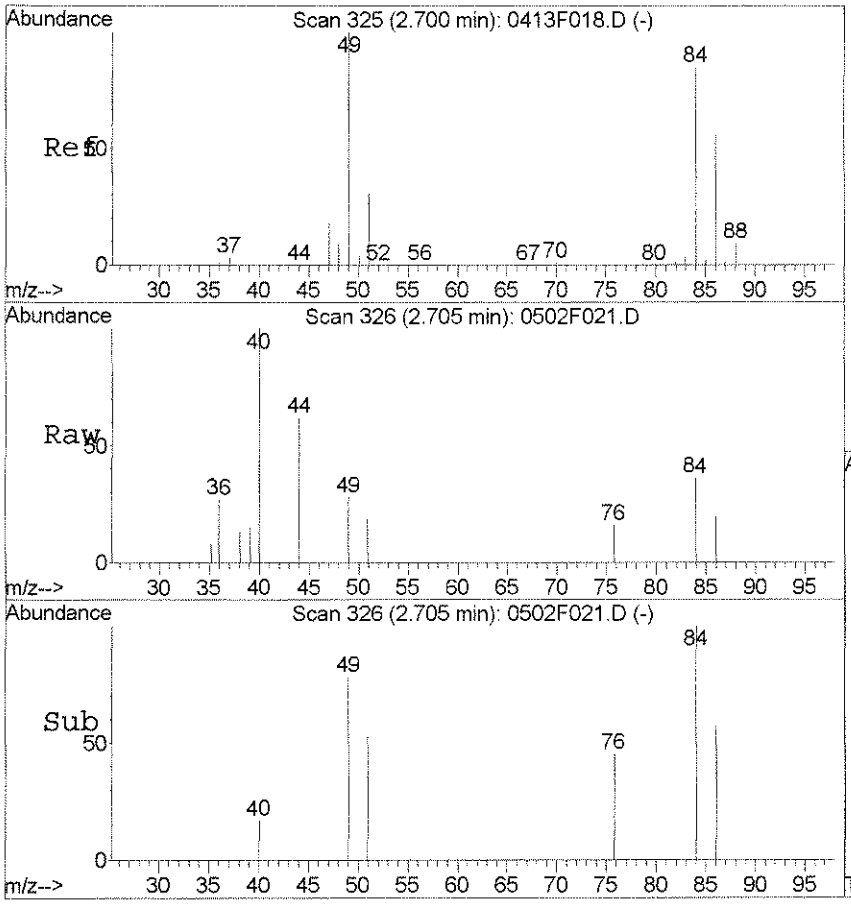


#14
Acetone
Concen: 6.42 PPB
RT: 2.33 min Scan# 255
Delta R.T. 0.01 min
Lab File: 0502F021.D
Acq: 2 May 2016 22:27

Tgt Ion: 43 Resp: 13581

Ion	Ratio	Lower	Upper
43	100		
58	32.7	6.9	66.9
42	8.9	0.0	36.8

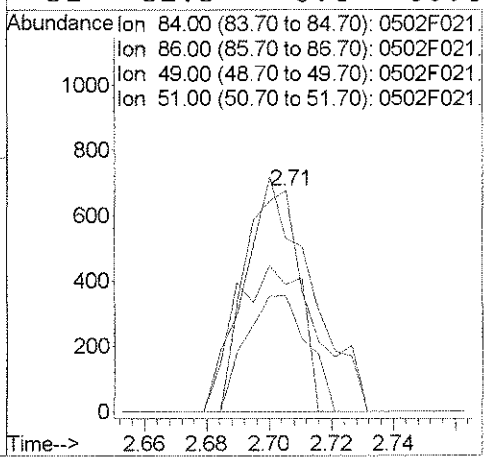


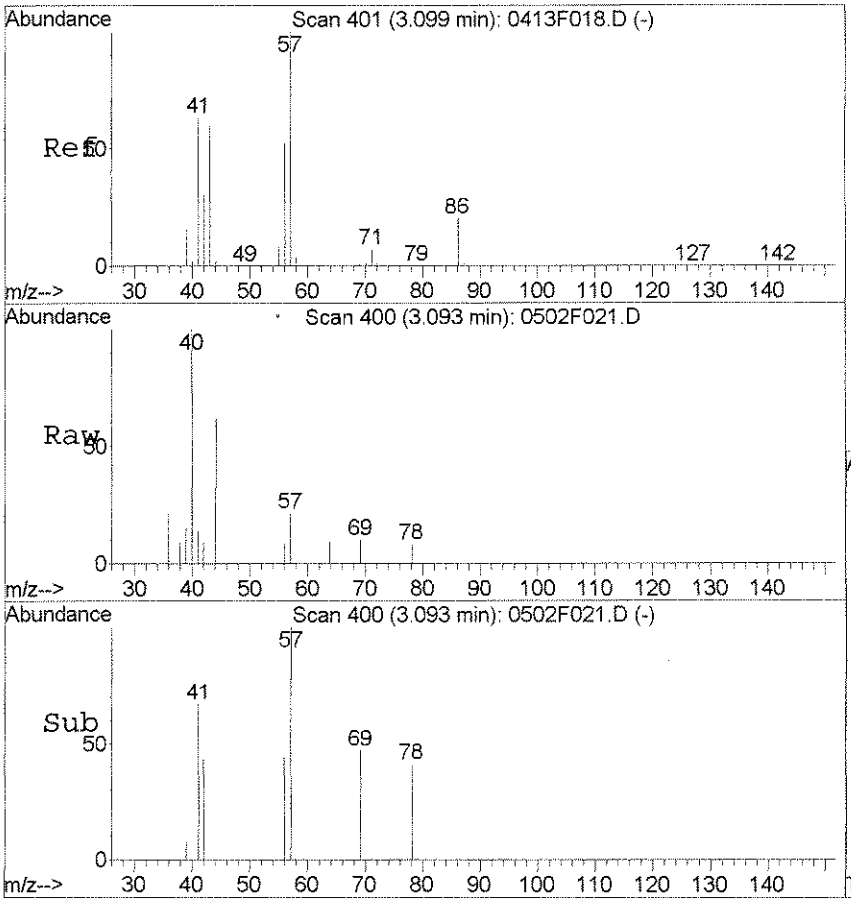


#21
Methylene Chloride
Concen: 0.06 PPB
RT: 2.71 min Scan# 326
Delta R.T. 0.01 min
Lab File: 0502F021.D
Acq: 2 May 2016 22:27

Tgt Ion: 84 Resp: 1004

Ion	Ratio	Lower	Upper
84	100		
86	57.4	35.6	95.6
49	78.4	87.0	147.0#
51	52.5	6.4	66.4

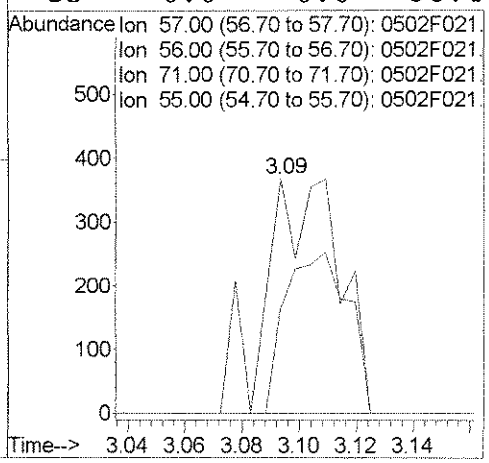


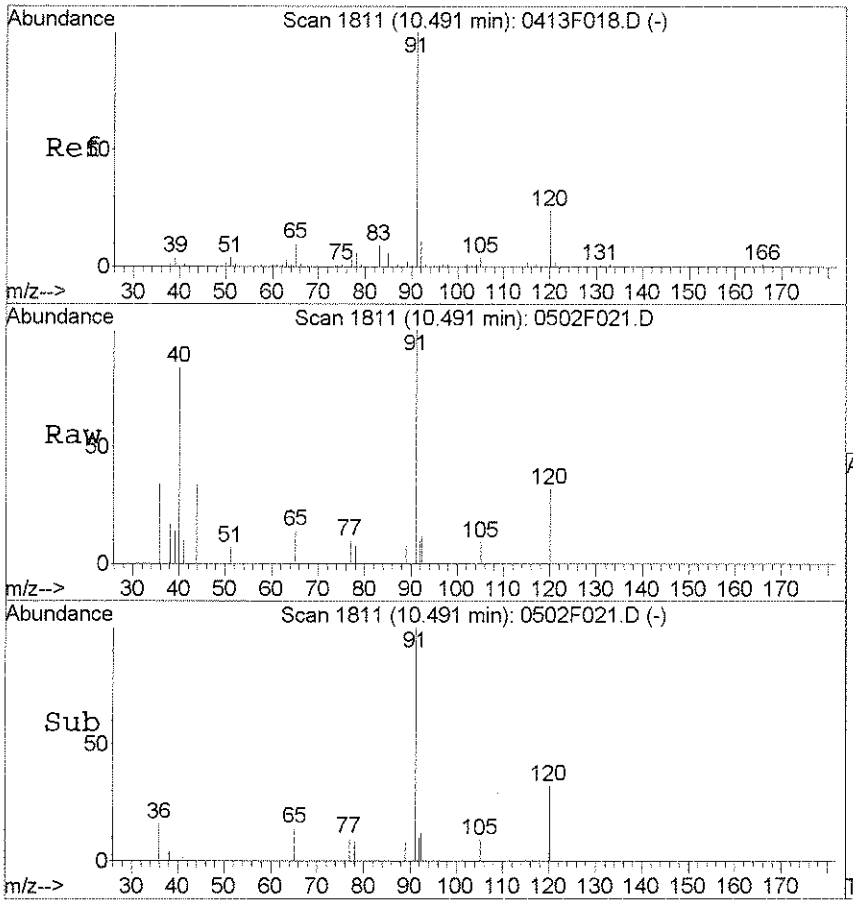


#26
Hexane
Concen: 0.04 PPB
RT: 3.09 min Scan# 400
Delta R.T. -0.01 min
Lab File: 0502F021.D
Acq: 2 May 2016 22:27

Tgt Ion: 57 Resp: 665

Ion	Ratio	Lower	Upper
57	100		
56	44.0	21.7	81.7
71	0.0	0.0	37.2
55	0.0	0.0	38.4

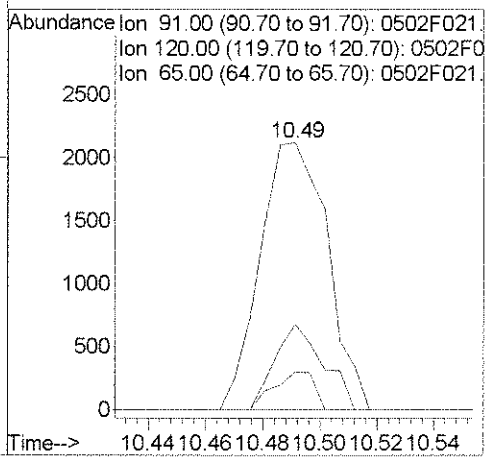


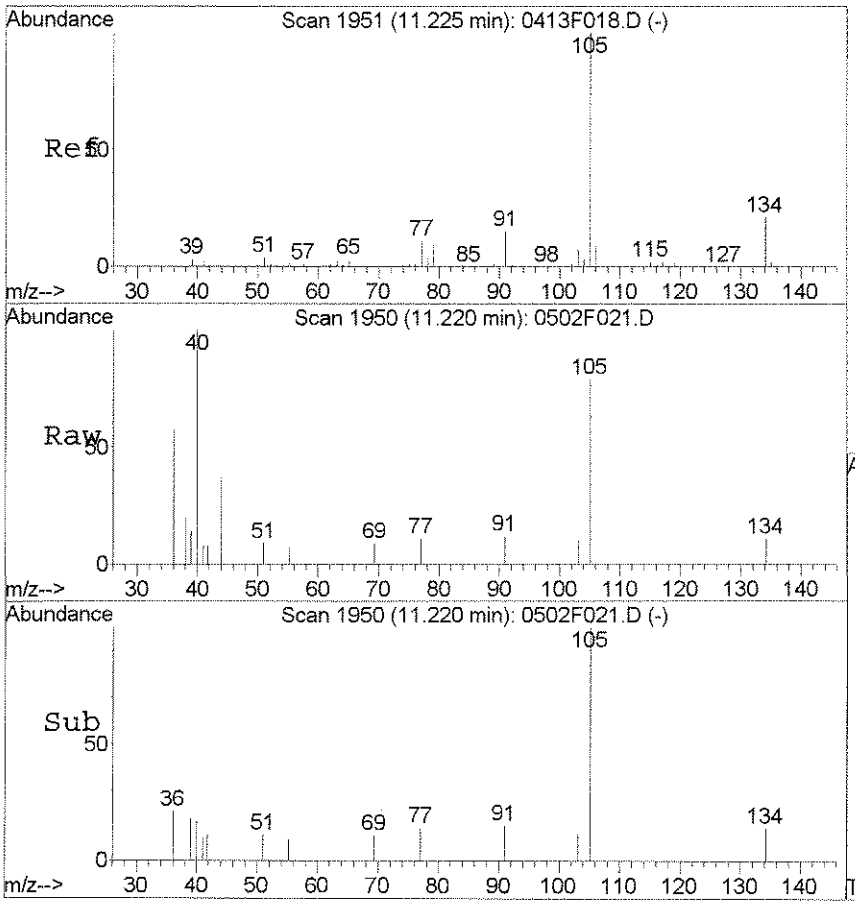


#90
n-Propylbenzene
Concen: 0.04 PPB
RT: 10.49 min Scan# 1811
Delta R.T. 0.00 min
Lab File: 0502F021.D
Acq: 2 May 2016 22:27

Tgt Ion: 91 Resp: 3473

Ion	Ratio	Lower	Upper
91	100		
120	31.9	0.0	53.7
65	14.2	0.0	39.5

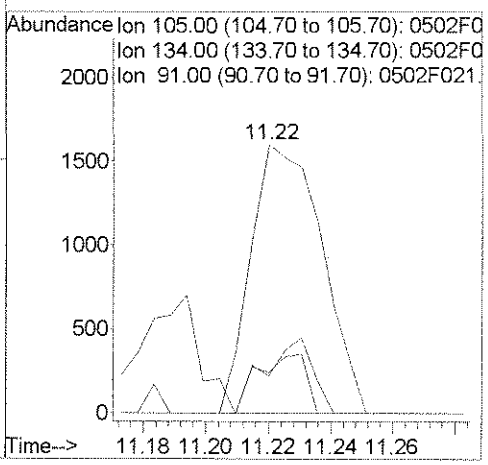


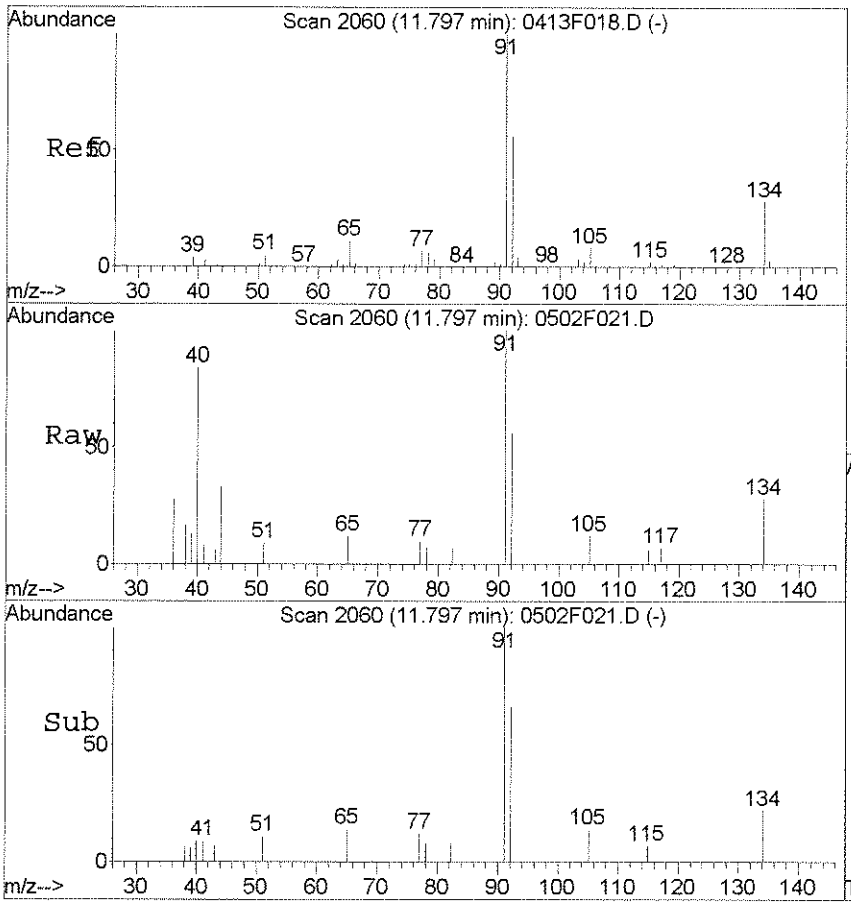


#97
sec-Butylbenzene
Concen: 0.03 PPB
RT: 11.22 min Scan# 1950
Delta R.T. -0.01 min
Lab File: 0502F021.D
Acq: 2 May 2016 22:27

Tgt Ion:105 Resp: 2528

Ion	Ratio	Lower	Upper
105	100		
134	14.0	0.0	50.7
91	15.1	0.0	44.7

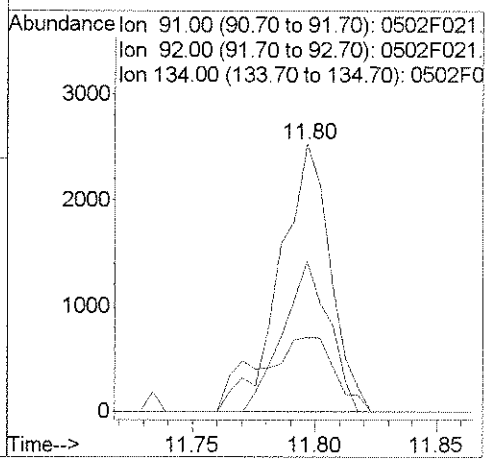


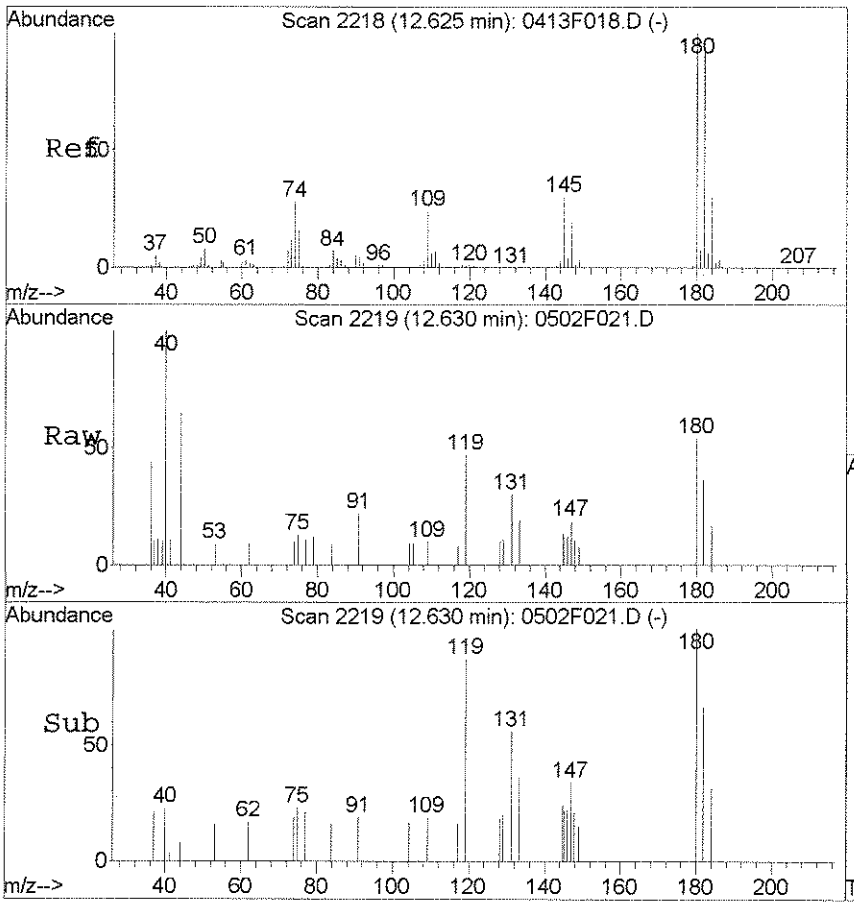


#101
n-Butylbenzene
Concen: 0.07 PPB
RT: 11.80 min Scan# 2060
Delta R.T. 0.00 min
Lab File: 0502F021.D
Acq: 2 May 2016 22:27

Tgt Ion: 91 Resp: 3622

Ion	Ratio	Lower	Upper
91	100		
92	56.3	26.0	86.0
134	27.8	0.0	58.2

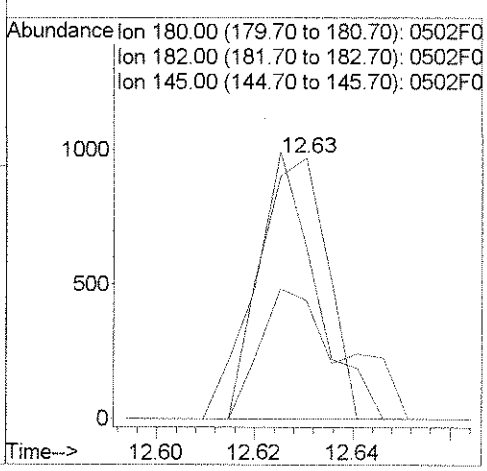


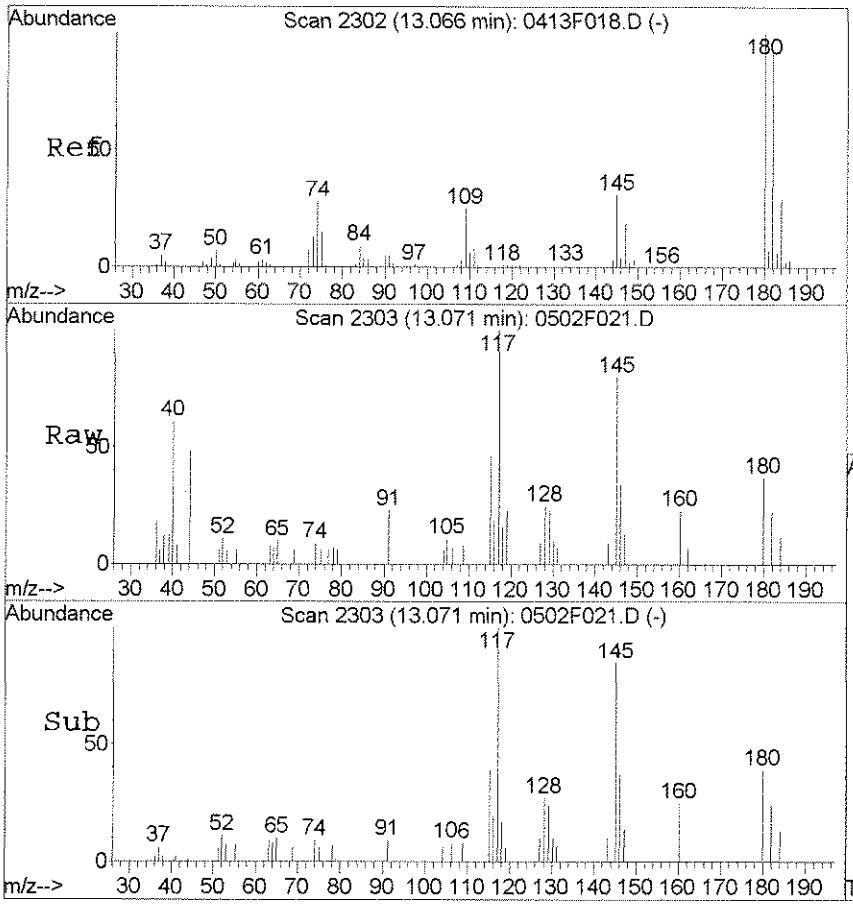


#104
1,3,5-Trichlorobenzene
Concen: 0.04 PPB
RT: 12.63 min Scan# 2219
Delta R.T. 0.01 min
Lab File: 0502F021.D
Acq: 2 May 2016 22:27

Tgt Ion:180 Resp: 908

Ion	Ratio	Lower	Upper
180	100		
182	65.8	63.4	123.4
145	45.4	0.1	60.1

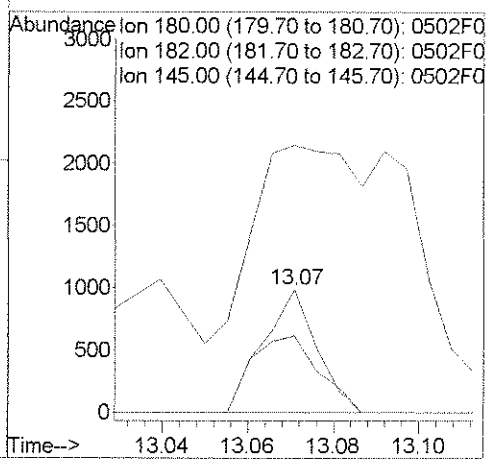


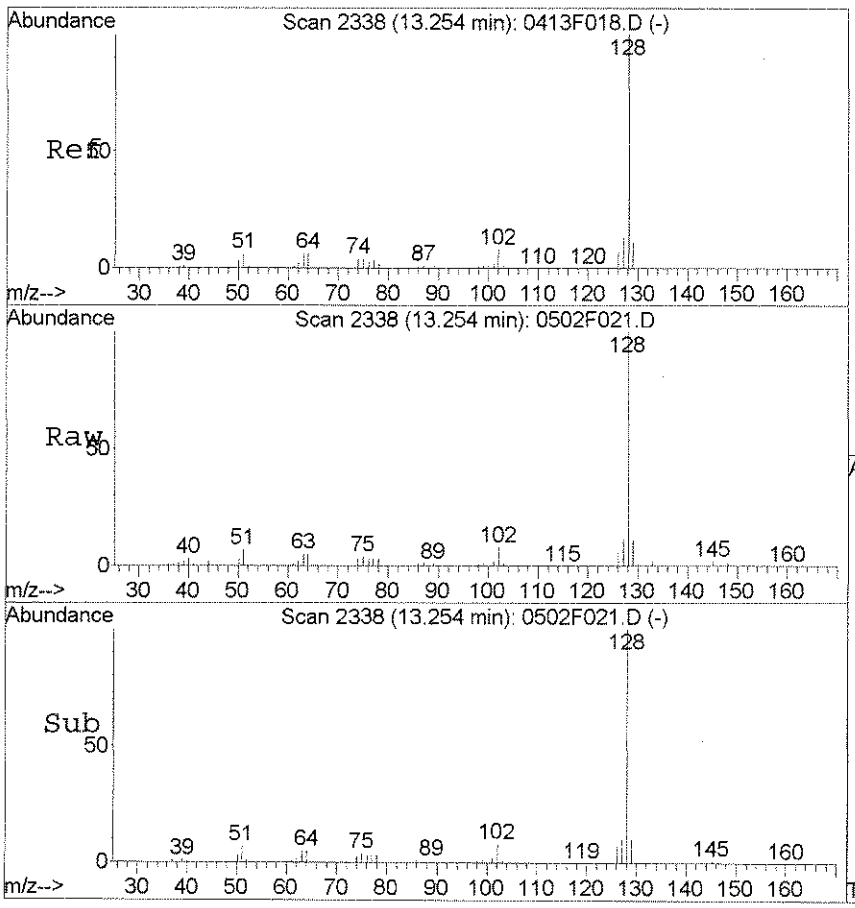


#105
1,2,4-Trichlorobenzene
Concen: 0.04 PPB
RT: 13.07 min Scan# 2303
Delta R.T. 0.01 min
Lab File: 0502F021.D
Acq: 2 May 2016 22:27

Tgt Ion:180 Resp: 867

Ion	Ratio	Lower	Upper
180	100		
182	62.3	63.2	123.2#
145	161.6	0.6	60.6#

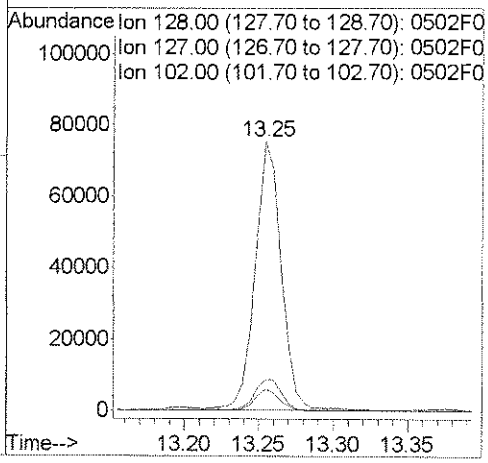


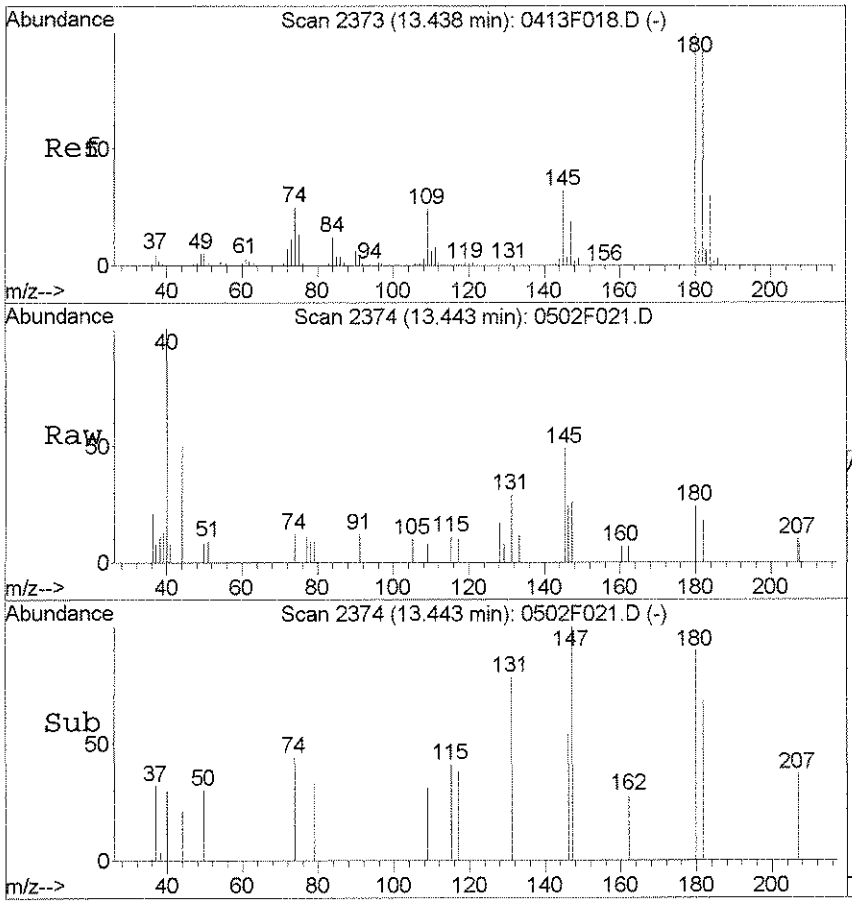


#107
Naphthalene
Concen: 2.41 PPB
RT: 13.25 min Scan# 2338
Delta R.T. 0.00 min
Lab File: 0502F021.D
Acq: 2 May 2016 22:27

Tgt Ion:128 Resp: 92779

Ion	Ratio	Lower	Upper
128	100		
127	11.6	0.0	42.7
102	8.1	0.0	37.7

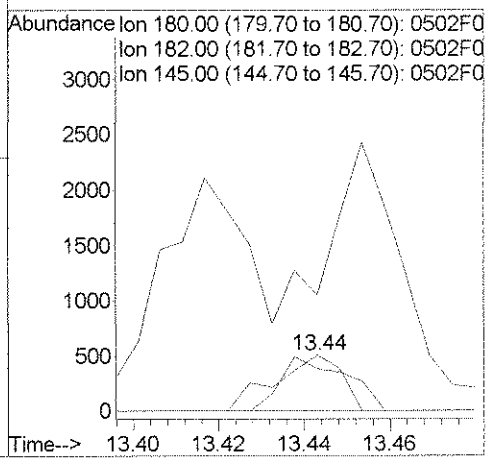




#108
1,2,3-Trichlorobenzene
Concen: 0.03 PPB
RT: 13.44 min Scan# 2374
Delta R.T. 0.01 min
Lab File: 0502F021.D
Acq: 2 May 2016 22:27

Tgt Ion:180 Resp: 545

Ion	Ratio	Lower	Upper
180	100		
182	75.7	64.6	124.6
145	0.0	1.6	61.6#



Exception Report

Data File: J:\MS18\DATA\050216\0502F018.D
Lab ID: K1604068-002
RunType: SMPL
Matrix: WATER

Date Acquired: 05/02/2016 21:18
Date Quantitated: 05/03/2016 08:30
Batch ID: KWG1603423
Analysis Method: 8260C
ListJoinID: LJ17286

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/3/16

Secondary Review: 5/3/16

Printed: 05/03/2016 10:06:08
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS18\DATA\050216\0502F018.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 21:18	**Quant Date:**	05/03/2016 08:30	**Vial:**	18
Run Type:	SMPL	**ListJoinID:**	LJ17286	**Dilution:**	1.0
Lab ID:	K1604068-002			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603423	**Prep Lot:**	KWG1603424	**Report Group:**	K1604068
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514330	**Prep Date:**	05/02/2016		

Quant Method:	J:\MS18\METHODS\041316MS18_8	**Calibration ID:**	CAL14682
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17286
Tune Ref:	J:\MS18\DATA\050216\0502F007.D	**Method ID:**	MJ1465
MB Ref:	J:\MS18\DATA\050216\0502F015.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.55	0.00	96	643227	10.00	OK
2	Chlorobenzene-d5	9.02	0.00	82	245779	10.00	OK
3	1,4-Dichlorobenzene-d4	11.44	0.01	152	228704	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	4.70	0.00	0.00	113	117537	9.23	92	80-119	OK	
1	1,2-Dichloroethane-d4	5.19	0.00	0.00	65	145574	9.89	99	81-118	OK	
1	Toluene-d8	7.43	0.00	0.00	98	594959	10.33	103	89-112	OK	
2	4-Bromofluorobenzene	10.27	0.00	0.00	95	200146	9.36	94	85-114	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Benzene				78	0d		0.062	U	
1	Toluene				92	0d		0.054	U	
2	Ethylbenzene				106	0		0.050	U	
2	m,p-Xylenes	9.28	0.01	0.00	106	806	0.0300	0.11	U	
2	o-Xylene				106	0		0.074	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS18\DATA\050216\0502F018.D Vial: 18
Acq On : 2 May 2016 21:18 Operator: YX
Sample : K1604068-002 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 02 21:38:08 2016 Quant Results File: 041316MS18_8260

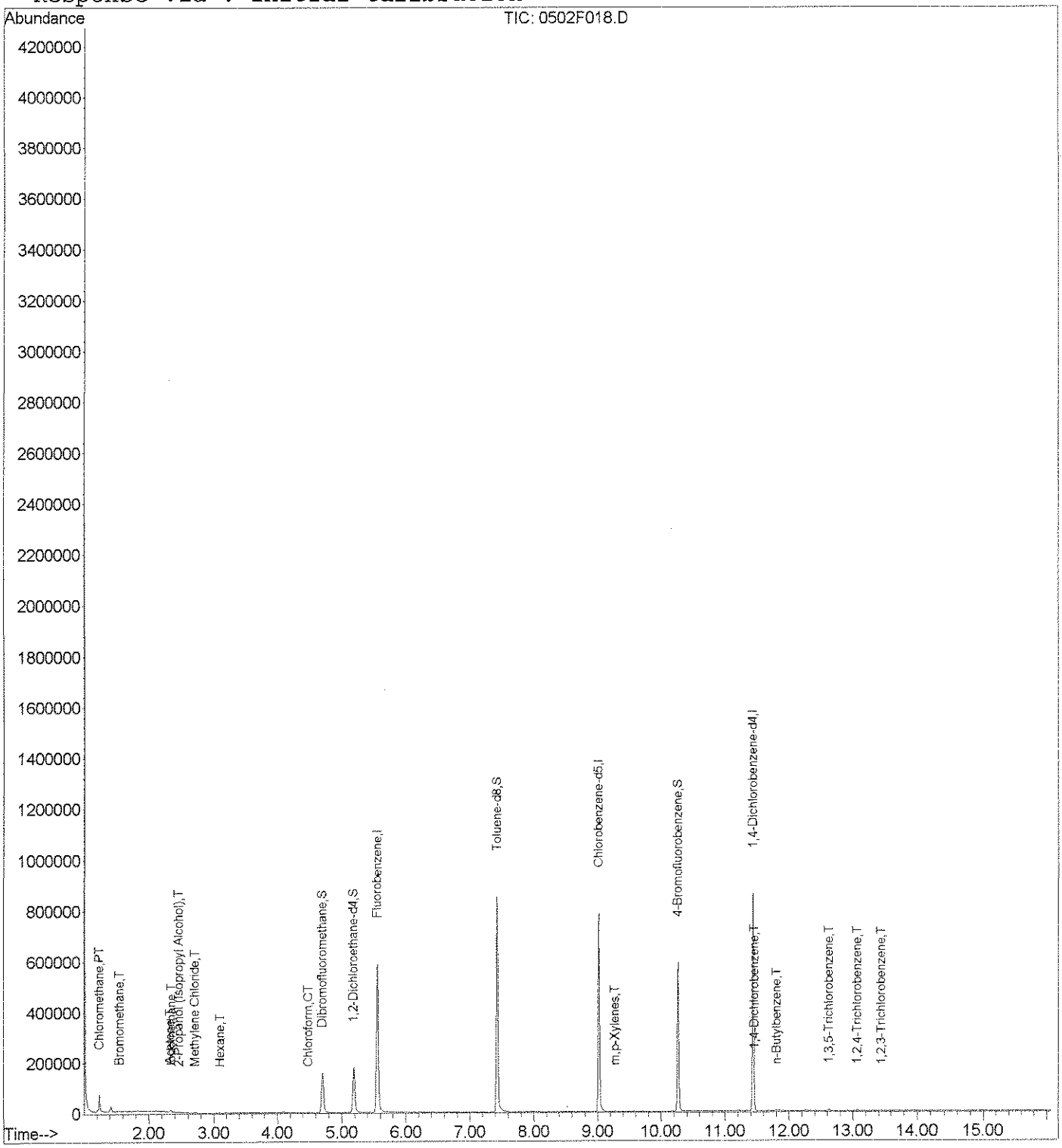
Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

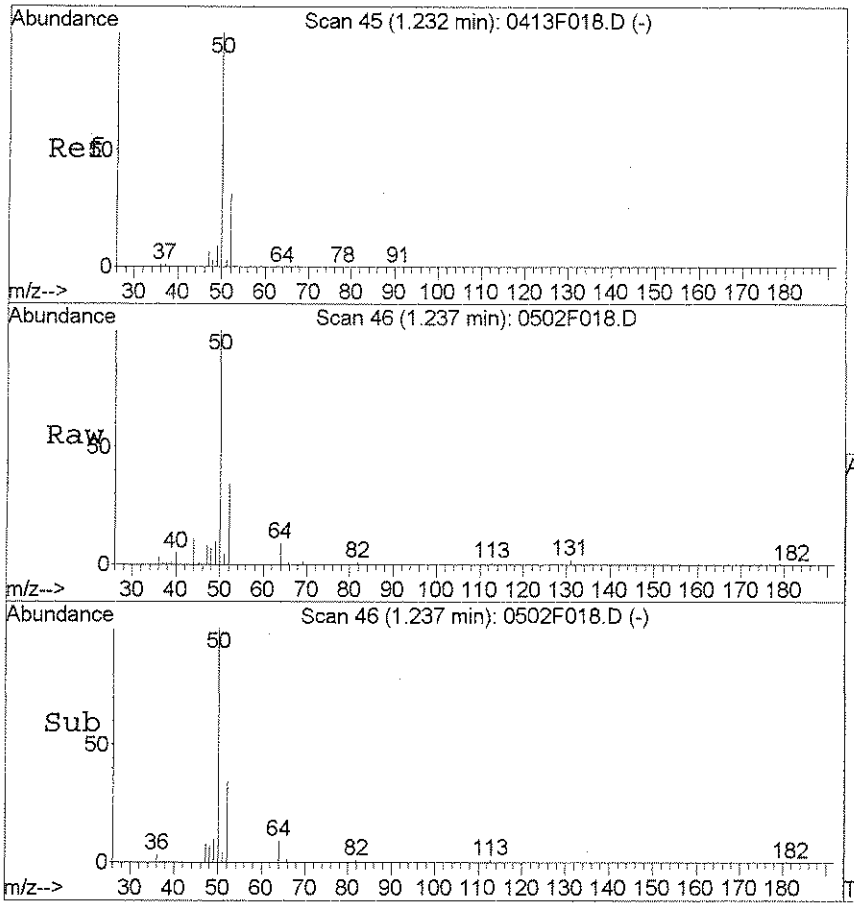
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.55	96	643227	10.00	PPB		0.00
65) Chlorobenzene-d5	9.02	82	245779	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	228704	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	4.70	113	117537	9.23	PPB		0.00
Spiked Amount 10.000			Recovery = 92.30%				
48) 1,2-Dichloroethane-d4	5.19	65	145574	9.89	PPB		0.00
Spiked Amount 10.000			Recovery = 98.90%				
63) Toluene-d8	7.43	98	594959	10.33	PPB		0.00
Spiked Amount 10.000			Recovery = 103.30%				
85) 4-Bromofluorobenzene	10.27	95	200146	9.36	PPB		0.00
Spiked Amount 10.000			Recovery = 93.60%				
Target Compounds							Qvalue
3) Chloromethane	1.24	50	40259	1.93	PPB		96
6) Bromomethane	1.55	96	920	0.09	PPB		83
14) Acetone	2.33	43	9856	4.79	PPB		94
15) Iodomethane	2.35	142	1907	0.11	PPB		87
17) 2-Propanol (Isopropyl Alco	2.46	45	4887	11.26	PPB		89
21) Methylene Chloride	2.71	84	1031	0.06	PPB	#	68
26) Hexane	3.10	57	791	0.05	PPB		81
40) Chloroform	4.48	83	1508	0.06	PPB		81
79) m,p-Xylenes	9.28	106	806	0.03	PPB	#	61
100) 1,4-Dichlorobenzene	11.47	146	1085	0.03	PPB		84
101) n-Butylbenzene	11.80	91	1462	0.03	PPB		80
104) 1,3,5-Trichlorobenzene	12.63	180	1177	0.05	PPB		90
105) 1,2,4-Trichlorobenzene	13.07	180	1046	0.06	PPB		83
108) 1,2,3-Trichlorobenzene	13.44	180	753	0.05	PPB	#	64

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

Data File : J:\MS18\DATA\050216\0502F018.D Vial: 18
Acq On : 2 May 2016 21:18 Operator: YX
Sample : K1604068-002 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:30 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration

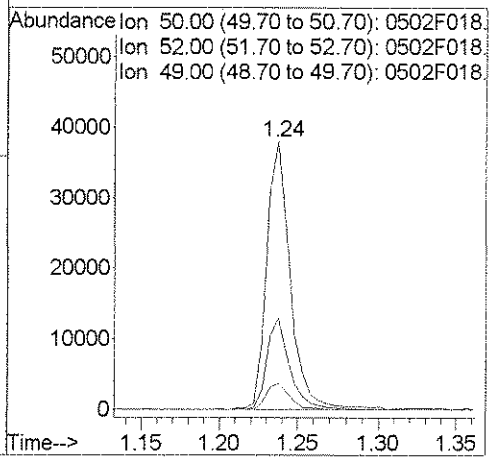


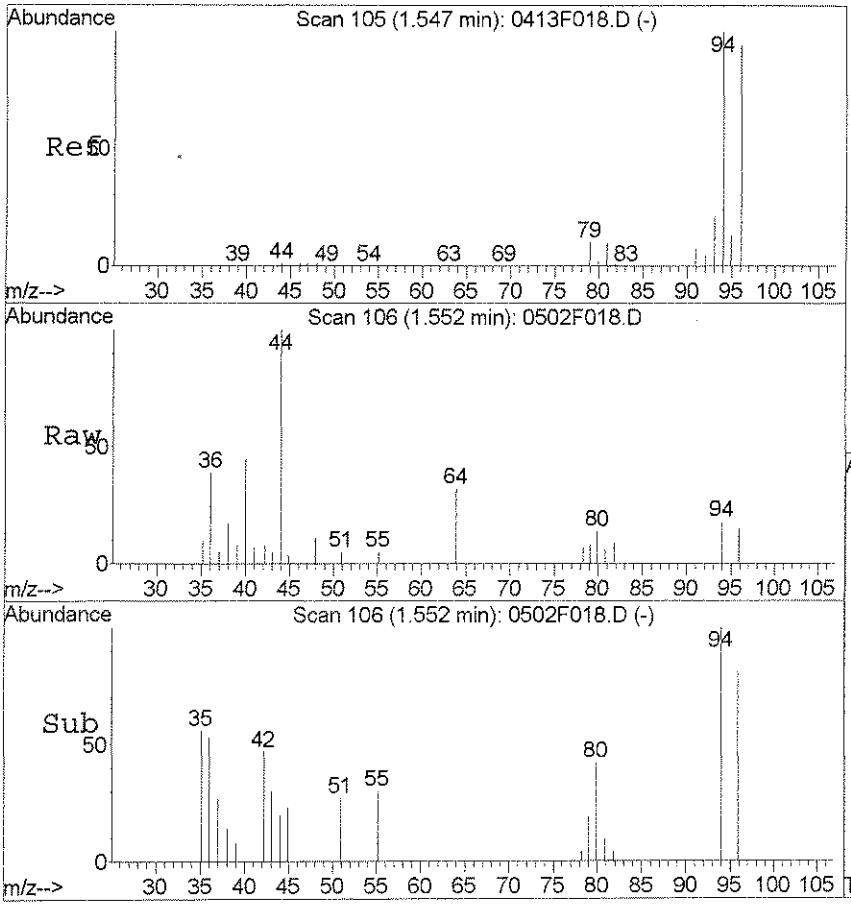


#3
Chloromethane
Concen: 1.93 PPB
RT: 1.24 min Scan# 46
Delta R.T. 0.01 min
Lab File: 0502F018.D
Acq: 2 May 2016 21:18

Tgt Ion: 50 Resp: 40259

Ion	Ratio	Lower	Upper
50	100		
52	33.9	1.5	61.5
49	9.8	0.0	39.2

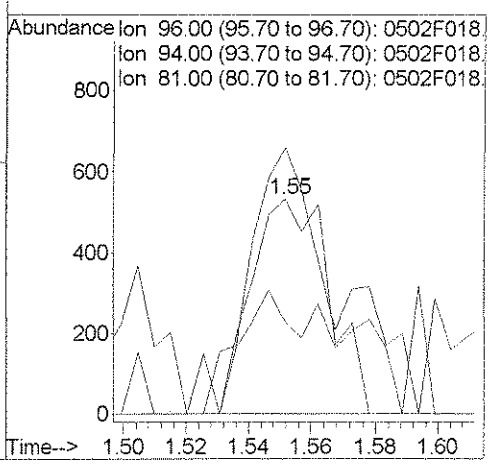


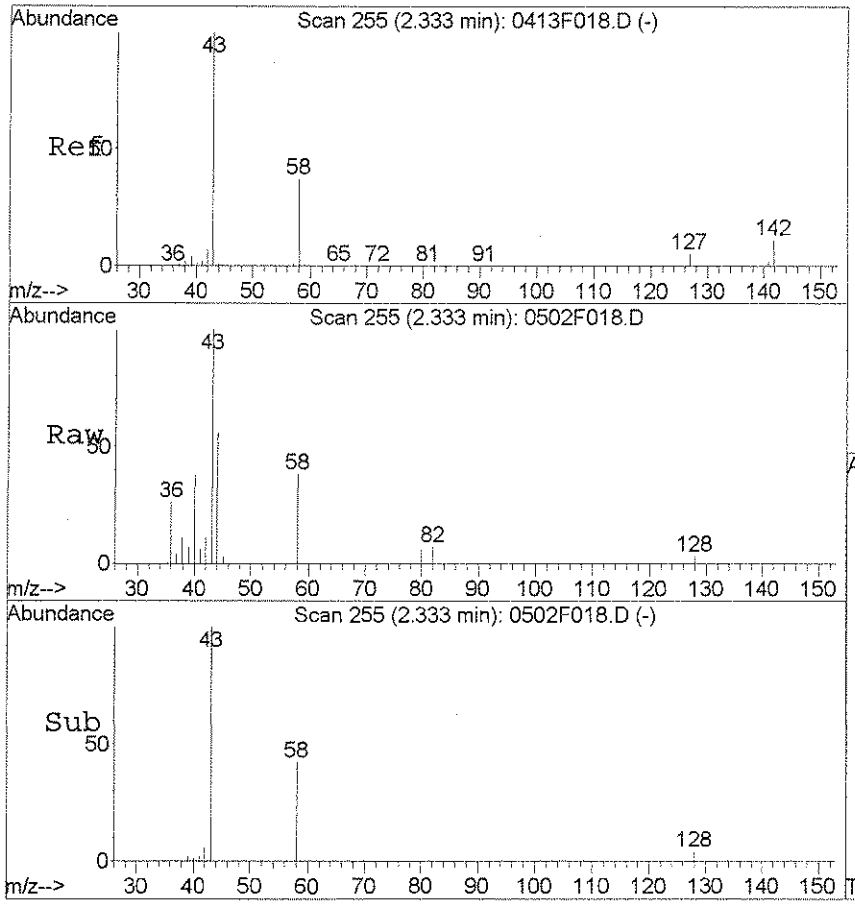


#6
Bromomethane
Concen: 0.09 PPB
RT: 1.55 min Scan# 106
Delta R.T. 0.01 min
Lab File: 0502F018.D
Acq: 2 May 2016 21:18

Tgt Ion: 96 Resp: 920

Ion	Ratio	Lower	Upper
96	100		
94	123.9	76.2	136.2
81	14.7	0.0	40.4

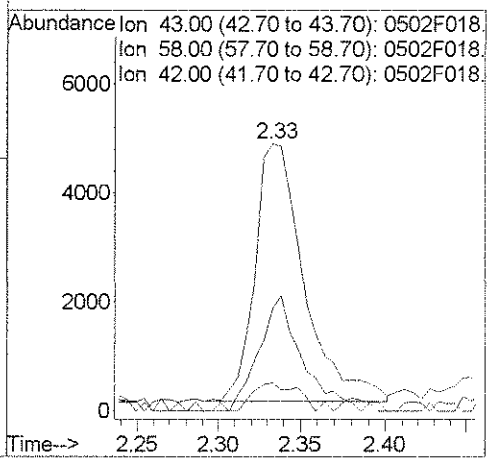


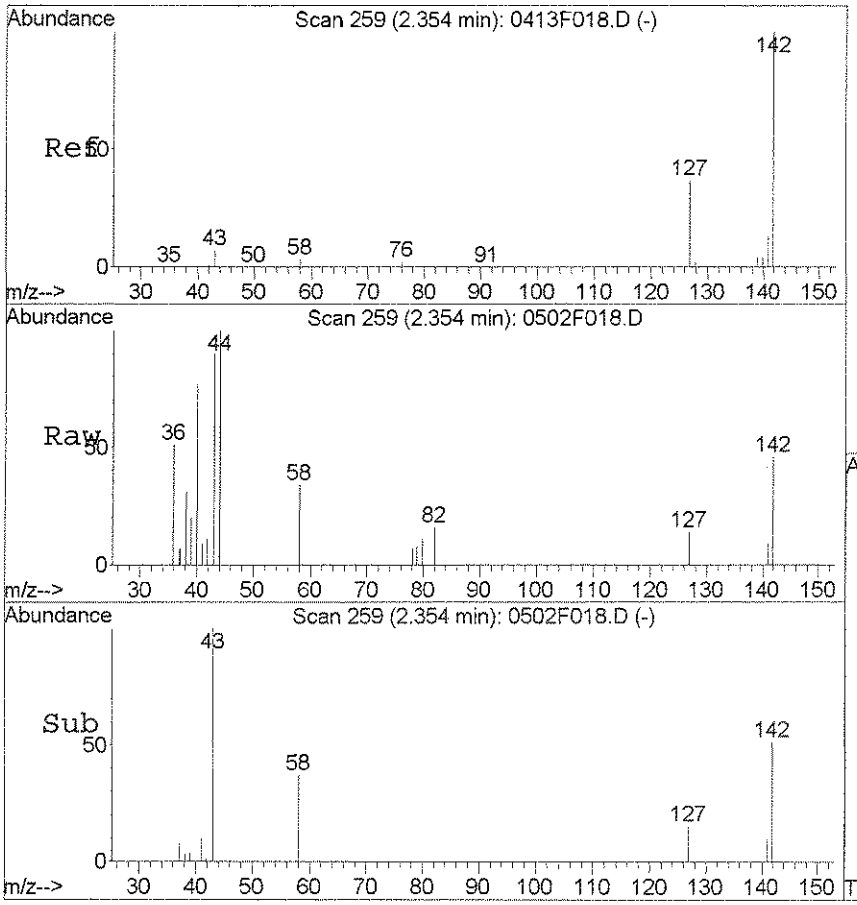


#14
Acetone
Concen: 4.79 PPB
RT: 2.33 min Scan# 255
Delta R.T. 0.01 min
Lab File: 0502F018.D
Acq: 2 May 2016 21:18

Tgt Ion: 43 Resp: 9856

Ion	Ratio	Lower	Upper
43	100		
58	39.7	6.9	66.9
42	11.1	0.0	36.8

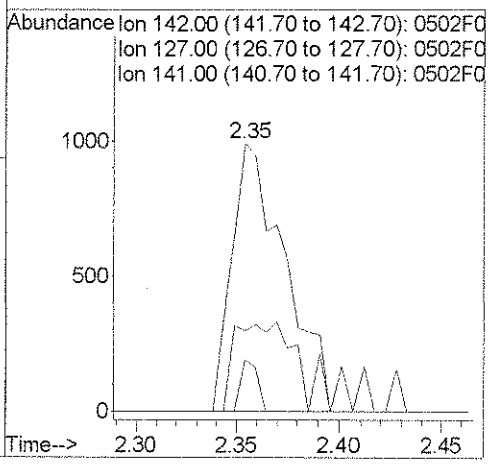


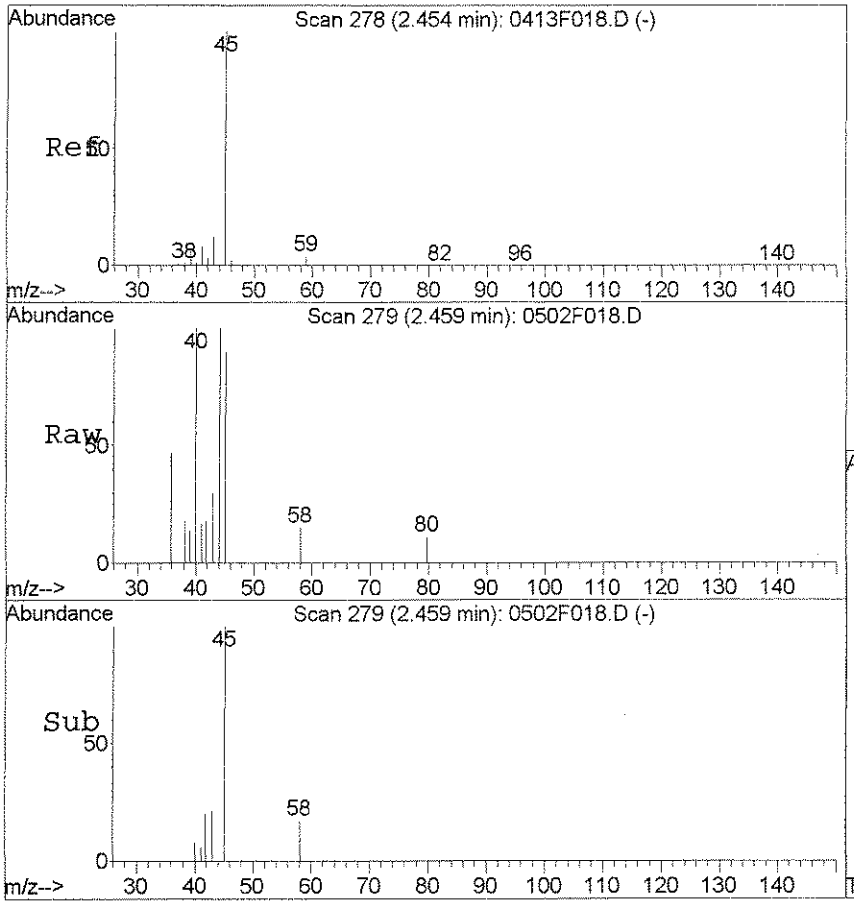


#15
Iodomethane
Concen: 0.11 PPB
RT: 2.35 min Scan# 259
Delta R.T. -0.00 min
Lab File: 0502F018.D
Acq: 2 May 2016 21:18

Tgt Ion:142 Resp: 1907

Ion	Ratio	Lower	Upper
142	100		
127	30.1	7.4	67.4
141	19.3	0.0	43.4

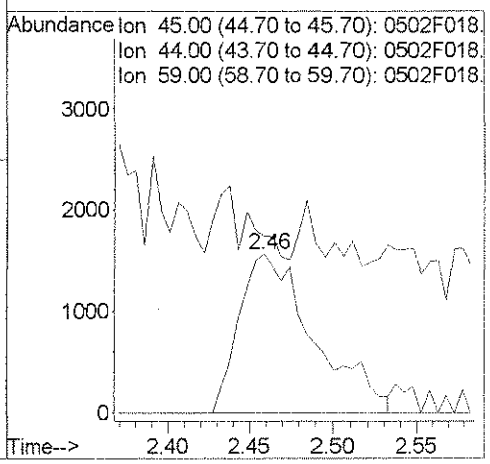


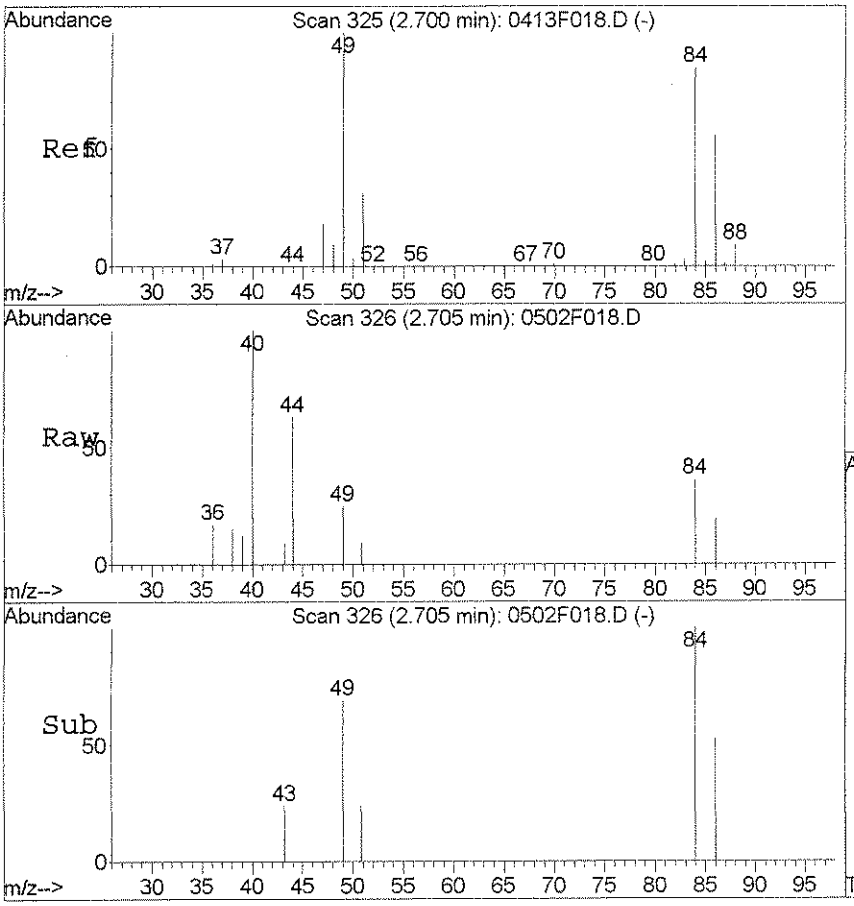


#17
2-Propanol (Isopropyl Alcohol
Concen: 11.26 PPB
RT: 2.46 min Scan# 279
Delta R.T. 0.01 min
Lab File: 0502F018.D
Acq: 2 May 2016 21:18

Tgt Ion: 45 Resp: 4887

Ion	Ratio	Lower	Upper
45	100		
44	10.6	0.0	26.7
59	0.0	0.0	23.7

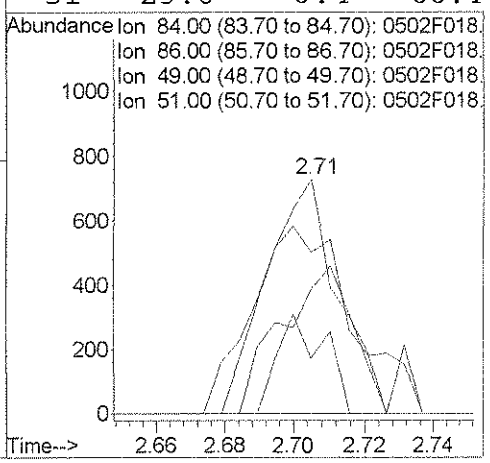


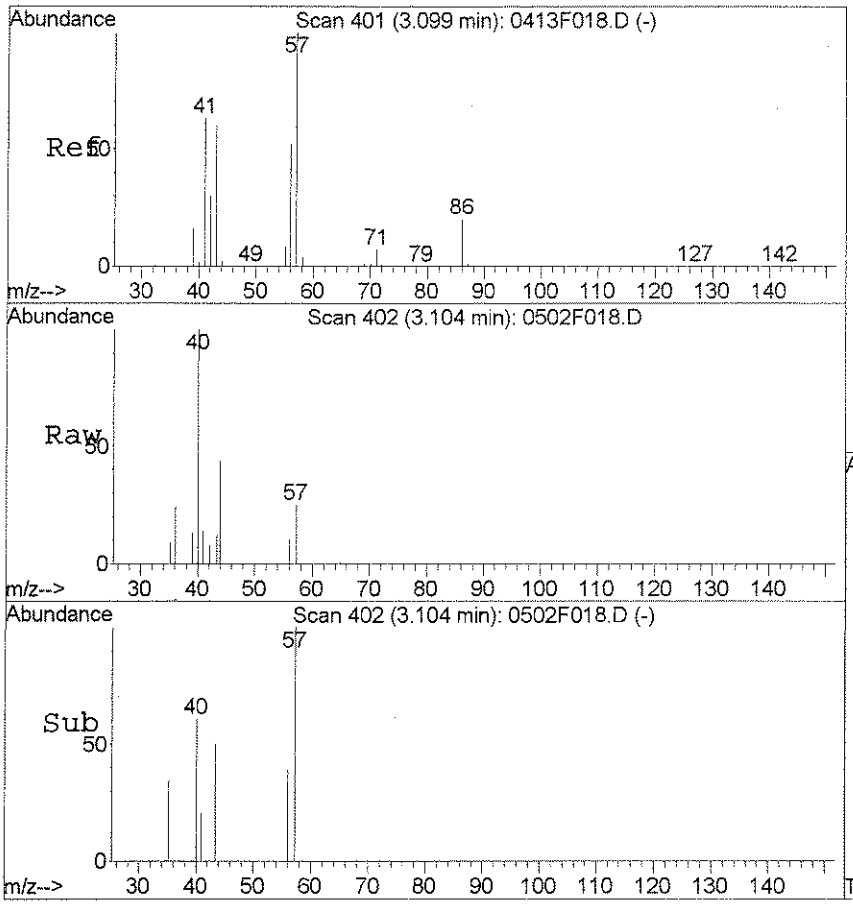


#21
Methylene Chloride
Concen: 0.06 PPB
RT: 2.71 min Scan# 326
Delta R.T. 0.01 min
Lab File: 0502F018.D
Acq: 2 May 2016 21:18

Tgt Ion: 84 Resp: 1031

Ion	Ratio	Lower	Upper
84	100		
86	53.2	35.6	95.6
49	68.8	87.0	147.0#
51	23.6	6.4	66.4

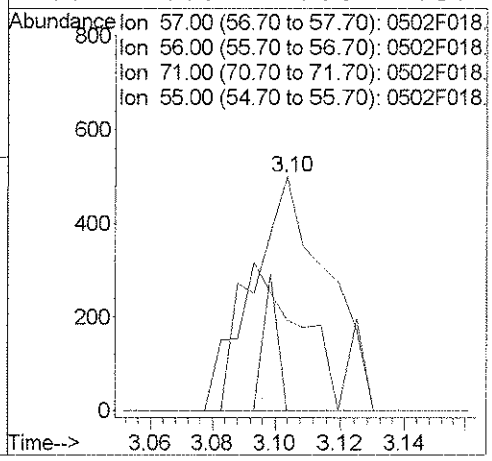


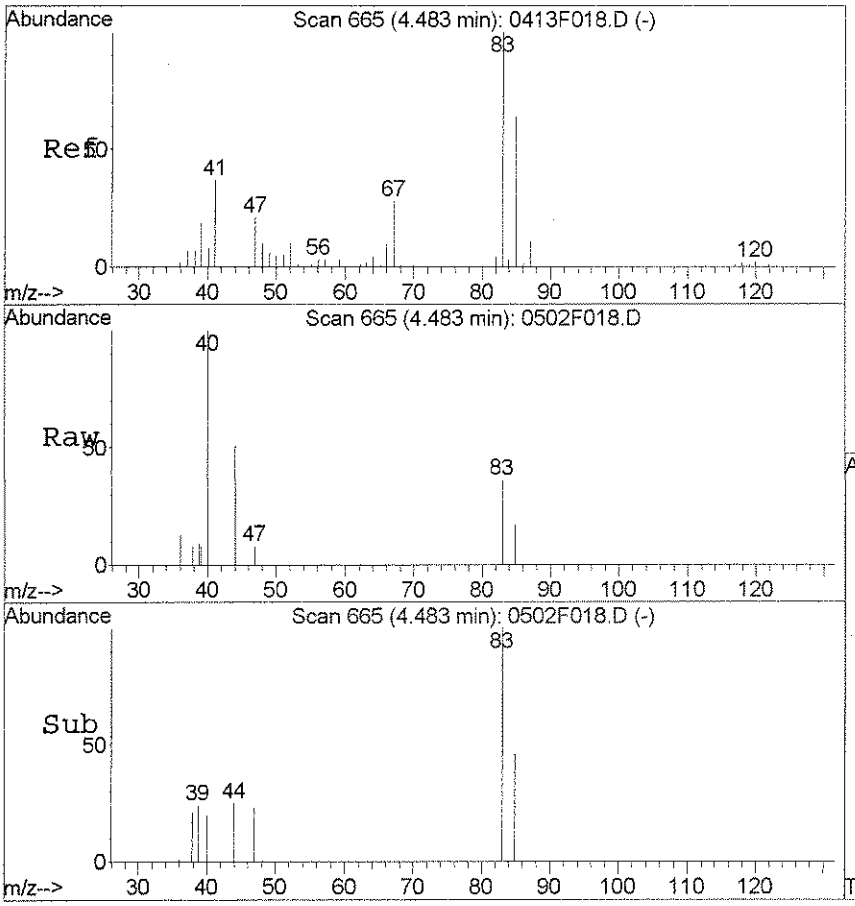


#26
Hexane
Concen: 0.05 PPB
RT: 3.10 min Scan# 402
Delta R.T. 0.01 min
Lab File: 0502F018.D
Acq: 2 May 2016 21:18

Tgt Ion: 57 Resp: 791

Ion	Ratio	Lower	Upper
57	100		
56	38.7	21.7	81.7
71	0.0	0.0	37.2
55	0.0	0.0	38.4

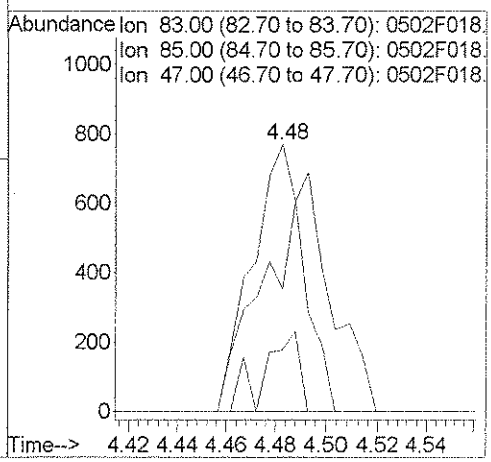


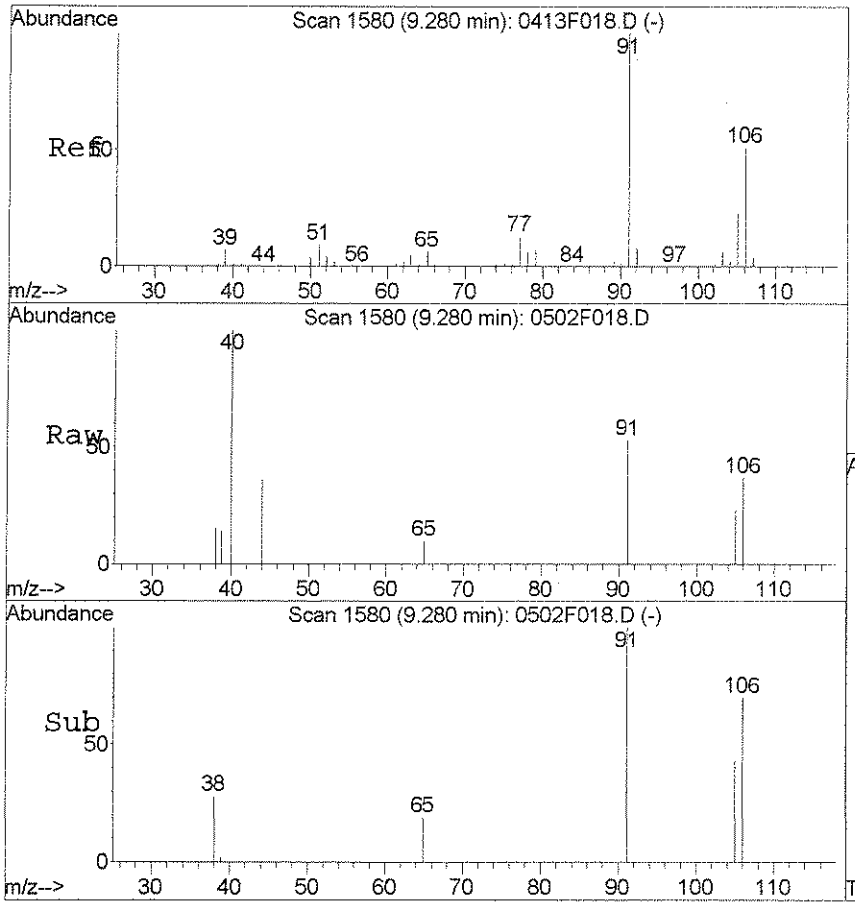


#40
Chloroform
Concen: 0.06 PPB
RT: 4.48 min Scan# 665
Delta R.T. 0.00 min
Lab File: 0502F018.D
Acq: 2 May 2016 21:18

Tgt Ion: 83 Resp: 1508

Ion	Ratio	Lower	Upper
83	100		
85	45.8	33.9	93.9
47	23.0	0.0	50.9

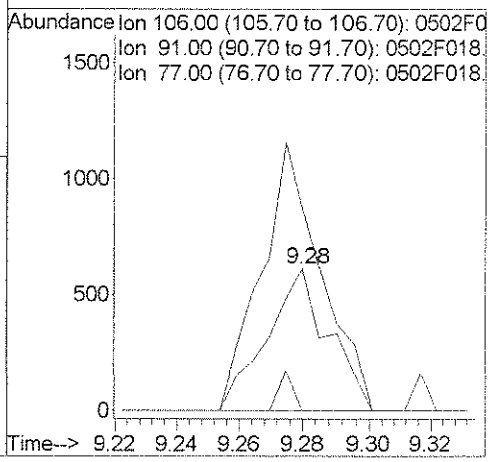


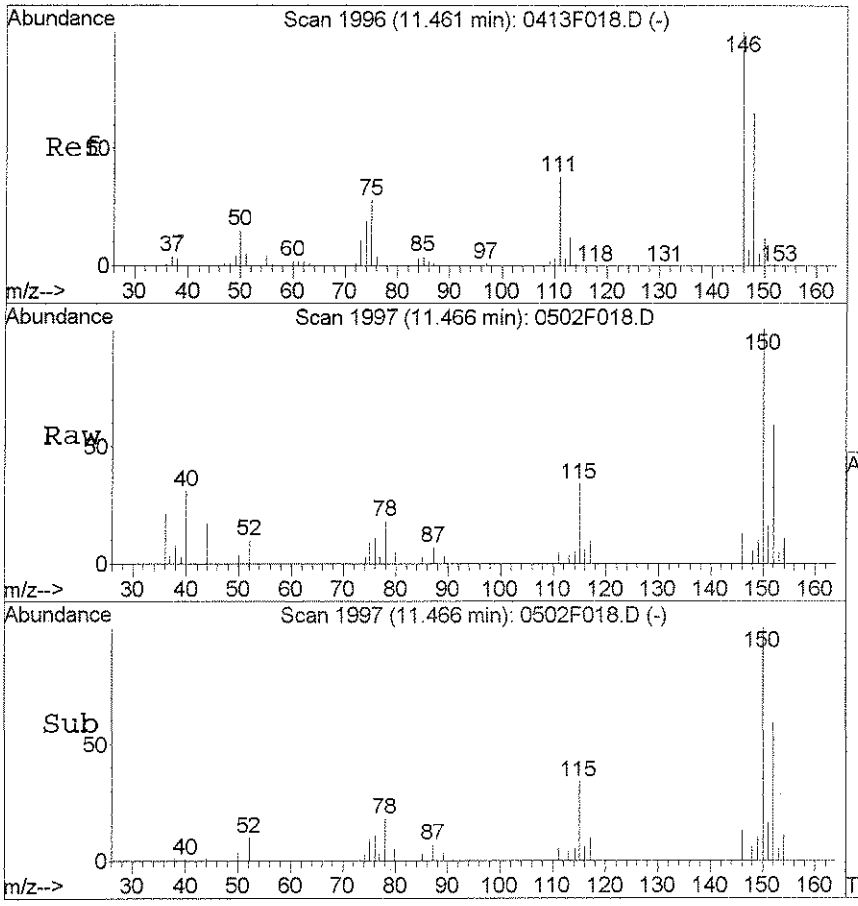


#79
m,p-Xylenes
Concen: 0.03 PPB
RT: 9.28 min Scan# 1580
Delta R.T. -0.00 min
Lab File: 0502F018.D
Acq: 2 May 2016 21:18

Tgt Ion:106 Resp: 806

Ion	Ratio	Lower	Upper
106	100		
91	141.9	168.0	228.0#
77	0.0	0.0	55.2

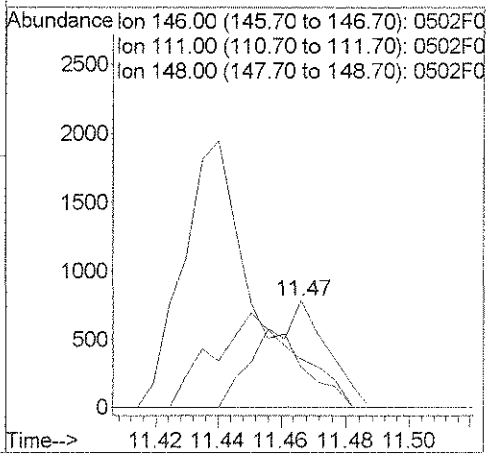


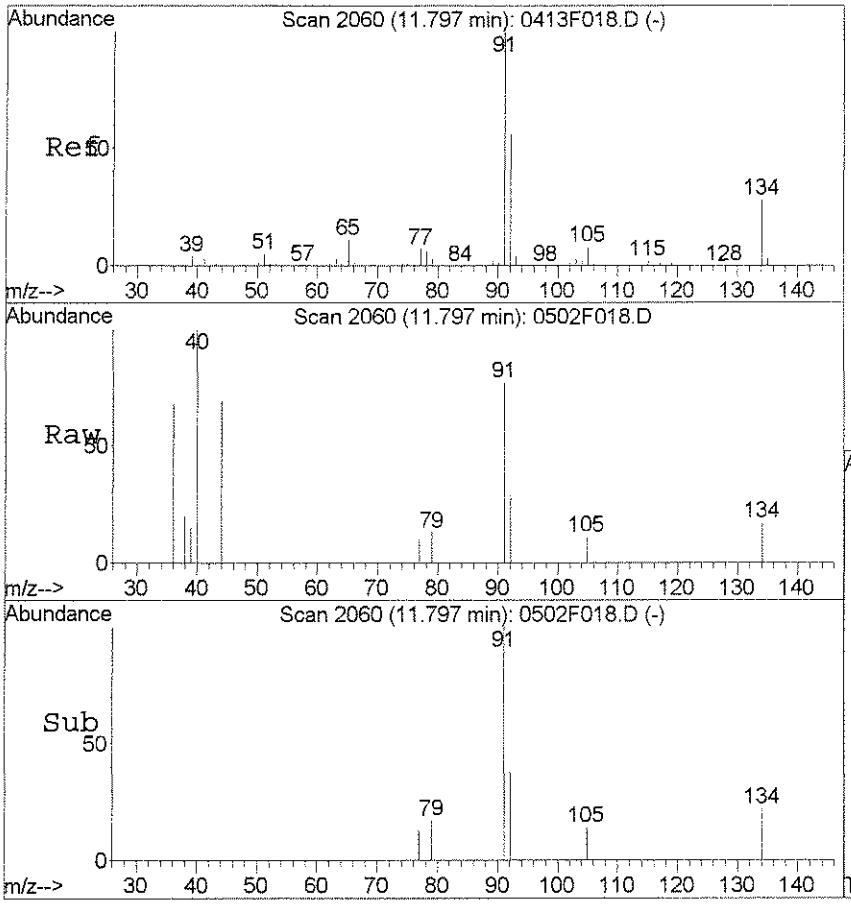


#100
1,4-Dichlorobenzene
Concen: 0.03 PPB
RT: 11.47 min Scan# 1997
Delta R.T. 0.01 min
Lab File: 0502F018.D
Acq: 2 May 2016 21:18

Tgt Ion:146 Resp: 1085

Ion	Ratio	Lower	Upper
146	100		
111	38.1	8.3	68.3
148	45.4	35.1	95.1

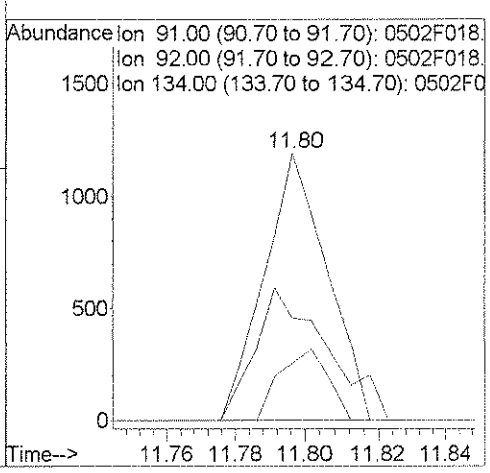


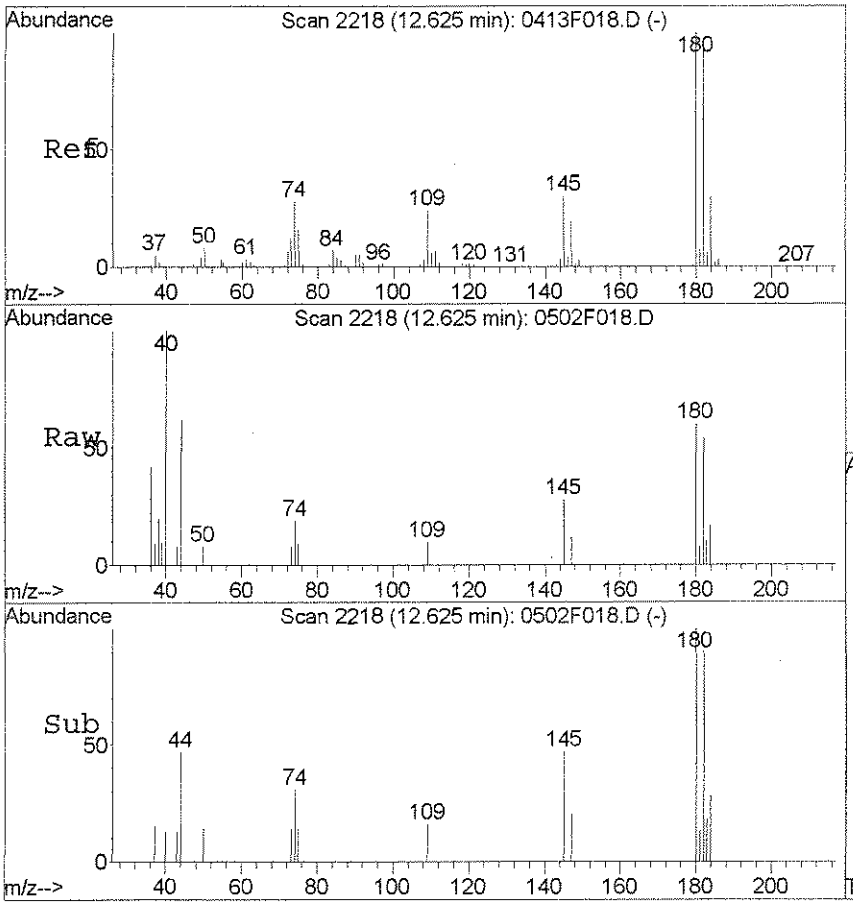


#101
n-Butylbenzene
Concen: 0.03 PPB
RT: 11.80 min Scan# 2060
Delta R.T. -0.00 min
Lab File: 0502F018.D
Acq: 2 May 2016 21:18

Tgt Ion: 91 Resp: 1462

Ion	Ratio	Lower	Upper
91	100		
92	38.3	26.0	86.0
134	21.6	0.0	58.2

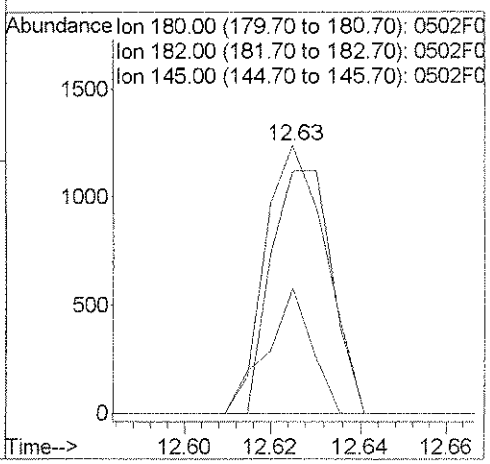


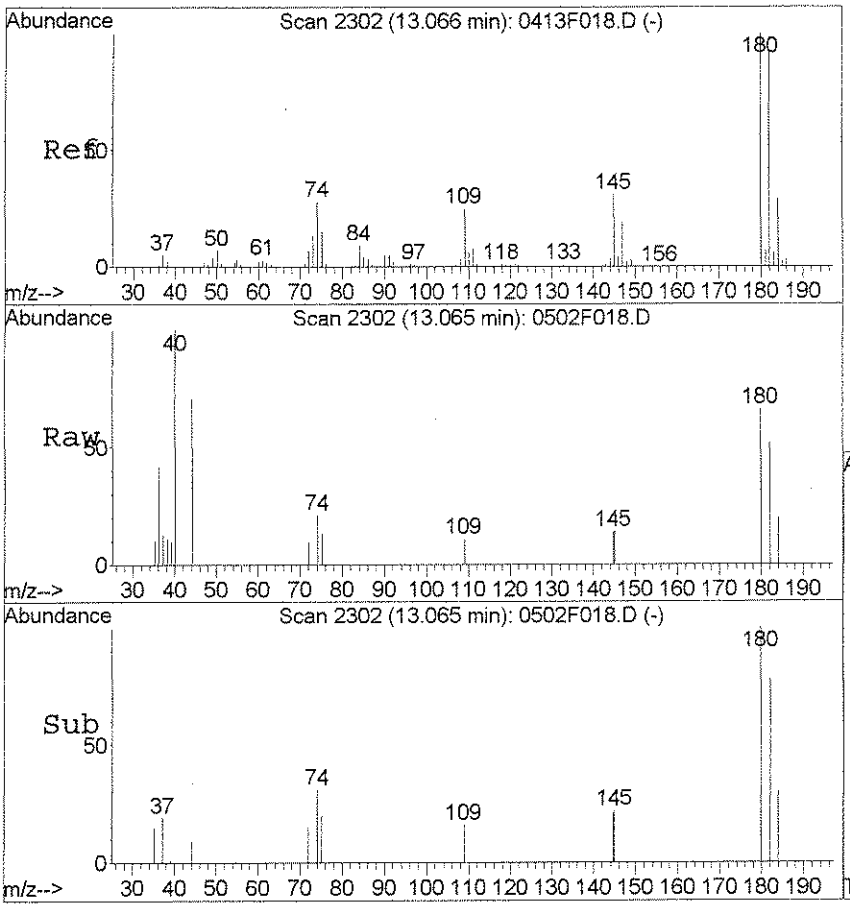


#104
1,3,5-Trichlorobenzene
Concen: 0.05 PPB
RT: 12.63 min Scan# 2218
Delta R.T. -0.00 min
Lab File: 0502F018.D
Acq: 2 May 2016 21:18

Tgt Ion:180 Resp: 1177

Ion	Ratio	Lower	Upper
180	100		
182	90.3	63.4	123.4
145	46.6	0.1	60.1

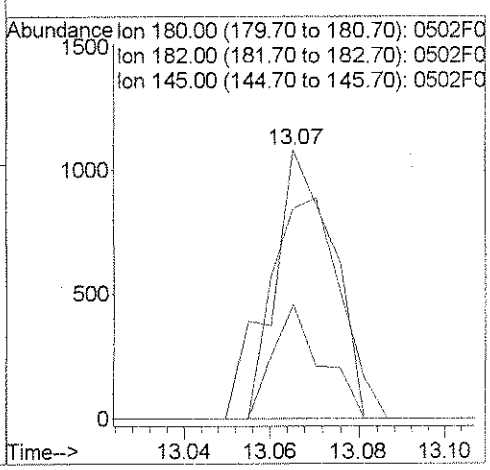


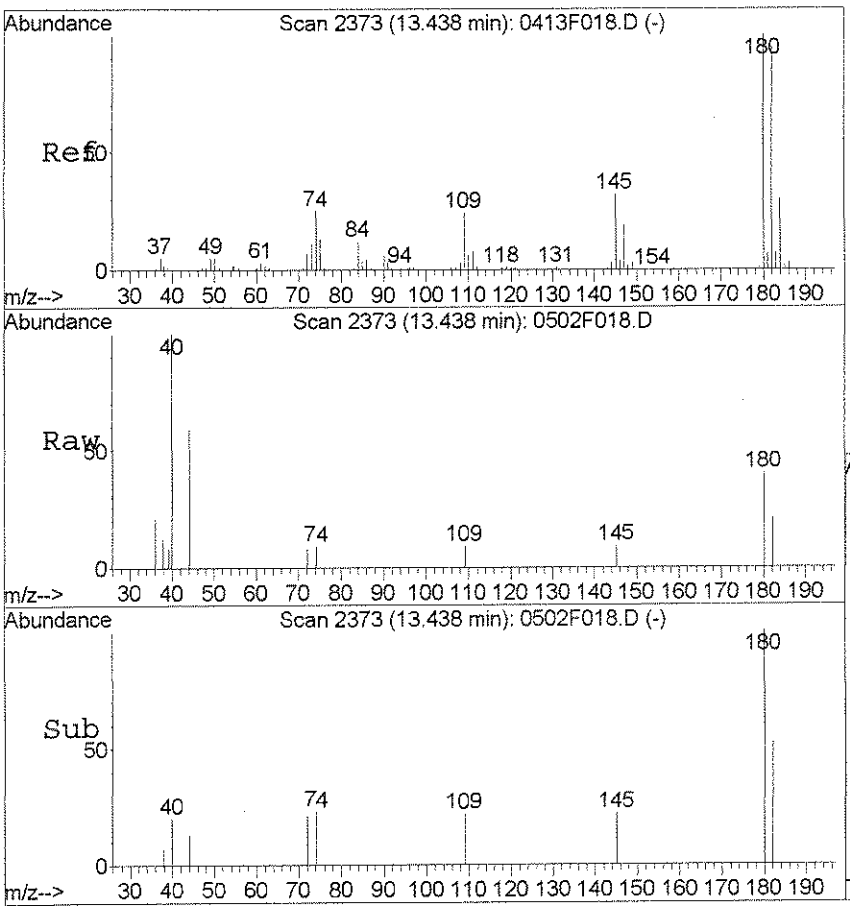


#105
1,2,4-Trichlorobenzene
Concen: 0.06 PPB
RT: 13.07 min Scan# 2302
Delta R.T. -0.00 min
Lab File: 0502F018.D
Acq: 2 May 2016 21:18

Tgt Ion:180 Resp: 1046

Ion	Ratio	Lower	Upper
180	100		
182	78.0	63.2	123.2
145	42.2	0.6	60.6

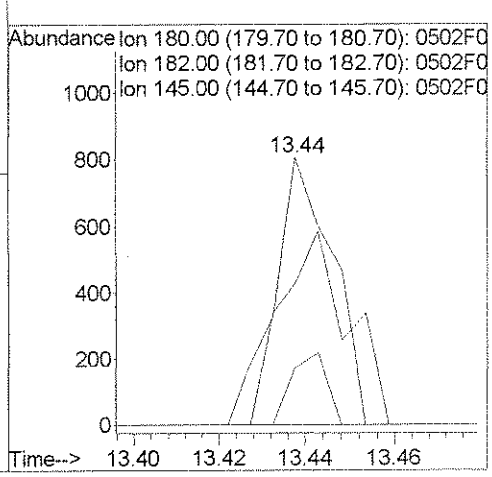




#108
1,2,3-Trichlorobenzene
Concen: 0.05 PPB
RT: 13.44 min Scan# 2373
Delta R.T. -0.00 min
Lab File: 0502F018.D
Acq: 2 May 2016 21:18

Tgt Ion:180 Resp: 753

Ion	Ratio	Lower	Upper
180	100		
182	53.3	64.6	124.6#
145	21.6	1.6	61.6



Exception Report

Data File: J:\MS18\DATA\050216\0502F022.D
Lab ID: K1604068-003
RunType: SMPL
Matrix: WATER

Date Acquired: 05/02/2016 22:48
Date Quantitated: 05/03/2016 08:37
Batch ID: KWG1603423
Analysis Method: 8260C
ListJoinID: LJ17286

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/3/2016

Secondary Review: 5/3/16

Printed: 05/03/2016 10:06:20
u:\Stealth\Crystal.rpt\except2.rpt

Page 1 of 1

Quantitation Report

Data File:	J:\MS18\DATA\050216\0502F022.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 22:48	**Quant Date:**	05/03/2016 08:37	**Vial:**	22
Run Type:	SMPL	**ListJoinID:**	LJ17286	**Dilution:**	1.0
Lab ID:	K1604068-003			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603423	**Prep Lot:**	KWG1603424	**Report Group:**	K1604068
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514331	**Prep Date:**	05/02/2016		

Quant Method:	J:\MS18\METHODS\041316MS18_8	**Calibration ID:**	CAL14682
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17286
Tune Ref:	J:\MS18\DATA\050216\0502F007.D	**Method ID:**	MJ1465
MB Ref:	J:\MS18\DATA\050216\0502F015.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.55	0.00	96	652083	10.00	OK
2	Chlorobenzene-d5	9.02	0.00	82	247059	10.00	OK
3	1,4-Dichlorobenzene-d4	11.44	0.01	152	227840	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	4.70	0.00	0.00	113	115799	8.97	90	80-119	OK	
1	1,2-Dichloroethane-d4	5.19	0.00	0.00	65	146318	9.80	98	81-118	OK	
1	Toluene-d8	7.43	0.00	0.00	98	599893	10.28	103	89-112	OK	
2	4-Bromofluorobenzene	10.27	0.00	0.00	95	202258	9.41	94	85-114	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Benzene				78	0		0.062	U	
1	Toluene				92	0**d**		0.054	U	
2	Ethylbenzene				106	0		0.050	U	
2	m,p-Xylenes				106	0**d**		0.11	U	
2	o-Xylene				106	0		0.074	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\050216\0502F022.D Vial: 22
Acq On : 2 May 2016 22:48 Operator: YX
Sample : K1604068-003 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 03 08:12:07 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

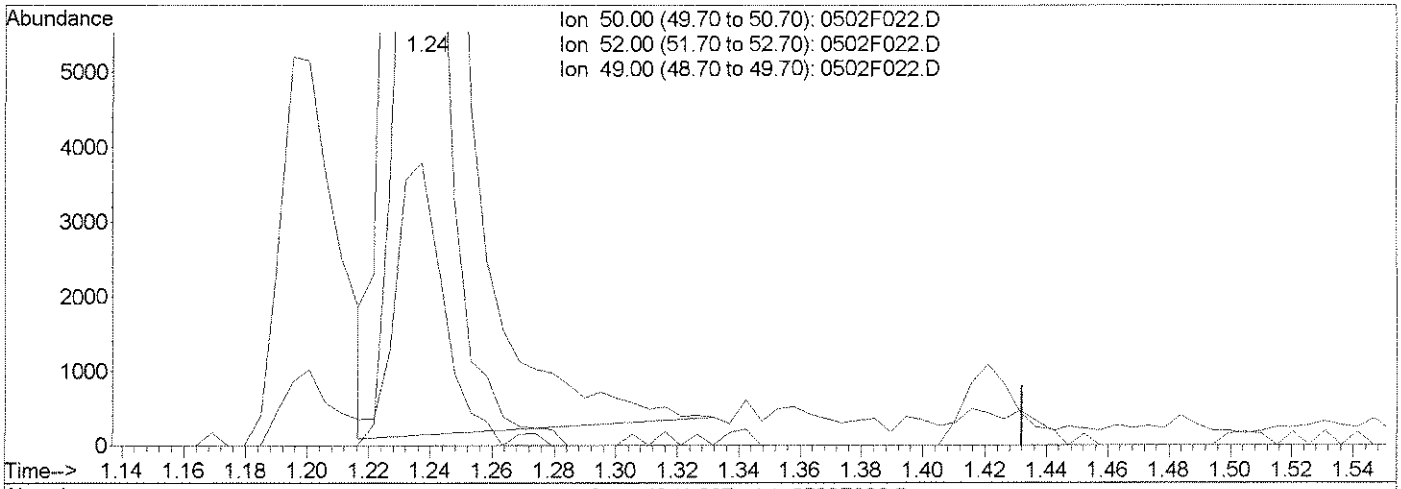
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.55	96	652083	10.00	PPB		0.00
65) Chlorobenzene-d5	9.02	82	247059	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	227840	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	4.70	113	115799	8.97	PPB		0.00
Spiked Amount 10.000			Recovery = 89.70%				
48) 1,2-Dichloroethane-d4	5.19	65	146318	9.80	PPB		0.00
Spiked Amount 10.000			Recovery = 98.00%				
63) Toluene-d8	7.43	98	599893	10.28	PPB		0.00
Spiked Amount 10.000			Recovery = 102.80%				
85) 4-Bromofluorobenzene	10.27	95	202258	9.41	PPB		0.00
Spiked Amount 10.000			Recovery = 94.10%				
Target Compounds							Qvalue
3) Chloromethane	1.24	50	40625m	1.92	PPB		
14) Acetone	2.34	43	13703	6.58	PPB		98
15) Iodomethane	2.36	142	1026	0.06	PPB		83
17) 2-Propanol (Isopropyl Alco	2.45	45	4566	10.38	PPB		83
21) Methylene Chloride	2.71	84	1091	0.06	PPB	#	72
40) Chloroform	4.48	83	1358m	0.05	PPB		
101) n-Butylbenzene	11.80	91	1857	0.04	PPB		95
104) 1,3,5-Trichlorobenzene	12.63	180	767	0.04	PPB		91
105) 1,2,4-Trichlorobenzene	13.07	180	725	0.04	PPB		92
107) Naphthalene	13.25	128	16574	0.44	PPB		98

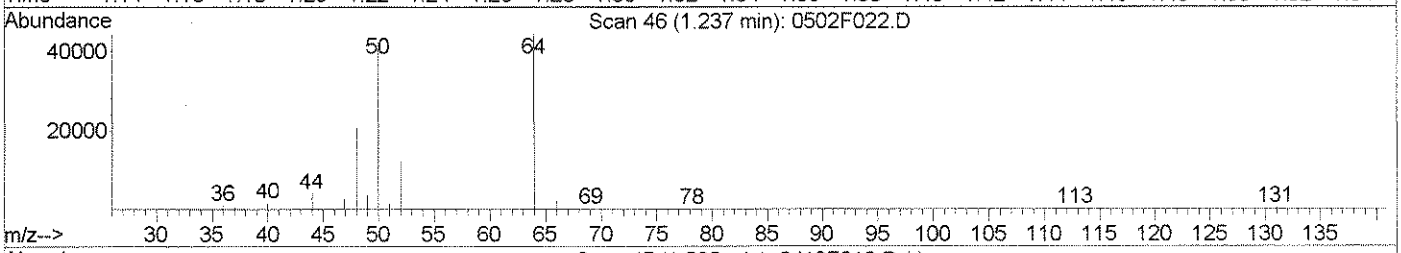
(#) = qualifier out of range (m) = manual integration

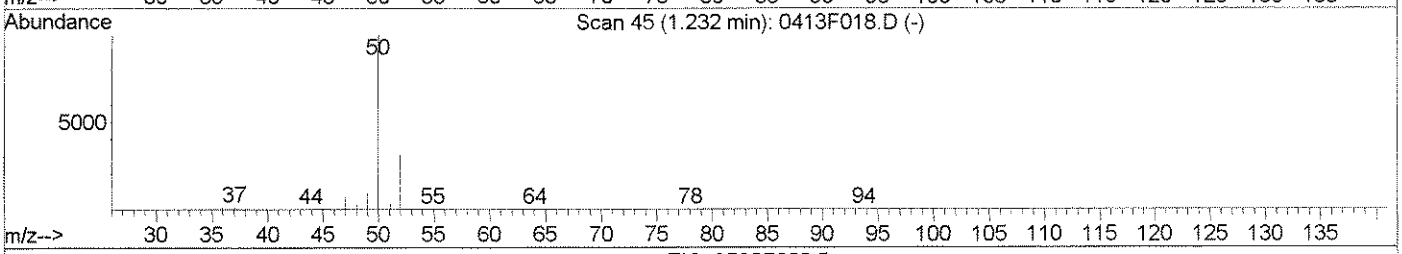
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\050216\0502F022.D Vial: 22
Acq On : 2 May 2016 22:48 Operator: YX
Sample : K1604068-003 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:12 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Multiple Level Calibration







TIC: 0502F022.D

(3) Chloromethane (PT)

1.24min 1.97PPB

response 41762

Ion	Exp%	Act%
50.00	100	100
52.00	31.50	31.43
49.00	9.20	9.42
0.00	0.00	0.00

Manual Integration:

Before

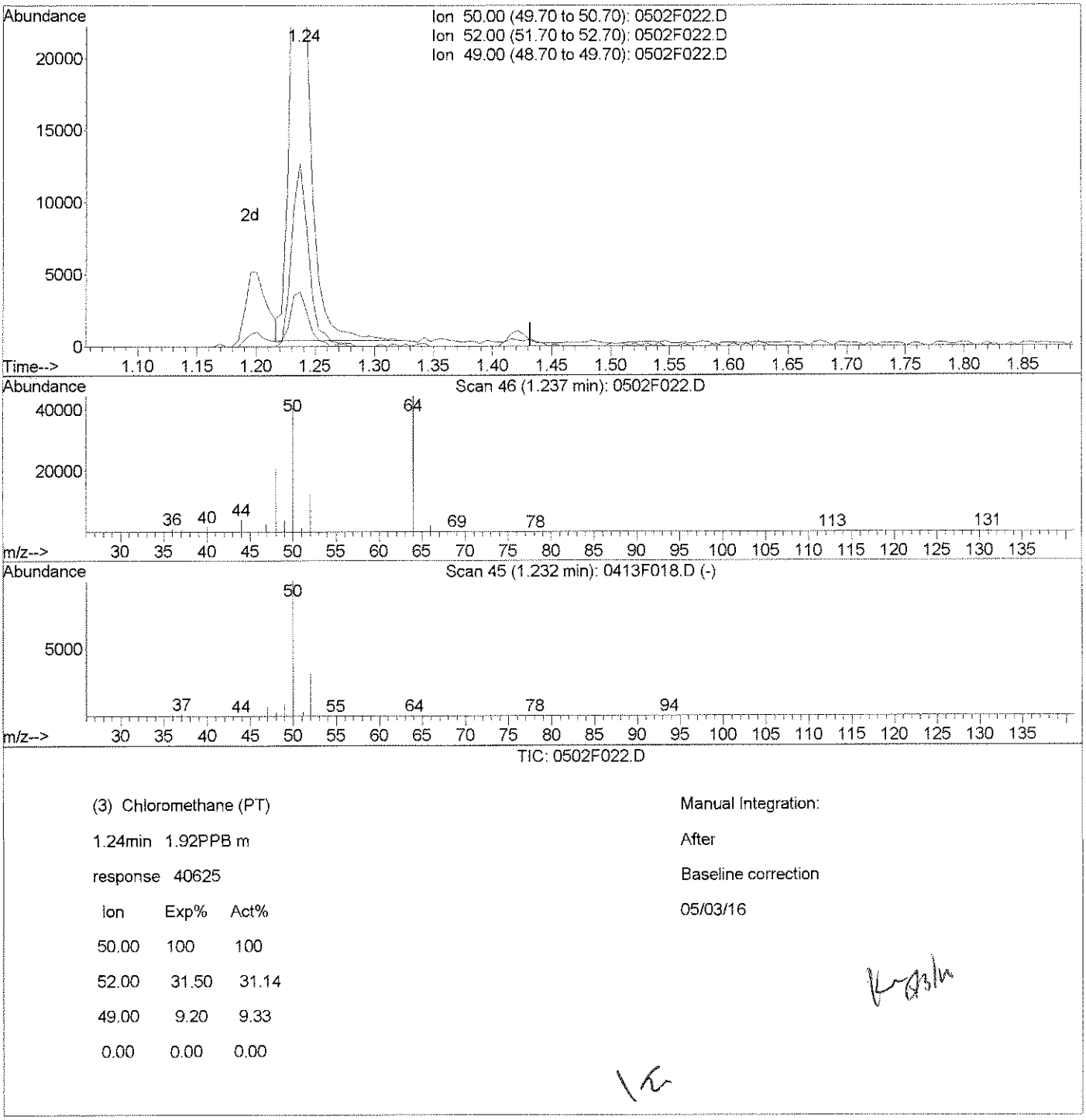
05/03/16

0502F022.D 041316MS18_8260.M Tue May 03 08:35:27 2016

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\050216\0502F022.D Vial: 22
Acq On : 2 May 2016 22:48 Operator: YX
Sample : K1604068-003 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:35 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Multiple Level Calibration



TIC: 0502F022.D

(3) Chloromethane (PT)

1.24min 1.92PPB m

response 40625

Ion	Exp%	Act%
50.00	100	100
52.00	31.50	31.14
49.00	9.20	9.33
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

05/03/16

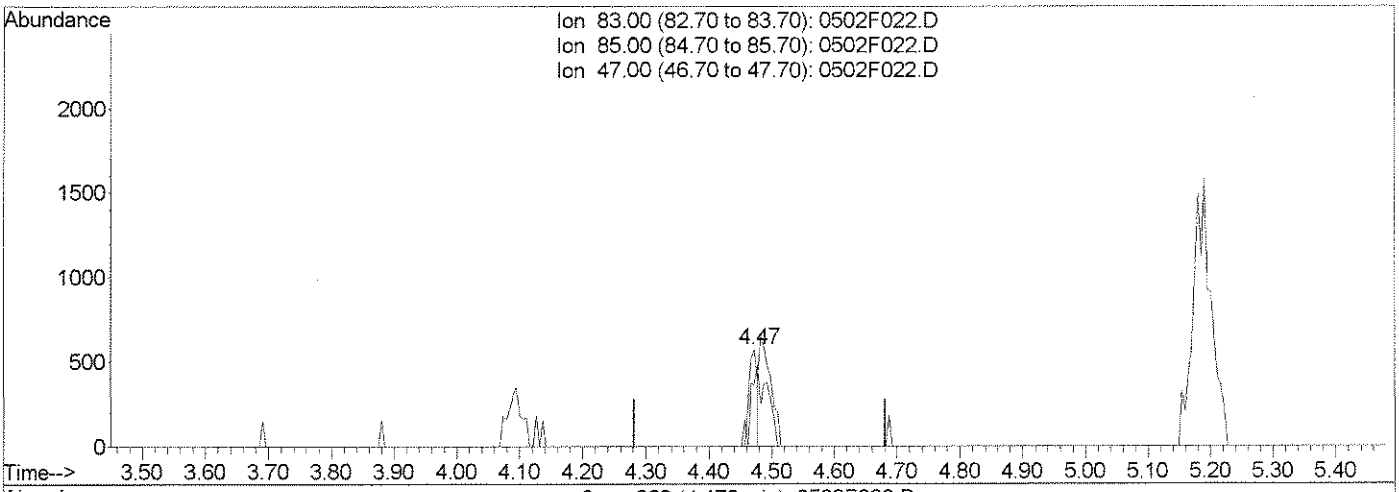
0502F022.D 041316MS18_8260.M Tue May 03 08:36:13 2016

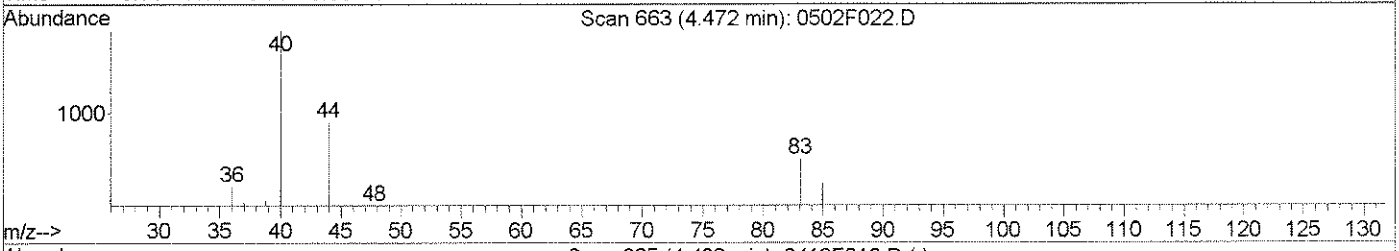
Quantitation Report (Qedit)

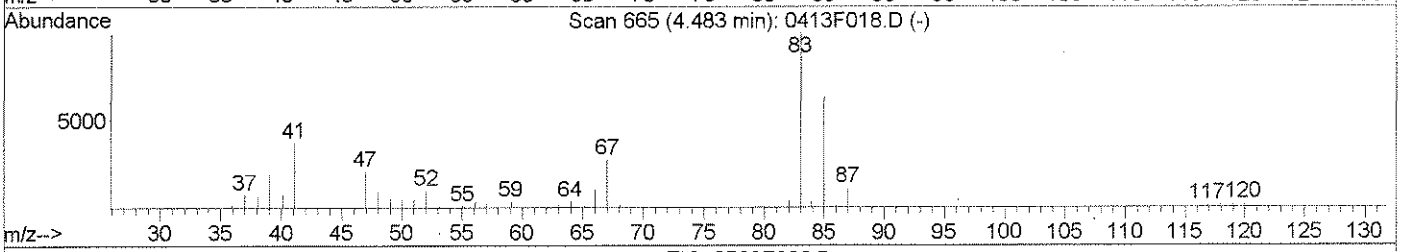
Data File : J:\MS18\DATA\050216\0502F022.D
Acq On : 2 May 2016 22:48
Sample : K1604068-003
Misc :
MS Integration Params: rteint.p
Quant Time: May 3 8:36 2016

Vial: 22
Operator: YX
Inst : GC-MS 18
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Multiple Level Calibration







TIC: 0502F022.D

(40) Chloroform (CT)

4.47min 0.02PPB

response 555

Ion	Exp%	Act%
83.00	100	100
85.00	63.90	63.65
47.00	20.90	0.00
0.00	0.00	0.00

Manual Integration:

Before

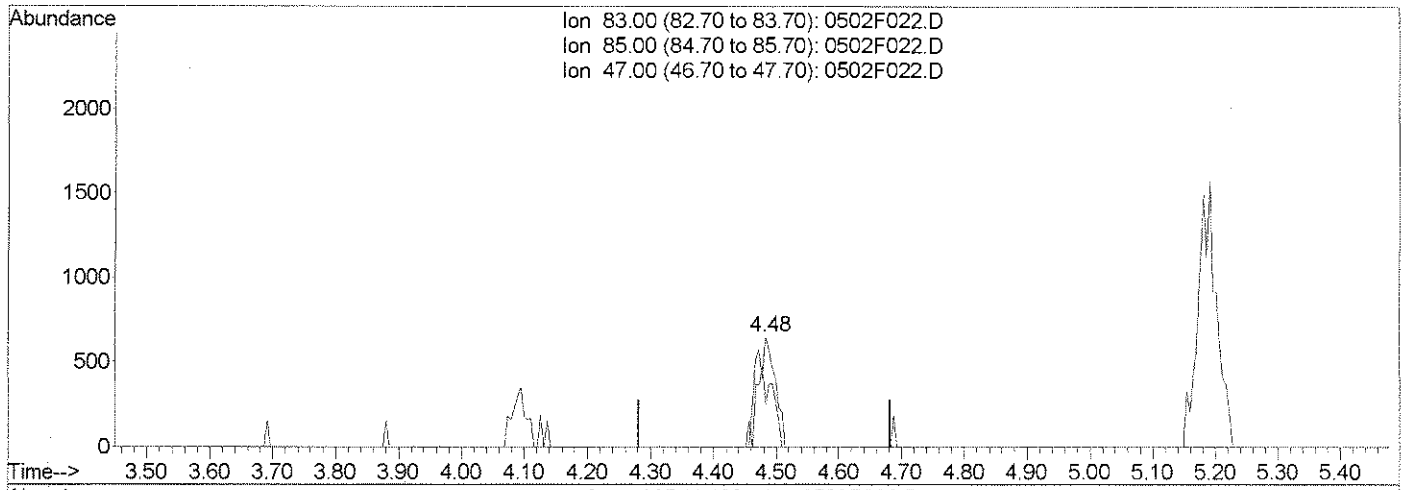
05/03/16

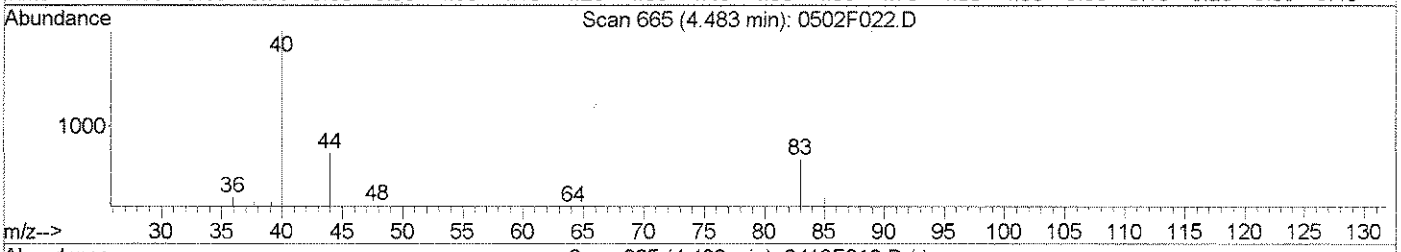
0502F022.D 041316MS18_8260.M Tue May 03 08:36:44 2016

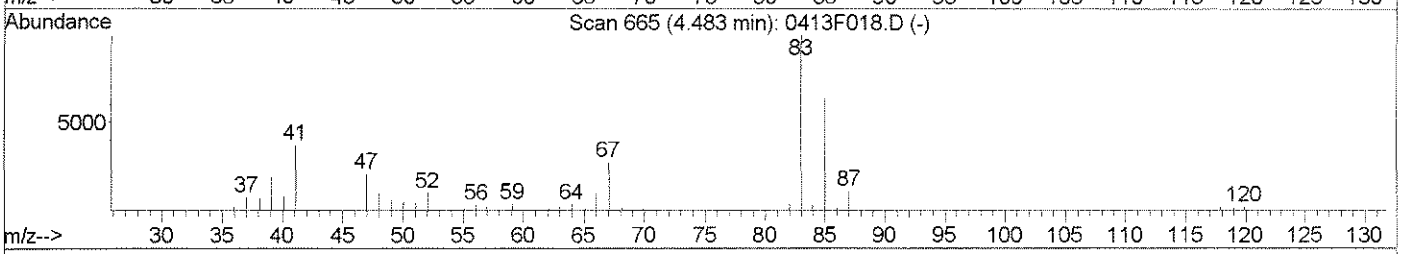
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\050216\0502F022.D Vial: 22
Acq On : 2 May 2016 22:48 Operator: YX
Sample : K1604068-003 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:36 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Multiple Level Calibration







TIC: 0502F022.D

(40) Chloroform (CT)

4.48min 0.05PPB m

response 1358

Ion	Exp%	Act%
83.00	100	100
85.00	63.90	38.77
47.00	20.90	0.00
0.00	0.00	0.00

Manual Integration:

After

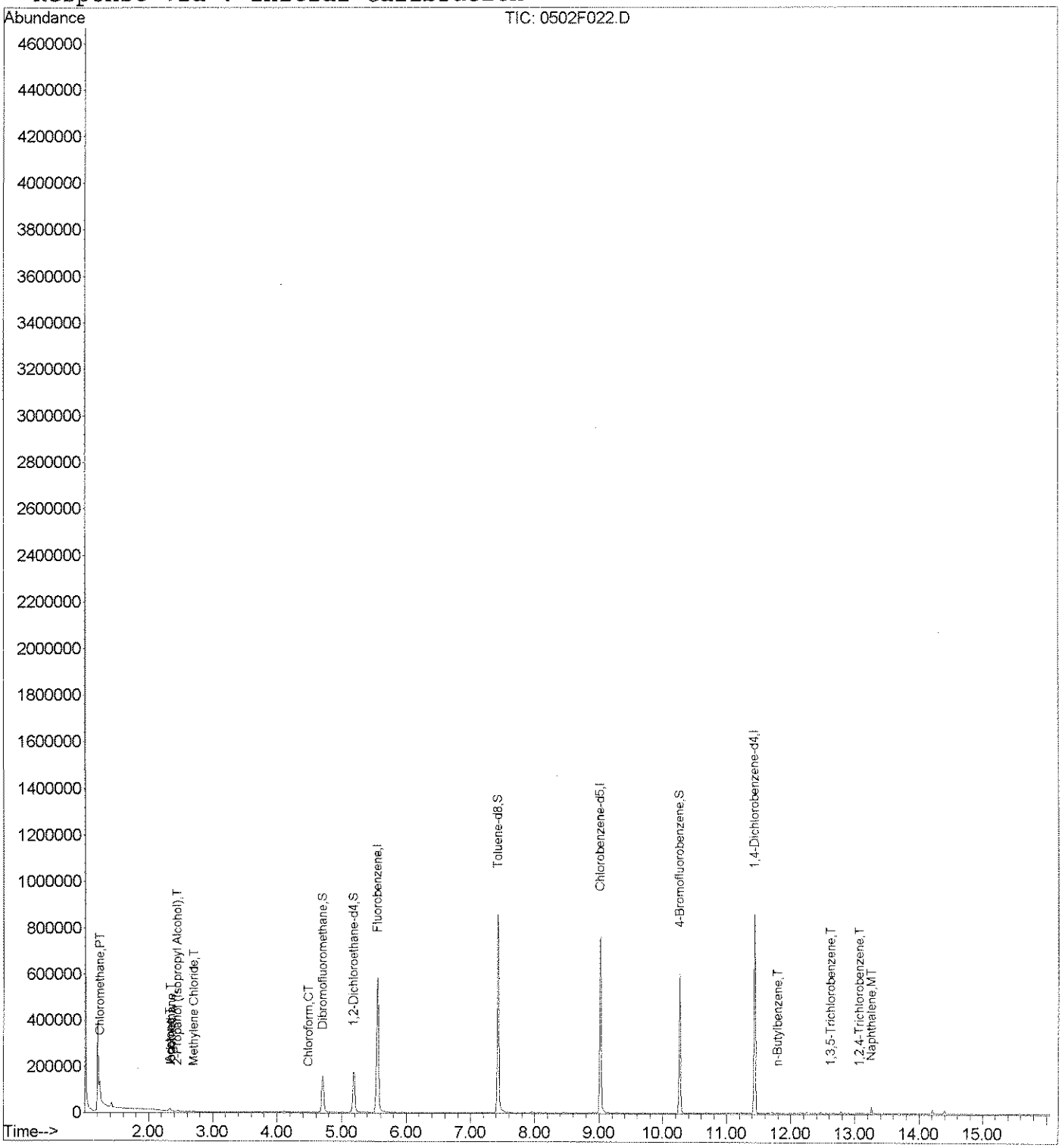
Split peak

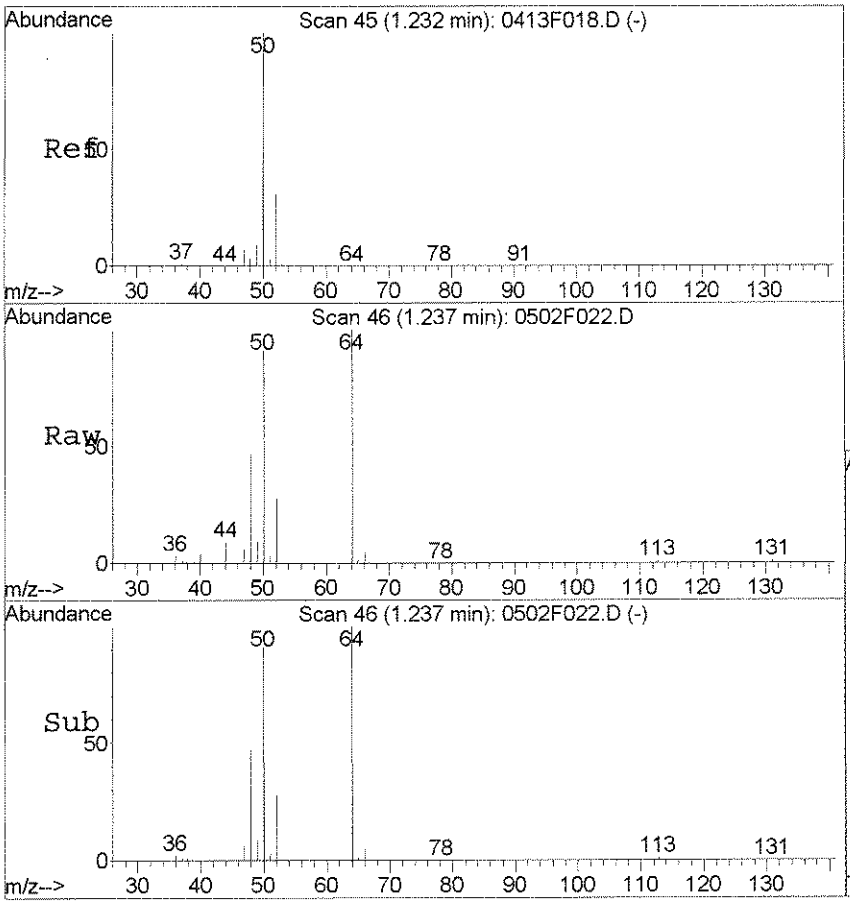
05/03/16

0502F022.D 041316MS18_8260.M Tue May 03 08:36:48 2016

Data File : J:\MS18\DATA\050216\0502F022.D Vial: 22
Acq On : 2 May 2016 22:48 Operator: YX
Sample : K1604068-003 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:37 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration

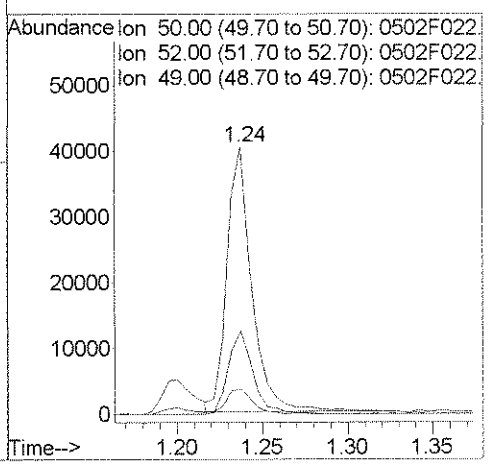


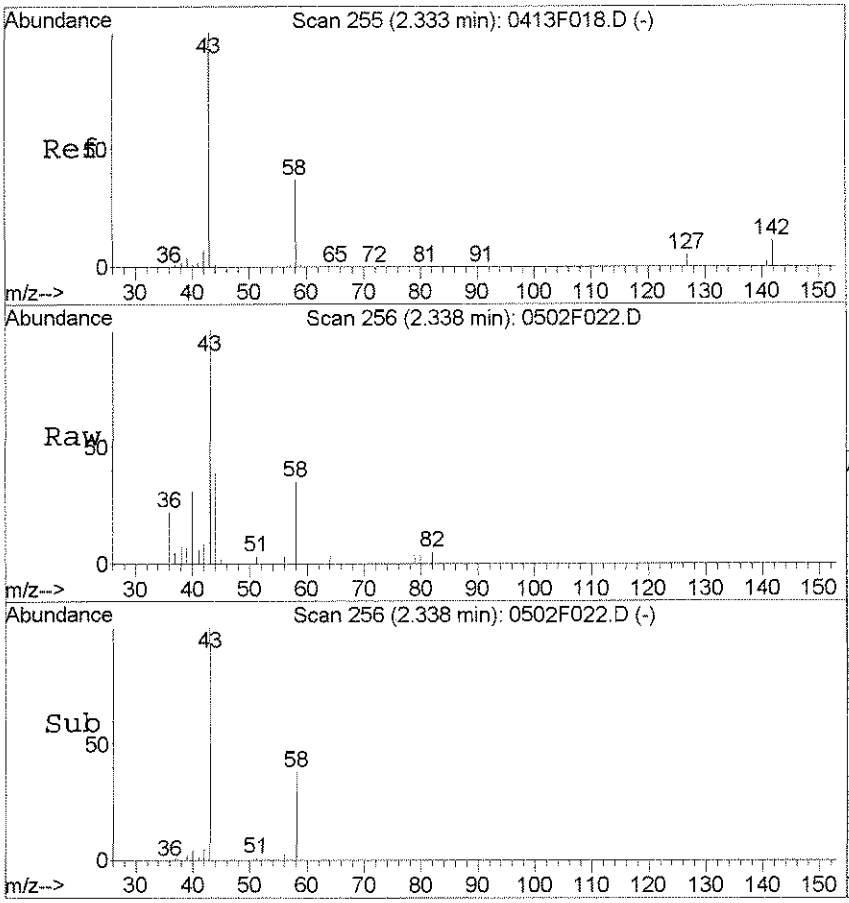


#3
Chloromethane
Concen: 1.92 PPB m
RT: 1.24 min Scan# 46
Delta R.T. 0.01 min
Lab File: 0502F022.D
Acq: 2 May 2016 22:48

Tgt Ion: 50 Resp: 40625

Ion	Ratio	Lower	Upper
50	100		
52	31.1	1.5	61.5
49	9.3	0.0	39.2

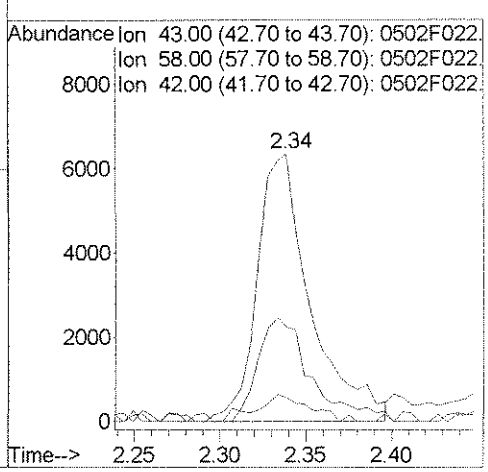


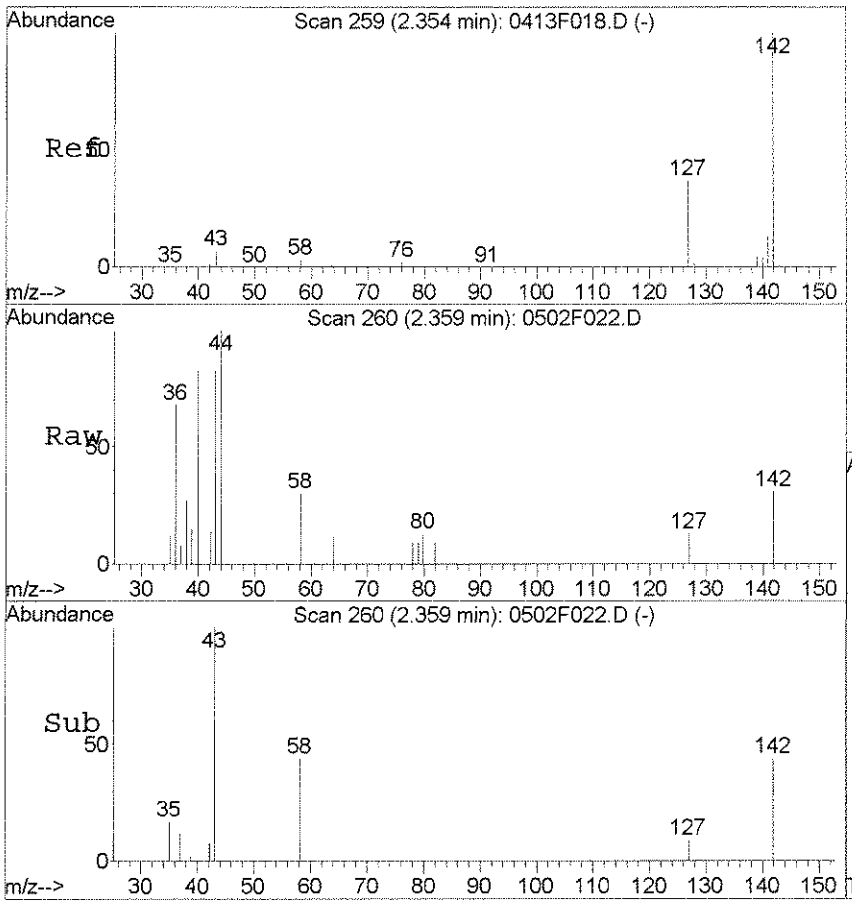


#14
Acetone
Concen: 6.58 PPB
RT: 2.34 min Scan# 256
Delta R.T. 0.01 min
Lab File: 0502F022.D
Acq: 2 May 2016 22:48

Tgt Ion: 43 Resp: 13703

Ion	Ratio	Lower	Upper
43	100		
58	35.4	6.9	66.9
42	6.1	0.0	36.8

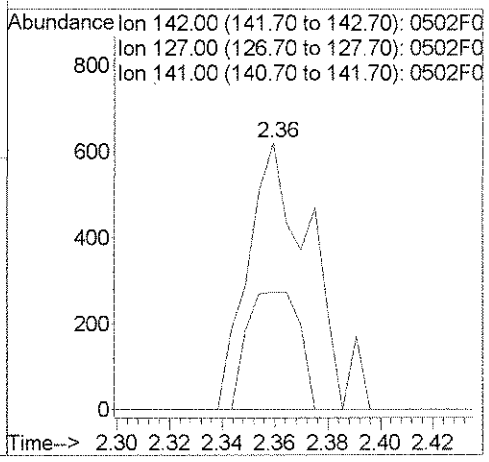


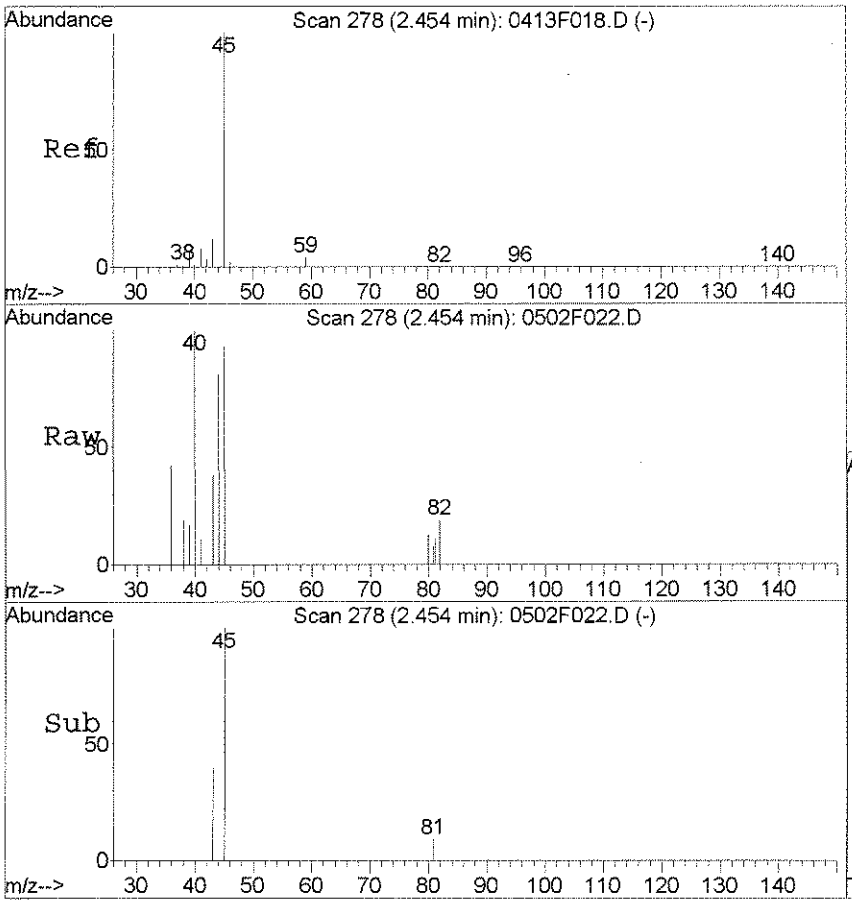


#15
Iodomethane
Concen: 0.06 PPB
RT: 2.36 min Scan# 260
Delta R.T. 0.01 min
Lab File: 0502F022.D
Acq: 2 May 2016 22:48

Tgt Ion:142 Resp: 1026

Ion	Ratio	Lower	Upper
142	100		
127	44.0	7.4	67.4
141	0.0	0.0	43.4

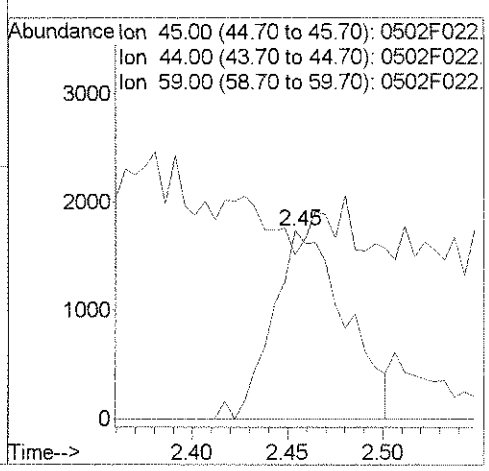


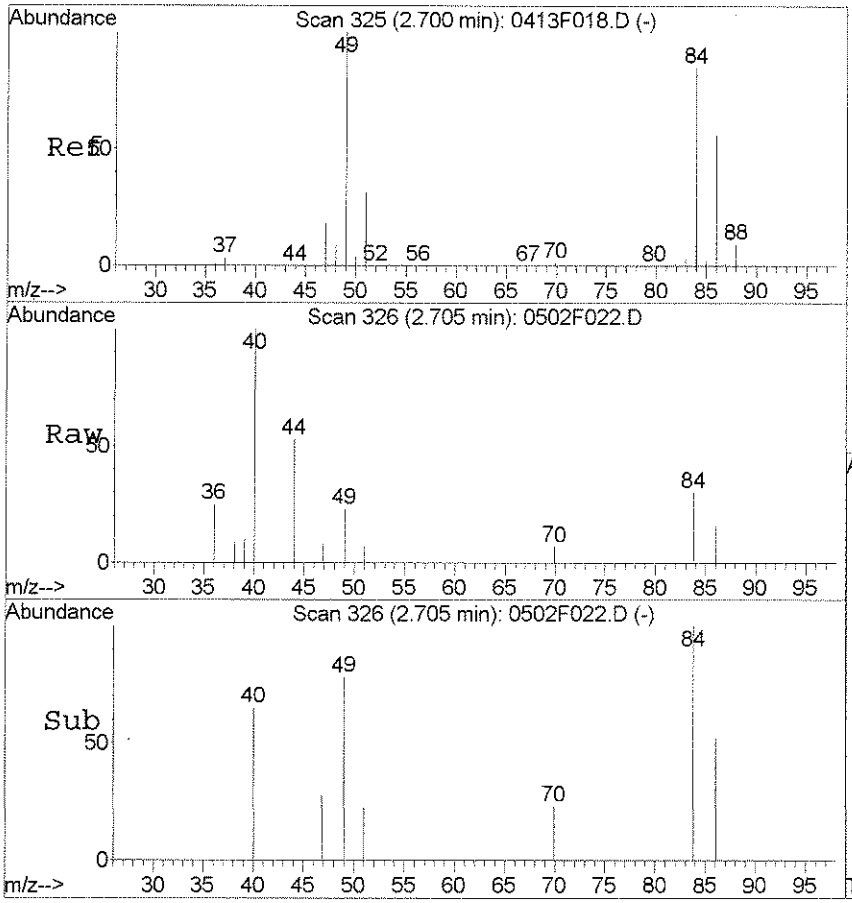


#17
2-Propanol (Isopropyl Alcohol
Concen: 10.38 PPB
RT: 2.45 min Scan# 278
Delta R.T. 0.00 min
Lab File: 0502F022.D
Acq: 2 May 2016 22:48

Tgt Ion: 45 Resp: 4566

Ion	Ratio	Lower	Upper
45	100		
44	0.0	0.0	26.7
59	0.0	0.0	23.7

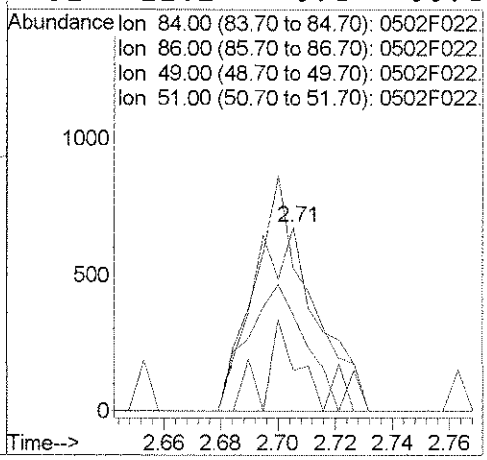


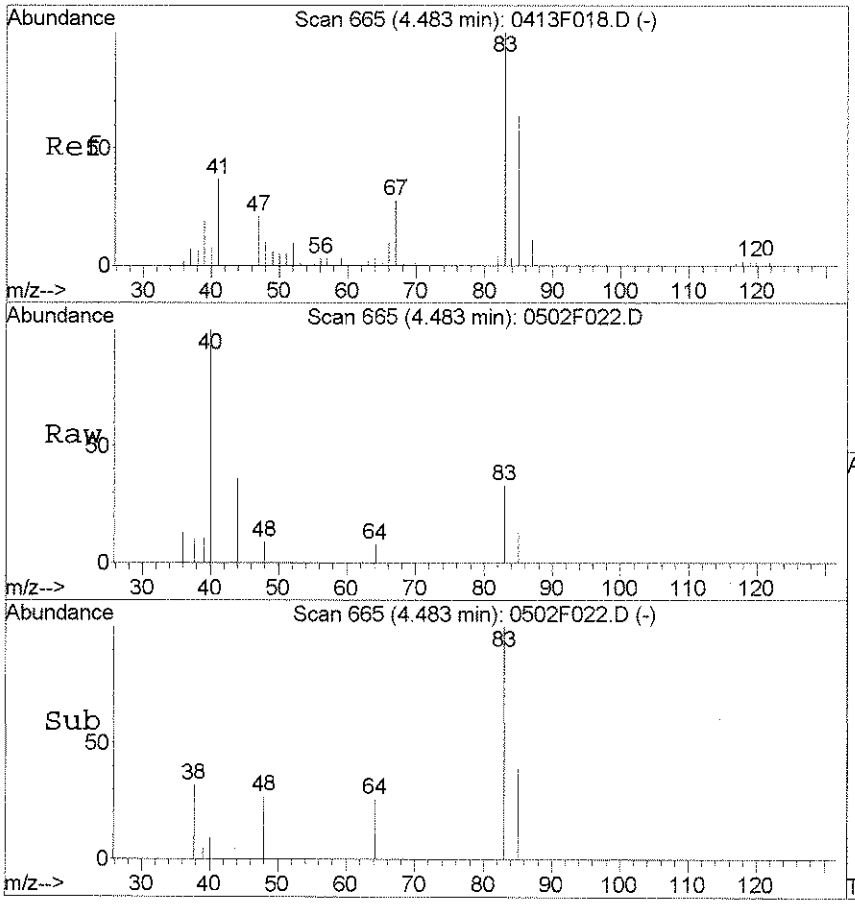


#21
Methylene Chloride
Concen: 0.06 PPB
RT: 2.71 min Scan# 326
Delta R.T. 0.01 min
Lab File: 0502F022.D
Acq: 2 May 2016 22:48

Tgt Ion: 84 Resp: 1091

Ion	Ratio	Lower	Upper
84	100		
86	52.1	35.6	95.6
49	77.5	87.0	147.0#
51	22.2	6.4	66.4

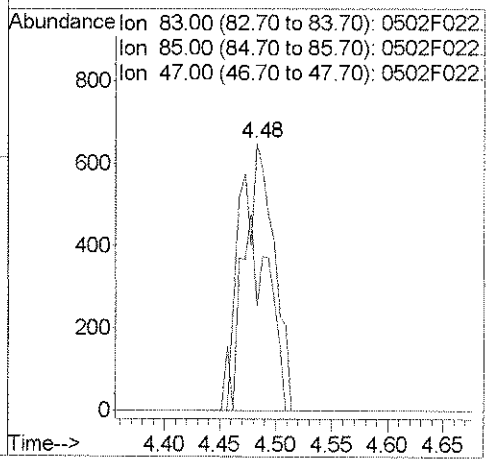


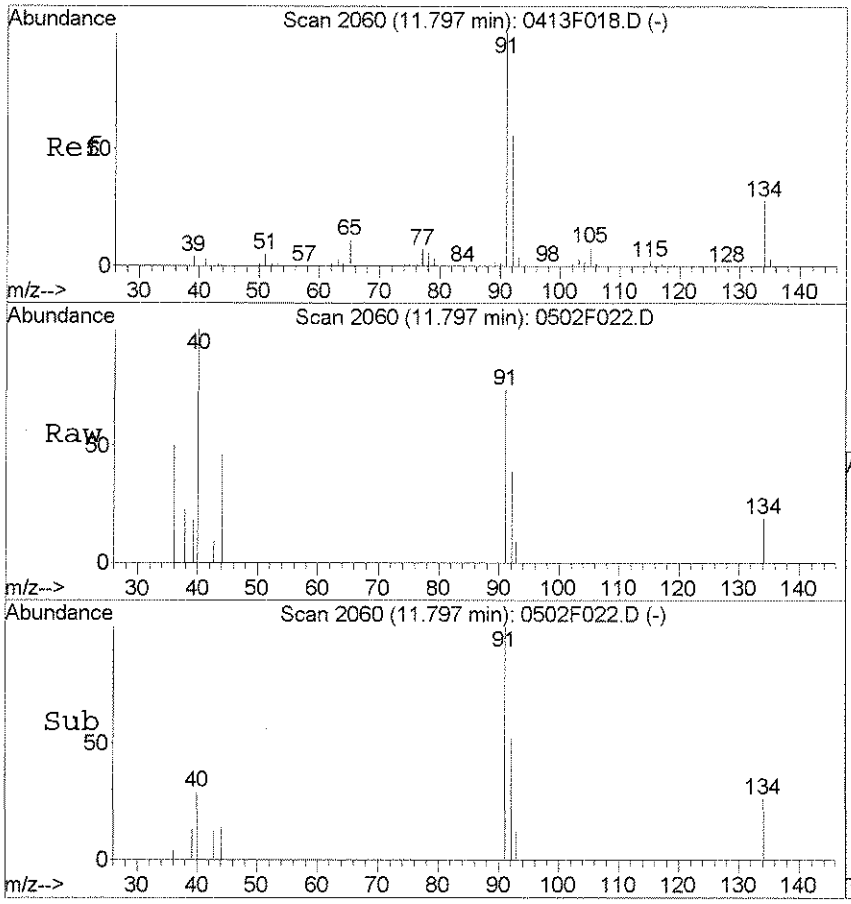


#40
Chloroform
Concen: 0.05 PPB m
RT: 4.48 min Scan# 665
Delta R.T. 0.00 min
Lab File: 0502F022.D
Acq: 2 May 2016 22:48

Tgt Ion: 83 Resp: 1358

Ion	Ratio	Lower	Upper
83	100		
85	38.8	33.9	93.9
47	0.0	0.0	50.9

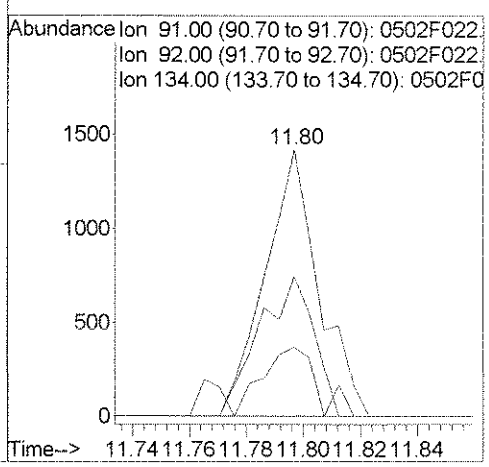


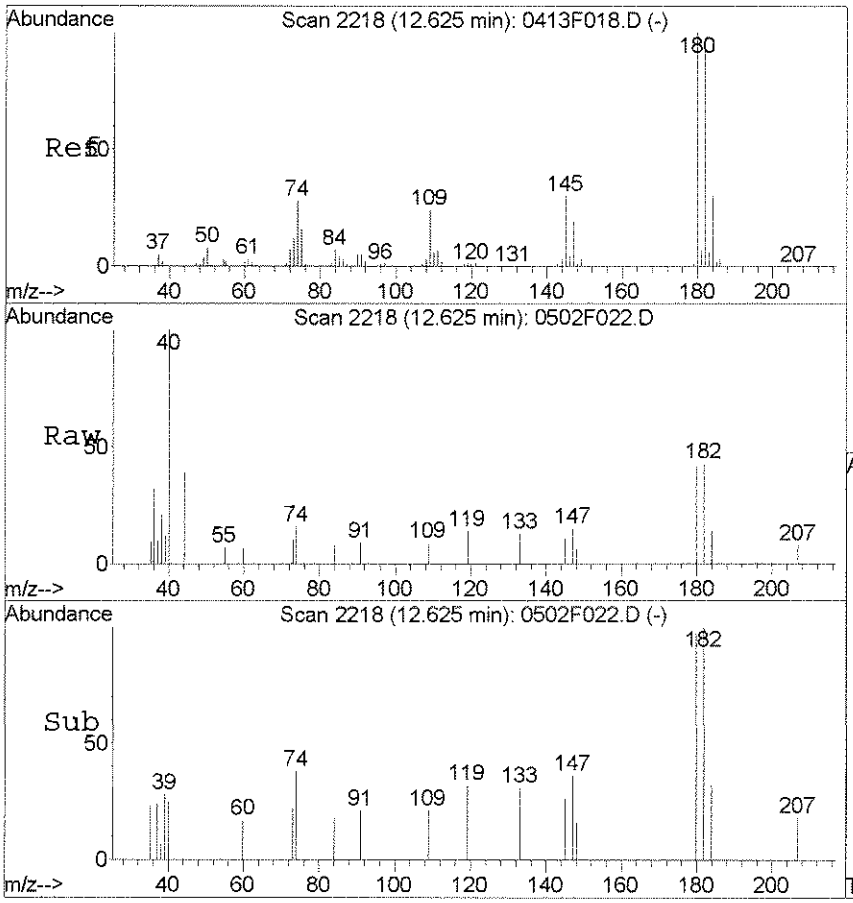


#101
n-Butylbenzene
Concen: 0.04 PPB
RT: 11.80 min Scan# 2060
Delta R.T. 0.00 min
Lab File: 0502F022.D
Acq: 2 May 2016 22:48

Tgt Ion: 91 Resp: 1857

Ion	Ratio	Lower	Upper
91	100		
92	52.5	26.0	86.0
134	25.8	0.0	58.2

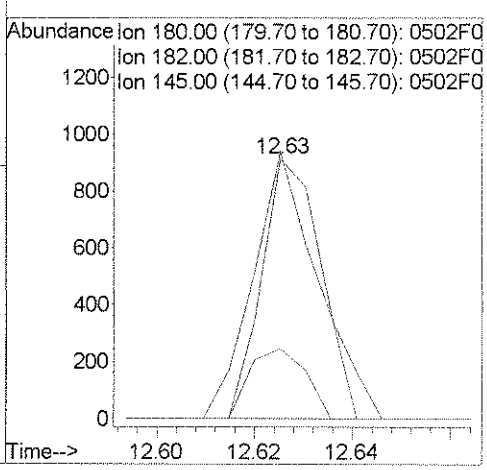


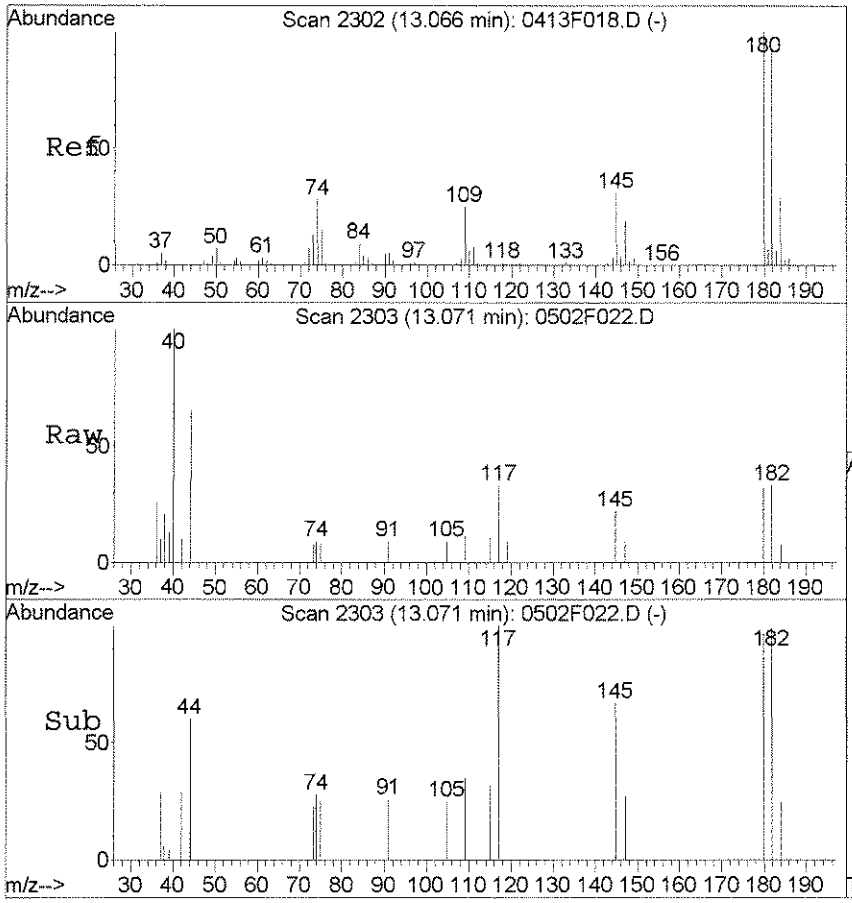


#104
1,3,5-Trichlorobenzene
Concen: 0.04 PPB
RT: 12.63 min Scan# 2218
Delta R.T. 0.00 min
Lab File: 0502F022.D
Acq: 2 May 2016 22:48

Tgt Ion:180 Resp: 767

Ion	Ratio	Lower	Upper
180	100		
182	103.0	63.4	123.4
145	26.8	0.1	60.1

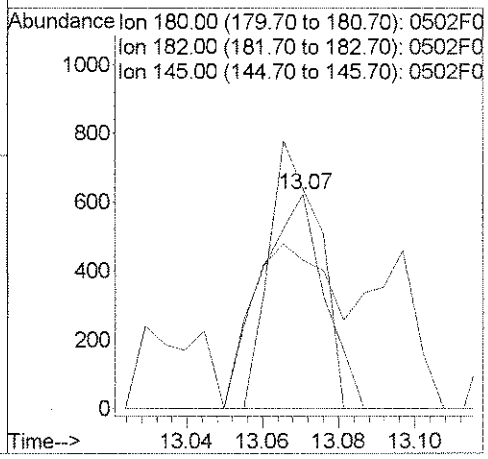


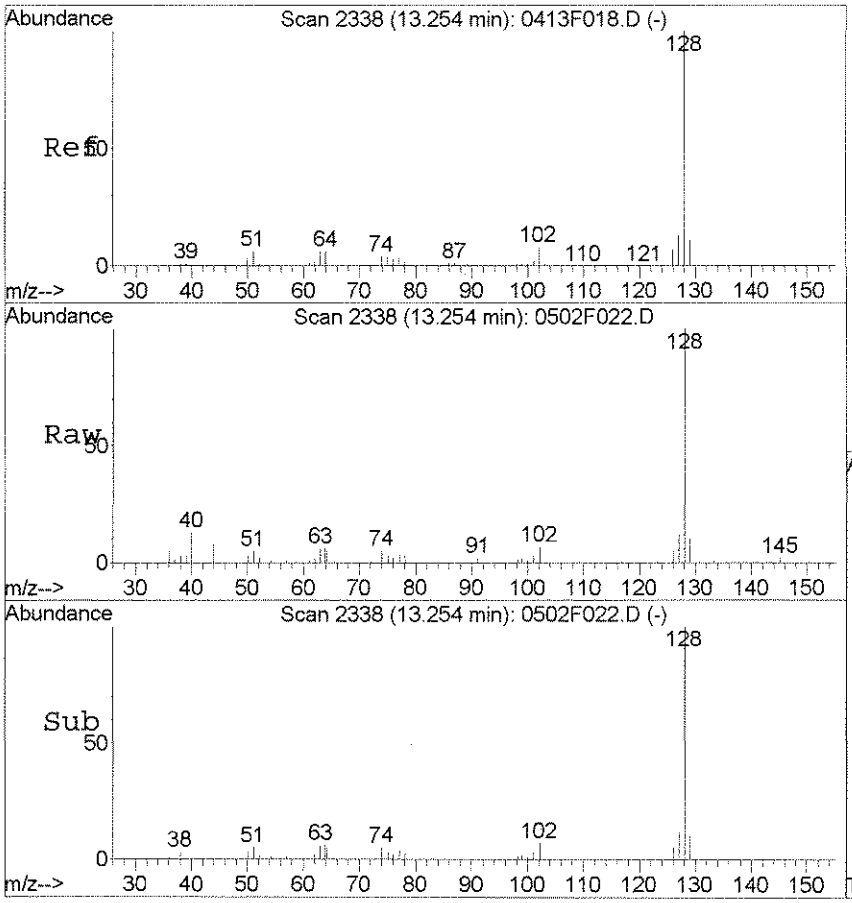


#105
1,2,4-Trichlorobenzene
Concen: 0.04 PPB
RT: 13.07 min Scan# 2303
Delta R.T. 0.01 min
Lab File: 0502F022.D
Acq: 2 May 2016 22:48

Tgt Ion:180 Resp: 725

Ion	Ratio	Lower	Upper
180	100		
182	102.4	63.2	123.2
145	32.9	0.6	60.6

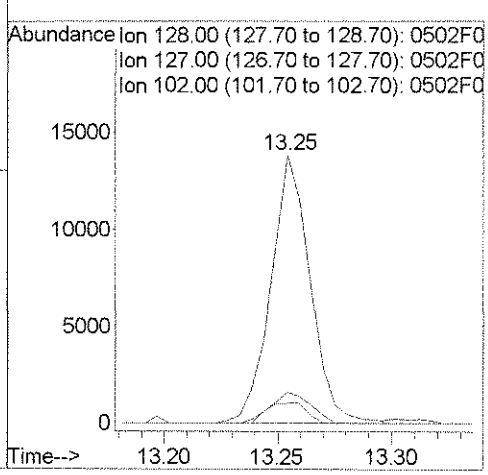




#107
Naphthalene
Concen: 0.44 PPB
RT: 13.25 min Scan# 2338
Delta R.T. 0.00 min
Lab File: 0502F022.D
Acq: 2 May 2016 22:48

Tgt Ion:128 Resp: 16574

Ion	Ratio	Lower	Upper
128	100		
127	11.5	0.0	42.7
102	7.4	0.0	37.7



Exception Report

Data File: J:\MS18\DATA\050216\0502F023.D
Lab ID: K1604068-004
RunType: SMPL
Matrix: WATER

Date Acquired: 05/02/2016 23:09
Date Quantitated: 05/03/2016 08:38
Batch ID: KWG1603423
Analysis Method: 8260C
ListJoinID: LJ17286

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/3/16

Secondary Review:

Printed: 05/03/2016 10:06:23
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS18\DATA\050216\0502F023.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 23:09	**Quant Date:**	05/03/2016 08:38	**Vial:**	23
Run Type:	SMPL	**ListJoinID:**	LJ17286	**Dilution:**	1.0
Lab ID:	K1604068-004			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603423	**Prep Lot:**	KWG1603424	**Report Group:**	K1604068
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514332	**Prep Date:**	05/02/2016		

Quant Method:	J:\MS18\METHODS\041316MS18_8	**Calibration ID:**	CAL14682
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17286
Tune Ref:	J:\MS18\DATA\050216\0502F007.D	**Method ID:**	MJ1465
MB Ref:	J:\MS18\DATA\050216\0502F015.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.55	0.00	96	653719	10.00	OK
2	Chlorobenzene-d5	9.02	0.00	82	249307	10.00	OK
3	1,4-Dichlorobenzene-d4	11.44	0.01	152	228866	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	4.70	0.00	0.00	113	115965	8.96	90	80-119	OK	
1	1,2-Dichloroethane-d4	5.19	0.00	0.00	65	147239	9.84	98	81-118	OK	
1	Toluene-d8	7.43	0.00	0.00	98	608615	10.40	104	89-112	OK	
2	4-Bromofluorobenzene	10.27	0.00	0.00	95	201630	9.30	93	85-114	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Benzene				78	0		0.062	U	
1	Toluene				92	0d		0.054	U	
2	Ethylbenzene				106	0		0.050	U	
2	m,p-Xylenes				106	0		0.11	U	
2	o-Xylene				106	0		0.074	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS18\DATA\050216\0502F023.D Vial: 23
Acq On : 2 May 2016 23:09 Operator: YX
Sample : K1604068-004 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 03 08:12:08 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

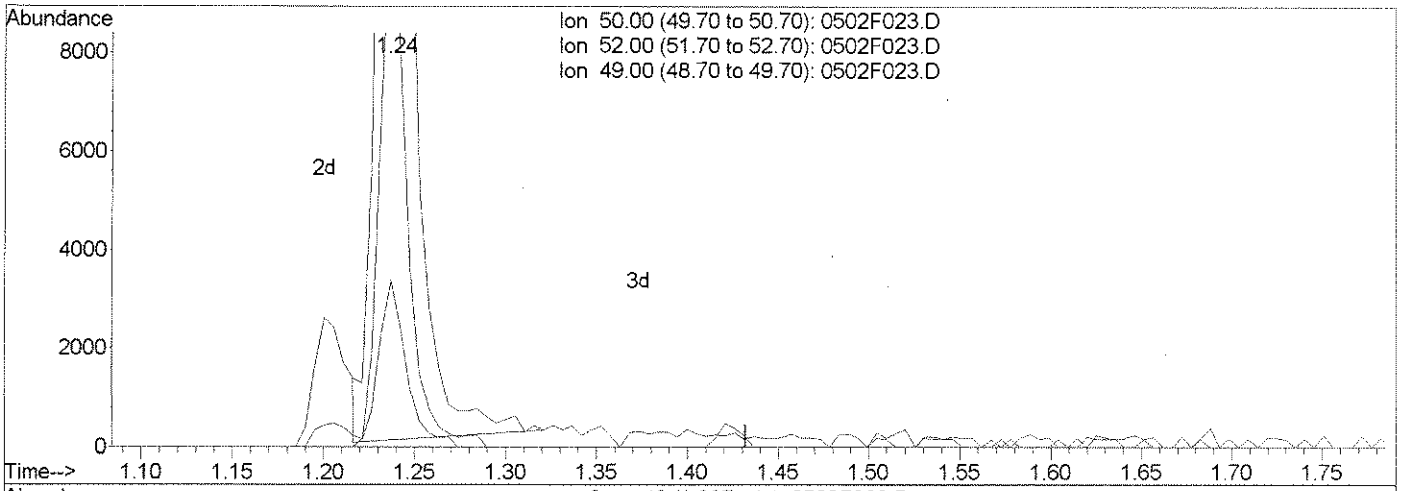
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.55	96	653719	10.00	PPB	0.00
65) Chlorobenzene-d5	9.02	82	249307	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	228866	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	4.70	113	115965	8.96	PPB	0.00
Spiked Amount 10.000			Recovery = 89.60%			
48) 1,2-Dichloroethane-d4	5.19	65	147239	9.84	PPB	0.00
Spiked Amount 10.000			Recovery = 98.40%			
63) Toluene-d8	7.43	98	608615	10.40	PPB	0.00
Spiked Amount 10.000			Recovery = 104.00%			
85) 4-Bromofluorobenzene	10.27	95	201630	9.30	PPB	0.00
Spiked Amount 10.000			Recovery = 93.00%			
Target Compounds						Qvalue
3) Chloromethane	1.24	50	34982m	1.65	PPB	
14) Acetone	2.34	43	7078	3.39	PPB	93
15) Iodomethane	2.37	142	913	0.05	PPB	86
17) 2-Propanol (Isopropyl Alco	2.46	45	2543	5.77	PPB	89
21) Methylene Chloride	2.71	84	957	0.05	PPB #	75
26) Hexane	3.10	57	537	0.03	PPB	91
101) n-Butylbenzene	11.79	91	1366	0.03	PPB	90
104) 1,3,5-Trichlorobenzene	12.62	180	828m	0.04	PPB	
105) 1,2,4-Trichlorobenzene	13.07	180	647	0.03	PPB	73
107) Naphthalene	13.25	128	8194	0.22	PPB	98

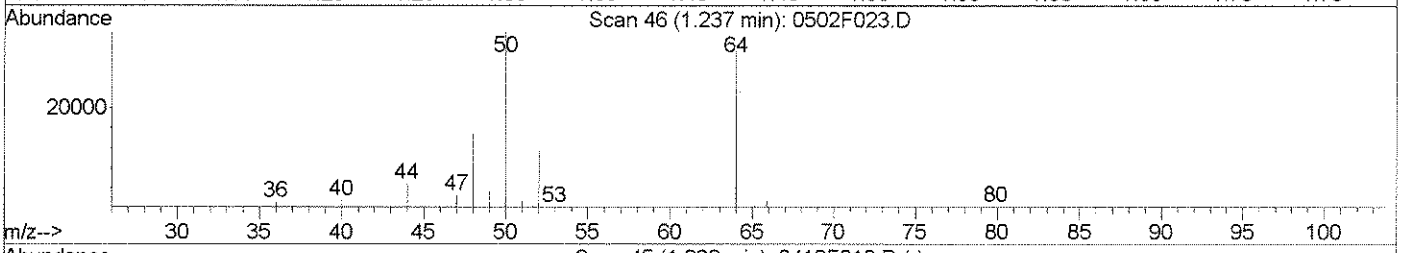
(#) = qualifier out of range (m) = manual integration

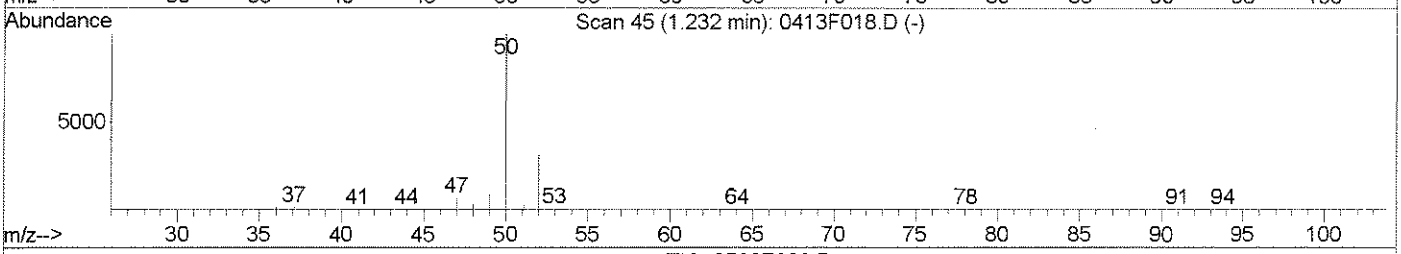
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\050216\0502F023.D Vial: 23
Acq On : 2 May 2016 23:09 Operator: YX
Sample : K1604068-004 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:12 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Multiple Level Calibration







TIC: 0502F023.D

(3) Chloromethane (PT)

1.24min 1.68PPB

response 35696

Ion	Exp%	Act%
50.00	100	100
52.00	31.50	32.86
49.00	9.20	9.73
0.00	0.00	0.00

Manual Integration:

Before

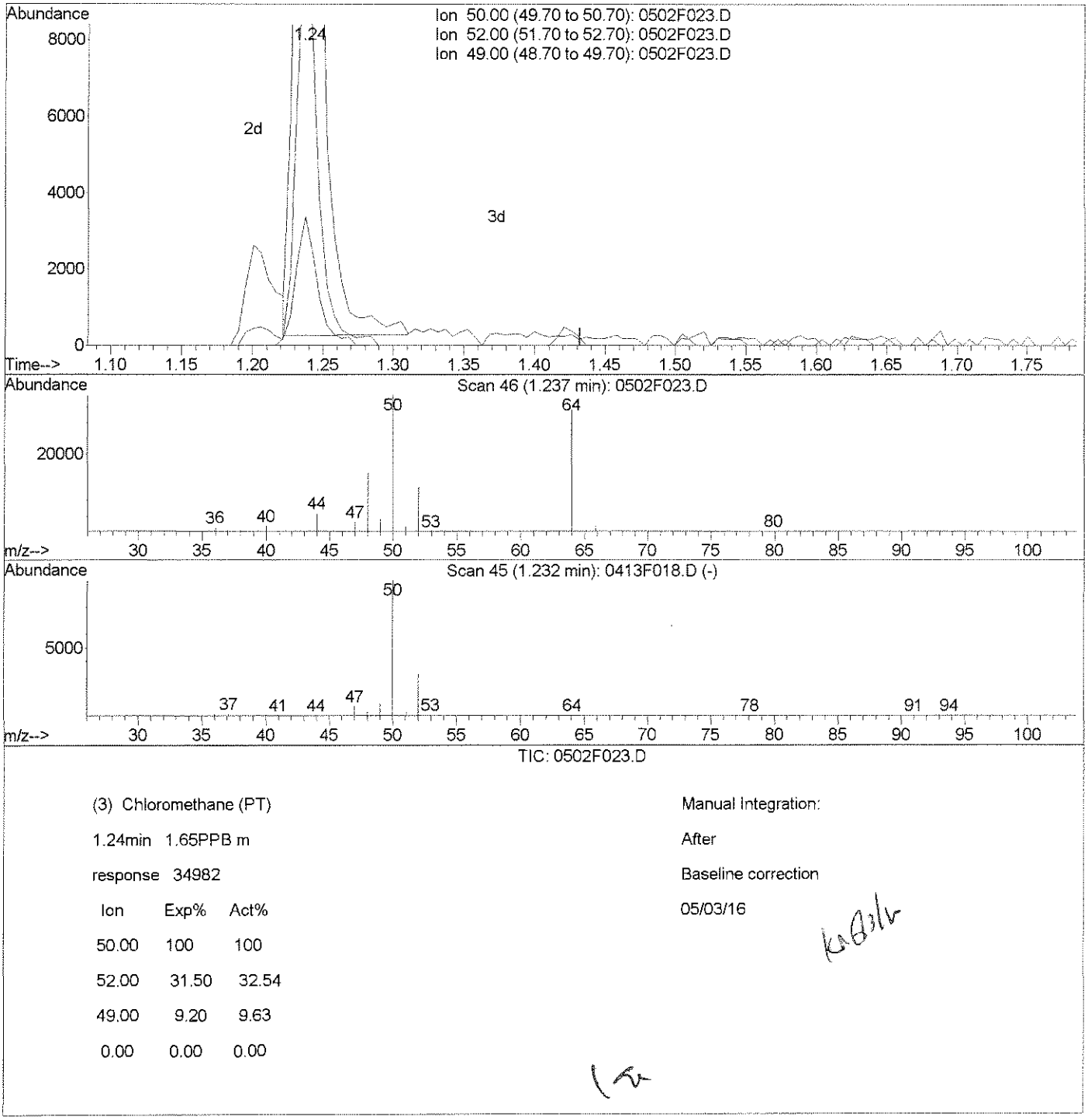
05/03/16

0502F023.D 041316MS18_8260.M Tue May 03 08:37:20 2016

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\050216\0502F023.D Vial: 23
Acq On : 2 May 2016 23:09 Operator: YX
Sample : K1604068-004 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:37 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Multiple Level Calibration



TIC: 0502F023.D

(3) Chloromethane (PT)

1.24min 1.65PPB m

response 34982

Ion	Exp%	Act%
50.00	100	100
52.00	31.50	32.54
49.00	9.20	9.63
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

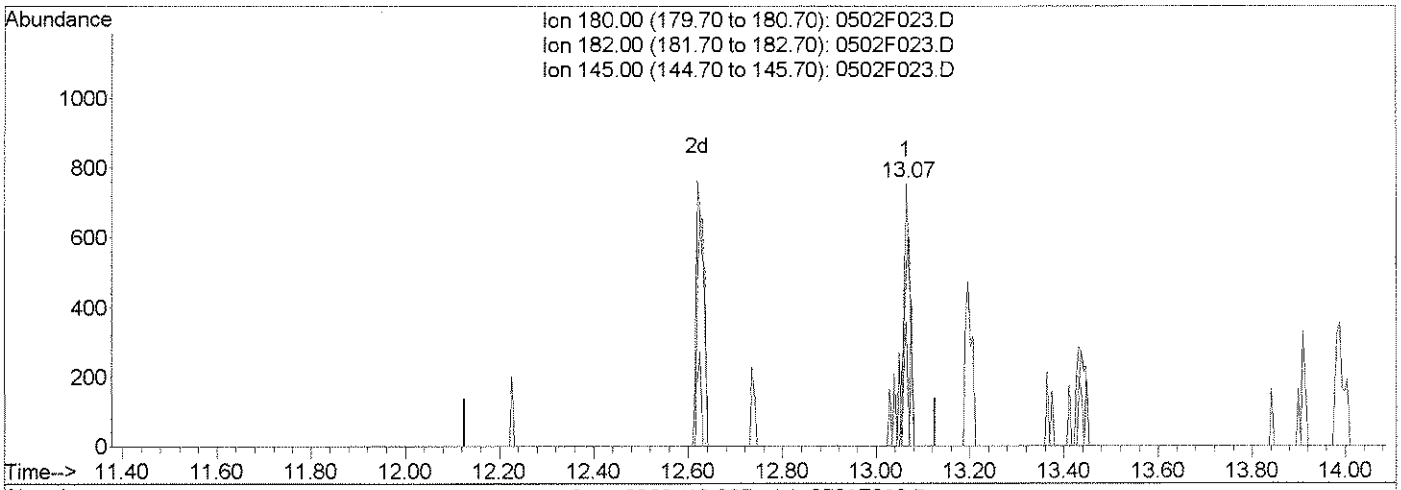
05/03/16

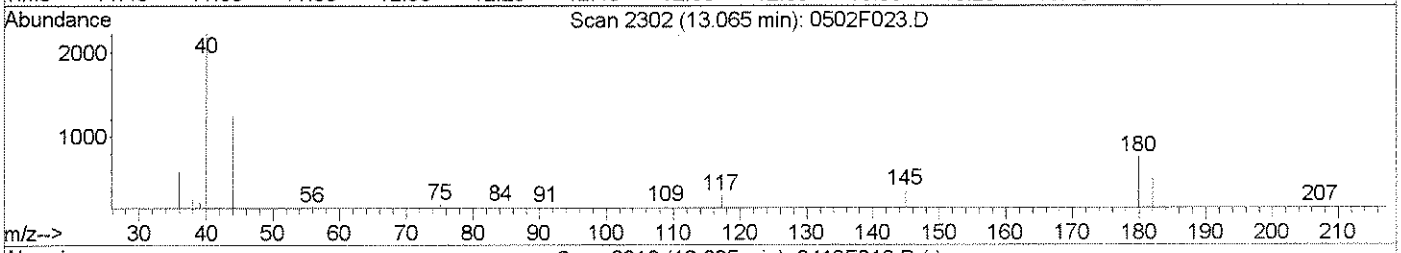
0502F023.D 041316MS18_8260.M Tue May 03 08:37:27 2016

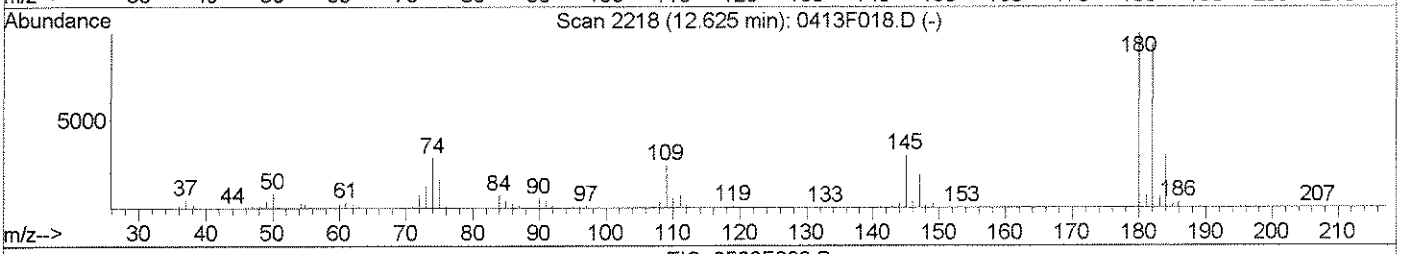
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\050216\0502F023.D Vial: 23
Acq On : 2 May 2016 23:09 Operator: YX
Sample : K1604068-004 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:37 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Multiple Level Calibration







TIC: 0502F023.D

(104) 1,3,5-Trichlorobenzene (T)

13.07min 0.03PPB

response 647

Ion	Exp%	Act%
180.00	100	100
182.00	93.40	68.16
145.00	30.10	47.69
0.00	0.00	0.00

Manual Integration:

Before

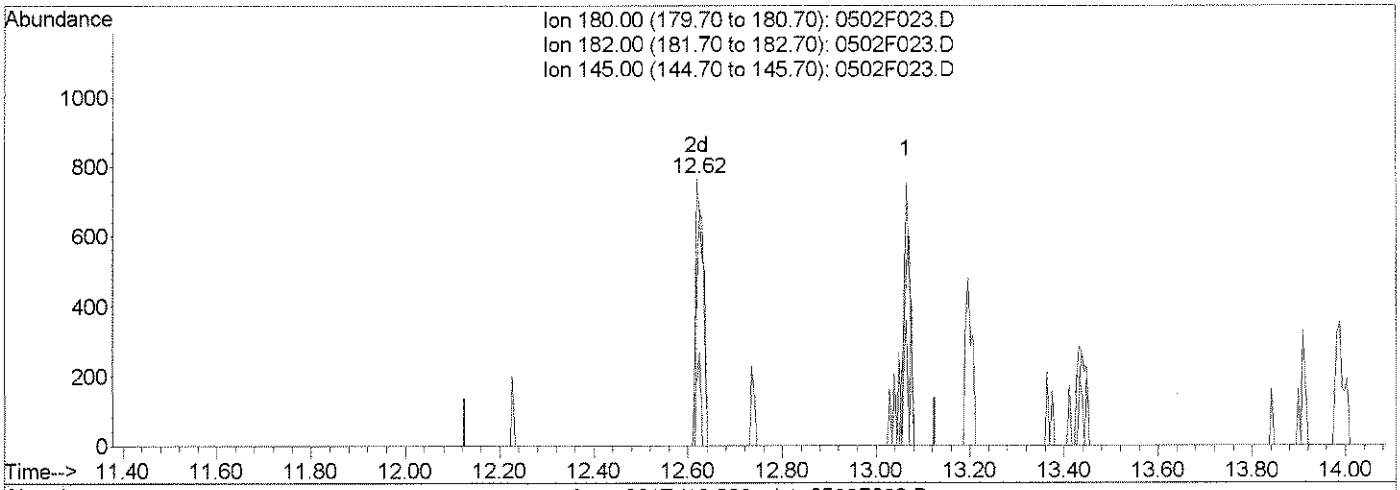
05/03/16

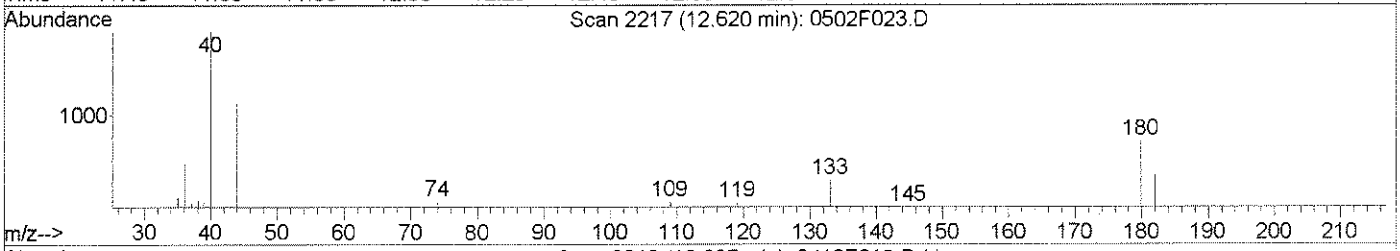
0502F023.D 041316MS18_8260.M Tue May 03 08:37:58 2016

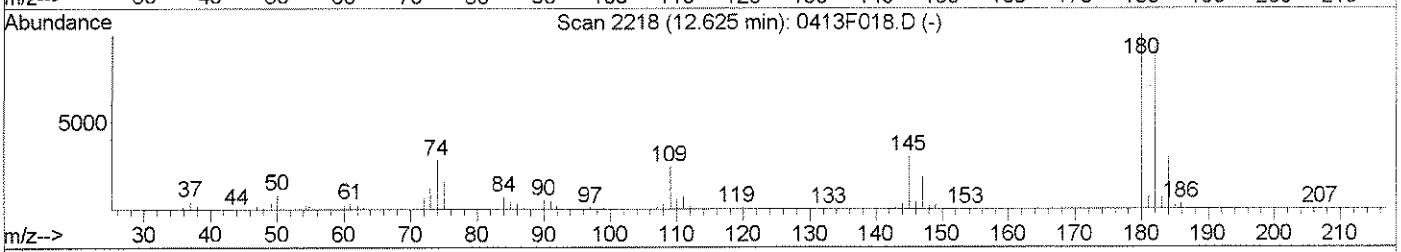
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\050216\0502F023.D Vial: 23
Acq On : 2 May 2016 23:09 Operator: YX
Sample : K1604068-004 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:38 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Multiple Level Calibration







TIC: 0502F023.D

(104) 1,3,5-Trichlorobenzene (T)

12.62min 0.04PPB m

response 828

Ion	Exp%	Act%
180.00	100	100
182.00	93.40	61.20#
145.00	30.10	24.22
0.00	0.00	0.00

Manual Integration:

After

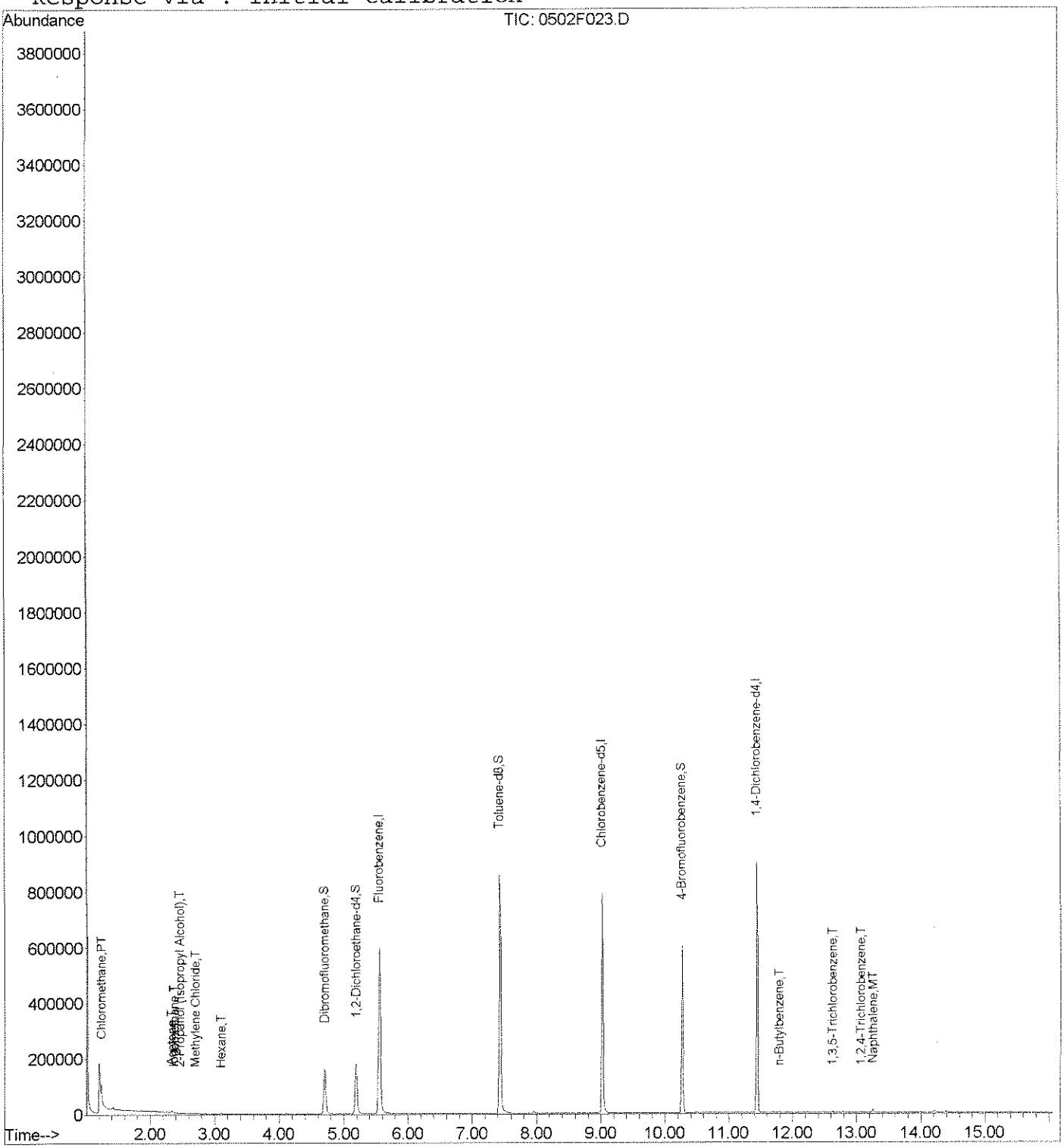
WRT

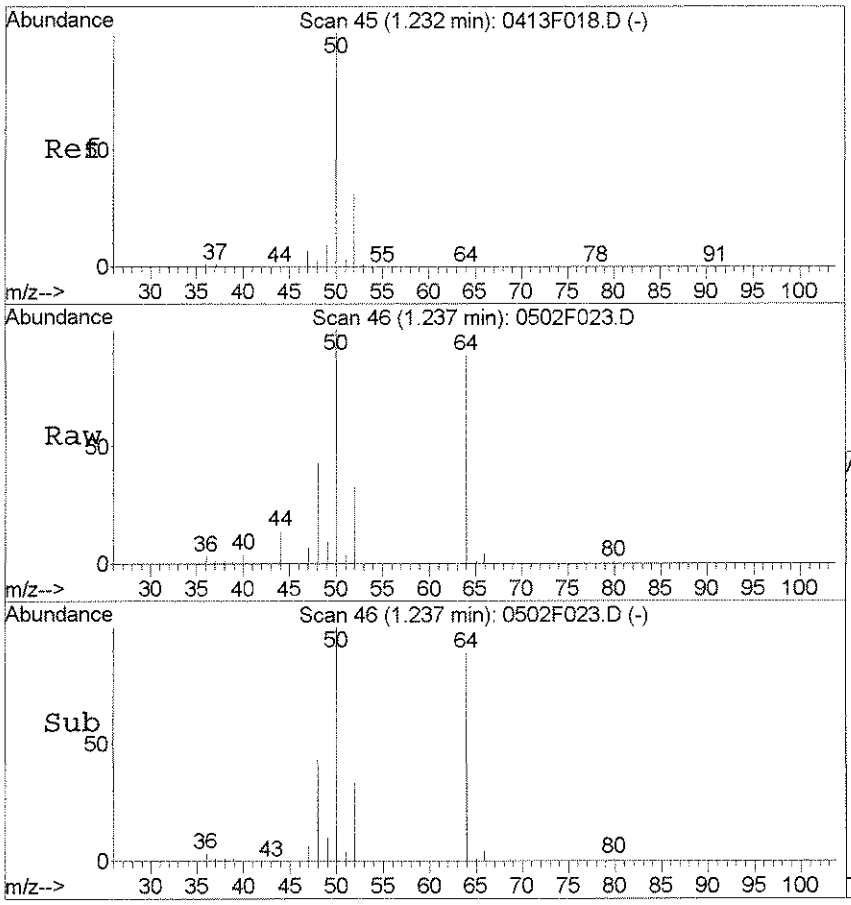
05/03/16

0502F023.D 041316MS18_8260.M Tue May 03 08:38:02 2016

Data File : J:\MS18\DATA\050216\0502F023.D Vial: 23
Acq On : 2 May 2016 23:09 Operator: YX
Sample : K1604068-004 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:38 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration

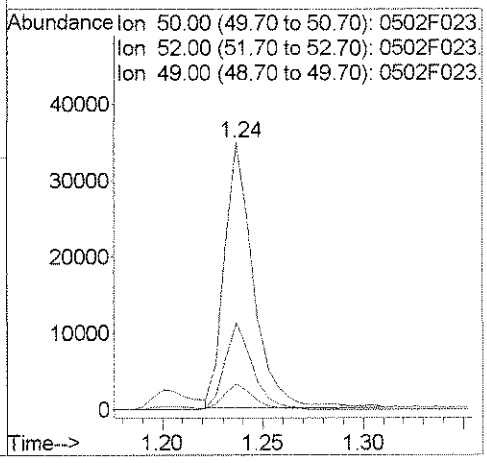


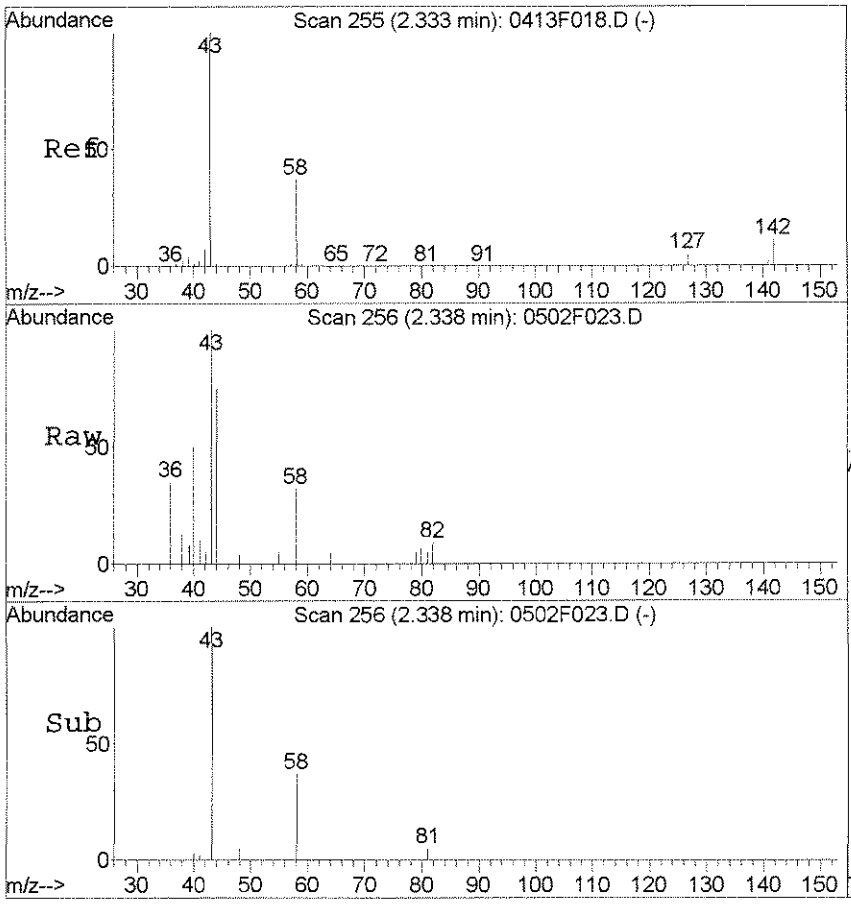


#3
Chloromethane
Concen: 1.65 PPB m
RT: 1.24 min Scan# 46
Delta R.T. 0.01 min
Lab File: 0502F023.D
Acq: 2 May 2016 23:09

Tgt Ion: 50 Resp: 34982

Ion	Ratio	Lower	Upper
50	100		
52	32.5	1.5	61.5
49	9.6	0.0	39.2

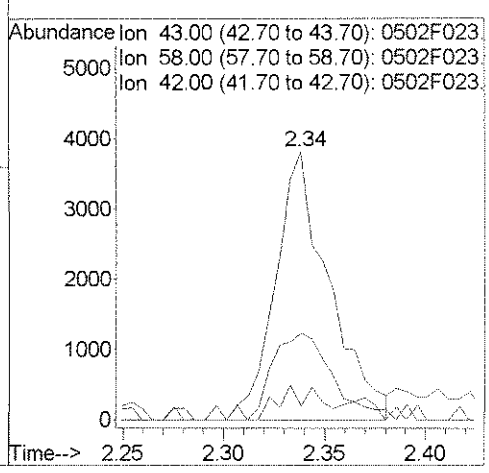


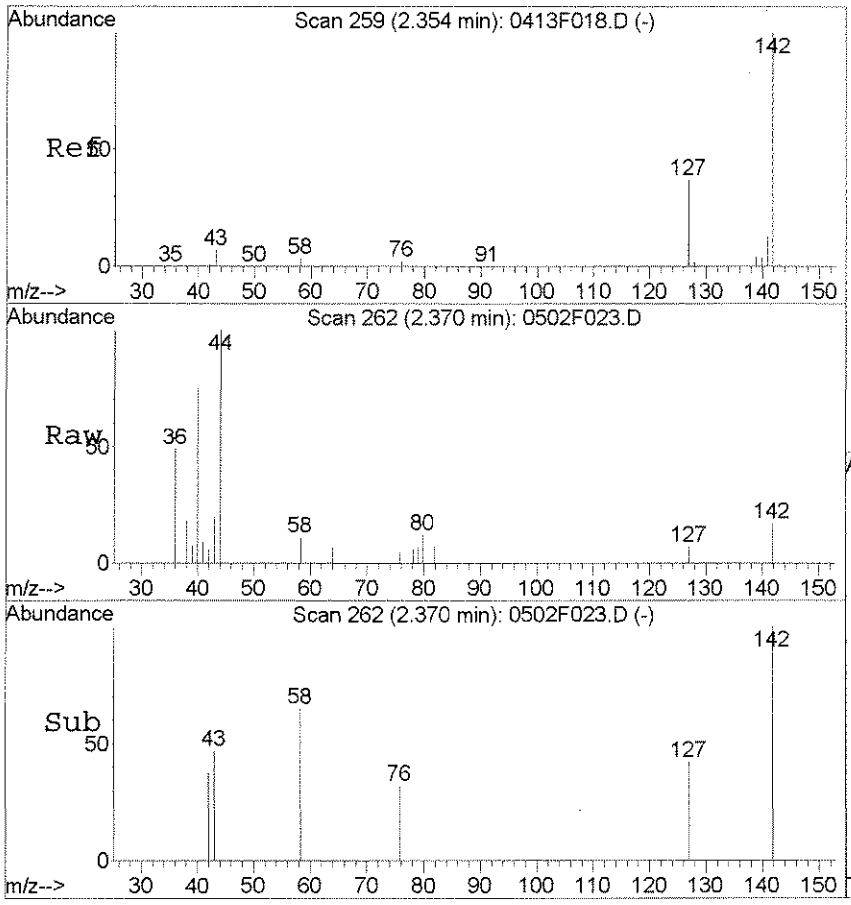


#14
Acetone
Concen: 3.39 PPB
RT: 2.34 min Scan# 256
Delta R.T. 0.01 min
Lab File: 0502F023.D
Acq: 2 May 2016 23:09

Tgt Ion: 43 Resp: 7078

Ion	Ratio	Lower	Upper
43	100		
58	32.4	6.9	66.9
42	5.2	0.0	36.8

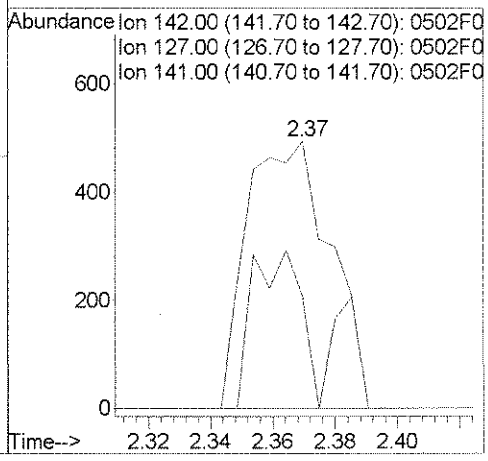


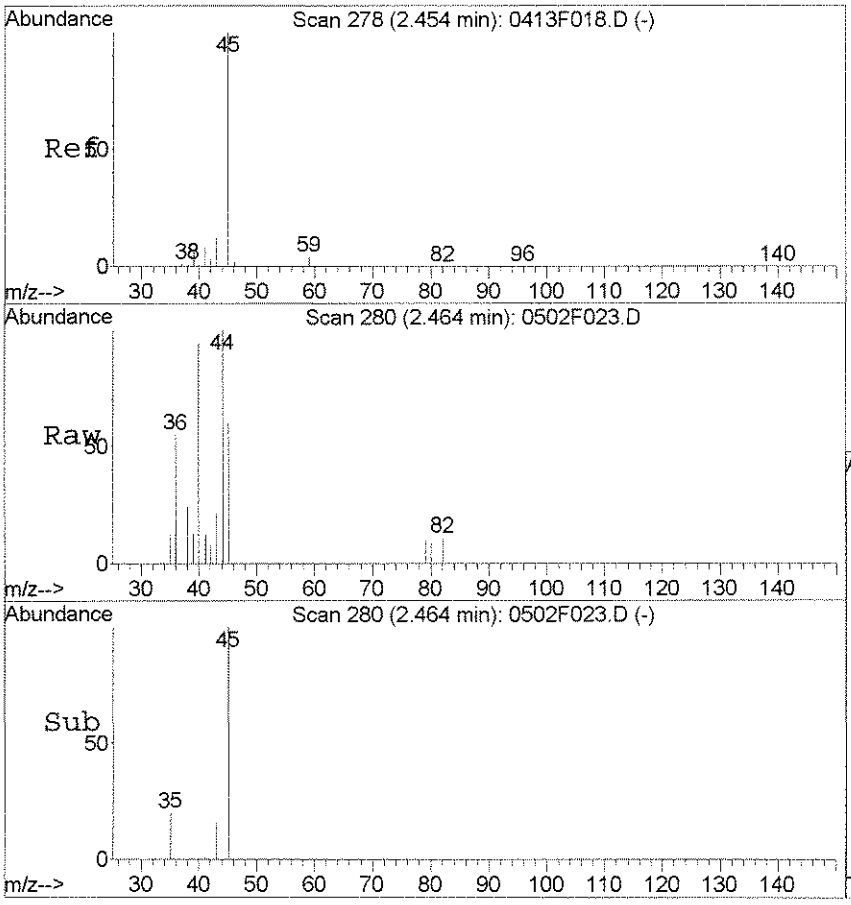


#15
Iodomethane
Concen: 0.05 PPB
RT: 2.37 min Scan# 262
Delta R.T. 0.02 min
Lab File: 0502F023.D
Acq: 2 May 2016 23:09

Tgt Ion:142 Resp: 913

Ion	Ratio	Lower	Upper
142	100		
127	42.0	7.4	67.4
141	0.0	0.0	43.4

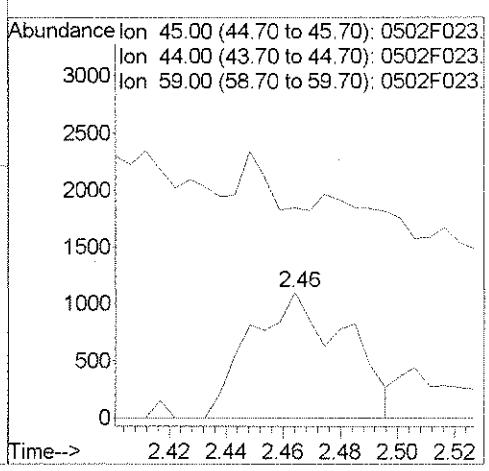


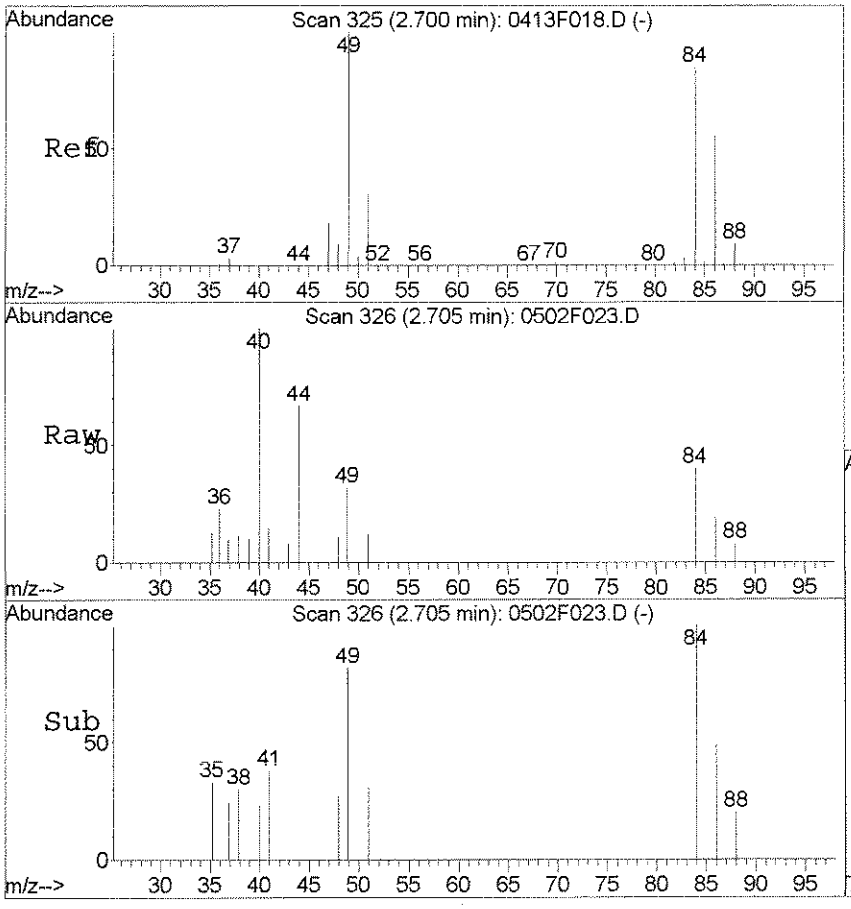


#17
2-Propanol (Isopropyl Alcohol
Concen: 5.77 PPB
RT: 2.46 min Scan# 280
Delta R.T. 0.01 min
Lab File: 0502F023.D
Acq: 2 May 2016 23:09

Tgt Ion: 45 Resp: 2543

Ion	Ratio	Lower	Upper
45	100		
44	3.0	0.0	26.7
59	0.0	0.0	23.7

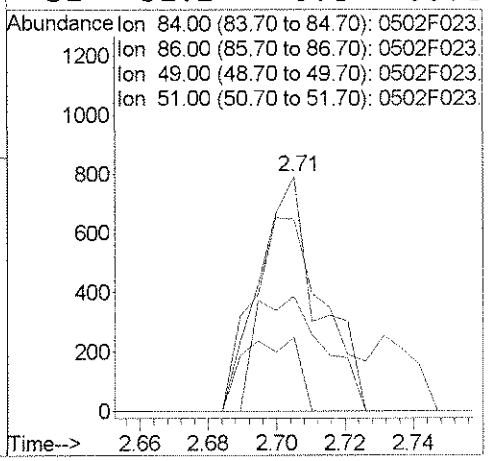


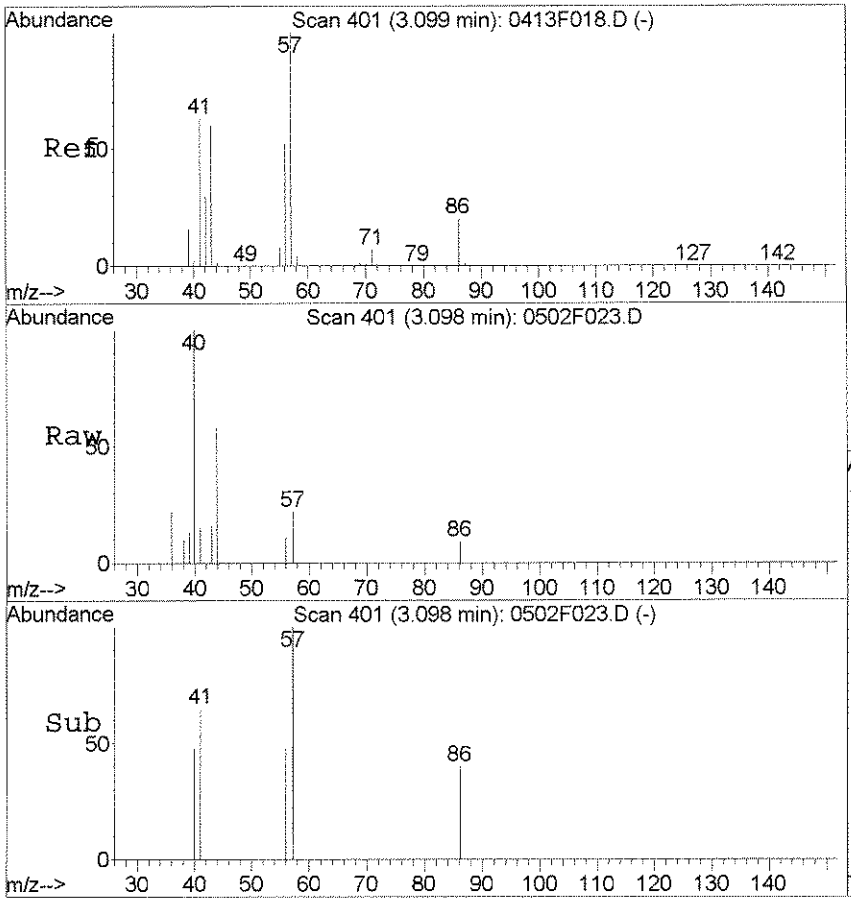


#21
Methylene Chloride
Concen: 0.05 PPB
RT: 2.71 min Scan# 326
Delta R.T. 0.01 min
Lab File: 0502F023.D
Acq: 2 May 2016 23:09

Tgt Ion: 84 Resp: 957

Ion	Ratio	Lower	Upper
84	100		
86	48.8	35.6	95.6
49	81.7	87.0	147.0#
51	31.2	6.4	66.4

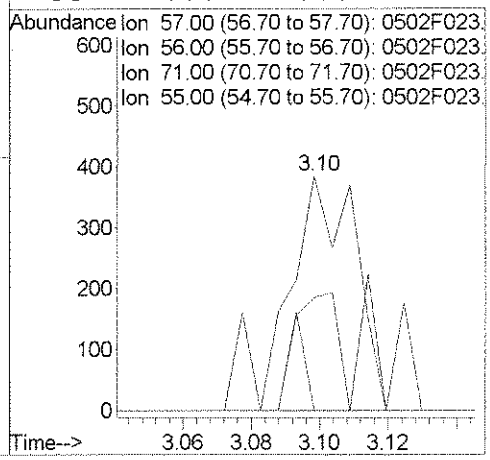


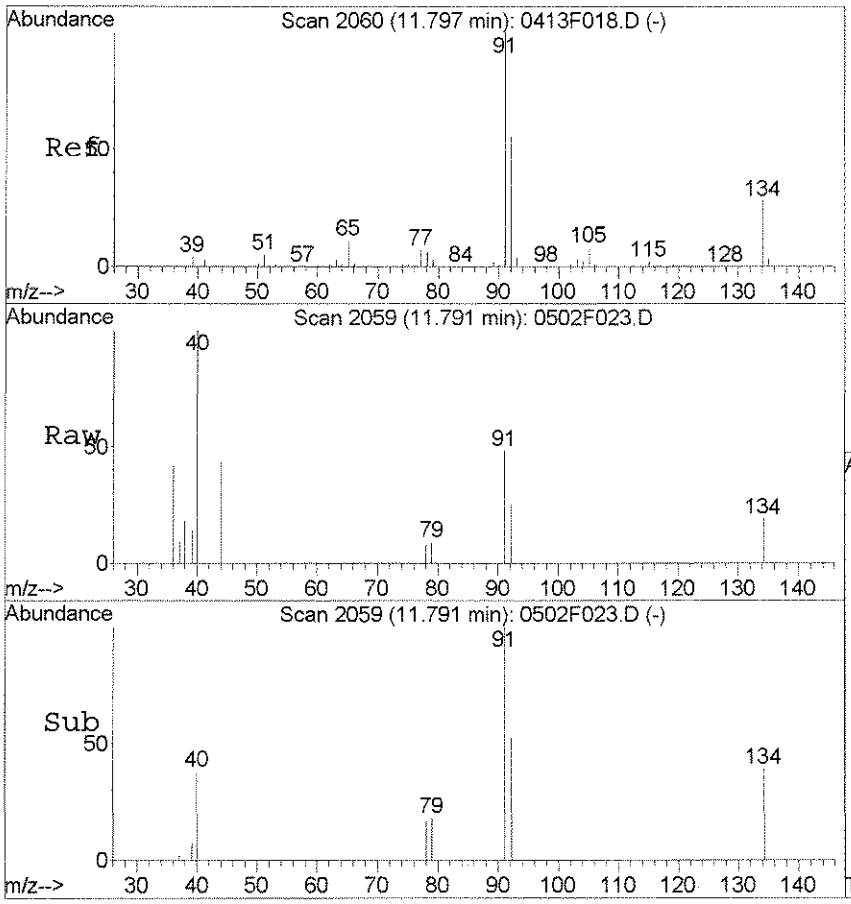


#26
Hexane
Concen: 0.03 PPB
RT: 3.10 min Scan# 401
Delta R.T. -0.00 min
Lab File: 0502F023.D
Acq: 2 May 2016 23:09

Tgt Ion: 57 Resp: 537

Ion	Ratio	Lower	Upper
57	100		
56	48.1	21.7	81.7
71	0.0	0.0	37.2
55	0.0	0.0	38.4

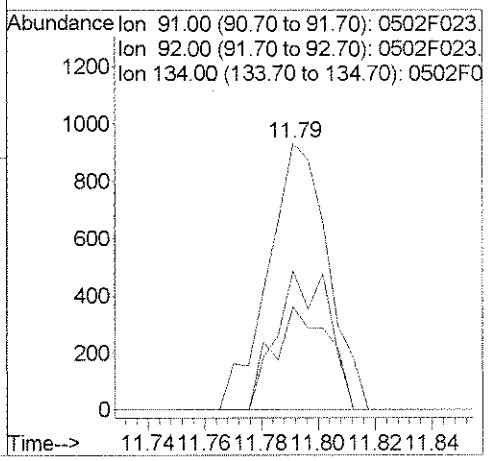


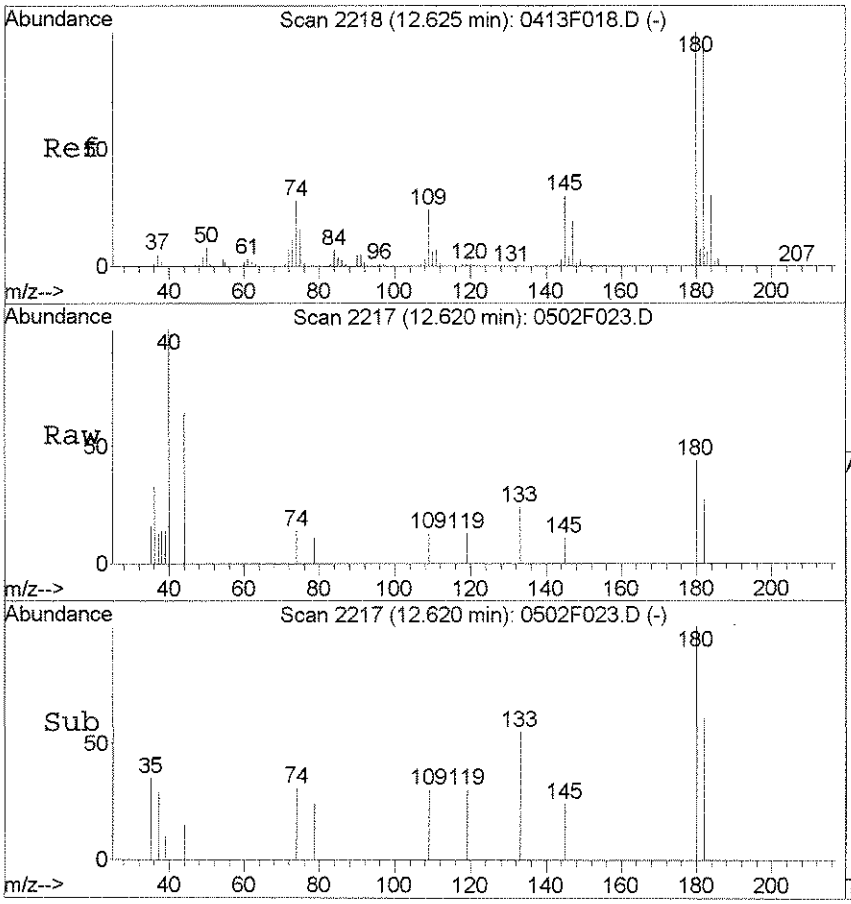


#101
n-Butylbenzene
Concen: 0.03 PPB
RT: 11.79 min Scan# 2059
Delta R.T. -0.01 min
Lab File: 0502F023.D
Acq: 2 May 2016 23:09

Tgt Ion: 91 Resp: 1366

Ion	Ratio	Lower	Upper
91	100		
92	52.1	26.0	86.0
134	38.8	0.0	58.2

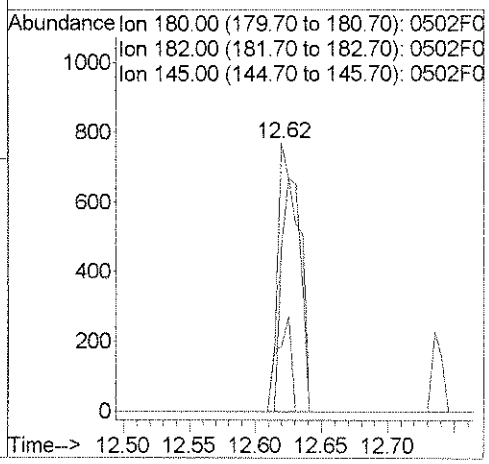


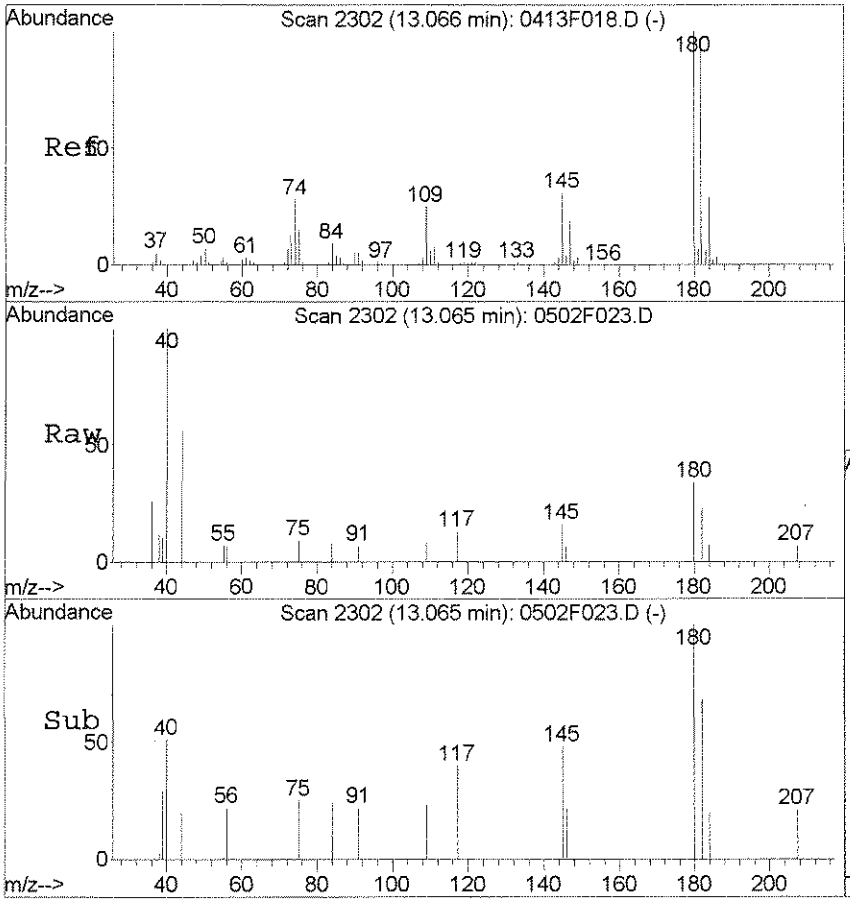


#104
1,3,5-Trichlorobenzene
Concen: 0.04 PPB m
RT: 12.62 min Scan# 2217
Delta R.T. -0.01 min
Lab File: 0502F023.D
Acq: 2 May 2016 23:09

Tgt Ion:180 Resp: 828

Ion	Ratio	Lower	Upper
180	100		
182	61.2	63.4	123.4#
145	24.2	0.1	60.1

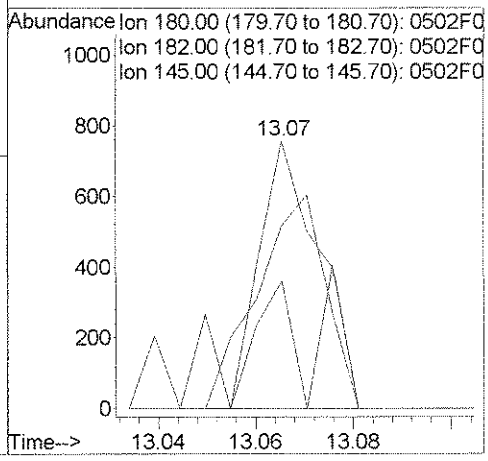


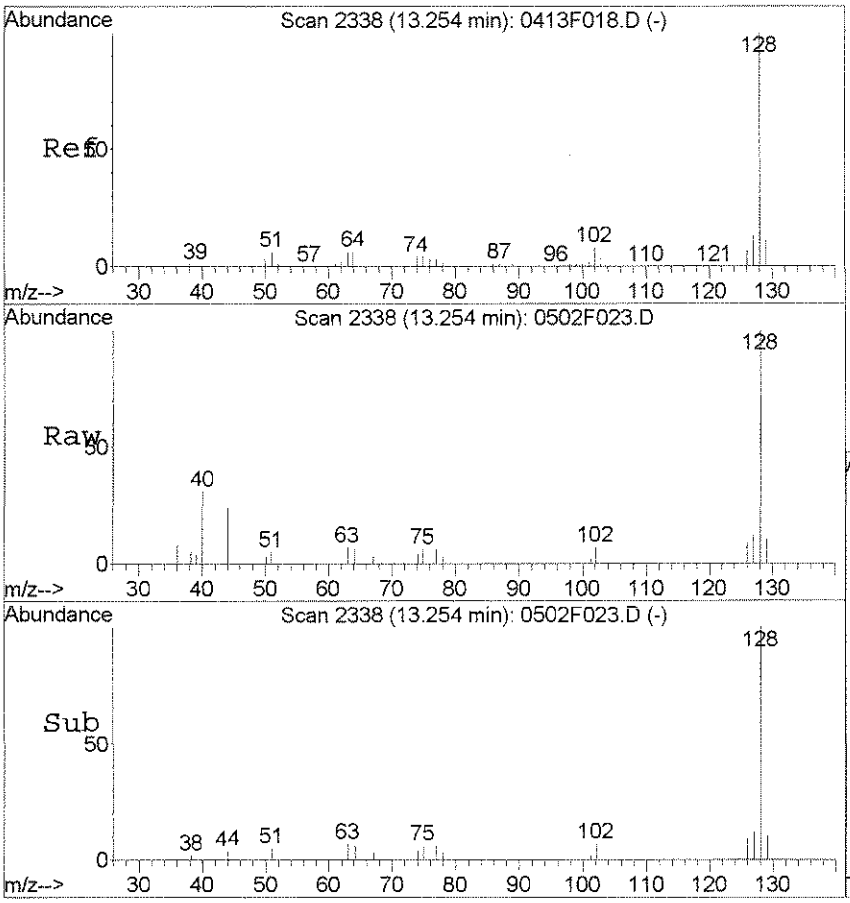


#105
1,2,4-Trichlorobenzene
Concen: 0.03 PPB
RT: 13.07 min Scan# 2302
Delta R.T. -0.00 min
Lab File: 0502F023.D
Acq: 2 May 2016 23:09

Tgt Ion:180 Resp: 647

Ion	Ratio	Lower	Upper
180	100		
182	68.2	63.2	123.2
145	47.7	0.6	60.6

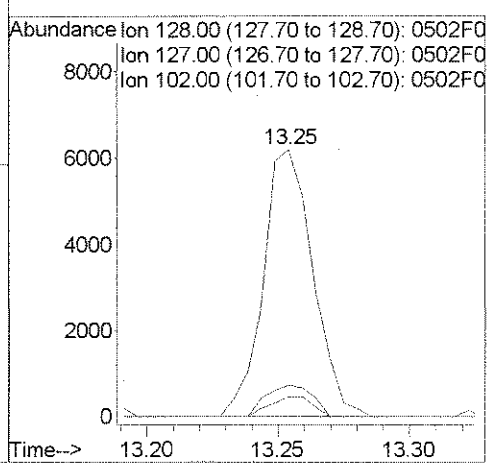




#107
Naphthalene
Concen: 0.22 PPB
RT: 13.25 min Scan# 2338
Delta R.T. -0.00 min
Lab File: 0502F023.D
Acq: 2 May 2016 23:09

Tgt Ion:128 Resp: 8194

Ion	Ratio	Lower	Upper
128	100		
127	11.8	0.0	42.7
102	7.4	0.0	37.7



Exception Report

Data File: J:\MS18\DATA\050216\0502F024.D
Lab ID: K1604068-005
RunType: SMPL
Matrix: WATER

Date Acquired: 05/02/2016 23:31
Date Quantitated: 05/03/2016 08:38
Batch ID: KWG1603423
Analysis Method: 8260C
ListJoinID: LJ17286

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/3/16

Secondary Review:

Printed: 05/03/2016 10:06:26
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS18\DATA\050216\0502F024.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 23:31	**Quant Date:**	05/03/2016 08:38	**Vial:**	24
Run Type:	SMPL	**ListJoinID:**	LJ17286	**Dilution:**	1.0
Lab ID:	K1604068-005			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603423	**Prep Lot:**	KWG1603424	**Report Group:**	K1604068
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514333	**Prep Date:**	05/02/2016		

Quant Method:	J:\MS18\METHODS\041316MS18_8	**Calibration ID:**	CAL14682
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17286
Tune Ref:	J:\MS18\DATA\050216\0502F007.D	**Method ID:**	MJ1465
MB Ref:	J:\MS18\DATA\050216\0502F015.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.55	0.00	96	632192	10.00	OK
2	Chlorobenzene-d5	9.02	0.00	82	237243	10.00	OK
3	1,4-Dichlorobenzene-d4	11.44	0.01	152	217927	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	4.70	0.00	0.00	113	113076	9.03	90	80-119	OK	
1	1,2-Dichloroethane-d4	5.19	0.00	0.00	65	141928	9.81	98	81-118	OK	
1	Toluene-d8	7.43	0.00	0.00	98	582506	10.29	103	89-112	OK	
2	4-Bromofluorobenzene	10.27	0.00	0.00	95	189649	9.19	92	85-114	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Benzene				78	0		0.062	U	
1	Toluene				92	0		0.054	U	
2	Ethylbenzene				106	0		0.050	U	
2	m,p-Xylenes				106	0		0.11	U	
2	o-Xylene				106	0		0.074	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\050216\0502F024.D Vial: 24
Acq On : 2 May 2016 23:31 Operator: YX
Sample : K1604068-005 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 03 08:12:08 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.55	96	632192	10.00	PPB	0.00
65) Chlorobenzene-d5	9.02	82	237243	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	217927	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	4.70	113	113076	9.03	PPB	0.00
Spiked Amount 10.000			Recovery = 90.30%			
48) 1,2-Dichloroethane-d4	5.19	65	141928	9.81	PPB	0.00
Spiked Amount 10.000			Recovery = 98.10%			
63) Toluene-d8	7.43	98	582506	10.29	PPB	0.00
Spiked Amount 10.000			Recovery = 102.90%			
85) 4-Bromofluorobenzene	10.27	95	189649	9.19	PPB	0.00
Spiked Amount 10.000			Recovery = 91.90%			
Target Compounds						Qvalue
3) Chloromethane	1.24	50	10221m	0.50	PPB	
14) Acetone	2.34	43	9072	4.49	PPB	98
15) Iodomethane	2.36	142	579	0.04	PPB	77
21) Methylene Chloride	2.70	84	1118	0.07	PPB #	59
26) Hexane	3.11	57	576	0.04	PPB	93
40) Chloroform	4.48	83	757	0.03	PPB	76
104) 1,3,5-Trichlorobenzene	12.62	180	677m	0.03	PPB	
105) 1,2,4-Trichlorobenzene	13.06	180	520	0.03	PPB	78
107) Naphthalene	13.25	128	5100	0.14	PPB	97

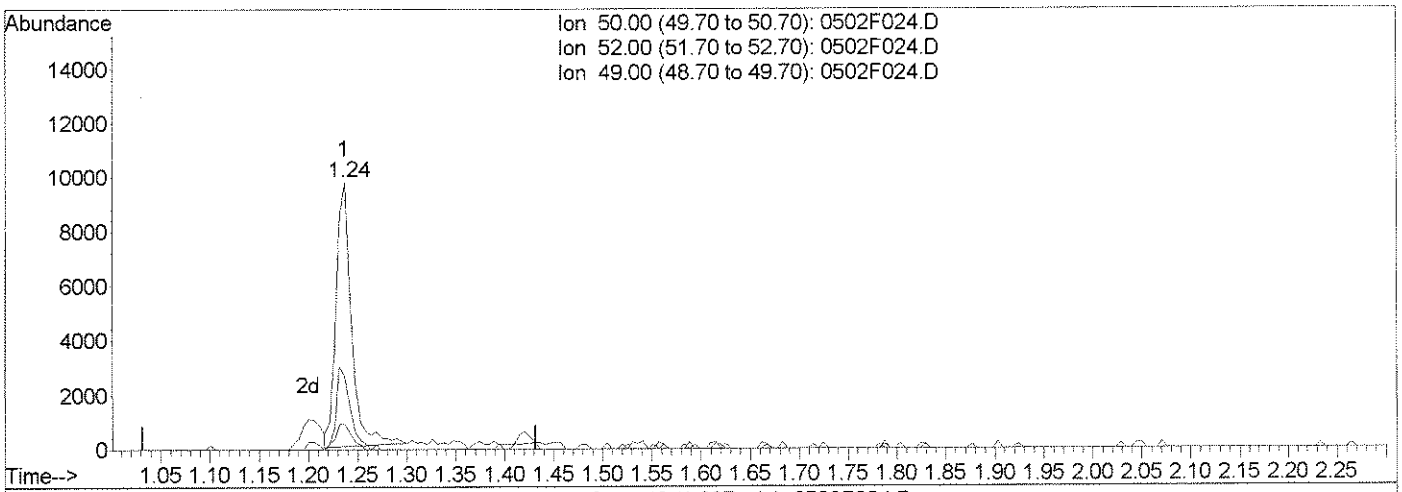
(#) = qualifier out of range (m) = manual integration
0502F024.D 041316MS18_8260.M Tue May 03 08:56:10 2016 Page 1

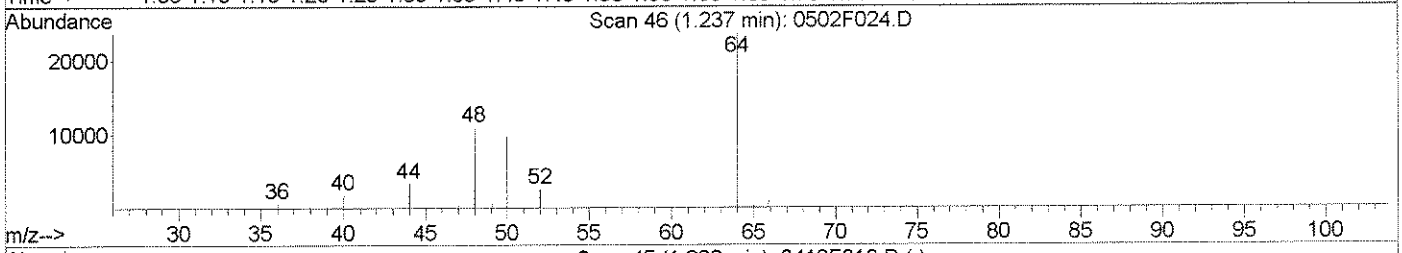
Quantitation Report (Qedit)

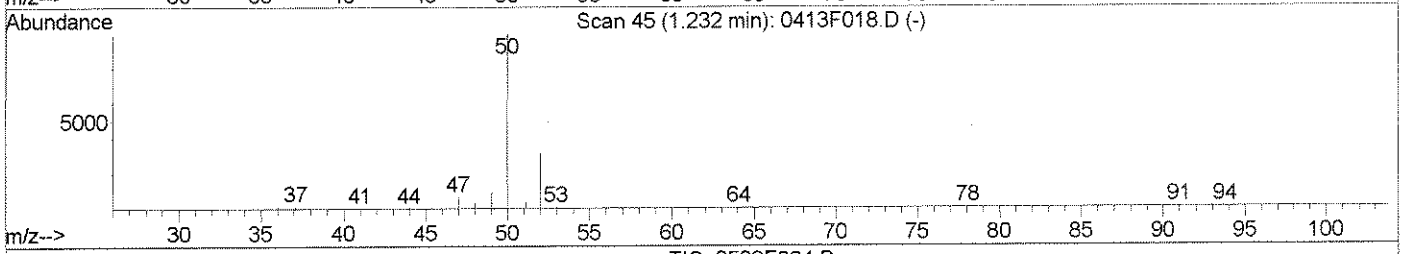
Data File : J:\MS18\DATA\050216\0502F024.D
Acq On : 2 May 2016 23:31
Sample : K1604068-005
Misc :
MS Integration Params: rteint.p
Quant Time: May 3 8:12 2016

Vial: 24
Operator: YX
Inst : GC-MS 18
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Multiple Level Calibration







TIC: 0502F024.D

(3) Chloromethane (PT)

1.24min 0.51PPB

response 10549

Ion	Exp%	Act%
50.00	100	100
52.00	31.50	28.01
49.00	9.20	9.67
0.00	0.00	0.00

Manual Integration:

Before

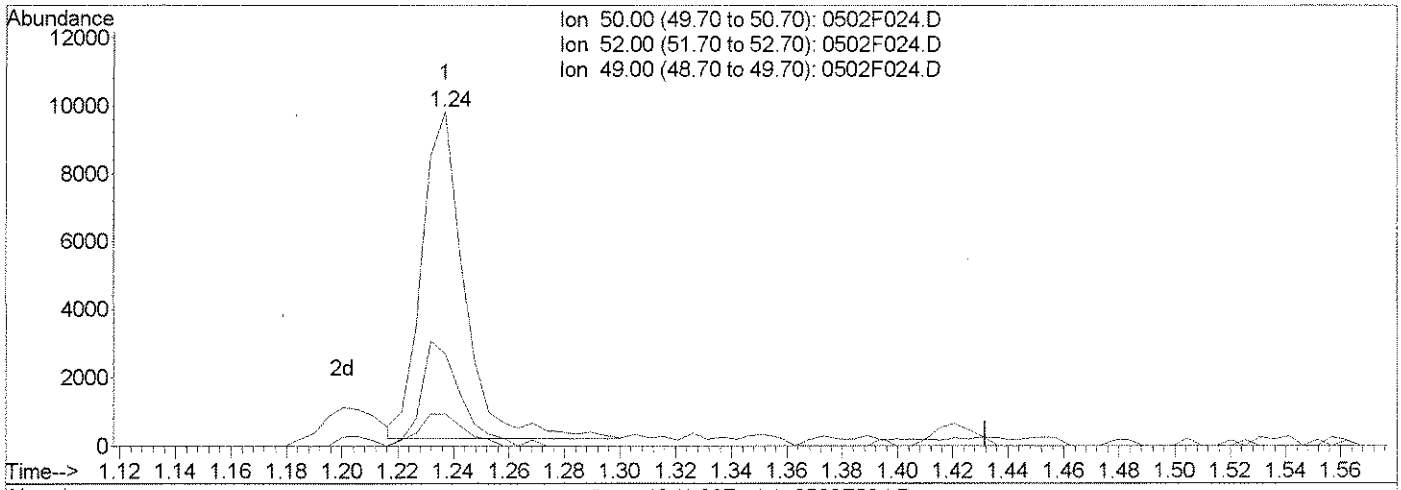
05/03/16

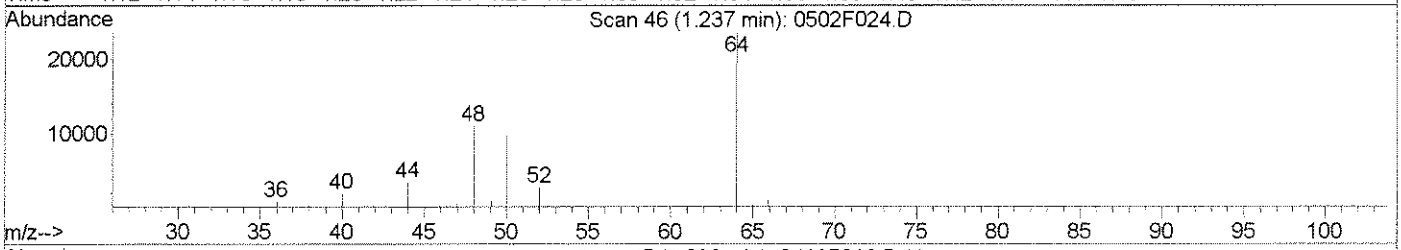
0502F024.D 041316MS18_8260.M Tue May 03 08:38:11 2016

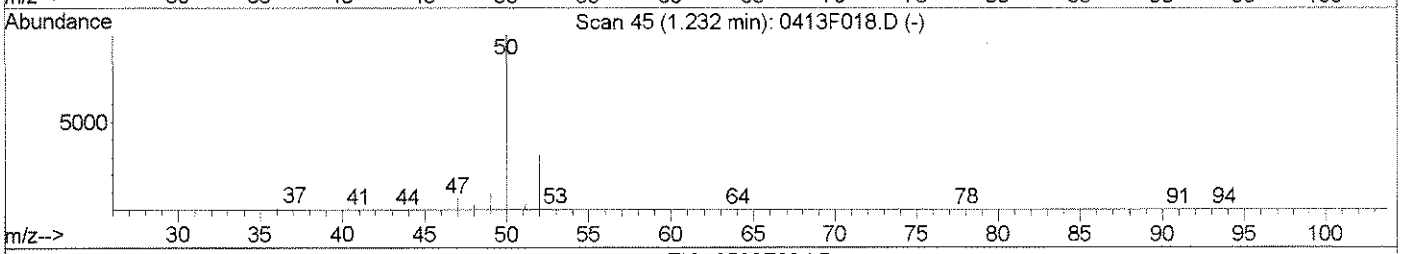
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\050216\0502F024.D Vial: 24
Acq On : 2 May 2016 23:31 Operator: YX
Sample : K1604068-005 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:38 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Multiple Level Calibration







TIC: 0502F024.D

(3) Chloromethane (PT)

1.24min 0.50PPB m

response 10221

Ion	Exp%	Act%
50.00	100	100
52.00	31.50	27.36
49.00	9.20	9.45
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

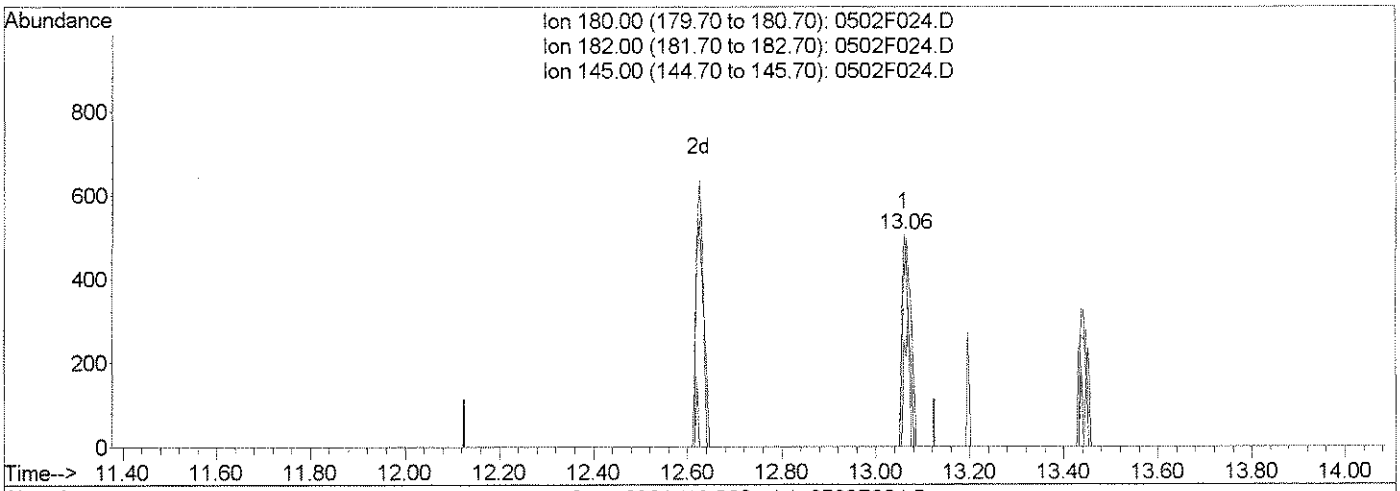
05/03/16

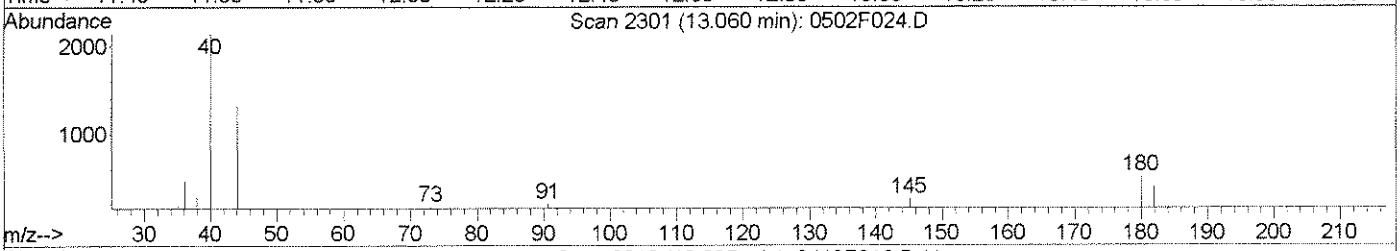
0502F024.D 041316MS18_8260.M Tue May 03 08:38:25 2016

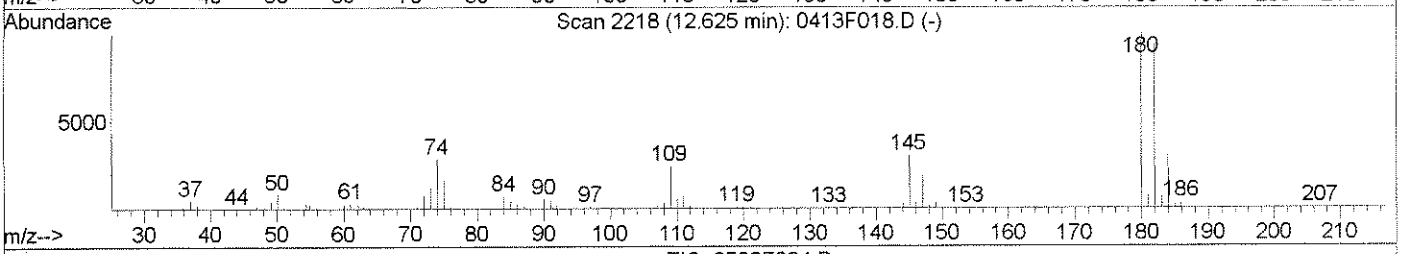
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\050216\0502F024.D Vial: 24
Acq On : 2 May 2016 23:31 Operator: YX
Sample : K1604068-005 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:38 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Multiple Level Calibration







TIC: 0502F024.D

(104) 1,3,5-Trichlorobenzene (T)

13.06min 0.03PPB

response 520

Ion	Exp%	Act%
180.00	100	100
182.00	93.40	76.88
145.00	30.10	50.00
0.00	0.00	0.00

Manual Integration:

Before

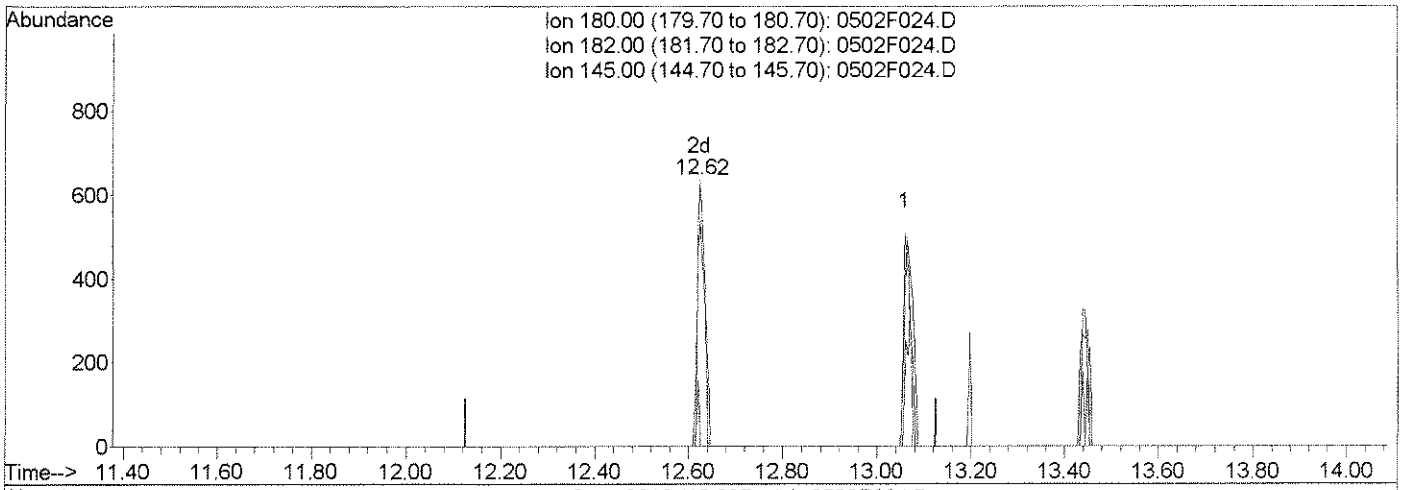
05/03/16

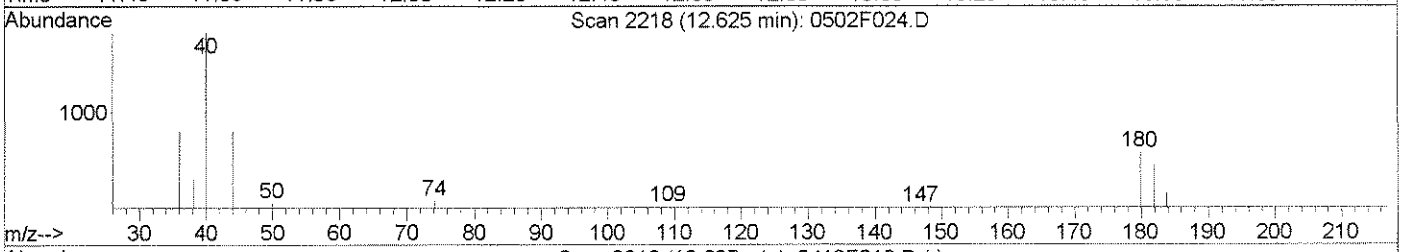
0502F024.D 041316MS18_8260.M Tue May 03 08:38:53 2016

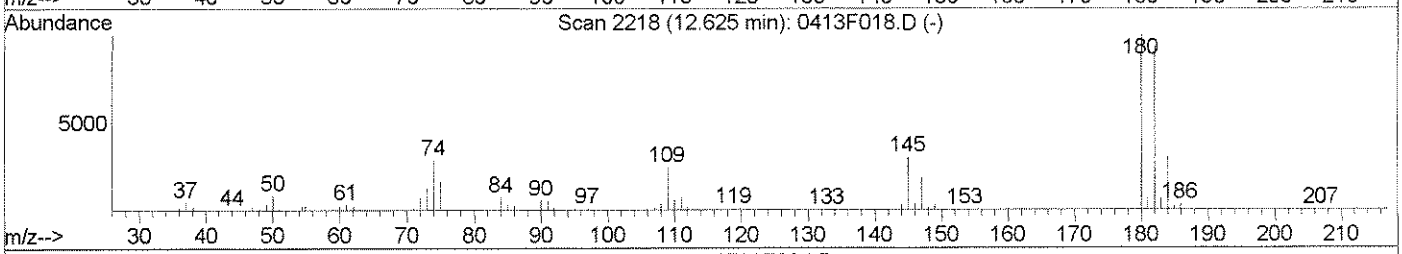
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\050216\0502F024.D Vial: 24
Acq On : 2 May 2016 23:31 Operator: YX
Sample : K1604068-005 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:38 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Multiple Level Calibration







TIC: 0502F024.D

(104) 1,3,5-Trichlorobenzene (T)

12.62min 0.03PPB m

response 677

Ion	Exp%	Act%
180.00	100	100
182.00	93.40	84.62
145.00	30.10	0.00#
0.00	0.00	0.00

Manual Integration:

After

WRT

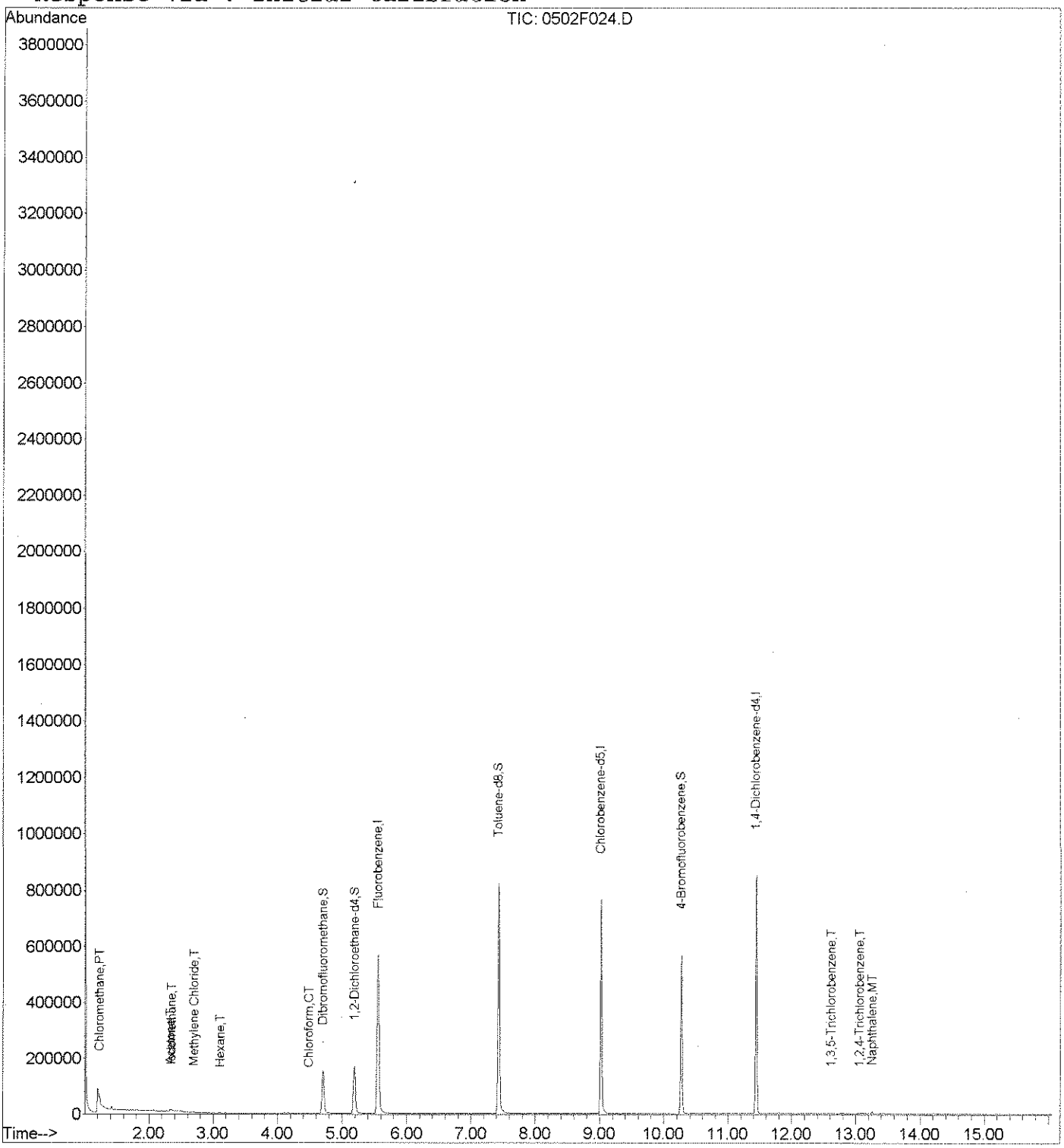
05/03/16

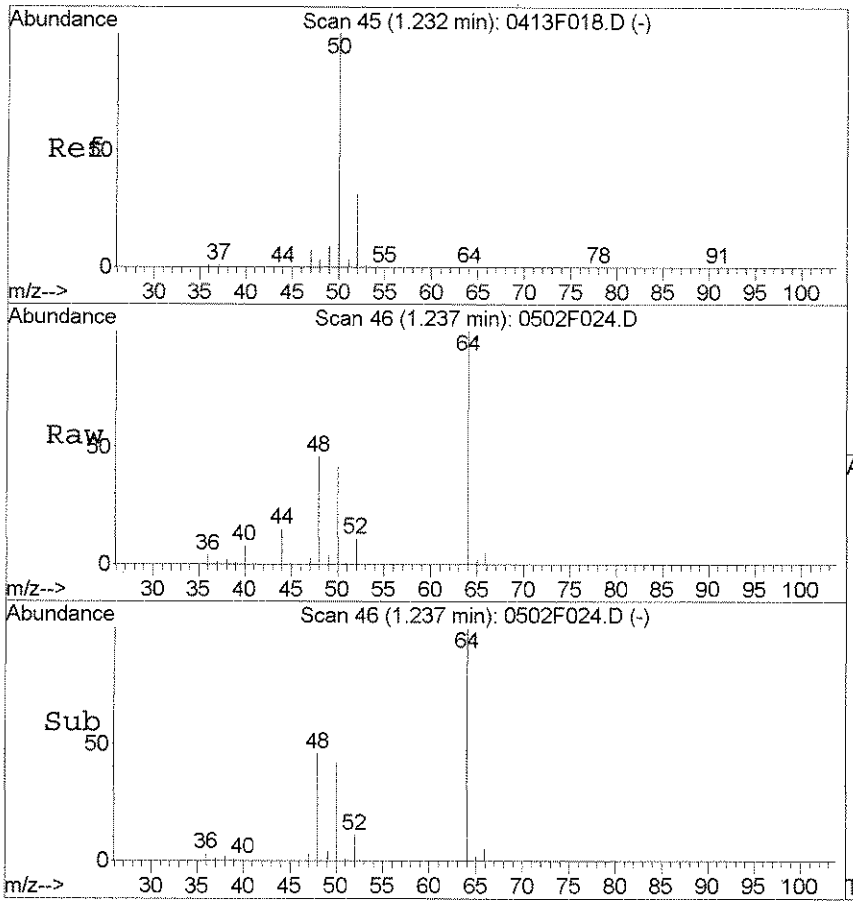
0502F024.D 041316MS18_8260.M Tue May 03 08:38:56 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\050216\0502F024.D Vial: 24
Acq On : 2 May 2016 23:31 Operator: YX
Sample : K1604068-005 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:38 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration

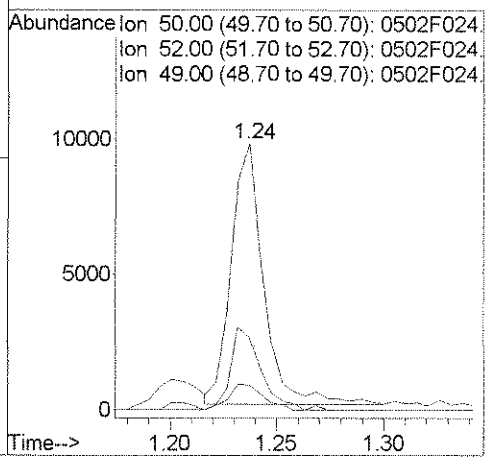


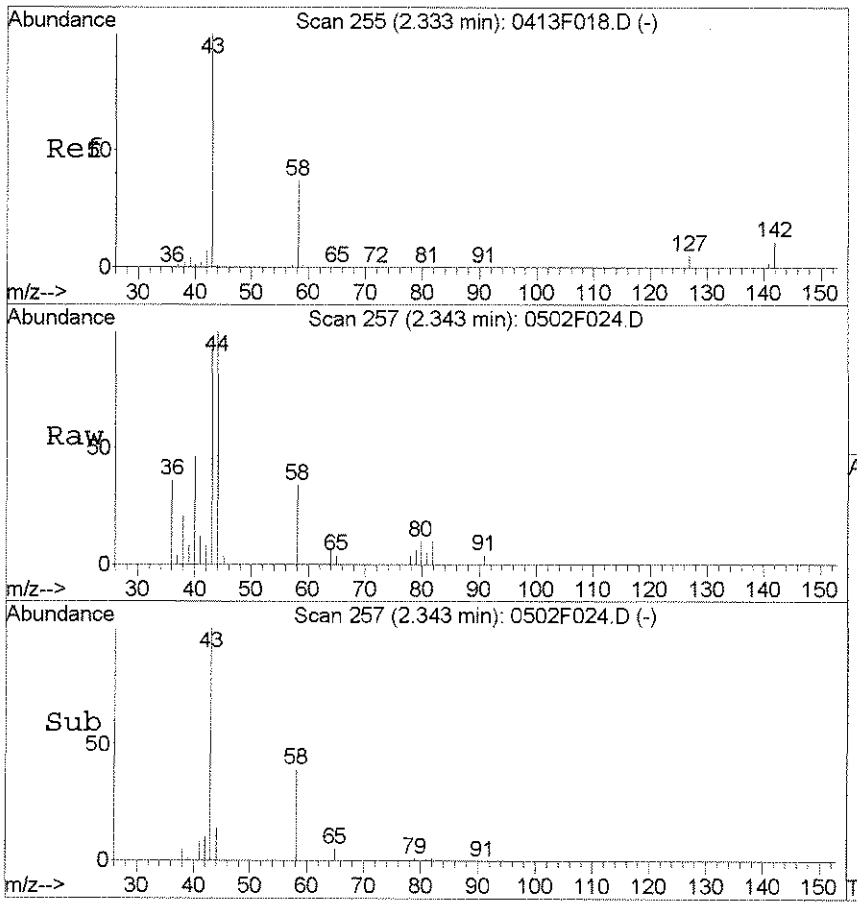


#3
Chloromethane
Concen: 0.50 PPB m
RT: 1.24 min Scan# 46
Delta R.T. 0.01 min
Lab File: 0502F024.D
Acq: 2 May 2016 23:31

Tgt Ion: 50 Resp: 10221

Ion	Ratio	Lower	Upper
50	100		
52	27.4	1.5	61.5
49	9.4	0.0	39.2

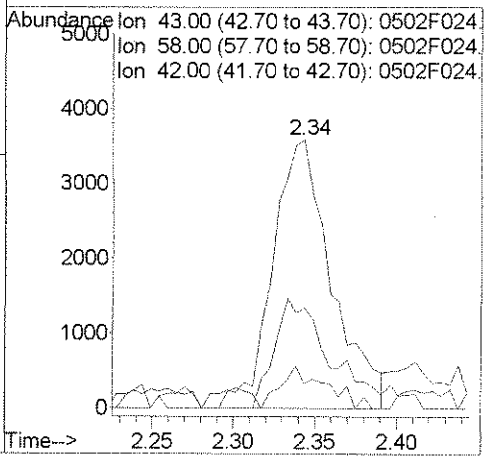


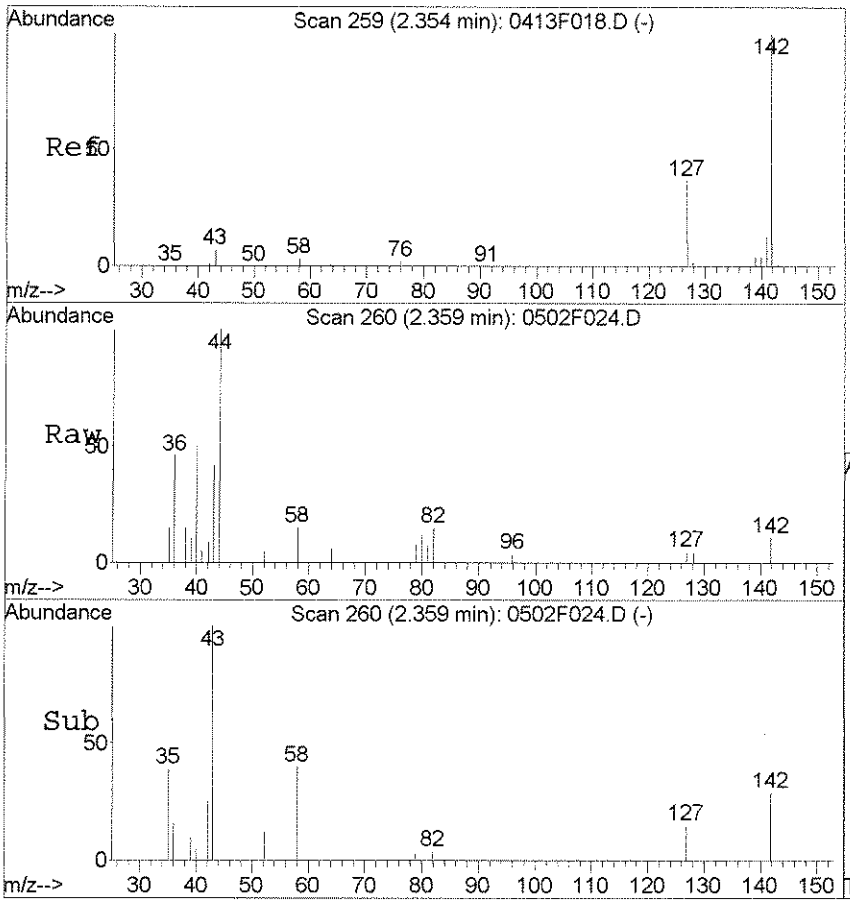


#14
Acetone
Concen: 4.49 PPB
RT: 2.34 min Scan# 257
Delta R.T. 0.02 min
Lab File: 0502F024.D
Acq: 2 May 2016 23:31

Tgt Ion: 43 Resp: 9072

Ion	Ratio	Lower	Upper
43	100		
58	37.3	6.9	66.9
42	9.2	0.0	36.8

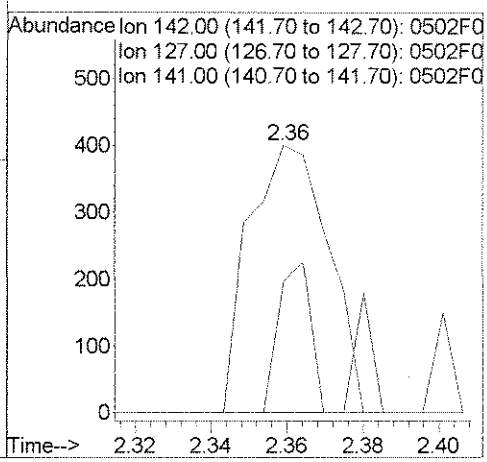


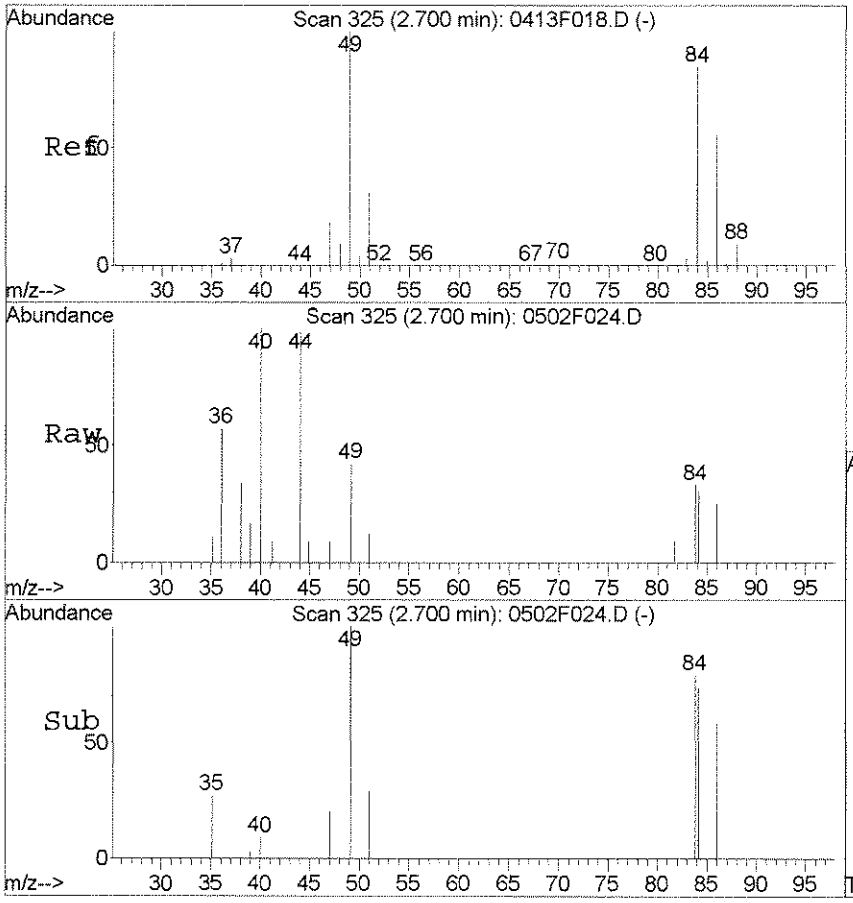


#15
Iodomethane
Concen: 0.04 PPB
RT: 2.36 min Scan# 260
Delta R.T. 0.01 min
Lab File: 0502F024.D
Acq: 2 May 2016 23:31

Tgt Ion:142 Resp: 579

Ion	Ratio	Lower	Upper
142	100		
127	49.3	7.4	67.4
141	0.0	0.0	43.4

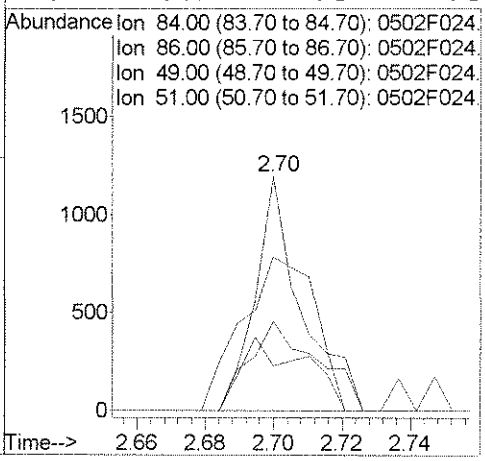


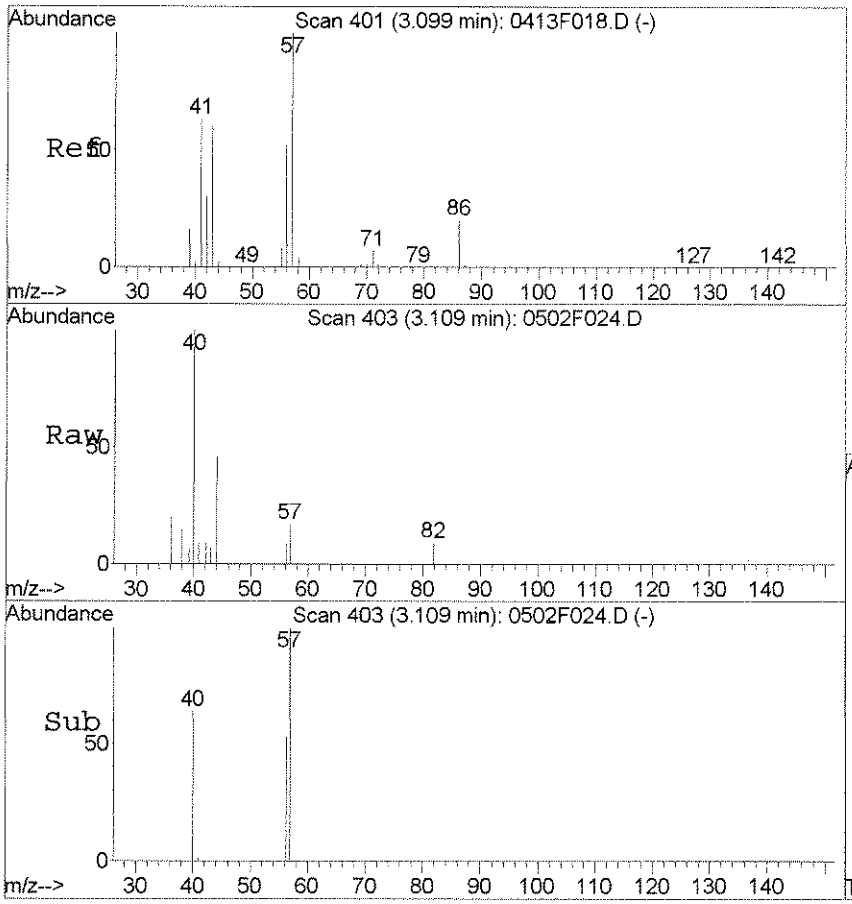


#21
Methylene Chloride
Concen: 0.07 PPB
RT: 2.70 min Scan# 325
Delta R.T. -0.00 min
Lab File: 0502F024.D
Acq: 2 May 2016 23:31

Tgt Ion: 84 Resp: 1118

Ion	Ratio	Lower	Upper
84	100		
86	38.0	35.6	95.6
49	65.4	87.0	147.0#
51	18.9	6.4	66.4

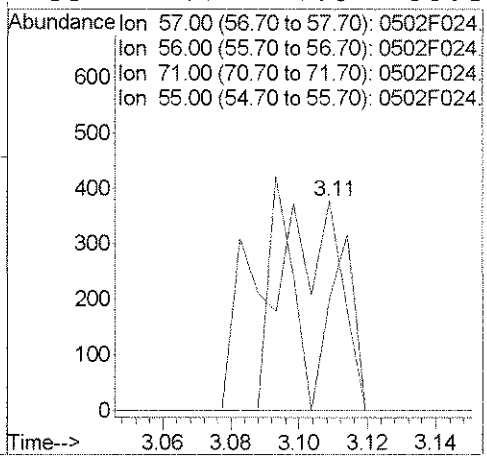


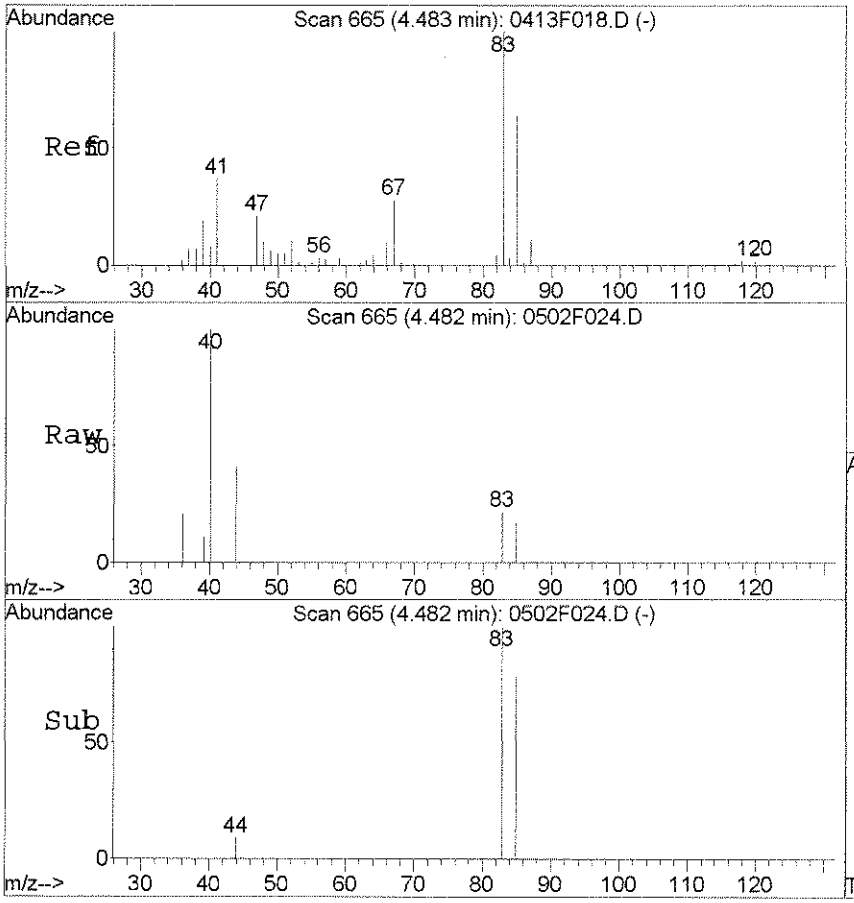


#26
Hexane
Concen: 0.04 PPB
RT: 3.11 min Scan# 403
Delta R.T. 0.01 min
Lab File: 0502F024.D
Acq: 2 May 2016 23:31

Tgt Ion: 57 Resp: 576

Ion	Ratio	Lower	Upper
57	100		
56	53.4	21.7	81.7
71	0.0	0.0	37.2
55	0.0	0.0	38.4

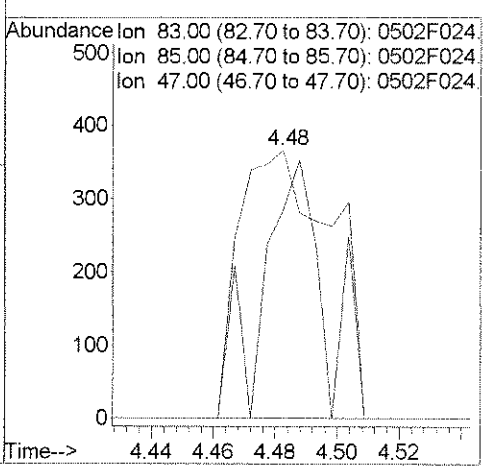


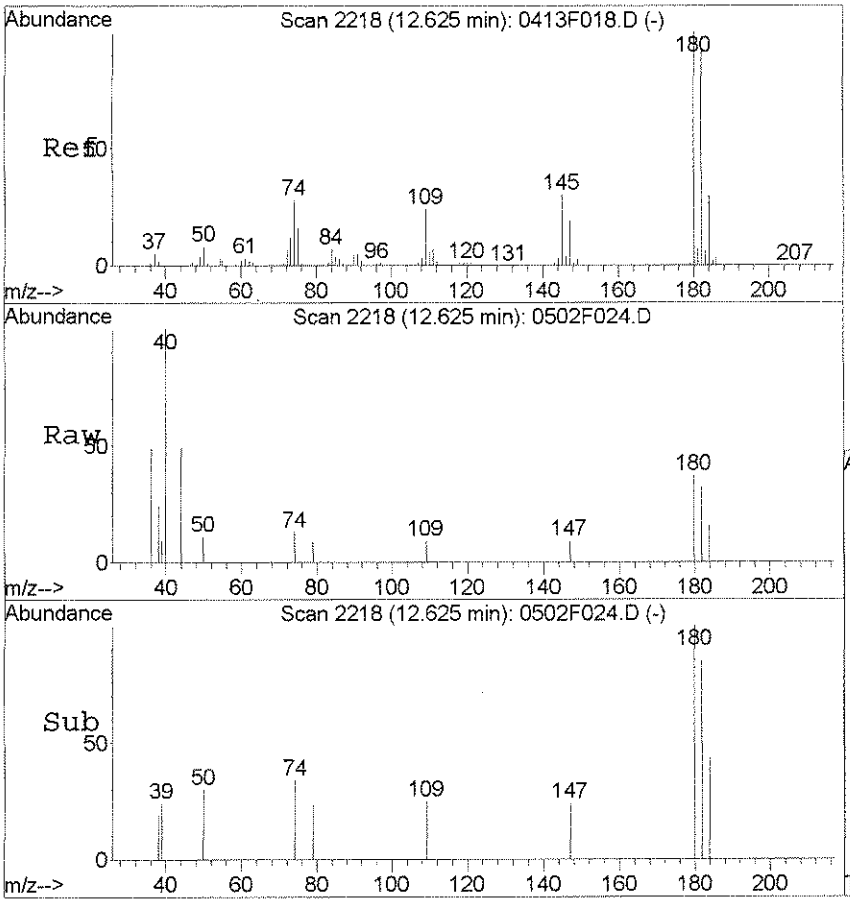


#40
Chloroform
Concen: 0.03 PPB
RT: 4.48 min Scan# 665
Delta R.T. 0.00 min
Lab File: 0502F024.D
Acq: 2 May 2016 23:31

Tgt Ion: 83 Resp: 757

Ion	Ratio	Lower	Upper
83	100		
85	77.9	33.9	93.9
47	0.0	0.0	50.9

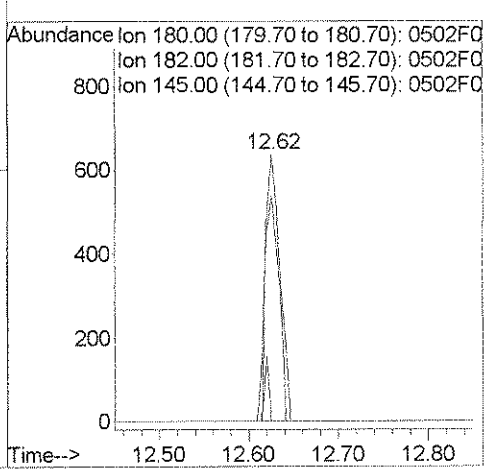


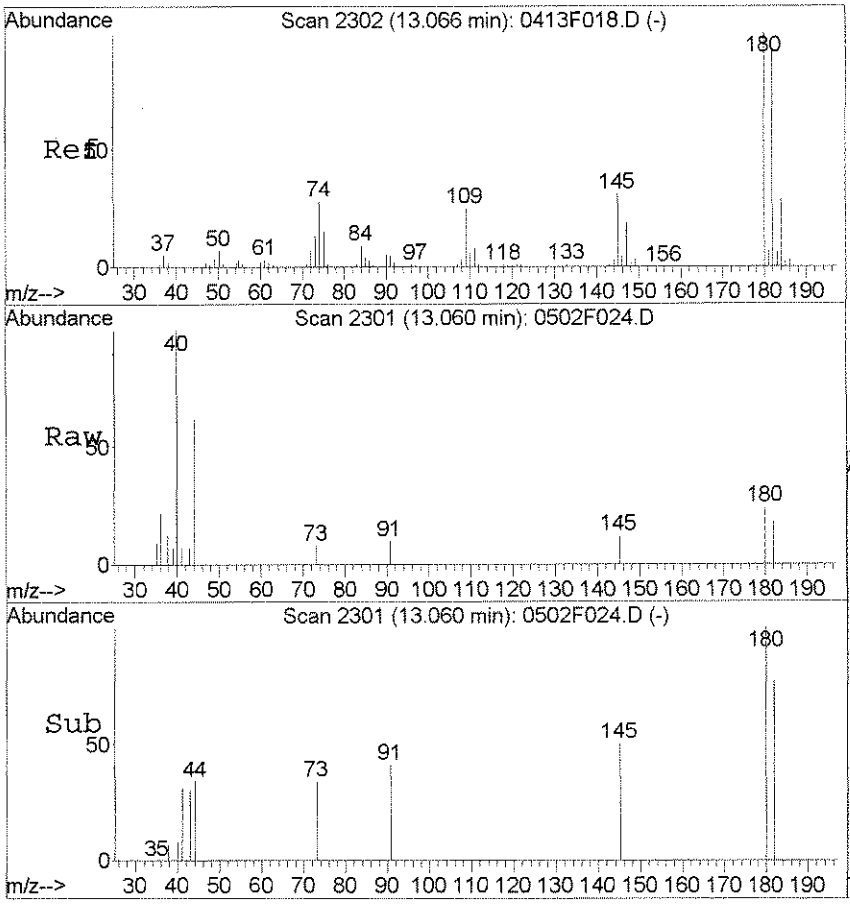


#104
1,3,5-Trichlorobenzene
Concen: 0.03 PPB m
RT: 12.62 min Scan# 2218
Delta R.T. -0.00 min
Lab File: 0502F024.D
Acq: 2 May 2016 23:31

Tgt Ion:180 Resp: 677

Ion	Ratio	Lower	Upper
180	100		
182	84.6	63.4	123.4
145	0.0	0.1	60.1#

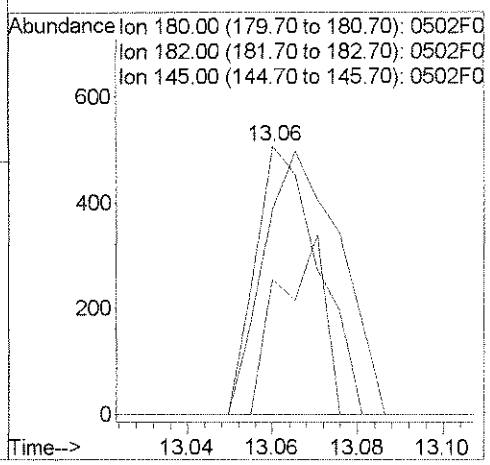


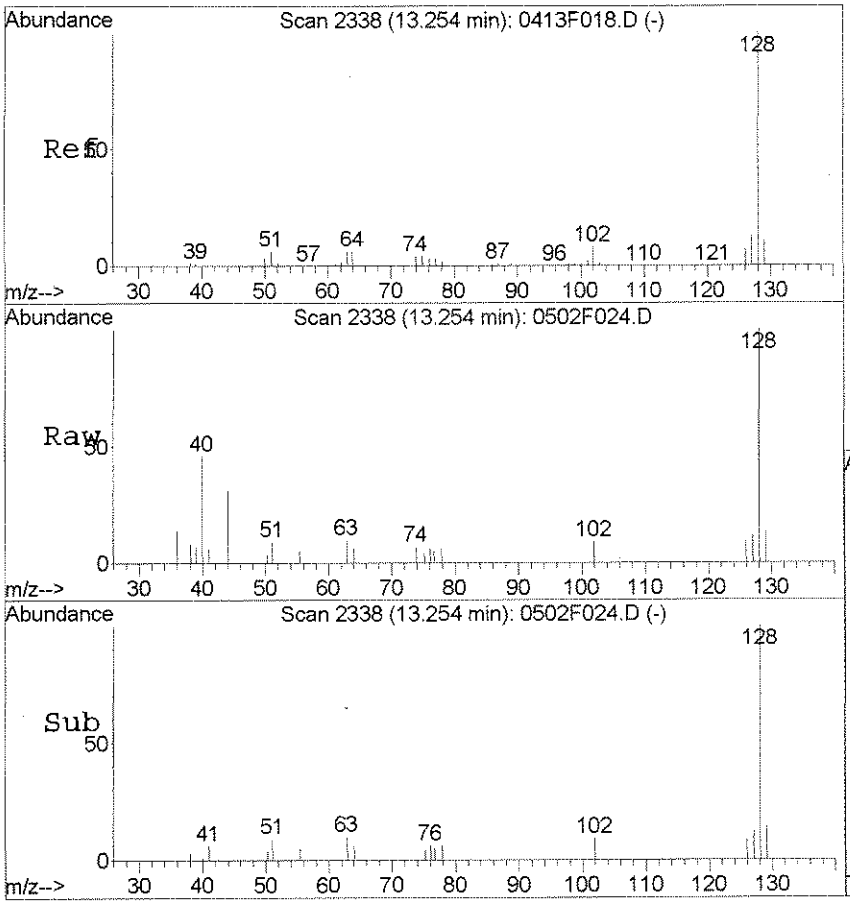


#105
1,2,4-Trichlorobenzene
Concen: 0.03 PPB
RT: 13.06 min Scan# 2301
Delta R.T. -0.01 min
Lab File: 0502F024.D
Acq: 2 May 2016 23:31

Tgt Ion:180 Resp: 520

Ion	Ratio	Lower	Upper
180	100		
182	76.9	63.2	123.2
145	50.0	0.6	60.6

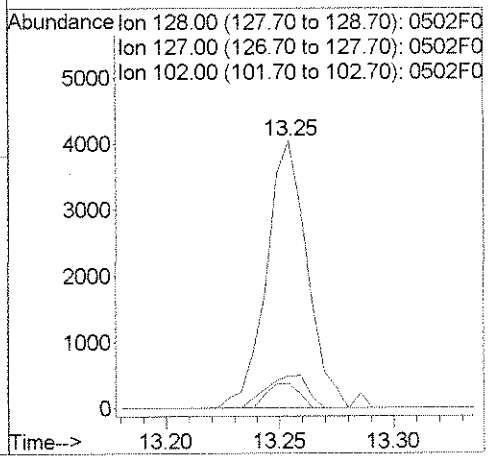




#107
Naphthalene
Concen: 0.14 PPB
RT: 13.25 min Scan# 2338
Delta R.T. -0.00 min
Lab File: 0502F024.D
Acq: 2 May 2016 23:31

Tgt Ion:128 Resp: 5100

Ion	Ratio	Lower	Upper
128	100		
127	12.0	0.0	42.7
102	9.3	0.0	37.7



Exception Report

Data File: J:\MS18\DATA\050216\0502F025.D
Lab ID: K1604068-006
RunType: SMPL
Matrix: WATER

Date Acquired: 05/02/2016 23:53
Date Quantitated: 05/03/2016 08:39
Batch ID: KWG1603423
Analysis Method: 8260C
ListJoinID: LJ17286

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/3/16

Secondary Review: 5/3/16

Printed: 05/03/2016 10:06:29
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS18\DATA\050216\0502F025.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 23:53	**Quant Date:**	05/03/2016 08:39	**Vial:**	25
Run Type:	SMPL	**ListJoinID:**	LJ17286	**Dilution:**	1.0
Lab ID:	K1604068-006			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603423	**Prep Lot:**	KWG1603424	**Report Group:**	K1604068
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514334	**Prep Date:**	05/02/2016		

Quant Method:	J:\MS18\METHODS\041316MS18_8	**Calibration ID:**	CAL14682
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17286
Tune Ref:	J:\MS18\DATA\050216\0502F007.D	**Method ID:**	MJ1465
MB Ref:	J:\MS18\DATA\050216\0502F015.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.55	0.00	96	639558	10.00	OK
2	Chlorobenzene-d5	9.02	0.00	82	244578	10.00	OK
3	1,4-Dichlorobenzene-d4	11.44	0.01	152	224554	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	4.70	0.00	0.00	113	115518	9.12	91	80-119	OK	
1	1,2-Dichloroethane-d4	5.19	0.00	0.00	65	142055	9.71	97	81-118	OK	
1	Toluene-d8	7.43	0.00	0.00	98	591492	10.33	103	89-112	OK	
2	4-Bromofluorobenzene	10.27	0.00	0.00	95	196609	9.24	92	85-114	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Benzene				78	0**d**		0.062	U	
1	Toluene				92	0**d**		0.054	U	
2	Ethylbenzene				106	0		0.050	U	
2	m,p-Xylenes				106	0		0.11	U	
2	o-Xylene				106	0		0.074	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS18\DATA\050216\0502F025.D Vial: 25
Acq On : 2 May 2016 23:53 Operator: YX
Sample : K1604068-006 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 03 08:12:09 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

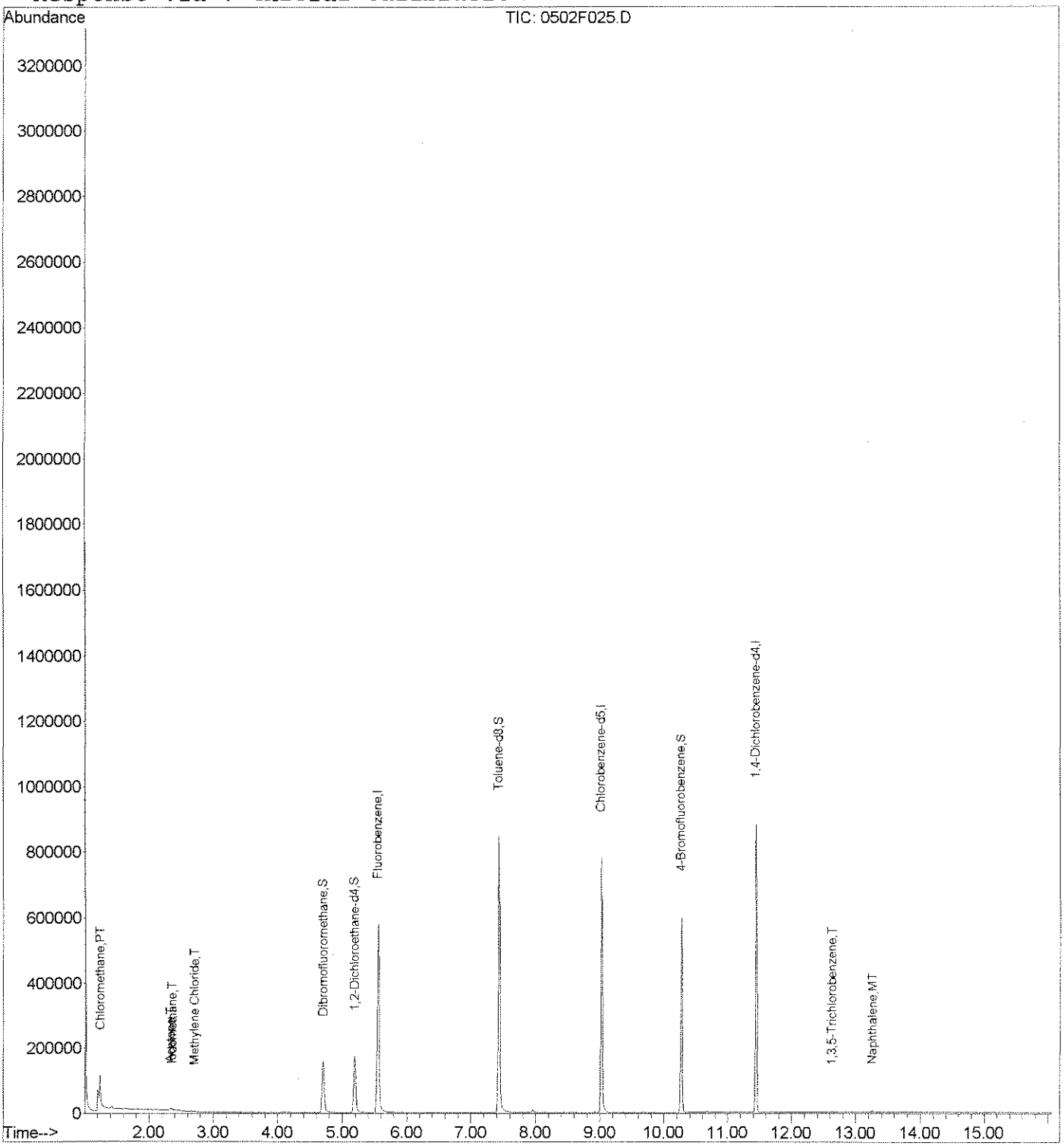
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.55	96	639558	10.00	PPB		0.00
65) Chlorobenzene-d5	9.02	82	244578	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	224554	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	4.70	113	115518	9.12	PPB		0.00
Spiked Amount 10.000			Recovery = 91.20%				
48) 1,2-Dichloroethane-d4	5.19	65	142055	9.71	PPB		0.00
Spiked Amount 10.000			Recovery = 97.10%				
63) Toluene-d8	7.43	98	591492	10.33	PPB		0.00
Spiked Amount 10.000			Recovery = 103.30%				
85) 4-Bromofluorobenzene	10.27	95	196609	9.24	PPB		0.00
Spiked Amount 10.000			Recovery = 92.40%				
Target Compounds							Qvalue
3) Chloromethane	1.24	50	54490	2.62	PPB		99
14) Acetone	2.34	43	7396	3.62	PPB		88
15) Iodomethane	2.36	142	816	0.05	PPB		76
21) Methylene Chloride	2.71	84	1139	0.07	PPB	#	72
104) 1,3,5-Trichlorobenzene	12.63	180	729	0.03	PPB	#	67
107) Naphthalene	13.26	128	3970	0.11	PPB		96

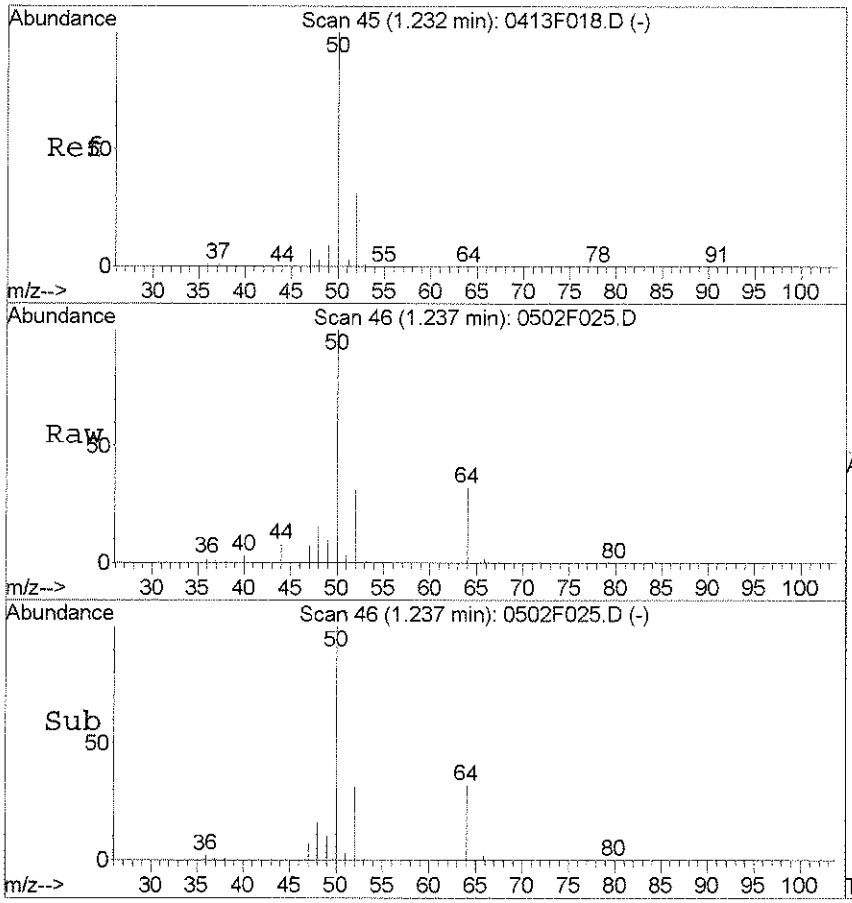
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\050216\0502F025.D Vial: 25
Acq On : 2 May 2016 23:53 Operator: YX
Sample : K1604068-006 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:39 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration

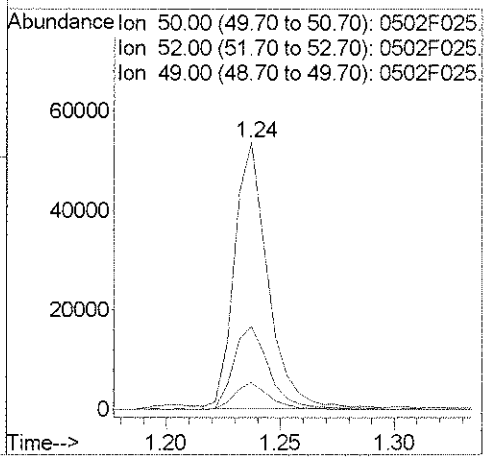


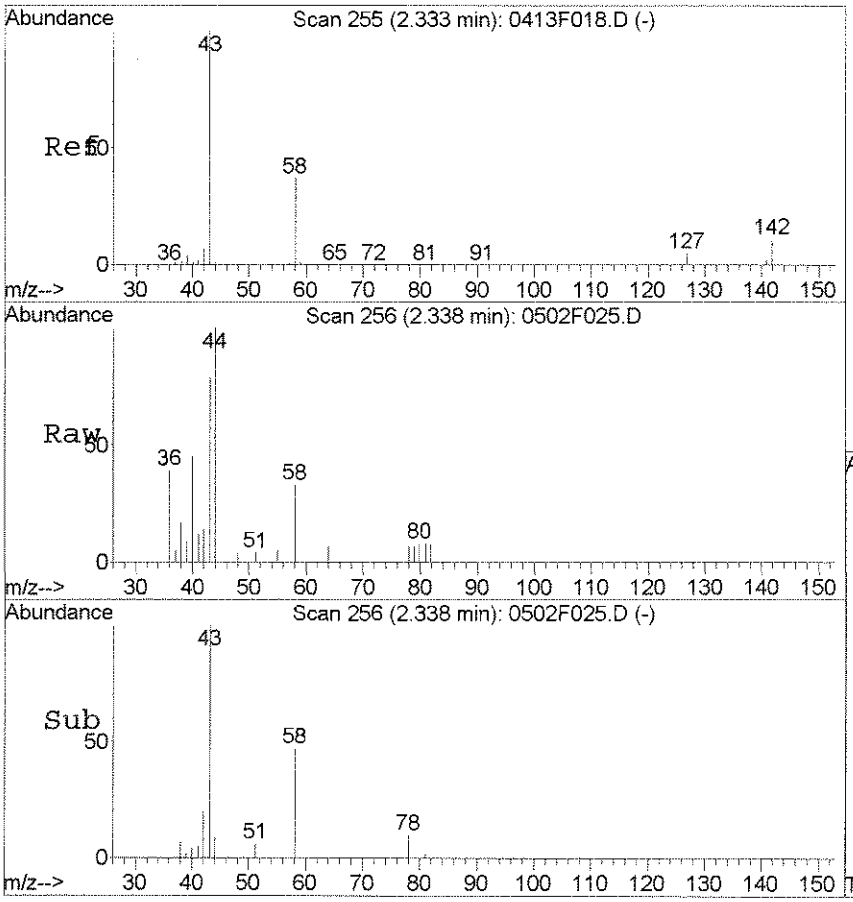


#3
Chloromethane
Concen: 2.62 PPB
RT: 1.24 min Scan# 46
Delta R.T. 0.01 min
Lab File: 0502F025.D
Acq: 2 May 2016 23:53

Tgt Ion: 50 Resp: 54490

Ion	Ratio	Lower	Upper
50	100		
52	31.3	1.5	61.5
49	10.1	0.0	39.2

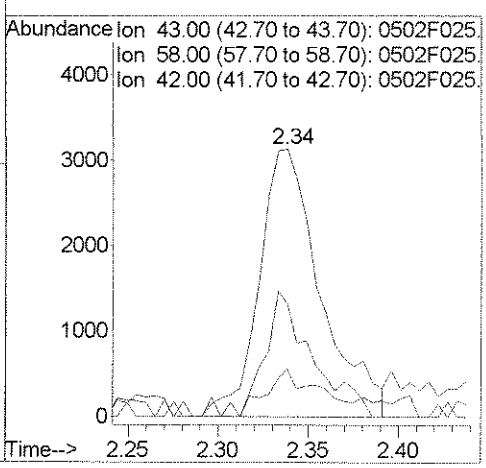


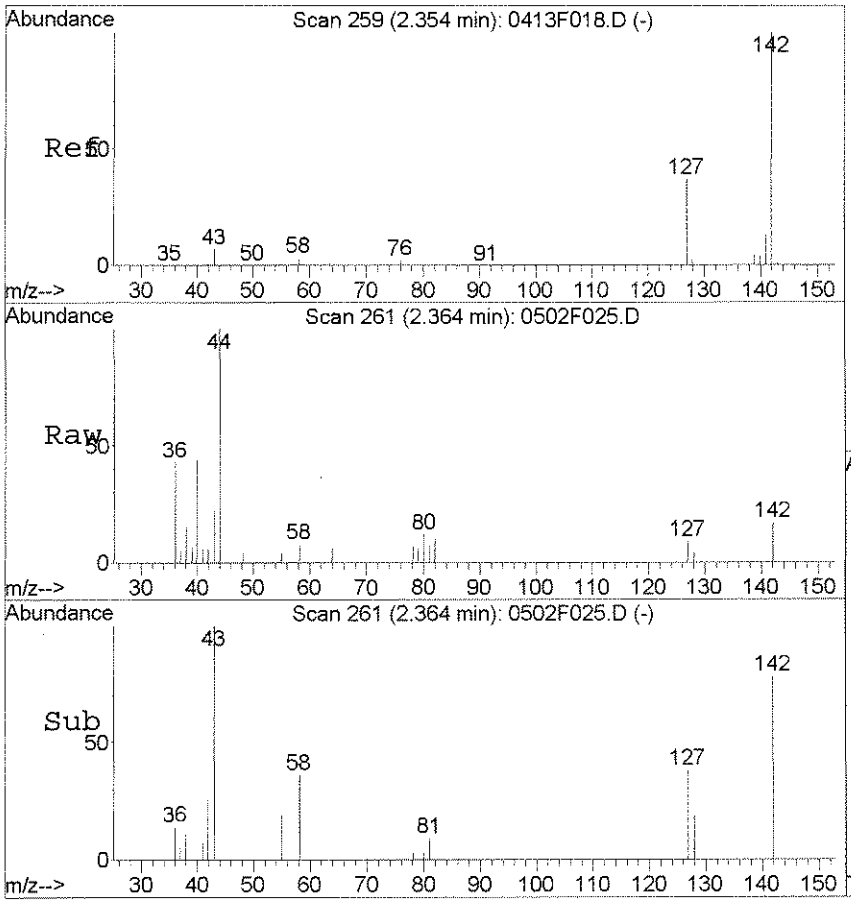


#14
Acetone
Concen: 3.62 PPB
RT: 2.34 min Scan# 256
Delta R.T. 0.01 min
Lab File: 0502F025.D
Acq: 2 May 2016 23:53

Tgt Ion: 43 Resp: 7396

Ion	Ratio	Lower	Upper
43	100		
58	41.9	6.9	66.9
42	17.7	0.0	36.8

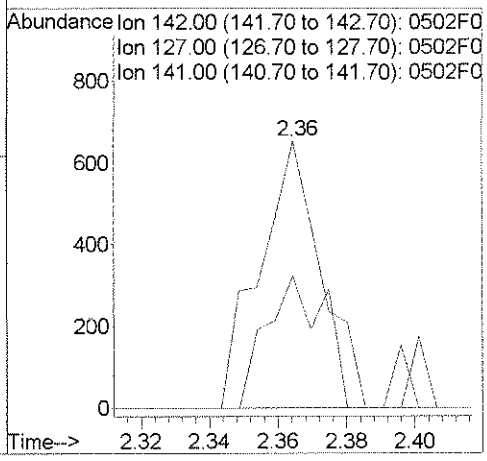


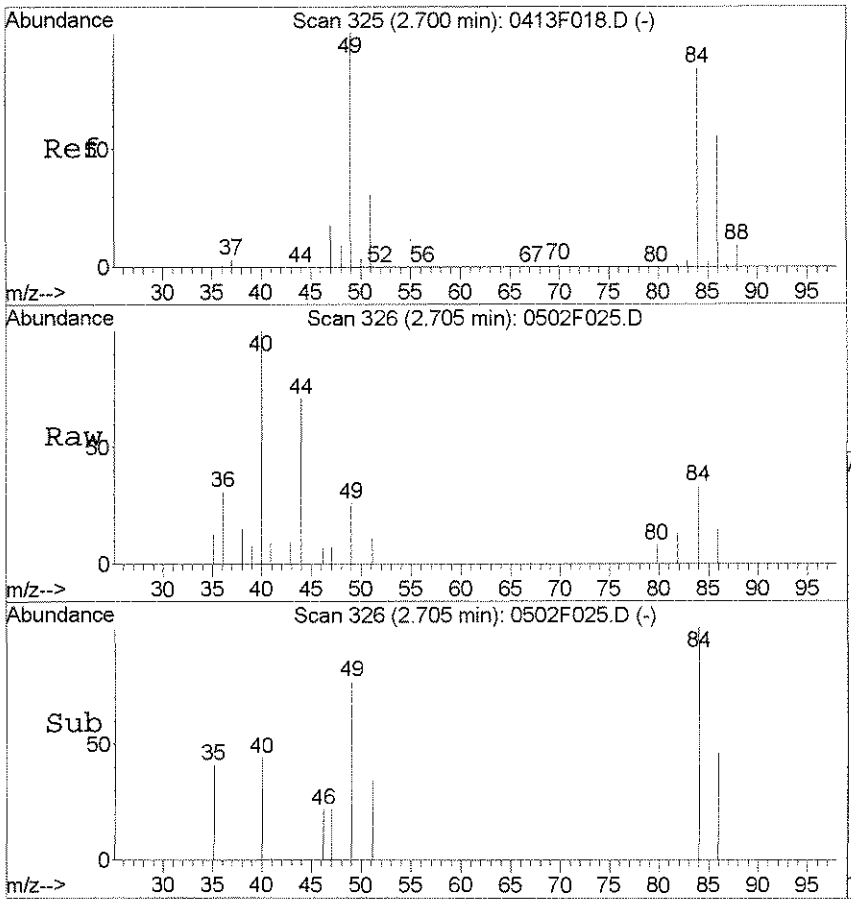


#15
Iodomethane
Concen: 0.05 PPB
RT: 2.36 min Scan# 261
Delta R.T. 0.01 min
Lab File: 0502F025.D
Acq: 2 May 2016 23:53

Tgt Ion:142 Resp: 816

Ion	Ratio	Lower	Upper
142	100		
127	49.5	7.4	67.4
141	0.0	0.0	43.4

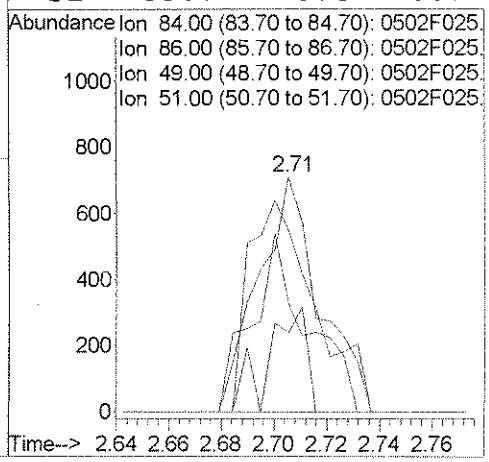


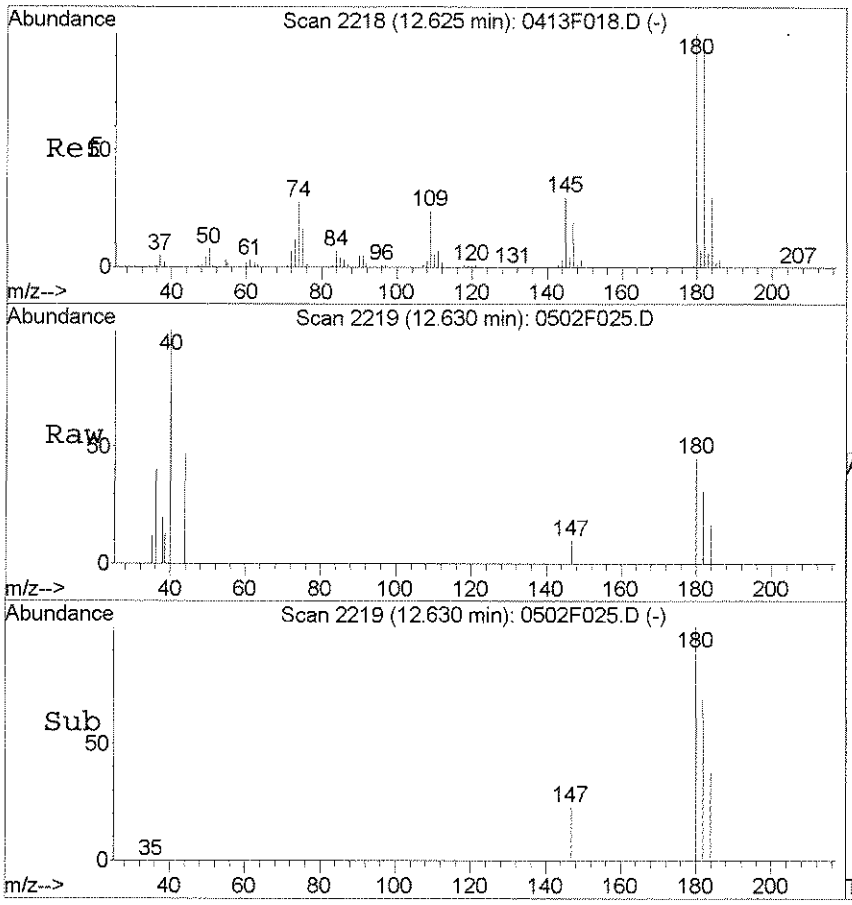


#21
Methylene Chloride
Concen: 0.07 PPB
RT: 2.71 min Scan# 326
Delta R.T. 0.01 min
Lab File: 0502F025.D
Acq: 2 May 2016 23:53

Tgt Ion: 84 Resp: 1139

Ion	Ratio	Lower	Upper
84	100		
86	46.1	35.6	95.6
49	77.0	87.0	147.0#
51	33.7	6.4	66.4

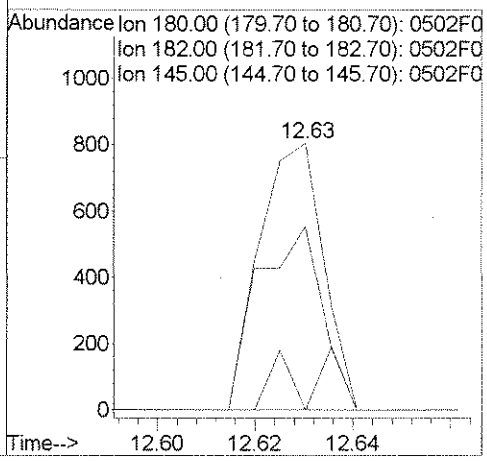


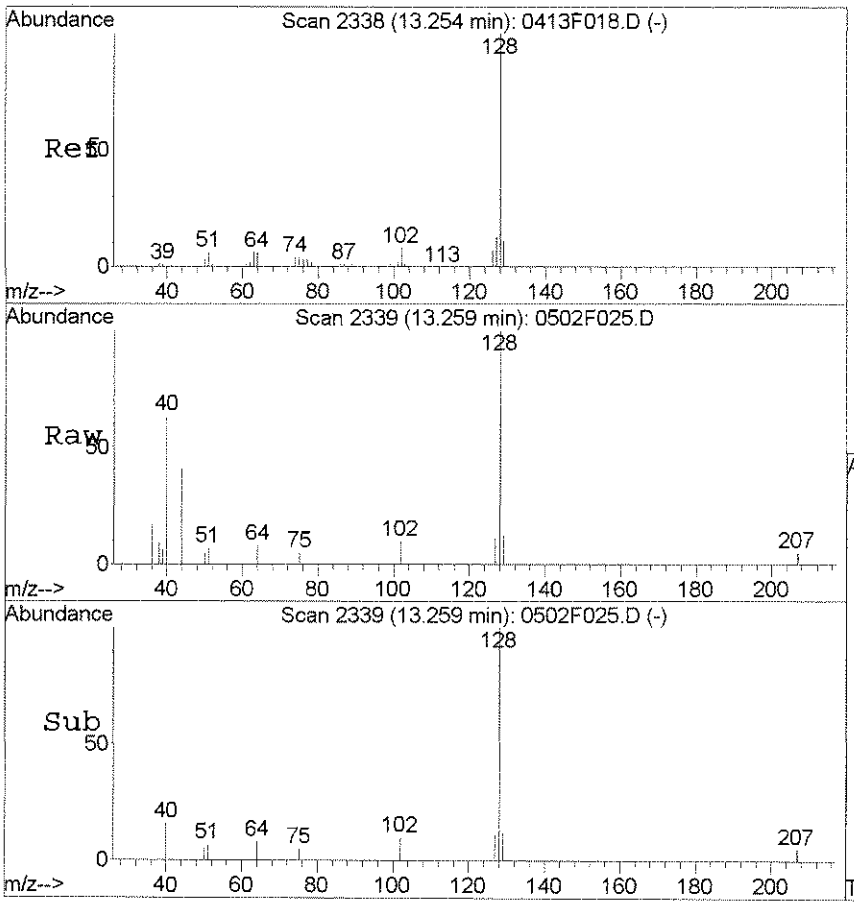


#104
1,3,5-Trichlorobenzene
Concen: 0.03 PPB
RT: 12.63 min Scan# 2219
Delta R.T. 0.01 min
Lab File: 0502F025.D
Acq: 2 May 2016 23:53

Tgt Ion:180 Resp: 729

Ion	Ratio	Lower	Upper
180	100		
182	68.8	63.4	123.4
145	0.0	0.1	60.1#

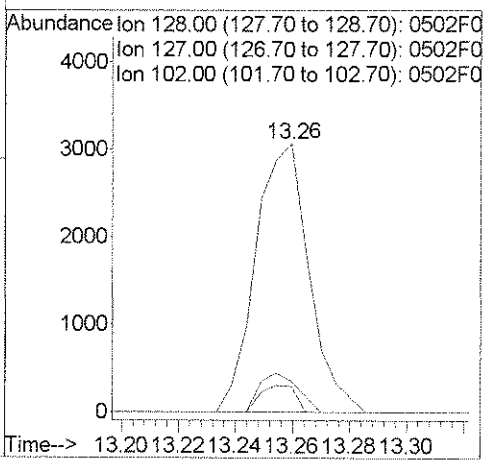




#107
Naphthalene
Concen: 0.11 PPB
RT: 13.26 min Scan# 2339
Delta R.T. 0.01 min
Lab File: 0502F025.D
Acq: 2 May 2016 23:53

Tgt Ion:128 Resp: 3970

Ion	Ratio	Lower	Upper
128	100		
127	11.4	0.0	42.7
102	9.7	0.0	37.7



Exception Report

Data File: J:\MS18\DATA\050216\0502F026.D
Lab ID: K1604068-007
RunType: SMPL
Matrix: WATER

Date Acquired: 05/03/2016 00:15
Date Quantitated: 05/03/2016 08:40
Batch ID: KWG1603423
Analysis Method: 8260C
ListJoinID: LJ17286

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: \Tur 5/23/16

Secondary Review: [illegible] 6/3/16

Printed: 05/03/2016 10:06:32
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS18\DATA\050216\0502F026.D			**Instrument:**	GC-MS 18
Acqu Date:	05/03/2016 00:15	**Quant Date:**	05/03/2016 08:40	**Vial:**	26
Run Type:	SMPL	**ListJoinID:**	LJ17286	**Dilution:**	1.0
Lab ID:	K1604068-007			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603423	**Prep Lot:**	KWG1603424	**Report Group:**	K1604068
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514335	**Prep Date:**	05/03/2016		

Quant Method:	J:\MS18\METHODS\041316MS18_8	**Calibration ID:**	CAL14682
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17286
Tune Ref:	J:\MS18\DATA\050216\0502F007.D	**Method ID:**	MJ1465
MB Ref:	J:\MS18\DATA\050216\0502F015.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.55	0.00	96	644840	10.00	OK
2	Chlorobenzene-d5	9.02	0.00	82	244274	10.00	OK
3	1,4-Dichlorobenzene-d4	11.44	0.01	152	227344	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.70	0.00	0.00	113	115965	9.08	91	80-119	OK
1	1,2-Dichloroethane-d4	5.19	0.00	0.00	65	146125	9.90	99	81-118	OK
1	Toluene-d8	7.43	0.00	0.00	98	596209	10.33	103	89-112	OK
2	4-Bromofluorobenzene	10.27	0.00	0.00	95	202485	9.53	95	85-114	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Benzene				78	0d		0.062	U	
1	Toluene	7.50		0.00	92	2584	0.0600	0.060	J	
2	Ethylbenzene	9.14		0.00	106	20756	0.8500	0.85		
2	m,p-Xylenes	9.27		0.00	106	68018	2.26	2.3		
2	o-Xylene	9.69		0.00	106	47084	1.63	1.6		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\050216\0502F026.D Vial: 26
Acq On : 3 May 2016 00:15 Operator: YX
Sample : K1604068-007 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 03 08:12:10 2016 Quant Results File: 041316MS18_8260

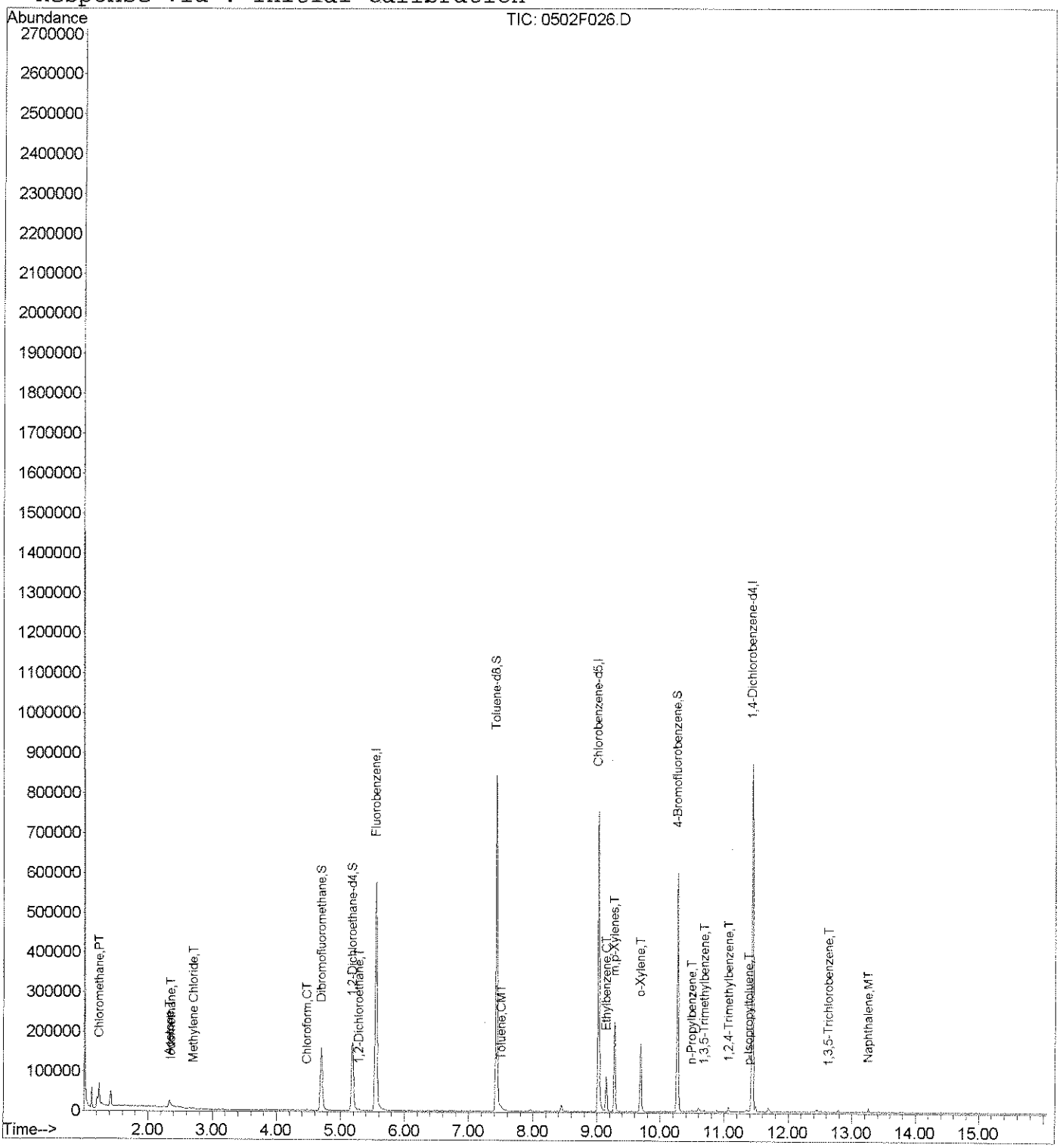
Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

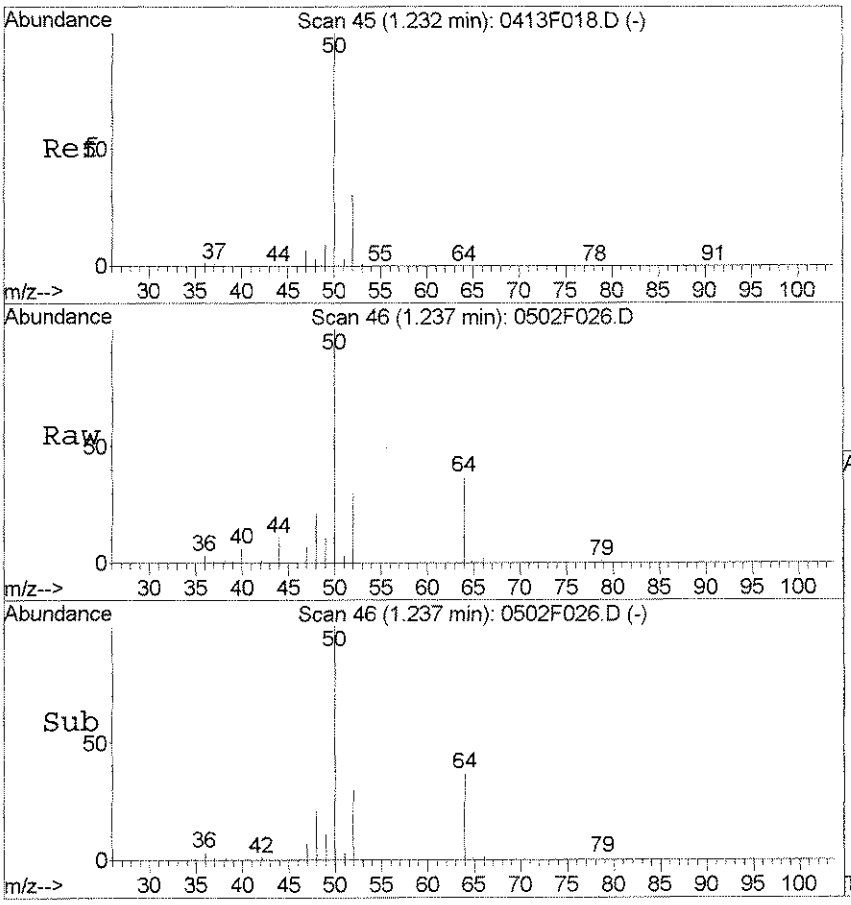
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.55	96	644840	10.00	PPB		0.00
65) Chlorobenzene-d5	9.02	82	244274	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	227344	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	4.70	113	115965	9.08	PPB		0.00
Spiked Amount 10.000			Recovery = 90.80%				
48) 1,2-Dichloroethane-d4	5.19	65	146125	9.90	PPB		0.00
Spiked Amount 10.000			Recovery = 99.00%				
63) Toluene-d8	7.43	98	596209	10.33	PPB		0.00
Spiked Amount 10.000			Recovery = 103.30%				
85) 4-Bromofluorobenzene	10.27	95	202485	9.53	PPB		0.00
Spiked Amount 10.000			Recovery = 95.30%				
Target Compounds							Qvalue
3) Chloromethane	1.24	50	31398	1.50	PPB		97
14) Acetone	2.34	43	22524	10.93	PPB		93
15) Iodomethane	2.36	142	752	0.04	PPB		90
21) Methylene Chloride	2.71	84	1453	0.08	PPB	#	67
40) Chloroform	4.48	83	2679	0.10	PPB		93
50) 1,2-Dichloroethane	5.30	62	1705	0.09	PPB		88
64) Toluene	7.50	92	2584	0.06	PPB		84
77) Ethylbenzene	9.14	106	20756	0.85	PPB		86
79) m,p-Xylenes	9.27	106	68018	2.26	PPB		94
80) o-Xylene	9.69	106	47084	1.63	PPB		97
90) n-Propylbenzene	10.49	91	2292	0.03	PPB		88
93) 1,3,5-Trimethylbenzene	10.69	105	1611	0.03	PPB		72
96) 1,2,4-Trimethylbenzene	11.07	105	6374	0.11	PPB		89
98) p-Isopropyltoluene	11.38	119	1840	0.03	PPB		88
104) 1,3,5-Trichlorobenzene	12.63	180	665	0.03	PPB	#	79
107) Naphthalene	13.25	128	6030	0.16	PPB		93

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

Data File : J:\MS18\DATA\050216\0502F026.D Vial: 26
Acq On : 3 May 2016 00:15 Operator: YX
Sample : K1604068-007 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:40 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration

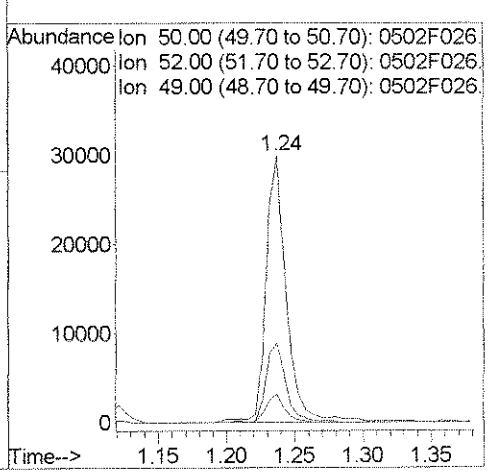


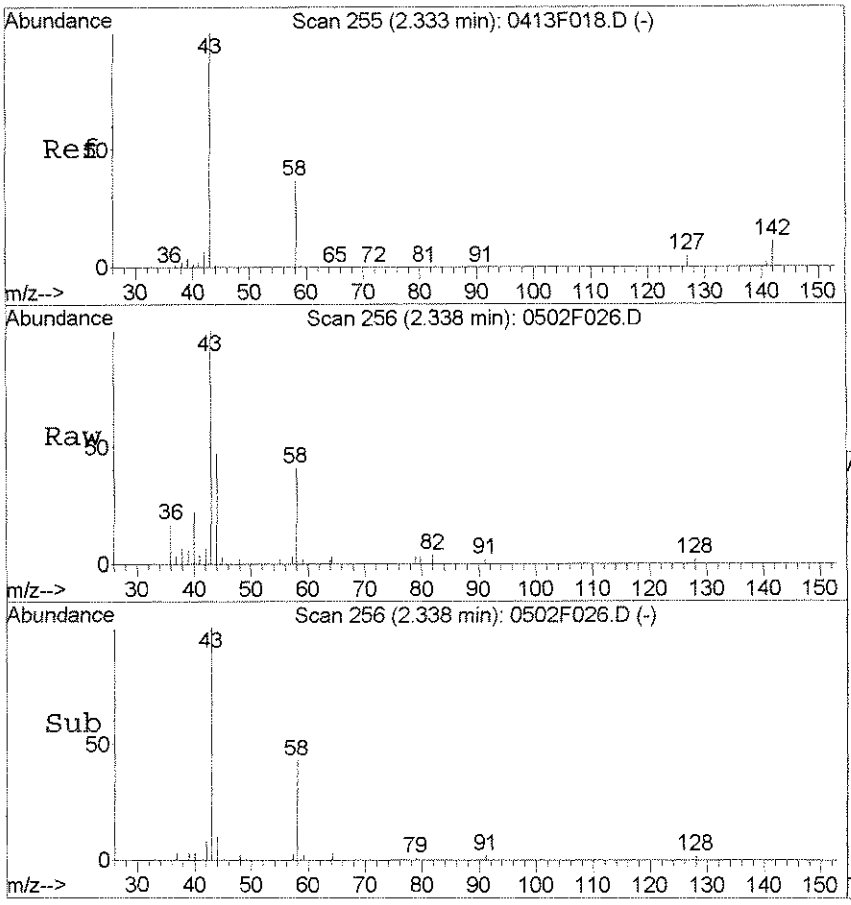


#3
Chloromethane
Concen: 1.50 PPB
RT: 1.24 min Scan# 46
Delta R.T. 0.01 min
Lab File: 0502F026.D
Acq: 3 May 2016 00:15

Tgt Ion: 50 Resp: 31398

Ion	Ratio	Lower	Upper
50	100		
52	29.8	1.5	61.5
49	10.7	0.0	39.2

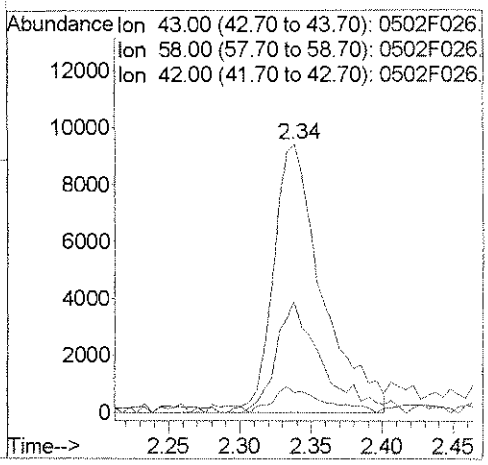


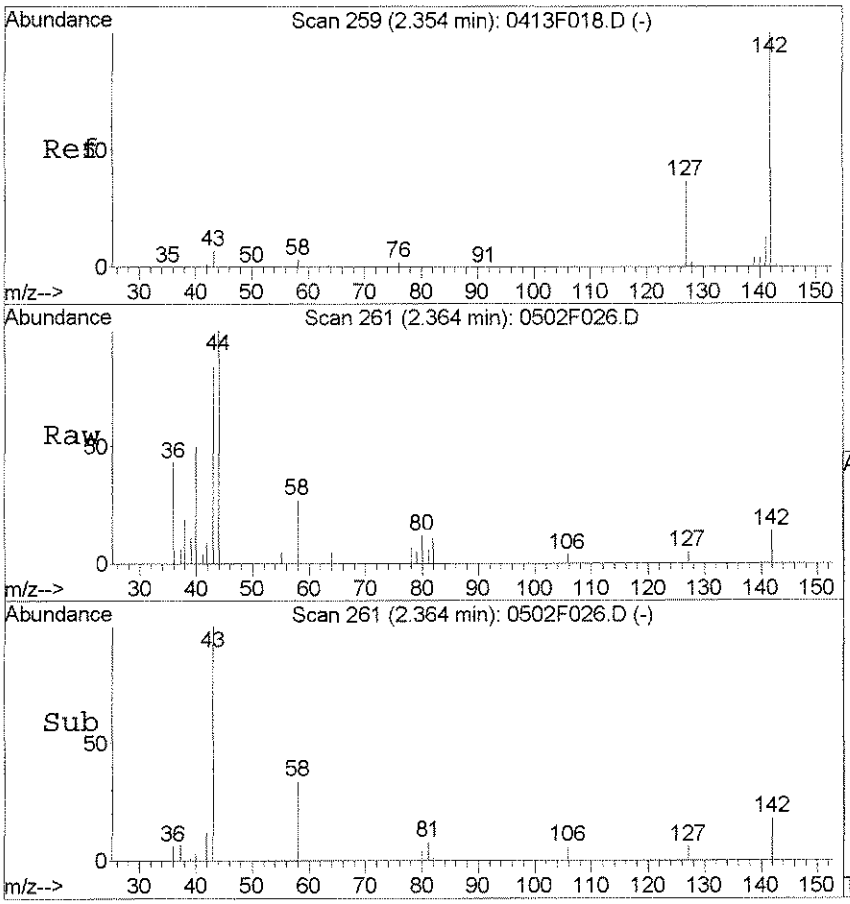


#14
Acetone
Concen: 10.93 PPB
RT: 2.34 min Scan# 256
Delta R.T. 0.01 min
Lab File: 0502F026.D
Acq: 3 May 2016 00:15

Tgt Ion: 43 Resp: 22524

Ion	Ratio	Lower	Upper
43	100		
58	41.3	6.9	66.9
42	5.7	0.0	36.8

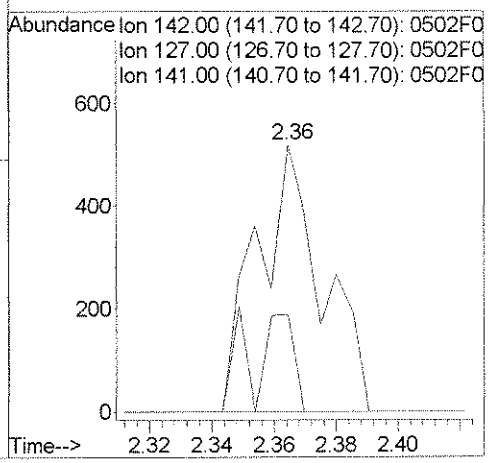


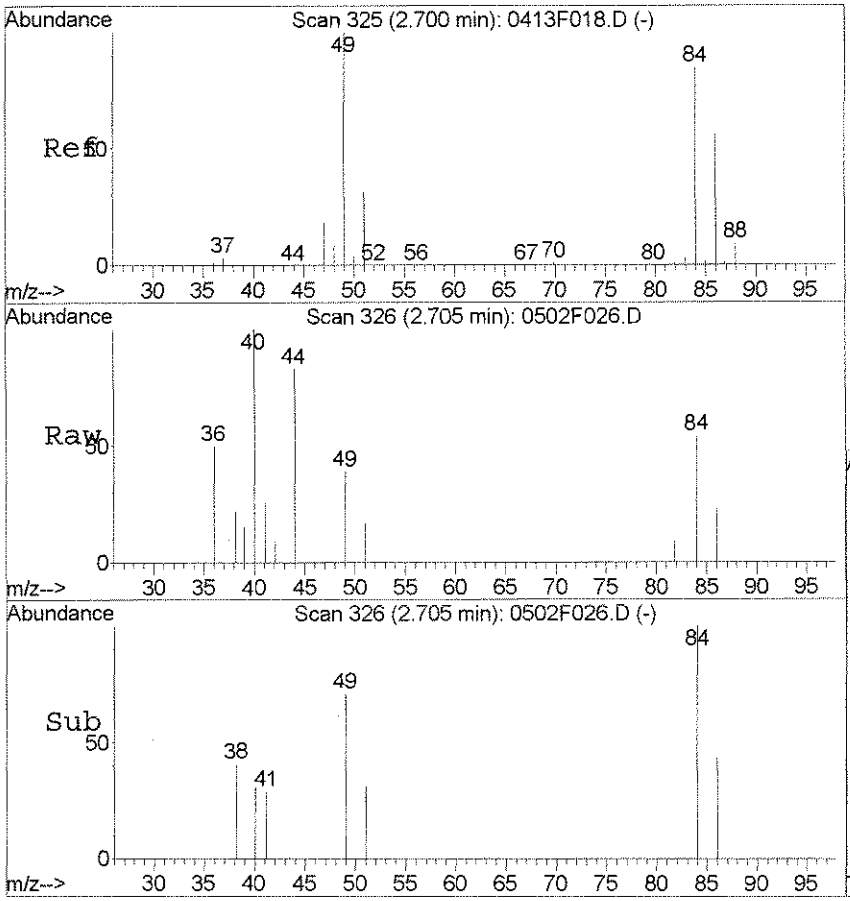


#15
Iodomethane
Concen: 0.04 PPB
RT: 2.36 min Scan# 261
Delta R.T. 0.01 min
Lab File: 0502F026.D
Acq: 3 May 2016 00:15

Tgt Ion:142 Resp: 752

Ion	Ratio	Lower	Upper
142	100		
127	36.2	7.4	67.4
141	0.0	0.0	43.4

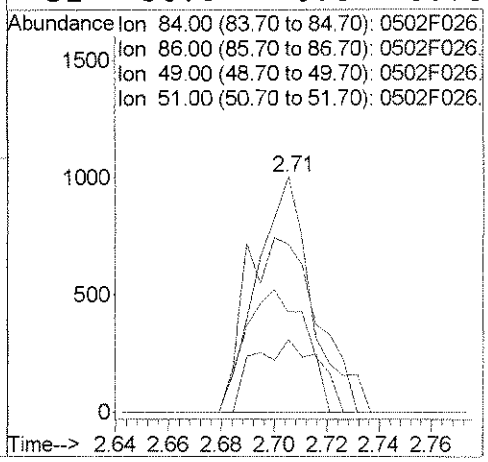


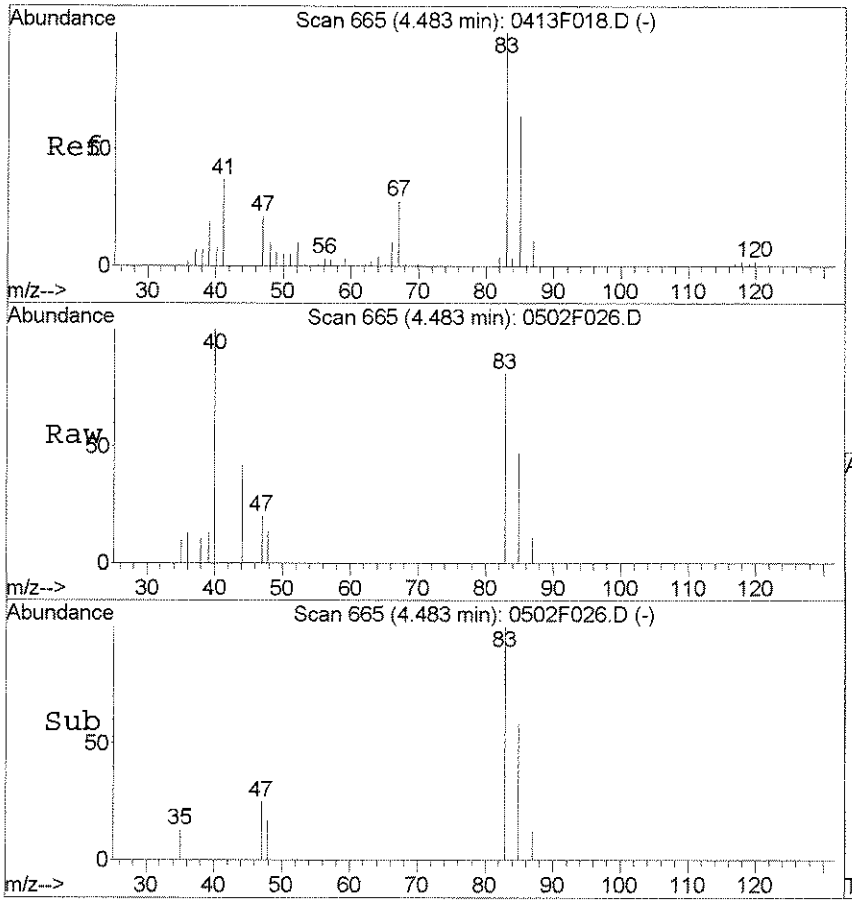


#21
Methylene Chloride
Concen: 0.08 PPB
RT: 2.71 min Scan# 326
Delta R.T. 0.01 min
Lab File: 0502F026.D
Acq: 3 May 2016 00:15

Tgt Ion: 84 Resp: 1453

Ion	Ratio	Lower	Upper
84	100		
86	42.5	35.6	95.6
49	71.4	87.0	147.0#
51	30.8	6.4	66.4

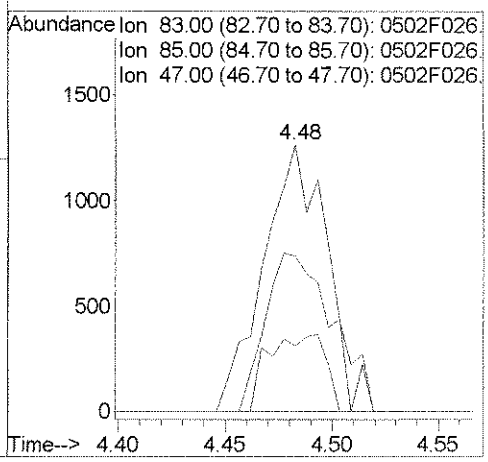


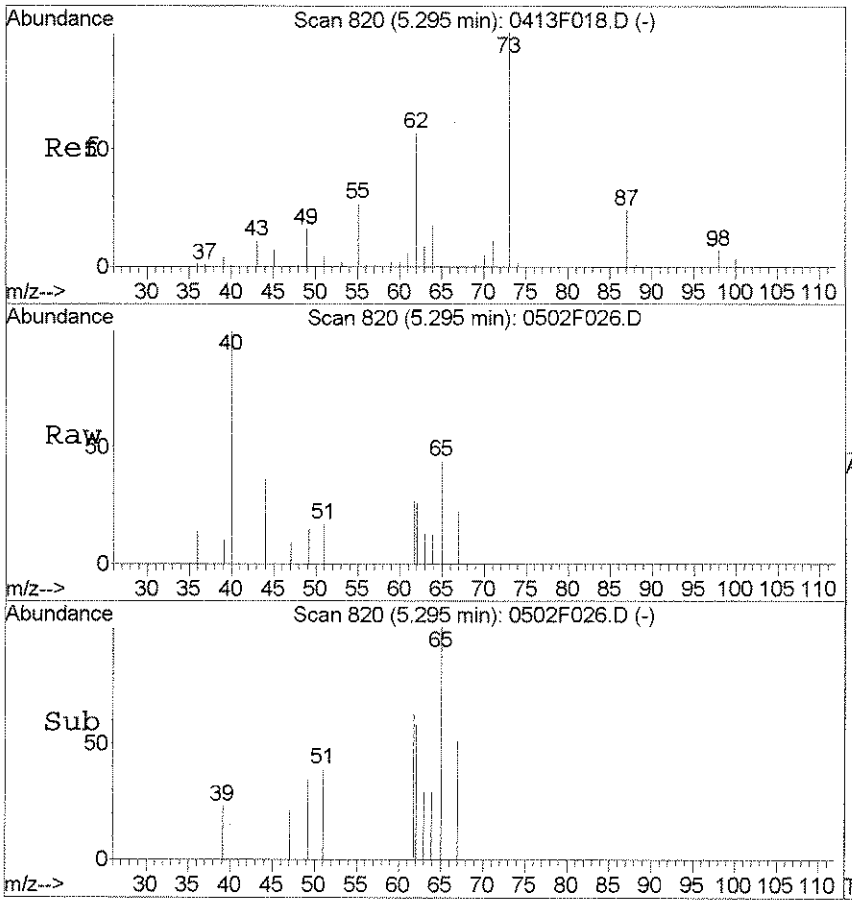


#40
Chloroform
Concen: 0.10 PPB
RT: 4.48 min Scan# 665
Delta R.T. 0.00 min
Lab File: 0502F026.D
Acq: 3 May 2016 00:15

Tgt Ion: 83 Resp: 2679

Ion	Ratio	Lower	Upper
83	100		
85	58.4	33.9	93.9
47	24.7	0.0	50.9

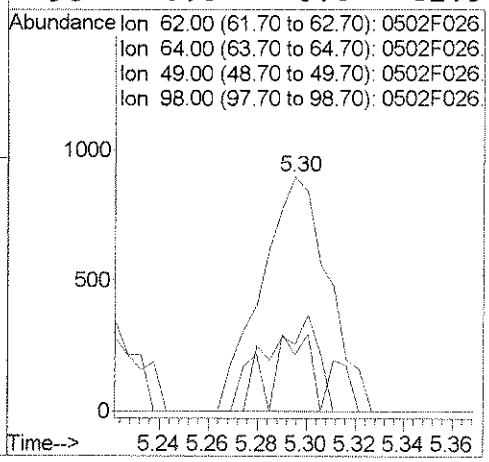


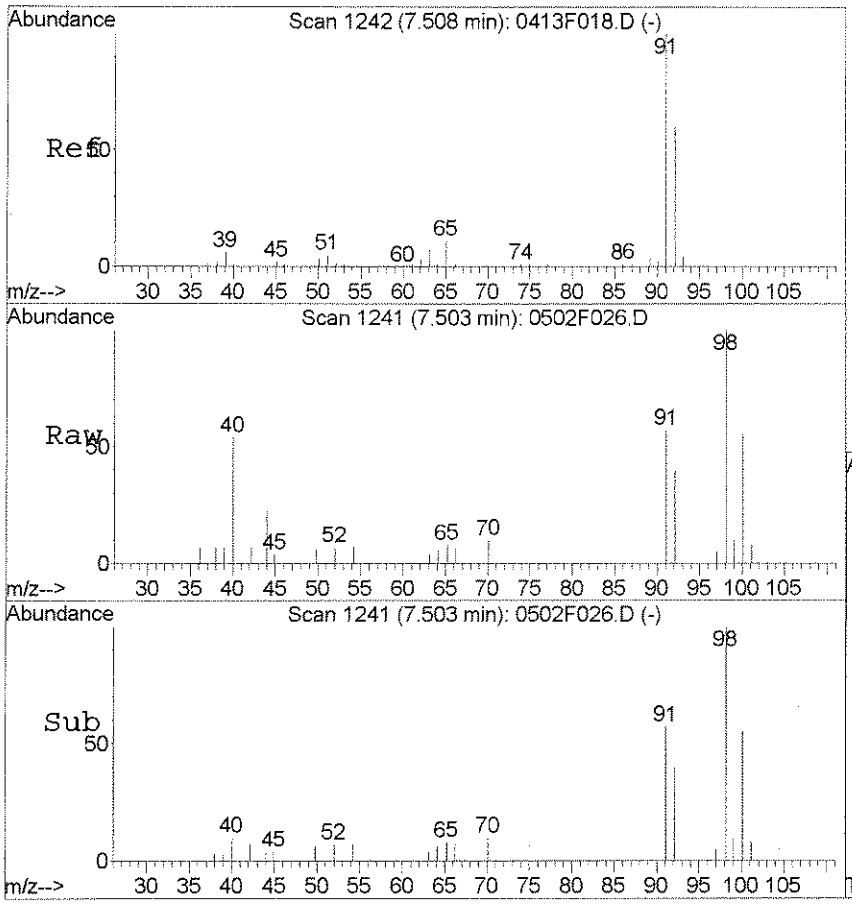


#50
1,2-Dichloroethane
Concen: 0.09 PPB
RT: 5.30 min Scan# 820
Delta R.T. 0.01 min
Lab File: 0502F026.D
Acq: 3 May 2016 00:15

Tgt Ion: 62 Resp: 1705

Ion	Ratio	Lower	Upper
62	100		
64	24.1	2.3	62.3
49	28.4	0.0	58.1
98	0.0	0.0	41.9

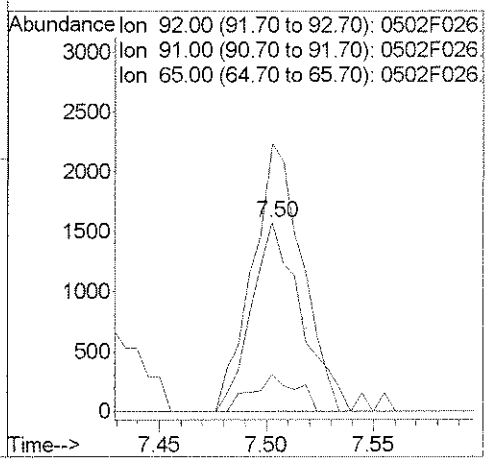


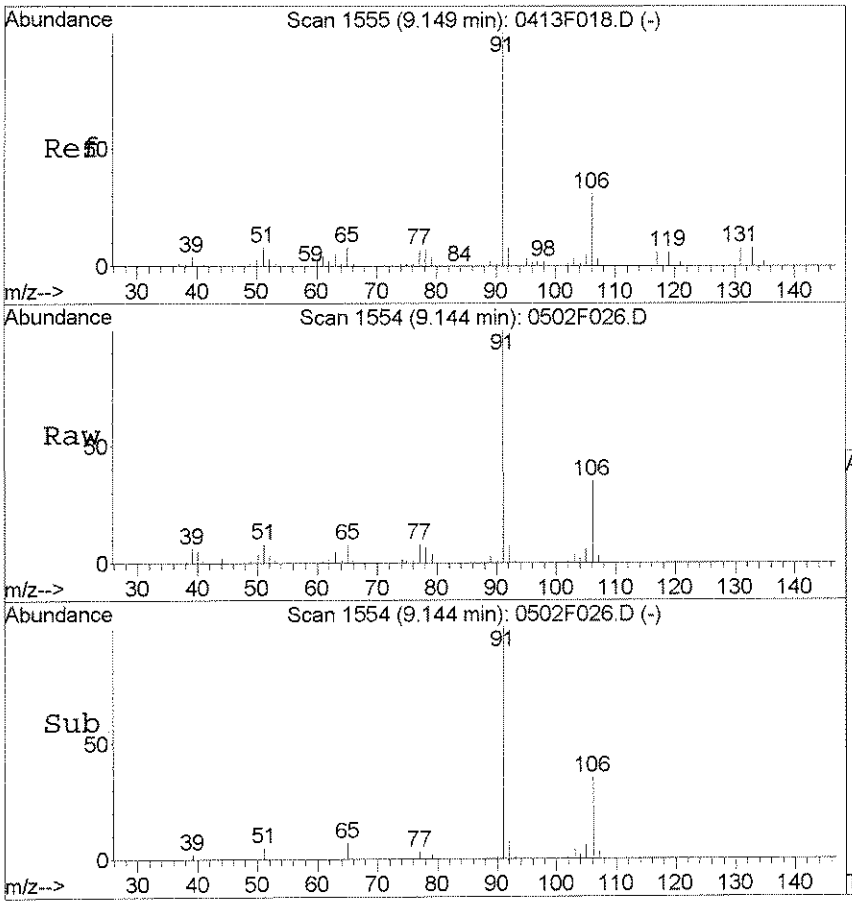


#64
Toluene
Concen: 0.06 PPB
RT: 7.50 min Scan# 1241
Delta R.T. -0.01 min
Lab File: 0502F026.D
Acq: 3 May 2016 00:15

Tgt Ion: 92 Resp: 2584

Ion	Ratio	Lower	Upper
92	100		
91	141.3	135.4	195.4
65	19.5	0.0	48.4

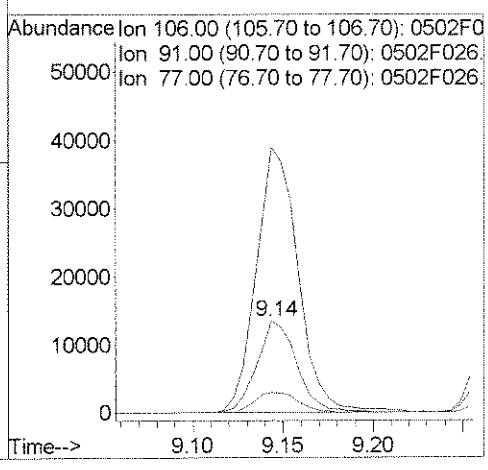


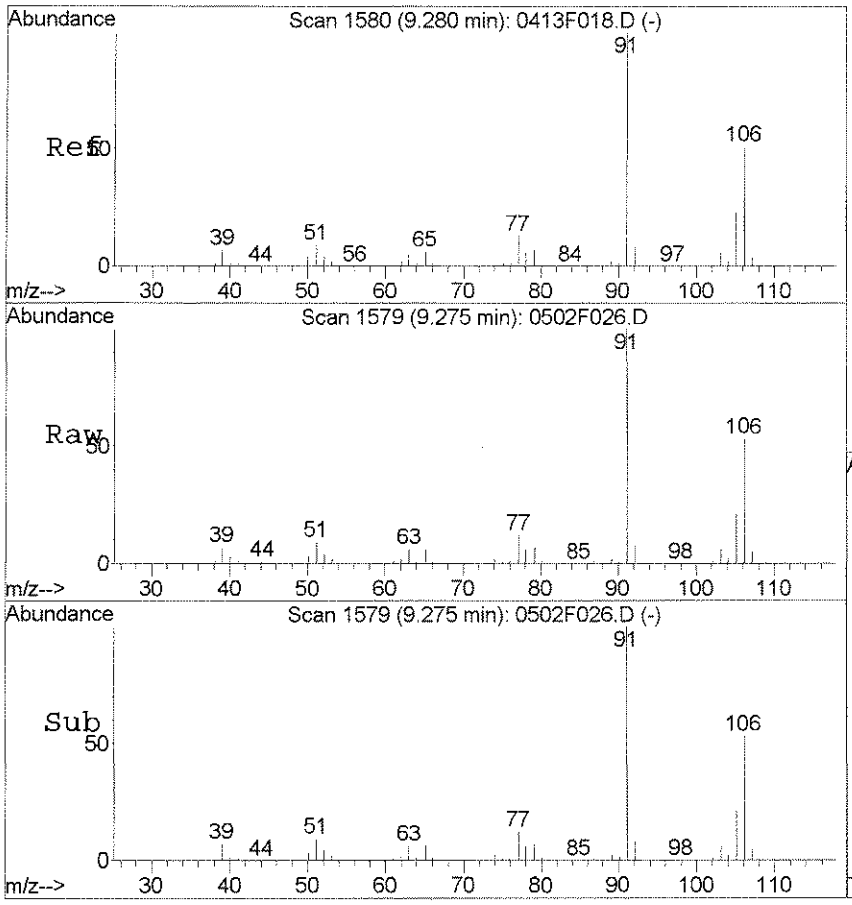


#77
Ethylbenzene
Concen: 0.85 PPB
RT: 9.14 min Scan# 1554
Delta R.T. -0.01 min
Lab File: 0502F026.D
Acq: 3 May 2016 00:15

Tgt Ion:106 Resp: 20756

Ion	Ratio	Lower	Upper
106	100		
91	288.8	287.8	347.8
77	22.1	0.0	55.1

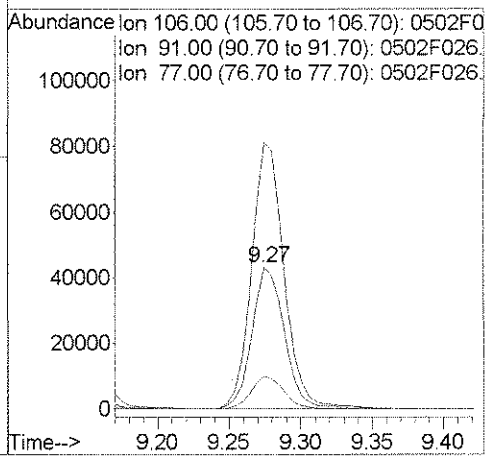


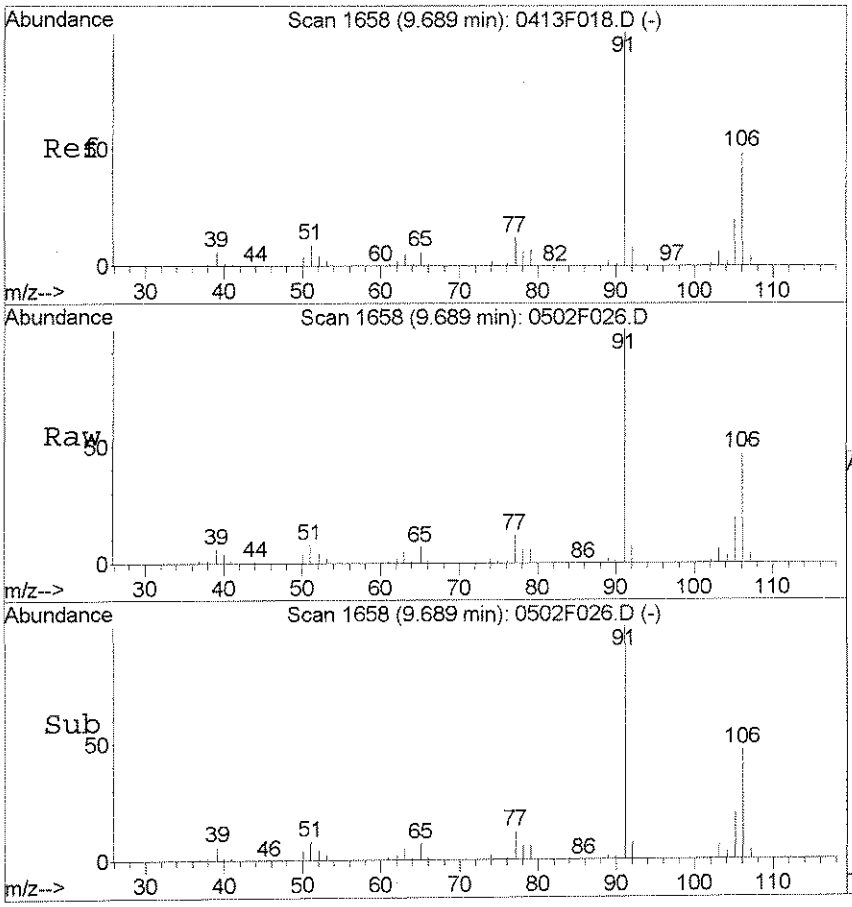


#79
m,p-Xylenes
Concen: 2.26 PPB
RT: 9.27 min Scan# 1579
Delta R.T. -0.01 min
Lab File: 0502F026.D
Acq: 3 May 2016 00:15

Tgt Ion:106 Resp: 68018

Ion	Ratio	Lower	Upper
106	100		
91	188.3	168.0	228.0
77	23.0	0.0	55.2

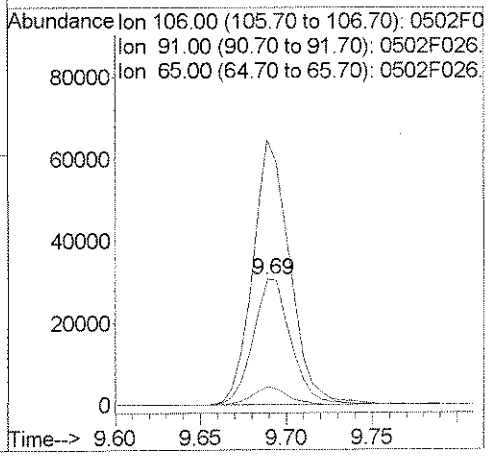


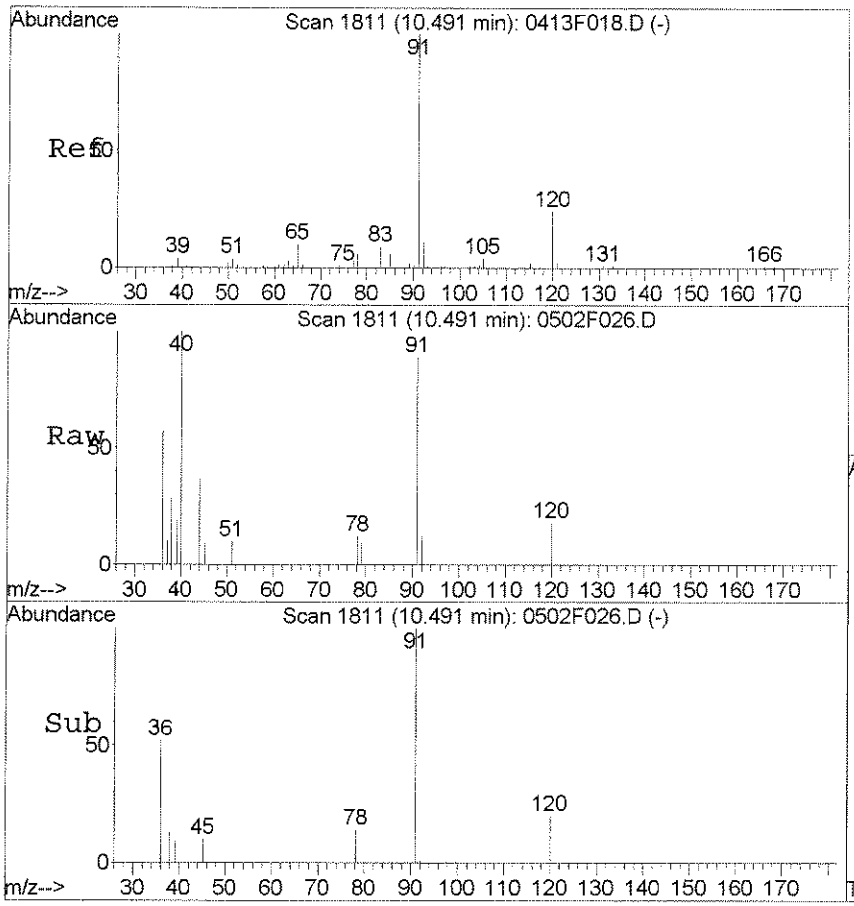


#80
o-Xylene
Concen: 1.63 PPB
RT: 9.69 min Scan# 1658
Delta R.T. -0.01 min
Lab File: 0502F026.D
Acq: 3 May 2016 00:15

Tgt Ion:106 Resp: 47084

Ion	Ratio	Lower	Upper
106	100		
91	210.8	176.1	236.1
65	14.2	0.0	42.9

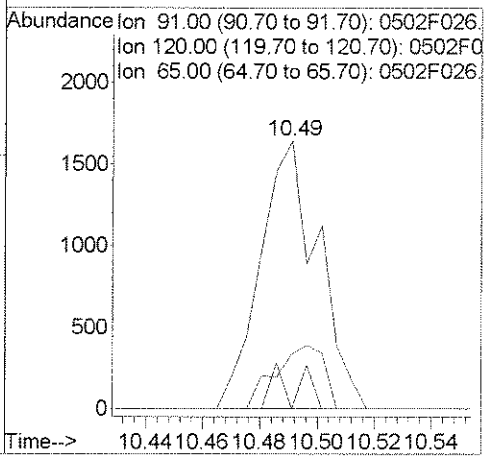


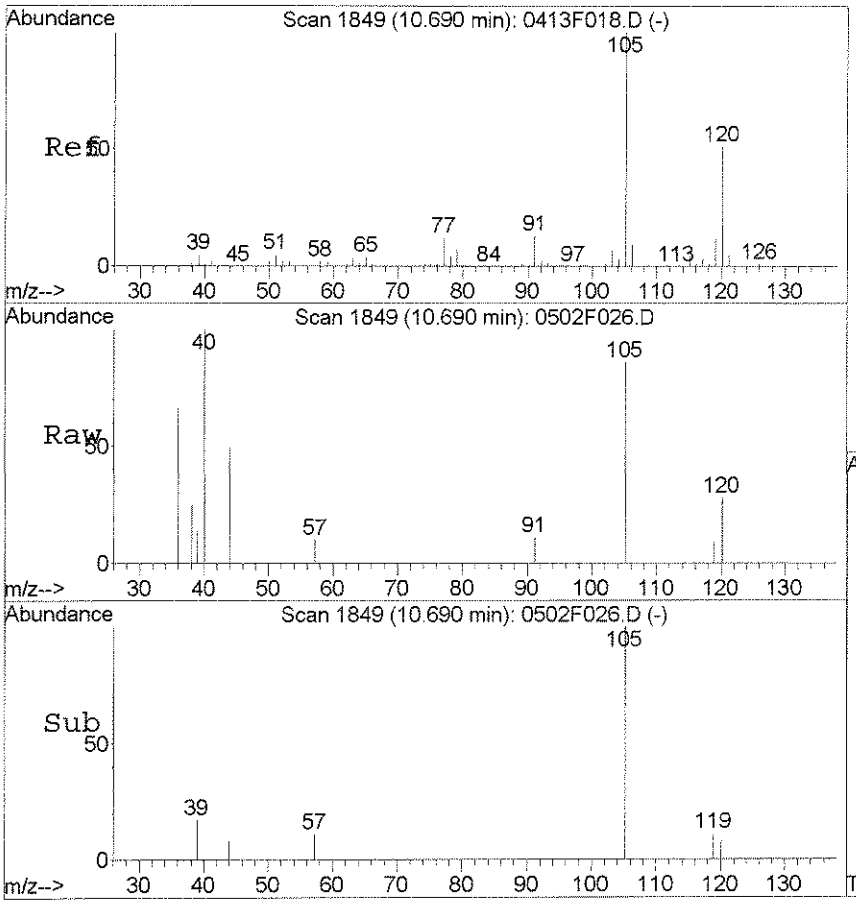


#90
n-Propylbenzene
Concen: 0.03 PPB
RT: 10.49 min Scan# 1811
Delta R.T. -0.00 min
Lab File: 0502F026.D
Acq: 3 May 2016 00:15

Tgt Ion: 91 Resp: 2292

Ion	Ratio	Lower	Upper
91	100		
120	20.5	0.0	53.7
65	0.0	0.0	39.5

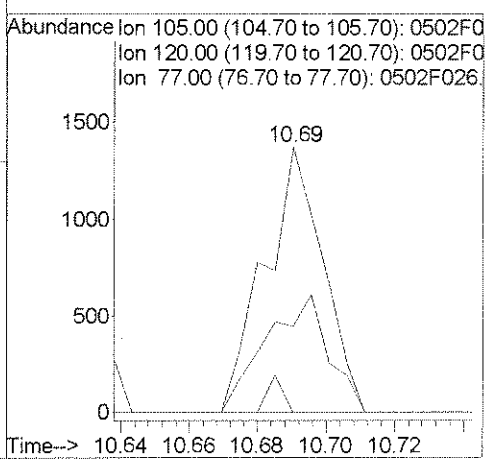


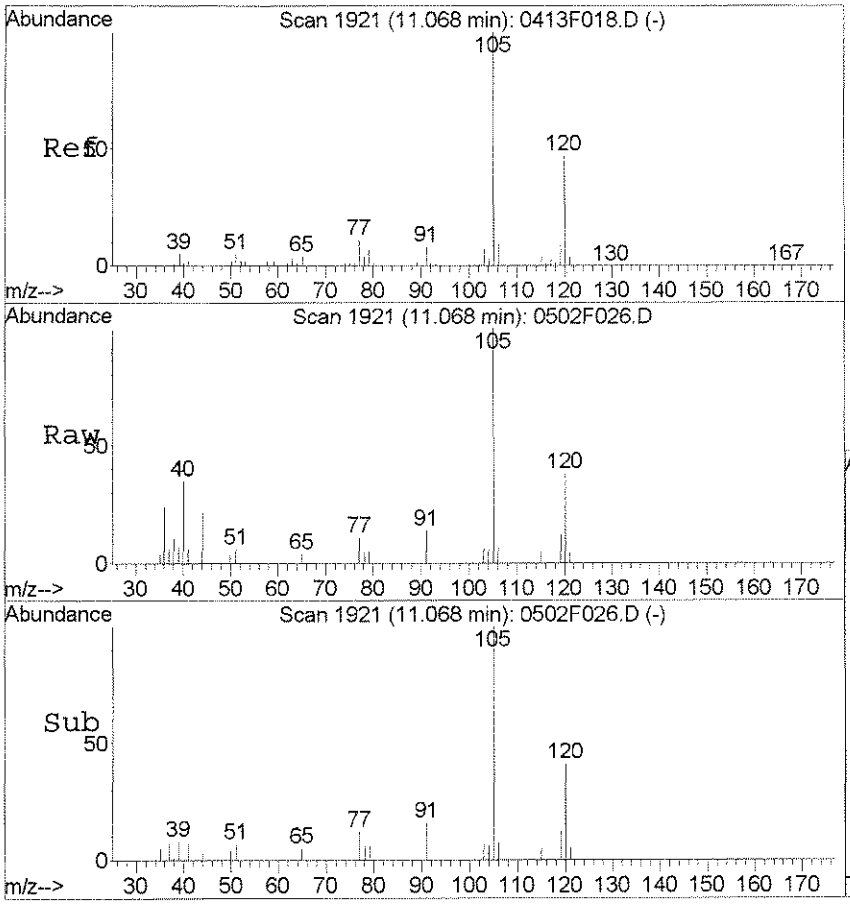


#93
1,3,5-Trimethylbenzene
Concen: 0.03 PPB
RT: 10.69 min Scan# 1849
Delta R.T. -0.00 min
Lab File: 0502F026.D
Acq: 3 May 2016 00:15

Tgt Ion:105 Resp: 1611

Ion	Ratio	Lower	Upper
105	100		
120	32.5	21.3	81.3
77	0.0	0.0	41.7

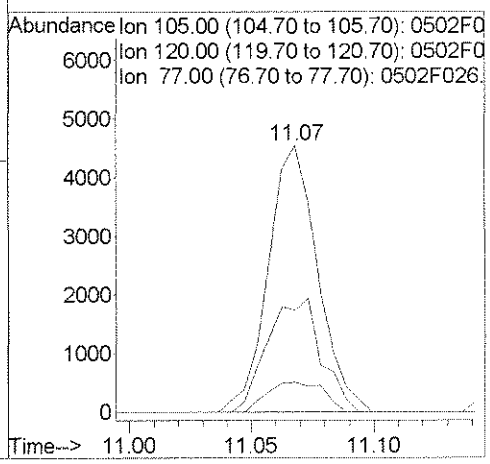


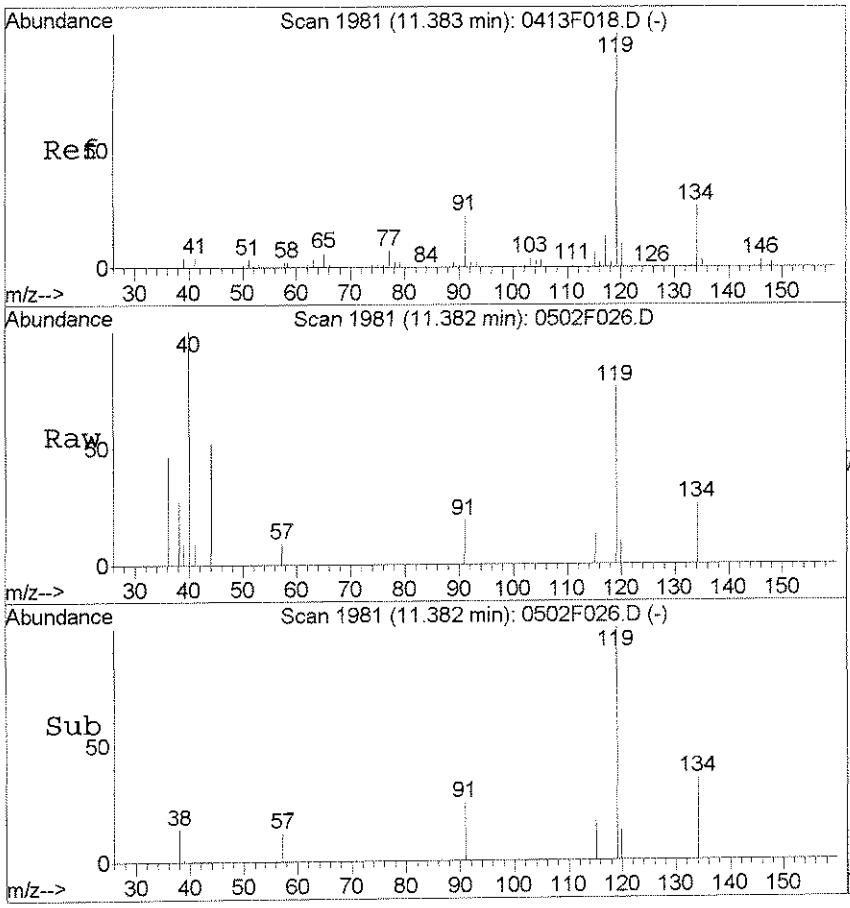


#96
1,2,4-Trimethylbenzene
Concen: 0.11 PPB
RT: 11.07 min Scan# 1921
Delta R.T. -0.00 min
Lab File: 0502F026.D
Acq: 3 May 2016 00:15

Tgt Ion:105 Resp: 6374

Ion	Ratio	Lower	Upper
105	100		
120	38.1	16.8	76.8
77	11.2	0.0	40.9

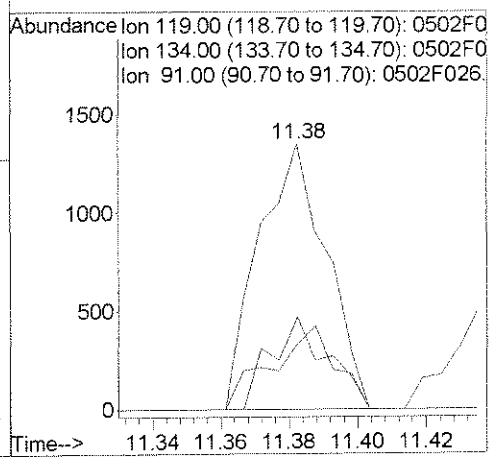


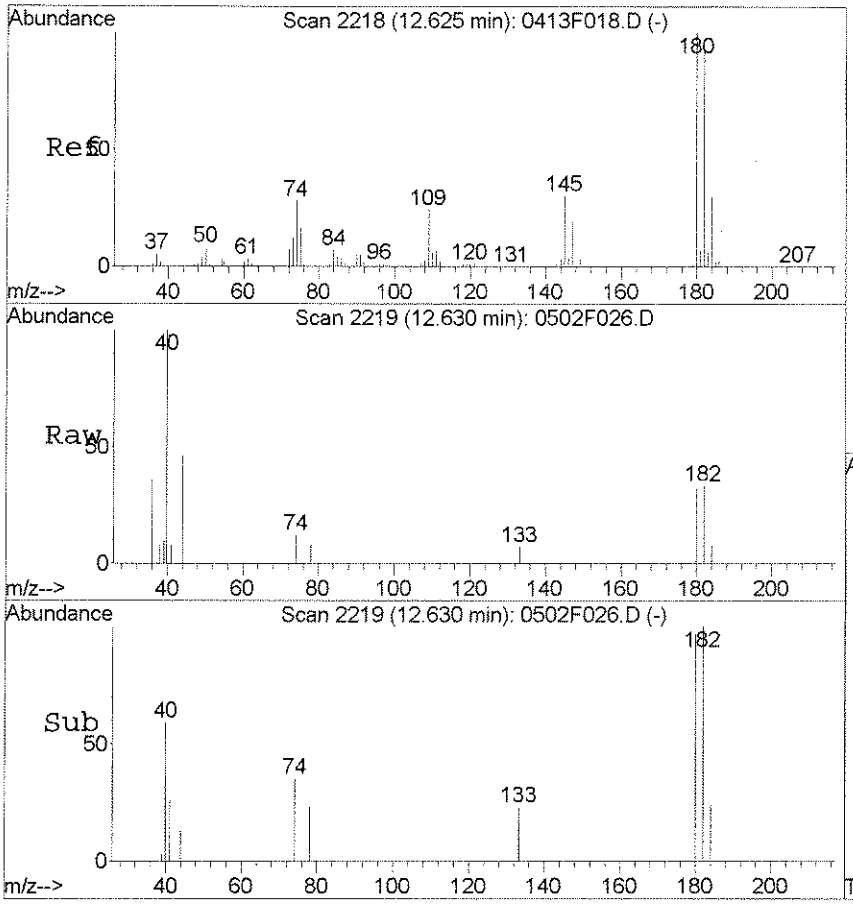


#98
p-Isopropyltoluene
Concen: 0.03 PPB
RT: 11.38 min Scan# 1981
Delta R.T. -0.00 min
Lab File: 0502F026.D
Acq: 3 May 2016 00:15

Tgt Ion:119 Resp: 1840

Ion	Ratio	Lower	Upper
119	100		
134	34.7	0.0	55.8
91	24.5	0.0	51.5

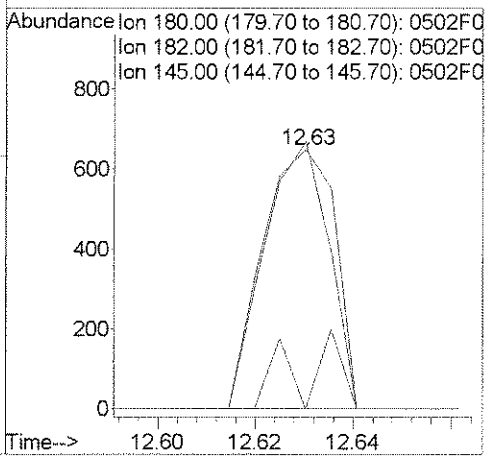


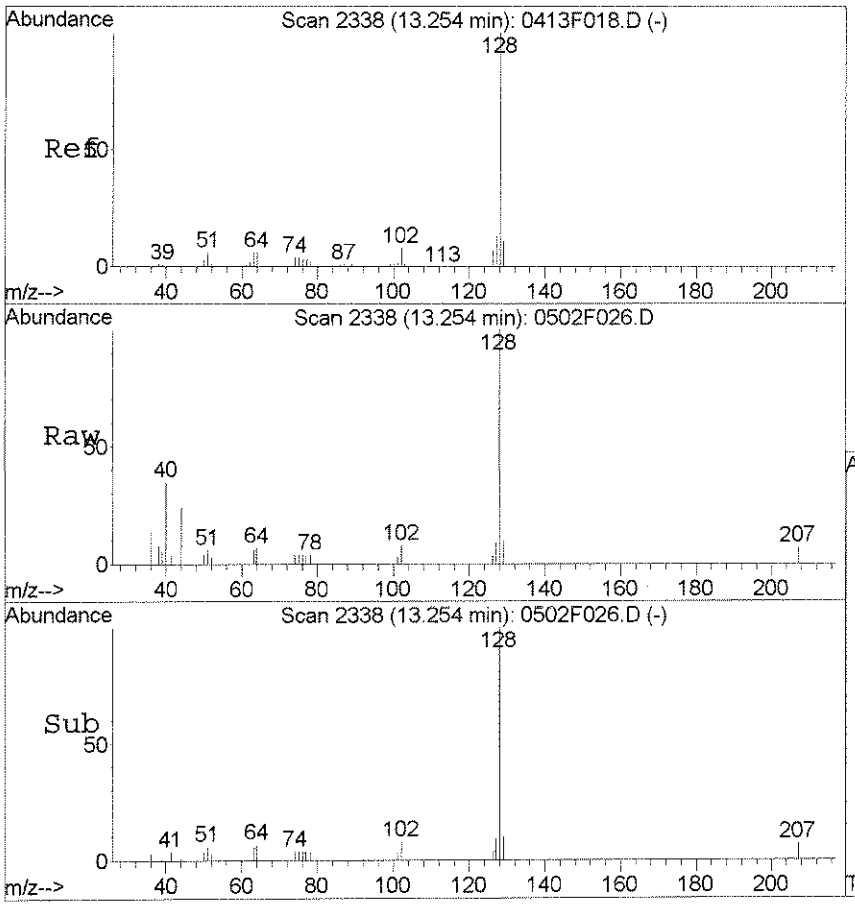


#104
1,3,5-Trichlorobenzene
Concen: 0.03 PPB
RT: 12.63 min Scan# 2219
Delta R.T. 0.01 min
Lab File: 0502F026.D
Acq: 3 May 2016 00:15

Tgt Ion:180 Resp: 665

Ion	Ratio	Lower	Upper
180	100		
182	103.1	63.4	123.4
145	0.0	0.1	60.1#

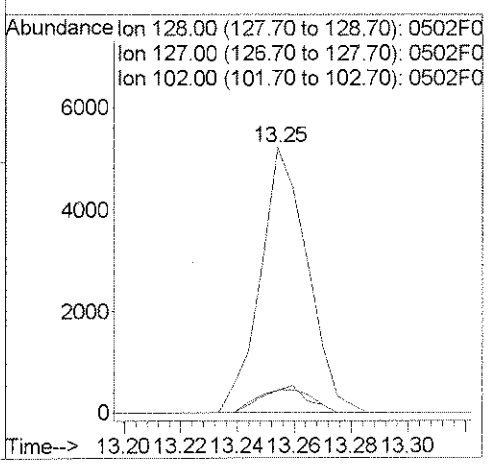




#107
Naphthalene
Concen: 0.16 PPB
RT: 13.25 min Scan# 2338
Delta R.T. -0.00 min
Lab File: 0502F026.D
Acq: 3 May 2016 00:15

Tgt Ion:128 Resp: 6030

Ion	Ratio	Lower	Upper
128	100		
127	8.7	0.0	42.7
102	8.4	0.0	37.7



Exception Report

Data File: J:\MS18\DATA\050216\0502F027.D
Lab ID: K1604068-008
RunType: SMPL
Matrix: WATER

Date Acquired: 05/03/2016 00:38
Date Quantitated: 05/03/2016 08:42
Batch ID: KWG1603423
Analysis Method: 8260C
ListJoinID: LJ17286

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/7/2016

Secondary Review: 5/13/16

Printed: 05/03/2016 10:06:35
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS18\DATA\050216\0502F027.D			**Instrument:**	GC-MS 18
Acqu Date:	05/03/2016 00:38	**Quant Date:**	05/03/2016 08:42	**Vial:**	27
Run Type:	SMPL	**ListJoinID:**	LJ17286	**Dilution:**	1.0
Lab ID:	K1604068-008			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603423	**Prep Lot:**	KWG1603424	**Report Group:**	K1604068
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514328	**Prep Date:**	05/03/2016		

Quant Method:	J:\MS18\METHODS\041316MS18_8	**Calibration ID:**	CAL14682
Title:	Volatile Organic Compounds	**Report List ID:**	LJ17286
Tune Ref:	J:\MS18\DATA\050216\0502F007.D	**Method ID:**	MJ1465
MB Ref:	J:\MS18\DATA\050216\0502F015.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.55	0.00	96	645076	10.00	OK
2	Chlorobenzene-d5	9.02	0.00	82	243709	10.00	OK
3	1,4-Dichlorobenzene-d4	11.44	0.01	152	226489	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	4.70	0.00	0.00	113	114796	8.98	90	80-119	OK	
1	1,2-Dichloroethane-d4	5.19	0.00	0.00	65	143111	9.69	97	81-118	OK	
1	Toluene-d8	7.43	0.00	0.00	98	591667	10.25	103	89-112	OK	
2	4-Bromofluorobenzene	10.27	0.00	0.00	95	200794	9.47	95	85-114	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Benzene				78	0d		0.062	U	
1	Toluene	7.50		0.00	92	2777	0.0600	0.060	J	
2	Ethylbenzene	9.15	0.01	0.00	106	26476	1.09	1.1		
2	m,p-Xylenes	9.28	0.01	0.00	106	86799	2.89	2.9		
2	o-Xylene	9.69		0.00	106	60757	2.10	2.1		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS18\DATA\050216\0502F027.D Vial: 27
Acq On : 3 May 2016 00:38 Operator: YX
Sample : K1604068-008 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 03 08:12:10 2016 Quant Results File: 041316MS18_8260

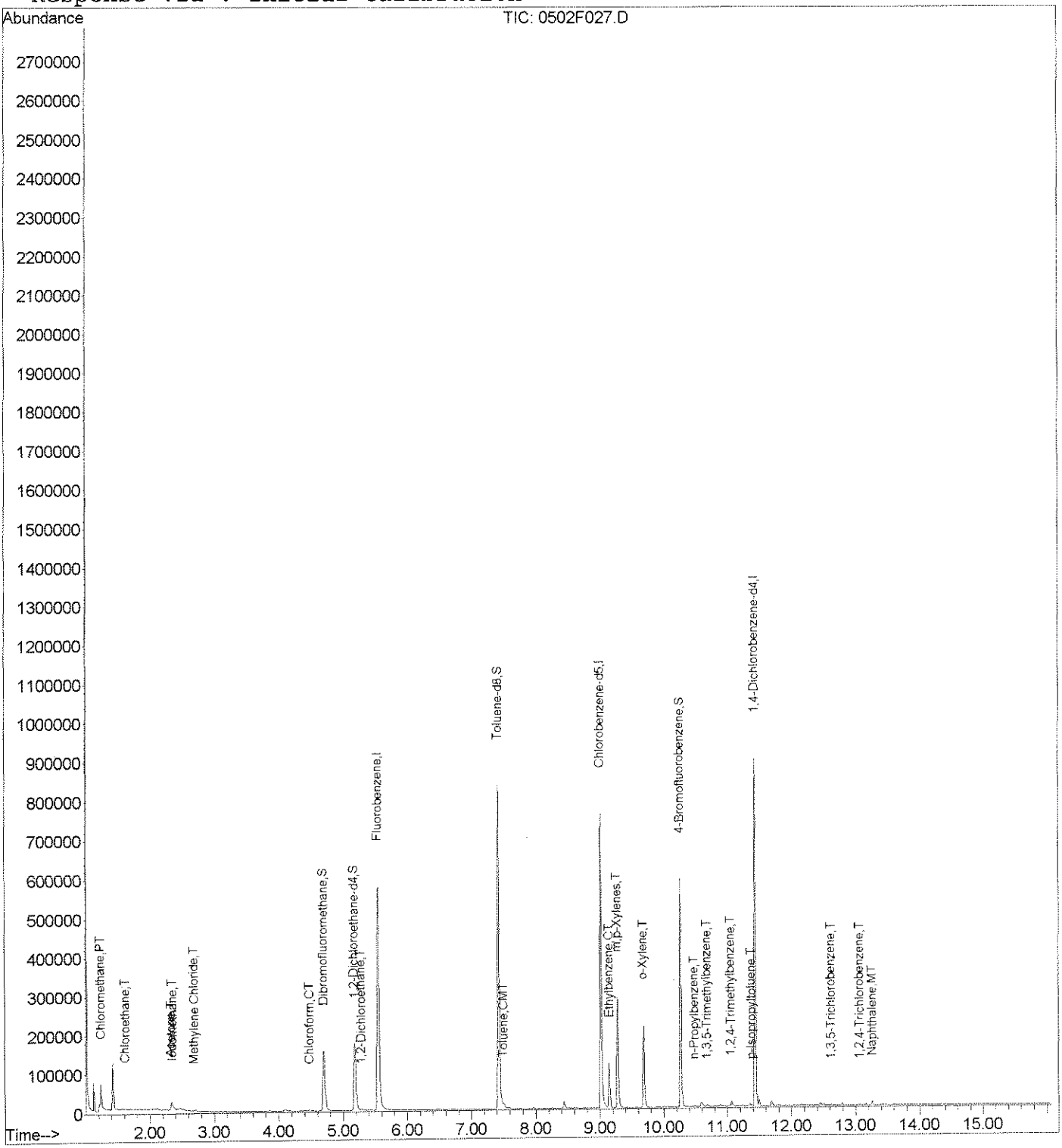
Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

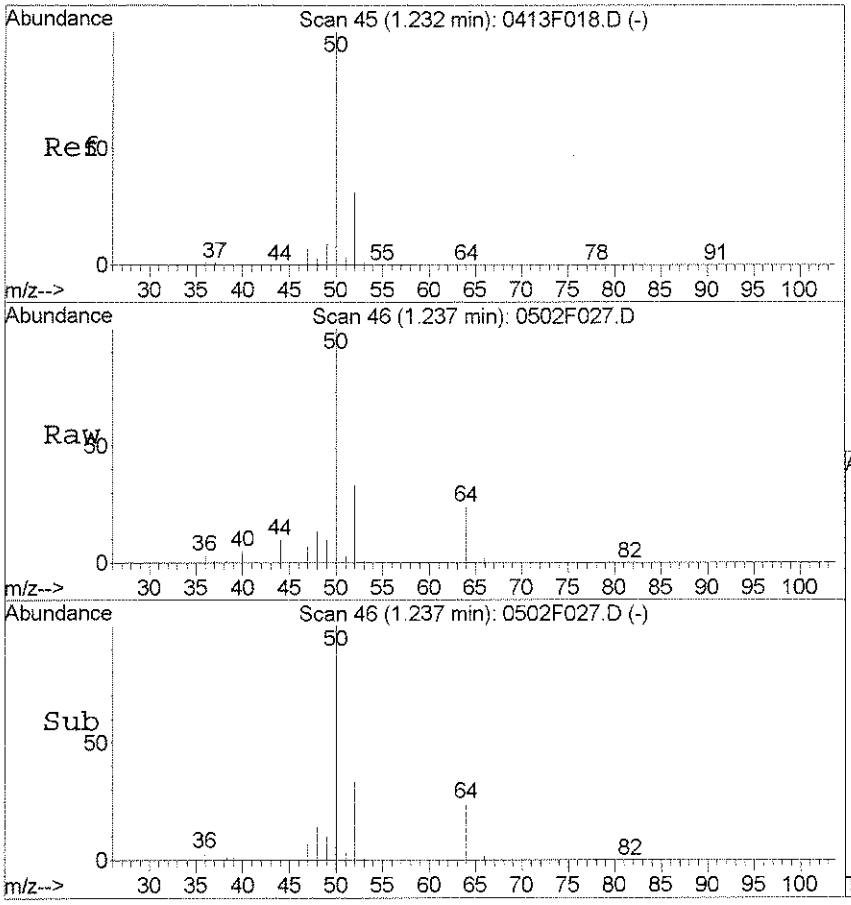
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.55	96	645076	10.00	PPB		0.00
65) Chlorobenzene-d5	9.02	82	243709	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	226489	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	4.70	113	114796	8.98	PPB		0.00
Spiked Amount 10.000			Recovery = 89.80%				
48) 1,2-Dichloroethane-d4	5.19	65	143111	9.69	PPB		0.00
Spiked Amount 10.000			Recovery = 96.90%				
63) Toluene-d8	7.43	98	591667	10.25	PPB		0.00
Spiked Amount 10.000			Recovery = 102.50%				
85) 4-Bromofluorobenzene	10.27	95	200794	9.47	PPB		0.00
Spiked Amount 10.000			Recovery = 94.70%				
Target Compounds							Qvalue
3) Chloromethane	1.24	50	34845	1.66	PPB		97
7) Chloroethane	1.62	64	1753	0.14	PPB		91
14) Acetone	2.34	43	27469	13.32	PPB		98
15) Iodomethane	2.36	142	604	0.04	PPB		66
21) Methylene Chloride	2.69	84	1404	0.08	PPB	#	79
40) Chloroform	4.49	83	3356	0.13	PPB		88
50) 1,2-Dichloroethane	5.30	62	1658	0.09	PPB		70
64) Toluene	7.50	92	2777	0.06	PPB	#	73
77) Ethylbenzene	9.15	106	26476	1.09	PPB		96
79) m,p-Xylenes	9.28	106	86799	2.89	PPB		95
80) o-Xylene	9.69	106	60757	2.10	PPB		98
90) n-Propylbenzene	10.49	91	2564	0.03	PPB		96
93) 1,3,5-Trimethylbenzene	10.69	105	2019	0.03	PPB		96
96) 1,2,4-Trimethylbenzene	11.07	105	7648	0.13	PPB		85
98) p-Isopropyltoluene	11.38	119	1990	0.03	PPB		79
104) 1,3,5-Trichlorobenzene	12.63	180	611	0.03	PPB		93
105) 1,2,4-Trichlorobenzene	13.07	180	603	0.03	PPB		87
107) Naphthalene	13.25	128	6001	0.16	PPB		93

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

Data File : J:\MS18\DATA\050216\0502F027.D Vial: 27
Acq On : 3 May 2016 00:38 Operator: YX
Sample : K1604068-008 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:42 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration

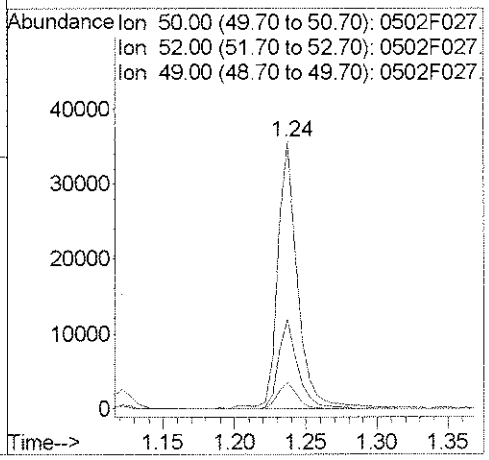


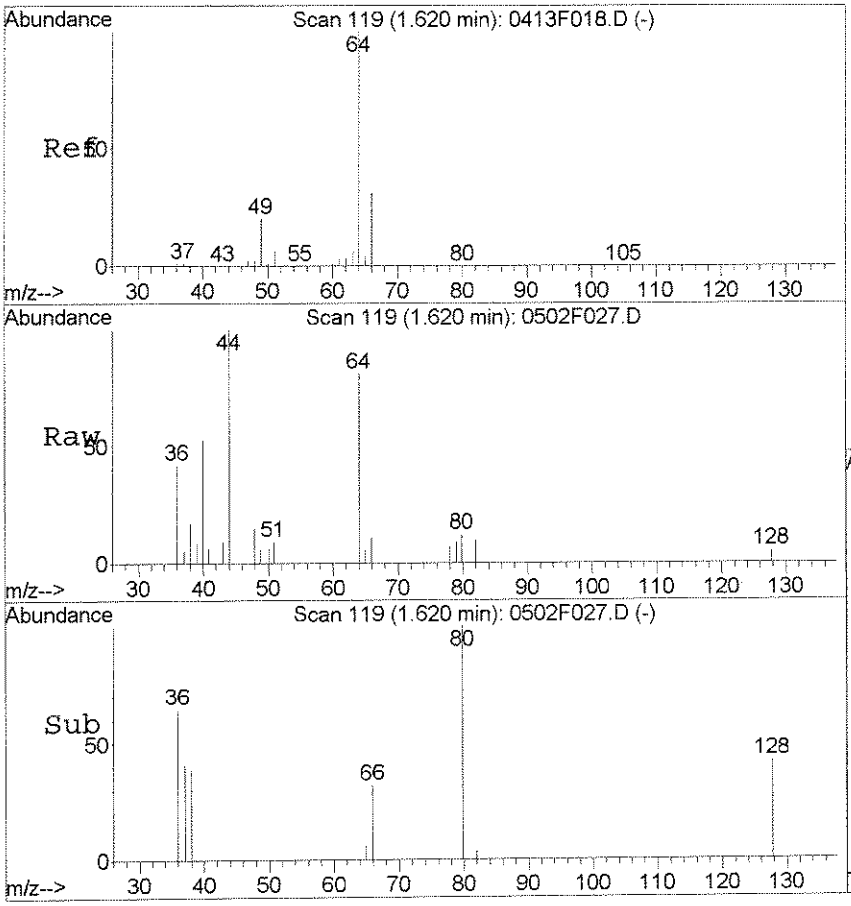


#3
Chloromethane
Concen: 1.66 PPB
RT: 1.24 min Scan# 46
Delta R.T. 0.01 min
Lab File: 0502F027.D
Acq: 3 May 2016 00:38

Tgt Ion: 50 Resp: 34845

Ion	Ratio	Lower	Upper
50	100		
52	33.4	1.5	61.5
49	9.7	0.0	39.2

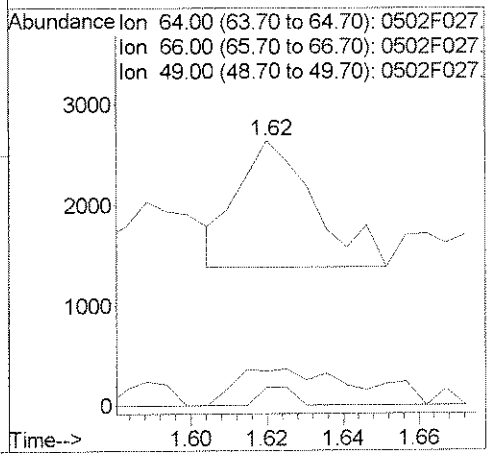


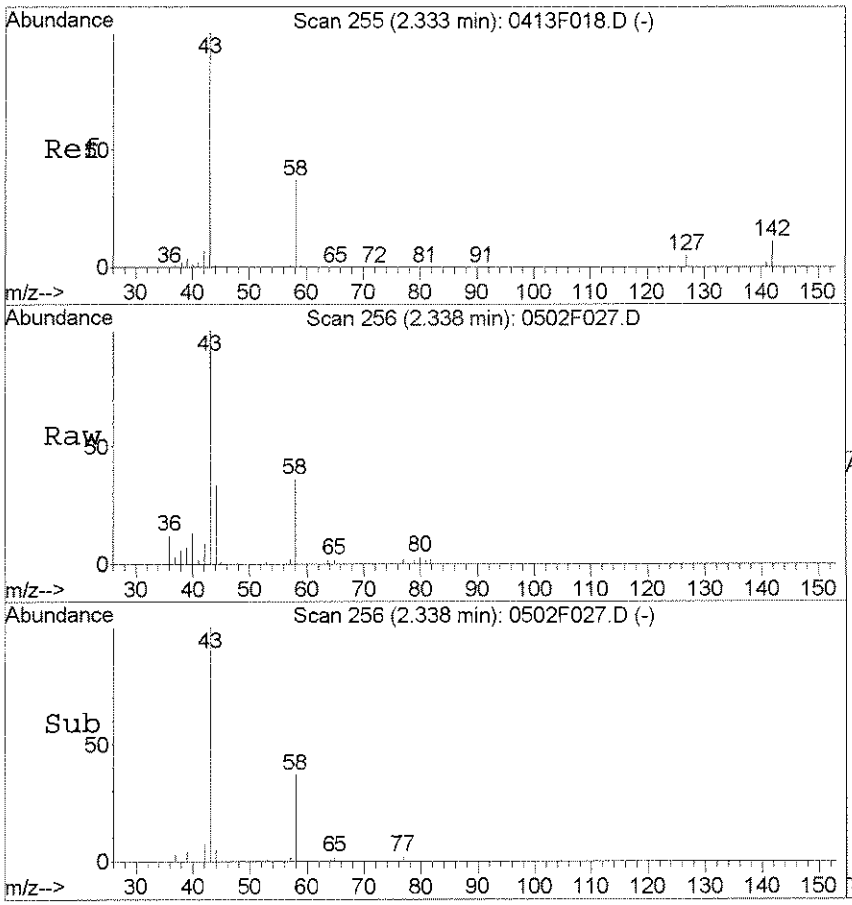


#7
Chloroethane
Concen: 0.14 PPB
RT: 1.62 min Scan# 119
Delta R.T. -0.00 min
Lab File: 0502F027.D
Acq: 3 May 2016 00:38

Tgt Ion: 64 Resp: 1753

Ion	Ratio	Lower	Upper
64	100		
66	27.5	1.2	61.2
49	14.8	0.0	50.2

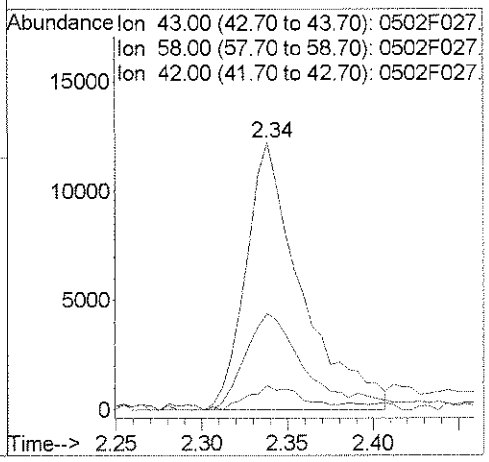


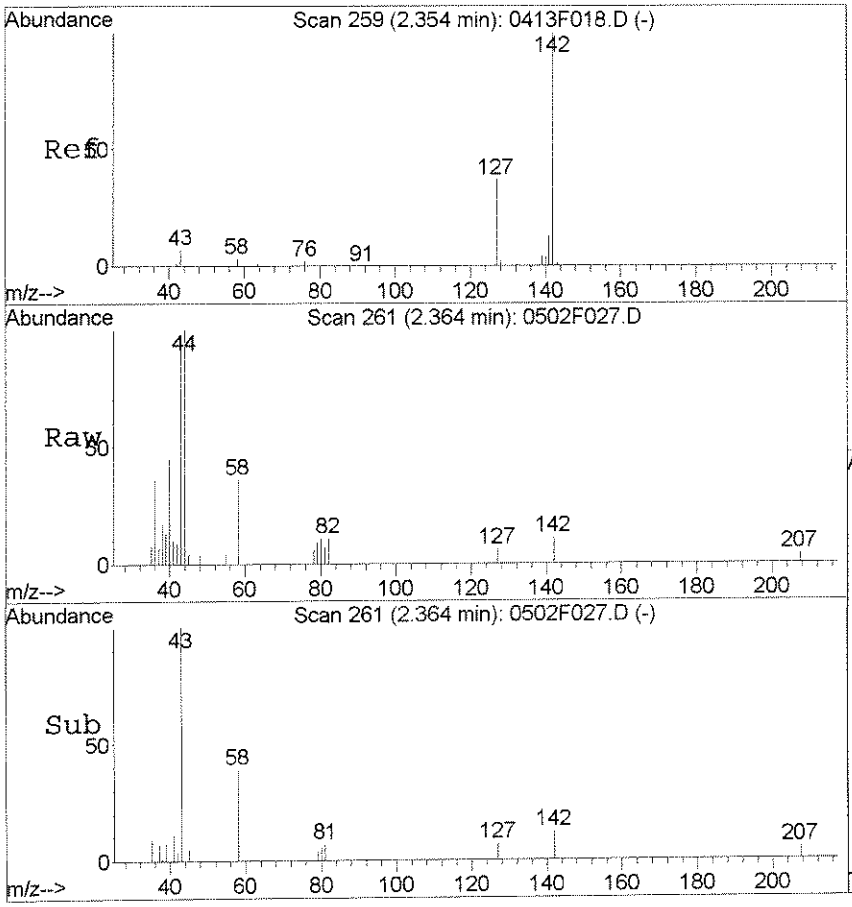


#14
Acetone
Concen: 13.32 PPB
RT: 2.34 min Scan# 256
Delta R.T. 0.01 min
Lab File: 0502F027.D
Acq: 3 May 2016 00:38

Tgt Ion: 43 Resp: 27469

Ion	Ratio	Lower	Upper
43	100		
58	36.0	6.9	66.9
42	9.0	0.0	36.8

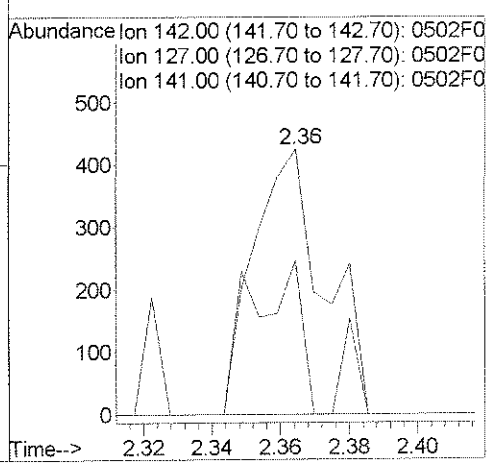


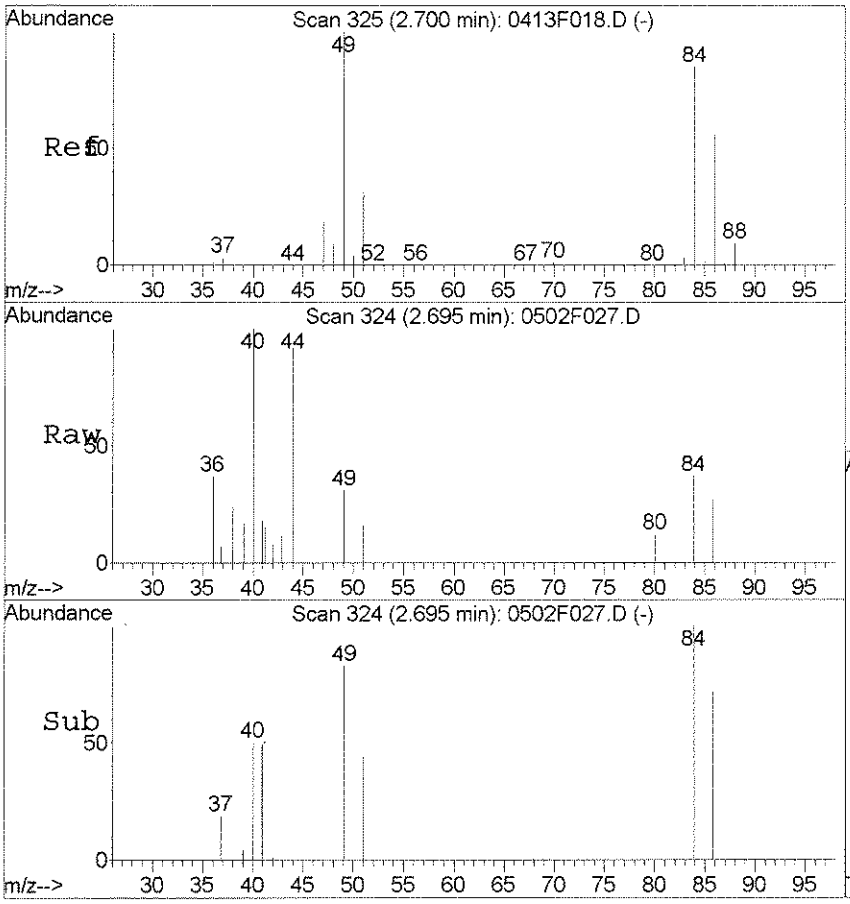


#15
Iodomethane
Concen: 0.04 PPB
RT: 2.36 min Scan# 261
Delta R.T. 0.01 min
Lab File: 0502F027.D
Acq: 3 May 2016 00:38

Tgt Ion:142 Resp: 604

Ion	Ratio	Lower	Upper
142	100		
127	57.9	7.4	67.4
141	0.0	0.0	43.4

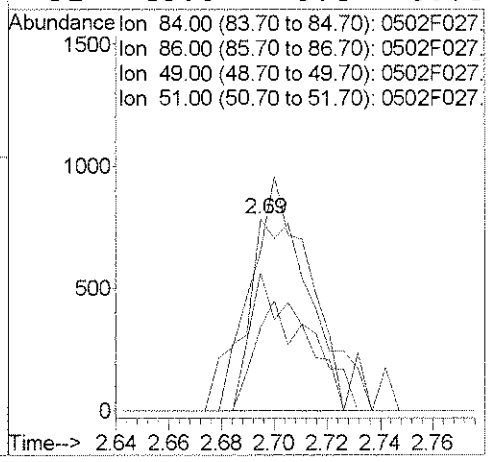


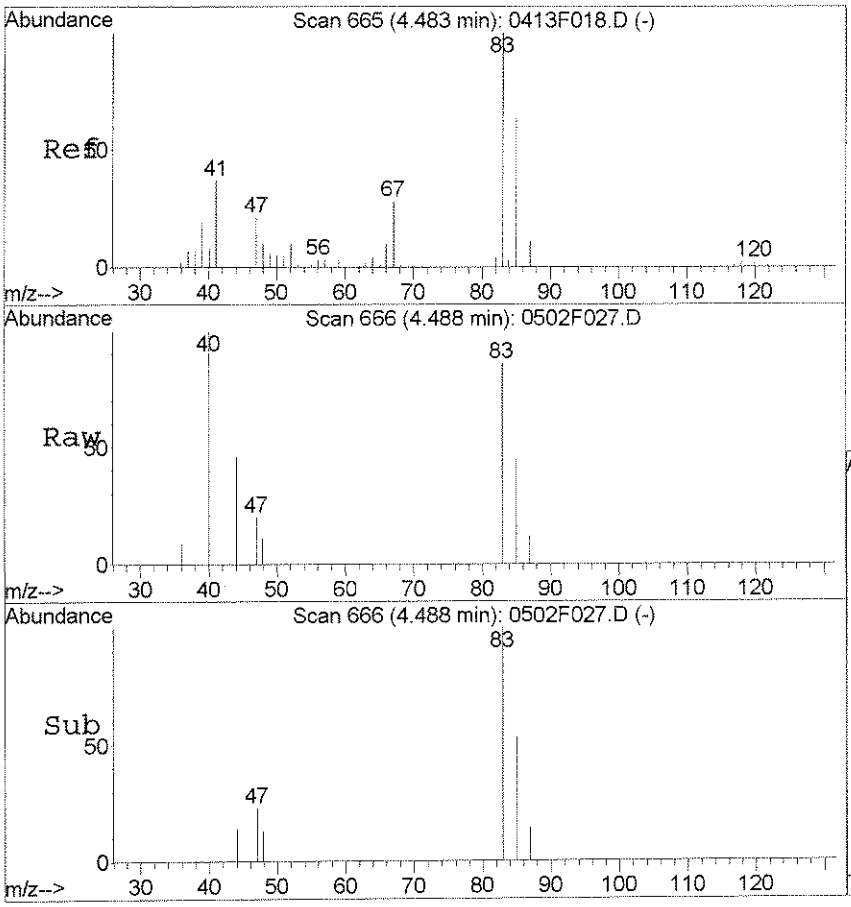


#21
Methylene Chloride
Concen: 0.08 PPB
RT: 2.69 min Scan# 324
Delta R.T. -0.01 min
Lab File: 0502F027.D
Acq: 3 May 2016 00:38

Tgt Ion: 84 Resp: 1404

Ion	Ratio	Lower	Upper
84	100		
86	71.8	35.6	95.6
49	82.8	87.0	147.0#
51	43.6	6.4	66.4

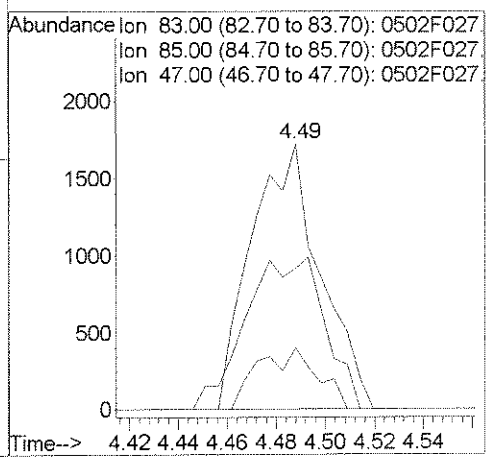


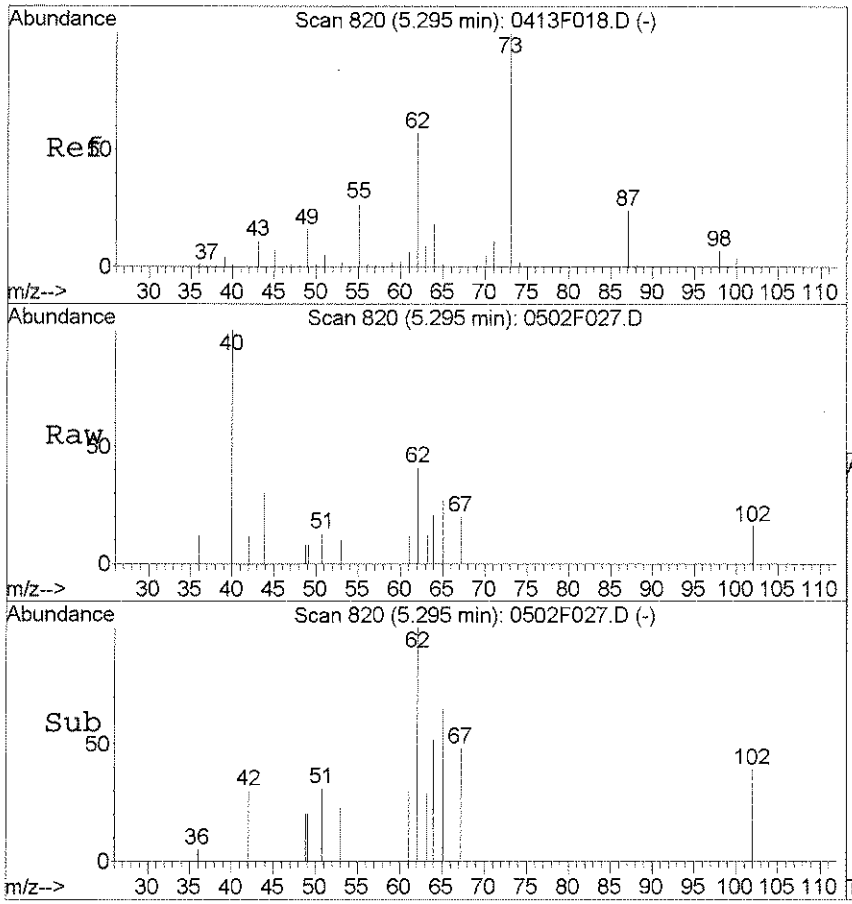


#40
Chloroform
Concen: 0.13 PPB
RT: 4.49 min Scan# 666
Delta R.T. 0.01 min
Lab File: 0502F027.D
Acq: 3 May 2016 00:38

Tgt Ion: 83 Resp: 3356

Ion	Ratio	Lower	Upper
83	100		
85	53.1	33.9	93.9
47	23.2	0.0	50.9

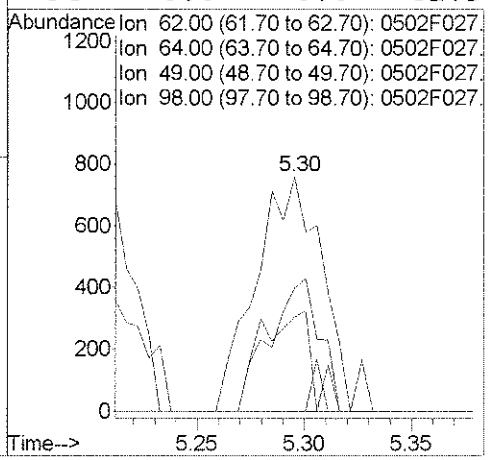


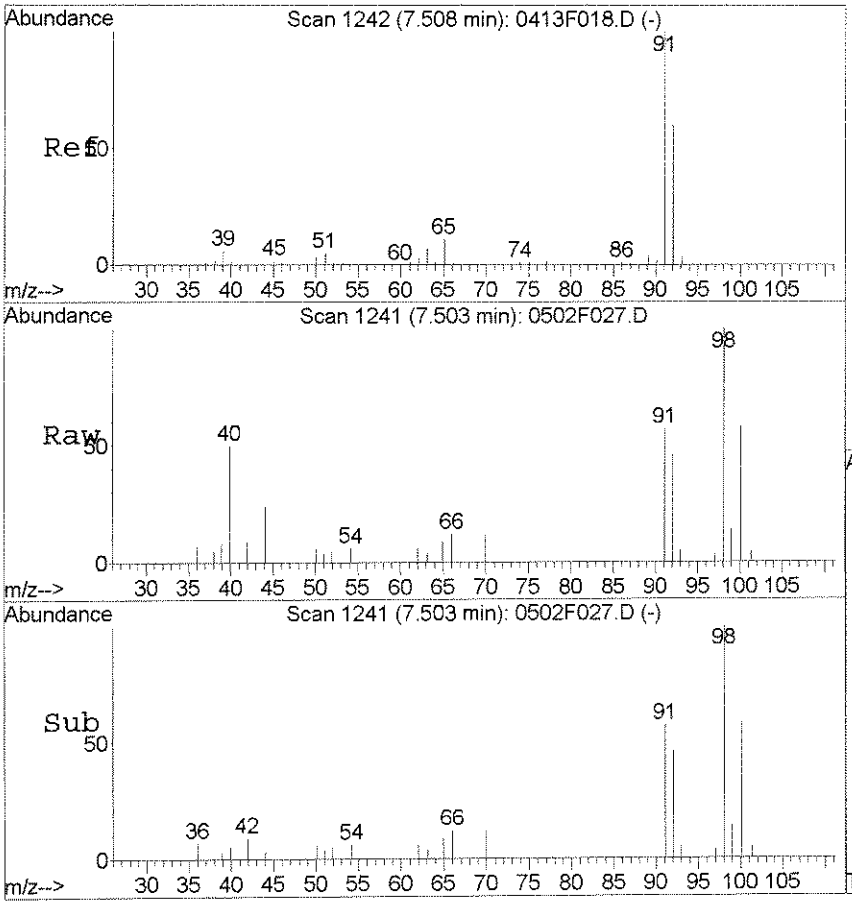


#50
1,2-Dichloroethane
Concen: 0.09 PPB
RT: 5.30 min Scan# 820
Delta R.T. 0.01 min
Lab File: 0502F027.D
Acq: 3 May 2016 00:38

Tgt Ion: 62 Resp: 1658

Ion	Ratio	Lower	Upper
62	100		
64	52.2	2.3	62.3
49	39.7	0.0	58.1
98	0.0	0.0	41.9

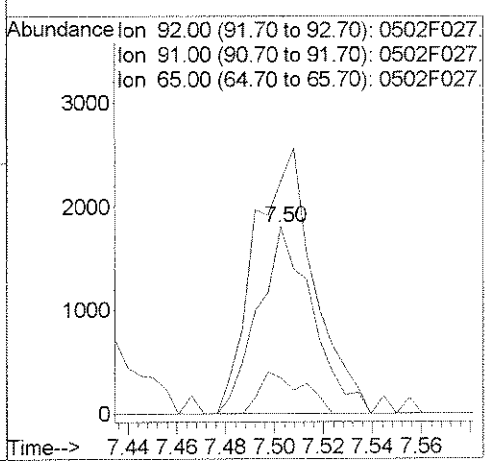


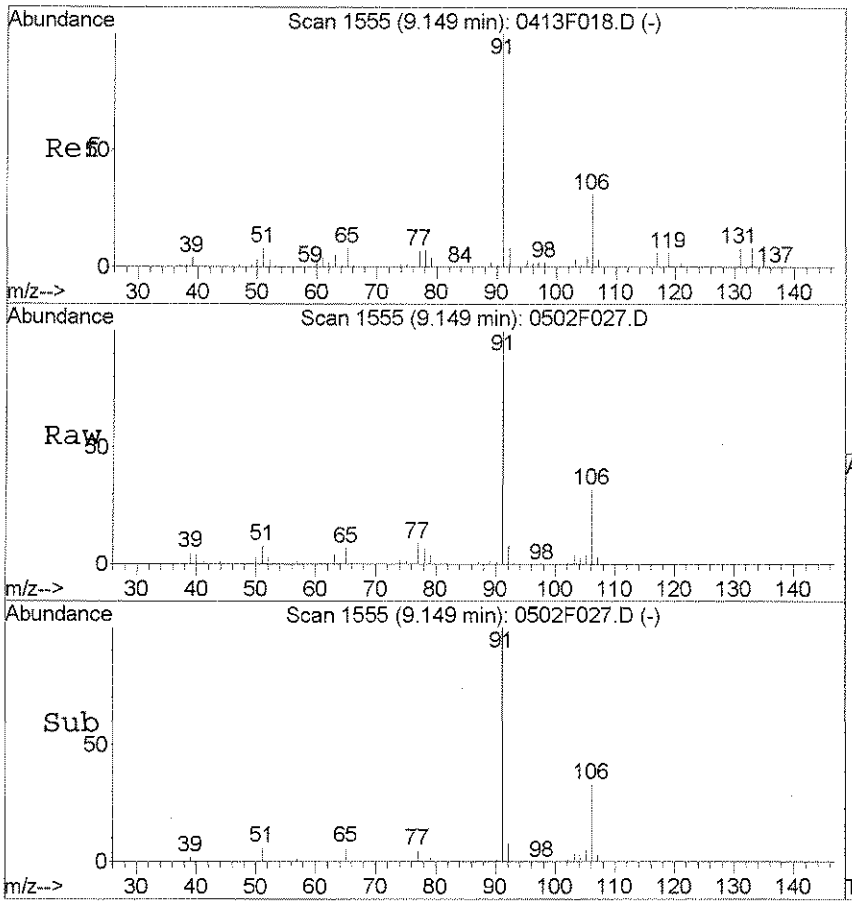


#64
Toluene
Concen: 0.06 PPB
RT: 7.50 min Scan# 1241
Delta R.T. -0.01 min
Lab File: 0502F027.D
Acq: 3 May 2016 00:38

Tgt Ion: 92 Resp: 2777

Ion	Ratio	Lower	Upper
92	100		
91	124.7	135.4	195.4#
65	19.2	0.0	48.4

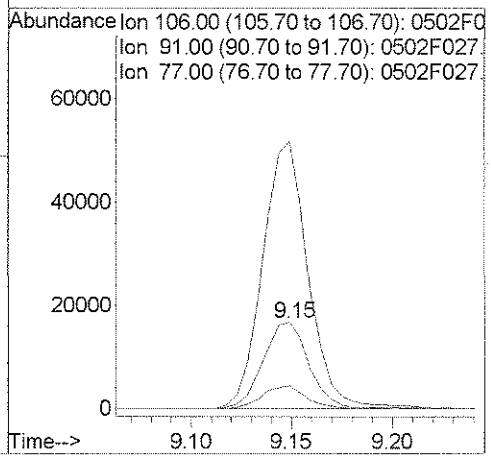


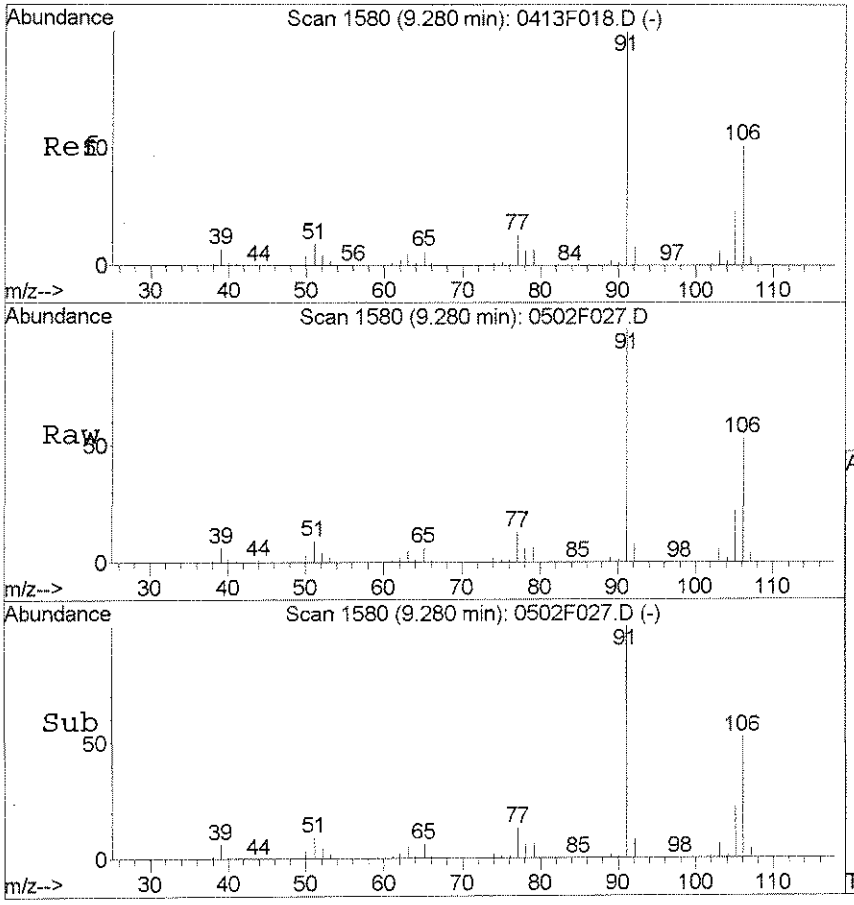


#77
Ethylbenzene
Concen: 1.09 PPB
RT: 9.15 min Scan# 1555
Delta R.T. -0.00 min
Lab File: 0502F027.D
Acq: 3 May 2016 00:38

Tgt Ion:106 Resp: 26476

Ion	Ratio	Lower	Upper
106	100		
91	310.0	287.8	347.8
77	26.6	0.0	55.1

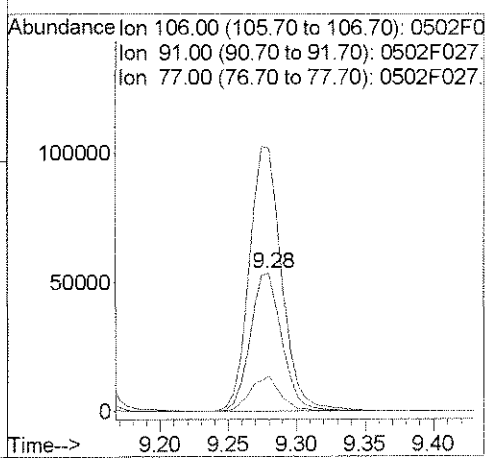


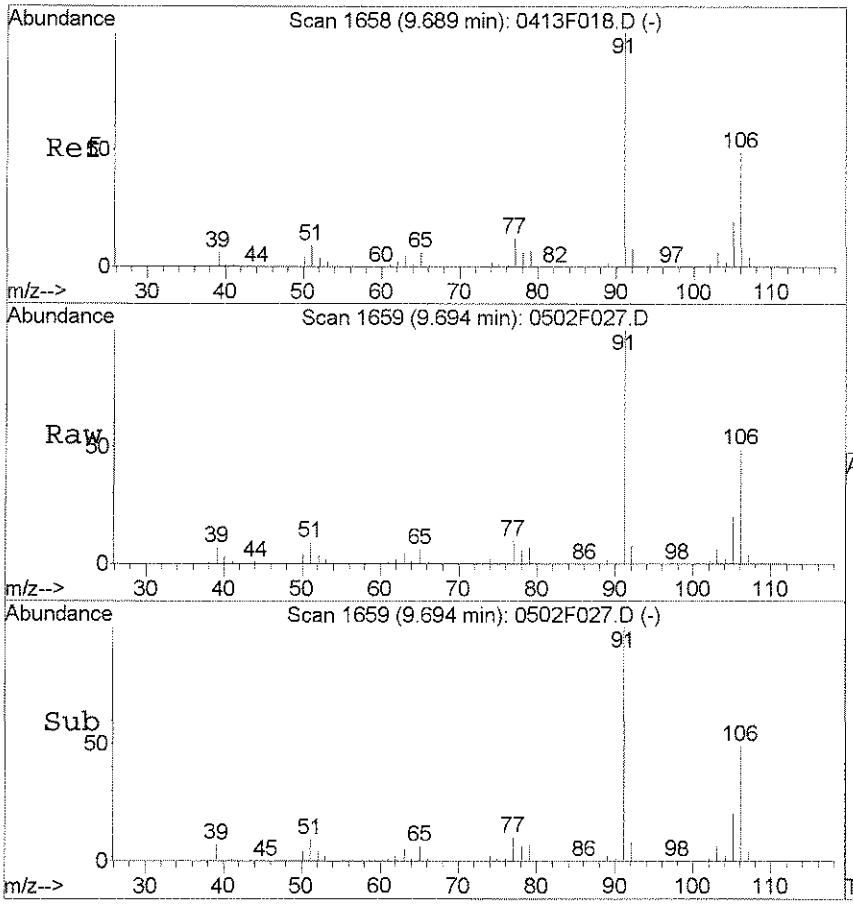


#79
m,p-Xylenes
Concen: 2.89 PPB
RT: 9.28 min Scan# 1580
Delta R.T. -0.00 min
Lab File: 0502F027.D
Acq: 3 May 2016 00:38

Tgt Ion:106 Resp: 86799

Ion	Ratio	Lower	Upper
106	100		
91	190.5	168.0	228.0
77	25.6	0.0	55.2

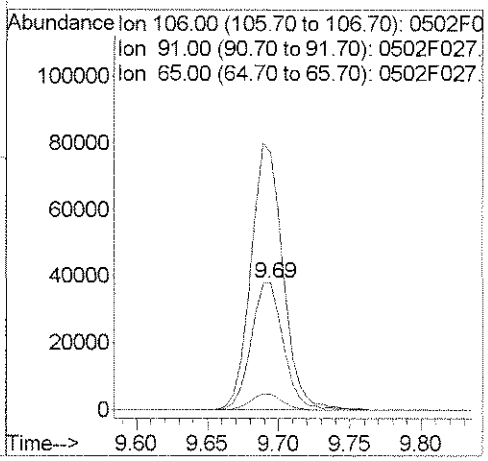


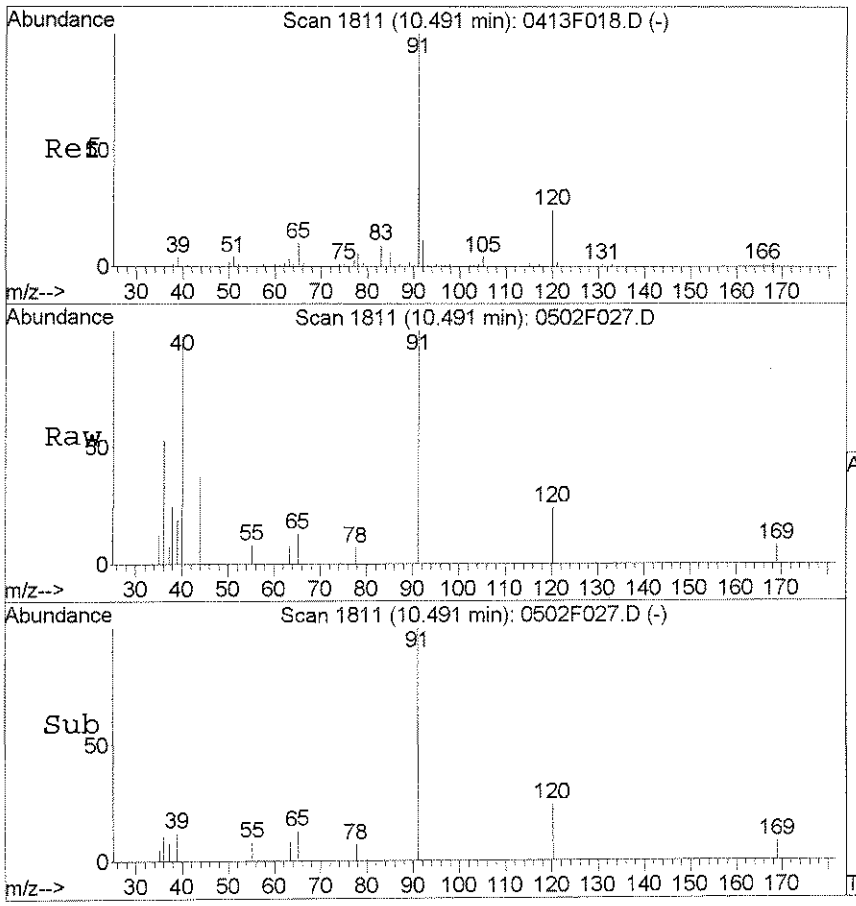


#80
o-Xylene
Concen: 2.10 PPB
RT: 9.69 min Scan# 1659
Delta R.T. -0.00 min
Lab File: 0502F027.D
Acq: 3 May 2016 00:38

Tgt Ion:106 Resp: 60757

Ion	Ratio	Lower	Upper
106	100		
91	203.3	176.1	236.1
65	13.0	0.0	42.9

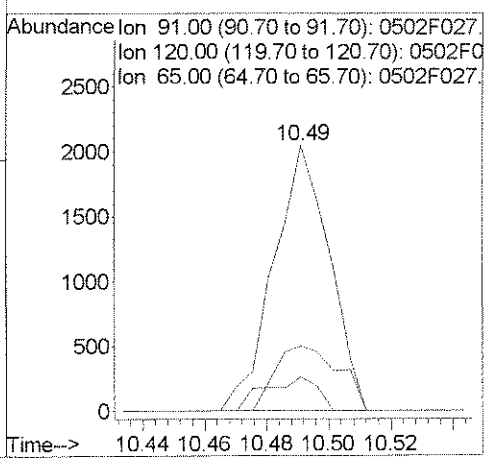


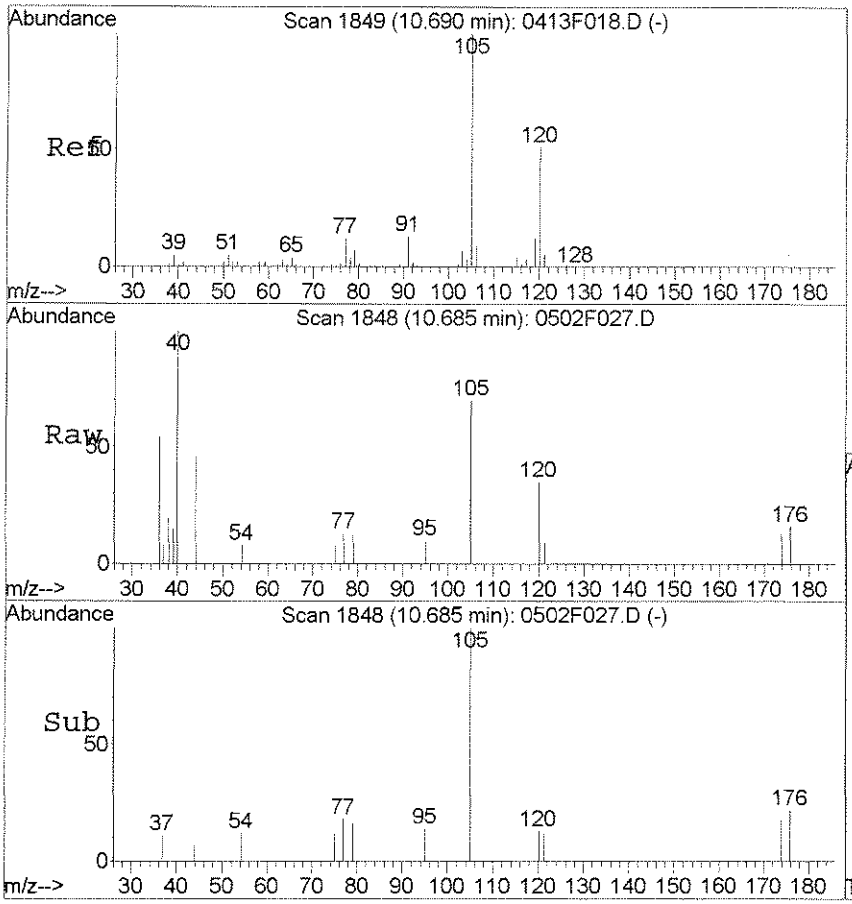


#90
n-Propylbenzene
Concen: 0.03 PPB
RT: 10.49 min Scan# 1811
Delta R.T. -0.00 min
Lab File: 0502F027.D
Acq: 3 May 2016 00:38

Tgt Ion: 91 Resp: 2564

Ion	Ratio	Lower	Upper
91	100		
120	24.4	0.0	53.7
65	12.8	0.0	39.5

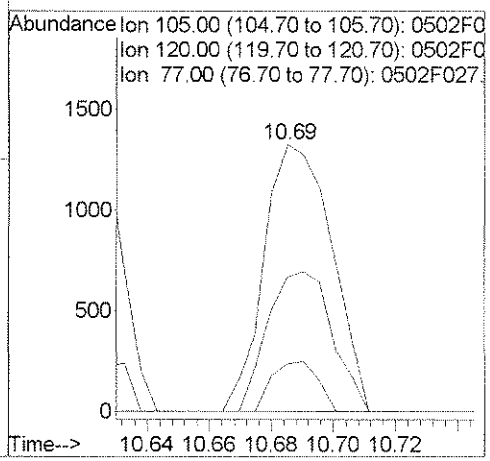


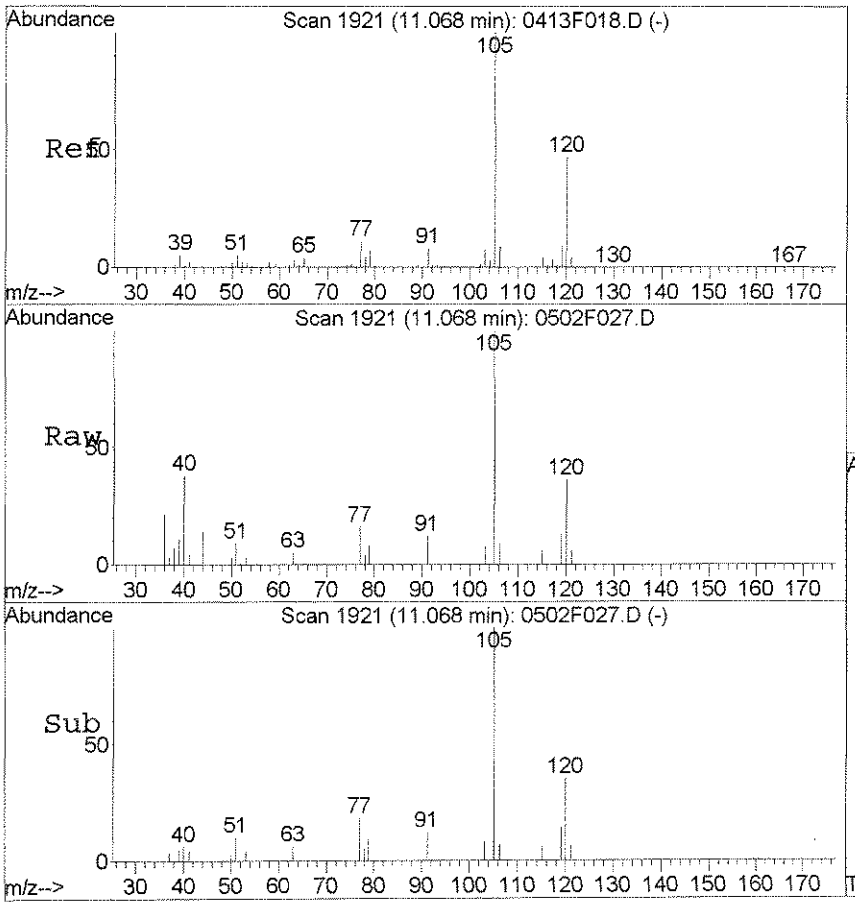


#93
1,3,5-Trimethylbenzene
Concen: 0.03 PPB
RT: 10.69 min Scan# 1848
Delta R.T. -0.01 min
Lab File: 0502F027.D
Acq: 3 May 2016 00:38

Tgt Ion:105 Resp: 2019

Ion	Ratio	Lower	Upper
105	100		
120	50.4	21.3	81.3
77	18.1	0.0	41.7

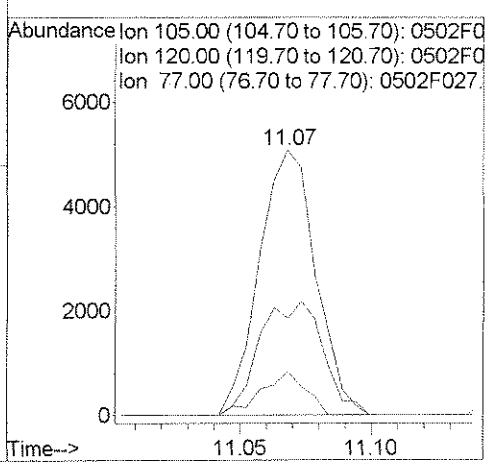


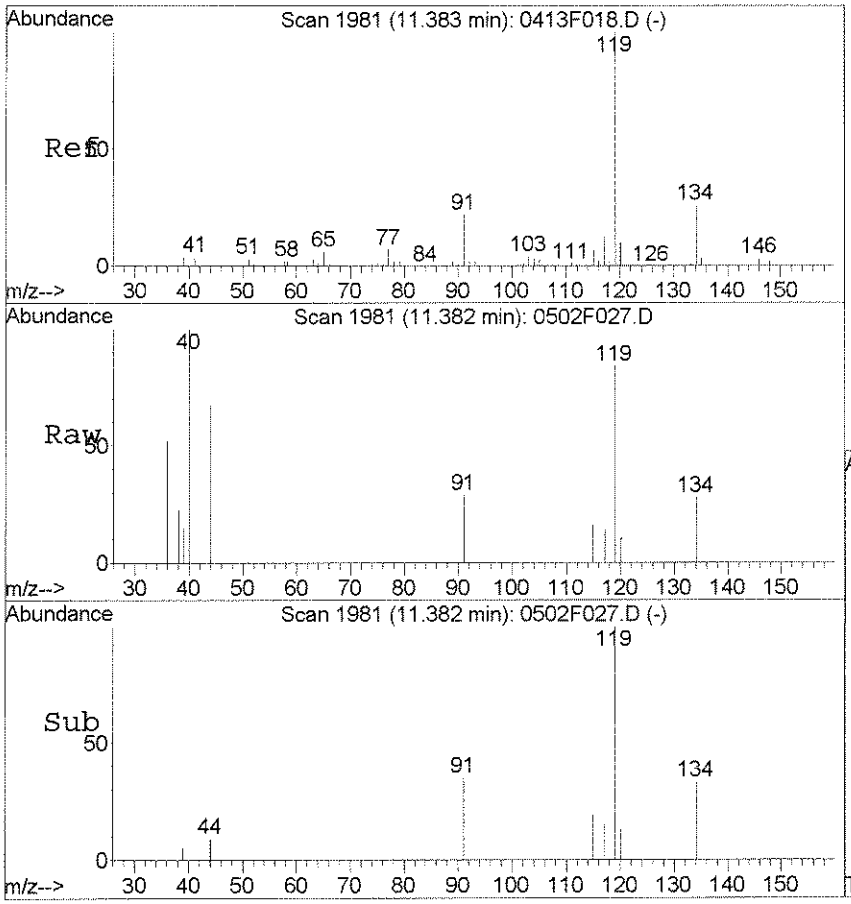


#96
1,2,4-Trimethylbenzene
Concen: 0.13 PPB
RT: 11.07 min Scan# 1921
Delta R.T. -0.00 min
Lab File: 0502F027.D
Acq: 3 May 2016 00:38

Tgt Ion:105 Resp: 7648

Ion	Ratio	Lower	Upper
105	100		
120	36.5	16.8	76.8
77	16.5	0.0	40.9

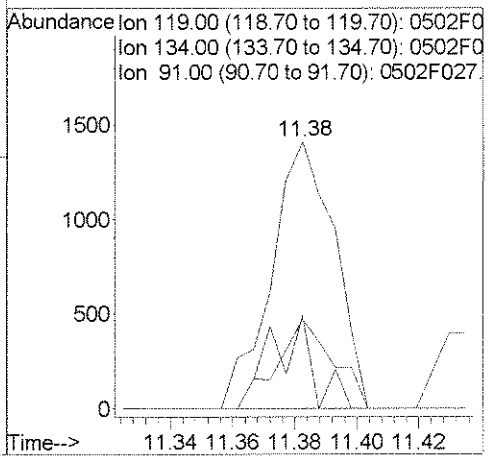


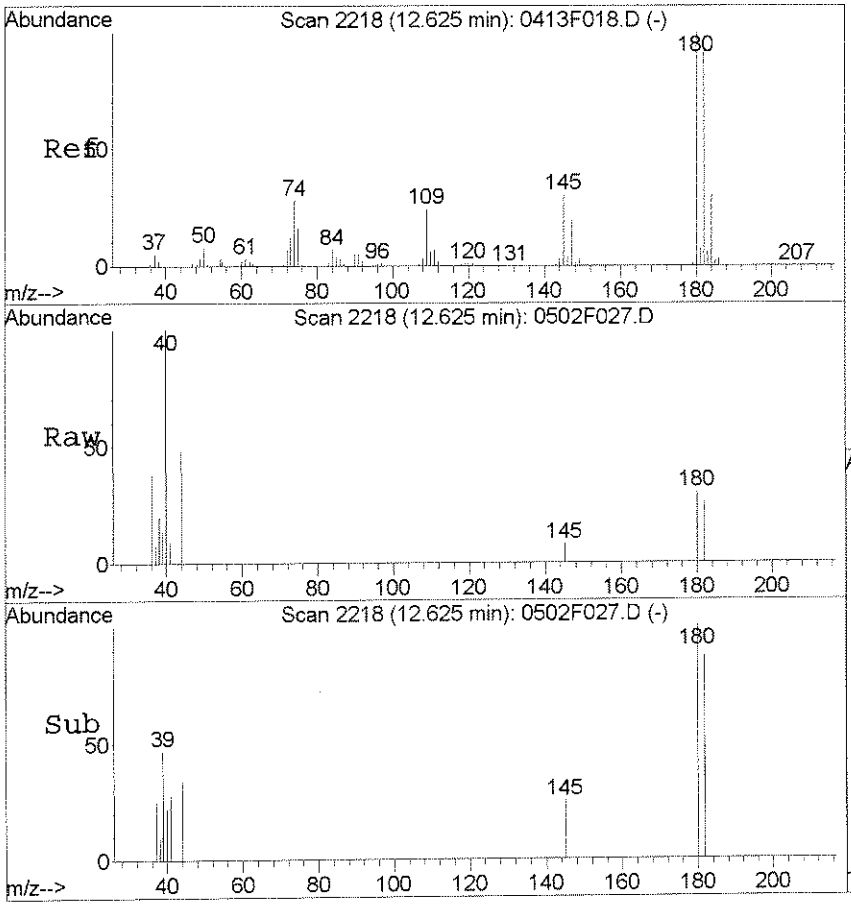


#98
p-Isopropyltoluene
Concen: 0.03 PPB
RT: 11.38 min Scan# 1981
Delta R.T. -0.00 min
Lab File: 0502F027.D
Acq: 3 May 2016 00:38

Tgt Ion:119 Resp: 1990

Ion	Ratio	Lower	Upper
119	100		
134	33.5	0.0	55.8
91	34.7	0.0	51.5

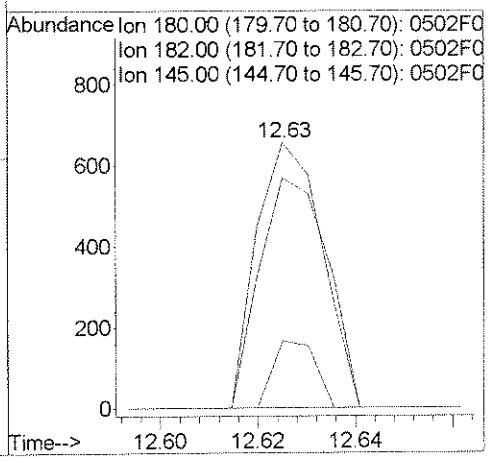


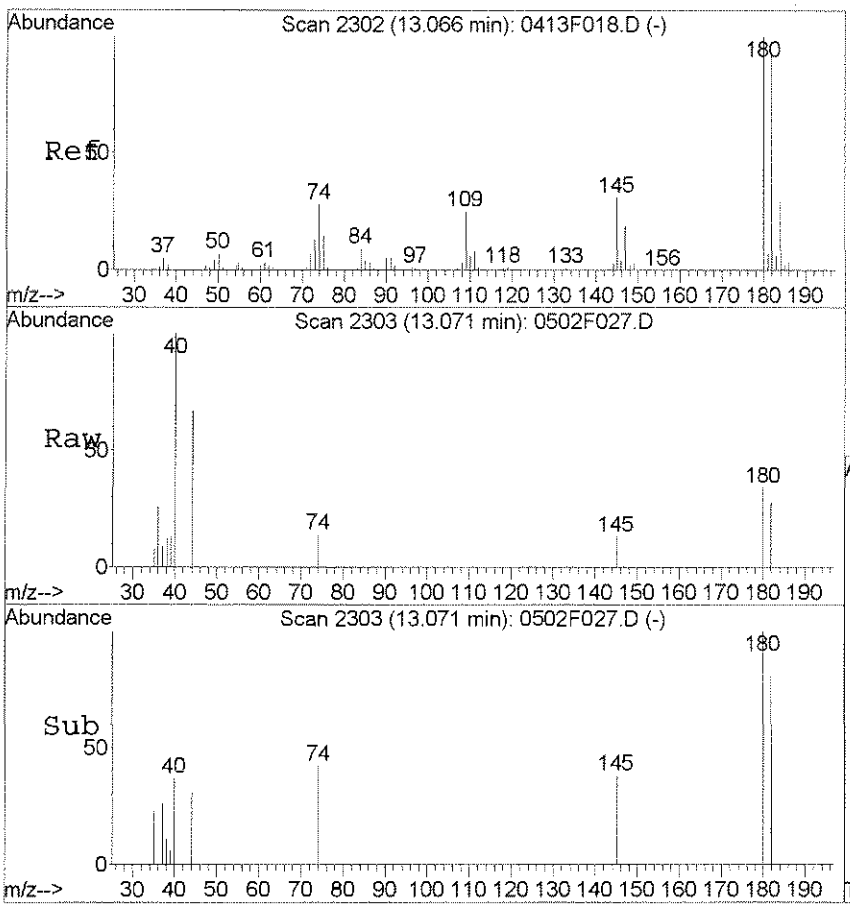


#104
1,3,5-Trichlorobenzene
Concen: 0.03 PPB
RT: 12.63 min Scan# 2218
Delta R.T. -0.00 min
Lab File: 0502F027.D
Acq: 3 May 2016 00:38

Tgt Ion:180 Resp: 611

Ion	Ratio	Lower	Upper
180	100		
182	86.7	63.4	123.4
145	25.3	0.1	60.1

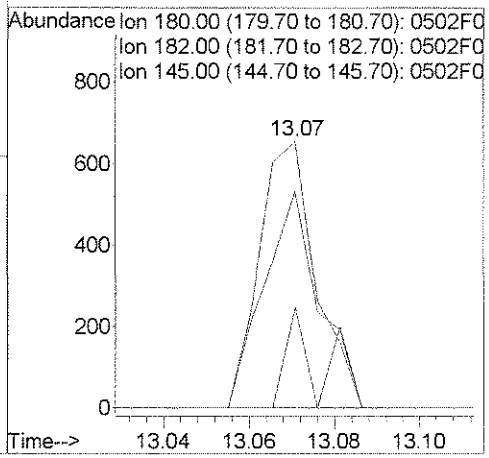


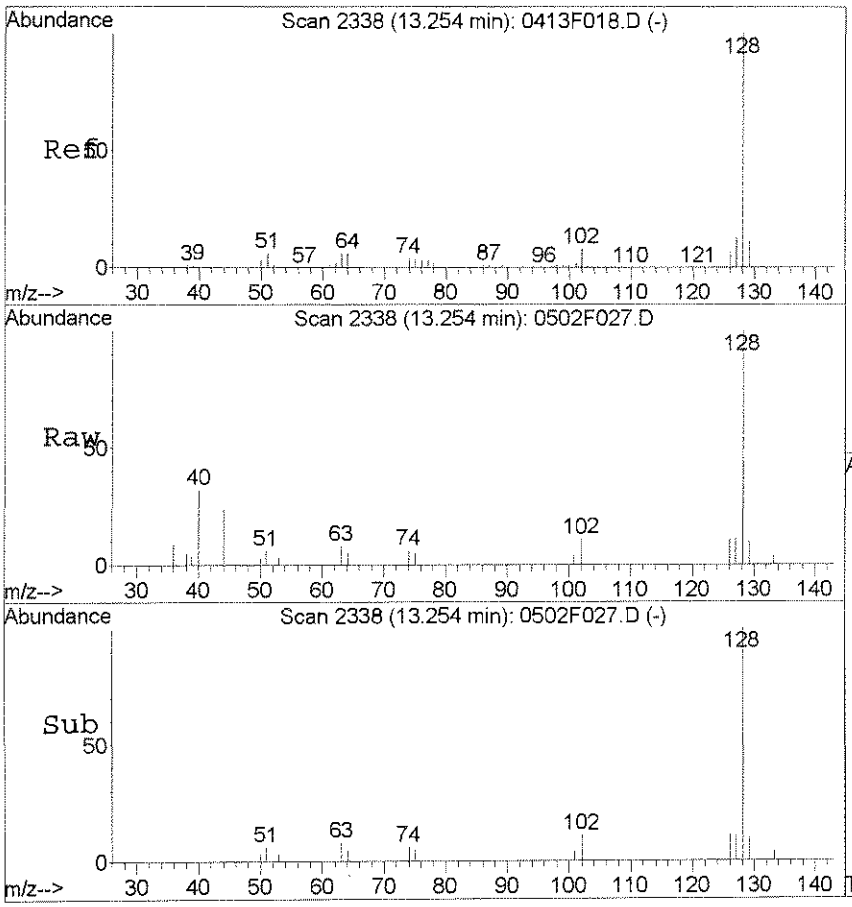


#105
1,2,4-Trichlorobenzene
Concen: 0.03 PPB
RT: 13.07 min Scan# 2303
Delta R.T. 0.01 min
Lab File: 0502F027.D
Acq: 3 May 2016 00:38

Tgt Ion:180 Resp: 603

Ion	Ratio	Lower	Upper
180	100		
182	81.4	63.2	123.2
145	37.9	0.6	60.6

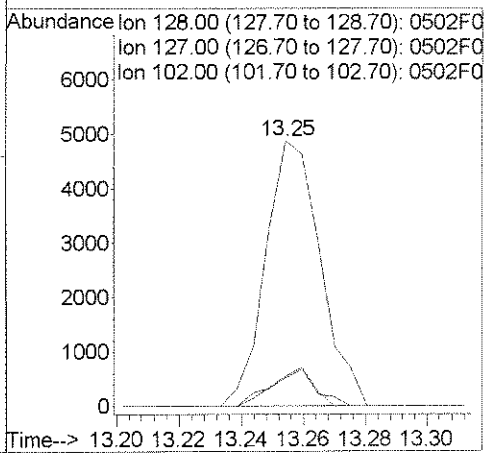




#107
Naphthalene
Concen: 0.16 PPB
RT: 13.25 min Scan# 2338
Delta R.T. -0.00 min
Lab File: 0502F027.D
Acq: 3 May 2016 00:38

Tgt Ion:128 Resp: 6001

Ion	Ratio	Lower	Upper
128	100		
127	10.7	0.0	42.7
102	11.4	0.0	37.7



Exception Report

Data File: J:\MS18\DATA\050216\0502F015.D
Lab ID: KWG1603424-4
RunType: MB
Matrix: WATER

Date Acquired: 05/02/2016 20:14
Date Quantitated: 05/03/2016 08:19
Batch ID: KWG1603423
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	Acetonitrile	0.0086	0.01	NA	NT
	tert-Butyl Alcohol	0.0095	0.01	NA	
	Isobutyl Alcohol	0.0037	0.01	NA	
	1,4-Dioxane	0.0017	0.01	NA	
Continuing Calibration Recovery	Chloromethane	-23.4	NA	20	
	Bromomethane	-24.2	NA	20	
	Iodomethane	-48.5	NA	20	
	Carbon Disulfide	-31.3	NA	20	
	n-Hexane	-20.7	NA	20	
	2,2-Dichloropropane	-24.5	NA	20	
	Carbon Tetrachloride	-24.0	NA	20	
	Cyclohexane	-24.7	NA	20	
	2-Nitropropane	-41.2	NA	20	

Primary Review: 5/3/16

Secondary Review: 5/3/16

Exception Report

Data File: J:\MS18\DATA\050216\0502F015.D
Lab ID: KWG1603424-4
RunType: MB
Matrix: WATER

Date Acquired: 05/02/2016 20:14
Date Quantitated: 05/03/2016 08:19
Batch ID: KWG1603423
Analysis Method: 8260C
MethodJoinID: MJ119

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	trans-1,3-Dichloropropene	-21.3	NA	20	NT
	Bromoform	-24.4	NA	20	
	cis-1,4-Dichloro-2-butene	-36.1	NA	20	
	1,2-Dibromo-3-chloropropane	-22.5	NA	20	
Continuing Calibration Minimum RF	Acetonitrile	0.0087	0.01	NA	
	tert-Butyl Alcohol	0.0081	0.01	NA	
	Isobutyl Alcohol	0.0032	0.01	NA	
	1,4-Dioxane	0.0017	0.01	NA	

Primary Review: 5/3/16

Secondary Review: 5/3/16

Printed: 05/03/2016 10:05:59
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS18\DATA\050216\0502F015.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 20:14	**Quant Date:**	05/03/2016 08:19	**Vial:**	15
Run Type:	MB	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603424-4			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	05/03/2016

Analysis Lot:	KWG1603423	**Prep Lot:**	KWG1603424	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514327	**Prep Date:**	05/02/2016		

Quant Method:	J:\MS18\METHODS\041316MS18_8	**Calibration ID:**	CAL14682
Title:			
Tune Ref:	J:\MS18\DATA\050216\0502F007.D	**Method ID:**	MJ1465
MB Ref:		**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.55	0.00	96	665369	10.00	OK
2	Chlorobenzene-d5	9.02	0.00	82	252175	10.00	OK
3	1,4-Dichlorobenzene-d4	11.43	0.00	152	232882	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	4.70	0.00	0.00	113	118725	9.01	90	80-119	OK	
1	1,2-Dichloroethane-d4	5.19	0.00	0.00	65	149097	9.79	98	81-118	OK	
1	Toluene-d8	7.43	0.00	0.00	98	617997	10.38	104	89-112	OK	
2	4-Bromofluorobenzene	10.27	0.00	0.00	95	206269	9.40	94	85-114	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0		0.13	U	
1	Chloromethane				50	0		0.068	U	
1	Vinyl Chloride				62	0		0.075	U	
1	1,3-Butadiene				54	0		0.075	U	
1	Bromomethane	1.55		0.00	96	884	0.0800	0.16	U	
1	Chloroethane				64	0		0.16	U	
1	Dichlorofluoromethane (CFC 21				67	0		0.065	U	
1	Trichlorofluoromethane				101	0		0.12	U	
1	Diethyl Ether				59	0		0.075	U	
1	Acrolein				56	0		1.2	U	
1	Trichlorotrifluoroethane				151	0		0.13	U	
1	1,1-Dichloroethene				96	0		0.080	U	
1	Acetone	2.34	0.01	0.00	43	1607	0.7600	3.3	U	
1	Iodomethane	2.35		0.00	142	2399	0.1400	0.140	J	

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J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\050216\0502F015.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 20:14	**Quant Date:**	05/03/2016 08:19	**Vial:**	15
Run Type:	MB	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603424-4			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide				76	0d		0.069	U	
1	2-Propanol				45	0		17	U	
1	3-Chloro-1-propene				76	0d		0.094	U	
1	Methyl Acetate				43	0d		0.38	U	
1	Acetonitrile				40	0d		13	U	
1	Methylene Chloride	2.71	0.01	0.00	84	1470	0.0800	0.10	U	
1	tert-Butyl Alcohol				59	0		4.4	U	
1	Acrylonitrile				53	0		0.53	U	
1	Methyl tert-Butyl Ether				73	0		0.11	U	
1	trans-1,2-Dichloroethene				96	0		0.072	U	
1	n-Hexane	3.10		0.00	57	1507	0.0900	0.0900	J	
1	Diisopropyl Ether				45	0		0.048	U	
1	1,1-Dichloroethane				63	0		0.077	U	
1	Vinyl Acetate				86	0		0.43	U	
1	Chloroprene				53	0		3.6	U	
1	tert-Butyl Ethyl Ether				59	0		0.048	U	
1	2,2-Dichloropropane				77	0		0.065	U	
1	cis-1,2-Dichloroethene				96	0		0.067	U	
1	2-Butanone (MEK)				72	0		1.9	U	
1	Propionitrile				54	0		1.1	U	
1	Ethyl Acetate				61	0		0.57	U	
1	Methacrylonitrile				67	0		0.35	U	
1	Bromochloromethane				128	0		0.16	U	
1	Tetrahydrofuran				71	0		0.94	U	
1	Chloroform	4.48		0.00	83	1625	0.0600	0.072	U	
1	tert-Butyl Formate				59	0		0.26	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.075	U	
1	Carbon Tetrachloride				117	0		0.096	U	
1	1,1-Dichloropropene				75	0		0.089	U	
1	Cyclohexane				56	0		0.36	U	
1	Isobutyl Alcohol				43	0		6.9	U	
1	Benzene				78	0d		0.062	U	
1	1,2-Dichloroethane (EDC)				62	0		0.080	U	
1	tert-Amyl Methyl Ether				55	0d		0.12	U	
1	Trichloroethene (TCE)				95	0		0.10	U	
1	1,2-Dichloropropane				63	0		0.095	U	
1	Dibromomethane				93	0		0.15	U	
1	Methyl Methacrylate				69	0		0.13	U	
1	1,4-Dioxane				88	0		14	U	
1	Bromodichloromethane				83	0		0.091	U	
1	2-Nitropropane				41	0d		0.96	U	
1	Methylcyclohexane				83	0		0.33	U	

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*: Result fails acceptance criteria
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?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\050216\0502F015.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 20:14	**Quant Date:**	05/03/2016 08:19	**Vial:**	15
Run Type:	MB	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603424-4			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	2-Chloroethyl Vinyl Ether				63	0		0.16	U	
1	cis-1,3-Dichloropropene				75	0		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0**d**		2.6	U	
1	Toluene				92	0**d**		0.054	U	
2	trans-1,3-Dichloropropene				75	0		0.068	U	
2	Ethyl Methacrylate				69	0		0.15	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	2-Hexanone				57	0		2.7	U	
2	1,3-Dichloropropane				76	0		0.14	U	
2	Dibromochloromethane				129	0		0.14	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	1-Chlorohexane				91	0**d**		0.058	U	
2	Chlorobenzene				112	0**d**		0.11	U	
2	Ethylbenzene				106	0**d**		0.050	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes	9.28	0.01	0.00	106	1288	0.0400	0.11	U	
2	o-Xylene				106	0		0.074	U	
2	Styrene				103	0		0.089	U	
2	Bromoform				173	0		0.16	U	
2	Isopropylbenzene				105	0**d**		0.051	U	
2	cis-1,4-Dichloro-2-butene				89	0		1.4	U	
3	1,1,2,2-Tetrachloroethane				83	0		0.16	U	
3	trans-1,4-Dichloro-2-butene				53	0		0.35	U	
3	Bromobenzene				156	0		0.12	U	
3	n-Propylbenzene	10.48	-0.01	0.00	91	2563	0.0300	0.054	U	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	2-Chlorotoluene	10.59		0.00	91	1555	0.0300	0.10	U	
3	1,3,5-Trimethylbenzene	10.69		0.00	105	1593	0.0300	0.089	U	
3	4-Chlorotoluene	10.71		0.00	91	2172	0.0300	0.13	U	
3	tert-Butylbenzene				119	0**d**		0.059	U	
3	1,2,4-Trimethylbenzene	11.06	-0.01	0.00	105	1994	0.0300	0.069	U	
3	sec-Butylbenzene	11.23		0.00	105	1868	0.0300	0.062	U	
3	4-Isopropyltoluene	11.38		0.00	119	2130	0.0400	0.060	U	
3	1,3-Dichlorobenzene	11.36		0.00	146	1791	0.0500	0.10	U	
3	1,4-Dichlorobenzene	11.46		0.00	146	2125	0.0500	0.12	U	
3	n-Butylbenzene	11.79	-0.01	0.00	91	2938	0.0600	0.0600	J	
3	1,2-Dichlorobenzene	11.84		0.00	146	1420	0.0400	0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.22	U	
3	1,3,5-Trichlorobenzene	12.62	-0.01	0.00	180	2981	0.1400	0.140	J	
3	1,2,4-Trichlorobenzene	13.07		0.00	180	2347	0.1200	0.120	J	
3	Hexachlorobutadiene	13.15		0.00	225	1149	0.1600	0.160	J	

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D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\050216\0502F015.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 20:14	**Quant Date:**	05/03/2016 08:19	**Vial:**	15
Run Type:	MB	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603424-4			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	13.25		0.00	128	2214	0.0600	0.088	U	
3	1,2,3-Trichlorobenzene	13.44		0.00	180	1495	0.1000	0.11	U	

Prep Amount: 10 ml **Dilution:** 1.0
Prep Final Vol: 10 ml **Unit Factor:** 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS18\DATA\050216\0502F015.D Vial: 15
Acq On : 2 May 2016 20:14 Operator: YX
Sample : MB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 03 08:18:31 2016 Quant Results File: 041316MS18_8260

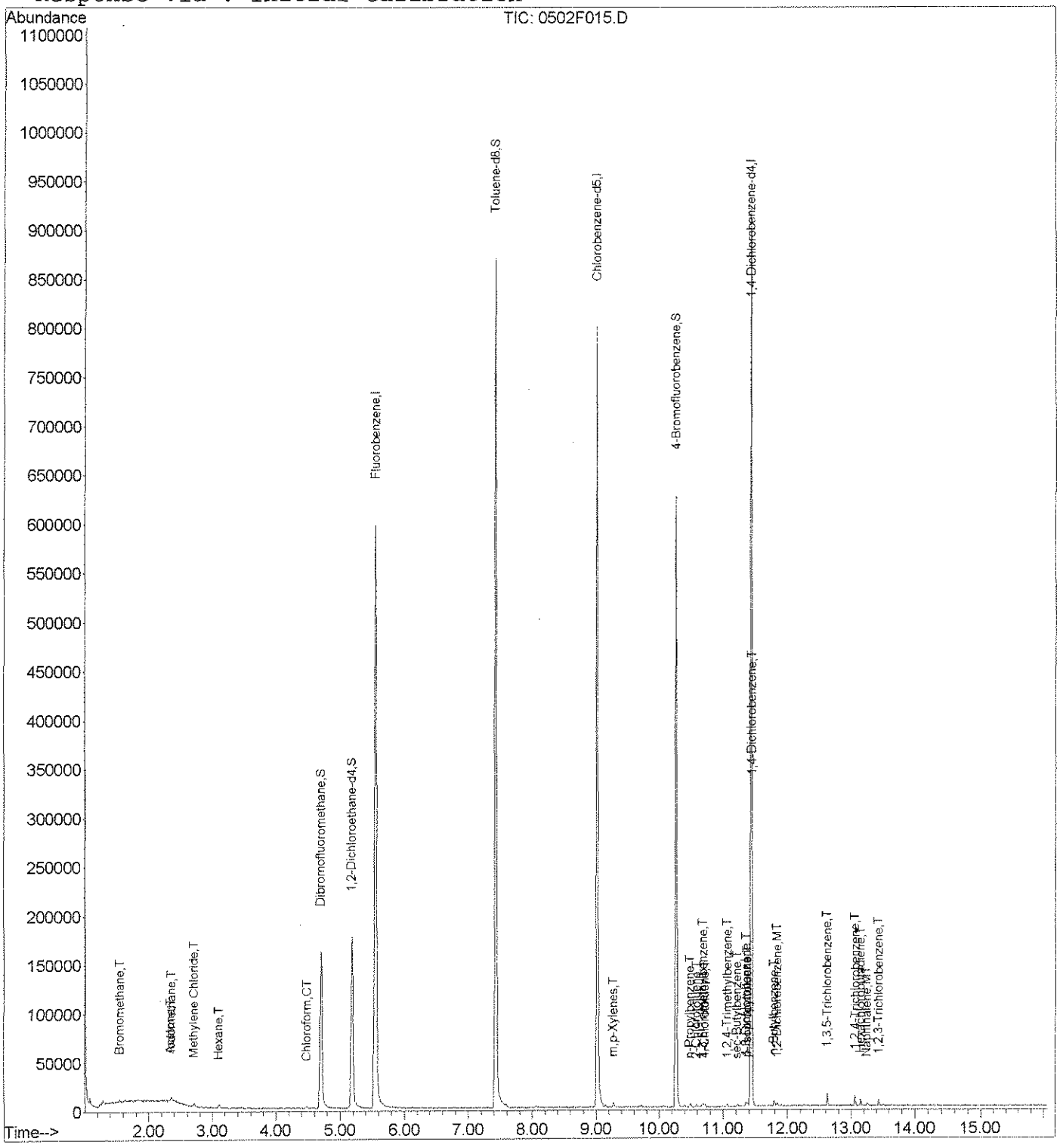
Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

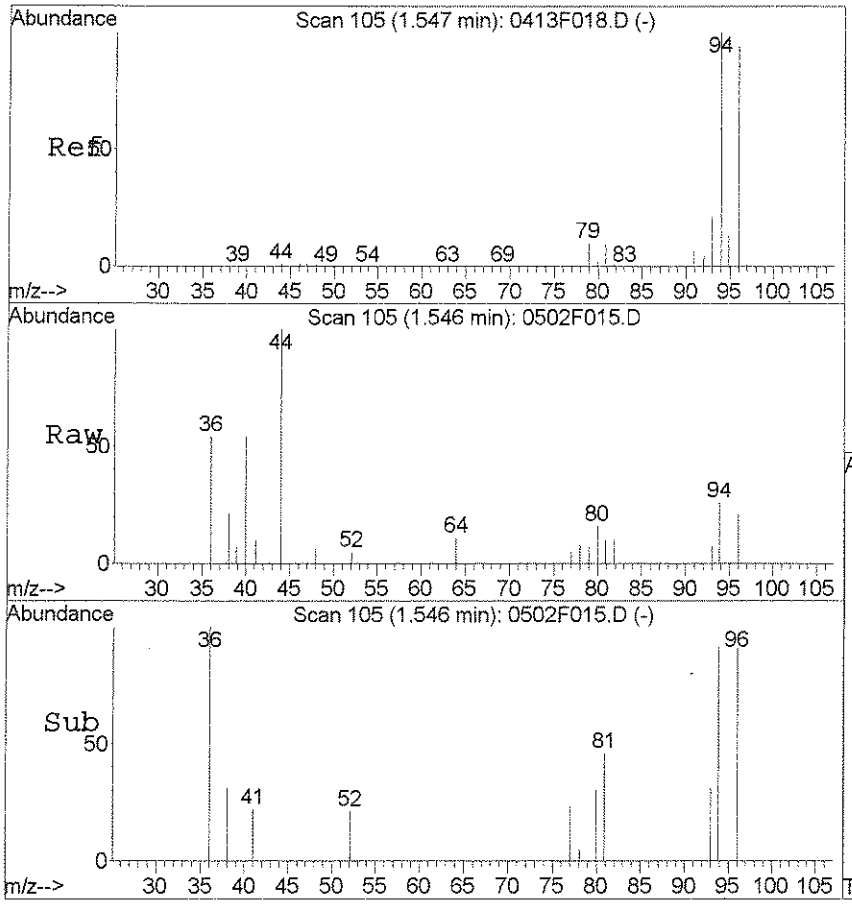
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.55	96	665369	10.00	PPB		0.00
65) Chlorobenzene-d5	9.02	82	252175	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.43	152	232882	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	4.70	113	118725	9.01	PPB		0.00
Spiked Amount 10.000			Recovery = 90.10%				
48) 1,2-Dichloroethane-d4	5.19	65	149097	9.79	PPB		0.00
Spiked Amount 10.000			Recovery = 97.90%				
63) Toluene-d8	7.43	98	617997	10.38	PPB		0.00
Spiked Amount 10.000			Recovery = 103.80%				
85) 4-Bromofluorobenzene	10.27	95	206269	9.40	PPB		0.00
Spiked Amount 10.000			Recovery = 94.00%				
Target Compounds							Qvalue
6) Bromomethane	1.55	96	884	0.08	PPB		92
14) Acetone	2.34	43	1607	0.76	PPB		83
15) Iodomethane	2.35	142	2399	0.14	PPB		97
21) Methylene Chloride	2.71	84	1470	0.08	PPB		86
26) Hexane	3.10	57	1507	0.09	PPB		93
40) Chloroform	4.48	83	1625	0.06	PPB		70
79) m,p-Xylenes	9.28	106	1288	0.04	PPB	#	70
90) n-Propylbenzene	10.48	91	2563	0.03	PPB		58
92) 2-Chlorotoluene	10.59	91	1555	0.03	PPB		90
93) 1,3,5-Trimethylbenzene	10.69	105	1593	0.03	PPB		97
94) 4-Chlorotoluene	10.71	91	2172	0.03	PPB		88
96) 1,2,4-Trimethylbenzene	11.06	105	1994	0.03	PPB		81
97) sec-Butylbenzene	11.23	105	1868	0.03	PPB		87
98) p-Isopropyltoluene	11.38	119	2130	0.04	PPB		85
99) 1,3-Dichlorobenzene	11.36	146	1791	0.05	PPB		86
100) 1,4-Dichlorobenzene	11.46	146	2125	0.05	PPB		79
101) n-Butylbenzene	11.79	91	2938	0.06	PPB		90
102) 1,2-Dichlorobenzene	11.84	146	1420	0.04	PPB		78
104) 1,3,5-Trichlorobenzene	12.62	180	2981	0.14	PPB		95
105) 1,2,4-Trichlorobenzene	13.07	180	2347	0.12	PPB		93
106) Hexachlorobutadiene	13.15	225	1149	0.16	PPB		90
107) Naphthalene	13.25	128	2214	0.06	PPB		92
108) 1,2,3-Trichlorobenzene	13.44	180	1495	0.10	PPB		92

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

Data File : J:\MS18\DATA\050216\0502F015.D Vial: 15
Acq On : 2 May 2016 20:14 Operator: YX
Sample : MB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:19 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration

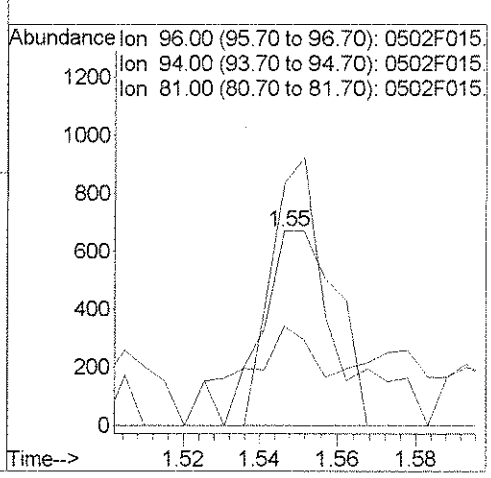


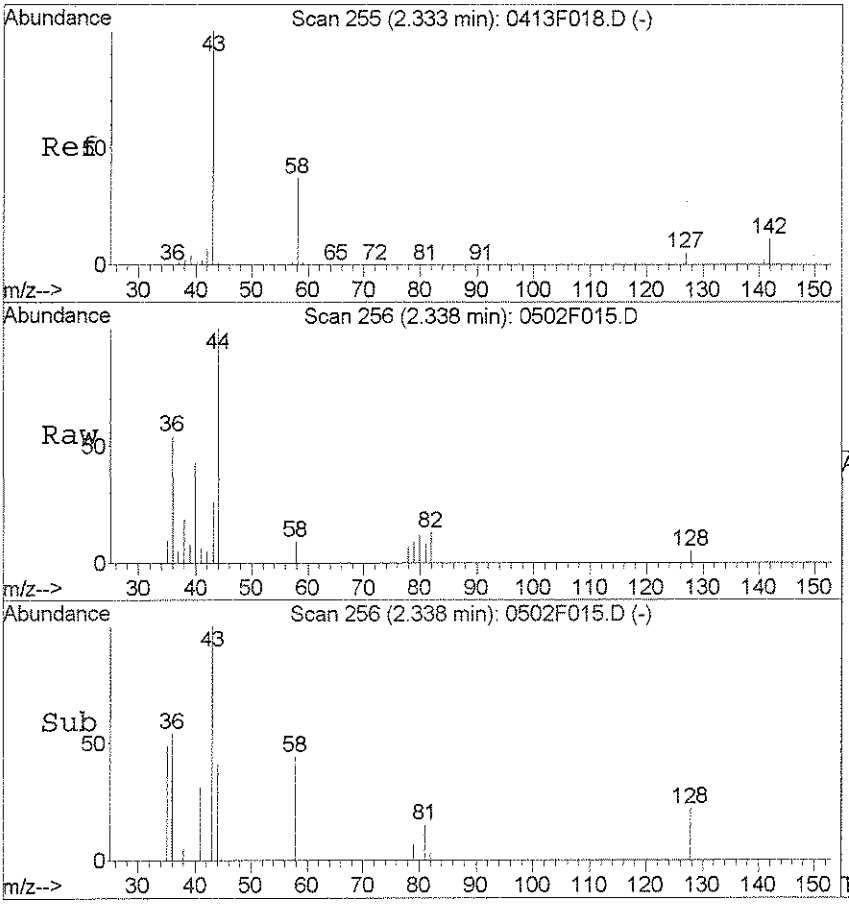


#6
Bromomethane
Concen: 0.08 PPB
RT: 1.55 min Scan# 105
Delta R.T. -0.00 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion: 96 Resp: 884

Ion	Ratio	Lower	Upper
96	100		
94	102.4	76.2	136.2
81	28.1	0.0	40.4

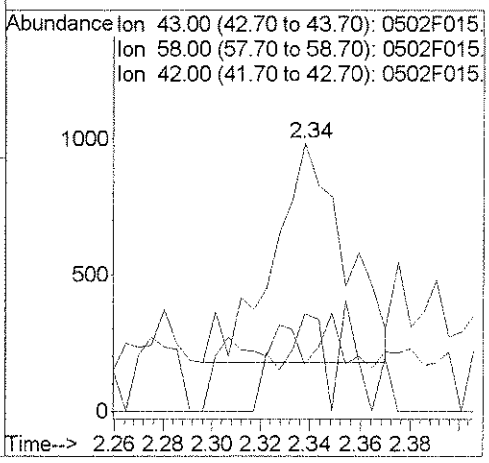


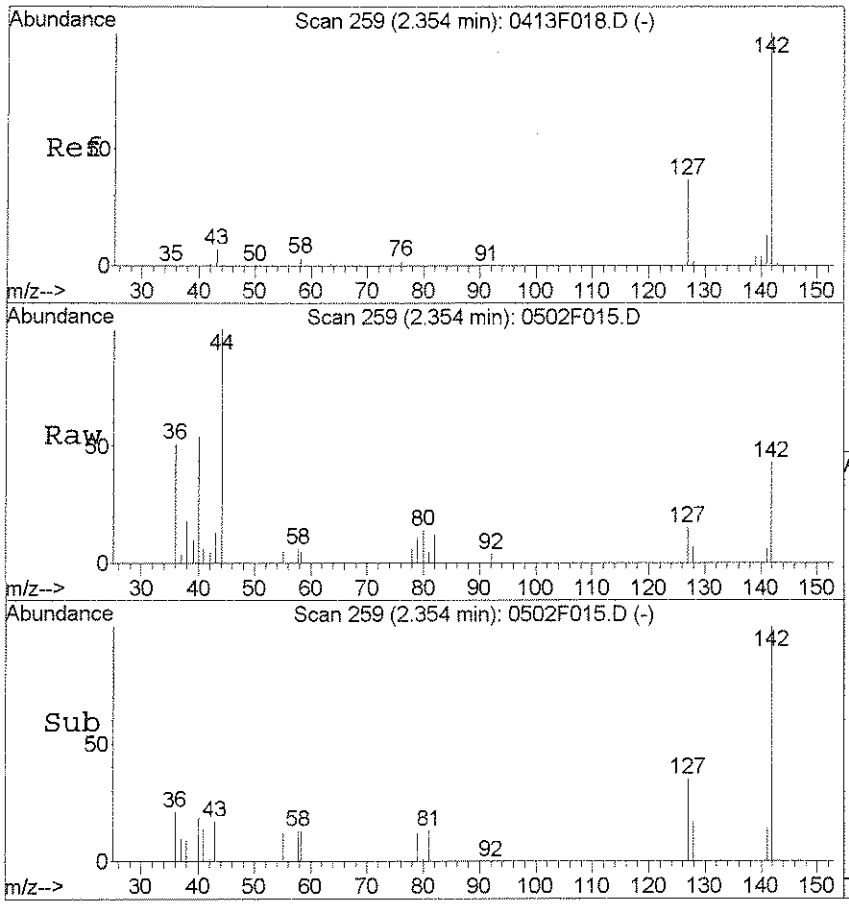


#14
Acetone
Concen: 0.76 PPB
RT: 2.34 min Scan# 256
Delta R.T. 0.01 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion: 43 Resp: 1607

Ion	Ratio	Lower	Upper
43	100		
58	44.4	6.9	66.9
42	21.5	0.0	36.8

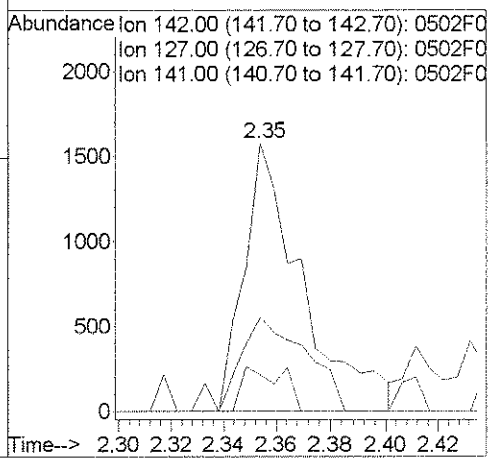


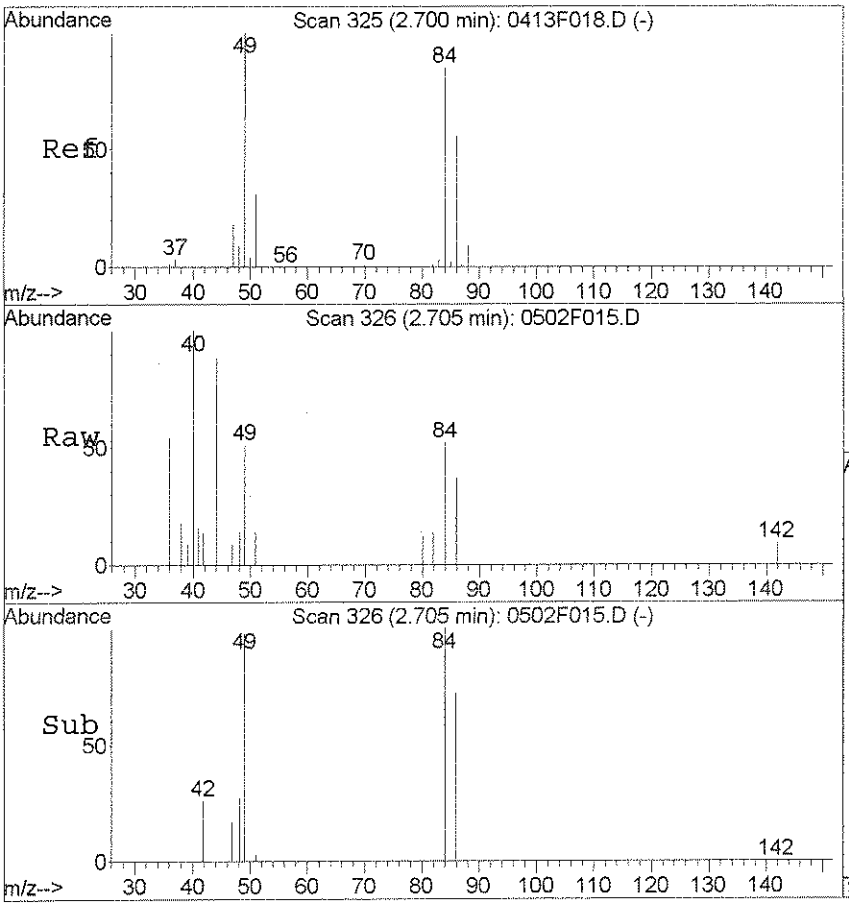


#15
Iodomethane
Concen: 0.14 PPB
RT: 2.35 min Scan# 259
Delta R.T. -0.00 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion:142 Resp: 2399

Ion	Ratio	Lower	Upper
142	100		
127	35.1	7.4	67.4
141	13.8	0.0	43.4

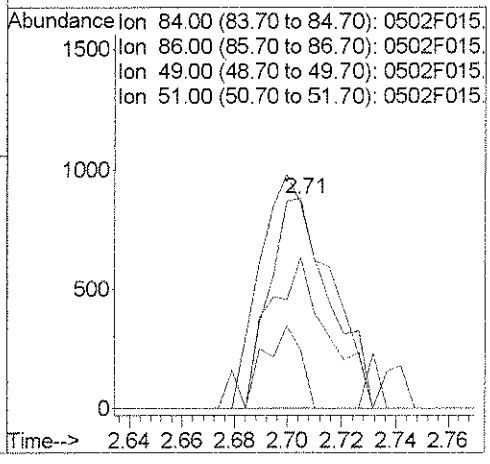


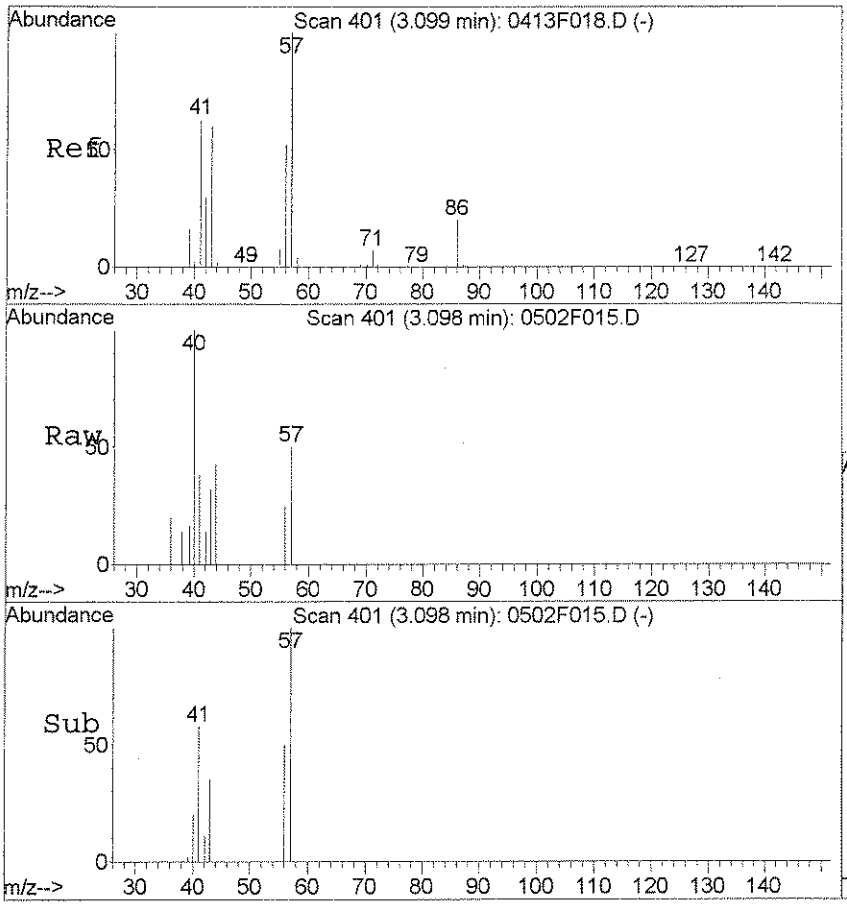


#21
Methylene Chloride
Concen: 0.08 PPB
RT: 2.71 min Scan# 326
Delta R.T. 0.01 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion: 84 Resp: 1470

Ion	Ratio	Lower	Upper
84	100		
86	71.7	35.6	95.6
49	97.6	87.0	147.0
51	27.4	6.4	66.4

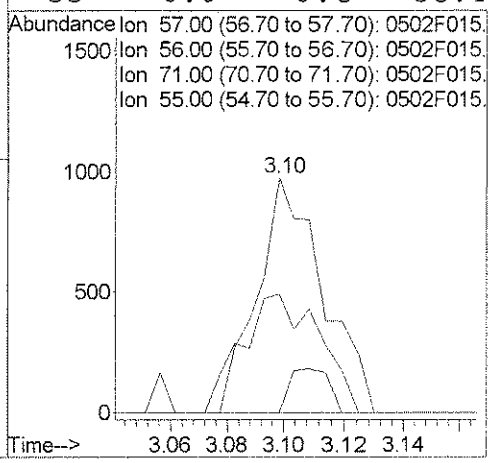


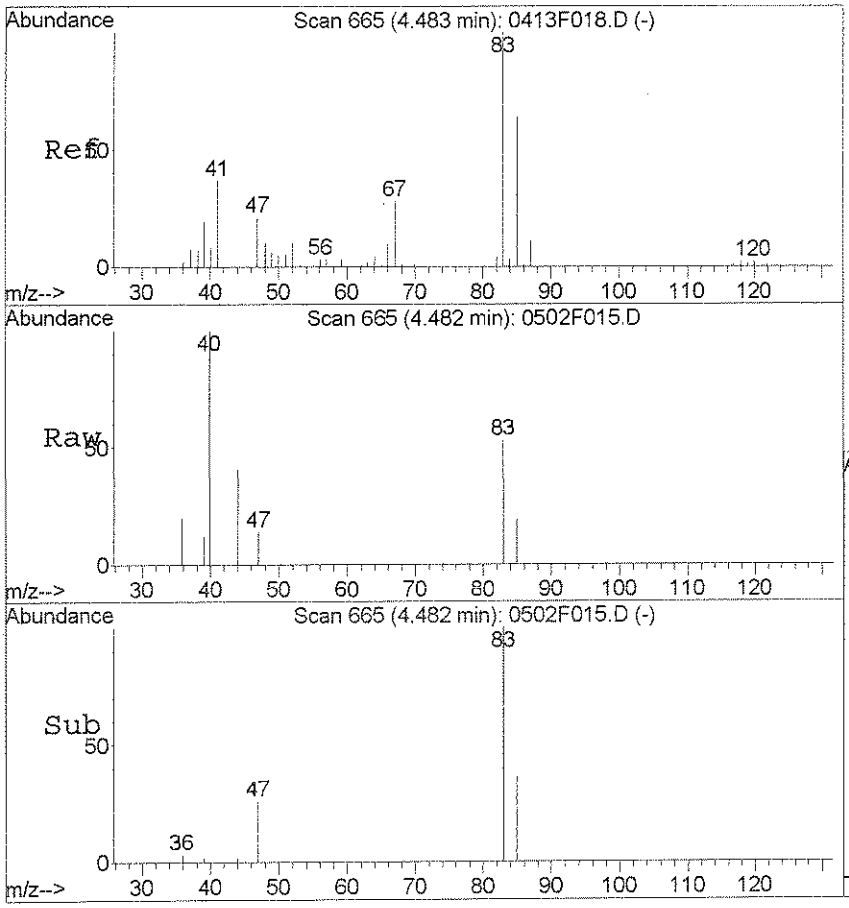


#26
Hexane
Concen: 0.09 PPB
RT: 3.10 min Scan# 401
Delta R.T. -0.00 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion: 57 Resp: 1507

Ion	Ratio	Lower	Upper
57	100		
56	50.4	21.7	81.7
71	0.0	0.0	37.2
55	0.0	0.0	38.4

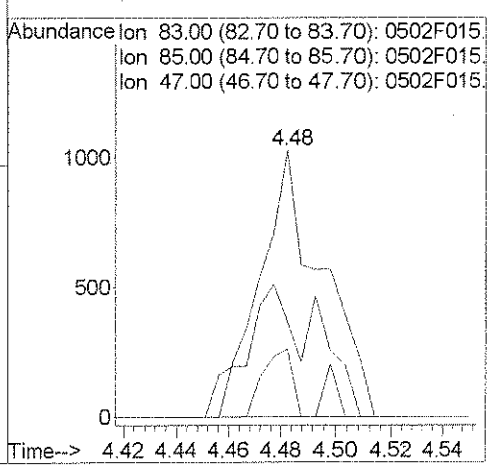


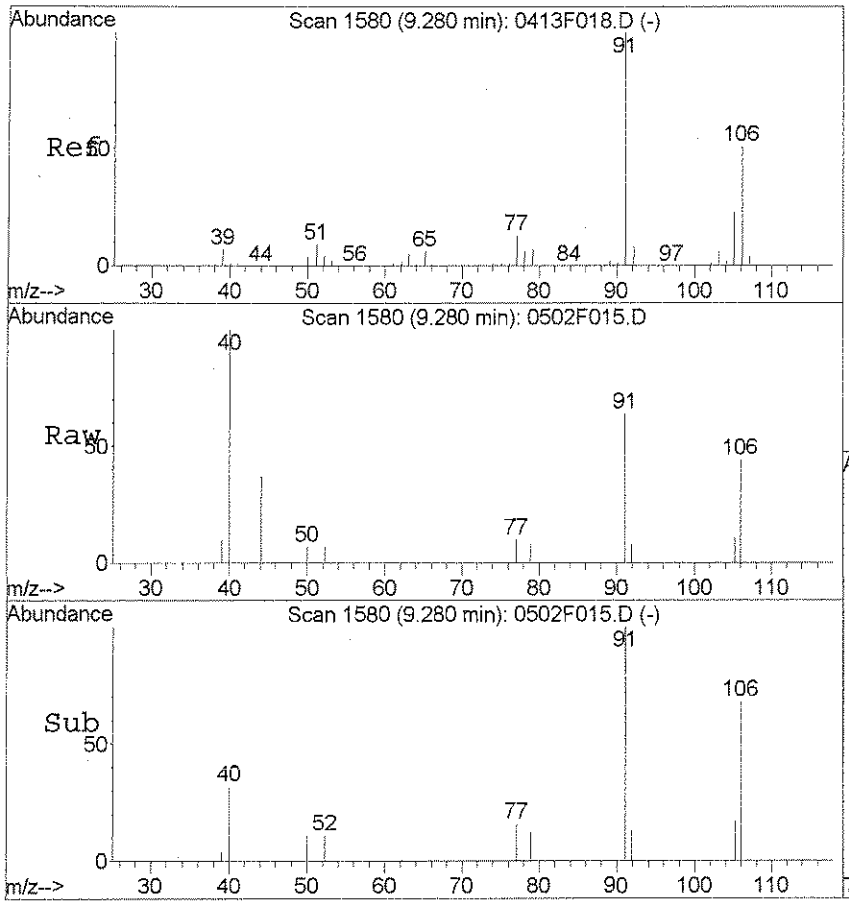


#40
Chloroform
Concen: 0.06 PPB
RT: 4.48 min Scan# 665
Delta R.T. 0.00 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion: 83 Resp: 1625

Ion	Ratio	Lower	Upper
83	100		
85	35.7	33.9	93.9
47	25.5	0.0	50.9

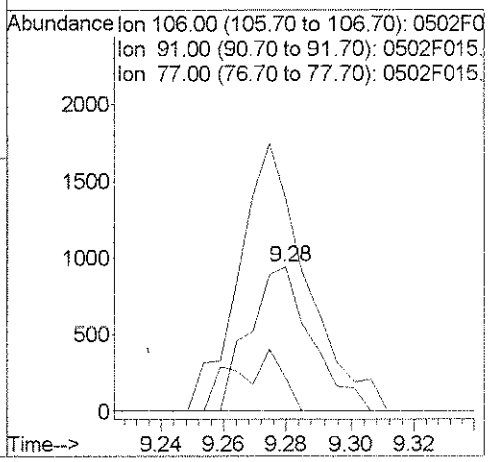


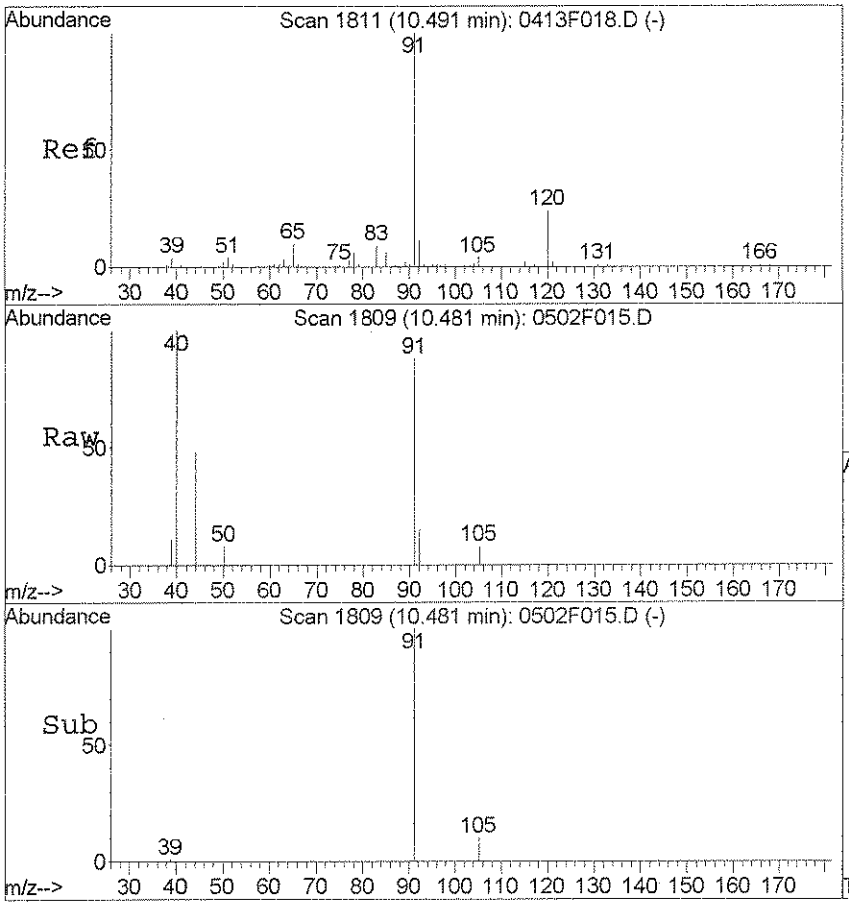


#79
m,p-Xylenes
Concen: 0.04 PPB
RT: 9.28 min Scan# 1580
Delta R.T. -0.00 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion:106 Resp: 1288

Ion	Ratio	Lower	Upper
106	100		
91	147.2	168.0	228.0#
77	23.1	0.0	55.2

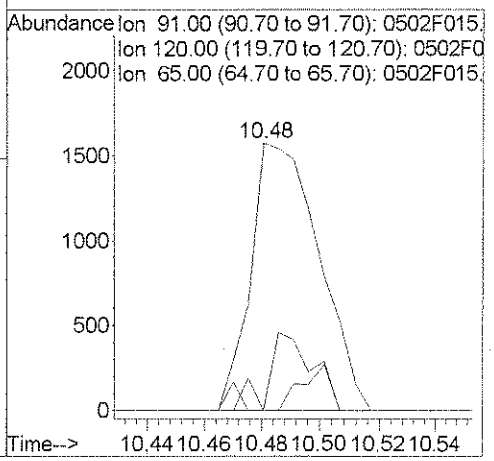


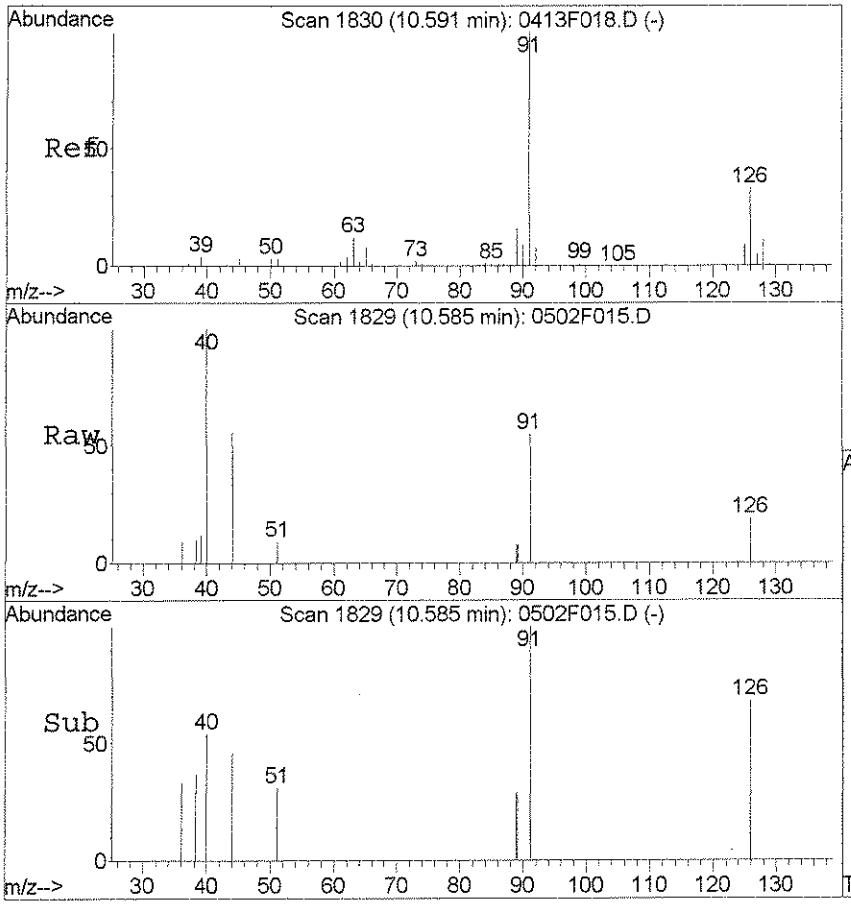


#90
n-Propylbenzene
Concen: 0.03 PPB
RT: 10.48 min Scan# 1809
Delta R.T. -0.01 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion: 91 Resp: 2563

Ion	Ratio	Lower	Upper
91	100		
120	0.0	0.0	53.7
65	0.0	0.0	39.5

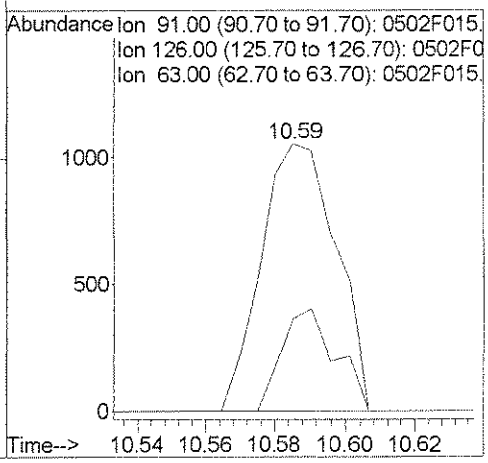


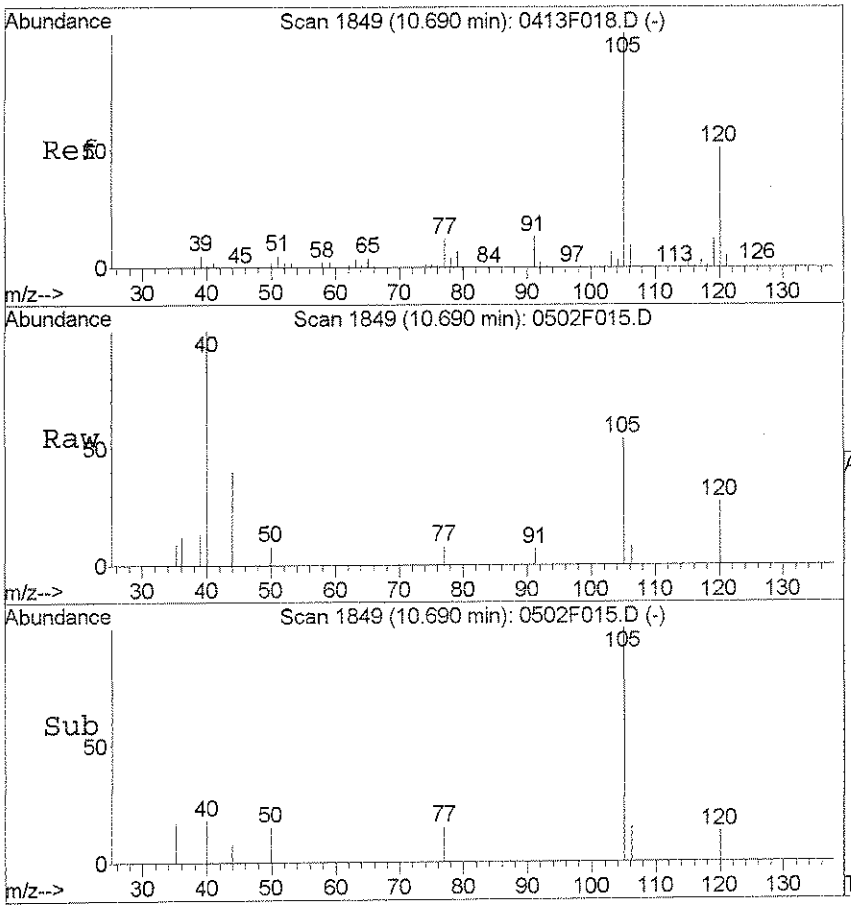


#92
2-Chlorotoluene
Concen: 0.03 PPB
RT: 10.59 min Scan# 1829
Delta R.T. -0.01 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion: 91 Resp: 1555

Ion	Ratio	Lower	Upper
91	100		
126	34.5	3.2	63.2
63	0.0	0.0	42.3

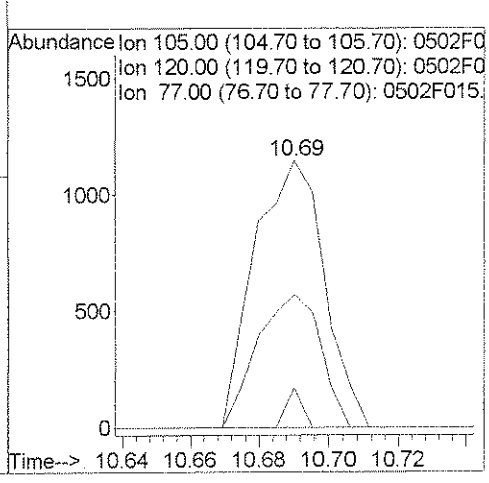


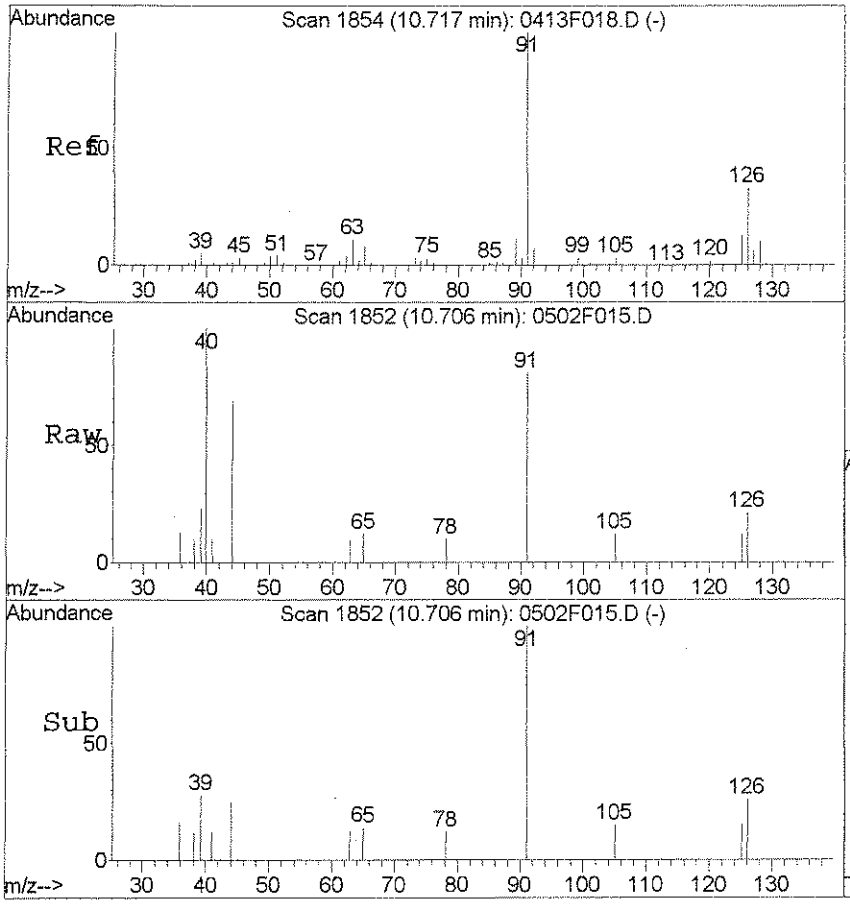


#93
1,3,5-Trimethylbenzene
Concen: 0.03 PPB
RT: 10.69 min Scan# 1849
Delta R.T. -0.00 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion:105 Resp: 1593

Ion	Ratio	Lower	Upper
105	100		
120	49.7	21.3	81.3
77	14.9	0.0	41.7

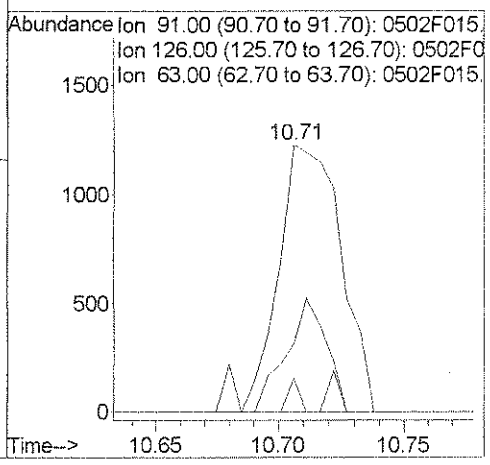


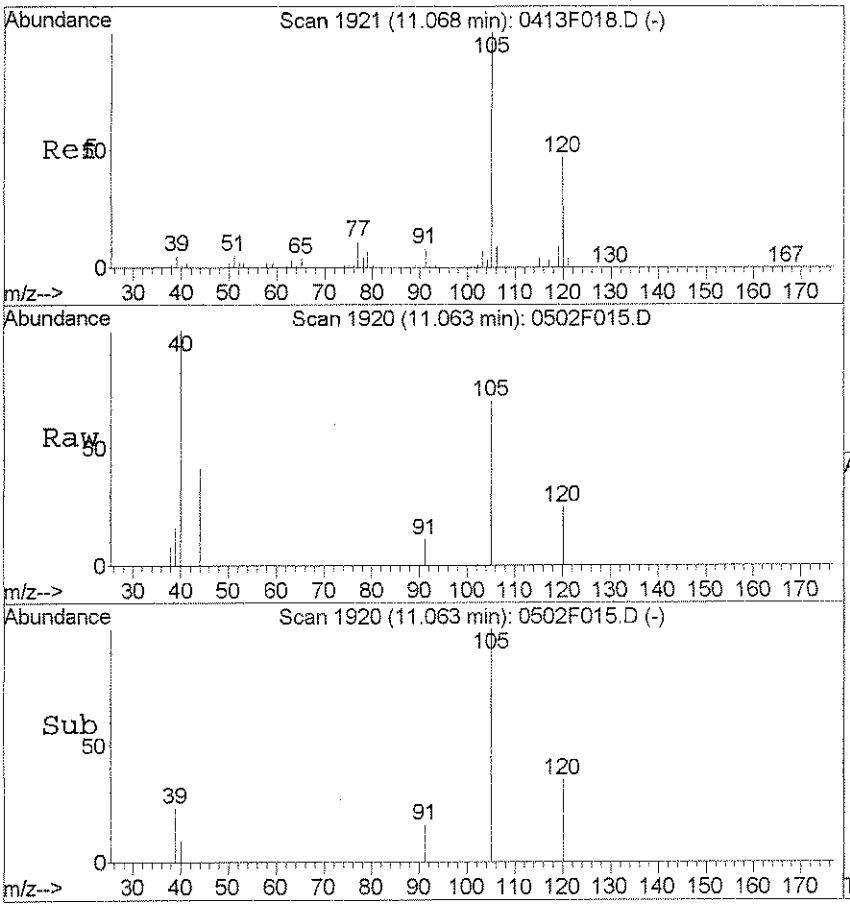


#94
4-Chlorotoluene
Concen: 0.03 PPB
RT: 10.71 min Scan# 1852
Delta R.T. -0.01 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion: 91 Resp: 2172

Ion	Ratio	Lower	Upper
91	100		
126	25.7	3.4	63.4
63	12.8	0.0	40.6

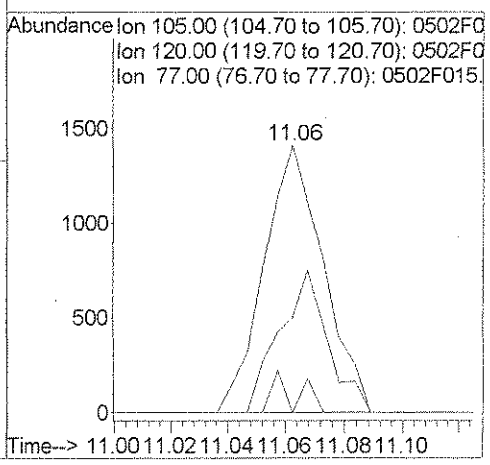


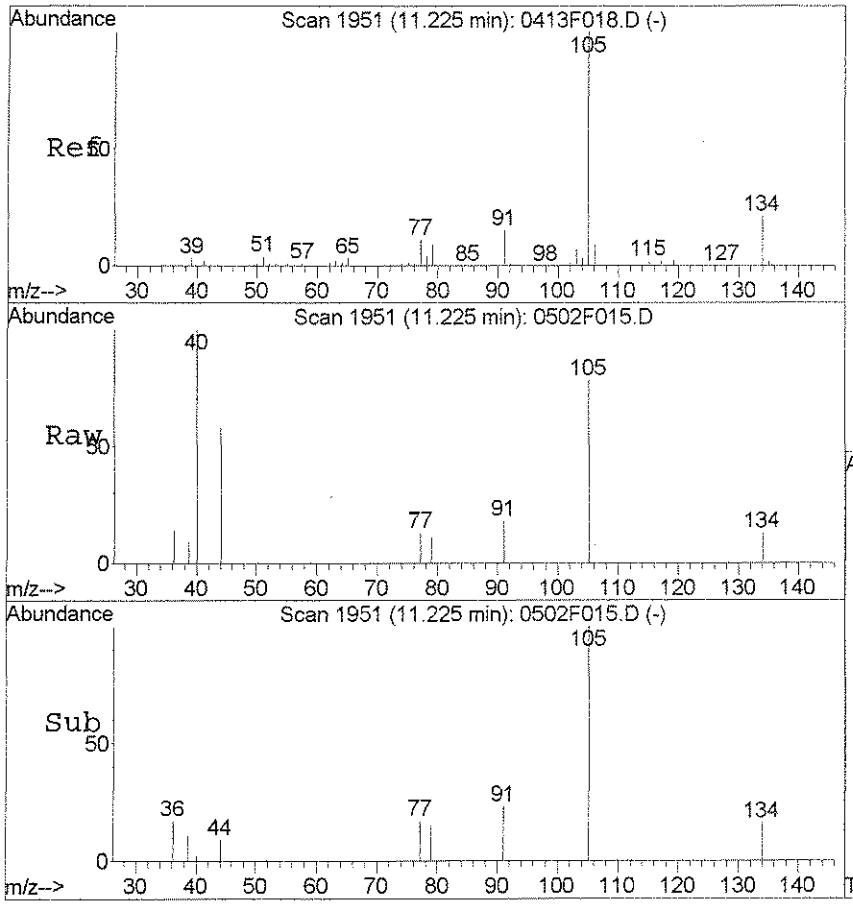


#96
1,2,4-Trimethylbenzene
Concen: 0.03 PPB
RT: 11.06 min Scan# 1920
Delta R.T. -0.01 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion:105 Resp: 1994

Ion	Ratio	Lower	Upper
105	100		
120	35.4	16.8	76.8
77	0.0	0.0	40.9

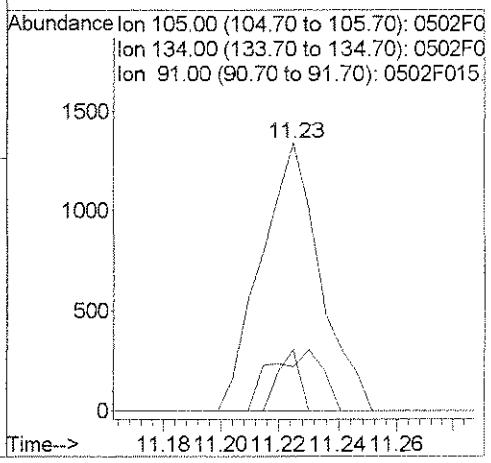


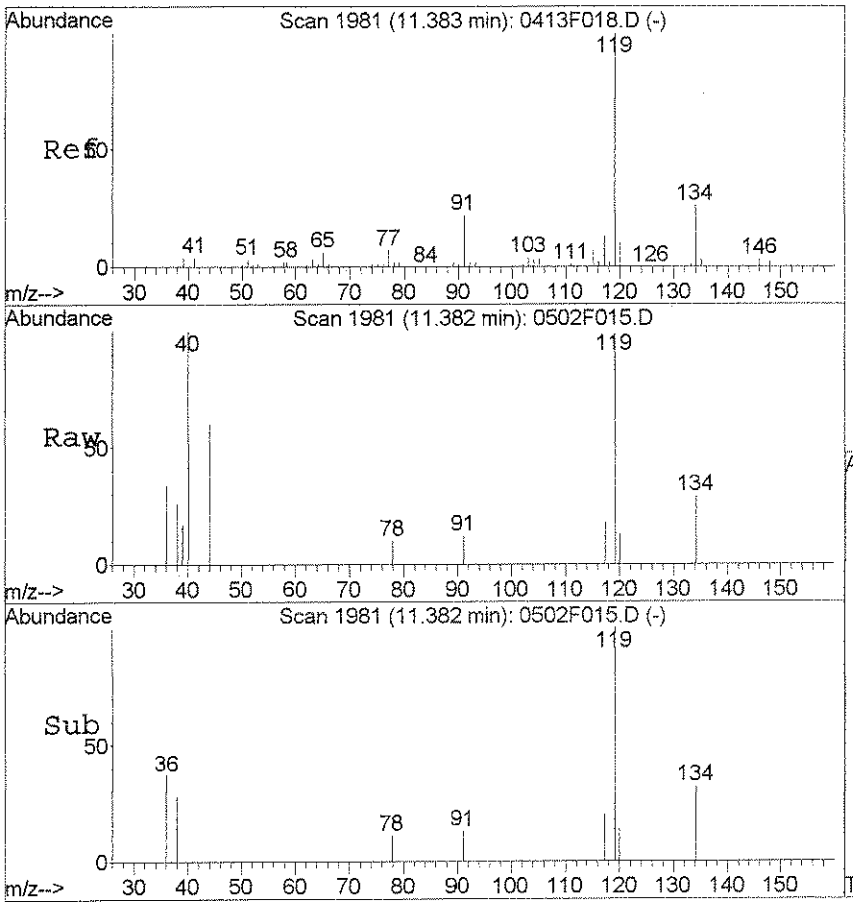


#97
sec-Butylbenzene
Concen: 0.03 PPB
RT: 11.23 min Scan# 1951
Delta R.T. -0.00 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion:105 Resp: 1868

Ion	Ratio	Lower	Upper
105	100		
134	16.5	0.0	50.7
91	22.8	0.0	44.7

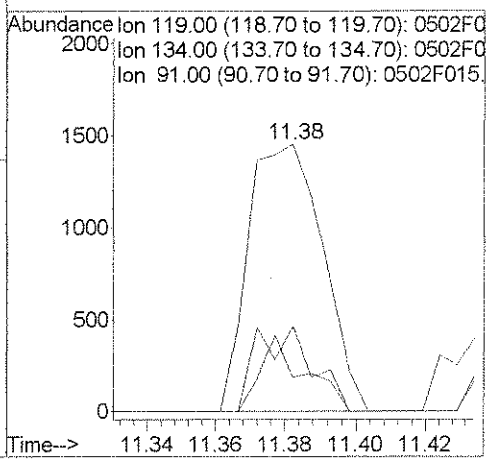


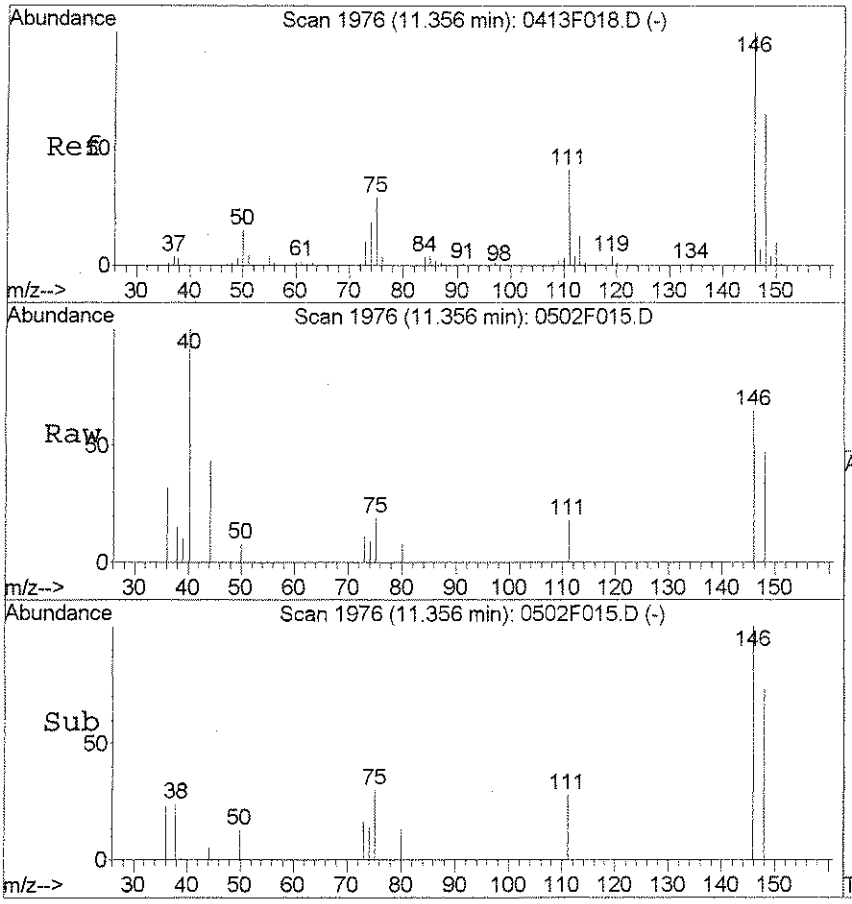


#98
p-Isopropyltoluene
Concen: 0.04 PPB
RT: 11.38 min Scan# 1981
Delta R.T. -0.00 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion:119 Resp: 2130

Ion	Ratio	Lower	Upper
119	100		
134	31.9	0.0	55.8
91	12.9	0.0	51.5

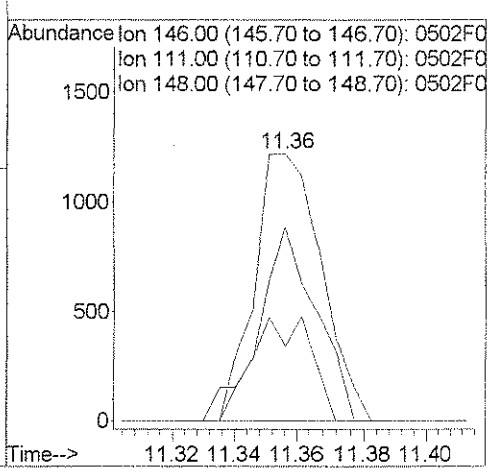


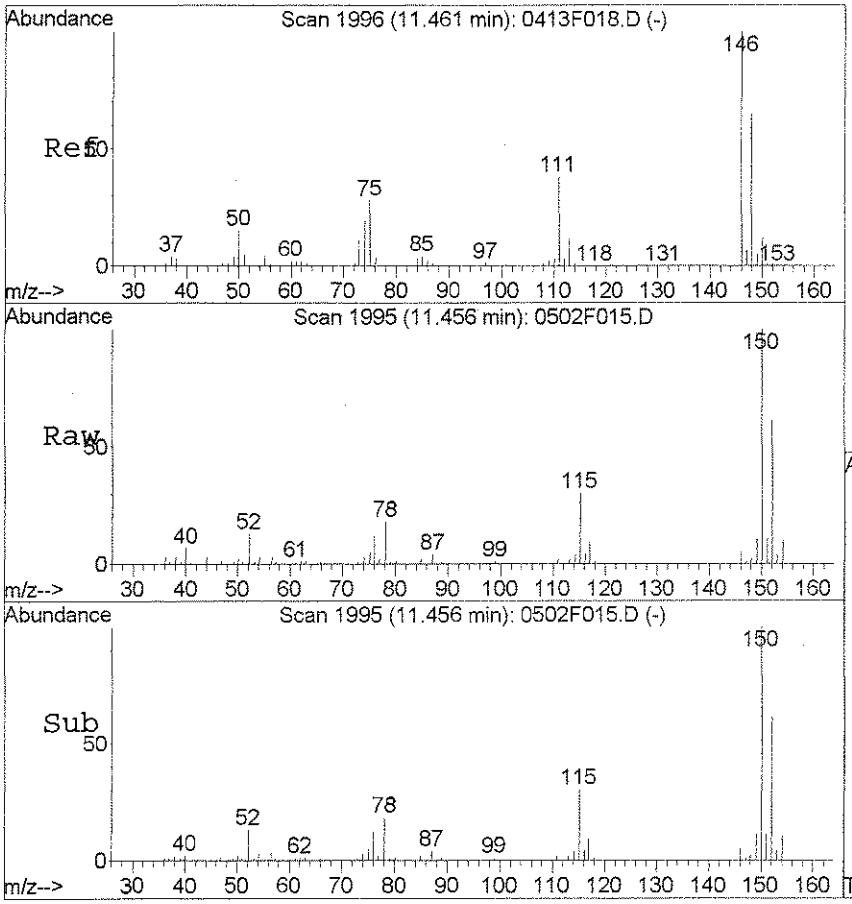


#99
1,3-Dichlorobenzene
Concen: 0.05 PPB
RT: 11.36 min Scan# 1976
Delta R.T. -0.00 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion:146 Resp: 1791

Ion	Ratio	Lower	Upper
146	100		
111	28.0	10.9	70.9
148	72.7	34.7	94.7

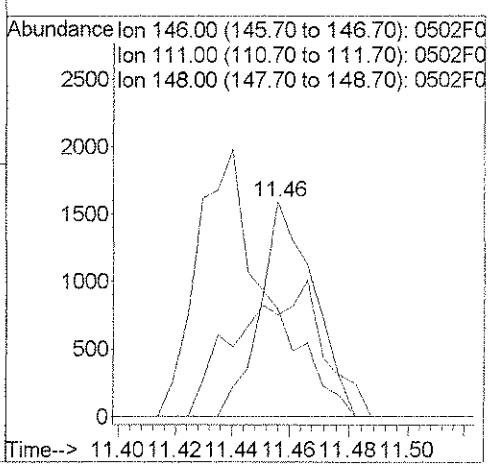


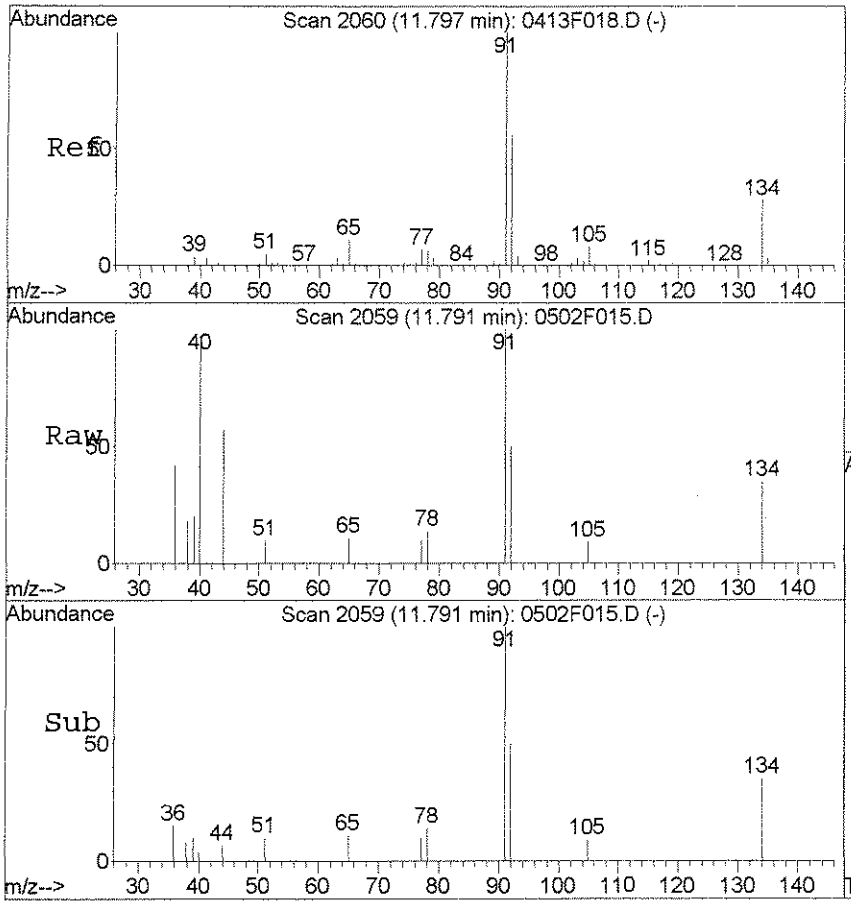


#100
1,4-Dichlorobenzene
Concen: 0.05 PPB
RT: 11.46 min Scan# 1995
Delta R.T. -0.01 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion:146 Resp: 2125

Ion	Ratio	Lower	Upper
146	100		
111	49.9	8.3	68.3
148	47.4	35.1	95.1

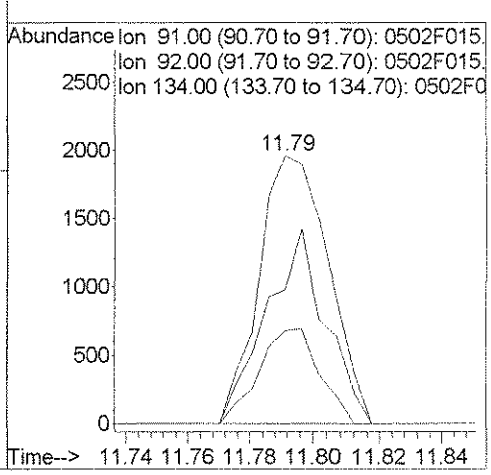


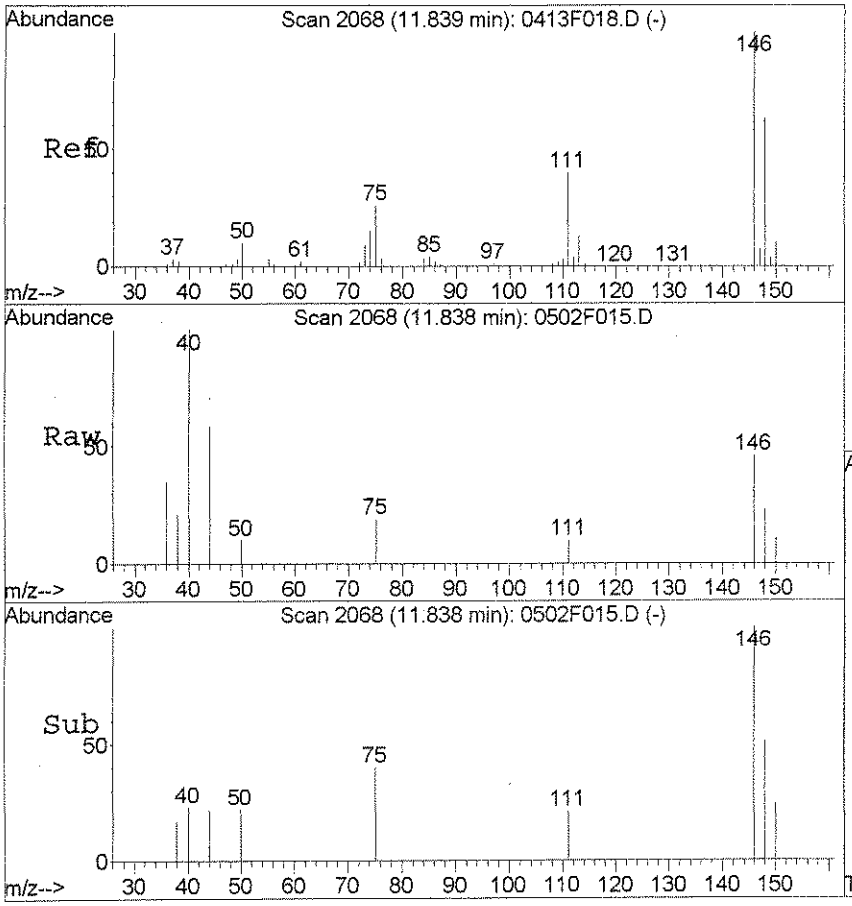


#101
n-Butylbenzene
Concen: 0.06 PPB
RT: 11.79 min Scan# 2059
Delta R.T. -0.01 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion: 91 Resp: 2938

Ion	Ratio	Lower	Upper
91	100		
92	49.7	26.0	86.0
134	34.6	0.0	58.2

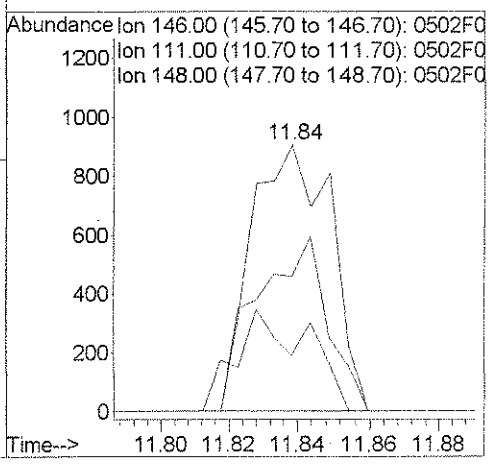


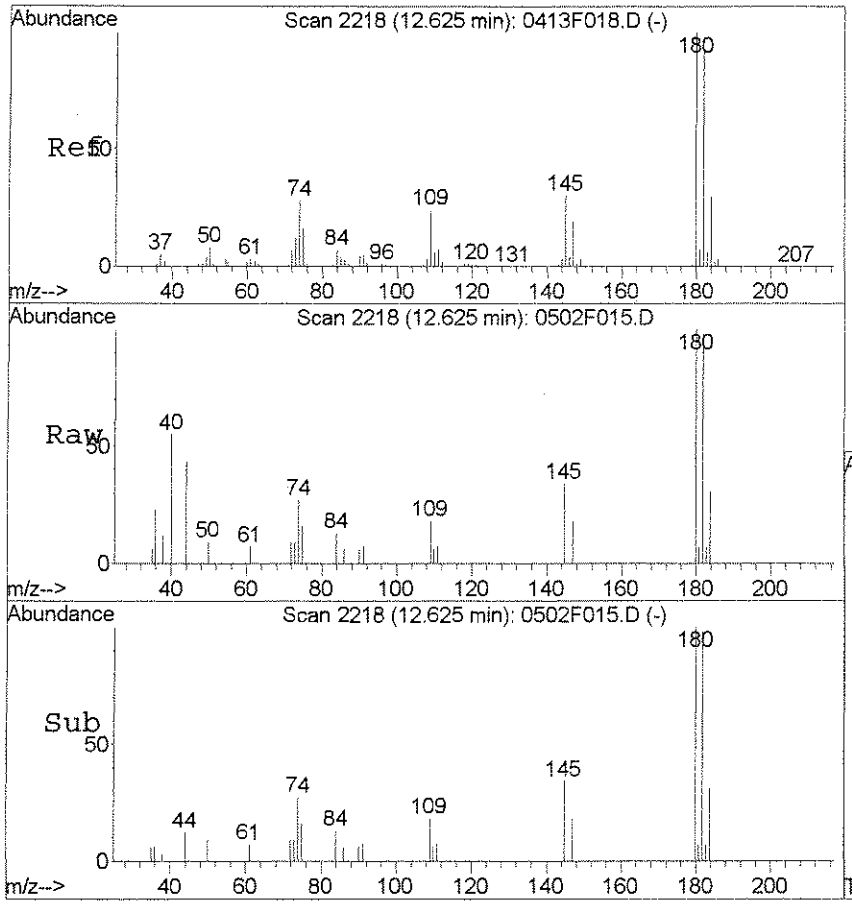


#102
1,2-Dichlorobenzene
Concen: 0.04 PPB
RT: 11.84 min Scan# 2068
Delta R.T. -0.00 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion:146 Resp: 1420

Ion	Ratio	Lower	Upper
146	100		
111	21.1	10.4	70.4
148	50.6	32.9	92.9

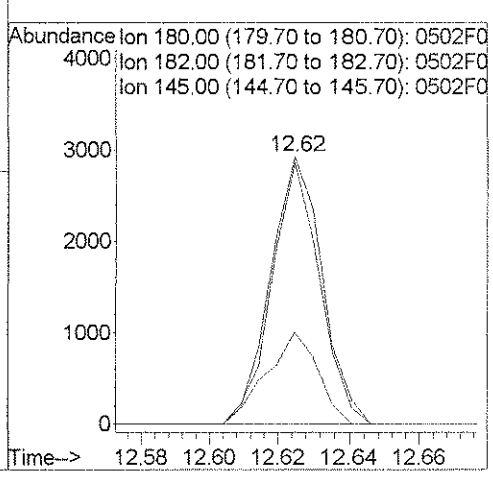


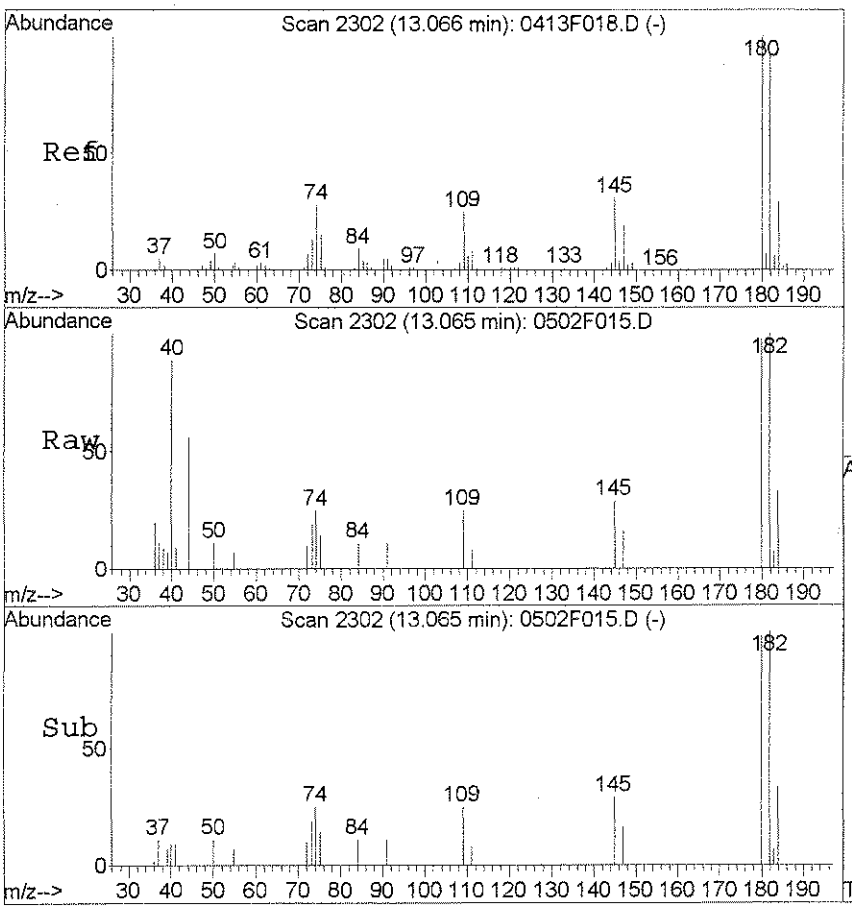


#104
1,3,5-Trichlorobenzene
Concen: 0.14 PPB
RT: 12.62 min Scan# 2218
Delta R.T. -0.00 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion:180 Resp: 2981

Ion	Ratio	Lower	Upper
180	100		
182	97.9	63.4	123.4
145	34.3	0.1	60.1

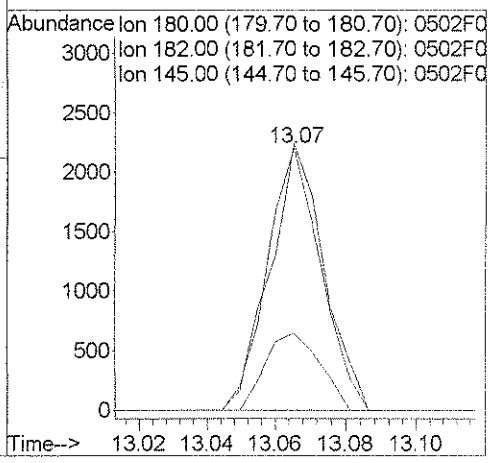


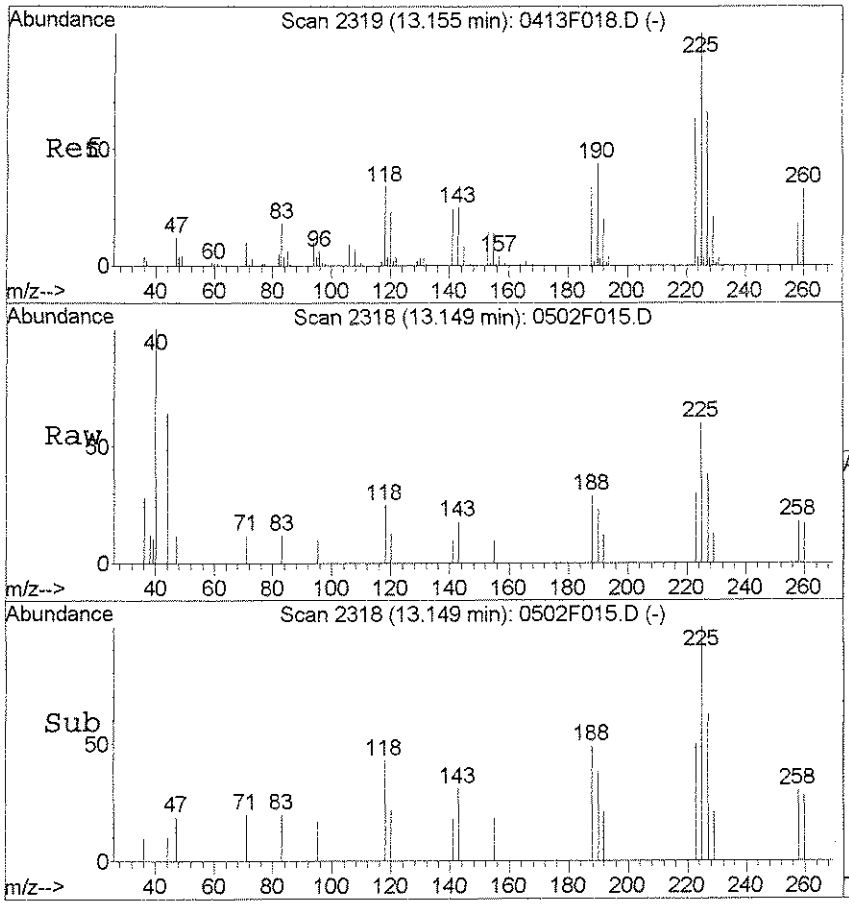


#105
1,2,4-Trichlorobenzene
Concen: 0.12 PPB
RT: 13.07 min Scan# 2302
Delta R.T. -0.00 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion:180 Resp: 2347

Ion	Ratio	Lower	Upper
180	100		
182	101.8	63.2	123.2
145	29.2	0.6	60.6

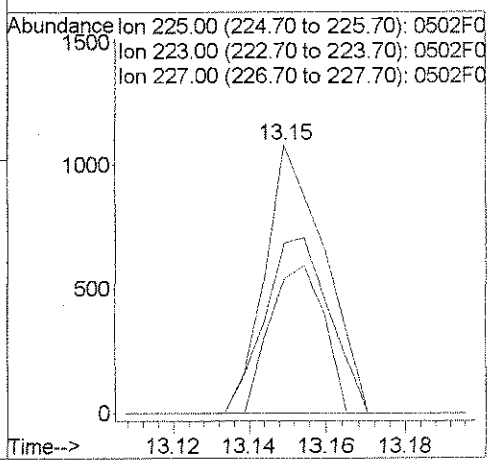


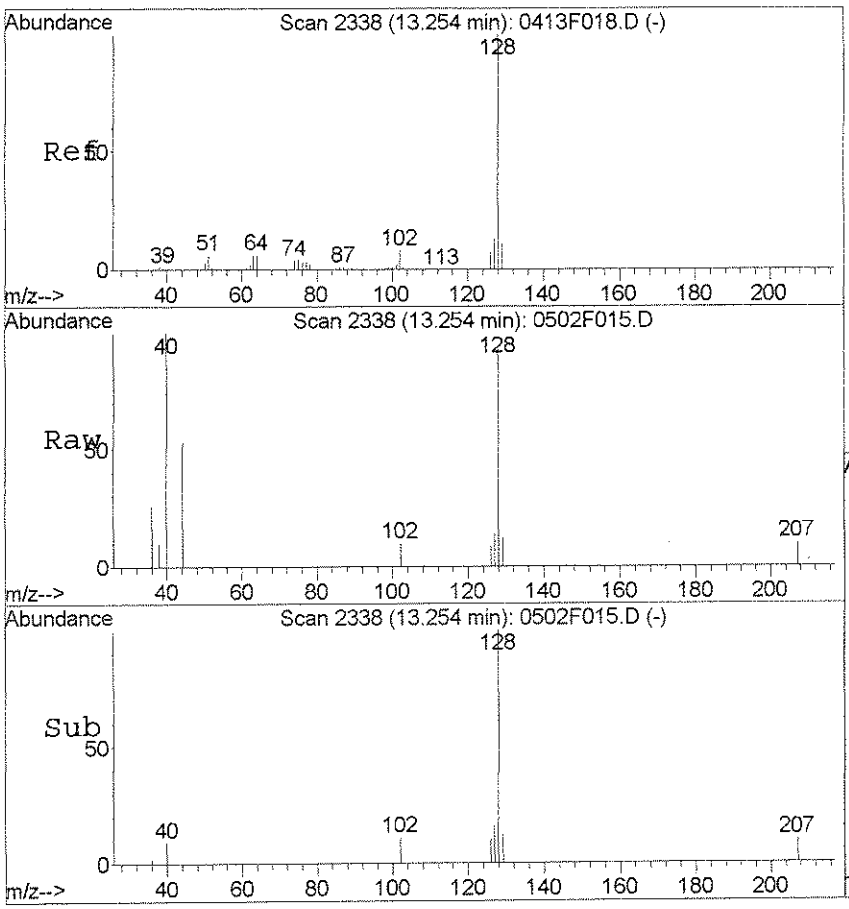


#106
Hexachlorobutadiene
Concen: 0.16 PPB
RT: 13.15 min Scan# 2318
Delta R.T. -0.01 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion:225 Resp: 1149

Ion	Ratio	Lower	Upper
225	100		
223	50.0	33.1	93.1
227	63.4	36.4	96.4

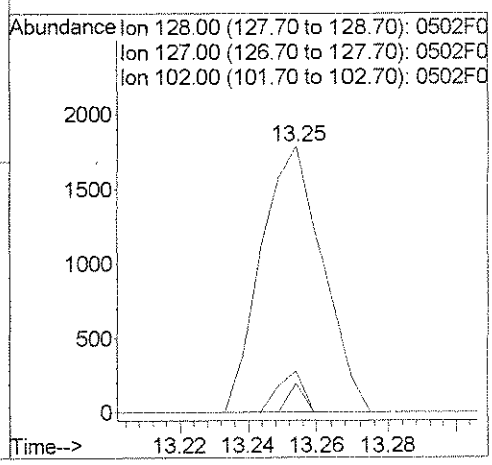


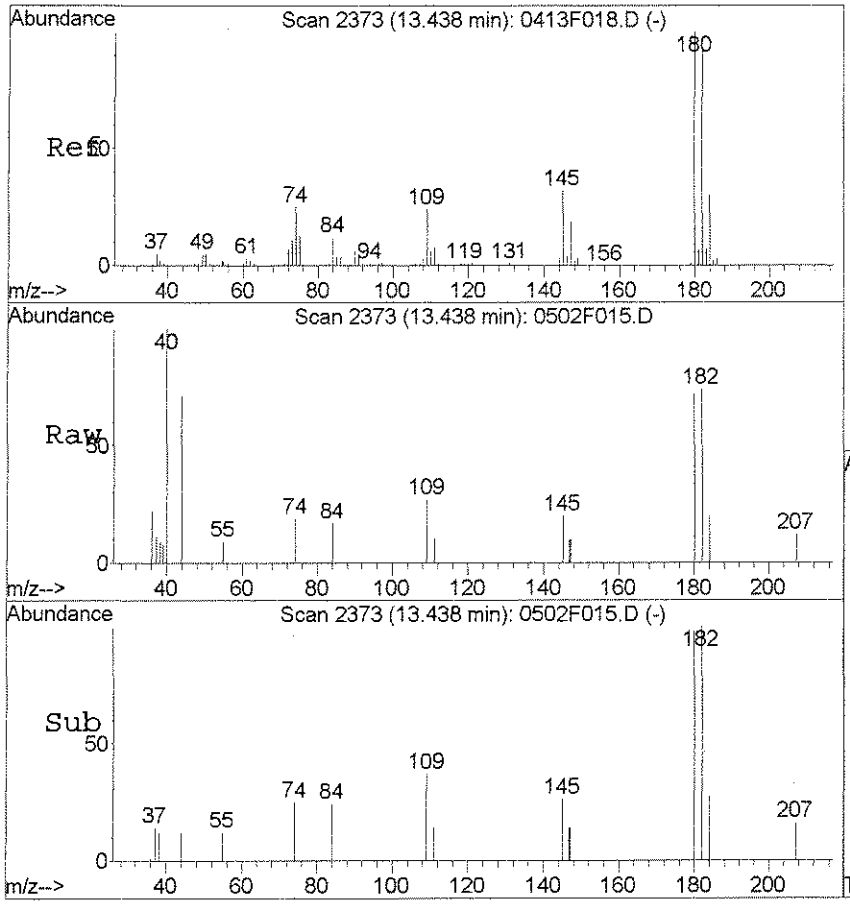


#107
Naphthalene
Concen: 0.06 PPB
RT: 13.25 min Scan# 2338
Delta R.T. -0.00 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion:128 Resp: 2214

Ion	Ratio	Lower	Upper
128	100		
127	15.5	0.0	42.7
102	10.8	0.0	37.7

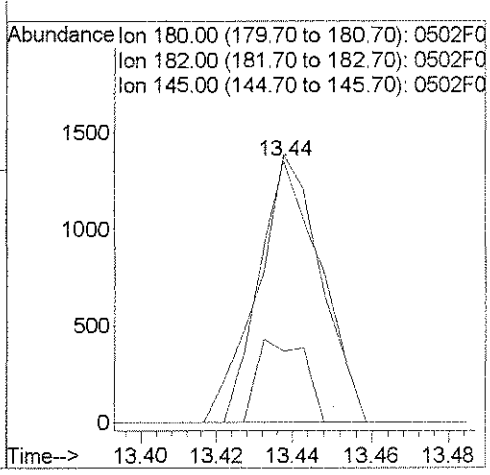




#108
1,2,3-Trichlorobenzene
Concen: 0.10 PPB
RT: 13.44 min Scan# 2373
Delta R.T. -0.00 min
Lab File: 0502F015.D
Acq: 2 May 2016 20:14

Tgt Ion:180 Resp: 1495

Ion	Ratio	Lower	Upper
180	100		
182	102.4	64.6	124.6
145	27.1	1.6	61.6



Exception Report

Data File: J:\MS18\DATA\050216\0502F010.D
Lab ID: KWG1603424-1 -- K1604068-002MS
RunType: MS
Matrix: WATER

Date Acquired: 05/02/2016 18:23
Date Quantitated: 05/03/2016 08:17
Batch ID: KWG1603423
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	Acetonitrile	0.0086	0.01	NA	NT
	tert-Butyl Alcohol	0.0095	0.01	NA	
	Isobutyl Alcohol	0.0037	0.01	NA	
	1,4-Dioxane	0.0017	0.01	NA	
Continuing Calibration Recovery	Chloromethane	-23.4	NA	20	
	Bromomethane	-24.2	NA	20	
	Acrolein	23.3	NA	20	
	Iodomethane	-48.5	NA	20	
	Carbon Disulfide	-31.3	NA	20	
	n-Hexane	-20.7	NA	20	
	2,2-Dichloropropane	-24.5	NA	20	
	Carbon Tetrachloride	-24.0	NA	20	
	Cyclohexane	-24.7	NA	20	

Primary Review: KC 5/3/16

Secondary Review: AS 5/3/16

Printed: 05/03/2016 10:52:36
u:\Stealth\Crystal.rpt\except2.rpt

Exception Report

Data File: J:\MS18\DATA\050216\0502F010.D
Lab ID: KWG1603424-1 -- K1604068-002MS
RunType: MS
Matrix: WATER

Date Acquired: 05/02/2016 18:23
Date Quantitated: 05/03/2016 08:17
Batch ID: KWG1603423
Analysis Method: 8260C
MethodJoinID: MJ119

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	2-Nitropropane	-41.2	NA	20	J7
	trans-1,3-Dichloropropene	-21.3	NA	20	
	Bromoform	-24.4	NA	20	
	cis-1,4-Dichloro-2-butene	-36.1	NA	20	
	1,2-Dibromo-3-chloropropane	-22.5	NA	20	
Continuing Calibration Minimum RF	Acetonitrile	0.0087	0.01	NA	
	tert-Butyl Alcohol	0.0081	0.01	NA	
	Isobutyl Alcohol	0.0032	0.01	NA	
	1,4-Dioxane	0.0017	0.01	NA	

Primary Review: 5/3/16

Secondary Review: 5/3/16

Printed: 05/03/2016 10:05:47
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS18\DATA\050216\0502F010.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 18:23	**Quant Date:**	05/03/2016 08:17	**Vial:**	10
Run Type:	MS	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603424-1 -- K1604068-002MS			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	05/02/2016

Analysis Lot:	KWG1603423	**Prep Lot:**	KWG1603424	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514324	**Prep Date:**	05/02/2016		

Quant Method:	J:\MS18\METHODS\041316MS18_8	**Calibration ID:**	CAL14682
Title:			
Tune Ref:	J:\MS18\DATA\050216\0502F007.D	**Method ID:**	MJ1465
MB Ref:	J:\MS18\DATA\050216\0502F015.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.55	0.00	96	644926	10.00	OK
2	Chlorobenzene-d5	9.02	0.00	82	252196	10.00	OK
3	1,4-Dichlorobenzene-d4	11.44	0.01	152	244960	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	4.70	0.00	0.00	113	132734	10.39	104	80-119	OK	
1	1,2-Dichloroethane-d4	5.18	-0.01	0.00	65	145521	9.86	99	81-118	OK	
1	Toluene-d8	7.43	0.00	0.00	98	643869	11.15	112	89-112	OK	
2	4-Bromofluorobenzene	10.27	0.00	0.00	95	223718	10.20	102	85-114	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.11		0.00	85	140123	8.50	8.50		
1	Chloromethane	1.24		0.00	50	174777	8.35	8.35		
1	Vinyl Chloride	1.31		0.00	62	179594	9.18	9.18		
1	1,3-Butadiene	1.33		0.00	54	7627	0.5000	0.500		
1	Bromomethane	1.55		0.00	96	71023	6.55	6.55		
1	Chloroethane	1.62		0.00	64	108105	8.90	8.90		
1	Dichlorofluoromethane (CFC 21)	1.78		0.00	67	287768	10.46	10.5		
1	Trichlorofluoromethane	1.78		0.00	101	193808	9.14	9.14		
1	Diethyl Ether	2.02		0.00	59	116580	9.65	9.65		
1	Acrolein	2.19		0.00	56	160358	103.13	103		
1	Trichlorotrifluoroethane	2.18		0.00	151	119949	11.61	11.6		
1	1,1-Dichloroethene	2.21		0.00	96	140702	10.73	10.7		
1	Acetone	2.33		0.00	43	121260	58.84	58.8		
1	Iodomethane	2.35		0.00	142	360360	21.47	21.5		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\050216\0502F010.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 18:23	**Quant Date:**	05/03/2016 08:17	**Vial:**	10
Run Type:	MS	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603424-1 -- K1604068-002MS			**Solu Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.38		0.00	76	792902	19.26	19.3		
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene	2.55	-0.01	0.00	76	289388	34.26	34.3		
1	Methyl Acetate	2.59		0.00	43	73127	8.95	8.95		
1	Acetonitrile	2.66		0.00	40	174371	316.09	316		
1	Methylene Chloride	2.70		0.00	84	163838	9.45	9.45		
1	tert-Butyl Alcohol	2.82		0.00	59	51679	83.92	83.9		
1	Acrylonitrile	3.03		0.00	53	140540	38.03	38.0		
1	Methyl tert-Butyl Ether	2.89		0.00	73	378263	9.50	9.50		
1	trans-1,2-Dichloroethene	2.91		0.00	96	160436	10.24	10.2		
1	n-Hexane	3.10		0.00	57	493298	30.21	30.2		
1	Diisopropyl Ether	3.39		0.00	45	806604	16.17	16.2		
1	1,1-Dichloroethane	3.40		0.00	63	275178	9.90	9.90		
1	Vinyl Acetate	3.45		0.00	86	154852	52.50	52.5		
1	Chloroprene	3.45	0.01	0.00	53	708517	27.69	27.7		
1	tert-Butyl Ethyl Ether	3.80		0.00	59	757999	16.77	16.8		
1	2,2-Dichloropropane	4.03		0.00	77	181785	9.31	9.31		
1	cis-1,2-Dichloroethene	4.07		0.00	96	178528	10.03	10.0		
1	2-Butanone (MEK)	4.15	0.01	0.00	72	56399	49.08	49.1		
1	Propionitrile	4.33		0.00	54	37953	29.31	29.3		
1	Ethyl Acetate	4.17		0.00	61	44544	27.00	27.0		
1	Methacrylonitrile	4.46		0.00	67	141090	29.79	29.8		
1	Bromochloromethane	4.38		0.00	128	64052	9.45	9.45		
1	Tetrahydrofuran				71	0d		0.94	U	
1	Chloroform	4.48		0.00	83	259472	10.10	10.1		
1	tert-Butyl Formate				59	0d		0.26	U	
1	1,1,1-Trichloroethane (TCA)	4.63		0.00	97	193043	9.69	9.69		
1	Carbon Tetrachloride	4.79		0.00	117	145892	9.00	9.00		
1	1,1-Dichloropropene	4.85		0.00	75	216794	10.26	10.3		
1	Cyclohexane	4.58		0.00	56	255945	9.78	9.78		
1	Isobutyl Alcohol	5.21		0.00	43	61031	258.13	258		
1	Benzene	5.13		0.00	78	670572	9.52	9.52		
1	1,2-Dichloroethane (EDC)	5.29		0.00	62	175996	9.41	9.41		
1	tert-Amyl Methyl Ether	5.28		0.00	55	213167	18.65	18.7		
1	Trichloroethene (TCE)	5.99		0.00	95	153345	9.98	9.98		
1	1,2-Dichloropropane	6.33		0.00	63	146517	9.03	9.03		
1	Dibromomethane	6.47		0.00	93	76359	9.71	9.71		
1	Methyl Methacrylate	6.51	0.01	0.00	69	238111	27.68	27.7		
1	1,4-Dioxane	6.52		0.00	88	34042	308.57	309		
1	Bromodichloromethane	6.67		0.00	83	141506	8.17	8.17		
1	2-Nitropropane	7.06		0.00	41	26814	15.03	15.0		
1	Methylcyclohexane	6.10		0.00	83	236522	9.75	9.75		

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?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\050216\0502F010.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 18:23	**Quant Date:**	05/03/2016 08:17	**Vial:**	10
Run Type:	MS	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603424-1 -- K1604068-002MS			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	2-Chloroethyl Vinyl Ether	7.08		0.00	63	2035	0.2600	0.260	J	
1	cis-1,3-Dichloropropene	7.20		0.00	75	202463	7.80	7.80		
1	4-Methyl-2-pentanone (MIBK)	7.41		0.00	58	187545	48.62	48.6		
1	Toluene	7.50		0.00	92	432878	9.60	9.60		
2	trans-1,3-Dichloropropene	7.87		0.00	75	149275	7.44	7.44		
2	Ethyl Methacrylate	7.94		0.00	69	489048	30.92	30.9		
2	1,1,2-Trichloroethane	8.06		0.00	83	104113	9.71	9.71		
2	Tetrachloroethene (PCE)	8.06		0.00	164	129169	10.89	10.9		
2	2-Hexanone	8.34		0.00	57	57365	46.28	46.3		
2	1,3-Dichloropropane	8.24		0.00	76	227924	9.65	9.65		
2	Dibromochloromethane	8.44		0.00	129	89421	7.29	7.29		
2	1,2-Dibromoethane (EDB)	8.55		0.00	107	116621	9.81	9.81		
2	1-Chlorohexane	9.03		0.00	91	215330	10.27	10.3		
2	Chlorobenzene	9.04		0.00	112	470295	9.77	9.77		
2	Ethylbenzene	9.14		0.00	106	258002	10.25	10.3		
2	1,1,1,2-Tetrachloroethane	9.15	-0.01	0.00	131	117115	8.40	8.40		
2	m,p-Xylenes	9.27		0.00	106	636483	20.51	20.5		
2	o-Xylene	9.69		0.00	106	305741	10.23	10.2		
2	Styrene	9.73		0.00	103	230881	9.88	9.88		
2	Bromoform	9.92	-0.01	0.00	173	39930	7.22	7.22		
2	Isopropylbenzene	10.07		0.00	105	751111	10.18	10.2		
2	cis-1,4-Dichloro-2-butene	10.24		0.00	89	37490	19.11	19.1		
3	1,1,2,2-Tetrachloroethane	10.48		0.00	83	136364	9.10	9.10		
3	trans-1,4-Dichloro-2-butene	10.55		0.00	53	102140	25.62	25.6		
3	Bromobenzene	10.39	-0.01	0.00	156	191458	9.65	9.65		
3	n-Propylbenzene	10.49		0.00	91	875746	9.57	9.57		
3	1,2,3-Trichloropropane	10.52		0.00	110	42664	9.13	9.13		
3	2-Chlorotoluene	10.59		0.00	91	545986	9.27	9.27		
3	1,3,5-Trimethylbenzene	10.69		0.00	105	612367	9.58	9.58		
3	4-Chlorotoluene	10.72	0.01	0.00	91	618059	9.16	9.16		
3	tert-Butylbenzene	11.00		0.00	119	524677	9.54	9.54		
3	1,2,4-Trimethylbenzene	11.07		0.00	105	631515	9.84	9.84		
3	sec-Butylbenzene	11.23		0.00	105	751581	9.71	9.71		
3	4-Isopropyltoluene	11.38		0.00	119	635633	10.19	10.2		
3	1,3-Dichlorobenzene	11.36		0.00	146	360511	9.28	9.28		
3	1,4-Dichlorobenzene	11.46		0.00	146	368188	8.94	8.94		
3	n-Butylbenzene	11.80		0.00	91	516224	9.58	9.58		
3	1,2-Dichlorobenzene	11.84		0.00	146	340244	9.20	9.20		
3	1,2-Dibromo-3-chloropropane	12.54		0.00	155	10621	7.31	7.31		
3	1,3,5-Trichlorobenzene	12.63		0.00	180	221987	9.59	9.59		
3	1,2,4-Trichlorobenzene	13.07		0.00	180	184189	9.08	9.08		
3	Hexachlorobutadiene	13.15		0.00	225	70171	9.54	9.54		

U: Undetected at or above MDL
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E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\050216\0502F010.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 18:23	**Quant Date:**	05/03/2016 08:17	**Vial:**	10
Run Type:	MS	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603424-1 -- K1604068-002MS			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	13.25		0.00	128	372776	9.24	9.24		
3	1,2,3-Trichlorobenzene	13.44		0.00	180	144617	8.82	8.82		

Prep Amount: 10 ml **Dilution:** 1.0
Prep Final Vol: 10 ml **Unit Factor:** 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS18\DATA\050216\0502F010.D Vial: 10
Acq On : 2 May 2016 18:23 Operator: YX
Sample : MS K1604068-002 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 02 19:40:50 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.55	96	644926	10.00	PPB	0.00
65) Chlorobenzene-d5	9.02	82	252196	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	244960	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	4.70	113	132734	10.39	PPB	0.00
Spiked Amount 10.000			Recovery =	103.90%		
48) 1,2-Dichloroethane-d4	5.18	65	145521	9.86	PPB	0.00
Spiked Amount 10.000			Recovery =	98.60%		
63) Toluene-d8	7.43	98	643869	11.15	PPB	0.00
Spiked Amount 10.000			Recovery =	111.50%		
85) 4-Bromofluorobenzene	10.27	95	223718	10.20	PPB	0.00
Spiked Amount 10.000			Recovery =	102.00%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.11	85	140123	8.50	PPB	99
3) Chloromethane	1.24	50	174777	8.35	PPB	98
4) Vinyl Chloride	1.31	62	179594	9.18	PPB	96
5) 1,3-Butadiene	1.33	54	7627	0.50	PPB	91
6) Bromomethane	1.55	96	71023	6.55	PPB	99
7) Chloroethane	1.62	64	108105	8.90	PPB	99
8) Dichlorofluoromethane	1.78	67	287768	10.46	PPB	99
9) Trichlorofluoromethane	1.78	101	193808	9.14	PPB	99
10) Ethyl Ether	2.02	59	116580	9.65	PPB	99
11) Acrolein	2.19	56	160358	103.13	PPB	98
12) Trichlorotrifluoroethane	2.18	151	119949	11.61	PPB	97
13) 1,1-Dichloroethene	2.21	96	140702	10.73	PPB	99
14) Acetone	2.33	43	121260	58.84	PPB	98
15) Iodomethane	2.35	142	360360	21.47	PPB	99
16) Carbon Disulfide	2.38	76	792902	19.26	PPB	99
18) 3-Chloro-1-propene	2.55	76	289388	34.26	PPB	88
19) Methyl Acetate	2.59	43	73127	8.95	PPB	98
20) Acetonitrile	2.66	40	174371	316.09	PPB	98
21) Methylene Chloride	2.70	84	163838	9.45	PPB	94
22) tert-Butyl Alcohol	2.82	59	51679	83.92	PPB	87
23) Acrylonitrile	3.03	53	140540	38.03	PPB	98
24) Methyl tert-Butyl Ether	2.89	73	378263	9.50	PPB	97
25) trans-1,2-Dichloroethene	2.91	96	160436	10.24	PPB	97
26) Hexane	3.10	57	493298	30.21	PPB	99
27) Diisopropyl Ether	3.39	45	806604	16.17	PPB	94
28) 1,1-Dichloroethane	3.40	63	275178	9.90	PPB	96
29) Vinyl Acetate	3.45	86	154852	52.50	PPB	92

(#) = qualifier out of range (m) = manual integration
0502F010.D 041316MS18_8260.M Tue May 03 08:52:19 2016 Page 1

Data File : J:\MS18\DATA\050216\0502F010.D Vial: 10
Acq On : 2 May 2016 18:23 Operator: YX
Sample : MS K1604068-002 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 02 19:40:50 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
30)	Chloroprene	3.45	53	708517	27.69	PPB		97
31)	tert-Butyl Ethyl Ether	3.80	59	757999	16.77	PPB		96
32)	2,2-Dichloropropane	4.03	77	181785	9.31	PPB		97
33)	cis-1,2-Dichloroethene	4.07	96	178528	10.03	PPB		95
34)	2-Butanone	4.15	72	56399	49.08	PPB	#	81
35)	Propionitrile	4.33	54	37953	29.31	PPB		97
36)	Ethyl Acetate	4.17	61	44544	27.00	PPB		98
37)	Methacrylonitrile	4.46	67	141090	29.79	PPB		96
38)	Bromochloromethane	4.38	128	64052	9.45	PPB		89
40)	Chloroform	4.48	83	259472	10.10	PPB		99
42)	1,1,1-Trichloroethane	4.63	97	193043	9.69	PPB		98
44)	Carbon Tetrachloride	4.79	117	145892	9.00	PPB		96
45)	1,1-Dichloropropene	4.85	75	216794	10.26	PPB		97
46)	Cyclohexane	4.58	56	255945	9.78	PPB		90
47)	Isobutyl Alcohol	5.21	43	61031	258.13	PPB		99
49)	Benzene	5.13	78	670572	9.52	PPB		98
50)	1,2-Dichloroethane	5.29	62	175996	9.41	PPB		98
51)	tert-Amyl Methyl Ether	5.28	55	213167	18.65	PPB	#	73
52)	Trichloroethene	5.99	95	153345	9.98	PPB		96
53)	1,2-Dichloropropane	6.33	63	146517	9.03	PPB		95
54)	Dibromomethane	6.47	93	76359	9.71	PPB		93
55)	Methyl methacrylate	6.51	69	238111	27.68	PPB		96
56)	1,4-Dioxane	6.52	88	34042	308.57	PPB		91
57)	Bromodichloromethane	6.67	83	141506	8.17	PPB		99
58)	2-Nitropropane	7.06	41	26814	15.03	PPB		95
59)	Methyl Cyclohexane	6.10	83	236522	9.75	PPB		98
60)	2-Chloroethyl Vinyl Ether	7.08	63	2035	0.26	PPB		89
61)	cis-1,3-Dichloropropene	7.20	75	202463	7.80	PPB		97
62)	4-Methyl-2-pentanone (MIBK	7.41	58	187545	48.62	PPB	#	90
64)	Toluene	7.50	92	432878	9.60	PPB		98
66)	n-Octane	7.58	85	2399	0.37	PPB		82
67)	trans-1,3-Dichloropropene	7.87	75	149275	7.44	PPB		98
68)	Ethyl methacrylate	7.94	69	489048	30.92	PPB		96
69)	1,1,2-Trichloroethane	8.06	83	104113	9.71	PPB		94
70)	Tetrachloroethene	8.06	164	129169	10.89	PPB		97
71)	2-Hexanone	8.34	57	57365	46.28	PPB		93
72)	1,3-Dichloropropane	8.24	76	227924	9.65	PPB		98
73)	Dibromochloromethane	8.44	129	89421	7.29	PPB		98
74)	1,2-Dibromoethane (EDB)	8.55	107	116621	9.81	PPB		99
75)	1-Chlorohexane	9.03	91	215330	10.27	PPB		97
76)	Chlorobenzene	9.04	112	470295	9.77	PPB		99

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

Data File : J:\MS18\DATA\050216\0502F010.D Vial: 10
Acq On : 2 May 2016 18:23 Operator: YX
Sample : MS K1604068-002 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 02 19:40:50 2016 Quant Results File: 041316MS18_8260

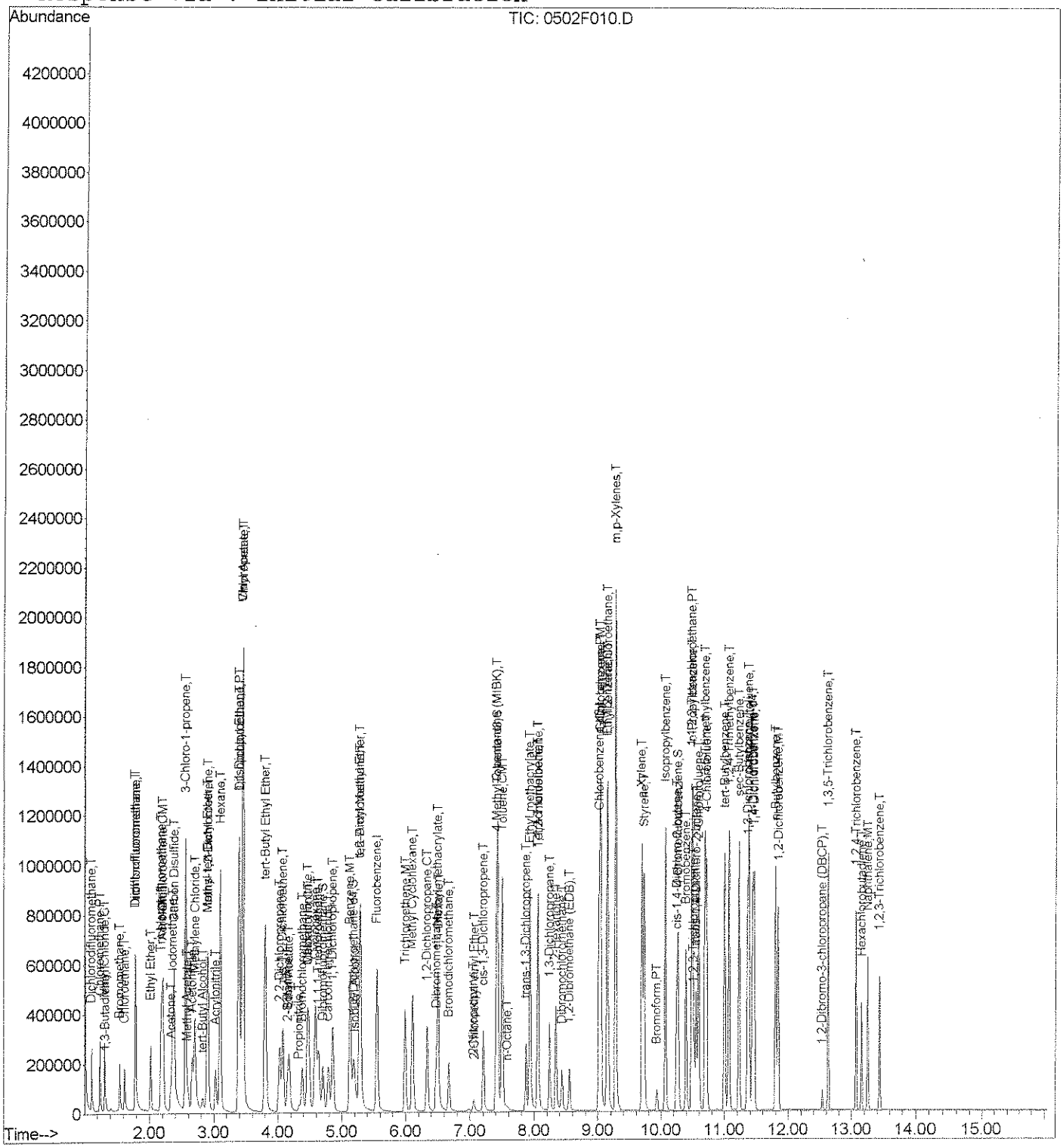
Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77)	Ethylbenzene	9.14	106	258002	10.25	PPB	97
78)	1,1,1,2-Tetrachloroethane	9.15	131	117115	8.40	PPB	100
79)	m,p-Xylenes	9.27	106	636483	20.51	PPB	98
80)	o-Xylene	9.69	106	305741	10.23	PPB	99
81)	Styrene	9.73	103	230881	9.88	PPB	96
82)	Bromoform	9.92	173	39930	7.22	PPB	94
83)	Isopropylbenzene	10.07	105	751111	10.18	PPB	99
84)	cis-1,4-Dichloro-2-butene	10.24	89	37490	19.11	PPB	97
87)	1,1,2,2-Tetrachloroethane	10.48	83	136364	9.10	PPB	99
88)	trans-1,4-Dichloro-2-buten	10.55	53	102140	25.62	PPB	96
89)	Bromobenzene	10.39	156	191458	9.65	PPB	99
90)	n-Propylbenzene	10.49	91	875746	9.57	PPB	98
91)	1,2,3-Trichloropropane	10.52	110	42664	9.13	PPB	95
92)	2-Chlorotoluene	10.59	91	545986	9.27	PPB	98
93)	1,3,5-Trimethylbenzene	10.69	105	612367	9.58	PPB	100
94)	4-Chlorotoluene	10.72	91	618059	9.16	PPB	98
95)	tert-Butylbenzene	11.00	119	524677	9.54	PPB	98
96)	1,2,4-Trimethylbenzene	11.07	105	631515	9.84	PPB	97
97)	sec-Butylbenzene	11.23	105	751581	9.71	PPB	99
98)	p-Isopropyltoluene	11.38	119	635633	10.19	PPB	98
99)	1,3-Dichlorobenzene	11.36	146	360511	9.28	PPB	98
100)	1,4-Dichlorobenzene	11.46	146	368188	8.94	PPB	98
101)	n-Butylbenzene	11.80	91	516224	9.58	PPB	100
102)	1,2-Dichlorobenzene	11.84	146	340244	9.20	PPB	99
103)	1,2-Dibromo-3-chloropropan	12.54	155	10621	7.31	PPB	94
104)	1,3,5-Trichlorobenzene	12.63	180	221987	9.59	PPB	99
105)	1,2,4-Trichlorobenzene	13.07	180	184189	9.08	PPB	99
106)	Hexachlorobutadiene	13.15	225	70171	9.54	PPB	98
107)	Naphthalene	13.25	128	372776	9.24	PPB	99
108)	1,2,3-Trichlorobenzene	13.44	180	144617	8.82	PPB	99

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

Data File : J:\MS18\DATA\050216\0502F010.D Vial: 10
Acq On : 2 May 2016 18:23 Operator: YX
Sample : MS K1604068-002 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:17 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Exception Report

Data File: J:\MS18\DATA\050216\0502F011.D
Lab ID: KWG1603424-2 -- K1604068-002DMS
RunType: DMS
Matrix: WATER

Date Acquired: 05/02/2016 18:45
Date Quantitated: 05/03/2016 08:17
Batch ID: KWG1603423
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	Acetonitrile	0.0086	0.01	NA	NJ
	tert-Butyl Alcohol	0.0095	0.01	NA	
	Isobutyl Alcohol	0.0037	0.01	NA	
	1,4-Dioxane	0.0017	0.01	NA	
Continuing Calibration Recovery	Chloromethane	-23.4	NA	20	
	Bromomethane	-24.2	NA	20	
	Acrolein	23.3	NA	20	
	Iodomethane	-48.5	NA	20	
	Carbon Disulfide	-31.3	NA	20	
	n-Hexane	-20.7	NA	20	
	2,2-Dichloropropane	-24.5	NA	20	
	Carbon Tetrachloride	-24.0	NA	20	
	Cyclohexane	-24.7	NA	20	

Primary Review: 5/3/16

Secondary Review: 5/3/16

Printed: 05/03/2016 10:05:50
u:\Stealth\Crystal.rpt\except2.rpt

Exception Report

Data File: J:\MS18\DATA\050216\0502F011.D
Lab ID: KWG1603424-2 -- K1604068-002DMS
RunType: DMS
Matrix: WATER

Date Acquired: 05/02/2016 18:45
Date Quantitated: 05/03/2016 08:17
Batch ID: KWG1603423
Analysis Method: 8260C
MethodJoinID: MJ119

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	2-Nitropropane	-41.2	NA	20	NST
	trans-1,3-Dichloropropene	-21.3	NA	20	
	Bromoform	-24.4	NA	20	
	cis-1,4-Dichloro-2-butene	-36.1	NA	20	
	1,2-Dibromo-3-chloropropane	-22.5	NA	20	
Continuing Calibration Minimum RF	Acetonitrile	0.0087	0.01	NA	
	tert-Butyl Alcohol	0.0081	0.01	NA	
	Isobutyl Alcohol	0.0032	0.01	NA	
	1,4-Dioxane	0.0017	0.01	NA	

Primary Review: 5/23/16

Secondary Review: 5/23/16

Printed: 05/03/2016 10:05:50
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS18\DATA\050216\0502F011.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 18:45	**Quant Date:**	05/03/2016 08:17	**Vial:**	10
Run Type:	DMS	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603424-2 -- K1604068-002DMS			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	05/02/2016

Analysis Lot:	KWG1603423	**Prep Lot:**	KWG1603424	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514325	**Prep Date:**	05/02/2016		

Quant Method:	J:\MS18\METHODS\041316MS18_8	**Calibration ID:**	CAL14682
Title:			
Tune Ref:	J:\MS18\DATA\050216\0502F007.D	**Method ID:**	MJ1465
MB Ref:	J:\MS18\DATA\050216\0502F015.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.55	0.00	96	667265	10.00	OK
2	Chlorobenzene-d5	9.02	0.00	82	261083	10.00	OK
3	1,4-Dichlorobenzene-d4	11.44	0.01	152	249169	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	4.70	0.00	0.00	113	138158	10.45	105	80-119	OK	
1	1,2-Dichloroethane-d4	5.19	0.00	0.00	65	152313	9.97	100	81-118	OK	
1	Toluene-d8	7.43	0.00	0.00	98	664669	11.13	111	89-112	OK	
2	4-Bromofluorobenzene	10.27	0.00	0.00	95	232049	10.22	102	85-114	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.11		0.00	85	137965	8.08	8.08		
1	Chloromethane	1.24		0.00	50	170947	7.89	7.89		
1	Vinyl Chloride	1.31		0.00	62	178072	8.80	8.80		
1	1,3-Butadiene	1.33		0.00	54	8629	0.5500	0.550		
1	Bromomethane	1.55		0.00	96	76966	6.87	6.87		
1	Chloroethane	1.62		0.00	64	102949	8.20	8.20		
1	Dichlorofluoromethane (CFC 21	1.78		0.00	67	279785	9.83	9.83		
1	Trichlorofluoromethane	1.78		0.00	101	189647	8.65	8.65		
1	Diethyl Ether	2.02		0.00	59	116160	9.29	9.29		
1	Acrolein	2.20	0.01	0.00	56	161639	100.48	100		
1	Trichlorotrifluoroethane	2.18		0.00	151	118927	11.13	11.1		
1	1,1-Dichloroethene	2.21		0.00	96	140440	10.35	10.4		
1	Acetone	2.33		0.00	43	124333	58.31	58.3		
1	Iodomethane	2.35		0.00	142	366524	21.11	21.1		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\050216\0502F011.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 18:45	**Quant Date:**	05/03/2016 08:17	**Vial:**	10
Run Type:	DMS	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603424-2 -- K1604068-002DMS			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.38		0.00	76	791420	18.58	18.6		
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene	2.56		0.00	76	289484	33.12	33.1		
1	Methyl Acetate	2.60	0.01	0.00	43	74345	8.80	8.80		
1	Acetonitrile	2.66		0.00	40	179087	313.78	314		
1	Methylene Chloride	2.70		0.00	84	165804	9.24	9.24		
1	tert-Butyl Alcohol	2.83	0.01	0.00	59	54424	85.42	85.4		
1	Acrylonitrile	3.03		0.00	53	146042	38.20	38.2		
1	Methyl tert-Butyl Ether	2.89		0.00	73	391721	9.51	9.51		
1	trans-1,2-Dichloroethene	2.91		0.00	96	163773	10.10	10.1		
1	n-Hexane	3.10		0.00	57	487407	28.85	28.9		
1	Diisopropyl Ether	3.39		0.00	45	818127	15.85	15.9		
1	1,1-Dichloroethane	3.40		0.00	63	275759	9.59	9.59		
1	Vinyl Acetate	3.46	0.01	0.00	86	159143	52.15	52.2		
1	Chloroprene	3.45	0.01	0.00	53	710767	26.85	26.9		
1	tert-Butyl Ethyl Ether	3.80		0.00	59	766115	16.38	16.4		
1	2,2-Dichloropropane	4.03		0.00	77	179477	8.89	8.89		
1	cis-1,2-Dichloroethene	4.07		0.00	96	177540	9.64	9.64		
1	2-Butanone (MEK)	4.15	0.01	0.00	72	59632	50.16	50.2		
1	Propionitrile	4.34	0.01	0.00	54	40117	29.94	29.9		
1	Ethyl Acetate	4.17		0.00	61	43060	25.23	25.2		
1	Methacrylonitrile	4.46		0.00	67	146555	29.91	29.9		
1	Bromochloromethane	4.38		0.00	128	62550	8.92	8.92		
1	Tetrahydrofuran				71	0d		0.94	U	
1	Chloroform	4.48		0.00	83	257603	9.69	9.69		
1	tert-Butyl Formate				59	0d		0.26	U	
1	1,1,1-Trichloroethane (TCA)	4.63		0.00	97	194553	9.44	9.44		
1	Carbon Tetrachloride	4.79		0.00	117	145020	8.65	8.65		
1	1,1-Dichloropropene	4.85		0.00	75	219827	10.05	10.1		
1	Cyclohexane	4.58		0.00	56	253855	9.37	9.37		
1	Isobutyl Alcohol	5.22	0.01	0.00	43	62067	253.72	254		
1	Benzene	5.13		0.00	78	669519	9.19	9.19		
1	1,2-Dichloroethane (EDC)	5.29		0.00	62	180207	9.32	9.32		
1	tert-Amyl Methyl Ether	5.28		0.00	55	217618	18.40	18.4		
1	Trichloroethene (TCE)	5.99		0.00	95	154155	9.70	9.70		
1	1,2-Dichloropropane	6.33		0.00	63	148013	8.81	8.81		
1	Dibromomethane	6.48	0.01	0.00	93	77008	9.46	9.46		
1	Methyl Methacrylate	6.51	0.01	0.00	69	256873	28.87	28.9		
1	1,4-Dioxane	6.52		0.00	88	34752	304.46	304		
1	Bromodichloromethane	6.67		0.00	83	140162	7.83	7.83		
1	2-Nitropropane	7.06		0.00	41	28090	15.21	15.2		
1	Methylcyclohexane	6.11	0.01	0.00	83	238435	9.50	9.50		

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Data File:	J:\MS18\DATA\050216\0502F011.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 18:45	**Quant Date:**	05/03/2016 08:17	**Vial:**	10
Run Type:	DMS	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603424-2 -- K1604068-002DMS			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	2-Chloroethyl Vinyl Ether	7.20	0.12	0.02	63	1051	0.1300	0.16	U	
1	cis-1,3-Dichloropropene	7.21	0.01	0.00	75	202167	7.53	7.53		
1	4-Methyl-2-pentanone (MIBK)	7.41		0.00	58	198899	49.84	49.8		
1	Toluene	7.50		0.00	92	439296	9.41	9.41		
2	trans-1,3-Dichloropropene	7.87		0.00	75	152989	7.37	7.37		
2	Ethyl Methacrylate	7.94		0.00	69	511534	31.24	31.2		
2	1,1,2-Trichloroethane	8.06		0.00	83	106633	9.61	9.61		
2	Tetrachloroethene (PCE)	8.06		0.00	164	127342	10.37	10.4		
2	2-Hexanone	8.34		0.00	57	60988	47.53	47.5		
2	1,3-Dichloropropane	8.24		0.00	76	232009	9.49	9.49		
2	Dibromochloromethane	8.44		0.00	129	91016	7.17	7.17		
2	1,2-Dibromoethane (EDB)	8.55		0.00	107	120798	9.82	9.82		
2	1-Chlorohexane	9.03		0.00	91	217625	10.02	10.0		
2	Chlorobenzene	9.05	0.01	0.00	112	469060	9.41	9.41		
2	Ethylbenzene	9.14		0.00	106	257506	9.88	9.88		
2	1,1,1,2-Tetrachloroethane	9.16		0.00	131	118758	8.23	8.23		
2	m,p-Xylenes	9.27		0.00	106	633441	19.72	19.7		
2	o-Xylene	9.69		0.00	106	307953	9.95	9.95		
2	Styrene	9.73		0.00	103	230731	9.53	9.53		
2	Bromoform	9.93		0.00	173	40784	7.12	7.12		
2	Isopropylbenzene	10.07		0.00	105	755514	9.89	9.89		
2	cis-1,4-Dichloro-2-butene	10.24		0.00	89	38466	18.94	18.9		
3	1,1,2,2-Tetrachloroethane	10.48		0.00	83	144720	9.50	9.50		
3	trans-1,4-Dichloro-2-butene	10.55		0.00	53	106601	26.29	26.3		
3	Bromobenzene	10.40		0.00	156	193145	9.57	9.57		
3	n-Propylbenzene	10.49		0.00	91	879967	9.45	9.45		
3	1,2,3-Trichloropropane	10.52		0.00	110	45782	9.63	9.63		
3	2-Chlorotoluene	10.59		0.00	91	551405	9.21	9.21		
3	1,3,5-Trimethylbenzene	10.69		0.00	105	613596	9.44	9.44		
3	4-Chlorotoluene	10.72	0.01	0.00	91	621526	9.05	9.05		
3	tert-Butylbenzene	11.00		0.00	119	530739	9.48	9.48		
3	1,2,4-Trimethylbenzene	11.07		0.00	105	639740	9.80	9.80		
3	sec-Butylbenzene	11.23		0.00	105	753075	9.56	9.56		
3	4-Isopropyltoluene	11.38		0.00	119	639701	10.08	10.1		
3	1,3-Dichlorobenzene	11.36		0.00	146	364462	9.22	9.22		
3	1,4-Dichlorobenzene	11.46		0.00	146	372723	8.90	8.90		
3	n-Butylbenzene	11.80		0.00	91	519791	9.48	9.48		
3	1,2-Dichlorobenzene	11.84		0.00	146	345271	9.18	9.18		
3	1,2-Dibromo-3-chloropropane	12.54		0.00	155	11548	7.79	7.79		
3	1,3,5-Trichlorobenzene	12.63		0.00	180	228319	9.69	9.69		
3	1,2,4-Trichlorobenzene	13.07		0.00	180	192259	9.32	9.32		
3	Hexachlorobutadiene	13.15		0.00	225	72713	9.71	9.71		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\050216\0502F011.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 18:45	**Quant Date:**	05/03/2016 08:17	**Vial:**	10
Run Type:	DMS	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603424-2 -- K1604068-002DMS			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	13.25		0.00	128	404056	9.85	9.85		
3	1,2,3-Trichlorobenzene	13.44		0.00	180	153283	9.19	9.19		

Prep Amount: 10 ml **Dilution:** 1.0
Prep Final Vol: 10 ml **Unit Factor:** 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS18\DATA\050216\0502F011.D Vial: 10
Acq On : 2 May 2016 18:45 Operator: YX
Sample : DMS K1604068-002 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 02 19:40:56 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.55	96	667265	10.00	PPB		0.00
65) Chlorobenzene-d5	9.02	82	261083	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	249169	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	4.70	113	138158	10.45	PPB		0.00
Spiked Amount 10.000			Recovery =	104.50%			
48) 1,2-Dichloroethane-d4	5.19	65	152313	9.97	PPB		0.00
Spiked Amount 10.000			Recovery =	99.70%			
63) Toluene-d8	7.43	98	664669	11.13	PPB		0.00
Spiked Amount 10.000			Recovery =	111.30%			
85) 4-Bromofluorobenzene	10.27	95	232049	10.22	PPB		0.00
Spiked Amount 10.000			Recovery =	102.20%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.11	85	137965	8.08	PPB		98
3) Chloromethane	1.24	50	170947	7.89	PPB		97
4) Vinyl Chloride	1.31	62	178072	8.80	PPB		99
5) 1,3-Butadiene	1.33	54	8629	0.55	PPB		88
6) Bromomethane	1.55	96	76966	6.87	PPB		98
7) Chloroethane	1.62	64	102949	8.20	PPB		99
8) Dichlorofluoromethane	1.78	67	279785	9.83	PPB		97
9) Trichlorofluoromethane	1.78	101	189647	8.65	PPB		98
10) Ethyl Ether	2.02	59	116160	9.29	PPB		99
11) Acrolein	2.20	56	161639	100.48	PPB		99
12) Trichlorotrifluoroethane	2.18	151	118927	11.13	PPB		95
13) 1,1-Dichloroethene	2.21	96	140440	10.35	PPB		97
14) Acetone	2.33	43	124333	58.31	PPB		96
15) Iodomethane	2.35	142	366524	21.11	PPB		100
16) Carbon Disulfide	2.38	76	791420	18.58	PPB		99
18) 3-Chloro-1-propene	2.56	76	289484	33.12	PPB	#	83
19) Methyl Acetate	2.60	43	74345	8.80	PPB		98
20) Acetonitrile	2.66	40	179087	313.78	PPB		96
21) Methylene Chloride	2.70	84	165804	9.24	PPB		95
22) tert-Butyl Alcohol	2.83	59	54424	85.42	PPB		86
23) Acrylonitrile	3.03	53	146042	38.20	PPB		98
24) Methyl tert-Butyl Ether	2.89	73	391721	9.51	PPB		99
25) trans-1,2-Dichloroethene	2.91	96	163773	10.10	PPB		96
26) Hexane	3.10	57	487407	28.85	PPB		98
27) Diisopropyl Ether	3.39	45	818127	15.85	PPB		96
28) 1,1-Dichloroethane	3.40	63	275759	9.59	PPB		97
29) Vinyl Acetate	3.46	86	159143	52.15	PPB	#	84

(#) = qualifier out of range (m) = manual integration
0502F011.D 041316MS18_8260.M Tue May 03 08:52:20 2016 Page 1

Data File : J:\MS18\DATA\050216\0502F011.D Vial: 10
Acq On : 2 May 2016 18:45 Operator: YX
Sample : DMS K1604068-002 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 02 19:40:56 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
30)	Chloroprene	3.45	53	710767	26.85	PPB		96
31)	tert-Butyl Ethyl Ether	3.80	59	766115	16.38	PPB		98
32)	2,2-Dichloropropane	4.03	77	179477	8.89	PPB		97
33)	cis-1,2-Dichloroethene	4.07	96	177540	9.64	PPB		94
34)	2-Butanone	4.15	72	59632	50.16	PPB	#	75
35)	Propionitrile	4.34	54	40117	29.94	PPB		97
36)	Ethyl Acetate	4.17	61	43060	25.23	PPB		98
37)	Methacrylonitrile	4.46	67	146555	29.91	PPB		98
38)	Bromochloromethane	4.38	128	62550	8.92	PPB		91
40)	Chloroform	4.48	83	257603	9.69	PPB		98
42)	1,1,1-Trichloroethane	4.63	97	194553	9.44	PPB		99
44)	Carbon Tetrachloride	4.79	117	145020	8.65	PPB		99
45)	1,1-Dichloropropene	4.85	75	219827	10.05	PPB		99
46)	Cyclohexane	4.58	56	253855	9.37	PPB		94
47)	Isobutyl Alcohol	5.22	43	62067	253.72	PPB		93
49)	Benzene	5.13	78	669519	9.19	PPB		98
50)	1,2-Dichloroethane	5.29	62	180207	9.32	PPB		98
51)	tert-Amyl Methyl Ether	5.28	55	217618	18.40	PPB	#	80
52)	Trichloroethene	5.99	95	154155	9.70	PPB		99
53)	1,2-Dichloropropane	6.33	63	148013	8.81	PPB		99
54)	Dibromomethane	6.48	93	77008	9.46	PPB		94
55)	Methyl methacrylate	6.51	69	256873	28.87	PPB		96
56)	1,4-Dioxane	6.52	88	34752	304.46	PPB		95
57)	Bromodichloromethane	6.67	83	140162	7.83	PPB		96
58)	2-Nitropropane	7.06	41	28090	15.21	PPB		95
59)	Methyl Cyclohexane	6.11	83	238435	9.50	PPB		97
60)	2-Chloroethyl Vinyl Ether	7.20	63	1051	0.13	PPB	#	44
61)	cis-1,3-Dichloropropene	7.21	75	202167	7.53	PPB		98
62)	4-Methyl-2-pentanone (MIBK	7.41	58	198899	49.84	PPB	#	92
64)	Toluene	7.50	92	439296	9.41	PPB		98
66)	n-Octane	7.59	85	1241	0.19	PPB		88
67)	trans-1,3-Dichloropropene	7.87	75	152989	7.37	PPB		99
68)	Ethyl methacrylate	7.94	69	511534	31.24	PPB		96
69)	1,1,2-Trichloroethane	8.06	83	106633	9.61	PPB		94
70)	Tetrachloroethene	8.06	164	127342	10.37	PPB		98
71)	2-Hexanone	8.34	57	60988	47.53	PPB		96
72)	1,3-Dichloropropane	8.24	76	232009	9.49	PPB		99
73)	Dibromochloromethane	8.44	129	91016	7.17	PPB		99
74)	1,2-Dibromoethane (EDB)	8.55	107	120798	9.82	PPB		99
75)	1-Chlorohexane	9.03	91	217625	10.02	PPB		98
76)	Chlorobenzene	9.05	112	469060	9.41	PPB		97

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

Data File : J:\MS18\DATA\050216\0502F011.D Vial: 10
Acq On : 2 May 2016 18:45 Operator: YX
Sample : DMS K1604068-002 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 02 19:40:56 2016 Quant Results File: 041316MS18_8260

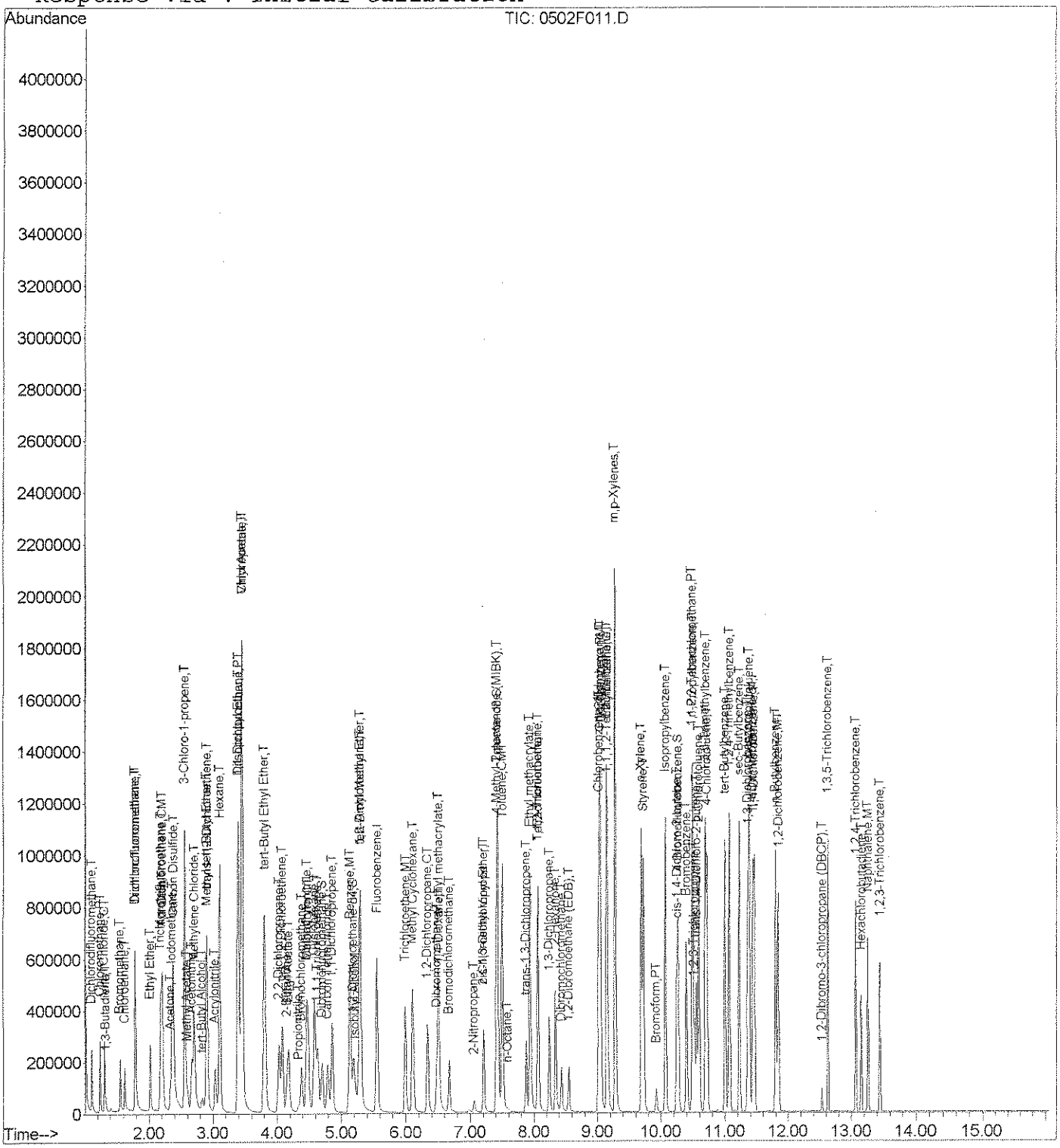
Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77)	Ethylbenzene	9.14	106	257506	9.88	PPB	93
78)	1,1,1,2-Tetrachloroethane	9.16	131	118758	8.23	PPB	94
79)	m,p-Xylenes	9.27	106	633441	19.72	PPB	98
80)	o-Xylene	9.69	106	307953	9.95	PPB	97
81)	Styrene	9.73	103	230731	9.53	PPB	97
82)	Bromoform	9.93	173	40784	7.12	PPB	98
83)	Isopropylbenzene	10.07	105	755514	9.89	PPB	99
84)	cis-1,4-Dichloro-2-butene	10.24	89	38466	18.94	PPB	94
87)	1,1,2,2-Tetrachloroethane	10.48	83	144720	9.50	PPB	99
88)	trans-1,4-Dichloro-2-buten	10.55	53	106601	26.29	PPB	95
89)	Bromobenzene	10.40	156	193145	9.57	PPB	94
90)	n-Propylbenzene	10.49	91	879967	9.45	PPB	99
91)	1,2,3-Trichloropropane	10.52	110	45782	9.63	PPB	89
92)	2-Chlorotoluene	10.59	91	551405	9.21	PPB	97
93)	1,3,5-Trimethylbenzene	10.69	105	613596	9.44	PPB	99
94)	4-Chlorotoluene	10.72	91	621526	9.05	PPB	99
95)	tert-Butylbenzene	11.00	119	530739	9.48	PPB	98
96)	1,2,4-Trimethylbenzene	11.07	105	639740	9.80	PPB	99
97)	sec-Butylbenzene	11.23	105	753075	9.56	PPB	99
98)	p-Isopropyltoluene	11.38	119	639701	10.08	PPB	98
99)	1,3-Dichlorobenzene	11.36	146	364462	9.22	PPB	97
100)	1,4-Dichlorobenzene	11.46	146	372723	8.90	PPB	98
101)	n-Butylbenzene	11.80	91	519791	9.48	PPB	99
102)	1,2-Dichlorobenzene	11.84	146	345271	9.18	PPB	98
103)	1,2-Dibromo-3-chloropropan	12.54	155	11548	7.79	PPB	89
104)	1,3,5-Trichlorobenzene	12.63	180	228319	9.69	PPB	99
105)	1,2,4-Trichlorobenzene	13.07	180	192259	9.32	PPB	98
106)	Hexachlorobutadiene	13.15	225	72713	9.71	PPB	98
107)	Naphthalene	13.25	128	404056	9.85	PPB	99
108)	1,2,3-Trichlorobenzene	13.44	180	153283	9.19	PPB	99

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

Data File : J:\MS18\DATA\050216\0502F011.D Vial: 10
Acq On : 2 May 2016 18:45 Operator: YX
Sample : DMS K1604068-002 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:17 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Exception Report

Data File: J:\MS18\DATA\050216\0502F009.D
Lab ID: KWG1603424-3
RunType: LCS
Matrix: WATER

Date Acquired: 05/02/2016 17:59
Date Quantitated: 05/03/2016 08:16
Batch ID: KWG1603423
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	Acetonitrile	0.0086	0.01	NA	NT
	tert-Butyl Alcohol	0.0095	0.01	NA	
	Isobutyl Alcohol	0.0037	0.01	NA	
	1,4-Dioxane	0.0017	0.01	NA	
Continuing Calibration Recovery	Chloromethane	-23.4	NA	20	
	Bromomethane	-24.2	NA	20	
	Acrolein	23.3	NA	20	
	Iodomethane	-48.5	NA	20	
	Carbon Disulfide	-31.3	NA	20	
	n-Hexane	-20.7	NA	20	
	2,2-Dichloropropane	-24.5	NA	20	
	Carbon Tetrachloride	-24.0	NA	20	
	Cyclohexane	-24.7	NA	20	

Primary Review: [illegible] 5/3/16

Secondary Review: [illegible]

Printed: 05/03/2016 10:52:33
u:\Stealth\Crystal.rpt\except2.rpt

Exception Report

Data File: J:\MS18\DATA\050216\0502F009.D
Lab ID: KWG1603424-3
RunType: LCS
Matrix: WATER

Date Acquired: 05/02/2016 17:59
Date Quantitated: 05/03/2016 08:16
Batch ID: KWG1603423
Analysis Method: 8260C
MethodJoinID: MJ119

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	2-Nitropropane	-41.2	NA	20	LT
	trans-1,3-Dichloropropene	-21.3	NA	20	
	Bromoform	-24.4	NA	20	
	cis-1,4-Dichloro-2-butene	-36.1	NA	20	
	1,2-Dibromo-3-chloropropane	-22.5	NA	20	
Continuing Calibration Minimum RF	Acetonitrile	0.0087	0.01	NA	
	tert-Butyl Alcohol	0.0081	0.01	NA	
	Isobutyl Alcohol	0.0032	0.01	NA	
	1,4-Dioxane	0.0017	0.01	NA	

Primary Review: KO 5/23/16

Secondary Review: [illegible] 5/23/16

Printed: 05/03/2016 10:05:44
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS18\DATA\050216\0502F009.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 17:59	**Quant Date:**	05/03/2016 08:16	**Vial:**	9
Run Type:	LCS	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603424-3			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	05/03/2016

Analysis Lot:	KWG1603423	**Prep Lot:**	KWG1603424	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1514326	**Prep Date:**	05/02/2016		

Quant Method:	J:\MS18\METHODS\041316MS18_8	**Calibration ID:**	CAL14682
Title:			
Tune Ref:	J:\MS18\DATA\050216\0502F007.D	**Method ID:**	MJ1465
MB Ref:	J:\MS18\DATA\050216\0502F015.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.55	0.00	96	651397	10.00	OK
2	Chlorobenzene-d5	9.02	0.00	82	247336	10.00	OK
3	1,4-Dichlorobenzene-d4	11.43	0.00	152	238462	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	4.70	0.00	0.00	113	130967	10.15	102	80-119	OK	
1	1,2-Dichloroethane-d4	5.19	0.00	0.00	65	145393	9.75	98	81-118	OK	
1	Toluene-d8	7.43	0.00	0.00	98	644475	11.05	111	89-112	OK	
2	4-Bromofluorobenzene	10.27	0.00	0.00	95	220782	10.26	103	85-114	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.11		0.00	85	113875	6.84	6.84		
1	Chloromethane	1.24		0.00	50	135552	6.41	6.41		
1	Vinyl Chloride	1.31		0.00	62	150232	7.60	7.60		
1	1,3-Butadiene	1.33		0.00	54	7762	0.5100	0.510		
1	Bromomethane	1.55		0.00	96	66481	6.07	6.07		
1	Chloroethane	1.62		0.00	64	95705	7.80	7.80		
1	Dichlorofluoromethane (CFC 21	1.78		0.00	67	252726	9.10	9.10		
1	Trichlorofluoromethane	1.78		0.00	101	160597	7.50	7.50		
1	Diethyl Ether	2.02		0.00	59	108463	8.89	8.89		
1	Acrolein	2.19		0.00	56	155464	98.99	99.0		
1	Trichlorotrifluoroethane	2.18		0.00	151	99624	9.55	9.55		
1	1,1-Dichloroethene	2.21		0.00	96	121653	9.18	9.18		
1	Acetone	2.33		0.00	43	107805	51.79	51.8		
1	Iodomethane	2.35		0.00	142	325383	19.20	19.2		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\050216\0502F009.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 17:59	**Quant Date:**	05/03/2016 08:16	**Vial:**	9
Run Type:	LCS	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603424-3			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.38		0.00	76	656774	15.80	15.8		
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene	2.55	-0.01	0.00	76	232302	27.23	27.2		
1	Methyl Acetate	2.59		0.00	43	70252	8.52	8.52		
1	Acetonitrile	2.66		0.00	40	171684	308.13	308		
1	Methylene Chloride	2.70		0.00	84	154838	8.84	8.84		
1	tert-Butyl Alcohol	2.82		0.00	59	50803	81.68	81.7		
1	Acrylonitrile	3.02	-0.01	0.00	53	134918	36.15	36.2		
1	Methyl tert-Butyl Ether	2.89		0.00	73	352185	8.75	8.75		
1	trans-1,2-Dichloroethene	2.91		0.00	96	141721	8.96	8.96		
1	n-Hexane	3.10		0.00	57	415957	25.22	25.2		
1	Diisopropyl Ether	3.39		0.00	45	785697	15.59	15.6		
1	1,1-Dichloroethane	3.40		0.00	63	248107	8.84	8.84		
1	Vinyl Acetate	3.45		0.00	86	140624	47.21	47.2		
1	Chloroprene	3.44		0.00	53	605315	23.42	23.4		
1	tert-Butyl Ethyl Ether	3.80		0.00	59	730546	16.00	16.0		
1	2,2-Dichloropropane	4.03		0.00	77	151080	7.66	7.66		
1	cis-1,2-Dichloroethene	4.07		0.00	96	164285	9.14	9.14		
1	2-Butanone (MEK)	4.15	0.01	0.00	72	53963	46.50	46.5		
1	Propionitrile	4.33		0.00	54	36715	28.07	28.1		
1	Ethyl Acetate	4.17		0.00	61	40361	24.22	24.2		
1	Methacrylonitrile	4.46		0.00	67	133356	27.88	27.9		
1	Bromochloromethane	4.38		0.00	128	61821	9.03	9.03		
1	Tetrahydrofuran				71	0d		0.94	U	
1	Chloroform	4.48		0.00	83	235698	9.08	9.08		
1	tert-Butyl Formate				59	0d		0.26	U	
1	1,1,1-Trichloroethane (TCA)	4.63		0.00	97	164257	8.17	8.17		
1	Carbon Tetrachloride	4.79		0.00	117	119597	7.33	7.33		
1	1,1-Dichloropropene	4.85		0.00	75	182448	8.55	8.55		
1	Cyclohexane	4.58		0.00	56	221089	8.36	8.36		
1	Isobutyl Alcohol	5.21		0.00	43	57557	241.02	241		
1	Benzene	5.13		0.00	78	598860	8.42	8.42		
1	1,2-Dichloroethane (EDC)	5.28	-0.01	0.00	62	168074	8.90	8.90		
1	tert-Amyl Methyl Ether	5.28		0.00	55	210592	18.24	18.2		
1	Trichloroethene (TCE)	5.99		0.00	95	136831	8.82	8.82		
1	1,2-Dichloropropane	6.33		0.00	63	136412	8.32	8.32		
1	Dibromomethane	6.47		0.00	93	71933	9.06	9.06		
1	Methyl Methacrylate	6.51	0.01	0.00	69	224101	25.80	25.8		
1	1,4-Dioxane	6.51	-0.01	0.00	88	34616	310.66	311		
1	Bromodichloromethane	6.67		0.00	83	127583	7.31	7.31		
1	2-Nitropropane	7.06		0.00	41	27885	15.47	15.5		
1	Methylcyclohexane	6.11	0.01	0.00	83	204889	8.36	8.36		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\050216\0502F009.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 17:59	**Quant Date:**	05/03/2016 08:16	**Vial:**	9
Run Type:	LCS	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603424-3			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	2-Chloroethyl Vinyl Ether	7.08		0.00	63	63589	7.91	7.91		
1	cis-1,3-Dichloropropene	7.20		0.00	75	185511	7.09	7.09		
1	4-Methyl-2-pentanone (MIBK)	7.41		0.00	58	177413	45.54	45.5		
1	Toluene	7.50		0.00	92	389536	8.55	8.55		
2	trans-1,3-Dichloropropene	7.87		0.00	75	137745	7.01	7.01		
2	Ethyl Methacrylate	7.94		0.00	69	458581	29.56	29.6		
2	1,1,2-Trichloroethane	8.06		0.00	83	98223	9.34	9.34		
2	Tetrachloroethene (PCE)	8.06		0.00	164	111405	9.58	9.58		
2	2-Hexanone	8.34		0.00	57	54764	45.05	45.1		
2	1,3-Dichloropropane	8.24		0.00	76	213715	9.23	9.23		
2	Dibromochloromethane	8.44		0.00	129	83697	6.97	6.97		
2	1,2-Dibromoethane (EDB)	8.55		0.00	107	108835	9.34	9.34		
2	1-Chlorohexane	9.03		0.00	91	179779	8.74	8.74		
2	Chlorobenzene	9.05	0.01	0.00	112	427645	9.06	9.06		
2	Ethylbenzene	9.14		0.00	106	230670	9.35	9.35		
2	1,1,1,2-Tetrachloroethane	9.16		0.00	131	107546	7.87	7.87		
2	m,p-Xylenes	9.27		0.00	106	569897	18.72	18.7		
2	o-Xylene	9.69		0.00	106	277767	9.48	9.48		
2	Styrene	9.73		0.00	103	212231	9.26	9.26		
2	Bromoform	9.92	-0.01	0.00	173	37139	6.86	6.86		
2	Isopropylbenzene	10.07		0.00	105	654256	9.04	9.04		
2	cis-1,4-Dichloro-2-butene	10.24		0.00	89	32855	17.10	17.1		
3	1,1,2,2-Tetrachloroethane	10.48		0.00	83	125693	8.62	8.62		
3	trans-1,4-Dichloro-2-butene	10.55		0.00	53	92782	23.91	23.9		
3	Bromobenzene	10.40		0.00	156	173910	9.00	9.00		
3	n-Propylbenzene	10.49		0.00	91	766848	8.60	8.60		
3	1,2,3-Trichloropropane	10.52		0.00	110	41151	9.04	9.04		
3	2-Chlorotoluene	10.59		0.00	91	495362	8.64	8.64		
3	1,3,5-Trimethylbenzene	10.68	-0.01	0.00	105	543799	8.74	8.74		
3	4-Chlorotoluene	10.71		0.00	91	567449	8.64	8.64		
3	tert-Butylbenzene	11.00		0.00	119	459659	8.58	8.58		
3	1,2,4-Trimethylbenzene	11.07		0.00	105	571282	9.15	9.15		
3	sec-Butylbenzene	11.23		0.00	105	652655	8.66	8.66		
3	4-Isopropyltoluene	11.38		0.00	119	557736	9.19	9.19		
3	1,3-Dichlorobenzene	11.36		0.00	146	330479	8.74	8.74		
3	1,4-Dichlorobenzene	11.46		0.00	146	340106	8.49	8.49		
3	n-Butylbenzene	11.80		0.00	91	450906	8.60	8.60		
3	1,2-Dichlorobenzene	11.84		0.00	146	317981	8.83	8.83		
3	1,2-Dibromo-3-chloropropane	12.54		0.00	155	9805	6.94	6.94		
3	1,3,5-Trichlorobenzene	12.62	-0.01	0.00	180	205499	9.12	9.12		
3	1,2,4-Trichlorobenzene	13.07		0.00	180	171425	8.68	8.68		
3	Hexachlorobutadiene	13.15		0.00	225	60261	8.41	8.41		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
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E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\050216\0502F009.D			**Instrument:**	GC-MS 18
Aequ Date:	05/02/2016 17:59	**Quant Date:**	05/03/2016 08:16	**Vial:**	9
Run Type:	LCS	***MethodJoinID:***	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603424-3			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	13.25		0.00	128	344961	8.79	8.79		
3	1,2,3-Trichlorobenzene	13.44		0.00	180	133219	8.35	8.35		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS18\DATA\050216\0502F009.D Vial: 9
Acq On : 2 May 2016 17:59 Operator: YX
Sample : LCS Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 02 18:17:21 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.55	96	651397	10.00	PPB		0.00
65) Chlorobenzene-d5	9.02	82	247336	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.43	152	238462	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	4.70	113	130967	10.15	PPB		0.00
Spiked Amount 10.000			Recovery =	101.50%			
48) 1,2-Dichloroethane-d4	5.19	65	145393	9.75	PPB		0.00
Spiked Amount 10.000			Recovery =	97.50%			
63) Toluene-d8	7.43	98	644475	11.05	PPB		0.00
Spiked Amount 10.000			Recovery =	110.50%			
85) 4-Bromofluorobenzene	10.27	95	220782	10.26	PPB		0.00
Spiked Amount 10.000			Recovery =	102.60%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.11	85	113875	6.84	PPB		99
3) Chloromethane	1.24	50	135552	6.41	PPB		98
4) Vinyl Chloride	1.31	62	150232	7.60	PPB		96
5) 1,3-Butadiene	1.33	54	7762	0.51	PPB		96
6) Bromomethane	1.55	96	66481	6.07	PPB		99
7) Chloroethane	1.62	64	95705	7.80	PPB		98
8) Dichlorofluoromethane	1.78	67	252726	9.10	PPB		99
9) Trichlorofluoromethane	1.78	101	160597	7.50	PPB		99
10) Ethyl Ether	2.02	59	108463	8.89	PPB		98
11) Acrolein	2.19	56	155464	98.99	PPB		98
12) Trichlorotrifluoroethane	2.18	151	99624	9.55	PPB		97
13) 1,1-Dichloroethene	2.21	96	121653	9.18	PPB		99
14) Acetone	2.33	43	107805	51.79	PPB		94
15) Iodomethane	2.35	142	325383	19.20	PPB		98
16) Carbon Disulfide	2.38	76	656774	15.80	PPB		100
18) 3-Chloro-1-propene	2.55	76	232302	27.23	PPB		89
19) Methyl Acetate	2.59	43	70252	8.52	PPB		98
20) Acetonitrile	2.66	40	171684	308.13	PPB		94
21) Methylene Chloride	2.70	84	154838	8.84	PPB		93
22) tert-Butyl Alcohol	2.82	59	50803	81.68	PPB		95
23) Acrylonitrile	3.02	53	134918	36.15	PPB		99
24) Methyl tert-Butyl Ether	2.89	73	352185	8.75	PPB		99
25) trans-1,2-Dichloroethene	2.91	96	141721	8.96	PPB		92
26) Hexane	3.10	57	415957	25.22	PPB		99
27) Diisopropyl Ether	3.39	45	785697	15.59	PPB		96
28) 1,1-Dichloroethane	3.40	63	248107	8.84	PPB		97
29) Vinyl Acetate	3.45	86	140624	47.21	PPB	#	87

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

Data File : J:\MS18\DATA\050216\0502F009.D Vial: 9
Acq On : 2 May 2016 17:59 Operator: YX
Sample : LCS Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 02 18:17:21 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
30)	Chloroprene	3.44	53	605315	23.42	PPB		97
31)	tert-Butyl Ethyl Ether	3.80	59	730546	16.00	PPB		97
32)	2,2-Dichloropropane	4.03	77	151080	7.66	PPB		97
33)	cis-1,2-Dichloroethene	4.07	96	164285	9.14	PPB		94
34)	2-Butanone	4.15	72	53963	46.50	PPB	#	86
35)	Propionitrile	4.33	54	36715	28.07	PPB		95
36)	Ethyl Acetate	4.17	61	40361	24.22	PPB		96
37)	Methacrylonitrile	4.46	67	133356	27.88	PPB		96
38)	Bromochloromethane	4.38	128	61821	9.03	PPB		89
40)	Chloroform	4.48	83	235698	9.08	PPB		99
42)	1,1,1-Trichloroethane	4.63	97	164257	8.17	PPB		98
44)	Carbon Tetrachloride	4.79	117	119597	7.33	PPB		94
45)	1,1-Dichloropropene	4.85	75	182448	8.55	PPB		97
46)	Cyclohexane	4.58	56	221089	8.36	PPB		91
47)	Isobutyl Alcohol	5.21	43	57557	241.02	PPB		98
49)	Benzene	5.13	78	598860	8.42	PPB		99
50)	1,2-Dichloroethane	5.28	62	168074	8.90	PPB		98
51)	tert-Amyl Methyl Ether	5.28	55	210592	18.24	PPB	#	82
52)	Trichloroethene	5.99	95	136831	8.82	PPB		97
53)	1,2-Dichloropropane	6.33	63	136412	8.32	PPB		98
54)	Dibromomethane	6.47	93	71933	9.06	PPB		92
55)	Methyl methacrylate	6.51	69	224101	25.80	PPB		95
56)	1,4-Dioxane	6.51	88	34616	310.66	PPB		83
57)	Bromodichloromethane	6.67	83	127583	7.31	PPB		97
58)	2-Nitropropane	7.06	41	27885	15.47	PPB		97
59)	Methyl Cyclohexane	6.11	83	204889	8.36	PPB		98
60)	2-Chloroethyl Vinyl Ether	7.08	63	63589	7.91	PPB		97
61)	cis-1,3-Dichloropropene	7.20	75	185511	7.09	PPB		99
62)	4-Methyl-2-pentanone (MIBK	7.41	58	177413	45.54	PPB	#	87
64)	Toluene	7.50	92	389536	8.55	PPB		96
66)	n-Octane	7.58	85	5092	0.81	PPB		90
67)	trans-1,3-Dichloropropene	7.87	75	137745	7.01	PPB		98
68)	Ethyl methacrylate	7.94	69	458581	29.56	PPB		97
69)	1,1,2-Trichloroethane	8.06	83	98223	9.34	PPB		98
70)	Tetrachloroethene	8.06	164	111405	9.58	PPB		99
71)	2-Hexanone	8.34	57	54764	45.05	PPB		95
72)	1,3-Dichloropropane	8.24	76	213715	9.23	PPB		99
73)	Dibromochloromethane	8.44	129	83697	6.97	PPB		99
74)	1,2-Dibromoethane (EDB)	8.55	107	108835	9.34	PPB		98
75)	1-Chlorohexane	9.03	91	179779	8.74	PPB		98
76)	Chlorobenzene	9.05	112	427645	9.06	PPB		96

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

Data File : J:\MS18\DATA\050216\0502F009.D Vial: 9
Acq On : 2 May 2016 17:59 Operator: YX
Sample : LCS Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 02 18:17:21 2016 Quant Results File: 041316MS18_8260

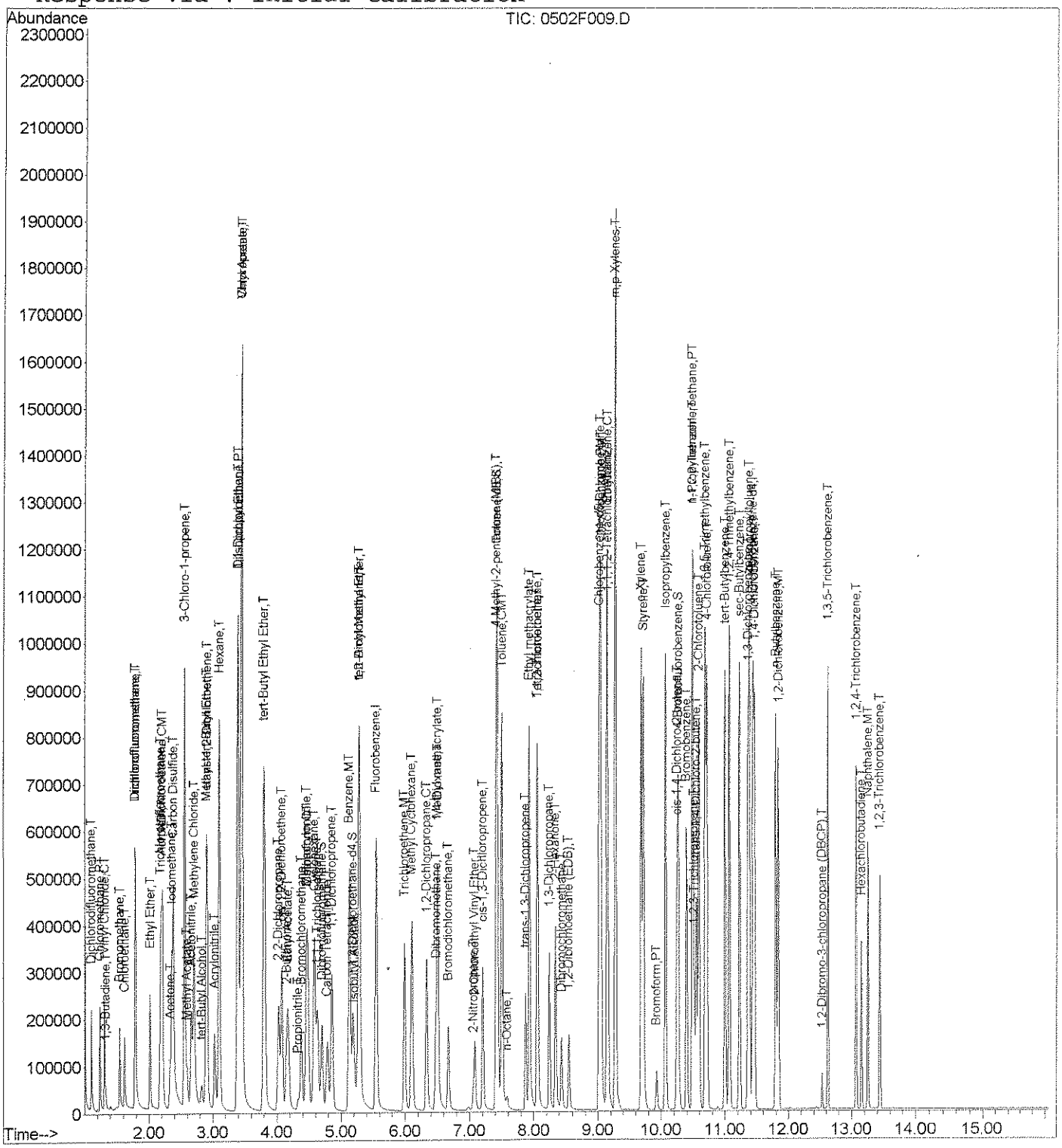
Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77)	Ethylbenzene	9.14	106	230670	9.35	PPB	95
78)	1,1,1,2-Tetrachloroethane	9.16	131	107546	7.87	PPB	96
79)	m,p-Xylenes	9.27	106	569897	18.72	PPB	96
80)	o-Xylene	9.69	106	277767	9.48	PPB	100
81)	Styrene	9.73	103	212231	9.26	PPB	97
82)	Bromoform	9.92	173	37139	6.86	PPB	96
83)	Isopropylbenzene	10.07	105	654256	9.04	PPB	100
84)	cis-1,4-Dichloro-2-butene	10.24	89	32855	17.10	PPB	87
87)	1,1,2,2-Tetrachloroethane	10.48	83	125693	8.62	PPB	96
88)	trans-1,4-Dichloro-2-buten	10.55	53	92782	23.91	PPB	90
89)	Bromobenzene	10.40	156	173910	9.00	PPB	95
90)	n-Propylbenzene	10.49	91	766848	8.60	PPB	99
91)	1,2,3-Trichloropropane	10.52	110	41151	9.04	PPB	93
92)	2-Chlorotoluene	10.59	91	495362	8.64	PPB	98
93)	1,3,5-Trimethylbenzene	10.68	105	543799	8.74	PPB	100
94)	4-Chlorotoluene	10.71	91	567449	8.64	PPB	100
95)	tert-Butylbenzene	11.00	119	459659	8.58	PPB	98
96)	1,2,4-Trimethylbenzene	11.07	105	571282	9.15	PPB	97
97)	sec-Butylbenzene	11.23	105	652655	8.66	PPB	100
98)	p-Isopropyltoluene	11.38	119	557736	9.19	PPB	98
99)	1,3-Dichlorobenzene	11.36	146	330479	8.74	PPB	98
100)	1,4-Dichlorobenzene	11.46	146	340106	8.49	PPB	97
101)	n-Butylbenzene	11.80	91	450906	8.60	PPB	98
102)	1,2-Dichlorobenzene	11.84	146	317981	8.83	PPB	99
103)	1,2-Dibromo-3-chloropropan	12.54	155	9805	6.94	PPB	95
104)	1,3,5-Trichlorobenzene	12.62	180	205499	9.12	PPB	97
105)	1,2,4-Trichlorobenzene	13.07	180	171425	8.68	PPB	99
106)	Hexachlorobutadiene	13.15	225	60261	8.41	PPB	96
107)	Naphthalene	13.25	128	344961	8.79	PPB	100
108)	1,2,3-Trichlorobenzene	13.44	180	133219	8.35	PPB	98

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

Data File : J:\MS18\DATA\050216\0502F009.D Vial: 9
Acq On : 2 May 2016 17:59 Operator: YX
Sample : LCS Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:16 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



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Date: 5/2/16 | By: YK

ALS Environmental
Injection Log
MS18 - Agilent 5973

Tune File: BFB.U | New Tune: NO

IS/SS Std. ID: 82U0A-92B612

CCV Std ID: 82U0A-63E6113 91A519 | ICAL Date: 4/23/16 14682

MS/DMS/LCS/ICV Std ID: 82U0A-89A516 82B512
82U0A-88C516 88B516 90A516 89D516 | Second RV: KA 5/2/16

BFB Std. ID: 82U0A-67B5111 | LIMS ID: KWG1603423/3424/3427 (TCLP)

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	BFB	0502F007	8260	4.4mL → 44mL		
2	CCV	08		5/10mL → 50mL		
3	LCS	09		7.5/5/5/5/5/10 mL → 50mL		
4	MS K1604068-02	10		6@4.4/4.4/4.4 4.4/8.8mL → 44mL	✓	
5	DMS ⊥	11		⊥	✓	
6	LCS 400X TCLP	12		7.5/5/5/5/110 mL → 50mL	✓	TCLP 400X: 125mL → 50mL
7	LCS T1600647-01 TCLP 400X	13		⊥	✓	⊥
8	IB	14				
9	MB	15				
10	MB TCLP 400X	16		TCLP 400X: 125mL → 50mL	✓	
11	T1600647-01 TCLP 400X	17		⊥	✓	
12	K1601068-02	18			✓	
13	K1604156-04	19			✓	
14	⊥ -05	20			✓	
15	K1604068-01	21			✓	
16	-03	22			✓	
17	-04	23			✓	
18	-05	24			✓	
19	-06	25			✓	
20	-07	26			✓	
21	⊥ -08	27			✓	
22	K1604450-01 TB	28			6	TB032816
23	-02	29			7	
24	-03 10X	30		5mL → 50mL	7	
25	⊥ -04 20X	31		2.5mL → 50mL	7	
26	K1604156-01	32			✓	
27	-02	33			✓	
	-03	34			✓	
	-06	35			✓	
	CCV A	36		5/10mL → 50mL		

Exception Report

Data File: J:\MS18\DATA\050216\0502F007.D
Lab ID: KWG1603423-1
RunType: TUNE
Matrix: WATER

Date Acquired: 05/02/2016 17:06
Date Quantitated:
Batch ID: KWG1603423
Analysis Method: BFB
ListJoinID: LJ774

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

Primary Review: 5/3/16

Secondary Review: 5/3/16

Printed: 05/03/2016 10:05:38
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS18\DATA\050216\0502F007.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 17:06	**Quant Date:**		**Vial:**	7
Run Type:	TUNE	**ListJoinID:**	LJ774	**Dilution:**	1.0
Lab ID:	KWG1603423-1			**Soln Conc. Units:**	

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B	**Collect Date:**		**Receive Date:**	05/02/2016

Analysis Lot:	KWG1603423	**Prep Lot:**		**Report Group:**	
Analysis Method:	BFB	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS18\METHODS\041316MS18_8	**Calibration ID:**	CAL14682
Title:	GC/MS Tuning Evaluation	**Report List ID:**	LJ774
Tune Ref:		**Method ID:**	MJ159
MB Ref:		**Quant based on Report List**	

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	15.2	2533	Pass
75	95	30	60	44.9	7487	Pass
95	95	100	100	100.0	16692	Pass
96	95	5	9	8.0	1335	Pass
173	174	0	2	0.4	53	Pass
174	95	50	120	81.1	13530	Pass
175	174	5	9	7.2	968	Pass
176	174	95	101	97.6	13201	Pass
177	176	5	9	6.4	848	Pass

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
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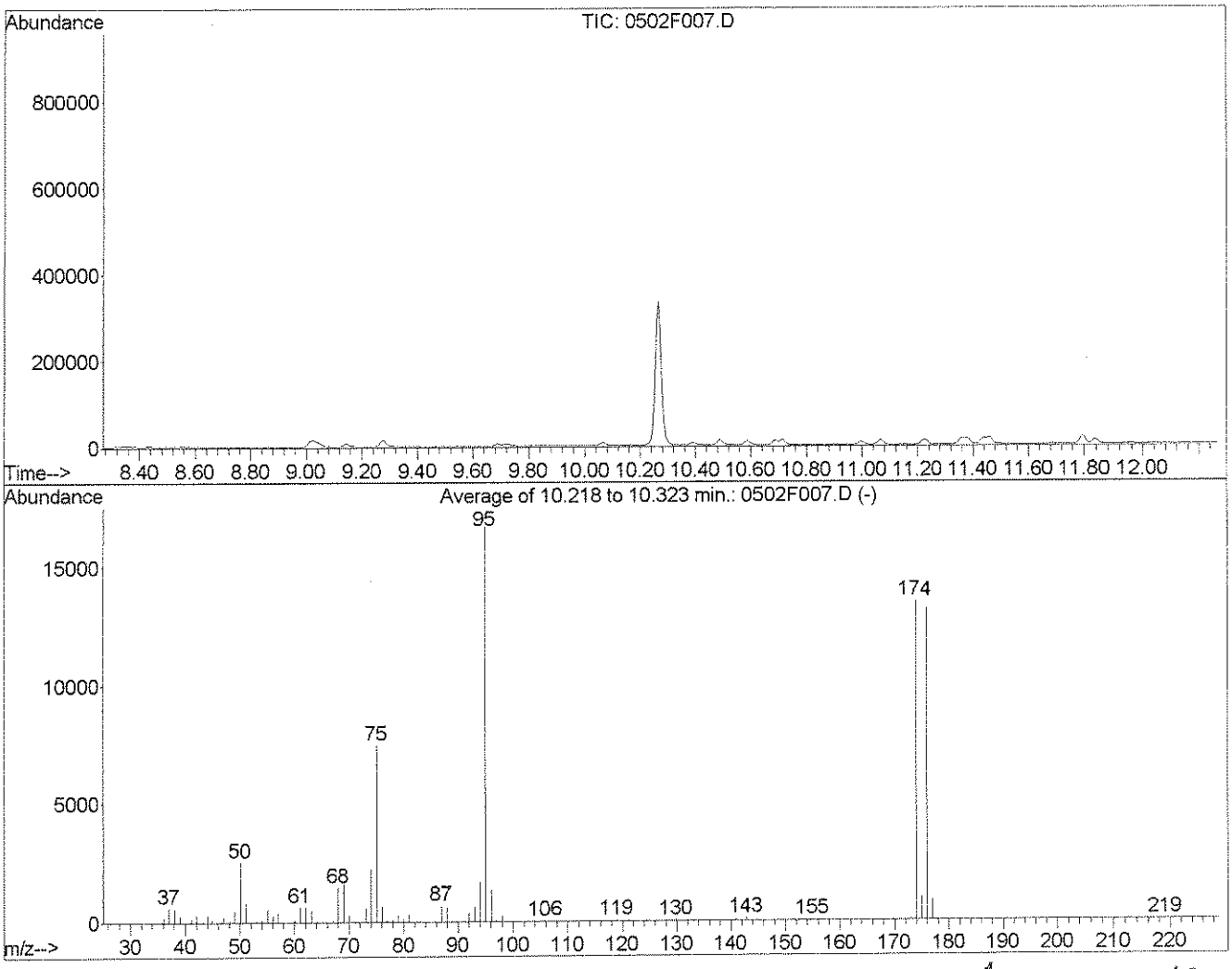
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS18\DATA\050216\0502F007.D
Acq On : 2 May 2016 17:06
Sample : BFB
Misc :
MS Integration Params: rteint.p
Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B

Vial: 7
Operator: YX
Inst : GC-MS 18
Multiplr: 1.00



Spectrum Information: Average of 10.218 to 10.323 min. Avg entire peak - scan 175

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.2	2533	PASS
75	95	30	60	44.8	7487	PASS
95	95	100	100	100.0	16702	PASS
96	95	5	9	8.0	1343	PASS
173	174	0.00	2	0.4	53	PASS
174	95	50	120	81.0	13530	PASS
175	174	5	9	7.2	968	PASS
176	174	95	101	97.6	13210	PASS
177	176	5	9	6.4	848	PASS

0502F007.D 041316MS18_8260.M Tue May 03 13:26:42 2016

Exception Report

Data File: J:\MS18\DATA\050216\0502F008.D
Lab ID: KWG1603423-2
RunType: CCV
Matrix: WATER

Date Acquired: 05/02/2016 17:32
Date Quantitated: 05/03/2016 08:16
Batch ID: KWG1603423
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	Acetonitrile	0.0086	0.01	NA	NJT
	tert-Butyl Alcohol	0.0095	0.01	NA	
	Isobutyl Alcohol	0.0037	0.01	NA	
	1,4-Dioxane	0.0017	0.01	NA	

Primary Review: 5/3/16

Secondary Review: 5/3/16

Printed: 05/03/2016 10:05:41
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS18\DATA\050216\0502F008.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 17:32	**Quant Date:**	05/03/2016 08:16	**Vial:**	8
Run Type:	CCV	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603423-2			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B	**Collect Date:**		**Receive Date:**	05/02/2016

Analysis Lot:	KWG1603423	**Prep Lot:**		**Report Group:**	
Analysis Method:	8260C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS18\METHODS\041316MS18_8			**Calibration ID:**	CAL14682
Title:					
Tune Ref:	J:\MS18\DATA\050216\0502F007.D			**Method ID:**	MJ1465
MB Ref:				**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.55	0.00	96	674577	10.00	OK
2	Chlorobenzene-d5	9.02	0.00	82	256506	10.00	OK
3	1,4-Dichlorobenzene-d4	11.43	0.00	152	241354	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	4.70			113	135350	10.13		80-119 NA	
1	1,2-Dichloroethane-d4	5.19			65	143896	9.32		81-118 NA	
1	Toluene-d8	7.43			98	653723	10.83		89-112 NA	
2	4-Bromofluorobenzene	10.27			95	224845	10.07		85-114 NA	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.11			85	153760	8.91			
1	Chloromethane	1.24			50	167718	7.66			
1	Vinyl Chloride	1.31			62	175346	8.57			
1	1,3-Butadiene	1.33			54	133372	8.43			
1	Bromomethane	1.55			96	85906	7.58			
1	Chloroethane	1.62			64	112430	8.85			
1	Dichlorofluoromethane (CFC 21)	1.78			67	248016	8.62			
1	Trichlorofluoromethane	1.78			101	191907	8.66			
1	Diethyl Ether	2.02			59	122315	9.68			
1	Acrolein	2.19			56	401149	246.65			
1	Trichlorotrifluoroethane	2.18			151	96335	8.91			
1	1,1-Dichloroethene	2.21			96	129202	9.42			
1	Acetone	2.33			43	414430	192.24			
1	Iodomethane	2.35			142	361495	20.59			

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c: check for co-elution

Data File:	J:\MS18\DATA\050216\0502F008.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 17:32	**Quant Date:**	05/03/2016 08:16	**Vial:**	8
Run Type:	CCV	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603423-2			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.38			76	295979	6.87			
1	2-Propanol	2.45			45	198428	435.99			
1	3-Chloro-1-propene	2.56			76	78504	8.89			
1	Methyl Acetate	2.59			43	71766	8.41			
1	Acetonitrile	2.66			40	235911	408.86			
1	Methylene Chloride	2.70			84	175945	9.70			
1	tert-Butyl Alcohol	2.82			59	27243	42.29			
1	Acrylonitrile	3.03			53	144868	37.48			
1	Methyl tert-Butyl Ether	2.89			73	743224	17.84			
1	trans-1,2-Dichloroethene	2.91			96	154200	9.41			
1	n-Hexane	3.10			57	135483	7.93			
1	Diisopropyl Ether	3.39			45	449081	8.61			
1	1,1-Dichloroethane	3.40			63	267928	9.21			
1	Vinyl Acetate	3.45			86	53591	17.37			
1	Chloroprene	3.44			53	898253	33.56			
1	tert-Butyl Ethyl Ether	3.80			59	412412	8.72			
1	2,2-Dichloropropane	4.03			77	154238	7.55			
1	cis-1,2-Dichloroethene	4.07			96	182217	9.79			
1	2-Butanone (MEK)	4.14			72	216693	180.30			
1	Propionitrile	4.33			54	54055	39.91			
1	Ethyl Acetate	4.17			61	31608	18.32			
1	Methacrylonitrile	4.46			67	194162	39.19			
1	Bromochloromethane	4.38			128	69956	9.87			
1	Tetrahydrofuran	4.40			71	11044	9.42			
1	Chloroform	4.48			83	258096	9.60			
1	tert-Butyl Formate	4.51			59	70467	9.90			
1	1,1,1-Trichloroethane (TCA)	4.63			97	176405	8.47			
1	Carbon Tetrachloride	4.79			117	128569	7.60			
1	1,1-Dichloropropene	4.85			75	191241	8.65			
1	Cyclohexane	4.58			56	206261	7.53			
1	Isobutyl Alcohol	5.21			43	86125	348.25			
1	Benzene	5.13			78	655149	8.89			
1	1,2-Dichloroethane (EDC)	5.29			62	190645	9.75			
1	tert-Amyl Methyl Ether	5.28			55	117903	9.86			
1	Trichloroethene (TCE)	5.99			95	145747	9.07			
1	1,2-Dichloropropane	6.33			63	155673	9.17			
1	Dibromomethane	6.47			93	82498	10.03			
1	Methyl Methacrylate	6.50			69	79612	8.85			
1	1,4-Dioxane	6.52			88	46713m	404.82			
1	Bromodichloromethane	6.67			83	148068	8.17			
1	2-Nitropropane	7.06			41	55545	29.42			
1	Methylcyclohexane	6.10			83	203975	8.04			

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c: check for co-elution

Data File:	J:\MS18\DATA\050216\0502F008.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 17:32	**Quant Date:**	05/03/2016 08:16	**Vial:**	8
Run Type:	CCV	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603423-2			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	2-Chloroethyl Vinyl Ether	7.08			63	71133	8.55			
1	cis-1,3-Dichloropropene	7.20			75	216794	7.99			
1	4-Methyl-2-pentanone (MIBK)	7.41			58	703581	174.38			
1	Toluene	7.50			92	428284	9.08			
2	trans-1,3-Dichloropropene	7.87			75	160730	7.87			
2	Ethyl Methacrylate	7.94			69	148100	9.21			
2	1,1,2-Trichloroethane	8.06			83	111100	10.19			
2	Tetrachloroethene (PCE)	8.06			164	114369	9.48			
2	2-Hexanone	8.34			57	226643	179.78			
2	1,3-Dichloropropane	8.24			76	244763	10.19			
2	Dibromochloromethane	8.44			129	105452	8.43			
2	1,2-Dibromoethane (EDB)	8.55			107	125153	10.36			
2	1-Chlorohexane	9.03			91	190253	8.92			
2	Chlorobenzene	9.04			112	485485	9.92			
2	Ethylbenzene	9.14			106	245375	9.59			
2	1,1,1,2-Tetrachloroethane	9.16			131	126588	8.92			
2	m,p-Xylenes	9.27			106	615891	19.51			
2	o-Xylene	9.69			106	301895	9.93			
2	Styrene	9.73			103	240191	10.10			
2	Bromoform	9.93			173	42624	7.56			
2	Isopropylbenzene	10.07			105	707463	9.43			
2	cis-1,4-Dichloro-2-butene	10.24			89	51207	25.56			
3	1,1,2,2-Tetrachloroethane	10.48			83	144989	9.82			
3	trans-1,4-Dichloro-2-butene	10.55			53	31777	8.09			
3	Bromobenzene	10.40			156	200658	10.26			
3	n-Propylbenzene	10.49			91	826037	9.16			
3	1,2,3-Trichloropropane	10.52			110	44739	9.71			
3	2-Chlorotoluene	10.59			91	534960	9.22			
3	1,3,5-Trimethylbenzene	10.69			105	600985	9.54			
3	4-Chlorotoluene	10.71			91	621373	9.34			
3	tert-Butylbenzene	11.00			119	499812	9.22			
3	1,2,4-Trimethylbenzene	11.07			105	615437	9.73			
3	sec-Butylbenzene	11.23			105	697772	9.15			
3	4-Isopropyltoluene	11.38			119	585075	9.52			
3	1,3-Dichlorobenzene	11.36			146	374700	9.79			
3	1,4-Dichlorobenzene	11.46			146	391388	9.65			
3	n-Butylbenzene	11.80			91	480931	9.06			
3	1,2-Dichlorobenzene	11.84			146	360318	9.89			
3	1,2-Dibromo-3-chloropropane	12.54			155	11125	7.75			
3	1,3,5-Trichlorobenzene	12.63			180	240093	10.52			
3	1,2,4-Trichlorobenzene	13.07			180	190217	9.52			
3	Hexachlorobutadiene	13.15			225	66122	9.12			

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Data File:	J:\MS18\DATA\050216\0502F008.D			**Instrument:**	GC-MS 18
Acqu Date:	05/02/2016 17:32	**Quant Date:**	05/03/2016 08:16	**Vial:**	8
Run Type:	CCV	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603423-2			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	13.25			128	389932	9.81			
3	1,2,3-Trichlorobenzene	13.44			180	158442	9.81			

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?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS18\DATA\050216\0502F008.D Vial: 8
Acq On : 2 May 2016 17:32 Operator: YX
Sample : CCV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 02 17:56:41 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.55	96	674577	10.00	PPB		0.00
65) Chlorobenzene-d5	9.02	82	256506	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.43	152	241354	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	4.70	113	135350	10.13	PPB		0.00
Spiked Amount 10.000			Recovery =	101.30%			
48) 1,2-Dichloroethane-d4	5.19	65	143896	9.32	PPB		0.00
Spiked Amount 10.000			Recovery =	93.20%			
63) Toluene-d8	7.43	98	653723	10.83	PPB		0.00
Spiked Amount 10.000			Recovery =	108.30%			
85) 4-Bromofluorobenzene	10.27	95	224845	10.07	PPB		0.00
Spiked Amount 10.000			Recovery =	100.70%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.11	85	153760	8.91	PPB		98
3) Chloromethane	1.24	50	167718	7.66	PPB		96
4) Vinyl Chloride	1.31	62	175346	8.57	PPB		98
5) 1,3-Butadiene	1.33	54	133372	8.43	PPB		99
6) Bromomethane	1.55	96	85906	7.58	PPB		99
7) Chloroethane	1.62	64	112430	8.85	PPB		97
8) Dichlorofluoromethane	1.78	67	248016	8.62	PPB		99
9) Trichlorofluoromethane	1.78	101	191907	8.66	PPB		99
10) Ethyl Ether	2.02	59	122315	9.68	PPB		98
11) Acrolein	2.19	56	401149	246.65	PPB		96
12) Trichlorotrifluoroethane	2.18	151	96335	8.91	PPB		98
13) 1,1-Dichloroethene	2.21	96	129202	9.42	PPB		98
14) Acetone	2.33	43	414430	192.24	PPB		98
15) Iodomethane	2.35	142	361495	20.59	PPB		99
16) Carbon Disulfide	2.38	76	295979	6.87	PPB		99
17) 2-Propanol (Isopropyl Alco	2.45	45	198428	435.99	PPB		95
18) 3-Chloro-1-propene	2.56	76	78504	8.89	PPB	#	80
19) Methyl Acetate	2.59	43	71766	8.41	PPB		98
20) Acetonitrile	2.66	40	235911	408.86	PPB		99
21) Methylene Chloride	2.70	84	175945	9.70	PPB		93
22) tert-Butyl Alcohol	2.82	59	27243	42.29	PPB		94
23) Acrylonitrile	3.03	53	144868	37.48	PPB		99
24) Methyl tert-Butyl Ether	2.89	73	743224	17.84	PPB		99
25) trans-1,2-Dichloroethene	2.91	96	154200	9.41	PPB		98
26) Hexane	3.10	57	135483	7.93	PPB		97
27) Diisopropyl Ether	3.39	45	449081	8.61	PPB		98
28) 1,1-Dichloroethane	3.40	63	267928	9.21	PPB		100

(#) = qualifier out of range (m) = manual integration
0502F008.D 041316MS18_8260.M Tue May 03 08:52:16 2016 Page 1

Data File : J:\MS18\DATA\050216\0502F008.D Vial: 8
Acq On : 2 May 2016 17:32 Operator: YX
Sample : CCV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 02 17:56:41 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.45	86	53591	17.37	PPB		98
30)	Chloroprene	3.44	53	898253	33.56	PPB		98
31)	tert-Butyl Ethyl Ether	3.80	59	412412	8.72	PPB		98
32)	2,2-Dichloropropane	4.03	77	154238	7.55	PPB		93
33)	cis-1,2-Dichloroethene	4.07	96	182217	9.79	PPB		95
34)	2-Butanone	4.14	72	216693	180.30	PPB	#	85
35)	Propionitrile	4.33	54	54055	39.91	PPB		97
36)	Ethyl Acetate	4.17	61	31608	18.32	PPB		94
37)	Methacrylonitrile	4.46	67	194162	39.19	PPB		95
38)	Bromochloromethane	4.38	128	69956	9.87	PPB		94
39)	Tetrahydrofuran	4.40	71	11044	9.42	PPB		99
40)	Chloroform	4.48	83	258096	9.60	PPB		98
41)	tert-Butyl Formate	4.51	59	70467	9.90	PPB		90
42)	1,1,1-Trichloroethane	4.63	97	176405	8.47	PPB		98
44)	Carbon Tetrachloride	4.79	117	128569	7.60	PPB		97
45)	1,1-Dichloropropene	4.85	75	191241	8.65	PPB		99
46)	Cyclohexane	4.58	56	206261	7.53	PPB		92
47)	Isobutyl Alcohol	5.21	43	86125	348.25	PPB		89
49)	Benzene	5.13	78	655149	8.89	PPB		100
50)	1,2-Dichloroethane	5.29	62	190645	9.75	PPB		99
51)	tert-Amyl Methyl Ether	5.28	55	117903	9.86	PPB	#	75
52)	Trichloroethene	5.99	95	145747	9.07	PPB		96
53)	1,2-Dichloropropane	6.33	63	155673	9.17	PPB		96
54)	Dibromomethane	6.47	93	82498	10.03	PPB		94
55)	Methyl methacrylate	6.50	69	79612	8.85	PPB		98
56)	1,4-Dioxane	6.52	88	46713m	404.82	PPB		
57)	Bromodichloromethane	6.67	83	148068	8.17	PPB		97
58)	2-Nitropropane	7.06	41	55545	29.42	PPB		94
59)	Methyl Cyclohexane	6.10	83	203975	8.04	PPB		97
60)	2-Chloroethyl Vinyl Ether	7.08	63	71133	8.55	PPB		97
61)	cis-1,3-Dichloropropene	7.20	75	216794	7.99	PPB		98
62)	4-Methyl-2-pentanone (MIBK	7.41	58	703581	174.38	PPB		97
64)	Toluene	7.50	92	428284	9.08	PPB		98
66)	n-Octane	7.58	85	58702	9.00	PPB		94
67)	trans-1,3-Dichloropropene	7.87	75	160730	7.87	PPB		98
68)	Ethyl methacrylate	7.94	69	148100	9.21	PPB		96
69)	1,1,2-Trichloroethane	8.06	83	111100	10.19	PPB		98
70)	Tetrachloroethene	8.06	164	114369	9.48	PPB		97
71)	2-Hexanone	8.34	57	226643	179.78	PPB		93
72)	1,3-Dichloropropane	8.24	76	244763	10.19	PPB		99
73)	Dibromochloromethane	8.44	129	105452	8.43	PPB		99

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

Data File : J:\MS18\DATA\050216\0502F008.D Vial: 8
Acq On : 2 May 2016 17:32 Operator: YX
Sample : CCV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 02 17:56:41 2016 Quant Results File: 041316MS18_8260

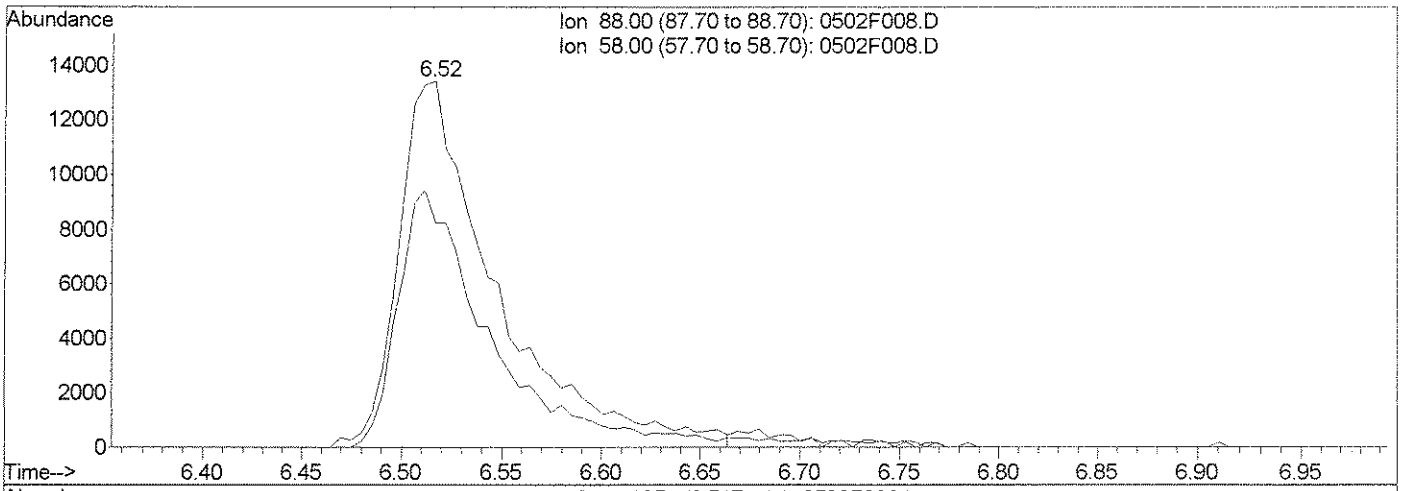
Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

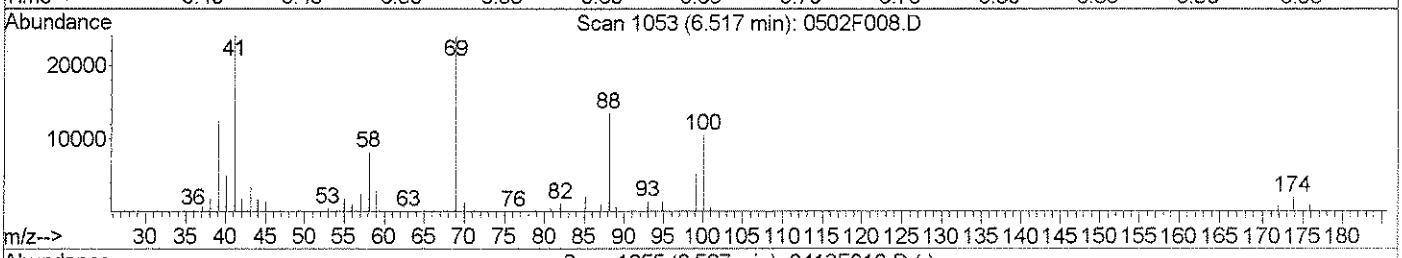
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1,2-Dibromoethane (EDB)	8.55	107	125153	10.36	PPB	98
75)	1-Chlorohexane	9.03	91	190253	8.92	PPB	98
76)	Chlorobenzene	9.04	112	485485	9.92	PPB	98
77)	Ethylbenzene	9.14	106	245375	9.59	PPB	95
78)	1,1,1,2-Tetrachloroethane	9.16	131	126588	8.92	PPB	98
79)	m,p-Xylenes	9.27	106	615891	19.51	PPB	98
80)	o-Xylene	9.69	106	301895	9.93	PPB	97
81)	Styrene	9.73	103	240191	10.10	PPB	96
82)	Bromoform	9.93	173	42624	7.56	PPB	96
83)	Isopropylbenzene	10.07	105	707463	9.43	PPB	99
84)	cis-1,4-Dichloro-2-butene	10.24	89	51207	25.56	PPB	93
87)	1,1,2,2-Tetrachloroethane	10.48	83	144989	9.82	PPB	98
88)	trans-1,4-Dichloro-2-buten	10.55	53	31777	8.09	PPB	90
89)	Bromobenzene	10.40	156	200658	10.26	PPB	90
90)	n-Propylbenzene	10.49	91	826037	9.16	PPB	99
91)	1,2,3-Trichloropropane	10.52	110	44739	9.71	PPB	94
92)	2-Chlorotoluene	10.59	91	534960	9.22	PPB	100
93)	1,3,5-Trimethylbenzene	10.69	105	600985	9.54	PPB	99
94)	4-Chlorotoluene	10.71	91	621373	9.34	PPB	99
95)	tert-Butylbenzene	11.00	119	499812	9.22	PPB	99
96)	1,2,4-Trimethylbenzene	11.07	105	615437	9.73	PPB	96
97)	sec-Butylbenzene	11.23	105	697772	9.15	PPB	99
98)	p-Isopropyltoluene	11.38	119	585075	9.52	PPB	98
99)	1,3-Dichlorobenzene	11.36	146	374700	9.79	PPB	98
100)	1,4-Dichlorobenzene	11.46	146	391388	9.65	PPB	97
101)	n-Butylbenzene	11.80	91	480931	9.06	PPB	100
102)	1,2-Dichlorobenzene	11.84	146	360318	9.89	PPB	100
103)	1,2-Dibromo-3-chloropropan	12.54	155	11125	7.75	PPB	97
104)	1,3,5-Trichlorobenzene	12.63	180	240093	10.52	PPB	99
105)	1,2,4-Trichlorobenzene	13.07	180	190217	9.52	PPB	98
106)	Hexachlorobutadiene	13.15	225	66122	9.12	PPB	99
107)	Naphthalene	13.25	128	389932	9.81	PPB	99
108)	1,2,3-Trichlorobenzene	13.44	180	158442	9.81	PPB	99

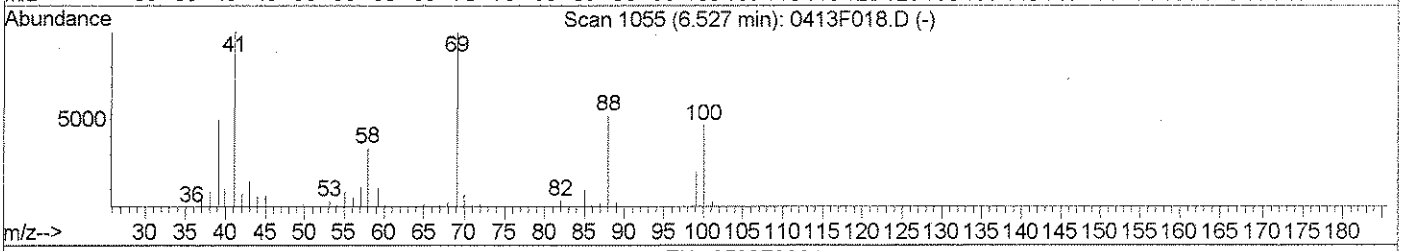
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\050216\0502F008.D Vial: 8
Acq On : 2 May 2016 17:32 Operator: YX
Sample : CCV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 2 17:56 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Single Level Calibration







TIC: 0502F008.D

(56) 1,4-Dioxane (T)

6.52min 393.54PPB

response 45412

Ion	Exp%	Act%
88.00	100	100
58.00	64.20	61.35
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

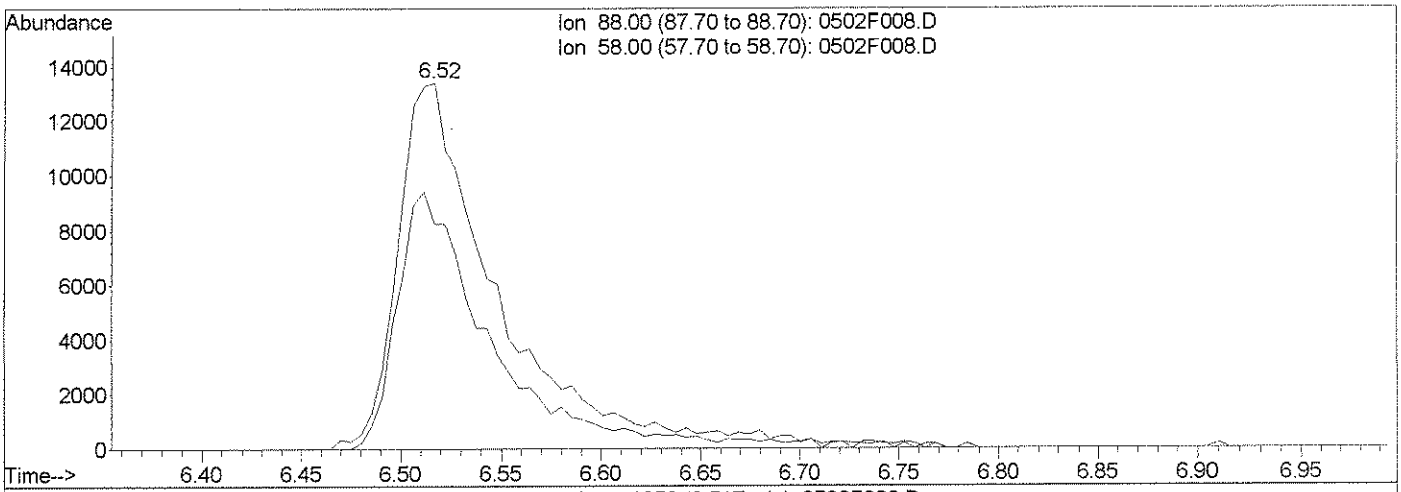
Before

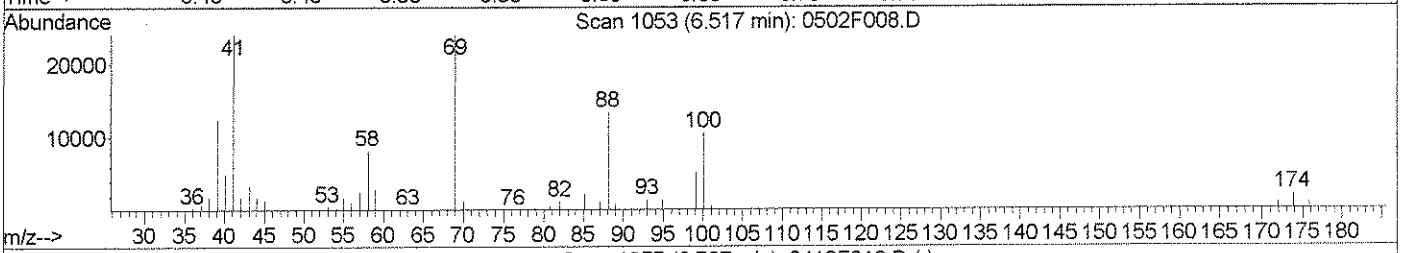
05/03/16

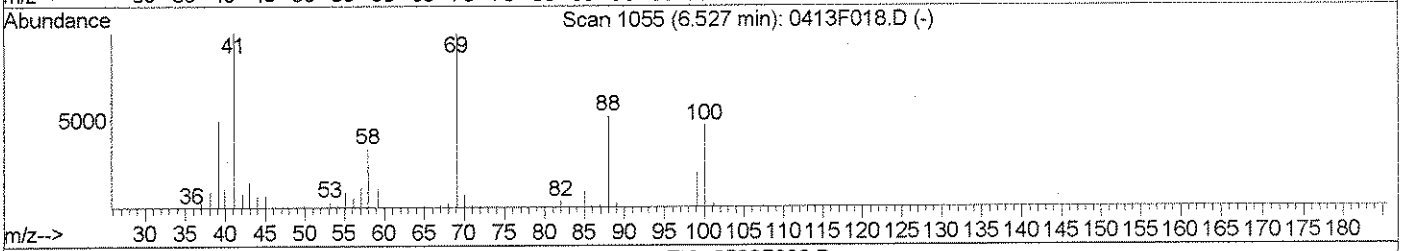
0502F008.D 041316MS18_8260.M Tue May 03 08:16:26 2016

Data File : J:\MS18\DATA\050216\0502F008.D Vial: 8
Acq On : 2 May 2016 17:32 Operator: YX
Sample : CCV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:16 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Single Level Calibration







TIC: 0502F008.D

(56) 1,4-Dioxane (T)

6.52min 404.82PPB m

response 46713

Ion	Exp%	Act%
88.00	100	100
58.00	64.20	61.35
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

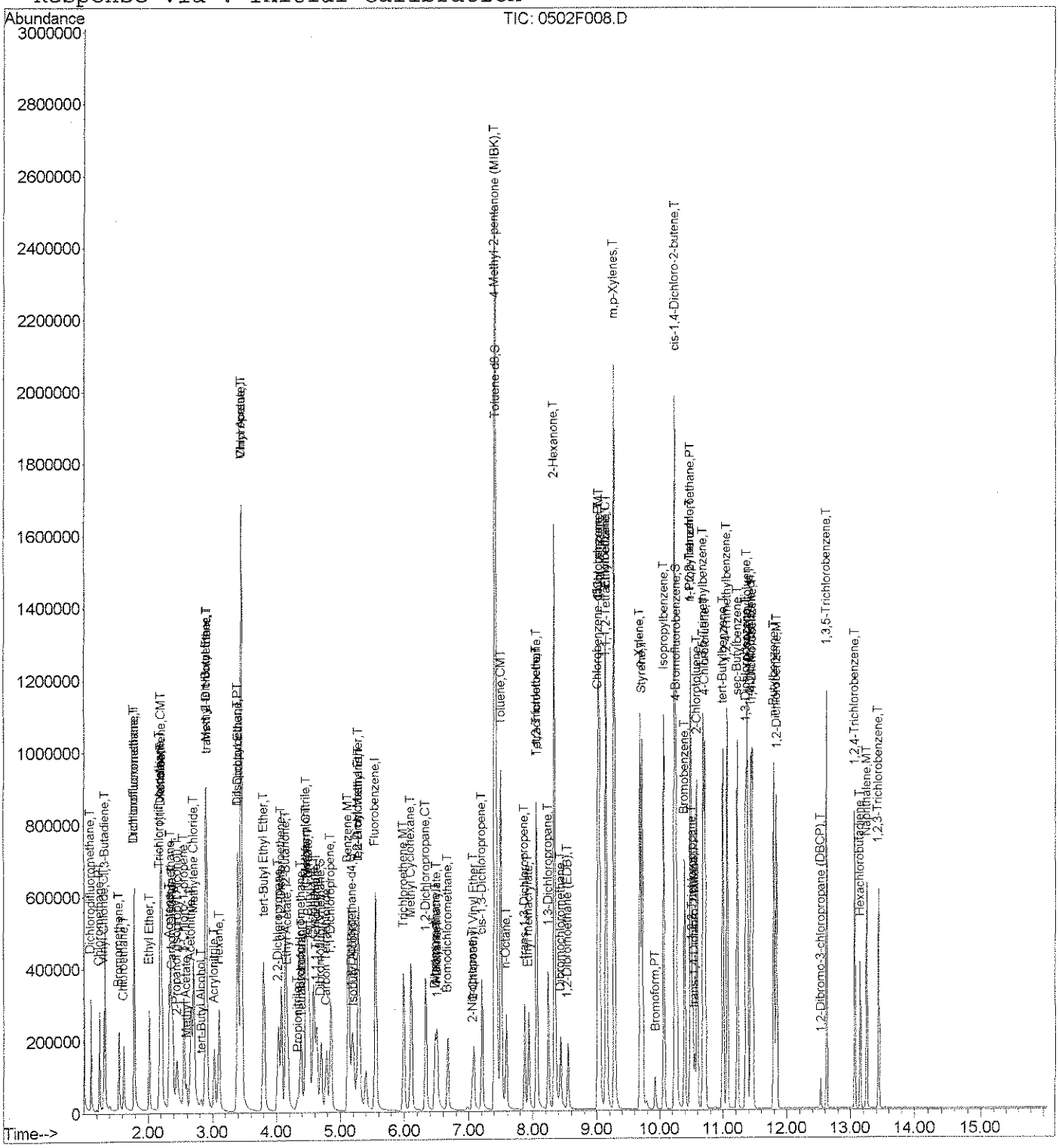
Peak tailing

05/03/16

0502F008.D 041316MS18_8260.M Tue May 03 08:16:37 2016

Data File : J:\MS18\DATA\050216\0502F008.D Vial: 8
Acq On : 2 May 2016 17:32 Operator: YX
Sample : CCV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:16 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration


Abundance
TIC: 0502F008.D
Time-->
Dichlorodifluoromethane,T
Chloromethane,T
1,3-Butadiene,T
Bromomethane,T
Chloroethane,T
Ethyl Ether,T
Trichlorofluoromethane,T
Acrylonitrile,T
Pentane,T
Acetone,T
Iodomethane,T
Carbon Disulfide,T
Methyl Acetate,T
Methylene Chloride,T
Acetonitrile,T
Allyl Chloride,T
tert-Butyl Alcohol,T
Acrylonitrile,T
tert-Butyl Ethyl Ether,T
Propionitrile,T
Methacrylonitrile,T
Isobutyl Alcohol,T
Methyl Ethyl Ketone,T
Propionitrile,T
Methacrylonitrile,T
Isobutyl Alcohol,T
Ethyl Acetate,T
Methyl Ethyl Ketone,T
Butanol,T
Methyl Acrylate,T
Propionitrile,T
Methacrylonitrile,T
Isobutyl Alcohol,T
Methyl Ethyl Ketone,T
Butanol,T
2-Nitropropane,T
Chloroprene,T
Tetrahydrofuran,T
Propionitrile,T
Methacrylonitrile,T
Isobutyl Alcohol,T
Methyl Ethyl Ketone,T
Butanol,T
1,4-Dioxane,T
Pentanol,T
Propionitrile,T
Methacrylonitrile,T
Isobutyl Alcohol,T
Methyl Ethyl Ketone,T
Butanol,T
Ethyl Methacrylate

Exception Report

Data File: J:\MS18\DATA\050216\0502F036.D
Lab ID: KWG1603423-3
RunType: CCVA
Matrix: WATER

Date Acquired: 05/03/2016 03:56
Date Quantitated: 05/03/2016 08:51
Batch ID: KWG1603423
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	Acetonitrile	0.0086	0.01	NA	ACT
	tert-Butyl Alcohol	0.0095	0.01	NA	
	Isobutyl Alcohol	0.0037	0.01	NA	
	1,4-Dioxane	0.0017	0.01	NA	

Primary Review: 5/12/16

Secondary Review: 5/13/16

Printed: 05/03/2016 10:07:02
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS18\DATA\050216\0502F036.D			**Instrument:**	GC-MS 18
Acqu Date:	05/03/2016 03:56	**Quant Date:**	05/03/2016 08:51	**Vial:**	36
Run Type:	CCVA	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603423-3			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B	**Collect Date:**		**Receive Date:**	05/02/2016

Analysis Lot:	KWG1603423	**Prep Lot:**		**Report Group:**	
Analysis Method:	8260C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS18\METHODS\041316MS18_8			**Calibration ID:**	CAL14682
Title:					
Tune Ref:	J:\MS18\DATA\050216\0502F007.D			**Method ID:**	MJ1465
MB Ref:				**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.55	0.00	96	640620	10.00	OK
2	Chlorobenzene-d5	9.02	0.00	82	247253	10.00	OK
3	1,4-Dichlorobenzene-d4	11.44	0.01	152	235756	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	4.70			113	129563	10.21		80-119	NA	
1	1,2-Dichloroethane-d4	5.19			65	141114	9.63		81-118	NA	
1	Toluene-d8	7.43			98	630913	11.00		89-112	NA	
2	4-Bromofluorobenzene	10.27			95	219831	10.22		85-114	NA	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.10			85	175340	10.70			
1	Chloromethane	1.24			50	170347	8.19			
1	Vinyl Chloride	1.31			62	197108	10.14			
1	1,3-Butadiene	1.33			54	153997	10.25			
1	Bromomethane	1.55			96	73688	6.85			
1	Chloroethane	1.62			64	120542	9.99			
1	Dichlorofluoromethane (CFC 21	1.78			67	271839	9.95			
1	Trichlorofluoromethane	1.78			101	219930	10.44			
1	Diethyl Ether	2.02			59	122645	10.22			
1	Acrolein	2.19			56	368938	238.87			
1	Trichlorotrifluoroethane	2.18			151	107406	10.47			
1	1,1-Dichloroethene	2.21			96	149033	11.44			
1	Acetone	2.33			43	407945	199.26			
1	Iodomethane	2.35			142	281357	16.88			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\050216\0502F036.D			**Instrument:**	GC-MS 18
Acqu Date:	05/03/2016 03:56	**Quant Date:**	05/03/2016 08:51	**Vial:**	36
Run Type:	CCVA	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603423-3			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.38			76	319203	7.81			
1	2-Propanol	2.46			45	204488	473.12			
1	3-Chloro-1-propene	2.55			76	76645	9.13			
1	Methyl Acetate	2.60			43	72992	8.99			
1	Acetonitrile	2.66			40	238883	435.95			
1	Methylene Chloride	2.70			84	183440	10.65			
1	tert-Butyl Alcohol	2.83			59	27651	45.20			
1	Acrylonitrile	3.03			53	157981	43.04			
1	Methyl tert-Butyl Ether	2.89			73	755251	19.09			
1	trans-1,2-Dichloroethene	2.91			96	168969	10.86			
1	n-Hexane	3.10			57	142532	8.79			
1	Diisopropyl Ether	3.39			45	463150	9.35			
1	1,1-Dichloroethane	3.40			63	283869	10.28			
1	Vinyl Acetate	3.46			86	38705	13.21			
1	Chloroprene	3.45			53	1009115	39.71			
1	tert-Butyl Ethyl Ether	3.80			59	414056	9.22			
1	2,2-Dichloropropane	4.03			77	148700	7.67			
1	cis-1,2-Dichloroethene	4.08			96	191900	10.85			
1	2-Butanone (MEK)	4.15			72	217645	190.69			
1	Propionitrile	4.34			54	52697	40.97			
1	Ethyl Acetate	4.17			61	27598	16.84			
1	Methacrylonitrile	4.46			67	200804	42.68			
1	Bromochloromethane	4.38			128	71239	10.58			
1	Tetrahydrofuran	4.40			71	10400	9.34			
1	Chloroform	4.48			83	270349	10.59			
1	tert-Butyl Formate	4.51			59	45853	6.87			
1	1,1,1-Trichloroethane (TCA)	4.63			97	193351	9.78			
1	Carbon Tetrachloride	4.79			117	142154	8.83			
1	1,1-Dichloropropene	4.85			75	213932	10.19			
1	Cyclohexane	4.58			56	241108	9.27			
1	Isobutyl Alcohol	5.22			43	81780	348.21			
1	Benzene	5.13			78	706912	10.11			
1	1,2-Dichloroethane (EDC)	5.29			62	196701	10.59			
1	tert-Amyl Methyl Ether	5.29			55	126750	11.16			
1	Trichloroethene (TCE)	5.99			95	163550	10.72			
1	1,2-Dichloropropane	6.34			63	164272	10.19			
1	Dibromomethane	6.48			93	83201	10.65			
1	Methyl Methacrylate	6.51			69	81223	9.51			
1	1,4-Dioxane	6.53			88	46588**m**	425.13			
1	Bromodichloromethane	6.67			83	147257	8.55			
1	2-Nitropropane	7.06			41	51190	28.57			
1	Methylcyclohexane	6.11			83	227370	9.44			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\050216\0502F036.D			**Instrument:**	GC-MS 18
Acqu Date:	05/03/2016 03:56	**Quant Date:**	05/03/2016 08:51	**Vial:**	36
Run Type:	CCVA	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603423-3			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	2-Chloroethyl Vinyl Ether	7.08			63	65964	8.35			
1	cis-1,3-Dichloropropene	7.21			75	214240	8.31			
1	4-Methyl-2-pentanone (MIBK)	7.41			58	724896	189.19			
1	Toluene	7.50			92	462981	10.33			
2	trans-1,3-Dichloropropene	7.87			75	154949	7.87			
2	Ethyl Methacrylate	7.94			69	155011	10.00			
2	1,1,2-Trichloroethane	8.06			83	115443	10.98			
2	Tetrachloroethene (PCE)	8.06			164	126934	10.92			
2	2-Hexanone	8.34			57	233295	191.98			
2	1,3-Dichloropropane	8.24			76	251537	10.87			
2	Dibromochloromethane	8.44			129	103791	8.60			
2	1,2-Dibromoethane (EDB)	8.55			107	129043	11.08			
2	1-Chlorohexane	9.03			91	209159	10.17			
2	Chlorobenzene	9.05			112	508849	10.78			
2	Ethylbenzene	9.14			106	266143	10.79			
2	1,1,1,2-Tetrachloroethane	9.16			131	130510	9.53			
2	m,p-Xylenes	9.27			106	665132	21.86			
2	o-Xylene	9.69			106	319523	10.90			
2	Styrene	9.73			103	256971	11.21			
2	Bromoform	9.93			173	42159	7.75			
2	Isopropylbenzene	10.07			105	780938	10.80			
2	cis-1,4-Dichloro-2-butene	10.24			89	46089	23.89			
3	1,1,2,2-Tetrachloroethane	10.48			83	144522	10.03			
3	trans-1,4-Dichloro-2-butene	10.55			53	32280	8.41			
3	Bromobenzene	10.39			156	207868	10.88			
3	n-Propylbenzene	10.49			91	896700	10.18			
3	1,2,3-Trichloropropane	10.52			110	47414	10.54			
3	2-Chlorotoluene	10.59			91	565953	9.99			
3	1,3,5-Trimethylbenzene	10.69			105	646244	10.50			
3	4-Chlorotoluene	10.71			91	655674	10.09			
3	tert-Butylbenzene	11.00			119	546614	10.32			
3	1,2,4-Trimethylbenzene	11.07			105	658537	10.66			
3	sec-Butylbenzene	11.23			105	762229	10.23			
3	4-Isopropyltoluene	11.38			119	628304	10.47			
3	1,3-Dichlorobenzene	11.36			146	385048	10.29			
3	1,4-Dichlorobenzene	11.46			146	400369	10.10			
3	n-Butylbenzene	11.80			91	516561	9.96			
3	1,2-Dichlorobenzene	11.84			146	374206	10.51			
3	1,2-Dibromo-3-chloropropane	12.54			155	11276	8.03			
3	1,3,5-Trichlorobenzene	12.63			180	244359	10.97			
3	1,2,4-Trichlorobenzene	13.07			180	197239	10.10			
3	Hexachlorobutadiene	13.15			225	68316	9.65			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\050216\0502F036.D			**Instrument:**	GC-MS 18
Acqu Date:	05/03/2016 03:56	**Quant Date:**	05/03/2016 08:51	**Vial:**	36
Run Type:	CCVA	**MethodJoinID:**	MJ1465	**Dilution:**	1.0
Lab ID:	KWG1603423-3			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	13.25			128	426209	10.98			
3	1,2,3-Trichlorobenzene	13.44			180	170460	10.80			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
c: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS18\DATA\050216\0502F036.D Vial: 36
Acq On : 3 May 2016 3:56 Operator: YX
Sample : CCVA Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 03 08:11:12 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.55	96	640620	10.00	PPB	0.00
65) Chlorobenzene-d5	9.02	82	247253	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	235756	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	4.70	113	129563	10.21	PPB	0.00
Spiked Amount 10.000			Recovery =	102.10%		
48) 1,2-Dichloroethane-d4	5.19	65	141114	9.63	PPB	0.00
Spiked Amount 10.000			Recovery =	96.30%		
63) Toluene-d8	7.43	98	630913	11.00	PPB	0.00
Spiked Amount 10.000			Recovery =	110.00%		
85) 4-Bromofluorobenzene	10.27	95	219831	10.22	PPB	0.00
Spiked Amount 10.000			Recovery =	102.20%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	175340	10.70	PPB	99
3) Chloromethane	1.24	50	170347	8.19	PPB	98
4) Vinyl Chloride	1.31	62	197108	10.14	PPB	98
5) 1,3-Butadiene	1.33	54	153997	10.25	PPB	99
6) Bromomethane	1.55	96	73688	6.85	PPB	100
7) Chloroethane	1.62	64	120542	9.99	PPB	99
8) Dichlorofluoromethane	1.78	67	271839	9.95	PPB	98
9) Trichlorofluoromethane	1.78	101	219930	10.44	PPB	98
10) Ethyl Ether	2.02	59	122645	10.22	PPB	99
11) Acrolein	2.19	56	368938	238.87	PPB	96
12) Trichlorotrifluoroethane	2.18	151	107406	10.47	PPB	98
13) 1,1-Dichloroethene	2.21	96	149033	11.44	PPB	95
14) Acetone	2.33	43	407945	199.26	PPB	99
15) Iodomethane	2.35	142	281357	16.88	PPB	99
16) Carbon Disulfide	2.38	76	319203	7.81	PPB	99
17) 2-Propanol (Isopropyl Alco	2.46	45	204488	473.12	PPB	97
18) 3-Chloro-1-propene	2.55	76	76645	9.13	PPB	87
19) Methyl Acetate	2.60	43	72992	8.99	PPB	98
20) Acetonitrile	2.66	40	238883	435.95	PPB	98
21) Methylene Chloride	2.70	84	183440	10.65	PPB	94
22) tert-Butyl Alcohol	2.83	59	27651	45.20	PPB	90
23) Acrylonitrile	3.03	53	157981	43.04	PPB	98
24) Methyl tert-Butyl Ether	2.89	73	755251	19.09	PPB	99
25) trans-1,2-Dichloroethene	2.91	96	168969	10.86	PPB	98
26) Hexane	3.10	57	142532	8.79	PPB	97
27) Diisopropyl Ether	3.39	45	463150	9.35	PPB	97
28) 1,1-Dichloroethane	3.40	63	283869	10.28	PPB	98

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

Data File : J:\MS18\DATA\050216\0502F036.D Vial: 36
Acq On : 3 May 2016 3:56 Operator: YX
Sample : CCVA Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 03 08:11:12 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29) Vinyl Acetate	3.46	86	38705	13.21	PPB	#	85
30) Chloroprene	3.45	53	1009115	39.71	PPB		98
31) tert-Butyl Ethyl Ether	3.80	59	414056	9.22	PPB		96
32) 2,2-Dichloropropane	4.03	77	148700	7.67	PPB		97
33) cis-1,2-Dichloroethene	4.08	96	191900	10.85	PPB		91
34) 2-Butanone	4.15	72	217645	190.69	PPB	#	86
35) Propionitrile	4.34	54	52697	40.97	PPB		97
36) Ethyl Acetate	4.17	61	27598	16.84	PPB		98
37) Methacrylonitrile	4.46	67	200804	42.68	PPB		96
38) Bromochloromethane	4.38	128	71239	10.58	PPB		95
39) Tetrahydrofuran	4.40	71	10400	9.34	PPB		94
40) Chloroform	4.48	83	270349	10.59	PPB		100
41) tert-Butyl Formate	4.51	59	45853	6.87	PPB		98
42) 1,1,1-Trichloroethane	4.63	97	193351	9.78	PPB		97
44) Carbon Tetrachloride	4.79	117	142154	8.83	PPB		99
45) 1,1-Dichloropropene	4.85	75	213932	10.19	PPB		98
46) Cyclohexane	4.58	56	241108	9.27	PPB		93
47) Isobutyl Alcohol	5.22	43	81780	348.21	PPB		98
49) Benzene	5.13	78	706912	10.11	PPB		99
50) 1,2-Dichloroethane	5.29	62	196701	10.59	PPB		98
51) tert-Amyl Methyl Ether	5.29	55	126750	11.16	PPB	#	72
52) Trichloroethene	5.99	95	163550	10.72	PPB		97
53) 1,2-Dichloropropane	6.34	63	164272	10.19	PPB		99
54) Dibromomethane	6.48	93	83201	10.65	PPB		93
55) Methyl methacrylate	6.51	69	81223	9.51	PPB		95
56) 1,4-Dioxane	6.53	88	46588m	425.13	PPB		
57) Bromodichloromethane	6.67	83	147257	8.55	PPB		99
58) 2-Nitropropane	7.06	41	51190	28.57	PPB		96
59) Methyl Cyclohexane	6.11	83	227370	9.44	PPB		96
60) 2-Chloroethyl Vinyl Ether	7.08	63	65964	8.35	PPB		98
61) cis-1,3-Dichloropropene	7.21	75	214240	8.31	PPB		96
62) 4-Methyl-2-pentanone (MIBK	7.41	58	724896	189.19	PPB		98
64) Toluene	7.50	92	462981	10.33	PPB		99
66) n-Octane	7.59	85	50851	8.09	PPB		94
67) trans-1,3-Dichloropropene	7.87	75	154949	7.87	PPB		98
68) Ethyl methacrylate	7.94	69	155011	10.00	PPB		97
69) 1,1,2-Trichloroethane	8.06	83	115443	10.98	PPB		99
70) Tetrachloroethene	8.06	164	126934	10.92	PPB		96
71) 2-Hexanone	8.34	57	233295	191.98	PPB		91
72) 1,3-Dichloropropane	8.24	76	251537	10.87	PPB		99
73) Dibromochloromethane	8.44	129	103791	8.60	PPB		100

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

Data File : J:\MS18\DATA\050216\0502F036.D Vial: 36
Acq On : 3 May 2016 3:56 Operator: YX
Sample : CCVA Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 03 08:11:12 2016 Quant Results File: 041316MS18_8260

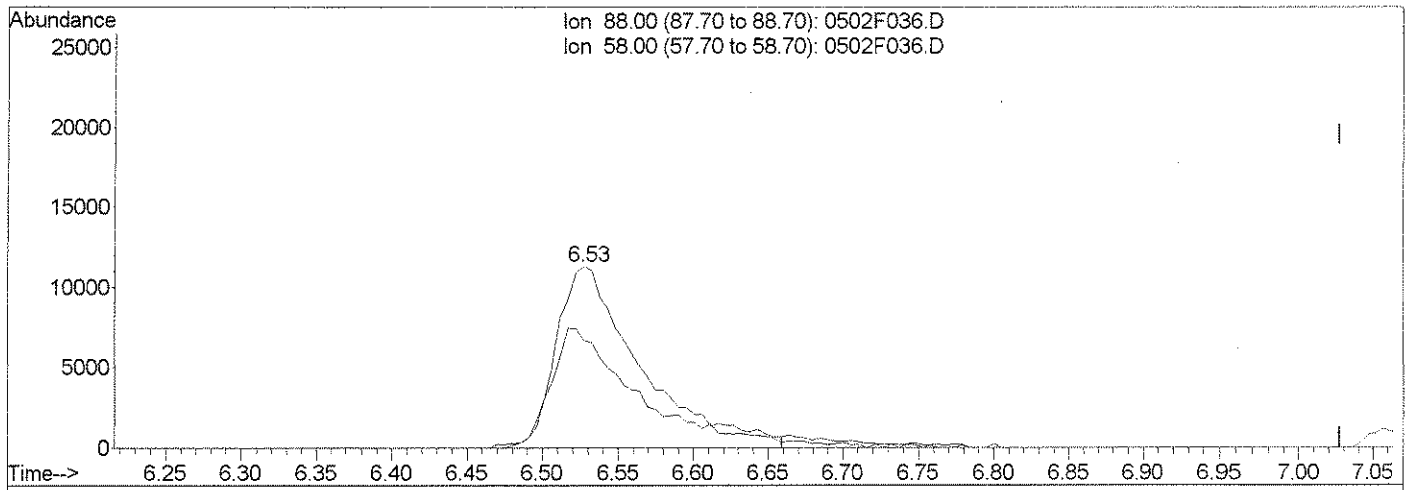
Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

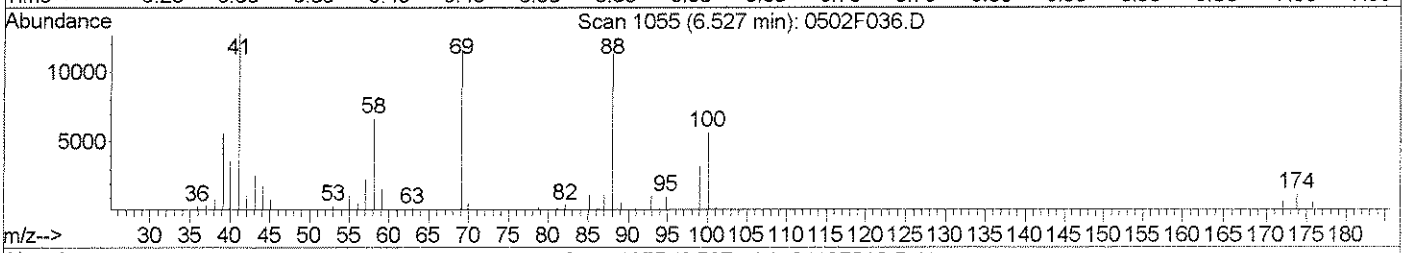
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1,2-Dibromoethane (EDB)	8.55	107	129043	11.08	PPB	99
75)	1-Chlorohexane	9.03	91	209159	10.17	PPB	99
76)	Chlorobenzene	9.05	112	508849	10.78	PPB	98
77)	Ethylbenzene	9.14	106	266143	10.79	PPB	99
78)	1,1,1,2-Tetrachloroethane	9.16	131	130510	9.53	PPB	99
79)	m,p-Xylenes	9.27	106	665132	21.86	PPB	98
80)	o-Xylene	9.69	106	319523	10.90	PPB	100
81)	Styrene	9.73	103	256971	11.21	PPB	97
82)	Bromoform	9.93	173	42159	7.75	PPB	98
83)	Isopropylbenzene	10.07	105	780938	10.80	PPB	99
84)	cis-1,4-Dichloro-2-butene	10.24	89	46089	23.89	PPB	95
87)	1,1,2,2-Tetrachloroethane	10.48	83	144522	10.03	PPB	99
88)	trans-1,4-Dichloro-2-buten	10.55	53	32280	8.41	PPB	88
89)	Bromobenzene	10.39	156	207868	10.88	PPB	99
90)	n-Propylbenzene	10.49	91	896700	10.18	PPB	99
91)	1,2,3-Trichloropropane	10.52	110	47414	10.54	PPB	97
92)	2-Chlorotoluene	10.59	91	565953	9.99	PPB	100
93)	1,3,5-Trimethylbenzene	10.69	105	646244	10.50	PPB	99
94)	4-Chlorotoluene	10.71	91	655674	10.09	PPB	100
95)	tert-Butylbenzene	11.00	119	546614	10.32	PPB	98
96)	1,2,4-Trimethylbenzene	11.07	105	658537	10.66	PPB	100
97)	sec-Butylbenzene	11.23	105	762229	10.23	PPB	99
98)	p-Isopropyltoluene	11.38	119	628304	10.47	PPB	98
99)	1,3-Dichlorobenzene	11.36	146	385048	10.29	PPB	97
100)	1,4-Dichlorobenzene	11.46	146	400369	10.10	PPB	99
101)	n-Butylbenzene	11.80	91	516561	9.96	PPB	99
102)	1,2-Dichlorobenzene	11.84	146	374206	10.51	PPB	100
103)	1,2-Dibromo-3-chloropropan	12.54	155	11276	8.03	PPB	95
104)	1,3,5-Trichlorobenzene	12.63	180	244359	10.97	PPB	97
105)	1,2,4-Trichlorobenzene	13.07	180	197239	10.10	PPB	97
106)	Hexachlorobutadiene	13.15	225	68316	9.65	PPB	96
107)	Naphthalene	13.25	128	426209	10.98	PPB	100
108)	1,2,3-Trichlorobenzene	13.44	180	170460	10.80	PPB	98

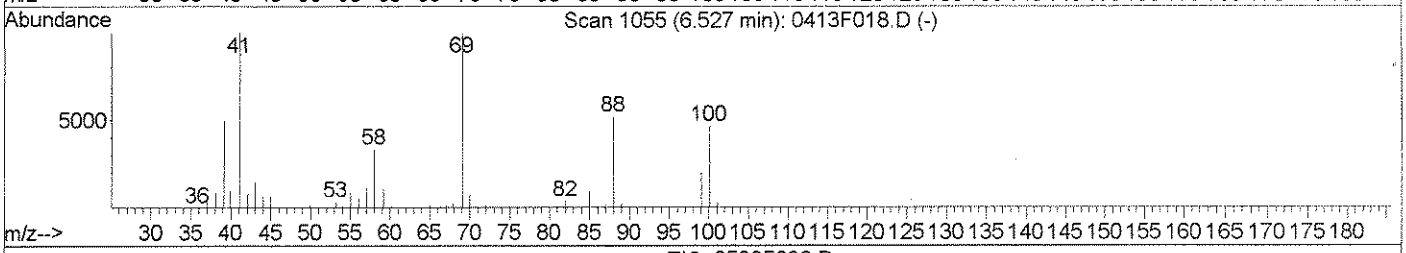
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\050216\0502F036.D Vial: 36
Acq On : 3 May 2016 3:56 Operator: YX
Sample : CCVA Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:11 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Single Level Calibration







TIC: 0502F036.D

(56) 1,4-Dioxane (T)

6.53min 403.28PPB

response 44193

Ion	Exp%	Act%
88.00	100	100
58.00	64.20	59.22
0.00	0.00	0.00
0.00	0.00	0.00

Manual integration:

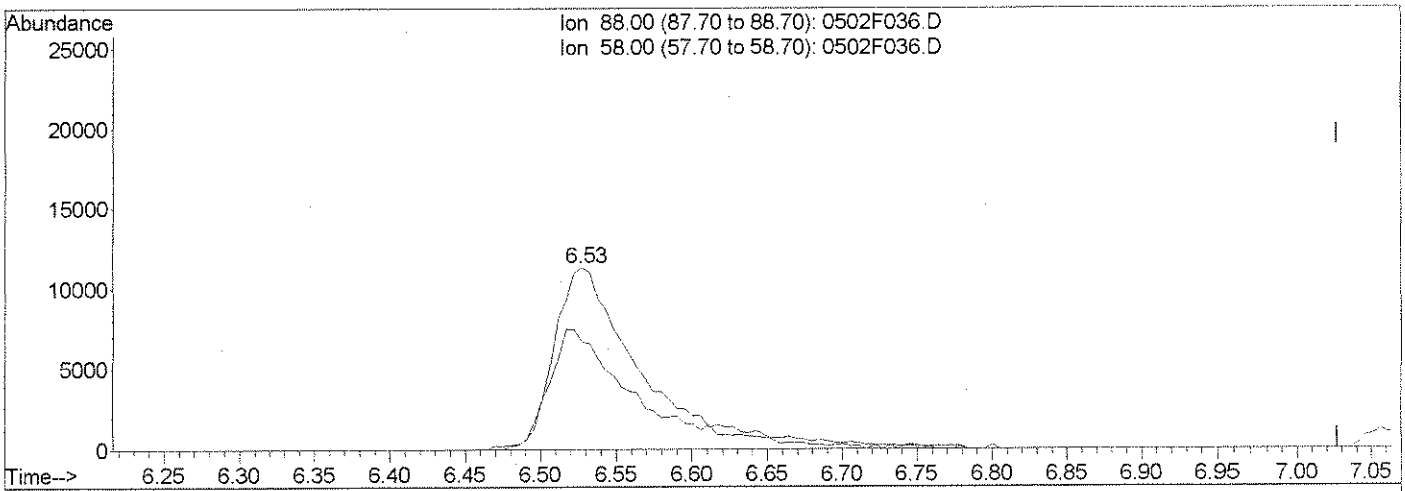
Before

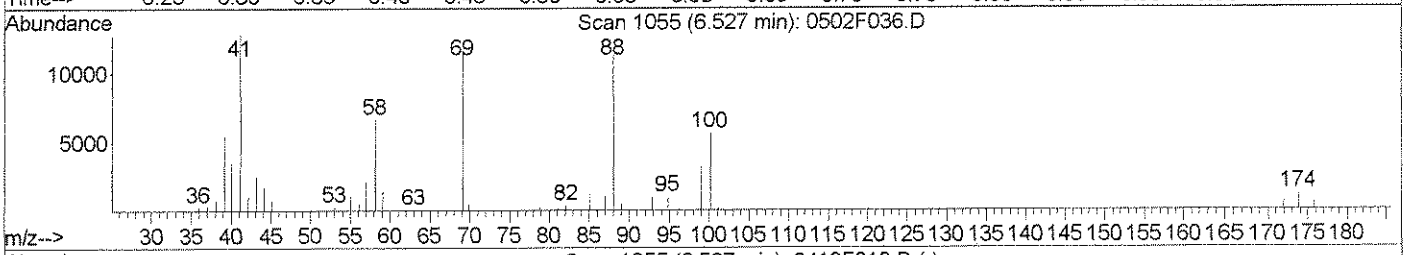
05/03/16

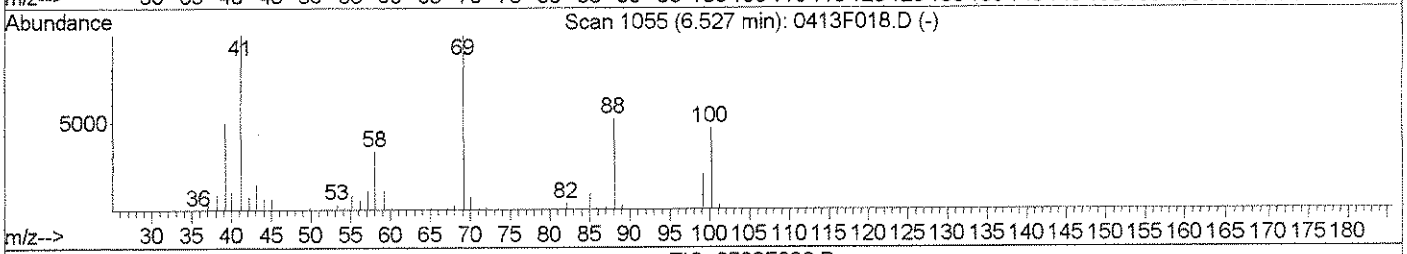
0502F036.D 041316MS18_8260.M Tue May 03 08:51:24 2016

Data File : J:\MS18\DATA\050216\0502F036.D Vial: 36
Acq On : 3 May 2016 3:56 Operator: YX
Sample : CCVA Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:51 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Single Level Calibration







TIC: 0502F036.D

(56) 1,4-Dioxane (T)

6.53min 425.13PPB m

response 46588

Ion	Exp%	Act%
88.00	100	100
58.00	64.20	59.22
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

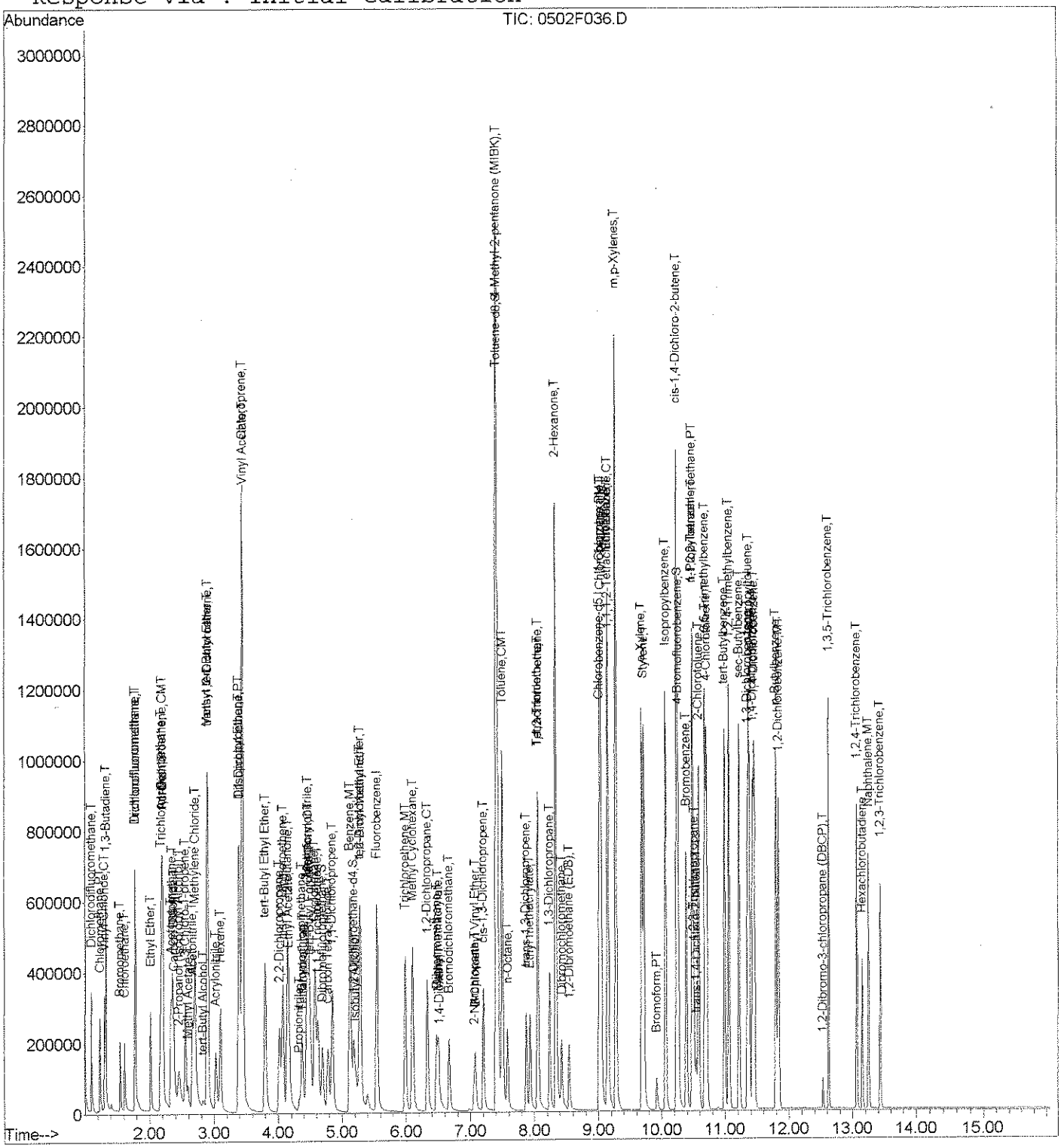
Peak tailing

05/03/16

0502F036.D 041316MS18_8260.M Tue May 03 08:51:30 2016

Data File : J:\MS18\DATA\050216\0502F036.D Vial: 36
Acq On : 3 May 2016 3:56 Operator: YX
Sample : CCVA Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 3 8:51 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Date: 4/13/16

ALS Environmental
Injection Log
MS18 - Agilent 5973

Tune File: BFB.u

By: YX

New Tune: Yes

IS/SS Std. ID: IS only 8260A-690 5113

CCV Std ID: see CAL sheet

ICAL Date: 4/13/16 14682

MS/DMS/LCS/ICV Std ID: "

Second RV: KL 4/15/16

BFB Std. ID: 8260A-678 5111

LIMS ID:

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	BFB	0413F008	8260	4.4mL → 4.4mL		
2	LOW CC	09	"	"		
3	IB	10				
4	IB	11				
5	8260 ICAL 0.1	12		see CAL sheet		
6	0.2	13		"		
7	0.5	14		"		
8	1	15		"		
9	2	16		"		
10	5	17		"		
11	10	18		"		
12	20	19		"		
13	40	20		"		
14	60	21		"		
15	80	22		"		
16	IB	23				
17	IB	24				
18	8260 ICV	25		see CAL sheet		
19	8260 ICV	26		"		NR - not needed
20	CLP ICV	27	"	"		
21						
22						
23						
24						
25						
26						
27						

R:\VOA\Injection Logs\INJLOG_MS18_Rev1

ALS-Columbia Kelso
Initial Calibration Checklist VOA

Method: 8260
ICAL ID or Date: 4/13/16 CAL14682
Instrument: MS-18

Primary Secondary

- [x] [x] Does Tune standard meet SOP criteria?
- [x] [x] Was new ICAL saved with a unique ID?
- [x] [x] Was ICAL performed continuously (i.e. not interrupted by maintenance event)?
- [x] [x] Are all analytes in blank < ½ MRL?
- [x] [x] Does ICAL contain minimum number of concentrations?
- [x] [x] For each analyte, no internal levels skipped?
- [x] [x] Retention times updated using a midpoint of the calibration? Secondary reviewer double check peak IDs.
- [x] [x] Check integrations. Primary reviewer must check all integrations electronically. Secondary reviewer will check low point and high point electronically.
- [x] [x] ICAL files added to calibration table?
- [x] [x] The average %RSD or COD meets method criteria for all analytes?
- * [ ] [x] RF meets SOP criteria for each analyte? several compounds need MRL check
- [x] [x] Calculated concentration meets SOP criteria for all analytes?
- [x] [x] ICV quantitated against new ICAL?
- [x] [x] ICV meet method criteria?
- [x] [x] All calibration reports included? ICAL SUMMARY, ICAL DETAILED, ICV SUMMARY.
- [x] [x] All quant reports and manual integrations initialed by primary?
- [x] [x] All standards were checked on Recipe sheet?

Data packet should be in the following order: Sequence log, Calibration Review, Stealth ICAL reports, and quant reports.

Primary: \ Kwc Date: 4/14/16

Secondary: KR Date: 4/15/16

G:\QA\QA_Forms\DataReview\Calibration Review - VOA.doc

INTIAL CALIBRATION CURVE

Date 4/13/16 Analysis: 8260

Prepared By YX Instrument: MS18

Matrix: Water

Stock Solution #1 _____ Analytes: Surrogate Init. Concentration: 100ppm 82UOA-70A 4120

Stock Solution #2 _____ Analytes: Low 8260 Init. Concentration: 5/10/20/100/200ppm 82UOA-72C 4120

Stock Solution #3 _____ Analytes: 8260 Init. Concentration: 50/100/200/1000/2000ppm 82UOA-72B 4120

Stock Solution #4 _____ Analytes: Low Ketones Init. Concentration: 200ppm 82UOA-71C 4120

Stock Solution #5 _____ Analytes: Ketones Init. Concentration: 2000ppm 82UOA-69E 6113

Aliquot of Stock Solution #1 (µL)	Final Conc. of #1 (µg/L)	Aliquot of Stock Solution #2 (µL)	Final Conc. of #2 (µg/L)	Aliquot of Stock Solution #3 (µL)	Final Conc. of #3 (µg/L)	Aliquot of Stock Solution #4 (µL)	Final Conc. of #4 (µg/L)	Aliquot of Stock Solution #5 (µL)	Final Conc. of #5 (µg/L)	Final Volume (mL)
		1	0.1			1	4			50
		2	0.2			2	8			50
		5.0	0.5			5	20			50
2.0	4	10	1			10	40			50
3.0	6			2.0	2			2	80	50
4.0	8			5.0	5			2.5	100	50
5.0	10			10	10			5.0	200	50
6	12			20	20			10	400	50
7	14			40	40			20	800	50
8	16			60	60			40	1600	50
10	20			80	80			50	2000	50

8260 ICV: 10uL of 50/250ppm Accustd ICV (82UOA-69B 4120) + ~~5.0uL~~ 50 of ~~1000~~ 100 ppm Acrolein (82UOA-73D 4120) + 5uL of 100ppm Dichlorofluoromethane (82UOA-73B 4120) + 5uL of 200ppm n-Octane/TBF/Tetrahydrafuran (82UOA-70D 4120) YX 4/13/16

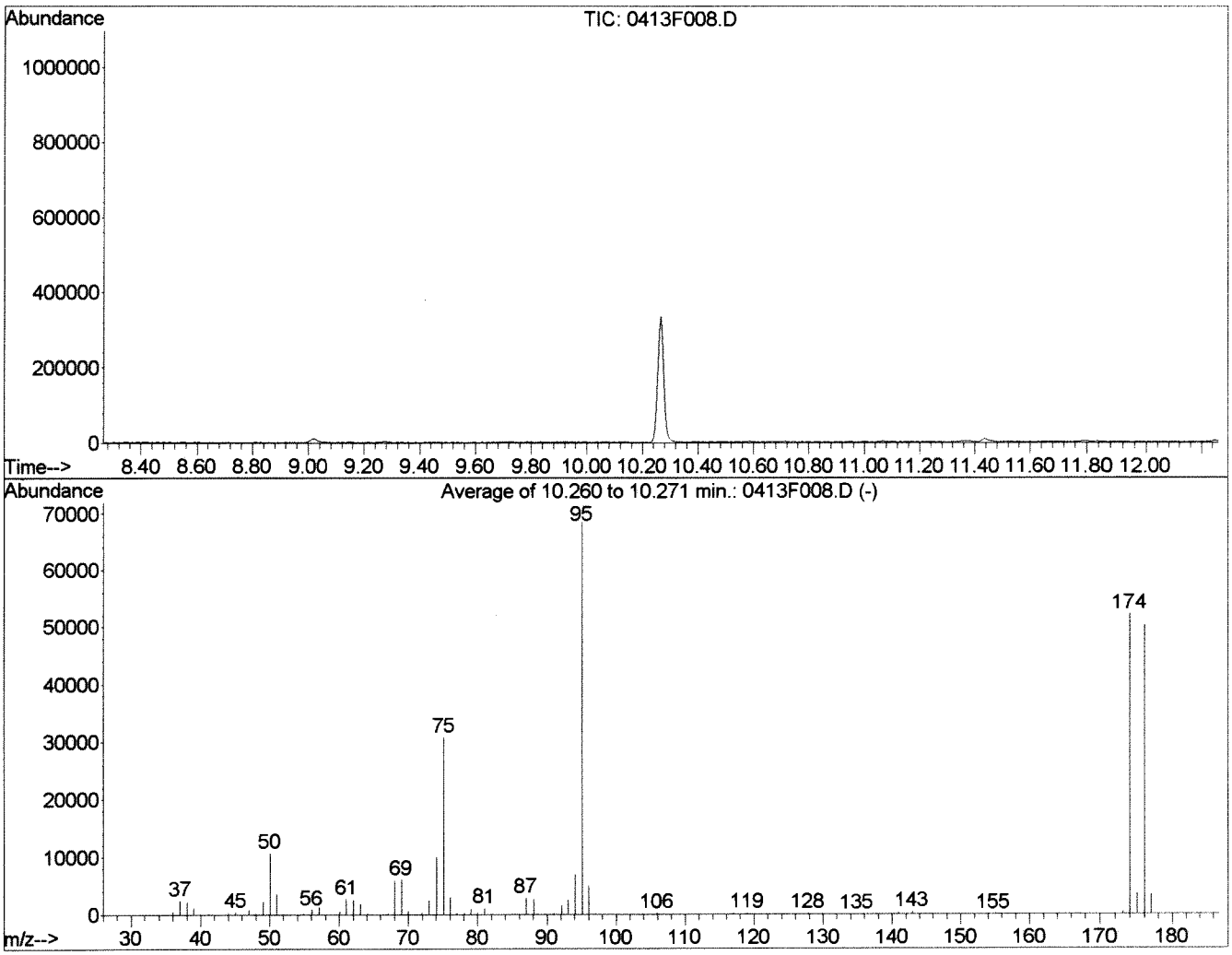
5uL of 100ppm Oxygenates (82UOA-73C 4120) + 7.5uL of Appendix ICV mix(82UOA-73A 4120) + 25uL of 1000ppm 2-Propanol(82UOA-63F 616

5uL of 100ppm CLP ICV (82UOA-70E 4120)

+ 5uL of 100ppm 1,3-Butadiene (82UOA-69A 4118)

BFB

Data File : J:\MS18\DATA\041316\0413F008.D Vial: 7
Acq On : 13 Apr 2016 17:48 Operator: YX
Sample : BFB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B



AutoFind: Scans 1767, 1768, 1769; Background Corrected with Scan 1759

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.6	10695	PASS
75	95	30	60	45.0	30840	PASS
95	95	100	100	100.0	68512	PASS
96	95	5	9	7.2	4946	PASS
173	174	0.00	2	0.7	391	PASS
174	95	50	120	76.5	52386	PASS
175	174	5	9	7.0	3653	PASS
176	174	95	101	96.3	50429	PASS
177	176	5	9	6.7	3373	PASS

VTSC 4/14/16

KS 4/16/16

0413F008.D 041316MS18_8260.M Thu Apr 14 11:43:29 2016

Quantitation Report (Not Reviewed)

Data File : J:\MS18\DATA\041316\0413F009.D Vial: 8
Acq On : 13 Apr 2016 18:10 Operator: YX
Sample : LOW CC Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 13 18:29:48 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Apr 04 14:08:23 2016
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.55	96	676378	10.00	PPB		0.00
65) Chlorobenzene-d5	9.02	82	259125	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.43	152	231401	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	0.00	113	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
48) 1,2-Dichloroethane-d4	5.19	65	604	0.03	PPB		0.00
Spiked Amount 10.000			Recovery =	0.30%			
63) Toluene-d8	7.43	98	1709	0.03	PPB		0.00
Spiked Amount 10.000			Recovery =	0.30%			
85) 4-Bromofluorobenzene	10.27	95	1998	0.09	PPB		0.00
Spiked Amount 10.000			Recovery =	0.90%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.10	85	6826	0.42	PPB		97
3) Chloromethane	1.23	50	10755	0.46	PPB		98
4) Vinyl Chloride	1.31	62	9011	0.41	PPB		95
5) 1,3-Butadiene	1.33	54	6716	0.33	PPB		96
6) Bromomethane	1.55	96	5152	0.51	PPB		94
7) Chloroethane	1.62	64	6369	0.53	PPB		97
8) Dichlorofluoromethane	1.78	67	13977	0.46	PPB		95
9) Trichlorofluoromethane	1.78	101	9725	0.46	PPB		94
10) Ethyl Ether	2.02	59	6271	0.42	PPB		86
11) Acrolein	2.19	56	16854	9.08	PPB		94
12) Trichlorotrifluoroethane	2.18	151	4801	0.52	PPB		89
13) 1,1-Dichloroethene	2.21	96	6411	0.47	PPB	#	77
14) Acetone	2.34	43	2668	0.97	PPB		87
15) Iodomethane	2.35	142	27513	1.65	PPB		98
16) Carbon Disulfide	2.37	76	16972	0.30	PPB		97
17) 2-Propanol (Isopropyl Alco	2.46	45	10988	17.50	PPB		81
18) 3-Chloro-1-propene	2.55	76	3862	0.35	PPB	#	61
19) Methyl Acetate	2.59	43	4188	0.37	PPB		94
20) Acetonitrile	2.66	40	10651	13.74	PPB		97
21) Methylene Chloride	2.70	84	11401	0.57	PPB		86
22) tert-Butyl Alcohol	2.83	59	2010	2.47	PPB		79
23) Acrylonitrile	3.03	53	7644	1.43	PPB		97
24) Methyl tert-Butyl Ether	2.89	73	39582	0.80	PPB		96
25) trans-1,2-Dichloroethene	2.91	96	7691	0.41	PPB		86
26) Hexane	3.10	57	8240	0.43	PPB		86
27) Diisopropyl Ether	3.40	45	24672	0.35	PPB		88
28) 1,1-Dichloroethane	3.40	63	13374	0.37	PPB		98

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

Data File : J:\MS18\DATA\041316\0413F009.D Vial: 8
Acq On : 13 Apr 2016 18:10 Operator: YX
Sample : LOW CC Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 13 18:29:48 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Apr 04 14:08:23 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.46	86	2605	0.70	PPB	#	33
30)	Chloroprene	3.45	53	46047	1.40	PPB		92
31)	tert-Butyl Ethyl Ether	3.81	59	22376	0.37	PPB		96
32)	2,2-Dichloropropane	4.03	77	8807	0.35	PPB		94
33)	cis-1,2-Dichloroethene	4.07	96	8862	0.44	PPB		80
35)	Propionitrile	4.34	54	2604	1.46	PPB		83
36)	Ethyl Acetate	4.19	61	1436	0.69	PPB	#	84
37)	Methacrylonitrile	4.47	67	9410	1.52	PPB		86
38)	Bromochloromethane	4.38	128	3422	0.45	PPB	#	80
40)	Chloroform	4.48	83	12917	0.42	PPB		98
41)	tert-Butyl Formate	4.51	59	2830	0.19	PPB		82
42)	1,1,1-Trichloroethane	4.63	97	8725	0.36	PPB		97
44)	Carbon Tetrachloride	4.78	117	5808	0.30	PPB		93
45)	1,1-Dichloropropene	4.85	75	9814	0.39	PPB		92
46)	Cyclohexane	4.59	56	12597	0.39	PPB		92
47)	Isobutyl Alcohol	5.23	43	4123	11.62	PPB		95
49)	Benzene	5.13	78	34628	0.42	PPB		98
50)	1,2-Dichloroethane	5.30	62	9944	0.44	PPB		95
51)	tert-Amyl Methyl Ether	5.30	55	6627	0.51	PPB	#	54
52)	Trichloroethene	5.99	95	7009	0.40	PPB	#	78
53)	1,2-Dichloropropane	6.34	63	7806	0.37	PPB		94
54)	Dibromomethane	6.47	93	3632	0.39	PPB		91
55)	Methyl methacrylate	6.51	69	3902	0.34	PPB		84
56)	1,4-Dioxane	6.55	88	1736	13.83	PPB		90
57)	Bromodichloromethane	6.68	83	6375	0.28	PPB		86
58)	2-Nitropropane	7.06	41	3259	1.03	PPB		86
59)	Methyl Cyclohexane	6.11	83	11095	0.41	PPB		97
60)	2-Chloroethyl Vinyl Ether	7.08	63	3445	0.31	PPB		92
61)	cis-1,3-Dichloropropene	7.21	75	8875	0.28	PPB		94
64)	Toluene	7.51	92	21429	0.43	PPB		99
66)	n-Octane	7.59	85	2580	0.49	PPB		96
67)	trans-1,3-Dichloropropene	7.88	75	6696	0.29	PPB		92
68)	Ethyl methacrylate	7.94	69	6003	0.31	PPB		94
69)	1,1,2-Trichloroethane	8.06	83	5087	0.42	PPB		94
70)	Tetrachloroethene	8.06	164	5819	0.60	PPB		93
72)	1,3-Dichloropropane	8.25	76	11334	0.45	PPB		95
73)	Dibromochloromethane	8.44	129	3515	0.27	PPB		84
74)	1,2-Dibromoethane (EDB)	8.55	107	4931	0.41	PPB		88
75)	1-Chlorohexane	9.04	91	9781	0.47	PPB		94
76)	Chlorobenzene	9.05	112	24403	0.56	PPB		92
77)	Ethylbenzene	9.15	106	11581	0.48	PPB		89

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

Data File : J:\MS18\DATA\041316\0413F009.D Vial: 8
Acq On : 13 Apr 2016 18:10 Operator: YX
Sample : LOW CC Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 13 18:29:48 2016 Quant Results File: 041316MS18_8260

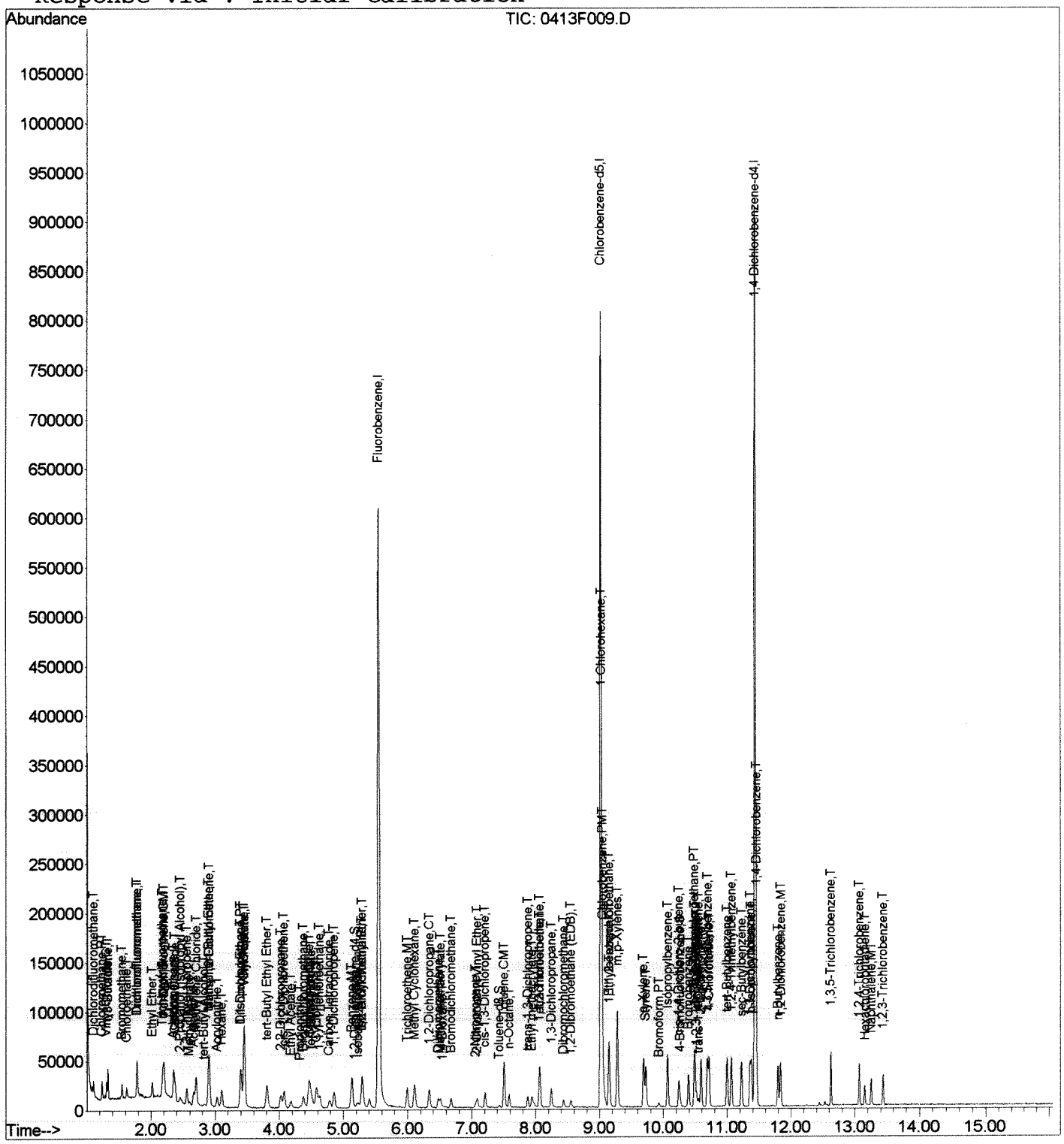
Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Apr 04 14:08:23 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
78)	1,1,1,2-Tetrachloroethane	9.16	131	4806	0.36	PPB		94
79)	m,p-Xylenes	9.28	106	28944	0.97	PPB		99
80)	o-Xylene	9.69	106	14555	0.50	PPB		92
81)	Styrene	9.72	103	11108	0.47	PPB		92
82)	Bromoform	9.93	173	1532	0.25	PPB		90
83)	Isopropylbenzene	10.07	105	33078	0.46	PPB		94
84)	cis-1,4-Dichloro-2-butene	10.24	89	1685	0.80	PPB	#	73
87)	1,1,2,2-Tetrachloroethane	10.48	83	6054	0.33	PPB		98
88)	trans-1,4-Dichloro-2-buten	10.55	53	1713	0.33	PPB	#	62
89)	Bromobenzene	10.39	156	8329	0.42	PPB		88
90)	n-Propylbenzene	10.49	91	36929	0.37	PPB		99
91)	1,2,3-Trichloropropane	10.52	110	1909	0.39	PPB	#	74
92)	2-Chlorotoluene	10.59	91	26224	0.41	PPB		95
93)	1,3,5-Trimethylbenzene	10.69	105	25818	0.37	PPB		98
94)	4-Chlorotoluene	10.72	91	29996	0.39	PPB		99
95)	tert-Butylbenzene	11.00	119	22908	0.41	PPB		97
96)	1,2,4-Trimethylbenzene	11.07	105	26796	0.37	PPB		99
97)	sec-Butylbenzene	11.23	105	30921	0.37	PPB		95
98)	p-Isopropyltoluene	11.38	119	24335	0.37	PPB		97
99)	1,3-Dichlorobenzene	11.36	146	17677	0.47	PPB		97
100)	1,4-Dichlorobenzene	11.46	146	18920	0.48	PPB		99
101)	n-Butylbenzene	11.80	91	21557	0.35	PPB		92
102)	1,2-Dichlorobenzene	11.84	146	17678	0.50	PPB		96
104)	1,3,5-Trichlorobenzene	12.63	180	11384	0.52	PPB		97
105)	1,2,4-Trichlorobenzene	13.07	180	9605	0.50	PPB		97
106)	Hexachlorobutadiene	13.15	225	3524	0.51	PPB		85
107)	Naphthalene	13.25	128	16818	0.40	PPB		96
108)	1,2,3-Trichlorobenzene	13.44	180	7490	0.49	PPB		96

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

Data File : J:\MS18\DATA\041316\0413F009.D Vial: 8
Acq On : 13 Apr 2016 18:10 Operator: YX
Sample : LOW CC Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 13 18:29 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Data File : J:\MS18\DATA\041316\0413F010.D Vial: 9
Acq On : 13 Apr 2016 18:31 Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 14:54:31 2016 Quant Results File: 041316MS18_8260

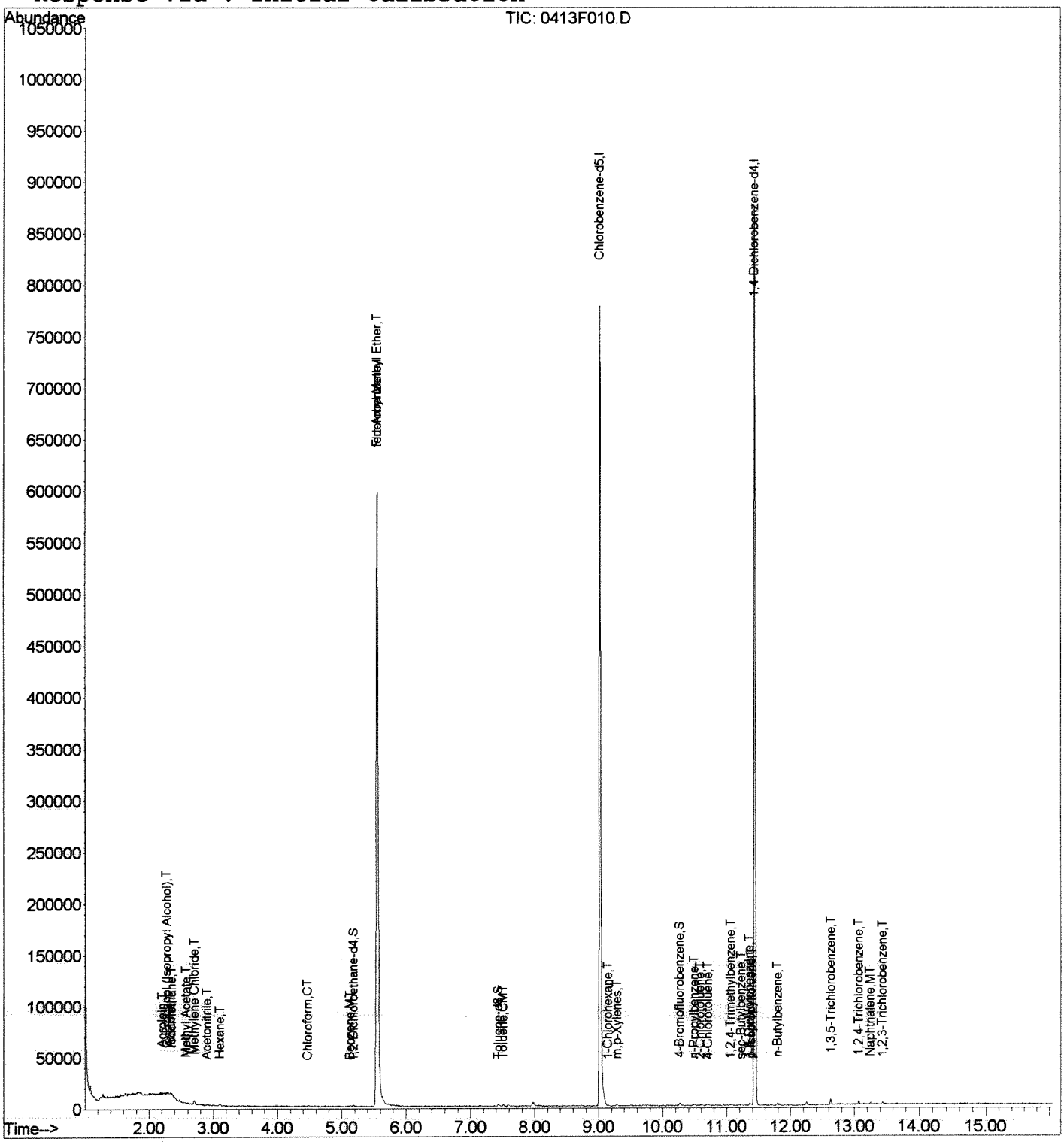
Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.55	96	662480	10.00	PPB	0.00
65) Chlorobenzene-d5	9.02	82	253489	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	222653	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	0.00	113	0	0.00	PPB	
Spiked Amount 10.000			Recovery =	0.00%		
48) 1,2-Dichloroethane-d4	5.18	65	517	0.03	PPB	0.00
Spiked Amount 10.000			Recovery =	0.30%		
63) Toluene-d8	7.43	98	1566	0.03	PPB	0.00
Spiked Amount 10.000			Recovery =	0.30%		
85) 4-Bromofluorobenzene	10.27	95	1088	0.05	PPB	0.00
Spiked Amount 10.000			Recovery =	0.50%		
Target Compounds						Qvalue
11) Acrolein	2.20	56	1155	0.72	PPB	# 26
14) Acetone	2.33	43	1870	0.88	PPB	88
15) Iodomethane	2.35	142	1316	0.08	PPB	83
17) 2-Propanol (Isopropyl Alco	2.27	45	541	1.21	PPB	83
19) Methyl Acetate	2.58	43	999	0.12	PPB	56
20) Acetonitrile	2.90	40	534	0.94	PPB	# 37
21) Methylene Chloride	2.69	84	1635	0.09	PPB	90
26) Hexane	3.10	57	665	0.04	PPB	# 53
40) Chloroform	4.47	83	861	0.03	PPB	77
49) Benzene	5.13	78	1303	0.02	PPB	64
51) tert-Amyl Methyl Ether	5.55	55	712	0.06	PPB	# 1
64) Toluene	7.51	92	614	0.01	PPB	# 43
75) 1-Chlorohexane	9.14	91	608	0.03	PPB	72
79) m,p-Xylenes	9.28	106	555	0.02	PPB	# 50
90) n-Propylbenzene	10.49	91	1049	0.01	PPB	90
92) 2-Chlorotoluene	10.59	91	639	0.01	PPB	88
94) 4-Chlorotoluene	10.71	91	858	0.01	PPB	87
96) 1,2,4-Trimethylbenzene	11.07	105	665	0.01	PPB	84
97) sec-Butylbenzene	11.22	105	838	0.01	PPB	72
98) p-Isopropyltoluene	11.38	119	985	0.02	PPB	77
99) 1,3-Dichlorobenzene	11.36	146	717	0.02	PPB	93
100) 1,4-Dichlorobenzene	11.36	146	717	0.02	PPB	91
101) n-Butylbenzene	11.80	91	1365	0.03	PPB	87
104) 1,3,5-Trichlorobenzene	12.62	180	1214	0.06	PPB	87
105) 1,2,4-Trichlorobenzene	13.07	180	1007	0.05	PPB	86
107) Naphthalene	13.25	128	1234	0.03	PPB	72
108) 1,2,3-Trichlorobenzene	13.44	180	547	0.04	PPB	# 74

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

Data File : J:\MS18\DATA\041316\0413F010.D Vial: 9
Acq On : 13 Apr 2016 18:31 Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 14:54 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Data File : J:\MS18\DATA\041316\0413F011.D Vial: 9
Acq On : 13 Apr 2016 18:53 Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 15:56:02 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

TRG 4/14/16

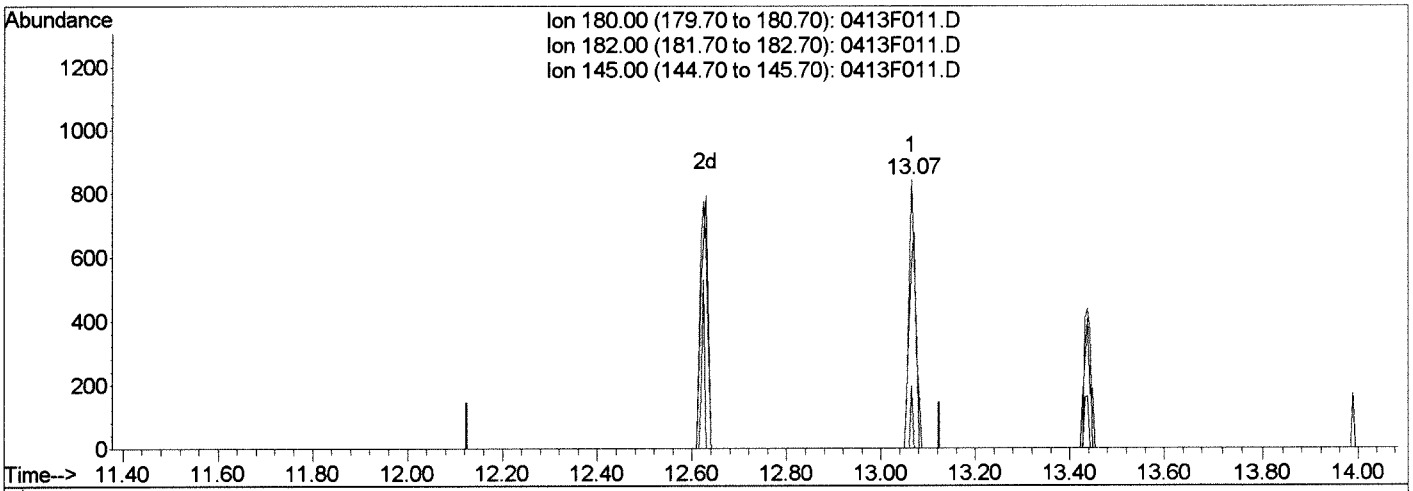
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.55	96	654802	10.00	PPB		0.00
65) Chlorobenzene-d5	9.02	82	252827	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.43	152	221441	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	0.00	113	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
48) 1,2-Dichloroethane-d4	5.18	65	613	0.04	PPB		0.00
Spiked Amount 10.000			Recovery =	0.40%			
63) Toluene-d8	7.44	98	1528	0.03	PPB		0.00
Spiked Amount 10.000			Recovery =	0.30%			
85) 4-Bromofluorobenzene	10.27	95	805	0.04	PPB		0.00
Spiked Amount 10.000			Recovery =	0.40%			
Target Compounds							Qvalue
14) Acetone	2.34	43	1653	0.79	PPB		60
15) Iodomethane	2.36	142	1120	0.07	PPB		84
21) Methylene Chloride	2.69	84	1550	0.09	PPB		93
26) Hexane	3.11	57	603	0.04	PPB	#	38
40) Chloroform	4.48	83	837	0.03	PPB		76
104) 1,3,5-Trichlorobenzene	12.63	180	812m	0.04	PPB		
105) 1,2,4-Trichlorobenzene	13.07	180	776	0.04	PPB		77
107) Naphthalene	13.25	128	940	0.03	PPB		72

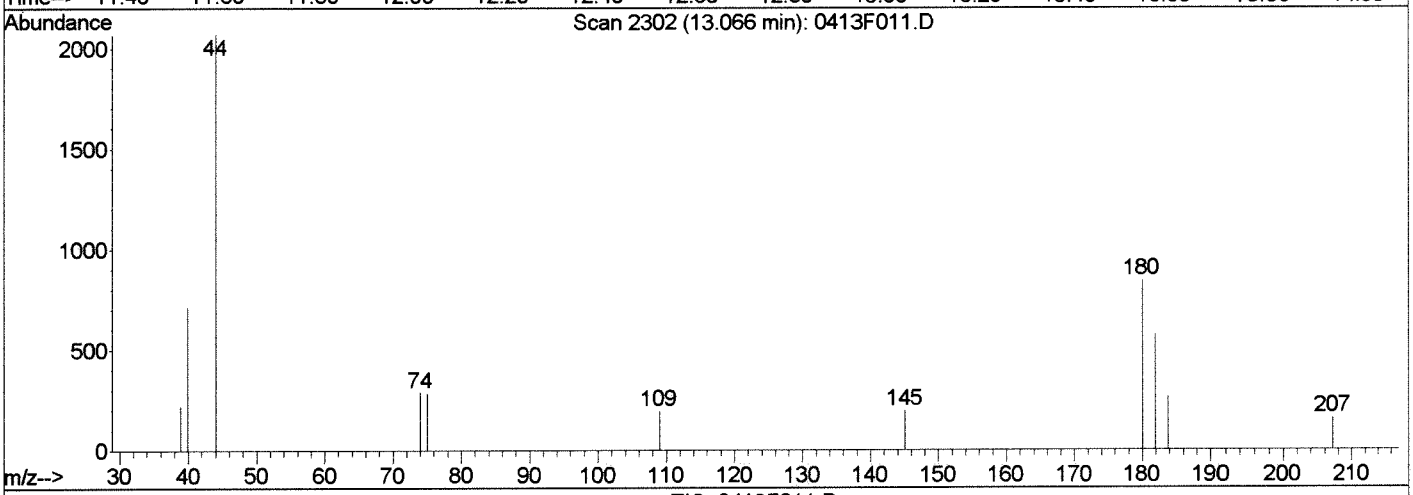
KA 4/15/16

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

Data File : J:\MS18\DATA\041316\0413F011.D Vial: 9
Acq On : 13 Apr 2016 18:53 Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 15:56 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Multiple Level Calibration





TIC: 0413F011.D

(104) 1,3,5-Trichlorobenzene (T)

13.07min 0.04PPB

response 776

Ion	Exp%	Act%
180.00	100	100
182.00	93.40	68.25
145.00	30.10	23.22
0.00	0.00	0.00

Manual Integration:

Before

04/14/16

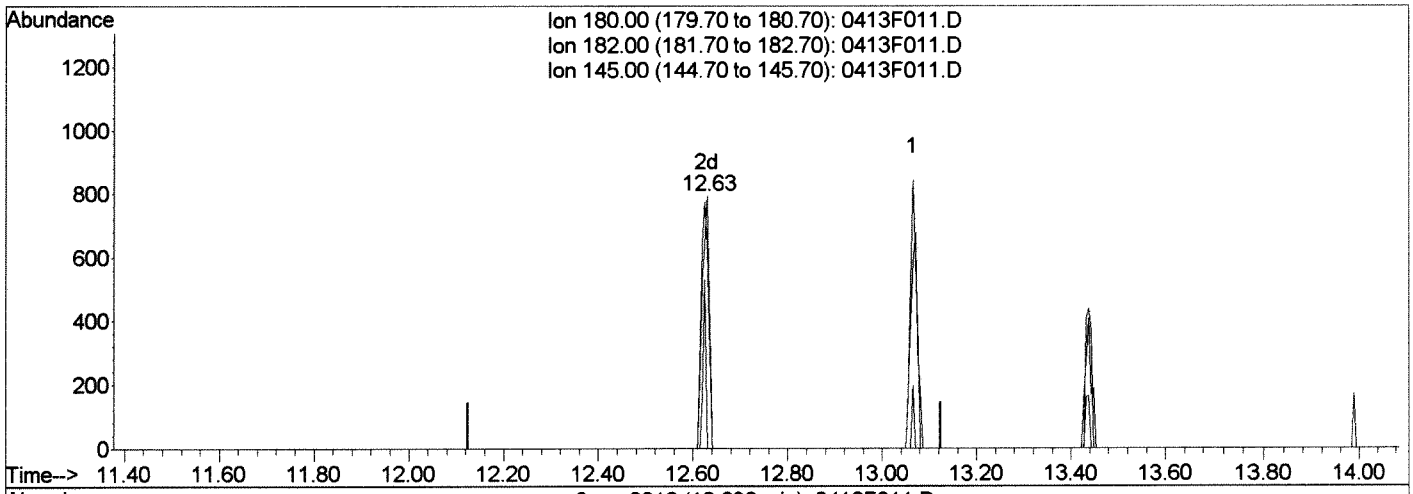
KA 4/15/16

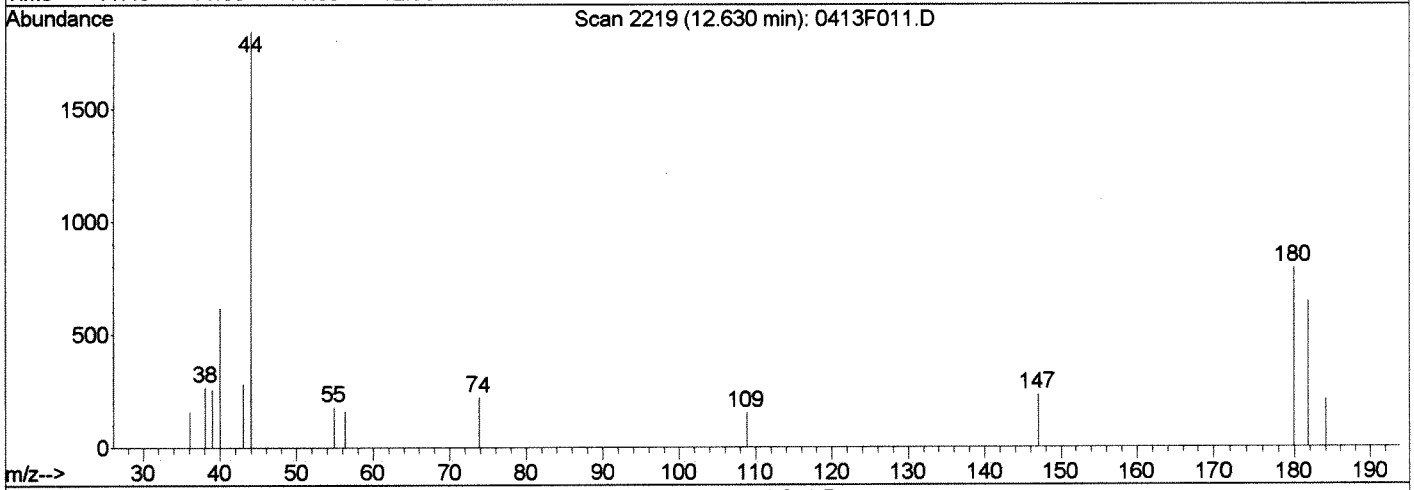
1 RC

0413F011.D 041316MS18_8260.M Thu Apr 14 15:56:43 2016

Data File : J:\MS18\DATA\041316\0413F011.D Vial: 9
Acq On : 13 Apr 2016 18:53 Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 15:56 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Multiple Level Calibration





TIC: 0413F011.D

(104) 1,3,5-Trichlorobenzene (T)

12.63min 0.04PPB m

response 812

Ion	Exp%	Act%
180.00	100	100
182.00	93.40	81.23
145.00	30.10	0.00#
0.00	0.00	0.00

Manual Integration:

After

WRT

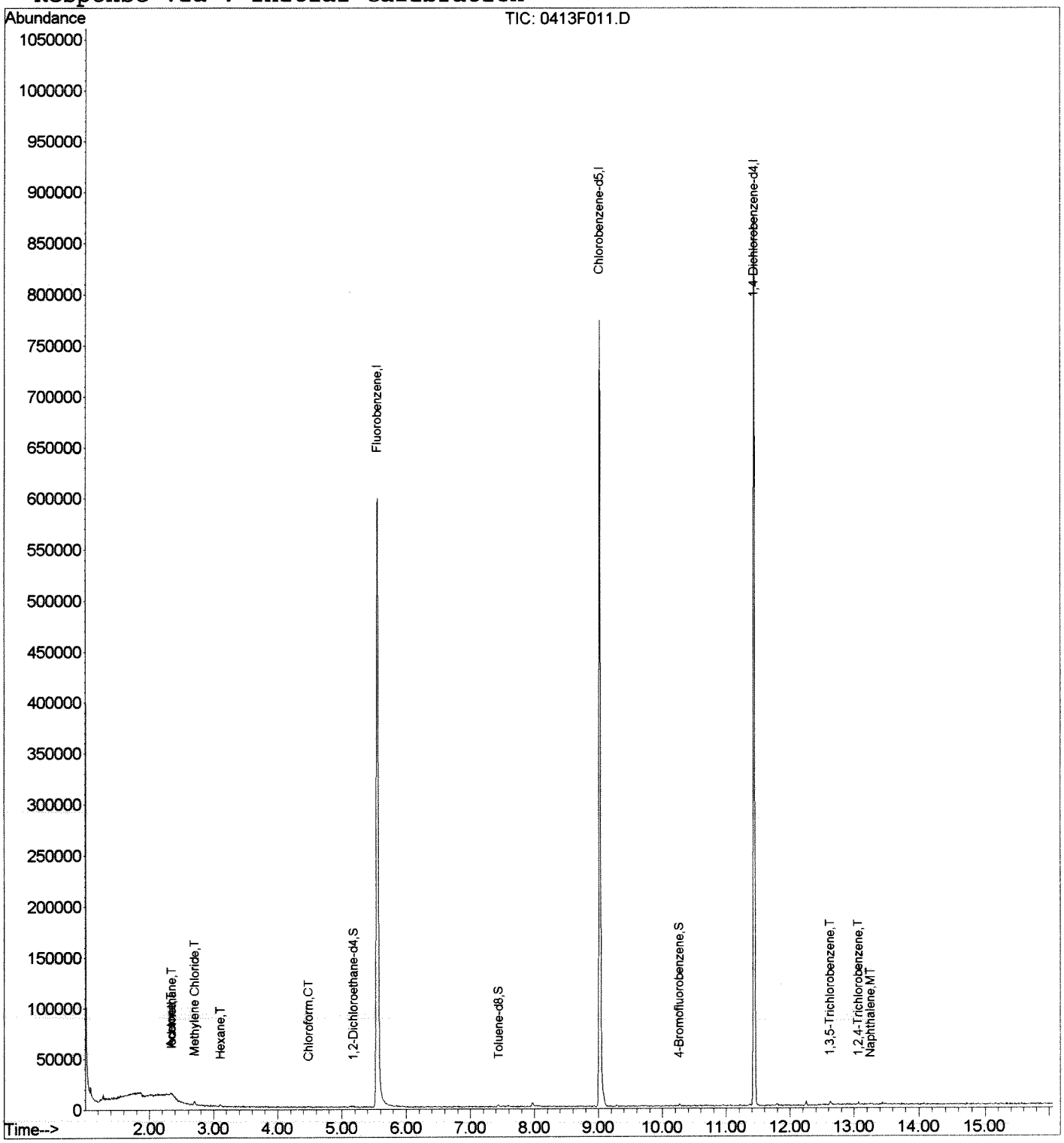
04/14/16

0413F011.D 041316MS18_8260.M Thu Apr 14 15:56:48 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F011.D Vial: 9
Acq On : 13 Apr 2016 18:53 Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 15:56 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Data File : J:\MS18\DATA\041316\0413F012.D Vial: 10
Acq On : 13 Apr 2016 19:14 Operator: YX
Sample : 8260 ICAL 0.1 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:15:07 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:14:36 2016
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.55	96	669831	10.00	PPB		0.00
65) Chlorobenzene-d5	9.02	82	261064	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.43	152	229718	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	0.00	113	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
48) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
63) Toluene-d8	0.00	98	0d	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
85) 4-Bromofluorobenzene	0.00	95	0d	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
Target Compounds							Qvalue
4) Vinyl Chloride	1.31	62	1976	0.09	PPB		86
9) Trichlorofluoromethane	1.78	101	2358	0.11	PPB		99
14) Acetone	2.33	43	9775m	4.11	PPB		
24) Methyl tert-Butyl Ether	2.90	73	8213	0.18	PPB		94
25) trans-1,2-Dichloroethene	2.91	96	1641	0.09	PPB		93
27) Diisopropyl Ether	3.40	45	4927	0.08	PPB		97
28) 1,1-Dichloroethane	3.40	63	2668	0.08	PPB		88
31) tert-Butyl Ethyl Ether	3.81	59	4411	0.08	PPB		89
34) 2-Butanone	4.16	72	4629	3.60	PPB	#	73
49) Benzene	5.14	78	8554	0.11	PPB		91
50) 1,2-Dichloroethane	5.30	62	2068	0.10	PPB		94
62) 4-Methyl-2-pentanone (MIBK	7.42	58	14059	3.08	PPB		95
64) Toluene	7.51	92	5175	0.11	PPB		97
71) 2-Hexanone	8.35	57	4619	3.34	PPB	#	79
72) 1,3-Dichloropropane	8.25	76	2221	0.09	PPB		95
76) Chlorobenzene	9.05	112	5195	0.11	PPB		92
77) Ethylbenzene	9.15	106	2615	0.10	PPB		89
79) m,p-Xylenes	9.27	106	5996	0.19	PPB		83
80) o-Xylene	9.69	106	2710	0.09	PPB		97
83) Isopropylbenzene	10.07	105	6989	0.09	PPB		94
89) Bromobenzene	10.40	156	1671	0.09	PPB		81
90) n-Propylbenzene	10.49	91	8240	0.09	PPB		94
92) 2-Chlorotoluene	10.59	91	5318	0.09	PPB		88
93) 1,3,5-Trimethylbenzene	10.69	105	5578	0.08	PPB		91
94) 4-Chlorotoluene	10.71	91	6336	0.09	PPB		96
95) tert-Butylbenzene	10.99	119	4695	0.09	PPB		98
96) 1,2,4-Trimethylbenzene	11.07	105	5155	0.08	PPB		94

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

Data File : J:\MS18\DATA\041316\0413F012.D Vial: 10
Acq On : 13 Apr 2016 19:14 Operator: YX
Sample : 8260 ICAL 0.1 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:15:07 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:14:36 2016
Response via : Initial Calibration
DataAcq Meth : 8260

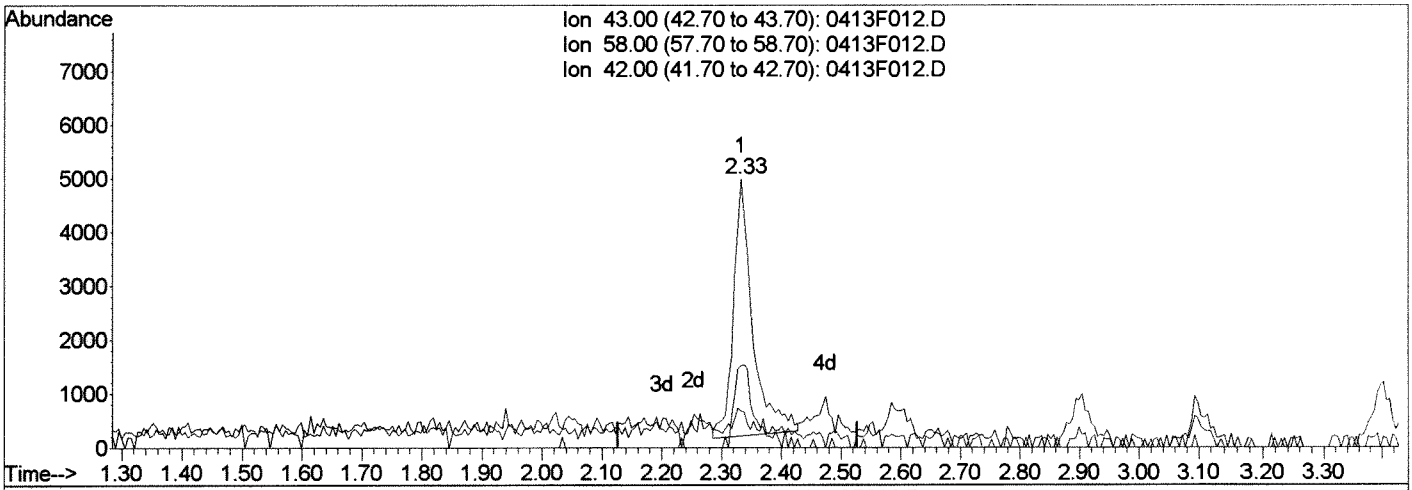
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97)	sec-Butylbenzene	11.23	105	6697	0.08	PPB	94
98)	p-Isopropyltoluene	11.38	119	5036	0.08	PPB	89
99)	1,3-Dichlorobenzene	11.36	146	3668	0.10	PPB	92
100)	1,4-Dichlorobenzene	11.46	146	4267	0.11	PPB	100
101)	n-Butylbenzene	11.79	91	5076	0.09	PPB	95
102)	1,2-Dichlorobenzene	11.84	146	3561	0.10	PPB	91

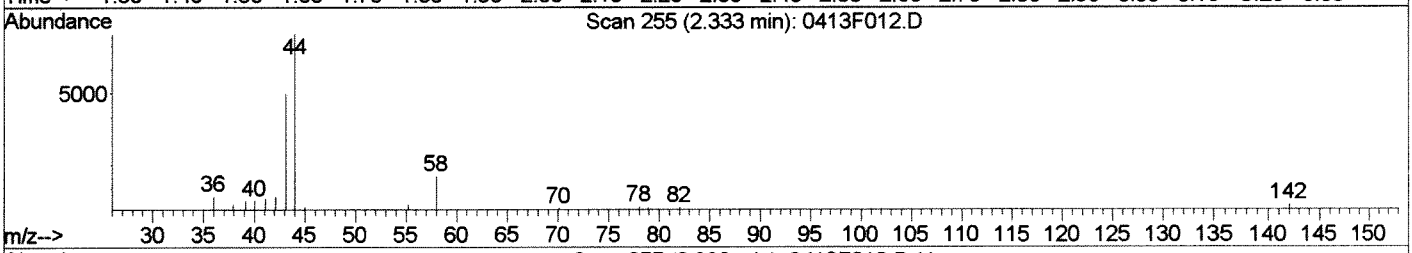
(#) = qualifier out of range (m) = manual integration

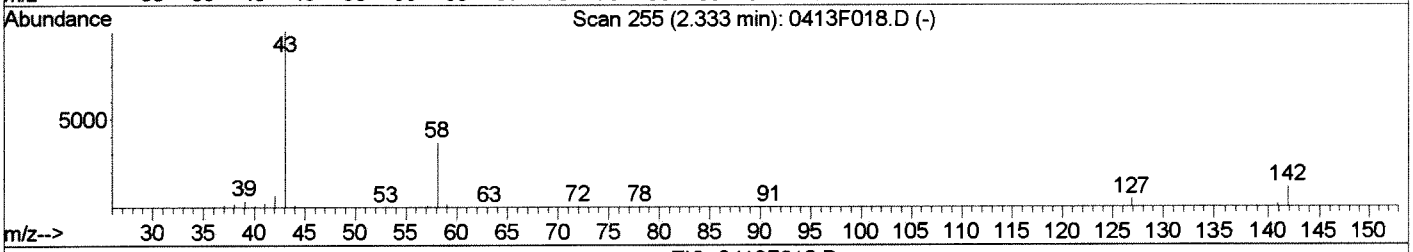
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F012.D Vial: 10
Acq On : 13 Apr 2016 19:14 Operator: YX
Sample : 8260 ICAL 0.1 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 9:49 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:19:57 2016
Response via : Multiple Level Calibration







TIC: 0413F012.D

(14) Acetone (T)

2.33min 4.46PPB

response 10618

Ion	Exp%	Act%
43.00	100	100
58.00	36.90	32.37
42.00	6.80	9.26
0.00	0.00	0.00

Manual Integration:

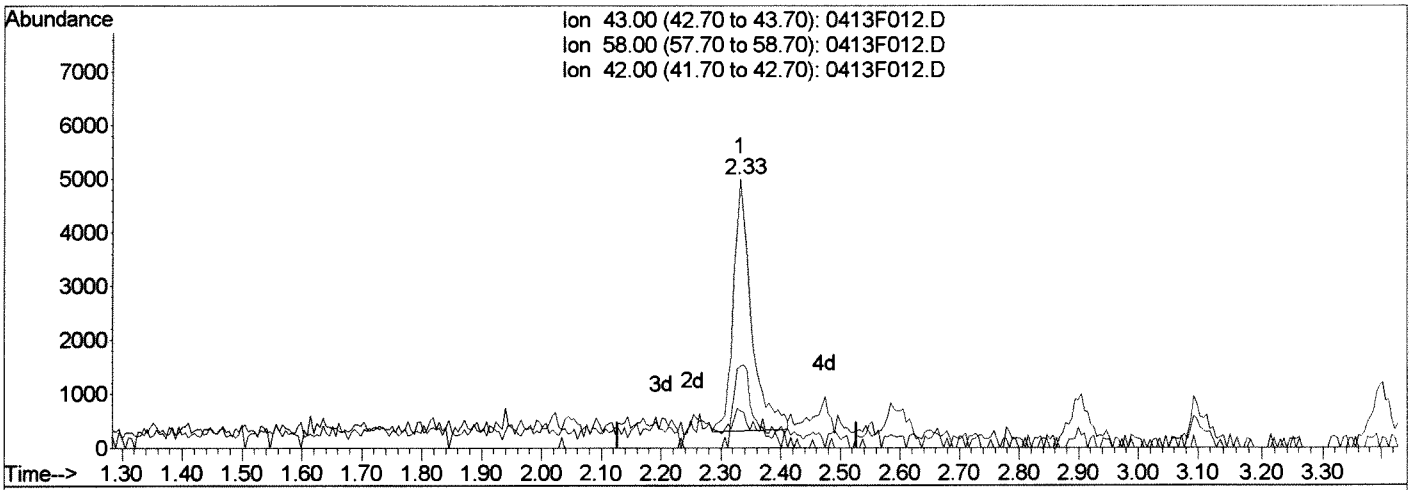
Before

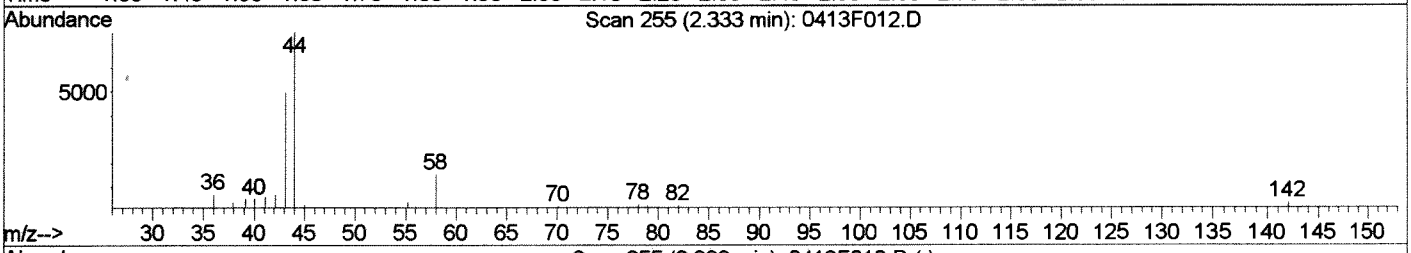
04/14/16

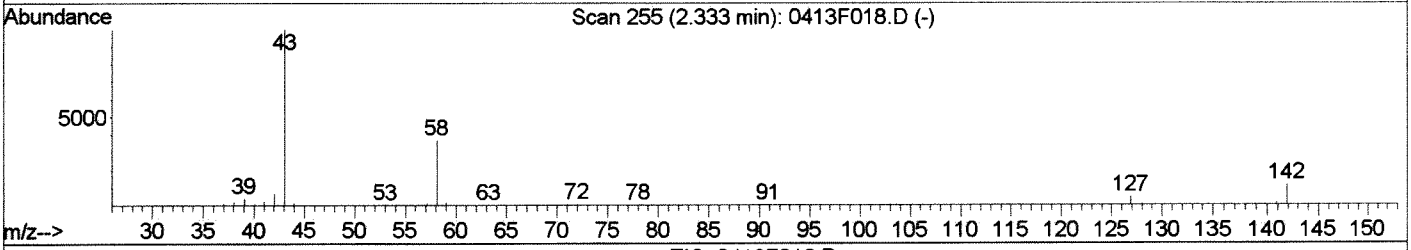
0413F012.D 041316MS18_8260.M Thu Apr 14 11:14:13 2016

Data File : J:\MS18\DATA\041316\0413F012.D Vial: 10
Acq On : 13 Apr 2016 19:14 Operator: YX
Sample : 8260 ICAL 0.1 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:14 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:19:57 2016
Response via : Multiple Level Calibration







TIC: 0413F012.D

(14) Acetone (T)
2.33min 4.11PPB m
response 9775

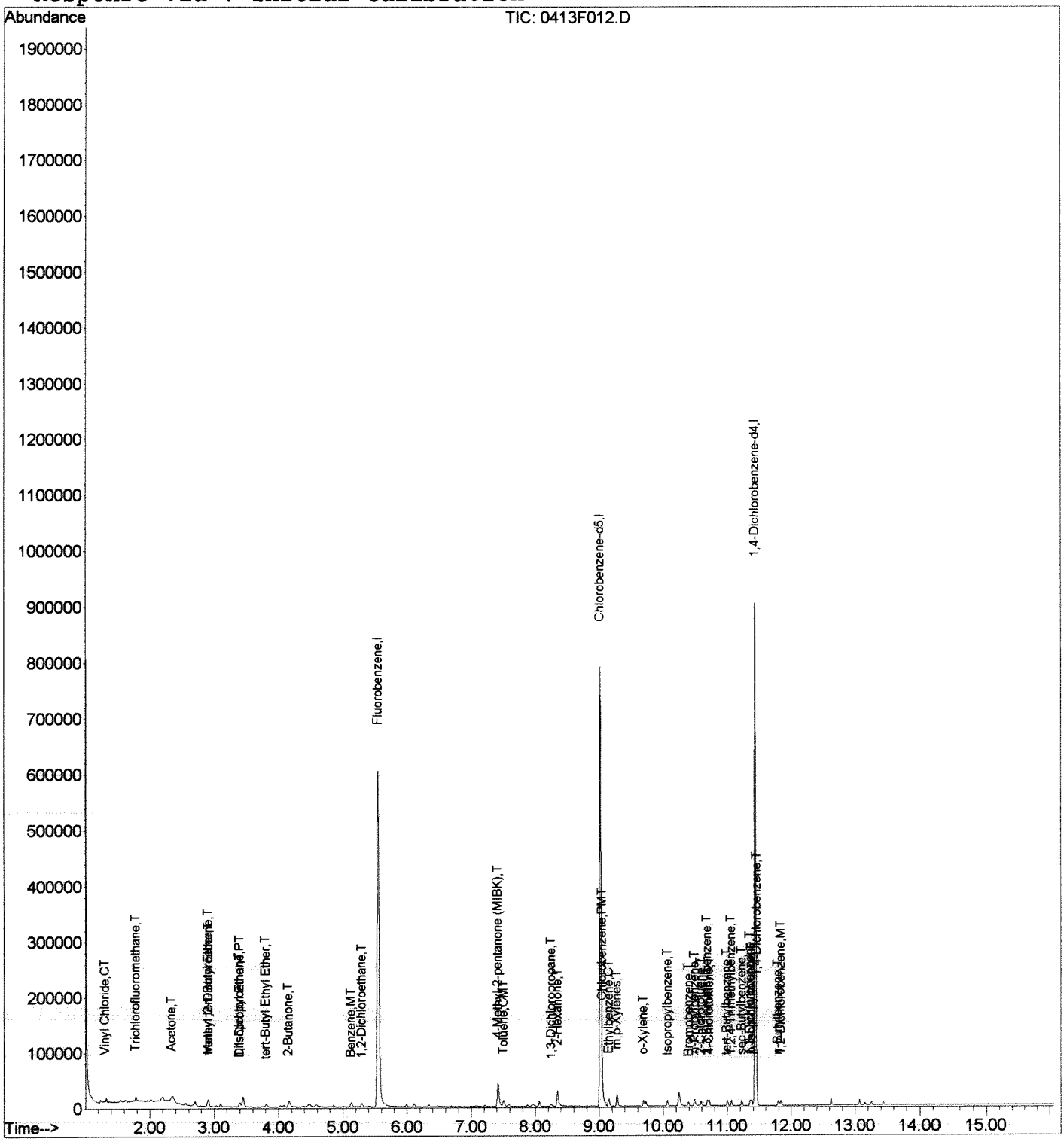
Ion	Exp%	Act%
43.00	100	100
58.00	36.90	30.38
42.00	6.80	13.57
0.00	0.00	0.00

Manual Integration:
After
Baseline correction
04/14/16

0413F012.D 041316MS18_8260.M Thu Apr 14 11:14:31 2016

Data File : J:\MS18\DATA\041316\0413F012.D Vial: 10
Acq On : 13 Apr 2016 19:14 Operator: YX
Sample : 8260 ICAL 0.1 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:14 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F013.D Vial: 11
Acq On : 13 Apr 2016 19:35 Operator: YX
Sample : 8260 ICAL 0.2 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:19:55 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:19:51 2016
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.55	96	647674	10.00	PPB		0.00
65) Chlorobenzene-d5	9.02	82	247229	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	218140	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	0.00	113	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
48) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
63) Toluene-d8	0.00	98	0d	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
85) 4-Bromofluorobenzene	0.00	95	0d	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.10	85	2593	0.15	PPB		90
4) Vinyl Chloride	1.31	62	3601	0.18	PPB		94
5) 1,3-Butadiene	1.33	54	2630	0.15	PPB		90
7) Chloroethane	1.62	64	2626	0.22	PPB		90
8) Dichlorofluoromethane	1.78	67	6051	0.22	PPB		97
9) Trichlorofluoromethane	1.78	101	3940	0.19	PPB		93
10) Ethyl Ether	2.02	59	2272	0.17	PPB		90
11) Acrolein	2.20	56	6046	3.50	PPB		86
12) Trichlorotrifluoroethane	2.18	151	2092	0.21	PPB		96
13) 1,1-Dichloroethene	2.21	96	2551	0.19	PPB		81
14) Acetone	2.33	43	17743	7.81	PPB		92
24) Methyl tert-Butyl Ether	2.90	73	15563	0.36	PPB		97
25) trans-1,2-Dichloroethene	2.91	96	2919	0.18	PPB		91
27) Diisopropyl Ether	3.40	45	9752	0.17	PPB		88
28) 1,1-Dichloroethane	3.39	63	5025m	0.17	PPB		
30) Chloroprene	3.45	53	17029	0.60	PPB		98
31) tert-Butyl Ethyl Ether	3.81	59	9022	0.18	PPB		92
33) cis-1,2-Dichloroethene	4.07	96	3156	0.17	PPB		83
34) 2-Butanone	4.16	72	9466	7.74	PPB	#	76
38) Bromochloromethane	4.39	128	1334	0.19	PPB		88
44) Carbon Tetrachloride	4.79	117	2879	0.16	PPB		80
45) 1,1-Dichloropropene	4.85	75	3916	0.17	PPB		87
46) Cyclohexane	4.59	56	4987	0.18	PPB		76
49) Benzene	5.13	78	13668	0.19	PPB		98
50) 1,2-Dichloroethane	5.29	62	3793	0.19	PPB		96
52) Trichloroethene	5.99	95	2963	0.18	PPB		86
53) 1,2-Dichloropropane	6.34	63	3192	0.18	PPB		89

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

Data File : J:\MS18\DATA\041316\0413F013.D Vial: 11
Acq On : 13 Apr 2016 19:35 Operator: YX
Sample : 8260 ICAL 0.2 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:19:55 2016 Quant Results File: 041316MS18_8260

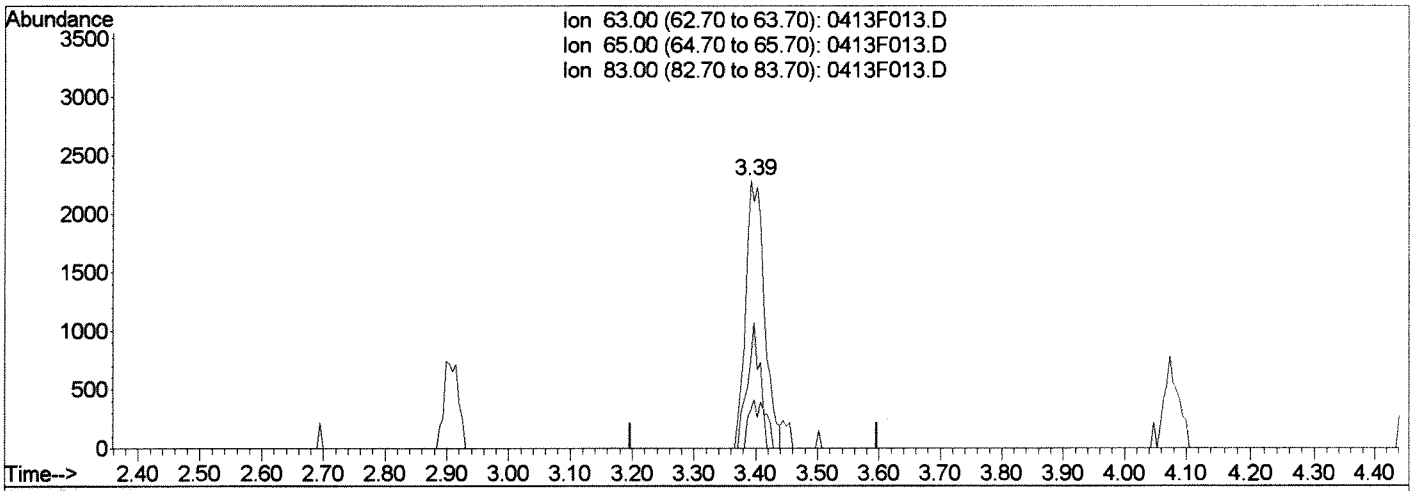
Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:19:51 2016
Response via : Initial Calibration
DataAcq Meth : 8260

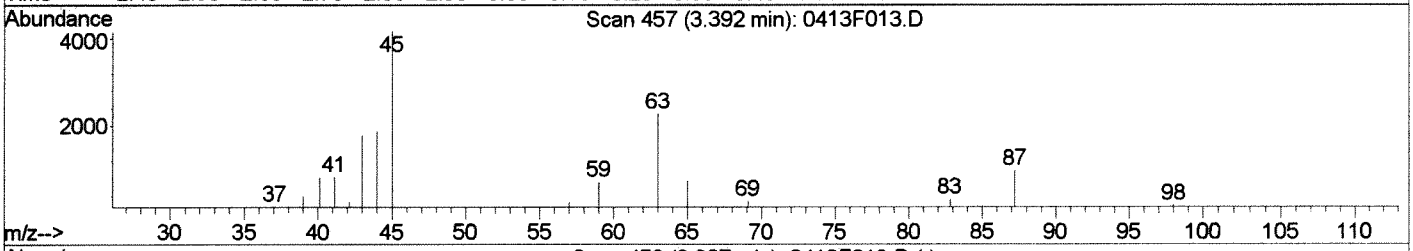
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
59)	Methyl Cyclohexane	6.11	83	4291	0.17	PPB	91
62)	4-Methyl-2-pentanone (MIBK	7.42	58	27177	6.33	PPB	96
64)	Toluene	7.51	92	8656	0.19	PPB	98
69)	1,1,2-Trichloroethane	8.06	83	1727	0.15	PPB	91
70)	Tetrachloroethene	8.07	164	2097	0.20	PPB	91
71)	2-Hexanone	8.35	57	8298	6.44	PPB	96
72)	1,3-Dichloropropane	8.25	76	4505	0.19	PPB	94
74)	1,2-Dibromoethane (EDB)	8.55	107	2100	0.18	PPB	76
76)	Chlorobenzene	9.05	112	9427	0.21	PPB	92
77)	Ethylbenzene	9.15	106	4178	0.17	PPB	89
78)	1,1,1,2-Tetrachloroethane	9.16	131	1891	0.14	PPB	91
79)	m,p-Xylenes	9.28	106	11136	0.37	PPB	95
80)	o-Xylene	9.69	106	5240	0.18	PPB	94
83)	Isopropylbenzene	10.07	105	12294	0.17	PPB	99
87)	1,1,2,2-Tetrachloroethane	10.48	83	2543	0.16	PPB	97
89)	Bromobenzene	10.40	156	3344	0.19	PPB	86
90)	n-Propylbenzene	10.49	91	13882	0.16	PPB	97
92)	2-Chlorotoluene	10.59	91	10669	0.19	PPB	90
93)	1,3,5-Trimethylbenzene	10.69	105	9611	0.16	PPB	94
94)	4-Chlorotoluene	10.72	91	11365	0.18	PPB	97
95)	tert-Butylbenzene	10.99	119	8561	0.17	PPB	98
96)	1,2,4-Trimethylbenzene	11.07	105	9750	0.16	PPB	96
97)	sec-Butylbenzene	11.23	105	11817	0.16	PPB	98
98)	p-Isopropyltoluene	11.38	119	9207	0.16	PPB	96
99)	1,3-Dichlorobenzene	11.36	146	6995	0.20	PPB	94
100)	1,4-Dichlorobenzene	11.47	146	8028	0.22	PPB	81
101)	n-Butylbenzene	11.80	91	7753	0.15	PPB	88
102)	1,2-Dichlorobenzene	11.84	146	6514	0.20	PPB	95
104)	1,3,5-Trichlorobenzene	12.63	180	4362	0.21	PPB	95
105)	1,2,4-Trichlorobenzene	13.07	180	4043	0.22	PPB	91
106)	Hexachlorobutadiene	13.15	225	1337	0.20	PPB	79
107)	Naphthalene	13.25	128	6362	0.16	PPB	93
108)	1,2,3-Trichlorobenzene	13.44	180	3143	0.21	PPB	98

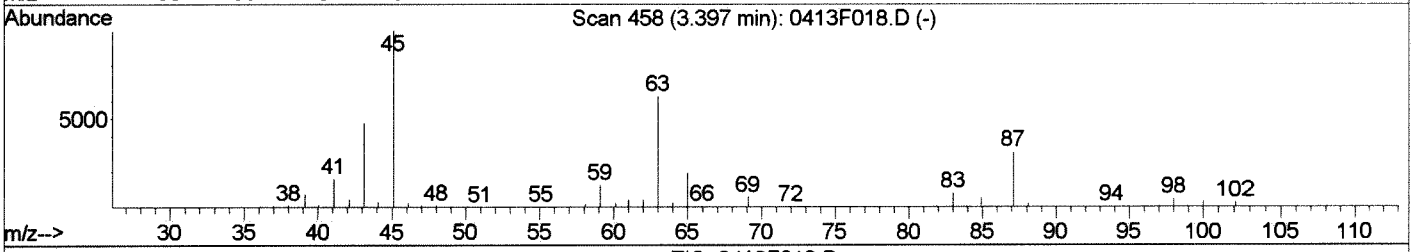
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\041316\0413F013.D Vial: 11
Acq On : 13 Apr 2016 19:35 Operator: YX
Sample : 8260 ICAL 0.2 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:18 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:37:03 2016
Response via : Multiple Level Calibration







TIC: 0413F013.D

(28) 1,1-Dichloroethane (PT)

3.39min 0.16PPB

response 4822

Ion	Exp%	Act%
63.00	100	100
65.00	30.90	32.82
83.00	12.20	14.32
0.00	0.00	0.00

Manual Integration:

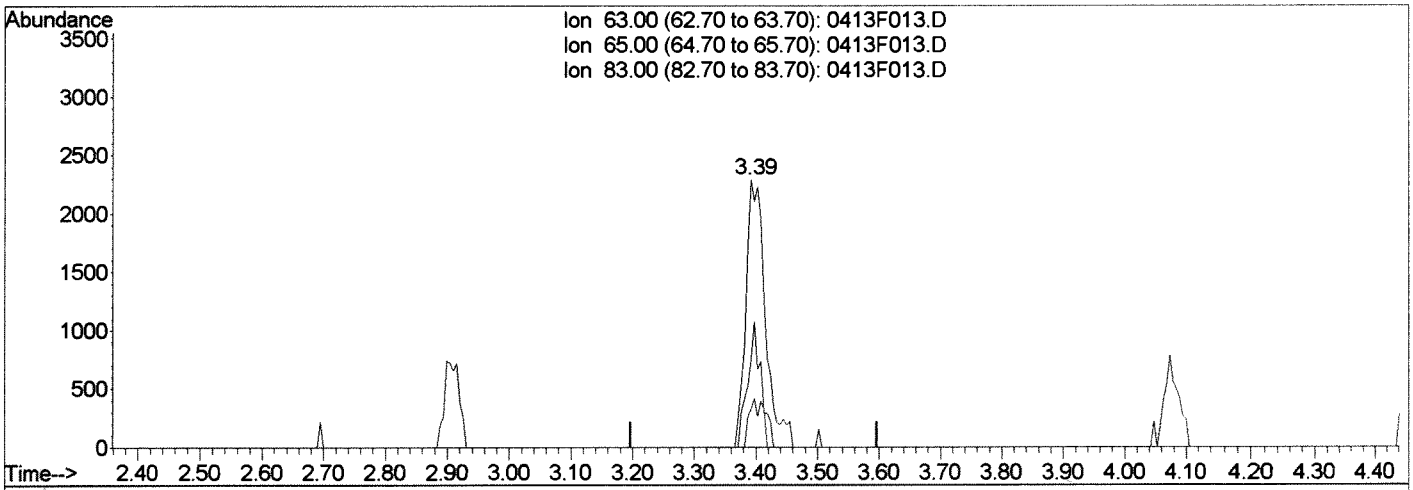
Before

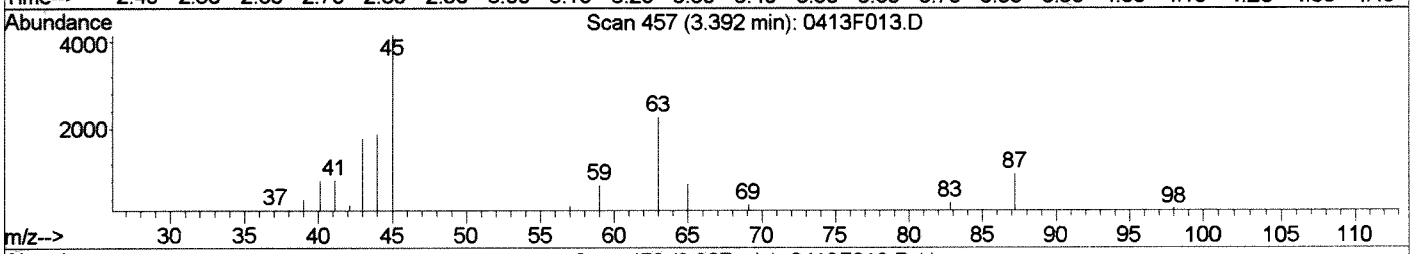
04/14/16

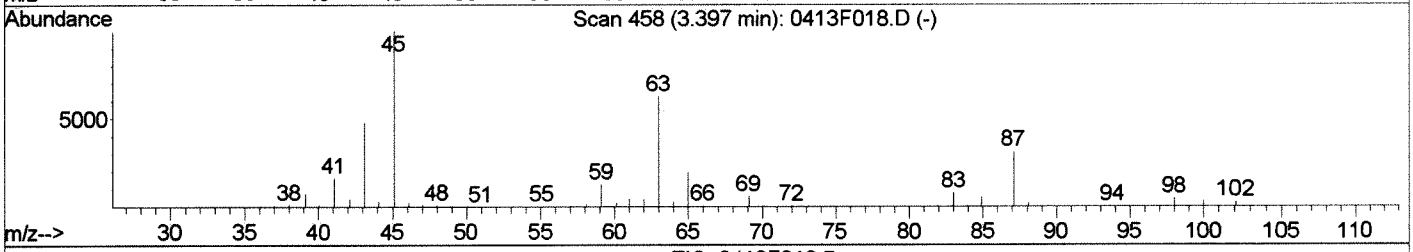
0413F013.D 041316MS18_8260.M Thu Apr 14 11:41:29 2016

Data File : J:\MS18\DATA\041316\0413F013.D Vial: 11
Acq On : 13 Apr 2016 19:35 Operator: YX
Sample : 8260 ICAL 0.2 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:41 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:37:03 2016
Response via : Multiple Level Calibration







TIC: 0413F013.D

(28) 1,1-Dichloroethane (PT)

3.39min 0.17PPB m

response 5025

Ion	Exp%	Act%
63.00	100	100
65.00	30.90	32.82
83.00	12.20	14.32
0.00	0.00	0.00

Manual Integration:

After

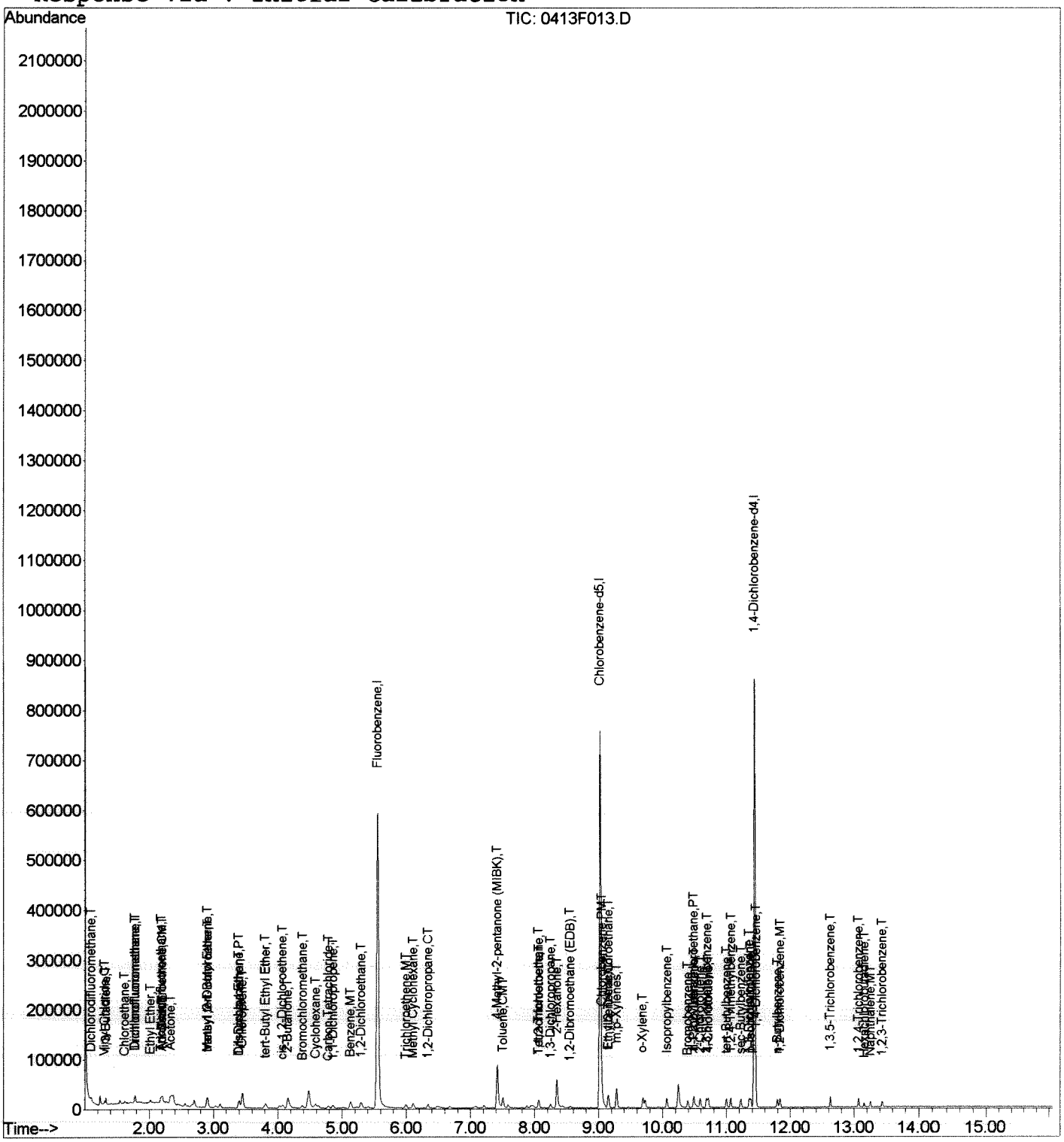
Shoulder

04/14/16

0413F013.D 041316MS18_8260.M Thu Apr 14 11:41:34 2016

Data File : J:\MS18\DATA\041316\0413F013.D Vial: 11
Acq On : 13 Apr 2016 19:35 Operator: YX
Sample : 8260 ICAL 0.2 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:41 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Data File : J:\MS18\DATA\041316\0413F014.D Vial: 12
Acq On : 13 Apr 2016 19:57 Operator: YX
Sample : 8260 ICAL 0.5 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:25:39 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:25:34 2016
Response via : Initial Calibration
DataAcq Meth : 8260

KNO 4/14/16

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.55	96	665615	10.00	PPB		0.00
65) Chlorobenzene-d5	9.02	82	257076	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	229119	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	0.00	113	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
48) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
63) Toluene-d8	0.00	98	0d	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
85) 4-Bromofluorobenzene	0.00	95	0d	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.10	85	7124	0.43	PPB		97
3) Chloromethane	1.23	50	11068	0.45	PPB		99
4) Vinyl Chloride	1.31	62	9139	0.45	PPB		97
5) 1,3-Butadiene	1.33	54	7056	0.42	PPB		92
6) Bromomethane	1.55	96	5725	0.54	PPB		90
7) Chloroethane	1.62	64	6531	0.54	PPB		93
8) Dichlorofluoromethane	1.78	67	14653	0.52	PPB		96
9) Trichlorofluoromethane	1.78	101	10125	0.47	PPB		98
10) Ethyl Ether	2.02	59	6626	0.50	PPB		96
11) Acrolein	2.19	56	14273	8.29	PPB		94
12) Trichlorotrifluoroethane	2.18	151	5015	0.50	PPB		95
13) 1,1-Dichloroethene	2.21	96	6658	0.49	PPB		93
14) Acetone	2.33	43	43215	18.86	PPB		94
15) Iodomethane	2.35	142	27946	1.62	PPB		97
16) Carbon Disulfide	2.38	76	17288	0.35	PPB		93
18) 3-Chloro-1-propene	2.55	76	4227	0.44	PPB		87
19) Methyl Acetate	2.59	43	4458	0.45	PPB		94
20) Acetonitrile	2.66	40	10147	16.43	PPB	#	81
21) Methylene Chloride	2.70	84	10213	0.55	PPB		95
23) Acrylonitrile	3.03	53	6854	1.60	PPB		92
24) Methyl tert-Butyl Ether	2.90	73	39721	0.92	PPB		98
25) trans-1,2-Dichloroethene	2.91	96	7714	0.46	PPB		94
26) Hexane	3.10	57	8497	0.49	PPB		98
27) Diisopropyl Ether	3.40	45	25630	0.46	PPB		98
28) 1,1-Dichloroethane	3.40	63	14215	0.47	PPB		98
29) Vinyl Acetate	3.46	86	2735	0.82	PPB	#	65
30) Chloroprene	3.45	53	48351	1.72	PPB		98

KS 4/15/16

(#) = qualifier out of range (m) = manual integration
0413F014.D 041316MS18_8260.M Thu Apr 14 11:44:02 2016 Page 1

Data File : J:\MS18\DATA\041316\0413F014.D Vial: 12
Acq On : 13 Apr 2016 19:57 Operator: YX
Sample : 8260 ICAL 0.5 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:25:39 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:25:34 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
31)	tert-Butyl Ethyl Ether	3.81	59	22295	0.44	PPB		97
32)	2,2-Dichloropropane	4.02	77	8714	0.39	PPB		95
33)	cis-1,2-Dichloroethene	4.08	96	8949	0.48	PPB		91
34)	2-Butanone	4.16	72	21042	17.04	PPB		96
37)	Methacrylonitrile	4.46	67	8565	1.59	PPB		90
38)	Bromochloromethane	4.38	128	3545	0.50	PPB		92
40)	Chloroform	4.48	83	12754	0.32	PPB		94
41)	tert-Butyl Formate	4.51	59	2425	0.25	PPB		78
42)	1,1,1-Trichloroethane	4.63	97	8078	0.36	PPB		95
44)	Carbon Tetrachloride	4.79	117	6337	0.36	PPB		79
45)	1,1-Dichloropropene	4.86	75	10269	0.46	PPB		96
46)	Cyclohexane	4.59	56	13294	0.48	PPB		96
49)	Benzene	5.13	78	36028	0.49	PPB		96
50)	1,2-Dichloroethane	5.30	62	9576	0.48	PPB		94
51)	tert-Amyl Methyl Ether	5.30	55	6908	0.58	PPB	#	54
52)	Trichloroethene	5.99	95	7567	0.47	PPB		94
53)	1,2-Dichloropropane	6.34	63	7706	0.43	PPB		94
54)	Dibromomethane	6.48	93	3660	0.42	PPB		94
55)	Methyl methacrylate	6.51	69	4112	0.41	PPB		95
57)	Bromodichloromethane	6.67	83	6129	0.32	PPB		94
59)	Methyl Cyclohexane	6.11	83	12235	0.48	PPB		99
60)	2-Chloroethyl Vinyl Ether	7.09	63	3283	0.35	PPB		94
61)	cis-1,3-Dichloropropene	7.21	75	8520	0.31	PPB		96
62)	4-Methyl-2-pentanone (MIBK	7.42	58	73830	17.26	PPB		96
64)	Toluene	7.51	92	23073	0.49	PPB		99
66)	n-Octane	7.59	85	3185	0.51	PPB		83
67)	trans-1,3-Dichloropropene	7.88	75	6212	0.30	PPB		85
68)	Ethyl methacrylate	7.95	69	6368	0.36	PPB		77
69)	1,1,2-Trichloroethane	8.07	83	4872	0.43	PPB		83
70)	Tetrachloroethene	8.06	164	5890	0.53	PPB		89
71)	2-Hexanone	8.35	57	23568	17.97	PPB	#	89
72)	1,3-Dichloropropane	8.25	76	11600	0.48	PPB		93
73)	Dibromochloromethane	8.44	129	3237	0.26	PPB		83
74)	1,2-Dibromoethane (EDB)	8.55	107	5135	0.42	PPB		90
75)	1-Chlorohexane	9.04	91	10418	0.49	PPB		93
76)	Chlorobenzene	9.05	112	23915	0.50	PPB		98
77)	Ethylbenzene	9.15	106	12136	0.49	PPB		94
78)	1,1,1,2-Tetrachloroethane	9.16	131	4789	0.36	PPB		94
79)	m,p-Xylenes	9.28	106	29520	0.95	PPB		97
80)	o-Xylene	9.69	106	13890	0.46	PPB		97
81)	Styrene	9.73	103	9498m	0.35	PPB		

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

Data File : J:\MS18\DATA\041316\0413F014.D Vial: 12
Acq On : 13 Apr 2016 19:57 Operator: YX
Sample : 8260 ICAL 0.5 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:25:39 2016 Quant Results File: 041316MS18_8260

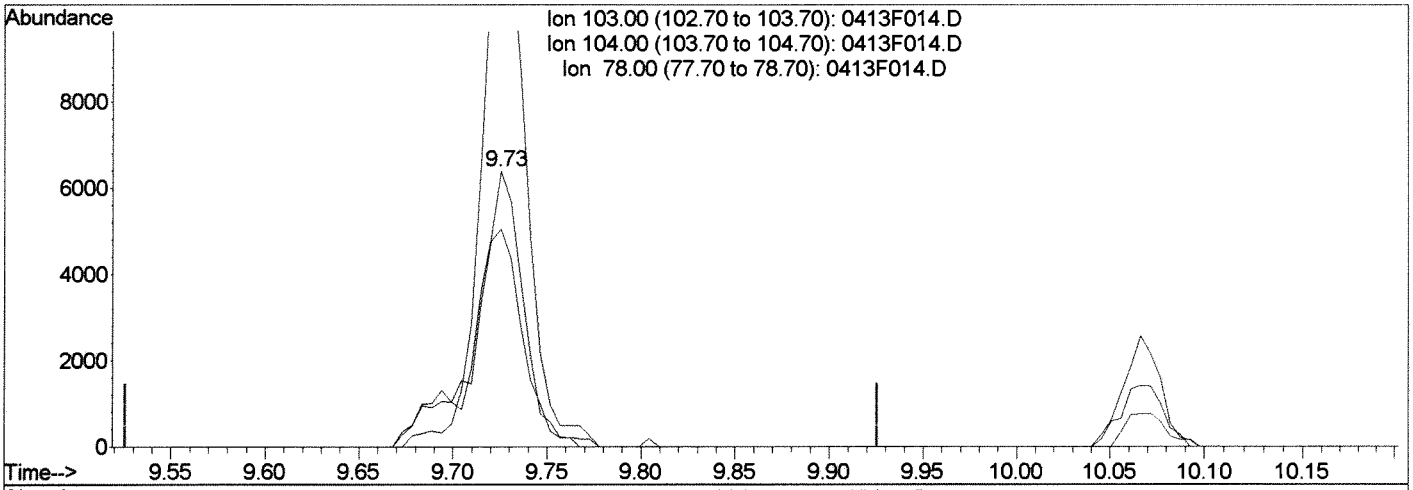
Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:25:34 2016
Response via : Initial Calibration
DataAcq Meth : 8260

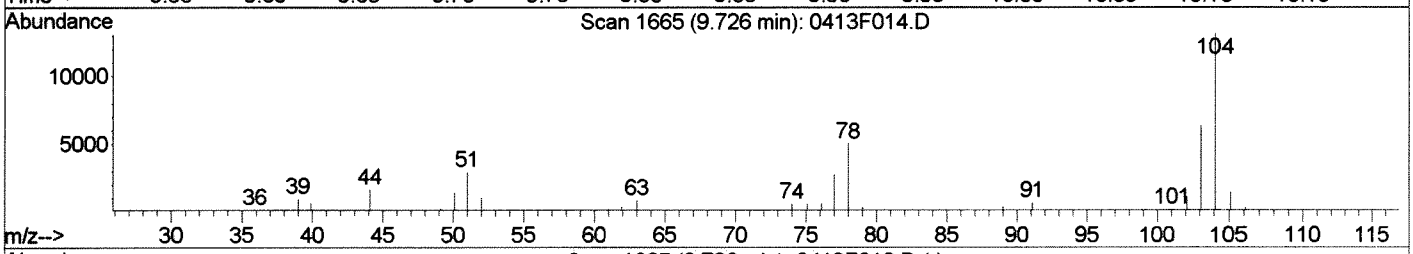
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
82)	Bromoform	9.93	173	1570	0.27	PPB		92
83)	Isopropylbenzene	10.07	105	34627	0.47	PPB		97
87)	1,1,2,2-Tetrachloroethane	10.48	83	6202	0.40	PPB		91
89)	Bromobenzene	10.40	156	8498	0.46	PPB		91
90)	n-Propylbenzene	10.49	91	39333	0.44	PPB		96
91)	1,2,3-Trichloropropane	10.52	110	2065	0.45	PPB	#	63
92)	2-Chlorotoluene	10.59	91	26254	0.46	PPB		94
93)	1,3,5-Trimethylbenzene	10.69	105	26078	0.42	PPB		99
94)	4-Chlorotoluene	10.72	91	29855	0.46	PPB		99
95)	tert-Butylbenzene	11.00	119	24400	0.47	PPB		97
96)	1,2,4-Trimethylbenzene	11.07	105	26706	0.43	PPB		98
97)	sec-Butylbenzene	11.23	105	32747	0.44	PPB		97
98)	p-Isopropyltoluene	11.38	119	24682	0.41	PPB		96
99)	1,3-Dichlorobenzene	11.36	146	17782	0.49	PPB		94
100)	1,4-Dichlorobenzene	11.46	146	19105	0.50	PPB		97
101)	n-Butylbenzene	11.80	91	21809	0.41	PPB		95
102)	1,2-Dichlorobenzene	11.84	146	16737	0.49	PPB		94
103)	1,2-Dibromo-3-chloropropan	12.54	155	377m	0.24	PPB		
104)	1,3,5-Trichlorobenzene	12.62	180	10093	0.47	PPB		93
105)	1,2,4-Trichlorobenzene	13.07	180	9049	0.47	PPB		94
106)	Hexachlorobutadiene	13.15	225	2992	0.44	PPB		90
107)	Naphthalene	13.25	128	15567	0.39	PPB		98
108)	1,2,3-Trichlorobenzene	13.44	180	6958	0.45	PPB		93

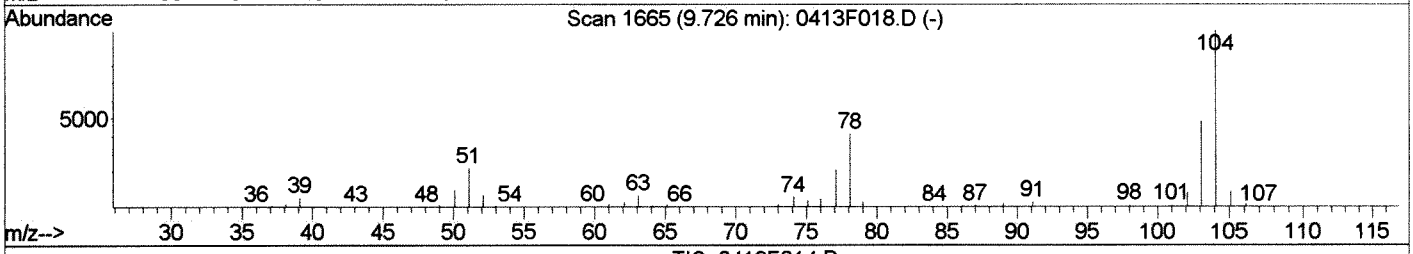
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\041316\0413F014.D Vial: 12
Acq On : 13 Apr 2016 19:57 Operator: YX
Sample : 8260 ICAL 0.5 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 9:27 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:25:34 2016
Response via : Single Level Calibration







TIC: 0413F014.D

(81) Styrene (T)

9.73min 0.42PPB

response 11254

Ion	Exp%	Act%
103.00	100	100
104.00	206.80	205.44
78.00	85.30	79.03
0.00	0.00	0.00

Manual Integration:

Before

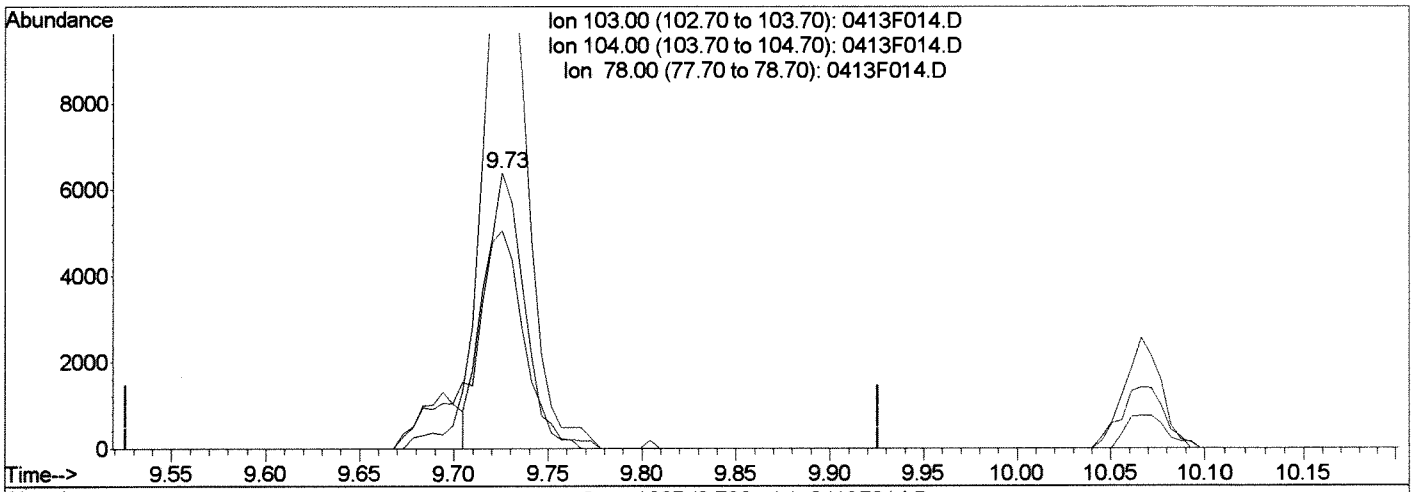
04/14/16

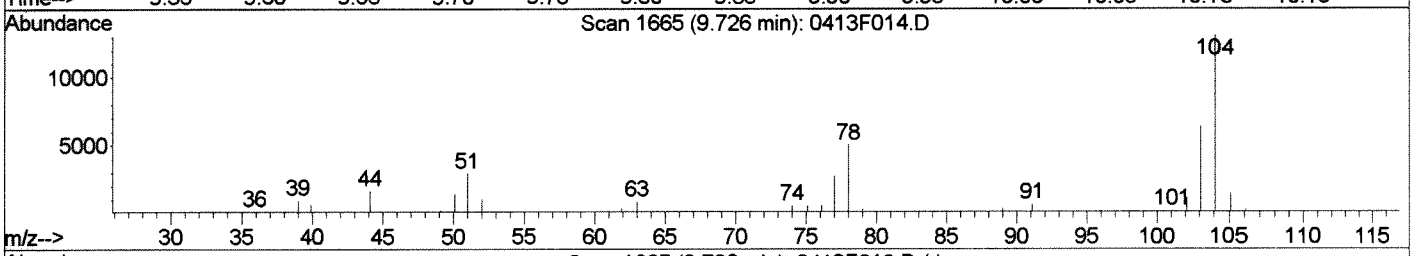
0413F014.D 041316MS18_8260.M Thu Apr 14 09:27:51 2016

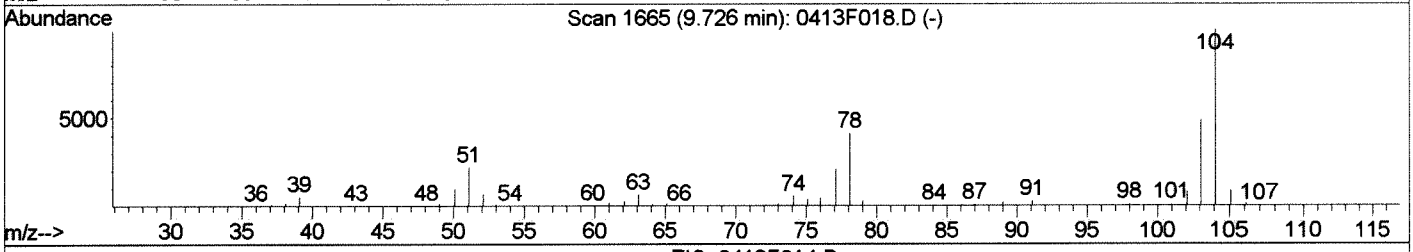
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F014.D Vial: 12
Acq On : 13 Apr 2016 19:57 Operator: YX
Sample : 8260 ICAL 0.5 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 9:27 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:25:34 2016
Response via : Single Level Calibration







TIC: 0413F014.D

(81) Styrene (T)

9.73min 0.35PPB m

response 9498

Ion	Exp%	Act%
103.00	100	100
104.00	206.80	205.44
78.00	85.30	79.03
0.00	0.00	0.00

Manual Integration:

After

Shoulder

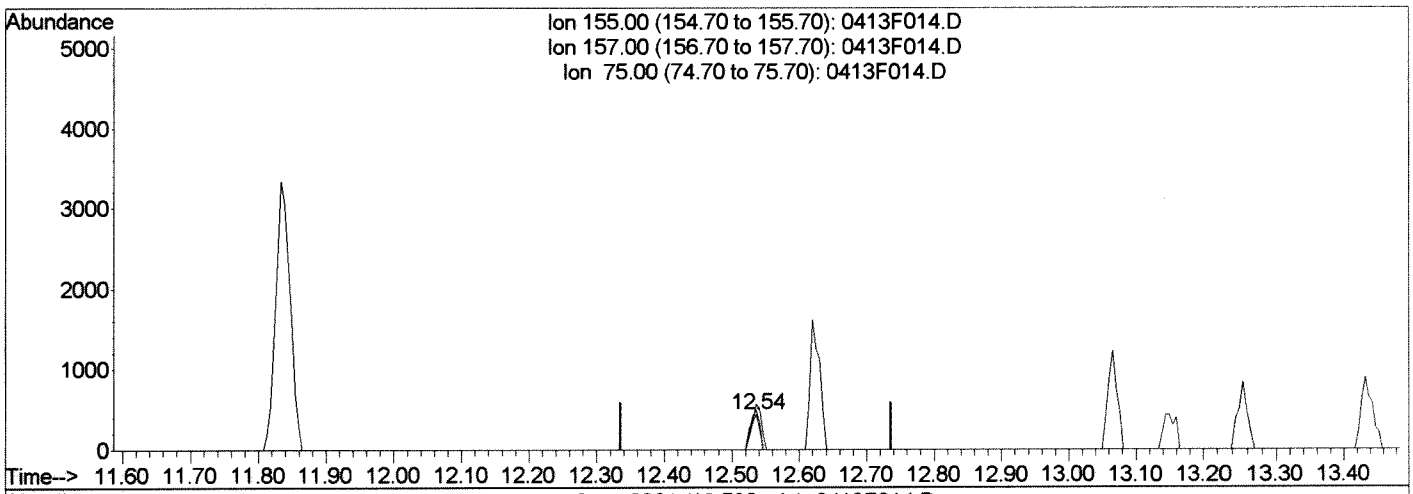
04/14/16

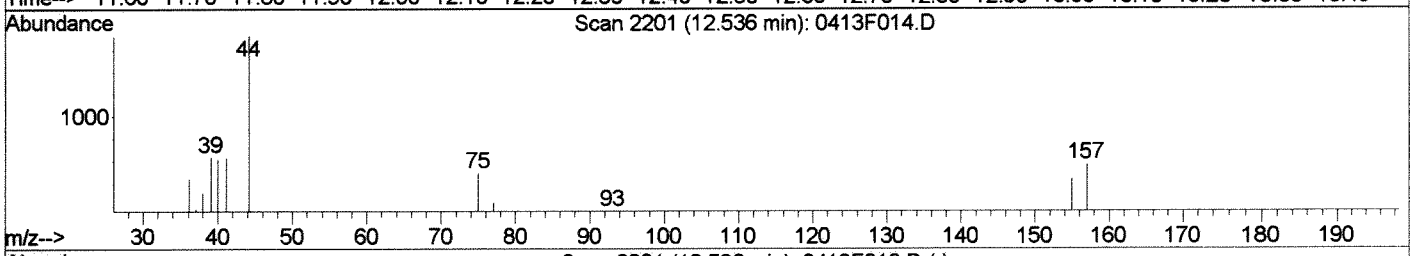
0413F014.D 041316MS18_8260.M Thu Apr 14 09:27:57 2016

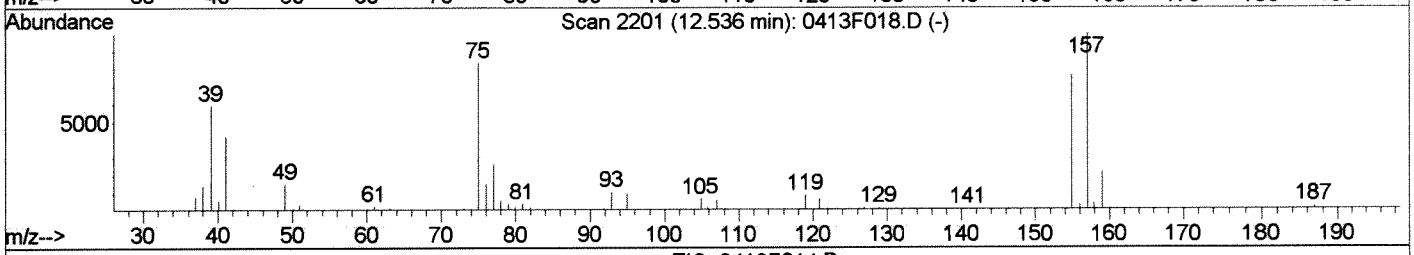
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F014.D Vial: 12
Acq On : 13 Apr 2016 19:57 Operator: YX
Sample : 8260 ICAL 0.5 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 9:28 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:25:34 2016
Response via : Single Level Calibration







TIC: 0413F014.D

(103) 1,2-Dibromo-3-chloropropane (DBCP) (T)

12.54min 0.24PPB m

response 377

Ion	Exp%	Act%
155.00	100	100
157.00	131.20	128.34
75.00	109.60	112.47
0.00	0.00	0.00

Manual Integration:

After

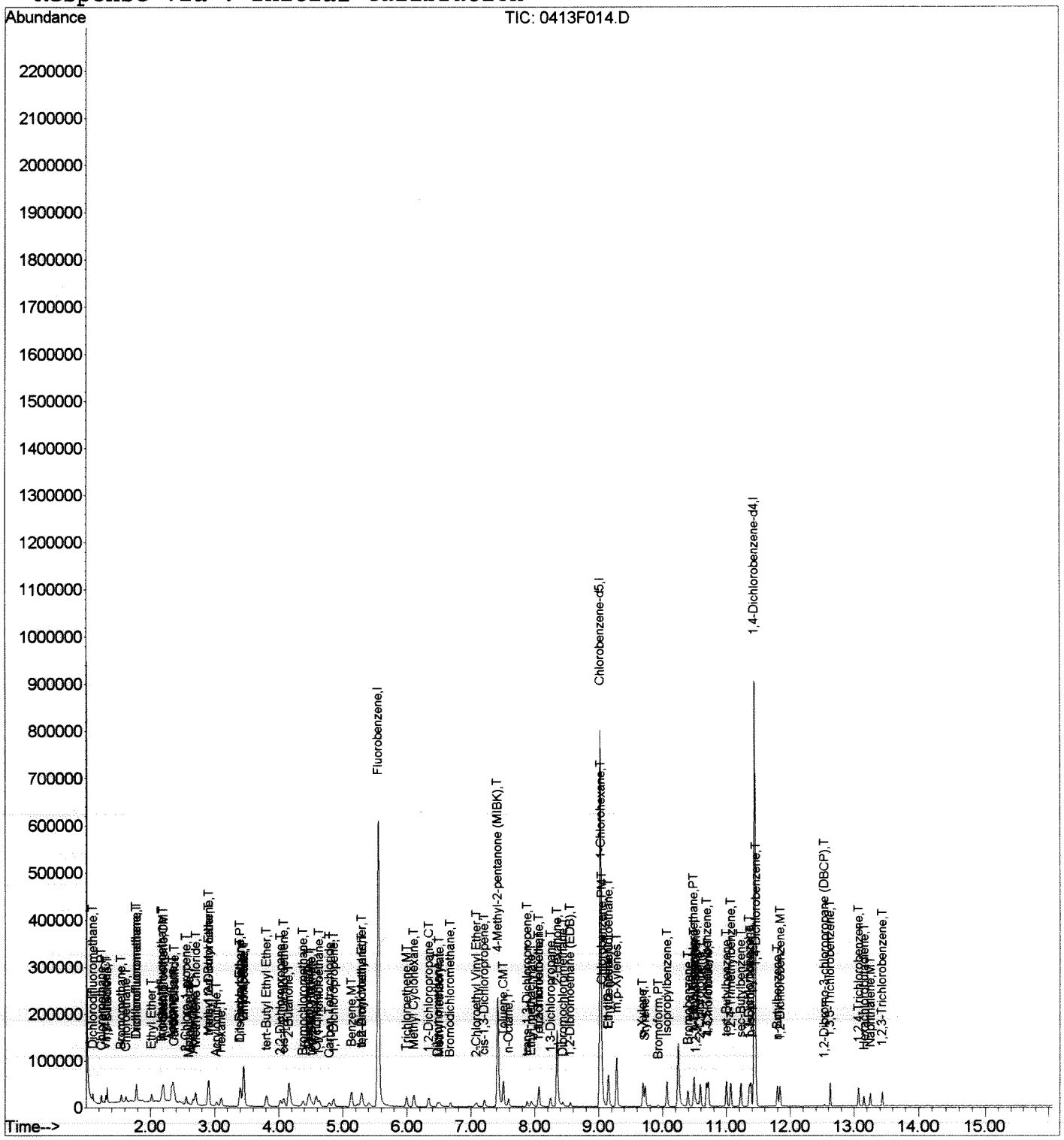
Missed peak

04/14/16

0413F014.D 041316MS18_8260.M Thu Apr 14 09:28:47 2016

Data File : J:\MS18\DATA\041316\0413F014.D Vial: 12
Acq On : 13 Apr 2016 19:57 Operator: YX
Sample : 8260 ICAL 0.5 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 9:28 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Data File : J:\MS18\DATA\041316\0413F015.D Vial: 13
Acq On : 13 Apr 2016 20:18 Operator: YX
Sample : 8260 ICAL 1 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:29:03 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:28:58 2016
Response via : Initial Calibration
DataAcq Meth : 8260

\fwo 4/14/16

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.55	96	650040	10.00	PPB	0.00
65) Chlorobenzene-d5	9.02	82	254344	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	224930	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	4.70	113	45298	3.46	PPB	0.00
Spiked Amount 10.000			Recovery =	34.60%		
48) 1,2-Dichloroethane-d4	5.19	65	59847	3.90	PPB	0.00
Spiked Amount 10.000			Recovery =	39.00%		
63) Toluene-d8	7.43	98	216550	3.71	PPB	0.00
Spiked Amount 10.000			Recovery =	37.10%		
85) 4-Bromofluorobenzene	10.27	95	80543	3.67	PPB	0.00
Spiked Amount 10.000			Recovery =	36.70%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	15140	0.93	PPB	97
3) Chloromethane	1.23	50	22640	0.95	PPB	98
4) Vinyl Chloride	1.31	62	19358	0.99	PPB	98
5) 1,3-Butadiene	1.33	54	15628	0.99	PPB	97
6) Bromomethane	1.55	96	11639	1.10	PPB	98
7) Chloroethane	1.62	64	13029	1.10	PPB	99
8) Dichlorofluoromethane	1.78	67	28794	1.04	PPB	96
9) Trichlorofluoromethane	1.78	101	21344	1.02	PPB	97
10) Ethyl Ether	2.02	59	12659	0.98	PPB	94
11) Acrolein	2.19	56	31532	19.37	PPB	96
12) Trichlorotrifluoroethane	2.18	151	10212	1.03	PPB	95
13) 1,1-Dichloroethene	2.21	96	12870	0.97	PPB	90
14) Acetone	2.33	43	86406	39.57	PPB	100
15) Iodomethane	2.35	142	56695	3.36	PPB	96
16) Carbon Disulfide	2.38	76	34919	0.74	PPB	99
17) 2-Propanol (Isopropyl Alco	2.46	45	20670	44.29	PPB	78
18) 3-Chloro-1-propene	2.55	76	7692	0.85	PPB	98
19) Methyl Acetate	2.60	43	9255	0.97	PPB	96
20) Acetonitrile	2.66	40	21982	37.09	PPB	87
21) Methylene Chloride	2.70	84	18706	1.05	PPB	98
22) tert-Butyl Alcohol	2.83	59	3358	4.99	PPB	92
23) Acrylonitrile	3.03	53	15887	4.02	PPB	92
24) Methyl tert-Butyl Ether	2.90	73	78263	1.89	PPB	99
25) trans-1,2-Dichloroethene	2.91	96	15646	0.98	PPB	94
26) Hexane	3.10	57	16813	1.01	PPB	99
27) Diisopropyl Ether	3.39	45	50069	0.94	PPB	98
28) 1,1-Dichloroethane	3.40	63	27955	0.97	PPB	96

KF 4/16/16

(#) = qualifier out of range (m) = manual integration
0413F015.D 041316MS18_8260.M Thu Apr 14 11:44:05 2016 Page 1

Data File : J:\MS18\DATA\041316\0413F015.D Vial: 13
Acq On : 13 Apr 2016 20:18 Operator: YX
Sample : 8260 ICAL 1 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:29:03 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:28:58 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.45	86	5100	1.61	PPB	#	49
30)	Chloroprene	3.45	53	99674	3.73	PPB		98
31)	tert-Butyl Ethyl Ether	3.81	59	44404	0.93	PPB		96
32)	2,2-Dichloropropane	4.03	77	18025	0.86	PPB		89
33)	cis-1,2-Dichloroethene	4.08	96	18306	1.01	PPB		94
34)	2-Butanone	4.15	72	44726	37.79	PPB	#	81
35)	Propionitrile	4.35	54	4976	3.56	PPB		93
36)	Ethyl Acetate	4.18	61	3471	2.02	PPB		76
37)	Methacrylonitrile	4.47	67	18575	3.67	PPB		92
38)	Bromochloromethane	4.38	128	6906	1.00	PPB		99
40)	Chloroform	4.48	83	25923	0.67	PPB		98
41)	tert-Butyl Formate	4.51	59	5327	0.63	PPB		89
42)	1,1,1-Trichloroethane	4.63	97	17982	0.86	PPB		98
44)	Carbon Tetrachloride	4.79	117	13161	0.79	PPB		86
45)	1,1-Dichloropropene	4.85	75	20898	0.97	PPB		98
46)	Cyclohexane	4.59	56	27916	1.04	PPB		99
47)	Isobutyl Alcohol	5.23	43	8196	30.99	PPB		92
49)	Benzene	5.13	78	70037	0.97	PPB		99
50)	1,2-Dichloroethane	5.29	62	19336	1.00	PPB		96
51)	tert-Amyl Methyl Ether	5.30	55	11911	1.02	PPB	#	71
52)	Trichloroethene	5.99	95	15345	0.98	PPB		95
53)	1,2-Dichloropropane	6.34	63	15874	0.92	PPB		96
54)	Dibromomethane	6.48	93	7026	0.86	PPB		90
55)	Methyl methacrylate	6.51	69	7703	0.83	PPB		98
57)	Bromodichloromethane	6.68	83	12662	0.72	PPB		98
58)	2-Nitropropane	7.06	41	5827	2.78	PPB		91
59)	Methyl Cyclohexane	6.11	83	23773	0.97	PPB		98
60)	2-Chloroethyl Vinyl Ether	7.09	63	6871	0.79	PPB		97
61)	cis-1,3-Dichloropropene	7.21	75	17923	0.70	PPB		98
62)	4-Methyl-2-pentanone (MIBK	7.41	58	158191	38.98	PPB		96
64)	Toluene	7.51	92	45388	1.00	PPB		96
66)	n-Octane	7.59	85	6466	1.04	PPB		92
67)	trans-1,3-Dichloropropene	7.88	75	12889	0.66	PPB		88
68)	Ethyl methacrylate	7.94	69	13334	0.79	PPB		95
69)	1,1,2-Trichloroethane	8.06	83	10543	0.97	PPB		97
70)	Tetrachloroethene	8.06	164	11659	1.03	PPB		96
71)	2-Hexanone	8.35	57	48250	37.79	PPB		96
72)	1,3-Dichloropropane	8.25	76	23760	1.00	PPB		99
73)	Dibromochloromethane	8.44	129	7772	0.67	PPB		93
74)	1,2-Dibromoethane (EDB)	8.55	107	10651	0.89	PPB		91
75)	1-Chlorohexane	9.04	91	20679	0.98	PPB		93

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

Data File : J:\MS18\DATA\041316\0413F015.D Vial: 13
Acq On : 13 Apr 2016 20:18 Operator: YX
Sample : 8260 ICAL 1 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:29:03 2016 Quant Results File: 041316MS18_8260

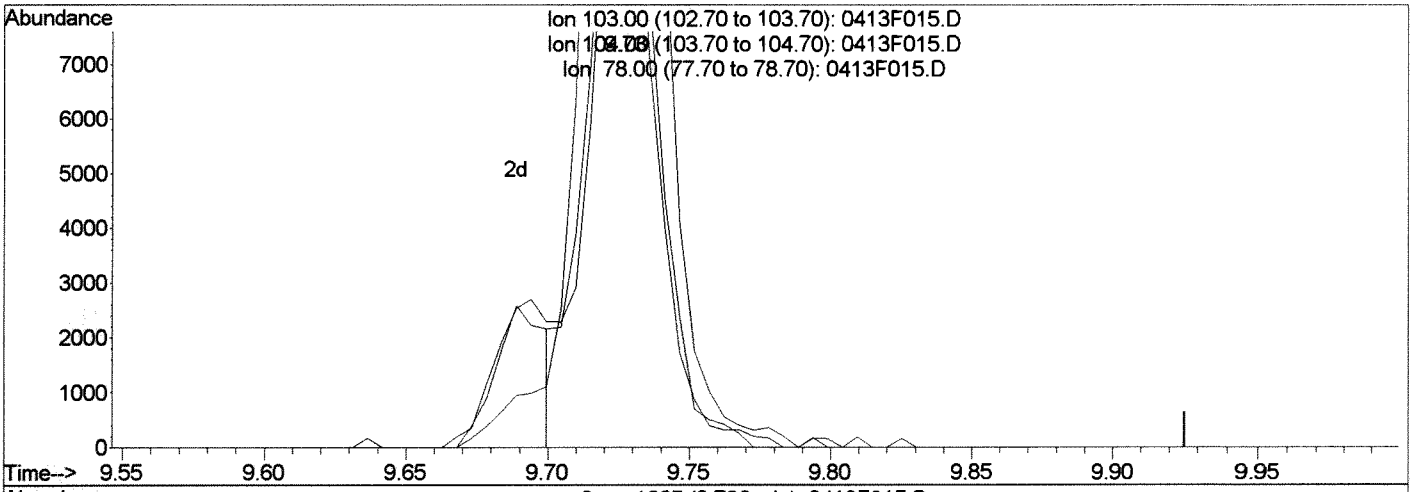
Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:28:58 2016
Response via : Initial Calibration
DataAcq Meth : 8260

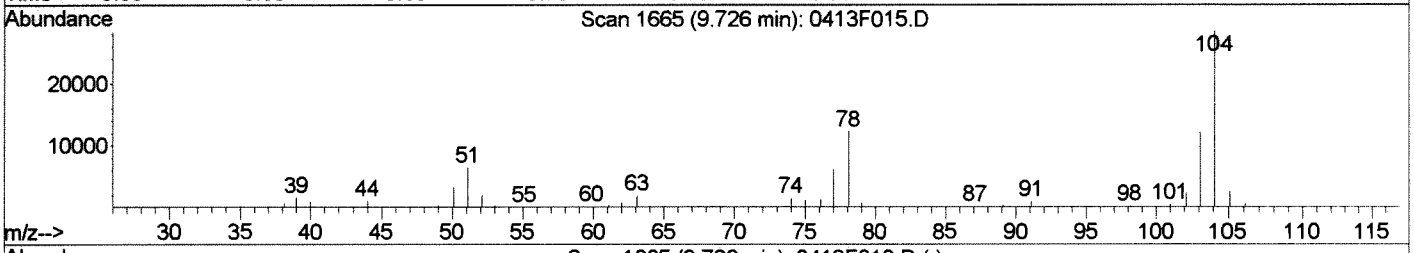
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
76)	Chlorobenzene	9.05	112	48301	1.02	PPB		97
77)	Ethylbenzene	9.15	106	25112	1.01	PPB		90
78)	1,1,1,2-Tetrachloroethane	9.16	131	10231	0.79	PPB		96
79)	m,p-Xylenes	9.28	106	61067	1.99	PPB		97
80)	o-Xylene	9.69	106	29245	0.98	PPB		98
81)	Styrene	9.73	103	19676m	0.75	PPB		
82)	Bromoform	9.92	173	3198	0.59	PPB		93
83)	Isopropylbenzene	10.07	105	73070	1.00	PPB		100
87)	1,1,2,2-Tetrachloroethane	10.48	83	12907	0.89	PPB		90
88)	trans-1,4-Dichloro-2-buten	10.55	53	3020m	0.75	PPB		
89)	Bromobenzene	10.40	156	18653	1.03	PPB		92
90)	n-Propylbenzene	10.49	91	85932	1.01	PPB		98
91)	1,2,3-Trichloropropane	10.52	110	3979	0.90	PPB		82
92)	2-Chlorotoluene	10.59	91	54585	0.99	PPB		98
93)	1,3,5-Trimethylbenzene	10.69	105	56924	0.95	PPB		99
94)	4-Chlorotoluene	10.72	91	62859	0.99	PPB		97
95)	tert-Butylbenzene	11.00	119	50946	1.01	PPB		96
96)	1,2,4-Trimethylbenzene	11.07	105	57143	0.95	PPB		98
97)	sec-Butylbenzene	11.23	105	70331	0.98	PPB		99
98)	p-Isopropyltoluene	11.38	119	54797	0.95	PPB		96
99)	1,3-Dichlorobenzene	11.36	146	36074	1.02	PPB		95
100)	1,4-Dichlorobenzene	11.46	146	37859	1.01	PPB		95
101)	n-Butylbenzene	11.80	91	45781	0.90	PPB		95
102)	1,2-Dichlorobenzene	11.84	146	33919	1.01	PPB		96
103)	1,2-Dibromo-3-chloropropan	12.54	155	925	0.65	PPB	#	77
104)	1,3,5-Trichlorobenzene	12.62	180	19952	0.94	PPB		94
105)	1,2,4-Trichlorobenzene	13.07	180	17197	0.92	PPB		91
106)	Hexachlorobutadiene	13.15	225	6391	0.95	PPB		90
107)	Naphthalene	13.25	128	31733	0.83	PPB		98
108)	1,2,3-Trichlorobenzene	13.44	180	14471	0.97	PPB		97

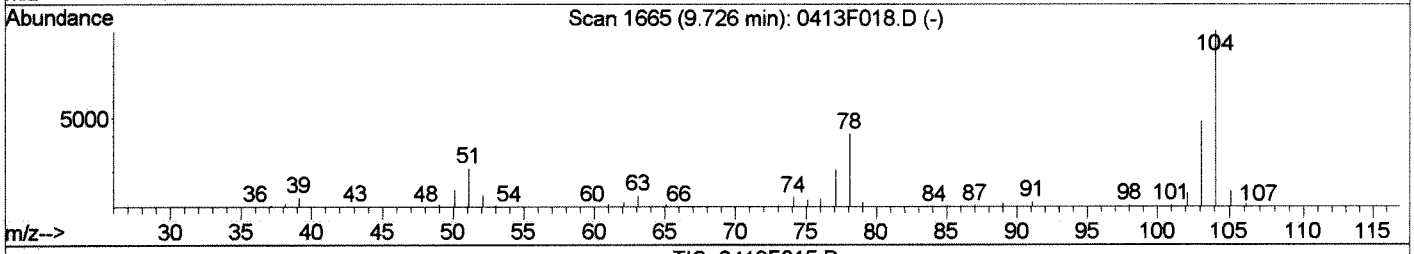
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\041316\0413F015.D Vial: 13
Acq On : 13 Apr 2016 20:18 Operator: YX
Sample : 8260 ICAL 1 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 9:29 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:28:58 2016
Response via : Single Level Calibration







TIC: 0413F015.D

(81) Styrene (T)
9.73min 0.77PPB
response 20362

Ion	Exp%	Act%
103.00	100	100
104.00	206.80	231.19
78.00	85.30	99.55
0.00	0.00	0.00

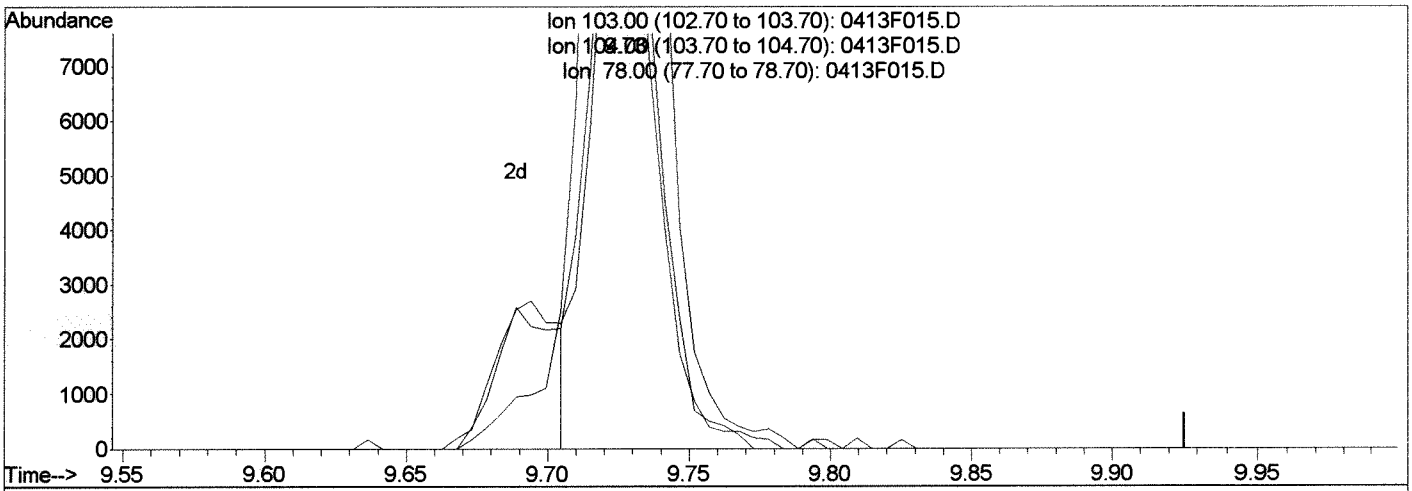
Manual Integration:
Before

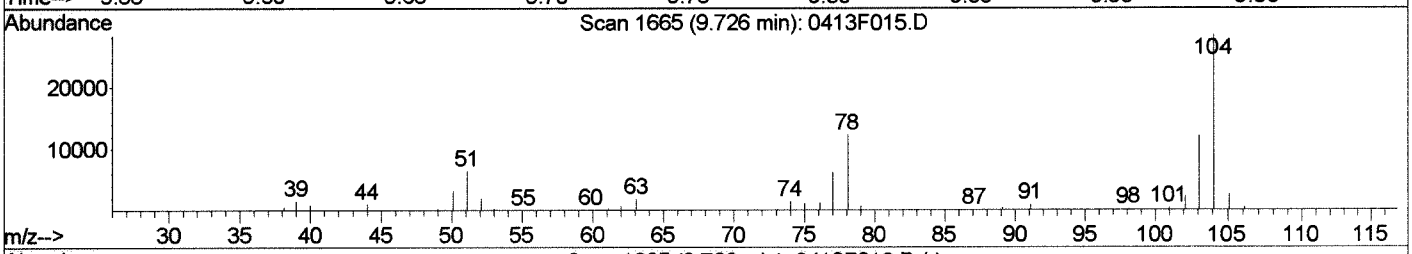
04/14/16

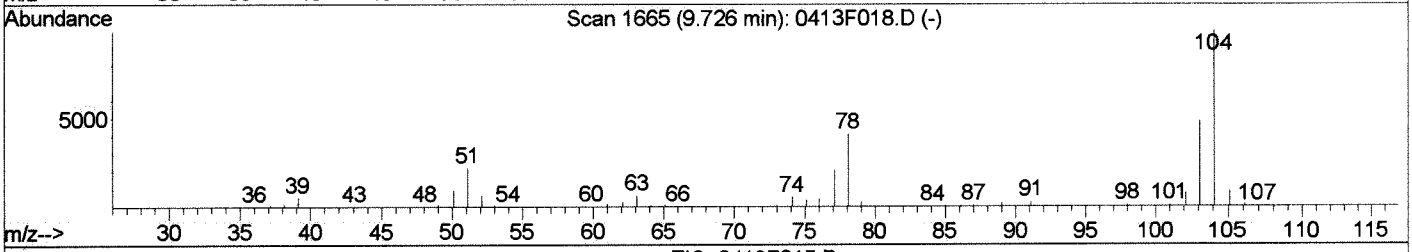
0413F015.D 041316MS18_8260.M Thu Apr 14 09:30:24 2016

Data File : J:\MS18\DATA\041316\0413F015.D Vial: 13
Acq On : 13 Apr 2016 20:18 Operator: YX
Sample : 8260 ICAL 1 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 9:30 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:28:58 2016
Response via : Single Level Calibration







TIC: 0413F015.D

(81) Styrene (T)
9.73min 0.75PPB m
response 19676

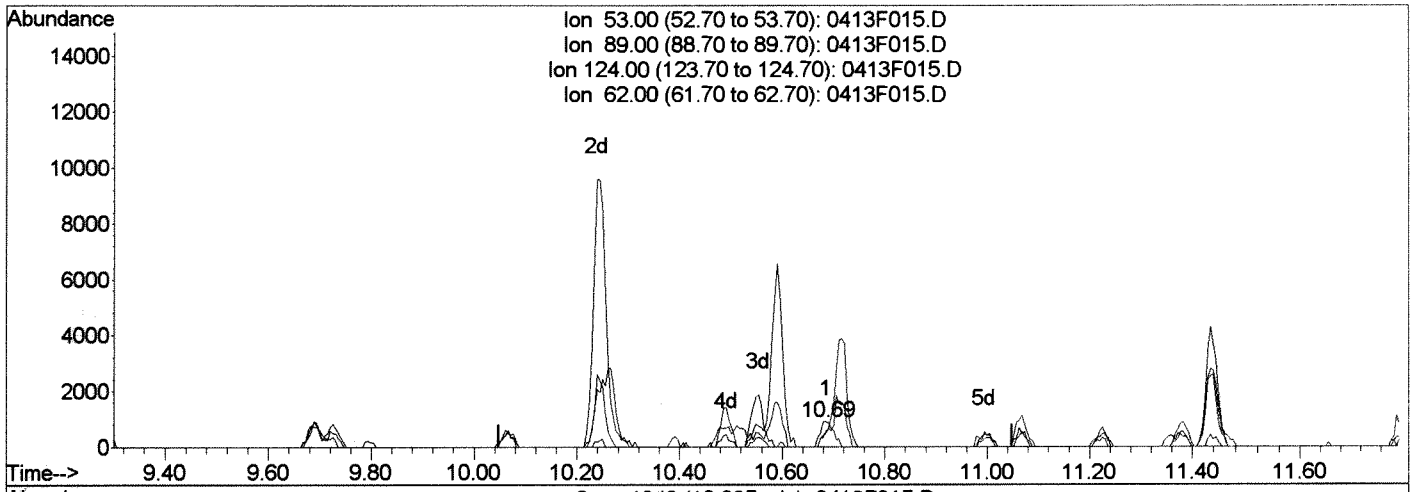
Ion	Exp%	Act%
103.00	100	100
104.00	206.80	234.15
78.00	85.30	100.94
0.00	0.00	0.00

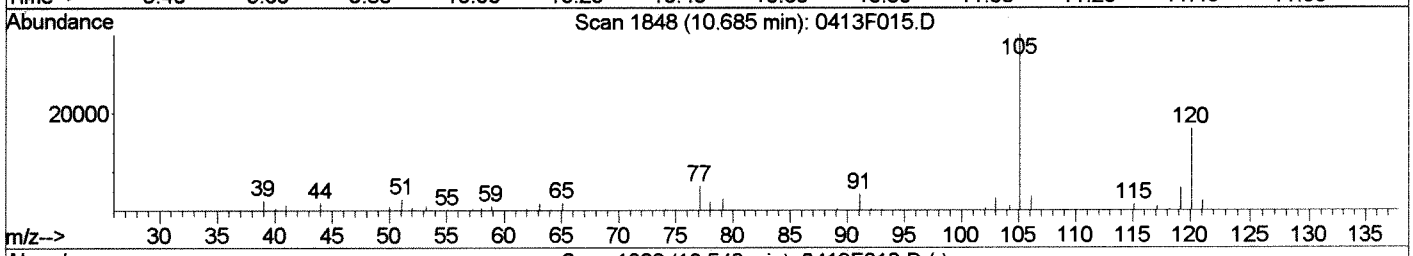
Manual Integration:
After
Shoulder
04/14/16

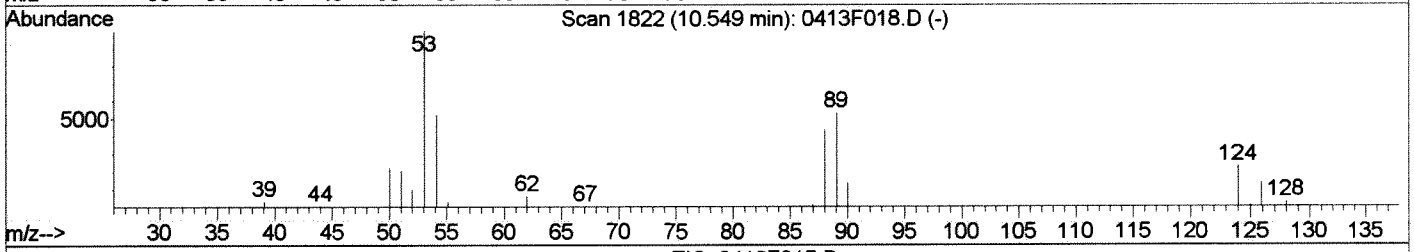
0413F015.D 041316MS18_8260.M Thu Apr 14 09:30:34 2016

Data File : J:\MS18\DATA\041316\0413F015.D Vial: 13
Acq On : 13 Apr 2016 20:18 Operator: YX
Sample : 8260 ICAL 1 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 9:30 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:28:58 2016
Response via : Single Level Calibration







TIC: 0413F015.D

(88) trans-1,4-Dichloro-2-butene (T)

10.69min 0.41PPB

response 1640

Ion	Exp%	Act%
53.00	100	100
89.00	54.50	61.77
124.00	22.90	0.00
62.00	31.60	54.04

Manual Integration:

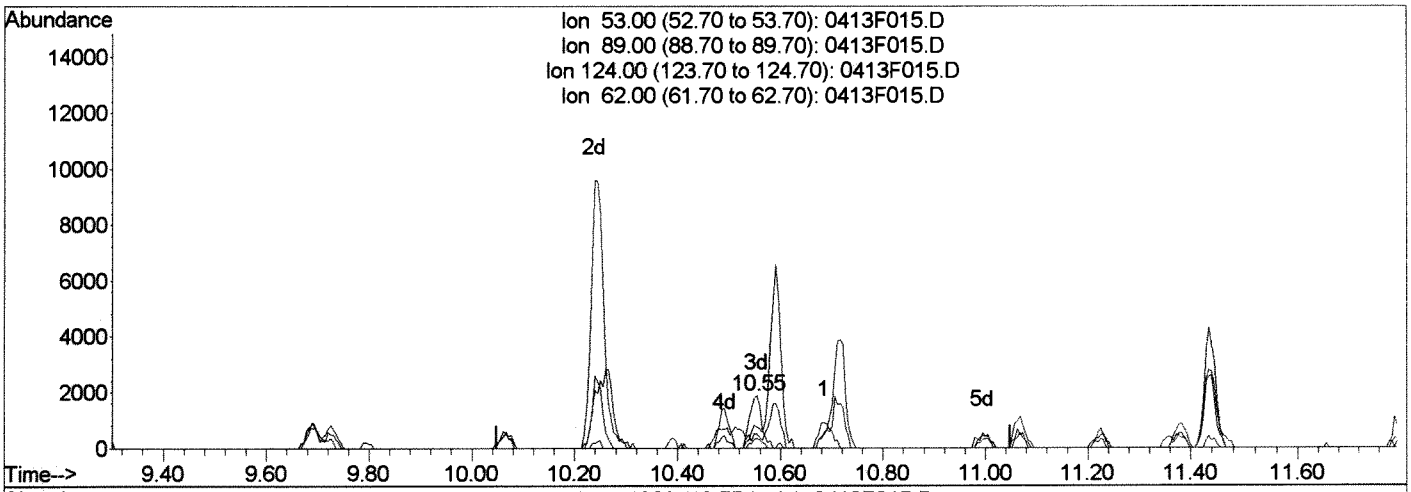
Before

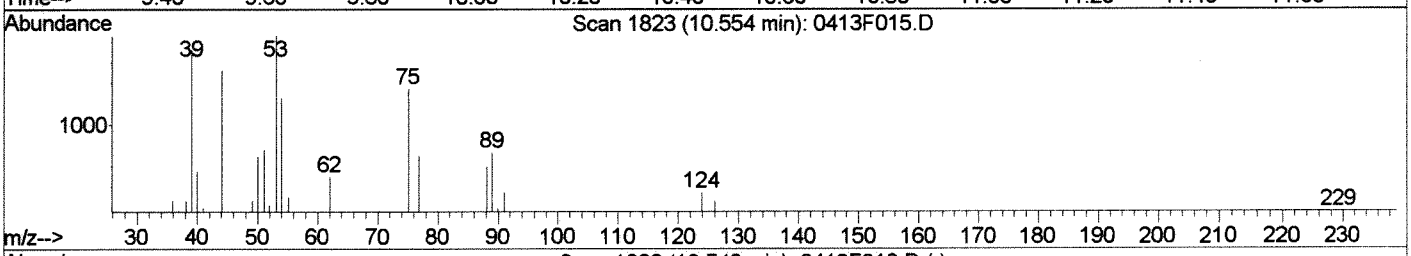
04/14/16

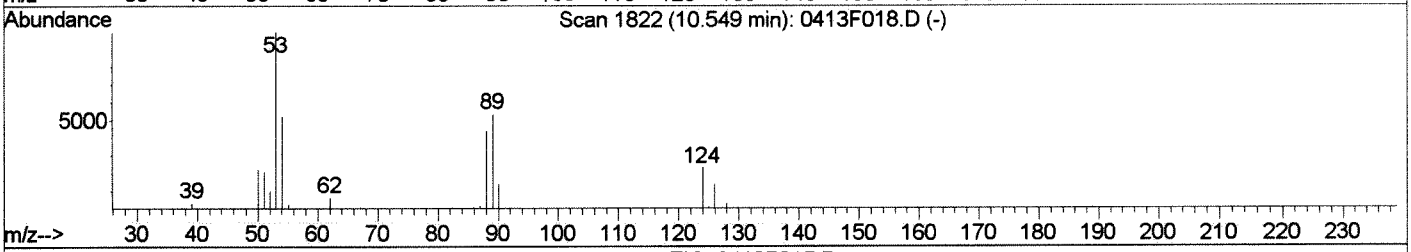
0413F015.D 041316MS18_8260.M Thu Apr 14 09:30:47 2016

Data File : J:\MS18\DATA\041316\0413F015.D Vial: 13
Acq On : 13 Apr 2016 20:18 Operator: YX
Sample : 8260 ICAL 1 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 9:30 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:28:58 2016
Response via : Single Level Calibration







TIC: 0413F015.D

(88) trans-1,4-Dichloro-2-butene (T)

10.55min 0.75PPB m

response 3020

Ion	Exp%	Act%
53.00	100	100
89.00	54.50	39.40
124.00	22.90	18.30
62.00	31.60	26.86

Manual Integration:

After

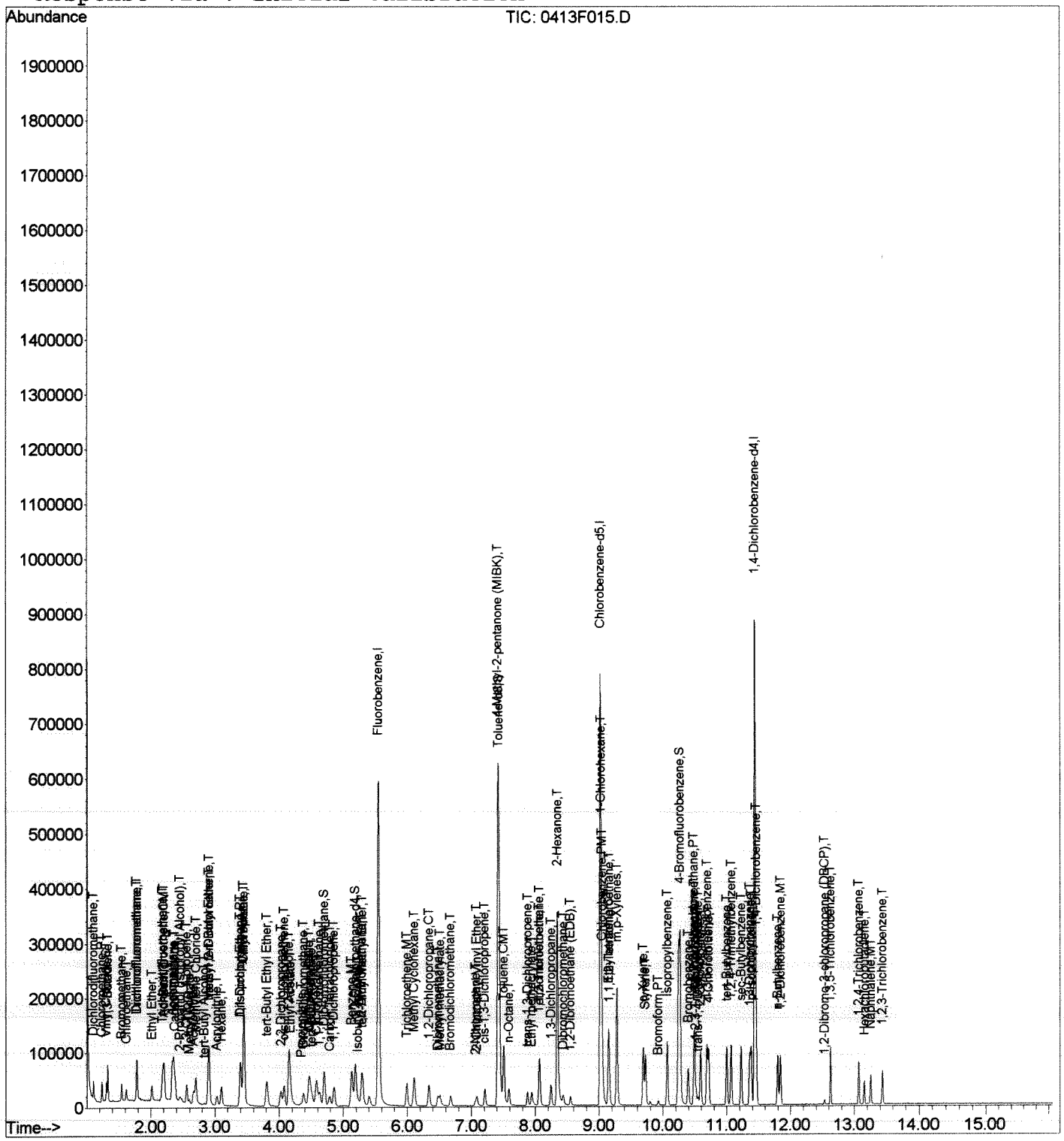
WRT

04/14/16

0413F015.D 041316MS18_8260.M Thu Apr 14 09:30:52 2016

Data File : J:\MS18\DATA\041316\0413F015.D Vial: 13
Acq On : 13 Apr 2016 20:18 Operator: YX
Sample : 8260 ICAL 1 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 9:51 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Data File : J:\MS18\DATA\041316\0413F016.D Vial: 14
Acq On : 13 Apr 2016 20:40 Operator: YX
Sample : 8260 ICAL 2 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:31:15 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:31:11 2016
Response via : Initial Calibration
DataAcq Meth : 8260

VK 4/14/16

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.55	96	659044	10.00	PPB	0.00
65) Chlorobenzene-d5	9.02	82	256232	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	230505	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	4.71	113	74351	5.69	PPB	0.00
Spiked Amount 10.000			Recovery =	56.90%		
48) 1,2-Dichloroethane-d4	5.19	65	91637	6.00	PPB	0.00
Spiked Amount 10.000			Recovery =	60.00%		
63) Toluene-d8	7.43	98	357218	6.10	PPB	0.00
Spiked Amount 10.000			Recovery =	61.00%		
85) 4-Bromofluorobenzene	10.27	95	134745	6.13	PPB	0.00
Spiked Amount 10.000			Recovery =	61.30%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	34396	2.09	PPB	96
3) Chloromethane	1.23	50	45405	1.86	PPB	97
4) Vinyl Chloride	1.31	62	39057	1.96	PPB	97
5) 1,3-Butadiene	1.33	54	29740	1.90	PPB	99
6) Bromomethane	1.55	96	21980	2.01	PPB	98
7) Chloroethane	1.62	64	25238	2.06	PPB	99
8) Dichlorofluoromethane	1.78	67	54279	1.93	PPB	98
9) Trichlorofluoromethane	1.78	101	41004	1.92	PPB	99
10) Ethyl Ether	2.02	59	24734	1.91	PPB	98
11) Acrolein	2.19	56	61350	37.98	PPB	100
12) Trichlorotrifluoroethane	2.18	151	19979	1.94	PPB	97
13) 1,1-Dichloroethene	2.21	96	25892	1.92	PPB	98
14) Acetone	2.33	43	172268	79.53	PPB	99
15) Iodomethane	2.35	142	114692	6.69	PPB	97
16) Carbon Disulfide	2.37	76	71210	1.53	PPB	97
17) 2-Propanol (Isopropyl Alco	2.46	45	44408	96.92	PPB	68
18) 3-Chloro-1-propene	2.56	76	15599	1.76	PPB	87
19) Methyl Acetate	2.60	43	18720	1.97	PPB	95
20) Acetonitrile	2.66	40	45992	78.51	PPB	90
21) Methylene Chloride	2.70	84	35491	1.99	PPB	97
22) tert-Butyl Alcohol	2.84	59	6081	9.26	PPB	97
23) Acrylonitrile	3.03	53	30567	7.82	PPB	99
24) Methyl tert-Butyl Ether	2.90	73	161807	3.91	PPB	99
25) trans-1,2-Dichloroethene	2.91	96	29617	1.84	PPB	98
26) Hexane	3.10	57	31193	1.86	PPB	98
27) Diisopropyl Ether	3.40	45	99274	1.89	PPB	99
28) 1,1-Dichloroethane	3.40	63	55100	1.93	PPB	97

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

Data File : J:\MS18\DATA\041316\0413F016.D Vial: 14
Acq On : 13 Apr 2016 20:40 Operator: YX
Sample : 8260 ICAL 2 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:31:15 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:31:11 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.46	86	11145	3.59	PPB	#	85
30)	Chloroprene	3.45	53	197344	7.43	PPB		99
31)	tert-Butyl Ethyl Ether	3.81	59	89180	1.88	PPB		97
32)	2,2-Dichloropropane	4.03	77	35563	1.74	PPB		96
33)	cis-1,2-Dichloroethene	4.08	96	35419	1.94	PPB		95
34)	2-Butanone	4.15	72	94851	80.08	PPB		92
35)	Propionitrile	4.34	54	10534	7.71	PPB		93
36)	Ethyl Acetate	4.18	61	7088	4.19	PPB		85
37)	Methacrylonitrile	4.46	67	36498	7.33	PPB		96
38)	Bromochloromethane	4.38	128	13975	2.00	PPB		97
40)	Chloroform	4.48	83	50038	1.28	PPB		96
41)	tert-Butyl Formate	4.51	59	11449	1.49	PPB		93
42)	1,1,1-Trichloroethane	4.63	97	34713	1.67	PPB		97
44)	Carbon Tetrachloride	4.79	117	24977	1.50	PPB		97
45)	1,1-Dichloropropene	4.86	75	40389	1.86	PPB		95
46)	Cyclohexane	4.58	56	49379	1.83	PPB		95
47)	Isobutyl Alcohol	5.23	43	17110	66.95	PPB		94
49)	Benzene	5.13	78	137959	1.90	PPB		99
50)	1,2-Dichloroethane	5.30	62	38147	1.97	PPB		95
51)	tert-Amyl Methyl Ether	5.29	55	24154	2.05	PPB	#	81
52)	Trichloroethene	6.00	95	29468	1.87	PPB		95
53)	1,2-Dichloropropane	6.34	63	31577	1.85	PPB		95
54)	Dibromomethane	6.48	93	15836	1.94	PPB		98
55)	Methyl methacrylate	6.51	69	16012	1.76	PPB		94
56)	1,4-Dioxane	6.54	88	9120m	90.53	PPB		
57)	Bromodichloromethane	6.67	83	27571	1.63	PPB		100
58)	2-Nitropropane	7.06	41	10145	5.20	PPB		93
59)	Methyl Cyclohexane	6.11	83	45010	1.82	PPB		96
60)	2-Chloroethyl Vinyl Ether	7.09	63	14817	1.75	PPB		96
61)	cis-1,3-Dichloropropene	7.21	75	38571	1.56	PPB		96
62)	4-Methyl-2-pentanone (MIBK	7.41	58	335711	83.66	PPB		97
64)	Toluene	7.51	92	89053	1.93	PPB		99
66)	n-Octane	7.59	85	13056	2.06	PPB		94
67)	trans-1,3-Dichloropropene	7.88	75	29056	1.54	PPB		97
68)	Ethyl methacrylate	7.94	69	29127	1.77	PPB		95
69)	1,1,2-Trichloroethane	8.07	83	22048	2.03	PPB		95
70)	Tetrachloroethene	8.06	164	22787	1.94	PPB		98
71)	2-Hexanone	8.35	57	104438	82.33	PPB		95
72)	1,3-Dichloropropane	8.25	76	48184	2.01	PPB		100
73)	Dibromochloromethane	8.44	129	16953	1.49	PPB		95
74)	1,2-Dibromoethane (EDB)	8.55	107	23560	1.96	PPB		97

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

Data File : J:\MS18\DATA\041316\0413F016.D Vial: 14
Acq On : 13 Apr 2016 20:40 Operator: YX
Sample : 8260 ICAL 2 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:31:15 2016 Quant Results File: 041316MS18_8260

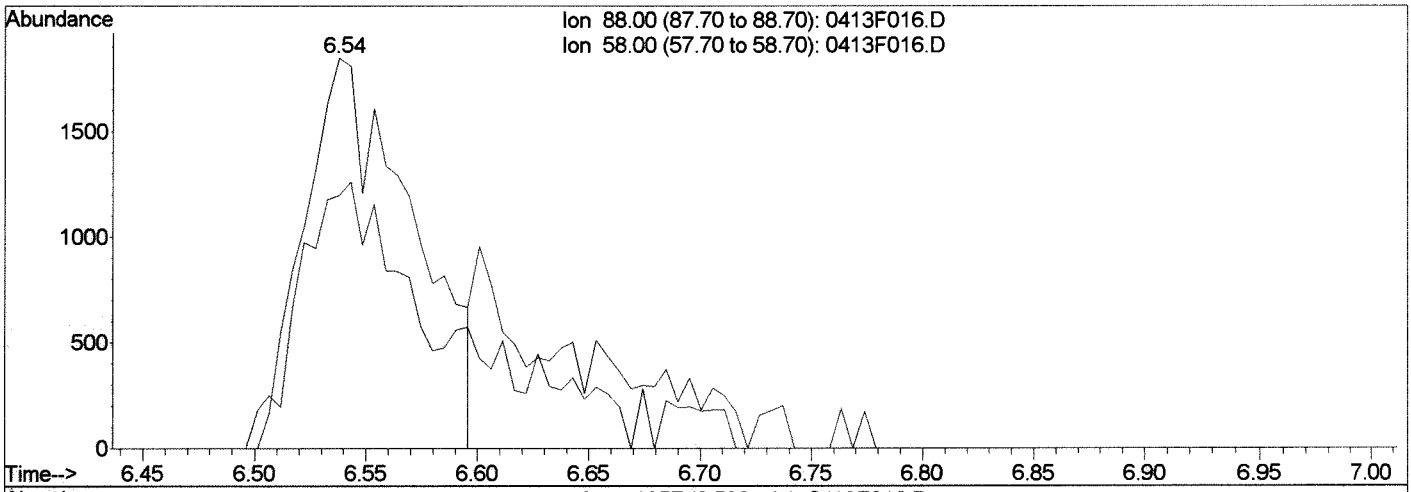
Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:31:11 2016
Response via : Initial Calibration
DataAcq Meth : 8260

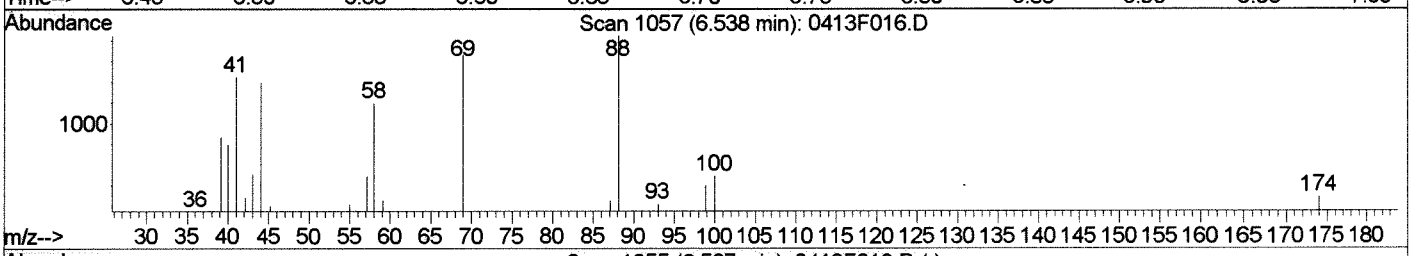
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
75)	1-Chlorohexane	9.04	91	37637	1.78	PPB		98
76)	Chlorobenzene	9.05	112	95925	1.98	PPB		98
77)	Ethylbenzene	9.15	106	48904	1.93	PPB		99
78)	1,1,1,2-Tetrachloroethane	9.16	131	21814	1.70	PPB		96
79)	m,p-Xylenes	9.28	106	120585	3.86	PPB		100
80)	o-Xylene	9.69	106	58457	1.93	PPB		96
81)	Styrene	9.73	103	42539	1.62	PPB		90
82)	Bromoform	9.93	173	7632	1.46	PPB		94
83)	Isopropylbenzene	10.07	105	143007	1.93	PPB		99
84)	cis-1,4-Dichloro-2-butene	10.24	89	8221	4.43	PPB	#	61
87)	1,1,2,2-Tetrachloroethane	10.48	83	26909	1.86	PPB		98
88)	trans-1,4-Dichloro-2-buten	10.55	53	7210	1.84	PPB		70
89)	Bromobenzene	10.40	156	37543	2.01	PPB		99
90)	n-Propylbenzene	10.49	91	171014	1.97	PPB		99
91)	1,2,3-Trichloropropane	10.52	110	8930	2.01	PPB		85
92)	2-Chlorotoluene	10.59	91	110903	1.98	PPB		99
93)	1,3,5-Trimethylbenzene	10.69	105	116864	1.92	PPB		96
94)	4-Chlorotoluene	10.72	91	127816	1.99	PPB		100
95)	tert-Butylbenzene	11.00	119	99777	1.92	PPB		98
96)	1,2,4-Trimethylbenzene	11.07	105	116792	1.91	PPB		99
97)	sec-Butylbenzene	11.23	105	139801	1.91	PPB		99
98)	p-Isopropyltoluene	11.38	119	112117	1.90	PPB		99
99)	1,3-Dichlorobenzene	11.36	146	70497	1.93	PPB		95
100)	1,4-Dichlorobenzene	11.46	146	75949	1.97	PPB		96
101)	n-Butylbenzene	11.80	91	94469	1.84	PPB		98
102)	1,2-Dichlorobenzene	11.84	146	70843	2.05	PPB		97
103)	1,2-Dibromo-3-chloropropan	12.54	155	1976	1.44	PPB		96
104)	1,3,5-Trichlorobenzene	12.63	180	41709	1.92	PPB		94
105)	1,2,4-Trichlorobenzene	13.07	180	35993	1.89	PPB		96
106)	Hexachlorobutadiene	13.15	225	13597	1.98	PPB		88
107)	Naphthalene	13.25	128	70716	1.84	PPB		99
108)	1,2,3-Trichlorobenzene	13.44	180	29496	1.92	PPB		98

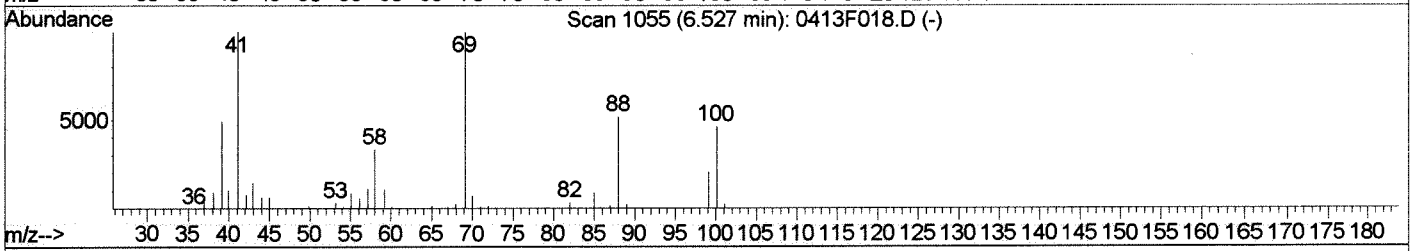
(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\041316\0413F016.D Vial: 14
Acq On : 13 Apr 2016 20:40 Operator: YX
Sample : 8260 ICAL 2 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 9:31 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F016.D

(56) 1,4-Dioxane (T)

6.54min 61.76PPB

response 6222

Ion	Exp%	Act%
88.00	100	100
58.00	64.20	64.77
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

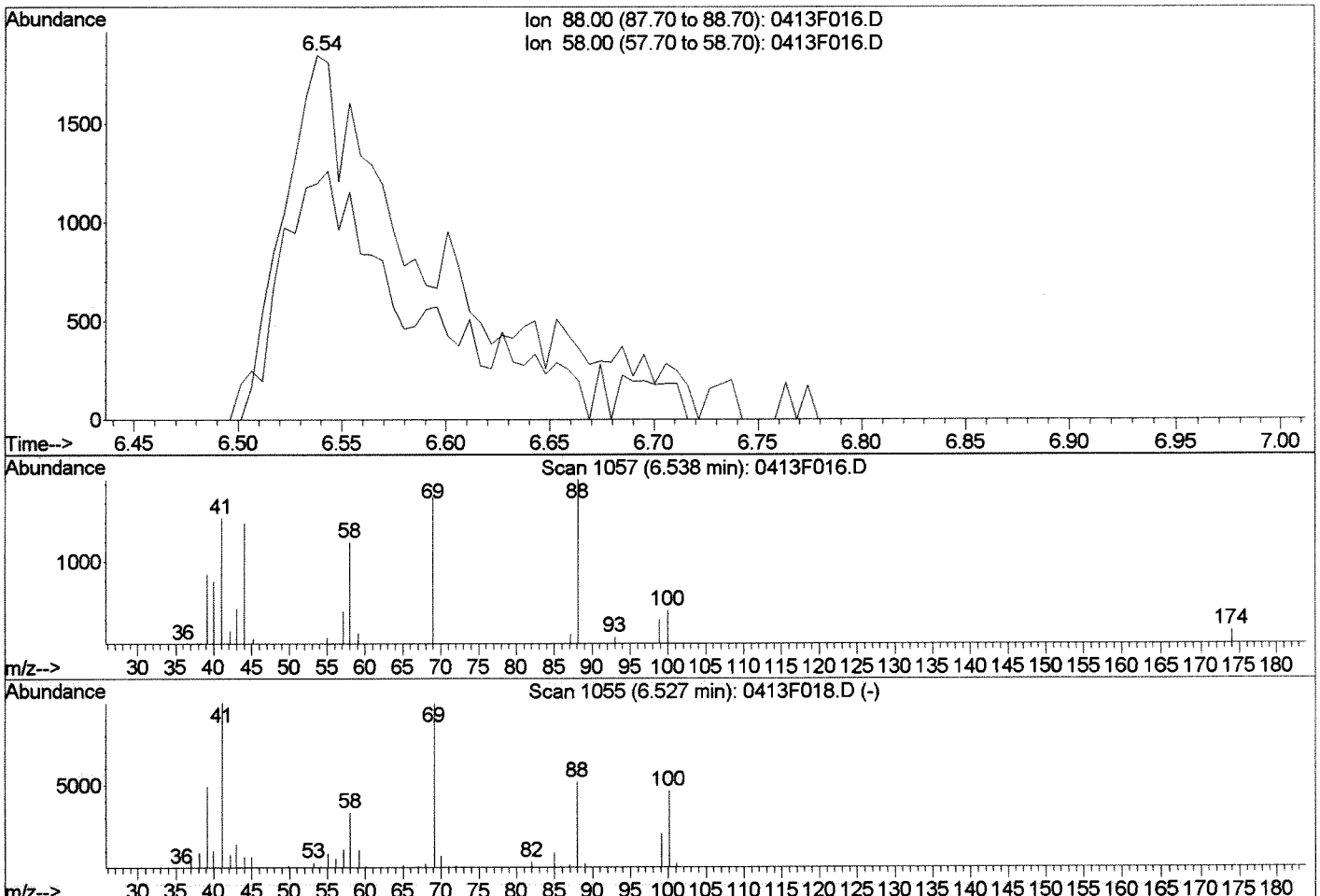
04/14/16

0413F016.D 041316MS18_8260.M Thu Apr 14 11:22:47 2016

Quantitation Report (Quan)

Data File : J:\MS18\DATA\041316\0413F016.D Vial: 14
Acq On : 13 Apr 2016 20:40 Operator: YX
Sample : 8260 ICAL 2 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:22 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration



TIC: 0413F016.D

(56) 1,4-Dioxane (T)
6.54min 90.53PPB m
response 9120

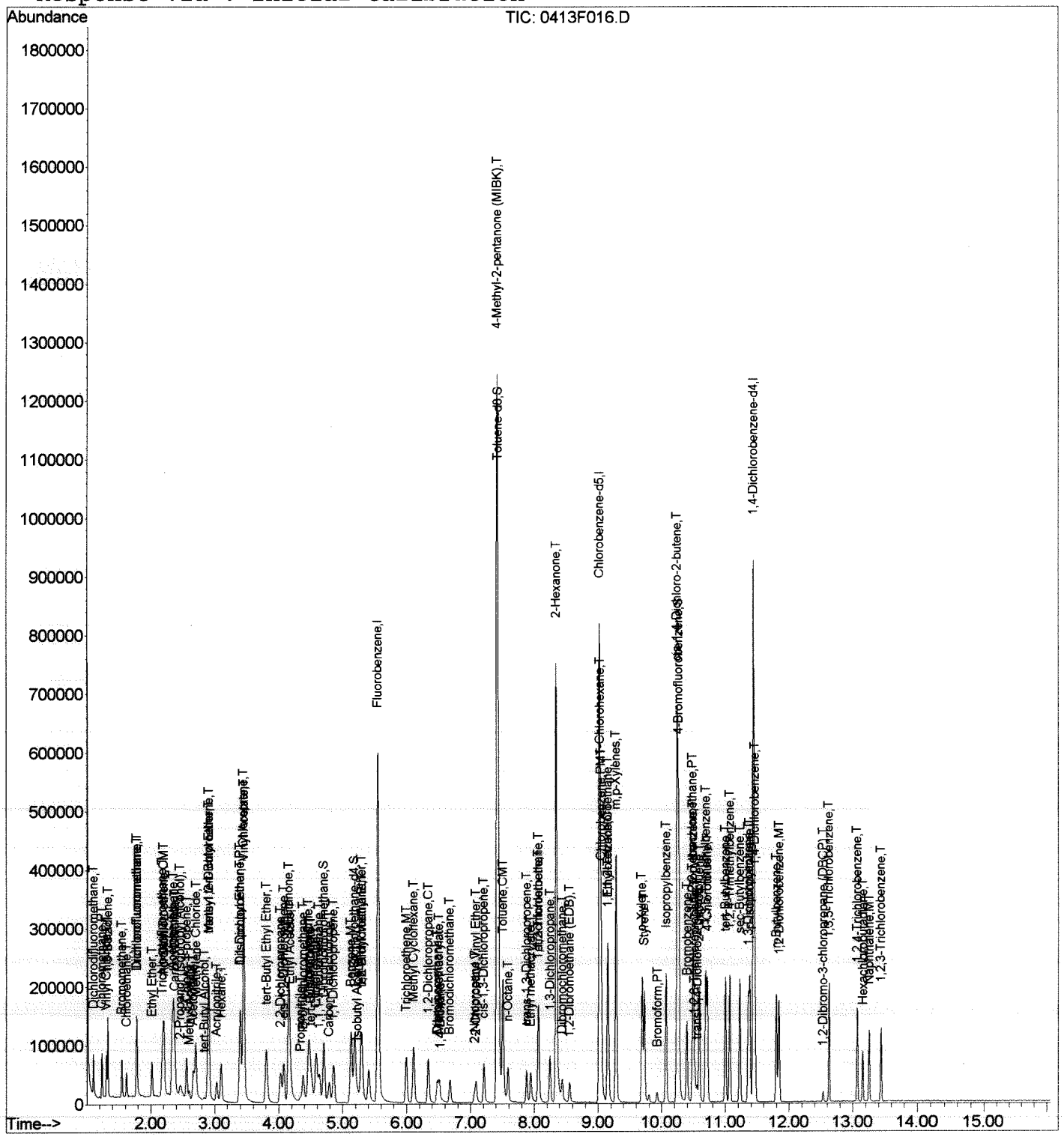
Ion	Exp%	Act%
88.00	100	100
58.00	64.20	64.77
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Peak tailing
04/14/16

0413F016.D 041316MS18_8260.M Thu Apr 14 11:22:54 2016

Data File : J:\MS18\DATA\041316\0413F016.D Vial: 14
Acq On : 13 Apr 2016 20:40 Operator: YX
Sample : 8260 ICAL 2 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:22 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Data File : J:\MS18\DATA\041316\0413F017.D Vial: 15
Acq On : 13 Apr 2016 21:01 Operator: YX
Sample : 8260 ICAL 5 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:14:30 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:14:22 2016
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.55	96	680115	10.00	PPB	0.00
65) Chlorobenzene-d5	9.02	82	263969	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	239405	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	4.70	113	100808	7.28	PPB	0.00
Spiked Amount 10.000			Recovery =	72.80%		
48) 1,2-Dichloroethane-d4	5.19	65	124066	7.59	PPB	0.00
Spiked Amount 10.000			Recovery =	75.90%		
63) Toluene-d8	7.43	98	462832	7.51	PPB	0.00
Spiked Amount 10.000			Recovery =	75.10%		
85) 4-Bromofluorobenzene	10.27	95	176994	7.77	PPB	0.00
Spiked Amount 10.000			Recovery =	77.70%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	98561	5.72	PPB	100
3) Chloromethane	1.23	50	110527	4.83	PPB	99
4) Vinyl Chloride	1.31	62	108183	5.00	PPB	100
5) 1,3-Butadiene	1.33	54	84164	4.63	PPB	99
6) Bromomethane	1.55	96	56771	5.30	PPB	98
7) Chloroethane	1.62	64	65982	5.35	PPB	98
8) Dichlorofluoromethane	1.78	67	145178	4.97	PPB	98
9) Trichlorofluoromethane	1.78	101	115869	5.34	PPB	99
10) Ethyl Ether	2.02	59	62941	4.49	PPB	100
11) Acrolein	2.19	56	161280	87.43	PPB	96
12) Trichlorotrifluoroethane	2.18	151	55217	5.47	PPB	97
13) 1,1-Dichloroethene	2.21	96	70321	5.09	PPB	96
14) Acetone	2.33	43	205913	83.17	PPB	98
15) Iodomethane	2.35	142	316608	17.96	PPB	98
16) Carbon Disulfide	2.37	76	207729	4.02	PPB	99
17) 2-Propanol (Isopropyl Alco	2.46	45	105992	205.48	PPB	94
18) 3-Chloro-1-propene	2.56	76	42272	4.22	PPB	95
19) Methyl Acetate	2.60	43	39444	3.77	PPB	100
20) Acetonitrile	2.66	40	117759	181.28	PPB	97
21) Methylene Chloride	2.70	84	87859	4.61	PPB	99
22) tert-Butyl Alcohol	2.84	59	15077	20.62	PPB	98
23) Acrylonitrile	3.03	53	72091	15.69	PPB	98
24) Methyl tert-Butyl Ether	2.89	73	409248	8.76	PPB	100
25) trans-1,2-Dichloroethene	2.91	96	81605	4.48	PPB	97
26) Hexane	3.10	57	87091	4.87	PPB	97
27) Diisopropyl Ether	3.39	45	260673	4.14	PPB	97
28) 1,1-Dichloroethane	3.40	63	147288m	4.40	PPB	

(#) = qualifier out of range (m) = manual integration
0413F017.D 041316MS18_8260.M Thu Apr 14 11:44:09 2016 Page 1

Data File : J:\MS18\DATA\041316\0413F017.D Vial: 15
Acq On : 13 Apr 2016 21:01 Operator: YX
Sample : 8260 ICAL 5 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:14:30 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:14:22 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.46	86	29383	8.42	PPB		93
30)	Chloroprene	3.45	53	571232	18.90	PPB		100
31)	tert-Butyl Ethyl Ether	3.81	59	234583	4.22	PPB		98
32)	2,2-Dichloropropane	4.03	77	99860	4.32	PPB		98
33)	cis-1,2-Dichloroethene	4.08	96	92999	4.70	PPB		96
34)	2-Butanone	4.16	72	113528	85.27	PPB		93
35)	Propionitrile	4.34	54	26367	17.27	PPB		94
36)	Ethyl Acetate	4.18	61	15953	8.66	PPB		86
37)	Methacrylonitrile	4.47	67	97494	17.29	PPB		97
38)	Bromochloromethane	4.38	128	35419	4.75	PPB		99
39)	Tetrahydrofuran	4.41	71	5798	4.83	PPB	#	78
40)	Chloroform	4.48	83	134320	4.54	PPB		97
41)	tert-Butyl Formate	4.51	59	29068	2.63	PPB		96
42)	1,1,1-Trichloroethane	4.63	97	105180	4.57	PPB		97
44)	Carbon Tetrachloride	4.79	117	76103	4.13	PPB		99
45)	1,1-Dichloropropene	4.85	75	113562	4.80	PPB		97
46)	Cyclohexane	4.58	56	138622	4.69	PPB		100
47)	Isobutyl Alcohol	5.22	43	42267	144.46	PPB		97
49)	Benzene	5.13	78	364389	4.68	PPB		99
50)	1,2-Dichloroethane	5.30	62	95178	4.47	PPB		99
51)	tert-Amyl Methyl Ether	5.30	55	60077	4.89	PPB		93
52)	Trichloroethene	6.00	95	79626	4.66	PPB		98
53)	1,2-Dichloropropane	6.34	63	84836	4.38	PPB		91
54)	Dibromomethane	6.48	93	39590	4.42	PPB		98
55)	Methyl methacrylate	6.51	69	41365	3.91	PPB		97
56)	1,4-Dioxane	6.53	88	22667m	206.02	PPB		
57)	Bromodichloromethane	6.67	83	74504	3.70	PPB		96
58)	2-Nitropropane	7.06	41	32128	13.25	PPB		99
59)	Methyl Cyclohexane	6.11	83	131088	4.92	PPB		98
60)	2-Chloroethyl Vinyl Ether	7.09	63	39516	4.00	PPB		98
61)	cis-1,3-Dichloropropene	7.21	75	115130	4.00	PPB		97
62)	4-Methyl-2-pentanone (MIBK	7.41	58	400572	84.13	PPB		97
64)	Toluene	7.51	92	232890	4.77	PPB		99
66)	n-Octane	7.59	85	35049	5.65	PPB		96
67)	trans-1,3-Dichloropropene	7.88	75	84840	3.83	PPB		99
68)	Ethyl methacrylate	7.94	69	77181	4.17	PPB		98
69)	1,1,2-Trichloroethane	8.06	83	56560	4.61	PPB		98
70)	Tetrachloroethene	8.06	164	62170	5.63	PPB		97
71)	2-Hexanone	8.34	57	126965	89.26	PPB		97
72)	1,3-Dichloropropane	8.25	76	122937	4.86	PPB		98
73)	Dibromochloromethane	8.44	129	49431	3.82	PPB		97

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

Data File : J:\MS18\DATA\041316\0413F017.D Vial: 15
Acq On : 13 Apr 2016 21:01 Operator: YX
Sample : 8260 ICAL 5 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:14:30 2016 Quant Results File: 041316MS18_8260

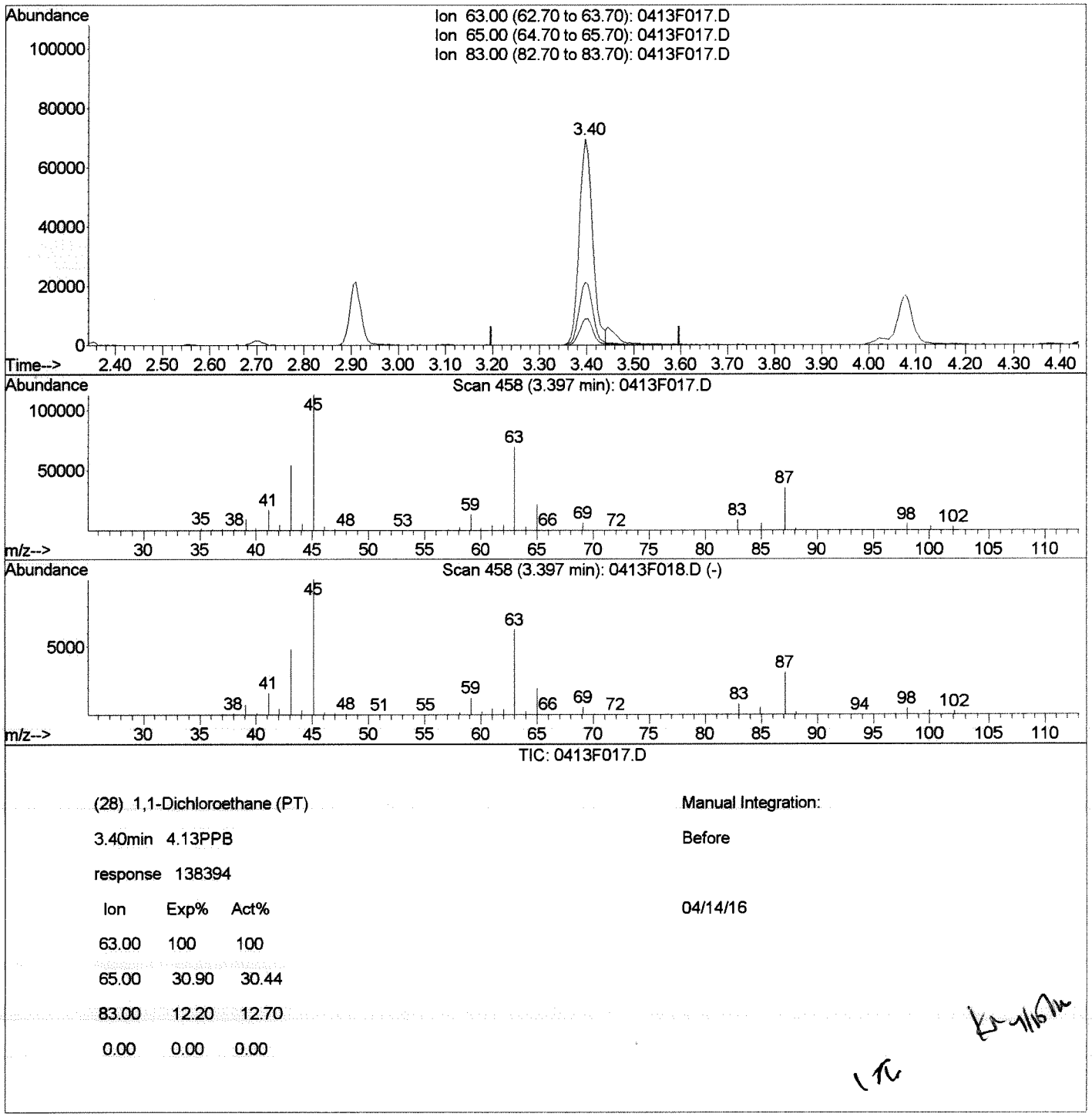
Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:14:22 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1,2-Dibromoethane (EDB)	8.55	107	60774	4.83	PPB	92
75)	1-Chlorohexane	9.04	91	106175	4.90	PPB	96
76)	Chlorobenzene	9.05	112	249250	5.30	PPB	98
77)	Ethylbenzene	9.15	106	133685	5.20	PPB	96
78)	1,1,1,2-Tetrachloroethane	9.16	131	61792	4.39	PPB	97
79)	m,p-Xylenes	9.28	106	334251	10.49	PPB	96
80)	o-Xylene	9.69	106	161543	5.22	PPB	98
81)	Styrene	9.73	103	122743m	4.54	PPB	
82)	Bromoform	9.93	173	21987	3.49	PPB	97
83)	Isopropylbenzene	10.07	105	401103	5.23	PPB	98
84)	cis-1,4-Dichloro-2-butene	10.24	89	28870	13.79	PPB	94
87)	1,1,2,2-Tetrachloroethane	10.48	83	72769	4.20	PPB	100
88)	trans-1,4-Dichloro-2-buten	10.55	53	17816	3.94	PPB	95
89)	Bromobenzene	10.40	156	97346	4.80	PPB	96
90)	n-Propylbenzene	10.49	91	463779	4.69	PPB	99
91)	1,2,3-Trichloropropane	10.52	110	22902	4.71	PPB	97
92)	2-Chlorotoluene	10.59	91	291499	4.63	PPB	99
93)	1,3,5-Trimethylbenzene	10.69	105	325804	4.72	PPB	99
94)	4-Chlorotoluene	10.72	91	335564	4.53	PPB	98
95)	tert-Butylbenzene	11.00	119	277839	4.88	PPB	98
96)	1,2,4-Trimethylbenzene	11.07	105	329413	4.61	PPB	99
97)	sec-Butylbenzene	11.23	105	401336	4.84	PPB	99
98)	p-Isopropyltoluene	11.38	119	322566	4.84	PPB	98
99)	1,3-Dichlorobenzene	11.36	146	189391	4.91	PPB	98
100)	1,4-Dichlorobenzene	11.46	146	195271	4.85	PPB	98
101)	n-Butylbenzene	11.80	91	274299	4.50	PPB	98
102)	1,2-Dichlorobenzene	11.84	146	178245	4.90	PPB	99
103)	1,2-Dibromo-3-chloropropan	12.54	155	5725	3.38	PPB	93
104)	1,3,5-Trichlorobenzene	12.63	180	109870	4.79	PPB	99
105)	1,2,4-Trichlorobenzene	13.07	180	94851	4.74	PPB	96
106)	Hexachlorobutadiene	13.15	225	35283	4.85	PPB	98
107)	Naphthalene	13.25	128	192543	4.49	PPB	99
108)	1,2,3-Trichlorobenzene	13.44	180	77420	4.83	PPB	99

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

Data File : J:\MS18\DATA\041316\0413F017.D Vial: 15
Acq On : 13 Apr 2016 21:01 Operator: YX
Sample : 8260 ICAL 5 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 9:14 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Multiple Level Calibration



TIC: 0413F017.D

(28) 1,1-Dichloroethane (PT)

3.40min 4.13PPB

response 138394

Ion	Exp%	Act%
63.00	100	100
65.00	30.90	30.44
83.00	12.20	12.70
0.00	0.00	0.00

Manual Integration:

Before

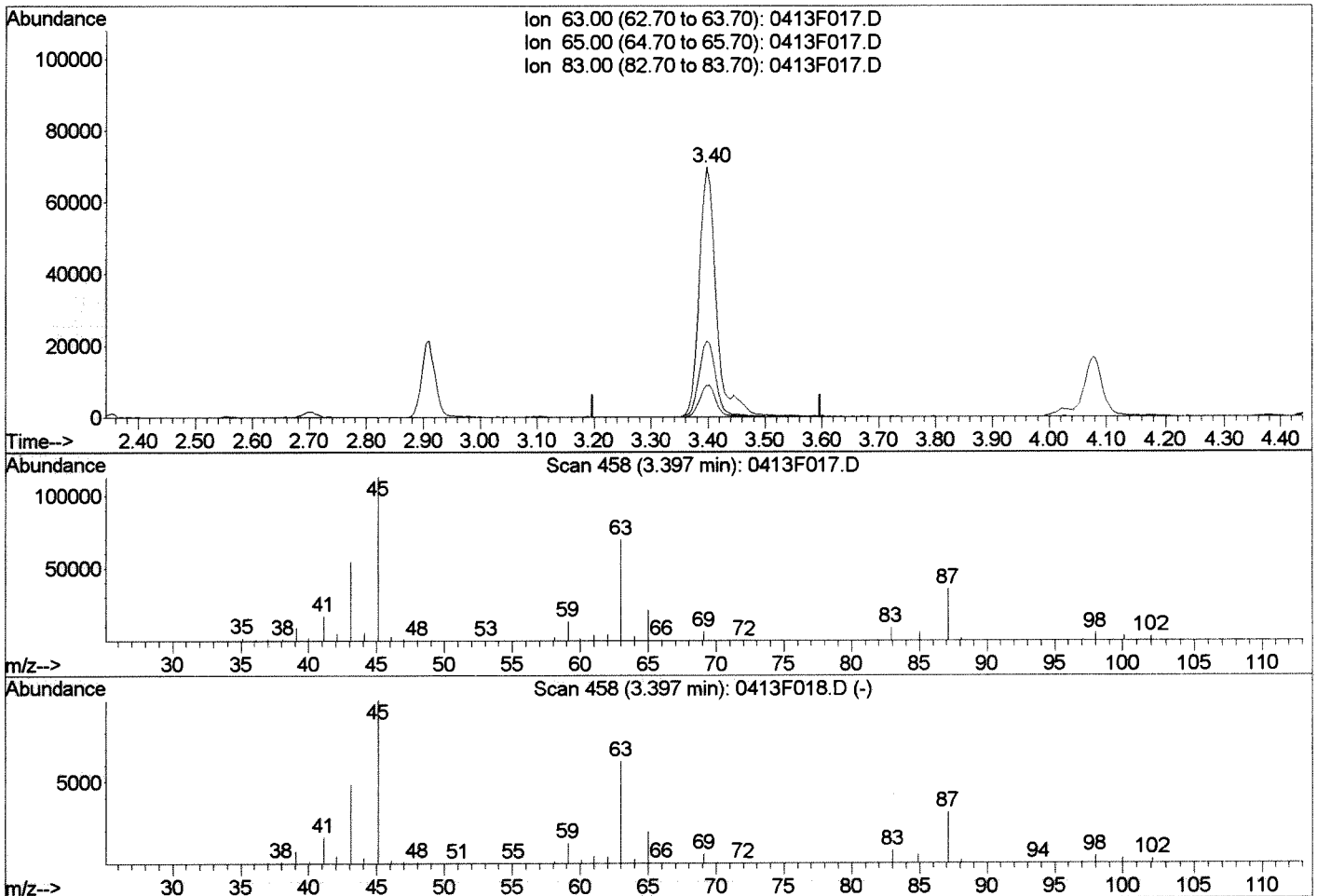
04/14/16

0413F017.D 041316MS18_8260.M Thu Apr 14 11:23:47 2016

Quantitation Report (Quan)

Data File : J:\MS18\DATA\041316\0413F017.D Vial: 15
Acq On : 13 Apr 2016 21:01 Operator: YX
Sample : 8260 ICAL 5 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:23 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Multiple Level Calibration



TIC: 0413F017.D

(28) 1,1-Dichloroethane (PT)

3.40min 4.40PPB m

response 147288

Ion	Exp%	Act%
63.00	100	100
65.00	30.90	30.44
83.00	12.20	12.70
0.00	0.00	0.00

Manual Integration:

After

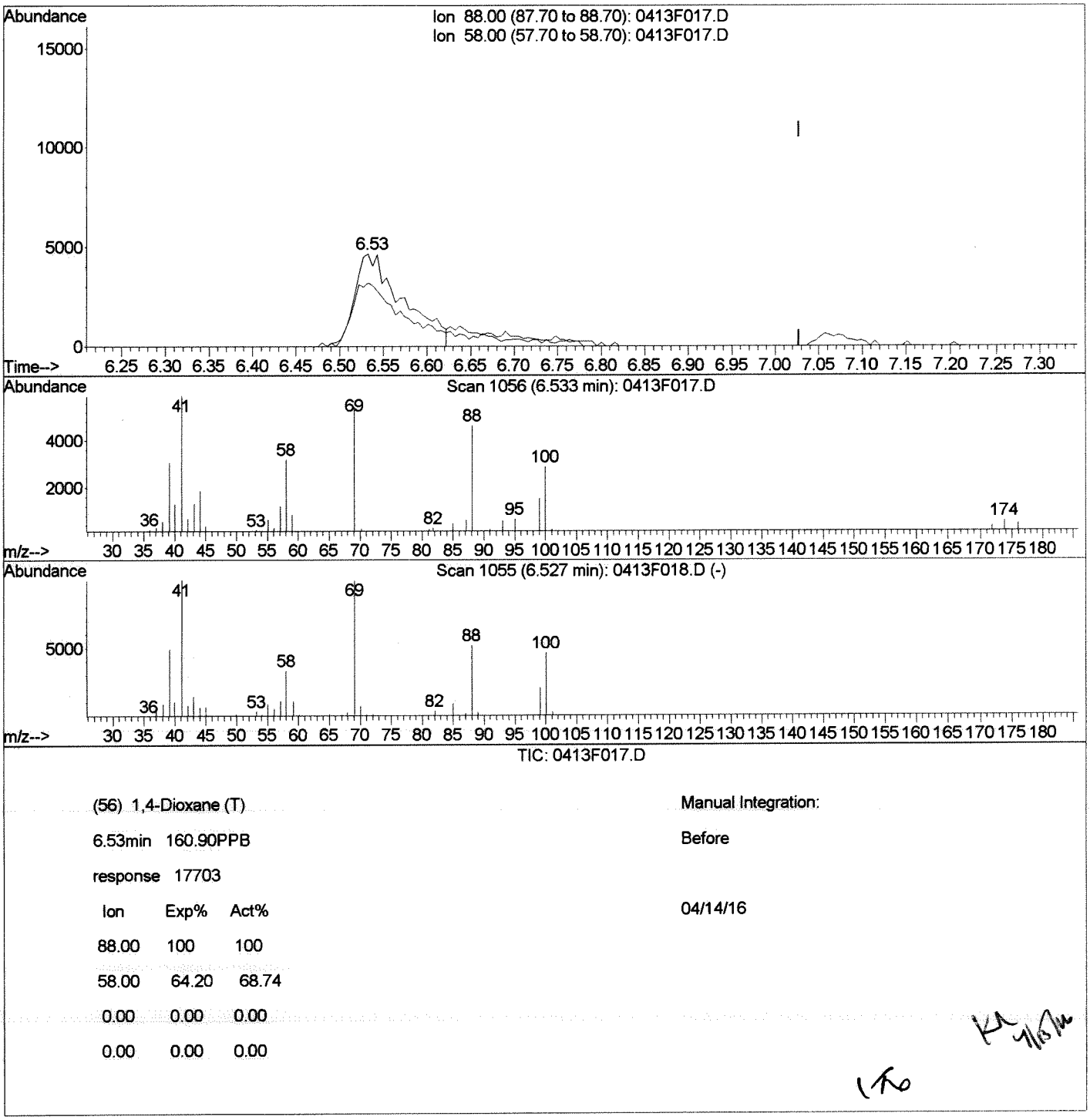
Shoulder

04/14/16

0413F017.D 041316MS18_8260.M Thu Apr 14 11:23:51 2016

Data File : J:\MS18\DATA\041316\0413F017.D Vial: 15
Acq On : 13 Apr 2016 21:01 Operator: YX
Sample : 8260 ICAL 5 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:23 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration



TIC: 0413F017.D

(56) 1,4-Dioxane (T)

6.53min 160.90PPB

response 17703

Ion	Exp%	Act%
88.00	100	100
58.00	64.20	68.74
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

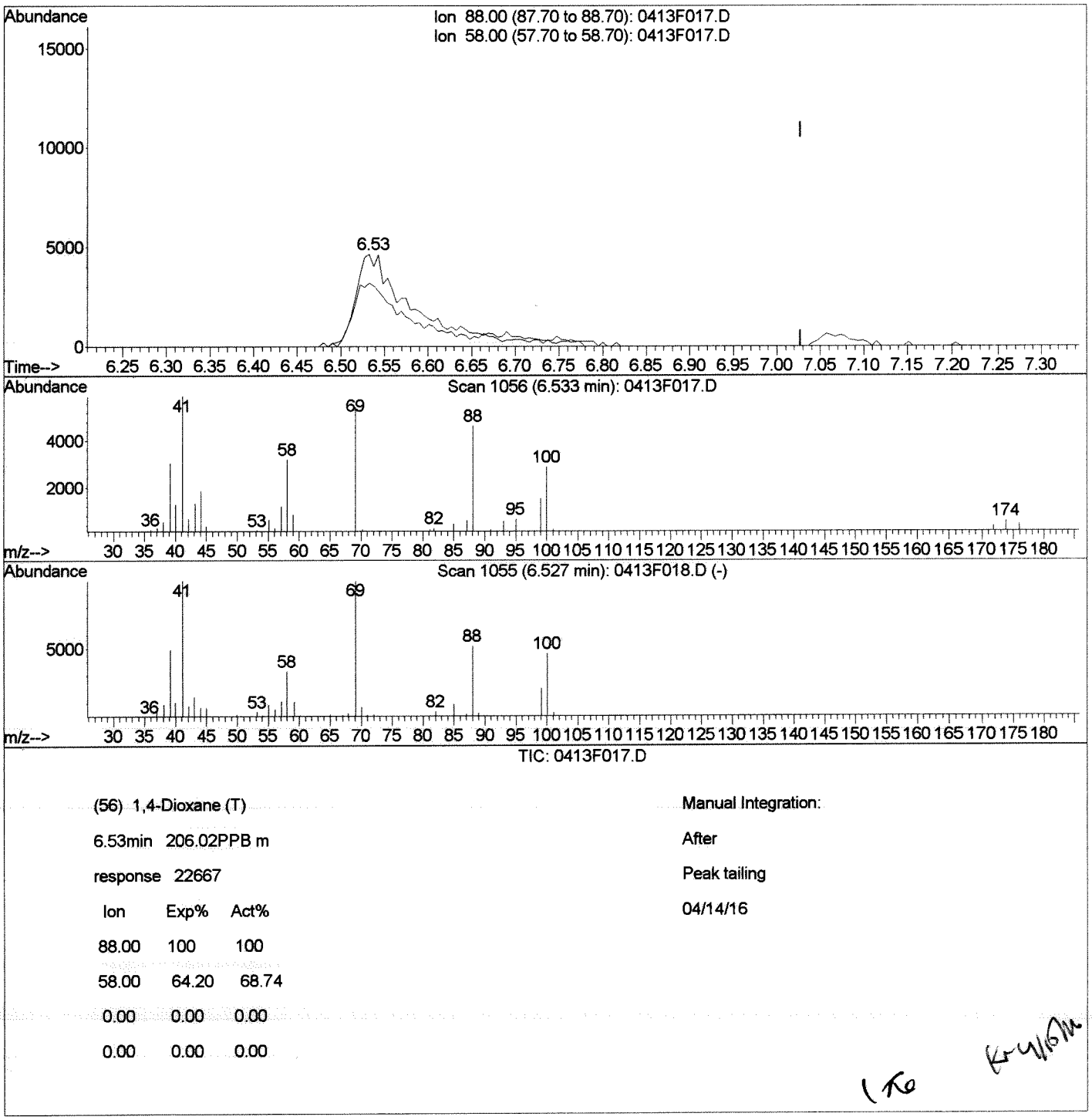
Before

04/14/16

0413F017.D 041316MS18_8260.M Thu Apr 14 11:23:57 2016

Data File : J:\MS18\DATA\041316\0413F017.D Vial: 15
Acq On : 13 Apr 2016 21:01 Operator: YX
Sample : 8260 ICAL 5 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:23 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration



(56) 1,4-Dioxane (T)
6.53min 206.02PPB m
response 22667

Ion	Exp%	Act%
88.00	100	100
58.00	64.20	68.74
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Peak tailing
04/14/16

1 Ke

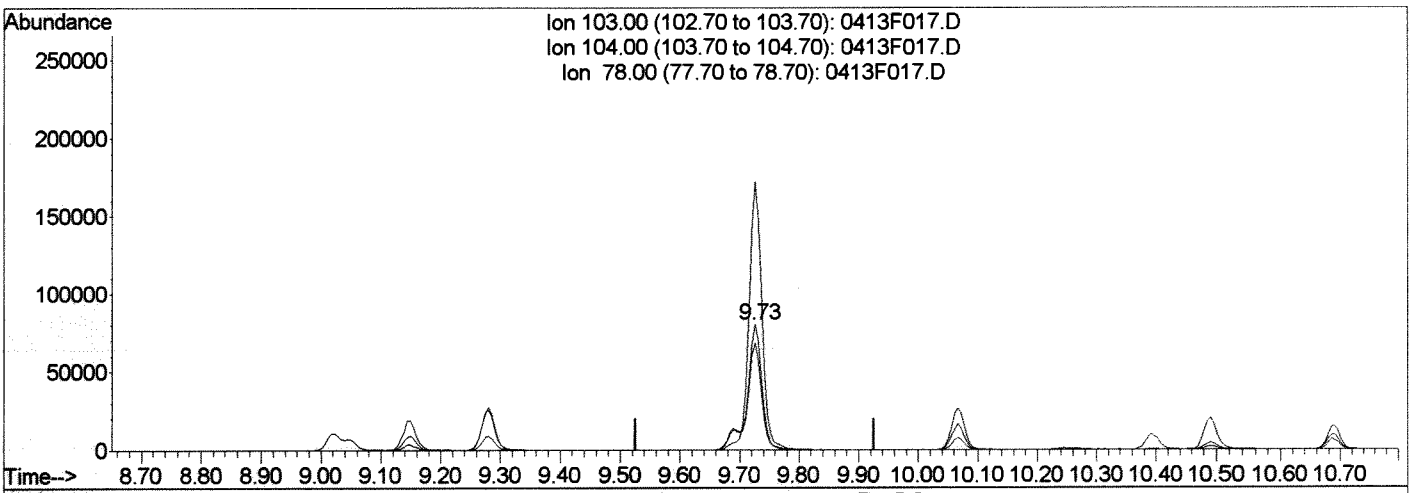
4/14/16

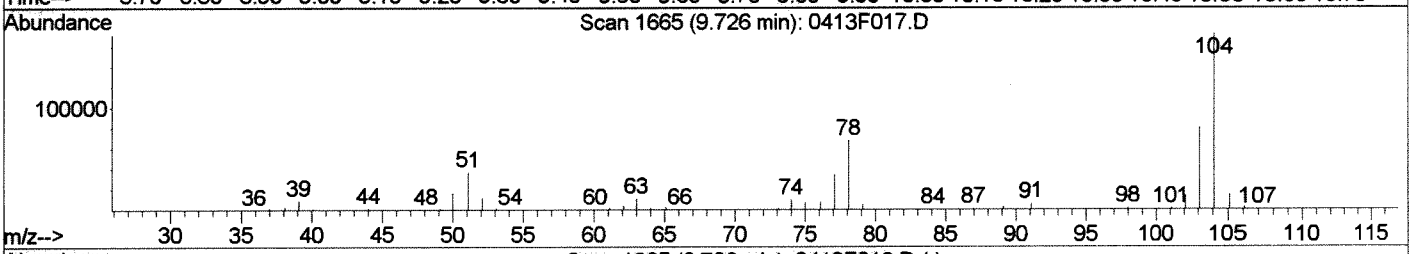
0413F017.D 041316MS18_8260.M Thu Apr 14 11:24:02 2016

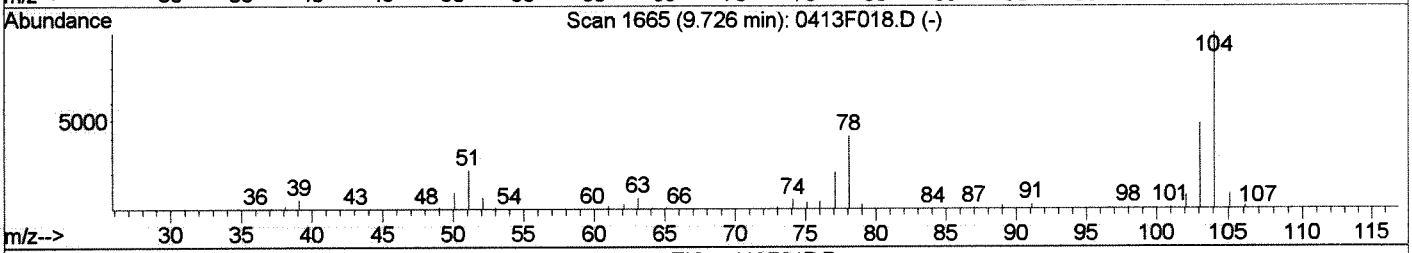
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F017.D Vial: 15
Acq On : 13 Apr 2016 21:01 Operator: YX
Sample : 8260 ICAL 5 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:23 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F017.D

(81) Styrene (T)

9.73min 5.18PPB

response 140070

Ion	Exp%	Act%
103.00	100	100
104.00	206.80	214.34
78.00	85.30	84.98
0.00	0.00	0.00

Manual Integration:

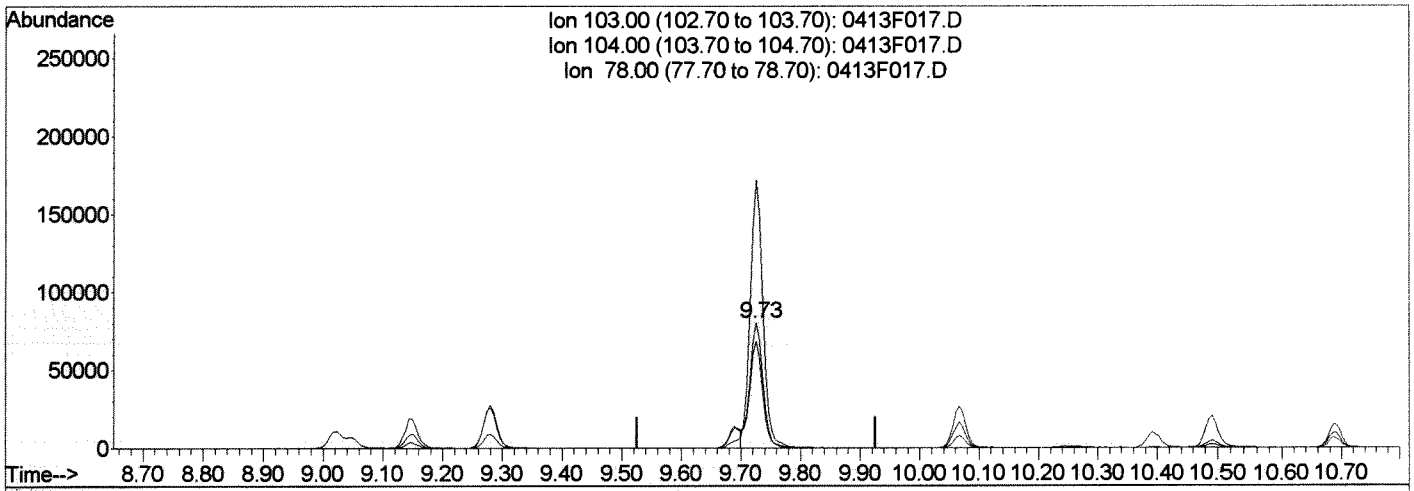
Before

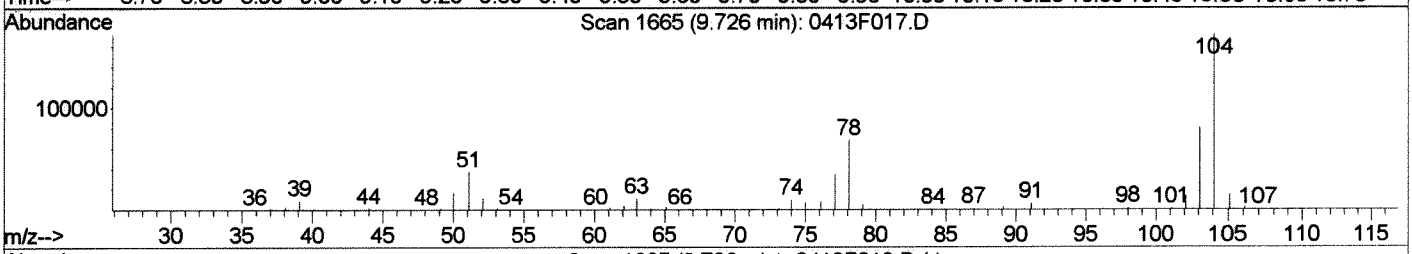
04/14/16

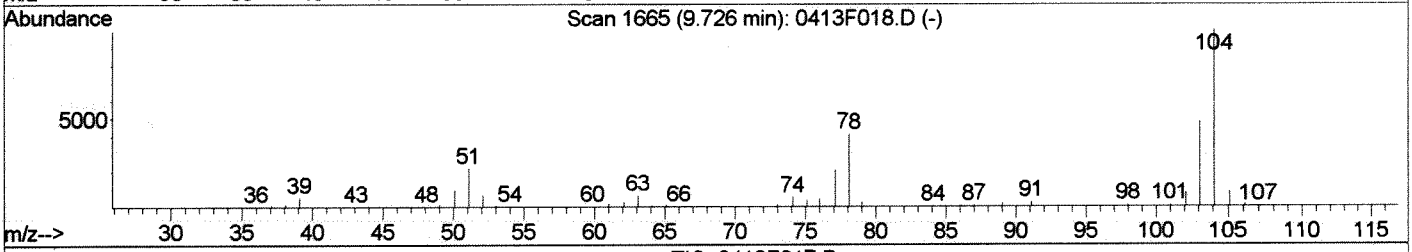
0413F017.D 041316MS18_8260.M Thu Apr 14 11:24:06 2016

Data File : J:\MS18\DATA\041316\0413F017.D Vial: 15
Acq On : 13 Apr 2016 21:01 Operator: YX
Sample : 8260 ICAL 5 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:23 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F017.D

(81) Styrene (T)
9.73min 4.54PPB m
response 122743

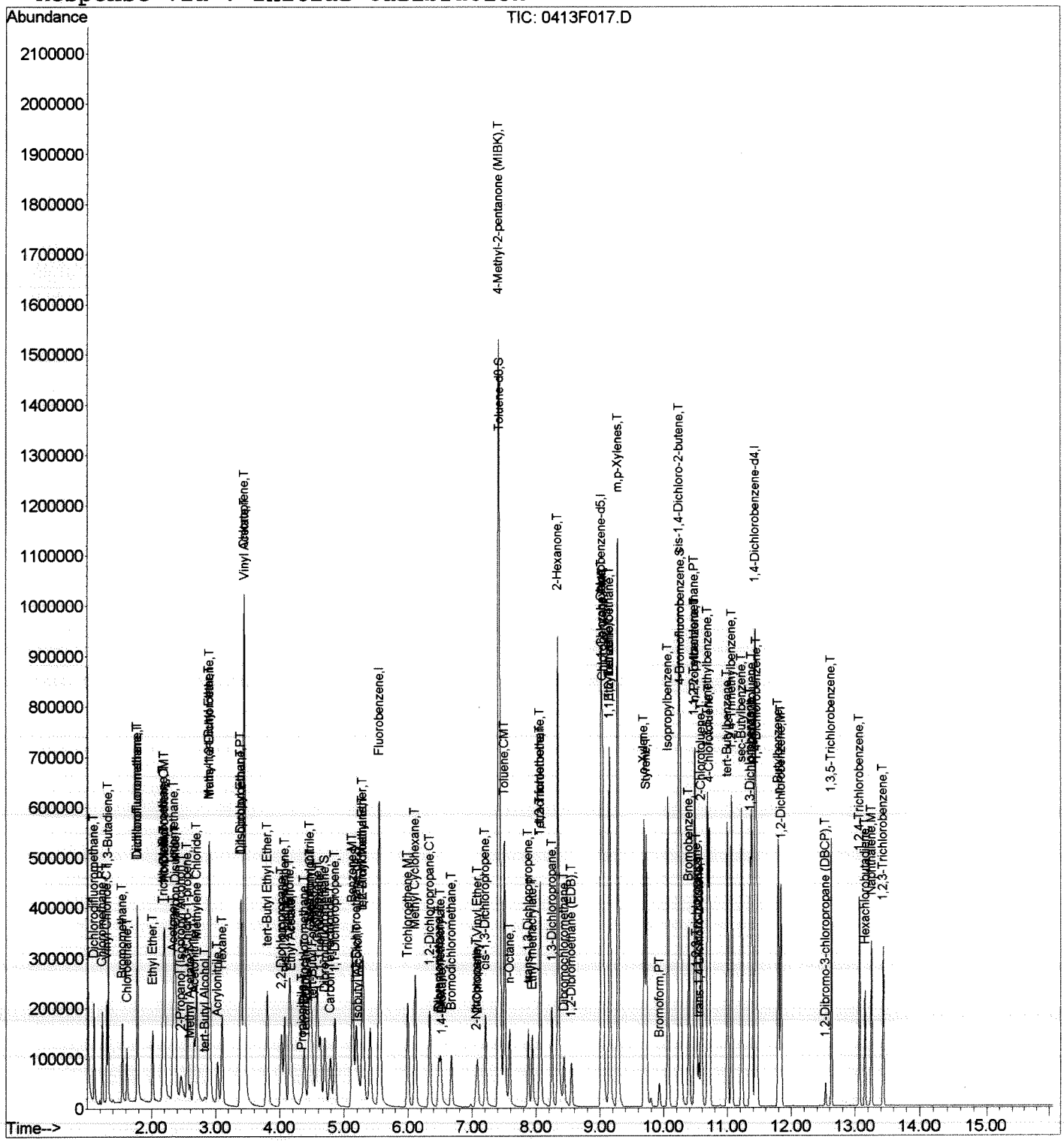
Ion	Exp%	Act%
103.00	100	100
104.00	206.80	214.34
78.00	85.30	84.98
0.00	0.00	0.00

Manual Integration:
After
Shoulder
04/14/16

0413F017.D 041316MS18_8260.M Thu Apr 14 11:24:11 2016

Data File : J:\MS18\DATA\041316\0413F017.D Vial: 15
Acq On : 13 Apr 2016 21:01 Operator: YX
Sample : 8260 ICAL 5 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:23 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F018.D Vial: 16
Acq On : 13 Apr 2016 21:23 Operator: YX
Sample : 8260 ICAL 10 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 13 21:42:36 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Apr 04 14:08:23 2016
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.55	96	674911	10.00	PPB		0.00
65) Chlorobenzene-d5	9.02	82	264357	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.43	152	240805	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	4.70	113	131964	9.47	PPB		0.00
Spiked Amount 10.000			Recovery =	94.70%			
48) 1,2-Dichloroethane-d4	5.19	65	153888	8.65	PPB		0.00
Spiked Amount 10.000			Recovery =	86.50%			
63) Toluene-d8	7.43	98	588214	9.45	PPB		0.00
Spiked Amount 10.000			Recovery =	94.50%			
85) 4-Bromofluorobenzene	10.27	95	229906	10.33	PPB		0.00
Spiked Amount 10.000			Recovery =	103.30%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.10	85	182365	11.14	PPB		98
3) Chloromethane	1.23	50	215136	9.23	PPB		99
4) Vinyl Chloride	1.31	62	206769	9.39	PPB		100
5) 1,3-Butadiene	1.33	54	160588	7.99	PPB		99
6) Bromomethane	1.55	96	110402	11.06	PPB		100
7) Chloroethane	1.62	64	126415	10.53	PPB		98
8) Dichlorofluoromethane	1.78	67	281195	9.29	PPB		98
9) Trichlorofluoromethane	1.78	101	219765	10.40	PPB		98
10) Ethyl Ether	2.02	59	126974	8.44	PPB		89
11) Acrolein	2.19	56	337644	182.28	PPB		97
12) Trichlorotrifluoroethane	2.18	151	106326	11.55	PPB		90
13) 1,1-Dichloroethene	2.21	96	136414	9.99	PPB	#	80
14) Acetone	2.33	43	435653	158.04	PPB		96
15) Iodomethane	2.35	142	663636	40.14	PPB		98
16) Carbon Disulfide	2.38	76	424813	7.62	PPB		99
17) 2-Propanol (Isopropyl Alco	2.45	45	228738	365.06	PPB		88
18) 3-Chloro-1-propene	2.55	76	88590	8.06	PPB	#	79
19) Methyl Acetate	2.60	43	85663	7.58	PPB		88
20) Acetonitrile	2.66	40	237278	306.66	PPB		98
21) Methylene Chloride	2.70	84	173507	8.69	PPB		89
22) tert-Butyl Alcohol	2.84	59	33636	41.34	PPB		98
23) Acrylonitrile	3.03	53	156112	29.24	PPB		97
24) Methyl tert-Butyl Ether	2.89	73	841132	16.95	PPB		98
25) trans-1,2-Dichloroethene	2.91	96	161863	8.73	PPB		88
26) Hexane	3.10	57	164866	8.59	PPB		98
27) Diisopropyl Ether	3.39	45	526889	7.53	PPB		92
28) 1,1-Dichloroethane	3.40	63	294166m	8.08	PPB		

(#) = qualifier out of range (m) = manual integration
0413F018.D 041316MS18_8260.M Thu Apr 14 11:44:12 2016 Page 1

Data File : J:\MS18\DATA\041316\0413F018.D Vial: 16
Acq On : 13 Apr 2016 21:23 Operator: YX
Sample : 8260 ICAL 10 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 13 21:42:36 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Apr 04 14:08:23 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.46	86	62346	16.87	PPB	#	50
30)	Chloroprene	3.45	53	1103026	33.64	PPB		91
31)	tert-Butyl Ethyl Ether	3.81	59	479653	7.89	PPB		98
32)	2,2-Dichloropropane	4.03	77	199773	7.94	PPB		96
33)	cis-1,2-Dichloroethene	4.08	96	185961	9.20	PPB		92
34)	2-Butanone	4.15	72	247674	177.29	PPB	#	77
35)	Propionitrile	4.34	54	55319	31.08	PPB		97
36)	Ethyl Acetate	4.18	61	33591	16.28	PPB		92
37)	Methacrylonitrile	4.46	67	205918	33.42	PPB		90
38)	Bromochloromethane	4.38	128	72328	9.57	PPB	#	82
39)	Tetrahydrofuran	4.40	71	12490	9.59	PPB	#	70
40)	Chloroform	4.48	83	268847	8.66	PPB		98
41)	tert-Butyl Formate	4.51	59	65089	4.30	PPB		91
42)	1,1,1-Trichloroethane	4.63	97	206779	8.47	PPB		97
44)	Carbon Tetrachloride	4.79	117	155612	8.12	PPB		99
45)	1,1-Dichloropropene	4.86	75	218707	8.80	PPB		97
46)	Cyclohexane	4.58	56	269271	8.29	PPB		93
47)	Isobutyl Alcohol	5.22	43	99139	280.01	PPB		96
49)	Benzene	5.13	78	715213	8.76	PPB		96
50)	1,2-Dichloroethane	5.30	62	197111	8.73	PPB		96
51)	tert-Amyl Methyl Ether	5.29	55	119086	9.22	PPB	#	82
52)	Trichloroethene	5.99	95	157100	8.99	PPB		90
53)	1,2-Dichloropropane	6.34	63	168813	7.96	PPB		96
54)	Dibromomethane	6.48	93	83547	8.99	PPB		90
55)	Methyl methacrylate	6.51	69	90197	7.77	PPB		96
56)	1,4-Dioxane	6.53	88	47493m	379.17	PPB		
57)	Bromodichloromethane	6.68	83	166426	7.44	PPB		96
58)	2-Nitropropane	7.06	41	81202	25.66	PPB		97
59)	Methyl Cyclohexane	6.11	83	249206	9.14	PPB		94
60)	2-Chloroethyl Vinyl Ether	7.09	63	84569	7.66	PPB		96
61)	cis-1,3-Dichloropropene	7.21	75	249571	7.91	PPB		96
62)	4-Methyl-2-pentanone (MIBK	7.41	58	855611	167.07	PPB		92
64)	Toluene	7.51	92	457955	9.20	PPB		99
66)	n-Octane	7.59	85	64778	12.02	PPB		96
67)	trans-1,3-Dichloropropene	7.88	75	193524	8.15	PPB		95
68)	Ethyl methacrylate	7.94	69	169545	8.65	PPB		93
69)	1,1,2-Trichloroethane	8.07	83	116455	9.48	PPB		95
70)	Tetrachloroethene	8.06	164	122653	12.40	PPB		93
71)	2-Hexanone	8.34	57	276618	186.69	PPB	#	89
72)	1,3-Dichloropropane	8.25	76	251558	9.83	PPB		99
73)	Dibromochloromethane	8.44	129	116568	8.92	PPB		96

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

Data File : J:\MS18\DATA\041316\0413F018.D Vial: 16
Acq On : 13 Apr 2016 21:23 Operator: YX
Sample : 8260 ICAL 10 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 13 21:42:36 2016 Quant Results File: 041316MS18_8260

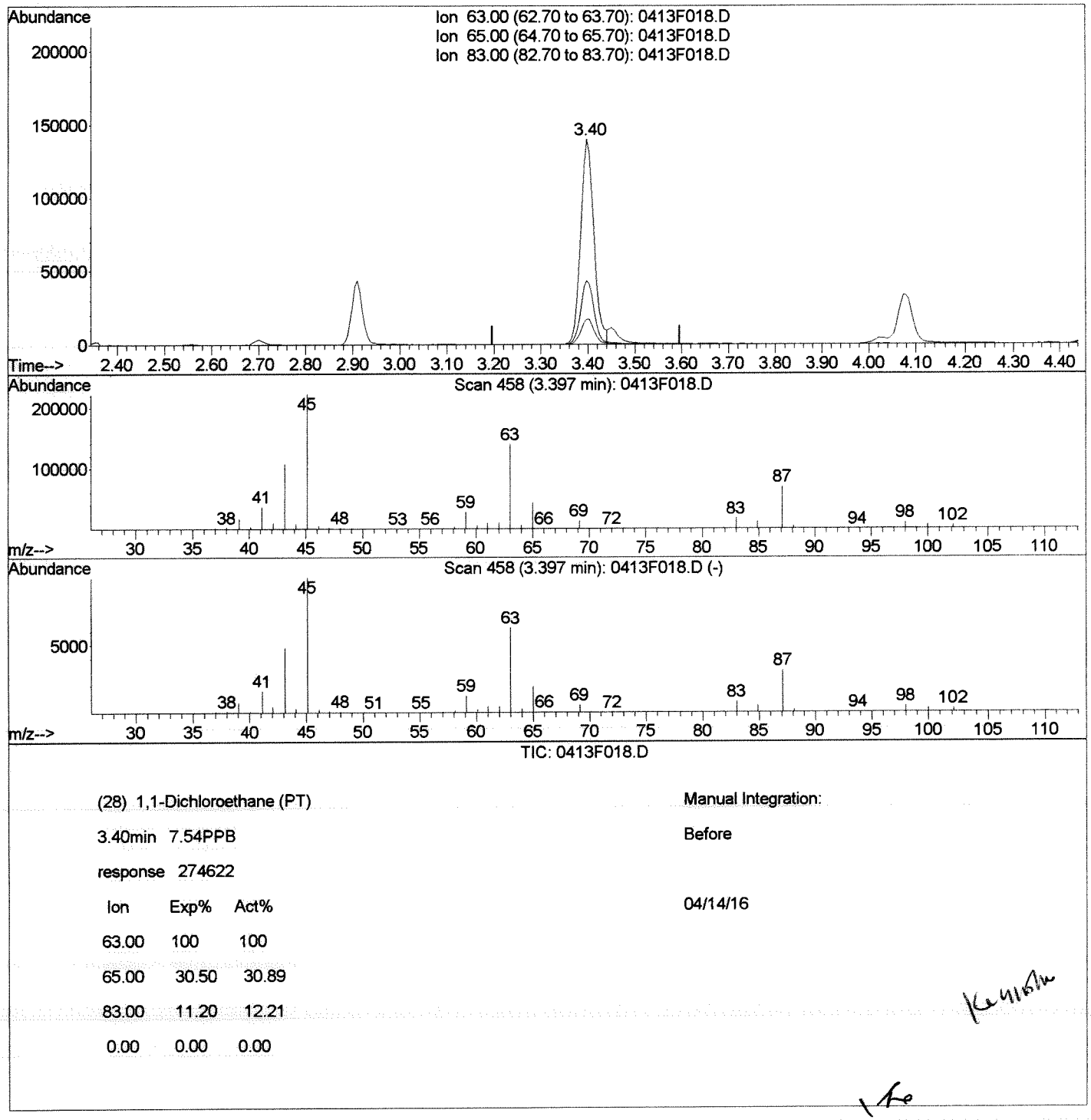
Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Apr 04 14:08:23 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	1,2-Dibromoethane (EDB)	8.55	107	129018	10.58	PPB		99
75)	1-Chlorohexane	9.04	91	208682	9.77	PPB		91
76)	Chlorobenzene	9.05	112	497907	11.13	PPB		94
77)	Ethylbenzene	9.15	106	264760	10.73	PPB		95
78)	1,1,1,2-Tetrachloroethane	9.16	131	136835	9.94	PPB		98
79)	m,p-Xylenes	9.28	106	658058	21.51	PPB		97
80)	o-Xylene	9.69	106	323820	10.85	PPB		92
81)	Styrene	9.73	103	256900m	10.60	PPB		
82)	Bromoform	9.93	173	51668	8.12	PPB		98
83)	Isopropylbenzene	10.07	105	792556	10.75	PPB		98
84)	cis-1,4-Dichloro-2-butene	10.24	89	73220	33.95	PPB		94
87)	1,1,2,2-Tetrachloroethane	10.48	83	153246	8.12	PPB		100
88)	trans-1,4-Dichloro-2-buten	10.55	53	39681	7.32	PPB		94
89)	Bromobenzene	10.40	156	198613	9.70	PPB	#	84
90)	n-Propylbenzene	10.49	91	919560	8.75	PPB		97
91)	1,2,3-Trichloropropane	10.52	110	46607	9.12	PPB	#	80
92)	2-Chlorotoluene	10.59	91	577216	8.57	PPB		96
93)	1,3,5-Trimethylbenzene	10.69	105	653755	9.02	PPB		98
94)	4-Chlorotoluene	10.72	91	667801	8.44	PPB		95
95)	tert-Butylbenzene	11.00	119	549197	9.36	PPB		96
96)	1,2,4-Trimethylbenzene	11.07	105	664404	8.84	PPB		96
97)	sec-Butylbenzene	11.23	105	782392	9.09	PPB		97
98)	p-Isopropyltoluene	11.38	119	642826	9.39	PPB		98
99)	1,3-Dichlorobenzene	11.36	146	378420	9.75	PPB		99
100)	1,4-Dichlorobenzene	11.46	146	388930	9.57	PPB		97
101)	n-Butylbenzene	11.80	91	547253	8.47	PPB		97
102)	1,2-Dichlorobenzene	11.84	146	363134	9.90	PPB		98
103)	1,2-Dibromo-3-chloropropan	12.54	155	12989	6.72	PPB		96
104)	1,3,5-Trichlorobenzene	12.63	180	224178	9.83	PPB		98
105)	1,2,4-Trichlorobenzene	13.07	180	197751	9.99	PPB		99
106)	Hexachlorobutadiene	13.15	225	70121	9.71	PPB		98
107)	Naphthalene	13.25	128	415885	9.45	PPB		99
108)	1,2,3-Trichlorobenzene	13.44	180	158950	10.00	PPB		99

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

Data File : J:\MS18\DATA\041316\0413F018.D Vial: 16
Acq On : 13 Apr 2016 21:23 Operator: YX
Sample : 8260 ICAL 10 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 13 21:42 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Multiple Level Calibration



TIC: 0413F018.D

(28) 1,1-Dichloroethane (PT)

3.40min 7.54PPB

response 274622

Ion	Exp%	Act%
63.00	100	100
65.00	30.50	30.89
83.00	11.20	12.21
0.00	0.00	0.00

Manual Integration:

Before

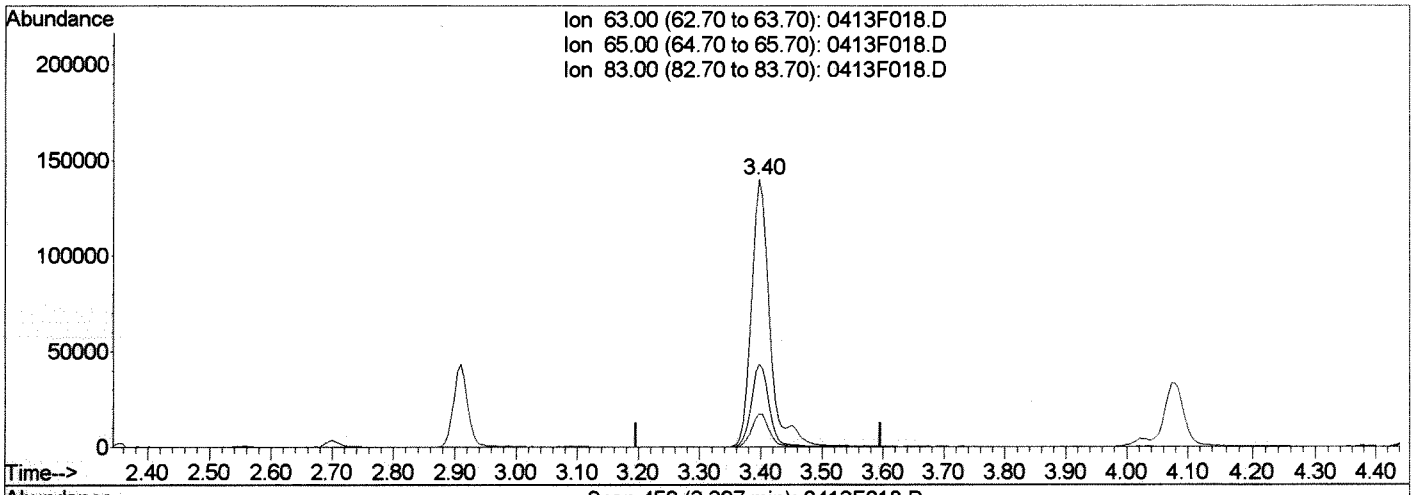
04/14/16

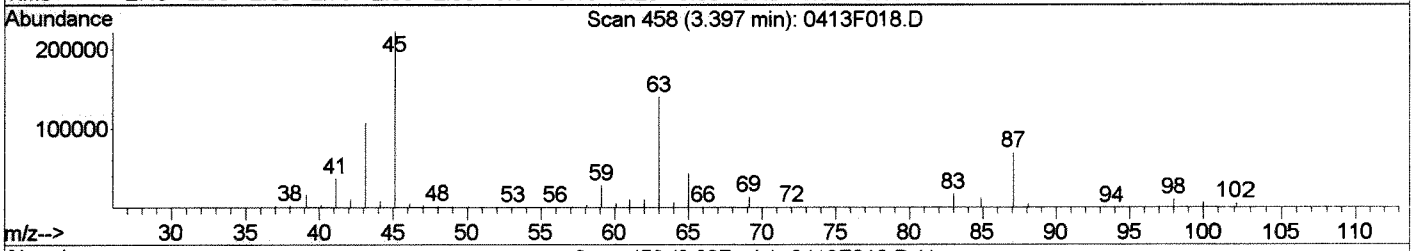
0413F018.D 041316MS18_8260.M Thu Apr 14 11:24:38 2016

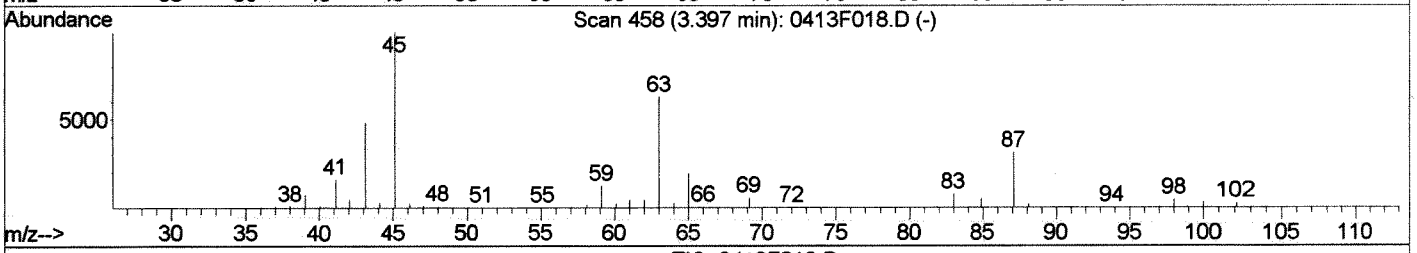
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F018.D Vial: 16
Acq On : 13 Apr 2016 21:23 Operator: YX
Sample : 8260 ICAL 10 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:24 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Multiple Level Calibration







TIC: 0413F018.D

(28) 1,1-Dichloroethane (PT)

3.40min 8.08PPB m

response 294166

Ion	Exp%	Act%
63.00	100	100
65.00	30.50	30.89
83.00	11.20	12.21
0.00	0.00	0.00

Manual Integration:

After

Shoulder

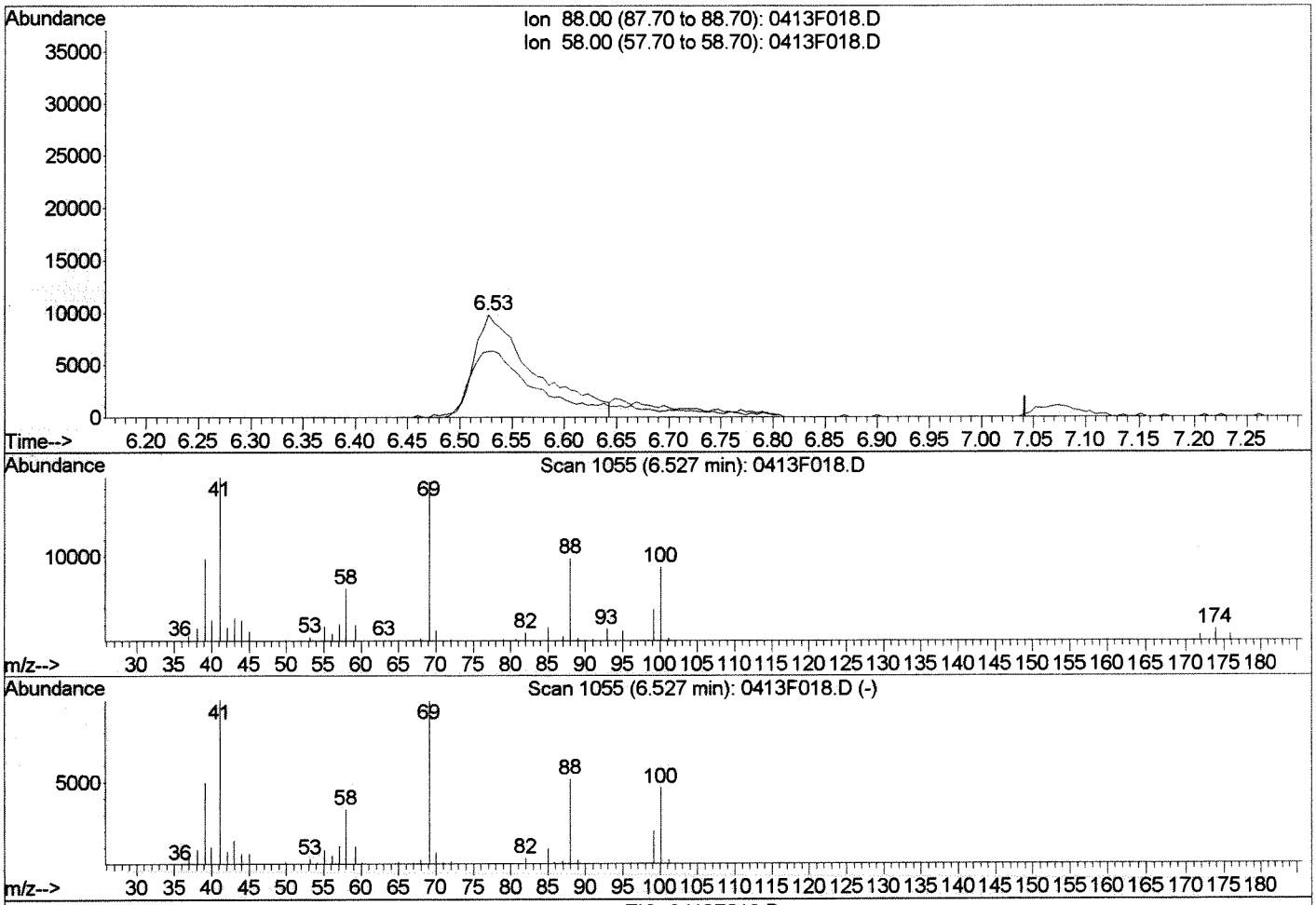
04/14/16

0413F018.D 041316MS18_8260.M Thu Apr 14 11:24:42 2016

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F018.D Vial: 16
Acq On : 13 Apr 2016 21:23 Operator: YX
Sample : 8260 ICAL 10 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:24 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration



TIC: 0413F018.D

(56) 1,4-Dioxane (T)

6.53min 316.54PPB

response 39648

Ion	Exp%	Act%
88.00	100	100
58.00	75.50	64.17
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

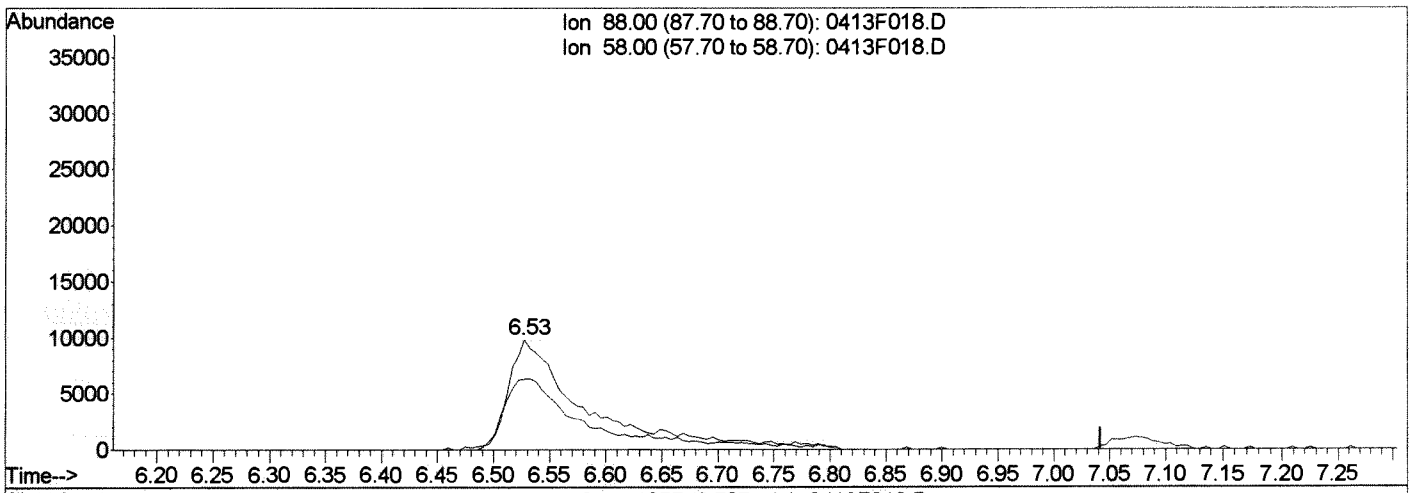
04/14/16

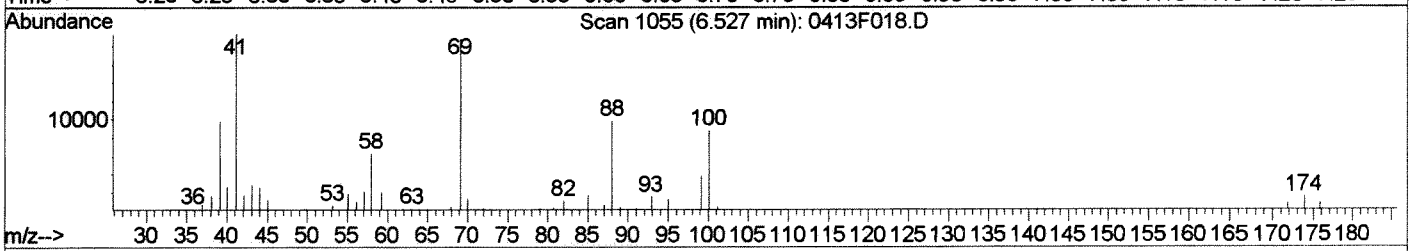
0413F018.D 041316MS18_8260.M Thu Apr 14 11:24:52 2016

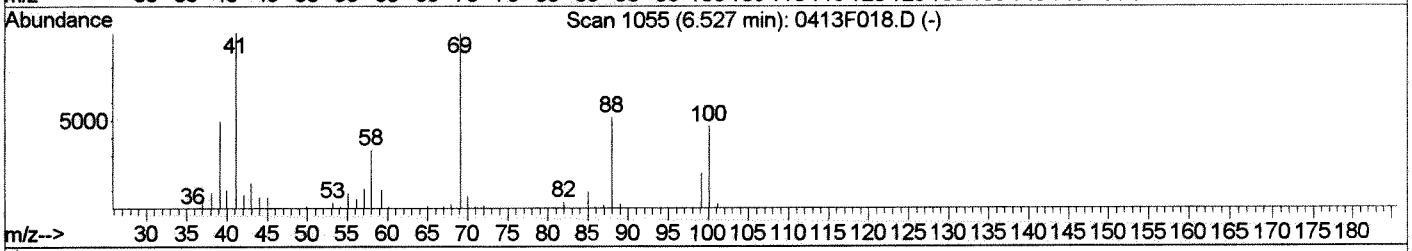
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F018.D Vial: 16
Acq On : 13 Apr 2016 21:23 Operator: YX
Sample : 8260 ICAL 10 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:24 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F018.D

(56) 1,4-Dioxane (T)
6.53min 379.17PPB m
response 47493

Ion	Exp%	Act%
88.00	100	100
58.00	75.50	64.17
0.00	0.00	0.00
0.00	0.00	0.00

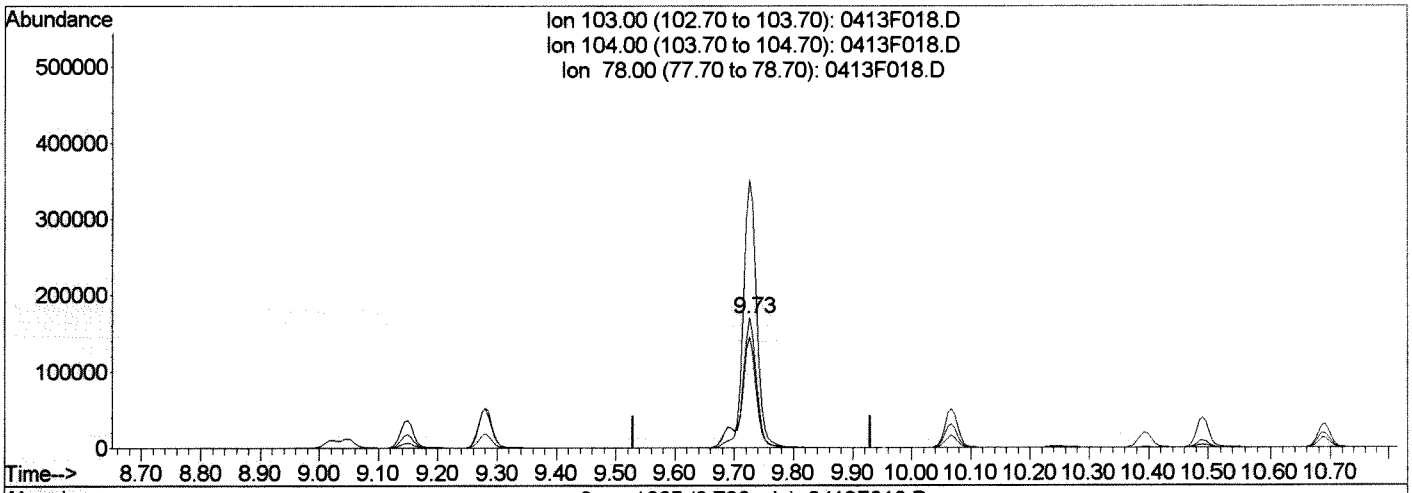
Manual Integration:
After
Peak tailing
04/14/16

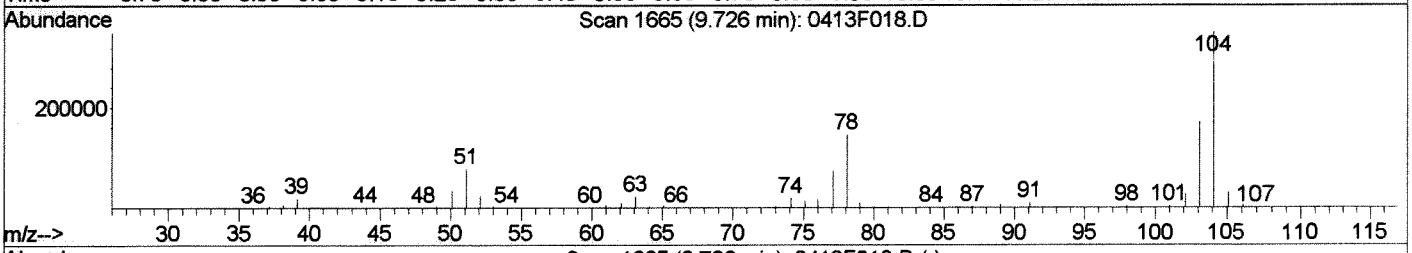
0413F018.D 041316MS18_8260.M Thu Apr 14 11:24:56 2016

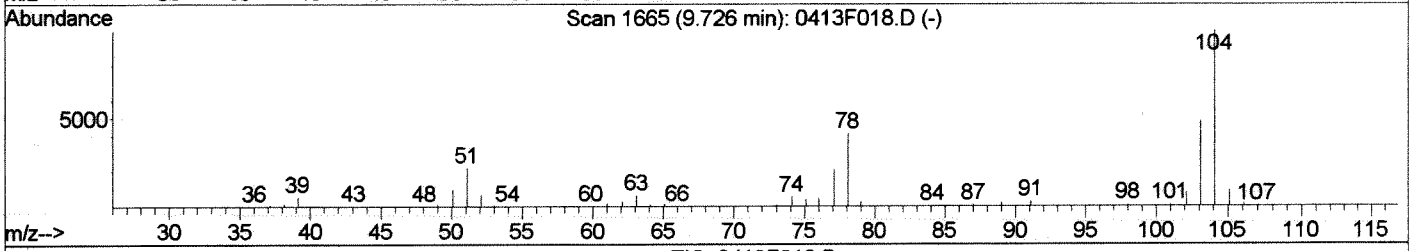
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F018.D Vial: 16
Acq On : 13 Apr 2016 21:23 Operator: YX
Sample : 8260 ICAL 10 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:24 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F018.D

(81) Styrene (T)

9.73min 12.07PPB

response 292519

Ion	Exp%	Act%
103.00	100	100
104.00	211.00	206.77
78.00	92.00	85.28
0.00	0.00	0.00

Manual Integration:

Before

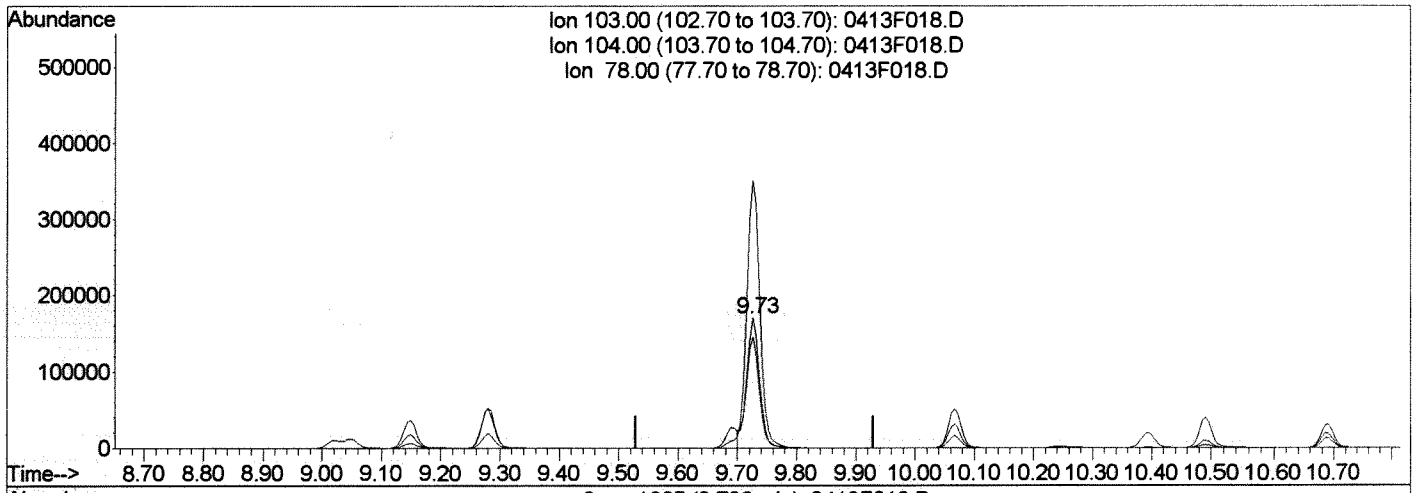
04/14/16

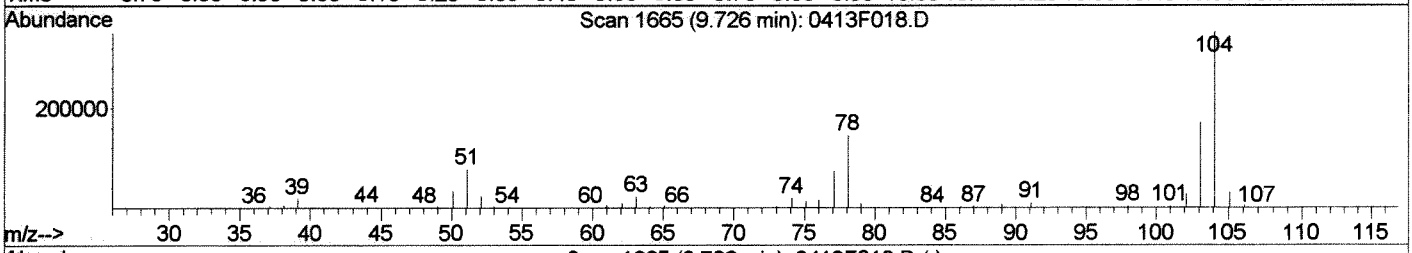
0413F018.D 041316MS18_8260.M Thu Apr 14 11:25:01 2016

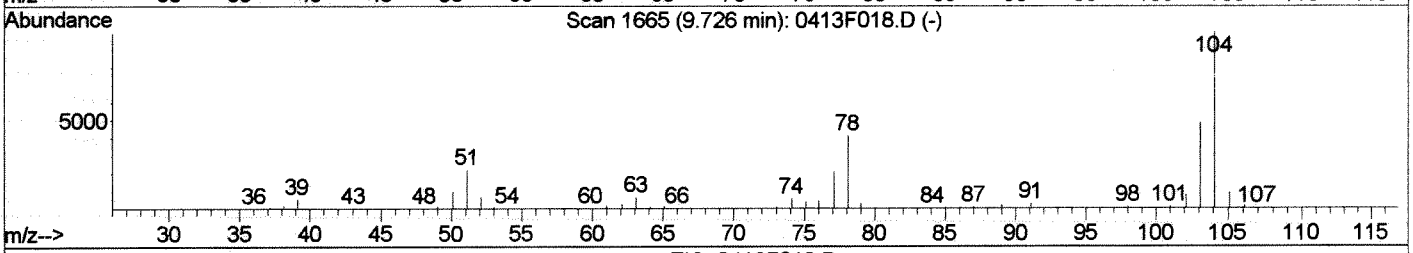
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F018.D Vial: 16
Acq On : 13 Apr 2016 21:23 Operator: YX
Sample : 8260 ICAL 10 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:24 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F018.D

(81) Styrene (T)
9.73min 10.60PPB m
response 256900

Ion	Exp%	Act%
103.00	100	100
104.00	211.00	206.77
78.00	92.00	85.28
0.00	0.00	0.00

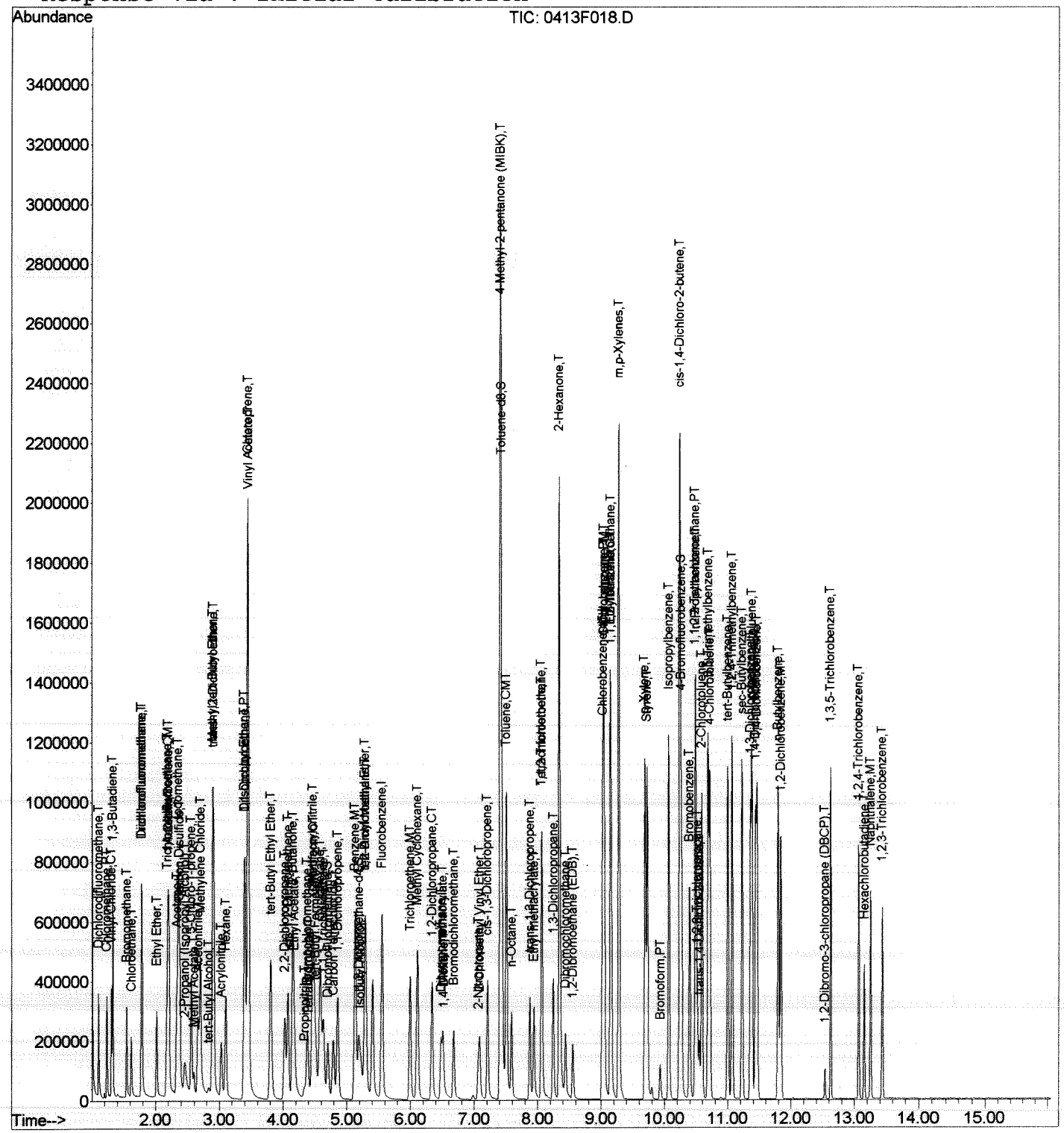
Manual Integration:
After
Shoulder
04/14/16

0413F018.D 041316MS18_8260.M Thu Apr 14 11:25:07 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F018.D Vial: 16
Acq On : 13 Apr 2016 21:23 Operator: YX
Sample : 8260 ICAL 10 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:24 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F019.D Vial: 17
Acq On : 13 Apr 2016 21:44 Operator: YX
Sample : 8260 ICAL 20 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:13:20 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:13:16 2016
Response via : Initial Calibration
DataAcq Meth : 8260

VTC 4/14/16

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.55	96	677130	10.00	PPB	0.00
65) Chlorobenzene-d5	9.02	82	266966	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	244274	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	4.70	113	167333	12.01	PPB	0.00
Spiked Amount 10.000			Recovery =	120.10%		
48) 1,2-Dichloroethane-d4	5.19	65	185816	10.57	PPB	0.00
Spiked Amount 10.000			Recovery =	105.70%		
63) Toluene-d8	7.43	98	753433	12.10	PPB	0.00
Spiked Amount 10.000			Recovery =	121.00%		
85) 4-Bromofluorobenzene	10.27	95	285386	12.63	PPB	0.00
Spiked Amount 10.000			Recovery =	126.30%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	371605	22.53	PPB	99
3) Chloromethane	1.23	50	409031	17.54	PPB	98
4) Vinyl Chloride	1.31	62	429577	19.64	PPB	99
5) 1,3-Butadiene	1.33	54	332824	16.98	PPB	99
6) Bromomethane	1.55	96	218694	21.67	PPB	99
7) Chloroethane	1.62	64	255163	21.20	PPB	98
8) Dichlorofluoromethane	1.78	67	578216	19.26	PPB	98
9) Trichlorofluoromethane	1.78	101	460292	21.78	PPB	100
10) Ethyl Ether	2.02	59	256141	17.26	PPB	98
11) Acrolein	2.19	56	678479	368.03	PPB	97
12) Trichlorotrifluoroethane	2.18	151	221606	23.73	PPB	93
13) 1,1-Dichloroethene	2.21	96	283412	20.77	PPB	99
14) Acetone	2.33	43	849543	312.02	PPB	99
15) Iodomethane	2.35	142	1404942	84.45	PPB	99
16) Carbon Disulfide	2.38	76	935747	17.12	PPB	100
17) 2-Propanol (Isopropyl Alco	2.45	45	468640	771.37	PPB	96
18) 3-Chloro-1-propene	2.55	76	189963	17.65	PPB	97
19) Methyl Acetate	2.60	43	169455	15.26	PPB	99
20) Acetonitrile	2.66	40	472031	628.35	PPB	97
21) Methylene Chloride	2.70	84	350756	17.73	PPB	99
22) tert-Butyl Alcohol	2.83	59	64927	80.51	PPB	97
23) Acrylonitrile	3.03	53	295850	56.76	PPB	96
24) Methyl tert-Butyl Ether	2.89	73	1704643	34.72	PPB	99
25) trans-1,2-Dichloroethene	2.91	96	340379	18.49	PPB	98
26) Hexane	3.10	57	345652	18.34	PPB	98
27) Diisopropyl Ether	3.39	45	1071960	15.63	PPB	99
28) 1,1-Dichloroethane	3.40	63	605432	17.00	PPB	99

(#) = qualifier out of range (m) = manual integration
0413F019.D 041316MS18_8260.M Thu Apr 14 11:44:14 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F019.D Vial: 17
Acq On : 13 Apr 2016 21:44 Operator: YX
Sample : 8260 ICAL 20 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:13:20 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:13:16 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
29)	Vinyl Acetate	3.46	86	127023	34.84	PPB	99
30)	Chloroprene	3.45	53	2306510	71.80	PPB	99
31)	tert-Butyl Ethyl Ether	3.80	59	974016	16.28	PPB	99
32)	2,2-Dichloropropane	4.03	77	431164	17.55	PPB	96
33)	cis-1,2-Dichloroethene	4.08	96	383276	19.06	PPB	96
34)	2-Butanone	4.15	72	503761	362.40	PPB	91
35)	Propionitrile	4.34	54	107972	62.25	PPB	99
36)	Ethyl Acetate	4.18	61	68332	33.40	PPB	94
37)	Methacrylonitrile	4.46	67	414602	68.25	PPB	98
38)	Bromochloromethane	4.38	128	142852	18.93	PPB	95
39)	Tetrahydrofuran	4.40	71	22821	17.28	PPB	90
40)	Chloroform	4.48	83	549647	17.87	PPB	100
41)	tert-Butyl Formate	4.51	59	145353	10.20	PPB	98
42)	1,1,1-Trichloroethane	4.63	97	447652	18.71	PPB	99
44)	Carbon Tetrachloride	4.79	117	343666	18.24	PPB	98
45)	1,1-Dichloropropene	4.86	75	456999	18.63	PPB	99
46)	Cyclohexane	4.58	56	557272	17.56	PPB	95
47)	Isobutyl Alcohol	5.22	43	214625	626.44	PPB	97
49)	Benzene	5.13	78	1458251	18.03	PPB	99
50)	1,2-Dichloroethane	5.29	62	388220	17.32	PPB	99
51)	tert-Amyl Methyl Ether	5.29	55	235169	18.30	PPB	93
52)	Trichloroethene	5.99	95	329812	19.00	PPB	97
53)	1,2-Dichloropropane	6.34	63	354256	17.01	PPB	98
54)	Dibromomethane	6.48	93	171390	18.57	PPB	96
55)	Methyl methacrylate	6.51	69	186661	16.37	PPB	97
56)	1,4-Dioxane	6.53	88	92895m	762.27	PPB	
57)	Bromodichloromethane	6.68	83	362490	16.61	PPB	97
58)	2-Nitropropane	7.06	41	189262	63.46	PPB	96
59)	Methyl Cyclohexane	6.11	83	531421	19.69	PPB	100
60)	2-Chloroethyl Vinyl Ether	7.09	63	179532	16.63	PPB	98
61)	cis-1,3-Dichloropropene	7.21	75	542286	17.57	PPB	98
62)	4-Methyl-2-pentanone (MIBK	7.41	58	1747208	345.69	PPB	99
64)	Toluene	7.51	92	951892	19.21	PPB	99
66)	n-Octane	7.59	85	131555	23.61	PPB	98
67)	trans-1,3-Dichloropropene	7.88	75	423422	18.07	PPB	99
68)	Ethyl methacrylate	7.94	69	364166	18.69	PPB	98
69)	1,1,2-Trichloroethane	8.07	83	237811	19.19	PPB	98
70)	Tetrachloroethene	8.06	164	256761	25.26	PPB	96
71)	2-Hexanone	8.34	57	571164	385.35	PPB	94
72)	1,3-Dichloropropane	8.25	76	516254	20.05	PPB	99
73)	Dibromochloromethane	8.44	129	260606	20.01	PPB	97

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

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F019.D Vial: 17
Acq On : 13 Apr 2016 21:44 Operator: YX
Sample : 8260 ICAL 20 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:13:20 2016 Quant Results File: 041316MS18_8260

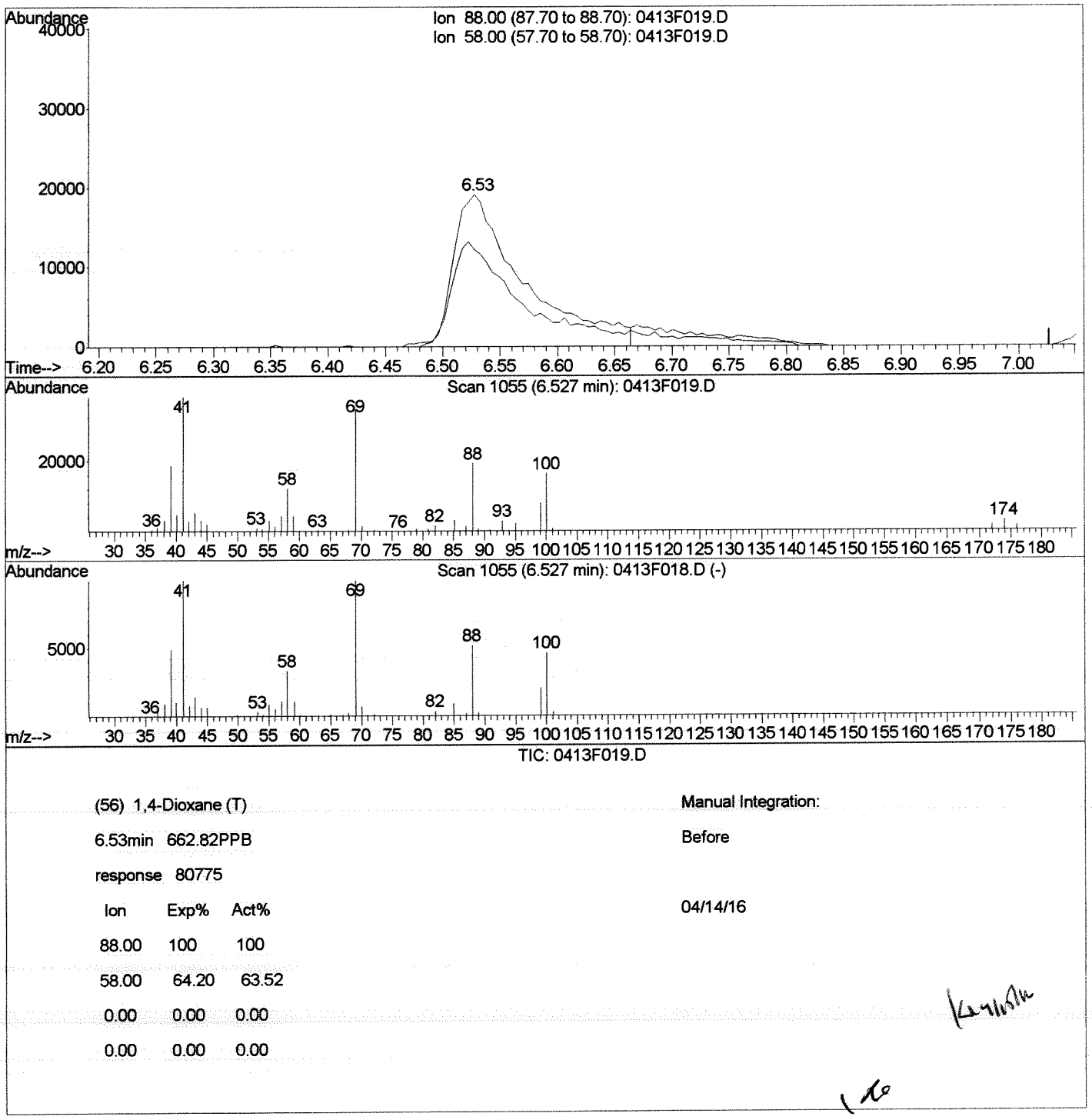
Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:13:16 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1,2-Dibromoethane (EDB)	8.55	107	266793	21.58	PPB	98
75)	1-Chlorohexane	9.04	91	452722	21.17	PPB	99
76)	Chlorobenzene	9.05	112	1016366	22.31	PPB	99
77)	Ethylbenzene	9.15	106	554900	22.18	PPB	97
78)	1,1,1,2-Tetrachloroethane	9.16	131	296431	21.38	PPB	99
79)	m,p-Xylenes	9.28	106	1372179	44.28	PPB	98
80)	o-Xylene	9.69	106	670953	22.16	PPB	99
81)	Styrene	9.73	103	541837m	21.71	PPB	
82)	Bromoform	9.93	173	124013	19.74	PPB	98
83)	Isopropylbenzene	10.07	105	1663663	22.27	PPB	100
84)	cis-1,4-Dichloro-2-butene	10.24	89	169029	79.17	PPB	96
87)	1,1,2,2-Tetrachloroethane	10.48	83	315246	16.77	PPB	100
88)	trans-1,4-Dichloro-2-buten	10.55	53	81796	15.39	PPB	94
89)	Bromobenzene	10.40	156	409330	19.77	PPB	100
90)	n-Propylbenzene	10.49	91	1915898	18.25	PPB	100
91)	1,2,3-Trichloropropane	10.52	110	95593	18.58	PPB	98
92)	2-Chlorotoluene	10.59	91	1190990	17.71	PPB	99
93)	1,3,5-Trimethylbenzene	10.69	105	1366634	18.84	PPB	99
94)	4-Chlorotoluene	10.72	91	1364071	17.24	PPB	100
95)	tert-Butylbenzene	11.00	119	1152100	19.55	PPB	100
96)	1,2,4-Trimethylbenzene	11.07	105	1391738	18.49	PPB	99
97)	sec-Butylbenzene	11.23	105	1638523	18.99	PPB	99
98)	p-Isopropyltoluene	11.38	119	1366861	19.89	PPB	99
99)	1,3-Dichlorobenzene	11.36	146	777237	19.79	PPB	98
100)	1,4-Dichlorobenzene	11.46	146	801958	19.49	PPB	98
101)	n-Butylbenzene	11.80	91	1160321	17.99	PPB	99
102)	1,2-Dichlorobenzene	11.84	146	736212	19.81	PPB	99
103)	1,2-Dibromo-3-chloropropan	12.54	155	30102	15.90	PPB	98
104)	1,3,5-Trichlorobenzene	12.63	180	470937	20.38	PPB	99
105)	1,2,4-Trichlorobenzene	13.07	180	406531	20.19	PPB	99
106)	Hexachlorobutadiene	13.15	225	151451	20.74	PPB	96
107)	Naphthalene	13.25	128	870791	19.61	PPB	99
108)	1,2,3-Trichlorobenzene	13.44	180	329099	20.38	PPB	100

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

Data File : J:\MS18\DATA\041316\0413F019.D Vial: 17
Acq On : 13 Apr 2016 21:44 Operator: YX
Sample : 8260 ICAL 20 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 9:13 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration



TIC: 0413F019.D

(56) 1,4-Dioxane (T)

6.53min 662.82PPB

response 80775

Ion	Exp%	Act%
88.00	100	100
58.00	64.20	63.52
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

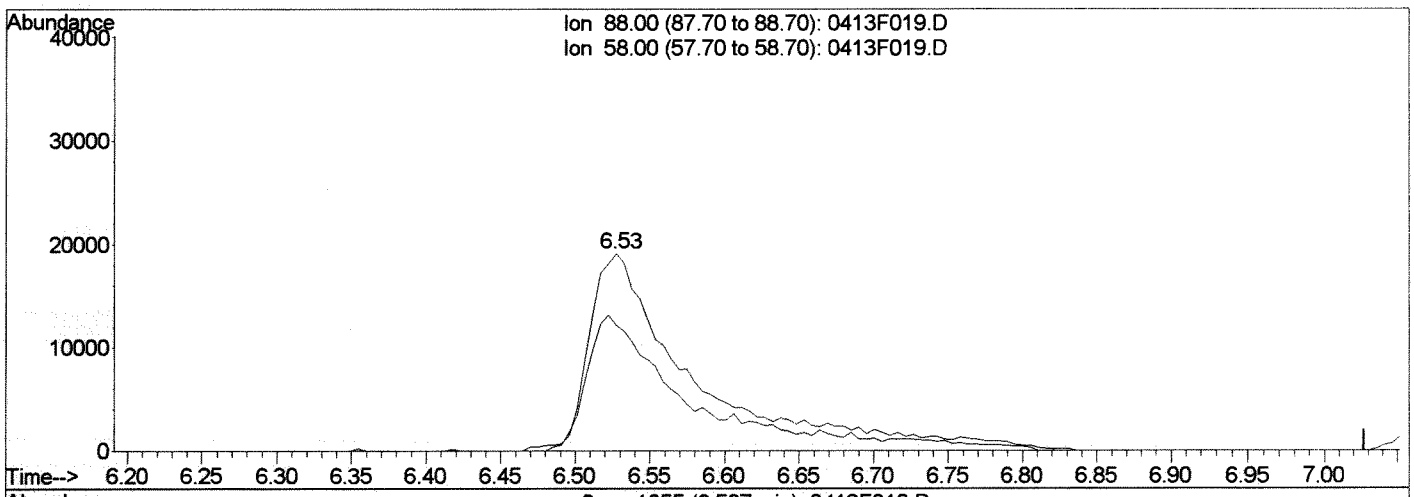
04/14/16

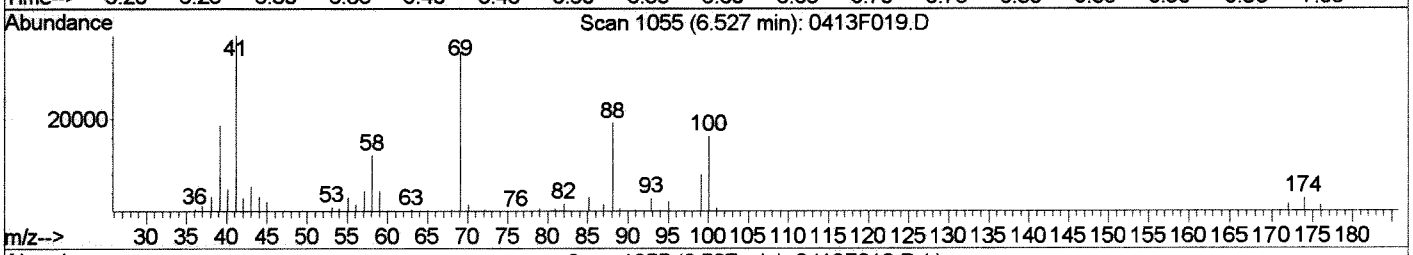
0413F019.D 041316MS18_8260.M Thu Apr 14 11:25:18 2016

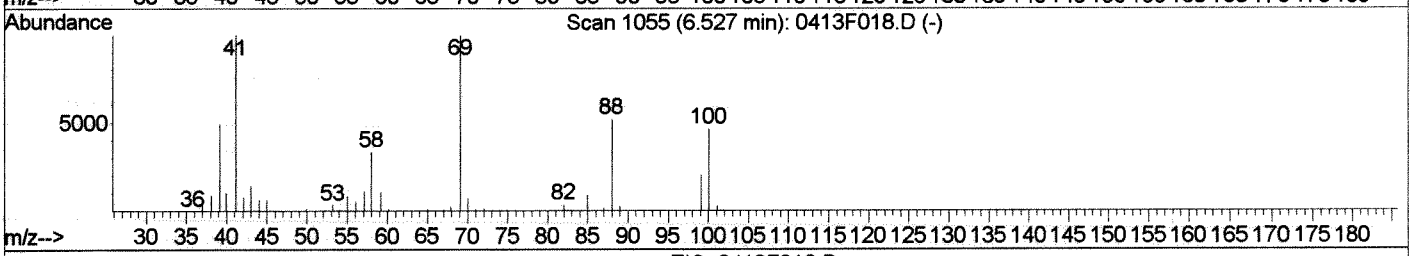
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F019.D Vial: 17
Acq On : 13 Apr 2016 21:44 Operator: YX
Sample : 8260 ICAL 20 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:25 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F019.D

(56) 1,4-Dioxane (T)
6.53min 762.27PPB m
response 92895

Ion	Exp%	Act%
88.00	100	100
58.00	64.20	63.52
0.00	0.00	0.00
0.00	0.00	0.00

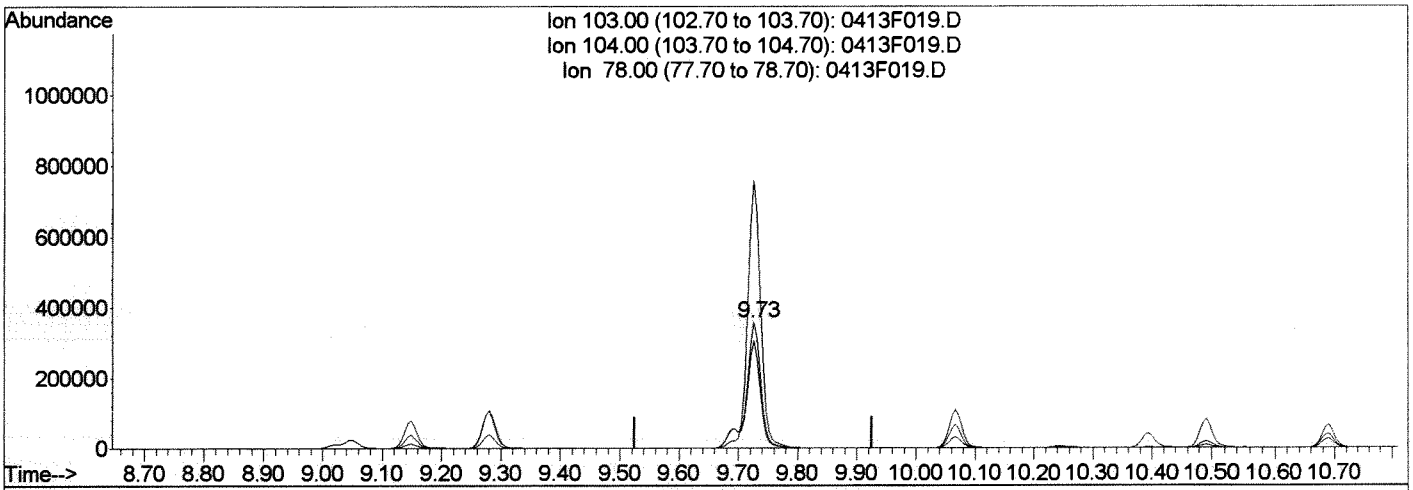
Manual Integration:
After
Peak tailing
04/14/16

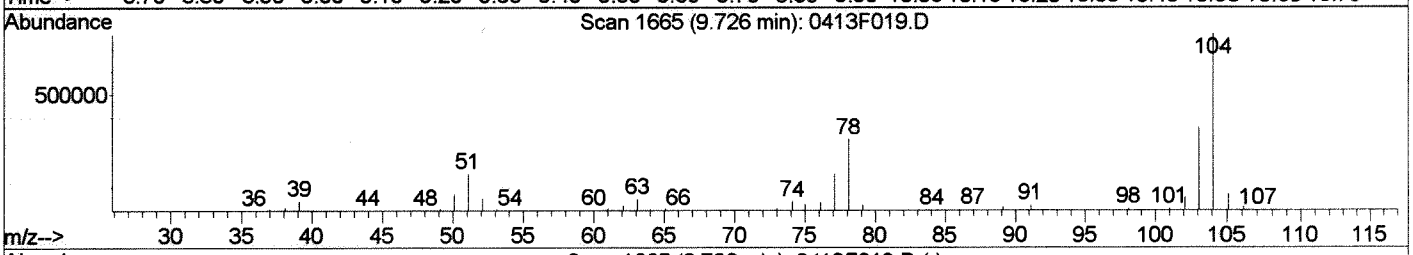
0413F019.D 041316MS18_8260.M Thu Apr 14 11:25:23 2016

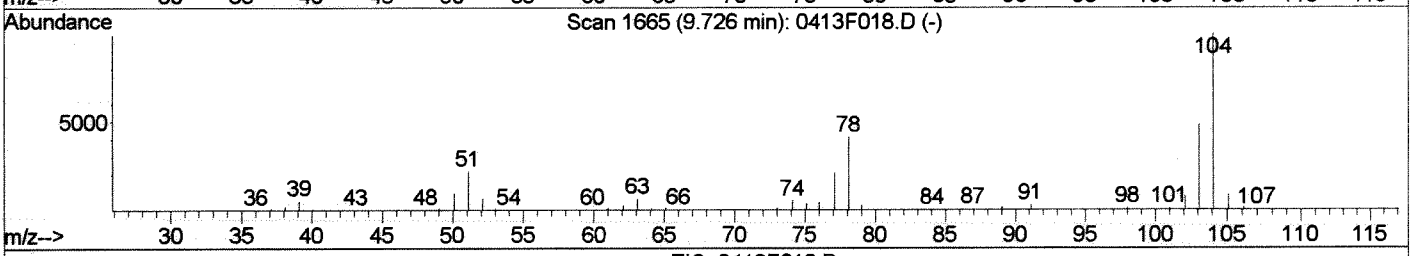
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F019.D Vial: 17
Acq On : 13 Apr 2016 21:44 Operator: YX
Sample : 8260 ICAL 20 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:25 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F019.D

(81) Styrene (T)
9.73min 24.57PPB
response 613267

Ion	Exp%	Act%
103.00	100	100
104.00	206.80	211.87
78.00	85.30	85.29
0.00	0.00	0.00

Manual Integration:
Before

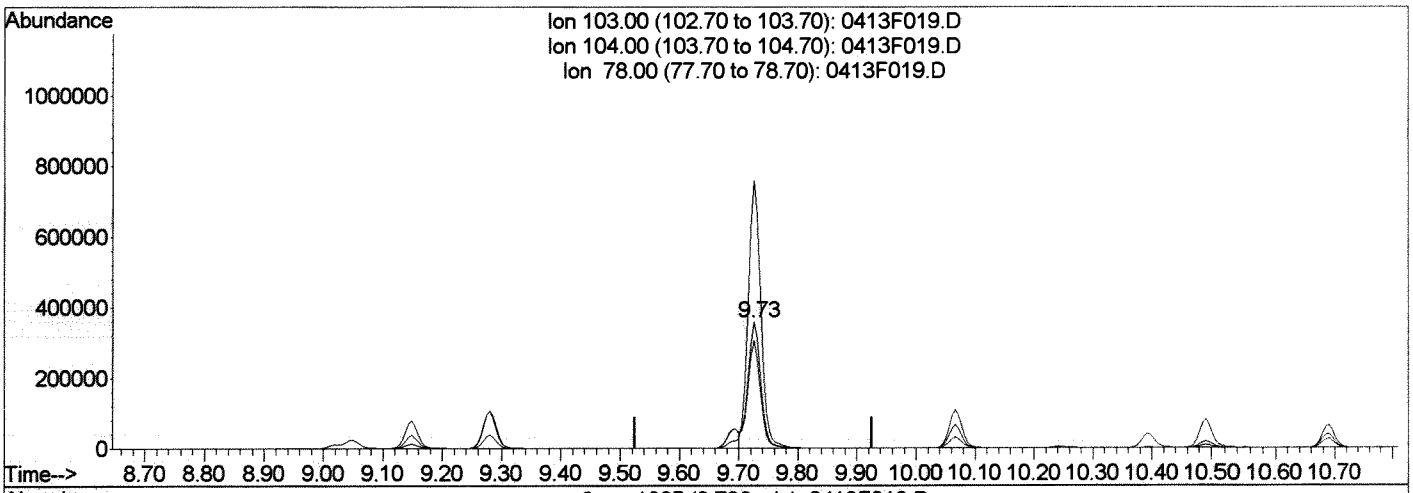
04/14/16

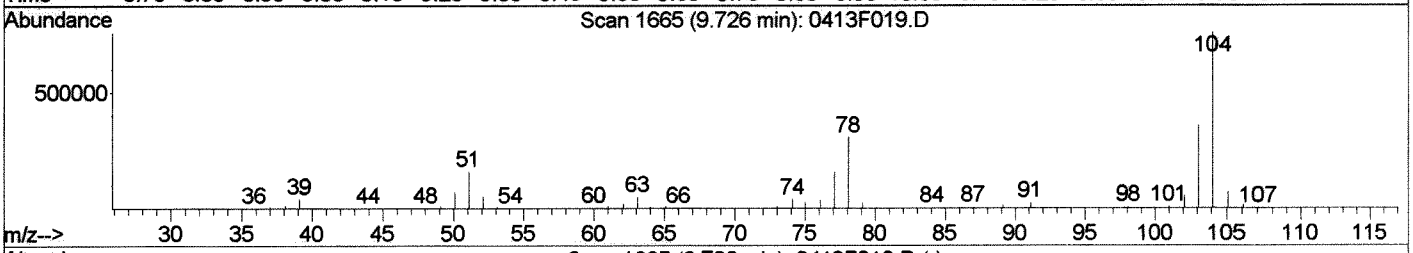
0413F019.D 041316MS18_8260.M Thu Apr 14 11:25:28 2016

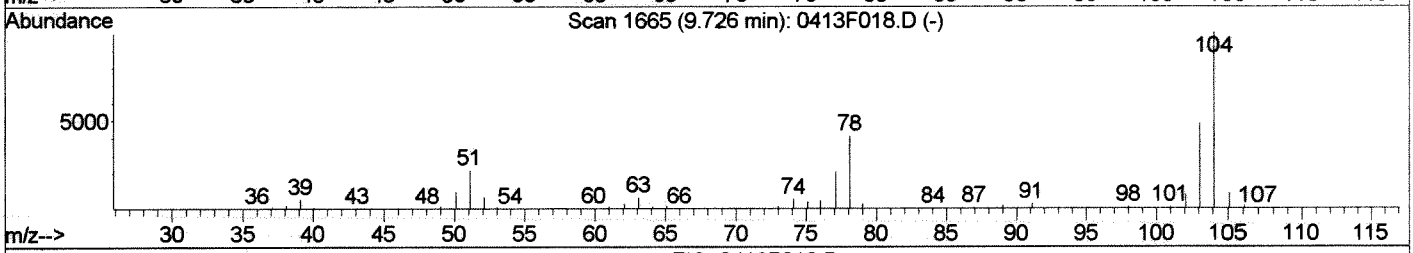
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F019.D Vial: 17
Acq On : 13 Apr 2016 21:44 Operator: YX
Sample : 8260 ICAL 20 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:25 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F019.D

(81) Styrene (T)
9.73min 21.71PPB m
response 541837

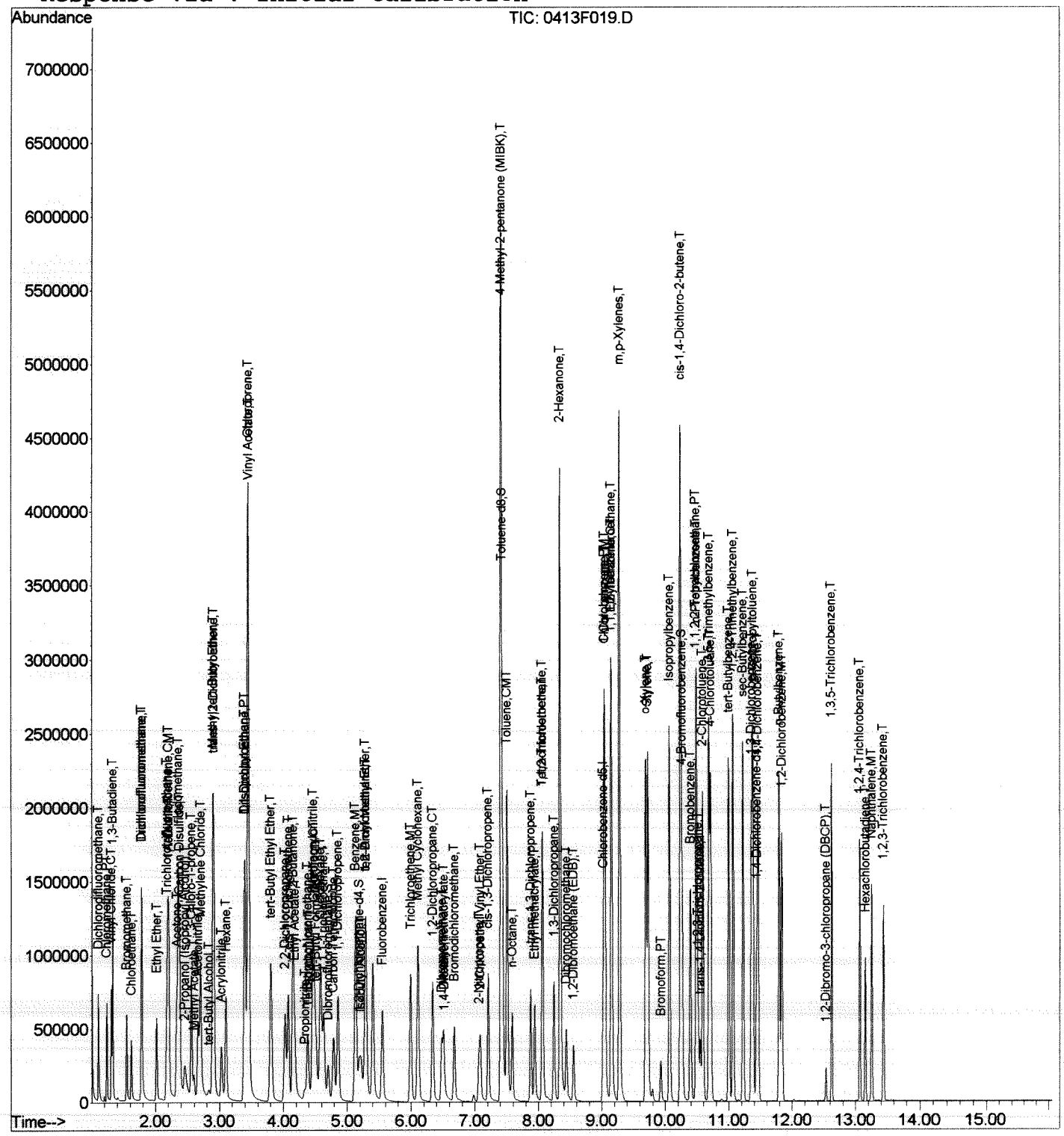
Ion	Exp%	Act%
103.00	100	100
104.00	206.80	211.87
78.00	85.30	85.29
0.00	0.00	0.00

Manual Integration:
After
Shoulder
04/14/16

0413F019.D 041316MS18_8260.M Thu Apr 14 11:25:34 2016

Data File : J:\MS18\DATA\041316\0413F019.D Vial: 17
Acq On : 13 Apr 2016 21:44 Operator: YX
Sample : 8260 ICAL 20 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:25 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F020.D Vial: 18
Acq On : 13 Apr 2016 22:06 Operator: YX
Sample : 8260 ICAL 40 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:13:49 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:13:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.55	96	681096	10.00	PPB	0.00
65) Chlorobenzene-d5	9.02	82	268713	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	246853	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	4.70	113	199532	14.33	PPB	0.00
Spiked Amount 10.000			Recovery =	143.30%		
48) 1,2-Dichloroethane-d4	5.19	65	218654	12.65	PPB	0.00
Spiked Amount 10.000			Recovery =	126.50%		
63) Toluene-d8	7.43	98	875038	14.08	PPB	0.00
Spiked Amount 10.000			Recovery =	140.80%		
85) 4-Bromofluorobenzene	10.27	95	335635	14.74	PPB	0.00
Spiked Amount 10.000			Recovery =	147.40%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	769692	46.07	PPB	99
3) Chloromethane	1.23	50	852780	36.72	PPB	98
4) Vinyl Chloride	1.31	62	889938	40.78	PPB	98
5) 1,3-Butadiene	1.33	54	684617	35.59	PPB	99
6) Bromomethane	1.55	96	469733	46.03	PPB	100
7) Chloroethane	1.62	64	504747	41.63	PPB	99
8) Dichlorofluoromethane	1.78	67	1152531	38.65	PPB	99
9) Trichlorofluoromethane	1.78	101	944880	44.39	PPB	100
10) Ethyl Ether	2.02	59	515521	35.23	PPB	99
11) Acrolein	2.19	56	1391012	758.91	PPB	97
12) Trichlorotrifluoroethane	2.18	151	464979	48.72	PPB	94
13) 1,1-Dichloroethene	2.21	96	581357	42.40	PPB	100
14) Acetone	2.33	43	1597607	599.43	PPB	97
15) Iodomethane	2.35	142	2878319	173.45	PPB	98
16) Carbon Disulfide	2.38	76	1991979	37.10	PPB	99
17) 2-Propanol (Isopropyl Alco	2.47	45	933113	1600.82	PPB	98
18) 3-Chloro-1-propene	2.55	76	407287	38.71	PPB	95
19) Methyl Acetate	2.60	43	390006	36.51	PPB	98
20) Acetonitrile	2.66	40	948511	1308.94	PPB	98
21) Methylene Chloride	2.70	84	722197	36.94	PPB	98
22) tert-Butyl Alcohol	2.84	59	126221	160.73	PPB	98
23) Acrylonitrile	3.03	53	672823	133.73	PPB	99
24) Methyl tert-Butyl Ether	2.89	73	3495110	72.16	PPB	99
25) trans-1,2-Dichloroethene	2.91	96	712086	38.80	PPB	99
26) Hexane	3.10	57	726284	39.03	PPB	98
27) Diisopropyl Ether	3.39	45	2216439	33.04	PPB	99
28) 1,1-Dichloroethane	3.40	63	1266191	36.13	PPB	98

(#) = qualifier out of range (m) = manual integration
0413F020.D 041316MS18_8260.M Thu Apr 14 11:44:17 2016 Page 1

Data File : J:\MS18\DATA\041316\0413F020.D Vial: 18
Acq On : 13 Apr 2016 22:06 Operator: YX
Sample : 8260 ICAL 40 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:13:49 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:13:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.46	86	275083	76.69	PPB		93
30)	Chloroprene	3.45	53	4757860	150.49	PPB		97
31)	tert-Butyl Ethyl Ether	3.81	59	2016674	34.39	PPB		98
32)	2,2-Dichloropropane	4.03	77	914864	37.98	PPB		95
33)	cis-1,2-Dichloroethene	4.08	96	796947	39.84	PPB		97
34)	2-Butanone	4.15	72	1013668	735.77	PPB		94
35)	Propionitrile	4.34	54	222455	132.72	PPB		97
36)	Ethyl Acetate	4.18	61	145293	72.83	PPB		95
37)	Methacrylonitrile	4.46	67	843910	141.57	PPB		98
38)	Bromochloromethane	4.38	128	289645	38.64	PPB		96
39)	Tetrahydrofuran	4.40	71	46483	35.94	PPB	#	81
40)	Chloroform	4.48	83	1137628	37.40	PPB		99
41)	tert-Butyl Formate	4.51	59	332241	24.88	PPB		98
42)	1,1,1-Trichloroethane	4.63	97	959754	40.64	PPB		98
44)	Carbon Tetrachloride	4.79	117	760002	40.67	PPB		98
45)	1,1-Dichloropropene	4.86	75	962532	39.63	PPB		99
46)	Cyclohexane	4.58	56	1165599	37.35	PPB		95
47)	Isobutyl Alcohol	5.23	43	404243	1224.23	PPB		95
49)	Benzene	5.13	78	3019238	37.69	PPB		99
50)	1,2-Dichloroethane	5.30	62	787267	35.61	PPB		100
51)	tert-Amyl Methyl Ether	5.29	55	465295	36.54	PPB	#	87
52)	Trichloroethene	5.99	95	694144	40.23	PPB		99
53)	1,2-Dichloropropane	6.34	63	730236	35.72	PPB		98
54)	Dibromomethane	6.48	93	358919	39.27	PPB		96
55)	Methyl methacrylate	6.51	69	397979	35.69	PPB		97
56)	1,4-Dioxane	6.54	88	186499m	1579.78	PPB		
57)	Bromodichloromethane	6.68	83	799635	37.67	PPB		99
58)	2-Nitropropane	7.06	41	449111	160.16	PPB		99
59)	Methyl Cyclohexane	6.11	83	1125166	41.85	PPB		98
60)	2-Chloroethyl Vinyl Ether	7.09	63	378160	35.85	PPB		97
61)	cis-1,3-Dichloropropene	7.21	75	1163823	38.53	PPB		99
62)	4-Methyl-2-pentanone (MIBK	7.41	58	3472096	697.07	PPB		97
64)	Toluene	7.51	92	1963404	39.76	PPB		99
66)	n-Octane	7.59	85	286778	50.06	PPB		97
67)	trans-1,3-Dichloropropene	7.88	75	930450	40.35	PPB		98
68)	Ethyl methacrylate	7.94	69	768997	39.90	PPB		99
69)	1,1,2-Trichloroethane	8.07	83	492074	39.64	PPB		99
70)	Tetrachloroethene	8.06	164	543987	52.10	PPB		97
71)	2-Hexanone	8.34	57	1138606	770.36	PPB		92
72)	1,3-Dichloropropane	8.25	76	1050495	40.78	PPB		99
73)	Dibromochloromethane	8.44	129	587093	45.28	PPB		98

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

Data File : J:\MS18\DATA\041316\0413F020.D Vial: 18
Acq On : 13 Apr 2016 22:06 Operator: YX
Sample : 8260 ICAL 40 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:13:49 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:13:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

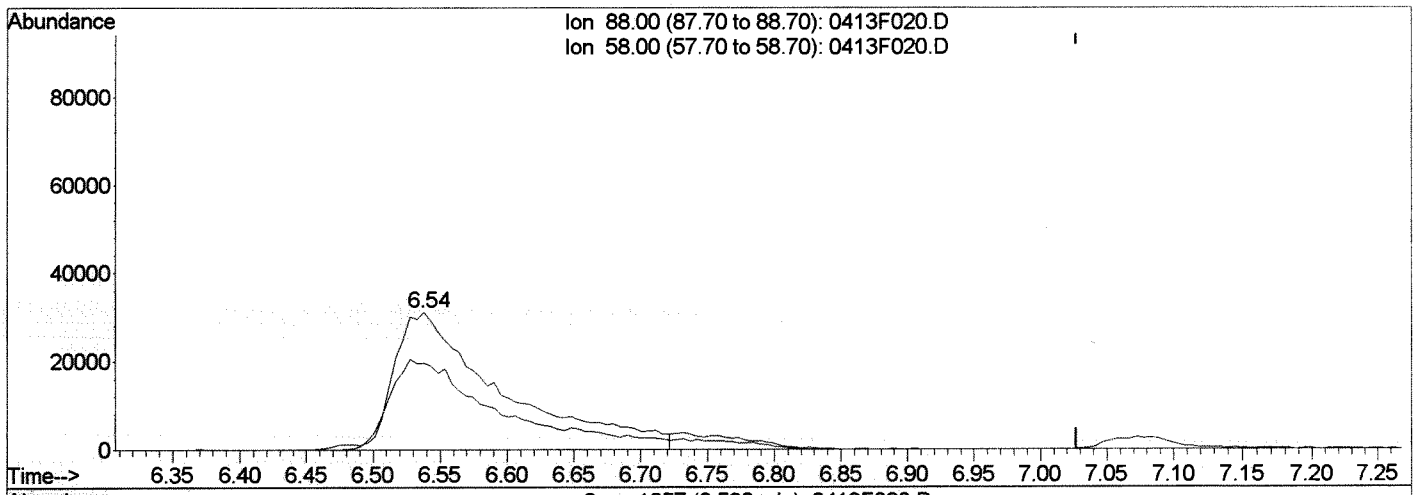
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1,2-Dibromoethane (EDB)	8.55	107	558713	44.83	PPB	99
75)	1-Chlorohexane	9.04	91	971103	45.17	PPB	96
76)	Chlorobenzene	9.05	112	2099521	45.50	PPB	100
77)	Ethylbenzene	9.15	106	1159411	45.78	PPB	96
78)	1,1,1,2-Tetrachloroethane	9.16	131	642756	46.21	PPB	97
79)	m,p-Xylenes	9.28	106	2867948	91.47	PPB	96
80)	o-Xylene	9.69	106	1398133	45.71	PPB	99
81)	Styrene	9.73	103	1124342m	43.98	PPB	
82)	Bromoform	9.93	173	295141	47.59	PPB	99
83)	Isopropylbenzene	10.07	105	3454500	45.70	PPB	99
84)	cis-1,4-Dichloro-2-butene	10.24	89	377148	178.55	PPB	94
87)	1,1,2,2-Tetrachloroethane	10.48	83	648944	34.89	PPB	100
88)	trans-1,4-Dichloro-2-buten	10.55	53	174790	34.00	PPB	81
89)	Bromobenzene	10.40	156	855213	41.11	PPB	98
90)	n-Propylbenzene	10.49	91	3977403	38.05	PPB	99
91)	1,2,3-Trichloropropane	10.52	110	196402	38.30	PPB	96
92)	2-Chlorotoluene	10.59	91	2440752	36.51	PPB	98
93)	1,3,5-Trimethylbenzene	10.69	105	2852064	39.40	PPB	99
94)	4-Chlorotoluene	10.72	91	2826971	35.98	PPB	100
95)	tert-Butylbenzene	11.00	119	2415893	40.92	PPB	99
96)	1,2,4-Trimethylbenzene	11.07	105	2888849	38.49	PPB	99
97)	sec-Butylbenzene	11.23	105	3446400	39.92	PPB	100
98)	p-Isopropyltoluene	11.38	119	2861885	41.53	PPB	99
99)	1,3-Dichlorobenzene	11.36	146	1617015	40.95	PPB	98
100)	1,4-Dichlorobenzene	11.46	146	1643951	39.72	PPB	99
101)	n-Butylbenzene	11.80	91	2472553	38.49	PPB	100
102)	1,2-Dichlorobenzene	11.84	146	1524362	40.85	PPB	99
103)	1,2-Dibromo-3-chloropropan	12.54	155	70246	38.17	PPB	98
104)	1,3,5-Trichlorobenzene	12.62	180	986124	42.34	PPB	98
105)	1,2,4-Trichlorobenzene	13.07	180	849824	41.85	PPB	98
106)	Hexachlorobutadiene	13.15	225	321657	43.59	PPB	97
107)	Naphthalene	13.25	128	1818960	40.91	PPB	100
108)	1,2,3-Trichlorobenzene	13.44	180	690281	42.39	PPB	99

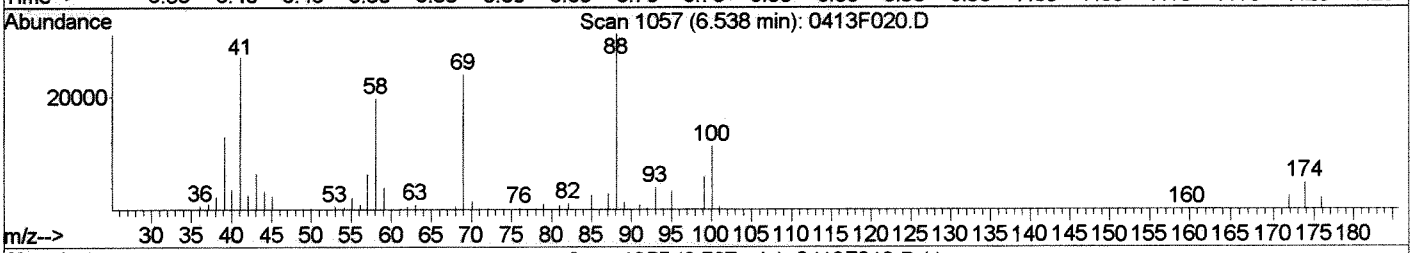
(#) = qualifier out of range (m) = manual integration

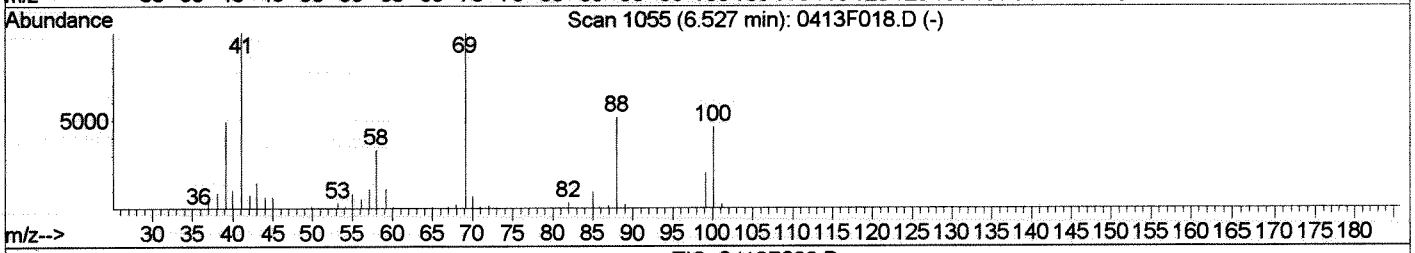
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F020.D Vial: 18
Acq On : 13 Apr 2016 22:06 Operator: YX
Sample : 8260 ICAL 40 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 9:13 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F020.D

(56) 1,4-Dioxane (T)

6.54min 1471.17PPB

response 173677

Ion	Exp%	Act%
88.00	100	100
58.00	64.20	63.15
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

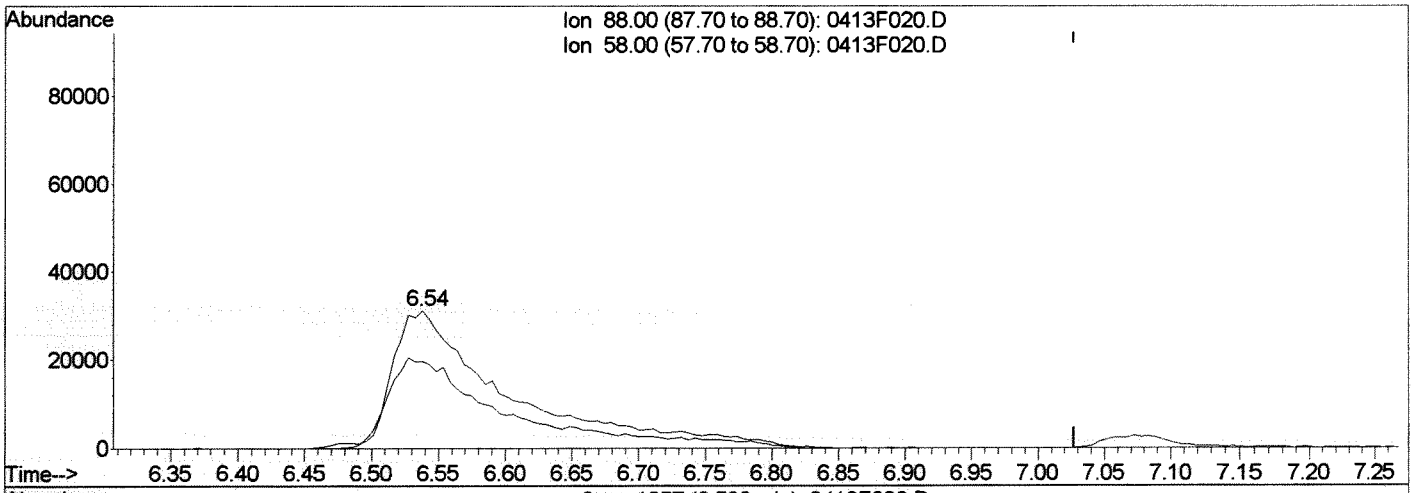
04/14/16

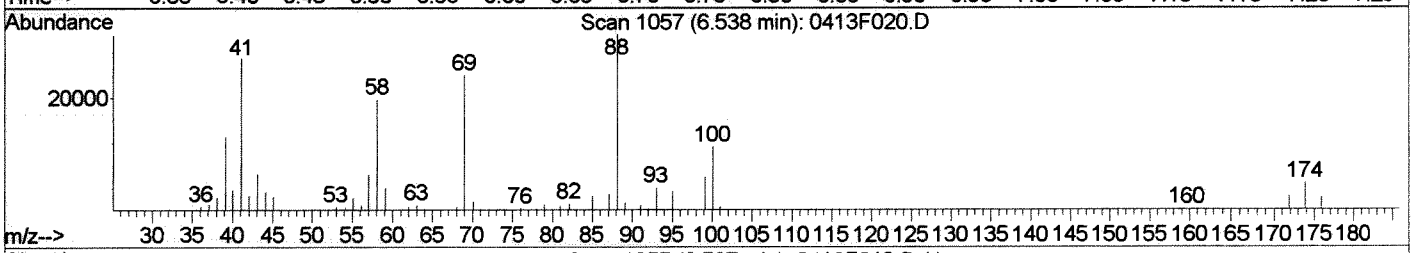
0413F020.D 041316MS18_8260.M Thu Apr 14 11:25:45 2016

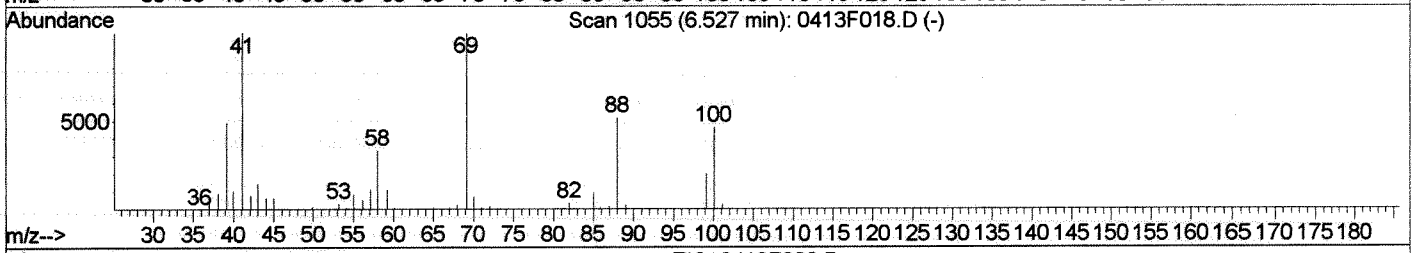
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F020.D Vial: 18
Acq On : 13 Apr 2016 22:06 Operator: YX
Sample : 8260 ICAL 40 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:25 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F020.D

(56) 1,4-Dioxane (T)
6.54min 1579.78PPB m
response 186499

Ion	Exp%	Act%
88.00	100	100
58.00	64.20	63.15
0.00	0.00	0.00
0.00	0.00	0.00

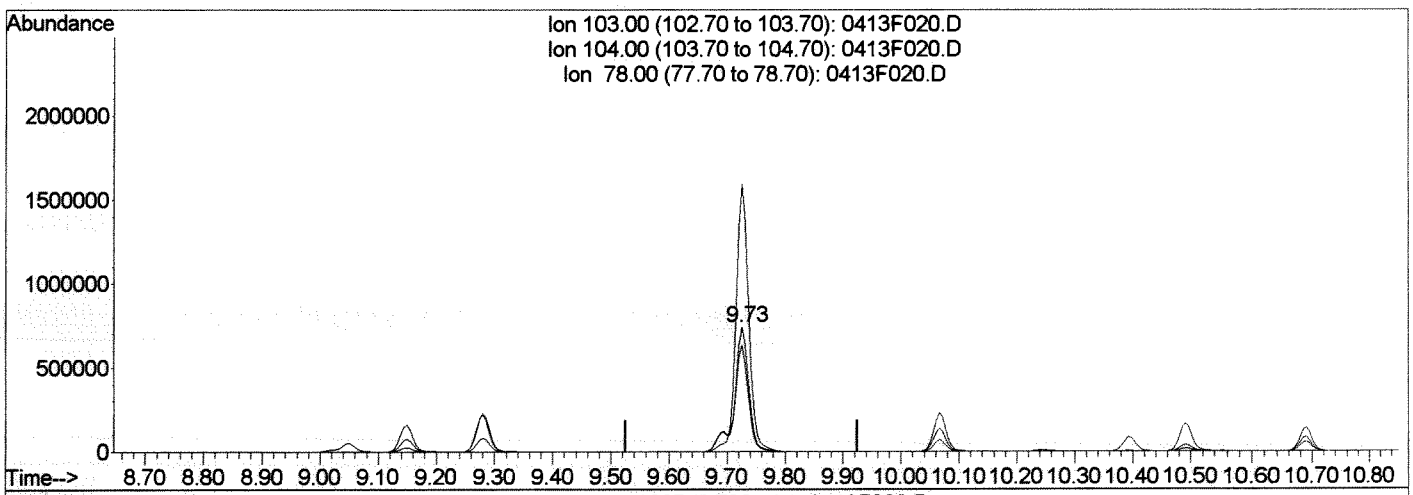
Manual Integration:
After
Peak tailing
04/14/16

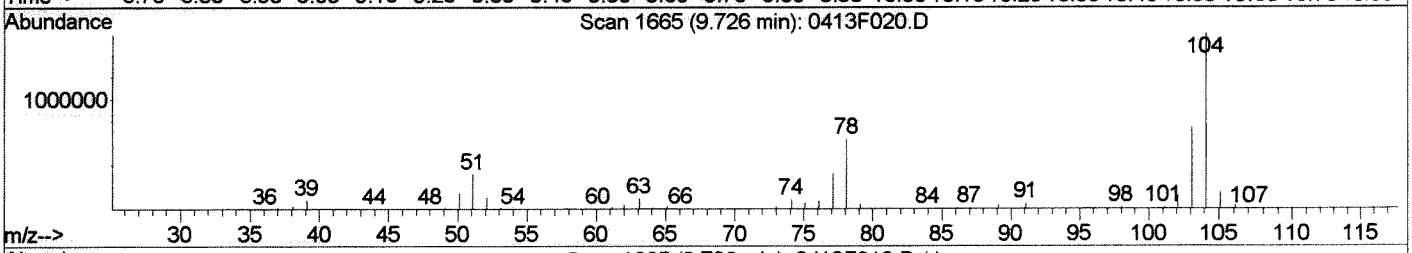
0413F020.D 041316MS18_8260.M Thu Apr 14 11:25:50 2016

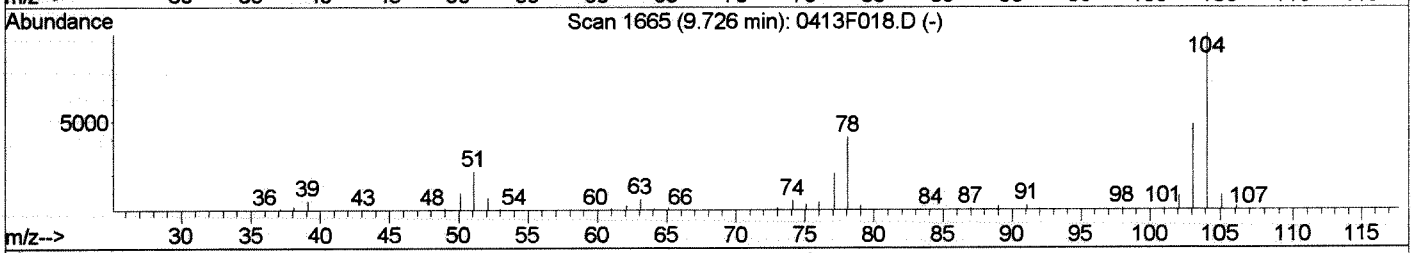
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F020.D Vial: 18
Acq On : 13 Apr 2016 22:06 Operator: YX
Sample : 8260 ICAL 40 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:25 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F020.D

(81) Styrene (T)

9.73min 49.87PPB

response 1274866

Ion	Exp%	Act%
103.00	100	100
104.00	206.80	215.98
78.00	85.30	85.68
0.00	0.00	0.00

Manual Integration:

Before

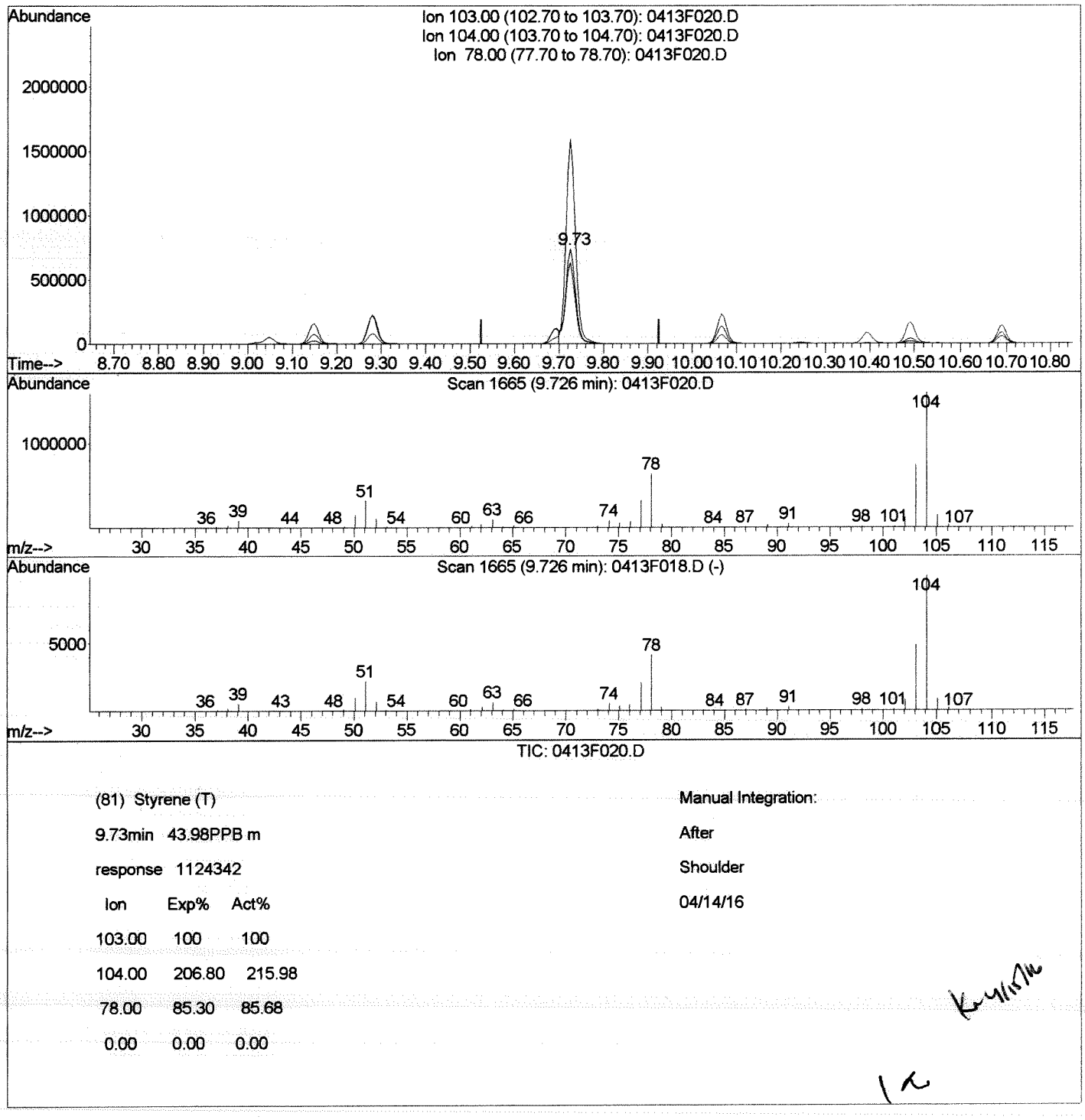
04/14/16

0413F020.D 041316MS18_8260.M Thu Apr 14 11:25:55 2016

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F020.D Vial: 18
Acq On : 13 Apr 2016 22:06 Operator: YX
Sample : 8260 ICAL 40 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:25 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration



TIC: 0413F020.D

(81) Styrene (T)
9.73min 43.98PPB m
response 1124342

Ion	Exp%	Act%
103.00	100	100
104.00	206.80	215.98
78.00	85.30	85.68
0.00	0.00	0.00

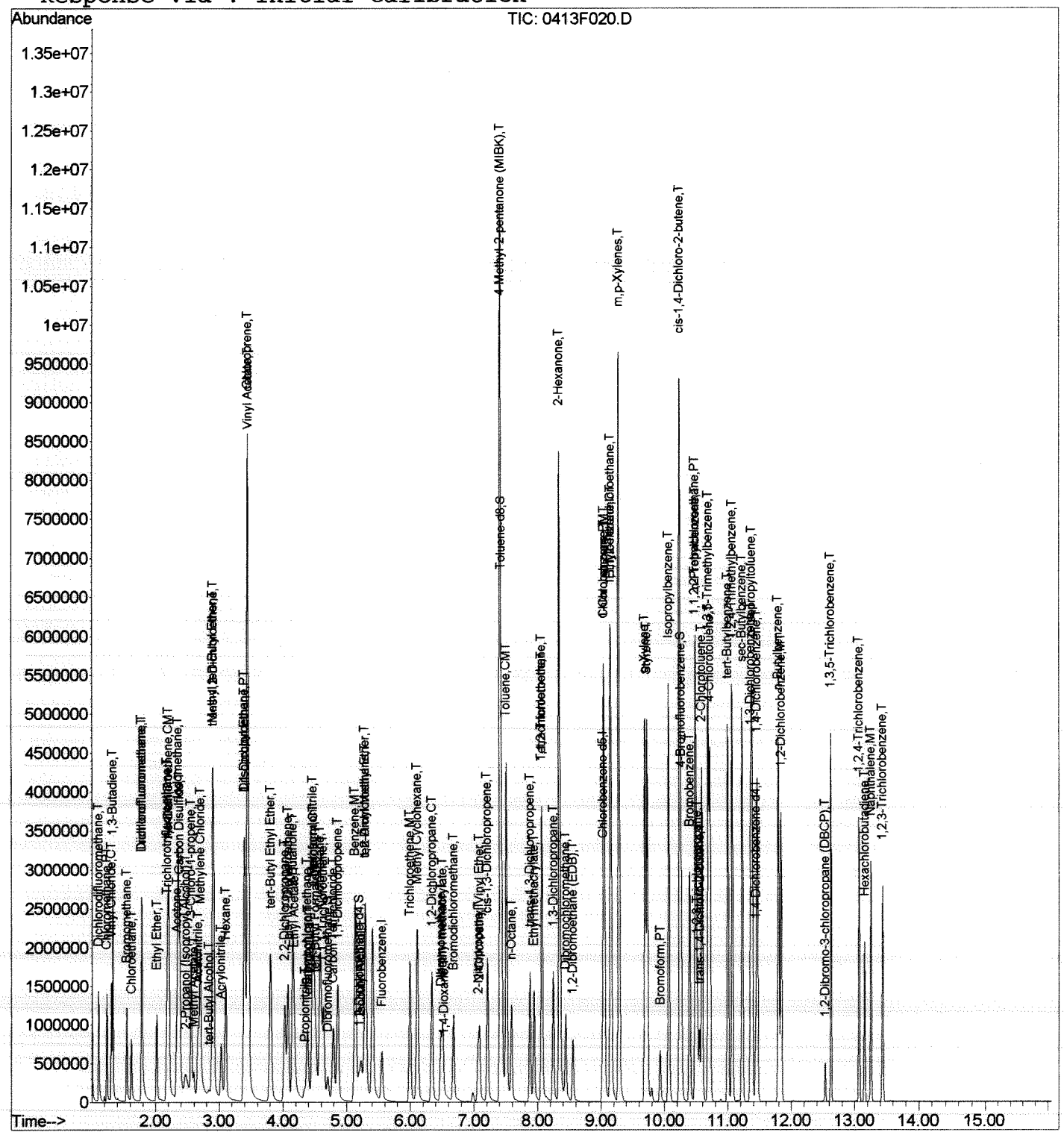
Manual Integration:
After
Shoulder
04/14/16

0413F020.D 041316MS18_8260.M Thu Apr 14 11:26:00 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F020.D Vial: 18
Acq On : 13 Apr 2016 22:06 Operator: YX
Sample : 8260 ICAL 40 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:25 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Data File : J:\MS18\DATA\041316\0413F021.D Vial: 19
Acq On : 13 Apr 2016 22:27 Operator: YX
Sample : 8260 ICAL 60 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:14:02 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:13:57 2016
Response via : Initial Calibration
DataAcq Meth : 8260 \ for 4/14/16

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.55	96	699443	10.00	PPB	0.00
65) Chlorobenzene-d5	9.02	82	274908	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	257566	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	4.70	113	235495	16.50	PPB	0.00
Spiked Amount 10.000			Recovery =	165.00%		
48) 1,2-Dichloroethane-d4	5.19	65	253220	14.51	PPB	0.00
Spiked Amount 10.000			Recovery =	145.10%		
63) Toluene-d8	7.43	98	1040150	16.36	PPB	0.00
Spiked Amount 10.000			Recovery =	163.60%		
85) 4-Bromofluorobenzene	10.27	95	393042	16.76	PPB	0.00
Spiked Amount 10.000			Recovery =	167.60%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	1097686	63.45	PPB	99
3) Chloromethane	1.23	50	1298027	54.70	PPB	98
4) Vinyl Chloride	1.31	62	1291223	57.87	PPB	98
5) 1,3-Butadiene	1.33	54	992603	51.37	PPB	99
6) Bromomethane	1.55	96	687318	64.48	PPB	99
7) Chloroethane	1.62	64	711928	56.86	PPB	98
8) Dichlorofluoromethane	1.78	67	1689617	55.64	PPB	99
9) Trichlorofluoromethane	1.78	101	1371728	62.51	PPB	99
10) Ethyl Ether	2.02	59	763951	51.55	PPB	99
11) Acrolein	2.19	56	2077827	1105.53	PPB	98
12) Trichlorotrifluoroethane	2.18	151	671738	67.29	PPB	94
13) 1,1-Dichloroethene	2.21	96	850062	60.31	PPB	98
14) Acetone	2.33	43	3309209	1242.83	PPB	98
15) Iodomethane	2.35	142	4393238	260.01	PPB	98
16) Carbon Disulfide	2.38	76	3050898	56.34	PPB	99
17) 2-Propanol (Isopropyl Alco	2.46	45	1470926	2575.39	PPB	95
18) 3-Chloro-1-propene	2.55	76	578198	54.48	PPB	94
19) Methyl Acetate	2.60	43	672569	62.91	PPB	99
20) Acetonitrile	2.66	40	1446215	2018.60	PPB	98
21) Methylene Chloride	2.70	84	1074875	53.94	PPB	96
22) tert-Butyl Alcohol	2.83	59	196899	251.33	PPB	97
23) Acrylonitrile	3.03	53	926065	184.40	PPB	98
24) Methyl tert-Butyl Ether	2.89	73	5278506	107.45	PPB	99
25) trans-1,2-Dichloroethene	2.91	96	1055241	56.16	PPB	98
26) Hexane	3.10	57	1043219	55.38	PPB	99
27) Diisopropyl Ether	3.39	45	3293726	48.80	PPB	98
28) 1,1-Dichloroethane	3.40	63	1868754	52.73	PPB	98

(#) = qualifier out of range (m) = manual integration
0413F021.D 041316MS18_8260.M Thu Apr 14 11:44:19 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F021.D Vial: 19
Acq On : 13 Apr 2016 22:27 Operator: YX
Sample : 8260 ICAL 60 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:14:02 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:13:57 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.46	86	422457	115.87	PPB	#	84
30)	Chloroprene	3.45	53	6847086	214.42	PPB		96
31)	tert-Butyl Ethyl Ether	3.80	59	3026505	51.18	PPB		98
32)	2,2-Dichloropropane	4.03	77	1374838	56.56	PPB		96
33)	cis-1,2-Dichloroethene	4.08	96	1191819	58.19	PPB		97
34)	2-Butanone	4.15	72	2038966	1459.14	PPB		89
35)	Propionitrile	4.34	54	343471	206.24	PPB		98
36)	Ethyl Acetate	4.18	61	203522	101.33	PPB		95
37)	Methacrylonitrile	4.46	67	1280567	213.28	PPB		96
38)	Bromochloromethane	4.38	128	431327	56.13	PPB		94
39)	Tetrahydrofuran	4.40	71	72050	55.96	PPB		87
40)	Chloroform	4.48	83	1675622	54.08	PPB		100
41)	tert-Butyl Formate	4.51	59	536289	41.71	PPB		97
42)	1,1,1-Trichloroethane	4.63	97	1427527	59.58	PPB		97
44)	Carbon Tetrachloride	4.79	117	1126055	59.11	PPB		99
45)	1,1-Dichloropropene	4.86	75	1412860	57.27	PPB		99
46)	Cyclohexane	4.58	56	1688162	53.80	PPB		96
47)	Isobutyl Alcohol	5.22	43	708216	2198.14	PPB		95
49)	Benzene	5.13	78	4466009	54.77	PPB		100
50)	1,2-Dichloroethane	5.29	62	1182723	52.74	PPB		99
51)	tert-Amyl Methyl Ether	5.29	55	682385	52.66	PPB	#	80
52)	Trichloroethene	5.99	95	1031636	58.39	PPB		99
53)	1,2-Dichloropropane	6.34	63	1092590	52.96	PPB		98
54)	Dibromomethane	6.48	93	538815	57.77	PPB		96
55)	Methyl methacrylate	6.51	69	614701	54.77	PPB		97
56)	1,4-Dioxane	6.53	88	283642m	2401.67	PPB		
57)	Bromodichloromethane	6.68	83	1243096	58.14	PPB		99
58)	2-Nitropropane	7.06	41	720335	263.86	PPB		97
59)	Methyl Cyclohexane	6.11	83	1632428	59.43	PPB		98
60)	2-Chloroethyl Vinyl Ether	7.09	63	580365	54.89	PPB		98
61)	cis-1,3-Dichloropropene	7.21	75	1772007	58.10	PPB		98
62)	4-Methyl-2-pentanone (MIBK	7.41	58	6752411	1342.06	PPB		92
64)	Toluene	7.51	92	2890796	57.19	PPB		100
66)	n-Octane	7.59	85	411490	67.68	PPB		97
67)	trans-1,3-Dichloropropene	7.88	75	1441292	61.66	PPB		98
68)	Ethyl methacrylate	7.94	69	1161891	59.36	PPB		98
69)	1,1,2-Trichloroethane	8.06	83	743516	58.41	PPB		99
70)	Tetrachloroethene	8.06	164	799474	72.97	PPB		97
71)	2-Hexanone	8.34	57	2233061	1488.02	PPB	#	88
72)	1,3-Dichloropropane	8.25	76	1578298	59.90	PPB		100
73)	Dibromochloromethane	8.44	129	919394	69.08	PPB		98

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

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F021.D Vial: 19
Acq On : 13 Apr 2016 22:27 Operator: YX
Sample : 8260 ICAL 60 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:14:02 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:13:57 2016
Response via : Initial Calibration
DataAcq Meth : 8260

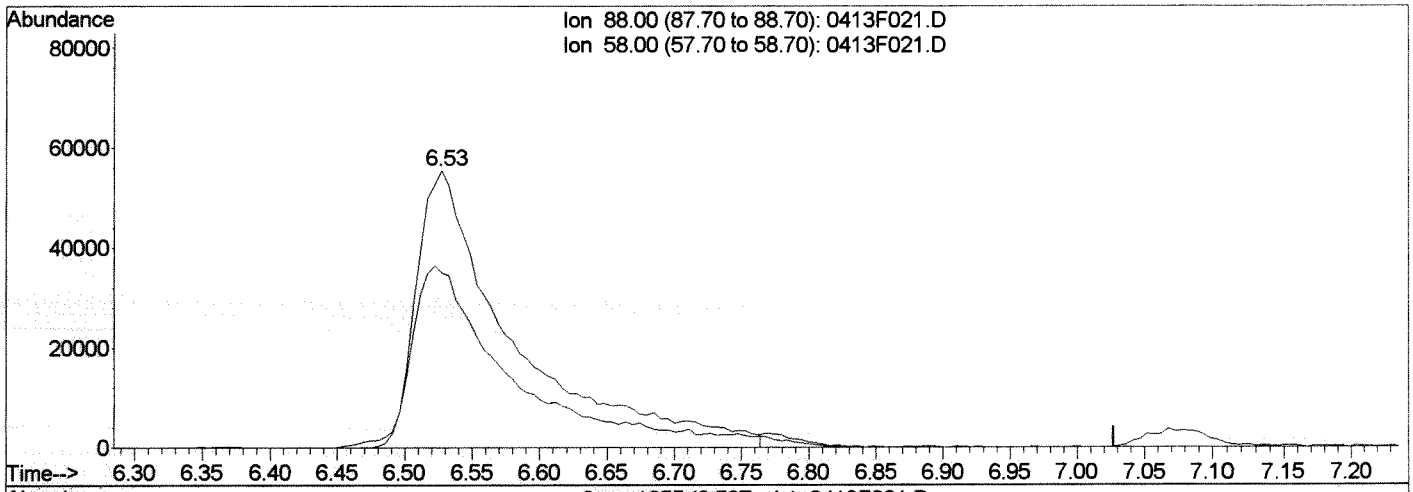
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1,2-Dibromoethane (EDB)	8.56	107	850470	66.09	PPB	99
75)	1-Chlorohexane	9.04	91	1441494	65.13	PPB	96
76)	Chlorobenzene	9.05	112	3131662	65.47	PPB	100
77)	Ethylbenzene	9.15	106	1712129	65.32	PPB	95
78)	1,1,1,2-Tetrachloroethane	9.16	131	986452	68.66	PPB	98
79)	m,p-Xylenes	9.28	106	4247702	130.86	PPB	96
80)	o-Xylene	9.69	106	2088786	66.04	PPB	97
81)	Styrene	9.73	103	1690487m	62.98	PPB	
82)	Bromoform	9.93	173	478801	75.58	PPB	98
83)	Isopropylbenzene	10.07	105	5101879	65.27	PPB	99
84)	cis-1,4-Dichloro-2-butene	10.24	89	585781	271.33	PPB	93
87)	1,1,2,2-Tetrachloroethane	10.48	83	975969	50.93	PPB	99
88)	trans-1,4-Dichloro-2-buten	10.55	53	267241	51.41	PPB	81
89)	Bromobenzene	10.40	156	1290361	59.28	PPB	97
90)	n-Propylbenzene	10.49	91	5862919	54.20	PPB	98
91)	1,2,3-Trichloropropane	10.52	110	293243	55.14	PPB	93
92)	2-Chlorotoluene	10.59	91	3653803	52.89	PPB	99
93)	1,3,5-Trimethylbenzene	10.69	105	4256092	56.66	PPB	100
94)	4-Chlorotoluene	10.72	91	4210484	51.78	PPB	100
95)	tert-Butylbenzene	11.00	119	3573106	58.11	PPB	99
96)	1,2,4-Trimethylbenzene	11.07	105	4300729	55.20	PPB	98
97)	sec-Butylbenzene	11.23	105	5065896	56.44	PPB	99
98)	p-Isopropyltoluene	11.38	119	4248429	59.15	PPB	98
99)	1,3-Dichlorobenzene	11.36	146	2418861	58.49	PPB	98
100)	1,4-Dichlorobenzene	11.46	146	2471086	57.07	PPB	99
101)	n-Butylbenzene	11.80	91	3623253	54.39	PPB	99
102)	1,2-Dichlorobenzene	11.84	146	2292215	58.72	PPB	99
103)	1,2-Dibromo-3-chloropropan	12.54	155	117360	62.51	PPB	96
104)	1,3,5-Trichlorobenzene	12.63	180	1490089	60.91	PPB	99
105)	1,2,4-Trichlorobenzene	13.07	180	1295676	60.72	PPB	97
106)	Hexachlorobutadiene	13.15	225	483069	62.33	PPB	99
107)	Naphthalene	13.25	128	2811425	60.70	PPB	100
108)	1,2,3-Trichlorobenzene	13.44	180	1058909	61.87	PPB	100

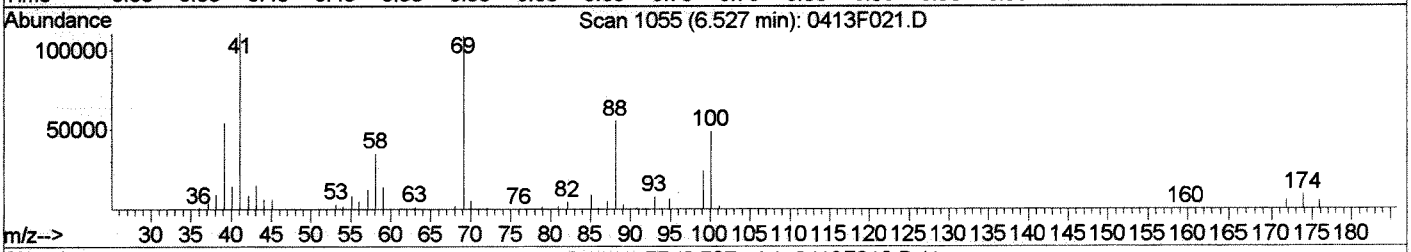
(#) = qualifier out of range (m) = manual integration

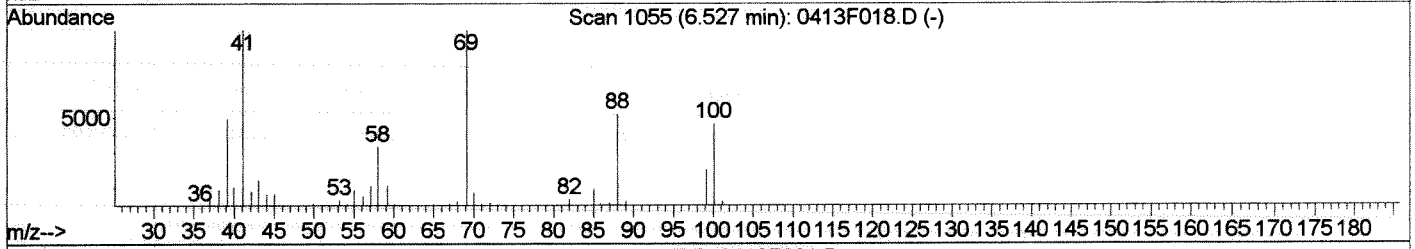
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F021.D Vial: 19
Acq On : 13 Apr 2016 22:27 Operator: YX
Sample : 8260 ICAL 60 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 9:13 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F021.D

(56) 1,4-Dioxane (T)

6.53min 2357.75PPB

response 278455

Ion	Exp%	Act%
88.00	100	100
58.00	64.20	63.24
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

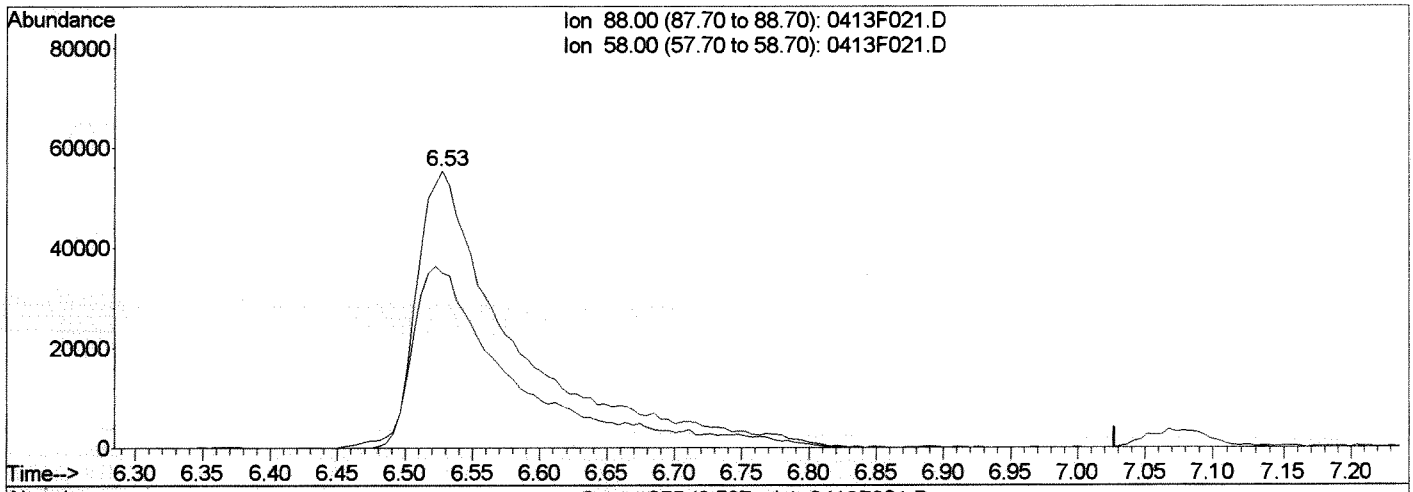
04/14/16

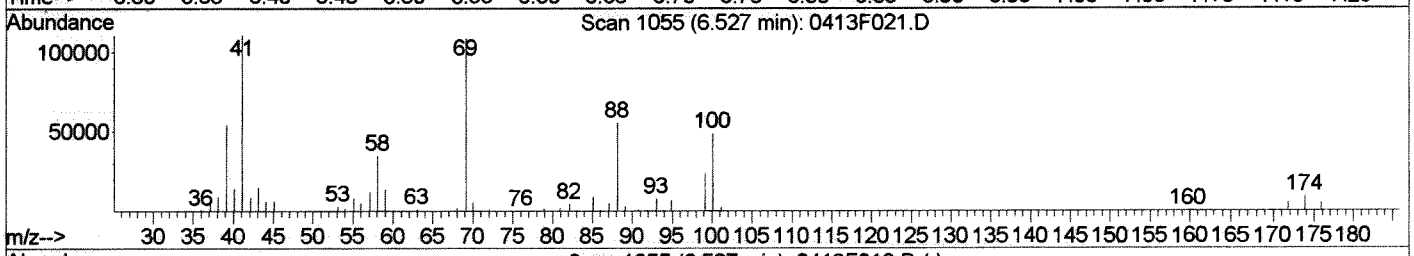
0413F021.D 041316MS18_8260.M Thu Apr 14 11:26:13 2016

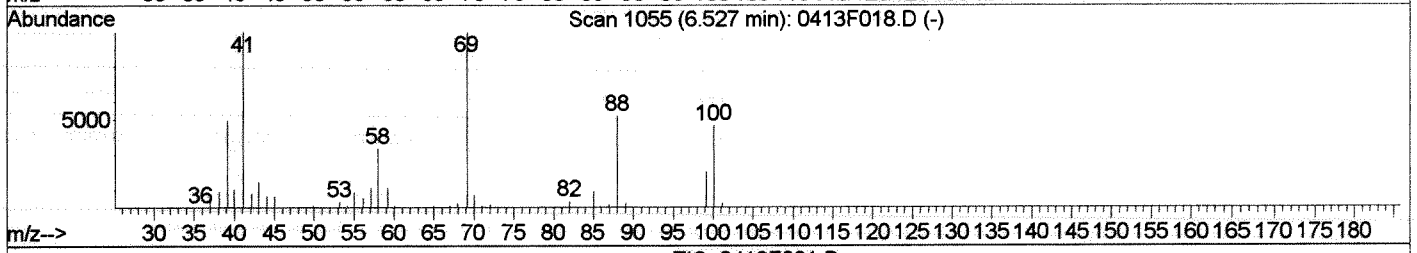
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F021.D Vial: 19
Acq On : 13 Apr 2016 22:27 Operator: YX
Sample : 8260 ICAL 60 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:25 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F021.D

(56) 1,4-Dioxane (T)

6.53min 2401.67PPB m

response 283642

Ion	Exp%	Act%
88.00	100	100
58.00	64.20	63.24
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

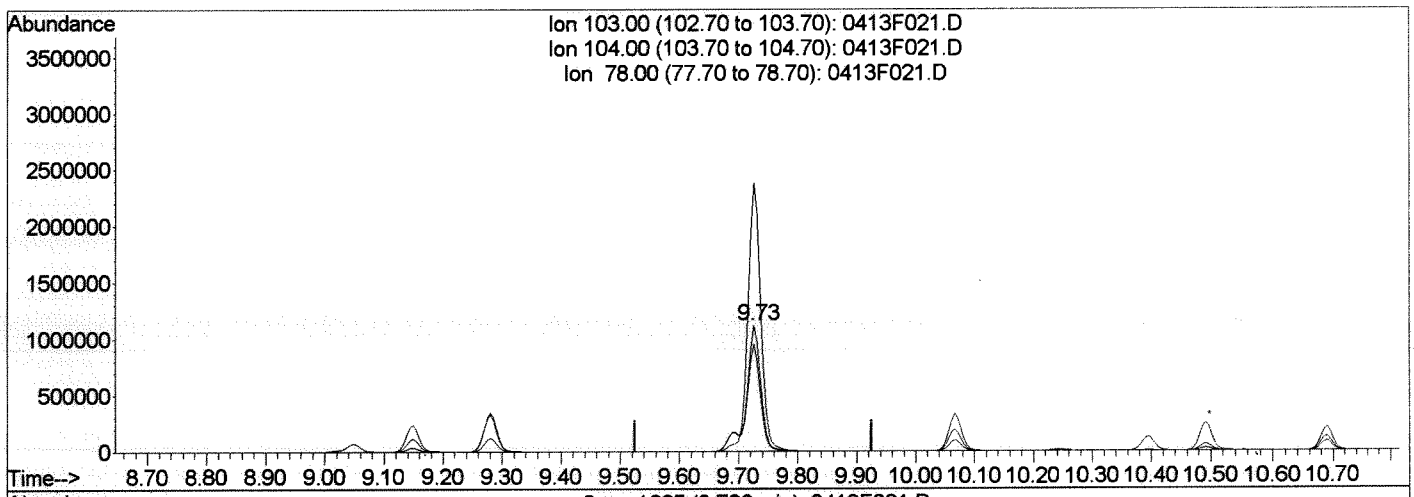
Peak tailing

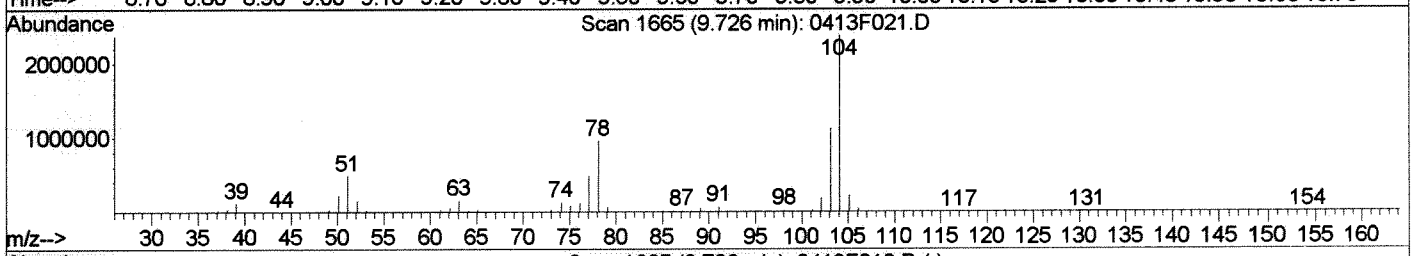
04/14/16

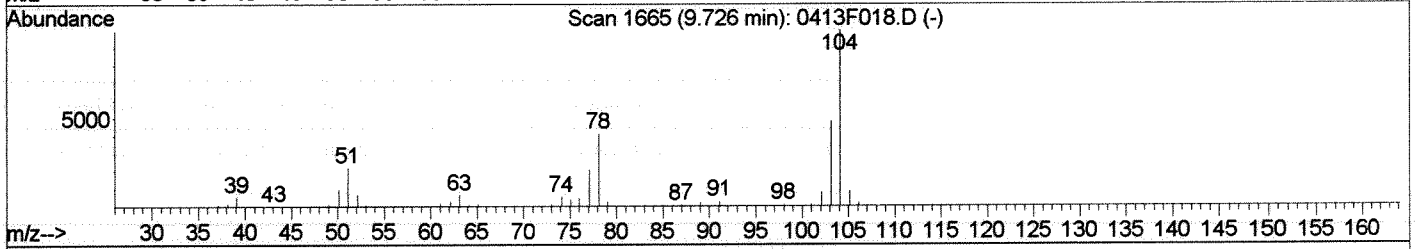
0413F021.D 041316MS18_8260.M Thu Apr 14 11:26:18 2016

Data File : J:\MS18\DATA\041316\0413F021.D Vial: 19
Acq On : 13 Apr 2016 22:27 Operator: YX
Sample : 8260 ICAL 60 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:25 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F021.D

(81) Styrene (T)

9.73min 71.49PPB

response 1918816

Ion	Exp%	Act%
103.00	100	100
104.00	206.80	212.12
78.00	85.30	84.91
0.00	0.00	0.00

Manual Integration:

Before

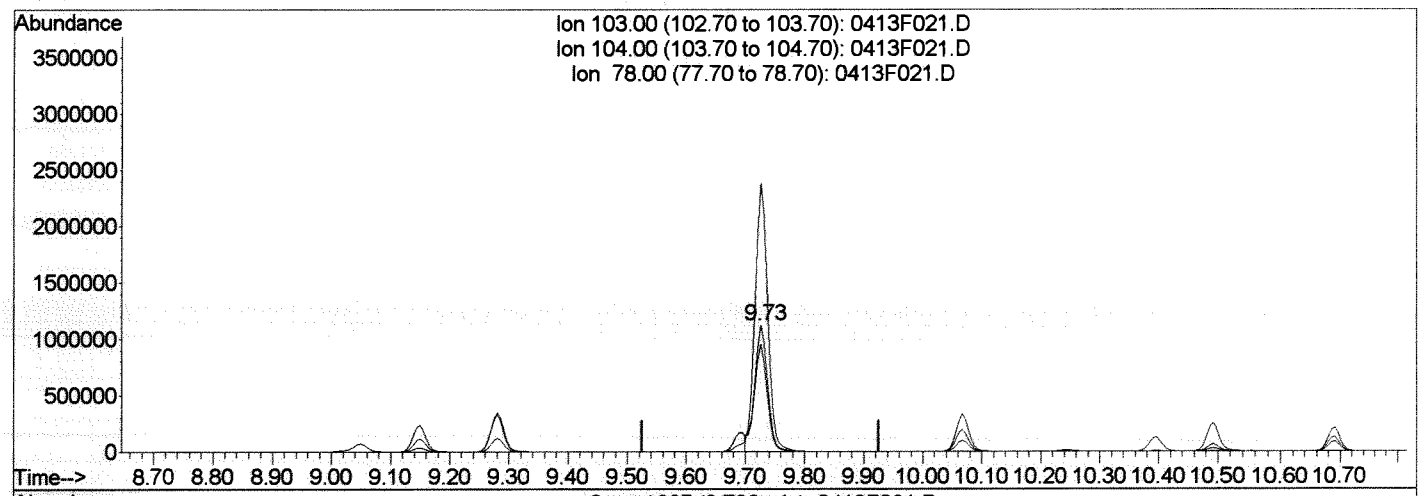
04/14/16

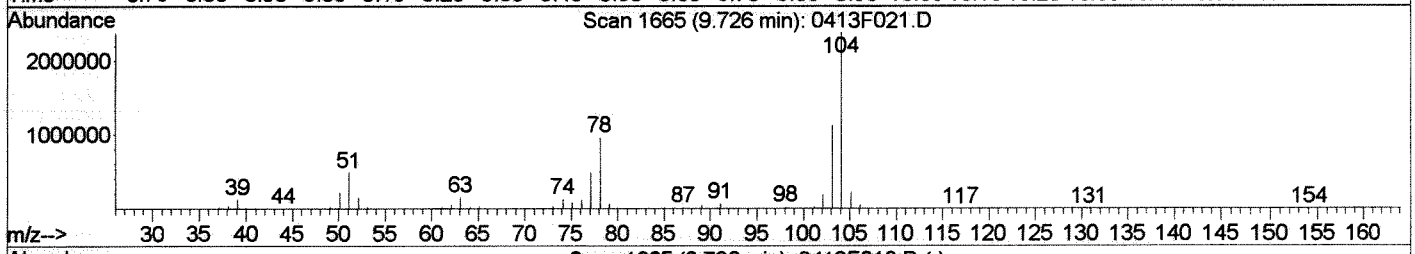
0413F021.D 041316MS18_8260.M Thu Apr 14 11:26:23 2016

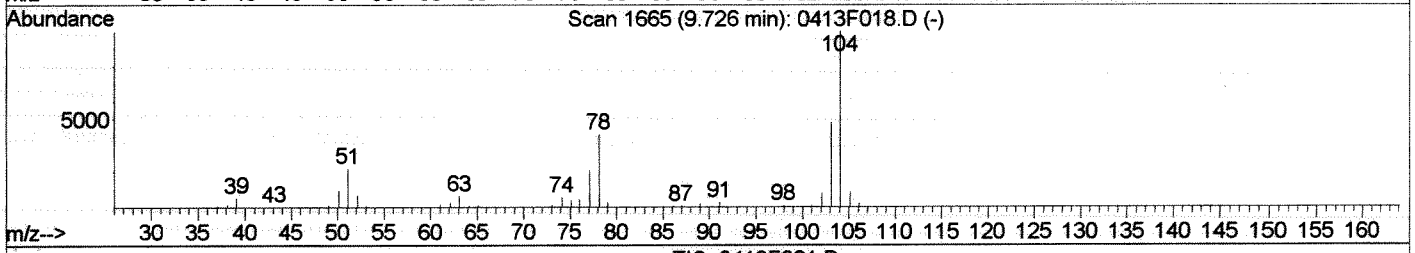
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F021.D Vial: 19
Acq On : 13 Apr 2016 22:27 Operator: YX
Sample : 8260 ICAL 60 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:26 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F021.D

(81) Styrene (T)

9.73min 62.98PPB m

response 1690487

Ion	Exp%	Act%
103.00	100	100
104.00	206.80	212.12
78.00	85.30	84.91
0.00	0.00	0.00

Manual Integration:

After

Shoulder

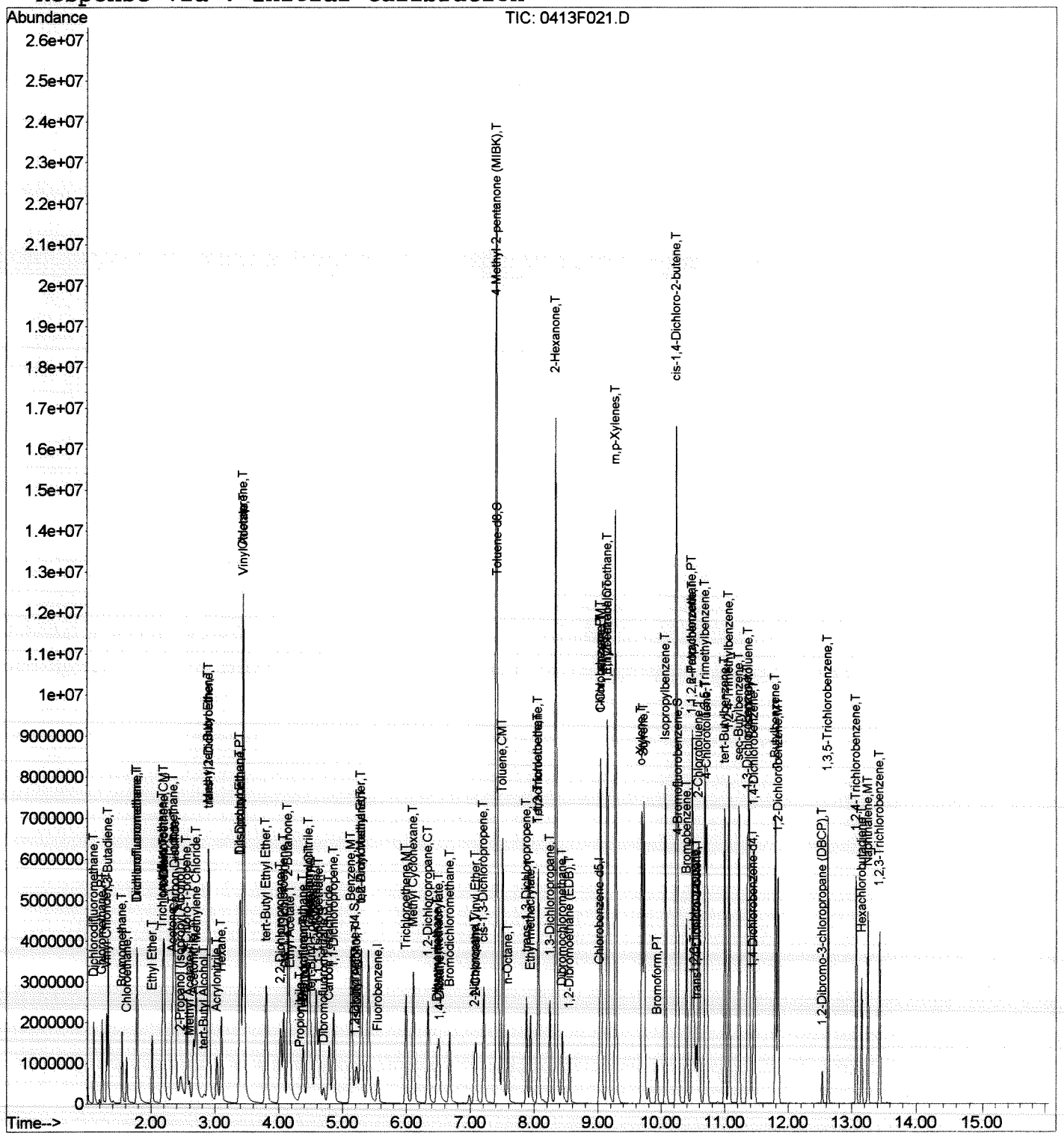
04/14/16

0413F021.D 041316MS18_8260.M Thu Apr 14 11:26:28 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F021.D Vial: 19
Acq On : 13 Apr 2016 22:27 Operator: YX
Sample : 8260 ICAL 60 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:26 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F022.D Vial: 20
Acq On : 13 Apr 2016 22:48 Operator: YX
Sample : 8260 ICAL 80 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:14:18 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:14:05 2016
Response via : Initial Calibration
DataAcq Meth : 8260

4/14/16

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.55	96	701765	10.00	PPB	0.00
65) Chlorobenzene-d5	9.02	82	276115	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.43	152	256041	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	4.70	113	303104	21.22	PPB	0.00
Spiked Amount 10.000			Recovery =	212.20%		
48) 1,2-Dichloroethane-d4	5.19	65	320860	18.67	PPB	0.00
Spiked Amount 10.000			Recovery =	186.70%		
63) Toluene-d8	7.43	98	1303852	20.49	PPB	0.00
Spiked Amount 10.000			Recovery =	204.90%		
85) 4-Bromofluorobenzene	10.27	95	501508	21.24	PPB	0.00
Spiked Amount 10.000			Recovery =	212.40%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	1520281	86.80	PPB	99
3) Chloromethane	1.23	50	1845485	77.93	PPB	98
4) Vinyl Chloride	1.31	62	1794588	80.44	PPB	98
5) 1,3-Butadiene	1.33	54	1372596	72.11	PPB	99
6) Bromomethane	1.55	96	932411	85.87	PPB	99
7) Chloroethane	1.62	64	938127	74.31	PPB	99
8) Dichlorofluoromethane	1.78	67	2279256	75.30	PPB	99
9) Trichlorofluoromethane	1.78	101	1885350	85.06	PPB	99
10) Ethyl Ether	2.02	59	1025730	69.88	PPB	100
11) Acrolein	2.19	56	2776101	1465.03	PPB	97
12) Trichlorotrifluoroethane	2.18	151	936487	91.89	PPB	95
13) 1,1-Dichloroethene	2.21	96	1169674	82.50	PPB	99
14) Acetone	2.33	43	4158677	1593.53	PPB	97
15) Iodomethane	2.35	142	5877964	355.66	PPB	98
16) Carbon Disulfide	2.38	76	4257482	79.34	PPB	100
17) 2-Propanol (Isopropyl Alco	2.46	45	1988271	3590.44	PPB	95
18) 3-Chloro-1-propene	2.55	76	740852	70.68	PPB	92
19) Methyl Acetate	2.60	43	933182	86.75	PPB	99
20) Acetonitrile	2.66	40	1954365	2811.07	PPB	99
21) Methylene Chloride	2.70	84	1461634	73.73	PPB	95
22) tert-Butyl Alcohol	2.83	59	273923	355.62	PPB	98
23) Acrylonitrile	3.03	53	1409734	289.19	PPB	97
24) Methyl tert-Butyl Ether	2.89	73	7211009	147.82	PPB	99
25) trans-1,2-Dichloroethene	2.91	96	1462576	77.80	PPB	98
26) Hexane	3.10	57	1442664	77.44	PPB	98
27) Diisopropyl Ether	3.39	45	4431274	66.75	PPB	97
28) 1,1-Dichloroethane	3.40	63	2548087	72.72	PPB	98

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

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F022.D Vial: 20
Acq On : 13 Apr 2016 22:48 Operator: YX
Sample : 8260 ICAL 80 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:14:18 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:14:05 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.46	86	582595	160.62	PPB	#	84
30)	Chloroprene	3.45	53	9406201	298.13	PPB		95
31)	tert-Butyl Ethyl Ether	3.80	59	4168274	71.48	PPB		98
32)	2,2-Dichloropropane	4.03	77	1928413	80.18	PPB		96
33)	cis-1,2-Dichloroethene	4.08	96	1622194	79.20	PPB		98
34)	2-Butanone	4.15	72	2662810	1919.73	PPB		88
35)	Propionitrile	4.34	54	467771	287.49	PPB		99
36)	Ethyl Acetate	4.18	61	298121	152.35	PPB		98
37)	Methacrylonitrile	4.46	67	1745500	294.26	PPB		95
38)	Bromochloromethane	4.38	128	578331	75.03	PPB		95
39)	Tetrahydrofuran	4.39	71	99076	77.92	PPB		89
40)	Chloroform	4.48	83	2293545	74.46	PPB		99
41)	tert-Butyl Formate	4.51	59	767807	63.17	PPB		97
42)	1,1,1-Trichloroethane	4.63	97	2006998	84.20	PPB		97
44)	Carbon Tetrachloride	4.79	117	1610351	84.71	PPB		99
45)	1,1-Dichloropropene	4.86	75	1977941	80.64	PPB		99
46)	Cyclohexane	4.58	56	2367716	76.54	PPB		98
47)	Isobutyl Alcohol	5.22	43	956957	3052.64	PPB		94
49)	Benzene	5.13	78	6128746	75.60	PPB		99
50)	1,2-Dichloroethane	5.30	62	1591137	71.49	PPB		99
51)	tert-Amyl Methyl Ether	5.29	55	902689	70.23	PPB	#	73
52)	Trichloroethene	5.99	95	1433500	81.13	PPB		99
53)	1,2-Dichloropropane	6.34	63	1488463	73.16	PPB		98
54)	Dibromomethane	6.48	93	743018	79.89	PPB		98
55)	Methyl methacrylate	6.51	69	848199	76.42	PPB		96
56)	1,4-Dioxane	6.53	88	382397m	3258.23	PPB		
57)	Bromodichloromethane	6.68	83	1723903	81.73	PPB		99
58)	2-Nitropropane	7.06	41	1013806	386.26	PPB		98
59)	Methyl Cyclohexane	6.11	83	2276464	82.91	PPB		97
60)	2-Chloroethyl Vinyl Ether	7.09	63	797755	76.62	PPB		97
61)	cis-1,3-Dichloropropene	7.21	75	2428807	80.57	PPB		98
62)	4-Methyl-2-pentanone (MIBK	7.42	58	8727011	1753.90	PPB	#	82
64)	Toluene	7.51	92	3992007	79.03	PPB		99
66)	n-Octane	7.59	85	557754	88.76	PPB		97
67)	trans-1,3-Dichloropropene	7.88	75	1992463	85.61	PPB		99
68)	Ethyl methacrylate	7.94	69	1609437	82.53	PPB		98
69)	1,1,2-Trichloroethane	8.07	83	1007236	78.66	PPB		98
70)	Tetrachloroethene	8.06	164	1126460	100.29	PPB		98
71)	2-Hexanone	8.35	57	2904331	1943.46	PPB	#	83
72)	1,3-Dichloropropane	8.25	76	2152838	81.48	PPB		100
73)	Dibromochloromethane	8.44	129	1288916	96.04	PPB		98

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

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F022.D Vial: 20
Acq On : 13 Apr 2016 22:48 Operator: YX
Sample : 8260 ICAL 80 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 09:14:18 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 09:14:05 2016
Response via : Initial Calibration
DataAcq Meth : 8260

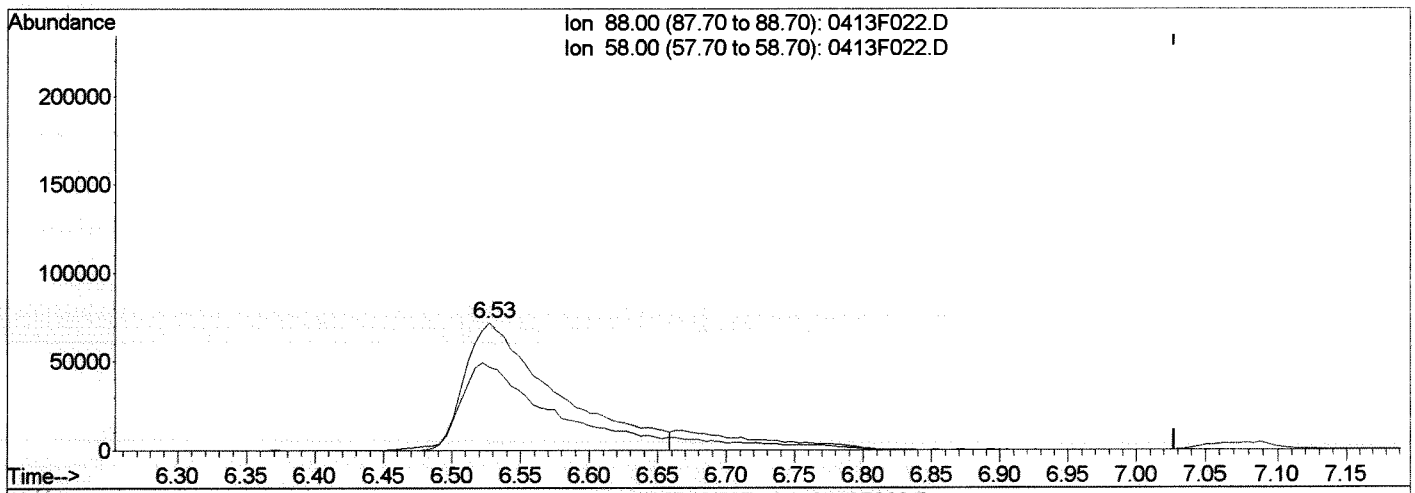
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1,2-Dibromoethane (EDB)	8.56	107	1160049	89.01	PPB	100
75)	1-Chlorohexane	9.04	91	2006686	89.77	PPB	96
76)	Chlorobenzene	9.05	112	4284366	88.32	PPB	99
77)	Ethylbenzene	9.15	106	2371539	89.35	PPB	95
78)	1,1,1,2-Tetrachloroethane	9.16	131	1371563	94.30	PPB	98
79)	m,p-Xylenes	9.28	106	5828789	177.23	PPB	95
80)	o-Xylene	9.69	106	2861569	89.42	PPB	98
81)	Styrene	9.73	103	2235937m	81.09	PPB	
83)	Isopropylbenzene	10.07	105	7055370	89.13	PPB	99
84)	cis-1,4-Dichloro-2-butene	10.24	89	820228	377.06	PPB	93
87)	1,1,2,2-Tetrachloroethane	10.48	83	1340516	71.33	PPB	98
88)	trans-1,4-Dichloro-2-buten	10.55	53	369408	73.82	PPB	78
89)	Bromobenzene	10.40	156	1752636	80.95	PPB	99
90)	n-Propylbenzene	10.49	91	8070778	75.80	PPB	99
91)	1,2,3-Trichloropropane	10.52	110	404376	77.13	PPB	98
92)	2-Chlorotoluene	10.59	91	5012875	73.86	PPB	99
93)	1,3,5-Trimethylbenzene	10.69	105	5846707	78.90	PPB	100
94)	4-Chlorotoluene	10.72	91	5771383	72.21	PPB	99
95)	tert-Butylbenzene	11.00	119	4961193	81.52	PPB	99
96)	1,2,4-Trimethylbenzene	11.07	105	5864253	76.33	PPB	98
97)	sec-Butylbenzene	11.23	105	6948396	78.31	PPB	99
98)	p-Isopropyltoluene	11.38	119	5879156	82.65	PPB	98
99)	1,3-Dichlorobenzene	11.36	146	3316250	80.68	PPB	98
100)	1,4-Dichlorobenzene	11.46	146	3358144	78.08	PPB	99
101)	n-Butylbenzene	11.80	91	4983862	76.02	PPB	99
102)	1,2-Dichlorobenzene	11.84	146	3128434	80.63	PPB	99
103)	1,2-Dibromo-3-chloropropan	12.54	155	167681	91.15	PPB	93
104)	1,3,5-Trichlorobenzene	12.63	180	2055536	84.28	PPB	99
105)	1,2,4-Trichlorobenzene	13.07	180	1792208	84.30	PPB	99
106)	Hexachlorobutadiene	13.15	225	661816	85.63	PPB	98
107)	Naphthalene	13.25	128	3931928	85.61	PPB	100
108)	1,2,3-Trichlorobenzene	13.44	180	1468072	86.01	PPB	99

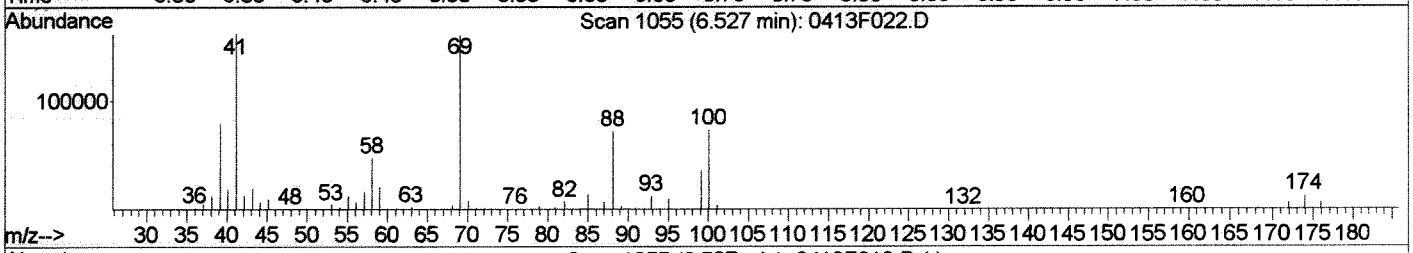
(#) = qualifier out of range (m) = manual integration
0413F022.D 041316MS18_8260.M Thu Apr 14 11:44:22 2016 Page 3

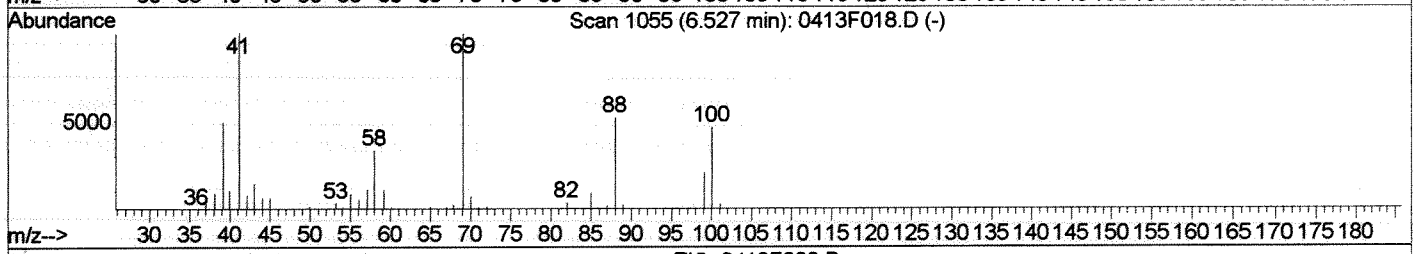
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F022.D Vial: 20
Acq On : 13 Apr 2016 22:48 Operator: YX
Sample : 8260 ICAL 80 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 9:53 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F022.D

(56) 1,4-Dioxane (T)

6.53min 2833.56PPB

response 332556

Ion	Exp%	Act%
88.00	100	100
58.00	64.20	65.09
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

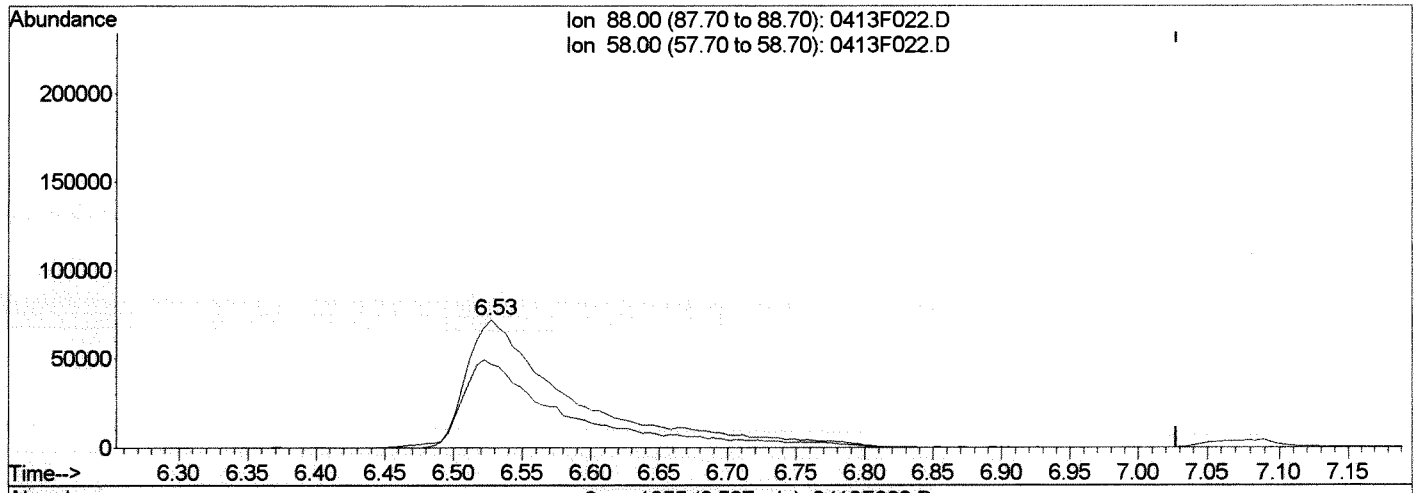
04/14/16

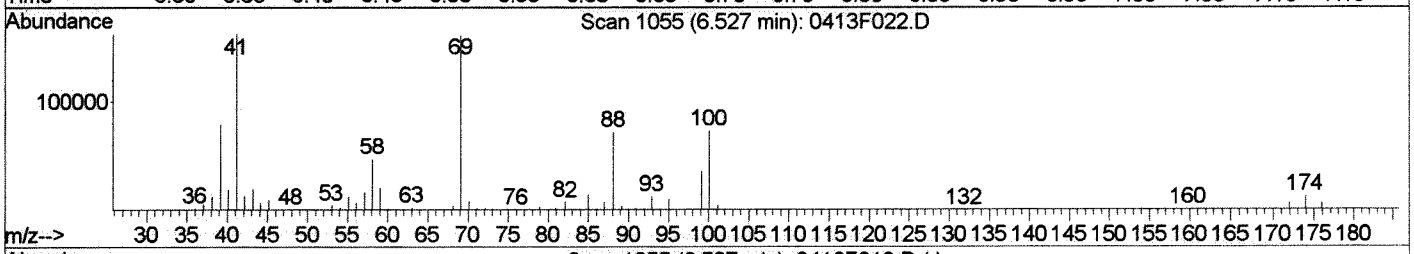
0413F022.D 041316MS18_8260.M Thu Apr 14 11:26:39 2016

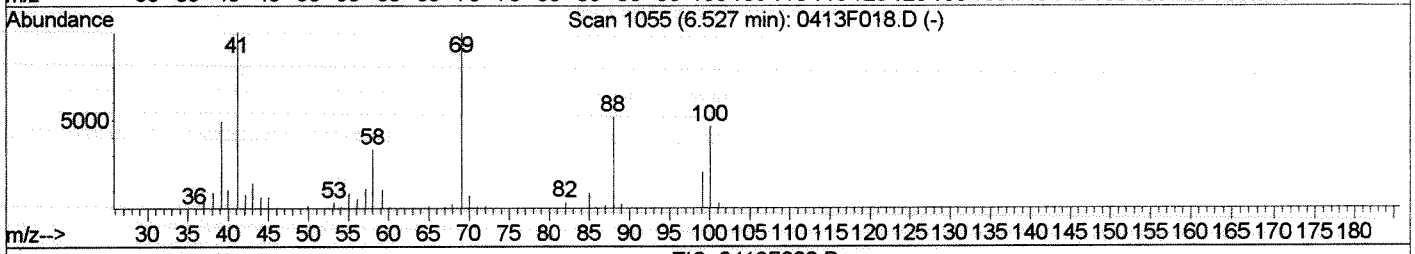
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F022.D Vial: 20
Acq On : 13 Apr 2016 22:48 Operator: YX
Sample : 8260 ICAL 80 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:26 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F022.D

(56) 1,4-Dioxane (T)
6.53min 3258.23PPB m
response 382397

Ion	Exp%	Act%
88.00	100	100
58.00	64.20	65.09
0.00	0.00	0.00
0.00	0.00	0.00

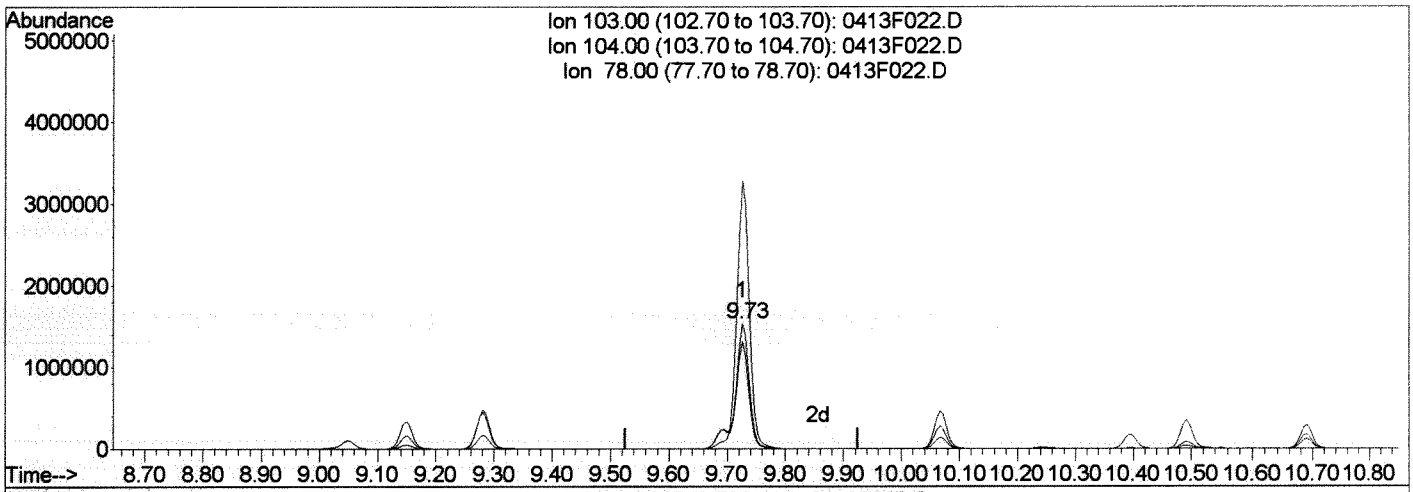
Manual Integration:
After
Peak tailing
04/14/16

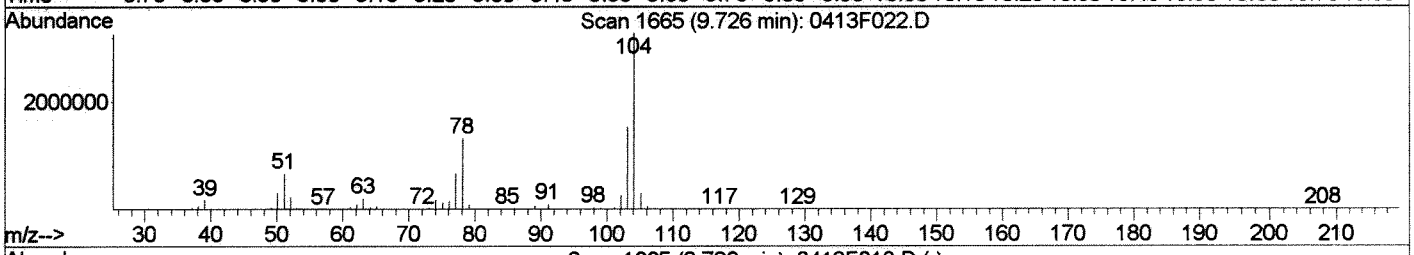
0413F022.D 041316MS18_8260.M Thu Apr 14 11:26:43 2016

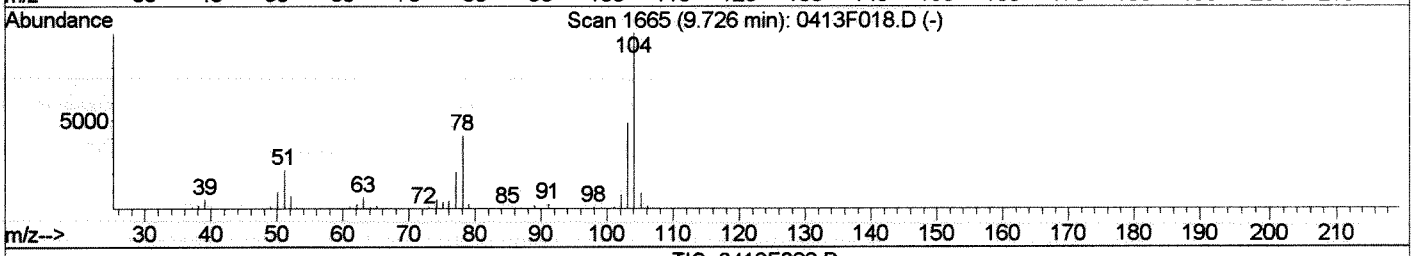
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F022.D Vial: 20
Acq On : 13 Apr 2016 22:48 Operator: YX
Sample : 8260 ICAL 80 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:26 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F022.D

(81) Styrene (T)

9.73min 94.73PPB

response 2612022

Ion	Exp%	Act%
103.00	100	100
104.00	206.80	213.80
78.00	85.30	85.62
0.00	0.00	0.00

Manual Integration:

Before

04/14/16

KA 4/14/16

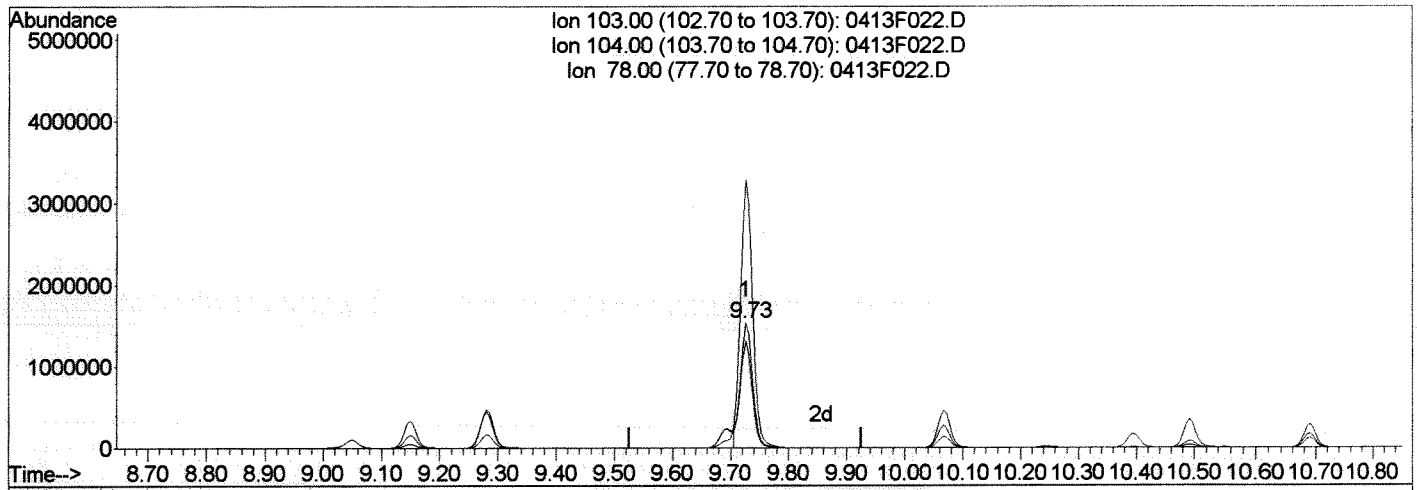
1/2

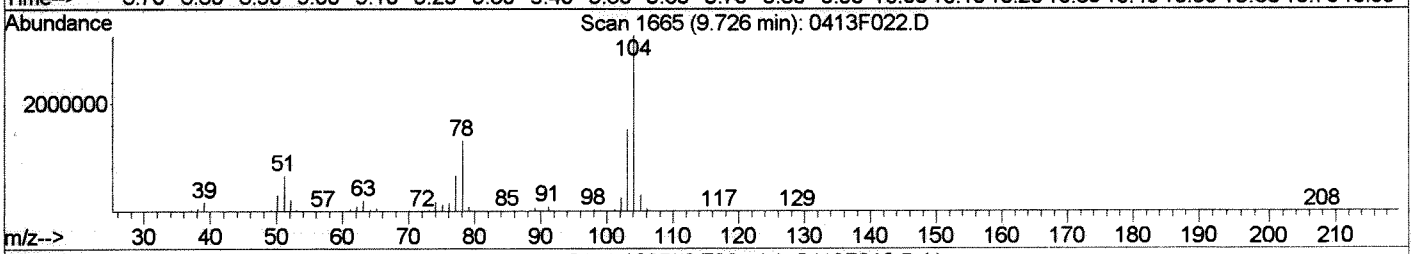
0413F022.D 041316MS18_8260.M Thu Apr 14 11:26:47 2016

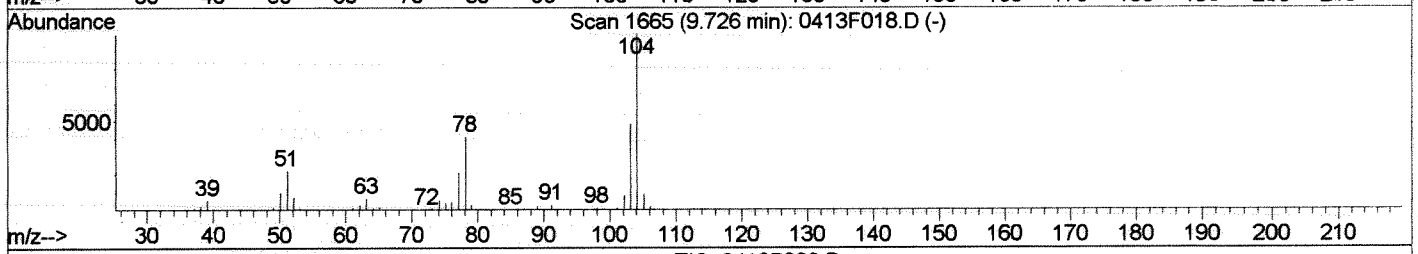
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F022.D Vial: 20
Acq On : 13 Apr 2016 22:48 Operator: YX
Sample : 8260 ICAL 80 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:26 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 10:20:15 2016
Response via : Single Level Calibration







TIC: 0413F022.D

(81) Styrene (T)

9.73min 81.09PPB m

response 2235937

Ion	Exp%	Act%
103.00	100	100
104.00	206.80	213.80
78.00	85.30	85.63
0.00	0.00	0.00

Manual Integration:

After

Shoulder

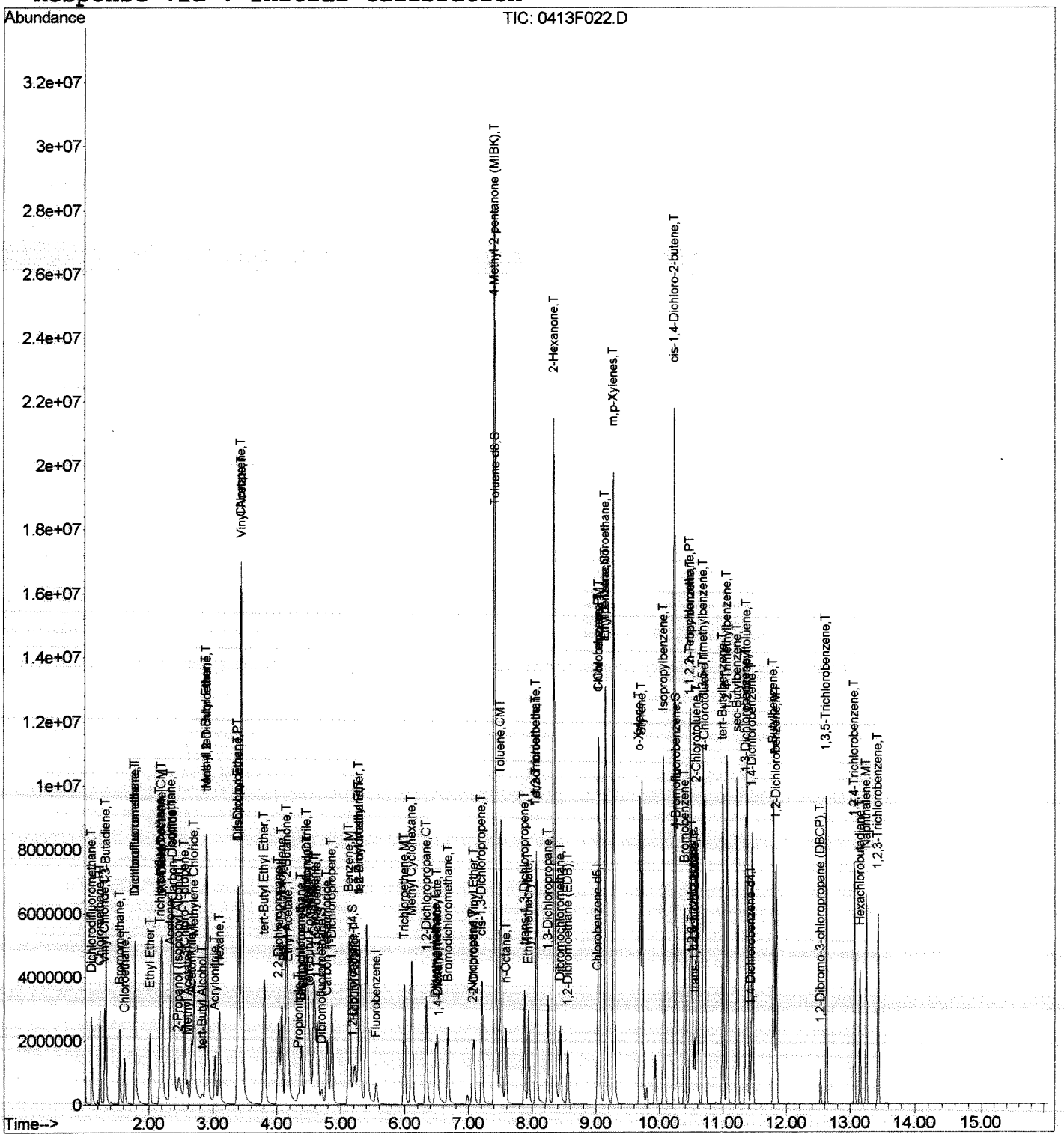
04/14/16

0413F022.D 041316MS18_8260.M Thu Apr 14 11:26:56 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F022.D Vial: 20
Acq On : 13 Apr 2016 22:48 Operator: YX
Sample : 8260 ICAL 80 ppb Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:26 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : J:\MS18\DATA\041316\0413F023.D Vial: 21
Acq On : 13 Apr 2016 23:10 Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 14:54:33 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.55	96	701659	10.00	PPB		0.00
65) Chlorobenzene-d5	9.02	82	269383	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.43	152	241450	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	0.00	113	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
48) 1,2-Dichloroethane-d4	5.20	65	637	0.04	PPB		0.01
Spiked Amount 10.000			Recovery =	0.40%			
63) Toluene-d8	7.43	98	3658	0.06	PPB		0.00
Spiked Amount 10.000			Recovery =	0.60%			
85) 4-Bromofluorobenzene	10.27	95	3667	0.16	PPB		0.00
Spiked Amount 10.000			Recovery =	1.60%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.10	85	4219	0.24	PPB		89
3) Chloromethane	1.23	50	3965	0.17	PPB		91
4) Vinyl Chloride	1.31	62	1339	0.06	PPB		98
5) 1,3-Butadiene	1.33	54	2340	0.14	PPB		85
6) Bromomethane	1.55	96	3407	0.29	PPB		93
7) Chloroethane	1.63	64	692	0.05	PPB		82
8) Dichlorofluoromethane	1.78	67	1924	0.06	PPB		89
9) Trichlorofluoromethane	1.78	101	3053	0.13	PPB		79
10) Ethyl Ether	2.02	59	517	0.04	PPB		86
11) Acrolein	2.20	56	6675	3.95	PPB		94
12) Trichlorotrifluoroethane	2.18	151	3715	0.33	PPB		86
13) 1,1-Dichloroethene	2.21	96	1548	0.11	PPB		98
14) Acetone	2.34	43	16838	7.51	PPB		94
15) Iodomethane	2.36	142	13889	0.76	PPB		95
16) Carbon Disulfide	2.38	76	8041	0.18	PPB		91
17) 2-Propanol (Isopropyl Alco	2.47	45	11244	23.75	PPB		83
18) 3-Chloro-1-propene	2.55	76	573	0.06	PPB	#	38
19) Methyl Acetate	2.59	43	1459	0.17	PPB		86
20) Acetonitrile	2.67	40	10058	16.76	PPB	#	81
21) Methylene Chloride	2.70	84	3224	0.17	PPB		88
22) tert-Butyl Alcohol	2.85	59	1453	2.17	PPB		76
23) Acrylonitrile	3.03	53	3529	0.88	PPB		88
24) Methyl tert-Butyl Ether	2.90	73	3975	0.09	PPB		96
25) trans-1,2-Dichloroethene	2.91	96	3025	0.18	PPB		96
26) Hexane	3.10	57	18066	1.02	PPB		95
27) Diisopropyl Ether	3.40	45	2640	0.05	PPB		84
28) 1,1-Dichloroethane	3.39	63	1451	0.05	PPB		68

(#) = qualifier out of range (m) = manual integration
0413F023.D 041316MS18_8260.M Thu Apr 14 14:54:34 2016 Page 1

Quantitation Report (Not Reviewed)

Data File : J:\MS18\DATA\041316\0413F023.D Vial: 21
Acq On : 13 Apr 2016 23:10 Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 14:54:33 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
30)	Chloroprene	3.45	53	11249	0.40	PPB		99
31)	tert-Butyl Ethyl Ether	3.81	59	2452	0.05	PPB		93
32)	2,2-Dichloropropane	4.02	77	538	0.03	PPB		66
33)	cis-1,2-Dichloroethene	4.08	96	2244	0.12	PPB		82
34)	2-Butanone	4.16	72	6473	5.18	PPB	#	79
35)	Propionitrile	4.34	54	1673	1.19	PPB		76
36)	Ethyl Acetate	4.07	61	2396	1.34	PPB	#	17
37)	Methacrylonitrile	4.46	67	2902	0.56	PPB	#	68
38)	Bromochloromethane	4.38	128	544	0.07	PPB		80
40)	Chloroform	4.48	83	2580	0.09	PPB		93
42)	1,1,1-Trichloroethane	4.64	97	1337	0.06	PPB		90
44)	Carbon Tetrachloride	4.79	117	1321	0.08	PPB		93
45)	1,1-Dichloropropene	4.85	75	4771	0.21	PPB		86
46)	Cyclohexane	4.59	56	6599	0.23	PPB		88
47)	Isobutyl Alcohol	5.24	43	4823	18.75	PPB		91
49)	Benzene	5.13	78	7845	0.10	PPB		96
50)	1,2-Dichloroethane	5.30	62	1998	0.10	PPB		93
51)	tert-Amyl Methyl Ether	5.31	55	724	0.06	PPB	#	1
52)	Trichloroethene	6.00	95	3864	0.23	PPB		90
53)	1,2-Dichloropropane	6.34	63	1221	0.07	PPB	#	64
55)	Methyl methacrylate	6.51	69	656	0.07	PPB	#	66
56)	1,4-Dioxane	6.56	88	2517	20.97	PPB		63
57)	Bromodichloromethane	6.68	83	1136	0.06	PPB		78
58)	2-Nitropropane	7.06	41	1046	0.55	PPB	#	67
59)	Methyl Cyclohexane	6.11	83	14595	0.55	PPB		96
60)	2-Chloroethyl Vinyl Ether	7.09	63	907	0.10	PPB	#	44
61)	cis-1,3-Dichloropropene	7.21	75	2270	0.08	PPB		84
62)	4-Methyl-2-pentanone (MIBK	7.42	58	11962	2.85	PPB		93
64)	Toluene	7.51	92	8631	0.18	PPB		93
66)	n-Octane	7.59	85	31362	4.58	PPB		96
67)	trans-1,3-Dichloropropene	7.87	75	2422	0.11	PPB		93
68)	Ethyl methacrylate	7.94	69	1683	0.10	PPB		97
69)	1,1,2-Trichloroethane	8.06	83	1149	0.10	PPB		87
70)	Tetrachloroethene	8.06	164	7217	0.57	PPB		94
71)	2-Hexanone	8.35	57	5571	4.21	PPB	#	77
72)	1,3-Dichloropropane	8.24	76	2416	0.10	PPB		80
73)	Dibromochloromethane	8.44	129	767	0.06	PPB		83
74)	1,2-Dibromoethane (EDB)	8.56	107	1613	0.13	PPB		97
75)	1-Chlorohexane	9.04	91	13266	0.59	PPB		99
76)	Chlorobenzene	9.05	112	15815	0.31	PPB		99
77)	Ethylbenzene	9.15	106	7633	0.28	PPB		100

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

Data File : J:\MS18\DATA\041316\0413F023.D Vial: 21
Acq On : 13 Apr 2016 23:10 Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 14:54:33 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

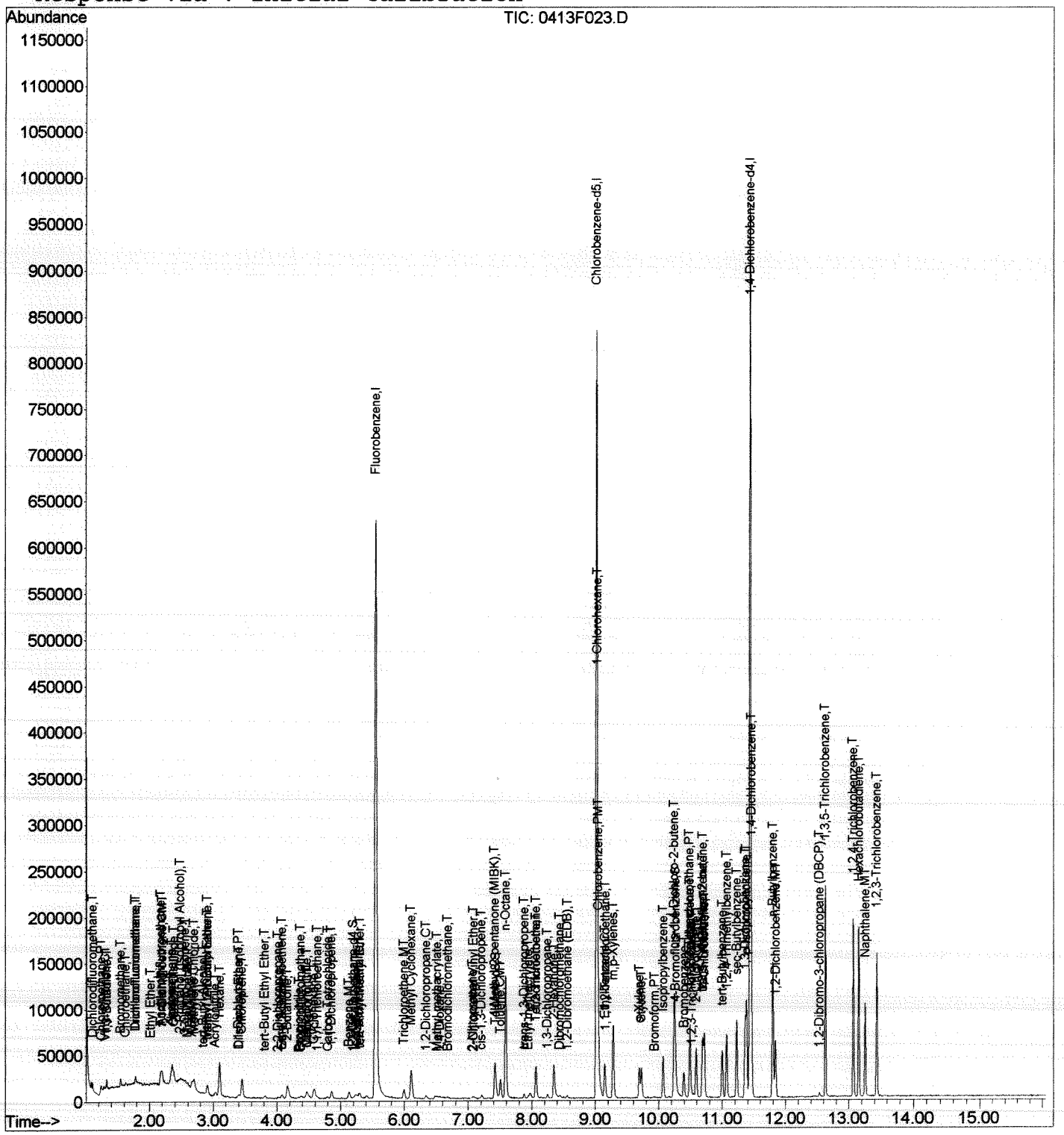
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
78)	1,1,1,2-Tetrachloroethane	9.16	131	1525	0.10	PPB		88
79)	m,p-Xylenes	9.28	106	23181	0.70	PPB		99
80)	o-Xylene	9.69	106	9095	0.28	PPB		92
81)	Styrene	9.73	103	7151	0.29	PPB		97
82)	Bromoform	9.93	173	535	0.09	PPB		70
83)	Isopropylbenzene	10.07	105	28587	0.36	PPB		99
84)	cis-1,4-Dichloro-2-butene	10.24	89	733	0.35	PPB	#	50
87)	1,1,2,2-Tetrachloroethane	10.48	83	3157	0.21	PPB		95
88)	trans-1,4-Dichloro-2-buten	10.69	53	1111	0.28	PPB		71
89)	Bromobenzene	10.40	156	7263	0.37	PPB		94
90)	n-Propylbenzene	10.49	91	52644	0.58	PPB		97
91)	1,2,3-Trichloropropane	10.52	110	736	0.16	PPB	#	72
92)	2-Chlorotoluene	10.59	91	29786	0.51	PPB		99
93)	1,3,5-Trimethylbenzene	10.69	105	35256	0.56	PPB		98
94)	4-Chlorotoluene	10.72	91	43531	0.65	PPB		98
95)	tert-Butylbenzene	11.00	119	24131	0.44	PPB		99
96)	1,2,4-Trimethylbenzene	11.07	105	37745	0.60	PPB		96
97)	sec-Butylbenzene	11.23	105	56689	0.74	PPB		97
98)	p-Isopropyltoluene	11.38	119	55279	0.90	PPB		96
99)	1,3-Dichlorobenzene	11.36	146	32646	0.85	PPB		97
100)	1,4-Dichlorobenzene	11.46	146	34989	0.86	PPB		98
101)	n-Butylbenzene	11.80	91	79600	1.50	PPB		96
102)	1,2-Dichlorobenzene	11.84	146	25432	0.70	PPB		96
103)	1,2-Dibromo-3-chloropropan	12.54	155	606	0.44	PPB		88
104)	1,3,5-Trichlorobenzene	12.63	180	47933	2.10	PPB		97
105)	1,2,4-Trichlorobenzene	13.07	180	43718	2.19	PPB		98
106)	Hexachlorobutadiene	13.15	225	29906	4.12	PPB		95
107)	Naphthalene	13.25	128	62276	1.57	PPB		98
108)	1,2,3-Trichlorobenzene	13.44	180	37420	2.32	PPB		96

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

Quantitation Report (Not Reviewed)

Data File : J:\MS18\DATA\041316\0413F023.D Vial: 21
Acq On : 13 Apr 2016 23:10 Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 14:54 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : J:\MS18\DATA\041316\0413F024.D Vial: 22
Acq On : 13 Apr 2016 23:31 Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 14:54:35 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.55	96	678611	10.00	PPB		0.00
65) Chlorobenzene-d5	9.02	82	260691	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	230738	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	0.00	113	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
48) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
63) Toluene-d8	7.43	98	1896	0.03	PPB		0.00
Spiked Amount 10.000			Recovery =	0.30%			
85) 4-Bromofluorobenzene	10.27	95	1644	0.07	PPB		0.00
Spiked Amount 10.000			Recovery =	0.70%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.10	85	1547	0.09	PPB		90
3) Chloromethane	1.23	50	1491	0.07	PPB		92
4) Vinyl Chloride	1.31	62	555	0.03	PPB		91
5) 1,3-Butadiene	1.33	54	806	0.05	PPB		86
6) Bromomethane	1.55	96	1179	0.10	PPB		87
8) Dichlorofluoromethane	1.79	67	832	0.03	PPB		82
9) Trichlorofluoromethane	1.78	101	1038	0.05	PPB		78
11) Acrolein	2.20	56	1682	1.03	PPB		81
12) Trichlorotrifluoroethane	2.18	151	1343	0.12	PPB		97
13) 1,1-Dichloroethene	2.21	96	595	0.04	PPB	#	59
14) Acetone	2.33	43	3602	1.66	PPB		86
15) Iodomethane	2.35	142	6112	0.35	PPB		91
16) Carbon Disulfide	2.38	76	3155	0.07	PPB		93
17) 2-Propanol (Isopropyl Alco	2.46	45	1000	2.18	PPB		83
18) 3-Chloro-1-propene	2.38	76	3155	0.35	PPB	#	1
19) Methyl Acetate	2.33	43	3602	0.44	PPB		56
20) Acetonitrile	2.67	40	913	1.57	PPB	#	32
21) Methylene Chloride	2.69	84	2344	0.13	PPB		87
23) Acrylonitrile	3.45	53	3952	1.02	PPB	#	45
24) Methyl tert-Butyl Ether	2.91	73	784	0.02	PPB	#	39
25) trans-1,2-Dichloroethene	2.90	96	1015	0.06	PPB		81
26) Hexane	3.10	57	7552	0.44	PPB		92
27) Diisopropyl Ether	3.40	45	751	0.01	PPB	#	51
28) 1,1-Dichloroethane	3.40	63	588	0.02	PPB	#	51
30) Chloroprene	3.45	53	3952	0.15	PPB		87
33) cis-1,2-Dichloroethene	4.07	96	865	0.05	PPB	#	51
34) 2-Butanone	4.18	72	598	0.49	PPB	#	54

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

Quantitation Report (Not Reviewed)

Data File : J:\MS18\DATA\041316\0413F024.D Vial: 22
Acq On : 13 Apr 2016 23:31 Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 14:54:35 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
36)	Ethyl Acetate	4.08	61	809	0.47 PPB	#	17
40)	Chloroform	4.49	83	1503	0.06 PPB		83
45)	1,1-Dichloropropene	4.85	75	1596	0.07 PPB		95
46)	Cyclohexane	4.58	56	2298	0.08 PPB		89
47)	Isobutyl Alcohol	5.24	43	677	2.72 PPB		87
49)	Benzene	5.14	78	3259	0.04 PPB		85
51)	tert-Amyl Methyl Ether	5.55	55	637	0.05 PPB	#	10
52)	Trichloroethene	6.00	95	1257	0.08 PPB		81
55)	Methyl methacrylate	6.11	69	1036	0.11 PPB	#	50
58)	2-Nitropropane	7.42	41	1252	0.67 PPB	#	1
59)	Methyl Cyclohexane	6.11	83	4562	0.18 PPB		79
61)	cis-1,3-Dichloropropene	7.21	75	613	0.02 PPB		68
62)	4-Methyl-2-pentanone (MIBK	7.43	58	1355	0.33 PPB	#	52
64)	Toluene	7.51	92	2770	0.06 PPB		94
66)	n-Octane	7.59	85	10437	1.57 PPB		100
67)	trans-1,3-Dichloropropene	7.87	75	588	0.03 PPB	#	61
68)	Ethyl methacrylate	7.59	69	691	0.04 PPB	#	1
70)	Tetrachloroethene	8.06	164	2325	0.19 PPB		92
71)	2-Hexanone	8.35	57	766	0.60 PPB	#	6
72)	1,3-Dichloropropane	8.24	76	604	0.02 PPB		92
75)	1-Chlorohexane	9.04	91	4598	0.21 PPB		100
76)	Chlorobenzene	9.05	112	4538	0.09 PPB		92
77)	Ethylbenzene	9.14	106	2178	0.08 PPB	#	79
79)	m,p-Xylenes	9.28	106	7153	0.22 PPB		89
80)	o-Xylene	9.69	106	2151	0.07 PPB		89
81)	Styrene	9.73	103	2076	0.09 PPB		89
83)	Isopropylbenzene	10.07	105	7634	0.10 PPB		93
84)	cis-1,4-Dichloro-2-butene	10.59	89	1440	0.72 PPB	#	1
88)	trans-1,4-Dichloro-2-buten	10.24	53	774	0.21 PPB	#	36
89)	Bromobenzene	10.40	156	2059	0.11 PPB		86
90)	n-Propylbenzene	10.49	91	16327	0.19 PPB		97
92)	2-Chlorotoluene	10.59	91	8565	0.15 PPB		92
93)	1,3,5-Trimethylbenzene	10.69	105	10108	0.17 PPB		91
94)	4-Chlorotoluene	10.72	91	13359	0.21 PPB		97
95)	tert-Butylbenzene	11.00	119	6846	0.13 PPB		99
96)	1,2,4-Trimethylbenzene	11.07	105	11058	0.18 PPB		95
97)	sec-Butylbenzene	11.23	105	15508	0.21 PPB		95
98)	p-Isopropyltoluene	11.38	119	15209	0.26 PPB		97
99)	1,3-Dichlorobenzene	11.36	146	10186	0.28 PPB		96
100)	1,4-Dichlorobenzene	11.46	146	11977	0.31 PPB		98
101)	n-Butylbenzene	11.80	91	23002	0.45 PPB		93

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

Quantitation Report (Not Reviewed)

Data File : J:\MS18\DATA\041316\0413F024.D Vial: 22
Acq On : 13 Apr 2016 23:31 Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 14:54:35 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

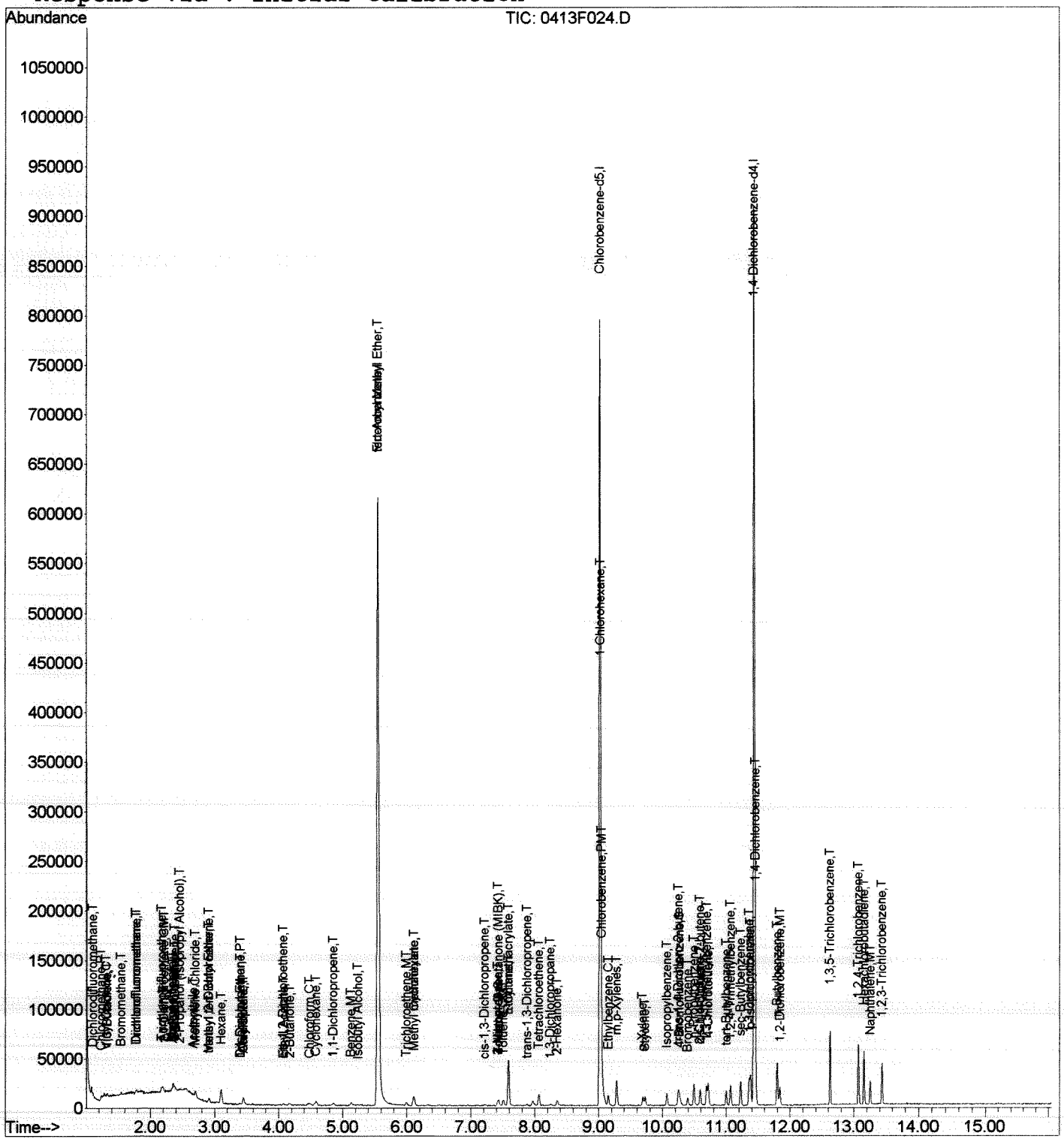
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	1,2-Dichlorobenzene	11.84	146	6749	0.19	PPB	92
104)	1,3,5-Trichlorobenzene	12.62	180	15396	0.71	PPB	96
105)	1,2,4-Trichlorobenzene	13.07	180	14356	0.75	PPB	99
106)	Hexachlorobutadiene	13.15	225	7728	1.11	PPB	93
107)	Naphthalene	13.25	128	14194	0.37	PPB	96
108)	1,2,3-Trichlorobenzene	13.44	180	10034	0.65	PPB	96

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

Quantitation Report (Not Reviewed)

Data File : J:\MS18\DATA\041316\0413F024.D Vial: 22
Acq On : 13 Apr 2016 23:31 Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 14:54 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



0413F024.D 041316MS18_8260.M Thu Apr 14 14:54:36 2016 Page 4

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F025.D Vial: 23
Acq On : 13 Apr 2016 23:53 Operator: YX
Sample : 8260 ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:42:01 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.55	96	660573	10.00	PPB	0.00
65) Chlorobenzene-d5	9.02	82	257906	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	233715	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	4.70	113	132186	10.10	PPB	0.00
Spiked Amount 10.000			Recovery = 101.00%			
48) 1,2-Dichloroethane-d4	5.19	65	154823	10.24	PPB	0.00
Spiked Amount 10.000			Recovery = 102.40%			
63) Toluene-d8	7.43	98	615511	10.41	PPB	0.00
Spiked Amount 10.000			Recovery = 104.10%			
85) 4-Bromofluorobenzene	10.27	95	226941	10.11	PPB	0.00
Spiked Amount 10.000			Recovery = 101.10%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	156567	9.27	PPB	98
3) Chloromethane	1.23	50	187124	8.72	PPB	98
4) Vinyl Chloride	1.31	62	180016	8.98	PPB	99
5) 1,3-Butadiene	1.33	54	195943	12.65	PPB	100
6) Bromomethane	1.55	96	90296	8.14	PPB	98
7) Chloroethane	1.62	64	99641	8.01	PPB	95
8) Dichlorofluoromethane	1.78	67	274647	9.75	PPB	98
9) Trichlorofluoromethane	1.78	101	175294	8.07	PPB	99
10) Ethyl Ether	2.02	59	122245	9.88	PPB	97
11) Acrolein	2.19	56	155119	97.40	PPB	98
12) Trichlorotrifluoroethane	2.18	151	103734	9.80	PPB	95
13) 1,1-Dichloroethene	2.21	96	134073	9.98	PPB	98
14) Acetone	2.33	43	108948	51.61	PPB	99
15) Iodomethane	2.35	142	587761	34.18	PPB	97
16) Carbon Disulfide	2.37	76	861768	20.44	PPB	99
17) 2-Propanol (Isopropyl Alco	2.46	45	231923	520.39	PPB	95
18) 3-Chloro-1-propene	2.55	76	295349	34.14	PPB	97
20) Acetonitrile	2.66	40	178933	316.68	PPB	95
21) Methylene Chloride	2.70	84	172989	9.74	PPB	97
22) tert-Butyl Alcohol	2.84	59	62293	98.76	PPB	93
23) Acrylonitrile	3.03	53	148848	39.33	PPB	95
24) Methyl tert-Butyl Ether	2.89	73	432837	10.61	PPB	100
25) trans-1,2-Dichloroethene	2.91	96	158045	9.85	PPB	99
26) Hexane	3.10	57	530548	31.73	PPB	98
27) Diisopropyl Ether	3.39	45	1020434	19.97	PPB	100
28) 1,1-Dichloroethane	3.40	63	286227	10.05	PPB	98
29) Vinyl Acetate	3.46	86	156016	51.64	PPB	94

(#) = qualifier out of range (m) = manual integration
0413F025.D 041316MS18_8260.M Thu Apr 14 11:44:23 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F025.D Vial: 23
Acq On : 13 Apr 2016 23:53 Operator: YX
Sample : 8260 ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:42:01 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
30)	Chloroprene	3.45	53	790167	30.15	PPB		98
31)	tert-Butyl Ethyl Ether	3.81	59	956150	20.66	PPB		98
32)	2,2-Dichloropropane	4.03	77	194738	9.74	PPB		95
33)	cis-1,2-Dichloroethene	4.08	96	182462	10.01	PPB		96
34)	2-Butanone	4.16	72	60839	51.69	PPB	#	57
35)	Propionitrile	4.34	54	43419	32.74	PPB		99
36)	Ethyl Acetate	4.18	61	49891	29.53	PPB		96
37)	Methacrylonitrile	4.46	67	156569	32.27	PPB		96
38)	Bromochloromethane	4.38	128	67111	9.67	PPB		97
39)	Tetrahydrofuran	4.40	71	21802	18.99	PPB		86
40)	Chloroform	4.48	83	271322	10.31	PPB		98
41)	tert-Butyl Formate	4.51	59	135448	18.72	PPB		94
42)	1,1,1-Trichloroethane	4.63	97	199317	9.77	PPB		99
44)	Carbon Tetrachloride	4.79	117	151571	9.13	PPB		99
45)	1,1-Dichloropropene	4.86	75	215239	9.94	PPB		98
47)	Isobutyl Alcohol	5.22	43	65353	269.86	PPB		99
49)	Benzene	5.13	78	687956	9.54	PPB		99
50)	1,2-Dichloroethane	5.30	62	187119	9.77	PPB		99
51)	tert-Amyl Methyl Ether	5.29	55	231916	19.81	PPB		95
52)	Trichloroethene	5.99	95	151935	9.66	PPB		98
53)	1,2-Dichloropropane	6.34	63	162872	9.80	PPB		95
54)	Dibromomethane	6.48	93	81189	10.08	PPB		97
55)	Methyl methacrylate	6.51	69	278745	31.64	PPB		97
56)	1,4-Dioxane	6.53	88	37231m	329.48	PPB		
57)	Bromodichloromethane	6.68	83	164100	9.23	PPB		99
58)	2-Nitropropane	7.06	41	45641	24.78	PPB		99
60)	2-Chloroethyl Vinyl Ether	7.09	63	83217	10.21	PPB		97
61)	cis-1,3-Dichloropropene	7.21	75	239125	8.99	PPB		98
62)	4-Methyl-2-pentanone (MIBK	7.41	58	212456	53.77	PPB	#	91
64)	Toluene	7.51	92	444591	9.62	PPB		99
66)	n-Octane	7.59	85	119927	18.28	PPB		97
67)	trans-1,3-Dichloropropene	7.88	75	186466	9.06	PPB		98
68)	Ethyl methacrylate	7.94	69	575568	35.58	PPB		99
69)	1,1,2-Trichloroethane	8.07	83	110667	10.09	PPB		99
70)	Tetrachloroethene	8.06	164	120058	9.90	PPB		97
71)	2-Hexanone	8.34	57	68846	54.31	PPB		91
72)	1,3-Dichloropropane	8.25	76	245221	10.16	PPB		99
73)	Dibromochloromethane	8.44	129	105803	8.41	PPB		98
74)	1,2-Dibromoethane (EDB)	8.55	107	124163	10.22	PPB		99
75)	1-Chlorohexane	9.04	91	214750	10.01	PPB		98
76)	Chlorobenzene	9.05	112	478134	9.71	PPB		100

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

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F025.D Vial: 23
Acq On : 13 Apr 2016 23:53 Operator: YX
Sample : 8260 ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:42:01 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration
DataAcq Meth : 8260

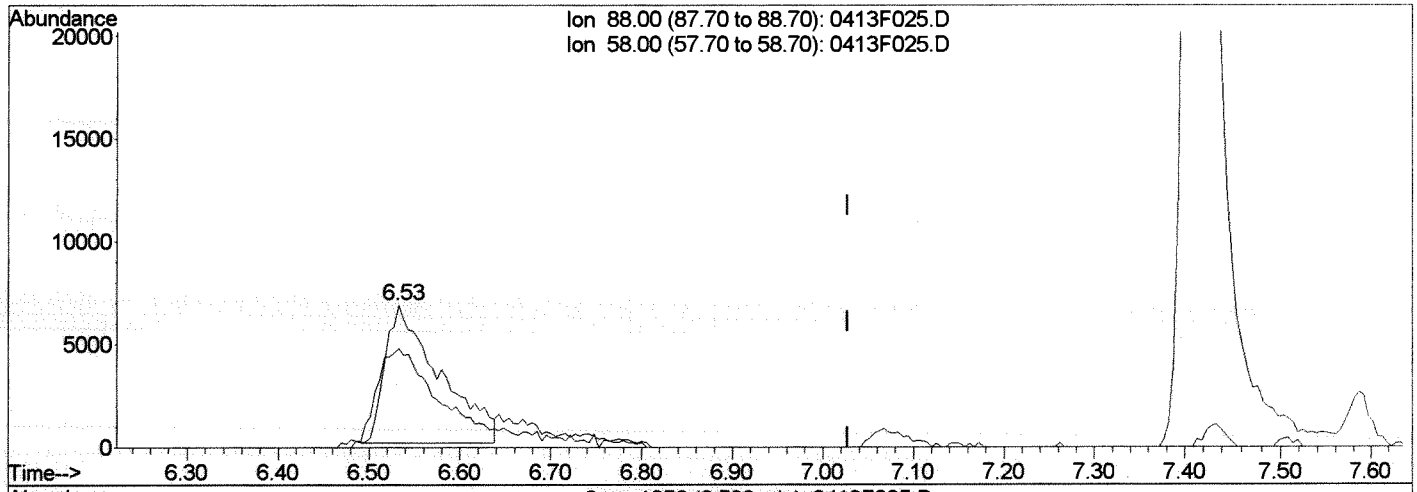
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
77)	Ethylbenzene	9.15	106	258335	10.04	PPB	95
78)	1,1,1,2-Tetrachloroethane	9.16	131	128351	8.99	PPB	99
79)	m,p-Xylenes	9.28	106	636267	20.05	PPB	98
80)	o-Xylene	9.69	106	316945	10.37	PPB	98
81)	Styrene	9.73	103	247918m	10.37	PPB	
82)	Bromoform	9.93	173	49366	8.65	PPB	99
83)	Isopropylbenzene	10.07	105	756742	10.03	PPB	100
84)	cis-1,4-Dichloro-2-butene	10.24	89	54724	27.13	PPB	100
87)	1,1,2,2-Tetrachloroethane	10.48	83	145498	10.18	PPB	98
88)	trans-1,4-Dichloro-2-buten	10.55	53	121316	31.89	PPB	95
89)	Bromobenzene	10.40	156	191099	10.09	PPB	99
90)	n-Propylbenzene	10.49	91	886946	10.15	PPB	100
91)	1,2,3-Trichloropropane	10.52	110	45230	10.14	PPB	89
92)	2-Chlorotoluene	10.59	91	574459	10.23	PPB	99
93)	1,3,5-Trimethylbenzene	10.69	105	625966	10.26	PPB	98
94)	4-Chlorotoluene	10.72	91	640955	9.95	PPB	99
95)	tert-Butylbenzene	11.00	119	527674	10.05	PPB	99
96)	1,2,4-Trimethylbenzene	11.07	105	659469	10.77	PPB	99
97)	sec-Butylbenzene	11.23	105	755428	10.23	PPB	99
98)	p-Isopropyltoluene	11.38	119	642634	10.80	PPB	99
99)	1,3-Dichlorobenzene	11.36	146	365996	9.87	PPB	99
100)	1,4-Dichlorobenzene	11.46	146	376473	9.58	PPB	98
101)	n-Butylbenzene	11.80	91	537136	10.45	PPB	99
102)	1,2-Dichlorobenzene	11.84	146	350534	9.93	PPB	100
103)	1,2-Dibromo-3-chloropropan	12.54	155	13010	9.29	PPB	93
104)	1,3,5-Trichlorobenzene	12.63	180	230054	10.41	PPB	99
105)	1,2,4-Trichlorobenzene	13.07	180	197308	10.19	PPB	99
106)	Hexachlorobutadiene	13.15	225	70359	10.02	PPB	97
107)	Naphthalene	13.25	128	397330	10.33	PPB	99
108)	1,2,3-Trichlorobenzene	13.44	180	155647	9.95	PPB	99

(#) = qualifier out of range (m) = manual integration
0413F025.D 041316MS18_8260.M Thu Apr 14 11:44:23 2016 Page 3

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F025.D Vial: 23
Acq On : 13 Apr 2016 23:53 Operator: YX
Sample : 8260 ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:39 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:37:03 2016
Response via : Single Level Calibration



TIC: 0413F025.D

(56) 1,4-Dioxane (T)

6.53min 245.31PPB

response 27719

Ion	Exp%	Act%
88.00	100	100
58.00	64.20	67.81
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

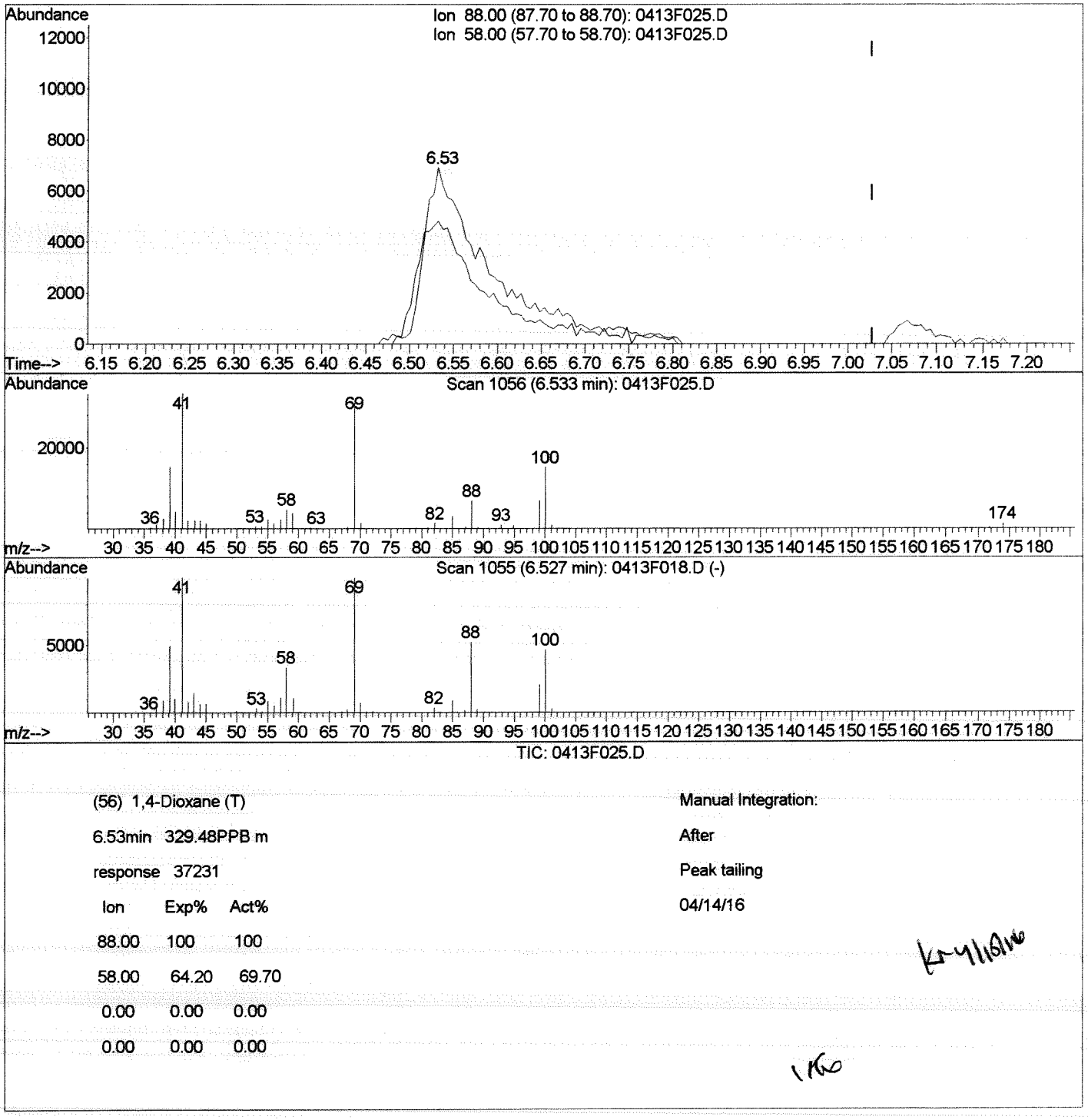
04/14/16

0413F025.D 041316MS18_8260.M Thu Apr 14 11:39:34 2016

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F025.D Vial: 23
Acq On : 13 Apr 2016 23:53 Operator: YX
Sample : 8260 ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:42 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Single Level Calibration



TIC: 0413F025.D

(56) 1,4-Dioxane (T)
6.53min 329.48PPB m
response 37231

Ion	Exp%	Act%
88.00	100	100
58.00	64.20	69.70
0.00	0.00	0.00
0.00	0.00	0.00

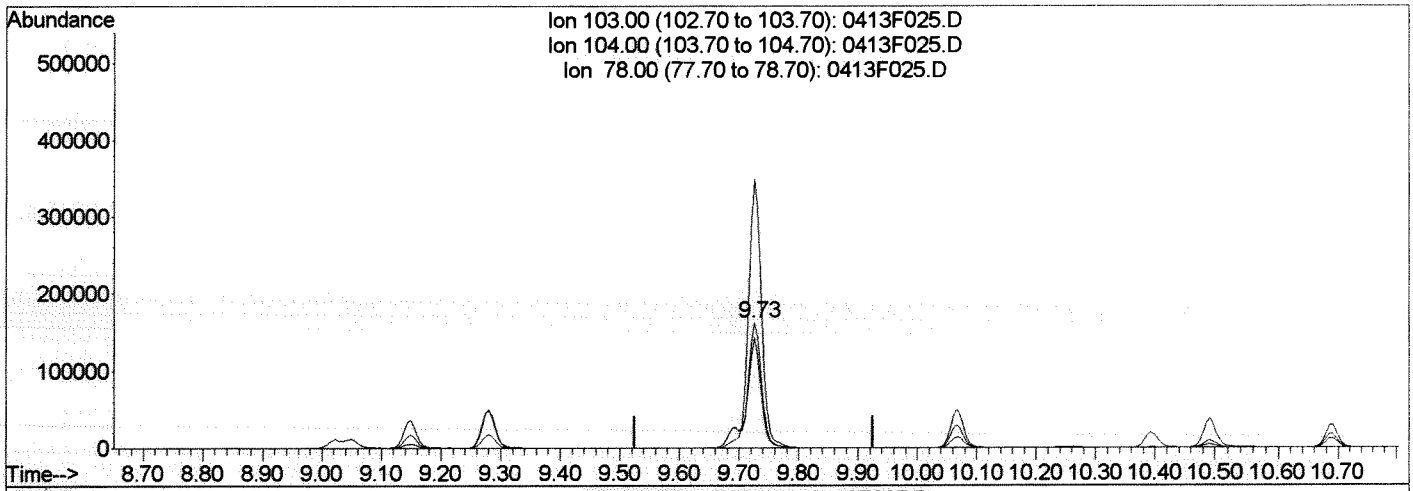
Manual Integration:
After
Peak tailing
04/14/16

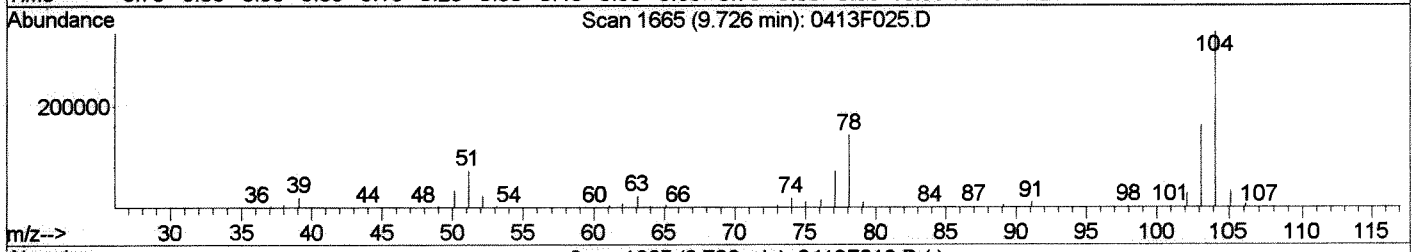
0413F025.D 041316MS18_8260.M Thu Apr 14 11:42:23 2016

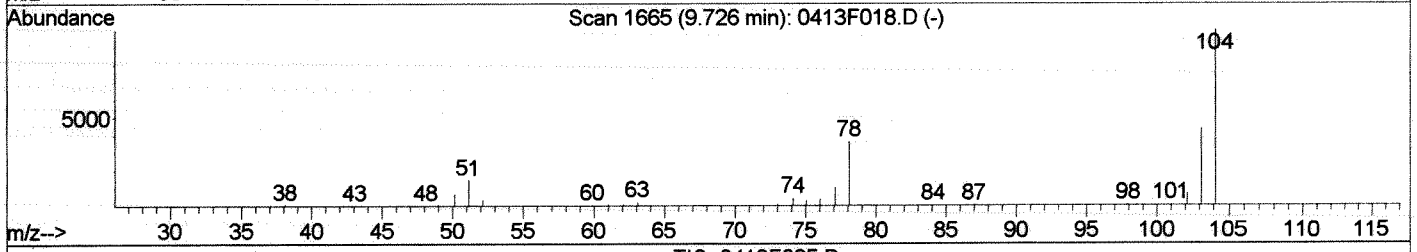
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F025.D Vial: 23
Acq On : 13 Apr 2016 23:53 Operator: YX
Sample : 8260 ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:39 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:37:03 2016
Response via : Single Level Calibration







TIC: 0413F025.D

(81) Styrene (T)

9.73min 11.82PPB

response 282587

Ion	Exp%	Act%
103.00	100	100
104.00	206.80	214.88
78.00	85.30	88.20
0.00	0.00	0.00

Manual Integration:

Before

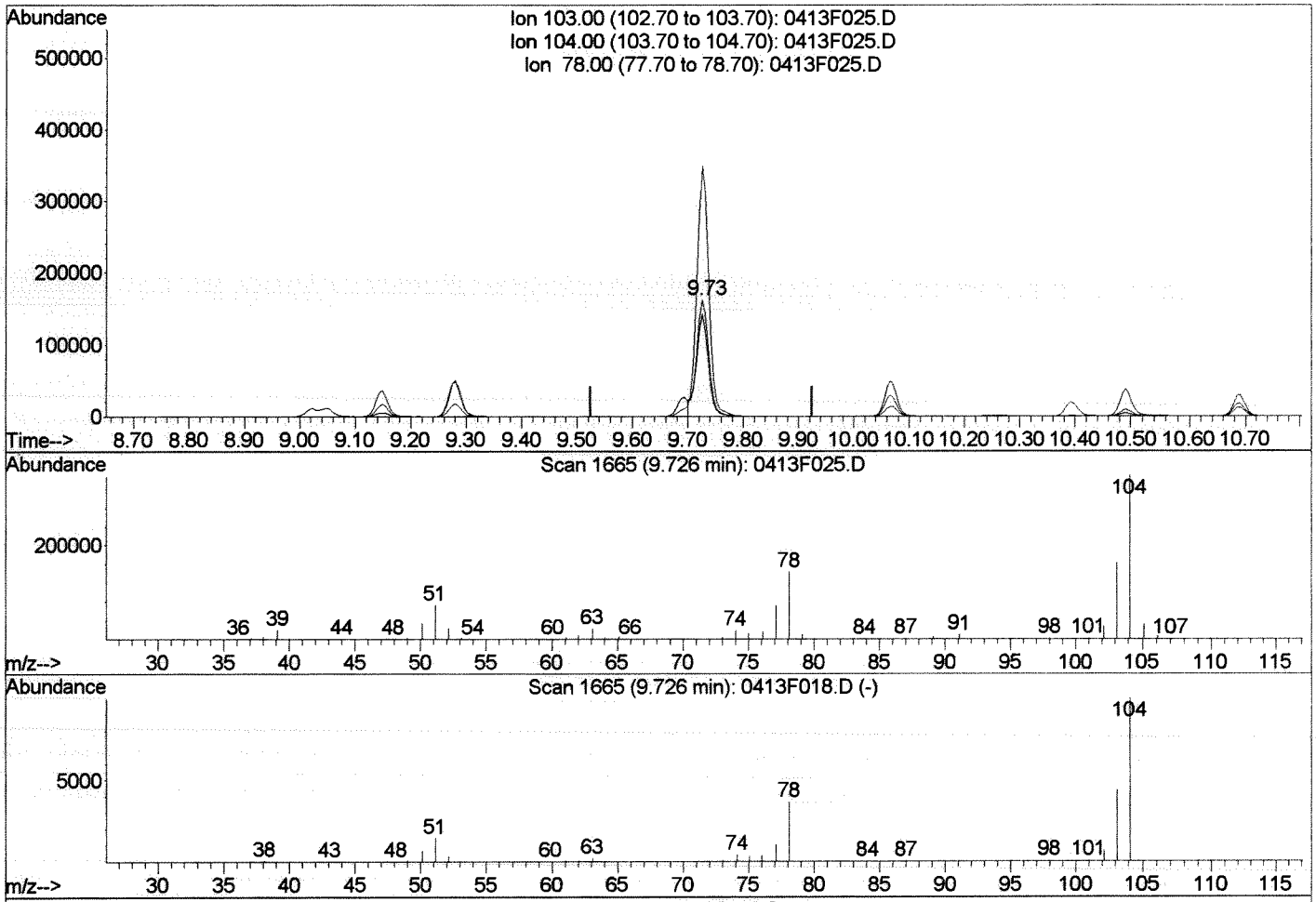
04/14/16

0413F025.D 041316MS18_8260.M Thu Apr 14 11:39:48 2016

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\041316\0413F025.D Vial: 23
Acq On : 13 Apr 2016 23:53 Operator: YX
Sample : 8260 ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:42 2016 Quant Results File: temp.res

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Single Level Calibration



TIC: 0413F025.D

(81) Styrene (T)
9.73min 10.37PPB m
response 247918

Ion	Exp%	Act%
103.00	100	100
104.00	206.80	214.88
78.00	85.30	88.20
0.00	0.00	0.00

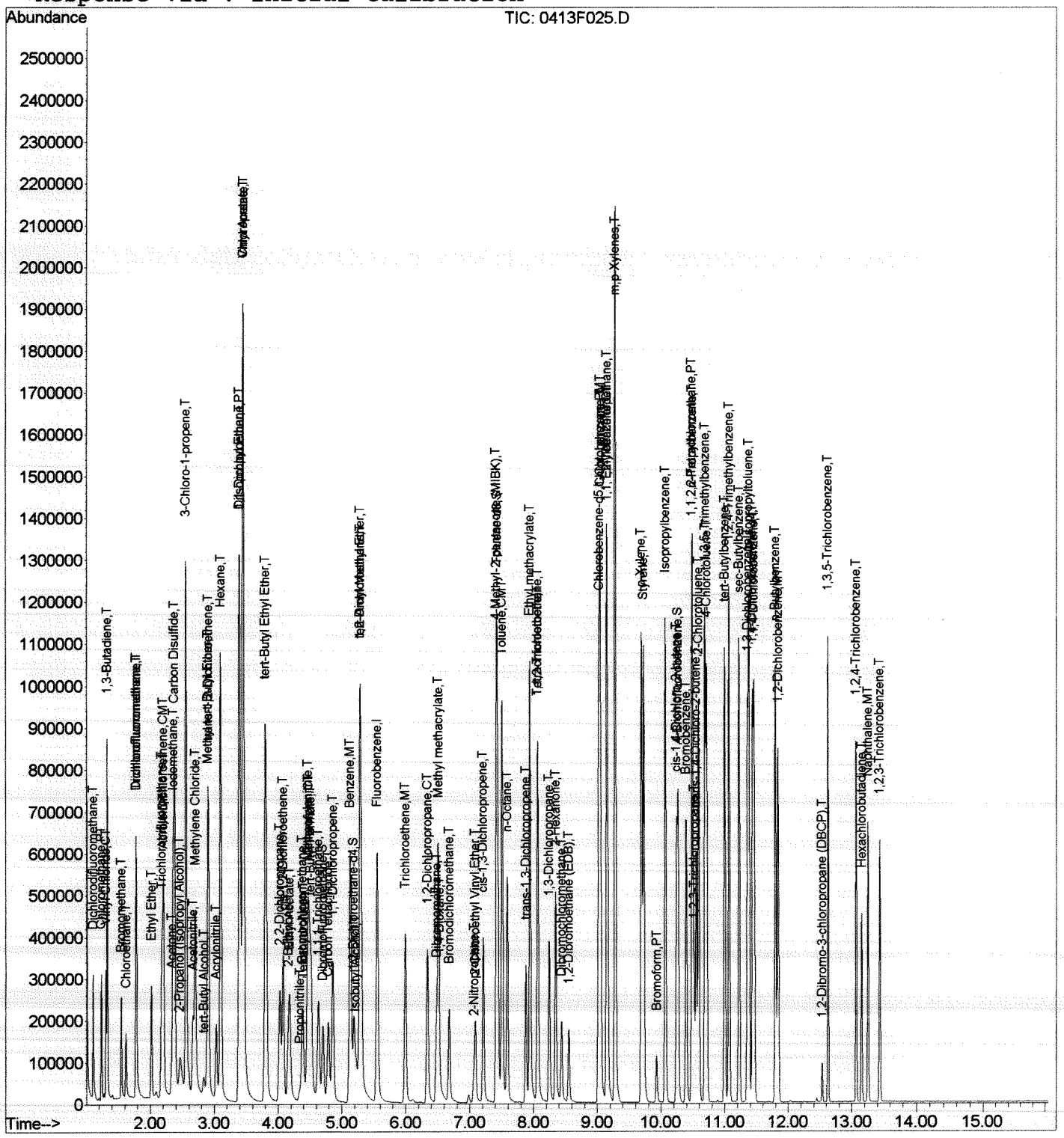
Manual Integration:
After
Shoulder
04/14/16

0413F025.D 041316MS18_8260.M Thu Apr 14 11:42:49 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F025.D Vial: 23
Acq On : 13 Apr 2016 23:53 Operator: YX
Sample : 8260 ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:42 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : J:\MS18\DATA\041316\0413F026.D Vial: 24
Acq On : 14 Apr 2016 00:14 Operator: YX
Sample : 8260 ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 13:31:58 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 13:31:55 2016
Response via : Initial Calibration
DataAcq Meth : 8260

NR not using the 4/14/16

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	5.55	96	678276	10.00 PPB	0.00
65) Chlorobenzene-d5	9.02	82	265799	10.00 PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	238255	10.00 PPB	0.00
System Monitoring Compounds					
43) Dibromofluoromethane	4.70	113	122495	9.12 PPB	0.00
Spiked Amount 10.000			Recovery	= 91.20%	
48) 1,2-Dichloroethane-d4	5.19	65	143560	9.25 PPB	0.00
Spiked Amount 10.000			Recovery	= 92.50%	
63) Toluene-d8	7.43	98	540505	8.90 PPB	0.00
Spiked Amount 10.000			Recovery	= 89.00%	
85) 4-Bromofluorobenzene	10.27	95	212145	9.17 PPB	0.00
Spiked Amount 10.000			Recovery	= 91.70%	

Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.10	85	132857	7.66 PPB	98
3) Chloromethane	1.23	50	171253	7.78 PPB	98
4) Vinyl Chloride	1.31	62	163013	7.92 PPB	99
5) 1,3-Butadiene	1.33	54	194866	12.25 PPB	98
6) Bromomethane	1.55	96	87388	7.67 PPB	97
7) Chloroethane	1.62	64	93468	7.15 PPB	97
8) Dichlorofluoromethane	1.78	67	279638	9.67 PPB	98
9) Trichlorofluoromethane	1.78	101	155301	6.97 PPB	99
10) Ethyl Ether	2.02	59	119667	9.42 PPB	97
11) Acrolein	2.19	56	146488	89.58 PPB	98
12) Trichlorotrifluoroethane	2.18	151	89009	8.19 PPB	93
13) 1,1-Dichloroethene	2.21	96	120022	8.70 PPB	96
14) Acetone	2.33	43	102615	47.34 PPB	97
15) Iodomethane	2.35	142	595102	33.71 PPB	99
16) Carbon Disulfide	2.38	76	786353	18.16 PPB	99
17) 2-Propanol (Isopropyl Alco	2.46	45	218868	478.28 PPB	97
18) 3-Chloro-1-propene	2.55	76	292227	32.89 PPB	98
19) Methyl Acetate	2.60	43	44784	5.30 PPB	99
20) Acetonitrile	2.66	40	183683	316.60 PPB	99
21) Methylene Chloride	2.70	84	169151	9.27 PPB	99
22) tert-Butyl Alcohol	2.84	59	61522	94.99 PPB	95
23) Acrylonitrile	3.03	53	146201	37.62 PPB	96
24) Methyl tert-Butyl Ether	2.90	73	426583	10.18 PPB	99
25) trans-1,2-Dichloroethene	2.91	96	146847	8.91 PPB	98
26) Hexane	3.10	57	519151	30.23 PPB	98
27) Diisopropyl Ether	3.39	45	1027128	19.58 PPB	100
28) 1,1-Dichloroethane	3.40	63	276012	9.44 PPB	98

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

Quantitation Report (Not Reviewed)

Data File : J:\MS18\DATA\041316\0413F026.D Vial: 24
Acq On : 14 Apr 2016 00:14 Operator: YX
Sample : 8260 ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 13:31:58 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 13:31:55 2016
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.46	86	152821	49.27	PPB		94
30)	Chloroprene	3.45	53	781758	29.05	PPB		99
31)	tert-Butyl Ethyl Ether	3.81	59	949250	19.97	PPB		98
32)	2,2-Dichloropropane	4.03	77	175907	8.57	PPB		96
33)	cis-1,2-Dichloroethene	4.08	96	174554	9.32	PPB		99
34)	2-Butanone	4.16	72	57561	47.63	PPB	#	59
35)	Propionitrile	4.34	54	40721	29.90	PPB		99
36)	Ethyl Acetate	4.18	61	49017	28.25	PPB		97
37)	Methacrylonitrile	4.46	67	156459	31.41	PPB		98
38)	Bromochloromethane	4.38	128	66926	9.39	PPB		97
39)	Tetrahydrofuran	4.40	71	23195	19.68	PPB	#	82
40)	Chloroform	4.48	83	261009	9.66	PPB		99
41)	tert-Butyl Formate	4.51	59	137448	18.52	PPB		93
42)	1,1,1-Trichloroethane	4.63	97	180404	8.61	PPB		99
44)	Carbon Tetrachloride	4.79	117	134003	7.88	PPB		98
45)	1,1-Dichloropropene	4.85	75	191400	8.61	PPB		99
46)	Cyclohexane	4.51	56	110226	4.00	PPB	#	18
47)	Isobutyl Alcohol	5.23	43	61383	246.85	PPB		95
49)	Benzene	5.13	78	655232	8.85	PPB		99
50)	1,2-Dichloroethane	5.30	62	188095	9.57	PPB		97
51)	tert-Amyl Methyl Ether	5.29	55	229640	19.10	PPB		98
52)	Trichloroethene	5.99	95	142001	8.79	PPB		99
53)	1,2-Dichloropropane	6.34	63	158128	9.26	PPB		97
54)	Dibromomethane	6.48	93	79815	9.65	PPB		99
55)	Methyl methacrylate	6.51	69	275208	30.42	PPB		96
56)	1,4-Dioxane	6.54	88	29292	252.46	PPB		93
57)	Bromodichloromethane	6.68	83	160005	8.77	PPB		100
58)	2-Nitropropane	7.06	41	45207	23.92	PPB		100
59)	Methyl Cyclohexane	6.11	83	1896	0.07	PPB		88
60)	2-Chloroethyl Vinyl Ether	7.09	63	82454	9.86	PPB		98
61)	cis-1,3-Dichloropropene	7.21	75	237252	8.69	PPB		98
62)	4-Methyl-2-pentanone (MIBK	7.41	58	209567	51.66	PPB		92
64)	Toluene	7.51	92	420259	8.86	PPB		100
66)	n-Octane	7.59	85	119837	17.73	PPB		96
67)	trans-1,3-Dichloropropene	7.88	75	187565	8.85	PPB		99
68)	Ethyl methacrylate	7.94	69	570324	34.21	PPB		99
69)	1,1,2-Trichloroethane	8.07	83	111224	9.84	PPB		97
70)	Tetrachloroethene	8.06	164	106896	8.55	PPB		95
71)	2-Hexanone	8.35	57	64746	49.56	PPB		97
72)	1,3-Dichloropropane	8.25	76	241847	9.72	PPB		98
73)	Dibromochloromethane	8.44	129	105727	8.16	PPB		99

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

Quantitation Report (Not Reviewed)

Data File : J:\MS18\DATA\041316\0413F026.D Vial: 24
Acq On : 14 Apr 2016 00:14 Operator: YX
Sample : 8260 ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 13:31:58 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 13:31:55 2016
Response via : Initial Calibration
DataAcq Meth : 8260

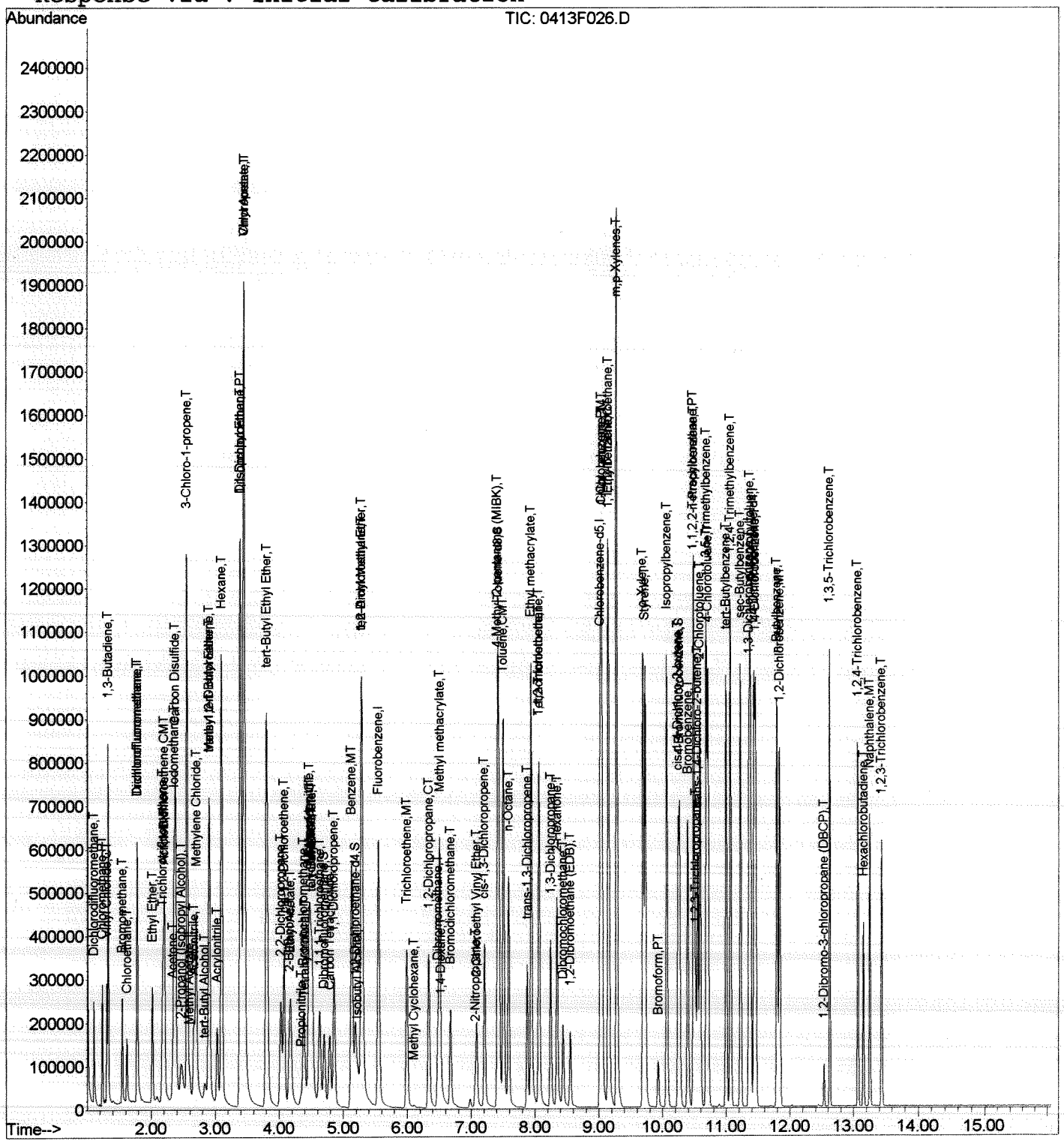
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1,2-Dibromoethane (EDB)	8.55	107	123442	9.86	PPB	96
75)	1-Chlorohexane	9.04	91	192413	8.70	PPB	98
76)	Chlorobenzene	9.05	112	463201	9.13	PPB	98
77)	Ethylbenzene	9.15	106	238621	9.00	PPB	100
78)	1,1,1,2-Tetrachloroethane	9.16	131	126464	8.60	PPB	97
79)	m,p-Xylenes	9.28	106	601431	18.39	PPB	98
80)	o-Xylene	9.69	106	305522	9.70	PPB	100
81)	Styrene	9.73	103	275292	11.17	PPB	96
82)	Bromoform	9.93	173	49745	8.46	PPB	95
83)	Isopropylbenzene	10.07	105	692489	8.91	PPB	99
84)	cis-1,4-Dichloro-2-butene	10.24	89	54288	26.14	PPB	97
87)	1,1,2,2-Tetrachloroethane	10.48	83	143467	9.85	PPB	98
88)	trans-1,4-Dichloro-2-buten	10.55	53	119821	30.90	PPB	95
89)	Bromobenzene	10.40	156	187681	9.72	PPB	98
90)	n-Propylbenzene	10.49	91	819112	9.20	PPB	99
91)	1,2,3-Trichloropropane	10.52	110	43424	9.55	PPB	95
92)	2-Chlorotoluene	10.59	91	545328	9.52	PPB	98
93)	1,3,5-Trimethylbenzene	10.69	105	588847	9.47	PPB	99
94)	4-Chlorotoluene	10.72	91	617302	9.40	PPB	99
95)	tert-Butylbenzene	11.00	119	482544	9.02	PPB	100
96)	1,2,4-Trimethylbenzene	11.07	105	628342	10.07	PPB	100
97)	sec-Butylbenzene	11.23	105	685625	9.11	PPB	100
98)	p-Isopropyltoluene	11.38	119	592007	9.76	PPB	99
99)	1,3-Dichlorobenzene	11.36	146	353089	9.34	PPB	98
100)	1,4-Dichlorobenzene	11.46	146	364883	9.11	PPB	98
101)	n-Butylbenzene	11.80	91	490002	9.35	PPB	98
102)	1,2-Dichlorobenzene	11.84	146	343161	9.54	PPB	99
103)	1,2-Dibromo-3-chloropropan	12.54	155	12854	9.01	PPB	99
104)	1,3,5-Trichlorobenzene	12.62	180	222621	9.89	PPB	100
105)	1,2,4-Trichlorobenzene	13.07	180	192497	9.76	PPB	96
106)	Hexachlorobutadiene	13.15	225	65783	9.19	PPB	97
107)	Naphthalene	13.25	128	392081	10.00	PPB	99
108)	1,2,3-Trichlorobenzene	13.44	180	155448	9.75	PPB	98

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

Quantitation Report (Not Reviewed)

Data File : J:\MS18\DATA\041316\0413F026.D Vial: 24
Acq On : 14 Apr 2016 00:14 Operator: YX
Sample : 8260 ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 13:31 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F027.D Vial: 25
Acq On : 14 Apr 2016 00:36 Operator: YX
Sample : CLP ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:38:25 2016 Quant Results File: 041316MS18_8260

Quant Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:37:03 2016
Response via : Initial Calibration
DataAcq Meth : 8260

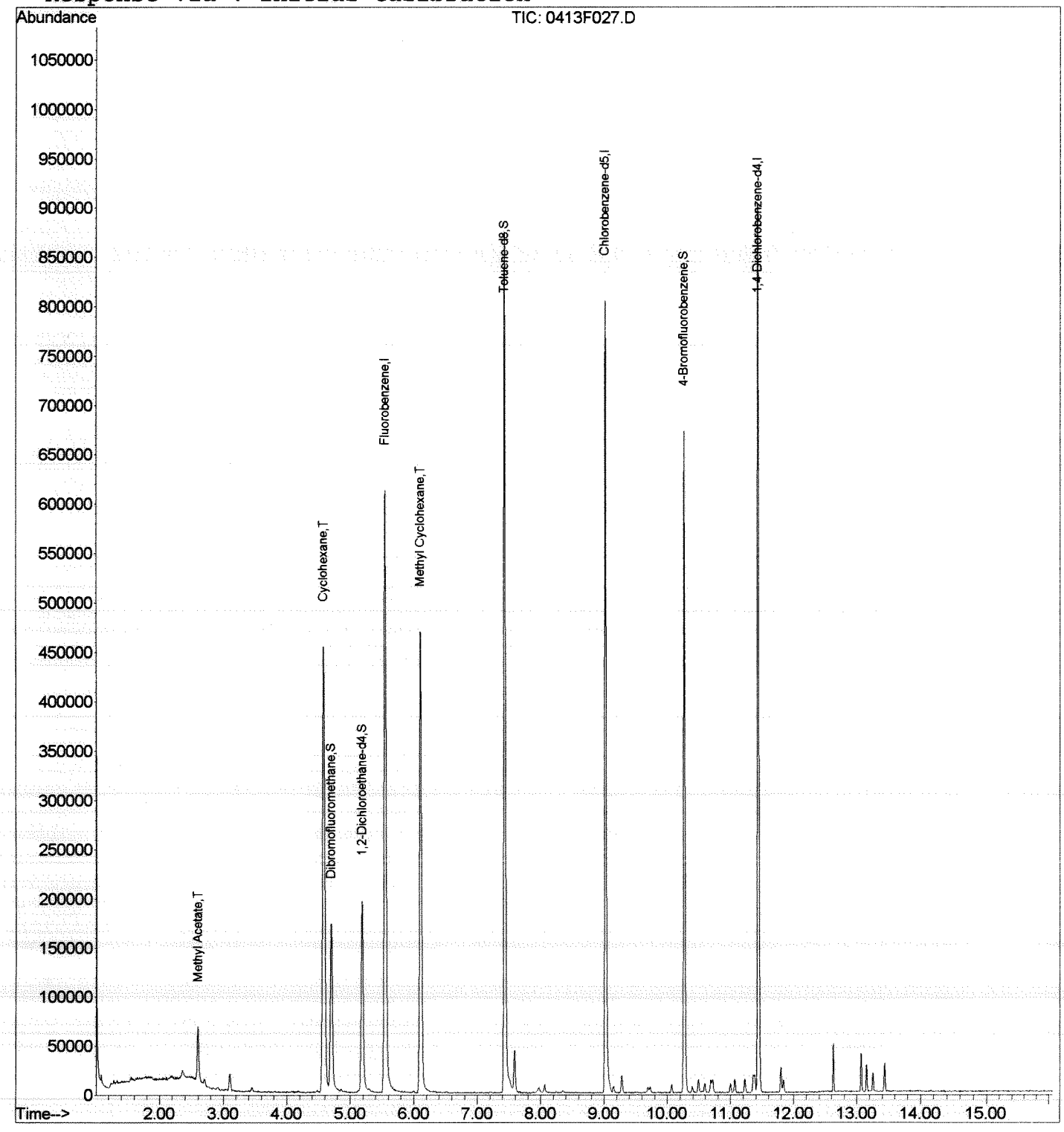
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.55	96	682952	10.00	PPB	0.00
65) Chlorobenzene-d5	9.02	82	265607	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.44	152	237797	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	4.70	113	129439	9.57	PPB	0.00
Spiked Amount 10.000			Recovery = 95.70%			
48) 1,2-Dichloroethane-d4	5.19	65	161569	10.34	PPB	0.00
Spiked Amount 10.000			Recovery = 103.40%			
63) Toluene-d8	7.43	98	624359	10.21	PPB	0.00
Spiked Amount 10.000			Recovery = 102.10%			
85) 4-Bromofluorobenzene	10.27	95	228063	9.87	PPB	0.00
Spiked Amount 10.000			Recovery = 98.70%			
Target Compounds						Qvalue
19) Methyl Acetate	2.60	43	73669	8.53	PPB	98
46) Cyclohexane	4.59	56	281387	10.15	PPB	97
59) Methyl Cyclohexane	6.11	83	228445	8.89	PPB	100

(#) = qualifier out of range (m) = manual integration
0413F027.D 041316MS18_8260.M Thu Apr 14 11:44:25 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\041316\0413F027.D Vial: 25
Acq On : 14 Apr 2016 00:36 Operator: YX
Sample : CLP ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 14 11:38 2016 Quant Results File: 041316MS18_8

Method : J:\MS18\METHODS\041316MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Apr 14 11:41:45 2016
Response via : Initial Calibration



Polynuclear Aromatic Hydrocarbons

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
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Exception Report

Data File: J:\MS14\DATA\050216\0502F017.D
Lab ID: K1604068-001
RunType: SMPL
Matrix: WATER

Date Acquired: 05/02/2016 14:49
Date Quantitated: 05/03/2016 12:24
Batch ID: KWG1603396
Analysis Method: 8270D SIM
ListJoinID: LJ17265

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/3/16

Secondary Review: MAY 0 3 2016

Printed: 05/03/2016 12:41:08
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\050216\0502F017.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 14:49	**Quant Date:**	05/03/2016 12:24	**Vial:**	16
Run Type:	SMPL	**ListJoinID:**	LJ17265	**Dilution:**	1.0
Lab ID:	K1604068-001			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603396	**Prep Lot:**	KWG1603185	**Report Group:**	K1604068
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1512547	**Prep Date:**	04/26/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17265
Tune Ref:	J:\MS14\DATA\050216\0502F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\050216\0502F011.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	4.60	-0.09	136	65426	200.00	OK
2	Acenaphthene-d10	6.21	-0.07	164	35864	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
2	Fluorene-d10	6.65	0.00	0.00	176	82021	414.80	104	46-114	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene				128	0**d**		0.0038	U	
1	2-Methylnaphthalene				142	0		0.0023	U	
1	1-Methylnaphthalene				142	0		0.0035	U	

Prep Amount:	1020 ml	**Dilution:**	1.0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F017.D Vial: 16
Acq On : 2 May 2016 2:49 pm Operator: LWeiskopf
Sample : K1604068-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 03 05:02:26 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon May 02 10:41:41 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

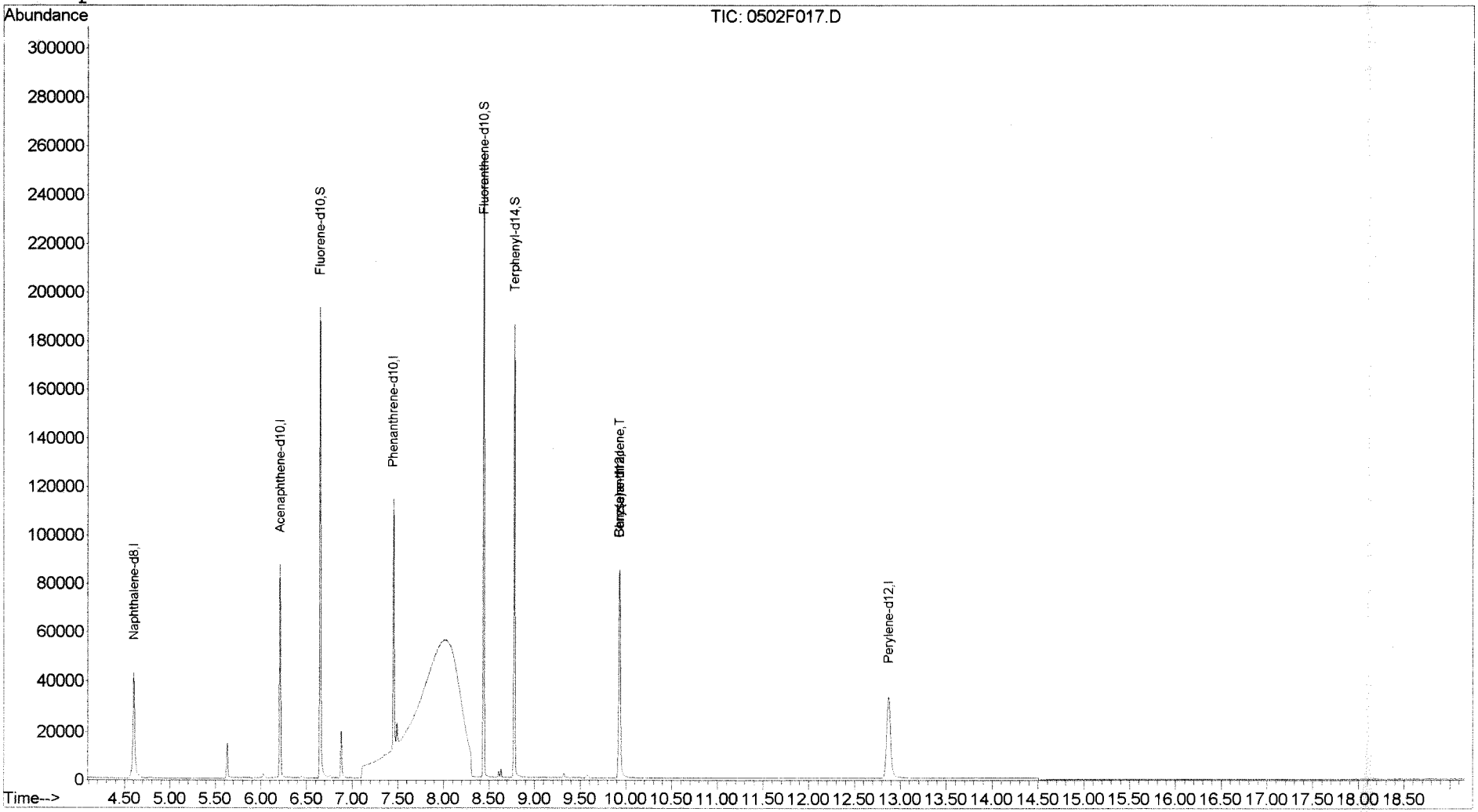
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.60	136	65426	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.21	164	35864	200.00	ng/ml	0.00
14) Phenanthrene-d10	7.45	188	66242	200.00	ng/ml	0.00
22) Chrysene-d12	9.93	240	83815	200.00	ng/ml	0.00
27) Perylene-d12	12.87	264	75651	200.00	ng/ml	-0.01
System Monitoring Compounds						
12) Fluorene-d10	6.65	176	82021	414.80	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 41.48%			
21) Fluoranthene-d10	8.44	212	152775	450.63	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 45.06%			
24) Terphenyl-d14	8.78	244	131203	429.43	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 42.94%			
Target Compounds						Qvalue
25) Benz(a)anthracene	9.92	228	215	0.44	ng/ml	99

(#) = qualifier out of range (m) = manual integration
0502F017.D 011116SIMPAH.M Tue May 03 12:27:22 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F017.D Vial: 16
Acq On : 2 May 2016 2:49 pm Operator: LWeiskopf
Sample : K1604068-001 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 3 12:24 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue May 03 10:46:57 2016
Response via : Initial Calibration



Exception Report

Data File: J:\MS14\DATA\050216\0502F016.D
Lab ID: K1604068-002
RunType: SMPL
Matrix: WATER

Date Acquired: 05/02/2016 14:24
Date Quantitated: 05/03/2016 12:23
Batch ID: KWG1603396
Analysis Method: 8270D SIM
ListJoinID: LJ17265

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
~~Analytical Holding Time~~	~~NA~~	~~NA~~	~~NA~~	~~x~~	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Batch QC
K4156

Primary Review: 5/3/16

Secondary Review: MAY 0 3 2016

Printed: 05/03/2016 12:41:05
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\050216\0502F016.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 14:24	**Quant Date:**	05/03/2016 12:23	**Vial:**	15
Run Type:	SMPL	**ListJoinID:**	LJ17265	**Dilution:**	1.0
Lab ID:	K1604068-002			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603396	**Prep Lot:**	KWG1603185	**Report Group:**	K1604068
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1512548	**Prep Date:**	04/26/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17265
Tune Ref:	J:\MS14\DATA\050216\0502F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\050216\0502F011.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	4.59	-0.10	136	67143	200.00	OK
2	Acenaphthene-d10	6.20	-0.08	164	37038	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6.65	0.00	0.00	176	80186	392.66	98	46-114	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene				128	0**d**		0.0038	U	
1	2-Methylnaphthalene				142	0**d**		0.0023	U	
1	1-Methylnaphthalene				142	0**d**		0.0035	U	

Prep Amount:	1020 ml	**Dilution:**	1.0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F016.D Vial: 15
Acq On : 2 May 2016 2:24 pm Operator: LWeiskopf
Sample : K1604068-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 03 05:02:24 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon May 02 10:41:41 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

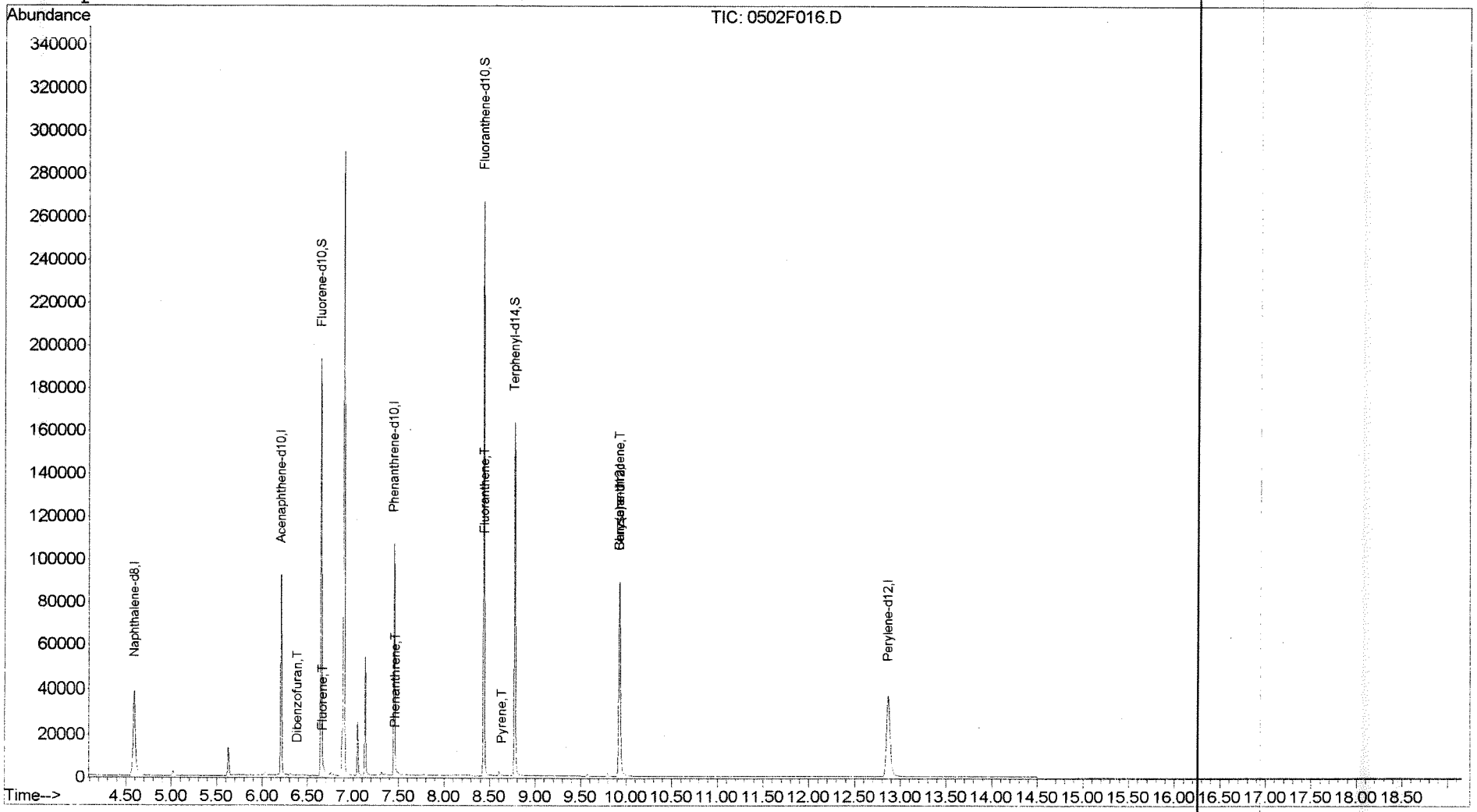
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.59	136	67143	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.20	164	37038	200.00	ng/ml	0.00
14) Phenanthrene-d10	7.45	188	67410	200.00	ng/ml	0.00
22) Chrysene-d12	9.93	240	84707	200.00	ng/ml	0.00
27) Perylene-d12	12.87	264	78272	200.00	ng/ml	-0.01
System Monitoring Compounds						
12) Fluorene-d10	6.65	176	80186	392.66	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 39.27%			
21) Fluoranthene-d10	8.44	212	159302	461.74	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 46.17%			
24) Terphenyl-d14	8.78	244	127657	413.43	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 41.34%			
Target Compounds						Qvalue
10) Dibenzofuran	6.39	168	207	0.59	ng/ml	93
13) Fluorene	6.67	166	101m	0.38	ng/ml	
16) Phenanthrene	7.47	178	292m	0.74	ng/ml	
20) Fluoranthene	8.45	202	102m	0.23	ng/ml	
23) Pyrene	8.64	202	134	0.25	ng/ml	52
25) Benz(a)anthracene	9.92	228	218m	0.44	ng/ml	

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F016.D Vial: 15
Acq On : 2 May 2016 2:24 pm Operator: LWeiskopf
Sample : K1604068-002 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 3 12:23 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue May 03 10:46:57 2016
Response via : Initial Calibration



Exception Report

Data File: J:\MS14\DATA\050216\0502F018.D
Lab ID: K1604068-003
RunType: SMPL
Matrix: WATER

Date Acquired: 05/02/2016 15:15
Date Quantitated: 05/03/2016 12:25
Batch ID: KWG1603396
Analysis Method: 8270D SIM
ListJoinID: LJ17265

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/3/16

Secondary Review: MAY 0 3 2016

Printed: 05/03/2016 12:41:11
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\050216\0502F018.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 15:15	**Quant Date:**	05/03/2016 12:25	**Vial:**	17
Run Type:	SMPL	**ListJoinID:**	LJ17265	**Dilution:**	1.0
Lab ID:	K1604068-003			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603396	**Prep Lot:**	KWG1603185	**Report Group:**	K1604068
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1512549	**Prep Date:**	04/26/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17265
Tune Ref:	J:\MS14\DATA\050216\0502F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\050216\0502F011.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	4.59	-0.10	136	65680	200.00	OK
2	Acenaphthene-d10	6.20	-0.08	164	36064	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6.65	0.00	0.00	176	81719	410.98	103	46-114	OK

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene				128	0**d**		0.0038	U	
1	2-Methylnaphthalene				142	0**d**		0.0023	U	
1	1-Methylnaphthalene				142	0**d**		0.0035	U	

Prep Amount:	1000 ml	**Dilution:**	1.0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F018.D Vial: 17
Acq On : 2 May 2016 3:15 pm Operator: LWeiskopf
Sample : K1604068-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 03 05:02:27 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon May 02 10:41:41 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

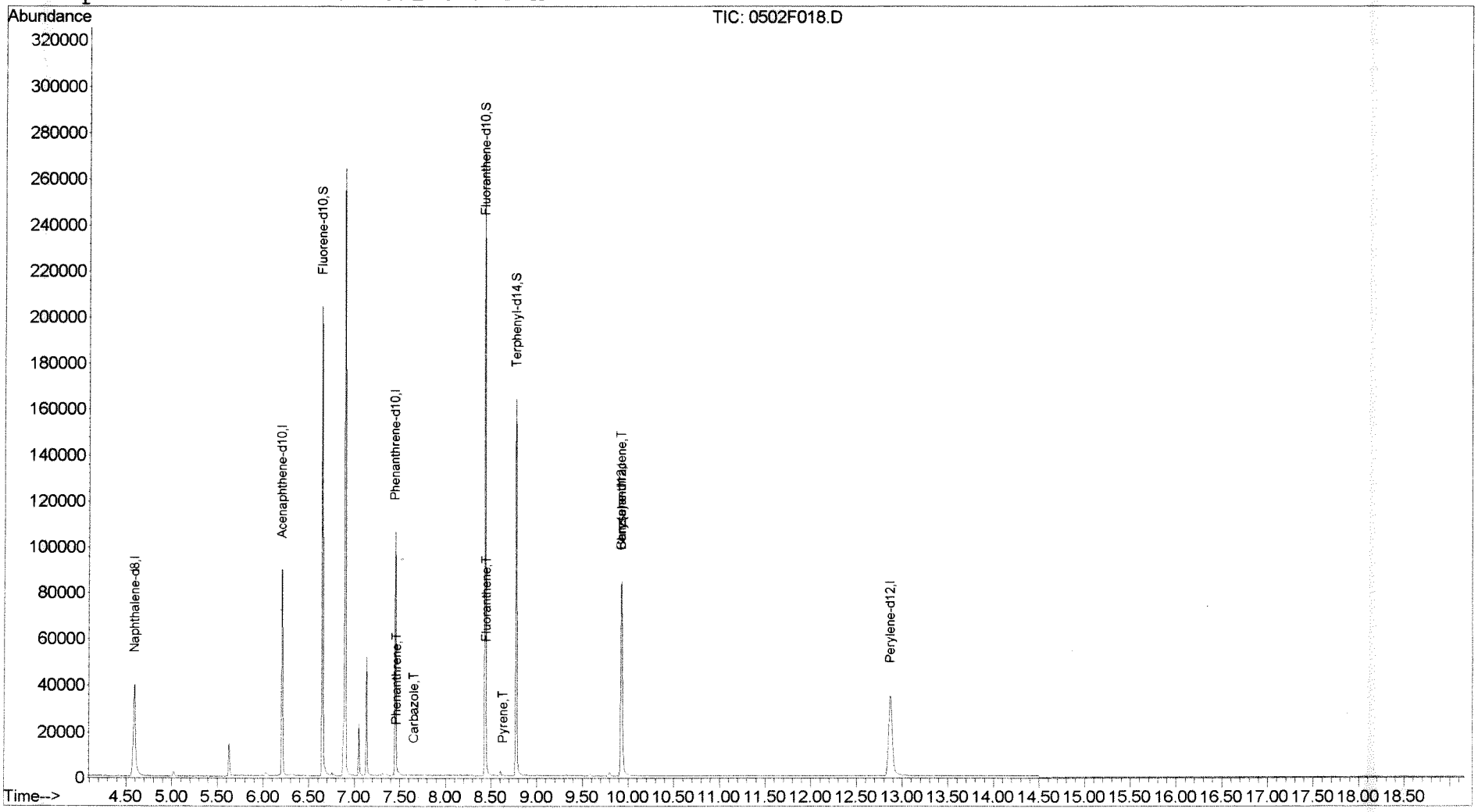
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.59	136	65680	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.20	164	36064	200.00	ng/ml	0.00
14) Phenanthrene-d10	7.45	188	65887	200.00	ng/ml	0.00
22) Chrysene-d12	9.93	240	81919	200.00	ng/ml	0.00
27) Perylene-d12	12.87	264	76483	200.00	ng/ml	-0.01
System Monitoring Compounds						
12) Fluorene-d10	6.65	176	81719	410.98	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 41.10%			
21) Fluoranthene-d10	8.44	212	158594	470.32	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 47.03%			
24) Terphenyl-d14	8.78	244	127675	427.56	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 42.76%			
Target Compounds						Qvalue
16) Phenanthrene	7.47	178	252m	0.65	ng/ml	
18) Carbazole	7.66	167	209	0.64	ng/ml	81
20) Fluoranthene	8.45	202	102m	0.23	ng/ml	
23) Pyrene	8.64	202	144m	0.28	ng/ml	
25) Benz(a)anthracene	9.93	228	258	0.54	ng/ml	98

(#) = qualifier out of range (m) = manual integration
0502F018.D 011116SIMPAH.M Tue May 03 12:27:23 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F018.D Vial: 17
Acq On : 2 May 2016 3:15 pm Operator: LWeiskopf
Sample : K1604068-003 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 3 12:25 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue May 03 10:46:57 2016
Response via : Initial Calibration



Exception Report

Data File: J:\MS14\DATA\050216\0502F019.D
Lab ID: K1604068-004
RunType: SMPL
Matrix: WATER

Date Acquired: 05/02/2016 15:40
Date Quantitated: 05/03/2016 12:26
Batch ID: KWG1603396
Analysis Method: 8270D SIM
ListJoinID: LJ17265

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/3/16

Secondary Review: MAY 0 3 2016

Printed: 05/03/2016 12:41:14
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\050216\0502F019.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 15:40	**Quant Date:**	05/03/2016 12:26	**Vial:**	18
Run Type:	SMPL	**ListJoinID:**	LJ17265	**Dilution:**	1.0
Lab ID:	K1604068-004			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603396	**Prep Lot:**	KWG1603185	**Report Group:**	K1604068
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1512550	**Prep Date:**	04/26/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17265
Tune Ref:	J:\MS14\DATA\050216\0502F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\050216\0502F011.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	4.59	-0.10	136	66287	200.00	OK
2	Acenaphthene-d10	6.20	-0.08	164	36755	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
2	Fluorene-d10	6.65	0.00	0.00	176	80291	396.21	99	46-114	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene				128	0**d**		0.0038	U	
1	2-Methylnaphthalene	5.29		0.00	142	175**m**	0.7700	0.0036	J	
1	1-Methylnaphthalene	5.38		0.00	142	121**m**	0.6100	0.0035	U	

Prep Amount:	1060 ml	**Dilution:**	1.0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F019.D Vial: 18
Acq On : 2 May 2016 3:40 pm Operator: LWeiskopf
Sample : K1604068-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 03 05:02:29 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon May 02 10:41:41 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

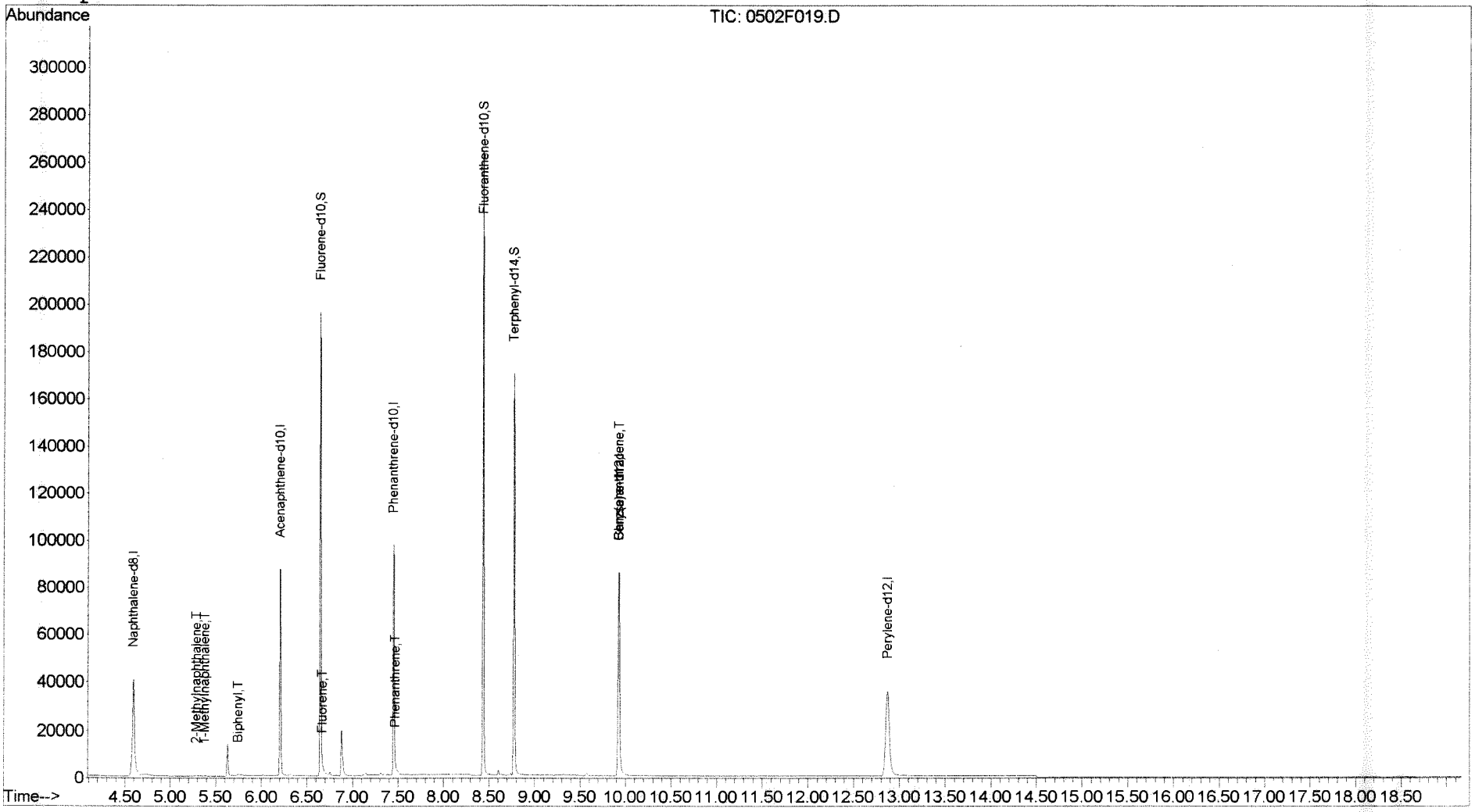
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.59	136	66287	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.20	164	36755	200.00	ng/ml	0.00
14) Phenanthrene-d10	7.45	188	69050	200.00	ng/ml	0.00
22) Chrysene-d12	9.93	240	83674	200.00	ng/ml	0.00
27) Perylene-d12	12.87	264	77595	200.00	ng/ml	-0.01
System Monitoring Compounds						
12) Fluorene-d10	6.65	176	80291	396.21	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 39.62%			
21) Fluoranthene-d10	8.44	212	158361	448.11	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 44.81%			
24) Terphenyl-d14	8.77	244	130501	427.86	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 42.79%			
Target Compounds						Qvalue
3) 2-Methylnaphthalene	5.29	142	175m	0.77	ng/ml	
4) 1-Methylnaphthalene	5.38	142	121m	0.61	ng/ml	
5) Biphenyl	5.75	154	735m	2.66	ng/ml	
13) Fluorene	6.68	166	229	0.86	ng/ml	99
16) Phenanthrene	7.47	178	560m	1.38	ng/ml	
25) Benz(a)anthracene	9.92	228	227	0.46	ng/ml	93

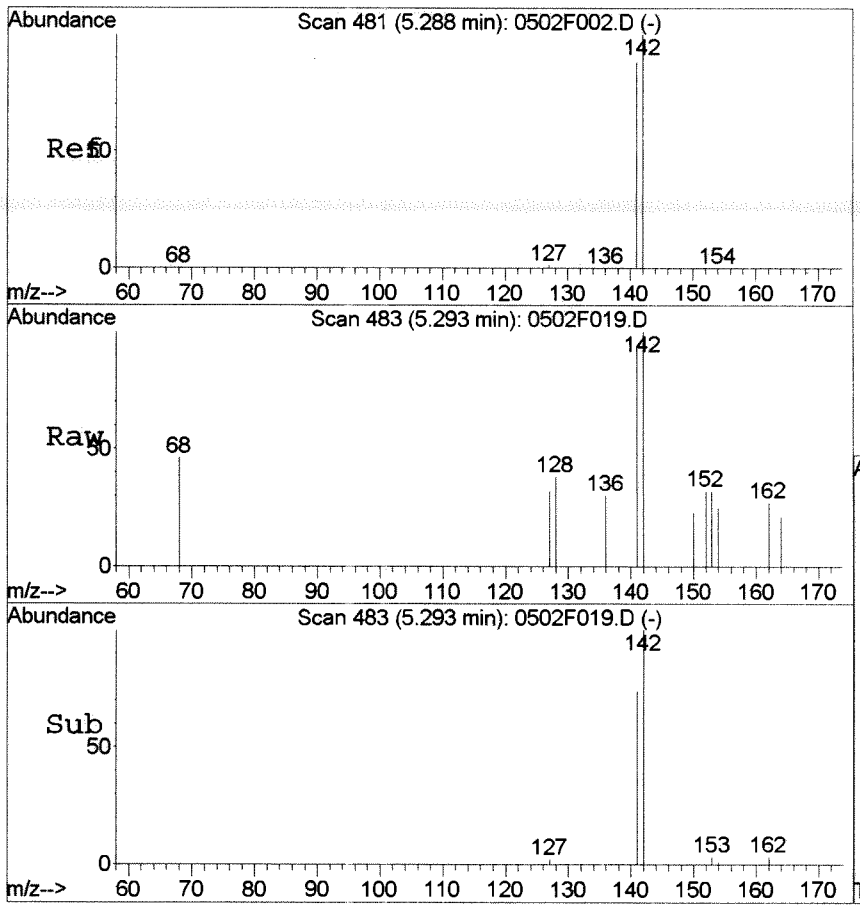
(#) = qualifier out of range (m) = manual integration
0502F019.D 011116SIMPAH.M Tue May 03 12:27:25 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F019.D Vial: 18
Acq On : 2 May 2016 3:40 pm Operator: LWeiskopf
Sample : K1604068-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 3 12:26 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue May 03 10:46:57 2016
Response via : Initial Calibration

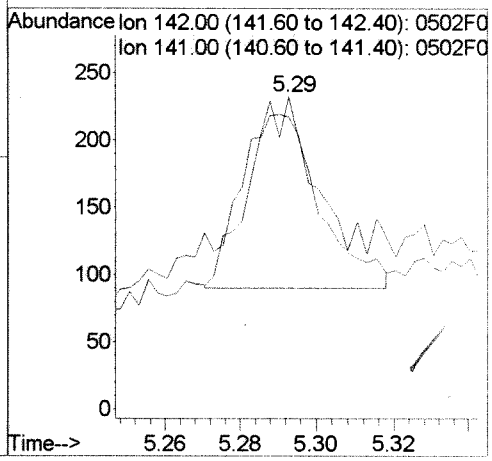


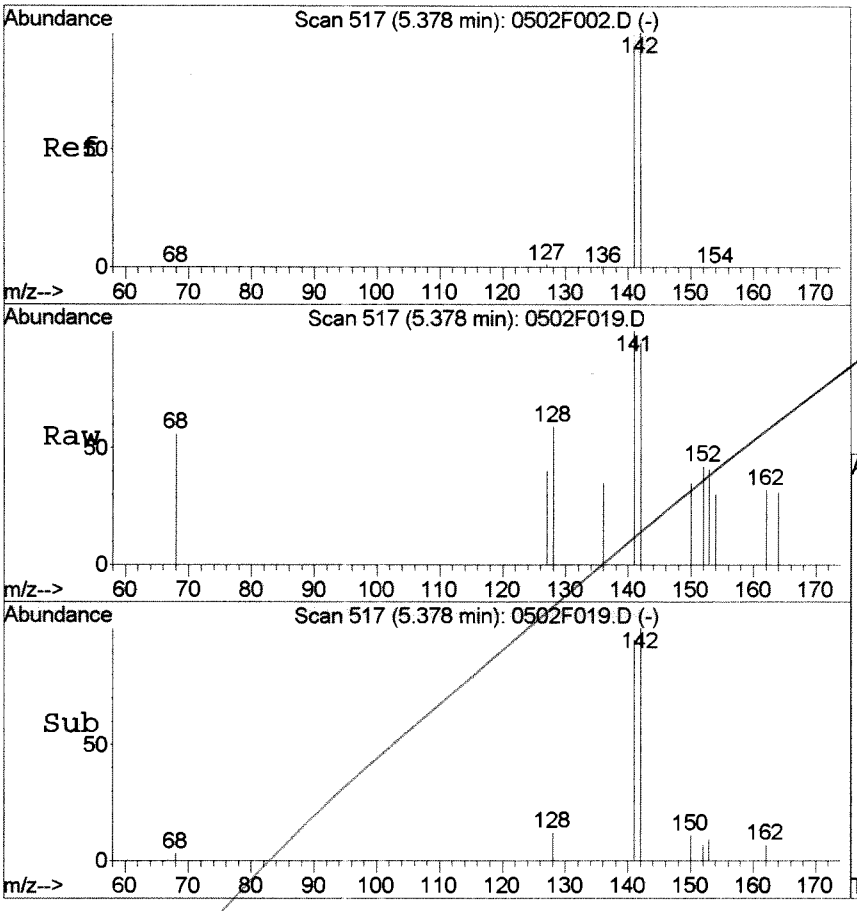


#3
2-Methylnaphthalene
Concen: 0.77 ng/ml m
RT: 5.29 min Scan# 483
Delta R.T. -0.00 min
Lab File: 0502F019.D
Acq: 2 May 2016 3:40 pm

Tgt Ion:142 Resp: 175

Ion	Ratio	Lower	Upper
142	100		
141	93.5	57.6	117.6

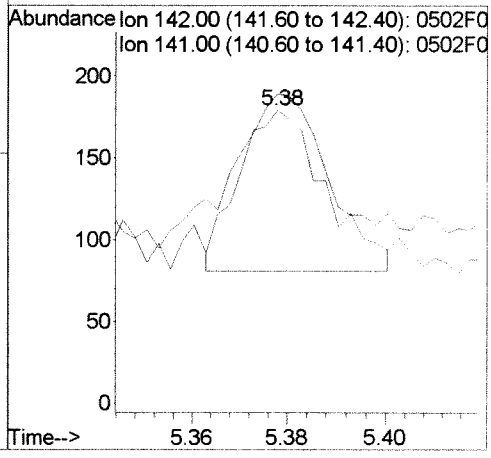




#4
1-Methylnaphthalene <HDL
Concen: 0.61 ng/ml m
RT: 5.38 min Scan# 517
Delta R.T. -0.01 min
Lab File: 0502F019.D
Acq: 2 May 2016 3:40 pm

Tgt Ion:142 Resp: 121

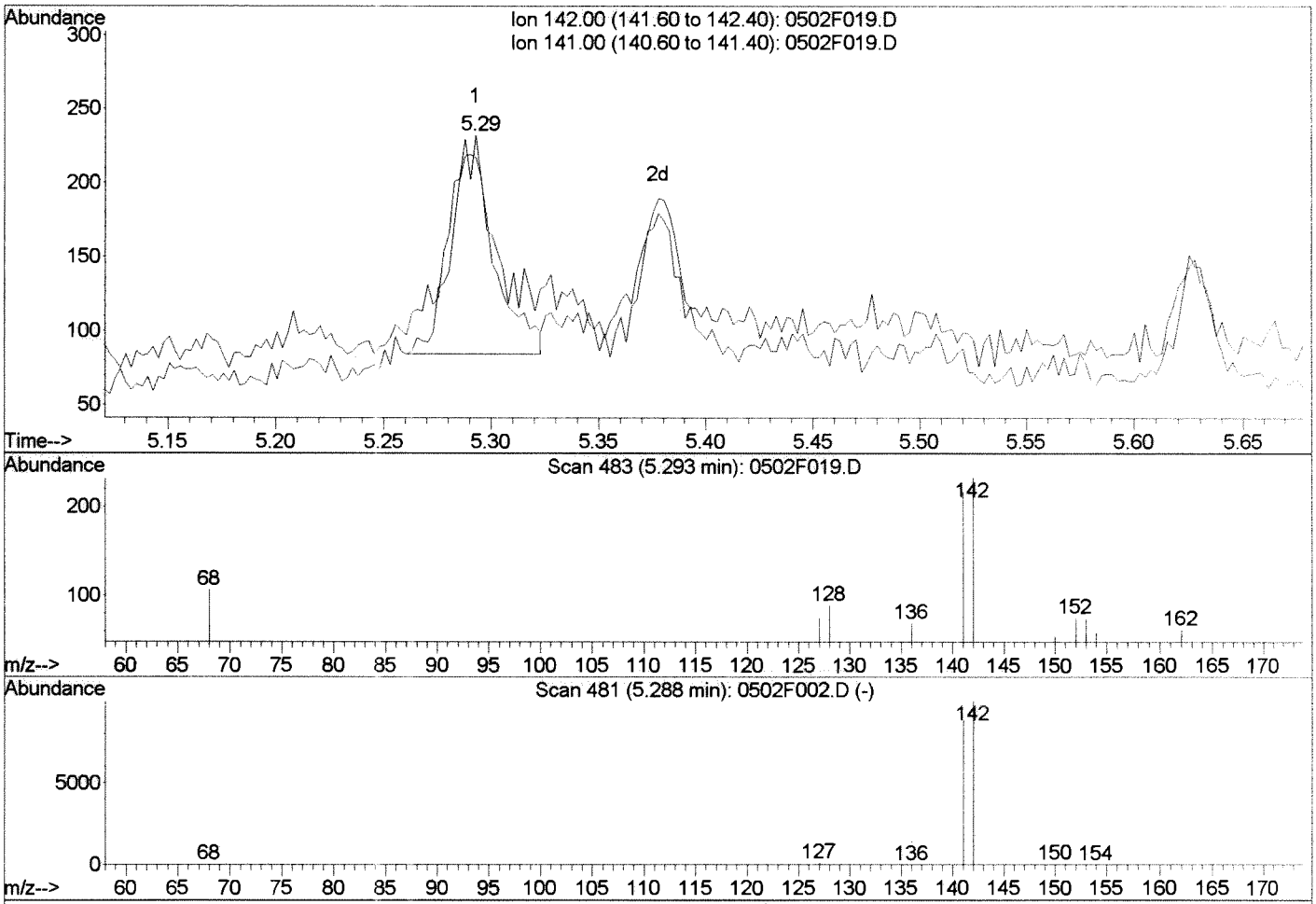
Ion	Ratio	Lower	Upper
142	100		
141	105.6	60.8	120.8



Quantitation Report (Qedit)

Data File : J:\MS14\DATA\050216\0502F019.D Vial: 18
Acq On : 2 May 2016 3:40 pm Operator: LWeiskopf
Sample : K1604068-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 3 12:25 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue May 03 10:46:57 2016
Response via : Multiple Level Calibration



TIC: 0502F019.D

(3) 2-Methylnaphthalene (T)

5.29min 0.88ng/ml

response 201

Ion	Exp%	Act%
142.00	100	100
141.00	87.60	81.08
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

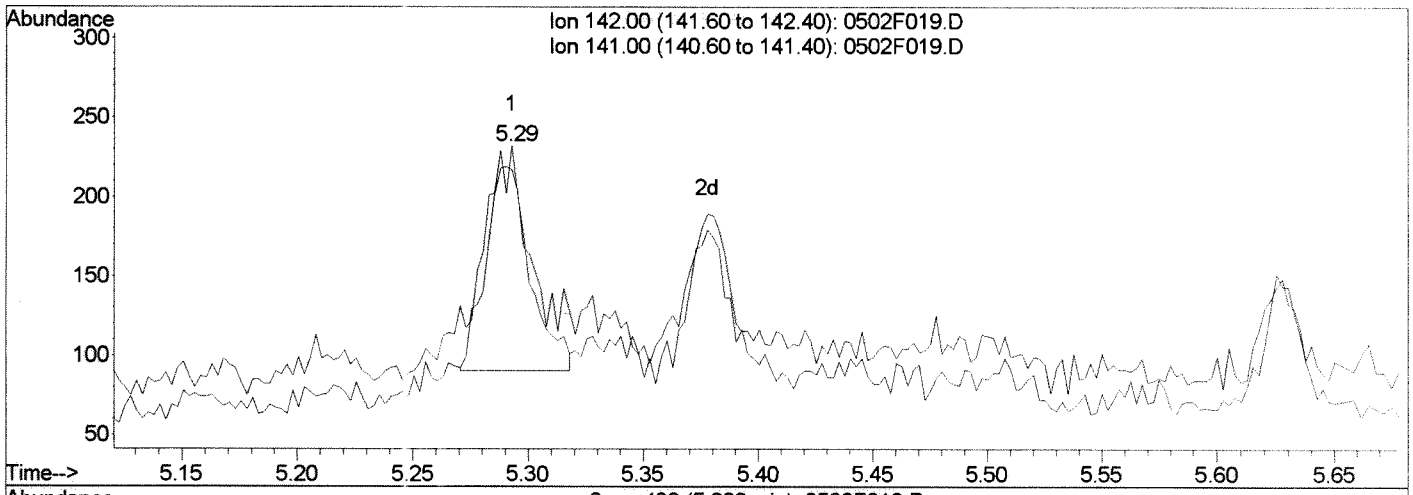
05/03/16

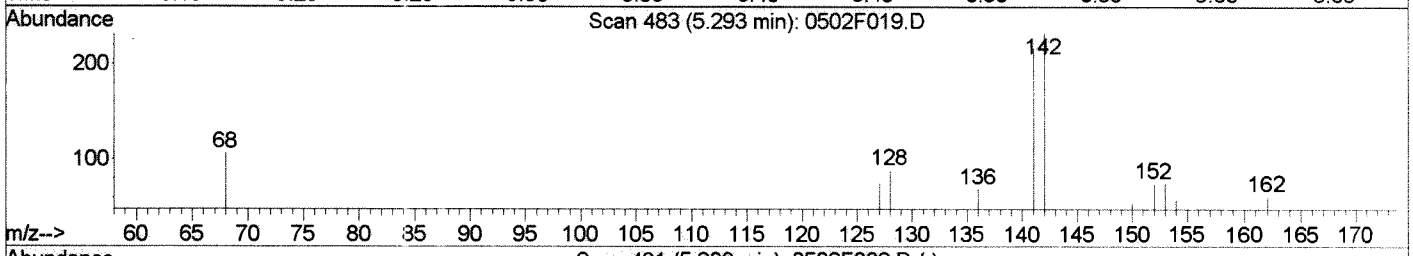
0502F019.D 011116SIMPAH.M Tue May 03 12:25:50 2016

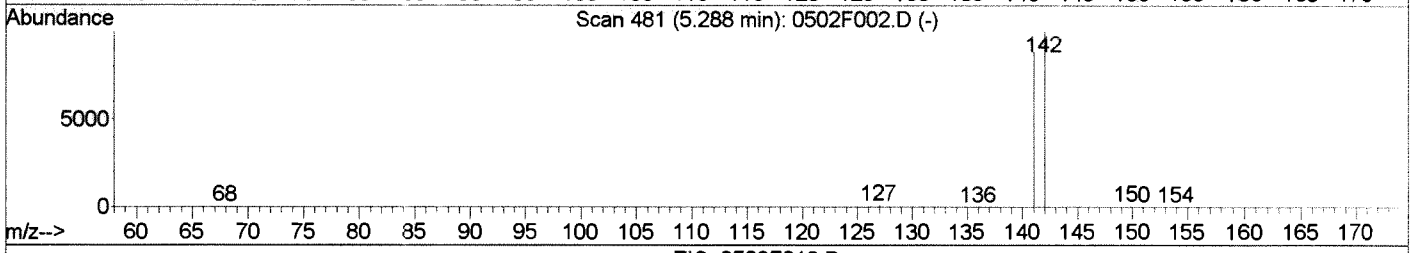
Quantitation Report (Qedit)

Data File : J:\MS14\DATA\050216\0502F019.D Vial: 18
Acq On : 2 May 2016 3:40 pm Operator: LWeiskopf
Sample : K1604068-004 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 3 12:25 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue May 03 10:46:57 2016
Response via : Multiple Level Calibration







TIC: 0502F019.D

(3) 2-Methylnaphthalene (T)

5.29min 0.77ng/ml m

response 175

Ion	Exp%	Act%
142.00	100	100
141.00	87.60	93.53
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

BLC

05/03/16

0502F019.D 011116SIMPAH.M Tue May 03 12:25:56 2016

Exception Report

Data File: J:\MS14\DATA\050216\0502F020.D
Lab ID: K1604068-005
RunType: SMPL
Matrix: WATER

Date Acquired: 05/02/2016 16:05
Date Quantitated: 05/03/2016 12:26
Batch ID: KWG1603396
Analysis Method: 8270D SIM
ListJoinID: LJ17265

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/3/16

Secondary Review: MAY 0 3 2016

Printed: 05/03/2016 12:41:17
u:\Stealth\Crystal.rpt\except2.rpt

Page 1 of 1

Quantitation Report

Data File:	J:\MS14\DATA\050216\0502F020.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 16:05	**Quant Date:**	05/03/2016 12:26	**Vial:**	19
Run Type:	SMPL	**ListJoinID:**	LJ17265	**Dilution:**	1.0
Lab ID:	K1604068-005			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603396	**Prep Lot:**	KWG1603185	**Report Group:**	K1604068
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1512551	**Prep Date:**	04/26/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17265
Tune Ref:	J:\MS14\DATA\050216\0502F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\050216\0502F011.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	4.60	-0.09	136	66242	200.00	OK
2	Acenaphthene-d10	6.20	-0.08	164	36289	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
2	Fluorene-d10	6.65	0.00	0.00	176	80298	401.33	100	46-114	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene				128	0		0.0038	U	
1	2-Methylnaphthalene				142	0		0.0023	U	
1	1-Methylnaphthalene				142	0		0.0035	U	

Prep Amount:	1020 ml	**Dilution:**	1.0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F020.D Vial: 19
Acq On : 2 May 2016 4:05 pm Operator: LWeiskopf
Sample : K1604068-005 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 03 05:02:30 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon May 02 10:41:41 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

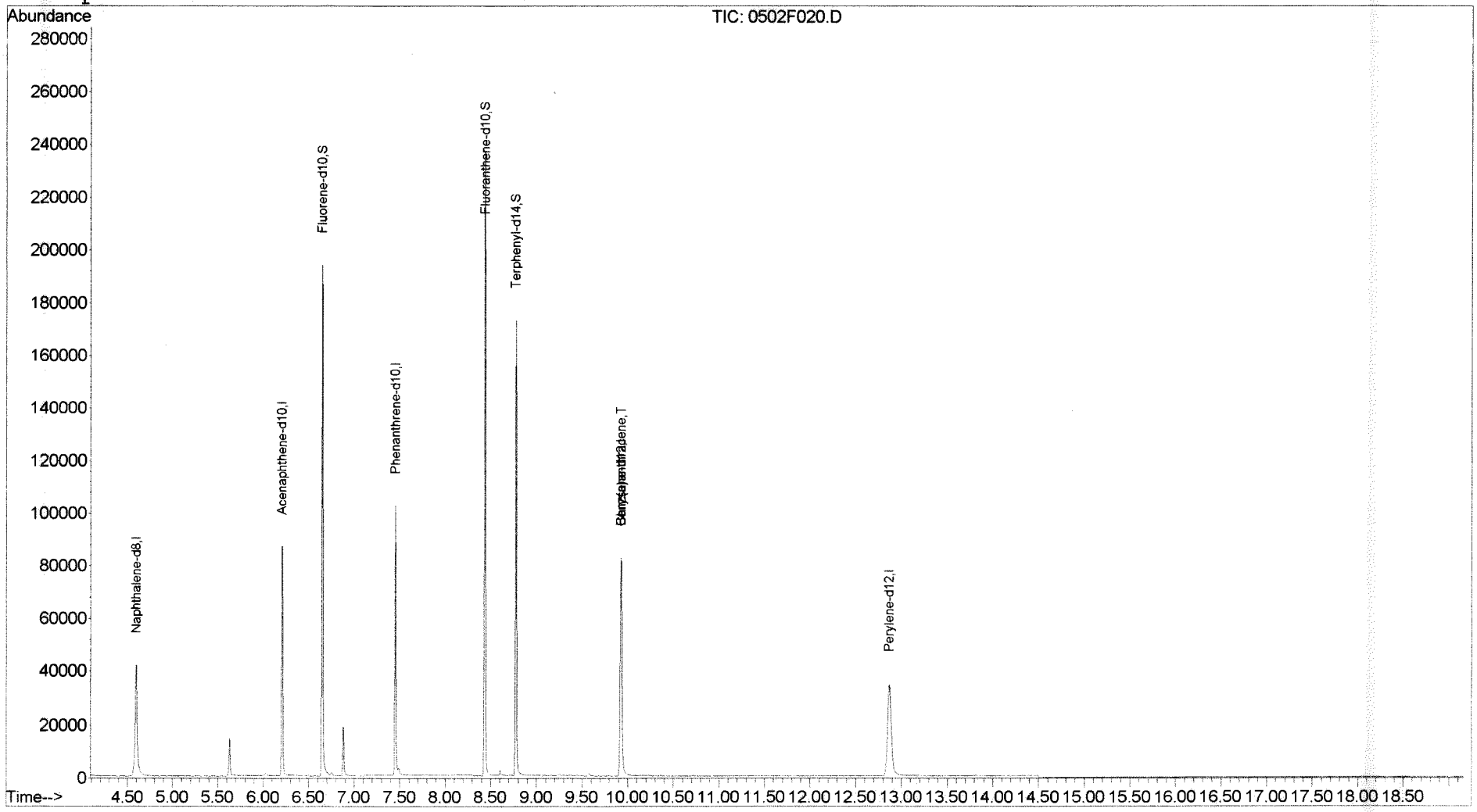
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.60	136	66242	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.20	164	36289	200.00	ng/ml	0.00
14) Phenanthrene-d10	7.45	188	68651	200.00	ng/ml	0.00
22) Chrysene-d12	9.92	240	82955	200.00	ng/ml	0.00
27) Perylene-d12	12.87	264	76419	200.00	ng/ml	-0.01
System Monitoring Compounds						
12) Fluorene-d10	6.65	176	80298	401.33	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 40.13%			
21) Fluoranthene-d10	8.44	212	152586	434.28	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 43.43%			
24) Terphenyl-d14	8.77	244	125685	415.64	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 41.56%			
Target Compounds						Qvalue
25) Benz(a)anthracene	9.92	228	203	0.42	ng/ml	93

(#) = qualifier out of range (m) = manual integration
0502F020.D 011116SIMPAH.M Tue May 03 12:27:26 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F020.D Vial: 19
Acq On : 2 May 2016 4:05 pm Operator: LWeiskopf
Sample : K1604068-005 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 3 12:26 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue May 03 10:46:57 2016
Response via : Initial Calibration



Exception Report

Data File: J:\MS14\DATA\050216\0502F021.D
Lab ID: K1604068-006
RunType: SMPL
Matrix: WATER

Date Acquired: 05/02/2016 16:30
Date Quantitated: 05/03/2016 12:27
Batch ID: KWG1603396
Analysis Method: 8270D SIM
ListJoinID: LJ17265

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/3/16

Secondary Review: MAY 0 3 2016

Printed: 05/03/2016 12:41:20
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Quantitation Report

Data File:	J:\MS14\DATA\050216\0502F021.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 16:30	**Quant Date:**	05/03/2016 12:27	**Vial:**	20
Run Type:	SMPL	**ListJoinID:**	LJ17265	**Dilution:**	1.0
Lab ID:	K1604068-006			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603396	**Prep Lot:**	KWG1603185	**Report Group:**	K1604068
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1512552	**Prep Date:**	04/26/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17265
Tune Ref:	J:\MS14\DATA\050216\0502F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\050216\0502F011.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	4.59	-0.10	136	65459	200.00	OK
2	Acenaphthene-d10	6.20	-0.08	164	36096	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
2	Fluorene-d10	6.65	0.00	0.00	176	74503	374.36	94	46-114	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene				128	0**d**		0.0038	U	
1	2-Methylnaphthalene				142	0**d**		0.0023	U	
1	1-Methylnaphthalene				142	0**d**		0.0035	U	

Prep Amount:	1020 ml	**Dilution:**	1.0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F021.D Vial: 20
Acq On : 2 May 2016 4:30 pm Operator: LWeiskopf
Sample : K1604068-006 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 03 05:02:31 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon May 02 10:41:41 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

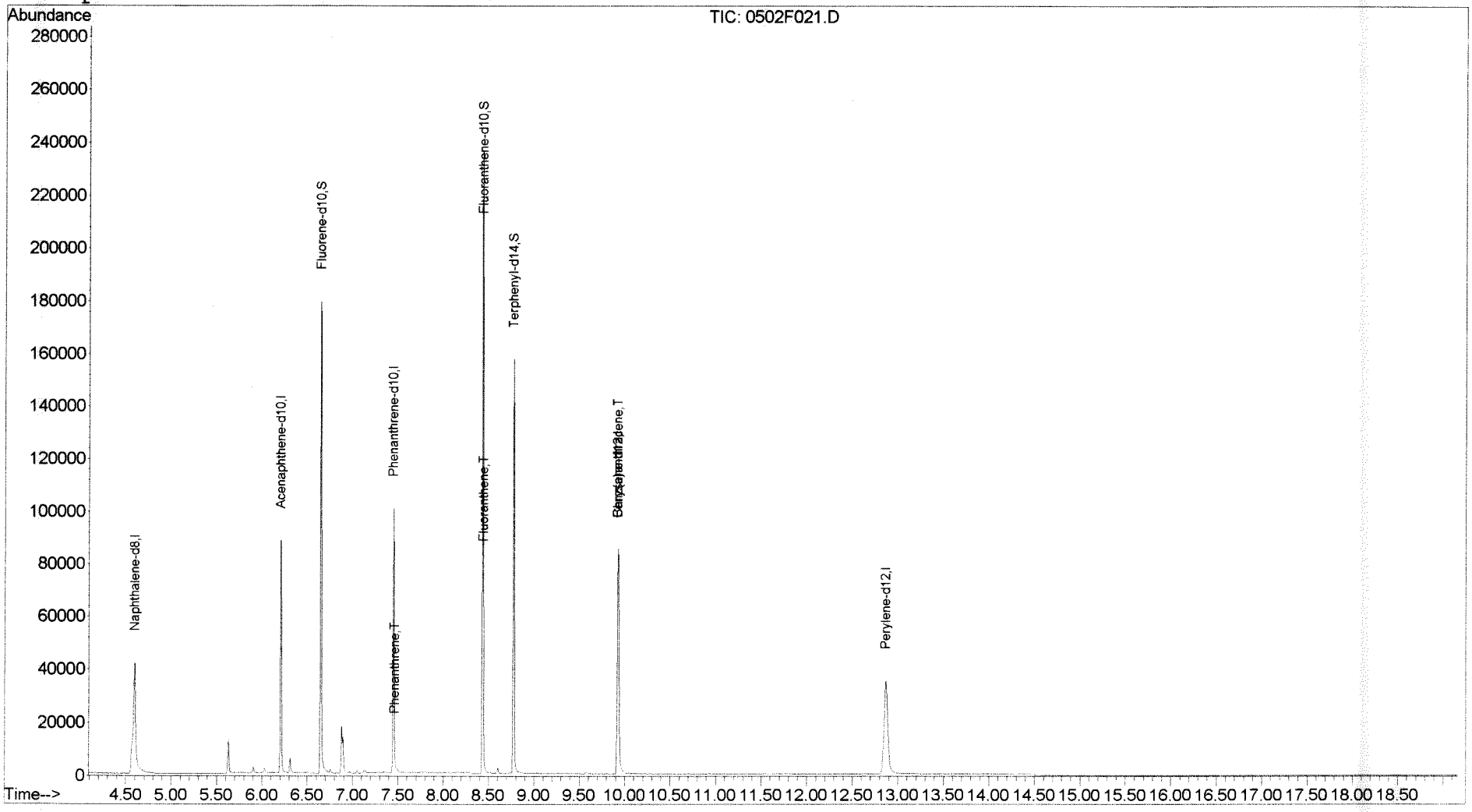
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.59	136	65459	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.20	164	36096	200.00	ng/ml	0.00
14) Phenanthrene-d10	7.45	188	67722	200.00	ng/ml	0.00
22) Chrysene-d12	9.92	240	82196	200.00	ng/ml	0.00
27) Perylene-d12	12.87	264	76459	200.00	ng/ml	-0.01
System Monitoring Compounds						
12) Fluorene-d10	6.65	176	74503	374.36	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 37.44%			
21) Fluoranthene-d10	8.44	212	144038	415.57	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 41.56%			
24) Terphenyl-d14	8.77	244	118953	397.01	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 39.70%			
Target Compounds						Qvalue
16) Phenanthrene	7.47	178	241m	0.61	ng/ml	
20) Fluoranthene	8.45	202	103m	0.23	ng/ml	
25) Benz(a)anthracene	9.92	228	235	0.49	ng/ml	88

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F021.D Vial: 20
Acq On : 2 May 2016 4:30 pm Operator: LWeiskopf
Sample : K1604068-006 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 3 12:27 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue May 03 10:46:57 2016
Response via : Initial Calibration



Exception Report

Data File: J:\MS14\DATA\050216\0502F022.D
Lab ID: K1604068-007
RunType: SMPL
Matrix: WATER

Date Acquired: 05/02/2016 16:56
Date Quantitated: 05/03/2016 12:28
Batch ID: KWG1603396
Analysis Method: 8270D SIM
ListJoinID: LJ17265

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/3/16

Secondary Review: MAY 0 3 2016

Printed: 05/03/2016 12:41:23
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\050216\0502F022.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 16:56	**Quant Date:**	05/03/2016 12:28	**Vial:**	21
Run Type:	SMPL	**ListJoinID:**	LJ17265	**Dilution:**	1.0
Lab ID:	K1604068-007			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603396	**Prep Lot:**	KWG1603185	**Report Group:**	K1604068
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1512553	**Prep Date:**	04/26/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17265
Tune Ref:	J:\MS14\DATA\050216\0502F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\050216\0502F011.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	4.59	-0.10	136	66619	200.00	OK
2	Acenaphthene-d10	6.20	-0.08	164	36081	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
2	Fluorene-d10	6.65	0.00	0.00	176	79944	401.86	100	46-114	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.61		0.00	128	10392	30.88	0.15		
1	2-Methylnaphthalene	5.29		0.00	142	732	3.19	0.016	J	
1	1-Methylnaphthalene	5.38		0.00	142	347	1.73	0.0085	J	

Prep Amount:	1020 ml	**Dilution:**	1.0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F022.D Vial: 21
Acq On : 2 May 2016 4:56 pm Operator: LWeiskopf
Sample : K1604068-007 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 03 05:02:32 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon May 02 10:41:41 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

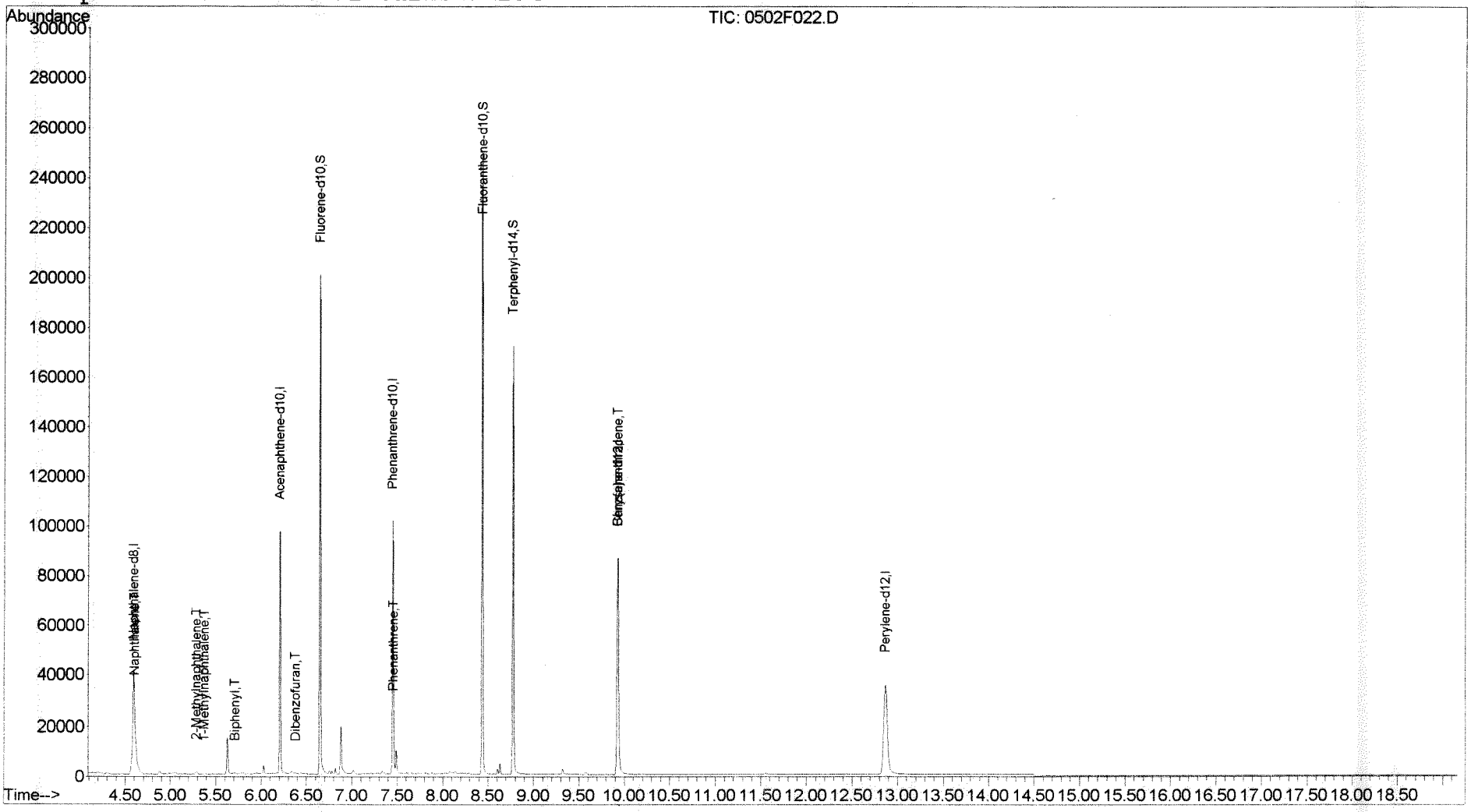
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.59	136	66619	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.20	164	36081	200.00	ng/ml	0.00
14) Phenanthrene-d10	7.45	188	66866	200.00	ng/ml	0.00
22) Chrysene-d12	9.93	240	82547	200.00	ng/ml	0.00
27) Perylene-d12	12.87	264	78106	200.00	ng/ml	-0.01
System Monitoring Compounds						
12) Fluorene-d10	6.65	176	79944	401.86	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 40.19%			
21) Fluoranthene-d10	8.44	212	153615	448.88	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 44.89%			
24) Terphenyl-d14	8.77	244	127316	423.11	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 42.31%			
Target Compounds						Qvalue
2) Naphthalene	4.61	128	10392	30.88	ng/ml	100
3) 2-Methylnaphthalene	5.29	142	732	3.19	ng/ml	98
4) 1-Methylnaphthalene	5.38	142	347	1.73	ng/ml	95
5) Biphenyl	5.71	154	143	0.51	ng/ml	83
10) Dibenzofuran	6.38	168	100m	0.29	ng/ml	
16) Phenanthrene	7.47	178	171m	0.44	ng/ml	
25) Benz(a)anthracene	9.92	228	239	0.49	ng/ml	80

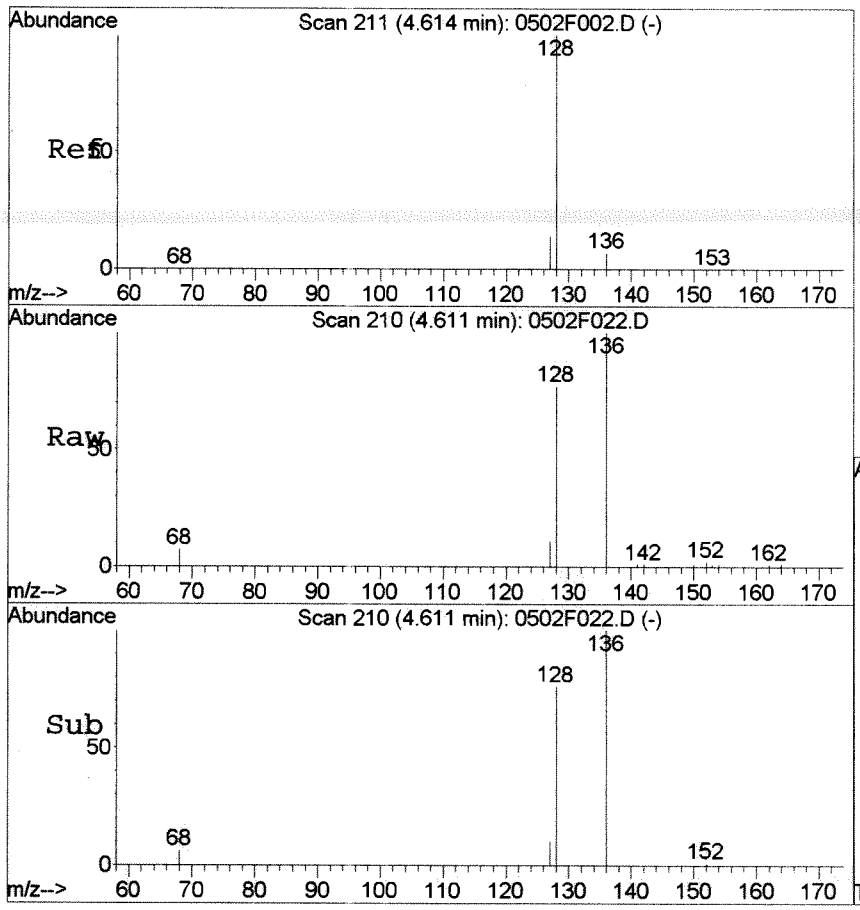
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F022.D Vial: 21
Acq On : 2 May 2016 4:56 pm Operator: LWeiskopf
Sample : K1604068-007 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 3 12:28 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue May 03 10:46:57 2016
Response via : Initial Calibration

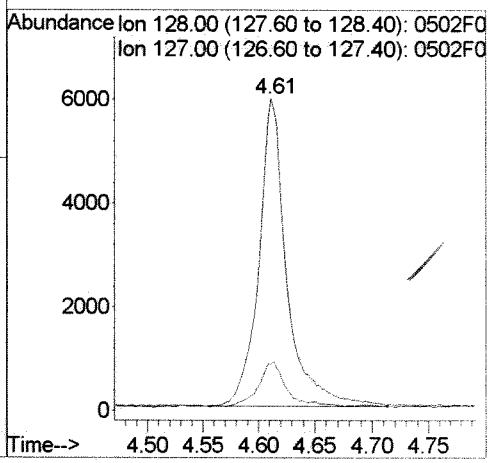


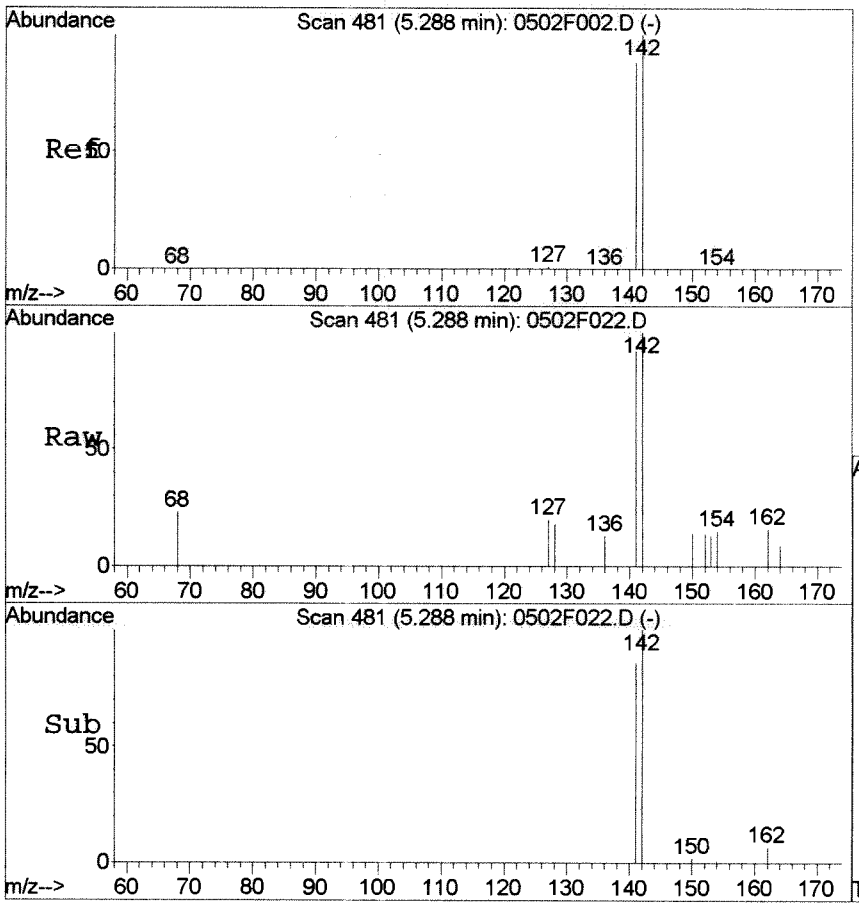


#2
Naphthalene
Concen: 30.88 ng/ml
RT: 4.61 min Scan# 210
Delta R.T. -0.01 min
Lab File: 0502F022.D
Acq: 2 May 2016 4:56 pm

Tgt Ion:128 Resp: 10392

Ion	Ratio	Lower	Upper
128	100		
127	13.8	0.0	43.8

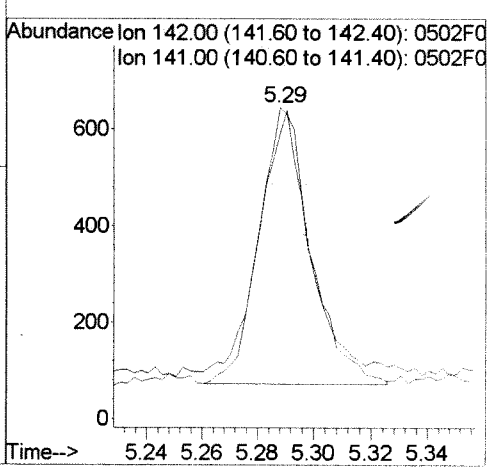


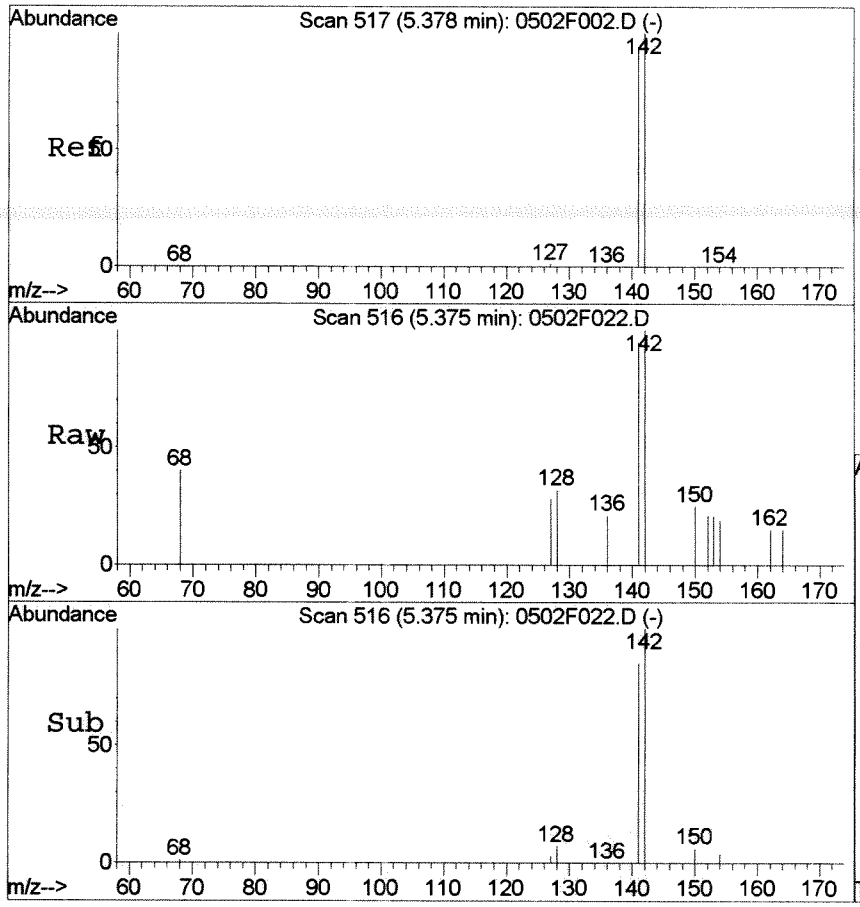


#3
2-Methylnaphthalene
Concen: 3.19 ng/ml
RT: 5.29 min Scan# 481
Delta R.T. -0.01 min
Lab File: 0502F022.D
Acq: 2 May 2016 4:56 pm

Tgt Ion:142 Resp: 732

Ion	Ratio	Lower	Upper
142	100		
141	86.2	57.6	117.6

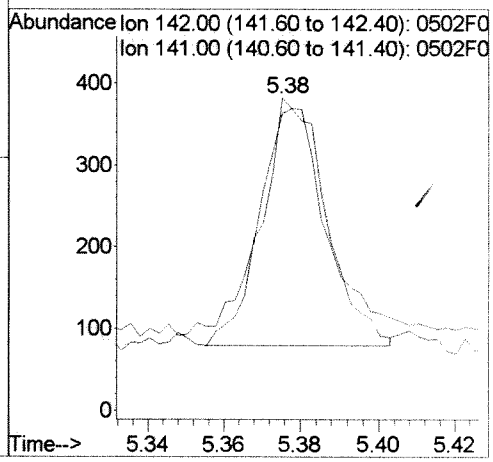


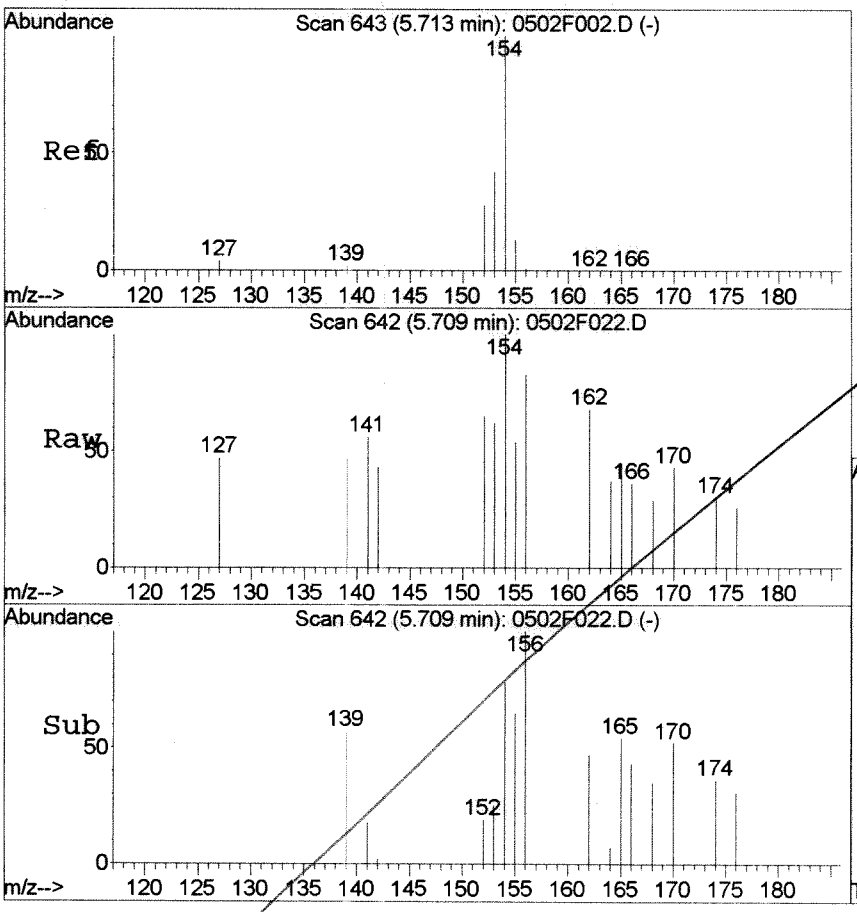


#4
1-Methylnaphthalene
Concen: 1.73 ng/ml
RT: 5.38 min Scan# 516
Delta R.T. -0.01 min
Lab File: 0502F022.D
Acq: 2 May 2016 4:56 pm

Tgt Ion:142 Resp: 347

Ion	Ratio	Lower	Upper
142	100		
141	86.1	60.8	120.8

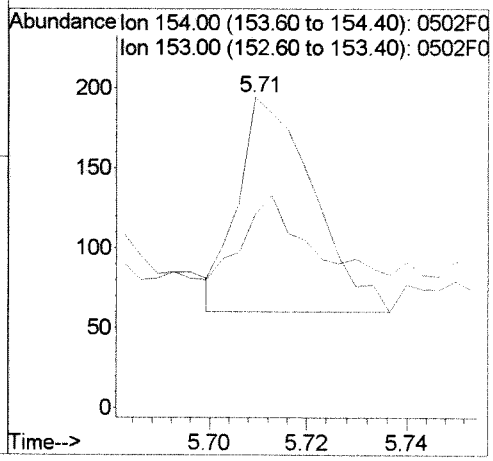




#5
Biphenyl
Concen: 0.51 ng/ml
RT: 5.71 min Scan# 642
Delta R.T. -0.01 min
Lab File: 0502F022.D
Acq: 2 May 2016 4:56 pm

Tgt Ion:154 Resp: 143

Ion	Ratio	Lower	Upper
154	100		
153	30.6	11.5	71.5



Exception Report

Data File: J:\MS14\DATA\050216\0502F023.D
Lab ID: K1604068-008
RunType: SMPL
Matrix: WATER

Date Acquired: 05/02/2016 17:21
Date Quantitated: 05/03/2016 12:29
Batch ID: KWG1603396
Analysis Method: 8270D SIM
ListJoinID: LJ17265

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 5/3/16

Secondary Review: MAY 0 3 2016

Printed: 05/03/2016 12:41:26
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\050216\0502F023.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 17:21	**Quant Date:**	05/03/2016 12:29	**Vial:**	22
Run Type:	SMPL	**ListJoinID:**	LJ17265	**Dilution:**	1.0
Lab ID:	K1604068-008			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	IV	**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**	04/19/2016	**Receive Date:**	04/21/2016

Analysis Lot:	KWG1603396	**Prep Lot:**	KWG1603185	**Report Group:**	K1604068
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1512554	**Prep Date:**	04/26/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17265
Tune Ref:	J:\MS14\DATA\050216\0502F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\050216\0502F011.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	4.59	-0.10	136	63825	200.00	OK
2	Acenaphthene-d10	6.20	-0.08	164	34601	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
2	Fluorene-d10	6.65	0.00	0.00	176	76888	403.03	101	46-114	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.61		0.00	128	9610	29.81	0.14		
1	2-Methylnaphthalene	5.29		0.00	142	710	3.23	0.015	J	
1	1-Methylnaphthalene	5.38		0.00	142	347	1.81	0.0085	J	

Prep Amount:	1060 ml	**Dilution:**	1.0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F023.D Vial: 22
Acq On : 2 May 2016 5:21 pm Operator: LWeiskopf
Sample : K1604068-008 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 03 05:02:34 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon May 02 10:41:41 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

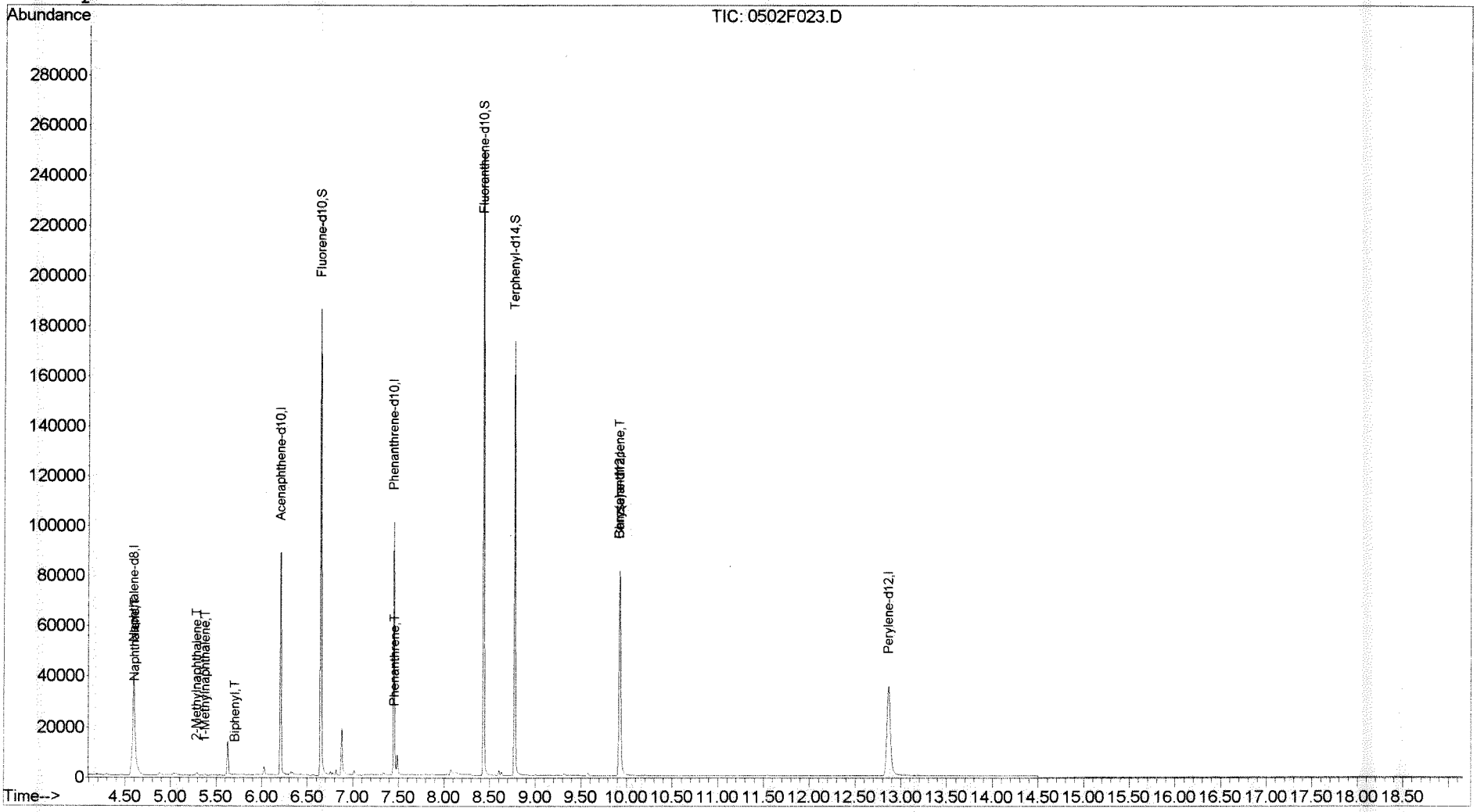
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.59	136	63825	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.20	164	34601	200.00	ng/ml	0.00
14) Phenanthrene-d10	7.45	188	64036	200.00	ng/ml	0.00
22) Chrysene-d12	9.92	240	78909	200.00	ng/ml	0.00
27) Perylene-d12	12.87	264	73241	200.00	ng/ml	-0.01
System Monitoring Compounds						
12) Fluorene-d10	6.65	176	76888	403.03	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 40.30%			
21) Fluoranthene-d10	8.43	212	150527	459.30	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 45.93%			
24) Terphenyl-d14	8.77	244	126614	440.18	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 44.02%			
Target Compounds						Qvalue
2) Naphthalene	4.61	128	9610	29.81	ng/ml	100
3) 2-Methylnaphthalene	5.29	142	710	3.23	ng/ml	98
4) 1-Methylnaphthalene	5.38	142	347	1.81	ng/ml	92
5) Biphenyl	5.71	154	114	0.43	ng/ml	90
16) Phenanthrene	7.47	178	121	0.32	ng/ml	75
25) Benz(a)anthracene	9.92	228	182m	0.39	ng/ml	

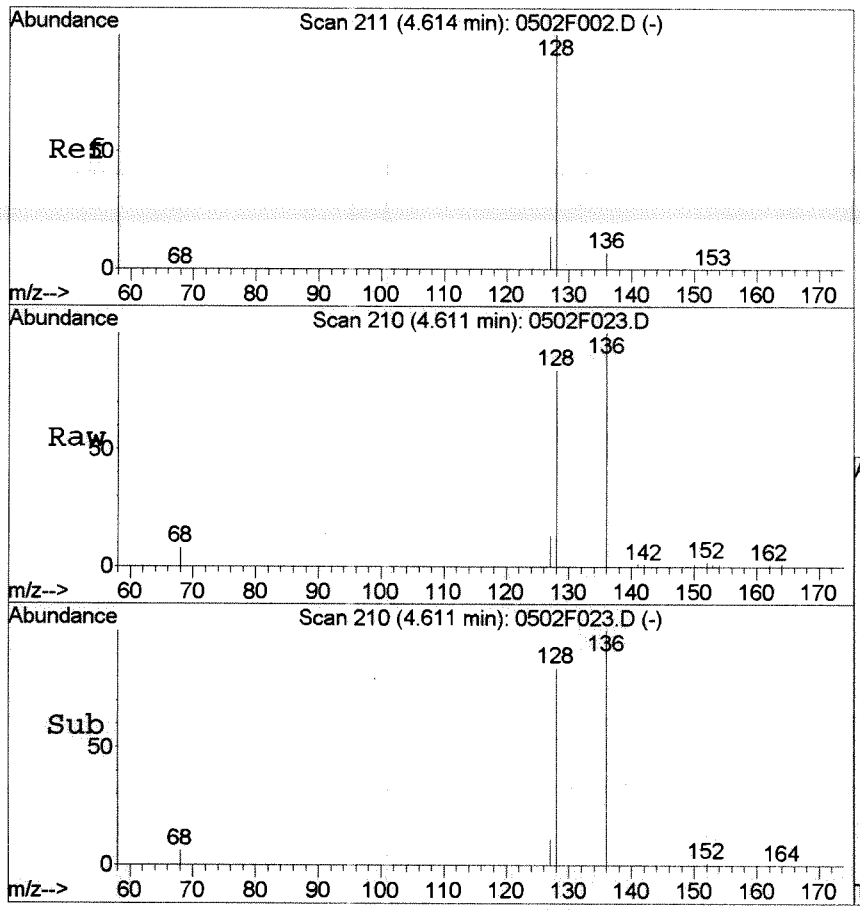
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F023.D Vial: 22
Acq On : 2 May 2016 5:21 pm Operator: LWeiskopf
Sample : K1604068-008 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 3 12:29 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue May 03 10:46:57 2016
Response via : Initial Calibration

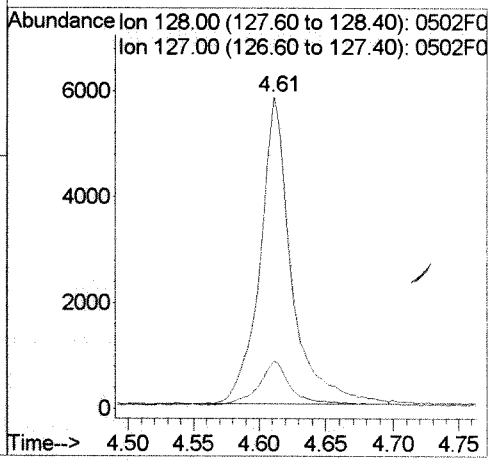


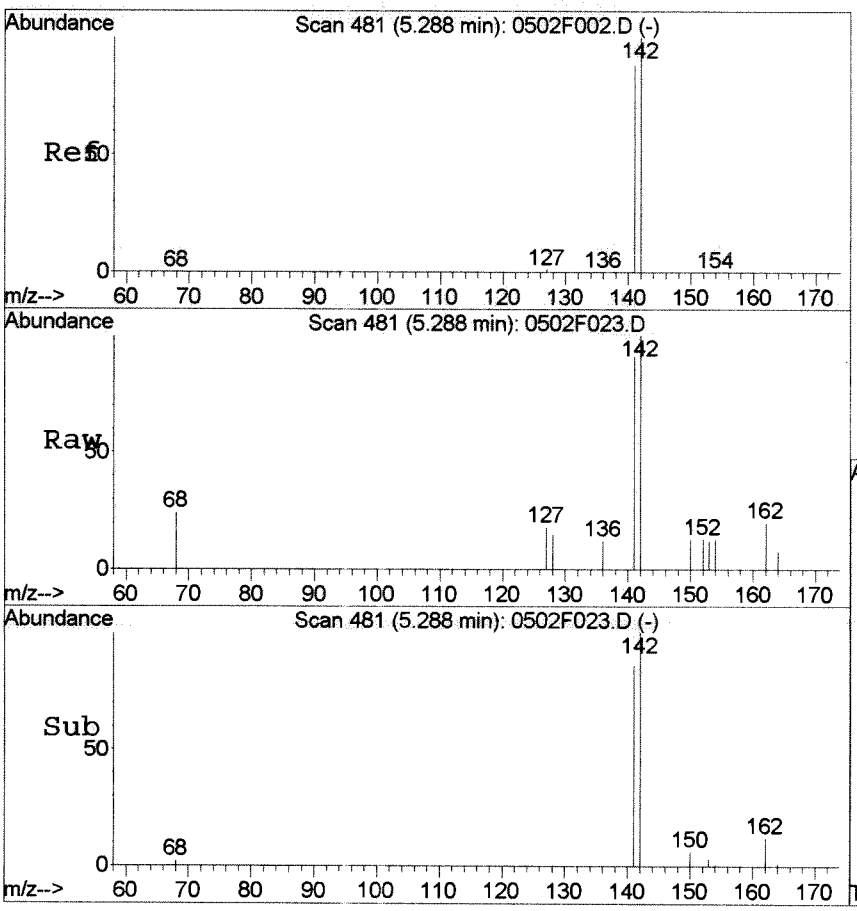


#2
Naphthalene
Concen: 29.81 ng/ml
RT: 4.61 min Scan# 210
Delta R.T. -0.01 min
Lab File: 0502F023.D
Acq: 2 May 2016 5:21 pm

Tgt Ion:128 Resp: 9610

Ion	Ratio	Lower	Upper
128	100		
127	14.0	0.0	43.8

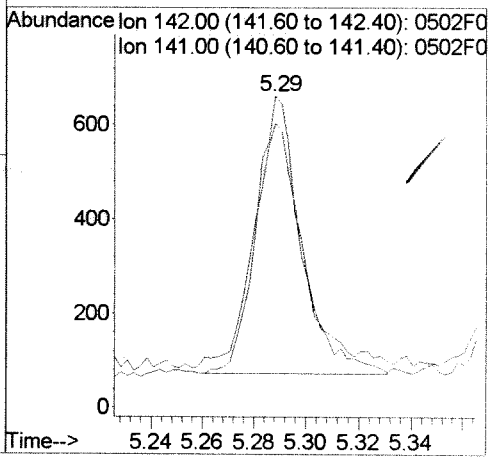


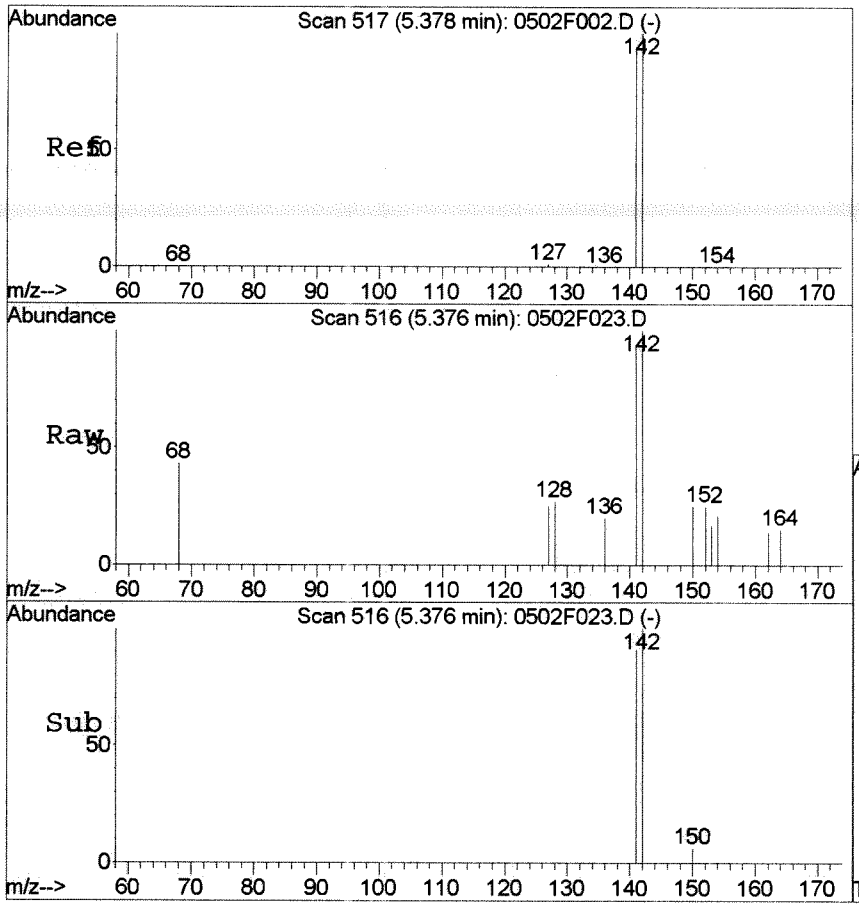


#3
2-Methylnaphthalene
Concen: 3.23 ng/ml
RT: 5.29 min Scan# 481
Delta R.T. -0.00 min
Lab File: 0502F023.D
Acq: 2 May 2016 5:21 pm

Tgt Ion:142 Resp: 710

Ion	Ratio	Lower	Upper
142	100		
141	85.4	57.6	117.6

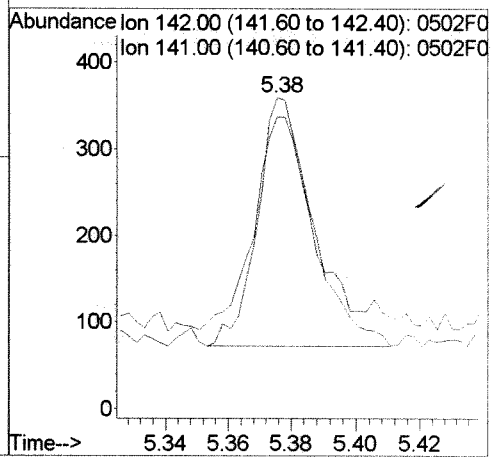


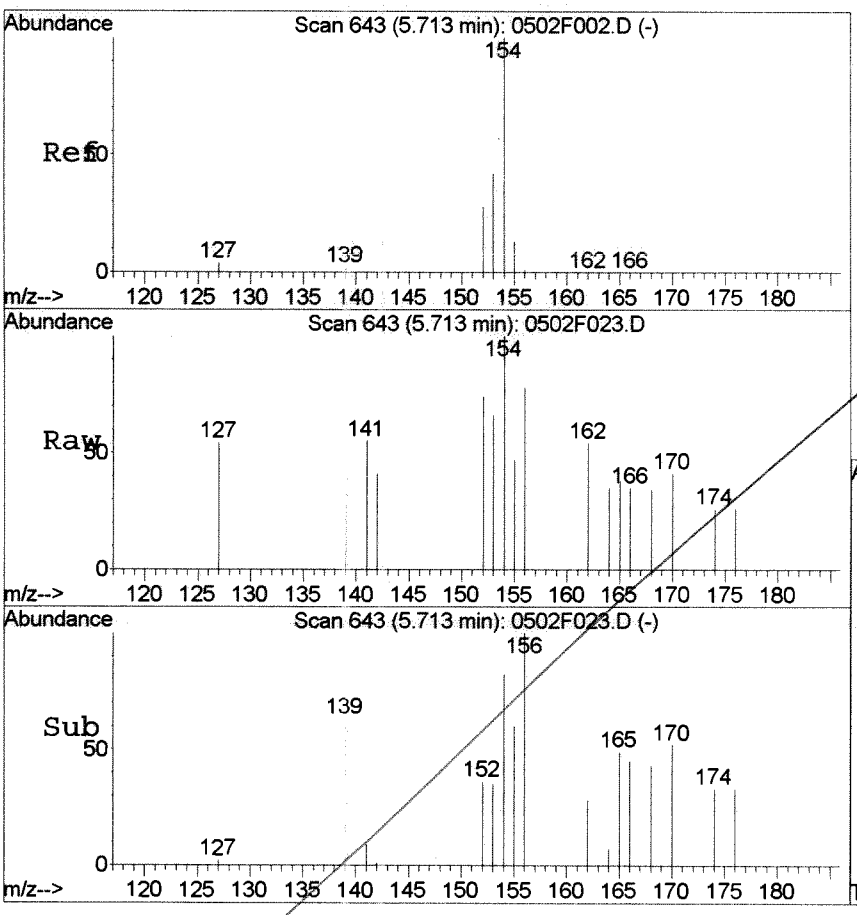


#4
1-Methylnaphthalene
Concen: 1.81 ng/ml
RT: 5.38 min Scan# 516
Delta R.T. -0.01 min
Lab File: 0502F023.D
Acq: 2 May 2016 5:21 pm

Tgt Ion:142 Resp: 347

Ion	Ratio	Lower	Upper
142	100		
141	82.9	60.8	120.8

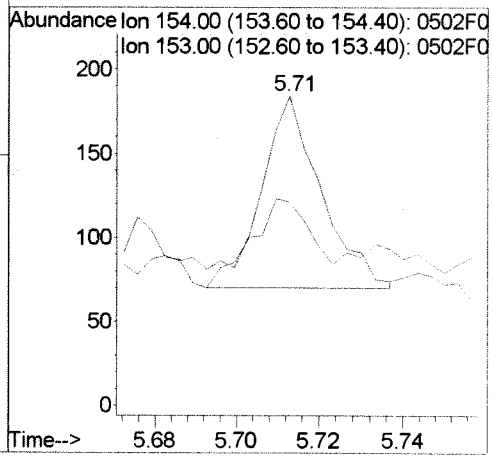




#5
Biphenyl
Concen: 0.43 ng/ml
RT: 5.71 min Scan# 643
Delta R.T. -0.00 min
Lab File: 0502F023.D
Acq: 2 May 2016 5:21 pm

Tgt Ion:154 Resp: 114

Ion	Ratio	Lower	Upper
154	100		
153	35.1	11.5	71.5



Exception Report

Data File: J:\MS14\DATA\050216\0502F011.D
Lab ID: KWG1603185-7
RunType: MB
Matrix: WATER

Date Acquired: 05/02/2016 12:17
Date Quantitated: 05/03/2016 12:21
Batch ID: KWG1603396
Analysis Method: 8270D SIM
MethodJoinID: MJ1507

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
~~Analytical Holding Time~~	~~NA~~	~~NA~~	~~NA~~	~~x~~	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA		x
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

K4059
K4068
K4156

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Retention Time	Perylene-d12	-0.18	NA	0.17	~~non-target~~ for K4068 & K4156 (DOD)

OK for K4059

Primary Review: 5/3/16

Secondary Review: MAY 0 3 2016

Printed: 05/03/2016 12:40:50
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\050216\0502F011.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 12:17	**Quant Date:**	05/03/2016 12:21	**Vial:**	10
Run Type:	MB	**MethodJoinID:**	MJ1507	**Dilution:**	1.0
Lab ID:	KWG1603185-7			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	04/28/2016

Analysis Lot:	KWG1603396	**Prep Lot:**	KWG1603185	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1512566	**Prep Date:**	04/26/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:			
Tune Ref:	J:\MS14\DATA\050216\0502F001.D	**Method ID:**	MJ1507
MB Ref:		**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	4.60	-0.09	136	71038	200.00	OK
2	Acenaphthene-d10	6.20	-0.08	164	39296	200.00	OK
3	Phenanthrene-d10	7.45	-0.07	188	73668	200.00	OK
4	Chrysene-d12	9.93	-0.10	240	89071	200.00	OK
5	Perylene-d12	12.87	-0.18*	264	82814	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
2	Fluorene-d10	6.65	0.00	0.00	176	79833	368.47	92	46-114	OK	
3	Fluoranthene-d10	8.44	0.00	0.00	212	158794	421.17	105	51-121	OK	
4	Terphenyl-d14	8.77	-0.01	0.00	244	131776	405.86	101	58-132	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene				128	0d		0.0038	U	
1	2-Methylnaphthalene				142	0		0.0023	U	
1	1-Methylnaphthalene				142	0		0.0035	U	
1	Biphenyl				154	0d		0.0024	U	
1	2,6-Dimethylnaphthalene				156	0		0.0022	U	
2	Acenaphthylene				152	0		0.0034	U	
2	Acenaphthene				154	0d		0.0044	U	
2	Dibenzofuran				168	0		0.0093	U	
2	2,3,5-Trimethylnaphthalene				170	0d		0.0050	U	
2	Fluorene				166	0d		0.0038	U	
3	Dibenzothiophene				184	0d		0.0038	U	
3	Phenanthrene				178	0d		0.0050	U	
3	Anthracene				178	0d		0.0036	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS14\DATA\050216\0502F011.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 12:17	**Quant Date:**	05/03/2016 12:21	**Vial:**	10
Run Type:	MB	**MethodJoinID:**	MJ1507	**Dilution:**	1.0
Lab ID:	KWG1603185-7			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole				167	0		0.0045	U	
3	1-Methylphenanthrene				192	0		0.0041	U	
3	Fluoranthene				202	0d		0.010	U	
4	Pyrene				202	0d		0.0053	U	
4	Benz(a)anthracene	9.92		0.00	228	237	0.4500	0.0026	U	
4	Chrysene				228	0d		0.0034	U	
5	Benzo(b)fluoranthene				252	0		0.0041	U	
5	Benzo(k)fluoranthene				252	0		0.0030	U	
5	Benzo(e)pyrene				252	0		0.0040	U	
5	Benzo(a)pyrene				252	0		0.0043	U	
5	Perylene				252	0d		0.0050	U	
5	Indeno(1,2,3-cd)pyrene				276	0		0.0026	U	
5	Dibenz(a,h)anthracene				278	0		0.0025	U	
5	Benzo(g,h,i)perylene				276	0		0.0029	U	

Prep Amount: 1060 ml **Dilution:** 1.0
Prep Final Vol: 5 ml **Unit Factor:** 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS14\DATA\050216\0502F011.D Vial: 10
Acq On : 2 May 2016 12:17 pm Operator: LWeiskopf
Sample : KWG1603185-7 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 03 05:02:13 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon May 02 10:41:41 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

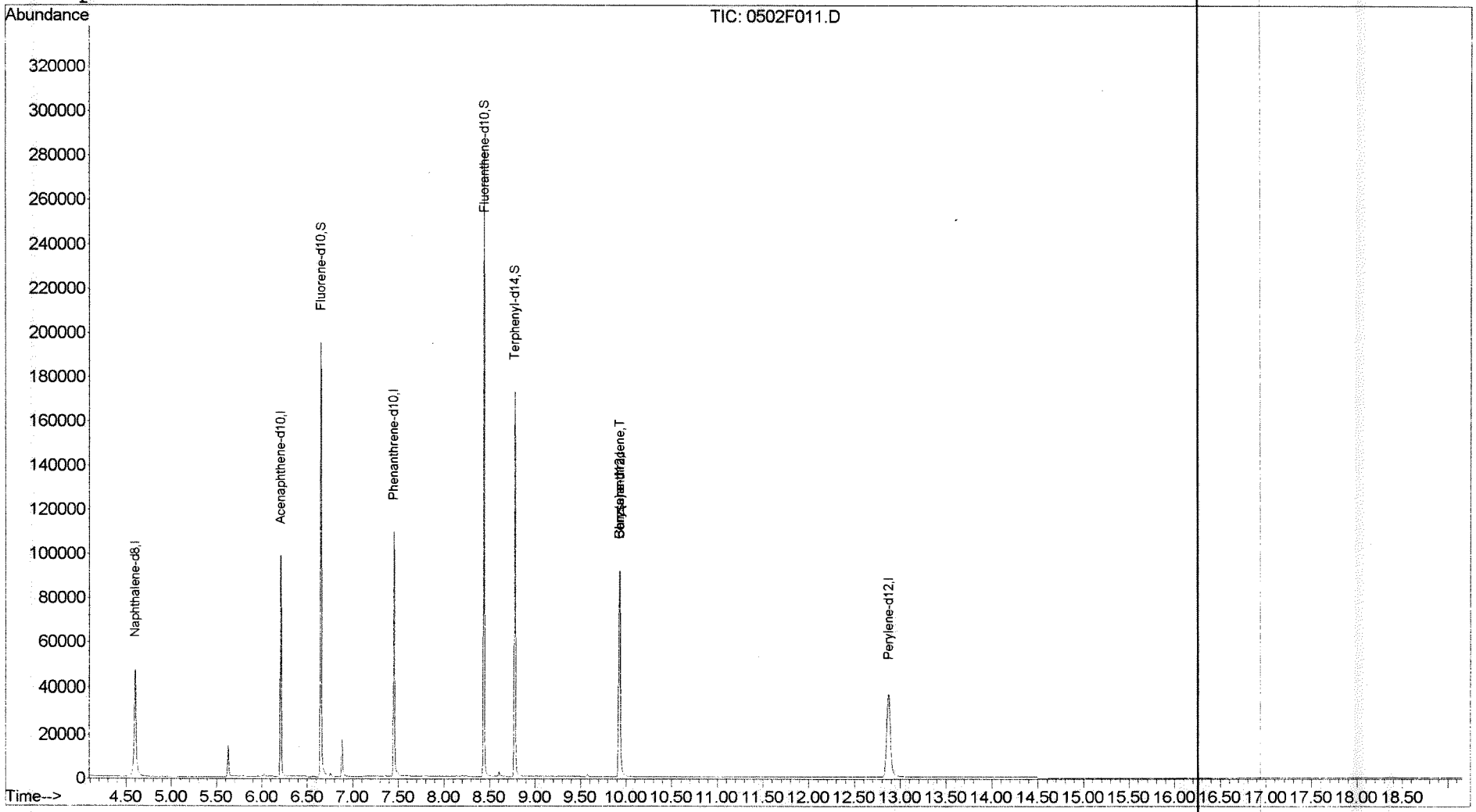
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.60	136	71038	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.20	164	39296	200.00	ng/ml	0.00
14) Phenanthrene-d10	7.45	188	73668	200.00	ng/ml	0.00
22) Chrysene-d12	9.93	240	89071	200.00	ng/ml	0.00
27) Perylene-d12	12.87	264	82814	200.00	ng/ml	-0.01
System Monitoring Compounds						
12) Fluorene-d10	6.65	176	79833	368.47	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	36.85%		
21) Fluoranthene-d10	8.44	212	158794	421.17	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	42.12%		
24) Terphenyl-d14	8.77	244	131776	405.86	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	40.59%		
Target Compounds						Qvalue
25) Benz(a)anthracene	9.92	228	237	0.45	ng/ml	98

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F011.D Vial: 10
Acq On : 2 May 2016 12:17 pm Operator: LWeiskopf
Sample : KWG1603185-7 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 3 12:21 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue May 03 10:46:57 2016
Response via : Initial Calibration



Exception Report

Data File: J:\MS14\DATA\050216\0502F014.D
Lab ID: KWG1603185-1 -- K1604068-002MS
RunType: MS
Matrix: WATER

Date Acquired: 05/02/2016 13:33
Date Quantitated: 05/03/2016 05:02
Batch ID: KWG1603396
Analysis Method: 8270D SIM
MethodJoinID: MJ1507

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
~~Analytical Holding Time~~	~~NA~~	~~NA~~	~~NA~~	~~x~~	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA		x
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Batch QC
K4156

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Retention Time	Perylene-d12	-0.18	NA	0.17	non-target

Primary Review: 5/3/16

Secondary Review: MAY 0 3 2016

Printed: 05/03/2016 12:50:40
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\050216\0502F014.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 13:33	**Quant Date:**	05/03/2016 05:02	**Vial:**	13
Run Type:	MS	**MethodJoinID:**	MJ1507	**Dilution:**	1.0
Lab ID:	KWG1603185-1 -- K1604068-002MS			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	04/28/2016

Analysis Lot:	KWG1603396	**Prep Lot:**	KWG1603185	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1512560	**Prep Date:**	04/26/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:			
Tune Ref:	J:\MS14\DATA\050216\0502F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\050216\0502F011.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	4.59	-0.10	136	67224	200.00	OK
2	Acenaphthene-d10	6.20	-0.08	164	34215	200.00	OK
3	Phenanthrene-d10	7.45	-0.07	188	64833	200.00	OK
4	Chrysene-d12	9.93	-0.10	240	82435	200.00	OK
5	Perylene-d12	12.87	-0.18*	264	74372	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
2	Fluorene-d10	6.65	0.00	0.00	176	73544	389.85	97	46-114	OK	
3	Fluoranthene-d10	8.44	0.00	0.00	212	149666	451.05	113	51-121	OK	
4	Terphenyl-d14	8.78	0.00	0.00	244	117498	391.02	98	58-132	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.61		0.00	128	135060	397.77	1.88		
1	2-Methylnaphthalene	5.29		0.00	142	87425	377.18	1.78		
1	1-Methylnaphthalene	5.38		0.00	142	75481	373.71	1.76		
1	Biphenyl	5.71		0.00	154	105304	375.37	1.77		
1	2,6-Dimethylnaphthalene	5.85		0.00	156	74388	385.59	1.82		
2	Acenaphthylene	6.08	-0.01	0.00	152	141088	401.03	1.89		
2	Acenaphthene	6.23		0.00	154	78896	393.02	1.85		
2	Dibenzofuran	6.38		0.00	168	124657	385.14	1.82		
2	2,3,5-Trimethylnaphthalene	6.56		0.00	170	72559	409.57	1.93		
2	Fluorene	6.67		0.00	166	99861	404.89	1.91		
3	Dibenzothiophene	7.36		0.00	184	160751	424.64	2.00		
3	Phenanthrene	7.47		0.00	178	154983	407.86	1.92		
3	Anthracene	7.51		0.00	178	146709	413.83	1.95		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS14\DATA\050216\0502F014.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 13:33	**Quant Date:**	05/03/2016 05:02	**Vial:**	13
Run Type:	MS	**MethodJoinID:**	MJ1507	**Dilution:**	1.0
Lab ID:	KWG1603185-1 -- K1604068-002MS			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole	7.65		0.00	167	149748	467.91	2.21		
3	1-Methylphenanthrene	7.98		0.00	192	122650	440.46	2.08		
3	Fluoranthene	8.45		0.00	202	186127	434.86	2.05		
4	Pyrene	8.64		0.00	202	195601	380.24	1.79		
4	Benz(a)anthracene	9.91	-0.01	0.00	228	189838	393.15	1.85		
4	Chrysene	9.96		0.00	228	184278	428.71	2.02		
5	Benzo(b)fluoranthene	11.88	-0.01	0.00	252	201706	424.63	2.00		
5	Benzo(k)fluoranthene	11.95		0.00	252	200879	433.40	2.04		
5	Benzo(e)pyrene	12.57	-0.01	0.00	252	187958	427.63	2.02		
5	Benzo(a)pyrene	12.71	-0.01	0.00	252	176487	396.49	1.87		
5	Perylene	12.94	-0.02	0.00	252	172816	416.62	1.97		
5	Indeno(1,2,3-cd)pyrene	15.24		0.00	276	151875	364.39	1.72		
5	Dibenz(a,h)anthracene	15.28	-0.01	0.00	278	147078	356.52	1.68		
5	Benzo(g,h,i)perylene	15.61	-0.01	0.00	276	165988	349.50	1.65		

Prep Amount:	1060 ml	**Dilution:**	1.0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F014.D Vial: 13
Acq On : 2 May 2016 1:33 pm Operator: LWeiskopf
Sample : K1604068-002MS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 03 05:02:20 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon May 02 10:41:41 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

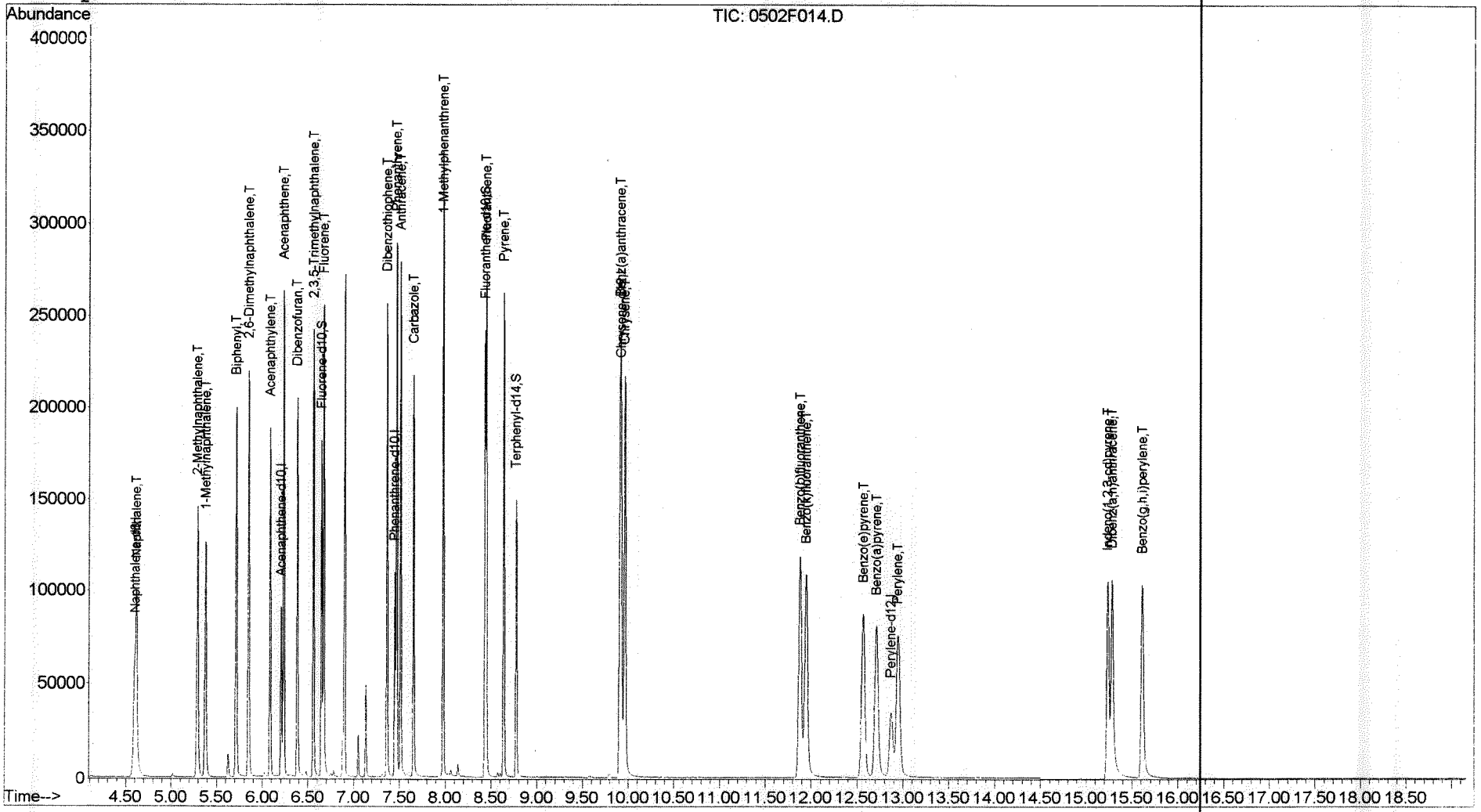
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.59	136	67224	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.20	164	34215	200.00	ng/ml	0.00
14) Phenanthrene-d10	7.45	188	64833	200.00	ng/ml	0.00
22) Chrysene-d12	9.93	240	82435	200.00	ng/ml	0.00
27) Perylene-d12	12.87	264	74372	200.00	ng/ml	0.00
System Monitoring Compounds						
12) Fluorene-d10	6.65	176	73544	389.85	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 38.98%			
21) Fluoranthene-d10	8.44	212	149666	451.05	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 45.11%			
24) Terphenyl-d14	8.78	244	117498	391.02	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 39.10%			
Target Compounds						Qvalue
2) Naphthalene	4.61	128	135060	397.77	ng/ml	100
3) 2-Methylnaphthalene	5.29	142	87425	377.18	ng/ml	99
4) 1-Methylnaphthalene	5.38	142	75481	373.71	ng/ml	99
5) Biphenyl	5.71	154	105304	375.37	ng/ml	100
6) 2,6-Dimethylnaphthalene	5.85	156	74388	385.59	ng/ml	99
8) Acenaphthylene	6.08	152	141088	401.03	ng/ml	100
9) Acenaphthene	6.23	154	78896	393.02	ng/ml	96
10) Dibenzofuran	6.38	168	124657	385.14	ng/ml	90
11) 2,3,5-Trimethylnaphthalene	6.56	170	72559	409.57	ng/ml	94
13) Fluorene	6.67	166	99861	404.89	ng/ml	99
15) Dibenzothiophene	7.36	184	160751	424.64	ng/ml	96
16) Phenanthrene	7.47	178	154983	407.86	ng/ml	99
17) Anthracene	7.51	178	146709	413.83	ng/ml	98
18) Carbazole	7.65	167	149748	467.91	ng/ml	96
19) 1-Methylphenanthrene	7.98	192	122650	440.46	ng/ml	99
20) Fluoranthene	8.45	202	186127	434.86	ng/ml	98
23) Pyrene	8.64	202	195601	380.24	ng/ml	95
25) Benz(a)anthracene	9.91	228	189838	393.15	ng/ml	99
26) Chrysene	9.96	228	184278	428.71	ng/ml	98
28) Benzo(b)fluoranthene	11.88	252	201706	424.63	ng/ml	99
29) Benzo(k)fluoranthene	11.95	252	200879	433.40	ng/ml	100
30) Benzo(e)pyrene	12.57	252	187958	427.63	ng/ml	100
31) Benzo(a)pyrene	12.71	252	176487	396.49	ng/ml	99
32) Perylene	12.94	252	172816	416.62	ng/ml	99
33) Indeno(1,2,3-cd)pyrene	15.24	276	151875	364.39	ng/ml	99
34) Dibenz(a,h)anthracene	15.28	278	147078	356.52	ng/ml	98
35) Benzo(g,h,i)perylene	15.61	276	165988	349.50	ng/ml	99

(#) = qualifier out of range (m) = manual integration
0502F014.D 011116SIMPAH.M Tue May 03 12:23:23 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F014.D Vial: 13
Acq On : 2 May 2016 1:33 pm Operator: LWeiskopf
Sample : K1604068-002MS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 3 5:02 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue May 03 10:46:57 2016
Response via : Initial Calibration



Exception Report

Data File: J:\MS14\DATA\050216\0502F015.D
Lab ID: KWG1603185-2 -- K1604068-002DMS
RunType: DMS
Matrix: WATER

Date Acquired: 05/02/2016 13:59
Date Quantitated: 05/03/2016 05:02
Batch ID: KWG1603396
Analysis Method: 8270D SIM
MethodJoinID: MJ1507

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
~~Analytical Holding Time~~	~~NA~~	~~NA~~	~~NA~~	~~x~~	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA		x
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

batch QC
K4156

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Retention Time	Perylene-d12	-0.18	NA	0.17	non-target

Primary Review: 5/3/16

Secondary Review: MAY 0 3 2016

Printed: 05/03/2016 12:41:02
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\050216\0502F015.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 13:59	**Quant Date:**	05/03/2016 05:02	**Vial:**	14
Run Type:	DMS	**MethodJoinID:**	MJ1507	**Dilution:**	1.0
Lab ID:	KWG1603185-2 -- K1604068-002DMS			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	04/28/2016

Analysis Lot:	KWG1603396	**Prep Lot:**	KWG1603185	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1512561	**Prep Date:**	04/26/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:			
Tune Ref:	J:\MS14\DATA\050216\0502F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\050216\0502F011.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	4.59	-0.10	136	66266	200.00	OK
2	Acenaphthene-d10	6.20	-0.08	164	34009	200.00	OK
3	Phenanthrene-d10	7.45	-0.07	188	64997	200.00	OK
4	Chrysene-d12	9.92	-0.11	240	82829	200.00	OK
5	Perylene-d12	12.87	-0.18*	264	74712	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
2	Fluorene-d10	6.65	0.00	0.00	176	74848	399.17	100	46-114	OK	
3	Fluoranthene-d10	8.44	0.00	0.00	212	153088	460.20	115	51-121	OK	
4	Terphenyl-d14	8.78	0.00	0.00	244	122078	404.32	101	58-132	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.62	0.01	0.00	128	137057	409.49	2.01		
1	2-Methylnaphthalene	5.29		0.00	142	89473	391.59	1.92		
1	1-Methylnaphthalene	5.38		0.00	142	77027	386.88	1.90		
1	Biphenyl	5.71		0.00	154	108416	392.05	1.92		
1	2,6-Dimethylnaphthalene	5.85		0.00	156	76598	402.79	1.97		
2	Acenaphthylene	6.09		0.00	152	144513	413.25	2.03		
2	Acenaphthene	6.23		0.00	154	81153	406.71	1.99		
2	Dibenzofuran	6.38		0.00	168	131709	409.39	2.01		
2	2,3,5-Trimethylnaphthalene	6.56		0.00	170	74769	424.60	2.08		
2	Fluorene	6.67		0.00	166	100876	411.48	2.02		
3	Dibenzothiophene	7.36		0.00	184	162158	427.28	2.09		
3	Phenanthrene	7.47		0.00	178	156427	410.62	2.01		
3	Anthracene	7.51		0.00	178	149297	420.06	2.06		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS14\DATA\050216\0502F015.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 13:59	**Quant Date:**	05/03/2016 05:02	**Vial:**	14
Run Type:	DMS	**MethodJoinID:**	MJ1507	**Dilution:**	1.0
Lab ID:	KWG1603185-2 -- K1604068-002DMS			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole	7.65		0.00	167	152811	476.28	2.33		
3	1-Methylphenanthrene	7.98		0.00	192	125356	449.04	2.20		
3	Fluoranthene	8.45		0.00	202	191042	445.21	2.18		
4	Pyrene	8.64		0.00	202	201004	388.88	1.91		
4	Benz(a)anthracene	9.91	-0.01	0.00	228	195544	403.04	1.98		
4	Chrysene	9.96		0.00	228	190960	442.14	2.17		
5	Benzo(b)fluoranthene	11.88	-0.01	0.00	252	208118	436.13	2.14		
5	Benzo(k)fluoranthene	11.95		0.00	252	209993	451.00	2.21		
5	Benzo(e)pyrene	12.57	-0.01	0.00	252	193587	438.43	2.15		
5	Benzo(a)pyrene	12.71	-0.01	0.00	252	181483	405.86	1.99		
5	Perylene	12.94	-0.02	0.00	252	177719	426.49	2.09		
5	Indeno(1,2,3-cd)pyrene	15.24		0.00	276	155020	370.24	1.81		
5	Dibenz(a,h)anthracene	15.28	-0.01	0.00	278	150379	362.86	1.78		
5	Benzo(g,h,i)perylene	15.61	-0.01	0.00	276	170372	357.10	1.75		

Prep Amount: 1020 ml **Dilution:** 1.0
Prep Final Vol: 5 ml **Unit Factor:** 1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS14\DATA\050216\0502F015.D Vial: 14
Acq On : 2 May 2016 1:59 pm Operator: LWeiskopf
Sample : K1604068-002DMS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 03 05:02:21 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon May 02 10:41:41 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

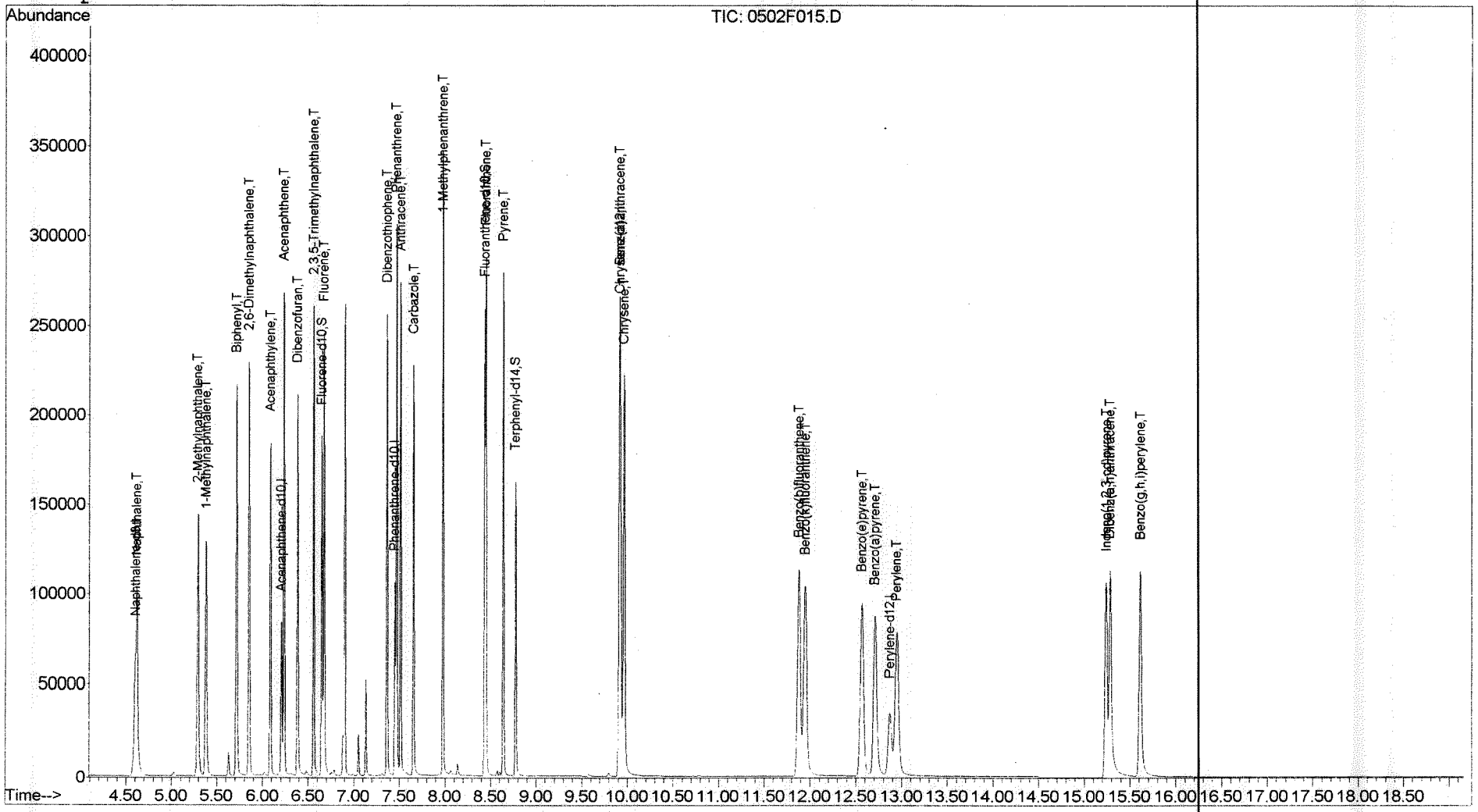
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.59	136	66266	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.20	164	34009	200.00	ng/ml	0.00
14) Phenanthrene-d10	7.45	188	64997	200.00	ng/ml	0.00
22) Chrysene-d12	9.92	240	82829	200.00	ng/ml	0.00
27) Perylene-d12	12.87	264	74712	200.00	ng/ml	-0.01
System Monitoring Compounds						
12) Fluorene-d10	6.65	176	74848	399.17	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 39.92%			
21) Fluoranthene-d10	8.44	212	153088	460.20	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 46.02%			
24) Terphenyl-d14	8.78	244	122078	404.32	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 40.43%			
Target Compounds						Qvalue
2) Naphthalene	4.62	128	137057	409.49	ng/ml	99
3) 2-Methylnaphthalene	5.29	142	89473	391.59	ng/ml	98
4) 1-Methylnaphthalene	5.38	142	77027	386.88	ng/ml	98
5) Biphenyl	5.71	154	108416	392.05	ng/ml	100
6) 2,6-Dimethylnaphthalene	5.85	156	76598	402.79	ng/ml	98
8) Acenaphthylene	6.09	152	144513	413.25	ng/ml	99
9) Acenaphthene	6.23	154	81153	406.71	ng/ml	96
10) Dibenzofuran	6.38	168	131709	409.39	ng/ml	90
11) 2,3,5-Trimethylnaphthalene	6.56	170	74769	424.60	ng/ml	92
13) Fluorene	6.67	166	100876	411.48	ng/ml	98
15) Dibenzothiophene	7.36	184	162158	427.28	ng/ml	96
16) Phenanthrene	7.47	178	156427	410.62	ng/ml	99
17) Anthracene	7.51	178	149297	420.06	ng/ml	97
18) Carbazole	7.65	167	152811	476.28	ng/ml	96
19) 1-Methylphenanthrene	7.98	192	125356	449.04	ng/ml	98
20) Fluoranthene	8.45	202	191042	445.21	ng/ml	98
23) Pyrene	8.64	202	201004	388.88	ng/ml	95
25) Benz(a)anthracene	9.91	228	195544	403.04	ng/ml	99
26) Chrysene	9.96	228	190960	442.14	ng/ml	99
28) Benzo(b)fluoranthene	11.88	252	208118	436.13	ng/ml	100
29) Benzo(k)fluoranthene	11.95	252	209993	451.00	ng/ml	100
30) Benzo(e)pyrene	12.57	252	193587	438.43	ng/ml	99
31) Benzo(a)pyrene	12.71	252	181483	405.86	ng/ml	99
32) Perylene	12.94	252	177719	426.49	ng/ml	99
33) Indeno(1,2,3-cd)pyrene	15.24	276	155020	370.24	ng/ml	99
34) Dibenz(a,h)anthracene	15.28	278	150379	362.86	ng/ml	99
35) Benzo(g,h,i)perylene	15.61	276	170372	357.10	ng/ml	99

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F015.D Vial: 14
Acq On : 2 May 2016 1:59 pm Operator: LWeiskopf
Sample : K1604068-002DMS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 3 5:02 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue May 03 10:46:57 2016
Response via : Initial Calibration



Exception Report

Data File: J:\MS14\DATA\050216\0502F012.D
Lab ID: KWG1603185-5
RunType: LCS
Matrix: WATER

Date Acquired: 05/02/2016 12:42
Date Quantitated: 05/03/2016 05:02
Batch ID: KWG1603396
Analysis Method: 8270D SIM
MethodJoinID: MJ1507

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA		x
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

K4059
K4068
K4156

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Retention Time	Perylene-d12	-0.18	NA	0.17	non-target for K4068 & K4156 (DOD)

OK for K4059

Primary Review: 5/3/16

Secondary Review: MAY 0 3 2016

Printed: 05/03/2016 12:40:53
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\050216\0502F012.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 12:42	**Quant Date:**	05/03/2016 05:02	**Vial:**	11
Run Type:	LCS	**MethodJoinID:**	MJ1507	**Dilution:**	1.0
Lab ID:	KWG1603185-5			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	04/28/2016

Analysis Lot:	KWG1603396	**Prep Lot:**	KWG1603185	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1512564	**Prep Date:**	04/26/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:			
Tune Ref:	J:\MS14\DATA\050216\0502F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\050216\0502F011.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	4.59	-0.10	136	69601	200.00	OK
2	Acenaphthene-d10	6.20	-0.08	164	35265	200.00	OK
3	Phenanthrene-d10	7.45	-0.07	188	67759	200.00	OK
4	Chrysene-d12	9.93	-0.10	240	84218	200.00	OK
5	Perylene-d12	12.87	-0.18*	264	76975	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
2	Fluorene-d10	6.65	0.00	0.00	176	78280	402.60	101	46-114	OK	
3	Fluoranthene-d10	8.44	0.00	0.00	212	159610	460.25	115	51-121	OK	
4	Terphenyl-d14	8.77	-0.01	0.00	244	129852	422.98	106	58-132	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.61		0.00	128	144666	411.51	2.06		
1	2-Methylnaphthalene	5.29		0.00	142	92902	387.12	1.94		
1	1-Methylnaphthalene	5.38		0.00	142	80665	385.74	1.93		
1	Biphenyl	5.71		0.00	154	112551	387.50	1.94		
1	2,6-Dimethylnaphthalene	5.85		0.00	156	79255	396.79	1.98		
2	Acenaphthylene	6.08	-0.01	0.00	152	151698	418.35	2.09		
2	Acenaphthene	6.23		0.00	154	84759	409.65	2.05		
2	Dibenzofuran	6.38		0.00	168	138350	414.72	2.07		
2	2,3,5-Trimethylnaphthalene	6.56		0.00	170	77438	424.10	2.12		
2	Fluorene	6.67		0.00	166	106031	417.10	2.09		
3	Dibenzothiophene	7.36		0.00	184	172860	436.91	2.18		
3	Phenanthrene	7.47		0.00	178	165125	415.78	2.08		
3	Anthracene	7.51		0.00	178	161108	434.82	2.17		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS14\DATA\050216\0502F012.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 12:42	**Quant Date:**	05/03/2016 05:02	**Vial:**	11
Run Type:	LCS	**MethodJoinID:**	MJ1507	**Dilution:**	1.0
Lab ID:	KWG1603185-5			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole	7.65		0.00	167	159645	477.30	2.39		
3	1-Methylphenanthrene	7.98		0.00	192	130883	449.73	2.25		
3	Fluoranthene	8.45		0.00	202	198869	444.56	2.22		
4	Pyrene	8.64		0.00	202	209181	398.03	1.99		
4	Benz(a)anthracene	9.91	-0.01	0.00	228	200993	407.44	2.04		
4	Chrysene	9.96		0.00	228	195234	444.58	2.22		
5	Benzo(b)fluoranthene	11.88	-0.01	0.00	252	214586	436.46	2.18		
5	Benzo(k)fluoranthene	11.94	-0.01	0.00	252	214972	448.12	2.24		
5	Benzo(e)pyrene	12.57	-0.01	0.00	252	198472	436.28	2.18		
5	Benzo(a)pyrene	12.71	-0.01	0.00	252	187311	406.58	2.03		
5	Perylene	12.94	-0.02	0.00	252	183134	426.56	2.13		
5	Indeno(1,2,3-cd)pyrene	15.24		0.00	276	156110	361.89	1.81		
5	Dibenz(a,h)anthracene	15.28	-0.01	0.00	278	150656	352.84	1.76		
5	Benzo(g,h,i)perylene	15.61	-0.01	0.00	276	170799	347.47	1.74		

Prep Amount:	1000 ml	**Dilution:**	1.0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS14\DATA\050216\0502F012.D Vial: 11
Acq On : 2 May 2016 12:42 pm Operator: LWeiskopf
Sample : KWG1603185-5 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 03 05:02:15 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon May 02 10:41:41 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

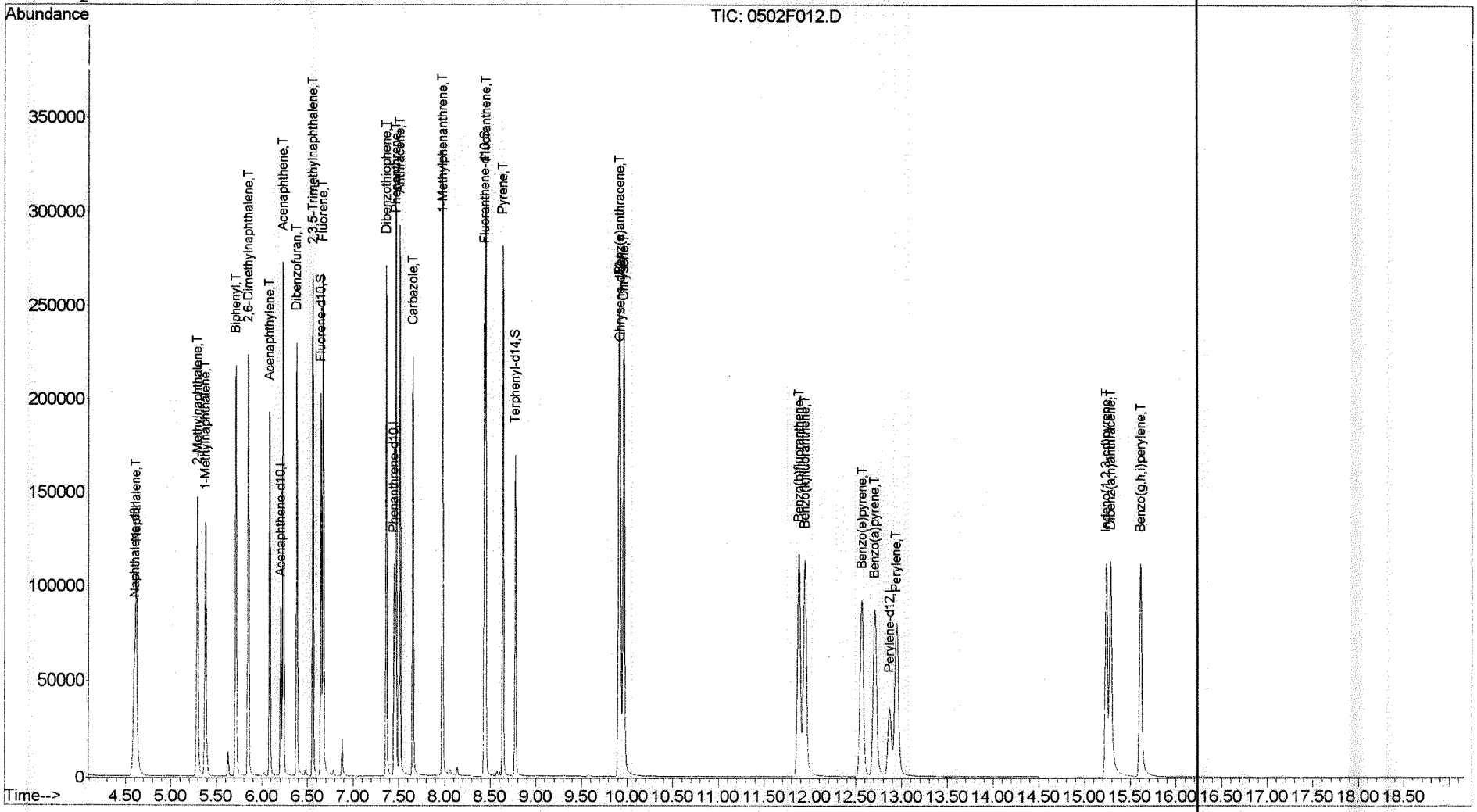
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.59	136	69601	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.20	164	35265	200.00	ng/ml	0.00
14) Phenanthrene-d10	7.45	188	67759	200.00	ng/ml	0.00
22) Chrysene-d12	9.93	240	84218	200.00	ng/ml	0.00
27) Perylene-d12	12.87	264	76975	200.00	ng/ml	-0.01
System Monitoring Compounds						
12) Fluorene-d10	6.65	176	78280	402.60	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 40.26%			
21) Fluoranthene-d10	8.44	212	159610	460.25	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 46.02%			
24) Terphenyl-d14	8.77	244	129852	422.98	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 42.30%			
Target Compounds						Qvalue
2) Naphthalene	4.61	128	144666	411.51	ng/ml	99
3) 2-Methylnaphthalene	5.29	142	92902	387.12	ng/ml	99
4) 1-Methylnaphthalene	5.38	142	80665	385.74	ng/ml	100
5) Biphenyl	5.71	154	112551	387.50	ng/ml	99
6) 2,6-Dimethylnaphthalene	5.85	156	79255	396.79	ng/ml	99
8) Acenaphthylene	6.08	152	151698	418.35	ng/ml	100
9) Acenaphthene	6.23	154	84759	409.65	ng/ml	96
10) Dibenzofuran	6.38	168	138350	414.72	ng/ml	92
11) 2,3,5-Trimethylnaphthalene	6.56	170	77438	424.10	ng/ml	95
13) Fluorene	6.67	166	106031	417.10	ng/ml	97
15) Dibenzothiophene	7.36	184	172860	436.91	ng/ml	97
16) Phenanthrene	7.47	178	165125	415.78	ng/ml	98
17) Anthracene	7.51	178	161108	434.82	ng/ml	97
18) Carbazole	7.65	167	159645	477.30	ng/ml	97
19) 1-Methylphenanthrene	7.98	192	130883	449.73	ng/ml	99
20) Fluoranthene	8.45	202	198869	444.56	ng/ml	99
23) Pyrene	8.64	202	209181	398.03	ng/ml	97
25) Benz(a)anthracene	9.91	228	200993	407.44	ng/ml	99
26) Chrysene	9.96	228	195234	444.58	ng/ml	98
28) Benzo(b)fluoranthene	11.88	252	214586	436.46	ng/ml	100
29) Benzo(k)fluoranthene	11.94	252	214972	448.12	ng/ml	100
30) Benzo(e)pyrene	12.57	252	198472	436.28	ng/ml	99
31) Benzo(a)pyrene	12.71	252	187311	406.58	ng/ml	99
32) Perylene	12.94	252	183134	426.56	ng/ml	99
33) Indeno(1,2,3-cd)pyrene	15.24	276	156110	361.89	ng/ml	99
34) Dibenz(a,h)anthracene	15.28	278	150656	352.84	ng/ml	98
35) Benzo(g,h,i)perylene	15.61	276	170799	347.47	ng/ml	99

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F012.D Vial: 11
Acq On : 2 May 2016 12:42 pm Operator: LWeiskopf
Sample : KWG1603185-5 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 3 5:02 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue May 03 10:46:57 2016
Response via : Initial Calibration



Exception Report

Data File: J:\MS14\DATA\050216\0502F013.D
Lab ID: KWG1603185-6
RunType: DLCS
Matrix: WATER

Date Acquired: 05/02/2016 13:08
Date Quantitated: 05/03/2016 05:02
Batch ID: KWG1603396
Analysis Method: 8270D SIM
MethodJoinID: MJ1507

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Continuing Calibration Recovery (Closing)	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA		x
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

K4059
K4068
K4156

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Retention Time	Perylene-d12	-0.18	NA	0.17	non-target for K4068 & K4156 (DOD)

OK for K4156

Primary Review: 5/3/16

Secondary Review: MAY 0 3 2016

Printed: 05/03/2016 12:40:56
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\050216\0502F013.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 13:08	**Quant Date:**	05/03/2016 05:02	**Vial:**	12
Run Type:	DLCS	**MethodJoinID:**	MJ1507	**Dilution:**	1.0
Lab ID:	KWG1603185-6			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	04/28/2016

Analysis Lot:	KWG1603396	**Prep Lot:**	KWG1603185	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3520C		
Prep Ref:	1512565	**Prep Date:**	04/26/2016		

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:			
Tune Ref:	J:\MS14\DATA\050216\0502F001.D	**Method ID:**	MJ1507
MB Ref:	J:\MS14\DATA\050216\0502F011.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	4.59	-0.10	136	68522	200.00	OK
2	Acenaphthene-d10	6.20	-0.08	164	35089	200.00	OK
3	Phenanthrene-d10	7.45	-0.07	188	67826	200.00	OK
4	Chrysene-d12	9.92	-0.11	240	84036	200.00	OK
5	Perylene-d12	12.87	-0.18*	264	76674	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
2	Fluorene-d10	6.65	0.00	0.00	176	76662	396.26	99	46-114	OK	
3	Fluoranthene-d10	8.44	0.00	0.00	212	153833	443.15	111	51-121	OK	
4	Terphenyl-d14	8.77	-0.01	0.00	244	125640	410.15	103	58-132	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.61		0.00	128	139313	402.52	2.01		
1	2-Methylnaphthalene	5.29		0.00	142	90838	384.48	1.92		
1	1-Methylnaphthalene	5.38		0.00	142	79067	384.05	1.92		
1	Biphenyl	5.71		0.00	154	111195	388.86	1.94		
1	2,6-Dimethylnaphthalene	5.85		0.00	156	78185	397.60	1.99		
2	Acenaphthylene	6.08	-0.01	0.00	152	148643	411.98	2.06		
2	Acenaphthene	6.23		0.00	154	83127	403.78	2.02		
2	Dibenzofuran	6.38		0.00	168	136795	412.11	2.06		
2	2,3,5-Trimethylnaphthalene	6.56		0.00	170	75915	417.84	2.09		
2	Fluorene	6.67		0.00	166	103912	410.82	2.05		
3	Dibenzothiophene	7.36		0.00	184	167792	423.68	2.12		
3	Phenanthrene	7.47		0.00	178	159168	400.39	2.00		
3	Anthracene	7.51		0.00	178	148905	401.49	2.01		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS14\DATA\050216\0502F013.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 13:08	**Quant Date:**	05/03/2016 05:02	**Vial:**	12
Run Type:	DLCS	**MethodJoinID:**	MJ1507	**Dilution:**	1.0
Lab ID:	KWG1603185-6			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole	7.65		0.00	167	151122	451.37	2.26		
3	1-Methylphenanthrene	7.98		0.00	192	125706	431.51	2.16		
3	Fluoranthene	8.45		0.00	202	191786	428.31	2.14		
4	Pyrene	8.64		0.00	202	200294	381.95	1.91		
4	Benz(a)anthracene	9.91	-0.01	0.00	228	191331	388.70	1.94		
4	Chrysene	9.96		0.00	228	187407	427.68	2.14		
5	Benzo(b)fluoranthene	11.88	-0.01	0.00	252	205461	419.54	2.10		
5	Benzo(k)fluoranthene	11.94	-0.01	0.00	252	203909	426.73	2.13		
5	Benzo(e)pyrene	12.57	-0.01	0.00	252	191101	421.73	2.11		
5	Benzo(a)pyrene	12.71	-0.01	0.00	252	179628	391.43	1.96		
5	Perylene	12.95	-0.01	0.00	252	175249	409.80	2.05		
5	Indeno(1,2,3-cd)pyrene	15.24		0.00	276	148967	346.68	1.73		
5	Dibenz(a,h)anthracene	15.28	-0.01	0.00	278	146778	345.11	1.73		
5	Benzo(g,h,i)perylene	15.61	-0.01	0.00	276	165093	337.18	1.69		

Prep Amount:	1000 ml	**Dilution:**	1.0
Prep Final Vol:	5 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS14\DATA\050216\0502F013.D Vial: 12
Acq On : 2 May 2016 1:08 pm Operator: LWeiskopf
Sample : KWG1603185-6 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 03 05:02:18 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon May 02 10:41:41 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

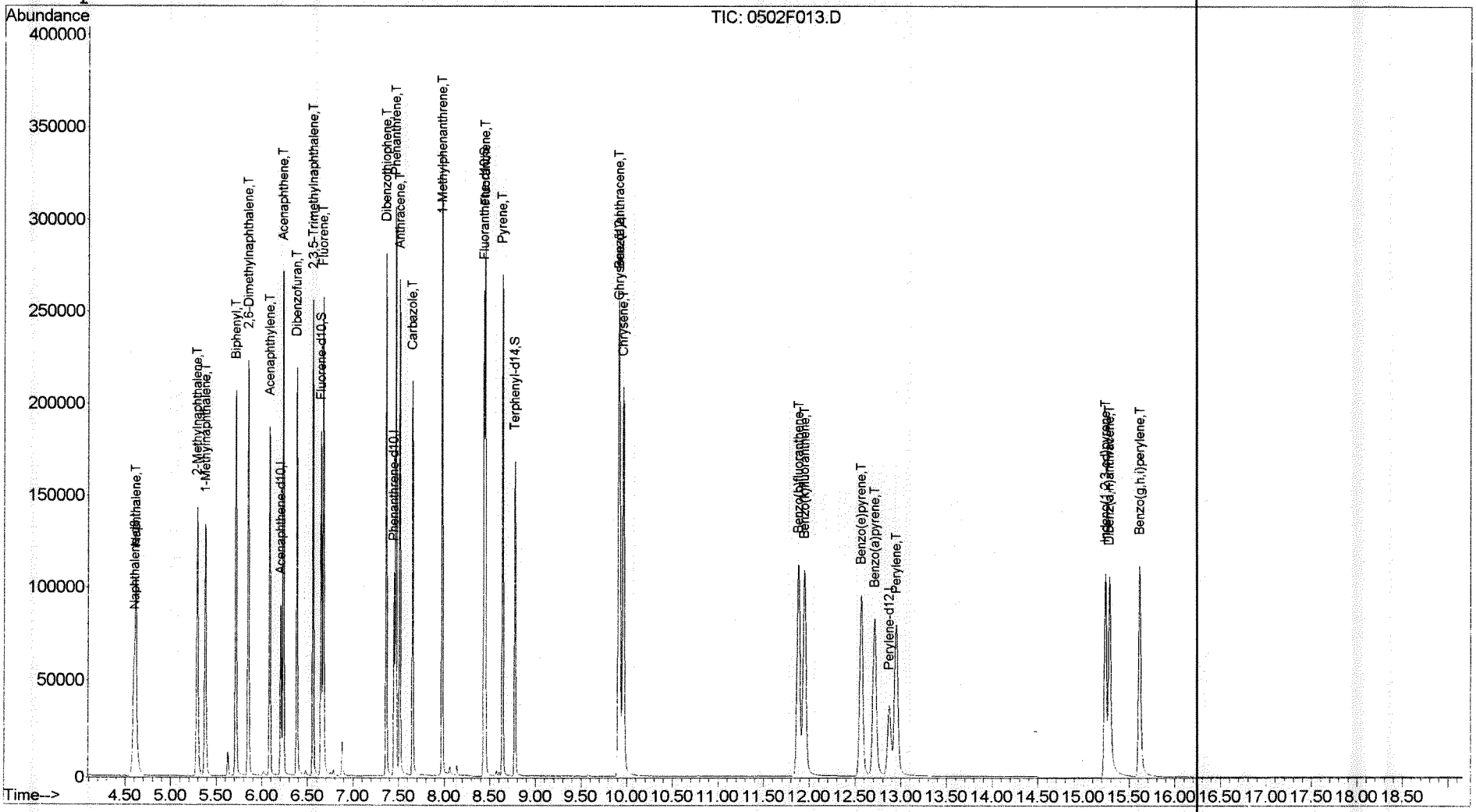
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.59	136	68522	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.20	164	35089	200.00	ng/ml	0.00
14) Phenanthrene-d10	7.45	188	67826	200.00	ng/ml	0.00
22) Chrysene-d12	9.92	240	84036	200.00	ng/ml	0.00
27) Perylene-d12	12.87	264	76674	200.00	ng/ml	0.00
System Monitoring Compounds						
12) Fluorene-d10	6.65	176	76662	396.26	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	39.63%		
21) Fluoranthene-d10	8.44	212	153833	443.15	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	44.31%		
24) Terphenyl-d14	8.77	244	125640	410.15	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	41.01%		
Target Compounds						Qvalue
2) Naphthalene	4.61	128	139313	402.52	ng/ml	99
3) 2-Methylnaphthalene	5.29	142	90838	384.48	ng/ml	98
4) 1-Methylnaphthalene	5.38	142	79067	384.05	ng/ml	99
5) Biphenyl	5.71	154	111195	388.86	ng/ml	99
6) 2,6-Dimethylnaphthalene	5.85	156	78185	397.60	ng/ml	100
8) Acenaphthylene	6.08	152	148643	411.98	ng/ml	100
9) Acenaphthene	6.23	154	83127	403.78	ng/ml	96
10) Dibenzofuran	6.38	168	136795	412.11	ng/ml	91
11) 2,3,5-Trimethylnaphthalene	6.56	170	75915	417.84	ng/ml	96
13) Fluorene	6.67	166	103912	410.82	ng/ml	98
15) Dibenzothiophene	7.36	184	167792	423.68	ng/ml	98
16) Phenanthrene	7.47	178	159168	400.39	ng/ml	98
17) Anthracene	7.51	178	148905	401.49	ng/ml	97
18) Carbazole	7.65	167	151122	451.37	ng/ml	94
19) 1-Methylphenanthrene	7.98	192	125706	431.51	ng/ml	99
20) Fluoranthene	8.45	202	191786	428.31	ng/ml	99
23) Pyrene	8.64	202	200294	381.95	ng/ml	97
25) Benz(a)anthracene	9.91	228	191331	388.70	ng/ml	98
26) Chrysene	9.96	228	187407	427.68	ng/ml	99
28) Benzo(b)fluoranthene	11.88	252	205461	419.54	ng/ml	99
29) Benzo(k)fluoranthene	11.94	252	203909	426.73	ng/ml	99
30) Benzo(e)pyrene	12.57	252	191101	421.73	ng/ml	99
31) Benzo(a)pyrene	12.71	252	179628	391.43	ng/ml	99
32) Perylene	12.95	252	175249	409.80	ng/ml	100
33) Indeno(1,2,3-cd)pyrene	15.24	276	148967	346.68	ng/ml	99
34) Dibenz(a,h)anthracene	15.28	278	146778	345.11	ng/ml	99
35) Benzo(g,h,i)perylene	15.61	276	165093	337.18	ng/ml	99

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F013.D Vial: 12
Acq On : 2 May 2016 1:08 pm Operator: LWeiskopf
Sample : KWG1603185-6 DLCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 3 5:02 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue May 03 10:46:57 2016
Response via : Initial Calibration



Injection Log

Directory: J:\MS14\DATA\050216

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0502F001.D	1.	DFTPP @ 10ug/mL | SVM52-69C		2 May 2016 07:2
2	2	0502F002.D	1.	SIM-PAH CCV @0.4ug/mL | SVM53-7G		2 May 2016 07:5
3	3	0502F003.D	1.	KWG1603228-10 MB		2 May 2016 08:1
4	5	0502F004.D	1.	KWG1603228-5 LOQ		2 May 2016 09:1
5	5	0502F005.D	1.	KWG1603228-5 LOQ		2 May 2016 09:4
6	6	0502F006.D	1.	KWG1603228-1 LOD		2 May 2016 10:0
7	7	0502F007.D	1.	KWG1603228-2 LOD		2 May 2016 10:3
8	8	0502F008.D	1.	KWG1603228-3 LOD		2 May 2016 10:5
9	100	0502F009.D	1.	KWG1603228-6 LOQ		2 May 2016 11:2
10	9	0502F010.D	1.	KWG1603228-4 LOD		2 May 2016 11:5
11	10	0502F011.D	1.	KWG1603185-7 MB		2 May 2016 12:1
12	11	0502F012.D	1.	KWG1603185-5 LCS		2 May 2016 12:4
13	12	0502F013.D	1.	KWG1603185-6 DLCS		2 May 2016 13:0
14	13	0502F014.D	1.	K1604068-002MS		2 May 2016 13:3
15	14	0502F015.D	1.	K1604068-002DMS		2 May 2016 13:5
16	15	0502F016.D	1.	K1604068-002		2 May 2016 14:2
17	16	0502F017.D	1.	K1604068-001		2 May 2016 14:4
18	17	0502F018.D	1.	K1604068-003		2 May 2016 15:1
19	18	0502F019.D	1.	K1604068-004		2 May 2016 15:4
20	19	0502F020.D	1.	K1604068-005		2 May 2016 16:0
21	20	0502F021.D	1.	K1604068-006		2 May 2016 16:3
22	21	0502F022.D	1.	K1604068-007		2 May 2016 16:5
23	22	0502F023.D	1.	K1604068-008		2 May 2016 17:2
24	2	0502F024.D	1.	SIM-PAH CCV @0.4ug/mL | SVM53-7G		2 May 2016 17:4

NR

CAL14530
*LIMS #494533
5/3/16
LB

Preparation Information

Group ID:	KWG1603185	**Prep Method:**	EPA 3520C	**Prep Date:**	04/26/16 15:30
Department:	Semivoa GCMS				

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.
K1604059-002	MW-122-S-0416	8270D PAH SIM	WATER	1020ml	5ml
K1604059-003	MW-122-I-2-0416	8270D PAH SIM	WATER	1040ml	5ml
K1604059-004	MW-9-122-I-2-0416	8270D PAH SIM	WATER	1020ml	5ml
K1604059-006	MW-16-0416	8270D PAH SIM	WATER	1060ml	5ml
K1604059-008	MW-133-D-0416	8270D PAH SIM	WATER	1060ml	5ml
K1604059-009	MW-24D-0416	8270D PAH SIM	WATER	1060ml	5ml
K1604068-001	ERH029	8270D PAH SIM	WATER	1020ml	5ml
K1604068-002	ERH030	8270D PAH SIM	WATER	1020ml	5ml
K1604068-003	ERH031	8270D PAH SIM	WATER	1000ml	5ml
K1604068-004	ERH032	8270D PAH SIM	WATER	1060ml	5ml
K1604068-005	ERH033	8270D PAH SIM	WATER	1020ml	5ml
K1604068-006	ERH034	8270D PAH SIM	WATER	1020ml	5ml
K1604068-007	ERH035	8270D PAH SIM	WATER	1020ml	5ml
K1604068-008	ERH036	8270D PAH SIM	WATER	1060ml	5ml
K1604156-001	ERH037	8270D PAH SIM	WATER	1060ml	5ml
K1604156-002	ERH038	8270D PAH SIM	WATER	1020ml	5ml
K1604156-003	ERH039	8270D PAH SIM	WATER	1000ml	5ml
K1604156-004	ERH040	8270D PAH SIM	WATER	1060ml	5ml
K1604156-005	ERH041	8270D PAH SIM	WATER	1000ml	5ml
K1604156-006	ERH042	8270D PAH SIM	WATER	1040ml	5ml
KWG1603185-1	Matrix Spike	8270D PAH SIM	WATER	1060ml	5ml
KWG1603185-2	Duplicate Matrix Spike	8270D PAH SIM	WATER	1020ml	5ml
KWG1603185-3	Matrix Spike	8270D PAH SIM	WATER	1020ml	5ml
KWG1603185-4	Duplicate Matrix Spike	8270D PAH SIM	WATER	1020ml	5ml
KWG1603185-5	Lab Control Sample	8270D PAH SIM	WATER	1000ml	5ml
KWG1603185-6	Duplicate Lab Control Sampl	8270D PAH SIM	WATER	1000ml	5ml
KWG1603185-7	Method Blank	8270D PAH SIM	WATER	1060ml	5ml

Lab Code	Parent Lab Code	Comments
KWG1603185-1	K1604068-002	
KWG1603185-2	K1604068-002	
KWG1603185-3	K1604059-003	
KWG1603185-4	K1604059-003	

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1604059-002	1512541		20uL			RHayes

Comments: IS = SVM50-36G

Started By: CPollard Assisted By: — Training: Yes / No

Completed By: CHarvey Assisted By: — Yes / No

Reviewed By: CHARD Date: 05-02-16 Storage: MS14

Chain of Custody

Relinquished By: [signature] Date: 4/27/16

Received By: [signature] Date: 5/3/16 Extracts Examined: Yes / No

Group ID:	KWG1603185	**Prep Method:**	EPA 3520C	**Prep Date:**	04/26/16 15:30
Department:	Semivoa GCMS				

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1604059-003	1512542		20uL			RHayes
K1604059-004	1512543		20uL			RHayes
K1604059-006	1512544		20uL			RHayes
K1604059-008	1512545		20uL			RHayes
K1604059-009	1512546		20uL			RHayes
K1604068-001	1512547		20uL			RHayes
K1604068-002	1512548		20uL			RHayes
K1604068-003	1512549		20uL			RHayes
K1604068-004	1512550		20uL			RHayes
K1604068-005	1512551		20uL			RHayes
K1604068-006	1512552		20uL			RHayes
K1604068-007	1512553		20uL			RHayes
K1604068-008	1512554		20uL			RHayes
K1604156-001	1512555		20uL			RHayes
K1604156-002	1512556		20uL			RHayes
K1604156-003	1512557		20uL			RHayes
K1604156-004	1512558		20uL			RHayes
K1604156-005	1512559		20uL			RHayes
K1604156-006	1512540		20uL			RHayes
KWG1603185-1	1512560		20uL		100uL	RHayes
KWG1603185-2	1512561		20uL		100uL	RHayes
KWG1603185-3	1512562		20uL		100uL	RHayes
KWG1603185-4	1512563		20uL		100uL	RHayes
KWG1603185-5	1512564		20uL		100uL	RHayes
KWG1603185-6	1512565		20uL		100uL	RHayes
KWG1603185-7	1512566		20uL			RHayes

Comments:

Started By: CPollard Assisted By: — Training: Yes / No (No)

Completed By: CHarvey Assisted By: — Training: Yes / No (No)

Reviewed By: CHARD Date: 05-02-16 Storage:

Chain of Custody

Relinquished By: [signature] Date: 4/27/16

Received By: [signature] Date: 5/3/16

Extracts Examined: Yes (Yes) / No

Preparation Information

Dec 4/27/16

Group ID: KWG1603185 **Prep Method:** EPA 3520C [redacted] **Prep Date:** 04/26/16 00:00
Department: Semivoa GCMS

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. mL	pH	Int. Vol.	Final Vol. mL	Surr. Added	Spike Added
1	K1604059-002	MW-122-S-0416	04	/	8270D PAH SIM	WATER	1020	7	N/A	5.	20µl	—
2	K1604059-003	MW-122-I-2-0416	02	/	8270D PAH SIM	WATER	1040	7		5		—
3	K1604059-004	MW-9-122-I-2-0416	04	/	8270D PAH SIM	WATER	1020	7		5		—
4	K1604059-006	MW-16-0416	04	/	8270D PAH SIM	WATER	1060	7		5		—
5	K1604059-008	MW-133-D-0416	06	/	8270D PAH SIM	WATER	1060	7		5		—
6	K1604059-009	MW-24D-0416	06	/	8270D PAH SIM	WATER	1060	7		5		—
7	K1604068-001	ERH029	01	/	8270D PAH SIM	WATER	1020	7		5		—
8	K1604068-002	ERH030	10	/	8270D PAH SIM	WATER	1020	7		5		—
9	K1604068-003	ERH031	01	/	8270D PAH SIM	WATER	1006	7		5		—
10	K1604068-004	ERH032	01	/	8270D PAH SIM	WATER	1060	7		5		—
11	K1604068-005	ERH033	01	/	8270D PAH SIM	WATER	1020	7		5		—
12	K1604068-006	ERH034	01	/	8270D PAH SIM	WATER	1020	7		5		—
13	K1604068-007	ERH035	01	/	8270D PAH SIM	WATER	1020	7		5		—
14	K1604068-008	ERH036	01	/	8270D PAH SIM	WATER	1060	7		5		—
15	K1604156-001	ERH037	01	/	8270D PAH SIM	WATER	1060	7		5		—
16	K1604156-002	ERH038	01	/	8270D PAH SIM	WATER	1020	7		5		—
17	K1604156-003	ERH039	01	/	8270D PAH SIM	WATER	1,000	7		5		—
18	K1604156-004	ERH040	01	/	8270D PAH SIM	WATER	1060	7	8	5	√	—

Comments: #260105

Surrogate ID: SUM52-19A, 100/150ppm, exp 7-13-16, 20µl, SSG
Spike ID: SUM52-750, 25ppm, exp 9-21-16, 100µl, 28BPP
Witness: R Hayes 4-26-16

Started By: CPollard Assisted By: —
Completed By: C. Hanley Assisted By: —

Group ID:	KWG1603185	**Prep Method:**	EPA 3520C	**Prep Date:** 04/26/16 00:00
Department:	Semivoa GCMS			

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. mL	pH	Int. Vol.	Final Vol. mL	Surr. Added	Spike Added
19	K1604156-005	ERH041	01	/	8270D PAH SIM	WATER	1000	7	N/A	5	20µL	—
20	K1604156-006	ERH042	01	/	8270D PAH SIM	WATER	1040	7		5		—
21	KWG1603185-1	Matrix Spike K1604068-002	01	/	8270D PAH SIM	WATER	1060	7		5		100µL
22	KWG1603185-2	Duplicate Matrix Spike K1604068-002	01	/	8270D PAH SIM	WATER	1020	7		5		
23	KWG1603185-3	Matrix Spike K1604059-003	05	/	8270D PAH SIM	WATER	1020	7		5		
24	KWG1603185-4	Duplicate Matrix Spike K1604059-003	01	/	8270D PAH SIM	WATER	1020	7		5		
25	KWG1603185-5	Lab Control Sample			8270D PAH SIM	WATER	1000	5		5		
26	KWG1603185-6	Duplicate Lab Control Sample			8270D PAH SIM	WATER	1000	5		5		√
27	KWG1603185-7	Method Blank			8270D PAH SIM	WATER	1060	5		5	√	—

Comments:

Surrogate ID: SUB Pg 1

Spike ID: SUB Pg 1

Witness: R Hayes 4-26-16

Started By: CPollard Assisted By: —

Completed By: C. Harvey Assisted By: —

Service Request K1604059, K1604068, K1604156 Workgroup KWG1603185

DCM (GC^2) Lot#: DP022 Sulfuric Acid Lot#: 503347 NaOH Lot#: 600036048

pH<2 (Time/Date/Initial):

pH>11 (Time/Date/Initial):

Continuous Start$_1$ (Time/Date/Initial): 1538/4-26-16/DP

Continuous Stop$_1$ (Time/Date/Initial): 0031/4/4-27-16/DP

Continuous Start$_2$ (Time/Date/Initial):

Continuous Stop$_2$ (Time/Date/Initial):

Sulfate Lot # Glass Wool Lot#:

S-Evap (Time/Date/Initial): 1210 4/27/16 CH S-Evap Therm. ID: X-SVM-002

Temp as measured: 70 °C Correction factor: 0.0 °C Adjusted temp: 70 °C

N-Evap (Time/Date/Initial): 1348 4/27/16 CH N-Evap Therm. ID: SVMP2-001

Temp as measured: 25.0 °C Correction factor: 0.0 °C Adjusted temp: 25.0 °C

Clean-up #1: Time/Date/Initial:

Clean-up #2: Time/Date/Initial:

Pipet Lot: Final Volume 04715647 | 01415445 Archive Storage: Ricky Ricardo

Date Completed (Time/Date/Initial): 1658 4/27/16 CH

Comments/Observations:

Bench Sheet Review Check List
☑ Hold Times Met (if no, Reason:)
☑ Prep date, dept, method, product code correct in stealth
☑ Spike Information correct
☑ Weights/Volumes and units correct on raw and final bench sheets
☑ Sample IDs have been checked—Bottle numbers appended if required
☑ Names present for: Started by, Completed by, relinquished by, and witnessed by.
☑ Training has been circled
☑ Extract Storage recorded
☑ Additional Prep Sheet completely filled out (NA or line out Blanks)
☑ All clean-ups have been noted on additional prep sheet
☐ Signed service request with Form V, if applicable, has been attached

Exception Report

Data File: J:\MS14\DATA\050216\0502F001.D
Lab ID: KWG1603396-1
RunType: DFTPP
Matrix: WATER

Date Acquired: 05/02/2016 07:23
Date Quantitated:
Batch ID: KWG1603396
Analysis Method: DFTPP
ListJoinID: LJ1965

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

Primary Review: 5/3/16

Secondary Review: MAY 0 3 2016

Printed: 05/02/2016 12:13:55
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\050216\0502F001.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 07:23	**Quant Date:**		**Vial:**	1
Run Type:	DFTPP	**ListJoinID:**	LJ1965	**Dilution:**	1.0
Lab ID:	KWG1603396-1			**Soln Conc. Units:**	

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM U	**Collect Date:**		**Receive Date:**	05/02/2016

Analysis Lot:	KWG1603396	**Prep Lot:**		**Report Group:**	
Analysis Method:	DFTPP	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS14\METHODS\SIM\A_DFTPP.M			**Calibration ID:**	CAL14530
Title:				**Report List ID:**	LJ1965
Tune Ref:				**Method ID:**	MJ190
MB Ref:				**Quant based on Report List**	

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	41.3	332493	Pass
68	69	0	2	0.0	0	Pass
69	198	0	100	43.9	353220	Pass
70	69	0	2	0.7	2324	Pass
127	198	10	80	47.4	381725	Pass
197	198	0	2	0.0	0	Pass
198	442	30	100	57.1	804949	Pass
199	198	5	9	6.9	55738	Pass
275	198	10	60	34.2	275541	Pass
365	442	1	50	2.9	41461	Pass
441	443	0.01	100	77.2	215352	Pass
442	442	100	100	100.0	1409984	Pass
443	442	15	24	19.8	278869	Pass

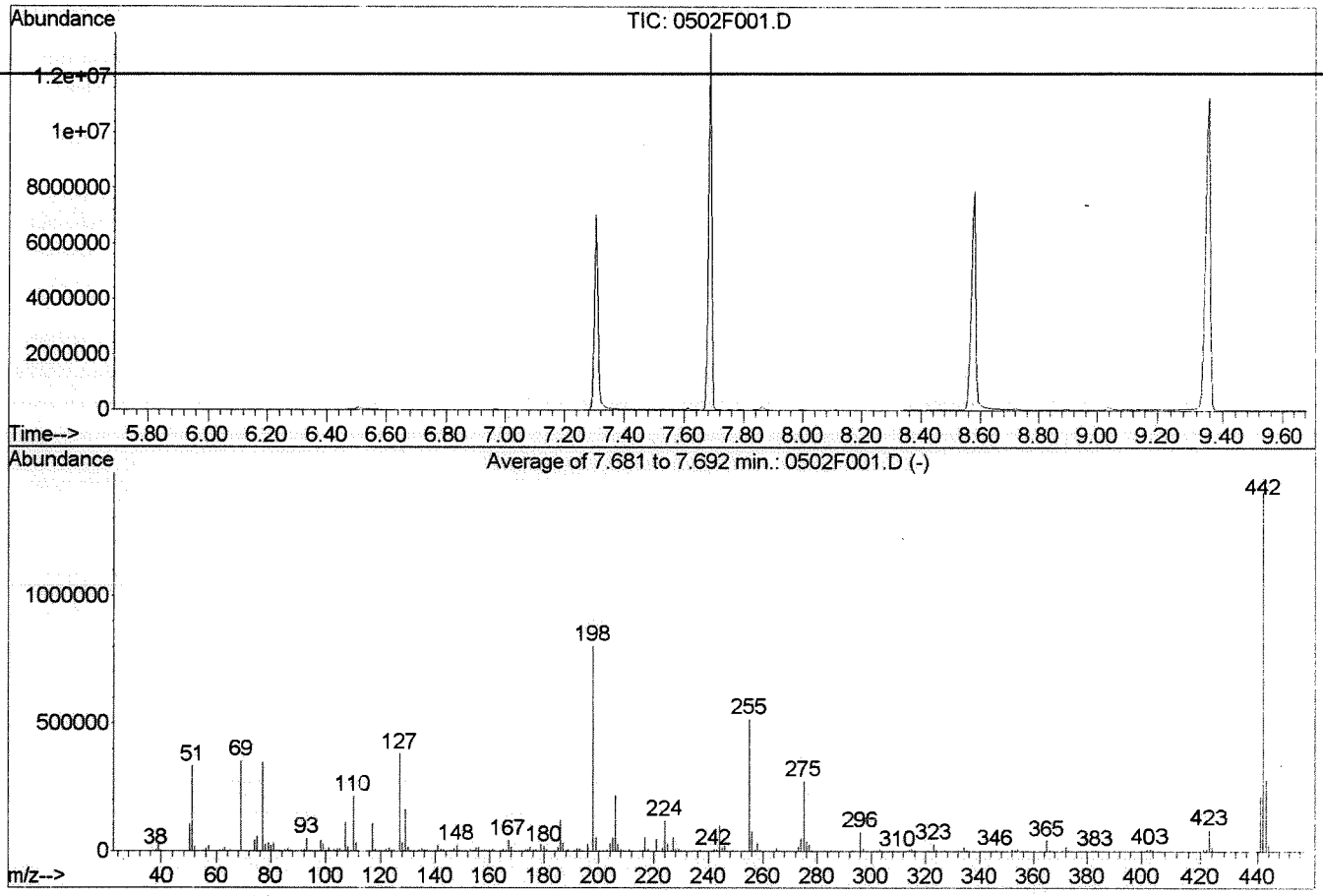
U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS14\DATA\050216\0502F001.D
Acq On : 2 May 2016 7:23 am
Sample : DFTPP @ 10ug/mL | SVM52-69C
Misc :
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix

Vial: 1
Operator: LWeiskopf
Inst : MS14
Multiplr: 1.00



AutoFind: Scans 611, 612, 613; Background Corrected with Scan 605

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	41.3	332493	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	43.9	353220	PASS
70	69	0.00	2	0.7	2324	PASS
127	198	10	80	47.4	381725	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	57.1	804949	PASS
199	198	5	9	6.9	55738	PASS
275	198	10	60	34.2	275541	PASS
365	442	1	50	2.9	41461	PASS
441	443	0.01	100	77.2	215352	PASS
442	442	30	100	100.0	1409984	PASS
443	442	15	24	19.8	278869	PASS

0502F001.D A_DFTPP.M Mon May 02 10:40:18 2016

Average of 7.681 to 7.692 min.: 0502F001.D
DFTPP @ 10ug/mL | SVM52-69C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	445	46.95	151	58.70	84	69.90	2324
37.00	2309	48.20	94	59.15	260	70.90	398
38.10	6369	50.10	103957	59.90	330	73.10	2221
39.05	26395	51.10	332493	61.00	4758	74.00	41818
40.00	1753	52.00	16694	62.10	5754	75.00	57021
41.05	860	53.00	972	63.00	13712	77.00	348096
42.10	311	54.20	146	64.00	1906	78.00	24432
43.05	179	55.00	2520	65.05	5762	79.00	33740
43.95	254	56.00	11258	66.30	312	80.00	22305
44.95	633	57.00	21684	67.10	149	80.95	28851
46.05	134	57.95	951	69.00	353220	82.00	6600

Average of 7.681 to 7.692 min.: 0502F001.D
DFTPP @ 10ug/mL | SVM52-69C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
83.00	5495	93.00	50088	105.00	9515	115.90	786
83.90	841	94.00	3411	106.00	392	117.00	110381
84.40	83	95.00	855	107.00	115893	118.00	7935
85.00	5599	96.00	1849	108.00	17192	119.00	903
86.00	9778	98.00	42327	110.00	215290	120.00	1664
87.00	3971	99.00	26317	111.00	31415	121.00	341
88.00	1262	100.00	2157	112.00	3703	122.00	9716
88.95	765	101.00	13899	112.95	1361	123.00	12770
90.00	55	102.05	884	113.70	112	124.00	6086
91.00	6851	103.00	6781	114.25	436	125.00	5523
92.05	8072	104.00	10972	115.00	621	127.00	381725

Average of 7.681 to 7.692 min.: 0502F001.D
DFTPP @ 10ug/mL | SVM52-69C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
128.00	31939	138.90	905	148.90	5037	159.95	6857
129.00	162936	139.10	78	150.00	1354	160.95	9207
130.00	14053	140.00	2551	151.10	2963	162.00	2761
130.95	2702	141.00	23354	151.90	1961	162.95	962
131.95	1706	142.00	7815	153.00	7318	164.00	1194
132.90	831	142.95	4509	154.00	5245	164.90	8511
134.00	5864	144.00	1226	155.00	11356	166.00	7148
135.00	13401	144.95	1172	156.00	16573	166.95	43124
136.00	5212	145.95	4581	157.00	3538	168.00	16718
137.00	6377	147.00	11197	157.95	4857	169.00	3067
137.95	1520	147.95	23589	158.95	3458	170.00	1553

Average of 7.681 to 7.692 min.: 0502F001.D
DFTPP @ 10ug/mL | SVM52-69C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
170.90	2163	181.95	1630	193.00	10199	205.00	52218
171.95	4108	183.00	1053	193.95	2122	206.00	217109
173.00	4594	184.00	3004	195.00	583	206.95	28384
174.00	8751	185.00	16180	196.00	26653	208.00	7848
175.00	15477	186.00	120821	197.90	804949	208.95	2582
176.00	4486	187.00	34006	198.90	55738	210.00	1863
176.95	8702	188.00	3544	199.95	4026	210.95	8813
178.10	2142	188.90	8212	201.20	530	211.70	316
178.90	29031	189.95	1456	201.45	4178	212.90	654
180.00	19693	191.00	3199	203.00	6287	213.95	205
181.00	9231	192.00	9172	204.00	30413	214.95	3051

Average of 7.681 to 7.692 min.: 0502F001.D
DFTPP @ 10ug/mL | SVM52-69C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
216.05	5645	227.00	55173	237.95	787	248.95	3821
216.90	54480	227.90	7457	238.95	2312	250.00	831
217.90	6895	228.95	10402	240.00	1864	250.90	989
218.90	372	229.95	1595	240.95	3114	251.90	989
219.10	378	231.05	4113	242.00	6396	252.30	187
220.00	220	232.00	912	243.05	8002	253.00	2738
221.00	46530	232.95	1098	244.00	99560	255.00	518314
223.00	12868	233.95	3448	245.00	12669	256.00	77296
224.00	119544	234.95	3748	245.95	21370	256.95	6194
225.00	31416	235.90	2407	246.95	4165	257.95	32568
226.10	4277	236.90	4046	248.00	1054	259.00	5143

Average of 7.681 to 7.692 min.: 0502F001.D
DFTPP @ 10ug/mL | SVM52-69C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
259.95	925	269.10	65	280.90	184	291.95	1294
260.95	1026	269.90	729	281.95	395	292.95	5257
261.70	74	270.95	1112	283.00	2869	294.00	1450
262.05	213	271.95	1746	284.00	1996	295.95	75490
262.90	383	273.00	17625	285.00	4015	297.00	10573
263.80	526	274.00	49685	286.00	813	297.90	827
264.10	415	275.00	275541	287.00	99	299.00	292
264.95	12678	276.00	36677	287.90	266	300.25	187
265.85	1955	276.95	24115	288.90	1025	300.95	1082
267.00	195	277.95	3683	289.90	775	301.95	1612
267.80	213	278.90	932	290.90	555	303.00	9412

Average of 7.681 to 7.692 min.: 0502F001.D
DFTPP @ 10ug/mL | SVM52-69C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
303.95	2749	312.90	852	325.00	573	335.00	5054
305.05	216	314.00	4127	325.80	130	335.95	716
307.00	57	314.90	8923	326.05	704	338.95	450
307.20	160	316.00	5652	326.90	5063	340.00	430
307.95	1272	316.95	1013	328.00	2896	341.00	3142
308.95	649	318.90	105	328.90	576	341.95	1046
309.95	1171	319.95	402	329.85	248	345.10	67
310.95	324	321.00	2844	331.00	91	345.90	5702
311.20	60	322.00	1884	331.95	2151	346.90	1283
311.80	72	323.00	27557	332.95	3007	347.90	97
312.10	312	324.00	5131	334.00	19052	349.95	204

Average of 7.681 to 7.692 min.: 0502F001.D
DFTPP @ 10ug/mL | SVM52-69C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
350.25	151	359.95	354	373.90	395	394.90	69
351.00	656	360.90	89	376.90	455	396.00	68
352.00	9227	362.75	175	381.10	75	396.90	256
353.00	6527	363.30	85	382.10	70	398.10	50
354.00	10481	364.90	41461	383.00	4667	401.00	1244
355.00	2069	365.95	5631	383.95	1358	402.00	7571
355.85	240	366.95	446	385.00	505	403.00	11066
357.00	62	369.90	1030	389.95	2601	404.00	4196
357.90	81	371.00	2700	390.95	1710	404.90	205
358.80	135	372.00	17093	392.00	1394	405.10	371
358.95	483	373.00	4624	393.05	292	409.10	53

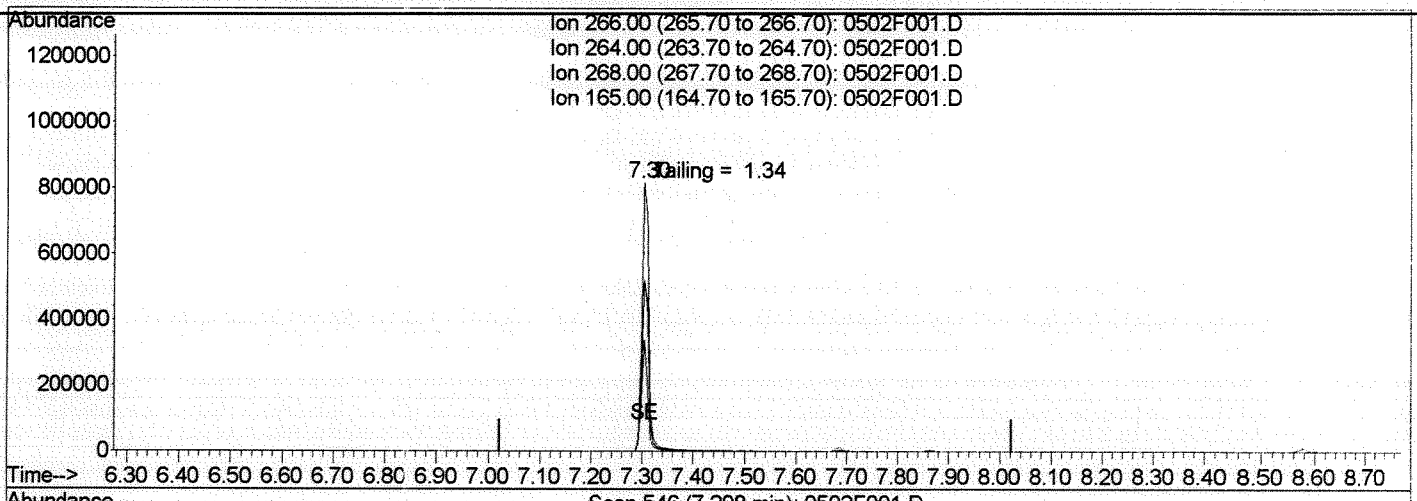
Average of 7.681 to 7.692 min.: 0502F001.D
DFTPP @ 10ug/mL | SVM52-69C
Modified:subtracted

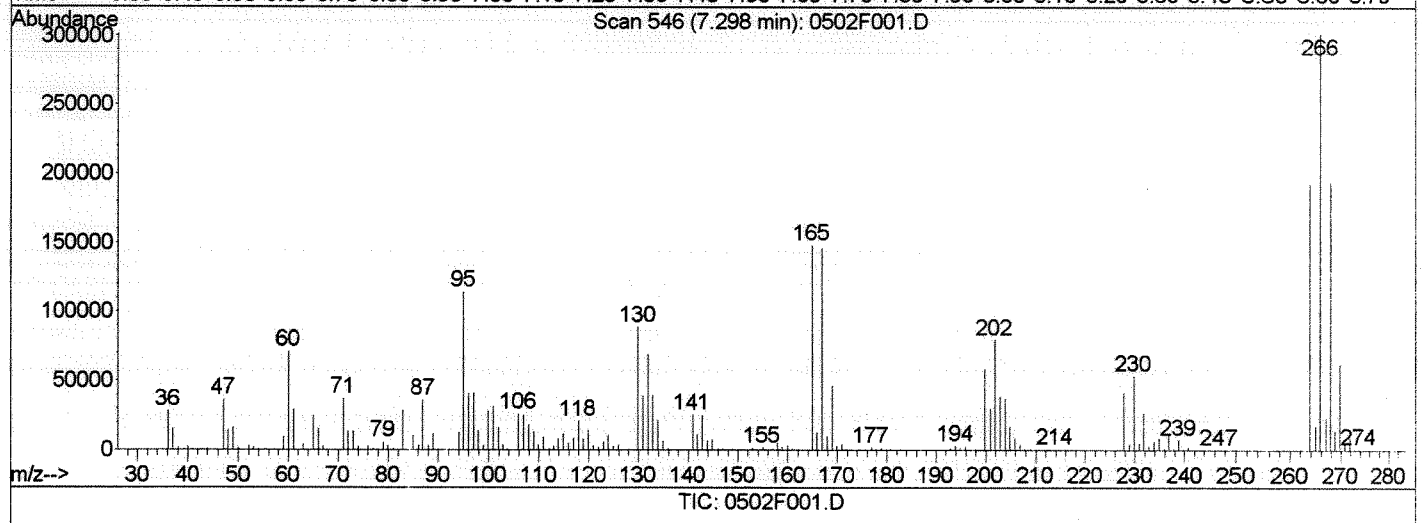
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
410.00	338	437.20	63				
415.00	646	437.85	221				
418.80	76	438.90	595				
419.90	67	441.00	215352				
420.20	146	442.00	1409984				
420.95	9582	443.00	278869				
422.00	10596	444.00	25303				
423.00	85021	445.00	1344				
424.00	15771						
425.00	1382						
436.80	86						

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\050216\0502F001.D Vial: 1
Acq On : 2 May 2016 7:23 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM52-69C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 2 7:43 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Tue Nov 30 13:38:58 2010
Response via : Single Level Calibration





TIC: 0502F001.D

(1) Pentachlorophenol

7.69min 0.11ng/ml

response 2526

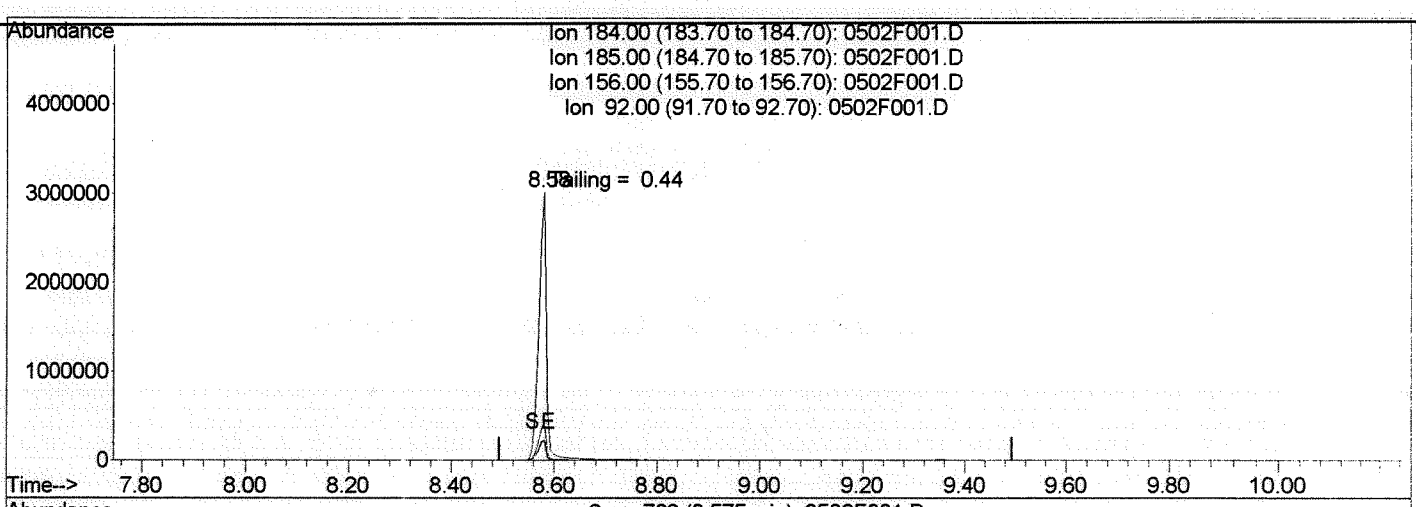
Ion	Exp%	Act%
266.00	100	100
264.00	63.70	50.38
268.00	63.30	13.20#
165.00	71.50	409.50#

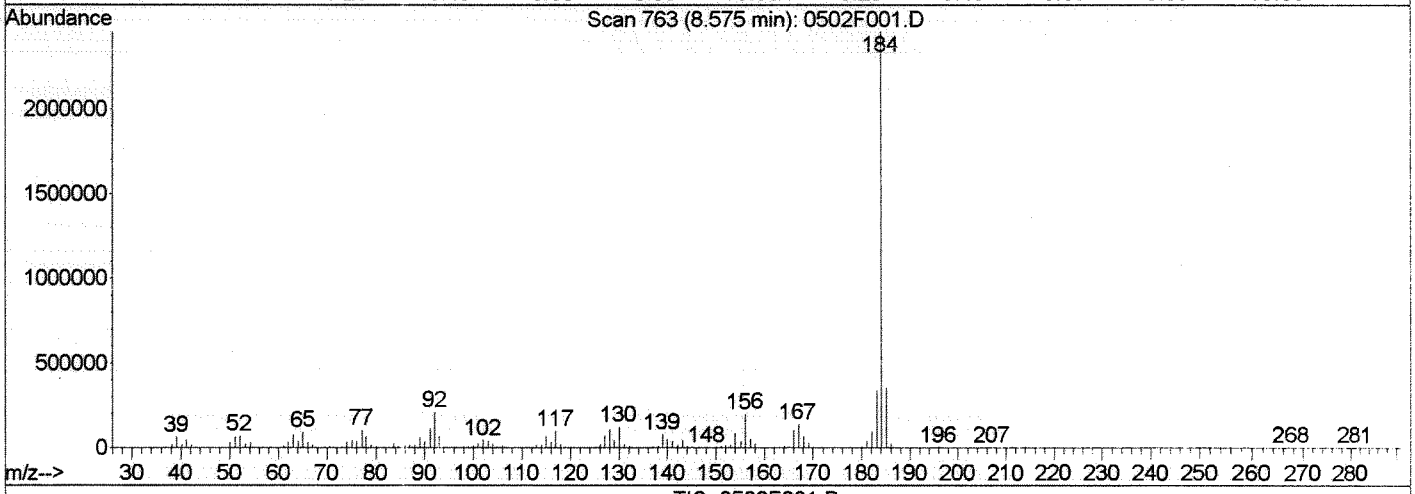
<2%
OK
5/3/16

0502F001.D A_DFTPP.M Mon May 02 10:40:31 2016

Data File : J:\MS14\DATA\050216\0502F001.D Vial: 1
Acq On : 2 May 2016 7:23 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM52-69C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: May 2 7:43 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Tue Nov 30 13:38:58 2010
Response via : Single Level Calibration





TIC: 0502F001.D

(3) Benzidine (T)

8.99min 0.00ug/ml

response 0

Ion	Exp%	Act%
184.00	100	0.00
185.00	28.30	0.00
156.00	6.00	0.00
92.00	5.30	0.00

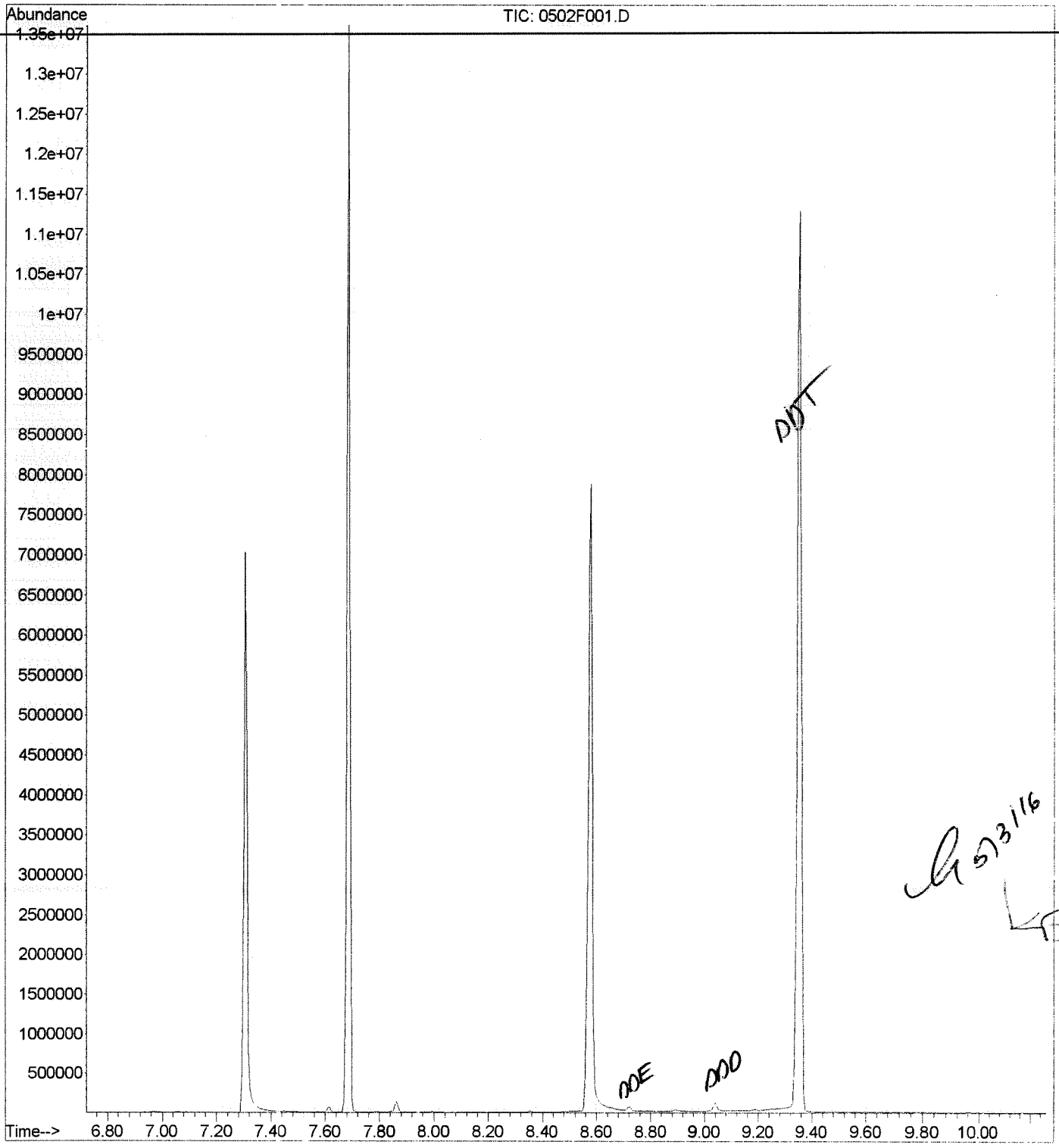
OK <2%

5/3/16

LB

0502F001.D A_DFTPP.M Mon May 02 10:40:40 2016

File : J:\MS14\DATA\050216\0502F001.D
Operator : LWeiskopf
Acquired : 2 May 2016 7:23 am using AcqMethod SIMLOC
Instrument : MS14
Sample Name: DFTPP @ 10ug/mL | SVM52-69C
Misc Info :
Vial Number: 1



1	4.569	rVB	0.035		2766	4.563	4.599
2	4.699	rVB	0.035		2603	4.687	4.722
3	4.810	rVB	0.041		3045	4.793	4.834
4	4.846	rBV	0.024		2028	4.834	4.857
5	5.022	rVB	0.035		3228	5.010	5.046
6	5.063	rVB	0.035		3508	5.046	5.081
7	5.099	rBV	0.029		2808	5.081	5.110
8	5.175	rBV	0.035		2556	5.151	5.187
9	5.222	rBV	0.047		4601	5.187	5.234
10	5.246	rBV	0.035		2404	5.234	5.269
11	5.328	rVB	0.065		6716	5.316	5.381
12	5.463	rBV	0.024		2098	5.446	5.469
13	5.534	rVV	0.053		5667	5.499	5.551
14	5.593	rVB	0.041		2125	5.575	5.616
15	5.704	rBV	0.041		2297	5.675	5.716
16	5.734	rVB	0.047		2974	5.716	5.763
17	5.857	rBV	0.029		2164	5.834	5.863
18	5.881	rVB	0.029		2759	5.863	5.893
19	5.998	rVB	0.047		3719	5.975	6.022
20	6.298	rBV	0.035		2597	6.275	6.310
21	6.387	rVB	0.035		2315	6.369	6.404
22	6.504	rVV	0.124		147133	6.428	6.551
23	6.563	rVV	0.047		12372	6.551	6.598
24	6.628	rVB	0.041		2552	6.616	6.657
25	6.675	rBV	0.024		2189	6.657	6.681
26	6.787	rBV	0.047		3651	6.757	6.804
27	6.828	rVB	0.029		2012	6.804	6.834
28	6.934	rBV	0.035		3281	6.916	6.951
29	6.969	rVV	0.071		15057	6.951	7.022
30	7.051	rVB	0.041		3427	7.040	7.081
31	7.222	rBV	0.024		2025	7.204	7.228
32	7.245	rBV	0.047		4066	7.228	7.275
33	7.304	rBV	0.165		6051584	7.275	7.440
34	7.616	rVB	0.053		56609	7.592	7.645
35	7.687	rVV	0.076		10045817	7.657	7.734
36	7.751	rVB	0.029		3892	7.740	7.769
37	7.792	rBV	0.053		12835	7.769	7.822
38	7.863	rBV	0.071		131846	7.828	7.898
39	7.957	rBV	0.029		2525	7.945	7.975
40	7.992	rVB	0.071		10474	7.981	8.051
41	8.110	rBV	0.053		11211	8.081	8.134
42	8.228	rVV	0.041		3061	8.222	8.263
43	8.357	rBV	0.065		18937	8.328	8.392
44	8.451	rBV	0.029		3313	8.434	8.463
45	8.510	rBV	0.059		28873	8.463	8.522
46	8.581	rVV	0.182		8351390	8.522	8.704
47	8.722	rVB	0.076	ODE	75594	8.704	8.781
48	8.892	rBV	0.076		29733	8.869	8.945
49	9.039	rBV	0.071	ODD	138585	9.004	9.075
50	9.187	rBV	0.035		16579	9.169	9.204
51	9.357	rVB	0.118	ODT	11930562	9.310	9.428
52	9.581	rVB	0.035		2472	9.563	9.598
53	9.786	rVB	0.047		7124	9.769	9.816
54	9.957	rVB	0.035		3274	9.945	9.981
55	9.992	rBV	0.029		2537	9.981	10.010
56	10.169	rVB	0.029		3288	10.157	10.186
57	10.192	rVB	0.024		2126	10.186	10.210
58	10.298	rBV	0.065		12655	10.269	10.333
59	10.428	rBV	0.024		2876	10.422	10.445
60	10.910	rVB	0.100		15483	10.869	10.969
61	11.092	rBV	0.035		4271	11.075	11.110

ODT Breakdown
= 2%

4/23/16
LB

Exception Report

Data File: J:\MS14\DATA\050216\0502F002.D
Lab ID: KWG1603396-2
RunType: CCV
Matrix: WATER

Date Acquired: 05/02/2016 07:50
Date Quantitated: 05/02/2016 08:10
Batch ID: KWG1603396
Analysis Method: 8270D SIM
MethodJoinID: MJ1507

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: 5/3/16

Secondary Review: MAY 0 3 2016

Printed: 05/02/2016 12:13:58
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\050216\0502F002.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 07:50	**Quant Date:**	05/02/2016 08:10	**Vial:**	2
Run Type:	CCV	**MethodJoinID:**	MJ1507	**Dilution:**	1.0
Lab ID:	KWG1603396-2			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM U	**Collect Date:**		**Receive Date:**	05/02/2016

Analysis Lot:	KWG1603396	**Prep Lot:**		**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:			
Tune Ref:	J:\MS14\DATA\050216\0502F001.D	**Method ID:**	MJ1507
MB Ref:		**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	4.59	-0.10	136	81940	200.00	OK
2	Acenaphthene-d10	6.20	-0.08	164	42422	200.00	OK
3	Phenanthrene-d10	7.45	-0.07	188	81155	200.00	OK
4	Chrysene-d12	9.93	-0.10	240	103469	200.00	OK
5	Perylene-d12	12.88	-0.17	264	96352	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6.65			176	88683	379.16		46-114	NA
3	Fluoranthene-d10	8.44			212	170165	409.69		51-121	NA
4	Terphenyl-d14	8.78			244	141101	374.11		58-132	NA

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.61			128	191568	462.87			
1	2-Methylnaphthalene	5.29			142	116814	413.46			
1	1-Methylnaphthalene	5.38			142	100440	407.98			
1	Biphenyl	5.71			154	139216	407.13			
1	2,6-Dimethylnaphthalene	5.85			156	100015	425.33			
2	Acenaphthylene	6.09			152	184177	422.23			
2	Acenaphthene	6.23			154	102650	412.42			
2	Dibenzofuran	6.38			168	166612	415.18			
2	2,3,5-Trimethylnaphthalene	6.56			170	94413	429.83			
2	Fluorene	6.67			166	125869	411.61			
3	Dibenzothiophene	7.36			184	199635	421.29			
3	Phenanthrene	7.47			178	189765	398.95			
3	Anthracene	7.51			178	186149	419.47			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS14\DATA\050216\0502F002.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 07:50	**Quant Date:**	05/02/2016 08:10	**Vial:**	2
Run Type:	CCV	**MethodJoinID:**	MJ1507	**Dilution:**	1.0
Lab ID:	KWG1603396-2			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole	7.65			167	176651	440.96			
3	1-Methylphenanthrene	7.98			192	146548	420.43			
3	Fluoranthene	8.45			202	220920	412.34			
4	Pyrene	8.64			202	235602	364.89			
4	Benz(a)anthracene	9.92			228	230959	381.08			
4	Chrysene	9.96			228	220370	408.45			
5	Benzo(b)fluoranthene	11.89			252	245643	399.15			
5	Benzo(k)fluoranthene	11.95			252	241244	401.75			
5	Benzo(e)pyrene	12.58			252	229110	402.35			
5	Benzo(a)pyrene	12.72			252	217232	376.70			
5	Perylene	12.96			252	210325	391.38			
5	Indeno(1,2,3-cd)pyrene	15.24			276	202604	375.21			
5	Dibenz(a,h)anthracene	15.29			278	194835	364.54			
5	Benzo(g,h,i)perylene	15.62			276	217507	353.50			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F002.D Vial: 2
Acq On : 2 May 2016 7:50 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM53-7G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 02 08:10:50 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon May 02 05:02:39 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

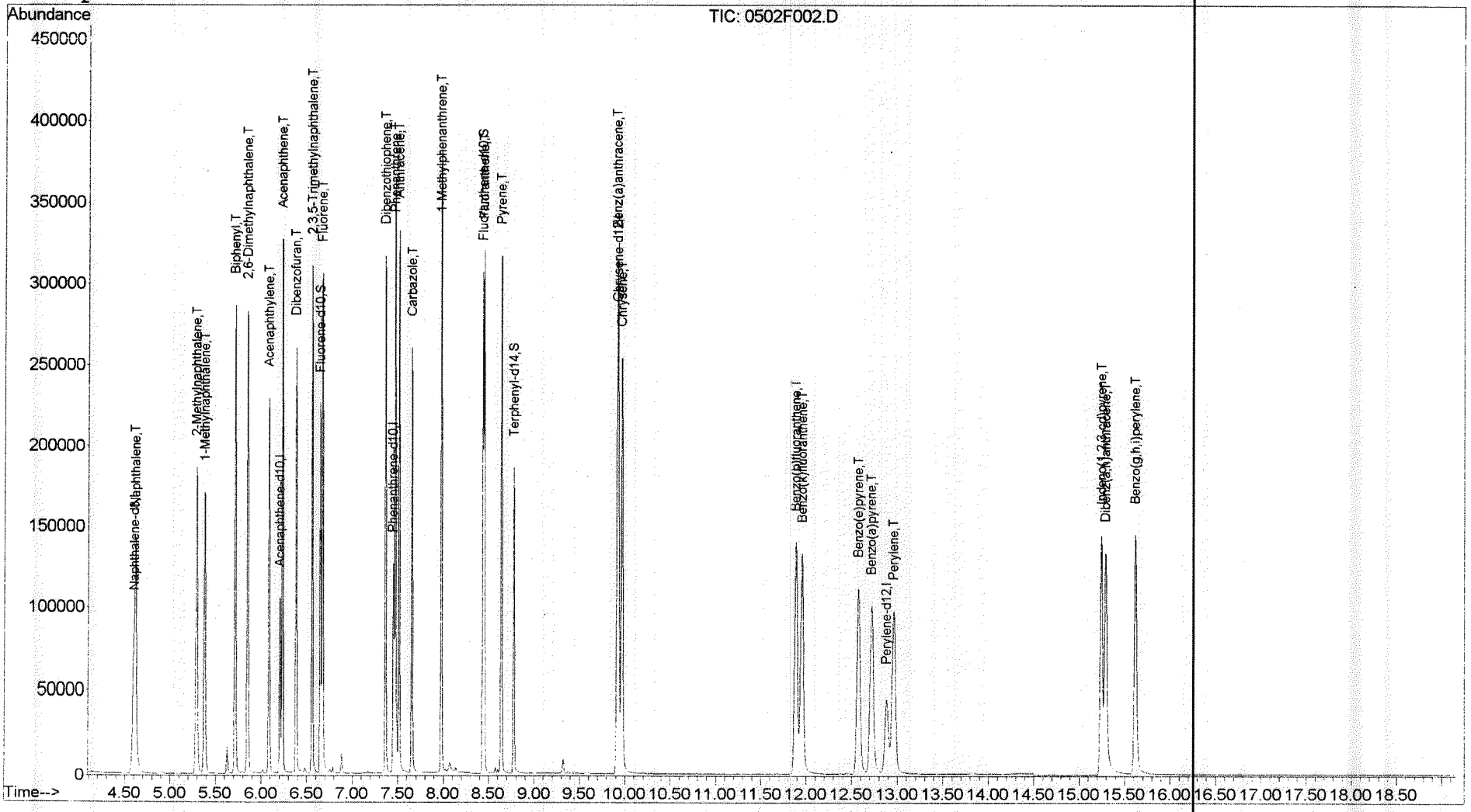
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.59	136	81940	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.20	164	42422	200.00	ng/ml	0.00
14) Phenanthrene-d10	7.45	188	81155	200.00	ng/ml	0.00
22) Chrysene-d12	9.93	240	103469	200.00	ng/ml	0.00
27) Perylene-d12	12.88	264	96352	200.00	ng/ml	0.00
System Monitoring Compounds						
12) Fluorene-d10	6.65	176	88683	379.16	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 37.92%			
21) Fluoranthene-d10	8.44	212	170165	409.69	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 40.97%			
24) Terphenyl-d14	8.78	244	141101	374.11	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 37.41%			
Target Compounds						Qvalue
2) Naphthalene	4.61	128	191568	462.87	ng/ml	99
3) 2-Methylnaphthalene	5.29	142	116814	413.46	ng/ml	99
4) 1-Methylnaphthalene	5.38	142	100440	407.98	ng/ml	98
5) Biphenyl	5.71	154	139216	407.13	ng/ml	99
6) 2,6-Dimethylnaphthalene	5.85	156	100015	425.33	ng/ml	99
8) Acenaphthylene	6.09	152	184177	422.23	ng/ml	99
9) Acenaphthene	6.23	154	102650	412.42	ng/ml	95
10) Dibenzofuran	6.38	168	166612	415.18	ng/ml	98
11) 2,3,5-Trimethylnaphthalene	6.56	170	94413	429.83	ng/ml	93
13) Fluorene	6.67	166	125869	411.61	ng/ml	99
15) Dibenzothiophene	7.36	184	199635	421.29	ng/ml	94
16) Phenanthrene	7.47	178	189765	398.95	ng/ml	99
17) Anthracene	7.51	178	186149	419.47	ng/ml	98
18) Carbazole	7.65	167	176651	440.96	ng/ml	95
19) 1-Methylphenanthrene	7.98	192	146548	420.43	ng/ml	100
20) Fluoranthene	8.45	202	220920	412.34	ng/ml	98
23) Pyrene	8.64	202	235602	364.89	ng/ml	99
25) Benz(a)anthracene	9.92	228	230959	381.08	ng/ml	99
26) Chrysene	9.96	228	220370	408.45	ng/ml	99
28) Benzo(b)fluoranthene	11.89	252	245643	399.15	ng/ml	99
29) Benzo(k)fluoranthene	11.95	252	241244	401.75	ng/ml	100
30) Benzo(e)pyrene	12.58	252	229110	402.35	ng/ml	99
31) Benzo(a)pyrene	12.72	252	217232	376.70	ng/ml	100
32) Perylene	12.96	252	210325	391.38	ng/ml	100
33) Indeno(1,2,3-cd)pyrene	15.24	276	202604	375.21	ng/ml	99
34) Dibenz(a,h)anthracene	15.29	278	194835	364.54	ng/ml	99
35) Benzo(g,h,i)perylene	15.62	276	217507	353.50	ng/ml	99

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F002.D Vial: 2
Acq On : 2 May 2016 7:50 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM53-7G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 2 8:10 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon May 02 10:41:25 2016
Response via : Initial Calibration



Exception Report

Data File: J:\MS14\DATA\050216\0502F024.D
Lab ID: KWG1603396-3
RunType: CCVA
Matrix: WATER

Date Acquired: 05/02/2016 17:46
Date Quantitated: 05/03/2016 05:01
Batch ID: KWG1603396
Analysis Method: 8270D SIM
MethodJoinID: MJ1507

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Pass/Fail	NA	NA	NA	x	
~~ICAL Analyte Recovery~~	~~NA~~	~~NA~~	~~NA~~	~~x~~	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA		x
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Retention Time	Perylene-d12	-0.18	NA	0.17	non-target

Primary Review: 5/3/16

Secondary Review: MAY 0 3 2016

Printed: 05/03/2016 12:41:29
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS14\DATA\050216\0502F024.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 17:46	**Quant Date:**	05/03/2016 05:01	**Vial:**	2
Run Type:	CCVA	**MethodJoinID:**	MJ1507	**Dilution:**	1.0
Lab ID:	KWG1603396-3			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM U	**Collect Date:**		**Receive Date:**	05/02/2016

Analysis Lot:	KWG1603396	**Prep Lot:**		**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS14\METHODS\SIM\011116SIMPAH	**Calibration ID:**	CAL14530
Title:			
Tune Ref:	J:\MS14\DATA\050216\0502F001.D	**Method ID:**	MJ1507
MB Ref:		**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	4.59	-0.10	136	68181	200.00	OK
2	Acenaphthene-d10	6.20	-0.08	164	34930	200.00	OK
3	Phenanthrene-d10	7.45	-0.07	188	67275	200.00	OK
4	Chrysene-d12	9.92	-0.11	240	86450	200.00	OK
5	Perylene-d12	12.87	-0.18*	264	79606	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	6.65			176	73370	380.97		46-114	NA
3	Fluoranthene-d10	8.44			212	141341	410.50		51-121	NA
4	Terphenyl-d14	8.77			244	117582	373.12		58-132	NA

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.61			128	160516	466.11			
1	2-Methylnaphthalene	5.29			142	96714	411.40			
1	1-Methylnaphthalene	5.38			142	83233	406.31			
1	Biphenyl	5.71			154	115383	405.52			
1	2,6-Dimethylnaphthalene	5.85			156	81983	419.00			
2	Acenaphthylene	6.08			152	150220	418.24			
2	Acenaphthene	6.23			154	84953	414.53			
2	Dibenzofuran	6.38			168	137786	416.99			
2	2,3,5-Trimethylnaphthalene	6.56			170	77384	427.86			
2	Fluorene	6.67			166	103631	411.57			
3	Dibenzothiophene	7.36			184	164637	419.12			
3	Phenanthrene	7.47			178	156375	396.58			
3	Anthracene	7.51			178	153060	416.07			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS14\DATA\050216\0502F024.D			**Instrument:**	MS14
Acqu Date:	05/02/2016 17:46	**Quant Date:**	05/03/2016 05:01	**Vial:**	2
Run Type:	CCVA	**MethodJoinID:**	MJ1507	**Dilution:**	1.0
Lab ID:	KWG1603396-3			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole	7.65			167	144765	435.92			
3	1-Methylphenanthrene	7.98			192	121131	419.21			
3	Fluoranthene	8.45			202	183584	413.35			
4	Pyrene	8.64			202	195927	363.18			
4	Benz(a)anthracene	9.91			228	190032	375.28			
4	Chrysene	9.96			228	182905	405.75			
5	Benzo(b)fluoranthene	11.88			252	203523	400.28			
5	Benzo(k)fluoranthene	11.94			252	202567	408.31			
5	Benzo(e)pyrene	12.57			252	188436	400.53			
5	Benzo(a)pyrene	12.70			252	178008	373.61			
5	Perylene	12.94			252	173057	389.77			
5	Indeno(1,2,3-cd)pyrene	15.24			276	156562	350.94			
5	Dibenz(a,h)anthracene	15.28			278	152545	345.46			
5	Benzo(g,h,i)perylene	15.61			276	174932	344.11			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Calibration Verification Report

Calibration ID: CAL14530
Method ID: MJ1507
DataFile: J:\MS14\DATA\050216\0502F024.D

Parameter Name	Type	PARM Type	Curve Fit	Method Criteria	Min RF	ICAL RF	CCV RF	%Diff	Sol'n Conc.	True Value	% Drift
Naphthalene		MS	AverageRF	50	0.70	1.010	1.177	17			
2-Methylnaphthalene		MS	AverageRF	50	0.40	0.690	0.709	3			
1-Methylnaphthalene		MS	AverageRF	50	0.05	0.601	0.610	2			
Biphenyl		MS	AverageRF	50	0.01	0.835	0.846	1			
2,6-Dimethylnaphthalene		MS	AverageRF	50	0.05	0.574	0.601	5			
Acenaphthylene		MS	AverageRF	50	0.90	2.057	2.150	5			
Acenaphthene		MS	AverageRF	50	0.90	1.173	1.216	4			
Dibenzofuran		MS	AverageRF	50	0.80	1.892	1.972	4			
2,3,5-Trimethylnaphthalene		MS	AverageRF	50	0.05	1.036	1.108	7			
Fluorene-d10		SURR	AverageRF	50	0.05	1.103	1.050	-5			
Fluorene		MS	AverageRF	50	0.90	1.442	1.483	3			
Dibenzothiophene		MS	AverageRF	50	0.05	1.168	1.224	5			
Phenanthrene		MS	AverageRF	50	0.70	1.172	1.162	-1			
Anthracene		MS	AverageRF	50	0.70	1.094	1.138	4			
Carbazole		MS	AverageRF	50	0.05	0.987	1.076	9			
1-Methylphenanthrene		MS	AverageRF	50	0.05	0.859	0.900	5			
Fluoranthene-d10		SURR	AverageRF	50	0.05	1.024	1.050	3			
Fluoranthene		MS	AverageRF	50	0.60	1.320	1.364	3			
Pyrene		MS	AverageRF	50	0.60	1.248	1.133	-9			
Terphenyl-d14		SURR	AverageRF	50	0.05	0.729	0.680	-7			
Benz(a)anthracene		MS	AverageRF	50	0.80	1.171	1.099	-6			
Chrysene		MS	AverageRF	50	0.70	1.043	1.058	1			
Benzo(b)fluoranthene		MS	AverageRF	50	0.70	1.277	1.278	0			
Benzo(k)fluoranthene		MS	AverageRF	50	0.70	1.246	1.272	2			
Benzo(e)pyrene		MS	AverageRF	50	0.05	1.182	1.184	0			
Benzo(a)pyrene		MS	AverageRF	50	0.70	1.197	1.118	-7			
Perylene		MS	AverageRF	50	0.05	1.115	1.087	-3			
Indeno(1,2,3-cd)pyrene		MS	AverageRF	50	0.50	1.121	0.983	-12			
Dibenz(a,h)anthracene		MS	AverageRF	50	0.40	1.109	0.958	-14			
Benzo(g,h,i)perylene		MS	AverageRF	50	0.50	1.277	1.099	-14			

Evaluate Continuing Calibration Report

Data File : J:\MS14\DATA\050216\0502F024.D Vial: 2
Acq On : 2 May 2016 5:46 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM53-7G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon May 02 10:41:41 2016
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	200.000	200.000	0.0	122	0.00
2	T	Naphthalene	400.000	466.107	-16.5	157	0.00
3	T	2-Methylnaphthalene	400.000	411.396	-2.8	143	0.00
4	T	1-Methylnaphthalene	400.000	406.312	-1.6	141	0.00
5	T	Biphenyl	400.000	405.521	-1.4	143	0.00
6	T	2,6-Dimethylnaphthalene	400.000	418.998	-4.7	147	0.00
7	I	Acenaphthene-d10	200.000	200.000	0.0	128	0.00
8	T	Acenaphthylene	400.000	418.244	-4.6	150	0.00
9	T	Acenaphthene	400.000	414.530	-3.6	149	0.00
10	T	Dibenzofuran	400.000	416.989	-4.2	150	0.00
11	T	2,3,5-Trimethylnaphthalene	400.000	427.864	-7.0	153	0.00
12	S	Fluorene-d10	400.000	380.970	4.8	144	0.00
13	T	Fluorene	400.000	411.570	-2.9	149	0.00
14	I	Phenanthrene-d10	200.000	200.000	0.0	134	0.00
15	T	Dibenzothiophene	400.000	419.120	-4.8	155	0.00
16	T	Phenanthrene	400.000	396.582	0.9	151	0.00
17	T	Anthracene	400.000	416.070	-4.0	154	0.00
18	T	Carbazole	400.000	435.924	-9.0	157	0.00
19	T	1-Methylphenanthrene	400.000	419.213	-4.8	156	0.00
20	T	Fluoranthene	400.000	413.347	-3.3	154	0.00
21	S	Fluoranthene-d10	400.000	410.503	-2.6	151	0.00
22	I	Chrysene-d12	200.000	200.000	0.0	149	0.00
23	T	Pyrene	400.000	363.185	9.2	157	0.00
24	S	Terphenyl-d14	400.000	373.122	6.7	158	0.00
25	T	Benz(a)anthracene	400.000	375.278	6.2	165	0.00
26	T	Chrysene	400.000	405.749	-1.4	171	0.00
27	I	Perylene-d12	200.000	200.000	0.0	141	-0.01
28	T	Benzo(b)fluoranthene	400.000	400.281	-0.1	158	-0.01
29	T	Benzo(k)fluoranthene	400.000	408.308	-2.1	159	0.00
30	T	Benzo(e)pyrene	400.000	400.529	-0.1	164	0.00
31	T	Benzo(a)pyrene	400.000	373.613	6.6	156	-0.01
32	T	Perylene	400.000	389.769	2.6	155	-0.01
33	T	Indeno(1,2,3-cd)pyrene	400.000	350.938	12.3	138	0.00
34	T	Dibenz(a,h)anthracene	400.000	345.457	13.6	136	0.00
35	T	Benzo(g,h,i)perylene	400.000	344.114	14.0	137	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
0502F024.D 011116SIMPAH.M Tue May 03 05:01:46 2016 Page 1

Data File : J:\MS14\DATA\050216\0502F024.D Vial: 2
Acq On : 2 May 2016 5:46 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM53-7G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 03 05:01:27 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon May 02 10:41:41 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

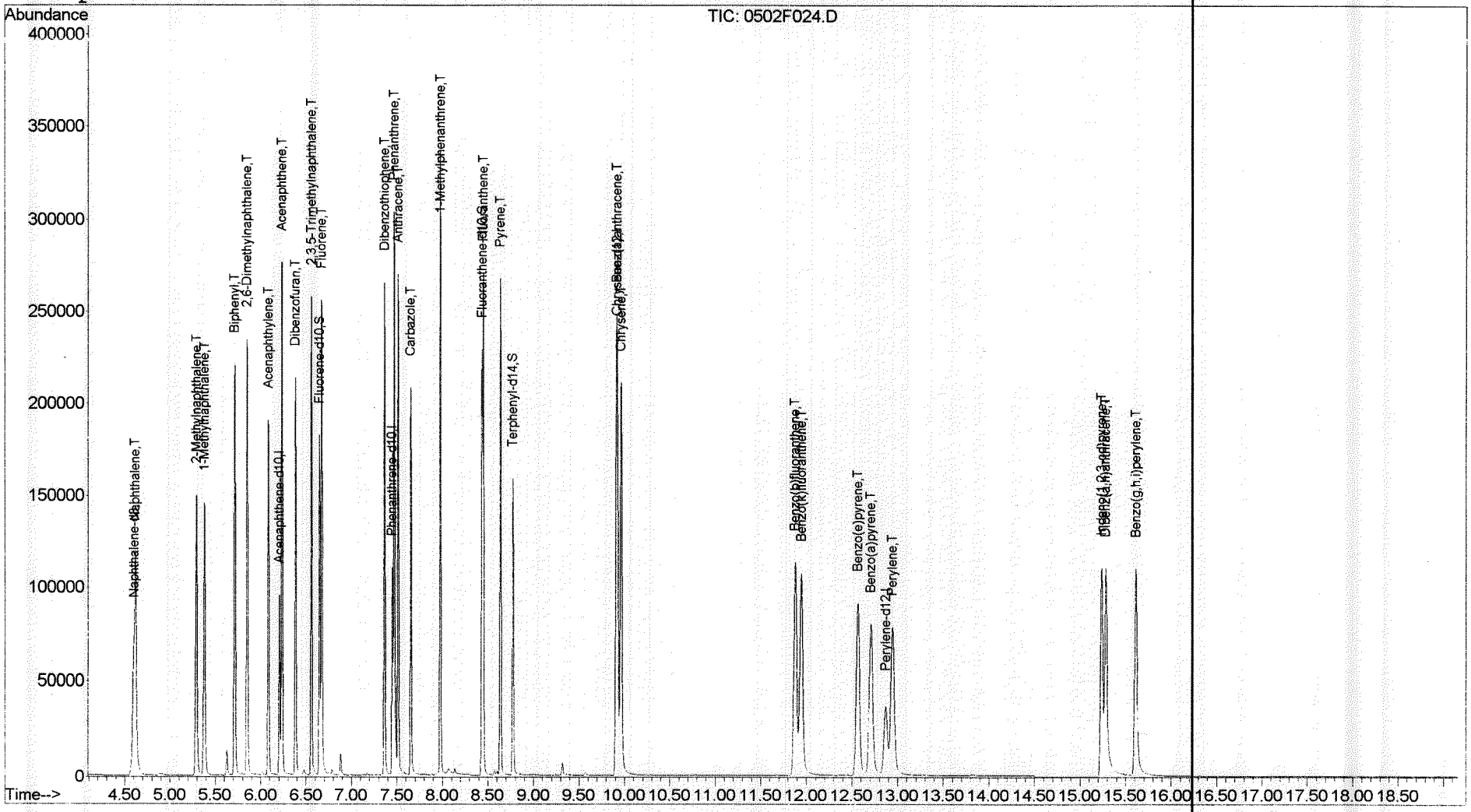
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.59	136	68181	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.20	164	34930	200.00	ng/ml	0.00
14) Phenanthrene-d10	7.45	188	67275	200.00	ng/ml	0.00
22) Chrysene-d12	9.92	240	86450	200.00	ng/ml	0.00
27) Perylene-d12	12.87	264	79606	200.00	ng/ml	-0.01
System Monitoring Compounds						
12) Fluorene-d10	6.65	176	73370	380.97	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 38.10%			
21) Fluoranthene-d10	8.44	212	141341	410.50	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 41.05%			
24) Terphenyl-d14	8.77	244	117582	373.12	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 37.31%			
Target Compounds						Qvalue
2) Naphthalene	4.61	128	160516	466.11	ng/ml	100
3) 2-Methylnaphthalene	5.29	142	96714	411.40	ng/ml	98
4) 1-Methylnaphthalene	5.38	142	83233	406.31	ng/ml	98
5) Biphenyl	5.71	154	115383	405.52	ng/ml	100
6) 2,6-Dimethylnaphthalene	5.85	156	81983	419.00	ng/ml	99
8) Acenaphthylene	6.08	152	150220	418.24	ng/ml	100
9) Acenaphthene	6.23	154	84953	414.53	ng/ml	96
10) Dibenzofuran	6.38	168	137786	416.99	ng/ml	89
11) 2,3,5-Trimethylnaphthalene	6.56	170	77384	427.86	ng/ml	96
13) Fluorene	6.67	166	103631	411.57	ng/ml	97
15) Dibenzothiophene	7.36	184	164637	419.12	ng/ml	97
16) Phenanthrene	7.47	178	156375	396.58	ng/ml	98
17) Anthracene	7.51	178	153060	416.07	ng/ml	98
18) Carbazole	7.65	167	144765	435.92	ng/ml	94
19) 1-Methylphenanthrene	7.98	192	121131	419.21	ng/ml	98
20) Fluoranthene	8.45	202	183584	413.35	ng/ml	98
23) Pyrene	8.64	202	195927	363.18	ng/ml	100
25) Benz(a)anthracene	9.91	228	190032	375.28	ng/ml	99
26) Chrysene	9.96	228	182905	405.75	ng/ml	99
28) Benzo(b)fluoranthene	11.88	252	203523	400.28	ng/ml	99
29) Benzo(k)fluoranthene	11.94	252	202567	408.31	ng/ml	100
30) Benzo(e)pyrene	12.57	252	188436	400.53	ng/ml	100
31) Benzo(a)pyrene	12.70	252	178008	373.61	ng/ml	99
32) Perylene	12.94	252	173057	389.77	ng/ml	100
33) Indeno(1,2,3-cd)pyrene	15.24	276	156562	350.94	ng/ml	99
34) Dibenz(a,h)anthracene	15.28	278	152545	345.46	ng/ml	96
35) Benzo(g,h,i)perylene	15.61	276	174932	344.11	ng/ml	100

(#) = qualifier out of range (m) = manual integration
0502F024.D 011116SIMPAH.M Tue May 03 05:01:49 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\050216\0502F024.D Vial: 2
Acq On : 2 May 2016 5:46 pm Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM53-7G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 3 5:01 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon May 02 10:41:41 2016
Response via : Initial Calibration



Injection Log

Directory: J:\MS14\DATA\011116

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0111F001.D	1.	DFTPP @ 3.0ug/mL | SVM52-13H		11 Jan 2016 08:0
2	2	0111F002.D	1.	IB		11 Jan 2016 08:2
3	3	0111F003.D	1.	SIM-PAH ICAL @.002ug/mL | SVM51-6C		11 Jan 2016 08:5
4	4	0111F004.D	1.	SIM-PAH ICAL @.004ug/mL | SVM51-6D		11 Jan 2016 09:2
5	5	0111F005.D	1.	SIM-PAH ICAL @.008ug/mL | SVM51-6E		11 Jan 2016 09:5
6	6	0111F006.D	1.	SIM-PAH ICAL @0.02ug/mL | SVM51-6F		11 Jan 2016 10:1
7	7	0111F007.D	1.	SIM-PAH ICAL @0.1ug/mL | SVM51-6G		11 Jan 2016 10:4
8	8	0111F008.D	1.	SIM-PAH ICAL @0.2ug/mL | SVM51-6H		11 Jan 2016 11:1
9	9	0111F009.D	1.	SIM-PAH ICAL @0.4ug/mL | SVM51-6I		11 Jan 2016 11:3
10	10	0111F010.D	1.	SIM-PAH ICAL @1.0ug/mL | SVM51-6J		11 Jan 2016 12:0
11	11	0111F011.D	1.	SIM-PAH ICAL @1.6ug/mL | SVM51-6K		11 Jan 2016 12:3
12	12	0111F012.D	1.	SIM-PAH ICAL @2.0ug/mL | SVM51-6L		11 Jan 2016 12:5
13	13	0111F013.D	1.	SIM-PAH ICV @0.4ug/mL | SVM51-7A		11 Jan 2016 13:2
14	14	0111F014.D	1.	SIM-PAH CCV @0.4ug/mL | SVM52-11B		11 Jan 2016 13:5

CAL 14530
SIM-PAH ICAL
1/12/16

LB

Exception Report

Data File: J:\MS14\DATA\011116\0111F013.D
Lab ID: KWG1600300-2
RunType: CCV
Matrix: WATER

Date Acquired: 01/11/2016 13:27
Date Quantitated: 01/12/2016 06:20
Batch ID: KWG1600300
Analysis Method: 8270D SIM
MethodJoinID: MJ1186

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

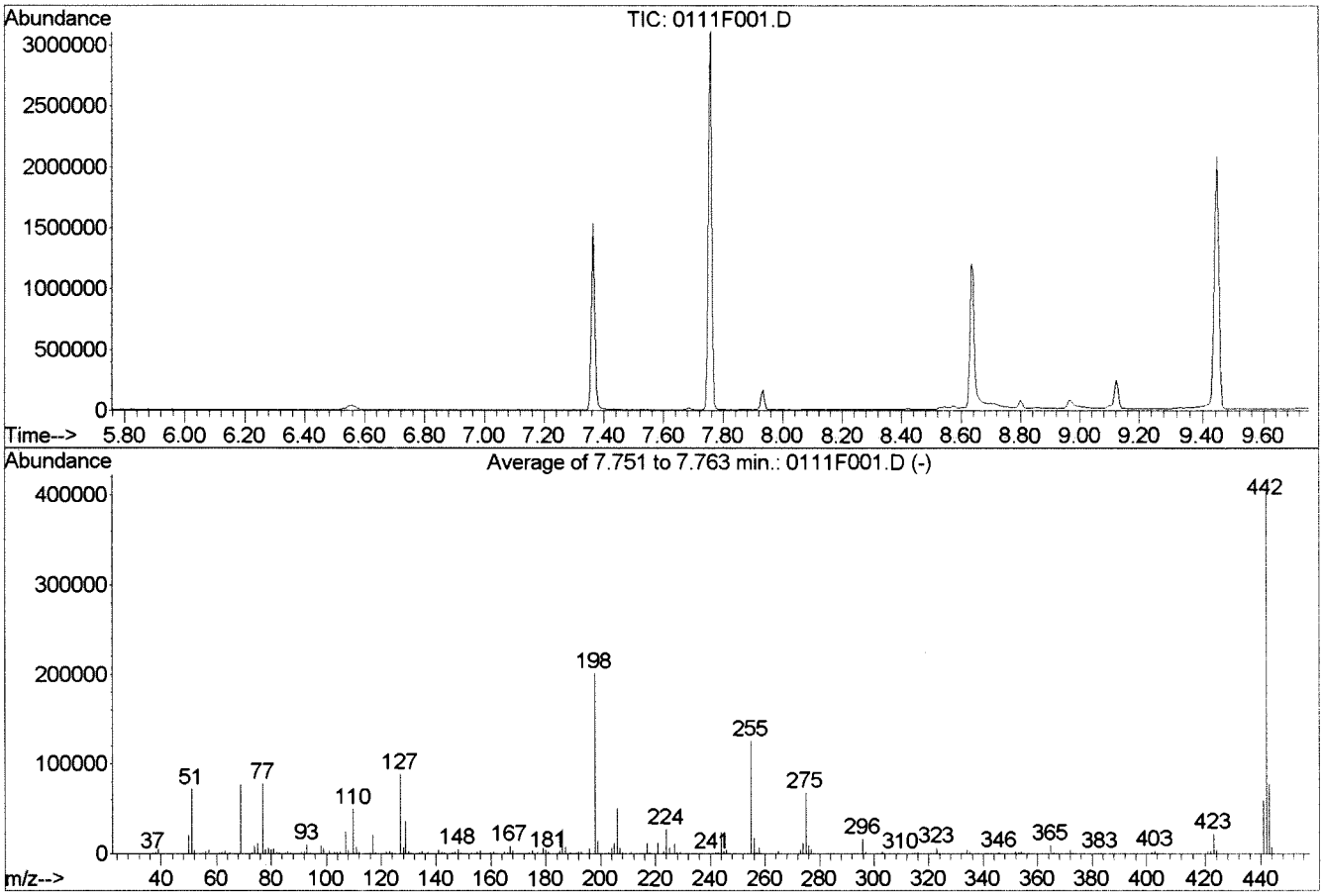
Primary Review: JAN 1 2 2016

Secondary Review: JAN 1 2 2016

Printed: 01/12/2016 06:33:03
u:\Stealth\Crystal.rpt\except2.rpt

Data File : J:\MS14\DATA\011116\0111F001.D
Acq On : 11 Jan 2016 8:02 am
Sample : DFTPP @ 3.0ug/mL | SVM52-13H
Misc :
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix

Vial: 1
Operator: LWeiskopf
Inst : MS14
Multiplr: 1.00



AutoFind: Scans 623, 624, 625; Background Corrected with Scan 618

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	35.7	71977	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	38.4	77268	PASS
70	69	0.00	2	0.4	301	PASS
127	198	10	80	43.9	88426	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	49.9	201352	PASS
199	198	5	9	6.9	13873	PASS
275	198	10	60	33.9	68325	PASS
365	442	1	50	2.3	9429	PASS
441	443	0.01	100	77.3	59709	PASS
442	442	30	100	100.0	403242	PASS
443	442	15	24	19.2	77269	PASS

0111F001.D A_DFTPP.M Tue Jan 12 06:21:41 2016

JAN 1 2 2016

LB

Average of 7.751 to 7.763 min.: 0111F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	58	51.00	71977	63.00	2983	74.00	8394
36.95	530	52.00	3751	64.05	497	75.00	11963
38.05	1308	53.00	120	65.00	1343	77.00	77656
39.00	5276	54.00	58	66.20	82	78.00	5330
40.00	291	54.95	727	66.95	134	78.95	6952
41.00	233	56.00	2310	68.95	77268	80.00	4828
42.10	50	57.00	4749	69.90	301	81.00	6288
43.00	112	57.95	235	70.10	57	82.00	1360
43.90	233	60.00	57	71.00	247	82.90	1303
44.90	91	61.00	1032	71.80	50	83.90	217
50.00	21149	61.95	1217	73.05	1074	84.95	1353

Average of 7.751 to 7.763 min.: 0111F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.00	2107	97.95	8338	109.90	49736	121.10	179
86.90	821	98.95	5748	110.90	7488	121.90	2171
87.85	286	99.95	575	111.90	1085	122.95	2794
88.90	150	100.95	2944	112.90	346	123.90	1245
90.95	1480	101.80	114	114.95	262	125.00	1277
92.00	2104	102.00	123	116.10	908	127.00	88426
92.95	10336	102.95	1432	116.90	21003	128.00	7410
94.00	741	103.90	2591	117.90	1568	128.90	36608
94.90	134	104.90	2204	118.85	271	129.90	3068
95.95	378	106.95	24606	119.70	252	130.95	742
97.20	106	107.95	4027	119.90	145	132.00	389

Average of 7.751 to 7.763 min.: 0111F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
132.95	181	141.90	1658	151.90	388	162.85	165
133.90	1233	142.90	1237	152.90	1553	163.95	286
134.90	3110	143.90	223	153.95	1092	164.20	52
135.90	1252	144.95	313	154.90	2550	164.90	2078
136.95	1451	145.90	1095	156.00	3825	165.95	1749
137.70	50	146.95	2610	157.05	925	166.95	8870
138.05	367	147.90	5136	157.90	907	167.90	3879
138.80	274	149.00	1127	158.90	733	168.95	804
139.90	275	149.85	277	159.90	1538	169.90	179
140.20	253	150.95	648	160.95	2275	170.10	150
140.90	4752	151.50	61	161.90	668	170.90	443

Average of 7.751 to 7.763 min.: 0111F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
171.90	805	182.90	269	193.90	416	204.00	6663
172.90	1052	184.00	645	194.10	79	205.00	12096
174.00	1904	184.95	3672	195.00	499	206.00	50902
175.00	3588	186.00	27238	196.00	6274	207.00	6599
175.95	1105	187.00	7851	197.90	201352	207.95	1754
176.90	1974	187.95	875	198.90	13873	208.90	571
178.00	876	188.90	1770	199.90	947	210.30	361
178.90	6781	189.85	332	201.00	160	210.95	1937
179.90	4420	190.95	864	201.45	993	211.70	272
180.90	2111	191.90	2187	202.15	219	212.95	137
181.90	336	192.90	2242	202.90	1439	214.90	600

JAN 1 2 2016

LB

Average of 7.751 to 7.763 min.: 0111F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
216.00	784	226.90	11555	237.90	128	248.85	907
216.90	12046	227.90	1584	238.95	446	249.85	136
217.90	1539	228.90	2402	239.95	339	250.90	218
218.90	72	229.85	303	240.95	564	251.80	72
219.10	95	230.90	1139	242.00	1405	252.10	141
220.95	12151	231.80	78	242.95	1838	252.90	585
221.90	150	232.85	190	244.00	23531	253.10	98
222.90	3289	233.90	790	245.00	3224	254.90	125653
224.00	27333	234.90	842	245.90	4595	256.00	17802
225.00	7167	235.90	579	246.90	948	257.00	1469
225.95	887	236.90	1008	247.90	171	257.90	6901

Average of 7.751 to 7.763 min.: 0111F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
258.90	1221	274.95	68325	289.90	131	303.95	564
259.85	234	275.95	9282	290.90	56	307.90	305
260.90	176	276.90	5009	291.90	256	308.95	127
263.95	281	277.90	967	292.90	1300	309.90	244
264.90	2740	278.90	178	293.95	304	312.95	185
265.95	490	282.05	130	295.90	16630	313.95	926
269.85	102	282.90	547	296.90	2470	314.90	1962
270.90	380	283.95	442	298.00	116	315.95	1333
271.90	345	284.90	911	300.95	259	316.90	175
272.90	4200	285.80	130	301.90	491	319.90	136
273.95	12017	289.00	65	302.95	2141	320.90	683

Average of 7.751 to 7.763 min.: 0111F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
322.05	455	334.90	1361	354.00	2639	376.80	55
323.00	6812	335.90	108	354.90	565	383.00	1239
323.90	1196	338.90	56	358.90	153	383.80	58
324.90	83	339.90	103	364.10	139	384.00	252
325.90	71	340.90	736	364.90	9429	389.90	618
326.10	61	341.95	189	365.85	1288	390.85	544
326.90	1228	345.85	1488	369.85	197	392.05	433
327.90	626	346.90	303	370.95	698	400.90	236
331.90	570	350.95	174	371.95	4636	401.90	1909
332.95	743	351.95	2366	372.90	1135	402.90	2934
333.95	4622	352.90	1570	373.90	60	403.95	969

Average of 7.751 to 7.763 min.: 0111F001.D
DFTPP @ 3.0ug/mL | SVM52-13H
Modified:subtracted

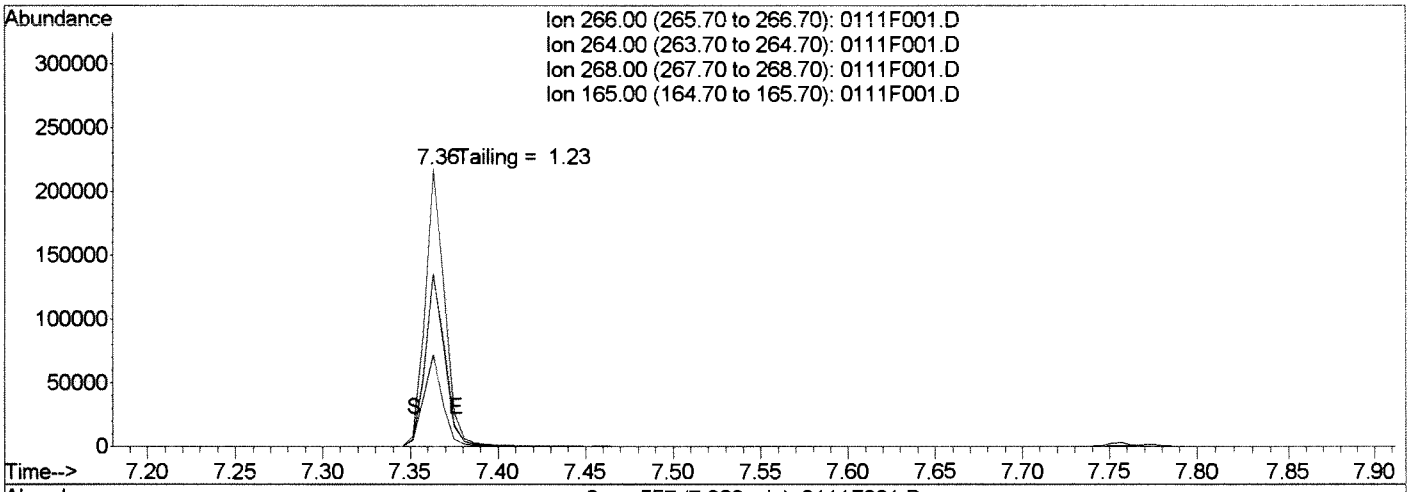
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
404.90	104	443.00	77269				
409.90	52	444.00	7138				
414.90	53	444.90	457				
420.95	2897						
421.95	2840						
423.00	22196						
423.95	4330						
424.90	421						
438.80	95						
441.00	59709						
442.00	403242						

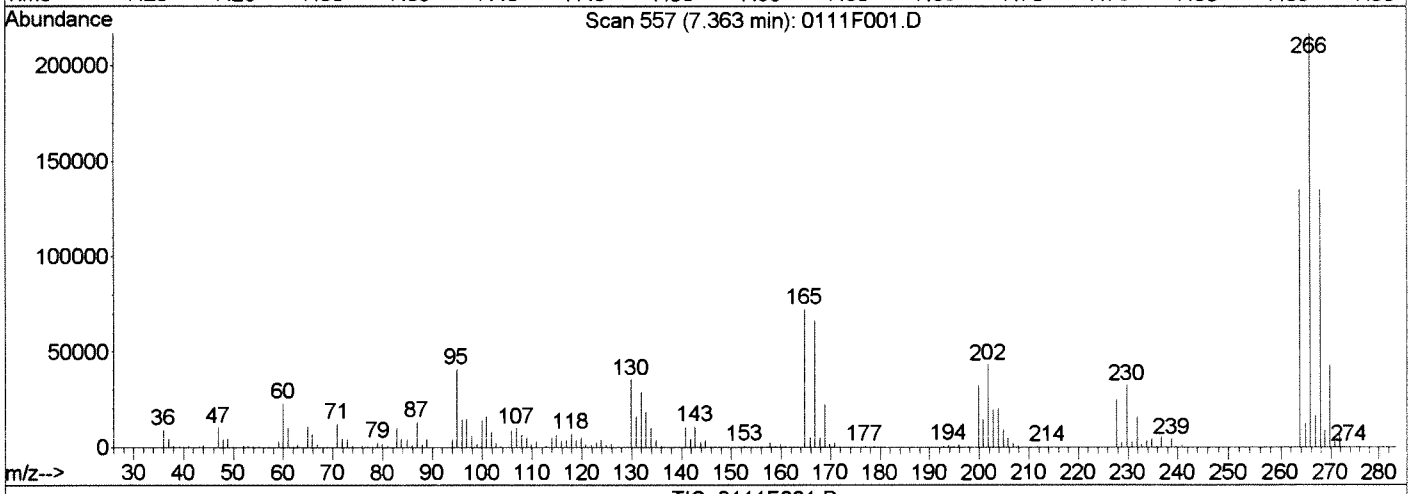
JAN 1 2 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F001.D Vial: 1
Acq On : 11 Jan 2016 8:02 am Operator: LWeiskopf
Sample : DFTPP @ 3.0ug/mL | SVM52-13H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 11 8:24 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Tue Nov 30 13:38:58 2010
Response via : Single Level Calibration





TIC: 0111F001.D

(1) Pentachlorophenol

7.36min 7.38ng/ml

response 169807

Ion	Exp%	Act%
266.00	100	100
264.00	63.70	62.35
268.00	63.30	62.41
165.00	71.50	33.23#

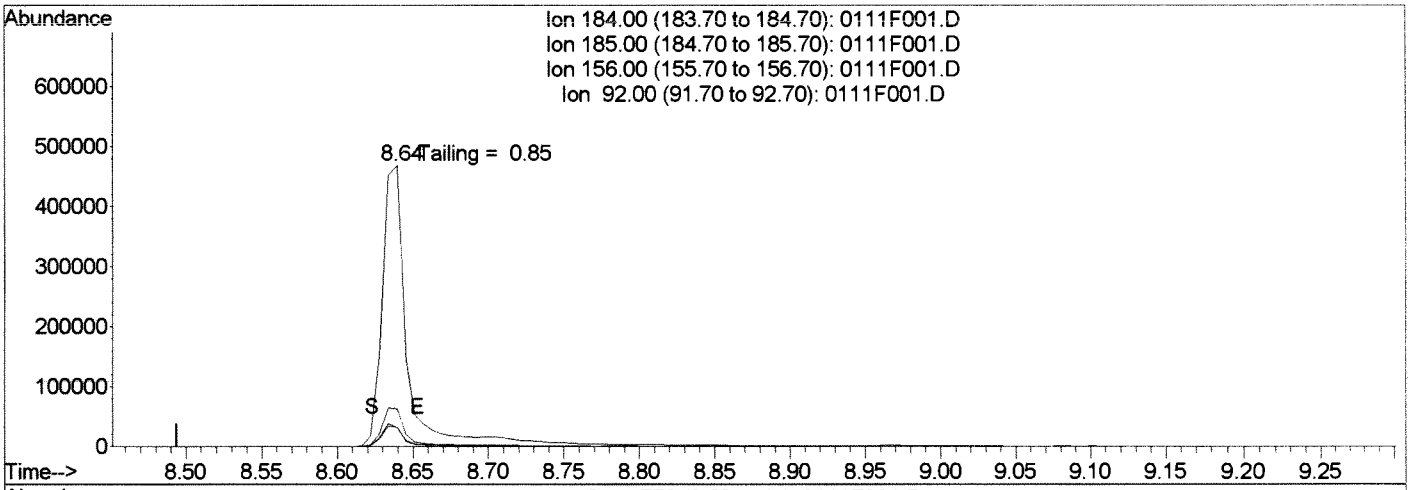
JAN 1 2 2016

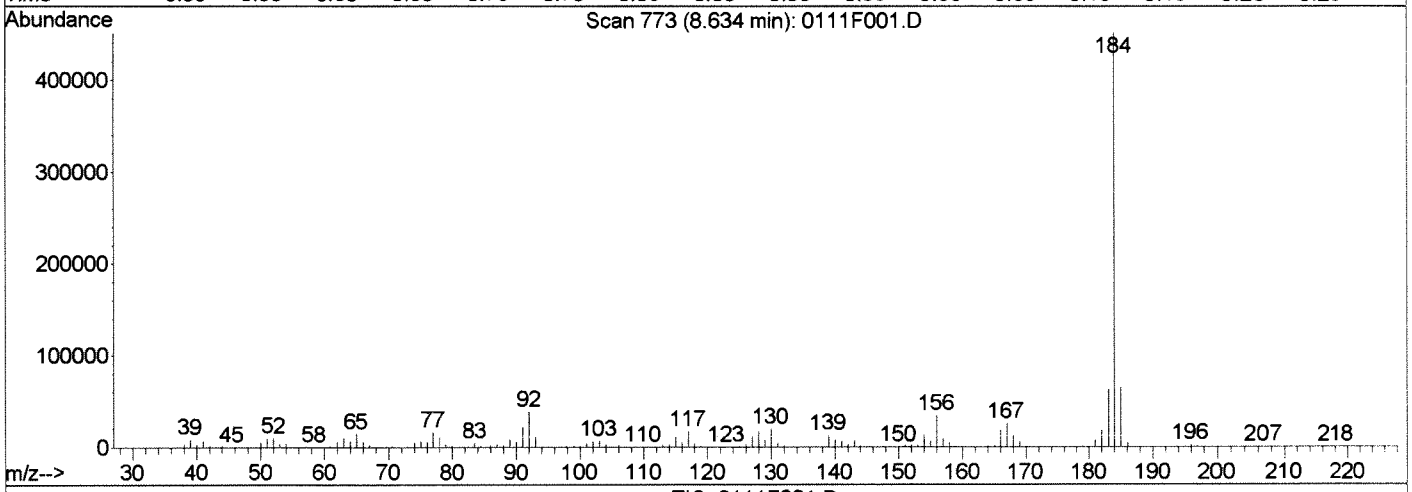
0111F001.D A_DFTPP.M Tue Jan 12 06:21:50 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F001.D Vial: 1
Acq On : 11 Jan 2016 8:02 am Operator: LWeiskopf
Sample : DFTPP @ 3.0ug/mL | SVM52-13H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 11 8:24 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Tue Nov 30 13:38:58 2010
Response via : Single Level Calibration





TIC: 0111F001.D

(3) Benzidine (T)

8.97min 0.04ug/ml

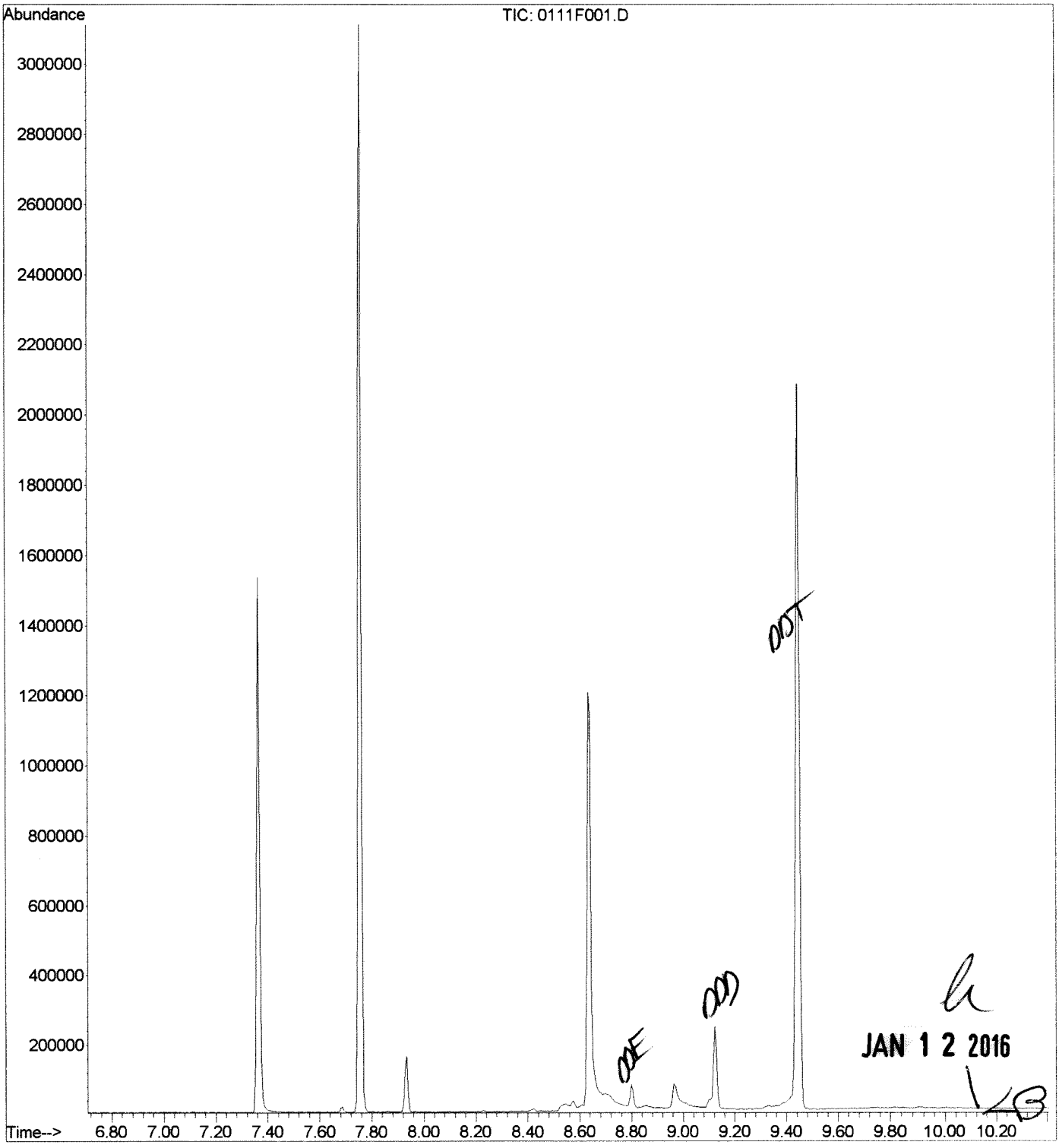
response 2047

Ion	Exp%	Act%
184.00	100	100
185.00	28.30	0.00
156.00	6.00	147.54#
92.00	5.30	0.00

JAN 1 2 2016

0111F001.D A_DFTPP.M Tue Jan 12 06:21:59 2016

File : J:\MS14\DATA\011116\0111F001.D
Operator : LWeiskopf
Acquired : 11 Jan 2016 8:02 am using AcqMethod SIMLOC
Instrument : MS14
Sample Name: DFTPP @ 3.0ug/mL | SVM52-13H
Misc Info :
Vial Number: 1



1	5.104	rBV	0.035		2226	5.087	5.122
2	5.828	rVB	0.041		2103	5.810	5.851
3	5.922	rBV	0.047		2493	5.893	5.940
4	6.322	rVB	0.041		2102	6.310	6.351
5	6.387	rBV	0.035		2914	6.369	6.404
6	6.557	rBV	0.112		81435	6.493	6.604
7	6.640	rVB	0.029		2823	6.628	6.657
8	6.669	rBV	0.035		2283	6.657	6.693
9	6.781	rVB	0.047		2165	6.746	6.793
10	7.116	rBV	0.047		3263	7.081	7.128
11	7.240	rVB	0.047		2476	7.204	7.251
12	7.363	rBV	0.106		1200909	7.334	7.440
13	7.687	rBV	0.076		17885	7.640	7.716
14	7.757	rBV	0.076		2464664	7.716	7.793
15	7.863	rBV	0.041		3953	7.834	7.875
16	7.934	rVV	0.059		133769	7.898	7.957
17	8.075	rBV	0.035		2493	8.057	8.092
18	8.151	rBV	0.047		3032	8.145	8.192
19	8.228	rVB	0.053		5485	8.198	8.251
20	8.422	rBV	0.047		8191	8.392	8.440
21	8.545	rBV	0.053		45495	8.510	8.563
22	8.575	rVB	0.029		13908	8.563	8.592
23	8.634	rBV	0.100		1284203	8.592	8.692
24	8.798	rVB	0.041	00E	58539	8.781	8.822
25	8.857	rVB	0.047		8986	8.840	8.887
26	8.963	rBV	0.141		146040	8.940	9.081
27	9.122	rVB	0.129	00D	260184	9.081	9.210
28	9.328	rBV	0.041		14217	9.298	9.339
29	9.445	rVB	0.129	00T	2174726	9.369	9.498
30	11.886	rVB	0.065		7890	11.875	11.939
31	13.698	rBV	0.035		2714	13.680	13.716
32	14.051	rBV	0.071		18848	14.010	14.080

00T Breakdown = 132

JAN 1 2 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F002.D Vial: 2
Acq On : 11 Jan 2016 8:29 am Operator: LWeiskopf
Sample : IB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 06:20:32 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Jan 12 06:15:40 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.69	136	87658	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.28	164	44947	200.00	ng/ml	-0.01
14) Phenanthrene-d10	7.52	188	83153	200.00	ng/ml	-0.01
22) Chrysene-d12	10.03	240	96243	200.00	ng/ml	-0.02
27) Perylene-d12	13.06	264	89556	200.00	ng/ml	-0.04
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	290	1.17	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	0.12%		
21) Fluoranthene-d10	0.00	212	0	0.00	ng/ml	
Spiked Amount 1000.000			Recovery =	0.00%		
24) Terphenyl-d14	0.00	244	0	0.00	ng/ml	
Spiked Amount 1000.000			Recovery =	0.00%		
Target Compounds						Qvalue
25) Benz(a)anthracene	10.03	228	266	0.47	ng/ml	86

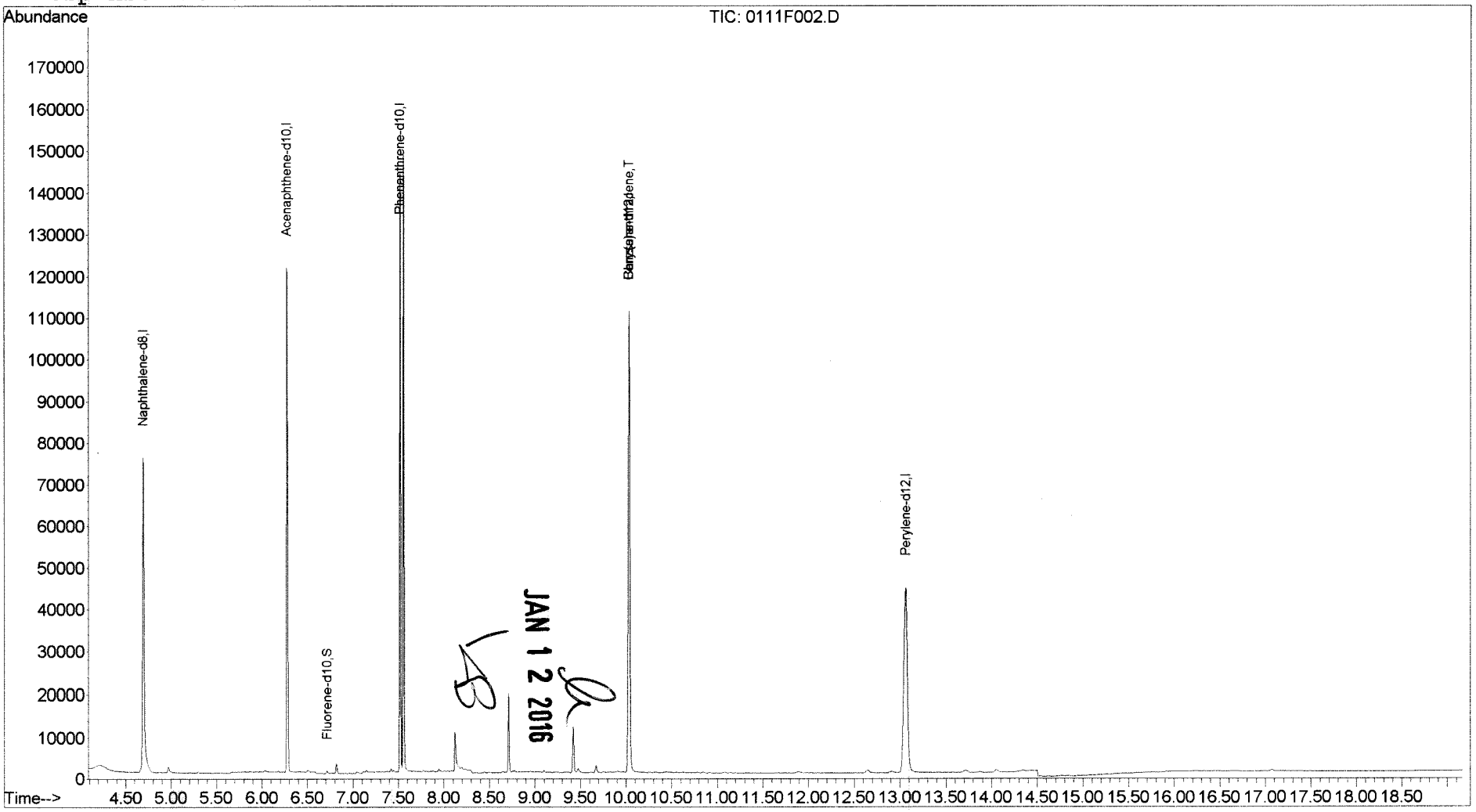
JAN 1 2 2016

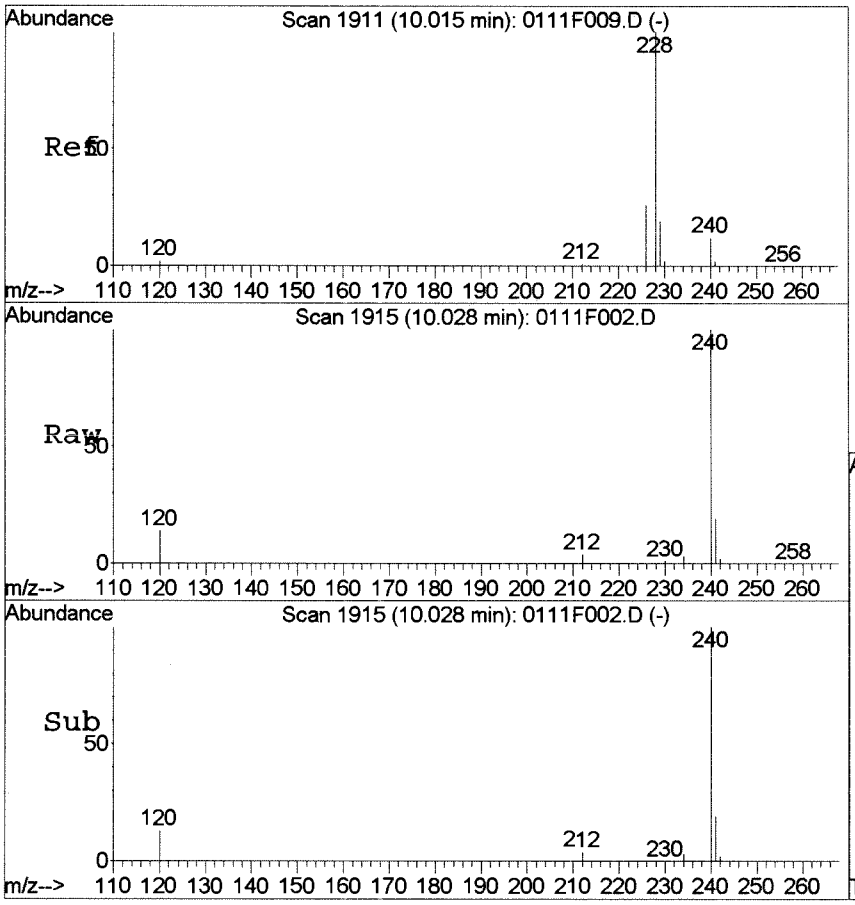
(#) = qualifier out of range (m) = manual integration
0111F002.D 011116SIMPAH.M Tue Jan 12 06:21:17 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F002.D Vial: 2
Acq On : 11 Jan 2016 8:29 am Operator: LWeiskopf
Sample : IB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:21 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Jan 12 06:15:40 2016
Response via : Initial Calibration

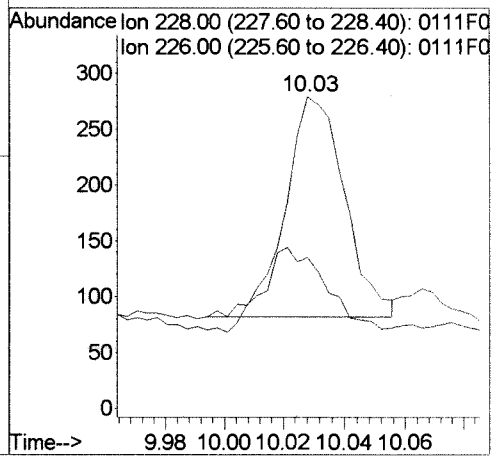




#25
Benz(a)anthracene
Concen: 0.47 ng/ml
RT: 10.03 min Scan# 1915
Delta R.T. -0.01 min
Lab File: 0111F002.D
Acq: 11 Jan 2016 8:29 am

Tgt Ion:228 Resp: 266

Ion	Ratio	Lower	Upper
228	100		
226	33.0	0.0	55.9



JAN 1 2 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F003.D Vial: 3
Acq On : 11 Jan 2016 8:56 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM51-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 05:56:55 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

JAN 1 2 2016

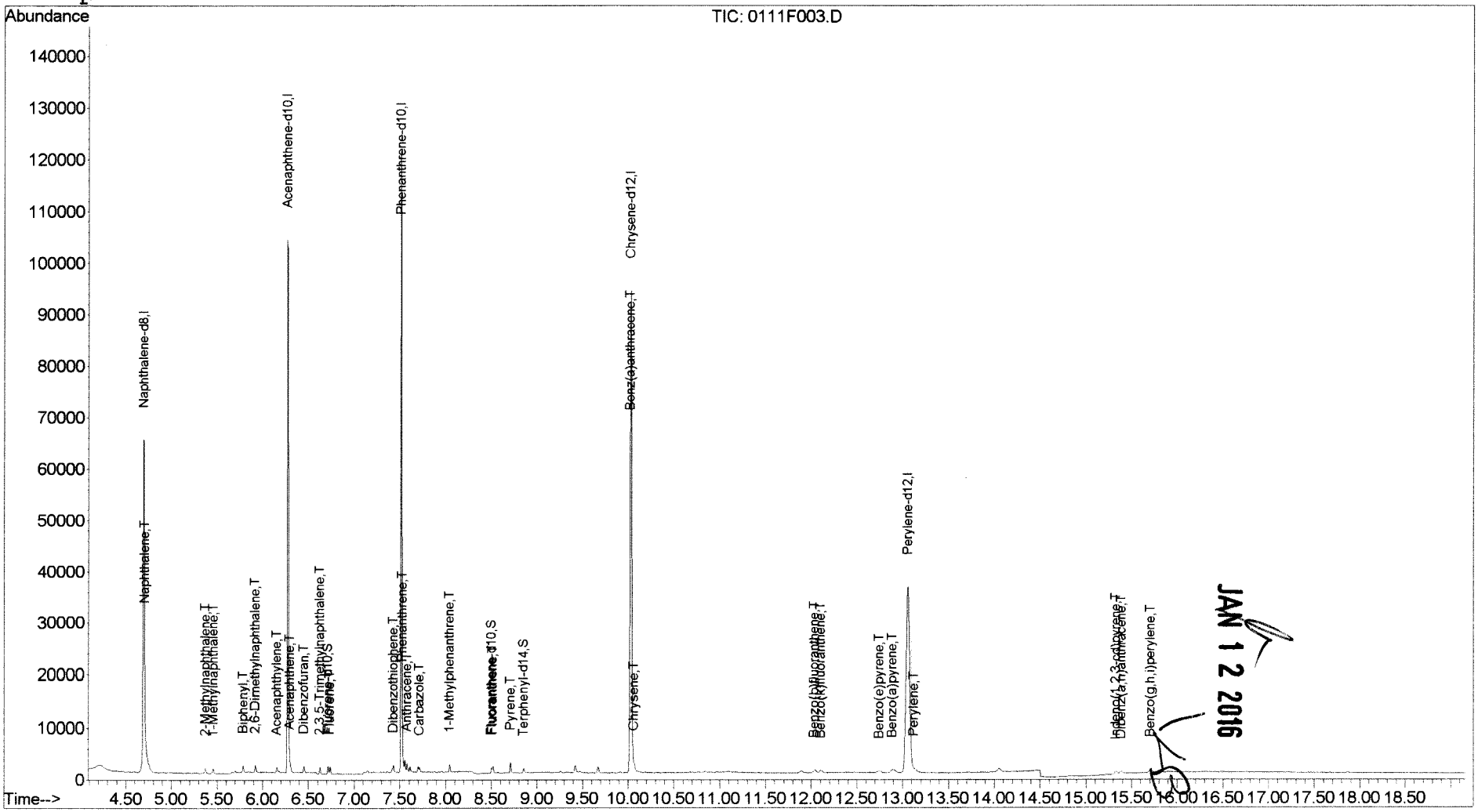
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.69	136	75289	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.28	164	38471	200.00	ng/ml	-0.01
14) Phenanthrene-d10	7.52	188	70428	200.00	ng/ml	-0.01
22) Chrysene-d12	10.03	240	79295	200.00	ng/ml	-0.02
27) Perylene-d12	13.06	264	74318	200.00	ng/ml	-0.05
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	624	2.98	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	0.30%		
21) Fluoranthene-d10	8.50	212	741	2.07	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	0.21%		
24) Terphenyl-d14	8.85	244	620	2.18	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	0.22%		
Target Compounds						Qvalue
2) Naphthalene	4.71	128	726	1.89	ng/ml	98
3) 2-Methylnaphthalene	5.37	142	565	2.18	ng/ml	99
4) 1-Methylnaphthalene	5.46	142	480	2.10	ng/ml	99
5) Biphenyl	5.79	154	678	2.15	ng/ml	98
6) 2,6-Dimethylnaphthalene	5.92	156	459	2.09	ng/ml	94
8) Acenaphthylene	6.15	152	817	2.22	ng/ml	98
9) Acenaphthene	6.30	154	478	2.22	ng/ml	97
10) Dibenzofuran	6.45	168	752	2.15	ng/ml	90
11) 2,3,5-Trimethylnaphthalene	6.63	170	403	2.12	ng/ml	95
13) Fluorene	6.74	166	577	2.20	ng/ml	98
15) Dibenzothiophene	7.43	184	833	2.06	ng/ml	94
16) Phenanthrene	7.53	178	884m	2.26	ng/ml	
17) Anthracene	7.58	178	805	2.24	ng/ml	99
18) Carbazole	7.72	167	668	1.97	ng/ml	94
19) 1-Methylphenanthrene	8.05	192	607m	2.09	ng/ml	
20) Fluoranthene	8.52	202	980	2.25	ng/ml	99
23) Pyrene	8.71	202	1055m	2.43	ng/ml	
25) Benz(a)anthracene	10.02	228	1134	2.84	ng/ml	92
26) Chrysene	10.07	228	869	2.29	ng/ml	93
28) Benzo(b)fluoranthene	12.04	252	1026	2.45	ng/ml	99
29) Benzo(k)fluoranthene	12.10	252	955	2.25	ng/ml	97
30) Benzo(e)pyrene	12.75	252	962	2.50	ng/ml	97
31) Benzo(a)pyrene	12.89	252	1233	3.56	ng/ml#	35
32) Perylene	13.13	252	879	2.46	ng/ml	95
33) Indeno(1,2,3-cd)pyrene	15.33	276	953	3.12	ng/ml	95
34) Dibenz(a,h)anthracene	15.39	278	800m	2.29	ng/ml	
35) Benzo(g,h,i)perylene	15.71	276	1141	2.93	ng/ml	99

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F003.D Vial: 3
Acq On : 11 Jan 2016 8:56 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM51-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:02 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration

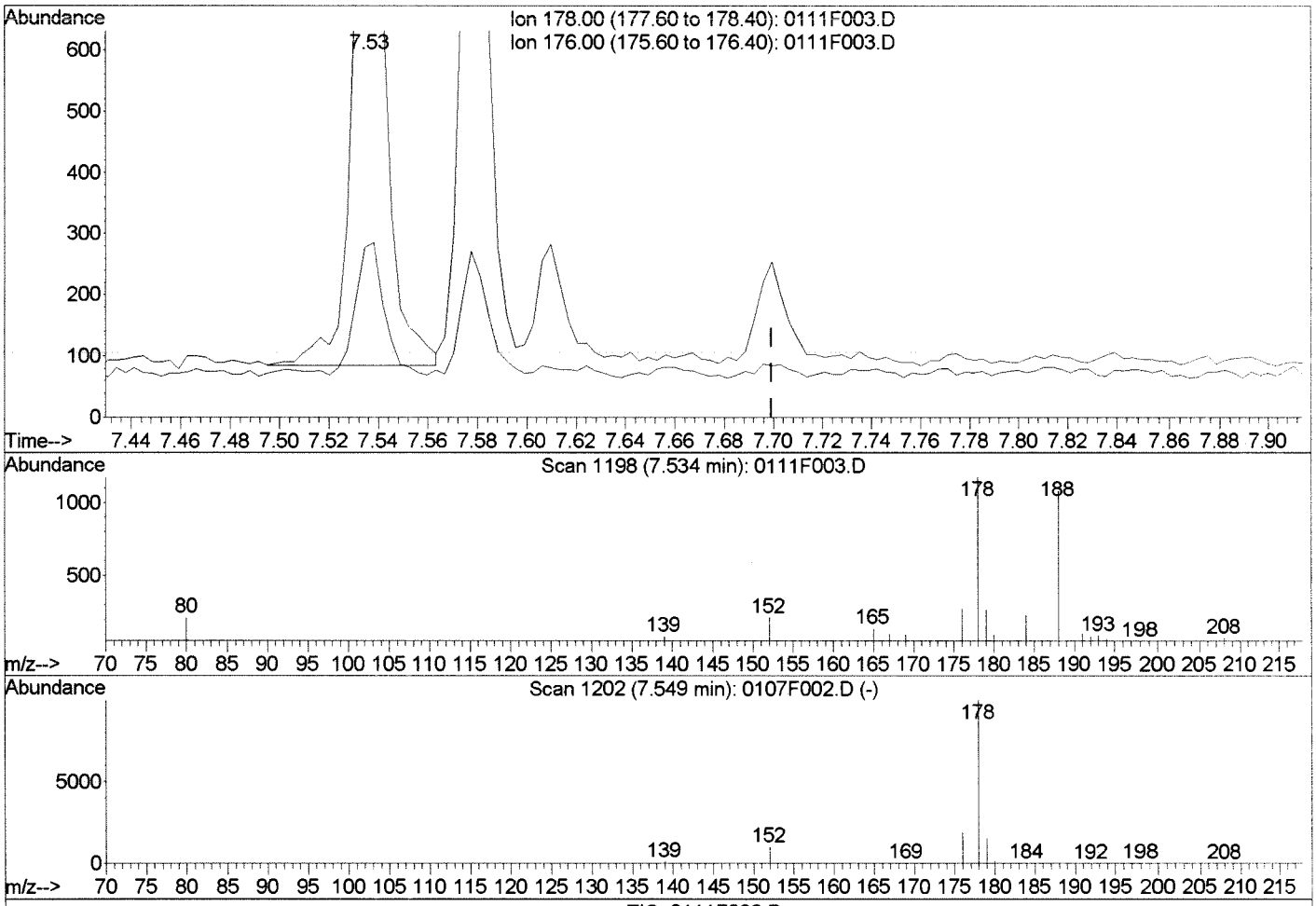


JAN 12 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F003.D Vial: 3
Acq On : 11 Jan 2016 8:56 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM51-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 5:57 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Multiple Level Calibration



TIC: 0111F003.D

(16) Phenanthrene (T)

7.53min 2.40ng/ml

response 940

Ion	Exp%	Act%
178.00	100	100
176.00	18.80	18.84
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

01/12/16

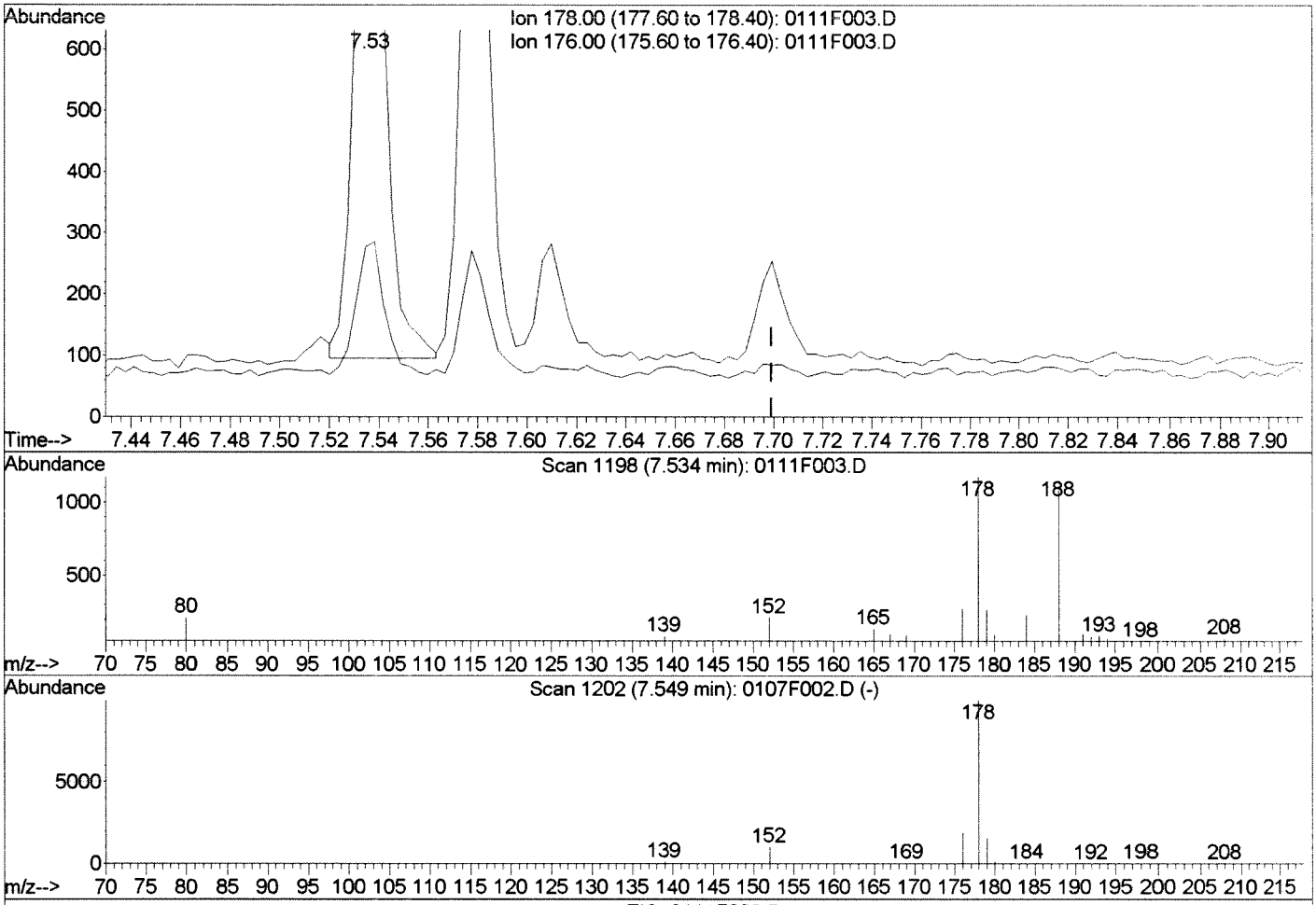
LB

0111F003.D 011116SIMPAH.M Tue Jan 12 06:01:29 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F003.D Vial: 3
Acq On : 11 Jan 2016 8:56 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM51-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:01 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Multiple Level Calibration



TIC: 0111F003.D

(16) Phenanthrene (T)
7.53min 2.26ng/ml m
response 884

Ion	Exp%	Act%
178.00	100	100
176.00	18.80	23.61
0.00	0.00	0.00
0.00	0.00	0.00

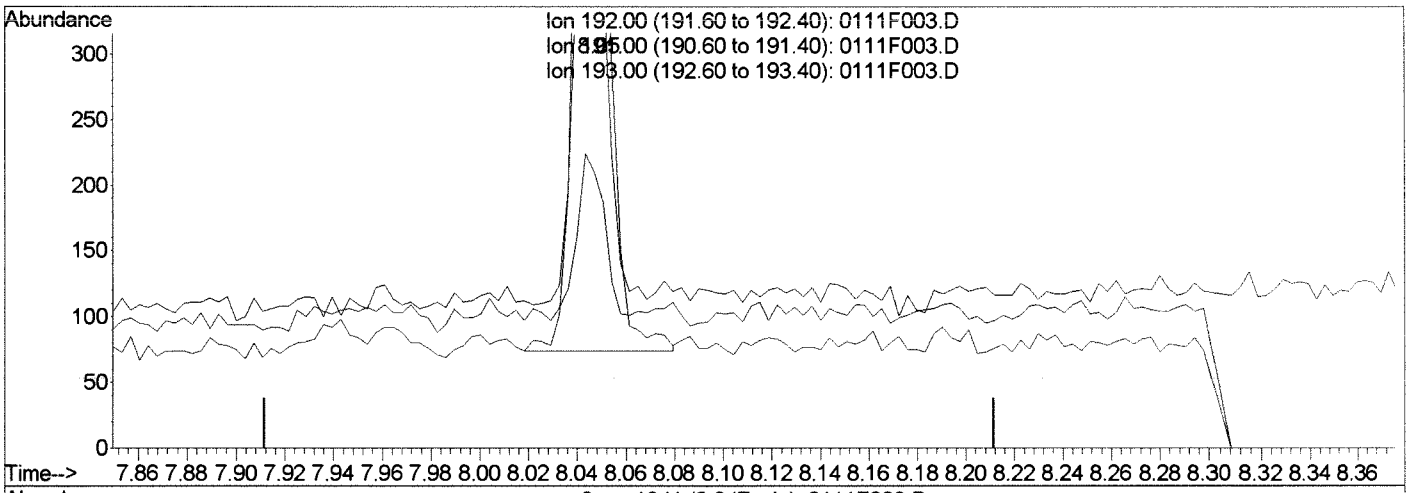
Manual Integration:
After
IC-Overintegrated
01/12/16

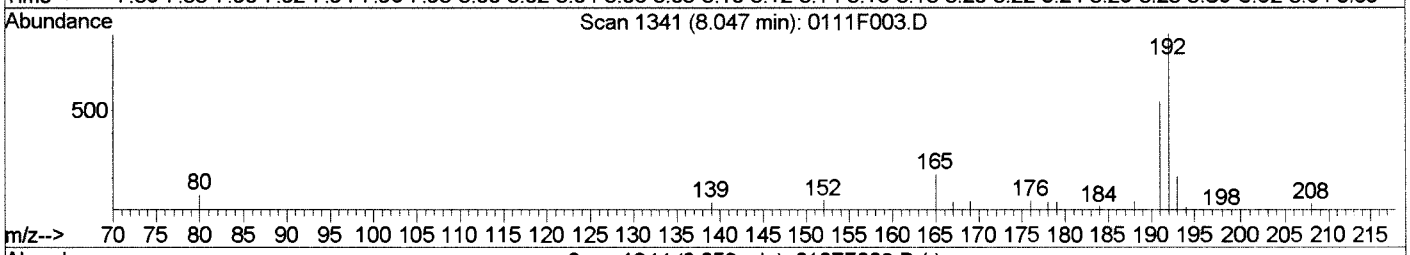
0111F003.D 011116SIMPAH.M Tue Jan 12 06:01:43 2016

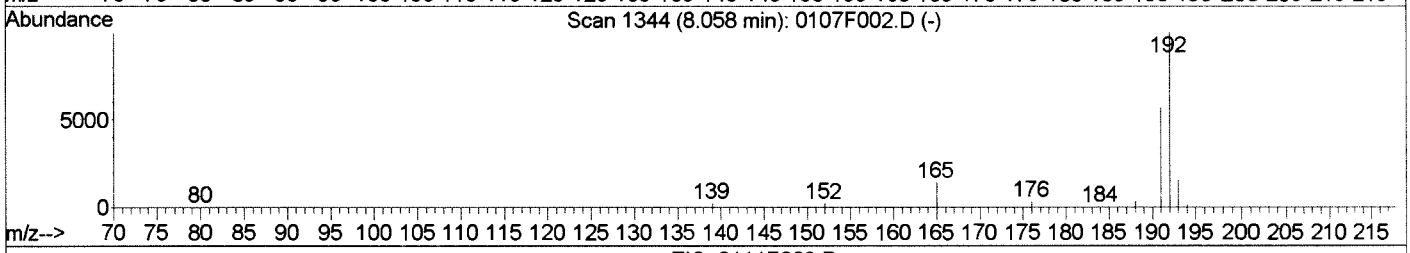
Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F003.D Vial: 3
Acq On : 11 Jan 2016 8:56 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM51-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:01 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Multiple Level Calibration







TIC: 0111F003.D

(19) 1-Methylphenanthrene (T)

8.05min 2.13ng/ml

response 619

Ion	Exp%	Act%
192.00	100	100
191.00	56.60	55.83
193.00	15.40	14.81
0.00	0.00	0.00

Manual Integration:

Before

01/12/16

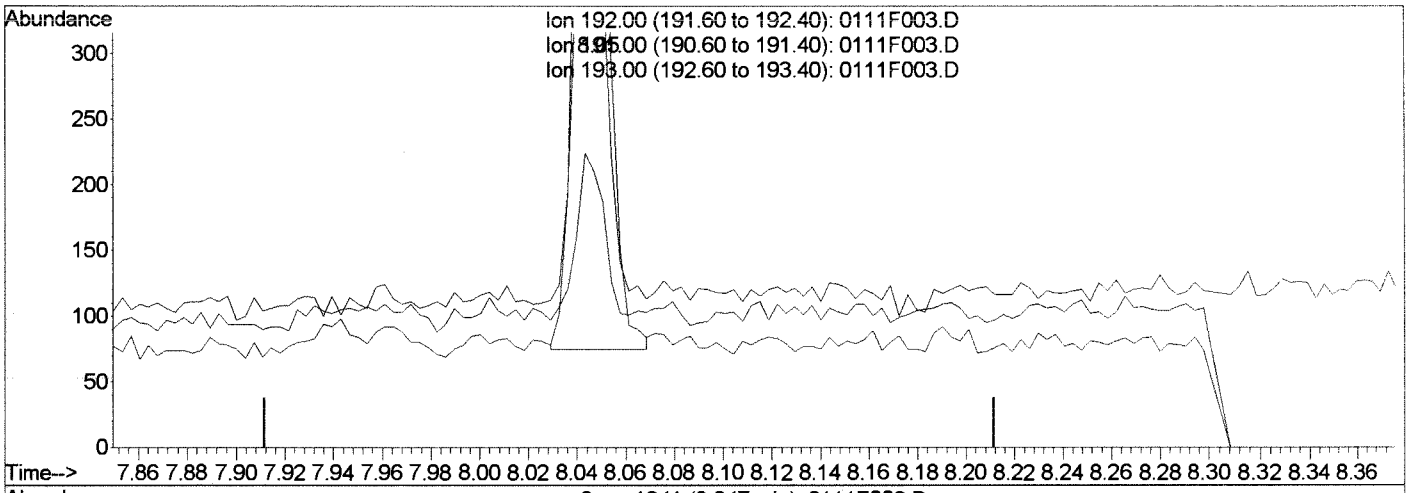
LB

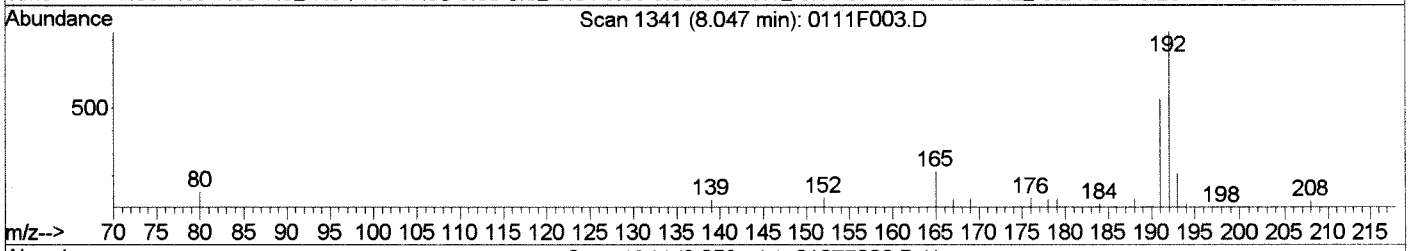
0111F003.D 011116SIMPAH.M Tue Jan 12 06:01:48 2016

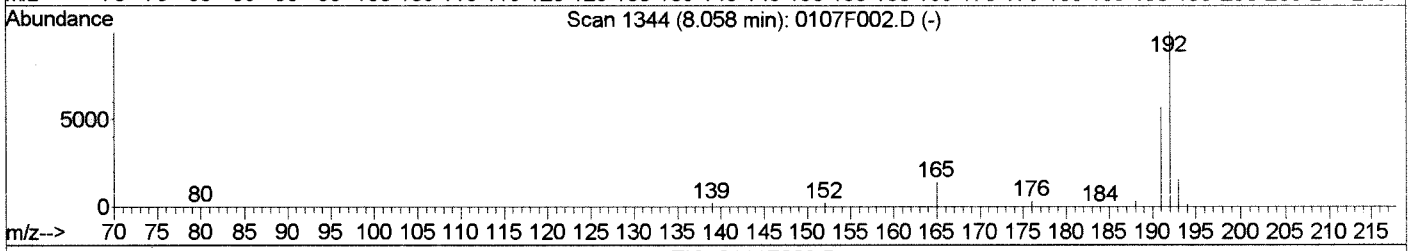
Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F003.D Vial: 3
Acq On : 11 Jan 2016 8:56 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM51-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:01 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Multiple Level Calibration







TIC: 0111F003.D

(19) 1-Methylphenanthrene (T)

8.05min 2.09ng/ml m

response 607

Ion	Exp%	Act%
192.00	100	100
191.00	56.60	64.28
193.00	15.40	25.09
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

01/12/16

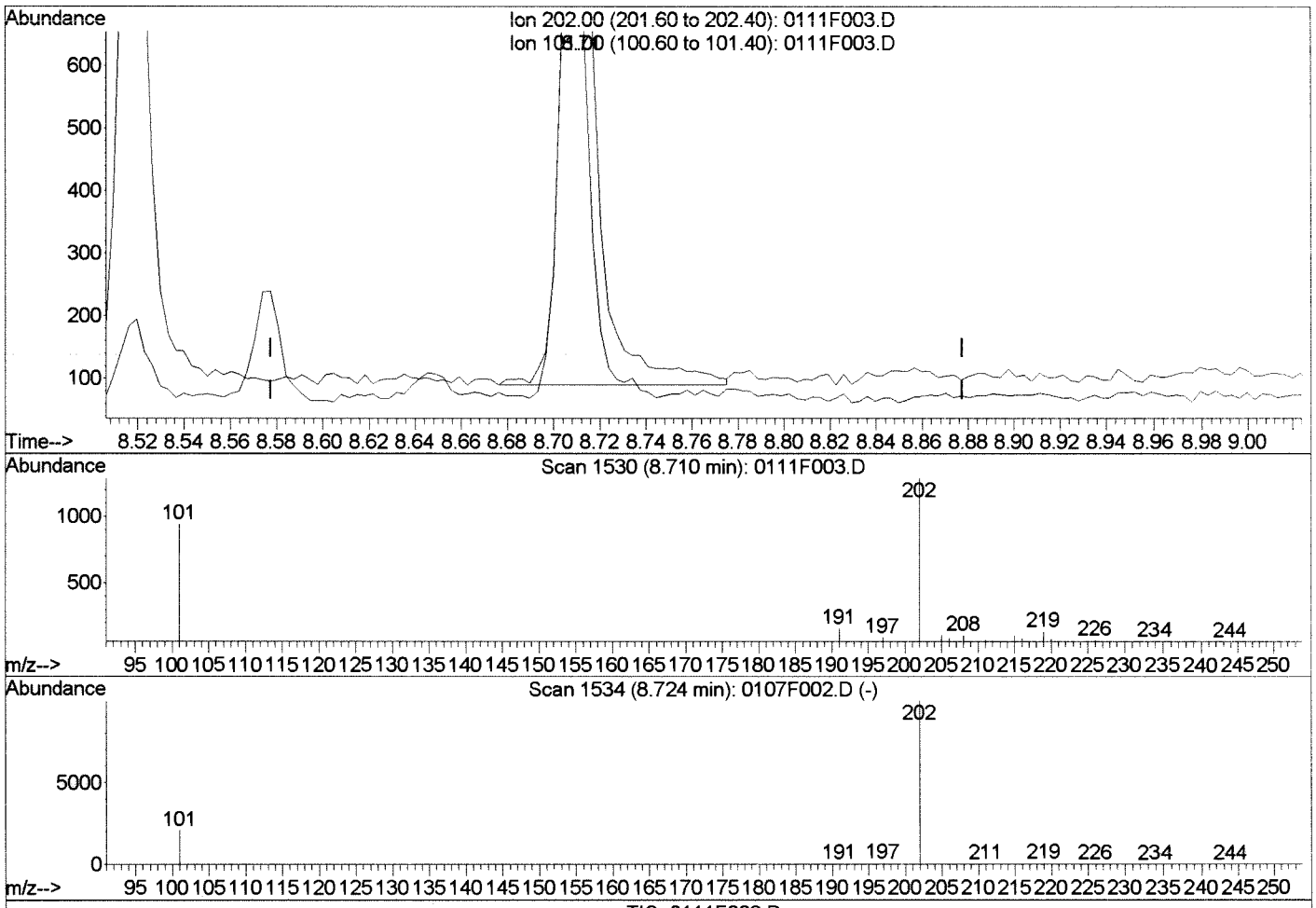
LB

0111F003.D 011116SIMPAH.M Tue Jan 12 06:01:54 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F003.D Vial: 3
Acq On : 11 Jan 2016 8:56 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM51-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:01 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Multiple Level Calibration



TIC: 0111F003.D

(23) Pyrene (T)

8.71min 2.55ng/ml

response 1109

Ion	Exp%	Act%
202.00	100	100
101.00	11.30	71.91#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

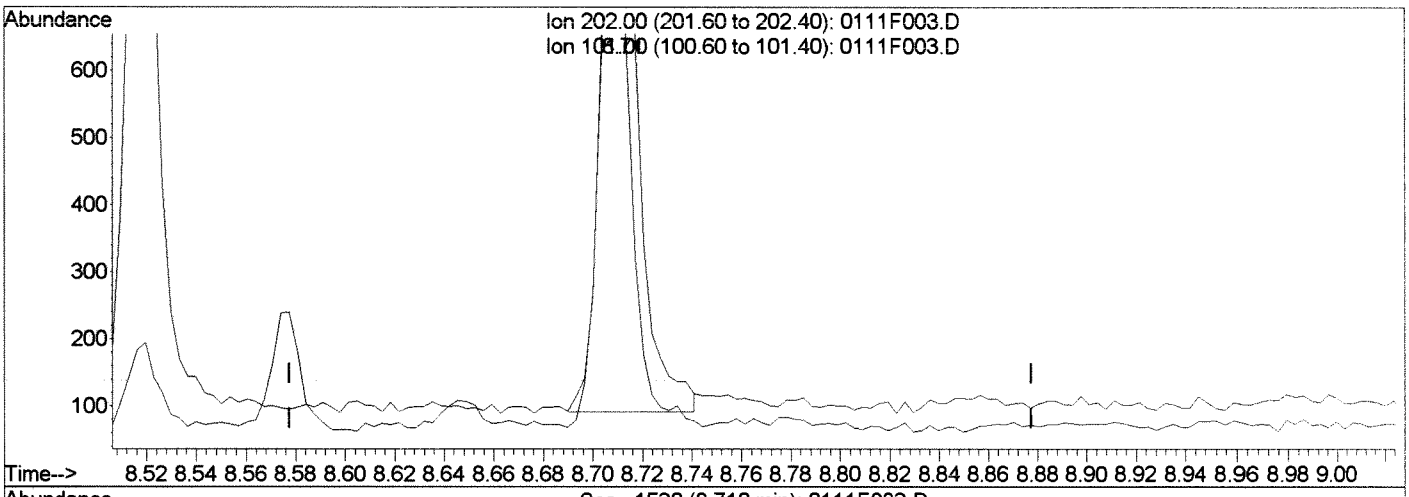
01/12/16

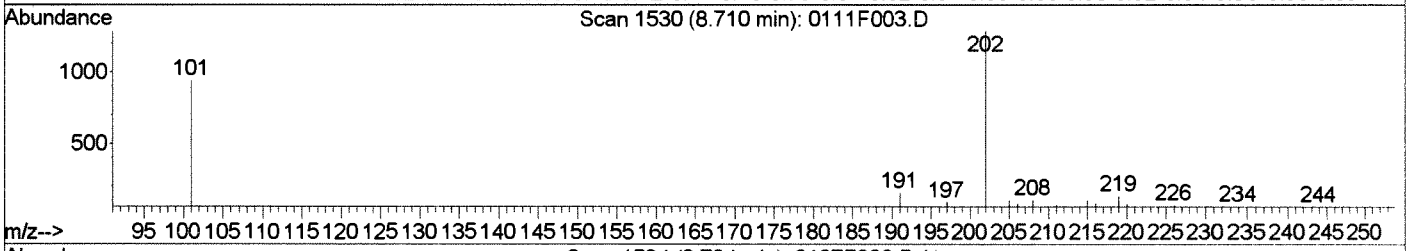
0111F003.D 011116SIMPAH.M Tue Jan 12 06:01:59 2016

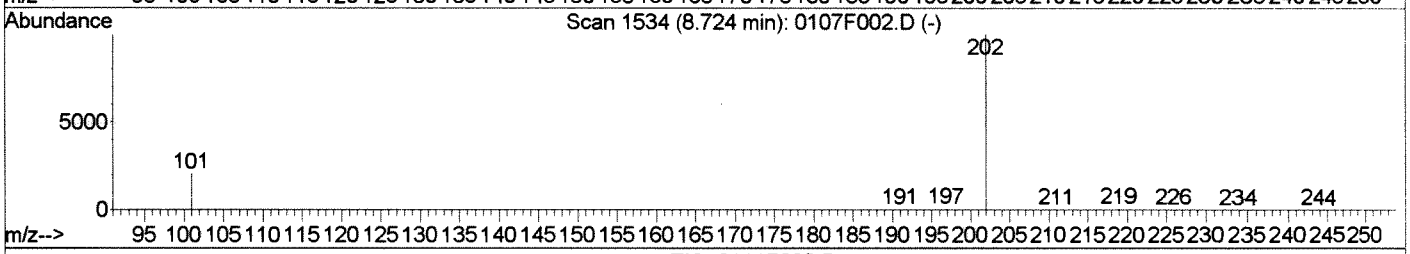
Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F003.D Vial: 3
Acq On : 11 Jan 2016 8:56 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM51-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:02 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Multiple Level Calibration







TIC: 0111F003.D

(23) Pyrene (T)
8.71min 2.43ng/ml m
response 1055

Ion	Exp%	Act%
202.00	100	100
101.00	11.30	72.92#
0.00	0.00	0.00
0.00	0.00	0.00

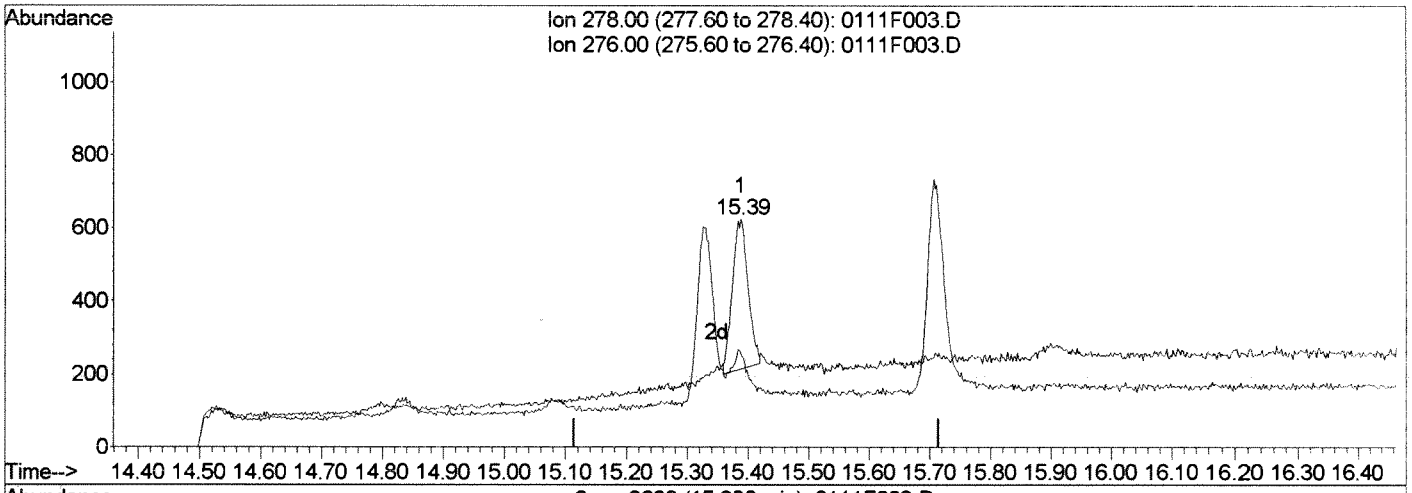
Manual Integration:
After
IC-Overintegrated
01/12/16

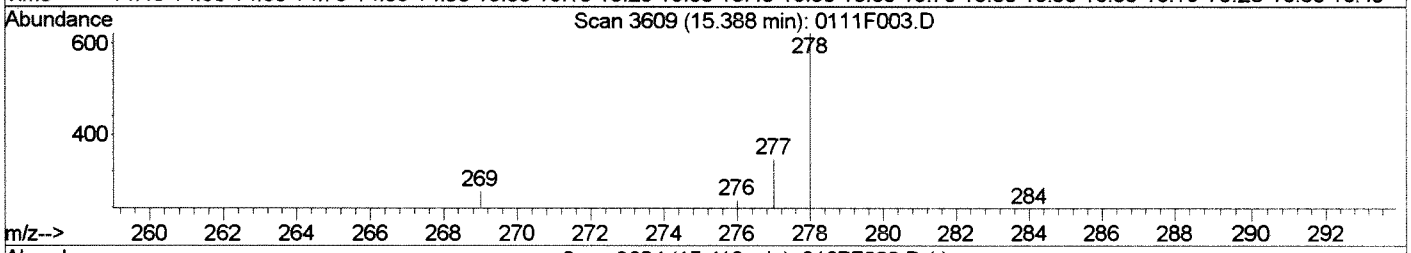
0111F003.D 011116SIMPAH.M Tue Jan 12 06:02:06 2016

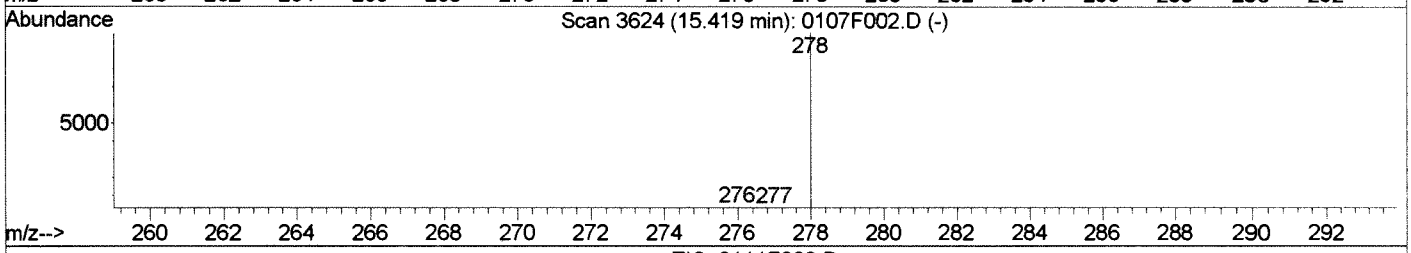
Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F003.D Vial: 3
Acq On : 11 Jan 2016 8:56 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM51-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:02 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Multiple Level Calibration







TIC: 0111F003.D

(34) Dibenz(a,h)anthracene (T)

15.39min 2.08ng/ml

response 727

Ion	Exp%	Act%
278.00	100	100
276.00	29.70	24.11
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

a

01/12/16

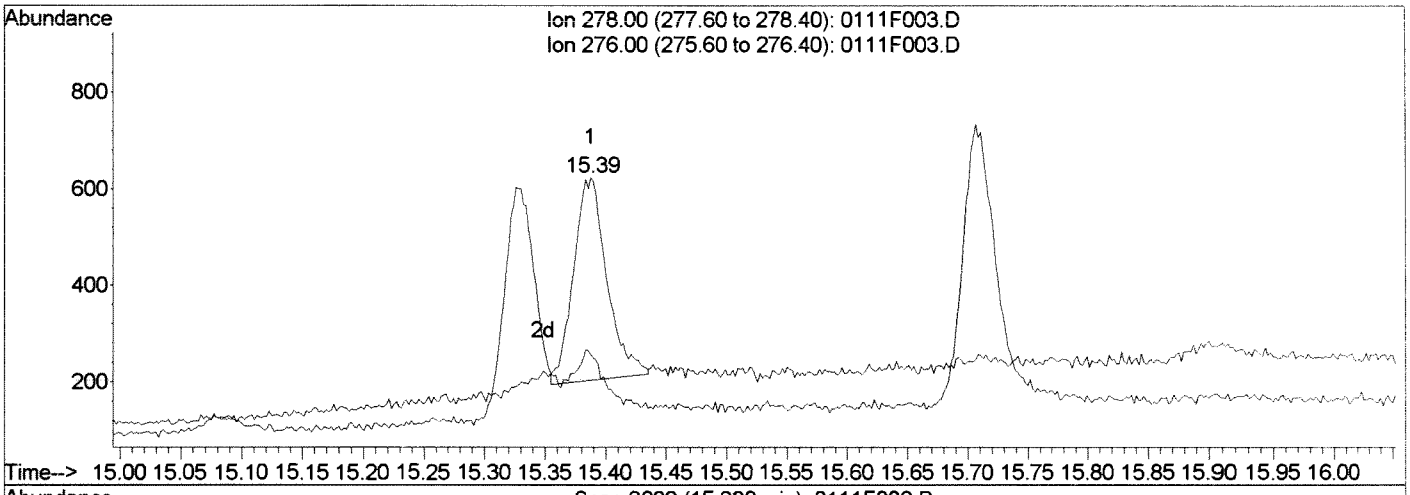
LB

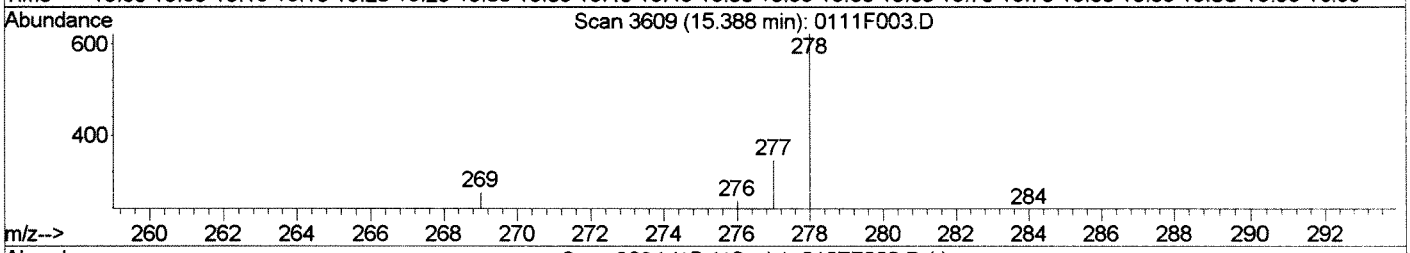
0111F003.D 011116SIMPAH.M Tue Jan 12 06:02:18 2016

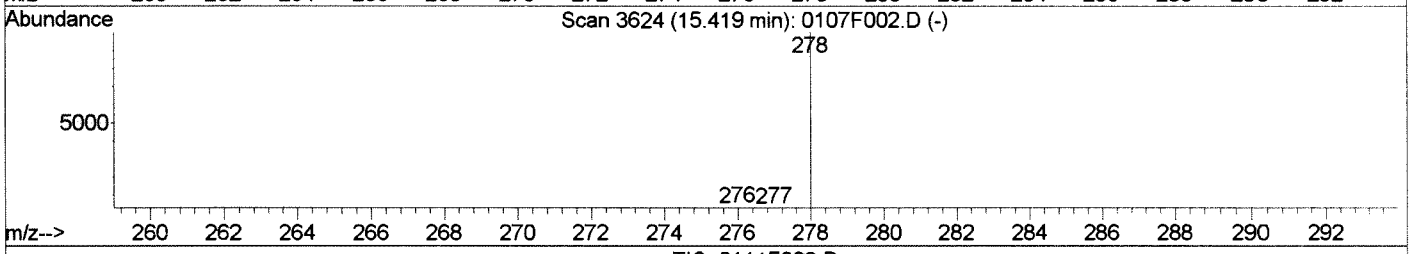
Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F003.D Vial: 3
Acq On : 11 Jan 2016 8:56 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM51-6C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:02 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Multiple Level Calibration







TIC: 0111F003.D

(34) Dibenz(a,h)anthracene (T)

15.39min 2.29ng/ml m

response 800

Ion	Exp%	Act%
278.00	100	100
276.00	29.70	41.09
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

BLC

01/12/16

LB

0111F003.D 011116SIMPAH.M Tue Jan 12 06:02:26 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F004.D Vial: 4
Acq On : 11 Jan 2016 9:23 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM51-6D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 05:56:56 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

JAN 1 2 2016

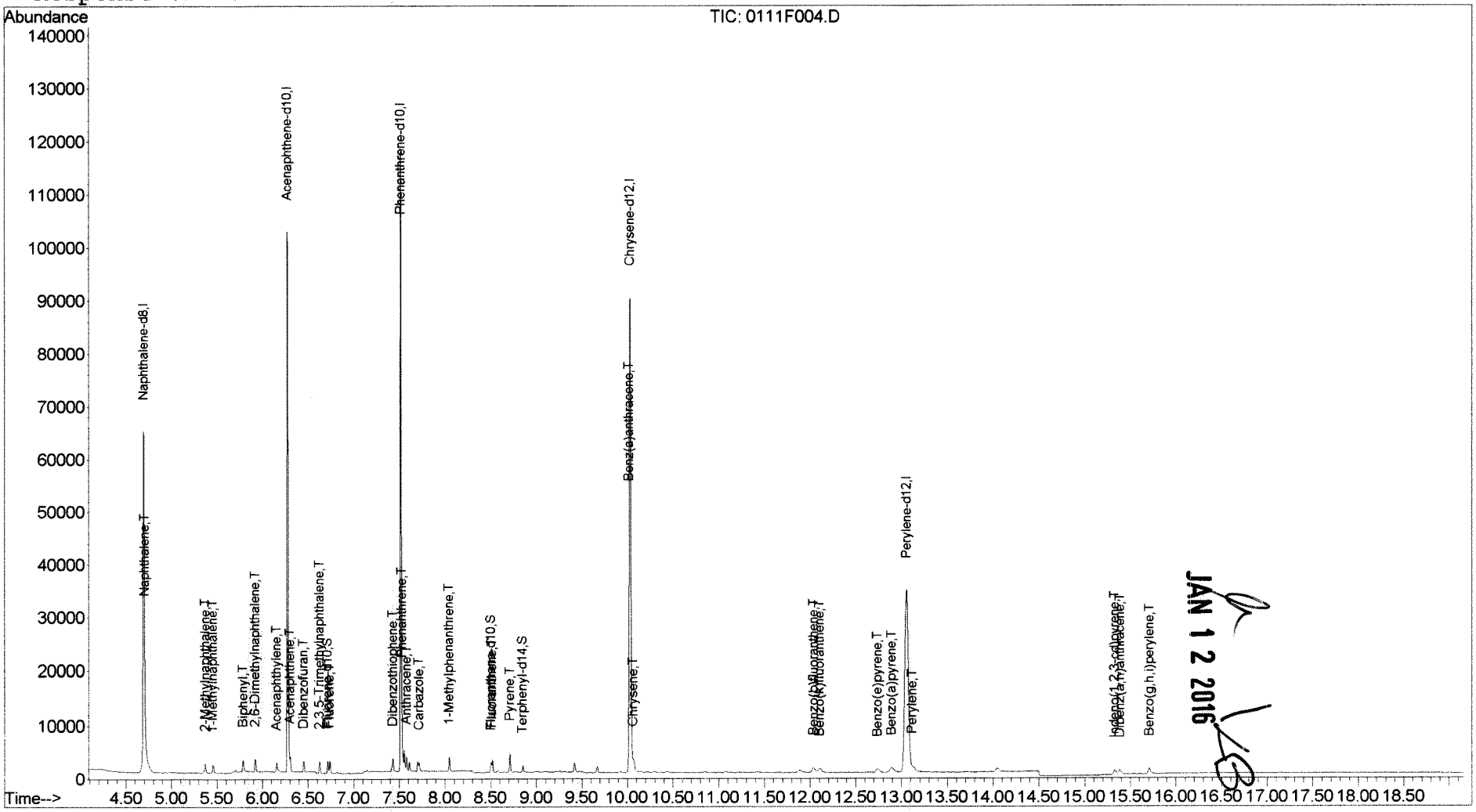
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.69	136	73993	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.28	164	37896	200.00	ng/ml	-0.01
14) Phenanthrene-d10	7.52	188	69156	200.00	ng/ml	-0.01
22) Chrysene-d12	10.03	240	76581	200.00	ng/ml	-0.02
27) Perylene-d12	13.05	264	71285	200.00	ng/ml	-0.05
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	944	4.57	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	0.46%		
21) Fluoranthene-d10	8.50	212	1245	3.55	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	0.35%		
24) Terphenyl-d14	8.85	244	1047	3.81	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	0.38%		
Target Compounds						Qvalue
2) Naphthalene	4.71	128	1284	3.40	ng/ml	99
3) 2-Methylnaphthalene	5.37	142	985	3.87	ng/ml	99
4) 1-Methylnaphthalene	5.46	142	844	3.76	ng/ml	94
5) Biphenyl	5.79	154	1289	4.16	ng/ml	99
6) 2,6-Dimethylnaphthalene	5.92	156	815	3.78	ng/ml	95
8) Acenaphthylene	6.15	152	1466	4.05	ng/ml	99
9) Acenaphthene	6.30	154	824	3.89	ng/ml	96
10) Dibenzofuran	6.45	168	1337	3.87	ng/ml	91
11) 2,3,5-Trimethylnaphthalene	6.63	170	716	3.82	ng/ml	100
13) Fluorene	6.74	166	1012	3.92	ng/ml	98
15) Dibenzothiophene	7.43	184	1477	3.73	ng/ml	95
16) Phenanthrene	7.53	178	1612	4.19	ng/ml	100
17) Anthracene	7.58	178	1399	3.97	ng/ml	99
18) Carbazole	7.71	167	1184	3.56	ng/ml	99
19) 1-Methylphenanthrene	8.05	192	1089	3.82	ng/ml	99
20) Fluoranthene	8.52	202	1733	4.04	ng/ml	96
23) Pyrene	8.71	202	1869	4.45	ng/ml#	1
25) Benz(a)anthracene	10.01	228	1820	4.71	ng/ml	93
26) Chrysene	10.07	228	1518	4.14	ng/ml	95
28) Benzo(b)fluoranthene	12.04	252	1682	4.18	ng/ml	99
29) Benzo(k)fluoranthene	12.10	252	1584	3.89	ng/ml	96
30) Benzo(e)pyrene	12.74	252	1601	4.34	ng/ml	98
31) Benzo(a)pyrene	12.89	252	1921	5.78	ng/ml#	35
32) Perylene	13.12	252	1473	4.30	ng/ml	99
33) Indeno(1,2,3-cd)pyrene	15.33	276	1434	4.89	ng/ml	94
34) Dibenz(a,h)anthracene	15.39	278	1473m	4.39	ng/ml	
35) Benzo(g,h,i)perylene	15.71	276	1709	4.57	ng/ml	97

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F004.D Vial: 4
Acq On : 11 Jan 2016 9:23 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM51-6D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:02 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration

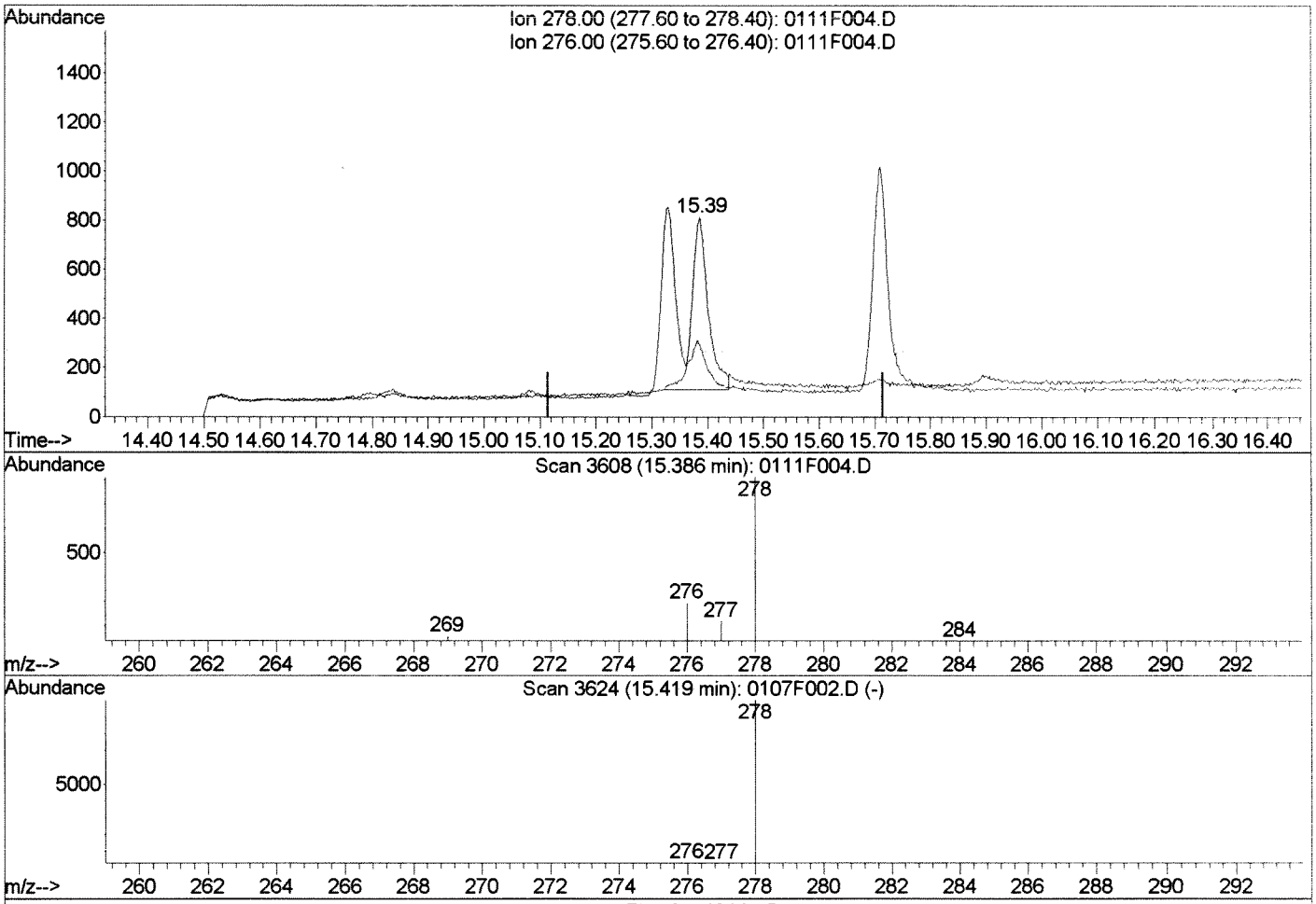


JAN 12 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F004.D Vial: 4
Acq On : 11 Jan 2016 9:23 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM51-6D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 5:57 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Multiple Level Calibration



TIC: 0111F004.D

(34) Dibenz(a,h)anthracene (T)

15.39min 4.26ng/ml

response 1431

Ion	Exp%	Act%
278.00	100	100
276.00	29.70	24.54
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

01/12/16

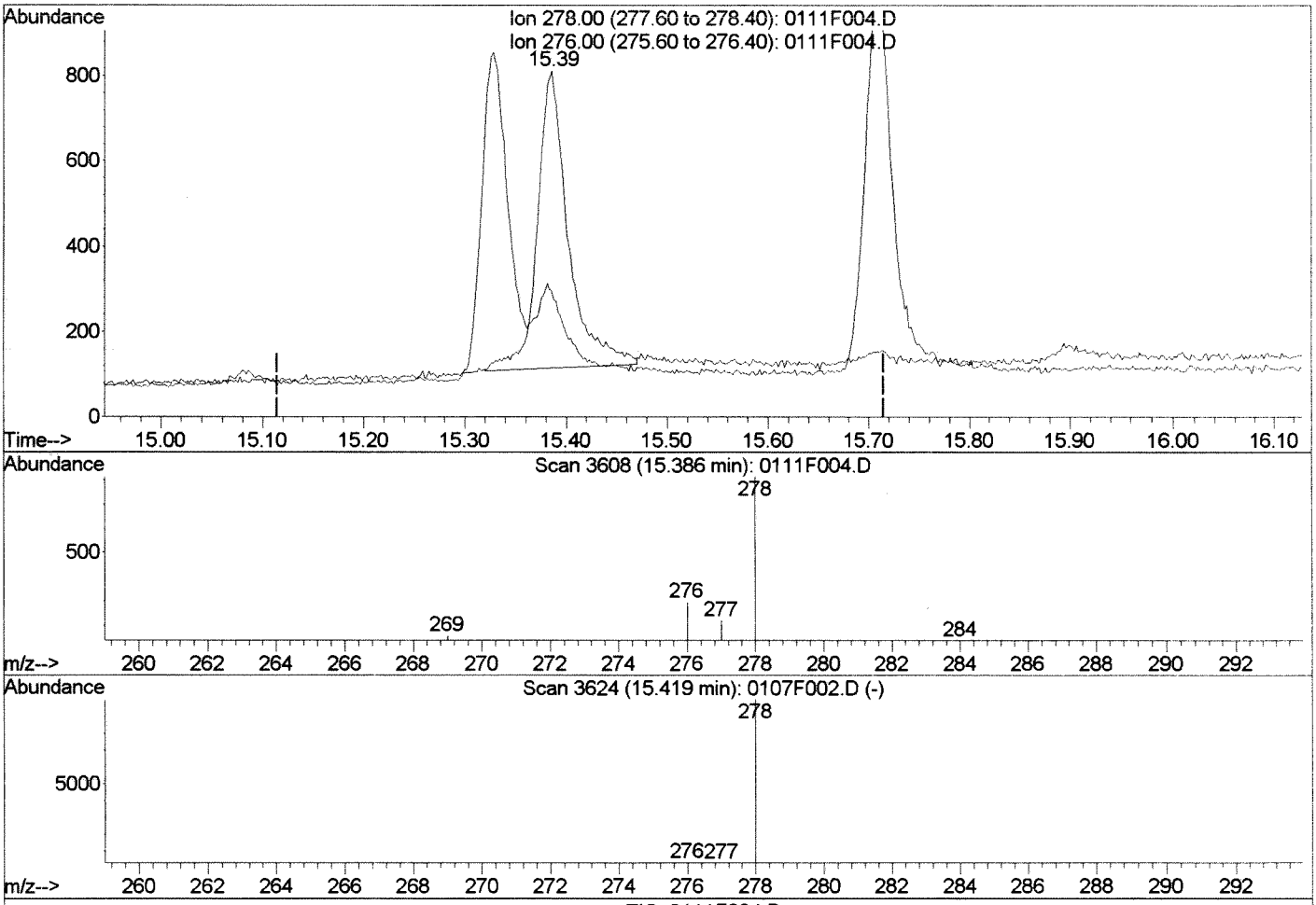
LB

0111F004.D 011116SIMPAH.M Tue Jan 12 06:02:49 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F004.D Vial: 4
Acq On : 11 Jan 2016 9:23 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM51-6D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:02 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Multiple Level Calibration



TIC: 0111F004.D

(34) Dibenz(a,h)anthracene (T)

15.39min 4.39ng/ml m

response 1473

Ion	Exp%	Act%
278.00	100	100
276.00	29.70	36.21
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

BLC

01/12/16

LB

0111F004.D 011116SIMPAH.M Tue Jan 12 06:02:58 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F005.D Vial: 5
Acq On : 11 Jan 2016 9:50 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008ug/mL | SVM51-6E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 05:56:56 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

KB
JAN 12 2016

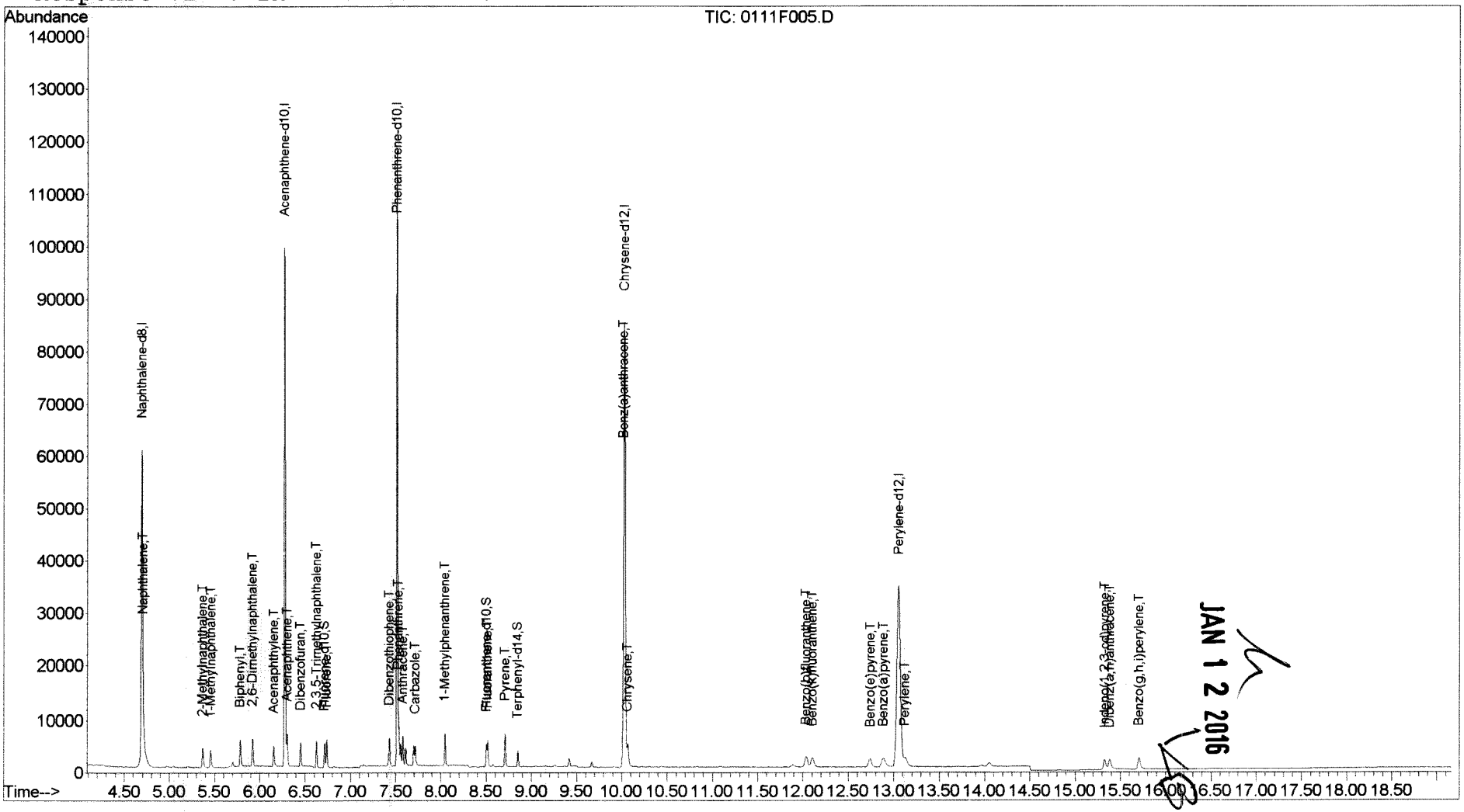
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.69	136	71832	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.28	164	36941	200.00	ng/ml	-0.01
14) Phenanthrene-d10	7.52	188	67721	200.00	ng/ml	-0.01
22) Chrysene-d12	10.03	240	74828	200.00	ng/ml	-0.03
27) Perylene-d12	13.05	264	70182	200.00	ng/ml	-0.05
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	1801	8.95	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	0.90%		
21) Fluoranthene-d10	8.50	212	2755	8.02	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	0.80%		
24) Terphenyl-d14	8.85	244	2287	8.52	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	0.85%		
Target Compounds						Qvalue
2) Naphthalene	4.71	128	3193	8.70	ng/ml	98
3) 2-Methylnaphthalene	5.37	142	2133	8.62	ng/ml	96
4) 1-Methylnaphthalene	5.46	142	1869	8.58	ng/ml	95
5) Biphenyl	5.78	154	2559	8.51	ng/ml	99
6) 2,6-Dimethylnaphthalene	5.92	156	1758	8.39	ng/ml	100
8) Acenaphthylene	6.15	152	3061	8.66	ng/ml	99
9) Acenaphthene	6.30	154	1781	8.62	ng/ml	99
10) Dibenzofuran	6.45	168	2886	8.58	ng/ml	92
11) 2,3,5-Trimethylnaphthalene	6.63	170	1587	8.69	ng/ml	99
13) Fluorene	6.74	166	2217	8.82	ng/ml	95
15) Dibenzothiophene	7.43	184	3179	8.19	ng/ml	98
16) Phenanthrene	7.53	178	3340	8.87	ng/ml	100
17) Anthracene	7.58	178	3052	8.85	ng/ml	98
18) Carbazole	7.71	167	2621	8.05	ng/ml	99
19) 1-Methylphenanthrene	8.04	192	2345	8.39	ng/ml	96
20) Fluoranthene	8.52	202	3699	8.81	ng/ml	96
23) Pyrene	8.71	202	3984	9.71	ng/ml	34
25) Benz(a)anthracene	10.01	228	3596	9.53	ng/ml	96
26) Chrysene	10.07	228	3201	8.94	ng/ml	98
28) Benzo(b)fluoranthene	12.04	252	3634	9.18	ng/ml	100
29) Benzo(k)fluoranthene	12.10	252	3650	9.10	ng/ml	99
30) Benzo(e)pyrene	12.74	252	3477	9.57	ng/ml	97
31) Benzo(a)pyrene	12.88	252	3790	11.57	ng/ml	77
32) Perylene	13.13	252	3134	9.30	ng/ml	95
33) Indeno(1,2,3-cd)pyrene	15.33	276	3094	10.72	ng/ml	100
34) Dibenz(a,h)anthracene	15.38	278	3396m	10.28	ng/ml	
35) Benzo(g,h,i)perylene	15.70	276	3852	10.47	ng/ml	99

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F005.D Vial: 5
Acq On : 11 Jan 2016 9:50 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008ug/mL | SVM51-6E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:03 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration

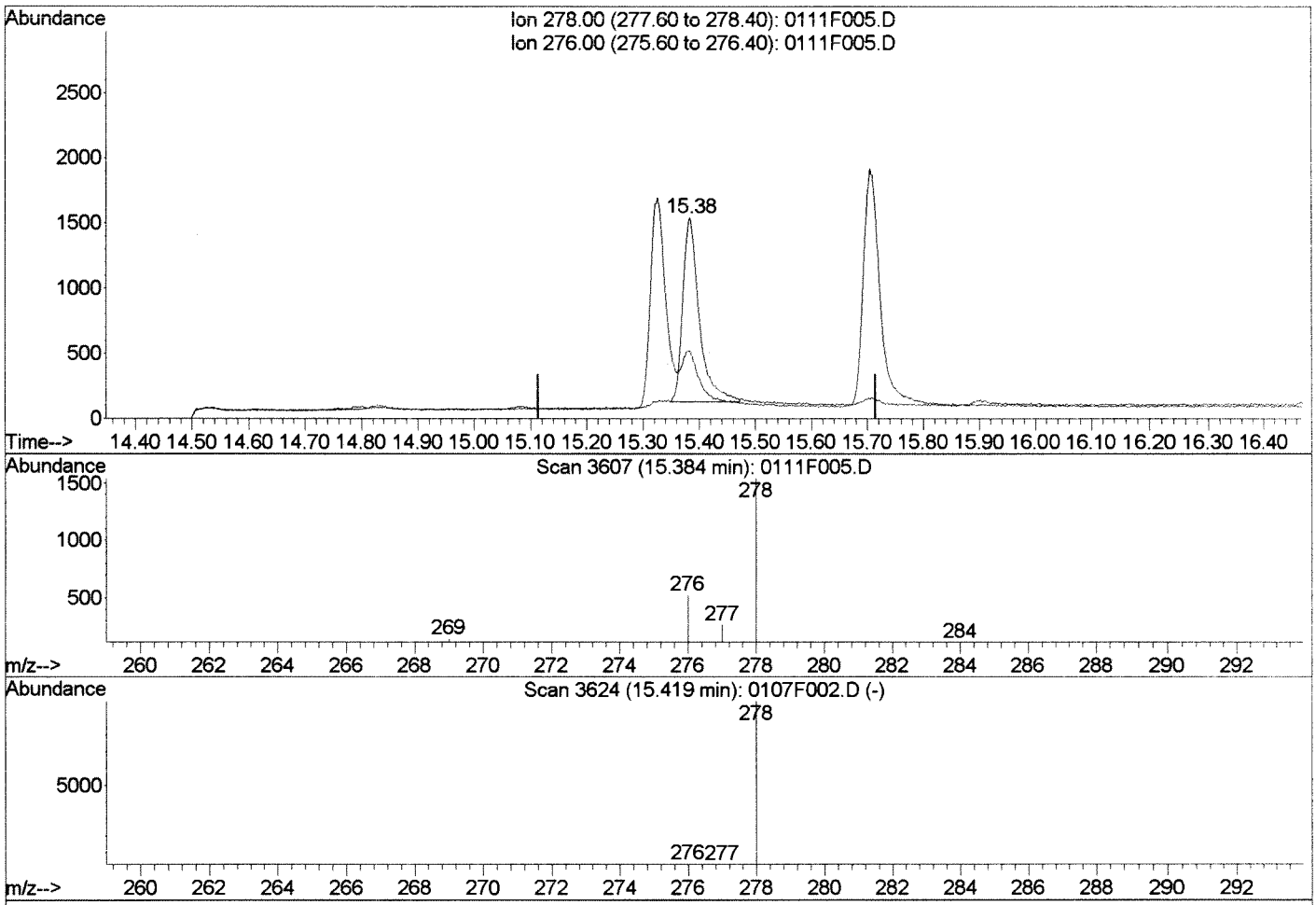


JAN 12 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F005.D Vial: 5
Acq On : 11 Jan 2016 9:50 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008ug/mL | SVM51-6E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 5:57 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Multiple Level Calibration



TIC: 0111F005.D

(34) Dibenz(a,h)anthracene (T)

15.38min 8.71ng/ml

response 2879

Ion	Exp%	Act%
278.00	100	100
276.00	29.70	28.66
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

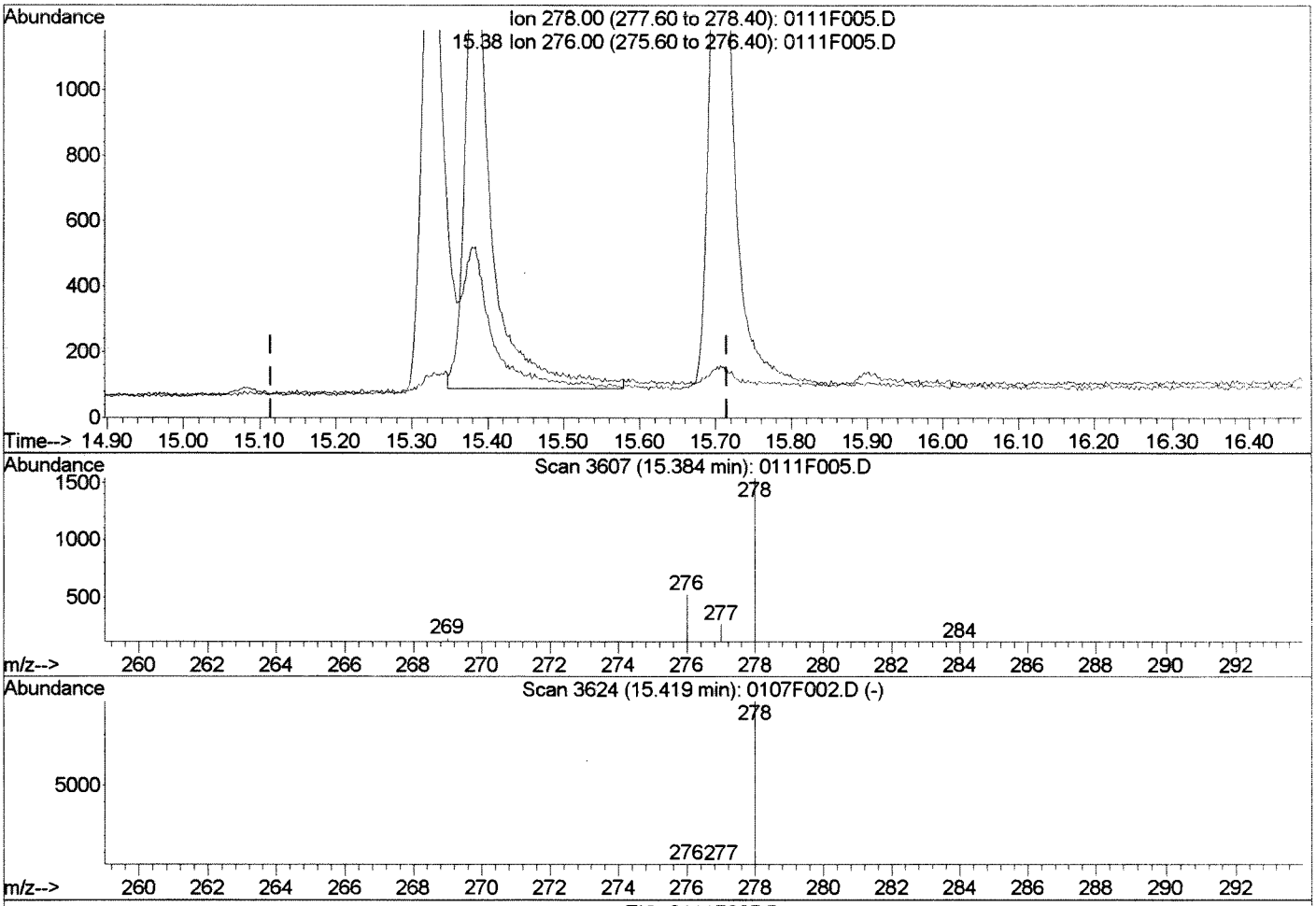
01/12/16

0111F005.D 011116SIMPAH.M Tue Jan 12 06:03:18 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F005.D Vial: 5
Acq On : 11 Jan 2016 9:50 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008ug/mL | SVM51-6E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:03 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Multiple Level Calibration



(34) Dibenz(a,h)anthracene (T)

15.38min 10.28ng/ml m

response 3396

Ion	Exp%	Act%
278.00	100	100
276.00	29.70	33.81
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration

After

BLC

01/12/16

0111F005.D 011116SIMPAH.M Tue Jan 12 06:03:29 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F006.D Vial: 6
Acq On : 11 Jan 2016 10:17 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM51-6F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 05:56:57 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

VB
JAN 12 2016

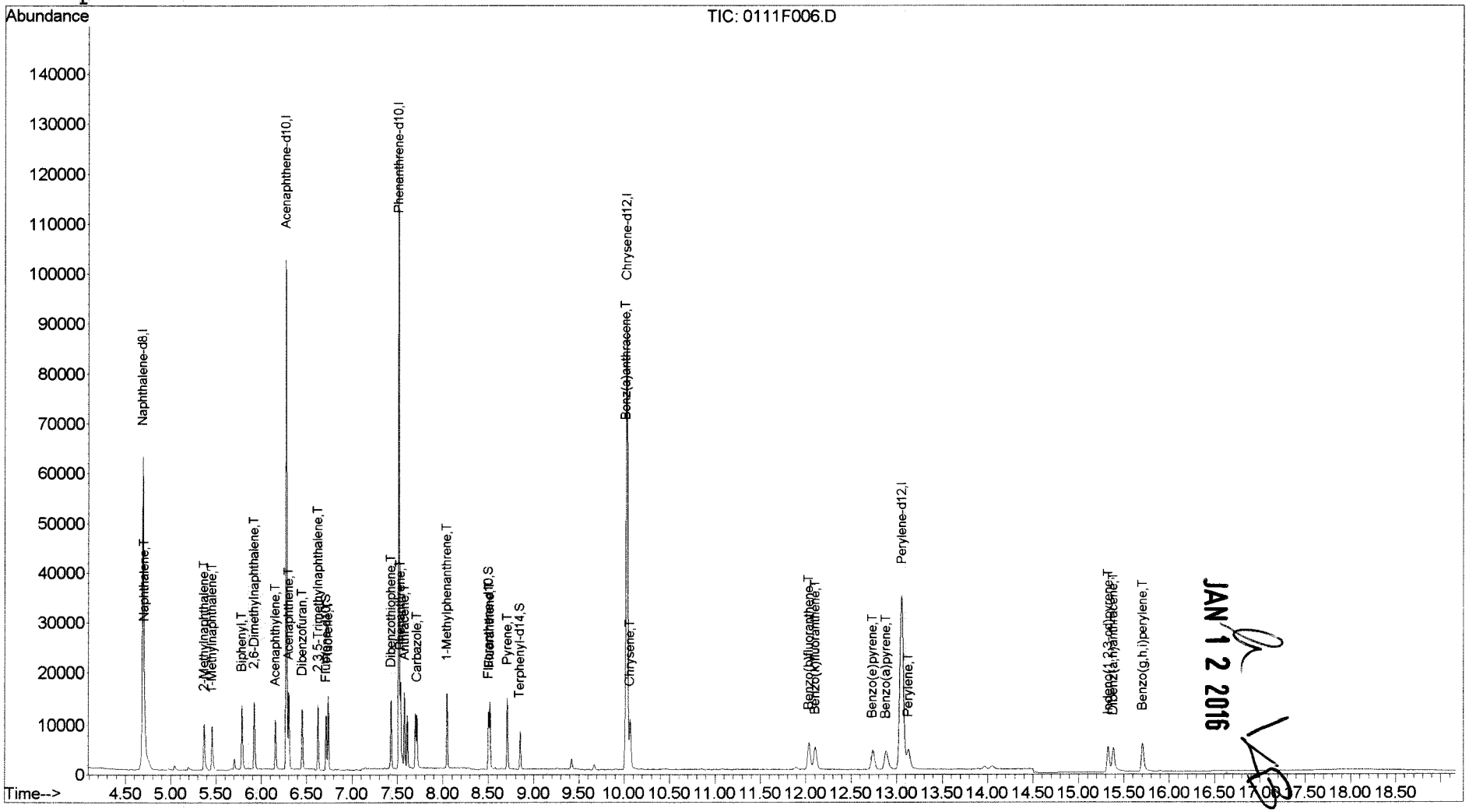
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.69	136	73705	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.28	164	37685	200.00	ng/ml	-0.01
14) Phenanthrene-d10	7.52	188	69744	200.00	ng/ml	-0.01
22) Chrysene-d12	10.03	240	78402	200.00	ng/ml	-0.03
27) Perylene-d12	13.05	264	72481	200.00	ng/ml	-0.05
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	4195	20.44	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	2.04%		
21) Fluoranthene-d10	8.50	212	7026	19.87	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	1.99%		
24) Terphenyl-d14	8.85	244	5808	20.65	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	2.06%		
Target Compounds						Qvalue
2) Naphthalene	4.71	128	7782	20.67	ng/ml	99
3) 2-Methylnaphthalene	5.37	142	5258	20.72	ng/ml	99
4) 1-Methylnaphthalene	5.46	142	4651	20.80	ng/ml	100
5) Biphenyl	5.78	154	6411	20.78	ng/ml	100
6) 2,6-Dimethylnaphthalene	5.92	156	4422	20.56	ng/ml	99
8) Acenaphthylene	6.15	152	7605	21.10	ng/ml	99
9) Acenaphthene	6.30	154	4461	21.16	ng/ml	100
10) Dibenzofuran	6.45	168	7214	21.02	ng/ml	92
11) 2,3,5-Trimethylnaphthalene	6.63	170	3907	20.98	ng/ml	99
13) Fluorene	6.74	166	5611	21.87	ng/ml	99
15) Dibenzothiophene	7.43	184	8048	20.13	ng/ml	97
16) Phenanthrene	7.53	178	8177	21.09	ng/ml	100
17) Anthracene	7.58	178	7525	21.18	ng/ml	99
18) Carbazole	7.71	167	6789	20.25	ng/ml	99
19) 1-Methylphenanthrene	8.05	192	5887	20.46	ng/ml	99
20) Fluoranthene	8.52	202	9205	21.30	ng/ml	97
23) Pyrene	8.71	202	9898	23.03	ng/ml	79
25) Benz(a)anthracene	10.01	228	8707	22.03	ng/ml	97
26) Chrysene	10.07	228	8042	21.43	ng/ml	99
28) Benzo(b)fluoranthene	12.04	252	9064	22.17	ng/ml	99
29) Benzo(k)fluoranthene	12.10	252	9029	21.79	ng/ml	99
30) Benzo(e)pyrene	12.74	252	8596	22.90	ng/ml	98
31) Benzo(a)pyrene	12.88	252	8591	25.40	ng/ml	91
32) Perylene	13.13	252	7839	22.52	ng/ml	100
33) Indeno(1,2,3-cd)pyrene	15.32	276	7765	26.05	ng/ml	100
34) Dibenz(a,h)anthracene	15.38	278	8322m	24.39	ng/ml	
35) Benzo(g,h,i)perylene	15.71	276	9419	24.78	ng/ml	99

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F006.D Vial: 6
Acq On : 11 Jan 2016 10:17 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM51-6F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:03 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration

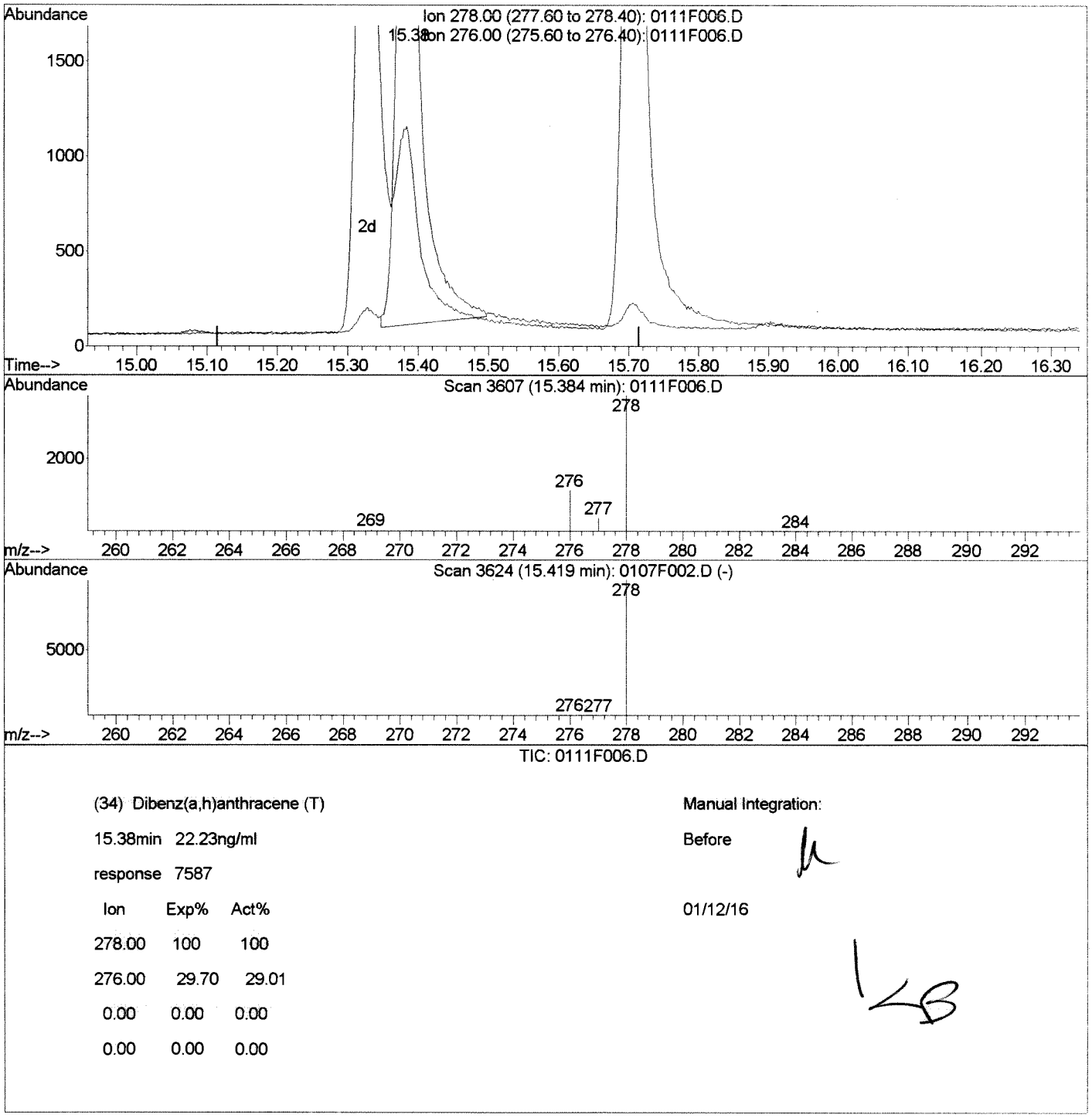


JAN 12 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F006.D Vial: 6
Acq On : 11 Jan 2016 10:17 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM51-6F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 5:57 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Multiple Level Calibration



(34) Dibenz(a,h)anthracene (T)

15.38min 22.23ng/ml

response 7587

Ion	Exp%	Act%
278.00	100	100
276.00	29.70	29.01
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

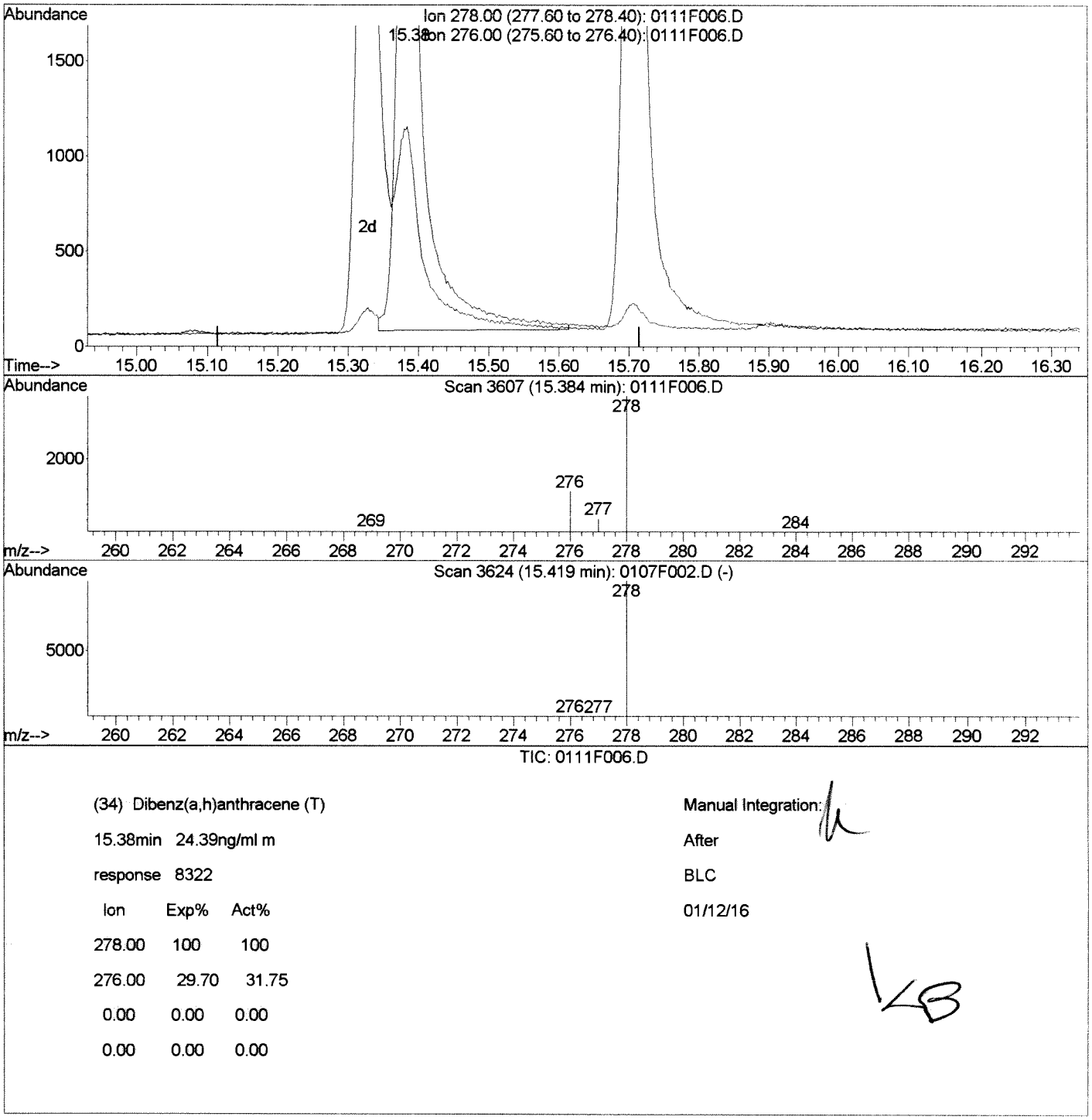
01/12/16

0111F006.D 011116SIMPAH.M Tue Jan 12 06:03:52 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F006.D Vial: 6
Acq On : 11 Jan 2016 10:17 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.02ug/mL | SVM51-6F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:03 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Multiple Level Calibration



(34) Dibenz(a,h)anthracene (T)

15.38min 24.39ng/ml m

response 8322

Ion	Exp%	Act%
278.00	100	100
276.00	29.70	31.75
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

BLC

01/12/16

LB

0111F006.D 011116SIMPAH.M Tue Jan 12 06:03:57 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F007.D Vial: 7
Acq On : 11 Jan 2016 10:44 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.1ug/mL | SVM51-6G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 05:56:57 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

JAN 12 2016 KB

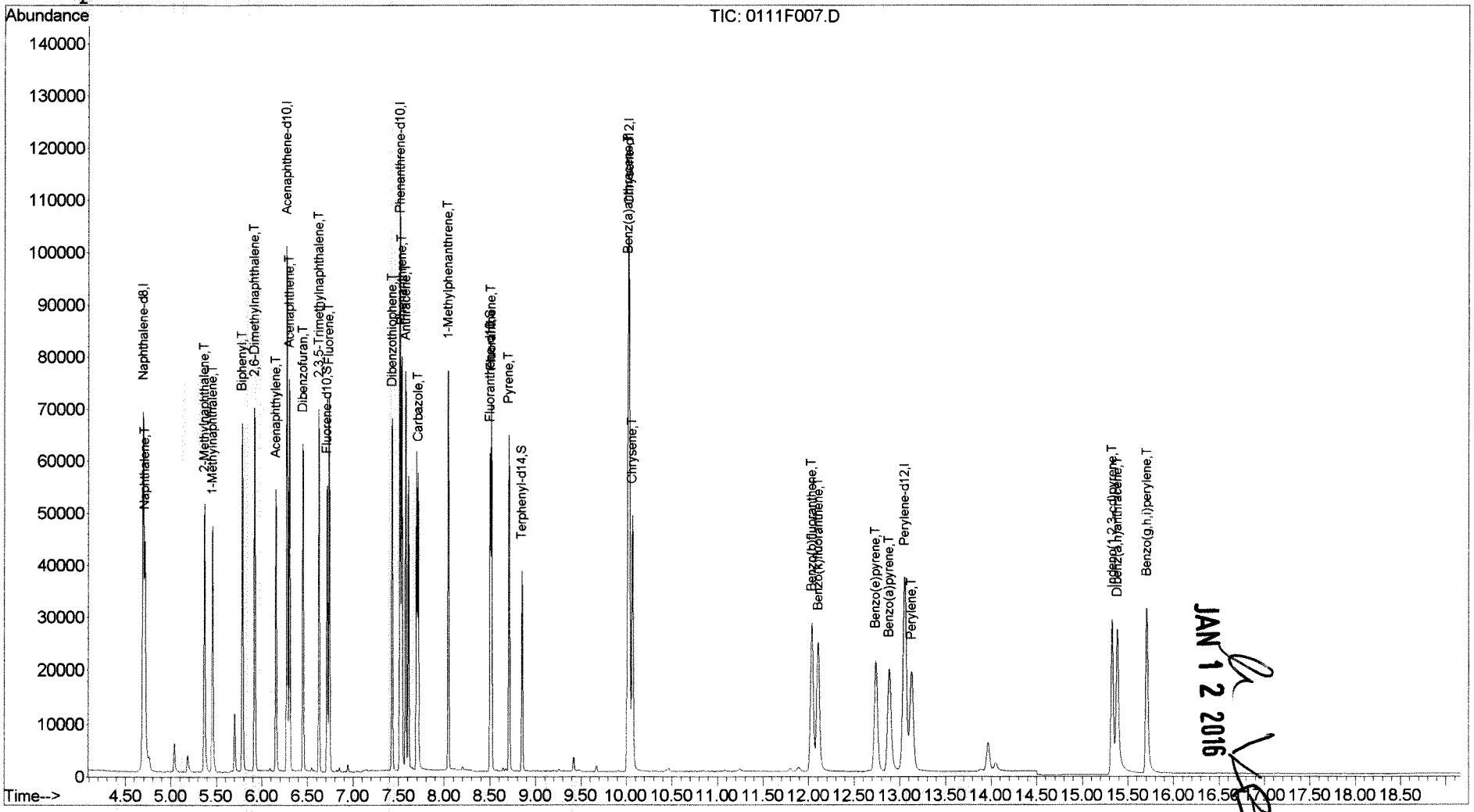
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.69	136	74726	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.28	164	37313	200.00	ng/ml	-0.01
14) Phenanthrene-d10	7.52	188	68072	200.00	ng/ml	-0.01
22) Chrysene-d12	10.03	240	75778	200.00	ng/ml	-0.03
27) Perylene-d12	13.05	264	74874	200.00	ng/ml	-0.05
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	20107	98.95	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 9.89%			
21) Fluoranthene-d10	8.50	212	35081	101.63	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 10.16%			
24) Terphenyl-d14	8.85	244	28010	103.04	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 10.30%			
Target Compounds						Qvalue
2) Naphthalene	4.71	128	39768	104.19	ng/ml	99
3) 2-Methylnaphthalene	5.37	142	26440	102.75	ng/ml	99
4) 1-Methylnaphthalene	5.46	142	23385	103.17	ng/ml	100
5) Biphenyl	5.78	154	31958	102.17	ng/ml	100
6) 2,6-Dimethylnaphthalene	5.92	156	21952	100.69	ng/ml	99
8) Acenaphthylene	6.15	152	38942	109.14	ng/ml	100
9) Acenaphthene	6.30	154	22093	105.82	ng/ml	100
10) Dibenzofuran	6.45	168	35867	105.54	ng/ml	89
11) 2,3,5-Trimethylnaphthalene	6.63	170	19447	105.45	ng/ml	98
13) Fluorene	6.74	166	27496	108.25	ng/ml	100
15) Dibenzothiophene	7.43	184	40422	103.57	ng/ml	98
16) Phenanthrene	7.53	178	40017	105.76	ng/ml	99
17) Anthracene	7.58	178	37962	109.49	ng/ml	100
18) Carbazole	7.71	167	35240	107.68	ng/ml	100
19) 1-Methylphenanthrene	8.04	192	29292	104.32	ng/ml	99
20) Fluoranthene	8.52	202	45522	107.92	ng/ml	97
23) Pyrene	8.71	202	47486	114.33	ng/ml	97
25) Benz(a)anthracene	10.01	228	42280	110.66	ng/ml	100
26) Chrysene	10.07	228	39410	108.65	ng/ml	100
28) Benzo(b)fluoranthene	12.04	252	46426	109.94	ng/ml	98
29) Benzo(k)fluoranthene	12.10	252	46189	107.91	ng/ml	98
30) Benzo(e)pyrene	12.74	252	42730	110.21	ng/ml	99
31) Benzo(a)pyrene	12.88	252	43015	123.12	ng/ml	96
32) Perylene	13.13	252	41401	115.15	ng/ml	99
33) Indeno(1,2,3-cd)pyrene	15.33	276	41507	134.80	ng/ml	99
34) Dibenz(a,h)anthracene	15.38	278	44116m	125.16	ng/ml	
35) Benzo(g,h,i)perylene	15.70	276	48058	122.42	ng/ml	100

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F007.D Vial: 7
Acq On : 11 Jan 2016 10:44 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.1ug/mL | SVM51-6G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:04 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration

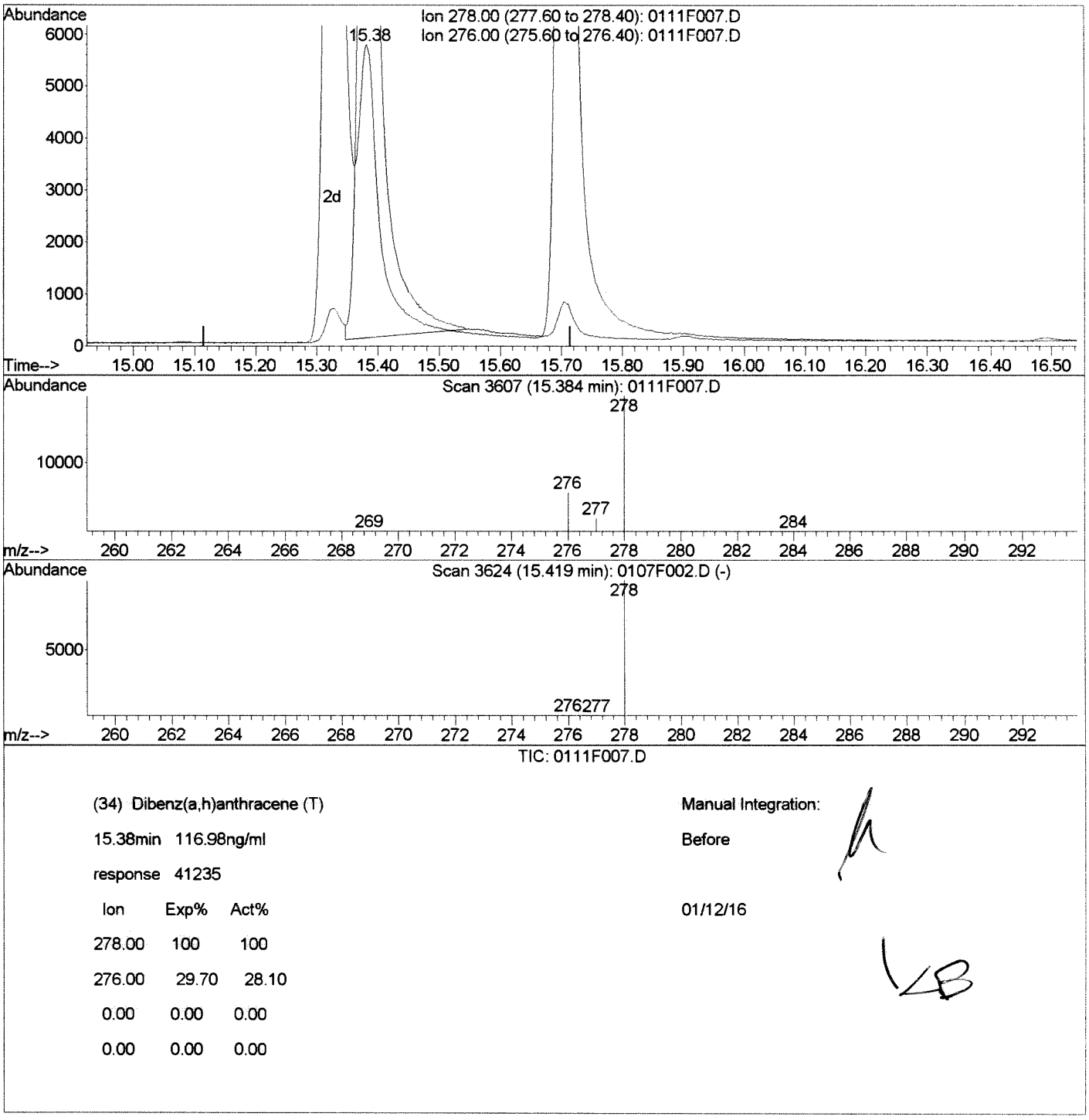


JAN 12 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F007.D Vial: 7
Acq On : 11 Jan 2016 10:44 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.1ug/mL | SVM51-6G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 5:57 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Multiple Level Calibration



TIC: 0111F007.D

(34) Dibenz(a,h)anthracene (T)

15.38min 116.98ng/ml

response 41235

Ion	Exp%	Act%
278.00	100	100
276.00	29.70	28.10
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

01/12/16

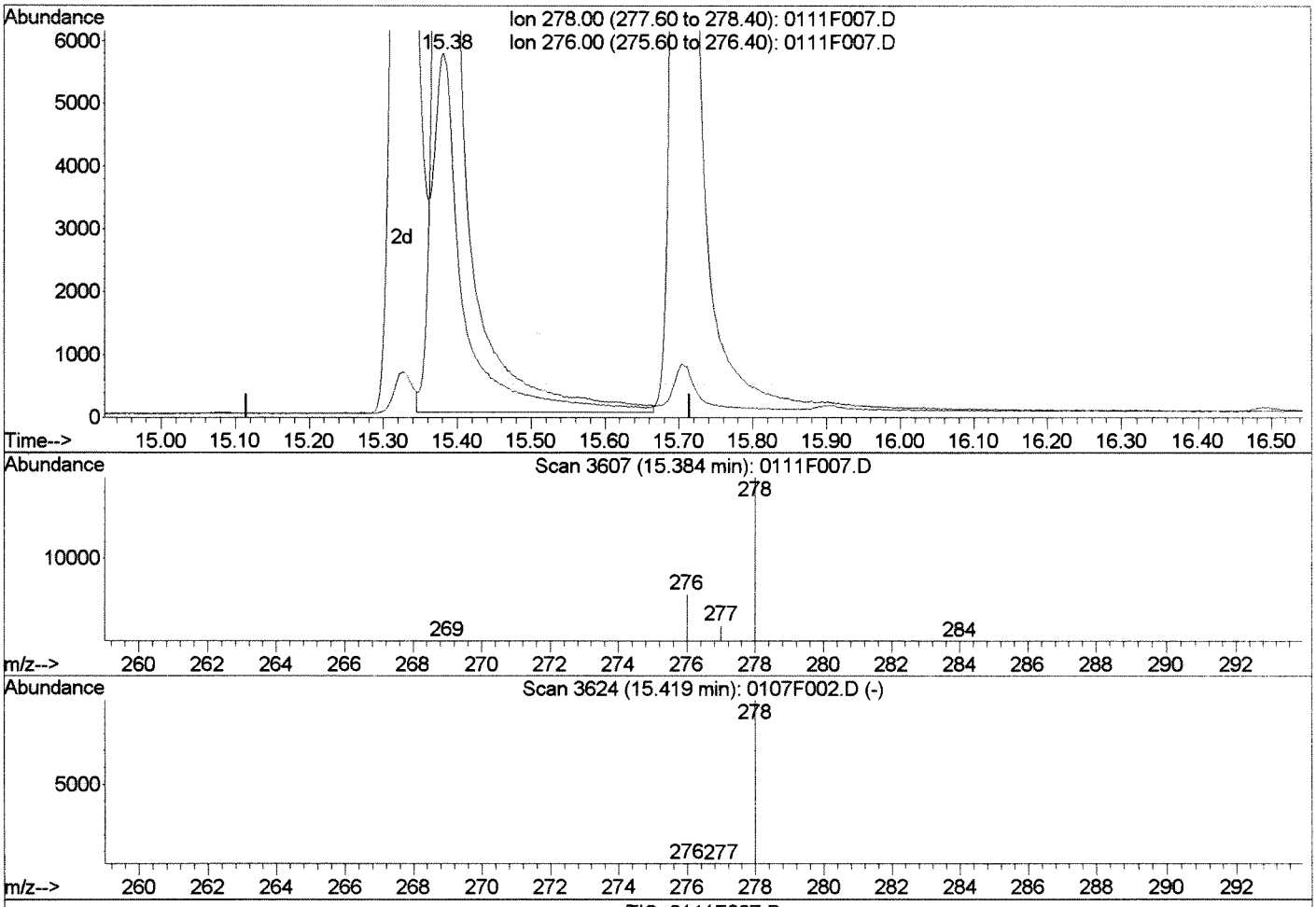
LB

0111F007.D 011116SIMPAH.M Tue Jan 12 06:04:16 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F007.D Vial: 7
Acq On : 11 Jan 2016 10:44 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.1ug/mL | SVM51-6G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:04 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Multiple Level Calibration



TIC: 0111F007.D

(34) Dibenz(a,h)anthracene (T)

15.38min 125.16ng/ml m

response 44116

Ion	Exp%	Act%
278.00	100	100
276.00	29.70	28.93
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

BLC

01/12/16

0111F007.D 011116SIMPAH.M Tue Jan 12 06:04:21 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F008.D Vial: 8
Acq On : 11 Jan 2016 11:11 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.2ug/mL | SVM51-6H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 05:56:57 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

JAN 12 2016 KB

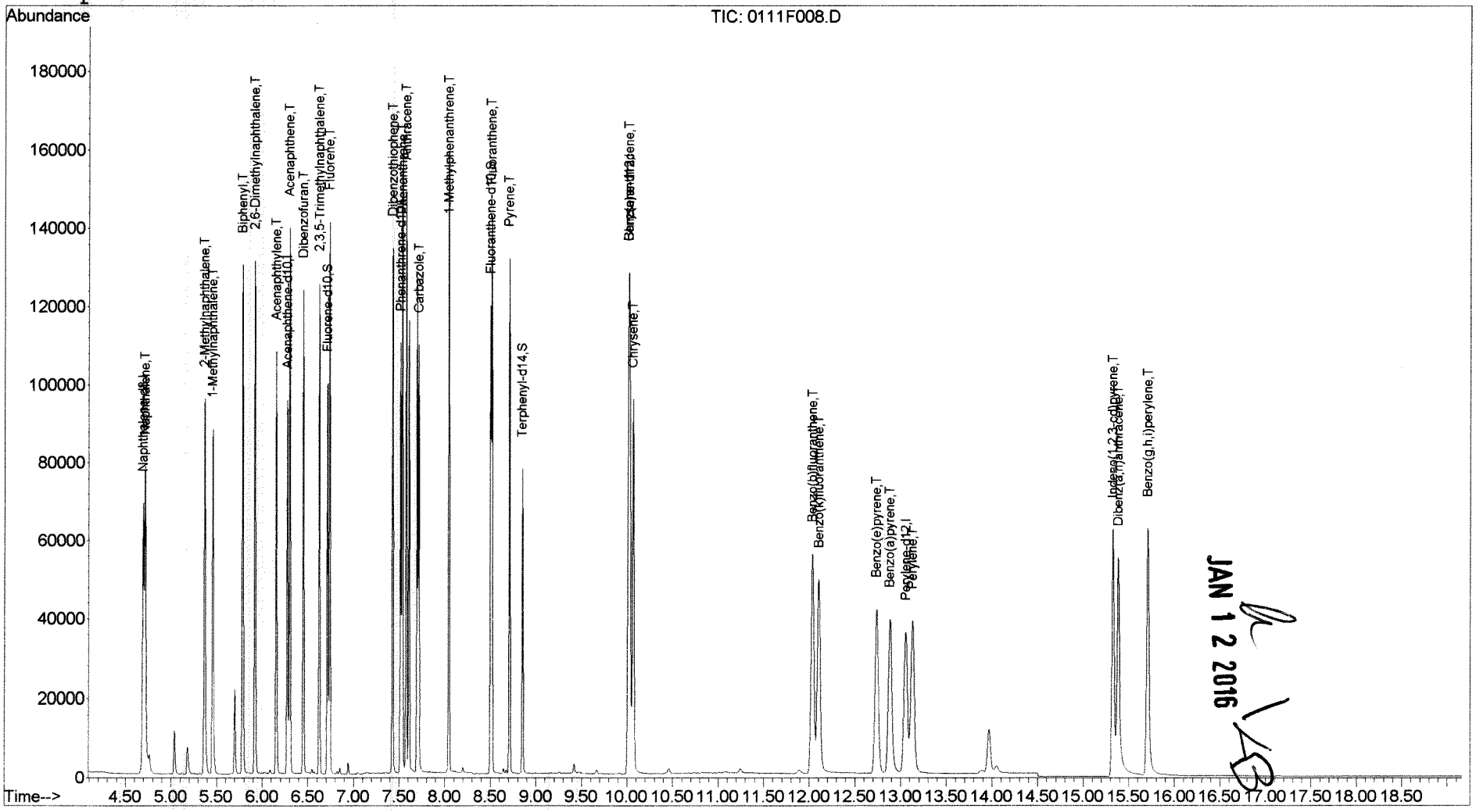
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.69	136	72791	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.28	164	36005	200.00	ng/ml	-0.01
14) Phenanthrene-d10	7.52	188	66097	200.00	ng/ml	-0.01
22) Chrysene-d12	10.03	240	75686	200.00	ng/ml	-0.03
27) Perylene-d12	13.05	264	74360	200.00	ng/ml	-0.05
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	38448	196.09	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 19.61%			
21) Fluoranthene-d10	8.50	212	68951	205.72	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 20.57%			
24) Terphenyl-d14	8.85	244	54758	201.68	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 20.17%			
Target Compounds						Qvalue
2) Naphthalene	4.71	128	76255	205.10	ng/ml	100
3) 2-Methylnaphthalene	5.37	142	50638	202.02	ng/ml	99
4) 1-Methylnaphthalene	5.46	142	44290	200.60	ng/ml	100
5) Biphenyl	5.78	154	60341	198.03	ng/ml	99
6) 2,6-Dimethylnaphthalene	5.92	156	41870	197.15	ng/ml	100
8) Acenaphthylene	6.15	152	74956	217.70	ng/ml	100
9) Acenaphthene	6.30	154	42311	210.02	ng/ml	100
10) Dibenzofuran	6.45	168	68835	209.91	ng/ml	100
11) 2,3,5-Trimethylnaphthalene	6.63	170	37830	212.59	ng/ml	99
13) Fluorene	6.74	166	52507	214.23	ng/ml	100
15) Dibenzothiophene	7.43	184	79160	208.89	ng/ml	100
16) Phenanthrene	7.53	178	77195	210.12	ng/ml	99
17) Anthracene	7.58	178	74165	220.30	ng/ml	99
18) Carbazole	7.71	167	68068	214.21	ng/ml	99
19) 1-Methylphenanthrene	8.04	192	57660	211.48	ng/ml	100
20) Fluoranthene	8.52	202	88828	216.88	ng/ml	98
23) Pyrene	8.71	202	92565	223.13	ng/ml	95
25) Benz(a)anthracene	10.01	228	84750	222.08	ng/ml	99
26) Chrysene	10.07	228	78337	216.23	ng/ml	98
28) Benzo(b)fluoranthene	12.03	252	94838	226.14	ng/ml	100
29) Benzo(k)fluoranthene	12.10	252	94739	222.88	ng/ml	100
30) Benzo(e)pyrene	12.74	252	86918	225.72	ng/ml	99
31) Benzo(a)pyrene	12.88	252	85437	246.24	ng/ml	97
32) Perylene	13.13	252	82981	232.39	ng/ml	99
33) Indeno(1,2,3-cd)pyrene	15.32	276	86096	281.54	ng/ml	100
34) Dibenz(a,h)anthracene	15.38	278	85220m	243.44	ng/ml	
35) Benzo(g,h,i)perylene	15.70	276	94836	243.24	ng/ml	99

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F008.D Vial: 8
Acq On : 11 Jan 2016 11:11 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.2ug/mL | SVM51-6H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:04 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration

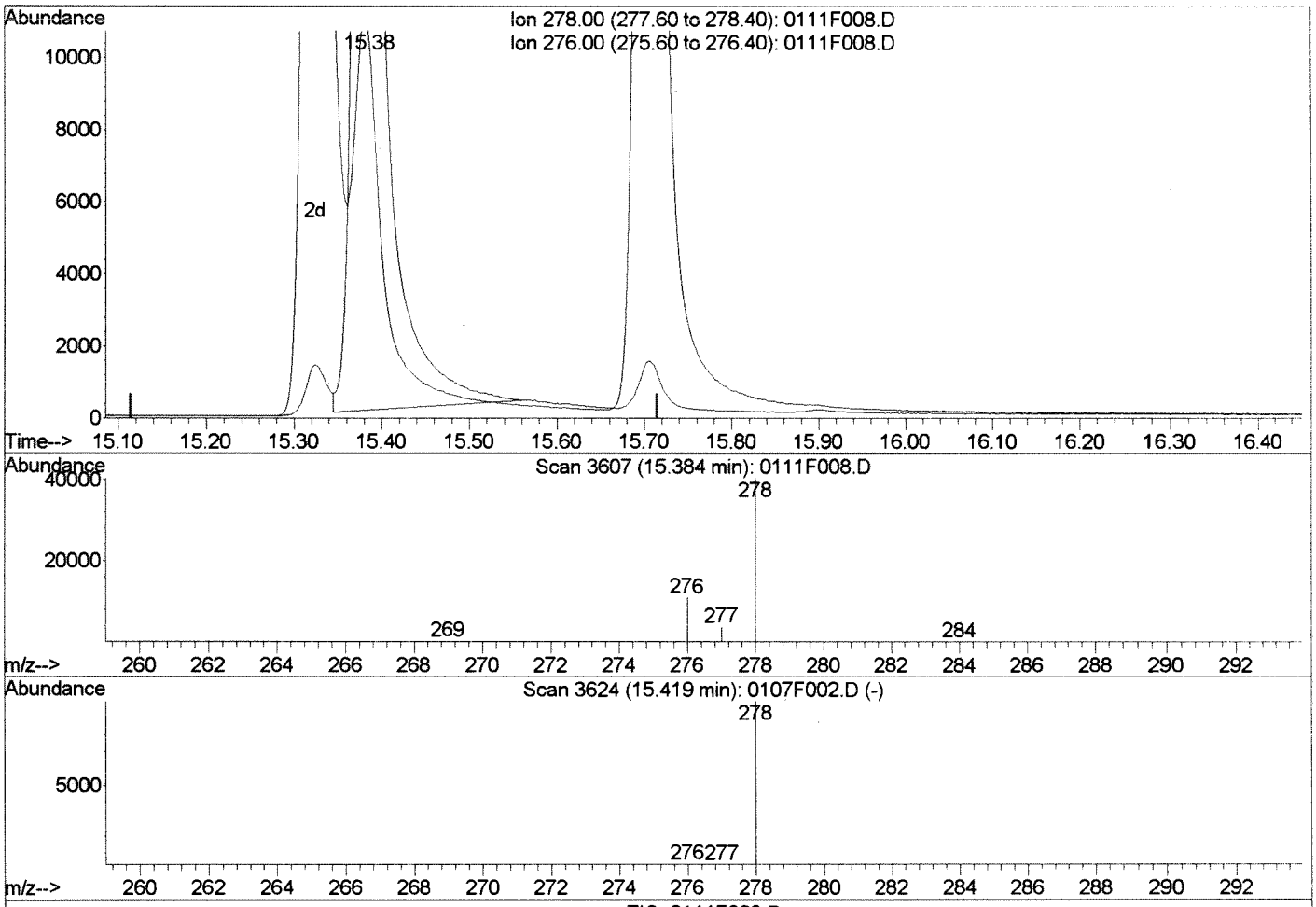


JAN 12 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F008.D Vial: 8
Acq On : 11 Jan 2016 11:11 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.2ug/mL | SVM51-6H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 5:57 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Multiple Level Calibration



TIC: 0111F008.D

(34) Dibenz(a,h)anthracene (T)

15.38min 231.07ng/ml

response 80890

Ion	Exp%	Act%
278.00	100	100
276.00	29.70	26.55
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

01/12/16

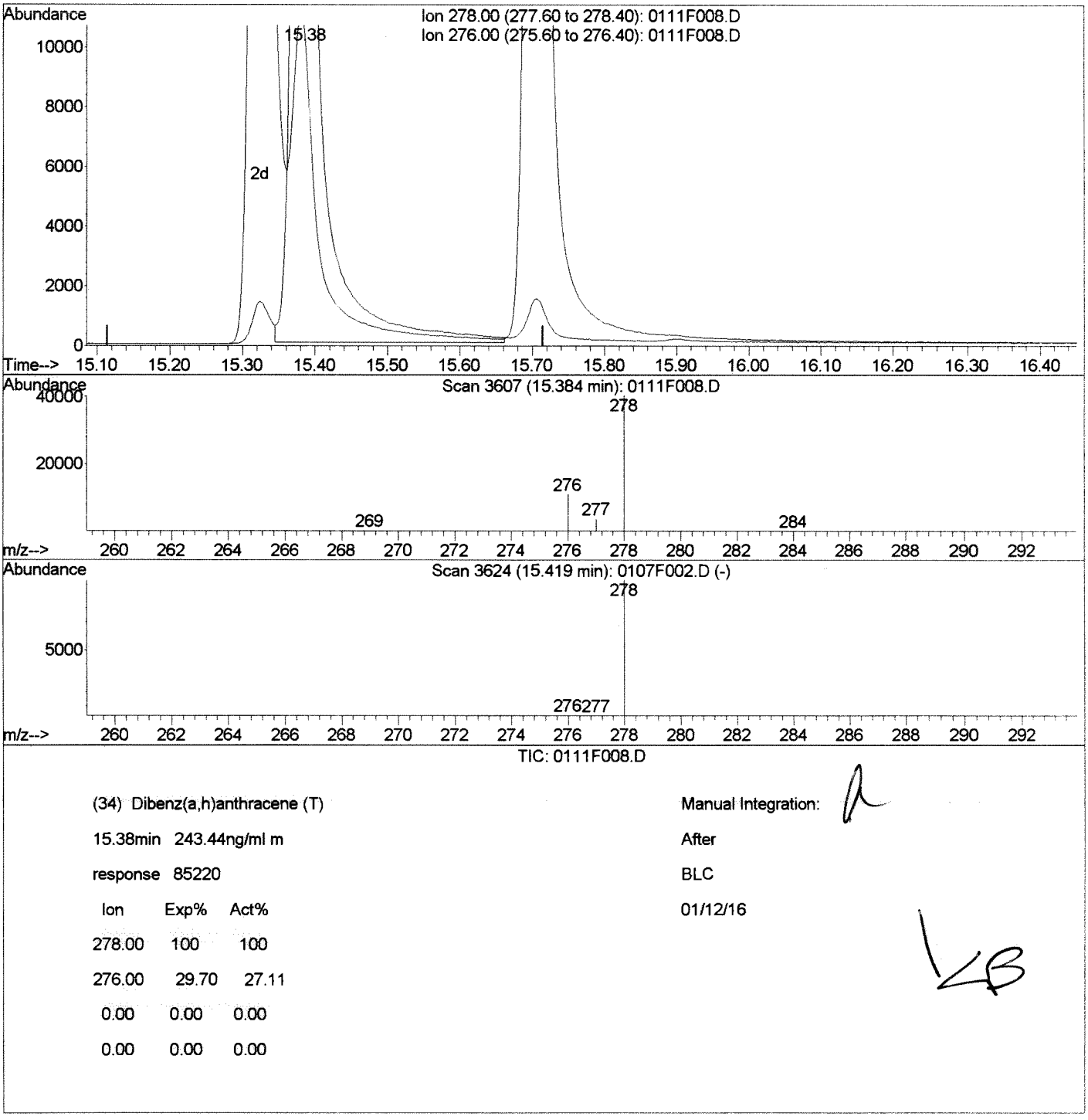
LB

0111F008.D 011116SIMPAH.M Tue Jan 12 06:04:44 2016

Quantitation Report (Qedit)

Data File : J:\MS14\DATA\011116\0111F008.D Vial: 8
Acq On : 11 Jan 2016 11:11 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.2ug/mL | SVM51-6H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:04 2016 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Multiple Level Calibration



TIC: 0111F008.D

(34) Dibenz(a,h)anthracene (T)

15.38min 243.44ng/ml m

response 85220

Ion	Exp%	Act%
278.00	100	100
276.00	29.70	27.11
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

BLC

01/12/16

LB

0111F008.D 011116SIMPAH.M Tue Jan 12 06:04:51 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F009.D Vial: 9
Acq On : 11 Jan 2016 11:38 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.4ug/mL | SVM51-6I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 05:56:58 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

JAN 1 2 2016

LB

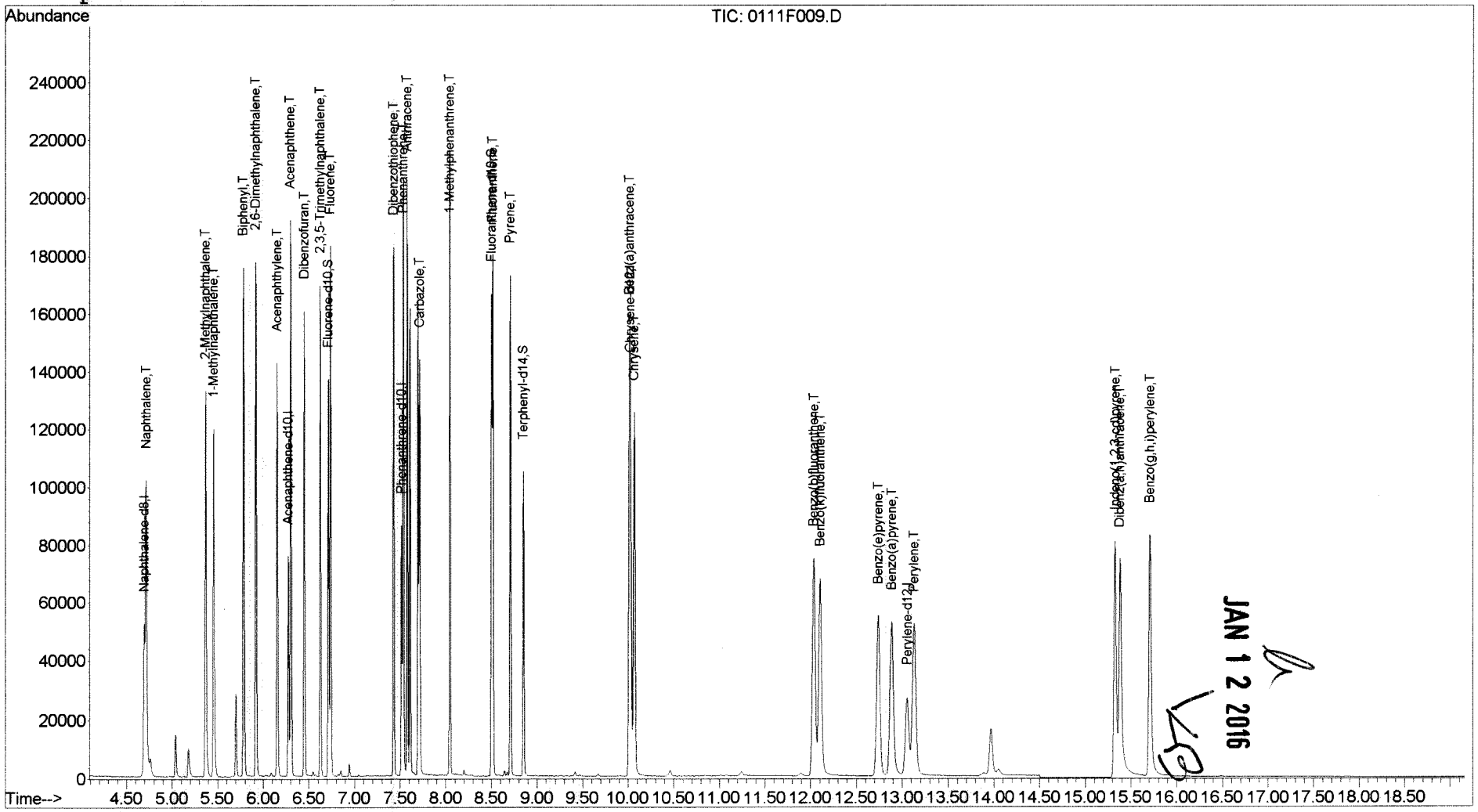
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.69	136	55758	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.28	164	27190	200.00	ng/ml	-0.01
14) Phenanthrene-d10	7.52	188	50359	200.00	ng/ml	-0.01
22) Chrysene-d12	10.03	240	58109	200.00	ng/ml	-0.03
27) Perylene-d12	13.05	264	56410	200.00	ng/ml	-0.05
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	51116	345.22	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 34.52%			
21) Fluoranthene-d10	8.50	212	93503	366.15	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 36.61%			
24) Terphenyl-d14	8.85	244	74401	356.91	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 35.69%			
Target Compounds						Qvalue
2) Naphthalene	4.71	128	102562	360.13	ng/ml	100
3) 2-Methylnaphthalene	5.37	142	67702	352.61	ng/ml	99
4) 1-Methylnaphthalene	5.46	142	59056	349.18	ng/ml	100
5) Biphenyl	5.78	154	80566	345.18	ng/ml	100
6) 2,6-Dimethylnaphthalene	5.92	156	55833	343.21	ng/ml	100
8) Acenaphthylene	6.15	152	100013	384.64	ng/ml	100
9) Acenaphthene	6.30	154	56981	374.52	ng/ml	100
10) Dibenzofuran	6.45	168	92029	371.62	ng/ml	98
11) 2,3,5-Trimethylnaphthalene	6.63	170	50424	375.23	ng/ml	100
13) Fluorene	6.74	166	69581	375.93	ng/ml	100
15) Dibenzothiophene	7.43	184	106443	368.66	ng/ml	100
16) Phenanthrene	7.53	178	103498	369.75	ng/ml	99
17) Anthracene	7.58	178	99409	387.57	ng/ml	99
18) Carbazole	7.71	167	92440	381.82	ng/ml	99
19) 1-Methylphenanthrene	8.04	192	77642	373.77	ng/ml	99
20) Fluoranthene	8.52	202	119387	382.59	ng/ml	99
23) Pyrene	8.71	202	125011	392.50	ng/ml	96
25) Benz(a)anthracene	10.01	228	115048	392.67	ng/ml	99
26) Chrysene	10.07	228	106750	383.79	ng/ml	99
28) Benzo(b)fluoranthene	12.04	252	128922	405.24	ng/ml	100
29) Benzo(k)fluoranthene	12.10	252	127256	394.63	ng/ml	100
30) Benzo(e)pyrene	12.74	252	114885	393.29	ng/ml	100
31) Benzo(a)pyrene	12.89	252	114333	434.38	ng/ml	98
32) Perylene	13.13	252	111993	413.44	ng/ml	100
33) Indeno(1,2,3-cd)pyrene	15.33	276	113721	490.21	ng/ml	100
34) Dibenz(a,h)anthracene	15.38	278	112074	422.02	ng/ml	97
35) Benzo(g,h,i)perylene	15.70	276	127456	430.93	ng/ml	99

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F009.D Vial: 9
Acq On : 11 Jan 2016 11:38 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @0.4ug/mL | SVM51-6I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 5:57 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F010.D Vial: 10
Acq On : 11 Jan 2016 12:05 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @1.0ug/mL | SVM51-6J Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 05:56:58 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

JAN 1 2 2016

LB

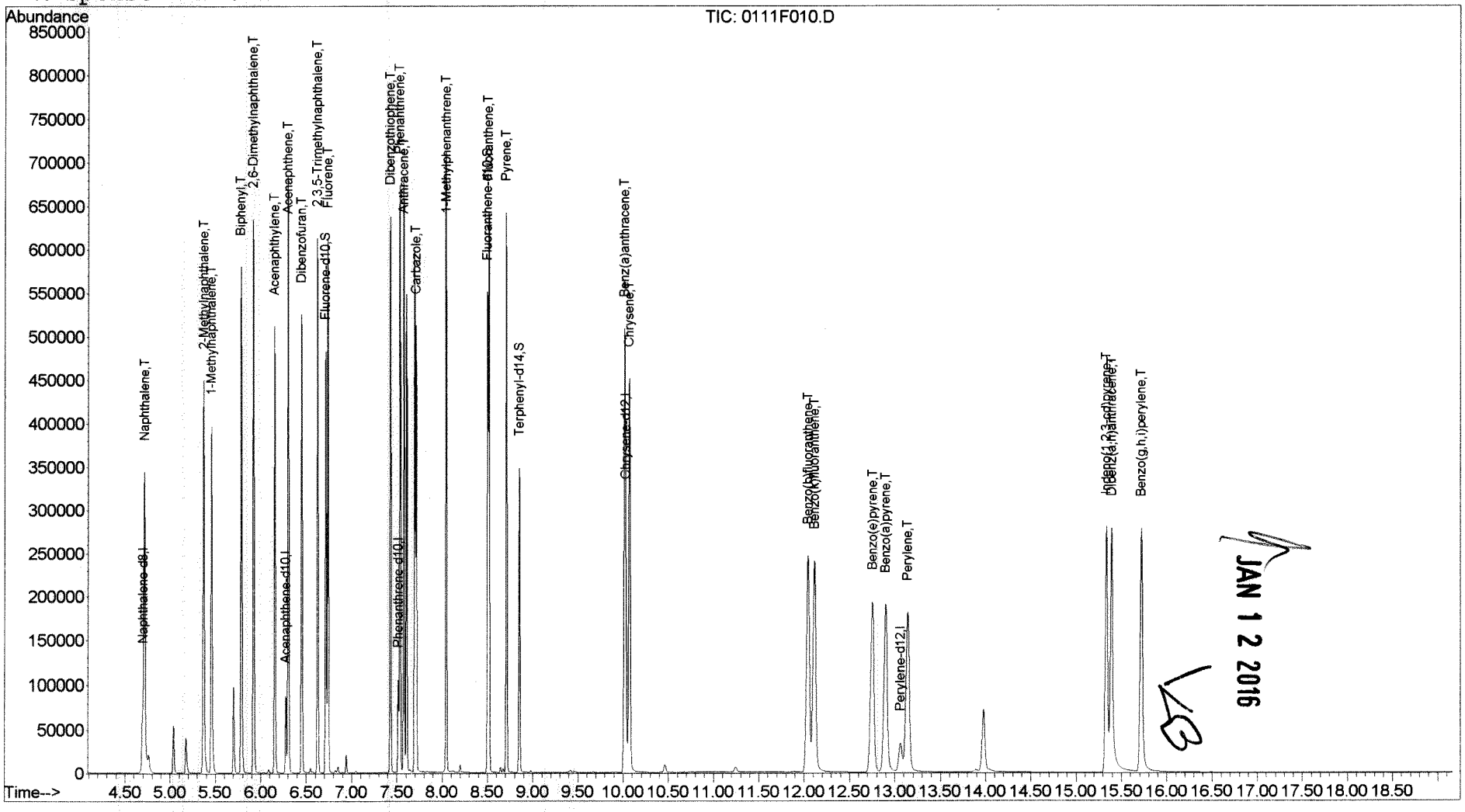
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.69	136	68519	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.28	164	32696	200.00	ng/ml	-0.01
14) Phenanthrene-d10	7.52	188	60439	200.00	ng/ml	-0.01
22) Chrysene-d12	10.03	240	69118	200.00	ng/ml	-0.02
27) Perylene-d12	13.06	264	67174	200.00	ng/ml	-0.04
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	179539	1008.35	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 100.84%			
21) Fluoranthene-d10	8.50	212	332009	1083.29	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 108.33%			
24) Terphenyl-d14	8.85	244	259910	1048.23	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 104.82%			
Target Compounds						Qvalue
2) Naphthalene	4.71	128	357680	1022.02	ng/ml	100
3) 2-Methylnaphthalene	5.37	142	233588	990.02	ng/ml	100
4) 1-Methylnaphthalene	5.46	142	202505	974.36	ng/ml	99
5) Biphenyl	5.78	154	278289	970.26	ng/ml	100
6) 2,6-Dimethylnaphthalene	5.92	156	195608	978.48	ng/ml	99
8) Acenaphthylene	6.15	152	353052	1129.16	ng/ml	99
9) Acenaphthene	6.30	154	198891	1087.13	ng/ml	99
10) Dibenzofuran	6.45	168	322488	1082.94	ng/ml	92
11) 2,3,5-Trimethylnaphthalene	6.63	170	177762	1100.05	ng/ml	95
13) Fluorene	6.74	166	240752	1081.69	ng/ml	99
15) Dibenzothiophene	7.43	184	375052	1082.34	ng/ml	98
16) Phenanthrene	7.53	178	360834	1074.11	ng/ml	100
17) Anthracene	7.58	178	345541	1122.49	ng/ml	100
18) Carbazole	7.71	167	320117	1101.70	ng/ml	99
19) 1-Methylphenanthrene	8.05	192	277912	1114.73	ng/ml	100
20) Fluoranthene	8.52	202	410413	1095.87	ng/ml	98
23) Pyrene	8.71	202	440617	1163.07	ng/ml	96
25) Benz(a)anthracene	10.02	228	414953	1190.68	ng/ml	100
26) Chrysene	10.07	228	377406	1140.74	ng/ml	100
28) Benzo(b)fluoranthene	12.04	252	463462	1223.35	ng/ml	99
29) Benzo(k)fluoranthene	12.11	252	446171	1161.91	ng/ml	100
30) Benzo(e)pyrene	12.75	252	419072	1204.75	ng/ml	100
31) Benzo(a)pyrene	12.90	252	406369	1296.50	ng/ml	99
32) Perylene	13.14	252	400804	1242.54	ng/ml	100
33) Indeno(1,2,3-cd)pyrene	15.33	276	396333	1434.69	ng/ml	98
34) Dibenz(a,h)anthracene	15.39	278	381547	1206.51	ng/ml	94
35) Benzo(g,h,i)perylene	15.72	276	427316	1213.25	ng/ml	100

(#) = qualifier out of range (m) = manual integration
0111F010.D 011116SIMPAH.M Tue Jan 12 06:06:26 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F010.D Vial: 10
Acq On : 11 Jan 2016 12:05 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @1.0ug/mL | SVM51-6J Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 5:57 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration



JAN 12 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F011.D Vial: 11
Acq On : 11 Jan 2016 12:32 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @1.6ug/mL | SVM51-6K Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 05:56:58 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

JAN 12 2016 KB

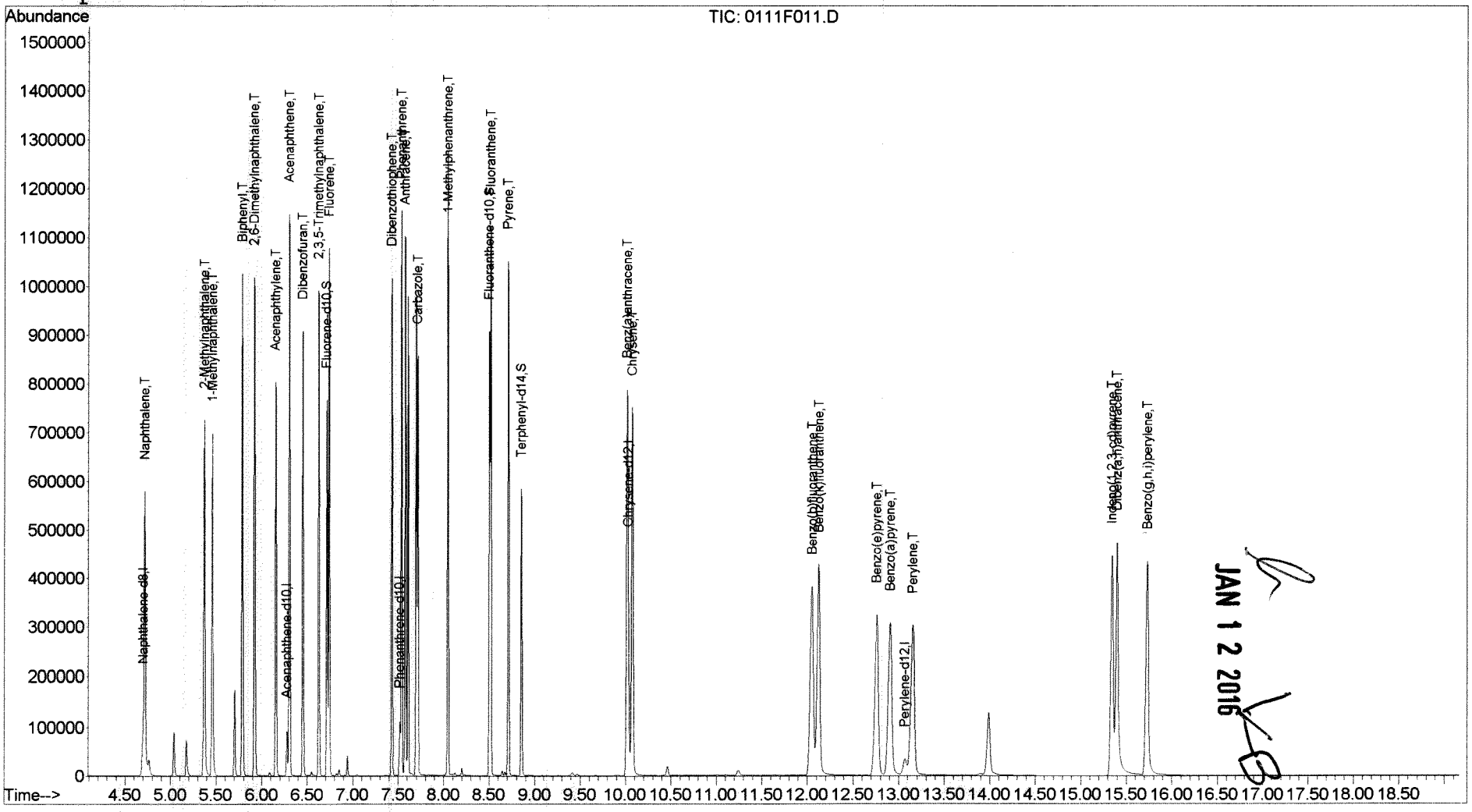
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.69	136	72948	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.28	164	35321	200.00	ng/ml	-0.01
14) Phenanthrene-d10	7.52	188	65532	200.00	ng/ml	-0.01
22) Chrysene-d12	10.03	240	74795	200.00	ng/ml	-0.02
27) Perylene-d12	13.07	264	74264	200.00	ng/ml	-0.04
System Monitoring Compounds						
12) Fluorene-d10	6.72	176	303038	1575.47	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 157.55%			
21) Fluoranthene-d10	8.50	212	560649	1687.13	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 168.71%			
24) Terphenyl-d14	8.85	244	435866	1624.45	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 162.44%			
Target Compounds						Qvalue
2) Naphthalene	4.71	128	590986	1586.14	ng/ml	100
3) 2-Methylnaphthalene	5.37	142	386966	1540.51	ng/ml	100
4) 1-Methylnaphthalene	5.46	142	338287	1528.86	ng/ml	99
5) Biphenyl	5.79	154	463143	1516.72	ng/ml	99
6) 2,6-Dimethylnaphthalene	5.92	156	328167	1541.91	ng/ml	99
8) Acenaphthylene	6.15	152	595961	1764.39	ng/ml	99
9) Acenaphthene	6.30	154	334865	1694.32	ng/ml	99
10) Dibenzofuran	6.45	168	538867	1675.07	ng/ml	92
11) 2,3,5-Trimethylnaphthalene	6.63	170	300955	1724.00	ng/ml	95
13) Fluorene	6.74	166	406883	1692.25	ng/ml	98
15) Dibenzothiophene	7.43	184	629015	1674.15	ng/ml	99
16) Phenanthrene	7.54	178	605290	1661.76	ng/ml	100
17) Anthracene	7.58	178	575137	1723.13	ng/ml	100
18) Carbazole	7.72	167	542023	1720.42	ng/ml	99
19) 1-Methylphenanthrene	8.05	192	470754	1741.49	ng/ml	99
20) Fluoranthene	8.52	202	689614	1698.28	ng/ml	96
23) Pyrene	8.71	202	746131	1820.02	ng/ml	95
25) Benz(a)anthracene	10.02	228	702122	1861.78	ng/ml	100
26) Chrysene	10.07	228	640053	1787.77	ng/ml	100
28) Benzo(b)fluoranthene	12.05	252	773368	1846.49	ng/ml	99
29) Benzo(k)fluoranthene	12.12	252	755968	1780.73	ng/ml	99
30) Benzo(e)pyrene	12.76	252	708982	1843.59	ng/ml	99
31) Benzo(a)pyrene	12.91	252	699019	2017.27	ng/ml	98
32) Perylene	13.15	252	688198	1929.82	ng/ml	99
33) Indeno(1,2,3-cd)pyrene	15.34	276	678664	2222.16	ng/ml	98
34) Dibenz(a,h)anthracene	15.40	278	644649	1843.86	ng/ml	94
35) Benzo(g,h,i)perylene	15.73	276	716628	1840.42	ng/ml	100

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

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F011.D Vial: 11
Acq On : 11 Jan 2016 12:32 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @1.6ug/mL | SVM51-6K Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 5:57 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration



JAN 12 2016

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F012.D Vial: 12
Acq On : 11 Jan 2016 12:59 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @2.0ug/mL | SVM51-6L Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 05:56:59 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

JAN 1 2 2016 LB

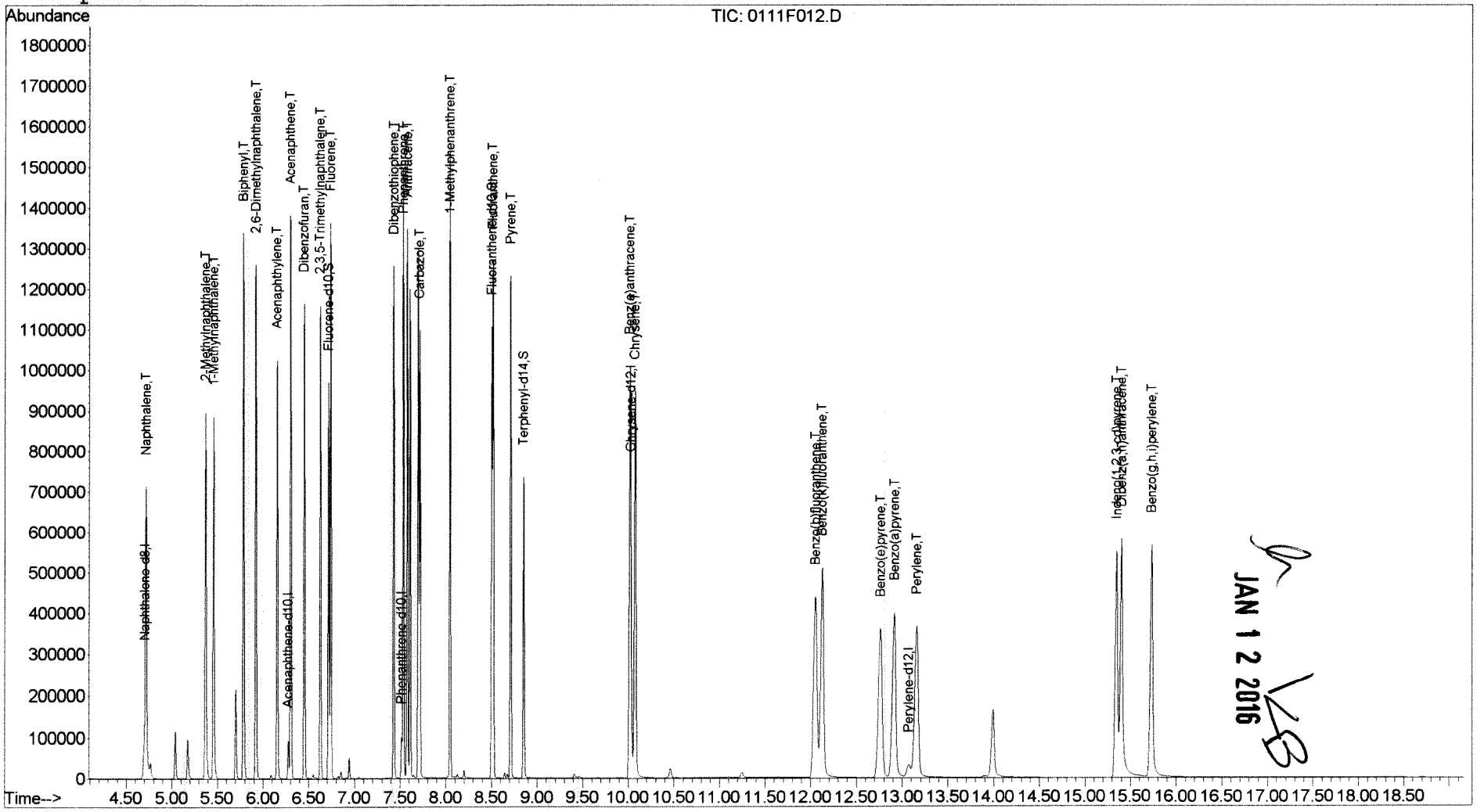
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.69	136	71380	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.28	164	34399	200.00	ng/ml	-0.01
14) Phenanthrene-d10	7.52	188	63924	200.00	ng/ml	-0.01
22) Chrysene-d12	10.04	240	73082	200.00	ng/ml	-0.02
27) Perylene-d12	13.07	264	73027	200.00	ng/ml	-0.03
System Monitoring Compounds						
12) Fluorene-d10	6.72	176	375143	2002.62	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 200.26%			
21) Fluoranthene-d10	8.51	212	696076	2147.35	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 214.73%			
24) Terphenyl-d14	8.85	244	538355	2053.45	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 205.34%			
Target Compounds						Qvalue
2) Naphthalene	4.71	128	724073	1986.02	ng/ml	100
3) 2-Methylnaphthalene	5.37	142	477438	1942.43	ng/ml	100
4) 1-Methylnaphthalene	5.46	142	417543	1928.51	ng/ml	99
5) Biphenyl	5.79	154	572210	1915.05	ng/ml	100
6) 2,6-Dimethylnaphthalene	5.92	156	407342	1955.96	ng/ml	100
8) Acenaphthylene	6.16	152	736326	2238.38	ng/ml	99
9) Acenaphthene	6.30	154	415064	2156.40	ng/ml	99
10) Dibenzofuran	6.45	168	662911	2115.89	ng/ml	99
11) 2,3,5-Trimethylnaphthalene	6.63	170	371475	2185.01	ng/ml	99
13) Fluorene	6.74	166	505129	2157.18	ng/ml	99
15) Dibenzothiophene	7.43	184	777803	2122.24	ng/ml	99
16) Phenanthrene	7.54	178	751947	2116.32	ng/ml	100
17) Anthracene	7.58	178	710395	2181.90	ng/ml	100
18) Carbazole	7.72	167	671740	2185.79	ng/ml	100
19) 1-Methylphenanthrene	8.05	192	581472	2205.19	ng/ml	99
20) Fluoranthene	8.52	202	852523	2152.28	ng/ml	97
23) Pyrene	8.71	202	922530	2303.05	ng/ml	97
25) Benz(a)anthracene	10.02	228	865910	2349.91	ng/ml	100
26) Chrysene	10.08	228	797411	2279.51	ng/ml	100
28) Benzo(b)fluoranthene	12.05	252	970524	2356.47	ng/ml	99
29) Benzo(k)fluoranthene	12.13	252	938864	2249.02	ng/ml	99
30) Benzo(e)pyrene	12.76	252	882410	2333.43	ng/ml	99
31) Benzo(a)pyrene	12.92	252	870910	2555.90	ng/ml	98
32) Perylene	13.16	252	857982	2446.67	ng/ml	99
33) Indeno(1,2,3-cd)pyrene	15.35	276	839696	2796.00	ng/ml	98
34) Dibenz(a,h)anthracene	15.40	278	794226	2310.17	ng/ml	92
35) Benzo(g,h,i)perylene	15.74	276	875479	2286.47	ng/ml	99

(#) = qualifier out of range (m) = manual integration
0111F012.D 011116SIMPAH.M Tue Jan 12 06:06:28 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F012.D Vial: 12
Acq On : 11 Jan 2016 12:59 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @2.0ug/mL | SVM51-6L Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 5:57 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Jan 08 08:57:19 2016
Response via : Initial Calibration



JAN 12 2016

Data File : J:\MS14\DATA\011116\0111F013.D Vial: 13
Acq On : 11 Jan 2016 1:27 pm Operator: LWeiskopf
Sample : SIM-PAH ICV @0.4ug/mL | SVM51-7A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 06:20:00 2016 Quant Results File: 011116SIMPAH.RE

Quant Method : J:\MS14\M...\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Jan 12 06:15:40 2016
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

LB
JAN 12 2016

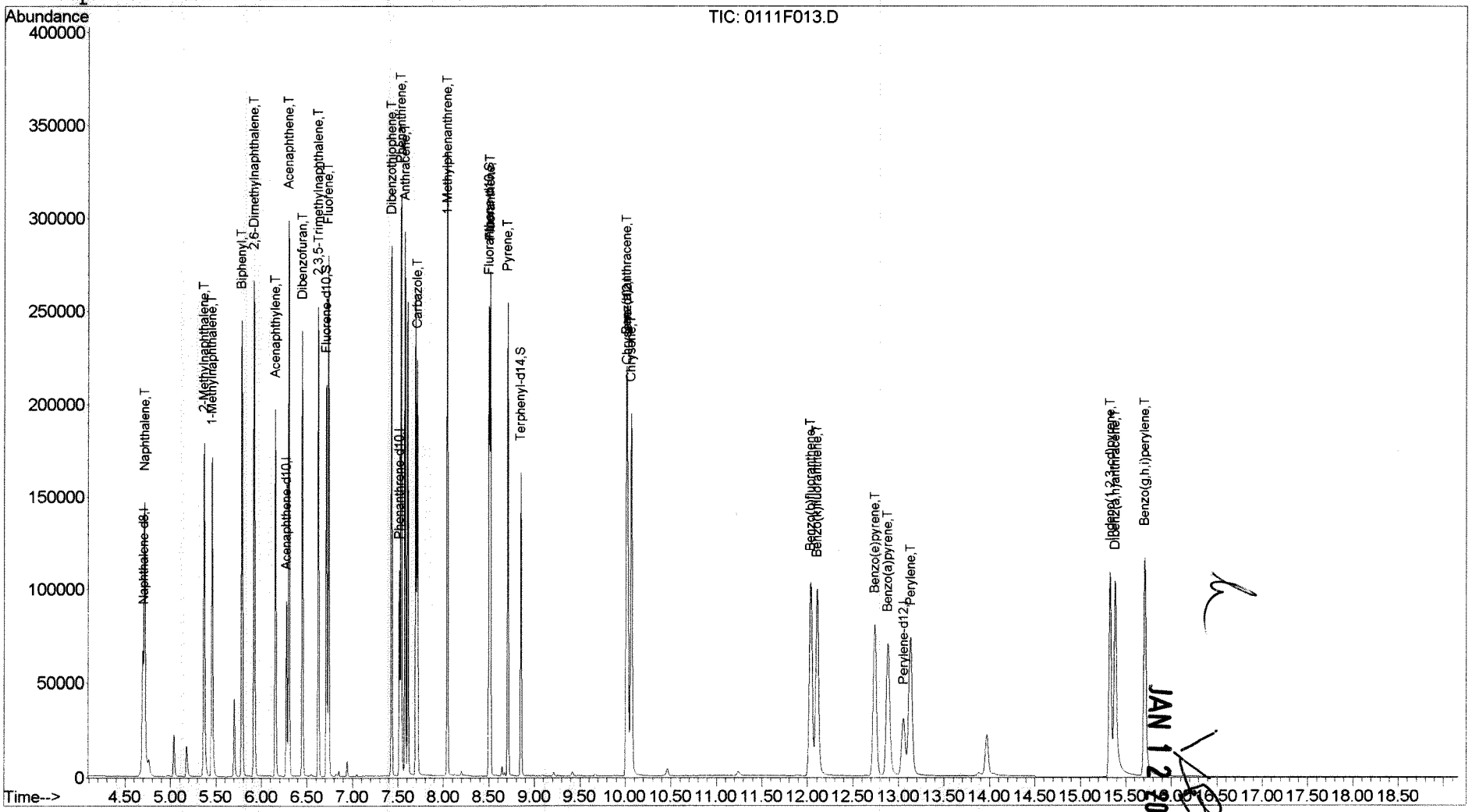
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.69	136	70893	200.00	ng/ml	0.00
7) Acenaphthene-d10	6.28	164	34950	200.00	ng/ml	-0.01
14) Phenanthrene-d10	7.52	188	65872	200.00	ng/ml	-0.01
22) Chrysene-d12	10.03	240	76817	200.00	ng/ml	-0.03
27) Perylene-d12	13.05	264	68065	200.00	ng/ml	-0.05
System Monitoring Compounds						
12) Fluorene-d10	6.71	176	79230	411.16	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 41.12%			
21) Fluoranthene-d10	8.50	212	146139	433.48	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 43.35%			
24) Terphenyl-d14	8.85	244	116862	417.34	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 41.73%			
Target Compounds						Qvalue
2) Naphthalene	4.71	128	147852	412.91	ng/ml	99
3) 2-Methylnaphthalene	5.37	142	95628	391.22	ng/ml	100
4) 1-Methylnaphthalene	5.46	142	84327	395.90	ng/ml	99
5) Biphenyl	5.78	154	120240	406.43	ng/ml	100
6) 2,6-Dimethylnaphthalene	5.92	156	84131	413.53	ng/ml	99
8) Acenaphthylene	6.15	152	144413	401.85	ng/ml	100
9) Acenaphthene	6.30	154	84079	410.03	ng/ml	98
10) Dibenzofuran	6.45	168	136389	412.52	ng/ml	98
11) 2,3,5-Trimethylnaphthalene	6.63	170	77031	425.67	ng/ml	99
13) Fluorene	6.74	166	102308	406.08	ng/ml	99
15) Dibenzothiophene	7.43	184	159272	414.10	ng/ml	100
16) Phenanthrene	7.53	178	151074	391.30	ng/ml	100
17) Anthracene	7.58	178	145345	403.51	ng/ml	99
18) Carbazole	7.71	167	137134	421.74	ng/ml	100
19) 1-Methylphenanthrene	8.04	192	120645	426.42	ng/ml	100
20) Fluoranthene	8.52	202	171620	394.64	ng/ml	100
23) Pyrene	8.71	202	180579	376.71	ng/ml	99
25) Benz(a)anthracene	10.01	228	169801	377.38	ng/ml	100
26) Chrysene	10.07	228	162703	406.20	ng/ml	100
28) Benzo(b)fluoranthene	12.04	252	187088	430.35	ng/ml	100
29) Benzo(k)fluoranthene	12.11	252	181657	428.25	ng/ml	100
30) Benzo(e)pyrene	12.74	252	168010	417.66	ng/ml	100
31) Benzo(a)pyrene	12.88	252	157692	387.09	ng/ml	99
32) Perylene	13.13	252	163397	430.41	ng/ml	100
33) Indeno(1,2,3-cd)pyrene	15.33	276	156114	409.27	ng/ml	100
34) Dibenz(a,h)anthracene	15.38	278	154155	408.30	ng/ml	100
35) Benzo(g,h,i)perylene	15.71	276	178854	411.48	ng/ml	100

(#) = qualifier out of range (m) = manual integration
0111F013.D 011116SIMPAH.M Tue Jan 12 06:20:22 2016 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\011116\0111F013.D Vial: 13
Acq On : 11 Jan 2016 1:27 pm Operator: LWeiskopf
Sample : SIM-PAH ICV @0.4ug/mL | SVM51-7A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jan 12 6:20 2016 Quant Results File: 011116SIMPAH.RES

Method : J:\MS14\METHODS\SIM\011116SIMPAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Jan 12 06:15:40 2016
Response via : Initial Calibration



JAN 12 2016